



CITY COUNCIL AGENDA REPORT

December 6, 2022
Engineering

TITLE: APPROVE A PROFESSIONAL SERVICES AGREEMENT WITH MARK THOMAS IN THE NOT-TO-EXCEED AMOUNT OF \$524,145 FOR THE 35 PERCENT DESIGN SERVICES FOR THE WEST LAS POSITAS BOULEVARD MULTIMODAL RECONSTRUCTION PROJECT, CIP NO. 11514

SUMMARY

West Las Positas roadway has a history of soil settlement and differential movement that has created an uneven roadway surface and localized roadway failures. Over the years, the City has implemented several maintenance repairs projects and geotechnical investigations to remediate the uneven roadway that is experiencing pavement distress and/or settlement. These repairs have provided a short-term fix; however, they have not lasted as long as anticipated and the roadway between Hopyard Road and Stoneridge Drive now requires full reconstruction.

On November 15, 2022, the City Council reviewed and adopted the West Las Positas Boulevard Bicycle and Pedestrian Corridor Improvement Plan and authorized the implementation of a Phase 1 “quick build” between Hopyard Road and Hacienda Drive. The plan outlined the design concept for the corridor, and the basis of design will incorporate both the recommendations from BSK Associates’ geotechnical study and the condition assessments from a CCTV (closed circuit television) inspection of the utilities. The design will include improvements from Foothill Road to Fairlands Drive. A 35 percent design is necessary to provide a sufficient level of detail to identify major engineering challenges and all required traffic signal, sewer, water, storm and dry utility work, as well as the costs for and schedule of the project. While the cost to construct the improvements between Foothill Road and Fairlands Drive is anticipated to exceed the available funding, creating a 35 percent design for the entire length assists with identifying segments of the corridor that can be separated and prioritized which will aid in the development of a phased plan of construction. Roadway segments outside of the full reconstruction area from Hopyard Road to Stoneridge Drive will include updated quick-build options and pricing. The 35 percent design and cost estimates are anticipated to be presented to the City Council in summer 2023, along with a recommendation on how to best phase/implement the project based on available funding. The staff recommendation will include approval of an amendment to the Mark Thomas agreement for the firm to complete biddable construction documents for only the first phase of project implementation.

Staff recommends that City Council approve the agreement to Mark Thomas for the not-to-exceed amount of \$524,145 to complete the 35 percent design of the proposed West Las Positas Boulevard Multimodal Reconstruction Project, CIP No. 11514.

RECOMMENDATION

1. Approve a professional services agreement with Mark Thomas of San Jose, California, in the not-to-exceed amount of \$524,145 for the 35 percent design services for the West Las Positas Boulevard Multimodal Reconstruction Project, CIP No.11514.
2. Authorize the City Manager to execute the agreement.

FINANCIAL STATEMENT

Project funding totals \$7.24 million with \$1.2 million expended/encumbered on previous maintenance, investigations, and designs, leaving a balance of \$6 million for design and construction of the project. Approximately \$2.7 million dollars of the \$6 million in available funding is comprised of bike and pedestrian funding that is not eligible to be utilized on utility and road subgrade reconstruction. The total anticipated 35 percent design-related expenditure is \$524,145.

BACKGROUND

West Las Positas Boulevard is a key east-west arterial roadway and a critical connection for the city's bicycle, pedestrian and transit networks, providing a primary link from residential to regional trails, schools, retail and office land uses. The portion of the road between Hopyard Road and Stoneridge Drive was constructed in the early 1980s as part of the Hacienda business park.

The West Las Positas roadway has a history of soil settlement and differential movement within Hacienda that has created an uneven roadway surface and some localized roadway failures. The City has implemented several maintenance repairs projects, pilot repair projects and geotechnical investigations over the years to remediate the uneven roadway that is experiencing pavement distress and/or settlement. The various repairs have provided a short-term fix, but these repairs have not lasted as long as anticipated.

In October 2021, City Council awarded a contract to BSK Associates (BSK) to conduct an extensive geotechnical study to identify the causes of the roadway failures and come up with recommended repair strategies. The study included the collection of soil samples from 19 locations (borings) with the collections occurring at varying depths from 7 to 40 feet deep as well as reviewing similar soil investigations from adjacent properties. The borings identified that the area consisted of expansive clay soils 35 to 40 feet deep that have consolidated and are highly susceptible to shrinkage and contraction when dried out. The study determined the primary cause of settlement is attributed to the loss in soil moisture along the roadway edges and medians within the top five feet of soil, causing the surficial soils – that are highly susceptible to shrinkage and swelling – to contract when dried out. Factors affecting the loss in soil moisture include vegetation, exposure to the environment, and climate. The roadway approaches to Chabot Canal and Tassajara Creek are additionally impacted by soil creep¹, which is occurring along the channels.

¹ the slow, downward progression of rock and soil down a low-grade slope

On November 15, 2022, the City Council reviewed and adopted the West Las Positas Boulevard Bicycle and Pedestrian Corridor Improvement Plan and authorized the implementation of a Phase 1 “quick build” between Hopyard Road and Hacienda Drive.

DISCUSSION

The West Las Positas Boulevard Bicycle and Pedestrian Corridor Improvement Plan outlines the design concept for the corridor improvements from Foothill Road to Fairlands Drive and provides direction on how to develop a multimodal corridor. It defines the lane lines, pedestrian areas, and intersection improvements. BSK’s study identified the necessary repair strategies to address the differential settlement of the roadway between Hopyard Road and Stoneridge Drive and provide a long-term solution. The CCTV inspections of the sewer and storm drain systems provided an assessment identifying the condition of the systems.

The West Las Positas Boulevard Bicycle and Pedestrian Corridor Improvement Plan included a phasing plan to implement the quick-build concepts and will follow up with permanent improvements when the road segments have received major reconstruction. The quick-build phase within the anticipated full reconstruction areas will be skipped, with the exception of the Phase 1 area between Hopyard Road and Hacienda Drive, which will be a pilot program. This area will help work through design challenges, provide feedback from the community, and allow for improvements in the design.

BSK’s report identified that the primary repair strategy for the severely impacted areas is to chemically stabilize the soils under the roadbed with a lime/cement treatment to reduce the shrinking and swelling properties of the soil. This is accomplished by the removal of the top five feet of soil and then reconstructing the roadway with treated soil and salvaged roadbed materials. In addition, utility trenches along the perimeter of the roadway will be similarly treated to stop the transmission of water along the trenches. The trees in the center medians will need to be evaluated for replacement and new landscaping will need to be installed with moisture/root barriers extending a minimum of three feet below the roadbed surface. As part of the scope of work, the designer will have an additional geotechnical engineer review BSK’s recommendations and aid in the development of the plans. BSK will continue to be a part of the project by reviewing plans and new information as identified during the design process.

The storm and sewer lines between Hopyard Road and Stoneridge Drive were inspected via CCTV to evaluate the conditions of the lines and determine if the road failure was attributed to failed sections of the system. The storm drain system is generally ranked in good condition and was not identified as a cause of failure to the roadway. The sewer system generally ranks in fair condition and was not identified as a cause of failure of the roadway. The project will include reviewing the CCTV and identifying repairs to any localized deficiencies of the storm and sewer systems. The water main is in a good condition as the majority of the service laterals and fire hydrant lines have recently been replaced. Any remaining lateral lines that have not been updated will be replaced.

A 35 percent design is necessary to provide a sufficient level of detail to identify major engineering challenges and all required traffic signal, sewer, water, storm and dry utility work, as well as the costs and schedule of the project. While the cost to construct the

improvements between Foothill Road and Fairlands Drive is anticipated to exceed the available funding, creating a 35 percent design for the entire length assists with identifying segments of the corridor that can be separated and prioritized which will aid in the development of a phased plan of construction. Roadway segments outside of the full reconstruction area from Hopyard Road to Stoneridge Drive will include updated quick-build options and pricing. The 35 percent design and cost estimates are anticipated to be presented to the City Council in summer 2023, along with staff's recommendation on how to best phase/implement the project based on available funding. The staff recommendation will include approval of an amendment to the Mark Thomas agreement for the firm to complete biddable construction documents only for the first phase of project implementation.

The project will be interfaced with the future pedestrian improvements in front of Fairlands Elementary school being completed under a separate project by the Traffic Division.

Consultant Selection

City staff advertised a Request for Qualifications (RFQ) seeking Statements of Qualifications (SOQ) from firms interested in providing design services for the project. Two firms submitted qualification packages and were subsequently interviewed. Staff reached out to the consulting community to understand the low turnout of SOQs and found that most companies did not have the resources to design the project within the desired time frame. A panel of five city staff members familiar with the project's needs and types of services conducted the interviews and review of the SOQs. Staff contacted the references provided by each of the firms to obtain feedback on past contractual experiences. Based on the ratings of the SOQs, interviews and reference inquiries, staff recommends awarding the contract to Mark Thomas.

Budget

Mark Thomas has indicated that similar projects completed by other local bay area agencies have recently cost \$25 to \$30 million to complete – much higher than previously envisioned. The scope of work includes help identifying segments of the corridor that can be separated and prioritized to aid in the development of a phased plan.

Since 2018, the City has been building a reserve of bicycle and pedestrian Measure B and BB funding to implement the West Las Positas Boulevard Bicycle and Pedestrian Improvements Project. The mid-term Capital Improvement Program allocated \$3 million in funding, of which \$389,420 has been expended/encumbered to date for the design and Phase 1 “quick build” construction implementation. The Measure B and BB bicycle and pedestrian funding has restrictions and will not be eligible to cover the costs of the road subgrade section reconstruction and utility work.

Since 2013, the City has built a reserve of transportation-related funding to address the uneven roadway. A total of \$4.2 million has been budgeted with \$806,784 expended/encumbered to date for previous repairs and studies.

Project funding totals \$7.24 million with an anticipated expenditure of \$1.72 million, inclusive of the 35 percent design, leaving a balance of \$5.52 million for the remaining design and construction of the project.

The City has unsuccessfully applied for both a RAISE and an Alameda CTC CIP/OBAG 3 grant and staff will continue to seek grant funding opportunities. It is unlikely that the costs for the reconstruction portion of the project will be covered as the current grant environment is focused on climate impacts and alternative transportation forms.

The water and sewer repairs are anticipated to be funded out of enterprise fund reserves and will be programmed into the project when estimates of the work are available. Dry utility relocations (PG&E, Comcast, AT&T) should fall under franchise relocations and have a minimal cost to the city.

Dry Utility Impacts

The possible relocation of dry utilities that cross the roadway may heavily impact the construction schedule, depending on the depth of the road section reconstruction. The extent of the relocation is unknown and will be determined as part of the 35 percent design which includes potholing of the utilities. If PG&E utility relocations are necessary, it could take up to two years to complete. Comcast and AT&T utility relocations can generally be completed within a year, depending on the scope of work necessary. Once it is determined which segments of the roadway will be reconstructed, the process to request the utility relocations will begin.

Schedule

A concept plan will be vetted through targeted public meetings in the spring 2023 and will include the Bicycle, Pedestrian and Trails Committee. The 35 percent plans will incorporate any of the comments received, and will then be brought to the Bicycle, Pedestrian and Trails Committee, the Parks and Recreation Commission, and the City Council to develop the recommended phasing of the project by summer 2023. Completion of biddable documents for the first phase of the project is estimated at 12 months. Construction of the roadway is anticipated to start in 2024, assuming there are no delays from utility relocation work, and could take 12 to 18 months.

The proposed schedule for the project is as follows:

Award of 35 percent design agreement	December 2022
Implement "quick build" of Phase 1	February 2023
Concept development and community outreach	Spring 2023
35 percent design completion	Summer 2023

Submitted by:



Stephen Kirkpatrick
Director of Engineering

Fiscal Review:



Susan Hsieh
Director of Finance

Approved by:



Gerry Beaudin
City Manager

Attachments:

1. Financial Summary
2. Mark Thomas 35 Percent Scope of Services & Fee

**W. LAS POSITAS STREET SETTLING REPAIR
CIP NO. 11514**

12/06/22

<u>Project Funding to Date - CIP No. 11514</u>	<u>Amount</u>	<u>Totals</u>
2013-14 CIP Allocation (Fund 211 - Street CIP)	\$65,000	
2013-14 CIP Allocation (Fund 211 - Street CIP)	\$250,000	
2017-18 Project Budget Balance (Fund 160 - Gas Tax)	\$160,230	
2018-19 CIP Allocation (Fund 160 - Gas Tax)	\$100,000	
2019-20 CIP Allocation (Fund 160 - Gas Tax)	\$100,000	
2021-22 CIP Allocation (Fund 202 - Dwtm & N. Pleasanton)	\$1,000,000	
2022-23 CIP Allocation (Fund 201 - General Fund CIP)	<u>\$2,500,000</u>	
SUBTOTAL PROJECT FUNDING	\$4,175,230	
<u>Project Funding to Date - CIP No. 17567</u>		
2021-22 CIP Allocation (Fund 162 - Misc. CIP Grant)	\$867,000	
2018-19 CIP Allocation (Fund 163 - Measure B)	\$325,000	
2019-20 CIP Allocation (Fund 163 - Measure B)	\$224,832	
2020-21 CIP Allocation (Fund 163 - Measure B)	\$80,168	
2021-22 CIP Allocation (Fund 163 - Measure B)	\$160,000	
2022-23 CIP Allocation (Fund 163 - Measure B)	\$160,000	
2017-18 CIP Allocation (Fund 165 - Measure BB)	\$50,000	
2018-19 CIP Allocation (Fund 165 - Measure BB)	\$325,000	
2020-21 CIP Allocation (Fund 165 - Measure BB)	\$305,000	
2021-22 CIP Allocation (Fund 165 - Measure BB)	\$160,000	
2022-23 CIP Allocation (Fund 165 - Measure BB)	\$160,000	
2018-19 CIP Allocation (Fund 211 - Street CIP)	<u>\$250,000</u>	
SUBTOTAL PROJECT FUNDING	\$3,067,000	
TOTAL PROJECT FUNDING		\$7,242,230
<u>Project Expenditures/Encumbrances to Date - CIP No. 11514</u>		
Fanfia, Inc & Engeo (CC 11/5/2013)	\$241,928	
Goodfellows Bros & Jensen (CC 05/04/2021)	261,041	
BSK Geotech Investigation & CCTV (CC 10/5/2021)	291,515	
O Grady Paving Emergency Repairs under CIP 22503	<u>\$12,300</u>	
SUBTOTAL EXPENDITURES TO DATE	806,784	
<u>Project Expenditures/Encumbrances to Date - CIP No. 17567</u>		
Bike and Pedestrian Feasibility Study	234,420	
Bike & Ped Interium Implementation (Paint and Plastic)	<u>\$155,000</u>	
SUBTOTAL EXPENDITURES TO DATE	389,420	
<u>Anticipated Project Expenditures</u>		
Mark Thomas 35% Design	<u>\$524,145</u>	
SUBTOTAL ANTICIPATED EXPENDITURES	\$524,145	
TOTAL PROJECT EXPENDITURES		\$1,720,349
<u>Funding Balance/ (Shortfall)</u>		
Current Balance		\$5,521,881

DETAILED SCOPE OF WORK FOR 35% DESIGN

The specific tasks to be completed and deliverables to be provided by Mark Thomas for the project are outlined below.

Task 1. PROJECT MANAGEMENT AND ADMINISTRATION

Mark Thomas will provide ongoing project management for each task for the duration of the Contract term, which is assumed to be 8 months. Project management activities will consist of management, administration, coordination, supervision, project controls, attending meetings, and as follows:

Task 1.1. Project Management and Control

Mark Thomas will supervise, coordinate, and monitor activities and product development for conformance with the Cities' standards and policies and local ordinances. Prior to the start of any Services, Mark Thomas will interface with City staff to assure format consistency of deliverables and to facilitate free and timely flow of information for each task activity.

Mark Thomas will prepare a detailed critical path method (CPM) schedule to reflect plan and progress of Services and to serve as a master schedule for the Project. The schedule will be updated on a monthly basis to include key milestones and tasks completed.

Task 1.2. Project Administration/Project Coordination

Mark Thomas will prepare and submit monthly progress reports that will identify work performed on each task in the preceding month, including percent completed compared to percent billed for each task. The monthly summary will show total charges made to each task, the Contract budget for each task, reallocated budget amounts, prior billing amount, current billing, total billed to date, and a total percent billed to date.

Mark Thomas will coordinate planning and design efforts with stakeholders including Caltrans, Livermore Amador Valley Transit Authority (LAVTA), utility companies, and private property/business owners as required. This includes design reviews and integration of adjacent public agency and third-party utility company designs for incorporation into the project design as appropriate.

Task 1.3. Project Meetings

Mark Thomas will arrange and conduct up to 16 bi-weekly (i.e., once every two weeks) Project Development Team (PDT) meetings with project stakeholders as directed by the City which will include general discussion materials and preparation of agendas and minutes. Mark Thomas will endeavor to prepare and submit all meeting agendas one (1) week prior to the relevant meeting date and distribute draft meeting minutes for City review within three (3) working days after each meeting. Final meeting minutes will be distributed to the PDT incorporating relevant comments received on draft meeting minutes.

Mark Thomas will coordinate and attend up to one (1) coordination meeting with the City staff and project stakeholders to resolve technical issues. This task also includes preparation of meeting materials (i.e., presentations slides and exhibits) and attendance at up to three (3) public meetings identified by the City in the RFQ, including one (1) virtual community meeting, and up to one (1) presentation at Bicycle, Pedestrian and Trails Committee, and City Parks and Rec Commission meetings, and one (1) City Council Meeting to facilitate discussion and answer questions about the designs. Preparation of materials and attendance at stakeholder and public meetings in addition to those identified above may be provided as an additional service.

Task 1.4. Caltrans Encroachment Permit Coordination

Not included in this phase.

Task 1.5. Funding Application Support (Optional Task)

Mark Thomas will evaluate potential funding opportunities for the project and make recommendation on grants to pursue. Recommendations will be documented in a Funding Recommendations Memorandum. Mark Thomas will prepare grant applications for up to two (2) funding programs. The applications will be prepared in accordance with the grant program guidelines and requirements. The documents prepared for the applications will include narratives,

vicinity maps, collision diagrams, demonstrative exhibits, letters of support, and other application requirements. Mark Thomas will coordinate support with stakeholders as identified by the City. We will also package and submit the grant applications on behalf of the City.

Task 1.6. Quality Control

The Mark Thomas Quality Control plan consists of established procedures for performing the work (which are reassessed with each project), including methods for design calculations, establishing appropriate levels of design development for intermediate submittals, identification of required plan checks, design checklists, and methods of project documentation.

Our QC/QA Manager will implement and maintain these quality control procedures during the preparation of plans and documents throughout design.

TASK 1 DELIVERABLE(S):

- Monthly progress reports and invoices
- Monthly CPM schedule updates
- Project Cloud-based File Repository
- Project Team Meeting Attendance w/ agendas and minutes (up to 16 meetings)
- Stakeholder Meetings (up to 1)
- Public Meetings (Up to 3)
- Optional: Funding Recommendations Memo
- Optional: Funding Application Support (up to 2 grant applications)
- QC/QA Checklist
- *All deliverables to be submitted electronically in .pdf format unless specified otherwise*

Task 2. SITE INVESTIGATIONS AND SURVEYS

Task 2.1. Project Initiation and Data Gathering

Mark Thomas will coordinate the project kick-off meeting with the City and members of the design team to discuss the project background, scope, concepts, schedule, project management, potential stakeholders and issues, outreach opportunities and expectations. Mark Thomas will provide a project information gathering checklist to collect data elements needed for the design, including GIS mapping information, City-owned facility maps, CCTV inspection reports, utility contacts, as-built and planned improvement drawings, and available collision, speed studies, and traffic count information.

The data gathering process will include a review of the existing site characteristics. Mark Thomas will conduct site visits and take photographic inventory of existing conditions to reference during the design process and make observations related to sight distance at pedestrian crossings, ADA-compliance and potential tripping hazards on the sidewalks and identify potential conflicts with existing utilities and privately-owned improvements within the public right-of-way. For estimating purposes, 2 days of site visits have been assumed to complete the field reviews. A photo log for each project location will be prepared and submitted to the City electronically.

Task 2.2. Topographic Surveys and Base Map Preparation

Mark Thomas proposes the following work plan to set project control, collect topographic survey, provide electronic base files for the design, and delineate public right-of-way limits as described below.

The general requirements for the work under this scope are listed below:

- These tasks will be completed under the direct supervision of a California Licensed Land Surveyor.
- Base mapping will be delivered in AutoCAD Civil 3D 2018 or earlier version as required by the City.
- Submittal of electronic information may be transmitted by email or posted to the Mark Thomas FTP site (or other FTP site, as directed) under password protection with instruction for retrieval and password transmitted by email.

Available AutoCAD base mapping for the design, based on aerial photograph and GIS information, will be furnished by the City. Mark Thomas will utilize City-furnished base mapping to prepare preliminary plans and details.

Supplemental topographic survey and base mapping will be prepared by Mark Thomas for use with the Final Design plans and details.

Right of way information will be shown on the base mapping based on available GIS right of way information.

Supplemental Topographic Survey – Mark Thomas will conduct supplemental topographic survey to locate pertinent accessible above ground features to augment the City-furnished base mapping using conventional ground survey techniques. The limits of detailed topo will extend along W. Las Positas Boulevard from the intersection of Foothills Road to Muirwood Drive, sidewalk approaches to the I-680 overcrossing, and from the intersection of Hopyard Road to Fairlands Drive.

Ground visible features to be captured include, but are not limited, to sidewalks, curb and gutter, driveways, curb ramps, fences, private utilities, storm and sewer facilities, trees, street lighting, signing, striping, and markings within the project limits. Storm and sewer manholes will be dipped to determine invert elevations and pipe diameters within the streets around the site. Drain inlet invert elevations and pipe sizes will be based on information furnished by the City. Field crews will rely upon markings on utility feature lids. No utilities will be dipped other than sewer and storm.

Task 2.3. Boundary Surveys and Mapping (Optional Task)

We have assumed the project improvements will be entirely within the existing public right of way for W. Las Positas Boulevard. Existing GIS right of way mapping and observed property boundaries, such as the existing back of sidewalk will likely provide adequate boundary information for the design of the project improvements. However, if additional project improvements are identified during the course of design that extend beyond the apparent limits of the public right of way, additional boundary surveys and right of way mapping can be completed as an optional task to refine the right of way delineated for the project.

As an optional task, Mark Thomas will perform a field survey to locate necessary monumentation to establish the right of way lines of West Las Positas Boulevard from Foothill Road to Fairlands Drive. Our research indicates that the available Parcel Maps (PM), Records of Survey (RS) & Tract Maps (TM) will be sufficient to complete this survey. It is our understanding that no other monument ties to other maps will be necessary to complete the boundary surveys. Should a material discrepancy be found or evidence of a dispute with adjoining be discovered, Mark Thomas will stop work under the current scope and discuss options with to move forward. Once the locations of the property lines are established based on the field evidence collected, Mark Thomas will plot this boundary in a CAD file. Mark Thomas assumes only easements shown on the available Recorded Maps will be shown. It is assumed that boundary evidence necessary to define the boundary will be readily available.

During a boundary survey, it is possible that the requirement to file a Record of Survey will be triggered. This most often happens by the discovery of conflicts or alternate evidence not shown on recent maps. Should such a conflict or other evidence be discovered, work will stop and the project team will be notified. Work will continue when agreement has been reached on path forward and additional budget for a Record of Survey has been secured.

Survey Assumptions and Exclusions

- Monument Preservation is not included
- A Record of Survey is not included.
- Preparation of Plats and Legal Descriptions for property acquisition or easements are not included.

Task 2.4. TCE Exhibits

Not included in this phase.

Task 2.5. Utility Coordination

For this project, we assume utility relocations will be limited to existing sewer, storm drain, and water facilities where needed to accommodate new curbs for Class IV cycletracks, protected intersections and curb ramps. To the extent possible, relocation of dry utilities, including gas, communications, overhead electric and vaults/boxes, will be avoided to mitigate the potential schedule risk for completion of design and scheduling of relocations by others.

Mark Thomas will coordinate with utility providers for relocation of wet utilities and adjustments to grade of dry utilities where necessary. Mark Thomas will utilize available, City-furnished, utility mapping. Mark Thomas will prepare a Composite Utility Relocation Plan using the 35% plan sheets as a base including a utility relocation schedule incorporating input from various utility owners.

Further coordination with utilities to coordinate relocation designs and prepare Notice to Owners will be completed as part of a subsequent phase of design.

Task 2.6. Potholing of Utilities

Not included in this phase.

Task 2.7. Prepare Arborist Report

Mark Thomas will utilize the services of a certified arborist (HortScience | Bartlett Consulting) to assess existing trees and prepare an Arborist Report for the trees within the project area as required by City of Pleasanton Chapter 17.16 Tree Preservation Ordinance. The project is limited to trees in the right-of-way and in the median along W. Las Positas Boulevard between Foothill Road and Fairlands Drive, as is depicted in the RFQ. The following are proposed services.

1. Identify the species and measure the trunk diameter of each tree with a diameter of 6 inches or greater within the project area (approximately 600 trees). Trunk diameter shall be measured at 54 inches above grade.
2. Tag each tree with a metal tag for identification purposes. Off-site trees overhanging the property will be numbered but may not be tagged.
3. Visually evaluate the health and structural condition of each tree.
4. Identify any trees having special status (Heritage) in Pleasanton.
5. Rate tree suitability for preservation based on their health, structural condition and potential longevity and suitability in the landscape.
6. Take representative photos.
7. Evaluate the impacts of proposed project on trees based on site improvement plans provided by the client.
8. Estimate trees that will be preserved and removed based on construction impacts and tree suitability for preservation.
9. Prepare a Tree Inventory Map showing approximate location of trees by tag number.
10. Prepare Tree Preservation Guidelines outlining protection measures during the planning, demolition and construction phases of development to meet City of Pleasanton requirements.
11. Appraise the value of each tree using the methods described in Guide for Plant Appraisal, 10th Ed., International Society of Arboriculture, 2018.
12. Compile the above information into an Arborist Report.

Task 2.8. Geotechnical Investigations

As a subconsultant to Mark Thomas, Crawford & Associates, Inc (Crawford) understands the City of Pleasanton (City) plans to reconstruct West Las Positas Boulevard (WLP) between Foothill Road and Fairlands Drive (approximately 2.75 miles) based on the plans completed by Toole Design and Mark Thomas, dated April 2020. Past roadway work, and geotechnical studies completed by Kleinfelder, ENGEO, Inc (ENGEO), and BSK and Associates (BSK) are summarized below. The City is seeking help during design and implementation of the improvements scheduled to start construction in summer 2024.

To address the roadway improvements and support the team during final design, Crawford proposes the scope of services below.

Coordination, Kickoff, Field Preparation and Permitting

- Meet with the design team to review the rehabilitation and/or reconstruction concepts and discuss the project design needs, goals, and schedule;
- Review available pavement maintenance records;
- Determine exploration locations, determine site access, and mark our locations for USA; and
- Obtain a City of Pleasanton Encroachment Permit, if needed.

Subsurface Exploration

Crawford understands that significant geotechnical work has already been completed by BSK for WLP between Hopyard Road and Stoneridge Drive (approximately 1.2 miles) and additional work is not proposed.

Between Foothill Road and Hopyard Road, and Stoneridge Drive and Fairlands Drive (approximately 1.5 miles total), City staff will review and note the pavement condition to identify potential dig out/failed pavement locations for inclusion in the plans. Crawford proposes to perform pavement coring at eight to ten locations to determine the existing HMA and AB thicknesses to support the rehabilitation strategy within these areas. Based on discussions

with the City, no subgrade samples will be collected for additional R-value testing and the R-value results in the BSK report will be used for design.

Pavement Data Memo

Crawford will prepare a memo containing:

- Project description,
- Scope of services,
- Existing pavement structural sections (HMA and AB),
- Risk management and limitations, and
- Vicinity and exploration location map.

Design Team Interaction and Review:

Crawford will coordinate with the design team during plan and specification development on geotechnical and pavement rehabilitation topics and review the plans and specifications prior to the 65 and 95 percent submittals.

Assumptions for Geotechnical Investigations:

- The City of Pleasanton will waive the encroachment permit fee.
- Subsurface exploration for this Project between Hopyard Road and Stoneridge Drive has been completed by others and additional Geotechnical analysis is not requested or required.
- We will use hand equipment in the field which will not require traffic control.
- The above does not include pavement coring in the planned overlay areas which would help determine the existing section, presence of pavement fabric and historical lift thicknesses, and eventually design life. Crawford can prepare a scope and fee to perform pavement coring within the overlay portions of the project if desired.
- Coring locations will be backfilled with cold patch asphalt or dyed black cement. Placing hot mix asphalt is beyond the scope of our services and will need to be completed by the City if required.

Task 2.9. Mix Design (Optional Task)

Not included in this phase.

TASK 2 DELIVERABLE(S):

- Photo Log of Site Conditions
- Topographic Base Mapping (20 Scale) – AutoCAD Format
- Right of Way Exhibit based on provide GIS information
- Composite Utility Relocation Plan
- Optional: Boundary Mapping (20 Scale) – AutoCAD Format
- Draft and Final Arborist Report
- Draft and Final Pavement Data Memo
- *All deliverables to be submitted electronically in .pdf format unless specified otherwise*

Task 3. BASIS OF DESIGN MEMORANDUM (CONCEPTUAL DESIGN)

The W. Las Positas Boulevard Reconstruction and Pedestrian and Bike Improvements project is located between Foothill Road and Fairlands Drive and includes approximately 2.75 miles of roadway improvements as follows:

- Roadway pavement resurfacing and reconstruction:
 - Resurfacing roadway pavement (i.e., slurry seal, thin lift overlay) from Foothill Road to Hopyard Road and from Stoneridge Drive to Fairlands Drive;
 - Cold plane and overlay roadway pavement from Hopyard Road to Willow Road;
 - Full depth reclamation of roadway pavement from Willow Road to Hacienda Drive;
 - Full pavement section reconstruction from Hacienda Drive to Stoneridge Drive;
- Restriping and bollards for Class IV cycletracks from Foothill Road to Hopyard Drive and from Stoneridge Drive to Fairlands Drive;
- Constructing new hardscape and landscape medians to create Class IV cycle tracks and a multiuse pathway from Hopyard Road to Stoneridge Drive;

- Providing protected intersections and crossing treatments for bicycles and pedestrians at existing signalized intersections;
- Upgrading and reconstructing ADA curb ramps and driveways;
- Spot repairs and replacements for existing storm, sewer and water laterals; and
- Permanent stormwater treatment facilities for areas receiving full reconstruction.

Traffic signal modification design will focus on relocating pedestrian push buttons, push button posts, bicycle and vehicle detection zones, and traffic signal head placement for the new and upgraded protected intersections. Conducting traffic studies and analysis for reductions in the number of travel lanes and intersection land configurations is not included in this Scope of Services.

Task 3.1 Prepare Basis of Design Memorandum

Mark Thomas will prepare and submit a draft Basis of Design Technical Memorandum prior to commencing conceptual design plans identifying assumptions, codes, policies, and criteria that will be utilized to conform with the design intent identified in the Bike and Pedestrian Maser Plan and the W. Las Positas Boulevard Feasibility Study. The City will facilitate the review of the Basis of Design Technical Memorandum with stakeholders. Supplemental design basis memorandums, as identified in the tasks below, will be added to the overall Basis of Design Technical Memorandum as appendices.

Task 3.2 Civil Design Basis Memorandum

Mark Thomas will prepare a civil design basis memorandum summarizing assumptions, design concepts, guideline criteria, and codes and regulations applied to the complete roadway design of the Project corridor and how they were applied in considering the objective of the W. Las Positas Boulevard Feasibility Study. The topics addressed will include, but are not limited, to assumptions considering safety and comfort of all roadway users, curb alignments, crosswalks, ADA requirements, traffic lane alignments, bike lanes, and stormwater treatment options and locations.

Task 3.3 Landscape Design Basis Memorandum

Mark Thomas will prepare a landscape design basis memorandum summarizing assumptions, design concepts, guidelines, criteria, and codes and regulations applied to the complete landscape design on the Project corridor including preservation of existing trees and plant material, new plantings, landscape design approach for stormwater treatment facilities to address C.3 requirements, and irrigation design approach. The memorandum will include a written narrative/description of proposed improvements

Task 3.4 Develop Preliminary Corridor Plans and Estimates

Mark Thomas will prepare one (1) set of preliminary corridor plans for W. Las Positas Boulevard showing two alternative treatments. Alternative 1 will include interim condition with striping and plastic delineator posts used to construct the Class IV cycletracks and reduced pavement reconstruction options. Alternative 2 will include the ultimate project improvements with landscape buffer medians and protected intersection treatments. The project will be broken down in the following seven segments:

- 1) Foothill to Muirwood (Including intersection improvements)
- 2) Muirwood to Payne (Caltrans)
- 3) Payne to Hopyard
- 4) Hopyard (including intersections of Hopyard, Willow) to Hacienda
- 5) Hacienda (Including intersections of Hacienda and Stoneridge) to Stoneridge
- 6) Stoneridge to Owens (including intersection of Owens)
- 7) Owens to Fairlands including intersection of Santa Rita

The Corridor Plans will include up to six (6) intersection detail exhibits to investigate potential protected intersection configurations at Hopyard Road, Willow Road, Hacienda Drive, Stoneridge Drive, Owens Drive, and Santa Rita Road. Proposed bicycle facility improvements and crosswalk enhancements will be shown to identify the proposed design elements and potential impacts. The design concepts will include preparation of a corridor-level plan drawing on aerial photo with intersection details, and typical sections for use in presenting the proposed improvements to stakeholders and the public. The design detail will be sufficient to prepare a Caltrans 11-page planning type cost estimates for each alternative and identify risks, construction phasing alternatives, and additional investigations needed to verify assumptions. Fehr & Peers will provide concept-level cost estimates for traffic signal, lighting, and electrical improvements to be included in the 11-page cost estimate. Toole will conduct a peer review of the concept plans for adherence to bicycle and pedestrian facility design guidelines and standards.

Mark Thomas will present the draft design concepts to City staff to obtain feedback before making quantity calculations for cost estimating and to verify the range of alternatives proposed to address the concerns of the City. City comments will be incorporated to the Final Corridor Plan for presentation to stakeholders and the community. One (1) round of review and revisions is anticipated to address City and public comments and recommendations.

TASK 3 DELIVERABLE(S):

- Draft and Final Basis of Design Technical Memo
- Draft and Final Civil Basis Memo
- Draft and Final Landscape Memo
- Prepare Draft, Draft Final and Final Corridor Plans and Preliminary Cost Estimates
- Peer Review of Draft Corridor Plans
- *All deliverables to be submitted electronically in .pdf format unless specified otherwise*

Task 5. 35% PLANS AND ESTIMATE

The Mark Thomas team will prepare 35% plans and estimate to identify preliminary right-of-way needs, easements, roadway and intersection geometrics, potential conflicts with existing utilities, preliminary construction quantities, cost estimates, and permit requirements for the Project. Toole will conduct a peer review of the 35% plans.

Task 5.1. Plan Sheet Development

The Mark Thomas team will prepare, coordinate, and submit design plan sheets in English units for the roadway design to confirm the project geometrics and major project elements. The sheets to be developed as a part of this task include:

Sheet Name	Number of Sheets	Drawing Scale
Title Sheet	1	Not to scale
Typical Cross Sections	3	Not to scale
Layout Plans	15	20
Drainage and Utility Layouts	15	20
Pavement Delineation/Sign Plan	15	20
Preliminary Signal Design Plans (Fehr & Peers)	10	20
Preliminary Landscape Design Plans	18	20
Total Sheets	77	

Task 5.2. Cost Estimates

Mark Thomas will prepare a cost estimate to identify items of work associated with the project and utilize the appropriate contingency at this level of design. The unit prices will be based on recent relevant bid prices and the Caltrans Cost Database as well as input from the City.

Task 5.3 Preliminary Landscape Design

Mark Thomas will prepare up to 18 sheets of preliminary plans at 20 scale (black and white, generated in CAD). This preliminary plan will depict trees, shrub/ground-cover areas, illustrative plant list, irrigation POCs, mainline and valve manifolds, and recommended irrigation equipment list. The preliminary design plans will also include up to three (3) aesthetic, ground plane median nose and/or hardscape treatment options at a typical location. These alternatives will be shown at 20 scale with indication of material options to fit within the City's budget and maintenance expectations.

Task 5.4. Preliminary Signal Design

Fehr & Peers will develop signal modification plans that include pedestrian push button, bicycle detection, and signal head modifications only. Plans will not include modifications to poles or mast arms. Plans will be completed using traffic signal as-built drawings and proposed striping as the base, focusing on markups of the modifications to be made. We assume full signal plans are not necessary. We will complete the following tasks for the ten (10) traffic signals on W. Las Positas Boulevard between, and including, Foothill Road to Santa Rita Road.

Fehr & Peers will prepare 20-scale sheets for the traffic signal modification plans at a preliminary level to illustrate the basis for further design. These preliminary plans will show the locations of push button, detection zone, and signal head modifications identified in Task 3.5. These modifications will be shown on top of existing traffic signal as-builts. We will deliver the 35% design along with cost estimates; we have assumed specifications will be developed at the 65% stage.

TASK 5 DELIVERABLE(S):

- 35% Plans and Estimate
- Preliminary Landscape Plans and Treatment Options
- Preliminary Traffic Signal Plans
- Peer Review of 35% Plans
- *All deliverables will be submitted in .pdf format unless specified otherwise*

Task 6. FINAL DESIGN

Not included in this phase.

Task 6.1. 65% PS&E

Not included in this phase.

Task 6.2. 95% PS&E

Not included in this phase.

Task 6.3. 100% (Pre-final and Bid Set) PS&E

Not included in this phase.

Task 6.4. Draft and Final Storm Water Management Plan

Not included in this phase.

Task 6.5. Draft and Final SWPPP

Not included in this phase.

Task 6.6. Constructability Reviews

Not included in this phase.

Task 7. Design Support During Bidding

Not included in this phase.

Task 7.1. Bid Document Revisions

Not included in this phase.

Task 7.2. Bid Addenda

Not included in this phase.

Project Assumptions

This scope of services is based on the following assumptions:

- Federal funds are not included with the Project and coordination with Caltrans Local Assistance for right of way certification, authorization to construct, and to prepare documents required in the Local Assistance Procedures Manual (LAPM) is not included in this scope of work.
- The project is expected to be Categorically Exempt under CEQA. The City will prepare and file all environmental clearance documents for the project.
- The project will be advertised, awarded, and administered by the City and the City will coordinate reproductions of the bid package.
- This scope does not include an RE file.
- City will lead the effort to identify pavement section dig out and reconstruction areas to be shown on the plans.
- Geotechnical services during construction will be provided by the City.
- The City will lead the effort and will provide rights of entry to private property. The City will obtain and provide encroachment permits, at no fee, for work within public right of way.
- A Record of Survey is not included in this scope of work.
- Property acquisition and appraisals will be provided by others and is not included in this scope
- Optional design services by Fehr & Peers, not included in this scope of service, but that may be completed for an additional fee to be negotiated prior to beginning work include the following:
 - Traffic signal modifications or new traffic signal designs for locations where additional signal equipment upgrades or changes are deemed necessary or required due to changes in roadway geometry or lane configurations.
 - Corridor Lighting Improvements
 - Signal Interconnect & Communication Plans
 - Temporary Signal Plans for Construction Staging

MILESTONE SCHEDULE

Milestone	Estimated Completion
Execute Contract	December 2022
Site Investigations and Surveys	December 2022 to March 2023
Concept Development and Stakeholder Outreach	December 2022 to March 2023
Public Meetings	April 2023
35% Plans and Estimates	April 2023 to June 2023
65% PS&E	June 2023 to August 2023
95% PS&E	August 2023 to December 2023
100% PS&E	December 2023 to February 2024
Bid Plans and Specifications	March 2024
Advertise and Award	March 2024 to June 2024
Construction	September 2024 to 2025

Mark Thomas & Company, Inc. Rate Schedule

Expires June 30, 2023*

HOURLY CHARGE RATE RANGES

Engineering Services

Intern	\$52 - \$90
Technician	\$72 - \$137
Planner I	\$85 - \$115
Design Engineer I	\$101 - \$144
Planner II	\$111 - \$137
Sr. Technician	\$124 - \$180
Design Engineer II	\$131 - \$169
Project Engineer	\$154 - \$191
Sr. Project Engineer	\$167 - \$227
Sr. Technical Engineer	\$167 - \$227
Project Manager	\$200 - \$256
Technical Lead	\$200 - \$256
Sr. Project Manager	\$232 - \$328
Sr. Technical Lead	\$222 - \$328
Engineering Manager	\$294 - \$378
Practice Area Leader	\$294 - \$378
Sr. Engineering Manager	\$327 - \$450
Principal	\$422 - \$500

Survey Services

Survey Intern	\$65 - \$112
Survey Technician	\$85 - \$151
Sr. Survey Technician	\$98 - \$186
Surveyor	\$118 - \$171
Sr. Surveyor	\$134 - \$198
Lead Survey Technician	\$131 - \$218
Project Surveyor	\$164 - \$216
Sr. Project Surveyor	\$180 - \$238
Survey Manager	\$191 - \$263
Sr. Survey Manager	\$238 - \$311
Survey Division Manager	\$284 - \$396
** Single Chief	\$157 - \$216
** Single Instrumentman	\$150 - \$191
** Single Chainman	\$132 - \$187
** Apprentice	\$71 - \$176
** 1 Person Field Crew	\$157 - \$216
** 2 Person Field Crew	\$290 - \$403
** 3 Person Field Crew	\$361 - \$580
Drone Pilot	\$220

Construction Management Services

Office Technician	\$65 - \$108
Office Engineer	\$115 - \$216
** Asst. Resident Engineer	\$164 - \$297
** Inspector - CM	\$164 - \$297
RE/Structural Representative	\$213 - \$360
Project Manager - CM	\$213 - \$324
Sr. Project Manager - CM	\$229 - \$360
Area Manager - CM	\$321 - \$468
Division Manager - CM	\$294 - \$360

Project Support/Coordination Services

Project Assistant	\$72 - \$108
Technical Writer	\$69 - \$115
Sr. Project Assistant	\$101 - \$137
Project Coordinator	\$98 - \$144
Graphic Designer	\$105 - \$162
Sr. Technical Writer	\$105 - \$176
Project Accountant	\$105 - \$162
Sr. Project Coordinator	\$131 - \$173
Sr. Graphic Designer	\$118 - \$198
Sr. Project Accountant	\$164 - \$223
Sr. Graphic Manager	\$147 - \$216

District Management Services

** Inspector - Apprentice	\$69 - \$104
** Inspector	\$101 - \$140
** Sr. Inspector	\$128 - \$166
Assistant Sanitary Engineer	\$144 - \$184
Associate Sanitary Engineer	\$160 - \$216
Sanitary Project Engineer	\$160 - \$248
Sr. Sanitary Project Engineer	\$203 - \$295
Operations Manager	\$232 - \$328
Deputy District Manager	\$288 - \$353
District Manager-Engineer	\$321 - \$374

Urban Planning/Landscape Architecture Services

Landscape Intern	\$49 - \$90
Landscape Designer I	\$85 - \$115
Landscape Designer II	\$111 - \$137
Landscape Architect	\$115 - \$198
LAUD Division Manager	\$255 - \$284
LAUD Project Manager	\$193 - \$248
Sr. LAUD Project Manager	\$229 - \$281
Sr. LAUD Division Manager	\$268 - \$317

Grant Writing Services

Funding Specialist	\$158
Sr. Funding Specialist	\$263

Special Services

Expert Witness	\$440
Strategic Consulting	\$440

Note: Additional Promotional Steps Exist within Various Rate Categories

OTHER DIRECT COSTS

Reimbursables including, but not limited to:

Reproductions, Delivery and Filing Fees	Cost Plus 5%	Outside Consultant Fees	Cost Plus 5%
Mileage	Per IRS Rate	Survey Field Expenses	Cost Plus 5%

*Rates subject to escalation with new hourly rate schedule as of July 1, 2023

**These charge rates are subject to Prevailing Wage laws and Union contract.

