

EXHIBIT A

SCOPE OF SERVICES & PRICING

PENTAGON CITY PHASED DEVELOPMENT SITE PLAN (PDSP) UPDATE PLANNING STUDY

PROJECT SCOPE AND PHASES

A. PROJECT PHASES

- | | | |
|----------------|--|-------------------------------|
| • Phase One: | Development of Guiding Principles | [June '20 – September '20] |
| • Phase Two: | Preliminary Planning and Design | [August '20 – November '20] |
| • Phase Three: | Work Product Refinement and Completion | [December '20 – February '21] |
| • Phase Four: | Review and Presentation of Final Plan | [March '21 – May '21] |

Phase One: Development of Guiding Principles *[Total Cost of \$93,800, including \$6,400 in expenses]*

During Phase One, the Contractor will review all relevant information (including adopted plans and policies), and analyze the land use, density, building and urban form, and parks and open space issues that affect the study area. The Contractor will conduct a visit to Pentagon City of sufficient duration to complete stakeholder interviews, conduct on-site analysis, and gain a greater understanding of Pentagon City's distinct qualities, constraints, and opportunities. The purpose of Phase One is to establish and evaluate preliminary planning principles that will, once finalized, guide future redevelopment within the study area and inform subsequent phases of this planning study. Phase One will conclude with a review by the County Board (either through briefings or a more formal Work Session) to discuss the preliminary guiding principles and a refined scope of work for the remaining phases of the planning study.

Task 1.1. Review of all relevant information associated with Pentagon City [Cost of \$7,480]

The Contractor's team will review relevant information (provided by the County) to become familiar with the characteristics and physical configuration of the Pentagon City area. To the extent staff resources and data are available, the County Staff Team will provide the Contractor additional information relevant to this scope of work that may be needed. The Contractor will study existing regulations, ordinances, and previous studies and plans affecting development in Pentagon City, as well as pertinent maps and demographic data that will help inform the team about the study area and the Arlington County's development review process. As part of its review of relevant information, the team will obtain the County's existing GIS resources and information provided by a separate transportation consultant to address the following information (at a minimum):

- General character, land use patterns, and densities resulting from the PDSP implementation
- Issues of development mass (bulk, scale, height, setback, impact of topography, etc.)
- Land ownership patterns
- Amazon HQ2 Development Program and surrounding existing and planned development
- Existing, committed and planned transportation, infrastructure and community facilities
- Multi-Modal Transportation System Baseline Conditions and Trends:
 - Current and historic traffic counts
 - Transit ridership/operations data and system plans
(for Metro and ART and proposed service changes)

- Building level transportation studies
(commute mode by trip and observed trip generation)
- Bicycle and pedestrian plans, policies, and facilities (plans and projects)
- Traffic Impact Analyses submitted for future development in the study area
- ACS estimates for commute mode, travel time and household vehicle ownership
- Public spaces and natural resources
- Current housing and commercial real estate, economic and market conditions, and their associated limitations and prospects (as depicted in the 2018 HQ2 Proposal)
- Adopted policies and plan recommendations that guide future growth in Pentagon City
- 22202 Transportation Data Update Analysis Memo (2019 Update)
- Pentagon City Historical Planning Document (2019 Update)
- Livability Framework developed by the three Civic Associations for the greater 22202 area

Task 1.2. Site Visits

The Contractor will travel to Pentagon City and other areas of Arlington County as needed. The duration of site visits will be sufficient to complete the following tasks:

1.2.1. Project Kick-Off with County Staff Team [Cost of \$7,780]

Contractor will hold a project kick-off meeting with the County Staff Team to create a shared understanding of the project purpose, goals and objectives, process and schedule. The meeting will include identification of key stakeholders and their issues as well as the exchange of information, including the Historical Report of the Pentagon City PDSP, Pentagon City Planning Task Force Report, Pentagon City Master Development Plan, and Pentagon Centre Site Guiding Principles.

During this time, the County Staff Team and the Contractor will review the overall schedule and the County's proposed structure for the planning process to confirm any events, meeting frequency, the purpose for each meeting, product delivery, and associated review periods. The Contractor will also refine roles and responsibilities for each task and will be responsible for updating the outline and schedule throughout the process. The County Project Officer and Contractor Project Manager will attend project management meetings and work collaboratively to ensure that the project remains on track and on schedule. Any updates to the schedule must be accepted and approved in writing by the County Project Officer.

1.2.2. Civic Engagement Strategy [Cost of \$4,500]

The Contractor will work with County Staff Team to develop a strategy for an effective communications and civic engagement plan to inform and involve the community. The Contractor will work with the County Staff Team to carry-out the communications and engagement strategy throughout the process.

The County will establish a project website for the planning process. As part of its project work, the Contractor will generate a range of project information for the County's website, such as project updates, progress reports, presentations, draft deliverables, photographs, renderings, and related images. County staff will be responsible for maintaining the website.

1.2.3. Initial Site Visit to the Study Area & Stakeholder Interviews/Meetings [Cost of \$18,580]

Initial interviews and meetings with the County Staff Team and key stakeholders – which may include elected officials, representatives of relevant advisory commissions and councils, property owners,

business owners, civic associations, business improvement districts, community groups, Virginia Department of Transportation, and other local stakeholders (including federal, regional, and other local jurisdiction agencies outside the County) – will focus on overall project goals, objectives, and expectations. The Contractor will conduct up to 15 stakeholder interviews/meetings totaling no more than 30 hours. The Contractor will compile the results of the interviews into an initial Stakeholder Interview Report.

1.2.4. Community Kick-Off Meeting [Cost of \$8,160]

The Contractor will facilitate, with the County Staff Team, a meeting with County leaders and community members. The meeting will inform the community about the planning process, including parameters that the County Board has established regarding the scope and goals, and allow the community to provide initial input regarding specific areas of interest and concern regarding the process. The Contractor will compile the results of the public meeting into a Community Kick-Off Meeting Summary Report.

The Contractor will provide to the County Staff Team for review a draft of the presentation for the Community Kick-Off Meeting no less than 10 work days in advance of the meeting, unless otherwise allowed by the County Project Officer. The County Project Officer will be responsible for compiling all County Staff Team comments and submitting a merged set of comments and requested changes to the Contractor. The Contractor will then provide a refined draft presentation for the Community Kick-Off Meeting addressing the requested changes.

Task 1.3. Development of Preliminary Guiding Principles

Building upon the *PDSP Principles and Guidelines* (See Section G - Preliminary Resources) and work previously completed by the *Pentagon City Task Force, 1997* (See Section G - Preliminary Resources), the Contractor will develop preliminary guiding planning principles that will be used to inform the subsequent preparation of land use scenarios representing future redevelopment potential. Working with County Staff Team to facilitate these tasks, the Contractor will hold two public workshops intended to engage the community to reach a common understanding of the criteria and methodology used to develop and refine the preliminary guiding principles.

1.3.1. Public Workshop #1 [Cost of \$10,390]

Assess existing PDSP principles and guidelines to verify compatibility with the Pentagon City Task Force recommendations, the Pentagon Centre PDSP, and the community's recently developed Livability Framework. The purpose of this workshop will be to collect initial feedback and confirm priorities from stakeholders and the community while verifying the validity of previously developed guidance for Pentagon City. The Contractor will compile the results of the public meeting into a Public Workshop #1 Summary Report.

1.3.2. Public Workshop #2 [Cost of \$13,610]

The purpose of the second workshop will be to obtain feedback from stakeholders and the community on the Initial Draft of Guiding Principles, which will apply broadly within the Planning Study area and to individual blocks/parcels. As part of this outreach, the Contractor will also structure discussions and activities to ensure that a broad understanding and support can be achieved on the specific role that guiding principles will have in the review processes of future Pentagon City redevelopment proposals. The Contractor will compile the results of the public meeting into a Public Workshop #2 Summary Report.

Task 1.3.3 Develop Preliminary Guiding Principles [Cost of \$14,610]

The Contractor will incorporate feedback from public workshops and the County Staff Team to develop a revised draft of Guiding Principles for the study area for purposes of sharing them with the County Board.

Task 1.4 County Board Briefings/Work Session [Cost of \$2,290]

The Contractor will assist the County Staff Team in preparing the preliminary set of Guiding Principles and remaining scope of work/schedule that will be presented to the County Board, either as part of a series of briefings or through a work session. Prior to this engagement, the County Project Officer will be responsible for compiling all County comments on the Contractor's draft presentation and submitting a merged set of comments and requested changes to the Contractor. Based on comments received from the County, the Contractor will revise the draft presentation and will submit the revised Preliminary Guiding Principles to the County for final review.

Phase One Meetings

The Contractor will attend the following meetings as specified in the refined study process outline and schedule, described in Task 1.2-4:

- Project Kick-off Meeting (with County Staff Team) (1)
- Initial Stakeholder Interviews (20 hours)
- Community Kick-off Meeting (1)
- Public Workshops (2)
- County Board Briefings (3) or Work Session (1)

In addition to the meetings with stakeholders, County Board, and the public, the Contractor will attend County Staff Team meetings and project management meetings and will participate in bi-weekly conference calls as necessary to clarify any questions or concerns that the project team (County and Contractor) may encounter.

Phase One Deliverables (in Microsoft Word format)

The Contractor will be expected to provide to the County Staff Team for review all work products and presentations that will be shared with the community no less than 10 work days in advance of public meetings, unless otherwise allowed by the County Project Officer.

- Stakeholder Interview Report
- Community Kick-Off Presentation and Meeting Summary Report
- Public Workshop #1 Presentation and Summary Report
- Public Workshop #2 Presentation and Summary Report
- Preliminary Guiding Principles (prepared for the County Board Work Session)

Phase Two: Preliminary Planning and Design [Total Cost of \$142,650, including \$10,250 in expenses]

The Preliminary Planning and Design phase will involve the development and evaluation of preliminary land use scenarios guiding future growth within the overall planning study area. To complete this work,

the parallel transportation analysis (subject of a separate contract) will first establish a baseline condition that accounts for forecasted development activity (utilizing the most recent MWCOG forecast) from which the study area's capacity for future growth can be determined. The Contractor will then utilize this baseline information to develop multiple initial land use scenarios representing additional growth and identify strategies to address the scenarios' potential impacts. This future growth capacity, once modeled, will be expressed through a specific land use mix that maximizes the transportation network. Working with the County Staff Team to facilitate these tasks, the Contractor will structure a series of public workshops engaging the community to reach a common understanding of the criteria and methodology that will be used to develop and refine future land use scenarios.

Task 2.1. Land Use Scenario Analysis Methodology [Cost of \$10,120]

Based on the objectives for this Planning Study, the Contractor will develop for evaluation, in collaboration with the County Staff Team, a methodology for developing, at minimum, three land use scenarios. Prior to any Phase Two work commencing, the Contractor will work with the County Staff Team to determine the specific quantity and range of land use scenarios that will be prepared and reach agreement with County Staff Team on a defined approach to execute the tasks in this phase of work. The land use scenarios will inform future development patterns and should reflect a range of options (infill, partial or full redevelopment) that could possibly occur within the next 20-30 years. The land use scenario analysis will describe and help evaluate the potential for change in the physical environment and measure associated impacts, such as access to and quality of public spaces, transportation, infrastructure and community facilities in the area.

Potential Add-On Task: In the event that additional modeling (i.e. to study issues and test potential land use scenarios) may be required of the Contractor, the pricing for modeling of additional land use scenarios will be as specified in the Contract Pricing.

Task 2.1.1. Development of Land Use Scenarios and Minimum Expectations for Scenario Distinctions [Cost of \$21,660]

The land use scenarios will reflect a range of densities and scales of development (from infill to redevelopment) applied to the Planning Study area with the goal of establishing a minimum of three area-wide scenarios. One area-wide scenario, for example, could distribute higher density across the majority of the study area, while another scenario could concentrate it in limited areas. The land use scenarios will be developed using the transportation modeling tool, established by another Contractor through a separate scope of work, which will allow the County Staff Team to see the interactions and implications of various land use scenarios on the transportation system. The land use scenarios will also include recommendations (e.g., street sections, intersection improvements, public space locations, and public facility recommendations) that correlate with the levels of density in the land use scenarios.

Task 2.1.2. Land Use Scenario Analysis and Minimum Expectations for Scenario Evaluation [Cost of \$66,180]

The land use scenario analysis will include an evaluation of specific outcomes and additional performance indicators, as described below, to compare the land use scenarios. The Contractor will work with the County Staff Team to determine which specific outcomes and additional performance indicators will be most appropriate to evaluate for the initial land use scenarios.

At a minimum, the following specific outcomes of this analysis will include:

- Potential development in terms of square footages of commercial and residential development, residential units, and other uses as proposed
- Building typologies
- Recommendations for changes to the land use designations on the GLUP and zoning (i.e. density, floor area ratio and height)
- Urban design, transportation, and/or other choices to achieve desired change
- Overall potential for new development to contribute to the achievement of community improvements, such as new/modified streets, streetscape and other infrastructure improvements, affordable housing, open space, and screened/structured/underground parking
- Likelihood and/or timing of the changes to occur, based on an understanding of market conditions and trends
- Extent to which the land use scenarios are consistent or in conflict with the community's Livability Framework and goals identified through the community engagement process held prior to this task
- An evaluation of the general economic and development feasibility for each land use scenario

In addition to summarizing the specific outcomes stated above, the Contractor will also summarize up to ten additional performance indicators and develop a rating system to compare the land use scenarios. Additional performance indicator topics could include:

- Transportation and parking impacts
- Demand for public facilities and school enrollment
- Public/private partnership opportunities for development of public facilities
- Sustainability
- Ease of implementation
- Appropriate neighborhood transitions

Ultimately, the land use scenario analysis will frame a realistic set of expectations around how land use scenarios could potentially achieve the desired County and community goals. The land use scenario analysis will also help the Contractor and the County Staff Team identify the strategies and locations for implementation actions and timing.

Task 2.2 Co-facilitate Public Outreach [Cost of \$6,920]

Working with the County Staff Team to facilitate these tasks, the Contractor will design, develop, and execute two public workshops intended to engage the community in a discussion of potential criteria and methodology that would be used to develop and refine the subsequent land use scenarios. These workshops will be hands-on in nature, providing the community members the opportunity to interact with others who hold various perspectives and to identify and resolve issues. The scheduling and format of these workshops will be tailored to obtain the best possible community input to inform the future work products. The workshops will incorporate findings and discussion of previous planning efforts and community outreach within the study area. In preparation for these workshops, the Contractor will work

with the County Staff Team to devise a creative public outreach plan that effectively engages a broad range of participants.

Task 2.2.1. Generate Base Maps [Cost of \$1,970]

The Contractor will work closely with County Staff Team to obtain the information necessary to generate the base maps and other materials for these workshops. The materials will likely include elements such as color aerial images at appropriate scales as well as GIS base data for the Pentagon City and Crystal City Metro Station areas.

Task 2.2.2. Public Workshop #3 [Cost of \$13,520]

The purpose of the third workshop will be to obtain feedback from stakeholders and the community on the initial land use scenarios. As part of this outreach, the Contractor will structure discussions and activities to rank alternative growth scenarios and collect community feedback on those scenarios that meet previously identified preliminary guiding principles. The Contractor will compile the results of the public meeting into a Public Workshop #3 Summary Report.

Task 2.2.3. Public Workshop #4 [Cost of \$12,030]

After the Contractor and the County Staff Team assess and address feedback from the third public workshop, one or more revised land use scenarios will be developed to reflect where consensus has been reached and identify areas or topics that may require additional dialogue. The revised land use scenario or scenarios will be shared as part of a fourth public workshop. As part of this outreach, the Contractor will also structure discussions and/or activities to ensure a broad understanding of each scenario and to collect feedback on those scenarios that meet previously identified guiding principles. The Contractor will compile the results of the public meeting into a Public Workshop #4 Summary Report, in which they will also formulate a preferred land use scenario based on feedback obtained during the initial phases of study.

Phase Two Meetings

The Contractor will attend and actively participate in the following meetings as specified in the study process outline and schedule (as refined in Task 1):

- Public Workshops (2)

In addition to the meetings with stakeholders and the Public, the Contractor will attend County Staff Team meetings and project management meetings and will participate in bi-weekly conference calls as necessary to clarify any questions or concerns that the project team (County and Contractor) may encounter.

Phase Two Deliverables (in Microsoft Word format)

The Contractor will be expected to provide to the County Staff Team for review all work products and presentations that will be shared with the community no less than 10 work days in advance of public meetings, unless otherwise allowed by the County Project Officer.

- Public Workshop #3 Presentation and Summary Report
- Public Workshop #4 Presentation and Summary Report

Phase Three: Work Product Refinement and Completion *[Total Cost of \$84,510, including \$5,130 in expenses]*

During Phase Three, the Contractor will ensure that the concepts and ideas generated during Phases 1 and 2 are further refined to illustrate the community's updated vision for the Pentagon City area, as expressed at a minimum through a preferred land use scenario. Graphics and written material will be prepared to explain the preferred scenario and the corresponding features of the proposed use and density program, including urban design and streetscape elements, building heights, transportation infrastructure, and public realm recommendations. Land use scenarios and guiding principles will be finalized, incorporating feedback from the County Staff Team and the community. In order to achieve these goals, the Contractor will complete the following tasks:

Task 3.1. Develop an Implementation Strategy *[Cost of \$22,730]*

The Contractor will incorporate feedback from the County Staff Team and the community to develop a final set of Guiding Principles for the study area. Building upon the preferred land use scenario established in Phase Two, the Contractor will identify both short and long-term strategies to implement the updated vision for Pentagon City and suggest mechanisms that can monitor progress towards achieving the updated goals. This will include the potential location of buildings, configurations of bulk and height, relationship of public rights-of-way, network of public spaces, gateway or focal points and overall accessibility throughout the Pentagon City area. Specific transportation improvements and service enhancements to improve mobility and safety within and around the Pentagon City area for all travel modes will also be included. Building upon the preferred land use scenario, the final product will represent an illustrated physical master plan demonstrating the updated vision for Pentagon City, to be supported by more specific recommendations, guidelines, and implementation strategies that convey any associated adjustments to the General Land Use Plan (GLUP), Zoning Ordinance, and/or Pentagon City Phased Development Site Plan (PDSP).

Task 3.2. Create a Pentagon City PDSP Update Planning Study Plan *[Cost of \$46,090]*

The Pentagon City PDSP Update Planning Study will be documented in a concise plan summarizing the community process, building form and urban design guidelines, planning analysis, forecasted plan buildout under the preferred land use scenario, and the implementation strategies reflecting improvements to Pentagon City's transportation infrastructure, public open space network, and community facilities. The plan will be written for the use of the public, developers, property owners, County staff, and County Board Members to ensure a coordinated effort in managing Pentagon City's ongoing evolution as a transit-oriented neighborhood. This plan will include many of the two-dimensional graphics developed during the planning process. Additionally, this plan will include at least four perspective drawings rendered in color and showing examples of typical streets, plazas, parks, specific locations or projects of importance, or other significant design concepts as agreed upon by the Contractor and the County Staff Team. The Contractor will provide this plan to the County in suitable electronic formats, including PDF and InDesign files. In addition to the hypothetical build-out, the plan will include a summary of the following elements:

- Community outreach process
- Planning analysis
- Preferred vision and land use patterns
- Urban design elements affecting the pedestrian experience
- Future building heights, tapering, placement, and orientation

- Transportation projects and service enhancements
- Parks and Open Space projects
- Implementation and phasing strategies

The plan will include many of the diagrams and maps generated throughout the Planning Study. The visuals included in the final plan will be submitted to the County in GIS, Adobe Illustrator, or other formats acceptable to the County and should illustrate Pentagon City's key characteristics such as:

- Pedestrian and vehicular networks
- Parks and open space networks
- Building heights
- Building types and/or street types
- Anticipated development phasing (if applicable)
- Architectural elements

The plan will include detailed urban design guidelines affecting the pedestrian experience depicted through a combination of text, diagrams, photos, and other graphics. Examples of the specific urban design guidelines affecting the pedestrian experience to be addressed in this section include:

- Public realm elements (e.g. streets, sidewalks, open spaces)
- Ground-floor retail locations
- Treatment of tall buildings
- Gateways and focal points

In addition to the urban design guidelines, the plan will also include detailed guidance on issues affecting building height and tapering in Pentagon City. This will include guidance using text, diagrams, and photos. Recommendations to address tall building design issues will include:

- Creating a 3D computer model of Pentagon City and adjacent areas to study issues, test solutions for tall building design, and allow for simulated fly/drive/walk-throughs to effectively communicate a sense of the spaces and pattern of development proposed by the plan.
- Depicting specific building height limits for each block.
- Identifying policies and strategies to balance the desire for protected view corridors and a more interesting skyline.
- Addressing tradeoffs between prescription and flexibility regarding building height issues.
- Identifying strategies to achieve appropriate transitions between the Pentagon City and surrounding lower scaled areas to the south.
- Identifying the economic issues affecting the form of tall buildings.
- Exploring preferred strategies for the screening of any above-grade parking.

In addition, the plan will include detailed guidance on issues ranging from transportation, parking, parks and open space, and community facilities within Pentagon City. This guidance will also be communicated using text, diagrams, and photos. The plan's transportation recommendations will be derived through a series of efforts, largely including the outcome of the parallel transportation analysis (subject of a separate scope of work). The transportation recommendations will include representative street cross-sections, as necessary, to illustrate the preferred dimensions of the overall public right-of-way (between building

faces) and the specific allocation of street space within the public right-of-way, as well as potential areas for locating service and parking access, transit opportunities, pedestrian and bicycle facilities, and curb space strategies

Task 3.3. Continued Management of Public Outreach [Cost of \$10,560]

The Contractor will work with County Staff Team to continue the public outreach process initiated in the earlier phases of the project. The Contractor and County Staff Team will collaborate on future meetings for Phase Three so that the community continues to be engaged regularly throughout the refinement and completion of the draft Pentagon City PDSP Update Planning Study Plan. While it is expected that many of the outreach mechanisms used earlier in the process may be continued, there will be opportunities to determine whether new methods of outreach and engagement would benefit the process. The Contractor will also need to continue attending County Staff Team meetings and project management meetings and participate in bi-weekly conference calls as necessary.

Phase Three Deliverables (in a Microsoft Word format)

The Contractor will be expected to provide to the County Staff Team for review all work products and presentations that will be shared with the community no less than 10 work days in advance of public meetings, unless otherwise allowed by the County Project Officer.

- Summary Reports of any larger public engagement efforts
- Draft Pentagon City PDSP Update Planning Study Plan (InDesign & PDF format)

Phase Four: Development, Review and Presentation of Final Plan [Total Cost of \$37,170, including \$3,850 in expenses]

Once a draft Pentagon City PDSP Update Planning Study Plan has been completed, the County's formal public review process will begin, leading up to public hearings at the Planning Commission and County Board. During this final phase, the Contractor will prepare a final draft of the plan for public review and will participate as needed in public presentations.

Task 4.1. Community Review of the Draft Pentagon City PDSP Update Planning Study Plan [Cost of \$19,500]

The Contractor will submit the Refined Draft Pentagon City PDSP Update Planning Study Plan, in paper copy and electronic file format, to the County Staff Team and the community for review. The County Staff Team and the community will be given adequate time to review and submit comments to the Contractor. The County Project Officer will be responsible for compiling all County comments and submitting a merged set of comments and requested changes to the Contractor. The County Staff Team will present the final draft Pentagon City PDSP Update Planning Study Plan in person to the community, various County Commissions (as appropriate), and the County Board.

Task 4.2. Presentation of Final Pentagon City PDSP Update [Cost of \$13,820]

The Contractor will submit the Final Pentagon City PDSP Update Planning Study Plan document, in paper copy and electronic file format, to the County Staff Team and the community for review. The County Project Officer will be responsible for compiling all County comments from any presentations, documents, and meetings and submitting a merged set of comments and requested changes to the Contractor. Based on comments received from the County, the Contractor will revise the document and will submit the

revised Final Pentagon City PDSP Update Planning Study Plan to the County for final review. The County Staff Team will present the final Pentagon City PDSP Update Planning Study Plan in person to the various County Commissions (as appropriate), and the County Board.

B. FINAL WORK PRODUCTS

The Contractor will produce visual and written deliverables (as described below) in conjunction with the professional services described in this solicitation. This will include narratives, maps, renderings, photographs, exhibits, tables, and other elements produced from various summary reports or presentations during this study. The Contractor will propose a timeline for delivering the items below to allow for sufficient time to analyze, discuss and develop high-quality, complete deliverables for acceptance by the County Project Officer. Specifically, Phase Four will include the development of a Final Pentagon City PDSP Update Planning Study Plan product, including, at a minimum:

- Recommendations for Zoning Ordinance, General Land Use Plan, and Pentagon City PDSP amendments
- Concept Plans for proposed use mix, densities, building height, form and tapering, multimodal access and circulation, parking and loading, public open spaces
- Proposed low- and moderate-income housing opportunities and strategies
- A capacity report that identifies planned and proposed community improvements associated with future Pentagon City growth within the study area, including, but not limited to, infrastructure, transportation, community facilities and public spaces
- Guiding principles and supporting urban design guidelines for the Pentagon City study area

C. PROJECT DELIVERABLES

Successful completion of the project deliverables in terms of scope, quality, budget and schedule is of the highest priority. The Deliverables must be easy-to-read documents that clearly communicate information, findings and/or recommendations.

The Contractor will be expected to provide to the County Staff Team for review all work products and presentations that will be shared with the community no less than 10 work days in advance of public meetings, unless otherwise allowed by the County Project Officer. Each deliverable and any updates to the schedule must be accepted and approved in writing by the County Project Officer. If a deliverable is rejected by the County Project Officer, the Contractor will revise the deliverable in the timeframe reasonably determined by the County Project Officer and resubmit the deliverable for approval, at no additional cost to the County.

The Contractor must submit the deliverables (including documents and images/graphics, such as photographs, maps, diagrams) in suitable electronic and native file formats (including Word, PDF, Powerpoint, InDesign, Photoshop, JPEG, Illustrator, GIS, SketchUp and Auto Cad) according to County specifications (including naming of layers, geo-referencing etc.). File formats must be compatible with Microsoft Office 2016/Office 365, Adobe Creative Suite 2015 and Autodesk 2016. All deliverables must be Windows 7 and 10 compliant, with Windows 10 preferred.

D. PROJECT COSTS

Phase One: Development of Guiding Principles [Total Cost of \$93,800, including \$6,400 in expenses]

Task 1.1. Review of all relevant information associated with Pentagon City [Cost of \$7,480]

Task 1.2. Site Visits

- 1.2.1. Project Kick-Off with County Staff Team [Cost of \$7,780]
- 1.2.2. Civic Engagement Strategy [Cost of \$4,500]
- 1.2.3. Initial Site Visit to the Study Area & Stakeholder Interviews/Meetings [Cost of \$18,580]
- 1.2.4. Community Kick-Off Meeting [Cost of \$8,160]

Task 1.3. Development of Preliminary Guiding Principles

- 1.3.1. Public Workshop #1 [Cost of \$10,390]
- 1.3.2. Public Workshop #2 [Cost of \$13,610]
- 1.3.3 Develop Preliminary Guiding Principles [Cost of \$14,610]

Task 1.4 County Board Briefings/Work Session [Cost of \$2,290]

Phase Two: Preliminary Planning and Design [Total Cost of \$142,650, including \$10,250 in expenses]

Task 2.1. Land Use Scenario Analysis Methodology [Cost of \$10,120]

Task 2.1.1. Development of Land Use Scenarios and Minimum Expectations for Scenario Distinctions [Cost of \$21,660]

Task 2.1.2. Land Use Scenario Analysis and Minimum Expectations for Scenario Evaluation [Cost of \$66,180]

Task 2.2 Co-facilitate Public Outreach [Cost of \$6,920]

Task 2.2.1. Generate Base Maps [Cost of \$1,970]

Task 2.2.2. Public Workshop #3 [Cost of \$13,520]

Task 2.2.3. Public Workshop #4 [Cost of \$12,030]

Phase Three: Work Product Refinement and Completion [Total Cost of \$84,510, including \$5,130 in expenses]

Task 3.1. Develop an Implementation Strategy [Cost of \$22,730]

Task 3.2. Create a Pentagon City PDSP Update Planning Study Plan [Cost of \$46,090]

Task 3.3. Continued Management of Public Outreach [Cost of \$10,560]

Phase Four: Development, Review and Presentation of Final Plan [Total Cost of \$37,170, including \$3,850 in expenses]

Task 4.1. Community Review of the Draft Pentagon City PDSP Update Planning Study Plan [Cost of \$19,500]

Task 4.2. Presentation of Final Pentagon City PDSP Update [Cost of \$13,820]

TOTAL PROJECT COST: \$358,130 (INCLUDING \$25,630 IN EXPENSES)

E. COUNTY RESPONSIBILITIES RELATED TO SCOPE OF WORK

In addition to the responsibilities detailed above, County will, when applicable, offer the following support to Contractor in order to facilitate the timely completion of Work under this Agreement:

- The County will provide a Project Officer as a single point of contact.
- A County Staff Team from a range of sections within the Department of Community Planning, Housing, and Development (including Comprehensive Planning) and other departments will regularly attend and participate in project meetings as appropriate.
- The County will support the Contractor's public outreach program and will solicit the attendance of third parties whose participation the County considers important.
- The County will make every effort to ensure the attendance of elected County officials, commission members, and stakeholders, as appropriate, at key meetings, workshops, and presentations.
- The County will provide for or coordinate the provision of appropriate meeting rooms for all meetings, workshops, presentations, and other activities.
- The County will ensure proper coordination with and access to the transportation consultant that is developing associated work products subject to an independent scope of work.

F. GENERAL RESPONSIBILITIES

Communication: The Contractor will ensure that the County Project Officer is copied on all direct communication between the Contractor and the County Staff Team.

Offeror Equipment: The Contractor is solely responsible for its own equipment, and the County will not be liable for any loss, damage, or theft thereof.

Issue Management: The Contractor will identify, track, prioritize and resolve or mitigate all project-related issues and will document issue management in a template approved by the County Project Officer. Issues will be reviewed by the County Staff Team in the regular meetings, which may occur via telephone or web conference calls. The team will determine a course of action and owner for each issue. The issue will be tracked through resolution and closed when complete.

Meetings: All meetings will be scheduled by the Contractor or the County Project Officer via the County's MS Outlook calendaring system, as determined by the County Project Officer. Meetings may be ad hoc or follow a regular schedule as necessary. Status meetings will be held as needed on a day, time, and frequency determined by the County Project Officer. The Contractor will record minutes of all meetings (including interviews and public meetings), unless the County Project Officer determines that meeting summaries are acceptable and will provide the minutes (or summaries) electronically to the County Project Officer. The Contractor will provide a sufficient number of copies of agendas and handouts for all onsite meetings, unless the County Project Officer agrees otherwise.

Project Control: The Contractor will maintain the detailed project schedule and update it as determined by the County Project Officer as tasks, assignments, and timing change. The schedule will include all Contractor, subcontractor and County personnel with project tasks and must include planned, actual and forecasted schedule by month over the course of the project.

Status Reporting: The Contractor will report on the status of the project in a form that includes at a minimum tasks completed in the past week(s), tasks worked on during the past week(s), percentages of completion by phase and/or tasks, tasks planned to be worked on during the upcoming week, tasks planned to be started the week after next, open issues/status/recommended actions, change orders,

risks/status/recommended actions, a comparison of actual expenditures to planned expenditures and re-forecasting on a County-defined regular interval.

G. PRELIMINARY RESOURCES

The following is a preliminary list of resources that will be available to the Contractor for use during the study.

- [Pentagon City Phased Development Site Plan \(PDSP\)](#) (1976)
- [Pentagon Centre Phased Development Site Plan \(PDSP\)](#) (2008)
- [Potomac Yard Phased Development Site Plan \(PDSP\)](#) (2000)
- [Pentagon City Planning Task Force Report](#) (1997)
- [Crystal City Sector Plan](#) (2010)
- [Arlington Ridge](#) (2013) and [Aurora Highlands](#) (2008) Neighborhood Conservation Plans
- [Northern Virginia's proposal for new Amazon Headquarters](#) (2018)
- [22202 Transportation Data Update Analysis Memo](#) (2015)(2020 Update in progress)
- Historical Report on the Pentagon City PDSP Update [Part 1](#) | [Part 2](#)
- [Comprehensive Plan](#)
 - [General Land Use Plan](#)
 - [Affordable Housing Master Plan](#)
 - [Master Transportation Plan](#)
 - Goals and Policies
 - Map
 - Streets Element
 - Pedestrian Element
 - Bicycle Element
 - Transportation Demand and System Management Element
 - Transit Element
 - Parking and Curb Space Management Element
 - Transit Development Plan
 - [Public Spaces Master Plan](#)
 - [Community Energy Plan](#)
- [Zoning Ordinance](#)
- [Arlington County's Green Building Incentive Policy for Site Plans](#)
- [Livability Framework and Action Plan](#) (developed by Civic Associations of the greater 22202 area)

Pentagon City Phased Development Site Plan (PDSP)

Transportation Analysis Scope of Work

PROJECT BACKGROUND

The Pentagon City area is an urban, multimodal focused area, adjacent to the Pentagon, I-395, and several important regional transportation options. This area is an attractive place for businesses and residents as is evidenced by a surge in recent development proposals and the announcement of a large corporate headquarters. The interest in additional development has prompted the County to study the potential for increased density.

Arlington County, under a separate effort is preparing to update the Pentagon City PDSP Planning Study. The anticipated goal of the update is to define the vision, goals, policies, land uses, density, planning and urban design guidelines, local infrastructure capacity and community facilities necessary to support future growth.

APPROACH AND UNDERSTANDING

This study will supplement the planning efforts by evaluating the impact of different land-use changes on the transportation network. The consultant will develop macro & micro-simulation traffic models of the Pentagon City/Crystal City areas. This effort will ultimately be used to inform and support the planning analysis as well as become a tool to evaluate specific development projects in the area moving forward. The intent of this study is to act as a regional Traffic Impact Analysis for general changes to land use.

The Consultant shall perform a traffic and operations analysis that covers the study area and reflects the incorporation of the known future developments as well as land use changes proposed by the planning study. This analysis shall identify opportunities to improve transportation while considering the operations of all modes of travel.

The Consultant shall closely coordinate this study with Arlington County's Project Manager and ensure that the results of the analysis meet the technical requirements for generating an accurate simulation.

The Consultant shall evaluate proposed scenarios and provide recommendations on how to mitigate the additional trips generated by future development.

SCOPE OF SERVICES

This scope outlines the requirements for the traffic and operations analysis with the goal of providing a flexible set of services to support the County in its evaluation.

The Consultant shall be responsible for the successful execution of the following tasks and deliverables, which are by illustration and are not limited to:

Task 1 - Project Management

The Consultant shall appoint a Project Manager (PM) who will serve as the primary point of contact between the County and the Consultant team. The County PM and the Consultant PM shall be responsible for primary project communications. All direction regarding the work described in this scope shall be issued from the County PM. The Consultant shall not make any modifications to the work without verification from the County PM. The Consultant PM is responsible for managing their team's work as well as keeping the project on schedule and within the budget.

The Consultant shall provide a monthly progress report to the County PM and to include at a minimum: an ongoing meetings/coordination log, actual project schedule updates, comparison with the project baseline schedule, and any relevant project matters (either ongoing, or which have occurred since the previous progress report).

Meetings and Coordination:

The following meetings will be expected between the Consultant and County Staff at the project location or at the County:

1. A kick-off meeting to confirm the scope of the study and discuss overall project administration and expectations.
2. Up to two meetings in person after the submittal of the traffic analysis report to review County's and Stakeholders' comments.
3. Bi-weekly conference calls as necessary to clarify any questions or concerns that the project team may encounter.
4. Other technical issues such as the proposed station stop locations, traffic analysis, etc. will require other meetings that are covered under the respective technical portion of the scope.
5. Attendance at a public meeting with Stakeholders to present traffic and operations results and respond questions.

Deliverables:

- Work plan and schedule
- Presentation materials and staff support for as many as two stakeholder meetings

Task 2 – Data Collection

The Consultant shall collect traffic data and develop projected traffic volumes to generate a VISSIM model of study area. The model will be based on the I-395 HOT Lane models. Arlington County will provide relevant information and any additional data available, to include:

1. Transit service and operations plan (including estimated dwell times for the proposed stations)
2. Traffic control data: Traffic signal phasing and timing.
3. The Consultant will identify additional data collection needs before finalizing the scope of work.

The Consultant shall review the following existing Information and collect additional data as necessary for the Work:

- a. Engineering plans for related or adjacent projects
- b. Synchro Files
- c. VISSIM Files for the I-395 HOT Lanes Traffic Study

- b. Field Survey including spot speed collection where needed for calibration

Task 3 – Travel Demand Forecasting & Sensitivity Analysis

The Consultant shall take information from the planning study to develop up to four scenarios for traffic simulation:

- Existing Conditions and Base Year (2019)
- 2040 Base Conditions with Background
- 2040 Development Scenario 1
- 2040 Development Scenario 2
- 2040 Selected Development Scenario

The Consultant shall utilize the latest version of the officially adopted MWCOC model as a starting point for future year forecasting. The consultant will then refine the base year travel demand model to add missing links, correct coding errors, split zones, and adjust centroid connectors. The consultant shall use the County's more defined Traffic Analysis Zones (TAZs) to better capture the trips between "block-level" zones in the study area.

Additionally, the consultant shall run a sensitivity analysis regarding land use within the study area to understand the relationship between general capacity of the network and land use. This will require the consultant to adjust the trip table and land use data for the future year. The consultant shall also incorporate major changes to the network for identified future year projects.

The consultant will review the sensitivity analysis with County staff to determine the approximate level of development for each of the future year scenarios. This level of development shall be coordinated with County planning efforts.

Deliverables:

- Documentation regarding modifications and calibration in accordance with FHWA procedures and industry practice.
- Documentation regarding the sensitivity analysis and the

Task 3 – VISSIM Analysis

The Consultant shall submit deliverables which meet the County's standards with respect to data collection, output data, calibration and validation as specified below, **unless otherwise agreed upon by the County and the Consultant**. Supporting documentation which (1) describes the methodologies used, and (2) declares the undelaying assumptions made by the Consultant shall be included with the Calibration Memo and Traffic Analysis Report submission(s). The Consultant shall develop a build and no build conditions VISSIM models as per the attached concept plan.

Methodology:

- Volume Balancing
 - The Traffic Volumes for the network links (roadways) within the area of influence for the following scenarios:
 - Model base year (2019) conditions
 - Model design year (2040) conditions (with no additional development)

- Model design year (2040) conditions (with additional development)
- Model design year (2040) conditions (with additional development and mitigations)
- Model Development:
 - The Consultant shall discuss the VISSIM model area with the County before the start of modeling effort.
 - **The consultant shall utilize existing County Synchro models as well as VISSIM files from the I-395 HOT Lanes study to provide a starting point for the analysis.**
 - The Consultant shall provide MOE (Measures of Effectiveness) for study intersections as indicated in the study project area.
 - Model Travel Times: Model travel times shall be within one minute (+/-1 minute) for routes with observed travel times that are less than seven minutes. Modeled travel times shall be within fifteen percent (+/- 15%) for routes with observed travel times greater than seven minutes.
 - Travel time calibration shall be performed for the following corridors;
 - Route 1
 - Army Navy Drive
 - Crystal Drive
 - Eads St
 - Volumes: Field volumes and model output volumes shall be compared using the GEH Statistic. $GEH = [2(m-c)^2/(m+c)]^{0.5}$ where m =model output traffic volume (vph) and c = input traffic volume (vph) with $GEH < 5.0$ as a default acceptable fit criterion unless stated otherwise.
 - Number of Simulation Runs: The number of simulation runs conducted shall be sufficient to establish 95% statistical significance ($\alpha = 0.05$ for one-sided Student's t-statistic, $\alpha = 0.025$ for two-sided Student's t-statistic) between compared data sets for selected measures of effectiveness.
 - Queuing Comparison: Modeled and observed queues shall be compared qualitatively.
- Validation:
 - Model validation shall be based on (i) Vehicle Throughput and (ii) Field Observed Queues
 - The Consultant shall collect existing travel data to validate speeds and general traffic behavior.
- Output Data:
 - Output data shall include tabulated intersection and approach delays, 95th percentile queues, simulated vs. balanced traffic volumes as well as major corridor travel times.

Deliverables:

1. Validation and Calibration Memo
2. Volume Balancing Worksheets
3. Proposed Phasing Diagrams
4. VISSIM model files (including simulation outputs)

Task 4 - Traffic and Operations Analysis Report

The Consultant shall develop a traffic analysis report that details the anticipated impacts of the project as well as operational characteristics of the corridor during peak and off-peak hours.

The traffic analysis report shall follow the guidelines outlined in the VDOT Traffic and Operations Analysis Toll Guidebook and contain the following information:

1. Existing data collection for vehicles, bikes, and pedestrians
2. Traffic impacts during AM & PM peak period including delays, level of service, and queuing.
3. Transit travel time throughout the model area
4. An evaluation of the selected scenarios that includes the following considerations:
 - a. Operations of the Transit service through the study area including critical segments and intersections
 - b. Signal operations, lane configurations, and impacts to travel times throughout the corridor
 - c. Geometric recommendations for items such as additional capacity, turn lane additions, and improving storage lengths throughout the study area
5. The Consultant shall provide recommendations for refinement of the network including recommended operational improvements, geometric improvements, and capacity improvements. The Consultant shall identify potential ways to improve transportation throughout the study area.

Deliverables:

1. Traffic Analysis Report and related appendices in both MS Word (for review) and PDF formats

Schedule

The Consultant's services will be required immediately after the issuance of the task order award and Notice to Proceed authorization, which is anticipated in November 2019. A tentative schedule is shown below:

- **Within 6 Weeks of NTP:** The travel demand modeling shall be completed along with data collection.
- **Within 10 Weeks of NTP:** the base scenario VISSIM models along with the calibration memo shall be submitted for review.
- **Within 16 Weeks of NTP:** the future year VISSIM models along with the draft traffic report shall be submitted for review.
- **Within 22 Weeks of NTP:** the consultant shall submit the final traffic report as well as the VISSIM model for the future year with mitigations.

Generally, the Consultant shall prepare a schedule given the deliverables listed in the tasks above which allows for the completion of the analysis within 6 months. The Count will work with the consultant to develop an approved project schedule within 10 days of NTP. The County review time for all submittals shall be assumed to be 2 weeks for scheduling purposes.

Transportation Analysis Boundary

