



1. Firm Background, Qualifications & Organizational Structure

Headquartered in San Francisco, URS Corporation Americas (URS) is an engineering and construction firm with local offices in San Jose, Oakland and San Francisco. URS supports a wide range of both private sector and public agency clients and has extensive experience providing engineering and planning services on numerous projects with similar challenging assignments for local and state agencies, including the City of Mountain View, City of San Jose, Santa Clara Valley Transit Authority, and Caltrans. Most recently in late 2013, URS was selected as the Caltrans District 4 On-Call Design Services Consultant.

URS has the capability to design almost any aspect of a utility system improvement project using in-house resources including civil, structural, electrical, geotechnical and mechanical engineering disciplines. URS has expertise in all phases of project development process including planning, preparation of environmental documentation, engineering design and construction management.

URS' Strengths in Supporting the City

We believe our team can offer many benefits in supporting the City of Mountain View (City) in delivering a successful project.

- ✓ **Local Experience Matters** –The URS team brings no learning curve through our previous local project experience. We have in-depth knowledge and understanding of the:
 - Rengstorff water main site through extensive work on the US 101 Auxiliary Lanes project and the development of alternatives to replace this water main including alignment alternatives, evaluating easements and Caltrans requirements.
 - Shoreline 12" asbestos cement pipe water main and the 18" vitrified clay pipe sanitary sewer main through extensive work on the US 101 Auxiliary Lanes project and studying the Shoreline Overcrossing as-builts and surrounding Right-of-Way.
 - Existing (abandoned) 15" VCP sanitary sewer main and the 16" Cast Iron Pipe sewer main through extensive work on the State Route 85 Express Lanes project.
- ✓ **Significant Utility Work on Similar Project within Caltrans Right-of-Way** –In addition to the US 101 Auxiliary Lanes 101 and State Route 85 Express Lanes projects our team's experience includes:
 - 101 Marin Sonoma Narrows- Contract B2
 - San Francisco Public Utilities Commission Seismic Upgrade of Bay Division Pipelines Nos. 3 and 4 at the Hayward Fault
- ✓ **Full-Service Capability** - Our technical specialists bring on-point water and sewer systems planning and design experience. This wealth of local resources and experience provides the City with comprehensive in-house capabilities to address all technical aspects of your project.

2. Proposed Approach

The key strength of our approach is our ability to expedite productivity and approvals and maintain quality by leveraging detailed information and first-hand experience gained on other similar Caltrans highway projects in and around the area, such as the US 101 Auxiliary Lanes Project, currently in construction, and the State Route 85 Express Lane project.

Our URS Project Manager, David Fyfe, PE will proactively engage all project stakeholders and permitting agencies and ensure key technical staff is provided with comprehensive and timely direction necessary to complete milestones and deliverables on time and within budget. The City will benefit greatly from this approach because it will maximize productivity and efficiency of our entire team during the entire project duration, thereby minimizing cost and helping to ensure timely completion of all tasks within the specified project schedule.

The scope of services required for the project will include the following tasks:

- Task 1 – Project Management
- Task 2 – Preliminary Investigations (Phase I)
- Task 3 – Preliminary Engineering Study (Phase II)
- Task 4 – Engineering Drawings 35% (Phase III)
- Additional Services (as-needed/authorized)

Task 1 – Project Management

David and URS project team members have extensive experience on similar utility projects involving highway crossings. Our management team has excellent communication skills and is adept at providing multi-agency stakeholder coordination necessary to ensure streamlined permitting and processing of the selected utility alignment alternatives.

David will be in constant contact with the City's Project Manager to communicate project status and next steps. Project management tasks will include attending both formal and informal meetings with the City's Project Manager, presentations to key project stakeholders, allocating appropriate resources to tasks, updating the team and stakeholders, and verifying steps are taken for quality deliverables.

Task 1.1 – Project Administration

Project administration, document control, schedule and budget are the critical elements of project management. As part of our project management/administration services, URS will prepare a Project Execution Plan



(PXP) that will serve as the basis for our internal management of the project. David will utilize the best technical resources available to accomplish the goals of the project in the most efficient and cost effective manner. Budget, schedule and quality will be monitored continuously to help ensure required project progress from start to completion of the project. To control project documentation, URS will implement a central project filing system (electronic and hardcopy) which will be established following the Caltrans Uniform File System.

Task 1.2 – Coordination Meetings

URS will start the project with a kick-off meeting involving the project management team, design team leads, and appropriate City staff. Study requirements, project intent, challenges, constraints, opportunities, budget, schedule, tasks and delivery dates will be discussed. In addition, public outreach and project awareness strategies will also be discussed. Although not anticipated for this project, URS can support the City’s public outreach plan by providing graphics and figures and attending community workshops to help ensure key stakeholders participation in the project. Subsequent meetings, including approximate dates and locations and invitation methods will be identified. The output from this meeting will be incorporated into the overall PXP.

We expect instead that a minimum of seven additional project development team/interagency coordination meetings will be required during the preliminary design phase of this project. During those meetings, we will in present our findings to the City at key stages of the project and obtain necessary requirements identify necessary requirements from permitting agencies including Caltrans, SCVWD, PG&E and others. These meetings will be used to communicate programmatic issues and identify necessary action items to resolve these issues and help ensure project completion within the specified project schedule.

Task 1.3 – Project Schedule

The key to successful schedule control is advance planning, early establishment and communication of agreed-upon milestones and deadlines for each task, taking into consideration report review cycles required by the City. While communicating with the City, David will be monitoring the schedule and adjusting it when needed. The detailed project schedule will be developed upon notice to proceed. Schedule updates will be provided electronically in MS Project and PDF format monthly, or more frequent if necessary. A preliminary proposed schedule is located behind the Fee Schedule in Part Two.

Typical Task 1 Project Management Deliverables include:

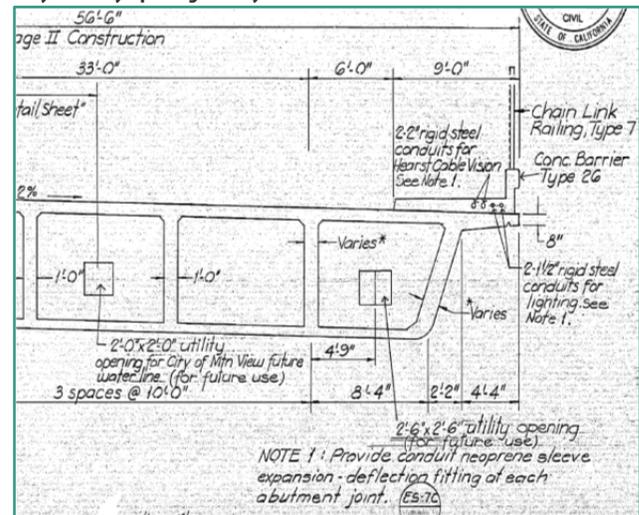
- Project meeting agendas and meeting minutes
- Monthly schedule updates – electronically in MS Project and PDF file format
- Monthly invoice itemized by task, employee classification hours worked and reimbursable expenses by type of expense.
- Monthly progress reports to document work completed and milestone accomplishments attained

Task 2 – Preliminary Investigations (Phase I)

Task 2.1 – Data Collection/Mapping

A key benefit of our team is the project data URS already has in-house, therefore minimizing the data collection efforts that will be needed. Using the URS’ as-builts, right-of-way and owner information, and topographic mapping throughout the project limits will expedite our understanding of the existing site conditions and constraints. Pothole data for the surrounding underground facilities crossing US 101 at Rengstorff Avenue were obtained as part of the 101 Auxiliary Lanes Project. URS also has the Caltrans as-built plans throughout the entire project site including geotechnical borings, a Site Investigation Report with results of soil and groundwater testing, cultural resource and jurisdictional wetland mapping which are required to complete the environmental screening.

Figure 1: Shoreline Boulevard Overcrossing As-Built 2’ by 2’ Utility Opening for City of Mountain View Future Water Line



A request for Caltrans encroachment permit records for existing City facilities would be made to verify the land rights through Caltrans Right-of-Way. The information obtained from the Caltrans records will assist with the scoping permit requirements for the



future facilities, including the Encroachment Policy Variance Request.

Notice of Intent (NOI) letters including a graphical figure illustrating all existing utilities will be prepared on behalf of the City and mailed out to all utility purveyors known to provide services in and around the project sites. After review and approval by the City, the NOI cover letter for utility companies will be sent with the preliminary system maps for their confirmation on location of facilities shown.

After receipt and compilation of all available information provided by the City and other utility purveyors, our team will prepare complete base mapping. Existing utility base maps will then be sent out again to known utility purveyors for review, comment and confirmation on information shown. The existing utility base mapping will then updated as needed per comments received from the utility purveyors. Final conformed utility mapping will be sent to utility purveyors “for information only”, and will be deemed suitable for incorporation into the design documents.

Task 2.2 – Project Site Visits

A field reconnaissance will be performed to confirm existing utilities shown on the as-built documentation and field reconnaissance all surface-evident existing utilities and appurtenances.

Underground Service Alert (USA) will be notified in advance of the field reconnaissance and all existing utility markings/paint via USA will also be documented and photographed.

Typical Task 2 Preliminary Investigations Deliverables include:

- Log of data.
- Base Map reflecting topographic information and existing utilities along and adjacent to the proposed utility alignment alternatives.

Task 3 – Preliminary Engineering Study (Phase II)

Given our team’s comprehensive understanding of the project’s water and sewer utility systems, coupled with our in-depth knowledge of the project site via work on the US 101 Auxiliary Lanes and State Route 85 Express Lanes projects, our team will be able to hit the ground running with a broad understanding of the existing site constraints and opportunities. URS will leverage in-house Caltrans as-built plans covering the entire project site to help inform and expedite the development of the proposed utility alignment alternatives.

Task 3.1 – Alignment Studies

The objective of this task is to identify the extent of all the proposed utility system crossing alternatives, including preliminary horizontal alignments and planned point of connections. Using the alternatives developed as part of the US 101 Auxiliary Project and information gathered from Task 2, alignment alternatives will be thoroughly evaluated to determine the constraints and opportunities. Required separations between utility systems/pipes will be reflected in single and/or joint utility trenches placed within the roadway cross-sections per City and other applicable standards, such as Caltrans and California Department of Public Health. Right-of-Way requirements will be identified for each alternative. The evaluation of the proposed alignment alternatives will consider the construction installation means and methods, such as direct buried, jack-and-bore, etc.

As part of this task, URS will prepare plan sheets illustrating the proposed utility alignment alternatives (up to three alternatives per utility crossing – schematic level). The plan sheets will show all known existing utilities along and adjacent to the proposed utility alignment alternative and will also call out key aspects of the proposed alignment and profiles, in context of

Facility	Alignment Alternative	Challenges
14" ACP water main crossing US 101 at Rengstorff	New alignment north of existing crossing	Requires New Easement
	Maintain existing alignment with 35 degree skew angle	Requires Utility Policy Variance Request
	Correct skew angle to 33 degrees	Requires Utility Policy Variance Request
12" ACP water main crossing US 101 at Shoreline Blvd	Inside Shoreline Boulevard overcrossing structure	Requires Utility Policy Variance Request and extensive coordination with Caltrans
	New alignment north or south of Shoreline Blvd interchange	May Require New Easement
18" VCP sanitary sewer crossing US 101 at Shoreline Blvd	New alignment south of the Shoreline Blvd interchange	Requires New Easement
	Upsize sewer main crossing north of Shoreline Blvd interchange	Would require additional improvements to the sanitary sewer up and downstream of crossing
15" VCP and 16" CIP sanitary sewer crossings SR 85 at San Leandro Ave and Stevens Creek	Salvage/Repair existing crossing(s) under SR 85, replace pipe crossing under Stevens Creek	Existing utilities (PG&E). Environmental impacts could require additional studies and permits
	Abandon existing crossing(s) and replace with a new facility, replace pipe crossing under Stevens Creek	Environmental impacts could require additional studies and permits



the surrounding existing conditions, including but not limited to, permanent Right-of-Way needs, temporary construction easements and phasing project to meet constructability constraints. Plan sheets will be prepared using CADD software utilizing English units and will be provided on City provided title blocks in accordance with the City’s plans preparation standards.

URS will also prepare a brief technical memorandum summarizing the key findings of the preliminary engineering study, including but not limited to, identification of critical constraints and opportunities, environmental requirements, constructability, cost and schedule. The plan sheets and technical memo will then be presented to City staff. David and technical design team will work closely with City staff to discuss and evaluate the pros and cons of all the utility alignment to help ensure efficient progress and well informed decisions on these items.

Task 3.2 – Preliminary Cost Estimates

Taking into account site constraints, constructability issues and overall length of new pipe, URS will develop preliminary cost estimates associated with each of the alignment alternative to help inform the ranking of each alternative.

Task 3.3 – Caltrans Screening

Leveraging our extensive experience working on Caltrans highway development projects, URS will evaluate the proposed utility improvements in the context of the Caltrans Utility Policy. All proposed alignment alternatives crossing the highway will be developed to comply with Caltrans standards to extent feasible. Where compliance with Caltrans standards may not be feasible, URS will work directly with Caltrans staff to identify an acceptable alternative and the required documentation that to formalize Caltrans acceptance of the required variance.

Task 3.4 – Environmental Screening

Utilizing geotechnical borings, site investigation mapping (hazardous waste, groundwater testing, etc.), wetland delineation, cultural resource mapping, and other required information already available in-house, URS will prepare an environmental screening for the project following CEQA and/or NEPA guidelines (to obtain USFWS or USCG approval), as appropriate. The purpose of the environmental screening will be to assist the City in identifying potential impacts and developing an approach to address those impacts. The environmental screening will be in the format of a technical memorandum to the City and will take into consideration compliance under regional, state and federal policies and regulations, as well

as applicable CEQA and City goals, plans and procedures, including those found in the City’s General Plan and Specific Plans.

Task 3.5 – Geotechnical Screening

Geotechnical screening services will be provided by review of existing available information and mapping. Our geotechnical engineer will review readily available data along the utility alignment, including previous exploratory data (borings and laboratory test results), and as-built information for the US 101 Auxiliary Lanes project. Input gathered from this preliminary desktop investigation will help inform benefits and limitations of the proposed utility alignment alternatives and identify the need for any further geotechnical field investigation required prior to preparation of the final design documents.

Task 3.6 – Hazardous Materials Screening

A hazardous materials report was developed for the US 101 Auxiliary project. Screening services will utilize this report as well as other available information to determine issues with soils contamination and recommend soil management, soil handling and worker safety requirements.

Typical Task 3 Preliminary Engineering Study Deliverables include:

- Technical memo summarizing findings of each Proposed Utility Alignment Alternative. Proposed Utility Alignment Alternatives Plan Sheets (up to three alternatives per utility crossing) with existing utilities shown (schematic level).
- Coordination graphics for use in utility purveyor/stakeholder coordination meeting(s) –Preparation and distribution of coordination meeting minutes documenting discussion of alternatives and direction provided by City. Technical memo summarizing findings of Environmental Screening.

Task 4 – Engineering Drawings 35% Design (Phase III)

Task 4.1 – Draft 35% Drawings

Building on the information compiled from the preceding preliminary engineering study and based on the preferred preliminary design alternative selected by the City, our team will proceed to develop draft PS&E type plan drawings to depict key aspects of the design to a 35% level of completion. All drawings will be prepared in a standard engineering scale on 22" x 34" full size sheet format (11" x 17" half size) using CADD software, will adhere to City CADD standards and will include the following sheets:

- Cover/title sheet
- General Site Plan sheet



- Right-of-Way and Survey Control Plans reflecting City and private property boundaries
- Utility Layout Plans showing horizontal and vertical alignment of the proposed utility alignments
- Typical section(s) showing existing roadway structural sections and placement of proposed and existing utilities

Task 4.2 – Final 35% Drawings

After receipt of the City’s review comments, our team will prepare responses and verify all design modifications and/or review comments have been appropriately addressed and/or incorporated into the final 35% design documents. This final 35% design submittal will represent a complete and checked submittal. In addition to PDF, all electronic CADD files will also be submitted to the City.

Task 4.3 – Final Design Parameters

Accompanying the final 35% design plans, URS will prepare and transmit final design parameters for the proposed sanitary sewer and potable water lines.

- All pipe design parameters will be based on applicable City, SCVWD, Caltrans, AWWA and California Department of Public Health standards and requirements.
- Carrier water pipes used to be placed in casing shall be PVC, HDPE, or Concrete Cylinder Pipe.
- Sanitary sewer carrier pipes installed in casing shall be PVC pipe or High Density Polyethylene Pipe.

Caltrans Requirements:

- New installations shall be made by boring and jacking, directional drilling, or other methods approved by Caltrans.
- Underground facilities should be encased between Caltrans Right-of-Way.
- Utility facilities located on bridges shall include evidence of compliance with corrosion control requirements of the Federal Department of Transportation and CPUC.

Task 4.4 – Final Cost Estimate

Building on the preliminary cost estimates developed as part of Task 3, URS will prepare refined final cost estimates.

Additional Services

A.1 – Field Surveys & Right-of-Way

With the extensive topographic survey and right-of-way mapping URS has in-house from working on the 101 Auxiliary Lanes project we do not anticipate needing field survey support. If additional field surveys and right-of-way mapping is required, the URS team is available to provide these services.

A.2 – Infiltration Testing

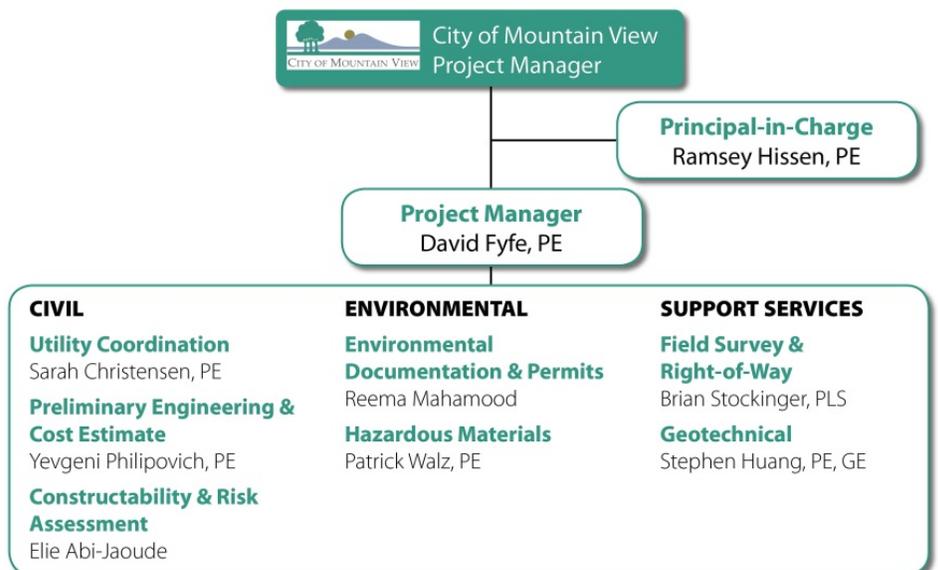
With the general extent of pipe replacement already understood combined with the available CCTV logs and videotapes/DVDs, we do not anticipate infiltration testing will be required to complete the preliminary engineering plans. However, should these services be required, the URS team can provide these services.

A.3 – Potholing/Utility Verification

Given the comprehensive existing utility base mapping available in-house that was already prepared as part of the US 101 Auxiliary Lanes project, we do not expect that potholing will be required to verify existing utilities. Should potholing services be required, the URS team is ready to provide these services.

3. Lead Contact Person & Principal Staff Assigned

We have assembled an accomplished team of professionals to provide the engineering consulting services for the alignment and constructability study to replace critical utility crossings at Highways 101 and 85 for the City of Mountain View. David Fyfe, Project Manager, will be the single point of contact throughout the project.



**URS CORPORATION
BAY AREA OPERATIONS
2014 SCHEDULE OF FEES AND CHARGES**

The following describes the basis for compensation for services performed during the fiscal year 2014. This Schedule of Fees and Charges will be adjusted annually on January 1 of each subsequent year to reflect merit and economic salary increases, and changes in the expected level and mode of operations for the new year. The new Schedule of Fees and Charges will apply to existing and new assignments.

PERSONNEL CHARGES

The charge for all time required in the performance of the Scope of Services, including office, field and travel time, will be at (or less than) the maximum Unit Price Hourly Rates set forth below for the labor classifications indicated.

Labor Classification	Max Hourly Rates (\$)
Clerk*	55
Staff Administrator	77
Word Processor/Project Assistant/Editor*	100
CADD Technician/Illustrator	87
Project Administrator/Controller	114
Technician*	89
Sr. CADD Technician/Sr. Illustrator/Designer*	128
Sr. Technician*	124
Sr. Designer/Lab, Field, or CADD Supervisor	142
Staff Professional	100
Professional	137
Project Professional	168
Sr. Project Professional	192
Consulting Project Professional	216
Project Manager	195
Sr. Project Manager	224
Principal Professional/Project Director	263

Charges for contract personnel under URS supervision and using URS facilities will be made according to (or less than) the maximum hourly rate corresponding to their classification. When staff are performing field work on projects, a minimum daily charge of 4 hours will apply.

When URS staff appear as expert witnesses at court trials, arbitration hearings, and depositions, their time will be charged at \$375.00 per hour.

Overtime (hours worked in excess of eight (8) hours per day) by exempt personnel will be charged at the above straight time hourly rate. Overtime by non-exempt personnel (classifications identified with an asterisk "*") will be charged at 1.3 times the above hourly rates.

URS LABORATORY SERVICES

The charges for laboratory testing performed at URS facilities are set forth in the accompanying Signet Testing Labs Fee Schedule.

OTHER PROJECT CHARGES

Subcontracts and Other Non-Salary Expenses

The cost of services subcontracted by URS to others and other outside costs incurred by URS that are directly identifiable to the project will be charged at cost plus 10%.

Document Reproduction

In-house reproduction will be charged at \$0.10 per page for black and white and \$1.00 per page for standard color.

In addition to the above, the following charges will apply to plots generated by the CADD and GIS systems.

<u>Plot Size</u>	<u>Paper</u>	<u>Mylar</u>
Smaller than D-size	\$3.00	\$9.00
D-size	\$6.00	\$18.00
Larger than D-size	\$1.00/ft ²	\$3.50/ft ²

Specialized Equipment

The use of specialized URS equipment will be the fixed rental rates consistent with prevailing market rates.

Vehicles and Mileage

The mileage charge for personal vehicles used on project assignments will be the current mileage rate established by the Internal Revenue Service for tax purposes.

URS owned vehicles used on project assignments will be charged at \$90.00 per day, with a minimum charge of one-half day.

This fee schedule contains confidential business information and is not to be copied or distributed for any purpose other than the use intended in this contract.



City of Mountain View Project No. 12-38
 Alignment & Constructability Study for Utility Crossing Replacements at Highways 101 and 85
 1/30/2014

		Key Project Personnel				Key Technical Resources					Total Hours	Total \$
		PIC	PM	Project Coordinator	Sr Design Engineer	Sr Engr/Env Planner	Engineer/Planner	CADD Tech	Admin	ODCs		
		Ramsey Hissen	David Fyfe	Sarah Christensen	Yev Phillipovitch	Key Tech Staff	Key Tech Staff	Key Tech Staff				
	Billing Rate ==>	-	\$150.00	\$125.00	\$170.00	\$150.00	\$90.00	\$110.00	\$50.00	\$1.00		
1.0	Task 1 - Project Management											
	Subtotal Cost	-	\$11,400	\$3,500	\$2,040	\$0	\$0	\$0	\$800	\$240.00		\$17,980.00
2.0	Task 2 - Preliminary Investigations (Phase I)											
	Subtotal Cost	-	\$600	\$750	\$1,020	\$1,200	\$1,800	\$1,320	\$0	\$150.00		\$6,840.00
3.0	Task 3 - Preliminary Engineering Study (Phase II)											
	Subtotal Cost	-	\$1,200	\$4,250	\$2,720	\$14,400	\$14,400	\$4,400	\$0	\$0.00		\$41,370.00
4.0	Task 4 - Engineering Drawings 35% Design (Phase III)											
	Subtotal Cost	-	\$1,800	\$3,500	\$5,100	\$3,600	\$6,480	\$5,280	\$400	\$400.00		\$26,560.00
A.0	Additional Services - As Needed/Authorized											
	Subtotal Cost	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00		\$0.00
	TOTAL Cost	-	\$15,000.00	\$12,000.00	\$10,880.00	\$19,200.00	\$22,680.00	\$11,000.00	\$1,200.00	\$790.00		\$92,750.00

Labor \$91,960.00
 Subs \$0.00
 ODCs \$790.00
TOTAL \$92,750.00