

## **EXHIBIT A - SCOPE OF WORK**

### **OVERVIEW**

Consistent with the RFP, VHB (including its subconsultants for the project) will provide professional services to conduct environmental review and produce conceptual design for a context-sensitive multimodal connection between Crystal City and Ronald Reagan Washington National Airport (DCA) designed to meet the needs of a broad range of pedestrians, bicyclists, and micro-mobility users of all ages and abilities (Intermodal Connector Project).

This will include preparation of the necessary level of National Environmental Policy Act (NEPA) documentation, which is an Environmental Impact Statement (EIS), with appropriate federal and state agency review, public outreach and engagement, identification of a range of alternatives, an adequate level of design to facilitate alternative review during NEPA, identification of a preferred alternative, and advancement of the preferred alternative through additional design appropriate to obtain NEPA approval and associated federal authorizations.

VHB will also address, as applicable, the requirements of environmental and historic preservation laws pertaining to federally-funded projects including the following:

- Section 4(f) of the Department of Transportation Act of 1966;
- Section 6(f) of the Land and Water Conservation Fund Act of 1965;
- Section 106 of the National Historic Preservation Act of 1966;
- Clean Water Act of 1972;
- Clean Air Act of 1970;
- NEPA/404 Merger Process; and
- Section 7 of the Endangered Species Act of 1973.

### **GENERAL REQUIREMENTS**

The Intermodal Connector Project shall enhance local and regional connectivity by optimizing multimodal access and considering connectivity in/amongst to the following:

- The proposed Virginia Railway Express (VRE) rail station new island platform;
- Metrorail and Crystal City-Potomac Yard Transitway;
- Local buses and shuttles;
- Taxi stands or kiss-and-ride areas, and
- Bicycle and pedestrian facilities, including the Mt. Vernon Trail

VHB (including subconsultants where applicable) will perform the following tasks:

- Prepare pre-Notice of Intent (NOI) documentation (see Task 2) and EIS pursuant to NEPA that explores non-motorized connection options accounting for urban planning context, impacts to the National Park Service (NPS) property, access to the proposed VRE station and existing Mt. Vernon Trail, and stakeholder and public interests.
- Identify and perform an Alternatives Analysis (AA) on a range of alternatives, prepare an adequate level of design to effectively be able to evaluate the range of alternatives (including a preferred alternative); develop conceptual design for up to three (3) build alternatives to be carried through the NEPA process, and identify potential environmental impacts and possible mitigations for each

build alternative.

- Options may include, but are not limited to, a bridge, tunnel, a combination thereof, or enhancements to existing routes or other non-structural improvements.
- Evaluate future pedestrian use and related vehicular trip reduction for the Intermodal Connector Project, taking into account:
  - Planned changes to DCA including new vehicular traffic patterns and restrictions, relocated check-in-gates, and revised security policies;
  - Expanded commuter-shed at Crystal City Metrorail Station due to re-development of Crystal City and enhanced transportation options connecting other parts of Arlington County and beyond;
  - Anticipated changes in types of employers and employee demographics in Crystal City and other parts of Arlington County.
- Support public outreach in accordance with state and federal regulations to identify and incorporate appropriate stakeholder and public feedback, comply with NEPA, build a strong and lasting relationship with the community, and maximize the potential for the Intermodal Connector Project to be viewed as a community asset that supports convenient access and economic development.

#### **Task 1. PROJECT MANAGEMENT**

VHB (including subconsultants where applicable) will perform the following tasks:

- **Task 1.1. General Project Management:** VHB will prepare monthly progress reports and invoices for the duration of the project (thirty-six [36] months). This task will also include coordinating and leading internal project planning, execution, and communications as well as ensuring compliance with scope and contract terms.
- **Task 1.2. Attend Coordination Meetings:** VHB will attend non-NEPA entity stakeholder coordination meetings (i.e. with Crystal City BID, VRE, adjacent commercial and residential property owners, etc.) as requested by Arlington County, to be conducted up to two (2) times per month for the duration of the project (thirty-six [36] months), for a total of seventy-two (72) meetings. VHB will develop a draft and final agenda for each meeting. It is assumed that one (1) meeting each month will be held in person in Arlington County, and one (1) meeting each month will be held by conference call. The in-person meetings will be held via Microsoft Teams until restrictions caused by the COVID- 19 virus are lifted. All meetings are assumed to be up to two (2) hours in duration.

VHB will also support the development of materials for and attend the Virginia Department of Transportation (VDOT) monthly NEPA Programs Agency Coordination Meeting with Arlington County, VDOT, and other agencies or stakeholders as needed, in order to provide study updates, obtain agency concurrence and seek agency input on NEPA documentation to inform a NEPA decision and any other federal authorizations. Up to thirty-six (36) meetings are assumed, eighteen (18) of which will be in-person and eighteen (18) of which will be by conference call. All meetings are assumed to be up to two (2) hours in duration. The in-person meetings will be held via Microsoft Teams until restrictions caused by the COVID-19 virus are lifted.

This task includes preparation for and attendance of all the meetings (108) by the VHB project manager and preparation for and attendance of half the meetings by another key project staff, on average.

- **Task 1.3. Participate in Weekly Technical Calls:** The VHB Project Manager will attend weekly technical calls with Arlington County and VDOT representatives to discuss technical aspects of the NEPA process and documentation and parallel NEPA study schedule and milestone. These calls will occur for the duration of the project (thirty-six [36] months). All calls are assumed to be up to one (1) hour. VHB will develop recurring documentation for these calls along with VDOT and Arlington County. VHB will prepare and circulate a coordination log to prepare for the calls. In addition to the Project Manager, other VHB staff will attend the calls as needed based on the topics to be discussed. Minutes or meeting notes will be prepared (see Task 1.5).
- **Task 1.4. Attend Kickoff Meeting:** VHB will attend a project kick-off meeting to review the project approach, scope of work, schedule, deliverables, and milestones. It is anticipated that this meeting will be held virtually via Microsoft Teams.
- **Task 1.5. Prepare Meeting Minutes:** VHB will prepare meeting minutes of all meetings pertinent to the project for submission to the VDOT and County project managers. VHB will prepare notes or minutes for all meetings attended per Tasks 1.2 through 1.4. One (1) draft will be submitted for review and one (1) final version will be prepared and distributed as appropriate in response to comments.
- **Task 1.6. Prepare Project Management Plan (PMP):** VHB will prepare and adhere to a Project Management Plan (PMP) identifying VHB's approach to managing the project and fulfilling contract requirements. The PMP will be a "living document" updated and resubmitted to Arlington County as needed in response to comments from the County and as the project progresses and elements of VHB's approach change. Up to eighteen (18) revisions are assumed. The PMP is anticipated to include the following:
  - Summary of the approach to completing the Project;
  - Project schedule by task;
  - Project budget by task;
  - Proposed project organization and responsibilities including identification of key staff and their roles;
  - Document control procedure and recordkeeping system to be used for the Project, including how the administrative record will be maintained;
  - Quality control and quality assurance measures to be implemented during the Project; and
  - Proposed document and presentation templates, project branding, and style guide.

## **Task 2. PRE-NOI Activities**

Activities to be conducted prior to the publication of the Notice of Intent (NOI) to inform the NEPA process will include:

- Identify Cooperating and Participating Agencies for the Project;
- Develop a draft Purpose and Need for preliminary concurrence;
- Refine the Coordination Plan that was included as RFP Attachment – E, which includes a

permitting timetable;

- Identify community stakeholders affected and develop a Public Involvement Plan (PIP);
- Identify a preliminary range of alternatives;
- Determine the extent of the analysis needed for each resource in order to obtain preliminary concurrence;
- Initiate data collection including base mapping and preliminary resource mapping;
- Initiate applicable resource surveys/studies;
- Identify potentially significant environmental issues;
- Identify potential mitigation strategies; and
- Initiate permit activities as soon as possible, such as pre-application processes.

Information developed as part of the above activities will be documented and submitted to VDOT and Arlington County throughout the pre-NOI stage to sufficiently support the development of the NEPA document and technical reports or memoranda.

In support of these requirements, prior to the issuance of the NOI, VHB (including subconsultants where applicable) will perform the following tasks:

- **Task 2.1. Refine Coordination Plan:** VHB will expand on and refine the Draft Coordination Plan for Agency and Public Involvement provided in RFP Attachment – E that details public and agency participation in the environmental review process. The Coordination Plan should identify specific coordination points, such as:
  - Pre-NOI activities;
  - NOI publication and scoping activities;
  - Development of purpose and need;
  - Identification of the range of alternatives;
  - Milestones for when public involvement and interagency consultation activities will occur;
  - Description of ways to provide the opportunities for input from the public and other agencies, in accordance with applicable laws, regulations and policies; and
  - Schedule for completion of the environmental review process.

In consultation with Arlington County, the Plan will identify lead, cooperating, and participating agencies, as well as additional stakeholders, and their respective jurisdictions, roles, and responsibilities. The stakeholder contact list will be included as an appendix to the document and will be updated regularly (see Task 6.1). Expectations regarding agency reviews, including which documents will be reviewed and review periods, will be outlined. A schedule with coordination points and key milestones will also be included. One (1) draft Refined Coordination Plan will be prepared and submitted to Arlington County and VDOT for review. Comments will be incorporated in a Final Plan. Up to three (3) updates will be completed over the duration of the Project.

- **Task 2.2. Attend a half-day Site Visit:** VHB will conduct a ½ day site visit in order to become familiar with the study area and review the scope of services for the project. Up to three (3) staff will attend.
- **Task 2.3. Develop Purpose and Need:** To develop the purpose and need for the Intermodal Connector Project, which will serve as the basis for the alternative development and analysis process, VHB will perform the following activities:

- **Develop Multimodal Demand Analysis:** VHB will estimate existing and future demand for the proposed Intermodal Connector by determining sources of multimodal demand; aggregating data to identify the size of the potential demand; developing and applying methodologies to estimate potential market capture; and developing overall anticipated demand for the proposed connection. VHB will perform a sensitivity analysis based on reasonable alterations to (a) peak-hour commuting trends, (b) airport demand, and (c) pedestrian-bicycle activity due to travel demand shifts caused by COVID-19 and its local and regional effects. Analyses may assume that trends revert to their pre-pandemic pathways after a period of adjustment or that they remain on a different pathway due to long-term structural trends. These analyses and their conclusions will be included in a presentation to FHWA and the cooperating agencies. They will be documented in the Chapter 1 of the DEIS (see below).
- **Develop Initial Draft Purpose and Need Statement:** with input from Arlington County, VDOT, cooperating agencies, other stakeholders, and the public, VHB will develop a draft purpose and need statement.
- **Submit Draft Statement #1:** VHB will submit a first draft of the purpose and need statement to Arlington County and VDOT for review (Draft Statement #1); following review, VHB will incorporate the comment received and prepare Draft Statement #2.
- **Present Draft Statement #2:** VHB will present Draft Statement #2 to FHWA and the cooperating agencies; VHB will address their comments and complete Draft Statement #3, which will be submitted for concurrence.
- **Additional Refinement:** the purpose and need will continue to be refined based on comments from agencies and stakeholders and NEPA analyses, as appropriate, until completion of the DEIS.
- **Develop Draft EIS Chapter 1:** VHB will document the development of the draft purpose and need statement in Chapter 1 of the EIS. A draft and draft final Chapter 1 will be prepared at this time. The chapter will be finalized and incorporated in the DEIS after scoping for the EIS is conducted.
- **Task 2.4. Develop Public Involvement Plan (PIP):** VHB will develop a PIP that defines the goals and objectives of the public involvement effort; identifies key stakeholders; and discusses the public involvement techniques and types of public participation materials that will be used throughout the EIS process. VHB will draft the PIP in consultation with Arlington County, based on VDOT/FHWA requirements and Arlington County’s Public Engagement Guide. Two (2) draft iterations and a final version are assumed. The PIP may be incorporated into the refined Coordination Plan prepared under Task 2.1.
- **Task 2.5. Identify Preliminary Range of Alternatives:** As a first step toward the development of a range of alternatives, VHB will determine the geographic boundaries of potential options and identify potential two-dimensional crossing locations. Further alternative analysis activities will be conducted under Task 3.

- **Task 2.6. Identify Cooperating and Participating Agencies & Community Stakeholders:** As part of this task, VHB (including subconsultants where applicable) perform the following activities:
  - **Identify Cooperating and Participating Agencies:** In coordination with Arlington County and VDOT, VHB will identify and engage the agencies that will be invited to serve as cooperating or participating agencies for the EIS, along with the appropriate points of contact within each agency. VHB will prepare draft invitation letters that will lay out the rights and responsibilities associated with cooperating and participating status. Letters to up to twenty-five (25) separate agencies will be prepared for review (one [1] draft and one [1] final). Final drafts will be delivered to VDOT formatted for printing on agency letterhead. It is assumed that letters will be signed and sent by VDOT or FHWA.
  - **Community Stakeholders:** Identify community stakeholders with a demonstrable interest in the Project. A database of stakeholders will be developed and maintained under Task 6.1.
  
- **Task 2.7. Initiate Data Collection Including Base Mapping & Preliminary Resource Mapping:** As part of this task, VHB (including subconsultants where applicable) perform the following activities:
  - **Define Study Area:** Working with Arlington County and VDOT, VHB will define the study area for the project. The study area is anticipated to extend approximately between Crystal Drive to the west, DCA to the east, 15th Street to the north, and 26th Street/Airport Access Road bridge to the south. The study area will be mapped in GIS. It is assumed that VHB will have access to Arlington County GIS data. VHB will work with NPS, DCA, VRE, DRPT, and JBG Smith to obtain GIS or other mapping data for their respective portions of study area. The study area may be modified as alternatives development proceeds.
  - **Additional Site Visits/Walk-on Surveys:** VHB personnel will conduct site visits and walk-over reconnaissance surveys as needed to supplement the initial site visit (Task 2.2) and support or supplement the documentation of existing conditions.
  - **Inventory of Existing Conditions:** VHB will collect, map, and analyze available data to document existing conditions in the study area, including topography, soils, land use and applicable plans, cultural resources, recreational resources, visual resources, vegetation and habitat, water resources and wetlands, known hazardous material sites, known engineering constraints, subsurface/geotechnical conditions, and property ownership and easements. Information will be incorporated, as appropriate, into the technical memorandum to be prepared under Task 3 (see Task 3.2) and the Methodology Report (see below).
  - **Methodology Report:** VHB will determine the extent of the analysis needed for each resource and prepare a draft Methodology Report outlining how impacts on the resources anticipated to be affected will be analyzed in the EIS. The report will also identify which resources have no potential to be affected and will not be analyzed in detail in the EIS. It will list relevant regulations pertaining to each resource area and specify how applicable requirements will be addressed. Three (3) iterations of the Methodology Report will be prepared: Draft #1 for review by Arlington County and VDOT; Draft #2 incorporating

comments on Draft #1 for review by FHWA and the cooperating agencies; Draft Final incorporating the comments received on Draft #2. The Draft Final will be submitted to FHWA and the cooperating agency for their concurrence and finalization. Parts of the methodology report may be prepared separately for early review and concurrence (e.g., before concurrence on purpose and need).

- **Task 2.8 Initiate Applicable Resource Surveys/Studies:** Based on the desktop inventory and Methodology Report, VHB (including subconsultants where applicable) will initiate the field surveys needed to generate missing information for the EIS. Based on currently available information, the following surveys or studies will or may be needed (note that initial data collection and further review may show that some of those surveys are not needed; VHB assumes that unneeded tasks will be removed from the scope and fee through a future contract modification):
  - **Phase 1a Archaeological Survey:** VHB will conduct a desktop-level survey to establish the likelihood of unknown archaeological resources being present in the study area. Phase 1a surveys typically consider the prehistory and history of the survey area and relevant previous studies. The survey will be conducted in compliance with Section 106 and consistent with the applicable requirements of the Virginia Department of Historic Resources (DHR), which is the designated State Historic Preservation Officer (SHPO) for Virginia. Four (4) iterations of the survey report will be prepared: Draft #1 for review by Arlington County and VDOT; Draft #2, incorporating the comments on Draft #1, for review by FHWA and the cooperating agencies; Draft Final for review by SHPO and the Section 106 consulting parties; and Final, addressing comments on the Draft Final.
  - **Phase 1b Archaeological Survey:** If warranted by the findings of the Phase 1a survey, VHB will perform a Phase 1b survey, including excavation of shovel test pits (STP) and analysis of findings. A total survey area of approximately seven (7) acres is assumed, with 20-meter interval STPs to be conducted. It is assumed that no more than one (1) site and up to 250 artifacts will be recovered and prepared for curation in Federal facility to be determined. The Phase 1b Survey will be documented in a supplement to the Phase 1a report, with the same number of iterations.
  - **George Washington Memorial Parkway Documentation:** VHB will review National Register of Historic Places documentation for the George Washington Memorial Parkway, include original nomination form and any past or ongoing updates by NPS. VHB will also review existing or ongoing NPS documentation pertaining to the historic and cultural significance of the parkway.
  - **Wetland Delineation and Functional Assessment:** VHB will perform a delineation and mapping of wetlands, "waters of the United States" and all "other waters" subject to jurisdiction under Sections 401 and 404 of the Clean Water Act; Section 10 of the Rivers and Harbors Act; and all wetlands subject to NPS procedures for implementing Director's Order #77-1: Wetland Protection within the area defined below. All work will be conducted in accordance with applicable codes and accepted industry standards under the supervision of a Professional Wetland Scientist (PWS).

The survey area will extend approximately from Roaches Run in the north to the Airport

Access Road bridge in the south, covering approximately 75 acres. The delineation will include the placement of surveyors flagging tape or pin flags at points along the wetland/waters boundary, each sequentially numbered for identification. Data will be collected within wetland and adjacent upland community types to support the delineation, including a listing of the dominant vegetation, a description of soil profiles, and a description of localized hydrology. VHB anticipates that no more than 16 data stations will be required. Field photographs will be taken across various community types and at each data station. Photographs will be cataloged and used as an appendix in reporting. Once the flags are placed, VHB will map them using ESRI/Trimble sub-meter capable GPS-survey instrumentation for production of a wetland delineation map.

If wetlands are found to be present, VHB will identify and qualify wetland functions and values provided by each wetland identified, based on the U.S. Army Corps of Engineers' The Highway Methodology: Wetland Function and Values, A Descriptive Approach. VHB will include a functional values appendix to the wetland delineation report.

VHB will assess the character and quality of any stream channels observed in the study area. The methodology used in Virginia is entitled "Unified Stream Methodology" (USM). This methodology qualitatively evaluates stream channels by scoring certain features of a channel. The USM is used as a tool in determining mitigation requirements if impacts are proposed. VHB will assess any stream channel for perennial flow pursuant to the Chesapeake Bay Preservation Act. The methodology for determining intermittent/perennial flow will be methods developed by Fairfax County or James City County.

VHB will prepare a draft delineation report for review by Arlington County, VDOT, and NPS. A final report addressing comments will be produced and used in the submittal to the U.S. Army Corps of Engineers, Norfolk District Office (USACE) to request a Preliminary Jurisdictional Determination (PJD). VHB will arrange one field day to meet a USACE biologist to inspect the limits of jurisdiction as delineated by VHB.

- **Species Survey:** VHB will conduct desk-top research to establish the likelihood of federally threatened and endangered species to be present in the project area, as described under Task 5.16 below, including data from the US Fish and Wildlife Service (USFWS), Virginia Department of Wildlife Resources (DWR), and Virginia Department of Conservation and Recreation. Using the results of this research, VHB will perform a site visit to document natural habitats present on the site and evaluate the potential presence of habitat possibly supporting listed species identified by the research. Habitats will be characterized by species composition and relative hydrologic regimes.

Based on initial research, VHB anticipates that no federally protected species occur in the project area and are likely to be affected by the Intermodal Connector Project. However, DWR cites several listed species of bats that may occur in that part of Northern Virginia. Therefore, VHB will perform an acoustical survey of bats within the project area to establish whether bats may be adversely affected. The survey will be performed by a qualified biologist permitted by USFWS. VHB will first prepare a bat survey plan showing the areas of survey and describing the methods of field collection and data analysis. This survey plan will be submitted to USFWS for their review and approval prior to conducting



any field work. Surveys must occur during the summer, when bats are actively roosting and foraging away from hibernacula. Work will include recording voice calls of bats during the night using highly sensitive microphones strategically arranged within wooded settings at specific locations where impacts to habitat may occur. The survey will focus on those area likely to be impacted, based on the preliminary alternatives. VHB is not proposing to survey the entire wooded areas between Roaches Run and the Airport Access Road bridge. Data will be collected within each potentially impacted area over the course of two consecutive nights. Three discrete sites are assumed, for a total of six (6) survey-nights. Data will be analyzed to identify bat species. The findings of the survey will be documented in a report. Data collection and reporting will follow USFWS protocols for performing acoustical bat surveys. VHB will prepare a draft and final version of the report.

- **Geotechnical Borings:** VHB will perform a preliminary-level subsurface investigation consisting of five test borings and soil laboratory testing, to complement a desktop study of available geotechnical information at the site. This task includes developing a boring plan for review and approval; developing a health and safety plan; coordinating with Miss Utility and private utility locator; obtaining applicable permits from Arlington County and NPS; as well as maintenance of traffic operations as needed. No drilling will be performed within CSXT or WMATA rights-of-way. Ten (10) Shelby tubes and 5 bulk samples of soil will be collected from the borings for laboratory testing. Borings will be backfilled with spoils upon completion.

Laboratory tests will include: 30 Moisture Content, ASTM D2216; 15 Grain Size Distribution, ASTM D422 (and/or D1140); 15 Liquid Limit, Plastic Limit, and Plasticity Index of Soils, ASTM D4318; 2 Moisture-Density (Proctor) Relationships, ASTM D1557; 2 California Bearing Ratio Test, ASTM D1883; 5 Consolidated-undrained Triaxial Compression Test (3 pts per test); 5 One-Dimensional Consolidation Test (Method A, 12 Load Increments); 5 Corrosion Potential Test Series (pH, Reduction-Oxidation Potential, Resistivity, Qualitative Test for Sulfides); 5 Water-soluble Sulfate and Chloride Test for soil; and 5 Water-soluble Sulfate and Chloride Test for water.

VHB will prepare a Geotechnical Data Report documenting the review of available geotechnical data from the vicinity of the project site, including data obtained from the subsurface exploration; data provided by others; data from adjacent projects known to VHB; and published geologic maps. The report will provide a description of the geology, generalized subsurface stratigraphy, and groundwater conditions at the site. The relevant data collected will be provided as appendices to the report. A location plan of the relevant data and two subsurface soil profiles of the project site will be provided.

- **Traffic Counts:** Additional traffic counts to support the transportation impact analysis. It is understood that counts conducted in 2021 may not provide a reliable basis for modeling future conditions due to the ongoing pandemic and its effects on local and regional traffic patterns. Therefore, VHB is also proposing to use 2019 probe data to characterize traffic (see Task 5.4). The appropriateness of conducting traditional traffic counts will be reviewed with VDOT. Sixteen-hour turn movements, pedestrian, and bicycle counts will be conducted at up to twenty (20) intersections.
- **Task 2.9. Initiate Permit Activities:** VHB will identify permitting requirements that would apply to

the Intermodal Connector Project; develop a permitting strategy and timetable for application, filing, and review times. VHB will maintain and implement the permitting plan as appropriate for the duration of the project.

- **Task 2.10. Perform Due Diligence on Identifying Significant Environmental Issues and Potential Mitigation Strategies.** Based on the work conducted under Tasks 2.7 and 2.8, VHB will develop a preliminary analysis of major environmental issues and impacts associated with the Intermodal Connector Project and a identify potential high-level mitigation approaches that can be used to inform the alternative development process. Findings will be documented in the Technical Memorandum summarizing planning assumptions, data, and design criteria (see Task 3.2), as appropriate.

### **Task 3. ALTERNATIVES ANALYSIS**

As part of this task, VHB (including subconsultant where applicable) will perform the following activities:

- **Task 3.1. Review Long Range Regional Plans & Design Standards:** VHB will review local, County, and regional plans and data to identify future growth patterns as they may impact the demand for the Intermodal Connector Project. VHB will also compile design criteria that incorporate guidelines, standards, specifications, and requirements from applicable sources and stakeholders, which may include the following:
  - Arlington County,
  - Virginia Department of Transportation (VDOT),
  - Federal Highway Administration (FHWA),
  - Virginia Railway Express (VRE),
  - CSX Transportation (CSXT),
  - National Park Service (NPS),
  - Metropolitan Washington Airports Authority (MWAA),
  - Federal Railroad Administration (FRA),
  - Federal Transit Administration (FTA), and
  - Federal Aviation Administration (FAA).

Findings will be documented in the Technical Memorandum to be completed under Task 3.2.

- **Task 3.2. Prepare Technical Memorandum Summarizing Planning Assumptions, Data, and Design Criteria:** VHB will document planning assumptions and data, as well as design criteria, in a Technical Memorandum that will serve as the basis for the alternative analysis process. Previously planned projects and studies expected to be reviewed include:
  - Crystal City Sector Plan
  - NPS National Capital Regional Paved Trail Study
  - Atlantic Gateway
  - Southeast High-Speed Rail Project
  - Long Bridge Project
  - Project Journey
  - Crystal City Metrorail Station Second Entrance and associated private development
  - VRE Crystal City Station Improvements
  - [Virginia State Railway Plan](#)

The memorandum will incorporate, as appropriate, the data and information developed under

Tasks 2.3, 2.7, 2.10, 3.1, and 3.3. Two (2) iterations will be prepared: a draft for review by Arlington County and VDOT; and a final, incorporating comments on the draft.

- **Task 3.3. Attend One (1) Meeting with Arlington County Staff:** VHB will attend a meeting with Arlington County to review current forecasts, planning assumptions, and to discuss future scenarios for growth and change in Crystal City. It is assumed that this meeting will be held virtually using Teams.
- **Task 3.4. Develop an Alternatives Analysis Process:** In coordination with Arlington County, VDOT, FHWA, and the cooperating and participating agencies as set for by the Coordination Plan for Agency and Public Involvement, VHB will perform the following activities:
  - **Process Outline/Flowchart:** VHB will develop an alternatives analysis process outline/flowchart and calendar, that includes meetings and touch points with cooperating and participating agencies.
  - **Measures of Effectiveness:** VHB will identify initial measures of effectiveness and other evaluation criteria that will be used to screen and assess potential alternatives.
- **Task 3.5. Develop a Range of Alternatives:** In coordination with Arlington County, VDOT, FHWA, and the cooperating and participating agencies, VHB will develop a range of potential alternative options for the Intermodal Connector Project, including a no-build alternative, and evaluate their feasibility and effectiveness. The following activities will be conducted:
  - **Refinement of Preliminary Range of Alternatives:** VHB will refine the preliminary range of alternatives defined under Task 2.5. Additional location suggestions may be considered through agency, stakeholder, or public input.
  - **Level 1 Screening:** VHB will perform level 1 screening based on screening process developed under Task 3.6 to identify crossing locations and alignments.
  - **Concept Advancement:** VHB will advance high-level planning and design to provide two and three-dimensional concepts for crossings in those locations.
  - **Level 2 Screening:** VHB will perform level 2 screening on concepts based on the screening process developed under Task 3.6 to identify an initial range of reasonable alternatives.
  - **Initial Range of Alternatives:** VHB will submit the initial range of reasonable alternatives to VDOT. VDOT will coordinate with FHWA and cooperating agencies, as appropriate, for their review and concurrence.
  - **Final Range of Alternatives:** After EIS scoping is complete and further agency and public input is considered, VHB will finalize the reasonable range of alternatives. As previously noted, it is assumed that three build alternatives will be retained and further developed.
- **Task 3.6. Develop a Screening Process and Criteria:** VHB will develop a process and set of criteria for determining whether conceptual options meet the purpose and need and screening potential alternatives to identify reasonable alternatives to be evaluated in the EIS. Screening criteria may

include but are not limited to right-of-way impacts; commercial building impacts; impacts on NPS lands; CSXT impacts; cultural resource impacts; traffic impacts; and constructability/feasibility. The following activities will be conducted as part of this task:

- **Develop Process:** VHB will develop a two-level screening process and accompanying criteria that incorporate purpose and need, regulatory requirements, environmental considerations, and engineering reasonableness and feasibility assessments.
  - **Develop Draft Concept Screening Memorandum #1:** VHB will prepare a draft memorandum outlining the screening methodology and process for review by Arlington County and VDOT.
  - **Develop Draft Concept Screening Memorandum #2:** VHB will prepare draft memorandum #2, which will incorporate comments on Draft #1, for review by FHWA and the cooperating agencies. Comments received on this draft will be addressed before seeking public input.
  - **Develop Final Concept Screening Memorandum:** VHB will prepare a final memorandum addressing stakeholder and public input. The memorandum will be submitted to FHWA and cooperating agencies for concurrence.
- **Task 3.7: Prepare Planning Level Cost Estimates for Potential Alternatives.** It is not anticipated that detailed cost estimates will need to be developed during this phase. As part of the screening process, VHB will develop planning-level NEPA cost estimates for the alternatives under consideration. Cost will be considered in the screening at a high level to determine whether it renders an alternative unreasonable. NEPA-level cost estimates will be developed for up to six (6) preliminary alternatives.
  - **Task 3.8: Identify Permitting & Approval Requirements.** VHB will identify which permitting and other approval requirements for the Intermodal Connector Project would be needed with Arlington County, VDOT, FHWA, CSXT, VRE, NPS, MWAA, etc. Under this task, the permitting timetable developed under Task 2.9 will be reviewed and updated based on the preliminary alternatives. Permitting considerations may be incorporated in the screening criteria developed under Task 3.6.
  - **Task 3.9: Document Alternative Analysis Process & Findings in a Formal Report.** VHB will document the alternative analysis process and outcomes in an Alternative Analysis (AA) Report that will serve as the basis for Chapter 2 of the EIS. It is assumed that the outcome of the analysis will be the identification of up to three (3) build alternatives to be retained for detailed analysis during the conceptual design and NEPA phases. The report will also identify a recommended preferred alternative, which will be identified as such in the DEIS. The AA Report will document Task 4 activities and outcomes as well, as appropriate (see Task 4). VHB will prepare up to three (3) draft and one (1) final iteration of the AA Report:
    - **Draft AA Report #1:** For Arlington County and VDOT review.
    - **Draft AA Report #2:** Incorporating comments on Draft #1, for review by FHWA and cooperating agencies.

- **Draft Final AA Report:** Addressing comments on Draft #2, to be submitted to FHWA and the cooperating agencies for concurrence. This iteration will serve as the basis for the information that will be shared with the public during EIS scoping.
- **Final AA Report:** The final AA Report will be completed after scoping and will address public comments and input.

#### **Task 4. CONCEPTUAL DESIGN FOR RANGE OF ALTERNATIVES**

Under this task, VHB (including subconsultants where applicable) will perform the following activities:

- **Task 4.1. Develop Conceptual Design at a Level Adequate Enough to Support NEPA and Federal Authorizations:** Based on the outcome of the alternative analysis, VHB will develop conceptual design up to a level adequate to support NEPA analysis and associated federal authorizations for up to three (3) build alternatives to be carried forward through the NEPA process in order to address project components. This will be completed in close coordination with the County, VDOT, FHWA, and the cooperating and participating agencies, including Eastern Federal Lands (EFL) and NPS. It is assumed that conceptual design will be executed to the 10% level for each of the three alternatives.
- **Task 4.2. Prepare Color Renderings, Plans, Cross-Sections, and Details:** VHB will prepare color renderings, as well as plans, cross-sections, and details of the build alternatives. These illustrations will also support stakeholders, County Board members, and public meetings. For each alternative, up to ten (10) renderings, three (3) cross sections, one (1) set of architectural plans, and twelve (12) other sketches or details will be developed.
- **Task 4.3. Prepare Detailed Cost Estimate for Study Alternatives:** VHB will prepare rough order of magnitude cost estimates using the FTA's Standard Cost Category (SCC) format for each of the three alternatives retained for detailed study, to include preliminary and final design, utility relocations, right-of-way acquisition, environmental mitigation, construction costs, and construction administration and management. The cost estimates will be documented and incorporated into the AA Report (Task 3.9) as an appendix. Under this task, VHB will also prepare a technical memorandum that identifies potential federal, state, regional, and local funding sources for the Intermodal Connector Project.
- **Task 4.4. Prepare Implementation Schedule:** VHB will prepare a tentative implementation schedule for the Intermodal Connector Project, including a high-level timeline to complete preliminary and final design, permits, right-of-way acquisition (if needed), utility relocations (if needed), and construction duration. The schedule will be documented and incorporated into the AA Report (Task 3.9).

#### **Task 5. NEPA DOCUMENTATION**

Under this task, VHB (including subconsultants where applicable) will perform the following activities in accordance with the [NEPA/Section 404 Merged Process](#), as applicable:

- **Task 5.1. Provide Information for FHWA to Issue NOI:** Based on the information gathered while performing the pre-NOI activities, VHB will provide FHWA (through VDOT) the necessary information to issue the NOI for the EIS. The information will include a Draft NOI and relevant

supporting information developed under Tasks 2 through 4. Two (2) iterations of the Draft NOI will be prepared: Draft #1 for review by VDOT and Draft #2 incorporating VDOT comments for submission to FHWA. It is assumed that FHWA will finalize the NOI and arrange for its publication in the Federal Register.

- **Task 5.2. Perform Scoping Process with Participating Agencies:** VHB will prepare a scoping package to be shared with agencies for comment and will schedule and facilitate one (1) agency scoping meeting. Activities will include:
  - **Scoping Package:** VHB will prepare a scoping package that will consist of an introductory letter along with the draft materials on which FHWA is requesting comment.
  - **Agency Scoping Meeting:** VHB will schedule, prepare materials for, and facilitate a scoping meeting with cooperating and participating agencies. Materials will include a PowerPoint presentation and an information sheet. It is assumed the meeting will be held in-person with a virtual option.
  - **Agency Scoping Summary:** VHB will prepare a summary of the agency scoping meeting and all agency comments received during the process. This summary will be appended to the scoping summary documenting the scoping process (see Task 6.6).
  
- **Task 5.3. Prepare DEIS:** VHB will prepare a Draft Environmental Impact Statement (DEIS) in accordance with FHWA's regulations Environmental Impact and Related Procedures (23 CFR 771); and updated CEQ NEPA regulations, as applicable. VHB will conduct studies and research based on data or on-site analysis as described below in Tasks 5.4 through 5.18. The results of these studies and research will be used to develop the content of the DEIS and appendices. It is assumed that the DEIS will evaluate the impacts of no more than three (3) action alternatives, with up to two (2) design options per action alternative, and the no-action alternative. Preparation of the DEIS will include the following activities:
  - **Annotated Outline:** VHB will develop an annotated outline of the DEIS, which will include page limits and anticipated level of detail based on information developed during the pre-NOI activities and feedback received during scoping. Three (3) iterations will be prepared: Draft #1, for review by Arlington County and VDOT; Draft #2, incorporating the comments on Draft #1, for review by FHWA and the cooperating agencies; Final, addressing the comments on Draft #2 for concurrence by FHWA and the cooperating agencies.
  - **Administrative Review DEIS:** VHB will prepare up to two (2) drafts of the DEIS for administrative review (or of each section if sections are reviewed separately):
    - **Administrative Review Draft #1:** This draft will be prepared for concurrent review by VDOT and Arlington County, as appropriate.
    - **Administrative Review Draft #2:** This draft will be prepared for concurrent review by FHWA and the cooperating agencies. It will incorporate the comments received on Draft #1. Cooperating agencies will be asked to focus their review on the resources under their purview.

Each review period will include an initial review, resolution of comments, and a backcheck review to ensure comments were sufficiently addressed. It is assumed that the backcheck after the second review will serve as the legal sufficiency review prior to publication. No additional, separate draft will be developed for purposes of legal sufficiency review.

- **Executive Summary:** VHB will prepare an Executive Summary to aid the public understand the content of the DEIS, including the impacts and benefits of the alternatives. The Executive Summary will not exceed 15 pages in length and will be designed to be also usable as a stand-alone document. It will maximize the use of graphics to communicate with a non-technical audience. The Executive Summary will be submitted for reviews along with the administrative review draft DEIS. No separate reviews of the Executive Summary are included.
- **DEIS for Publication:** VHB will prepare the DEIS for public review; notify the public of the availability of the DEIS; and distribute it. It is assumed that the DEIS will be primarily distributed electronically and will be hosted on the project website. Activities will include:
  - **Publication Version:** VHB will prepare the publication version of the DEIS in PDF format that is Section 508 compliant, formatted for filing through the e-NEPA electronic filing system and for hosting on the project website. VHB will provide the file or files to FHWA or VDOT ready for upload to e-NEPA.
  - **Printing:** VHB will arrange for printing up to twelve (12) copies of the DEIS for distribution to public libraries (up to two [2] libraries), FHWA, VDOT, Arlington County, NPS, and EPA. VHB will also distribute hard copies, as available, to agencies and members of the public upon request. It is assumed that the printed material will include the Executive Summary and DEIS proper, which is assumed to meet the regulatory page limit of 150 pages or fewer. All appendices will be provided electronically on an external drive attached to the printed copy.
  - **Newspaper Ads:** VHB will prepare draft and final ads for placement in two (2) local newspapers (one [1] Spanish-language newspaper and one [1] English-language newspaper) to announce the availability of the DEIS for review along with the date and location of the public hearing, and to provide instructions on how to view and comment on the DEIS. FHWA will rely on EPA's Federal Register Notice of Availability (NOA) and no separate Federal Register NOA will be prepared.
  - **Postcards or Flyers:** VHB will prepare a draft and final postcard or single-page flyer to be posted or made available in public places, announcing the availability of the DEIS for review as well as the date and location of the public hearing and providing instructions on how to view and comment on the DEIS. Up to three hundred (300) copies are assumed.
  - **Press Release:** VHB will prepare a draft and final press release announcing the availability of the DEIS for review as well as the date and location of the public hearing and providing instructions on how to view and comment on the DEIS. Distribution of the press release will be the responsibility of Arlington County,

VDOT, or FHWA.

- **Email Blast:** VHB will prepare a draft and final email blast notifying the agency and public distribution list (see Task 6.1) of the availability of the DEIS for review as well as the date and location of the public hearing and providing instructions on how to view and comment on the DEIS.

In accordance with 23 U.S.C. 139, it is assumed that the comment period for the DEIS will be no longer than 45 days following publication of the NOA in the Federal Register (Minimum time per 40 CFR § 1506.11 – Timing of agency action).

The technical studies that will be prepared to support the DEIS are listed below. These studies will be documented in the main text of the DEIS and, where appropriate, in technical appendices to the DEIS. The studies will be conducted in accordance with the methodologies described in the Methodology Report (see Task 2.7) unless new information or data requires a substantive change in approach. Such changes will be identified in the relevant sections of the DEIS or its technical appendices.

- **Task 5.4. Traffic Study:** To develop the assessment of impacts on traffic, VHB will perform the following activities:
  - **Data Collection:** VHB will use traffic counts data (see Task 2.8) and/or collect existing traffic probe data and use available 2019 data counts to provide an understanding of existing micro-scale traffic operations at relevant locations. MWCOC model runs will be conducted and probe data will be used to estimate current and future regional-scale operations. VHB assumes that MWAA will provide the VISSIM model from the most-recent Airport Layout Plan revision to help understand traffic conditions at the airport. Traffic safety data from Arlington County, VDOT and MWAA will be requested. VHB will make adjustments to regional travel patterns within the study area for the analysis year informed by likely trends from COVID-19. These adjustments will shift the volume and distribution of future trips and will be developed in concert with VDOT to ensure consistency with other regional transportation projects.
  - **Existing Conditions/Affected Environment:** VHB will document existing regional traffic volumes to and from Crystal City and DCA, as well as curbside activity along Crystal Drive. Pick-up and drop-off activities will be documented, as well existing traffic operation and safety issues. An existing conditions VISSIM model will be developed for the west landing sites for each alternative.
  - **Impact Analysis:** VHB will conduct an impact analysis for traffic that will take place at two levels. Regional or meso-scale analysis, using probe data and MWCOC model resources, combined with an understanding of the multimodal demand captured by the Intermodal Connector, will be used to understand the broader traffic impacts of the Project. VISSIM analysis will be used primarily to document curbside traffic operations along Crystal Drive and private property. Impacts to safety and operations will also be assessed.
  - **Study Documentation:** VHB will summarize the findings of the traffic study in the DEIS. Detailed information and technical back-up will be provided in a technical appendix.



- **Task 5.5. Pedestrian and Bicycle Study:** To develop the assessment of impacts on pedestrian and bicycle traffic, VHB will perform the following activities:
  - **Data Collection:** VHB will collect existing pedestrian and bicycle data related to activity on Crystal Drive, the Mount Vernon Trail and associated connector trails, and the DCA campus, including connections to the Mount Vernon Trail. VHB will also collect existing bikeshare data and other available pedestrian and bicycle usage data from available sources as well as traffic safety data. Field observations may be used to further identify ADA and multimodal conflict conditions.
  - **Existing Conditions/Affected Environment:** VHB will document relevant existing pedestrian and bicycle conditions in terms of volumes and usage, ADA and conflict issues, pinch points, and existing deficiencies.
  - **Impact Analysis:** VHB will analyze the impact of the proposed Intermodal Connector on pedestrian and bicycle conditions. Specific areas of analysis will include pedestrian flows on the connection; volumes and usage of existing and future pedestrian and bicycle routes; impacts to recreational and commuting bicyclists; changes in pedestrian and bicycle access for residents; safety and multimodal conflict considerations; ADA and persons with limited mobility considerations; and bicycle storage needs.
  - **Study Documentation:** VHB will summarize the findings of the pedestrian and bicycle study in the DEIS. Detailed information and technical back-up will be provided in a technical appendix.
  
- **Task 5.6. Section 4(f) and 6(f) analyses:** As part of this task, VHB will perform the following activities:
  - **Section 4(f) Evaluation:** VHB will prepare a draft and final Section 4(f) Evaluation in accordance with Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. 303(c)) and FHWA regulations (23 CFR 774). The evaluation will include an impact analysis evaluating the use of Section 4(f)-protected properties resulting from the alternatives advanced into the DEIS for both the post-construction (operational) and construction periods. The George Washington Memorial Parkway will be analyzed both as a historic property and as parkland. The draft Evaluation will be prepared as a chapter of the DEIS and will be based on the DEIS impact analyses, as applicable. The final Evaluation will be prepared along with the Final EIS (FEIS).
  - **Section 6(f) Analysis:** Based on information currently available to VHB, Arlington County has received four Land and Water Conservation Fund grants, two of which are for an urban trails program that could include facilities in the study area (the locations are not stated in the information reviewed). VHB will coordinate with Arlington County staff to determine whether any Section 6(f) properties would be affected by the Project. It is anticipated that any Section 6(f) properties would also be protected by Section 4(f); therefore, the Section 6(f) analysis will be included in the Section 4(f) Evaluation.
  
- **Task 5.7: Historic Properties/Section 106:** VHB will support VDOT and FHWA with compliance with Section 106 of the National Historic Preservation Act, including the following activities:

- **Section 106 Consultation Initiation Letter:** VHB will prepare a draft letter to DHR to formally initiate the consultation process. Two (2) iterations will be prepared: a draft and a final Draft incorporating comments on the draft. The final draft will be formatted to use on Arlington County letterhead.
- **Identify and Invite Consulting Parties:** VHB will develop a draft list of tribes, agencies, organizations, and individuals with a demonstrated interest in the historic preservation issues raised by the Intermodal Connector Project and a letter to invite them to participate in the Section 106 process as consulting parties (a draft and final letters are assumed for up to 12 separate parties). Letters to consulting parties, except federally recognized Native American tribes, will be sent on Arlington County letterhead. Letters to tribes will be sent by FHWA. The list of consulting parties will be developed in cooperation with Arlington County, VDOT, FHWA, and DHR. VHB will maintain and update the list, including contact information, throughout the project.
- **Define Area of Potential Effects (APE) and Identify Historic Properties:** VHB will define an APE for both architectural and archaeological resources and identify historic properties within the APEs. Based on currently available information, VHB does not anticipate that this task will require the preparation of determinations of eligibility (DOE) for architectural resources and no DOEs are included in this scope of work: see Task 2.8 for archaeological resources. Following review and approval by VDOT and FHWA, the APEs will be submitted to DHR for review and concurrence. VHB will document the APEs and inventory of historic properties in a report (APE and Historic Properties Report). Three (3) iterations of the report will be prepared: draft for review by Arlington County, VDOT, and FHWA; final draft incorporating the comments on the draft, for review by DHR and the consulting parties; and final, addressing comments from DHR and the consulting parties.
- **Prepare Assessment of Effects Report:** VHB will assess the effects of up to three (3) build alternatives on the historic properties within the APEs. Physical effects will be considered as well as visual effects and effects from noise and vibration. The assessment of visual effects will include up to six (6) views or vistas per alternative based on renderings and visualizations. VHB will document the effect assessment in a report (Assessment of Effects [AOE] Report) that may be developed as a supplement to the APE and Historic Properties Report. Three (3) iterations of the AOE Report will be prepared: draft for review by Arlington County, VDOT, and FHWA; final draft incorporating the comments on the draft, for review by DHR and the consulting parties; and final, addressing comments from DHR and the consulting parties.
- **Mitigation Measures and Agreement Document:** If the Intermodal Connector Project would result in unavoidable adverse effects on historic properties, VHB will assist Arlington County, VDOT, and FHWA with determining appropriate mitigation measures in consultation with DHR and the consulting parties. VHB will assist Arlington County, VDOT, and FHWA with the development and drafting of a Memorandum of Agreement (MOA) or Programmatic Agreement (PA), as appropriate, which will document avoidance, minimization, and mitigation measures to be implemented with the Intermodal Connector Project. It is anticipated that a draft MOA or PA will be published along with the DEIS and finalized at the same time as the FEIS. Development of the draft MOA or PA

will be an iterative process, with up to two (2) full review drafts and one (1) legal review draft each for the published draft and the final MOA or PA.

- **Consulting Party Meetings:** Working with Arlington County, VDOT, and FHWA, VHB will schedule, organize, and help host up to four (4) consulting party meetings throughout the Section 106 consultation process. Topics will include: APE and inventory of historic properties; alternatives; assessment of effects; and mitigation and draft MOA or PA. VHB anticipates that two (2) of these meetings will be virtual and two (2) will be in person. For each meeting, VHB will develop a PowerPoint presentation and a flyer or fact sheet focusing on the meeting topic (Two iterations each: draft and final). For each meeting, VHB will take notes and prepare meeting notes for review by Arlington County, VDOT, and FHWA (draft and final notes will be prepared).
- **Cultural Resources Sections of the DEIS and Technical Appendices:** VHB will draft the cultural resource sections of the DEIS based on the Section 106 analyses. The APE and AOE reports will be included as technical appendices to the DEIS as will the draft MOA or PA and relevant Section 106 correspondence.
- **Task 5.8. Noise/Vibration Analyses:** VHB will assess noise and vibration impacts qualitatively. As a pedestrian/bicycle facility, the Intermodal Connector Project is anticipated to qualify as a Type III project, requiring no noise study (VDOT, Highway Traffic Noise Impact Analysis Guidance Manual, Version 7). Existing noise levels will be characterized based on available information and informal field observations. No long-term operational impacts are expected. VHB will qualitatively evaluate noise and vibration impacts at the proposed connector facility itself. VHB will conduct a construction noise and vibration impact assessment consistent with relevant federal, state, and local regulations, ordinances, and guidance. The construction impact assessment will include identifying typical on-site construction noise and vibration sources (equipment and methods); predicting construction noise and vibration conditions; and recommending construction noise and vibration control measures as appropriate. The noise and vibration assessment will also identify off-site construction sources, such as heavy truck routes, which may affect the area surrounding the project site. The analysis will be documented in the DEIS.
- **Task 5.9. Air Quality Study:** VHB will assess the air quality impacts (whether adverse or beneficial) of up to three build alternatives. Crystal City is located in Arlington County, which is currently in a marginal non-attainment zone for the 2015 8-hour ozone standard (inside the Ozone Transport Region). The area is in attainment for other criteria pollutants. The Project is assumed to be exempt from Conformity requirements as a “Bicycle and Pedestrian Facility” (40 CFR 93.126, Table 2, Exempt Projects; VDOT, Project-Level Air Quality Analysis Resource Document, Appendix C, December 2018). Construction will not exceed five years in one location. Modeling of project-level carbon monoxide (CO) emissions is not required under the 2020 FHWA-VDOT Programmatic Agreement for Project-Level Air Quality Analyses for Carbon Monoxide. While under the Programmatic Agreement, modeling and screening analyses may be conducted at the discretion of VDOT, it will not be needed for a project such as the Intermodal Connector Project. Based on these considerations, VHB will address air quality impacts qualitatively in the DEIS. The analysis will refer, as applicable, to the aforementioned documents and guidance.
- **Task 5.10. Socioeconomic Study:** In the DEIS, VHB will assess the socioeconomic impacts of the Intermodal Connector Project qualitatively, based on available information from public sources

on current and anticipated local and regional socioeconomic trends. VHB does not anticipate that a separate technical study will be required for this resource area.

- **Task 5.11. Environmental Justice Study:** VHB will evaluate the potential of the Intermodal Connector Project to result in disproportionately high and adverse impacts on minority or low-income populations, in accordance with VDOT and FHWA policies and guidelines on environmental justice and compliance with EO 12898. VHB will also address, as appropriate, applicable new Environmental Justice requirements or guidance that may be finalized during the preparation of the DEIS. The Environmental Justice study will be documented in a technical appendix and summarized in the DEIS. It will document the steps taken to identify and reach out to environmental justice populations and assess the potential for disproportionately high and adverse impacts of each of the DEIS alternatives.
- **Task 5.12. Natural Resources Study:** VHB will develop a description of natural resources in the study area that may be affected by the Intermodal Connector Project. This description will be based on existing information, supplemented by site visits and surveys, as appropriate (see Task 2.8). It is anticipated that the focus of this study will be on the vegetated portions of the George Washington Memorial Parkway corridor. VHB will coordinate with NPS to facilitate data collection. The following analyses will be included:
  - **Soils:** VHB will characterize soils in the study area using data from soil borings (see Task 2.8) and existing information from NPS, the Natural Resources Conservation Service (NRCS), and other sources, as available.
  - **Water Resources:** VHB anticipates that the study will focus on groundwater and stormwater and use existing information and data. The DEIS will provide an estimate of any anticipated increase or decrease in impervious surfaces. Other impacts will be addressed qualitatively.
  - **Vegetation:** VHB will characterize vegetation, including mature trees, in the study area based on existing information supplemented by field observations and surveys (see Task 2.8). The scope of work does not include a systematic tree survey of the entire study area. Mature trees that would have to be removed to construct any of the alternatives after avoidance measures have been considered and incorporated in the alternatives will be counted, mapped, and described (including species, diameter at breast height (DBH), general condition, and potential historic or cultural significance) to inform the impact assessment and support the development of appropriate minimization and mitigation measures. The information collected will be presented in a technical appendix and summarized in the DEIS. The study will also address measures to be implemented to avoid damaging existing trees during construction of the Intermodal Connector Project.
  - **Wetlands:** VHB will consider the potential for impacts on wetlands based on wetland survey results (see Task 2.8) and existing information.
- **Task 5.13. Floodplain Study:** VHB will consider floodplain impacts consistent with current regulations, including EO 11988, Floodplain Management. Based on current FEMA mapping, the study area is outside the 100-year floodplain. Therefore, VHB will analyze impacts to floodplains qualitatively. This scope of work does not include floodplain elevation determination or modeling.

- **Task 5.14. Wildlife Habitat Study:** VHB will develop a description of existing wildlife habitat that may be affected by the Project. This description will be based on survey results (see Task 2.8) and existing information.
- **Task 5.15. Land Use Study:** As part of the land use study, VHB will perform the following activities:
  - **Land Use, Zoning, and Property:** VHB will inventory and describe existing and future planned land uses in the study area. This study will also address existing and proposed zoning. Impacts will be assessed qualitatively based on the potential to create land use or zoning inconsistencies. The land use study will also consider impacts to private property at the west end of the proposed Intermodal Connector and to MWA property at the DCA end. Impacts will be described qualitatively. The study will identify the need for easements on public or private property, if applicable. Property impacts will be assessed based on existing GIS mapping data. This scope of work does not include a record search or property line survey.
  - **Coastal Zone Consistency Determination:** The Intermodal Connector Project is located in Virginia’s coastal zone. Therefore, VHB will prepare a Federal Consistency Determination assessing the Intermodal Connector Project’s consistency with the enforceable policies of Virginia’s Coastal Zone Management Program. The Consistency Determination will be prepared as an appendix to the DEIS and submitted to the Virginia Department of Environmental Quality (DEQ) for review and concurrence along with the DEIS. The process will be described briefly in the land use section of the DEIS. The final Determination along with DEQ’s response will be included in the FEIS. The Consistency Determination will be developed based on the analyses presented in the DEIS.
- **Task 5.16. Threatened and Endangered Species Study:** VHB will evaluate the potential impacts of the Intermodal Connector Project on Federally listed or candidate threatened or endangered species and essential habitat, in accordance with Section 7 of the Endangered Species Act, as applicable, and the Section 7 review process of the US Fish and Wildlife Virginia Field Office. This task will include an IPaC search; VDOT coordination with the Virginia Department of Game and Inland Fisheries and the Virginia Department of Conservation and Recreation-Division of Natural Heritage; and preparation of a conclusion table. Based on current information, VHB assumes that the analysis will support findings of “no effect” or “not likely to adversely affect.” This scope of work does not include support for formal Section 7 consultation, including preparation of a biological assessment. Section 7 materials and conclusions will be included in an appendix to the DEIS and summarized in the body of the document. The study will also consider potential impacts on bald eagles under the Bald and Golden Eagle Protection Act and potential impacts on migratory bird species under the Migratory Bird Treaty Act, based on existing information and field observations.
- **Task 5.17. Visual Impact Analysis:** VHB will analyze the visual impacts of the proposed Intermodal Connector Project under three action alternatives. In addition to the visualizations to be developed in support of the alternatives analysis process, up to six (6) vistas or viewsheds will be identified and photographed for each action alternative (total of up to eighteen [18]) and visualizations will be developed showing how the proposed connection would affect these vistas and viewsheds. VHB anticipates that the focus of the analysis will be impacts to views along the

George Washington Memorial Parkway and the vistas or viewsheds to be analyzed will be determined in cooperation with NPS. The same visualizations will be used to assess visual impacts under NEPA and visual effects under Section 106. The analysis will be documented in a Technical Appendix to the DEIS and summarized in the body of the DEIS.

- **Task 5.18. Indirect Effects and Cumulative Impacts Study:** While the revised CEQ regulations for implementing NEPA (40 CFR 1500), which went into effect on September 14, 2020, no longer require analysis of indirect and cumulative effects, VHB assumes that information regarding these impacts will be useful to decision-makers and of interest to the public. The need for this study will be confirmed in coordination with FHWA. VHB will develop a technical memorandum describing potential indirect and cumulative effects of the alternatives. The analysis of indirect impacts will consider whether the Intermodal Connector Project may cause certain changes that would not otherwise occur and would have their own environmental impact (for example, changes in land use patterns, population or employment density, or growth rate that would in turn affect mobility, air quality, or water quality). The analysis of cumulative impacts will consider the potential impacts of past, present, and reasonably foreseeable land use and transportation projects in the study area and evaluate whether the impacts of the Intermodal Connector Project, when combined with the impacts of these project, could result in significant impacts. Analysis will be qualitative.
  
- **Task 5.19. Prepare Responses to Comments Received on DEIS:** Following public review of the DEIS and prior to the FEIS, VHB will prepare responses to all substantive comments received on the DEIS, including those provided at the public hearing. VHB will compile all comments on the DEIS in a spreadsheet format that is searchable by commenter and topic. Each comment letter and individual comment will be assigned a unique identifier. As part of this task, VHB will:
  - Prepare a technical memorandum with analysis of comments (number received, major topics, substantive comments, any supplemental analyses needed);
  - Prepare draft responses to substantive comments, including comments on the preferred alternative;
  - Revise the DEIS as needed based on responses to comments; and
  - Prepare an appendix or appendices to the FEIS including responses to substantive comments and copies of all comments received during the comment period.

This scope of work includes the following:

- VHB will prepare up to 200 comment responses (including responses to unique substantive comments and responses to common substantive comments).
- Where possible and appropriate, comments will be grouped and common responses prepared.
- A matrix of comments and responses will be provided where common responses are not possible or appropriate.

- Comment letters and comments from agencies will be individually identified and responded to.
- FHWA, VDOT, Arlington County, and the cooperating agencies may be asked to provide input on comments within their areas of expertise.
- **Task 5.20. Prepare FEIS:** The FEIS will be comprised of errata sheets; it is assumed that the entire DEIS document will not be updated. As part of this task, VHB will perform the following activities:
  - **Administrative Review FEIS:** VHB will prepare up to two (2) drafts of the FEIS for administrative review:
    - **Administrative Draft FEIS #1:** The first review will be a concurrent review by VDOT and Arlington County.
    - **Administrative Draft FEIS #2:** The second review will be a concurrent review by FHWA and the cooperating agencies.

Each review period will include an initial review, resolution of comments, and a backcheck review to ensure comments were sufficiently addressed. It is assumed that the backcheck after the second review will serve as the legal sufficiency review prior to publication. No additional, separate draft will be developed for purposes of legal sufficiency review.

- **Combine FEIS and Record of Decision (ROD):** VHB assumes that the FEIS and ROD will be issued as a combined document in accordance with 23 CFR 771.124, which requires FHWA to issue a single combined document to the maximum extent practicable, unless the FEIS makes substantial changes to the proposed action that are relevant to environmental or safety concerns, or there is a significant new circumstance or information relevant to environmental concerns that bears on the proposed action or the impacts of the proposed action. VHB will be responsible for combining the FEIS and ROD into a single document for publication.
  - VHB assumes that FHWA will prepare the ROD and provide it for inclusion in the combined document.
  - VHB assumes that any cooperating agency wishing to sign the ROD will provide any necessary agency-specific language for inclusion in the combined document.
- **FEIS/ROD for Publication:** VHB will prepare the FEIS/ROD for public release, notify the public of the availability of the FEIS, and distribute it. It is assumed that the document will be primarily distributed electronically and will be hosted on the project website. Activities will include:
  - **Publication Version:** VHB will prepare the publication version of the FEIS/ROD in PDF format that is Section 508 compliant and suitably formatted for filing through the e-NEPA electronic filing system and for hosting on the project website. VHB will provide the file or files to FHWA or VDOT ready for upload to e-NEPA.

- **Printing:** VHB will arrange for printing up to twelve (12) hard copies of the FEIS/ROD for distribution to public libraries (up to two [2] libraries), FHWA, VDOT, Arlington County, NPS, and EPA. VHB will also distribute hard copies, as available, to agencies and members of the public upon request. It is assumed that the printed material will include the Executive Summary and FEIS/ROD. All appendices will be provided electronically on an external drive attached to the printed copy.
  - **Newspaper Ads:** VHB will prepare draft and final ads for placement in two (2) local newspapers (one [1] Spanish-language newspaper and one [1] English-language newspaper) announcing the availability of the FEIS/ROD, including information on how to view the documents. FHWA will rely on EPA's Federal Register NOA and no separate Federal Register NOA will be prepared.
  - **Postcards or Flyers:** VHB will prepare a draft and final postcard or single-page flyer to be posted or made available in public places announcing the availability of the FEIS/ROD, including instructions on how to view the documents. Up to 300 copies are assumed.
  - **Press Release:** VHB will prepare a draft and final press release announcing the availability of the FEIS/ROD, including instructions on how to view the documents. Distribution of the press release will be the responsibility of Arlington County, VDOT, or FHWA.
  - **Email Blast:** VHB will prepare a draft and final email blast notifying the agency and public distribution list (see Task 6.1) of the availability of the FEIS/ROD, including instructions on how to view the document.
- **Administrative Record:** VHB will compile the EIS's administrative record. It will include documents, studies, correspondence, and other project materials that document and support the NEPA decision-making process. The Administrative Record will be compiled and delivered electronically.
  - **Task 5.21. Provide Information for FHWA ROD:** VHB will provide information to support FHWA's ROD, including: basis for the decision; alternatives considered; Preferred Alternative and Environmentally Preferable Alternative; and whether all practicable means to avoid or minimize environmental harm from the preferred alternative have been selected and, if not, why they were not. This section will include a table of commitments to avoid, minimize, or mitigate impacts.

Upon request, VHB will also provide the same information to NPS and MWAA/FAA to support the preparation of their respective decision documents.

#### **Task 6. PUBLIC AND STAKEHOLDER OUTREACH**

As part of this task, VHB (including subconsultants where applicable) will perform the following tasks:

- **Task 6.1. Develop Stakeholder Database & Public Contact List:** This task includes the following activities:



- **Stakeholder Database:** In coordination with the County, VHB will develop an initial stakeholder database that will include the agencies, community groups, and organizations identified under Task 2.6. Information will include organization, nature of the interest, expected level of involvement, and contact information. The database will be in Excel or similar format and will be maintained and updated throughout the duration of the project.
- **Public Contact List:** VHB will assist Arlington County with updating and maintaining a public contact list for the project. It is assumed the County will host the public contact list while VHB will compile and provide inputs and updates based on information received at public meetings and touchpoints
- **Task 6.2. Regularly Provide Updates, Information, and Materials for Project Website:** VHB assumes that a project website will be hosted on the County’s web-page and used as a means of providing and obtaining information about the project by the public. VHB will provide updated materials, as appropriate, which will be posted by the County to the website as appropriate. VHB will develop project messaging and branding in coordination with Arlington County and VDOT. Website materials may include general project descriptions and updates, fact sheets, and widgets. Materials will be Section 508 compliant. This task includes initial development of the messaging and materials plus regular updates. An average of one (1) update per month is assumed, each consisting of up to three (3) separate items on average. Each set of materials will include two (2) draft iterations and a final one incorporating the comments on the drafts and ready for posting.
- **Task 6.3. Prepare Presentation Materials for Public Meetings:** VHB will prepare materials for up to four (4) public meetings (see Task 6.4). VHB will work with Arlington County and VDOT to develop a visual identity or brand for the project that is distinctive and will avoid the potential for public confusion between the project and outside, separate marketing efforts featuring or highlighting the proposed Intermodal Connector. All public information materials will be designed consistent with this visual identity.

This scope of work assumes that the first meeting (pre-scoping meeting #1, to occur in the first half of 2021) will be held virtually and the other three meetings (pre-scoping meeting #2, scoping meeting and DEIS public hearing, to occur between the second half of 2021 and 2023) will be held in person. Across these four meetings, materials to be prepared under this task will include:

- **Presentations:** Up to four (4) PowerPoint presentations will be prepared by VHB to provide the public with an overview of progress to date and highlight the topics about which public input is being sought. Each presentation will include a script that may be recorded as a voice-over narrative or delivered live, as appropriate. The presentations will not exceed thirty (30) minutes.
- **Display Boards:** VHB will develop and produce up to forty-eight (48) display boards (twelve [12] per meeting on average) that will illustrate key topics upon which public input is being sought. Up to thirty-six (36) of these boards will be printed and mounted on 24”x36” foamboard, in addition to being made available for download as PDF files for the in person meetings (no mounted boards will be needed for the first meeting, which will be in virtual format).

- **Factsheets:** VHB will develop and produce a double-sided, full color project factsheet, which will be updated for each meeting. Up to 600 factsheets will be printed (200 per in-person meeting) in addition to being made available for download as PDF files.
- **Sign-in and Comment Forms:** VHB will develop and produce sign-in sheets and written comment forms for the three meetings assumed to be held in person.

Up to three (3) draft iterations of each set of materials are assumed before finalization and production. Online materials will be Section 508 compliant.

- **Task 6.4. Lead the Public Engagement Efforts:** VHB will lead the public engagement effort and solicit public participation consistent with NEPA requirements. Public involvement will be completed at appropriate points during the development of the alternatives and environmental review process as directed by NEPA and in consultation with the County and VDOT. As part of this task, VHB will perform the following activities:

- **Public Meetings:** VHB will coordinate and execute four (4) public meetings, including two pre-scoping public meetings (one virtual and focusing on purpose and need, one in-person, open-house format focusing on the range of alternatives); a scoping public meeting (in-person, open-house format, including presentation of the recommended preferred alternative); and a DEIS public hearing (in-person, open-house format with time set aside for formal delivery of verbal comments). For all four (4) meetings, VHB will:
  - Schedule the public meeting and determine online platform/software to use or secure the in-person location in coordination with Arlington County. VHB assumes the in-person public meetings will be held in a public facility requiring no rental fee.
  - Advertise the meeting as described under Task 6.5.
  - Produce the public meeting materials as described under Task 6.3.
  - Participate in up to three (3) preparation and rehearsal meetings with Arlington County and VDOT for each public meeting.
  - Support Arlington County at the public meeting by, as applicable depending on the format of the meeting, setting up the meetings; staffing the welcome table; staffing the boards; conducting informal discussions with meeting attendees; and breaking down.
  - Collect and document public comments as described under Task 6.7.
  - Within fifteen (15) days, produce a public meeting summary report as described under Task 6.6.
- **Public Engagement Touchpoints:** VHB will develop messaging, materials, and visual aids, and provide staffing for up to eight (8) public engagement touchpoints (e.g., webinars or

other online events; pop-ups; availability sessions) to engage the community at appropriate times. Materials will be based on those prepared for stakeholder involvement activities (see next paragraphs), adapted as appropriate. This scope of work includes up to two (2) planning meetings with Arlington County and VDOT per touchpoint, as well as participation in each touchpoint event.

- **Stakeholder Involvement:** The VHB public engagement lead will support and prepare materials for nine (9) quarterly stakeholder coordination meetings over the duration of the project as well as up to eighteen (18) additional ad hoc stakeholder meetings with individual and small groups of stakeholders throughout the NEPA process. These will cover additional and targeted coordination needs with entities with jurisdiction (e.g.: NPS); impacted stakeholders (e.g.: railroad operators); and coordination of permitting and design approvals (e.g.: NCPC). VHB will develop a stakeholder issues matrix to aid in tracking issues that are identified during coordination meetings and document correspondence and meetings with stakeholders. Materials for these meetings will be developed as described in the following paragraph.
- **Project Milestone Updates:** VHB will develop project updates and key milestones that can be delivered in collaboration with Arlington County staff to the County Board, MWAA, NPS, CSXT, and other necessary agencies during the nine (9) quarterly meetings described above. This scope of work assumes that these updates will consist of PowerPoint presentations incorporating materials developed as part of the project to date. For each quarterly meeting, an updated PowerPoint Presentation (up to 20 minutes) will be developed. Up to three (3) draft iterations of each presentation are assumed before finalization.

VHB will also develop materials for the eighteen (18) ad hoc stakeholder meetings described above. Because it can be anticipated that materials will be reused, over the course of the project, up to nine (9) sets of materials are assumed, each consisting of one (1) PowerPoint Presentation (up to 20 minutes) and a project update factsheet.

- **Task 6.5. Schedule and Post the Advertisements for All of the Public Meetings:** VHB will publicize the public meetings as described below.
  - **Newspaper ads:** VHB will prepare draft and final ads for placement in two (2) local newspapers (one [1] Spanish-language newspaper and one [1] English-language newspaper) announcing the meeting, providing information on where to view advance materials, specifying the date, format, and (as applicable) location of the meeting as well as how to comment and applicable deadlines. VHB will publish ads for up to three (3) public meetings (advertisement for the DEIS public hearing is included under Task 5.3). While printed newspaper ads are assumed for the purpose of this document, VHB will work with Arlington County and VDOT to explore other, potentially further reaching options, such as online banner ads instead of printed notices.
  - **Flyers or Postcards:** VHB will prepare a draft and final postcard or single-page flyer to be posted or made available in public places announcing the meetings, with information similar to the information in the ad (see above paragraph). A total of three (3) postcards or flyers will be prepared (postcard/flyers for the DEIS public hearing are addressed under

Task 5.3). Up to three hundred (300) copies will be prepared for each meeting.

- **Press Release:** VHB will prepare a draft and final press release announcing the meetings, with information similar to the information in the ad (see above). Three (3) press releases will be prepared (the press release for the DEIS public hearing is addressed under Task 5.3) Up to two (2) draft iterations of each press release will be prepared before finalization. Distribution of the press release will be the responsibility of Arlington County, VDOT, or FHWA, as appropriate.
- **Email Blast:** VHB will prepare a draft and final email blast notifying the distribution list (see Task 6.1) of the public meetings and public engagement touch points, with information on, as applicable, the format, purpose, how to view advance materials or to comment, location and time of meeting or event, and deadlines. Up to six (6) email blasts are included in this task.
- **Task 6.6. Collect & Document All Public Comments:** VHB will perform the following activities:
  - **Public Meeting Summaries:** After each of the four public meetings, VHB will prepare a meeting summary report including a summary narrative of the public engagement effort to date, the meeting advertisement process, attendance, and detailed documentation of the comments provided during the meeting (both written and verbal). Copies of written comments and transcripts of verbal comments will be included as an appendix. For each summary report, a draft and final version will be prepared.
  - **Other Public Comments:** VHB will record and document public comments received throughout the project either in response to specific solicitations or unsolicited. Summary reports of comment received will be produced at County, VDOT, or FHWA requests throughout the project. A total of nine (9) summary reports are assumed.

VHB assumes that a project email address will be set up and that VHB staff will have access to this email address for the purpose of monitoring and recording comments. Arlington County, VDOT, or FHWA will provide VHB with copies of any comments they may receive separately.

- **Task 6.7. Collect Transcripts of Public Meetings:** VHB will transcribe the formal verbal public comments made at the DEIS public hearing as well as any other comments made verbally through a stenographer during the other two in-person meetings (no formal verbal commenting process is anticipated for the virtual pre-scoping meeting). This does not include questions or informal remark made to project staff during open house sessions. The transcriptions will be included in and delivered via the Public Meeting Summaries (see Task 6.6).

#### **Task 7. OPTIONAL SERVICES**

VHB shall not perform any of the Optional Services unless scope and fee have been negotiated, and authorization in writing has been issued by Arlington County. Solely at the discretion of the County the following optional service – Optional Task A – may be exercised, and if so exercised, shall be authorized through a separate Notice to Proceed letter. VHB’s services would be required within fourteen (14) consecutive calendar days after the issuance of that authorization.

### **Optional Task A – Preliminary Engineering, Bid Document Preparation, and Procurement Services**

VHB (including subconsultants where applicable) shall perform the Preliminary Engineering for all elements of the Intermodal Connector Project to be advanced from the conceptual design completed during the EIS to the Preliminary Engineering level. Preliminary Engineering is generally defined as 30% design plans, though some elements of the design may need to be advanced beyond the 30% level, including any potential acquisition of right-of-way (ROW), while some elements of design may be slightly less than 30%.

The Preliminary Engineering design shall conform to the latest versions of all applicable local, state, and federal design criteria including, but not limited to the standards, specifications, and publications outlined below:

- [Arlington County Design Standards & Guidelines](#)
- [Arlington County Construction Standards & Specifications](#)
- [2015 Virginia Construction Code \(USBC, Part I\)](#)
- [2015 Virginia Statewide Fire Prevention Code](#)
- [Department of Transportation \(DOT\), ADA Standards for Transportation Facilities, 2006](#)
- [Department of Justice \(DOJ\), ADA Standards for Accessible Design, 2010](#)
- AASHTO Design Specifications and Guidelines
- When there is no applicable Arlington County design standard or construction standard/specification to govern an element of the design, the VDOT Road and Bridge [Standards](#) and [Specifications](#) shall be used.

Waivers may be pursued in certain cases to achieve context-appropriate design solutions with concurrence of Arlington County. Furthermore, VHB should ensure that the design aligns with Arlington County's approach to [Urban Design](#).

All design work and plans shall be prepared and submitted using U.S. Customary Units. All CAD drawings associated with the preliminary engineering design shall comply with [Arlington County CADD Standards and Guidelines](#). All Electronic CAD Drawings shall be in AutoCAD 2018 native file format (.dwg).

VHB (including subconsultants where applicable) will perform the following tasks during Preliminary Engineering:

- 30% Design plan package – Draft 1 – internal team (Arlington County and VDOT only) review
- 30% Design plan package – Draft 2 – internal team + external agencies and stakeholder review
- 30% Design plan package – Draft 3 – internal team + external agencies and stakeholder back-check review
- Survey and subsurface utility investigation, designation, & coordination – VHB shall conduct field surveys, underground utility locating services, and/or underground utility test hole investigations, and fully integrate this data into the existing conditions plans and survey base mapping. VHB shall also set up and lead utility coordination meetings with utility owners as necessary. Assume two (2) meetings total – 90 minutes each.
- Geotechnical Engineering – VHB shall perform a design-level geotechnical investigation that includes collecting soil borings with laboratory tests and submit these findings in a Geotechnical Engineering Report (GER) that satisfies the criteria provided in [Chapter 3](#) of the VDOT Material Division's Manual of Instructions (MOI).
- Risk Management (RM) – VHB shall perform a RM exercise and submit a RM report prepared in

accordance with the [VDOT RM Procedure](#).

- Value Engineering (VE) – VHB shall perform a VE exercise and submit the findings and recommendations in a VE report. This task shall be in accordance with the [VDOT VE Job Plan requirements](#) and [Value Engineering Program Administration Manual](#). It should be noted that Arlington County solely retains the decision-making authority on this project for approving and rejecting the VE recommendations.
- Constructability Review – Conduct a thorough constructability review and document constructability comments. The designer shall provide responses to the constructability comments. There should be at least one (1) constructability review meeting held during the 30% design process (assume 90 minutes duration).
- QA/QC – Prepare a Quality Assurance and Quality Control (QA/QC) plan. Each 30% design plan submittal shall be accompanied by a completed [VDOT LD-436 Quality Control Checklist](#).
- Public engagement – VHB shall plan, organize, and execute at least one (1) public meeting during 30% design. The meeting will explain the proposed design, seek feedback on it, and provide an update to the community on the overall project timeline. Furthermore, VHB shall document and gather public comments received during the meeting and share how inputs influenced the Intermodal Connector Project design.
- Participate in design coordination and progress meetings at regular intervals throughout the 30% design process with Arlington County, VDOT, external agencies, and stakeholder groups. Assume six (6) meetings total – 90 minutes each. VHB shall prepare for, lead, document meeting notes, and conduct follow-up actions for the meetings.
- Participate in bi-weekly check-in calls with Arlington County throughout Preliminary Engineering. Assume thirteen (13) meetings total – 30 to 60 minutes each. VHB shall prepare for, lead, document meeting notes, and conduct follow-up actions for the meetings.

Deliverables for this task shall establish a proof of concept that as presented is constructible given Intermodal Connector Project constraints and update the footprint and limits of disturbance of Intermodal Connector Project to define ROW needs with enough detail to allow the purchase of ROW, probable construction costs, and agency permitting and project approvals. VHB shall submit the following deliverables in their final 30% design plan package:

- An approved set of 30% design plans;
- All approved design waivers and exceptions requests that are required for the design;
- An approved GER;
- An approved RM Report;
- An approved VE study;
- A detailed, itemized Construction Cost Estimate reflecting current market prices with the assumption that Intermodal Connector Project is delivered by a design-builder;
- A milestone project schedule reflecting a design-build project delivery. The schedule should also include a suggested sequence of construction; and
- Written responses to Arlington County, VDOT, and external agency design review comments.

Additionally, VHB shall maintain a comprehensive electronic database of the Intermodal Connector Project documentation including all final documents developed during Preliminary Engineering. It is intended for the subject design documentation to be transferred to the design-builder and enable them to easily advance the design from where the 30% design concluded.

Following approval of the 30% design plans and upon a formal written notification by the County to start

the work described herein below, VHB shall perform the following bid document preparation and procurement services to advertise the Intermodal Connector Project for a potential design-build delivery:

- Assist the County in the preparation of the Requests for Qualifications (RFQs) and Request for Proposals (RFPs) for the solicitation of the Design-Build Contractor;
- Prepare technical construction specifications, which are supplemental specifications for bid items that lack a corresponding standard County and/or VDOT standard specification, including any special provisions;
- Attend the pre-proposal meetings with potential offerors – assume two (2) meetings total – 90 minutes each. VHB shall assist in the preparation and delivery of the pre-proposal presentation during these meetings;
- Support the County in responding to questions and requests for clarifications during bidding;
- Assist the County in the preparation of Addenda to RFQ and RFP. These are revisions to the bid documents while the advertisement period is still open to address errors, add/remove bid items, minor revisions to design drawings, and/or providing more clarification; and
- Assist the County in bid analyses and selection.

#### **GENERAL ASSUMPTIONS AND EXCLUSIONS**

Along with the assumptions and exclusions specified elsewhere in this scope of work document, it is assumed that:

- Unless otherwise specified above, all deliverables will be in electronic format only (PDF, Microsoft Suite software, or modeling software, as applicable).
- No field surveys other than those described above are included in this scope of work. If, upon further review, one or more of the included surveys are not needed, scope and fee may be modified to remove them.
- The alternative selected in the FEIS/ROD for implementation and further design will be one of the three alternatives analyzed in the DEIS, with no more than minor adjustments or refinements in response to agency and public comments. The FEIS will not make any substantial changes to the alternatives that are relevant to environmental or safety concerns and there will be no significant new circumstances or information relevant to environmental concerns that bears on the proposed action or its impacts. Substantial changes to one or more alternatives between the DEIS and FEIS and/or preparation of a separate FEIS and ROD would require additional effort and funding.
- Cooperating agencies will provide needed input pertaining to their respective areas of jurisdiction or expertise, as well as formal concurrence at appropriate points when applicable, in a timely manner, in accordance with a schedule to be agreed-upon at the outset of the project. The cooperating agencies will collaborate with Arlington County, VDOT, and VHB to identify reasonable timeframes for their input and reviews that are consistent with the timeframe for the project. Excessive turn-around times or unforeseen delays by cooperating agencies may result in delays to the project and additional costs.
- *Substantive comments* are considered to be comments that address some specific aspect of the project or the NEPA document, rather than simply expressing a preference for or against the

project. While there is no standard definition of substantive comments in the context of NEPA, as defined by the Bureau of Land Management, such comments do one or more of the following: question, with reasonable basis, the accuracy of information in the EIS; question, with reasonable basis, the adequacy of, methodology for, or assumptions used for the environmental analysis; present new information relevant to the analysis; present reasonable alternatives other than those analyzed in the EIS; cause changes or revisions in one or more of the alternatives (AASHTO, Practitioner Handbook 02. Responding to Comments on an Environmental Impact Statement. August 2016).