

SCOPE OF SERVICES

We have reviewed the anticipated City's Scope of Services section of the RFP and are in general agreement with the identified phases which are included below in large capitalized text. The fee is based on the scope of services outlined below:

PHASE 1 – PROJECT MANAGEMENT AND COORDINATION

Task 1:

Project Management

The Consultant shall provide project management and administration services including monitoring subconsultants activities, coordinating with City staff and subconsultants, implementing quality control and quality assurance procedures, submitting monthly invoices and progress reports, preparing and maintaining project schedule, and developing a work plan to ensure the project remains on budget and schedule.

Project Meetings

The Consultant shall conduct one (1) kick-off meeting with the City to review and refine scope of work, work plan, and schedule. Identify critical milestones and establish communications protocol. The Consultant shall attend up to six (6) in-person Project Development Team meetings with Caltrans, and up to 14 (six (6) in-person and eight (8) teleconferences) progress and coordination meetings with City staff, key stakeholders, or other agencies. Prepare and submit agenda, pertinent materials and meeting minutes for each meeting for City staff reviews.

Deliverables Task 1:

- Monthly invoices & progress reports
- Updated project schedule
- Meeting agendas & meeting minutes

PHASE 2 – DATA COLLECTION AND ANALYSIS

Task 2: Data Collection and Review and Site Visits

The Consultant shall review available data and information provided by the City, Caltrans, and other agencies. Conduct up to three (3) site visits to review existing conditions and identify constraints that may affect the proposed design. Provide field notes, representative photos, and field measurements. Available data/information includes, but is not limited to the following:

- Previous studies, reports and/or documents related to the project
- Community input from Corridor Study
- Design guidelines and City's preferred project footprint and bridge alignment
- As-built plans
- Environmental studies and documents
- Utility information
- Aerial photos and digitized topography
- Survey control data
- R/W information

Task 3: Survey/Mapping and Potholing

The Consultant shall conduct field surveying to gather supplemental site topography information. Provide all equipment, photographs, documentation, and services for surveying. Activities under this task include, but are not limited to:

- At the initiation of the project, a Caltrans Encroachment Permit Application will need to be submitted to conduct surveys, investigations and site visits. Given this is a City project, a Caltrans parent permit will need to be applied for and issued to the City and a Double permit will be applied for and issued to BCA. BCA will prepare and submit the permit applications on behalf of the City and BCA Team. It is assumed that the permits will be issued at no cost.

- Conduct required surveys and update topographic surveys within the project area. The surveys will concentrate on obtaining elevations at conform areas and within Highway 101 for vertical clearances. Topographic surveys shall be conducted via laser scanning which will eliminate disturbing traffic via lane closures. Traffic control will be provided for this task.
- R/W and property lines mapping within the project area will be based on available information for this phase of work; no resolve boundary surveys will be performed.
- Compile all survey data in an AutoCAD base map. It is assumed that the City has an existing AutoCAD base that can be supplemented with the information obtained via record documents and the supplemental survey. The scope for the development of base sheets for the project assumes that the City has an existing aerial mapping, if this is not the case:
 - Existing image base sheets can be used and supplemented with survey information. Additional effort will be needed to provide background grading information and surface features that would otherwise be provided with aerial mapping. For the purposes of a Caltrans reviewed and approved Project Study Report/Project Report (PSR/PR), the project should verify that Caltrans will not require planimetric/aerial mapping base sheets.
 - Perform aerial mapping to produce planimetric base sheets.
 - Perform aerial mapping via Caltrans ABC Mapping requirements to produce planimetric base sheets. ABC Mapping requires Caltrans 3-step approval of the survey control, aerial mapping flight and digitizing of the base sheets. Whether ABC mapping will be required should be confirmed with Caltrans. The discussion should include verifying that the requirement for ABC mapping will not be needed for the PSR/PR or the PS&E phases as the same mapping should be used through the development of the contract documents.
- Prepare a Right-of-Way Requirement Report for review by City.
- City to provide benchmarks and control used for the existing aerial mapping.
- Coordinate with the utility companies in accordance with City requirements for potholing and potholing survey. Provide recommendations for locations and depth of potholing surveys. No potholing shall be performed in the Caltrans R/W. For this phase of work, the potholing will be limited to potholes of a significant utility that may affect the design or alignment. It is assumed that no more than 4 potholes will be required.

Deliverables Task 3:

- Autocad Base Map with supplemental survey information and showing available R/W and property lines.
- Right-of-way requirement report
- Recommended potholing locations exhibit

Task 4: Geotechnical Report

There is adequate existing data available at or near the site for this initial study and Preliminary Engineering phase of the project. The BCA team proposes to drill and do the full investigation work in the subsequent phases once the final alignment and foundation types have been confirmed. This approach will prove to be more cost efficient. In the same manner, the soil disposal report requested in the RFP is a hazardous material report that, if necessary, will be done after the final locations and foundation types are determined. As such, we will prepare a Preliminary Foundation Report (PFR) in accordance with Caltrans standards based on the readily available geotechnical data including previous LOTB sheets and preliminary structural design information deriving from 11 below.

Caltrans requires a PFR for the bridge foundations and preliminary discussions on the foundation type and other relevant issues. The potential geotechnical/geologic impacts and mitigations will be discussed on a broad basis including but not limited to slope stability, geology, seismic impacts, erosion, groundwater conditions, etc. for the proposed project. Generally, the geotechnical issues relevant to the proposed project are presented in a qualitative manner with no specific design recommendations. Certain design assumptions are made as to the type of retaining wall, type of foundations, approximate pile lengths and approximate slope angles etc. The potential mitigation measures are also provided in a discussion format. These are helpful in defining the overall design program and evaluating the cost impacts. Subsequently, a detail Geotechnical Design Report and Foundation Report would be required during the P.S. & E. phase.

Deliverables Task 4:

- Preliminary Foundation Report

Task 5: Tree Survey

A tree survey will be completed by a certified arborist and will include all trees, 6-inch in diameter and larger, within the project limits. The survey will identify City heritage trees and street trees that may be affected by the project. Tree Protection Measures will be identified for implementation during the construction period.

Deliverables Task 5:

- Tree Survey Memo that will be part of the addendum prepared in Task 11.5

Task 6: SWPPP / WPCP

As a requirement of PSR/PR and to complete the CEQA clearance for the project, a Storm Water Data Report (SWDR) will be prepared. The SWDR will define the areas of disturbances, include Treatment Best Management Practices Checklists and assess if hydro-modifications are required.

The project will need to comply with C.3 stormwater treatment requirements as outlined in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). The SCVURPPP was prepared to clarify requirements of the Municipal Regional Stormwater Permit (MRP). The areas for post-construction storm water treatment will be identified and balanced between the different available areas and spaces by the project. The stormwater treatment measures to be used will be two low impact development (LID) treatment measures: bioretention areas and self-retaining areas per Sections 4.2 and 6.1, respectively, of the SCVURPPP. The project will need to verify that treatment areas can be accommodated for the permitting and the CEQA clearance.

As the SWDR will determine the areas of disturbance, it will also determine if the disturbance triggers the need for a Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP).

The results and recommendations of the SWDR for the temporary stormwater treatment measures for construction (need for SWPPP versus WPCP) and permanent stormwater measures will be documented and provided to support both the PSR/PR and the CEQA clearance document.

Deliverables Task 6:

- Storm Water Data Report

Task 7: Utility and Agency Coordination

Consultant will perform the existing utility mapping for the Project area, identify utilities that could potentially conflict with the proposed improvements, and develop schematic utility alignments for utility relocations for later (final design) discussions with the affected utility owners. Potential high-risk utility impacts and encroachments in the Caltrans R/W will be identified. For the PSR/PR, utilities that violate Caltrans policy for utilities within the State right of way would need to be relocated or remain in place with Caltrans approval. This applies both for new utility installations and all existing utilities within the project limits which is defined by the limits of the traffic staging. Utilities that violate Caltrans standards will be noted.

Consultant will coordinate with the affected utility companies and property owners (Caltrans, City Public Services Division, Pacific Gas and Electric Company (PG&E), tele-communication companies, etc.) to make preliminary determination of ownership rights and relocation cost liabilities, and other requirements.

It is assumed that final utility relocation plans will be prepared by each of the affected utility owners during the final PS&E phase. Additional potholing, in addition to potholing noted in Task 3 above, will also be performed in later project phases as the relocations are better defined.

Consultant will prepare preliminary utility relocation cost estimates for the study that will be confirmed by the affected utility owners during the final PS&E phase once the utility relocation plans are developed and finalized by the utility owners.

Consultant will coordinate with the project stakeholders to obtain consensus on the project.

Consultant will attend meetings with the City, Caltrans, VTA and other jurisdiction agencies to provide information on the project and address questions in order to obtain approval on the project.

Deliverables Task 7:

- Existing Utilities base map
- Preliminary utility relocation cost estimates

PHASE 3 – PUBLIC OUTREACH AND ENGAGEMENT

Task 8: Structural Design and Aesthetic Evaluation Study

Prior to initiating design work in Phase 4, the Consultant shall conduct a visioning and preliminary conceptual analysis of overall project layout, alignment and profile, structural design, urban design, and architectural concepts for the bridge and its approaches. This most-critical phase of work will generate a project vision and direction that will satisfy the highest ambitions of the City of Mountain View, garner the widest support from the City's many community stakeholders, and fully gain the technical and regulatory acceptance from Caltrans required to move forward with design development.

Task 8 will run concurrently with Task 9, Public Outreach (see below), as the major focus of Task 9 is engaging the City and its many stakeholders in reaching community-wide consensus around one the City's most significant and highly-visible access and urban design projects. Task 8 will also embrace the conceptual evaluation of the extension across Shoreline to La Avenida, recognizing that this feature, if built, represents a significant utilitarian and aesthetic component to the project.

Through a highly-collaborative design process, Task 8 will generate a broad set of conceptual "packages", each a combination of layouts, geometries, and structural "types" (distinct structural alternatives) expressing a representative range of concepts from contextual "blending in" to highly-expressive "iconic". For purposes of cost/benefit analysis, each package will be evaluated at a conceptual level for technical soundness, feasibility, and development cost. Through comparative evaluation, the process will winnow-down to a "short list" of three preferred alternatives that will then be taken to 15% design in Phase 4.

Products of Task 8 will include conceptual exhibits (image boards, rendered sketches, photo-simulations, etc.) required at each stage of Public Outreach (see below), and technical memoranda describing the alternative packages and the alternative evaluation process (evaluation methodology, scoring, outcomes, etc.).

Deliverables Task 8:

- Conceptual layout, geometry, and structure concept packages for a comparative process
- Three preferred alternatives from the comparison packages to be taken to a 15% design level
- Conceptual exhibits and technical memoranda for the three alternatives

Task 9: Public Outreach

The Consultant shall develop and implement a robust community engagement process, attend and provide support to City staff in public outreach efforts, and facilitate community meetings to obtain input on the proposed design. Develop all necessary meeting materials including graphics, presentation slides, handouts, drawings, graphic boards, etc. for each meeting, as appropriate. Conduct a "pre-meeting planning session" with the City via teleconference before each meeting to review meeting materials. Provide minutes for all meetings. A minimum of seven (7) public outreach meetings are anticipated per the RFP. The following public activities include public meetings and other engagement activities anticipated during and after the Structural Design and Aesthetic Evaluation Study:

- *Stakeholder and Contact Database:* The Consultant shall collaborate with City staff to build onto any existing contact list to include key individuals, organizations, and agencies to engage.

- *Community Engagement Strategy:* Working with City staff, the Consultant shall define key outreach activities, their sequence, and their likely schedule.
- *Project Informational Materials:* Consultant shall develop materials to help educate the community about the project and potentially promote input activities, typically including a project fact sheet, FAQ sheet, and flyer template, or other information that can be posted to the city's website.
- *Stakeholder Interviews:* Consultant shall interview specific individuals and community champions representing key stakeholder groups or constituencies early on in the process to identify concerns and early design preferences or parameters.
- *Stakeholder Group Meetings:* The consultant shall coordinate and attend up to four (4) existing stakeholder meetings. Among the possibilities include advisory group meetings, neighborhood group meetings, the chamber of commerce, school PTA meetings, service clubs (Kiwanis, Rotary, Lions, etc.), or tech employee groups,
- *Visioning Workshop:* The first community meeting is proposed as a kickoff to present the process, the project objectives, constraints, and also to begin gathering concerns, ideas, and preferences.
- *Design Charrette:* At a second community meeting – proposed as a design charrette – consultants will present preliminary technical work and analysis but will be structured as a hands-on opportunity for participants to contribute to the design of the overcrossing, it's features, aesthetics, and amenities.
- *Community Open House:* To conclude the public input process, the Consultant shall organize and conduct a community open house to present the proposed design.
- *Visualizations and Photo-simulations:* Consultants shall develop graphic simulations that can help present a proposed design, alignment, or features in a realistic and life-like manner. These simulations are very versatile since they can be deployed in presentation, on boards, printed materials, and through online materials.
- *Online Preference Setting Activity:* To reach the broader Mountain View community beyond those attending in-person, an online activity, potentially a graphics- or map-based survey is proposed to help garner community input and ideas, and to help hone in on a design alternative.
- *City Council Meetings:* The Consultant shall attend and assist in presentations in up to a total of two (2) City Council meetings. These meetings shall be planned at the City's staff's discretion.

The **Proposed Public Outreach Process** is shown in the exhibit on the following page.

Deliverables Task 9:

- All necessary meeting materials, including graphics, presentation slides, 4 photo simulations/visualizations, handouts, flyers, group activity boards, fact sheets, agendas, sign in sheets, summary of findings, event photos, content for social media postings, PowerPoint presentation on outreach findings.

PHASE 4 – IDENTIFY, DEVELOP AND EVALUATE CONCEPTUAL DESIGNS

Task 10.1: Design Concept and Preliminary Geometric Plans (15%)

The Consultant shall develop 15% design plans (design concept with enhancements) in accordance with all applicable design standards and guidelines for the top three (3) alternatives that come out of the Structural Design and Aesthetic Evaluation Study. Features to include, but are not limited to:

- Principal Span Structure Selection Matrix including structure "type", anticipated costs, key constraints and conceptual graphics.
- Embankments (if any), retaining walls/sound walls (if any), supports, main span and approach structure geometrics
- Geometric alignment and clearances, including bridge and approaches, optional La Avenida connection (UC and OC options), and "protected" intersections where bridge approaches connect to cycle tracks and bike lanes on Shoreline.

It is proposed that the alternatives and geometric plans be developed with three focus areas: (1) the geometric plans through Caltrans right of way, (2) the at-grade pedestrian and bicycle facilities, interactive zones and crossings and (3) the optional La Avenida connection.

- (1) The geometric design for the bridge and ramps through Caltrans right of way will be developed based on project objectives, the constraints and the City's and Caltrans design standards. Adequate detail will be provided so that assessments and evaluations can be made and discuss. The existing and proposed geometric and vertical alignments will be reviewed to determine compliance with Caltrans Highway Design Manual standards and local jurisdictions standards. Early identification of design exceptions may allow the design to mitigate the condition or alert the team that design exceptions will need to be processed and obtain Caltrans approval. The plans will be formatted similar to Caltrans traditional geometric drawings that will consist of typical cross sections, layouts and profiles and identification of exceptions to the mandatory and advisory design exceptions.

Caltrans initial approval of the design exceptions and design is needed to validate that the design alternatives are viable. It is proposed that after initial evaluation and discuss with Caltrans on design alternatives for the structure and ramps through US 101 and its ramps that one alternative will be set for the alignment of the bridge and ramps leading to the bridge. The design exceptions associated with the alternative will need concurrence from Caltrans Design Unit, Headquarters Design Coordinator and the District Design Coordinator or the alternative will need to be refined until it meets the City's and State's approval.

- (2) Design concepts will be developed for the bicycle and pedestrian improvements along Shoreline Boulevard and through the crossings at Terra Bella Avenue, La Avenida Street and Pear Avenue. The focus of the alternatives will be for the continuous circulation through the facility, the clear and safe convergence and interaction between the bicyclists and pedestrians and the safe crossing at the intersections. Three alternatives will be developed for the bicycle and pedestrian at-grade facilities.
 - (3) Options will be investigated for a direct connection to La Avenida. The options will consider the future plans for the Northbound US 101 off-ramp. Initial options such as an overcrossing, undercrossing will be quickly assessed to determine feasibility and with the City determine the if the development of the options should be advanced.
- Traffic impacts to circulation patterns, pedestrian & bicycle accessibility, safety and connectivity.
 - Preliminary pedestrian and bicycle railings, lighting concepts, and provisions in design for public art.
 - Utilities and property lines
 - Landscape and urban design conceptual plans for at-grade improvements.
 - Third-party constructability and cost verification review to verify design assumptions and budget
 - The Consultant will conduct an alternative analysis, which is essentially an internal value analysis to optimize the project alternatives for further consideration. The alternative analysis will be used to validate and ensure well-defined definition of the alternatives and corresponding geometry. The preliminary refined geometric and bridge alternatives will be presented to the City to create discussion and confirmation on the acceptability of the proposed alternatives for consideration and selection of the preferred alternative. The various analyses performed by the Consultant will be compared side-by-side in a Project Alternatives Matrix and summarized in the Design Concept Statement.
 - With the geometric alternatives tested and evaluated through the side-by-side project alternative matrix, which can be developed to consider, measure and compare just about anything of interest (i.e. costs, issues, stage construction, circulation, pedestrian/bicycle

compliance, structures, traffic right of way, and environmental impacts), a preferred alternative will be selected to move forward into the next phases of the Project.

- Meet with City Staff and City Council to present Principal Span Structure Selection Matrix, discuss pros and cons of each alternative and determine City Council direction for preferred design for design development beyond 15% level.
- Provide draft 15% design documents for City's review. Incorporate City's comments and submit final 15% design documents. Provide one (1) final Design Concept Statement that incorporates all comments and recommends a final design concept with optional enhancements for City's review and to be carried forward to PHASE 5 (see below).

Task 10.2: Constructability and Cost Verification (CCV)

Consultant to hire a third-party to perform a **CCV** after 15% and 35% design for potential cost reductions, evaluation of the bridge structure and optional enhancements and ways to produce a high quality and more efficient design. The evaluation shall include a constructability review and also identify cost reductions. The findings and recommendations shall be documented in a draft memorandum for City and Consultant review and input. The third-party shall finalize memorandum based on City's comments.

Task 10.3 Bridge APS

The Consultant shall develop a Bridge APS submittal for Caltrans review and approval. Perform necessary modeling and analysis to support member sizing. The Bridge APS shall be performed in accordance with Caltrans Bridge Memo to Designers 1-8, and shall include 11x17 APS sheets in Caltrans format, APS Checklist, APS Design Memo, and an Itemized Cost Estimate. Assume 3 APS's.

Task 10.4 Prepare PSR-PR Approval Document

With the development of the design in the alternative analysis, a solid geometric base is developed for the PSR/PR. The City is seeking a document to obtain Caltrans consensus on the project and its proposed design within Caltrans right of way. The consensus would be obtained in the form of a PSR/PDS. As the project will not alter Caltrans roadway and operations post-construction, it is assumed that the PSR/PR would not be required to same detail as a Caltrans project but would generally conform to Caltrans Project Development Procedures Manual. This is consistent with recent projects that involved the construction of overcrossings within the State right of way that do not provide any connection to the highway. The level of detail will be discussed with Caltrans in order to efficiently prepare and obtain approval of the PSR/PR.

The geometrics and profile designs will be re-assessed to ensure that all investigative study requirements are met. Right of way needs will be identified and documented in the Right of Way Data Sheet. Stage construction concepts will be developed to support the preparation of a Transportation Management Plan (TMP). In ensuring that all elements have been considered to mitigate traffic impacts during construction through the TMP, the TMP checklist will be reviewed and completed for the Project.

Utility relocations and adjustments will be specified. When utility facilities cannot meet Caltrans current "Policy on High and Low Risk Underground Facilities within Highway Rights of Way", the utilities will be identified and the requirement for the processing of the approval of a Utility Encroachment Exception Report will be noted.

The need for Advisory Design Fact Sheets and Mandatory Design Exceptions will be identified for future preparation and processing.

As part of the Draft PR approval process, it is essential to obtain approval of not only the geometry but other project documents. A SWDR and Risk Management Plan will be prepared and embellished with project information.

A preliminary geotechnical memo will be prepared based on available materials and will address associated bridge, embankments, and walls. No field exploration work is proposed, however site

review and data research will be performed. The review will be based on readily available data including as-built Log of Test Borings from the existing projects and other available record information.

A Bridge APS will document the scope and cost of structural work in the project. The APS shall consist of one structure plan sheet for each structure showing general structure layout details and estimated cost, preliminary geotechnical memorandum, APS checklists, design memorandum, and itemized cost estimates. There will be no APS sheets developed for the retaining structures unless these walls are very unusual in characteristic and type.

With the design-related work completed, the Draft PSR/PR can be finalized. The items above will be used to ensure that the following are addressed:

- Present the project's goals and purpose
- Provide the results of an accident rate analysis
- Provide a discussion on the benefits of the project
- Address inclusion of potential Best Management Practices elements
- Incorporate environmental findings and recommendations
- Identify utilities within the right of way to ensure compliance to current Caltrans standards
- Confirm right-of-way requirements
- Prepare a Right of Way Data Sheet
- Verify that proposed work is coordinated with future projects such as the Express Lane and the NB US101 Shoreline Boulevard off-ramp Projects
- Prepare an Advanced Planning Study
- Prepare the Preliminary Storm Water Data Report
- Provide a Risk Management Assessment

With the results of these project tasks, the cost estimates and schedule will be confirmed and incorporated and the Draft PSR/PR drafted. A brief description and explanation of rejected alternatives will be provided and a preferred alternative recommended.

After the review of the Draft PSR/PR, comments will be reviewed and discussed. Comment resolutions will be documents. The Draft PSR/PR will be updated and submitted as a Final PSR/PR for approval.

Deliverables for Task 10:

- 15% plans for the 3 alternatives, including structure concepts, geometric layouts, conceptual aesthetic features, landscape and urban designs,
- Draft and Final Memorandums for Constructability & Cost Verification
- Bridge APS for the 3 alternatives
- Draft PSR-PR
- Final PSR-PR Approval Document

PHASE 5 – SCHEMATIC DESIGN

Task 11: Preliminary Design (35%)

11.1 Basis of Design Memorandum

The Consultant will confirm the applicable City, Caltrans, other applicable jurisdictional standards and guidelines to be implemented and considered for the design of the pedestrian and bicycle overcrossing. The applicable standards and criteria set for the Project design will be described and culminated in a Design Basis Memorandum.

11.2 Independent Quality Assurance Plan and Project Management Plan

Project Management Plan: The Consultant will prepare and issue a Project Management Plan that outlines critical information required to oversee the project:

- » Organization
 - Roles and responsibilities
 - Communications

- » Design Scope
 - Detailed scope describing work to be performed and deliverables
- » Cost Control
 - Budget
 - Work breakdown structure
 - Billing procedures
- » Project Schedule
- » Document Control
 - Filing system
 - Web-based filing/communications
- » Independent Quality Assurance Manual
- » Design Basis Memorandum
- » Contract Implementation Plan

Independent Quality Assurance Plan: The Quality Assurance Plan is a central part of the overall Project Management Plan and essential to meeting the City's quality performance goals of achieving a preferred alternative that can will be designed to meet the required standards, community objectives and approvals. Specific quality procedures will support the preparation and verification of all types of design documents - plans, environmental documents, estimates and reports.

The Quality Assurance Plan will incorporate the latest management and quality procedures developed at the Consultant. The Quality Program will be led by the Quality Assurance Manager. The Quality Assurance Manager will prepare a project specific Quality Manual, define the required training, conduct audits of the entire Consultant team and impose corrective actions.

Key procedures for planning design tasks will be implemented to help ensure that all requirements for Design Basis Document development, design coordination and design reviews are incorporated into the schedule. The overall Quality Assurance hierarchy includes the following major components:

- » Quality Manual - Policy
- » Quality Procedures – all phases of the work, e.g. design, administrative, management
- » Work Instructions – detailed directions, incorporating procedures and other information for specific project applications
- » Quality Records/Audits

11.3 Preliminary Plans

The Consultant shall refine the 15% concept designs and prepare preliminary design civil plans (35%) for the preferred alternative based on community and City input showing architectural and civil plans, structure elevations, sections, plaza layouts, benches, artwork, lighting, and fence/railing elements, horizontal control lines, vertical profiles and super-elevations, grading and drainage, structure location and wall limits, utility impacts, and R/W/construction easement impacts. Refine the following major project elements, develop basic design components and submit the preliminary civil design for City's Site and Design and Caltrans reviews of:

- Main bridge span over Highway 101 and approach structures -refined APS
- Pedestrian/bicyclist access along Shoreline Blvd to the bridge ramp landing
- Preliminary staging and traffic handling
- Preliminary signing and striping
- Associated landscape and urban design elements
- Design enhancements with associated cost and benefits

11.4 Preliminary Cost Estimates

The Consultant shall prepare preliminary construction cost estimate for the project in accordance with Caltrans guidelines including Caltrans Bridge Memo to Designers 1-8 and Section 11 of the Caltrans Bridge Design Aids. Use Caltrans APS Cost Estimate form for bridge item.

11.5 Environmental Support

CEQA Compliance:

The Consultant will provide CEQA Documentation consisting of an Addendum to the North Bayshore Precise Plan EIR/Subsequent EIR. This approach assumes the City of Mountain View will be the CEQA Lead Agency for the project. The Addendum will focus on the impacts of the footprint of the pedestrian/bicycle bridge. The CEQA Documentation assumes:

- The City will be the Lead Agency under CEQA and the level of CEQA review will be an EIR Addendum
- Only one build alternative will be evaluated in the EIR Addendum.
- All partially- and fully-completed environmental studies that were prepared for the Shoreline Boulevard Corridor Transportation Study will be made available to the Consultant at the initiation of the project.

The Consultant will prepare an EIR Addendum in compliance with the California Environmental Quality Act (CEQA). The primary sections of the IS will consist of a description of the project, a description of the environmental setting, and a description of the project's environmental impacts, including mitigation where applicable.

The project description section of the IS will include graphics, as appropriate, to depict the location, footprint, and characteristics of the Project.

- **Visual Impact Assessment** – The Consultant will prepare a Visual Impact Assessment (VIA) memorandum that will evaluate the visual and aesthetic effects of the proposed Project. The VIA will contain three photosimulations of the overcrossing, one from each of the primary viewsheds.
- **Other Technical Reports** – The Consultant assumes that other technical reports and information relevant to this project have previously been completed as part of the North Bayshore Precise Plan and other available information.
- **Draft and Final Versions of Addendum** – The Consultant will submit 5 hard copies and one electronic copy of the administrative draft Addendum to the City for review and comment. The Addendum will be revised based on the City's comments and an electronic screencheck version will be provided to the City for final review/approval.

Upon approval, the Consultant will make 20 hard copies of the EIR Addendum (. An EIR Addendum does not need to be circulated to the public, rather it is included in the environmental record for the project. The City will be responsible for the preparation and publication of any public/newspaper notices.

Upon adoption of the EIR Addendum and project approval, the Consultant will prepare and file the CEQA Notice of Determination (NOD) with the Santa Clara County Clerk-Recorder on behalf of the City. The Scope assumes the Consultant will pay the County Clerk \$50 NOD filing fee and the project will be exempted from the CDFG filing fee.

- **Supplement the Section 106 HPSR:** Previous work completed as part of 101 express lanes project will be supplemented to cover the APE or project, specifically the portion of shoreline at Terra Bella and between La Avenida and Pear Ave.

NEPA Compliance (Optional):

In the event Caltrans is the CEQA Lead Agency and/or there is federal funding involved that requires NEPA compliance, the Consultant will complete the CEQA and NEPA review in accordance with the Caltrans SER, assuming the project is eligible for a Categorical Exemption and Categorical Exclusion with supporting technical studies. The detailed scope has not yet been determined however it is anticipated that work under this task would include the following:

- Preparation of documentation to support a NEPA Categorical Exclusion and/or CEQA Categorical Exemption.

- Preparation of the following technical studies. The Caltrans process typically involves multiple review and revision cycles for these reports:
 - Historic Property Survey Report
 - Archaeological Survey Report
 - Location Hydraulic Study
 - Traffic Analysis
 - Stormwater Data Report
 - Water Quality Report
 - Paleontological Identification Report
 - Natural Environment Study
 - Biological Assessment
 - Initial Site Assessment

It is assumed that Caltrans will not require the preparation of an Environmental Assessment/Finding of No Significant Impact (EA/FONSI).

Deliverables for Task 11:

- Basis of Design Memorandum
- Project Management Plan
- Independent Quality Assurance Plan
- 35% Civil Plans and the Refined Structure APS (See Task 11.3 above)
- 35% Cost estimates
- 5 hard copies and one electronic copy of the administrative draft Addendum
- 20 hard copies of the EIR Addendum

CITY PROVIDED DOCUMENTS AS REQUESTED

Previous CEQA and NEPA Documents
Agreements with other agencies or entities
City plan check and issuance of City permits

CITY PROVIDED SERVICES

1. City will provide or obtain Caltrans parent encroachment permit for conducting field activities. If a Contractor Double Permit is required by Caltrans to perform field activities, fees will be paid by City.
2. City will arrange open house location and conduct all pre-meeting notifications.
3. City will maintain stakeholder and interested party lists and make all email notifications.
4. City will create and place any required newspaper ads or other forms of notification.
5. All fees associated with the regulatory permits and filing of notifications will be paid by City.

ASSUMPTIONS

1. All plans will be prepared using AutoCAD. AutoCAD files of structure plans will be converted to Microstation, as required by Caltrans OSFP. Road plans will not be converted since electronic copies other than PDF are not required by Caltrans OSFP.
2. It is assumed that the existing aerial mapping AutoCAD base map will be made available and can provide an accurate 3-D model for use for the Project design.
3. Surveying will be conducted via a scanner and be concentrated to the areas of conform and specific areas on the highway that are needed to determine vertical clearance.
4. All needed traffic control will be provided by the sub-consultants.
5. The City will provide the primary coordination and scheduling for the Public Outreach portion of the project including coordinating and obtaining all meeting dates, locations,

mailings, notifications and advertising. The Consultant will provide PowerPoint slide presentation, presentation boards and graphics as applicable for each meeting. Handouts are assumed to not be required at Public Meetings. A limited number of handouts will be provided, as applicable at Stakeholder Meetings, Interagency Field Meetings and Design Review Board/ Commission Meetings. It is assumed that the City will provide formal meeting minutes and updates and notifications to City website, as required.

6. It is assumed that Utility Encroachment Exception Report and Fact Sheets are not required for the PSR/PR.
7. A preliminary drainage report and life cycle analysis will not be required for the PSR/PR.
8. It is assumed that the City can sign the Right of Way Data Sheet as the certified agent. - Verified by City
9. Formal Caltrans Value Engineering services will not be required since the project is anticipated to be less than the \$40 million per bridge project threshold. Constructability and cost verification services will be provided at 15% and 35% per the RFP.
10. The scope of work and design fee includes the Baseline Project Elements as outlined in the Project Description. The Core Additional Project Elements will be provided as directed in writing by the City for the associated fee described. The Core Additional Project Elements must be selected by the City prior to submitting the final 15% Design Plans. Elements identified after submittal of the final 15% Design Plans can be provided for additional fee and extension of the project design schedule.
11. NEPA Compliance consultation with Caltrans (if required) will be initiated after completion of the field exploration program.
12. Type Selection Report, attending Type selection meeting and getting Caltrans approval of structures are not included in the fees above.

OPTIONAL SERVICES

1. **Aerial Mapping:** (Caltrans ABC mapping requirements are assumed). Please note that the CAD file sent by the City in a separate email is only focused on Shoreline Blvd. It is unlikely that this aerial was prepared per Caltrans ABC mapping requirements given the City noted it was completed for less than \$10K. As a result, we should assume we cannot use this aerial given that it wouldn't meet Caltrans requirements.
2. **Bridge Type Selection Report with additional geotechnical investigation:** Preparation of a Type Selection report for a Baseline (not signature or iconic) POC over US 101 and approach ramp structures (does not include the POC over Shoreline to La Avenida) for submittal to Caltrans that will include a Project Site plan, Structure description, Type Selection Memorandum, Bridge Construction and Traffic Impact Summary Table. It will also include a Bridge Site Data Submittal, Type Selection level General Plan and Foundation Plan, and a Preliminary Foundation report.
3. **Utility Encroachment Exception Report and Fact Sheets for Design Exceptions:**


Utility Policy Exception Request (formerly called Longitudinal Utility Encroachment Exception (LUEE)) will be prepared to document the location of existing or proposed utilities that


cannot meet Caltrans policy for utility encroachments within State R/W. Per Caltrans standards, this request will include a transmittal memorandum that describes existing or proposed utilities that require an exception and include justification for the policy exception.. The submittal package will also include the following per Caltrans standards:

- Detailed map (title sheet) showing the general alignment of the highway, crossroads, frontage roads, ramps, and geographic features
- Detailed plans (typical cross sections, layouts, profiles, and construction details) showing the limits of the highway right-of-way, the highway and highway features, including environmental constraints or other factors necessary
- Proposed access to utilities
- Concurrence from applicable Caltrans Departments as required

Design Exception Fact Sheets will be drafted for those design features that are not in compliance with Caltrans Highway Design Manual (HDM). The HDM provides guidelines for the design but also include Mandatory Design Standards and Advisory Design Standards. In order to deviate from a Mandatory Design Standard or an Advisory Design Standard, a fact sheet will need to be prepared outlining the standard being deviated from and the reason and justification for the deviation. When determining design exceptions, Caltrans requires the project to consider all design exceptions within their project limits regardless of whether the design exception is an existing design exception not created by the project. Typical design exceptions for pedestrian overcrossings within existing corridors are clear recovery clearances, sight distance, and shoulder and lane widths. This burdens a project in having to correct or justify maintaining the existing deficiencies of a project area.

4. **Encroachment Policy Exception:** Based on recent experience with Caltrans involving POC projects, an Encroachment Policy Exception for Access Control Requirements will be prepared to specifically address Article 3 in Chapter 27 of the Caltrans Project Development Procedures Manual (PDPM) for the longitudinal encroachment of the POC structure and access breaks for pedestrians and bicyclists if required by Caltrans. BKF will prepare an Encroachment Policy Exception in the form of a transmittal memorandum consistent with Chapter 17 of the Caltrans PDPM. In this transmittal memorandum, BKF will justify why the noted requirement cannot be met by the project improvements and submit to Caltrans for approval.
5. **Preliminary Drainage Report for PSR/PR:** A preliminary drainage report will be prepared to identify proposed drainage systems and their tie-ins with existing drainage systems within the project area. The report will include analysis to substantiate capacity and feasibility.
6. **Right-of-Way Data Sheet:** BKF will prepare R/W Data Sheets for impacted parcels in accordance with Caltrans and City standards.
7. **Traffic Analysis:** Analysis will be done at various stages for the project. A review of the alternatives in the PSR/PR from a traffic engineering perspective, specifically reviewing the impacts to travel circulation patterns, pedestrian and bicycle accessibility, connectivity, safety, and alignment as the cycle tracks intersect Shoreline at Pear and Terra Bella intersections. Traffic analysis for signals for 35% design, for Staging, and for PSR/PR.
8. **Caltrans CEQA Lead Agency:** Caltrans as CEQA lead will require additional technical memos to support categorical exemption. DJP&A will complete a Tree removal memo, construction staging memo, and draft categorical exemption. Additional technical reports from third level consultants will include Noise Memorandum, Air Quality Conformity, and Paleontological Memorandum and. Biology.
9. **Hazmat testing and studies (Geocon)**

Shoreline Blvd/US-101 PED OC Engineering and Design Services  Estimate of Labor Effort for Engineering Services		BCA Project Management & Structural Engineering ; Bridge Architecture and Urban Design							BKF Civil, Roadway, Surveying, Utilities Coord, Right-of-Way Support							Parikh (DBE) Geotechnical					David J Powers & Assoc (DBE) Environmental Permitting			TKJM Traffic Engineering		MIG, Inc. Public Outreach, Landscape Architecture							Total Hours	Total Fee				
		Principal	Principal Architect - Rick phillips	Engineering Manager	QC Manager	Senior Engineer	Project Engineer	Senior Drafter	Administrative	Principal	Associate	Project Manager	Engineer/Surveyor III	Engineer/Surveyor II	Engineer/Surveyor I	Engineering Technician	Project Assistant	Survey Crew (2-man crew)	Project Manager	Senior Engineer (QA/QC)	Senior Project Soils Engineer	Project Engineer	Sr Staff Engineer	Draftsperson	Principal / PM	Project Manager	Graphic Artist	Principal / PM	Project Manager	Project Manager - Noe Noyola	Project Associate - Gabrielle Guidetti	Principal - Joan Chaplick			Visualization Specialist - Rishi Dhody	Landscape Architect - Jose Leal	Administrator - Marthe Parvin	Graphic Designer
		\$270	\$250	\$180	\$210	\$165	\$145	\$130	\$95	\$289	\$226	\$211	\$168	\$151	\$118	\$138	\$107	\$263	\$278	\$202	\$181	\$130	\$109	\$105	\$331	\$187	\$115	\$250	\$180	\$109	\$82	\$181			\$91	\$135	\$92	\$118
Task Description	Staff Rate (Direct Cost Fixed Fee)																																					
PHASE 1: PROJECT MANAGEMENT AND COORDINATION																																						
Task 1	PROJECT MANAGEMENT & QUALITY CONTROL																																					
1.1	Project Management/Administration/ Budgeting/ Cost Accounting	20				16			10																											46	\$8,990	
1.2	Coordination Meetings with City & Design Team coordination	20		20		48																														88	\$16,920	
1.3	Project Schedule	2				8																														10	\$1,860	
1.4	Project Progress Reports	6				20																														26	\$4,920	
1.5	General Project QA/QC of Design Team	1			16																														17	\$3,630		
	Subtotal	49	0	20	16	92	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	\$36,320		
PHASE 2: DATA COLLECTION AND ANALYSIS																																						
Task 2	PROJECT SITE & DATA COLLECTION/ANALYSIS																																					
2.1	Site visit	2	4	4		6				2	4			4																						26	\$5,336	
2.2	Review data/reference material	2	4	6		10	6			2	4			8	4																					46	\$8,302	
	Subtotal	4	8	10	0	16	6	0	0	4	8	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	\$13,638	
Task 3	SURVEYING, MAPPING, RIGHT-OF-WAY ENGINEERING																																					
3.1	Field Surveys									2		10	10		60	24		60																		166	\$30,540	
3.2	Potholing										2	4																								12	\$2,874	
3.3	Preliminary Right-of-Way and Utility Map									2	4	4	8	8		16																				42	\$7,086	
	Subtotal	0	0	0	0	0	0	0	0	4	6	18	18	8	60	40	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	\$40,500	
Task 4	GEOTECHNICAL INVESTIGATION AND REPORT																																					
4.1	Research & Data Collection																		2	4															6	\$882		
4.2	Soils Evaluation based on available data																			6	6														12	\$1,434		
4.3	Preliminary Foundation Report																		4	4	12	74	32	12											138	\$18,460		
4.4																																			0	\$0		
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	14	84	38	12	0	0	0	0	0	0	0	0	0	0	0	156	\$20,776	
Task 5	TREE SURVEY																																					
5.1	Site survey																																			1	\$187	
5.2	Prepare documentation																							2	1											3	\$849	
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0								4	\$1,036			
Task 6	STORMWATER POLLUTION PREVENTION PLAN/ WATER POLLUTION CONTROL PLAN																																					
6.1	Storm Water Data Report									2		8	12		4																					26	\$4,160	
6.2	Documentation on Requirements										2		6		4		4																			12	\$1,756	
6.3																																				0	\$0	
	Subtotal	0	0	0	0	0	0	0	0	0	2	2	8	18	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	\$5,916	
Task 7	COORDINATION WITH AGENCIES																																					
7.1	Caltrans coordination	4				12				8	16	8	8		4										6	6										68	\$15,128	
7.2	Meet/Coordinate with Agencies (City, VTA, Utilities, etc)	4				10				4	12	8	8		4																					50	\$10,102	
	Subtotal	8	0	0	0	22	0	0	0	12	28	16	16	0	4	0	0	0	0	0	0	0	0	6	6	0									118	\$25,230		

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		Principal	Principal Architect - Rick Phillips	Engineering Manager	QC Manager	Senior Engineer	Project Engineer	Senior Drafter	Administrative	Principal	Associate	Project Manager	Engineer/Surveyor III	Engineer/Surveyor II	Engineer/Surveyor I	Engineering Technician	Project Assistant	Survey Crew (2-man crew)	Project Manager	Senior Engineer (QA/QC)	Senior Project Soils Engineer	Project Engineer	Sr Staff Engineer	Draftsperson	Principal / PM	Project Manager	Graphic Artist	Principal / PM	Project Manager	Project Manager - Noe Noyola	Project Associate - Gabrielle Guidetti	Principal - Joan Chaplick	Visualization Specialist - Rishi Dhody	Landscape Architect - Jose Leal	Administrator - Marthe Parvin			Graphic Designer
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ASSUMPTIONS

- All plans will be prepared using AutoCAD. AutoCAD files of structure plans will be converted to Microstation, as required by Caltrans OSFP. Road plans will not be converted since electronic copies other than PDF are not required by Caltrans OSFP.
- It is assumed that the existing aerial mapping AutoCAD base map will be made available and can provide an accurate 3-D model for use for the Project design.
- Surveying will be conducted via a scanner and be concentrated to the areas of conform and specific areas on the highway that are needed to determine vertical clearance.
- All needed traffic control will be provided by the sub-consultants.
- The City will provide the primary coordination and scheduling for the Public Outreach portion of the project including coordinating and obtaining all meeting dates, locations, mailings, notifications and advertising. The Consultant will provide PowerPoint slide presentation, presentation boards and graphics as applicable for each meeting. Handouts are assumed to not be required at Public Meetings. A limited number of handouts will be provided, as applicable at Stakeholder Meetings, Interagency Field Meetings and Design Review Board/ Commission Meetings. It is assumed that the City will provide formal meeting minutes and updates and notifications to City website, as required.
- Utility Encroachment Exception Report and Fact Sheets is not included in the basic services.
- A preliminary drainage report and life cycle analysis will not be required for the PSR/PR.
- It is assumed that the City can sign the Right of Way Data Sheet as the certified agent. - Verified by City
- Formal Caltrans Value Engineering services will not be required since the project is anticipated to be less than the \$40 million per bridge project threshold. Constructability and cost verification services will be provided at 15% and 35% per the RFP.
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