

EXHIBIT A

Scope of Work

WATR SA/OA RFQ – SCOPE OF WORK

Staff Augmentation/Owner Advisor Services

DOTI intends to competitively procure a new professional services on-call contract for staff augmentation/owner advisor (SA/OA), that will be compliant with federal contracting requirements, outlined in **Attachment 4: Sample Agreement**, as well as meeting DBE participation goals on a Task Order by Task Order basis. One On-Call Contract is intended to be awarded and Task Orders will be issued for specific scopes of work. The initial SA/OA services for the first 3 years of the program are estimated at a value of \$30M.

The City will maintain control of program management for WATR. It is anticipated that the SA/OA team members will work closely with City staff and staff from the US Army Corps of Engineers (USACE) to create a blended team with diverse expertise. It is extremely important that the SA/OA team approach this Program with a goal of high levels of communication and inclusion with the blended team approach.

The selected firm will report to the Program Director and work closely with other team members by providing expertise, standards, processes, comparative data, and systems that facilitate effective deliverables as assigned by Task Order. The characterization of this solicitation is primarily Staff Augmentation for the functional areas/categories noted below and secondarily as Owner Advisor. descriptions below identify anticipated key roles and responsibilities for the life of the Program according to alternative delivery phases. It is assumed that the future design and construction alternative delivery contract(s) will be Construction Manager/General Contractor (CM/GC), Progressive Design Build (PDB), or some combination of the two. Anticipated alternative delivery phases for the project include the following:

- **Phase 0:** Project definition and pre-solicitation conceptual/preliminary design in advance of CM/GC and/or PDB solicitations; communications and stakeholder coordination and engagement
- **Phase 1:** Facilitation and programmatic/technical support of stand-alone design plus pre-construction services for CM/GC or combined design/preconstruction services for PDB; communications and stakeholder engagement
- **Phase 2:** Construction progress monitoring and potential construction management/services during construction to support construction performed by the CM/GC and/or PDB; communications and stakeholder engagement
- **Phase 3:** Monitoring of warranty claims and/or oversight of long-term performance period and/or adaptive management, where required

Descriptions of the anticipated functional areas/categories, specific tasks, and qualifications may include, but are not limited to, the following:

Exhibit 1: Staff Augmentation/Owner Advisor Support Management

Short Description:

Work closely with Program Director, Program Implementation Manager and other program leaders to support in program management. Coordinate/oversee on-call team and task orders. Advise as key challenges arise.

Primary Scope Elements by Phase:

<p>Phase 0 + Phase 1 + Phase 2 + Phase 3</p>	<ul style="list-style-type: none">• Support program leaders and cross-functional teams in developing scope, deliverables, required resources, work plan, budget, and timing for program• Identify key program requirements and develop tools, processes and systems to ensure requirements are met• Work with program leaders to develop and manage budget and ensure accountability against established program goals/objectives• Work with other program managers and technical leads to identify risks and opportunities across multiple projects within the program• Produce program reports for managers and stakeholders• Facilitate change management
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Key Position Skills and Requirements:

- Exceptional leadership, time management, facilitation and organization skills
- Demonstrated knowledge of techniques/methodologies for program planning, governance, monitoring and controls
- Wide-ranging experience with program management tools, applications and reporting models
- Detailed knowledge of budget and resource allocation processes/procedures
- Ability to find innovative ways of solving or pre-empting problems
- Outstanding knowledge of change management principles and performance evaluation processes
- Sufficient experience and credibility to advise project teams on their work in support of program needs
- Collaborative mindset and the ability to create a sense of community/continuity among members of the project teams

Exhibit 2: Technical Services

Short Description:

Support the City's scope definition and preliminary/conceptual design. Provide relevant technical criteria development and engineering related services to support project definition for procurement of a CM/GC and/or PDB, with follow-on support by delivery phase to review and facilitate design development by others and to validate the performance of design and construction by others.

Primary Scope Elements by Phase:

<p>Phase 0</p>	<p>Provide the City with pre-solicitation project definition and support of the technical aspects of the procurement process. Design scope generally limited to:</p> <ul style="list-style-type: none"> • Confirm feasibility of the project (e.g., sizing, site constraints, baseline technology, permitability) • Define the project definition to the extent needed to develop an accurate estimate of construction cost at a AACE Class 5 or 4 level of confidence • Establish a thorough scope of work to support the procurement process (e.g., minimum required scope, optional scope) • Advance project options to support environmental clearances and early permitting activities needed prior to issuance of an RFP • Define any technologies or approaches NOT acceptable to the City • Define project technical criteria, both performance and prescriptive, as required for a PDB contract • Establish/finalize Habitat Unit tracking methodology
<p>Phase 1</p>	<p>Post CM/GC and/or PDB award Phase 1 support to:</p> <ul style="list-style-type: none"> • Facilitate the design development and review process • Assist the City with design and scope decisions • Track scope change • (for PDB) Refine and finalize performance criteria and Acceptance test requirements • Habitat unit modelling and tracking during design
<p>Phase 2</p>	<p>Phase 2 Construction support to:</p> <ul style="list-style-type: none"> • Support designer-CM/GC RFI process • (for PDB) Monitor PDB's RFI procedures • (for PDB) Validate PDB's Acceptance test performance for Substantial Completion • Habitat unit verification
<p>Phase 3</p>	<p>Post completion support to:</p> <ul style="list-style-type: none"> • Assist with and validate warranty claims • Monitor and assess long-term performance against contractual criteria

	<ul style="list-style-type: none"> • Assist with adaptive management implementation measures and oversight • Monitor Habitat Units
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Key Position Skills and Requirements:

- A minimum of 7-10 years of experience in specific Technical Services discipline on large-scale civil infrastructure projects. Experience with Federal Emergency Management Agency (FEMA), USACE, MHFD, CCD and other regulatory bodies, and knowledge of local and federal codes and regulations is highly desirable.
- Current professional licensure in discipline (PE, PLS, PLA, etc.) in the State of Colorado is required for functional lead and discipline leads
- Proven experience in a leadership role for large-scale infrastructure projects, preferably delivered via alternative delivery and of similar technical nature.
- Excellent communication and team leadership skills.
- Ability to manage multiple stakeholders and balance competing priorities.
- Demonstrated experience overseeing a multidisciplinary technical team within the alternative delivery framework, production of construction drawings and specifications, and coordinating with construction contractors.
- A Bachelor's or Master's degree in Civil Engineering, Environmental Science, Surveying, Landscape Architecture or a related field to Technical Service required.

Specialty disciplines to support this scope may include, but are not limited to:

Civil Engineer (Hydrology and Hydraulics): Experience in developing, analyzing and giving advice on various calculations and software analysis methods for in stream and piped storm systems, scour analysis, sediment transport, and fish passage design to determine impacts and make recommendations as to the most effective method or process to use in design and construction. Experience in the preparation and review of CLOMRs and LOMRs. Working knowledge of various H&H software programs (i.e., HEC-RAS, SWMM, etc.) Certifications such as Certified Floodplain Manager (CFM) may be advantageous.

Civil Engineer: Experience in site planning, stormwater management and erosion control plans, grading, utilities, and other civil related design as necessary (i.e., roadways, lighting, etc.) Certifications such as Certified Professional in Erosion and Sediment Control (CPESC) may be advantageous.

Structural Engineer: Experience in various structural analysis, including retaining walls, in stream structures, bridges, utility structures and foundations, and other items requiring structural analysis for various loading conditions.

Ecology: Experience in various wetland, riparian and wildlife systems, their analysis, methods for determining gains/loss of habitat, recommended enhancements to increase wetland, riparian, and biodiversity. Familiar with various ecosystem analysis and software programs (i.e., FACWet, FACStream, etc.) Experience with long-term monitoring projects and adaptive management recommendations. Certifications such as Certified Environmental Professional (CEP) may be advantageous.

Biology: Experience in determination of wildlife impacts from construction activities and associated mitigation methods, evaluation and protection methods of endangered and threatened species, field survey and monitoring methods of affected habitats. Experience in wildlife monitoring, migratory birds, and aquatic biology. Familiar with enforcing/implementing regulatory oversight and regulations as they pertain to wildlife impact. Certifications such as Certified Environmental Professional (CEP) may be advantageous.

Geotechnical Engineer: Experience in geotechnical analysis to support various in stream and out of stream design and construction activities, including, but not limited to, foundation design, seepage, levees, and pavement design, and provide recommendations to best and most cost-effective solutions. Ability to determine estimated lift or settlement of placed soils and appropriate compaction required design intent.

Surveyor: Experience in various methods of survey data collection, survey control setting and checking, and survey data output in multiple formats for use in design and construction, including ALTA/ASCM Land title surveys. Ability to verify validity of data received and ability to determine incongruity of information and provide advice on solutions. Understands the recording of survey information with governmental agencies, including plats, monuments, easements and the like.

Landscape Architect: Experience in site design, climate resilient planting design, stream restoration (including upland, wetland, and in stream), natural resources design & planning, park & trail design (traditional and open space/conservation), ADA requirements, recreation safety, and permanent and temporary irrigation design. Certifications such as SITES AP may be advantageous.

Arborist: Experience with selection and condition evaluation of trees in upland, riparian and wetland environments; writing opinions/statements of tree health, condition, and suggested corrective actions; phased removal and replacement plans; mitigation plans; and working as a consulting arborist on large public works projects providing construction oversight as it relates to existing tree health and inspection of nursery stock delivered to site. Knowledge of soil management, mitigation of construction impacts, urban forestry, tree identification and valuation, and monitoring of canopy success criteria. Experience working with CCD's Office of the City Forester and related regulatory bodies. ISA Certification is required, ISA Municipal Specialist and/or Board-Certified Master Arborist is preferred.

Exhibit 3: Environmental and Permitting

Short Description:

Support the City's permitting responsibilities and delegation of permitting scope to a CM/GC and/or PDB. Facilitate permitting activities among the City, USACE, other agencies, and the CM/GC and/or PDB. Support the City in permit compliance monitoring and documentation.

Primary Scope Elements by Phase:

Phase 0	<ul style="list-style-type: none">• Support the City in establishing a comprehensive permitting requirements matrix and defining the allocation of permitting responsibilities among the City (including ongoing effort by the SA/OA), partner entities, and the City's designer and CM/GC and/or its PDB.• Provide permitting support (e.g., project definition, pre-design, and application development support) as required to progress the Program in advance of, and in support of, any CM/GC and/or PDB solicitations.• Based on defined permitting scope and risk allocation, facilitate turn-over of any permit-related responsibilities to the design and CM/GC entities and/or to the PDB entity.
Phase 1	<ul style="list-style-type: none">• Support the City's self-delegated (e.g., retained) permitting scope.• Facilitate permitting scope as delegated to the designer and CM/GC and/or PDB.• Monitor compliance with permitting scope requirements and support City's mitigation of non-compliance.• Support revisions to scope and design based on permitting requirements and potential impacts as the design evolves.• Support the City in validating permit scope, compliance, and cost as an element of the CM/GC or PDB's Contract Price Proposal for Phase 2.
Phase 2	<ul style="list-style-type: none">• Support the City in providing its allocated permitting scope and/or in monitoring CM/GC and/or PDB conformance to permitting-related contract requirements for Phase 2, Construction.
Phase 3	<ul style="list-style-type: none">• Support the City in closing out any permit-related contractual compliance requirements as a function of Substantial and Final Completion validation.

Key Position Skills and Requirements:

- A minimum of 7-10 years of experience in permitting and regulatory compliance related to large-scale civil infrastructure projects. Experience with USACE and other regulatory bodies is highly desirable.
- Comprehensive understanding of federal, state, and local permitting processes and regulations, e.g., NEPA, Clean Water Act, Endangered Species Act, National Historic Preservation Act, and Colorado Water Rights.
- Proven ability to manage complex projects involving multiple stakeholders.
- Demonstrated experience to coordinate among agencies, engineers, design-builders, and other stakeholders. This includes the ability to document all required permits and compliance activities clearly and effectively.
- Certifications such as Certified Environmental Professional (CEP), Certified Floodplain Manager (CFM), or Project Management Professional (PMP) may be advantageous.
- A Bachelor's degree in Civil Engineering, Environmental Science, Urban Planning, or a related field is required. Advanced degrees or certifications in these or related fields is preferred.

Exhibit 4: Procurement

Short Description:

Act as an Owner Advisor to implement procurement best practices for CM/GC and/or PDB solicitations.

Primary Scope Elements by Phase:

Phase 0	Assist the City with defining and implementing the procurement process for potentially multiple CM/GC and/or PDB solicitations, including: <ul style="list-style-type: none">• Create 1- or 2-phase Request for Qualifications (RFQ)/Request for Proposal (RFP) documents• Define evaluation priorities and methodology• Develop evaluation criteria and process• Establish milestones and schedule• Plan and support industry input and engagement• Support others in defining financial and commercial requirements, including establishing budget and contingency approach• Support others in defining required financial capacity and security• Provide support in calculating potential damages and incentives• Support development of payment mechanism and criteria• Support other in establishing insurance requirements• Support selection of form of contract and customization of commercial terms by others• Facilitate iteration of contract terms with the market
Phase 1	Support the City's organizational capacity regarding: <ul style="list-style-type: none">• Owner level of involvement during design• Leadership knowledge• Staff knowledge• Technical resources• Definition of roles• Augmentation of resources• Development of a Project Implementation Plan• Organizational preparation• Procurement preparation• Implementation
Phase 2	
Phase 3	

Key Position Skills and Requirements:

- A minimum of 7-10 years of experience in civil infrastructure projects, with a focus on project management, procurement, and contract administration. Experience with CM/GC and PDB delivery methods is highly desirable.
- A comprehensive understanding of procurement processes, including the development of RFQ and RFP documents.
- A deep understanding of risk allocation in large civil infrastructure projects, including a comprehensive understanding of various forms of contracts used in civil infrastructure projects. While not a substitute for legal advice, a basic understanding of construction law and the legal aspects of contract administration and knowledge of laws and regulations related to contracts, procurement, and risk management. This includes knowledge of standard contract forms, such as those from the American Institute of Architects (AIA), ConsensusDocs, and the Engineers Joint Contract Documents Committee (EJCDC), as well as the ability to review custom contract forms.
- Strong commercial acumen, including the understanding the commercial implications of contract terms and conditions, and the ability to negotiate favorable terms. They should also be able to understand and manage the financial aspects of large projects, including budgeting, cost control, and financial reporting.
- Strong negotiation skills, with the ability to negotiate contract terms and conditions, resolve disputes, and reach consensus among various stakeholders.

Exhibit 5: Risk Management and Allocation

Short Description:

The Risk Management Analysis and Documentation function will focus on identifying, assessing, and mitigating risks associated with the project and ensuring effective risk management throughout the project life cycle.

Primary Scope Elements by Phase:

<p>Phase 0 + Phase 1 + Phase 2</p>	<p>The Risk Management Analysis and Documentation role will be responsible for facilitating and support the following risk-related scope for the Program and in conjunction with the CM/GC and/or PDB:</p> <p><u>Risk Identification:</u></p> <ul style="list-style-type: none">• Conduct a comprehensive analysis of the project to identify potential risks related to design, construction, operation, and maintenance of the water-related infrastructure.• Collaborate with project stakeholders, including engineers, architects, contractors, and subject matter experts, to gather information on potential risks.• Document and maintain a risk register that includes identified risks, their potential impact, likelihood, and any relevant risk categories.• Work with program stakeholder management team to support community engagement and communication. <p><u>Risk Assessment:</u></p> <ul style="list-style-type: none">• Assess the identified risks using appropriate qualitative and quantitative techniques to determine their severity and prioritize them based on their potential impact.• Collaborate with relevant project team members to gather data and information necessary for risk assessment.• Analyze risks from various perspectives, such as safety, environmental impact, regulatory compliance, schedule delays, and cost overruns.• Work with program stakeholder management team to support community engagement and communication. <p><u>Risk Mitigation:</u></p> <ul style="list-style-type: none">• Develop risk mitigation strategies and recommend appropriate risk treatment measures to minimize the impact of identified risks.• Collaborate with project stakeholders to implement risk mitigation measures in a timely manner.• Monitor the effectiveness of risk mitigation measures and propose adjustments if necessary.• Work with program stakeholder management team to support community engagement and communication.
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	<p><u>Risk Monitoring and Reporting:</u></p> <ul style="list-style-type: none"> • Establish a robust monitoring system to track the status and progress of risk mitigation activities. • Regularly review and update the risk register to reflect changes in risk exposure and the effectiveness of risk treatment measures. • Prepare comprehensive risk reports for project management and stakeholders, highlighting key risks, their status, and any emerging risks that require attention. • Work with program stakeholder management team to support community engagement and communication. <p><u>Documentation:</u></p> <ul style="list-style-type: none"> • Document all risk management activities, including risk identification, assessment, mitigation strategies, and their implementation. • Prepare clear and concise reports, presentations, and other documentation to communicate risk-related information to project stakeholders. • Maintain an organized repository of risk management documentation for future reference and auditing purposes.
Phase 3	

Key Position Skills and Requirements:

- Strong understanding of infrastructure projects, including design, construction, operation, and maintenance.
- Knowledge of risk management principles, methodologies, and best practices. Ability to identify and assess risks in complex project environments.
- Proven experience in risk management analysis and documentation on large-scale infrastructure projects.
- Familiarity with alternative delivery method and its associated risks.
- Exposure to risk management tools, software, and techniques. Proficiency in applying qualitative and quantitative risk analysis techniques.
- Knowledge of risk treatment measures and the ability to recommend appropriate risk response strategies.
- Awareness of legal and contractual considerations in risk management.
- A Bachelor's degree in Engineering, Construction Management, Risk Management, or a related field.

Exhibit 6: Adaptive Management Implementation and Monitoring

Short Description:

This function is responsible for supporting the City in establishing clear and detailed monitoring, adaptive management, and long-term O&M-related strategies for the Program. This will involve understanding the Program's goals, constraints, and risks, and translating these into technical specifications and performance criteria. Could include supporting CCD and alternative delivery team with post-construction vegetation establishment and monitoring.

Primary Scope Elements by Phase:

Phase 0	<ul style="list-style-type: none">• Support the City in the procurement of an environmental restoration practitioner responsible for the long-term performance of the facility. This procurement may be implemented in parallel with or as an integrated scope element in the solicitation of a designer, and a CM/GC and/or a PDB.• This support will involve developing RFQ and RFP documents, evaluating submissions, assisting in the selection process, and contract negotiation, ensuring that they include appropriate risk allocation and commercial terms.
Phase 1	<p>Support the implementation of an adaptive management and monitoring program during this phase:</p> <ul style="list-style-type: none">• Facilitate collaboration between the City, USACE, MHFD, the O&M provider, the designer, and the CM/GC or PDB.• Facilitate collaboration to ensure that the design meets the project's technical specifications and performance criteria, and that it aligns with the project's goals and constraints.• Establish a process for monitoring project performance, USACE reporting requirements, identifying and responding to issues and changes, and continuously improving the project's design and execution.
Phase 2	<ul style="list-style-type: none">• Continue to support the adaptive management program during this phase. This will involve monitoring construction activities, identifying and responding to issues and changes, reviewing submittals and RFIs, and continuously improving the project's execution.• Monitor the CM/GC's and/or PDB's progress and performance, ensuring that it adheres to the design requirements and meets the project's technical specifications and performance criteria.• Facilitate communication and collaboration between the project's stakeholders and help manage any issues or changes.

Phase 3	<ul style="list-style-type: none"> • During the long-term operations and maintenance phase, support the City in ensuring the environmental restoration practitioner fulfills their contractual obligations (including warranty walks, etc.), and that the Program continues to meet its performance criteria. • Support with vegetation and instream monitoring, maintenance procedures and adaptive management actions, and USACE reporting requirements. • Facilitate resolution of any issues or changes that arise and facilitate communication and collaboration between the project's stakeholders.
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Key Position Skills and Requirements:

- Technical expertise in stream bank restoration and flood control. This includes understanding the technical specifications and performance criteria for such projects and being able to translate these into design and construction requirements.
- Familiarity with the principles and practices of adaptive management and the development of long-term monitoring programs. They should know how to establish a process for monitoring project performance, identifying and responding to issues and changes, and continuously improving project design and execution.
- Experience working with and balancing differing priorities of federal, state, and municipal governmental bodies on a single project.
- Extensive experience in supporting large civil infrastructure projects, particularly those involving stream bank restoration and flood control. This includes experience in all phases of project implementation, from establishing requirements and procurement, through design and construction, to long-term operations and maintenance.
- Understanding of the progressive design-build delivery method. This includes knowledge of how to develop and manage RFQs and RFPs, how to evaluate submissions, and how to negotiate commercial terms.
- The candidate should have Ability to assess project requirements, evaluate potential risks and impacts, and develop mitigation strategies.
- Experience maintaining climate resilient plantings, stream restoration (including upland, wetland, and in stream), natural resources, parks & trails (traditional and open space/conservation), and permanent irrigation. Certifications such as CERP may be advantageous.

Exhibit 7: USACE Coordination/Interface

Short Description:

This function will support the City in collaborating closely with the US Army Corps of Engineers to establish and implement detailed stream bank restoration and flood control requirements in support of the Program. This involves understanding the project's objectives, constraints, and risks, and translating these into technical specifications and performance criteria, in line with USACE's specific practices and policies.

Primary Scope Elements by Phase:

Phase 0	<ul style="list-style-type: none">• Assist in the procurement of a designer and a CM/GC or a PDB. This involves developing RFQ and RFP documents, evaluating submissions, and communicating and supporting the coordination of the selection process, with the USACE.• Support the liaison between the City and the USACE, leveraging an understanding of USACE practices, culture, and regulatory framework to facilitate effective communication and collaboration.
Phase 1	<ul style="list-style-type: none">• Support the liaison between the City and the USACE during this phase, facilitating communication and collaboration, and helping to navigate any issues or conflicts that arise.• Foster collaboration between the City, the USACE, the designer, and the CM/GC or PDB to ensure that the design aligns with the Program/s technical specifications and performance criteria, as well as the project's goals and constraints, in accordance with USACE's design guidelines and standards.
Phase 2	<ul style="list-style-type: none">• Monitor the project's progress and performance in relation to ensuring and documenting adherence to the design and compliance with the project's technical specifications and performance criteria.• Facilitate communication and collaboration between the project's stakeholders and assist in managing any issues or changes that arise, in alignment with any required USACE construction management reporting requirements and procedures.• Maintain a role as a liaison between the City and the USACE during this phase, facilitating communication and collaboration, and assisting in resolving any issues or conflicts that arise, in line with USACE's procedures.

Phase 3	<ul style="list-style-type: none"> • Support the partnership between the City and the USACE and continue to act as a liaison between the City and the USACE during this phase, facilitating communication and collaboration, and assisting in resolving any issues or conflicts that arise. • Support the City in documenting that the project continues to meet its performance criteria, in line with any required USACE maintenance guidelines. • Assist in managing any issues or changes that arise and facilitate communication and collaboration between the project's stakeholders.
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Key Position Skills and Requirements:

- Extensive experience in facilitating the implementation of large civil infrastructure projects, particularly those involving stream bank restoration and flood control. This includes experience in all phases of project implementation, from establishing requirements and procurement, through design and construction, to long-term operations and maintenance.
- Extensive understanding of USACE practices, procedures, and culture. This includes knowledge of USACE's specific requirements for project design, procurement procedures, construction management procedures, conflict resolution procedures, maintenance guidelines, and partnership policies.
- Understanding of the CM/GC and PDB delivery methods.
- Ability to facilitate communication and collaboration between various project stakeholders, including the City and the USACE, and to clearly document project requirements, decisions, and progress.

Exhibit 8: Project and Document Controls

Short Description:

Provide comprehensive support and coordination of project-related documentation, as well as the implementation and management of project controls processes, systems, and tools. The primary focus is to ensure effective project management, monitoring, and reporting, while maintaining accurate and up-to-date project documentation.

Primary Scope Elements by Phase:

<p>Phase 0 + Phase 1 + Phase 2</p>	<ul style="list-style-type: none">• Support the development, implementation, and maintenance of project controls processes and procedures, ensuring compliance with project requirements and industry best practices.• Support the Program in establishing and maintaining project controls systems and tools for alternative delivery procurement and monitoring project progress, costs, risks, and schedule adherence.• Coordinate with Program team members to gather and analyze project data, including budget updates, cost forecasts, resource allocations, and progress reports.• Generate regular project status reports, including executive summaries, key performance indicators (KPIs), and variance analyses.• Develop and manage GIS data for analytics, reporting, performance tracking, and development of maps and dashboards.• Collaborate with Program stakeholders to establish and track project performance metrics, milestones, and deliverables.• Support the Program team in developing and updating project schedules, including critical path analysis and resource leveling. <p><u>Document Controls:</u></p> <ul style="list-style-type: none">• Document and communication control for Alternative Delivery procurement process• Support the Program in establishing and maintaining a centralized document control system to ensure proper version control, access, and distribution of project-related documents, drawings, and specifications.
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	<ul style="list-style-type: none"> • Support the development and implementation of document control processes and procedures, including document numbering, naming conventions, filing structures, and archiving. <ul style="list-style-type: none"> • Support the management, receipt, review, approval, and distribution of project documentation, ensuring compliance with contractual and regulatory requirements. • Coordinate with internal and external stakeholders to track and monitor document submittals, responses, and revisions. • Conduct regular audits to verify the accuracy, completeness, and quality of project documents, identifying and addressing any discrepancies or deficiencies. • Support the Program team in preparing and submitting project-related reports, presentations, and other deliverables. • Facilitate effective communication and collaboration among Program team members through the timely dissemination of project documentation and information. <p><u>Facilitate the following deliverables:</u></p> <ul style="list-style-type: none"> • Project controls processes and procedures documentation • Project controls systems and tools, including progress tracking reports, cost forecasts, risk registers, and schedule updates • Regular project status reports, executive summaries, and variance analyses • Document control processes and procedures documentation, including document registers, distribution matrices, and revision logs • Document submittal, review, and approval tracking reports • Updated project documentation, including drawings, specifications, and reports
Phase 3	

Key Position Skills and Requirements:

- Previous experience in project controls and document controls roles on large-scale infrastructure projects, preferably in the water sector.
- Proficiency in project management software and document control systems.
- Strong analytical skills and attention to detail.
- Excellent communication and interpersonal skills.
- Ability to work collaboratively in a team environment.
- Familiarity with relevant industry standards, regulations, and best practices.
- Bachelor's degree in Engineering, Construction Management, or a related field.

Exhibit 9: Estimating/Independent Cost Verification

Short Description:

This function will provide independent cost estimates to validate the cost estimates initially developed internally by the City and then provided by the CM/GC and/or PDB. This independent cost estimate function will develop as a baseline for assessing the cost estimates provided by the CM/GC or PDB, ensuring accountability and cost-effectiveness as the project progresses.

This will involve analyzing the project's requirements and constraints, and using cost estimating techniques to develop detailed, accurate cost estimates and reviews of cost estimates provided by others.

Primary Scope Elements by Phase:

<p>Phase 0</p>	<ul style="list-style-type: none"> • Collaborate closely with the City to refine and validate the existing project cost estimate. • Apply expertise in cost estimating to assess the City's existing cost estimate, identify any potential issues or oversights, and provide recommendations for adjustments as necessary. • Once the Program cost estimate has been refined and validated, assist in the procurement of a designer and a CM/GC or a PDB by developing estimate costs models and estimate development requirements for an open-book process after the solicitation is complete.
<p>Phase 1</p>	<ul style="list-style-type: none"> • Provide independent cost estimates and estimate reviews. • Review the design and the cost estimates provided by the CM/GC and/or PDB and provide an independent cost estimate to validate these costs. • Facilitate cost and estimate reviews and cost mitigation processes (e.g., value engineering). Provide feedback and recommendations to help control costs and support the City so that the project stays within budget. • Support the Contract Price Proposal review as submitted by the CM/GC and/or PDB and support contingency and scope negotiations to support a Guaranteed Maximum Price (GMP) or Lump Sum (LS) implementation of the agreed-upon Contract Price.
<p>Phase 2</p>	<ul style="list-style-type: none"> • Monitor the project's cost progress and performance.

	<ul style="list-style-type: none"> • Continue to provide independent cost estimates as needed (e.g., to support change orders or revised scope). • Review the construction progress and the cost estimates provided by the CM/GC and/or PDB and provide an independent validation of progress and costs incurred.
Phase 3	

Key Position Skills and Requirements:

- Extensive understanding of cost estimation techniques and principles. Demonstrated experience in leading and developing detailed, accurate cost estimates for large civil infrastructure projects, and to validate and refine existing cost estimates.
- Knowledge of CM/GC and PDB implementation, including approaches to defining cost, establishing the Work Breakdown Schedule (WBS) for a large, multi-faceted Program, and establishing an open-book cost model with a CM/GC and PDB
- Facilitate communication and collaboration between various project stakeholders, with a focus on conducting cost estimate reviews, facilitating value engineering and related costs analysis processes, and integrating life cycle cost analyses.
- Understanding and supporting the requirements for validating actual construction costs and validating construction progress.

Exhibit 10: Construction Management QA/QC Support

Short Description:

Services during construction scope includes:

Construction Management: Oversee and document actual construction progress.

Quality Assurance/Quality Control: Define and facilitate the responsibilities and deliverables for the Quality Assurance/Quality Control (QA/QC) requirements. The QA/QC function ensures that the project adheres to specified quality standards, procedures, and regulatory requirements.

Primary Scope Elements by Phase:

Phase 0	Develop requirements for Quality Management, define the Quality Management Plan deliverable to be required from the CM/GC and/or PDB
Phase 1	<p>Facilitate and provide oversight/guidance on development of a comprehensive Quality Management Plan (QMP) in coordination with project stakeholders, outlining the quality objectives, processes, and procedures to be followed throughout the project lifecycle.</p> <p>Define quality control checkpoints, testing protocols, and acceptance criteria for each phase of the project.</p> <p>Identify relevant regulatory standards, codes, and specifications applicable to water infrastructure projects and support compliance.</p> <p><u>Quality Training and Communication:</u></p> <ul style="list-style-type: none"> • Provide guidance and training to project team members on quality procedures, processes, and requirements. • Promote awareness of quality standards, codes, and regulatory requirements among project stakeholders. • Facilitate clear and effective communication channels for addressing quality-related issues and fostering collaboration between project participants. <p><u>Quality Management Plan:</u></p> <ul style="list-style-type: none"> • Oversee CM/GC's and/or PDB's development of a comprehensive Quality Management Plan (QMP) document outlining the project's quality objectives, processes, and procedures.
Phase 2	<p><u>Quality Inspections and Audits:</u></p> <ul style="list-style-type: none"> • Facilitate and coordinate regular inspections and audits of the project site(s), materials, equipment, and processes to support compliance with the approved design, specifications, and industry best practices.

	<ul style="list-style-type: none"> • Verify that construction activities and installations meet the required quality standards and are executed according to the project plans and specifications. • Perform detailed documentation and reporting of all inspections, audits, and non-conformities, and track corrective actions to closure. <p><u>Quality Control Testing:</u></p> <ul style="list-style-type: none"> • Facilitate and oversee a comprehensive testing Program to verify the quality and performance of materials, components, and systems used in the water infrastructure project. • Coordinate with testing laboratories to conduct required tests, including but not limited to materials strength, water quality, pressure tests, and flow measurements. • Review and analyze test results, compare them against established acceptance criteria, and document findings for further actions. <p><u>Non-Conformance Management:</u></p> <ul style="list-style-type: none"> • Facilitate and/or verify implementation of a robust non-conformance management process to identify, track, and report any deviations from quality standards, specifications, or procedures. • Initiate corrective and preventive actions (CAPA) for addressing non-conformities promptly. • Monitor and ensure the effectiveness of implemented corrective actions and preventive measures. <p><u>Inspection and Audit Reports:</u></p> <ul style="list-style-type: none"> • Detailed inspection and audit reports, including findings, non-conformities, and recommendations for corrective actions. <p><u>Testing Reports:</u></p> <ul style="list-style-type: none"> • Comprehensive testing reports summarizing test methods, results, and compliance with acceptance criteria. <p><u>Non-Conformance Reports (NCR):</u></p> <ul style="list-style-type: none"> • NCRs documenting identified non-conformities, their root causes, and proposed corrective actions. <p><u>CAPA Documentation:</u></p> <ul style="list-style-type: none"> • Documentation tracking the implementation and effectiveness of corrective actions and preventive measures.
<p>Phase 3</p>	<p>Shift from active construction oversight to ensuring that all work completed meets the project's specifications and quality standards:</p> <ul style="list-style-type: none"> • Ensure that all warranty documents are in order and support the City's enforcement of warranty terms, including tracking warranty periods, coordinating with the CM/GC and/or PDB for any necessary repairs or

	<p>replacements, and ensuring that all warranty work is completed satisfactorily.</p> <ul style="list-style-type: none">• Ensure that all final documentation is complete and provided to the City, including O&M manuals, as-built drawings, warranties, and other relevant documents.• Support the City in conducting any post-construction reviews to evaluate the Program's success and identify lessons learned.• Act as a liaison between the City and the CM/GC and/or PDB during the warranty period, facilitating resolution of any disputes.
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Key Position Skills and Requirements:

- Extensive experience in managing large construction projects, particularly those involving CM/GC and PDB delivery methods. This includes experience in all phases of project implementation, from pre-construction planning through construction and post-construction warranty.
- Demonstrated understanding of construction methods, materials, and technologies, building codes, safety regulations, and quality standards.
- Strong project management skills, including planning, scheduling, budgeting, and risk management. They should be able to manage multiple tasks and projects simultaneously, and to adapt to changing project needs and conditions.
- Ability to facilitate communication and collaboration between various project stakeholders, including owners, designers, contractors, and regulatory authorities.
- Bachelor's degree in Construction Management, Civil Engineering, or a related field is preferred.

Exhibit 11: Agency, Stakeholder & Community Engagement

Short Description:

Establish overall communications and community engagement strategies. Develop supporting materials to coordinate, communicate, and engage a wide variety of stakeholders. Ensure that communications are clear, transparent, and timely. Inform, engage and build relationships with stakeholders through thoughtful community engagement and strategic partnerships as well as public events/meetings. Develop external communication and stakeholder engagement that is responsive to concerns about green gentrification, reflective of standing commitment to the river and thoughtful about reconciling historic impacts as well as new impacts that result from this investment.

Primary Scope Elements by Phase:

<p>Phase 0</p>	<ul style="list-style-type: none">• Work closely with City to develop a comprehensive approach to thoughtfully communicate and engage around the opportunities and impacts of this program. Help us identify relevant stakeholders and understand their values and needs. With an eye toward environmental justice and reconciliation, develop and implement a comprehensive communication, public information, and stakeholder engagement strategy that exemplifies the inclusion and diversity priorities of the City and the Program. This strategy will aim to keep all stakeholders, including the public, informed about the project’s goals, procurement process, and expected outcomes. The strategy will include a Language Access Plan and will outline how and when to communicate with each stakeholder group, considering their history, specific interests and concerns. Consider a wide variety of engagement tactics to engage historically underrepresented community voices (i.e., stipends, childcare, community partnership, etc.), approaches to engaging in challenging city building conversations around community impact and benefit and applied strategies for engagement from grass roots to executive, council, and federal decision makers.• Assist in preparing and disseminating procurement documents such as Request for Qualifications (RFQ) and Request for Proposals (RFP), ensuring that they are clear, transparent, and accessible to all potential bidders. They will also help manage communications with potential bidders, answering queries and providing clarifications as needed.• Under the Program’s leadership, facilitate stakeholder involvement in the procurement process and oversee external communication and coordination particularly using digital and other context sensitive communication services to allow broad and effective communication,
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	<p>striving to maintain community support and general good will. This may involve organizing meetings or consultations, managing communications, and ensuring that selected stakeholders have the opportunity to provide input into the procurement process.</p>
<p>Phase 1</p>	<ul style="list-style-type: none"> • Continue to implement the communications, public information, and stakeholder engagement strategy. Work with the City, the designer, and the CM/GC and/or PDB to keep all stakeholders informed about the design process, the design decisions being made, and the reasons for these decisions. • Facilitate communications with the public and collaboration among the City, the designer, the CM/GC and/or PDB, and the identified stakeholders during this phase. This may involve organizing public meetings or consultations, ensuring stakeholders have the opportunity to provide input into the design process, managing media relations, and responding to public inquiries and concerns. Support the preparation and dissemination of information materials such as brochures, newsletters, and website updates. • Help manage stakeholder expectations, including providing regular updates on the design process, responding to stakeholder inquiries and concerns, and managing any conflicts or issues that arise.
<p>Phase 2</p>	<ul style="list-style-type: none"> • Continue to implement the communications, public information, and stakeholder engagement strategy. Work with the City, the CM/GC and/or PDB to facilitate communication and collaboration with stakeholders, keep all stakeholders informed about the construction progress, any issues or changes that arise, and how these are being managed. This may involve organizing meetings or consultations, managing communications, and ensuring that stakeholders are kept informed about the construction progress. • Help manage stakeholder expectations during this phase. This may involve providing regular updates on the construction progress, responding to stakeholder inquiries and concerns, and managing any conflicts or issues that arise. • Support the City in facilitating communications with the public, including providing regular updates on construction progress, managing media relations, and responding to public inquiries and concerns.

	<ul style="list-style-type: none"> • Support the preparation and dissemination of information materials such as construction updates, newsletters, and website updates.
Phase 3	

Key Position Skills and Requirements:

- Extensive experience in public relations, communications, stakeholder engagement, or a related field, preferably with a focus on large infrastructure projects or public works. Experience in managing communications and stakeholder engagement for CM/GC or design-build projects would be beneficial.
- Strong facilitation skills, including the ability to organize and facilitate meetings and consultations, manage conflicts and issues, and ensure that all stakeholders feel heard and valued.
- Ideally this person embodies the values of diversity, equity, and inclusion upheld by the City and the Program.
- Excellent written and verbal communication skills and ability to develop clear, concise, and engaging communications for a variety of audiences, and to effectively manage communications with various project stakeholders.
- A comprehensive understanding of public relations principles and practices, including the development and implementation of effective public relations strategies, management media relations, and response to public inquiries and concerns.
- Demonstrated experience building trust and reconciliation with communities where the city has underinvested and are experiencing significant change. Understand the impacts of green gentrification and approaches to mitigating associated community impacts.
- Thoughtfully bring together information from a variety of partners to weave a comprehensive and easy to understand approach to sharing information and engaging the community for input.
- Strong stakeholder management skills, including the identification of the needs and concerns of various stakeholders, and ability to effectively support the City in engaging and communicating effectively with these stakeholders.
- Strong project management skills to adapt to changing project needs and conditions.
- A Bachelor's degree in Communications, Public Relations, Journalism, Business, or a related field is preferred.

Exhibit 12: Utilities Coordination

Short Description:

This function is to verify that all utilities relocation tasks are completed safely, efficiently, and with minimal disruption to the project schedule and to the provision of utility services.

Primary Scope Elements by Phase:

Phase 0	<ul style="list-style-type: none">• Work closely with the City, the designer, and the CM/GC and/or PDB to identify all utilities that may be impacted by the Program. This will involve a detailed review of the project plans and site conditions, as well as consultation with utility providers and regulatory authorities.• Support the City in the development of a draft comprehensive utilities relocation plan. This plan will outline the anticipated tasks required to relocate each utility, the sequence of these tasks, and the resources required as a basis for the CM/GC and/or PDB solicitations. The plan will also identify any potential risks or issues associated with the utility relocations and propose strategies to mitigate these.• Assist in coordinating the utilities relocation tasks with the overall project schedule, working closely with the City the designer, the CM/GC or PDB, and the utility providers to verify that the utility relocations are planned to be completed in a timely and efficient manner, and that they do not disrupt the overall Program schedule.
Phase 1 + Phase 2	<ul style="list-style-type: none">• Continue to provide utilities relocation and construction support by working closely with the City, the designer, the CM/GC and/or PDB, and the utility providers to implement the utilities relocation plan.• Monitor the progress of the utilities relocation tasks and provide regular updates to the City and other stakeholders. Support the City in managing any issues or changes that arise and ensure that these are addressed in a timely and effective manner.• Support the City in documenting that all utilities relocation work meets the required standards and regulations. This will involve regular inspections and quality checks, as well as liaison with regulatory authorities as needed.
Phase 3	

Key Position Skills and Requirements:

- Extensive experience in utilities relocation and construction, preferably within the context of large infrastructure projects or public works. Experience in managing utilities relocation for CM/GC and/or PDB projects would be beneficial.
- A comprehensive understanding of utility systems, including electrical, water, sewer, railroad, and transportation systems. They should also be familiar with the technical aspects of utilities relocation and construction, and with the relevant standards and regulations.
- Strong project management skills, including the ability to plan and manage multiple tasks and projects simultaneously, and to adapt to changing project needs and conditions.
- Strong problem-solving skills, including the ability to identify potential risks or issues associated with the utilities relocation tasks, and to develop and implement effective mitigation strategies.
- A Bachelor's degree in Civil Engineering, Construction Management, or a related field is preferred.

Exhibit 13: Real Estate Coordination

Short Description:

This function is to provide staff augmentation to support the City's identification and required acquisition of real estate for the Program, temporary easements to support construction, and permanent easements.

Primary Scope Elements by Phase:

Phase 0 + Phase 1	<ul style="list-style-type: none">• Work closely with the City identify all real estate acquisition needs for the Program. This will involve a detailed review of the project plans and site conditions, as well as consultation with city planners, real estate experts, and regulatory authorities.• Support the City in developing a comprehensive real estate acquisition plan. This plan will outline the properties that need to be acquired, the sequence of these acquisitions, and the resources required. The plan will also identify any potential risks or issues associated with the real estate acquisitions and propose mitigation strategies.• Assist in coordinating the real estate acquisition tasks with the overall project schedule. This will involve working closely with the City, the designer, the CM/GC or PDB, and the City's real estate department to ensure that the real estate acquisitions are completed in a timely and efficient manner, and that they do not disrupt the overall project schedule.
Phase 2	<ul style="list-style-type: none">• Continue to provide real estate acquisition support. They will work closely with the City, the CM/GC and/or PDB, and the City's real estate department to implement the real estate acquisition plan.• Support the City in monitoring the progress of the real estate acquisition tasks and support the resolution of any issues or changes that arise and ensure that these are addressed in a timely and effective manner.• Support the City in ensuring that all real estate acquisitions comply with required policies and regulations.
Phase 3	

Skills and Requirements:

Key staff/lead not required. RFQ should require a description of capabilities and capacity to support this function.

Exhibit 14: Subcontracting, Procurement, and Workforce Requirements

Short Description:

This function is to provide staff augmentation in support of the City's implementation various subcontracting goals and workforce requirements, including requirements and compliance associated with or required by funding sources.

Primary Scope Elements by Phase:

Phase 0 + Phase 1	<ul style="list-style-type: none">• Work closely with the City identify all of the various subcontracting, procurement, and workforce requirements associated with the Program, including SBE and DBE requirements, potential project labor or workforce agreement requirements, procurement requirements (e.g., Buy America and similar).• Support the City in developing a comprehensive plan for meeting all such requirements and identifying requirements for the CM/GC and/or PDB in advance of the procurement process, integrating these requirements into the RFQ and RFP.• Assist in developing compliance tracking and monitoring process to ensure all requirements are identified and complied with.
Phase 2	<ul style="list-style-type: none">• Assist the City in monitoring the CM/GC's and/or PDB's compliance with all required subcontracting, procurement, and workforce-related requirements.
Phase 3	

Skills and Requirements:

Key staff/lead not required. RFQ should require a description of capabilities and capacity to support this function.

Exhibit 15: Program Management Advisory Group

Short Description:

This function to provide high-level, executive advisory services to the City and its WATR Program leadership on a continuous basis through the life of the Program.

Primary Scope Elements by Phase:

<p>Phase 0 + Phase 1 + Phase 2 + Phase 3</p>	<p>The scope of work for engaging executive-level advice and mentorship from companies that have administered large and successful infrastructure programs in the past could include the following:</p> <p><u>Program Strategy Development</u> Work with City executives to refine the comprehensive strategy for the infrastructure program. This will involve reviewing the City's goals and constraints, identifying potential opportunities and challenges, and developing a strategic plan that aligns with the City's needs and resources.</p> <p><u>Best Practices and Lessons Learned</u> Share best practices and lessons-learned from previous experience with large infrastructure programs. Include insights on project management, stakeholder engagement, risk management, procurement, design and construction, and operations and maintenance.</p> <p><u>Executive Coaching and Mentorship</u> Provide coaching and mentorship to City executives, helping them to develop the skills and knowledge needed to successfully manage the infrastructure program. This could involve one-on-one coaching sessions, group workshops, and ongoing support and guidance.</p> <p><u>Governance and Organizational Structure</u> Assist the City in maintaining an effective governance and organizational structure for the Program. This could involve developing roles and responsibilities, decision-making processes, and communication and reporting structures.</p> <p><u>Risk Management</u> Work with City executives to identify potential risks associated with the Program, and to develop strategies to mitigate these risks. This could involve conducting risk assessments, developing risk management plans, and providing training and support on risk management.</p> <p><u>Performance Monitoring and Evaluation</u></p>
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	<p>Help the City to establish a system for monitoring and evaluating the performance of the infrastructure program. This could involve developing performance indicators, setting up monitoring systems, and providing training and support on performance evaluation.</p> <p><u>Stakeholder Engagement</u></p> <p>Provide guidance on effective stakeholder engagement, helping the City to build strong relationships with key stakeholders such as residents, businesses, government agencies, and community groups.</p> <p>This is a periodic engagement to support coaching and mentorship, providing guidance as required.</p> <p>Throughout the engagement, the advisor will provide ongoing support and guidance to City executives, helping them to navigate the challenges and opportunities associated with the infrastructure program.</p>
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Key Position Skills and Requirements:

- Extensive experience in managing large infrastructure programs, preferably waterway projects within a city or municipal context, including proven record of successfully delivering complex programs on time and within budget.
- Strong leadership skills as senior executive and mentor, including the ability to inspire and motivate others.
- Strong strategic thinking skills, including the ability to offer effective strategies for large infrastructure programs, considering a wide range of factors such as technical requirements, financial constraints, regulatory requirements, and stakeholder needs.
- Strong mentoring skills, including the ability to provide guidance and support to City executives, helping them to develop the skills and knowledge needed to successfully implement the Program.
- An understanding of the local context, including the City's infrastructure needs, the regulatory environment, and the key stakeholders.
- Experience leading the activities of an advisory panel and facilitating effective guidance and expertise to inform/advance program outcomes.