Menlo Park SAFER Bay Project
Scope of Work

This Scope of Work is organized into two phases. Phase 1 includes activities from Procurement for Design and Environmental Services through to 90% Design; Phase 2 includes activities from Final Design through to completion of Construction

Phase 1 – Environmental Permitting and 90% Design

Task 1.1 – Procurement for Design and Environmental Services

The sub-applicant will prepare a scope of services for Project Design and Environmental Services and solicit competitive proposals from qualified consulting firms. The intent will be to engage a single consultant or consultant team to perform all Project environmental and engineering services, in order to maximize efficiency of cost and performance. Proposers will be asked to propose on the complete Project, on the understanding that Phase 2 is not guaranteed work. Proposers will be assessed based on their qualifications, experience, approach to the work and estimated fee. Following initial screening, potential candidate proposers will be interviewed. The sub-applicant will enter contract negotiations with the preferred proposer, on the understanding that Phase 2 fee is to be negotiated only following award of Phase 2 funding from FEMA.

DELIVERABLES:

- Scope of Services for Project environmental and engineering Services
- Solicitation documentation
- Contract documentation

Task 1.2 – Project Management including Kick off Meeting

The sub-applicant will hold a kick off meeting with all project partners at project commencement to review the scope and schedule for the project and clarify roles and responsibilities of the project team.

The sub-applicant will manage the project and its team members to implement the scope, budget, and schedule, as well as confirming conformance with applicable engineering standards and practices. The sub-applicant will provide quarterly grant status reporting, including notification of any changes in scope, schedule or budget, and necessary corrective actions. Status reports will be prepared in a manner consistent with grant reimbursement requirements. This task also includes the development of a document control system and project guide including a project specific quality control plan, and safety plan. The sub-applicant will hold monthly coordination and progress

meetings with team members to apprise the team of project status, upcoming deliverables and activities. Communication is assumed to be mainly via phone, email, and remote teleconferences.

DELIVERABLES:

- Kick off meeting materials and minutes
- Monthly status reports
- Project Guide including a Quality Control Plan
- Coordination meeting materials and minutes

Task 1.3 – Public Outreach

Public Outreach Plan

The sub-applicant will prepare a public outreach plan to help guide project-related outreach tasks and efforts (design and environmental). The plan will be a living document and updated annually based on stakeholder engagement. The plan will include strategies for public meetings, stakeholder coordination, multilingual outreach, website content/materials, public noticing, and additional optional tasks, as necessary.

The sub-applicant will solicit input on the formation of an Advisory Board to ensure that the local community has direct input to create the project that they want to have built. SAFER Bay Program directly benefits the disadvantaged community, and there are environmental justice issues in the area. Engaging the local communities and partners in a way that establishes trust and builds long-term relationships is imperative to the future resilience of our community. A substantive education component is an integral part of this process as awareness of the project and climate resilience challenges is expanded and capacity for community-led solutions is built.

DELIVERABLES:

- Draft and annual updated outreach plans
- Meeting notes from Advisory Board

Public Meetings / Workshops

In Phase 1, the sub-applicant will coordinate and staff up to two design-focused public meetings/workshops. The sub-applicant will help make presentations about design concepts and facilitate productive discussion of community interests and concerns. The outreach lead will help manage the flow of the dialogue and control any potentially contentious interactions. The sub-applicant will create a meeting format that allows for the appropriate balance of information sharing (e.g., via PowerPoint presentation, one-on-one dialogue) and input opportunities (via display stations, Q&A, comment cards, etc.).

Workshops (in person or digital) will be conducted in Spanish, Tongan/ Samoan and English as indicated by Advisory Board. It is recognized that people feel more welcome when the meetings or trainings are conducted in their own language without translation equipment. The intent is to be inclusive to all communities. Part of that is providing them with the space to have conversations, share personal stories and have a deeper understanding of the issues in where language won't be a barrier. Going the extra mile is important.

DELIVERABLES:

- Public workshop materials
- Public comment summaries detailing and categorizing public interests/concerns

Advisory Board/Stakeholder Meetings

Through Phase 1, the project team will be responsible for participating in up to six small group meetings with advisory Board or other stakeholders and local interest groups, including environmental groups and neighborhood groups. For efficiencies, it is recommended that each stakeholder meeting include combined stakeholders/multiple groups.

DELIVERABLES:

- Meeting summaries documenting key issues and concerns

Task 1.4 - Environmental Permits

FEMA is the presumed federal lead agency that will prepare documentation to support compliance with the National Environmental Policy Act (NEPA). The sub-applicant will develop a project description for the NEPA document and supporting technical information as requested. This scope of work does not otherwise include preparation of NEPA documentation or related processes, the scope and work plan for which would be determined by FEMA.

The sub-applicant will prepare a project-level environmental impact report (EIR) consistent with the requirements of the California Environmental Quality Act (CEQA). The project-level EIR will evaluate Reaches 2 through 5 in detail.

Project Description

The sub-applicant will prepare a detailed project description for use in NEPA and California Environmental Quality Act (CEQA) environmental review process. The project description will include project background, purpose and need, project objectives, and a description of proposed components. Each component will be described in sufficient detail to facilitate determination of the nature and scale of environmental impacts, including area of disturbance and construction equipment scenarios. Basic project components to be described in the project description include

the levees, floodwalls, and appurtenant features for Reaches 2 through 5, as well as the following environmental restoration/mitigation elements:

- Creation of approximately 25.4 acres of tidal marsh-upland habitat transition zone (transition zone) habitat at Pond R2
- Creation of approximately 5.2 acres of tidal marsh-upland habitat transition zone (transition zone) habitat at Pond R4
- Enhancement of approximately 4.8 acres of breeding habitat for the federally threatened western snowy plover (*Charadrius nivosus nivosus*) at Pond R3

The project description will also identify discretionary approvals by regulatory agencies. It is assumed that the project description will provide the appropriate level of detail to support project-level CEQA and NEPA document.

DELIVERABLES:

- Project Description for NEPA and CEQA review processes

Notice of Preparation, Public Scoping Meeting

Following identification of a preferred alternative the sub-applicant will prepare and publish an initial study checklist, focusing the environmental resource topics to be addressed in the EIR that could result in a potentially significant impact, and a Notice of Preparation (NOP). The NOP will be circulated for comment for 30 days. The sub-applicant will hold a public scoping meeting to allow agencies, stakeholders and the public to understand and discuss the project, foreseeable or potential issues, and how impacts will be mitigated. Outcome of the public scoping meeting will be recorded and summarized in a report.

DELIVERABLES:

- Initial Study Checklist
- Notice of Preparation
- Public scoping meeting materials
- Public scoping meeting minutes and summary report

Draft EIR

The sub-applicant will prepare a Draft EIR in compliance with CEQA. If significant impacts are identified, mitigation measures will be proposed to reduce those impacts to the extent feasible to do so. The EIR will also include other statutory sections as required by CEQA (e.g., alternatives, summary). The Draft EIR will be published and made available for comment for 45 days during which time the sub-applicant will prepare for and participate in one public meeting.

DELIVERABLES:

- Draft EIR

Final EIR and Mitigation Monitoring Program

Following the close of the comment period the sub-applicant will respond to comments and prepare the Final EIR. The Final EIR will include comment letters and responses to comment received, text revisions made in response to comments, and a Mitigation Monitoring and Reporting Program prepared in accordance with CEQA.

DELIVERABLES:

- Final EIR including responses to comments and Mitigation Monitoring Program

Findings of Fact, Statement of Overriding Consideration, Notice of Determination

Following publication of the Final EIR the sub-applicant will prepare draft Findings of Fact and Statement of Overriding Considerations (if required). The sub-applicant will attend a Board meeting to consider EIR certification. If the Board certifies the EIR as complete and adequate, the sub-applicant will prepare a Notice of Determination.

DELIVERABLES:

- Draft Findings of Fact and Statement of Overriding Considerations (if required)
- Notice of Determination

Meetings and Coordination - Environmental Outreach

The project will affect ecological resources (i.e., wetlands and special-status species) regulated by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and Bay Conservation and Development Commission (BCDC). Therefore, the sub-applicant will proactively communicate closely with these regulatory agencies to obtain input on the project design approaches to reduce impacts and on the habitat mitigation approach. The SAFER Bay Programmatic Project, of which this Menlo Park SAFER Bay project is a part, has already commenced regulatory agency communications via the San Francisco Bay Restoration Regulatory Integration Team (BRRIT). The BRRIT consists of regulatory agency staff dedicated to improving the permitting process for multi-benefit projects in the San Francisco Baylands that focus on habitat restoration, flood protection, and public access. The BRRIT previously determined that the SAFER Bay programmatic project is eligible for permitting via the BRRIT and an initial pre-application meeting was previously conducted in March 2020. The Menlo Park SAFER Bay project will build upon this prior BRRIT communications work.

The sub-applicant will also support outreach to the project's non-regulatory environmental stakeholders involved in the nexus between the proposed project and the South Bay Salt Pond Restoration Project (SBSPRP), including the SBSPRP Project Management Team (PMT) and the USFWS Don Edwards National Wildlife Refuge.

This task includes up to 2 meetings with the BRRIT and up to 2 meetings with the PMT and Refuge. Up to 2 of these 4 meetings may occur in-person meetings (if feasible given COVID-19). This task also includes email and telephone communications with these stakeholders and agencies.

Regulatory Permitting

The sub-applicant will prepare and submit applications for the following permits and approvals to the applicable agencies through the BRRIT:

- USACE- Clean Water Act Section 404 Individual Permit, Rivers and Harbors Act Section 10
- USFWS and NMFS- Endangered Species Act, Section 7 Consultation
- RWQCB- Clean Water Act Section 401 Water Quality Certification
- BCDC- Major Permit

The sub-applicant will prepare the following three technical documents required by the anticipated permitting process:

- Habitat Mitigation and Monitoring Plan (required by all above agencies)
- Biological Assessment (required for Section 7 Consultation)
- Alternatives Analysis (required by USACE for Section 404 Individual Permit and by RWQCB for the 401 Water Quality Certification).

DELIVERABLES:

- Permit applications

Task 1.5 - Right-of-Way Acquisition Negotiations

The sub-applicant will perform in Right-of-Way negotiation activities. It is assumed that no property will require acquisition but TCE and permanent easements may be required. The sub-applicant will undertake legal searches and acquire legal plat maps and descriptions.

DELIVERABLES:

- Plat maps and descriptions

Task 1.6 – Engineering and Design

Data Collection

The sub-applicant will collect existing data relevant to the project area, which will include:

- As-built or proposed plans of impacted facilities
- Aerial photos
- Assessor's parcel maps
- Survey records and topographic files
- Geotechnical reports and existing boring data
- Base plans of Existing Utilities
- Internal drainage and hydraulics studies
- Information on Hazardous materials
- Other relevant available information

Ground Survey and Utility Location

The sub-applicant will review publically available LiDAR and topographic survey information in the project area for quality and coverage. If acceptable for use, the sub-applicant will attempt to develop conversions for each data set so that all data are reasonably co-registered within the project's horizontal and vertical reference systems. Record assessor's parcel map Geographic Information System data will be procured and imported into AutoCAD to serve as a backdrop for the project Landnet.

Research will be performed to gather public record maps for highways, state lands and major residential subdivisions within the project area. This information will be analyzed to develop a preliminary levee alignment within the Landnet.

The sub-applicant will also perform research with local utility agencies to obtain record map information for utilities, and the approximate location shown within the Landnet.

Minimal field surveys will be performed, as needed, to verify the accuracy of existing data, establish survey boundary monuments, and verify specific utilities and structures of specific interest. Results of the field survey will be combined with the Landnet data into a comprehensive Civil 3-D drawing.

DELIVERABLES:

- Survey Control Report
- Utility & Encroachment Survey Report

Aerial Base Mapping

The sub-applicant will produce new topographic and digital orthophoto mapping at a scale of 1"= 50' (1:600). New stereo aerial photography will be acquired and provided as a significant source for up to date planimetrics, accurate terrain modeling and high resolution (0.25 ft.) color, digital orthophoto imagery.

The new aerial photography will also be applied to review existing topographic data, such as; LiDAR, photogrammetric terrain and field surveys; and to update or supplement the terrain data where needed. Additional field survey topographic mapping will be conducted along existing levees, streets, structures and utilities to be incorporated into the new mapping.

In addition to the use of AGPS, ground control points will be surveyed for controlling the stereo photography. Where practical, surveyed locations of existing - photo identifiable features, project control and cross-sections will be re-employed to reduce the photo control survey and associated costs and strengthen the aero triangulation.

DELIVERABLES:

- Topographic Survey, Base Maps, Orthophotos, and Digital Terrain Model

Geotechnical Investigations and Evaluations

The geotechnical evaluation effort will focus on advancing and refining the feasibility level analysis that was previously done to a preliminary engineering level. Work will include additional field explorations, laboratory testing, and analysis, and the preparation of a Final Geotechnical Report.

Review of Geotechnical Information and Site Reconnaissance

This task will include a review of additional geologic and geotechnical published information, and information collected by the sub-applicant in the project area, including geotechnical reports and logs of subsurface explorations. The sub-applicant will perform a site reconnaissance of the selected alignment, and note physical site features that could impact the project from a geotechnical perspective.

Field Investigation

This task will include a subsurface exploration program along the selected alignment. The goal will be to perform a near-final level of geotechnical field exploration and laboratory testing, taking into consideration the information previously collected. To the extent possible and practical, the sub-applicant will space borings and CPTs so as to result in explorations spaced every 1,000 feet. It is assumed that up to 20 borings or CPTs to 50 to 70 feet will be performed.

Prior to conducting the field work, the sub-applicant will prepare a Field Work Plan and Health and Safety Plan, obtain the applicable encroachment and drilling permits, check site access, and check

for the presence of underground utilities by contacting Underground Service Alert (USA). The sub-applicant will retain and coordinate with appropriate exploration subcontractors to select suitable exploration equipment to access the desired exploration locations, to the extent that is reasonable and practical. Access to some exploration locations may be difficult/not possible or limited to only certain times of the year.

This scope assumes measures such as mobilizing barges or rafts, or preparing temporary pads to explore hard-to-access and potentially sensitive areas such as marshes or ponds will not be required. Drill cuttings and fluids in drums will be contained and transported to a nearby temporary storage area. Following chemical testing of samples of the drummed materials, the sub-applicant will arrange to have the materials transported to a suitable disposal facility. It is assumed that the subsurface materials encountered are free of contaminants.

DELIVERABLES:

- Field Work Plan and Health and Safety Plan
- Encroachment and drilling permits
- Field and drilling logs

Laboratory Testing

A laboratory testing subcontractor will be retained to perform geotechnical laboratory tests on selected samples obtained from the borings. Testing will include moisture content, density, Atterberg limits, gradation, consolidation, and shear strength, as appropriate.

Up to 15 composite samples will be analyzed by a subcontracted horticultural soils testing laboratory to determine the horticultural suitability of existing levee and levee subgrade soils for use for construction of the proposed Habitat Transition Zones in Reaches 2 (Pond R4) and 5 (Pond R2).

Contaminant quality assurance services for the protection of aquatic life (typically required by RWQCB for selection of suitable habitat transition zone fill for placement in restored tidal marshes) is not included because it is assumed this work would be undertaken by the South Bay Salt Pond Restoration Project.

DELIVERABLES:

- Laboratory testing results

Geotechnical Engineering Analyses and Evaluations

Engineering analyses to develop preliminary geotechnical conclusions and recommendations for the proposed project will be performed. Stability and seepage analyses for up to 10 cross sections will be performed as part of this task.

For each cross section location, stability, and seepage analyses will be performed for one levee geometry and one design water surface elevation for the following conditions: 1) Stability at the end of levee construction, 2) Stability under rapid flood loading conditions, 3) Stability under rapid drawdown loading conditions (when floodwaters recede), 4) Seepage (both levee through seepage and underseepage), and 5) Stability under seismic loading, including estimated magnitudes of liquefaction induced levee settlement and lateral deformation. Analyses to estimate magnitudes of levee settlement over time will also be performed. It is assumed that liquefaction mitigation measures, such as soil improvement, will not be required.

DELIVERABLES:

- Draft and Final Geotechnical Report

Engineering Support for Project Description

The sub-applicant will assist in the development of the project description required as part of the environmental permit requirements. This task includes the engineering analyses required to develop the project description. Engineering analyses information will be included in the deliverables described in Task 1.2 above.

Design Criteria Memorandum

The sub-applicant will develop the design criteria and technical approach that will be specific to the project site. This Design Criteria TM will describe the design level to which the project will be evaluated and designed, including design water surface elevation and loading conditions. The Design Criteria will be reviewed and approved by the partner agencies.

DELIVERABLES:

- Draft and Final Design Criteria TM

Coastal Hydraulics and Interior Drainage Analysis

The sub-applicant will describe the extent and general character of hydrological conditions; identify local and coastal flood hazard zones using FEMA maps; assess existing runoff conditions and character of surface water features; discuss effectiveness of existing interior drainage; review and summarize available sources on water levels, sea level rise, wave run-up and overtopping from published reports, studies and maps, including the USACE South San Francisco Bay Shoreline Study and the California Ocean Protection Council. The regulatory setting will include obtaining and reviewing standard requirements (storm drainage criteria, flood criteria, etc.), and input from agencies.

DELIVERABLES:

- Draft and Final Coastal Hydraulics & Interior Drainage Summary Report

30% Plans, Specifications, Estimates, and Construction Schedule

The sub-applicant will complete 30% designs and associated drawings. Plan drawings will be prepared using AutoCAD software. These plans will include general layouts, updated topographic survey and mapping data, levee profiles, cross-sections, structural details, typical details and survey control. Technical specifications will include specifications for all design features. The design documents also include preparation of the landscape plans, specifications, and estimates associated with hydroseeding all levee slopes, revegetation (seeding, irrigation, planting, vegetation maintenance) for the proposed Transition Zone habitat areas (at Ponds R2 and R4), and the western snowy plover habitat enhancement in Pond 3. General specifications (front-end documents) and Special Provisions will also be prepared. The sub-applicant will prepare a detailed construction cost estimate. Quantity take-off calculations and cost estimates will be prepared in a Microsoft Excel spreadsheet for the 30% submittal. A draft bid schedule with updated quantities will be included. Cost estimates at the 30% level of design will correspond to Class 3 as defined by AACE. A construction schedule will also be prepared.

DELIVERABLES:

- 30% Plans (half-size drawings only), specifications, cost estimates, bid schedule, and construction schedule
- Responses to review comments

60% Plans, Specifications, Estimates, and Construction Schedule

The sub-applicant will complete 60% designs and associated drawings. General specifications (front-end documents) and Special Provisions will also be prepared. The sub-applicant will prepare a detailed construction cost estimate. Quantity take-off calculations and cost estimates will be prepared in a Microsoft Excel spreadsheet for the 60% submittal. A draft bid schedule with updated quantities will be included. Cost estimates at the 60% level of design will correspond to Class 2 as defined by AACE. A construction schedule will also be prepared.

DELIVERABLES:

- 60% Plans (half-size drawings only), specifications, cost estimates, bid schedule, and construction schedule
- Responses to review comments

90% Plans, Specifications, Estimates, and Construction Schedule

The sub-applicant will complete 90% designs and associated drawings. General specifications (front-end documents) and Special Provisions will also be prepared. The sub-applicant will prepare a detailed construction cost estimate. Quantity take-off calculations and cost estimates will be prepared in a Microsoft Excel spreadsheet for the 90% submittal. A draft bid schedule with updated quantities will be included. Cost estimates at the 90% level of design will correspond to Class 2 as defined by AACE. A construction schedule will also be prepared.

DELIVERABLES:

- 90% Plans (half-size drawings only), specifications, cost estimates, bid schedule, and construction schedule
- Responses to review comments

Design Documentation Report

The sub-applicant will prepare written documentation of engineering design to the 90% level. Documentation will consist of a binder containing design calculations, quantity take-offs and geometric calculations, utility information, quality control reviews and meeting notes. The Design Documentation Report will focus on materials prepared following completion of 60% design.

DELIVERABLES:

- Design Documentation Report to 90% Design

Phase 2 – Final Design and Construction

Task 2.1 – Project Management

The sub-applicant will manage the project and its team members to implement the scope, budget, and schedule, as well as confirming conformance with applicable engineering standards and practices. The sub-applicant will provide quarterly grant status reporting, including notification of any changes in scope, schedule or budget, and necessary corrective actions. Status reports will be prepared in a manner consistent with grant reimbursement requirements. The sub-applicant will hold monthly coordination and progress meetings with team members to apprise the team of project status, upcoming deliverables and activities. Communication is assumed to be mainly via phone, email, and remote teleconferences.

DELIVERABLES:

- Monthly status reports
- Coordination meeting materials and minutes

Task 2.2 – Public Outreach

Public Meetings / Workshops

The sub-applicant will continue to implement and update the Public outreach plan developed in Phase 1.

In Phase 2, the sub-applicant will coordinate and staff a construction-focused public meeting/workshop. The sub-applicant will help make presentations about design concepts and facilitate productive discussion of community interests and concerns. The outreach lead will help manage the flow of the dialogue and control any potentially contentious interactions. The sub-applicant will create a meeting format that allows for the appropriate balance of information sharing (e.g., via PowerPoint presentation, one-on-one dialogue) and input opportunities (via display stations, Q&A, comment cards, etc.).

Workshops (in person or digital) will be conducted in Spanish, Tongan/ Samoan and English as indicated by Advisory Board. It is recognized that people feel more welcome when the meetings or trainings are conducted in their own language without translation equipment. The intent is to be inclusive to all communities. Part of that is providing them with the space to have conversations, share personal stories and have a deeper understanding of the issues in where language won't be a barrier. Going the extra mile is important.

DELIVERABLES:

- Annual updated outreach plans

- Public workshop materials
- Public comment summaries detailing and categorizing public interests/concerns

Advisory Board/Stakeholder Meetings

Through Phase 2, the project team will be responsible for participating in up to six small group meetings with advisory Board or other stakeholders and local interest groups, including environmental groups and neighborhood groups. For efficiencies, it is recommended that each stakeholder meeting include combined stakeholders/multiple groups.

DELIVERABLES:

- Meeting summaries documenting key issues and concerns

Task 2.3 Final Design

Final Plans, Specifications, Estimates, and Construction Schedule

The sub-applicant will complete Final designs and associated drawings. General specifications (front-end documents) and Special Provisions will also be prepared. The sub-applicant will prepare a detailed construction cost estimate. Quantity take-off calculations and cost estimates will be prepared in a Microsoft Excel spreadsheet for the Final submittal. A draft bid schedule with updated quantities will be included. Cost estimates will correspond to Class 1 as defined by AACE. A construction schedule will also be prepared.

DELIVERABLES:

- Final stamped design plans, specifications, cost estimates, bid schedule, and construction schedule

Design Documentation Report

The sub-applicant will prepare written documentation of final engineering design. Documentation will consist of a binder containing design calculations, quantity take-offs and geometric calculations, utility information, quality control reviews and meeting notes. The Design Documentation Report will focus on materials prepared following completion of 90% design.

DELIVERABLES:

- Design Documentation Report

Stormwater Pollution Prevention Plan

Before the start of construction and land disturbing activities, the sub-applicant will develop a Stormwater Pollution Prevention Plan (SWPPP) for submittal to the California State Water Resources Control Board to obtain the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The sub-applicant will perform a risk assessment of the site, develop a site map, and develop the SWPPP. Project registration documents (PRDs) will be prepared and submitted to the partner agencies for review and approval. Once approved, the sub-applicant will submit to the Stormwater Multi Application Reporting and Tracking System (SMARTS) for final approval by the Legally Responsible Person (LRP).

DELIVERABLES:

- PRDs including Risk Assessment, Site Map, and SWPPP

Task 2.4 – Procurement for Construction Management Services

The sub-applicant will prepare a scope of services for Project construction management services and solicit competitive proposals from qualified consulting firms. Proposers will be assessed based on their qualifications, experience, approach to the work and estimated fee. Following initial screening, potential candidate proposers will be interviewed. The sub-applicant will enter contract negotiations with the preferred proposer.

DELIVERABLES:

- Scope of Services for Project construction management Services
- Solicitation documentation
- Contract documentation

Task 2.5 – Construction Bidding

After the Final PS&E are submitted, the sub-applicant will lead the bidding process for the project. Bid solicitation will include preparation of the bid package, advertising, and notice to contractors, holding a pre-bid conference, and responding to requests for clarification on bid documents, and issuing revised bid documents. The sub-applicant will also perform bid evaluation. Bids will be reviewed to verify they are complete, have been signed by proper authority, bonds are valid, and required documentation is enclosed. The sub-applicant will then bring the winning bidder under contract for the project. Following the determination of the winning bid, a letter of intent will be sent to the winning bidder, notifying them of the award and requesting acknowledgement and willingness to enter into contract negotiations.

DELIVERABLES:

- Minutes from pre-bid conference
- Addendum to bid documents
- Clarifications to bid documents
- Bid evaluation summary
- Negotiated/awarded contract
- One addendum to bid documents for each bid package
- Meeting notes

Task 2.6 - Engineering during Construction

Meetings and Site Visits

The sub-applicant will attend and assist at the pre-construction meeting. To facilitate project coordination, weekly project team teleconference meetings will be held to monitor construction progress. The sub-applicant will perform up to ten site visits as requested.

Support for Requests for Information (RFI) Review

During the construction period, the Contractor may ask questions on details of the Contract documents, substitutions, and alternative approaches, etc. If the Contractor's inquiry is related to the sub-applicant's design and cannot be readily answered from the construction Contract, the sub-applicant will respond to the inquiry with written clarification. If changes to the design are required during construction, sub-applicant will provide those design changes as mark-ups or addendums to the contract documents.

DELIVERABLES:

- Responses to RFIs, as needed
- Design changes, as needed

Permit Compliance Agency Coordination

The sub-applicant will coordinate with regulatory agencies as necessary during construction regarding interpretation of permit conditions and issues that may arise during construction. For example, if a listed species is found within the construction area regulatory agencies would be contacted. The sub-applicant will communicate with the agencies, and will perform follow-up communications with the project team and contractor.

Support for Change Management

The sub-applicant will provide assistance with change orders, at the request of the CM team. Sub-applicant will assist with determination of merit and quantum, as requested. If changes to the design are required as a result of a change order, sub-applicant will provide those design changes as mark-ups or addendums to the contract documents.

DELIVERABLES:

- Design changes, as needed

Project Record Drawings

The sub-applicant will prepare Record Drawings which accurately depict changes resulting from field conditions, design changes, project scope changes, or other changes, since the initial Construction Contract Drawings and addenda were adopted and approved. As a project condition of final payment, the Contractor shall provide redlined mark-up drawings that were maintained throughout the construction reflecting how the Contractor actually constructed the Project. These redlined mark-up drawings shall serve as the basis for the sub-applicant's record drawings. The sub-applicant will confirm consistency between the Engineer-of-Record Drawings and the contractor's redlined mark-up drawings. Any inconsistencies shall be resolved before issuing final project record drawings. The sub-applicant will conduct work on this subtask as construction progresses to allow for completion of the entire drawing set within the time period required.

DELIVERABLES:

- Review of Contractor's as-built drawings
- Signed and Stamped Final set of reproducible Record Drawings

Task 2.7 - Construction Management

Construction Manager

The sub-applicant will assign a full-time, appropriately qualified Construction Manager to oversee the CM scope of services for the duration of construction. The CM will participate in Task 1.6 Bid Support to review and provide comment on contractor bids.

Construction Coordination Meetings

The Construction Manager will lead the pre-construction meeting. The Construction Manager will lead weekly construction coordination meetings at the project site between the project team and the contractor in which construction progress, issues, risks, RFIs, change orders, quality management and other items will be discussed.

DELIVERABLES:

- Meetings materials and minutes for weekly meetings

Construction Management Facilities and Equipment

The sub-applicant will provide the facilities necessary to fulfil the CM scope of services, including but not limited to vehicles, communication devices, recording device, personal protective equipment and testing equipment.

Reporting

The sub-applicant will provide a written, monthly Construction Management Report, containing, but not limited to, recent and current work activities, work completed to date, schedule analysis, Contractor payment request, budget analysis, status of submittals and RFIs, status of Change Order Requests, discussion of project risks.

DELIVERABLES:

- Monthly Construction Management report

Risk Management

The sub-applicant will conduct a pre-construction risk workshop, in which potential risks during construction will be identified and discussed. Risks considered will include, but not be limited to, risks to safety, schedule, budget, environment, and public perception. Mitigation actions and owners will be assigned to each risk, and a risk register will be developed to document and track the risks. At least once each quarter-year for the duration of the construction project, the sub-applicant will conduct a risk workshop to review the state of the project and update the risk register, with the overall intent being to identify and mitigate risks before they are realized.

DELIVERABLES:

- Master Risk Register, as part of Monthly CM Report

Schedule Review and Analysis

The sub-applicant will assist in reviewing the construction contractor's baseline schedule and subsequent monthly updates for the duration of construction. The sub-applicant will advise if the construction contractor's schedule is consistent with the contract construction documents with emphasis on milestone dates and construction sequencing.

DELIVERABLES:

- Contractor's schedule update with review comments, as part of Monthly CM Report

Payment Application Review

The sub-applicant will review the Contractor's requests for payment for conformance with work performed and with the contract construction documents, and make a recommendation for payment, non-payment or partial payment for each application.

DELIVERABLES:

- Contractor's payment application with review comments and recommendation for payment, non-payment or partial payment, as part of CM Monthly Report

Contractor Submittal and RFI Review

During construction, the Contractor will provide submittals as specified, and may request information on details of the Contract documents, substitutions, and alternative approaches, etc. The sub-applicant will receive such submittals and requests and manage the process for their response. The Sub-applicant will maintain records of all submittals and requests, ensure that resulting project changes are conformed with the contract documents and as built drawings.

DELIVERABLES:

- Records of submitted, open and closed-out submittals and RFIs
- Tracking sheet for Submittals and RFIs, as part of Monthly CM Report

Change Management

During construction, the sub applicant will manage change orders from the contractor by reviewing the change order request (COR), analyzing the request for merit and quantum, and providing a written summary with a recommendation for acceptance, non-acceptance or partial acceptance. The sub-applicant will negotiate as necessary with the Contractor to come to terms.

DELIVERABLES:

- Written analysis, opinion and recommendation for Contractor CORs.
- Tracking sheet for contract changes, as part of Monthly CM report

Quality Assurance

The sub-applicant will develop and implement a project-specific quality assurance (QA) program to verify the Contractor's quality control (QC) program. The QA program will provide for sufficient

independent sampling, testing and observation of the work to verify the QC process. At a minimum, the QA program will include observation of work activities, written field reports with photographs, and materials sampling and testing after placement.

DELIVERABLES:

- Written, project-specific QA Plan
- Documentation and records of QA implementation, as part of Monthly CM Report

Wildlife and Revegetation Monitoring

The sub-applicant will provide qualified biologists (qualified to be approved by the USFWS and CDFW as necessary) to perform monitoring related to special-status wildlife species during construction of the project and its mitigation areas. These biologists will perform surveys and monitoring that are expected to be required as conditions of CEQA/NEPA documents, permits, and Biological Opinions, and they will verify compliance with various requirements of those documents, and with documentation of compliance. Examples of construction monitoring activities include environmental education training for contractors, pre-activity surveys, monitoring during construction, protection of individual special-status species that may be in harm's way, and preparation of pre-activity and construction monitoring reports. Species on which construction monitoring will focus may include the California Ridgway's rail, salt marsh harvest mouse, western snowy plover, and others.

The sub-applicant will provide a restoration ecologist and landscape architect to conduct, at a minimum, monthly site visits to observe construction as it relates to the revegetation elements of the project.

DELIVERABLES:

- Field monitoring reports, as part of Monthly CM Report

Construction Documentation Report and Biological As-Built Report

The sub-applicant will prepare a Construction Documentation Report (CDR) to summarize the implementation of the construction project, with focus on quality management, changes to the contract documents, changes to construction sequencing and schedule, significant change orders, and lessons learned for future projects.

Following completion of construction of the project's wetland restoration/mitigation elements, a Biological As-Built Report will be prepared documenting the constructed conditions of these project elements. The as-built report will include figures depicting the various features of the restoration/mitigation areas and accompanying text describing the constructed conditions relative to the design proposed in the regulatory permit applications.

DELIVERABLES:

- Construction Documentation Report
- Biological As-Built Report

Task 2.8 – Construction Activities

Construction activities are described in detail in the **Attachment - Menlo Park SAFER Bay Construction Activity Description**.