



## STAFF REPORT

### City Council

Meeting Date:

3/15/2016

Staff Report Number:

16-051-CC

### Consent Calendar:

**Authorize the City Manager to sign a contract in the amount of \$631,300 with AECOM for the Ravenswood Avenue Grade Separation Project Study Report and authorize the City Manager to enter into all agreements for this project**

## Recommendation

Staff recommends that the City Council authorize the City Manager to sign a contract with AECOM for the Ravenswood Avenue Grade Separation Project Study Report (the Project) in the amount of \$631,300, and authorize the City Manager to enter into all necessary agreements and contract amendments without changes to the budget for this project.

## Policy Issues

The Project is consistent with the City's Rail Policy. The Project is also consistent with the General Plan goals to promote the use of public transit, to promote walking as a commute alternative, and to promote the safe use of bicycles as a commute alternative and for recreation. Council action on this item is needed to sign a contract for this Project in order to advance it to a level of detail to allow Council to select a recommended alternative.

## Background

On November 2, 2004, the voters of San Mateo County approved the continuation of the collection and distribution by the San Mateo County Transportation Authority (SMCTA) of the Measure A half-cent transportation sales tax and accompanying Transportation Expenditure Plan for an additional 25 years, beginning January 1, 2009 (new Measure A).

On August 5, 2013, the SMCTA issued a call for projects for the Measure A Grade Separation Program. In response to the call for projects, the City of Menlo Park (City) requested \$750,000 in Measure A funds for the Project. On November 14, 2013, SMCTA programmed funds from the Measure A Grade Separation Program for the Project.

The Project was included in the City's Capital Improvement Plan (CIP) for Fiscal Year (FY) 2015-16. The Project seeks to advance the previous work on potential grade separations along the Caltrain railroad tracks within the City to increase safety of all modes of travel. This scope of work includes evaluation of the current two preferred alternatives, the Ravenswood Avenue depression alternative and the hybrid

(partially lowered roadway and partially raised railroad tracks) alternative, per Council direction at the City Council meeting on May 5, 2015. Prior studies evaluated six total alternatives that were refined to the two alternatives that are under consideration with this project.

**Analysis**

After consulting with the City Council Rail Subcommittee on December 14, 2015, staff issued a Request for Proposals for this Project. On January 21, 2016, three consultant teams submitted proposals. A panel of City and Caltrain staff reviewed the proposals and identified the most qualified teams to invite for interviews. On February 4, 2016, City and Caltrain staff interviewed two consultant teams and selected AECOM as the most qualified team. They were determined to be the most qualified based upon their expertise in similar railroad grade separation PSRs and Community Engagement. The highest ranked consultant team for the Project, AECOM, submitted a proposal in the amount of \$631,300.

The proposed scope of work for the Project (Attachment A) consists of data collection and review; community engagement; identification and evaluation of grade separation conceptual designs; and preparation of draft and final Project Study Report (PSR) and 15 percent design plans. The community engagement process will include at least three public outreach meetings, seven Council and/or Commission meetings, three-dimensional graphic renderings and/or video simulations, and extensive communications with the various stakeholders. The Project goals are to reduce traffic congestion through grade separation of rail traffic from other modes, maintain local access and circulation as much as feasible, and improve safety at the railroad crossing. The Project would allow the City Council to identify a recommended alternative and identify future studies, permits, potential funding sources and other special requirements that will be required to advance the grade separation to the environmental phase.

Staff requests that City Council authorize the City Manager to enter into all necessary agreements, such as revisions to the funding agreement with Caltrain, and contract amendments, such as minor modifications to the scope of work, that do not require modifications to the budget.

Some key milestones for the project are shown below	
Sign Agreement	March 15, 2016
First Community Meeting	Spring 2016
Status Report to Council	Summer 2016
Draft Project Study Report to Council	Fall 2016
Final Report	March 2017

Other recently completed and upcoming projects that will be closely coordinated with this Project include the Middle Avenue Bicycle and Pedestrian Grade Separation, the Alma/Ravenswood median treatments, Caltrain Electrification, and High Speed Rail planning.

### Impact on City Resources

The Project was approved and included in the CIP for FY 2015-16, with a total budget in the amount of \$750,000. Through the Measure A Grade Separation Program, the SMCTA will reimburse the City up to \$750,000 for the Project. Including contingency and staff time, the total budget is \$825,000. The City's CIP and High Speed Rail Coordination budget have sufficient funds for this Project and the Measure A funds will be paid to the City on a reimbursable basis.

The budget for the Project consists of the following:

Ravenswood Avenue Grade Separation Project Study Report	
Consultant Contract Amount	\$631,300
Contingency (4%)	\$27,700
City and Caltrain Staff Time	\$166,000
<b>Total Budget Approval</b>	<b>\$825,000</b>

### Environmental Review

The Project is categorically exempt under Class 6 of the current State of California Environmental Quality Act Guidelines, which allows for information collection, research, and resource evaluation activities as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. The results of the Project will identify required environmental reviews and studies required to advance the project.

### Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

### Attachments

- A. Scope of Work
- B. Potential Study Area Map and Project Location

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Report reviewed by:  
Nikki H. Nagaya, Transportation Manager

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The City of Menlo Park's (City) four at-grade railroad crossings (Ravenswood Avenue, Oak Grove Avenue, Glenwood Avenue, and Encinal Avenue) are part of the Project scope. The Ravenswood Avenue crossing experiences the highest traffic congestion conditions of all four at-grade crossings and is the highest priority location within the City for consideration of a grade separation. Ravenswood Avenue serves as a main east-west connector between US101 and El Camino Real. This crossing handles high volumes (approximately 24,000 average daily vehicles) of vehicle, bicycle, and pedestrian traffic; is immediately adjacent to the Menlo Park Caltrain station and transit center; and is within walking distance to many employment centers. Additionally, many local residents use this crossing location to travel between their homes, schools, shopping, and recreational venues.

Meanwhile, the Caltrain Modernization project to electrify the tracks has progressed, with completion of construction anticipated in 2019 followed by the California High-Speed Rail (HSR) in the not too distant future. Although the City Council's current position regarding the California HSR only supports a two-track alignment through Menlo Park using a HSR blended system, all designs will consider future Caltrain electrification and HSR options and will evaluate the impact of accommodating a potential third passing.

The goals of the Ravenswood Avenue Grade Separation project are to reduce traffic congestion, maintain or improve local access and circulation, and improve safety at the railroad crossing. The Project will evaluate two possible alternatives: 1) a Ravenswood Avenue Undercrossing that maintains the existing train tracks at their current profile and alignment and that completely depresses Ravenswood under the Caltrain tracks; and 2) a hybrid or split alternative that partially raises the Caltrain tracks and partially depresses four intersecting roadways at Ravenswood, Oak Grove, Glenwood, and Encinal Avenues. Although the City Council's current position regarding the California HSR, only supports a two-track alignment through Menlo Park using a HSR blended system, all designs will consider future Caltrain electrification and HSR options and will evaluate the impact of accommodating a potential third passing track.

This document summarizes the scope of service for preparation of the Ravenswood Avenue Grade Separation Preliminary Engineering, Public Outreach, and Project Study Report (Project) in the City of Menlo Park. The Scope of Services is broken down into the following tasks:

- Task 1: Project Management
- Task 2: Data Collection and Review
- Task 3: Community Engagement
- Task 4: Identify and Evaluate Grade Separation Conceptual Designs
- Task 5: Prepare Draft and Final Project Study Report and 15% Plan Set

### **Task 1 – Project Management**

#### Project Administration

AECOM will provide project management for each task for the duration of the Project (assumed to be 12 months). Management activities will consist of administration, coordination, scheduling, and quality control, as follows:

- Create a Project Execution Plan (PXP) which includes scope, budget, team organization, roles, contacts, production standards, a project schedule, deliverables, and quality control procedures.
- Supervise, coordinate, and monitor activities and product development for conformance with City and Caltrain standards.
- Interface with City staff to assure format consistency of all deliverables.
- Coordinate in-house design staff and subconsultants to facilitate the free and timely flow of information for each task.
- Prepare a monthly invoice and progress report.
- Develop and maintain a detailed Critical Path Method (CPM) schedule using Microsoft Project. An updated schedule will be provided on a monthly basis.

#### Performance and Quality Monitoring

As part of the PXP described above, a Project-specific Quality Assurance Plan (QAP) will define the requirements for Independent Technical Reviews (ITRs) and Detail Check Reports (DCRs) for all draft and final work products including the work produced by our subconsultants. The QAP will outline the quality assurance procedures and

protocols we will use to make sure that all work performed on the Project is checked and that all deliverables undergo an ITR and DCR before submittal to the City.

#### Design Coordination Meetings

AECOM will prepare for and attend a kick-off meeting and various design coordination meetings with the City and other stakeholders. AECOM will prepare and submit a meeting agenda in addition to preparing and distributing meeting minutes for these meetings. Below is a list of proposed design coordination meetings and the assumed number of meetings for each.

- Kick-off meeting (assumed 1): review scope, schedule, quality procedures and project staffing. Attendees will include AECOM, APEX and City staff and may include staff from Caltrain.
- Design team coordination conference calls (biweekly, assumed 24): coordinate on action items, deliverables and schedule. These meetings will be conducted via teleconference with the project team.
- Progress meetings with the City and Project Coordination Meetings with other agencies (monthly, assumed 12 total): confirm project objectives, scope, approach, milestones, schedule, staffing, support services and coordination requirements as well as inform stakeholders of project progress and issues. These meetings will be conducted via teleconference or in person at either AECOM or City offices.

#### **Task 1 Deliverables:**

- Project Execution Plan
- Project schedule with monthly updates
- Meeting materials (agenda, minutes, etc.)
- Monthly invoices and progress reports
- Quality control documentation

#### **Task 2 –Data Collection and Review**

AECOM will collect data to accurately depict the Project site's existing conditions. The data collection will lead to a well-defined cost estimate and a more complete summary of the impacts of the design alternatives.

#### Field Review

AECOM will conduct an initial site visit to identify the unique features that will affect design and construction. Field review information on existing key features will be measured as needed, and the site will be observed during peak hours to understand traffic patterns. This data will be critical to determining how existing facilities will affect the alternatives considered.

#### As-Built and Development Plan Research

Existing as-built data for roadways and adjacent facilities will be researched and compiled to document issues such as subsurface geotechnical conditions, groundwater levels, and adjacent foundations. This research will serve as one of the resources for establishing the existing conditions of the Project site. In addition, development site plans near or within the Project limits will be obtained from the City and reviewed.

#### Review Existing Studies

AECOM will review existing studies and reports to ensure that the issues identified in these studies are addressed. These studies include:

- Report to City Council on Menlo Park Grade Separation & New Station Feasibility Study, dated June 5, 2003
- Menlo Park Grade Separation Feasibility Study Supplement for Ravenswood, Oak Grove, Glenwood, and Encinal Avenues, dated September 2, 2004
- City of Menlo Park Rail Policy and Position Statement
- Alma Street and Ravenswood Avenue Trial Staff Report, dated May 5, 2015
- Other reference documentation listed in the Request for Proposal

#### Traffic Data Collection and Review

Vehicular traffic congestion at the crossing and the safety of pedestrians and bicyclists at the Ravenswood Avenue Grade Crossing and in the Menlo Park Station Area are important contextual factors in the study area. In order to

establish a firm understanding of existing conditions, the AECOM team will gather the following existing data within the project area using the sources listed below:

- Collision data adjacent to and at-grade crossings of the railroad tracks at Ravenswood Avenue, Oak Grove Avenue, Glenwood Avenue, and Encinal Avenue, sourced from Statewide Integrated Traffic Records System (SWITRS) or other readily available data source, such as recent collision reports from the City. (This scope assumes that any data provided by the City will be in editable database digital format such as Microsoft Excel or similar software and be representative of a consistent data collection timeframe in the past five years.)
  - SWITRS data from 2010 to 2015 time frame to be collected from the following website:  
<https://www.chp.ca.gov/programs-services/services-information/switrs-internet-statewide-integrated-traffic-records-system>
- Traffic counts and summary of existing peak hour intersection operations at up to ten (10) study intersections sourced from Appendix B of the ConnectMenlo General Plan. The AECOM team will conduct level of service analysis using the SYNCRO software program with base models provided by the City. Collection of any new count data at study intersections is not included in this scope of services.

The AECOM team will also visit the site to observe existing peak period vehicle, bicycle and pedestrian operations and overall station access patterns. This data will be presented and summarized in a series of tables suitable for use in PowerPoint.

#### Right-of-Way Research

Using existing record map information, the properties in the vicinity of the proposed grade separation will be mapped, and a list of property owners and stakeholders will be compiled. Alternatives will be evaluated based on potential right-of-way impacts, including estimated areas of acquisition and easements in addition to access modifications. Property surveys and title searches are not included in this scope of services.

#### Utility Research

To augment the utility database of the area, AECOM will conduct an Underground Service Alert (USA) inquiry to identify the utility companies with facilities within the project area. We will then issue a notice-of-intent (NOI) to utility owners via written correspondence under City letterhead to request the most recent as-built information. Based on information received from utility owners, the AECOM team will compile a utility map and matrix to identify existing utilities within the Project limits. This initial utility information will become the basis for tracking and coordinating with utilities throughout Project development.

This task assumes that utility research activities in the field will be limited to areas accessible by the general public and no a Caltrain Property Access Agreement will be required. In addition, no potholing of utilities will be conducted.

#### Design Criteria

UPRR and Caltrain have operational requirements and constraints associated with track design and rail operations that will be part of the design criteria. The design criteria and operational constraints will be used in the risk matrix to screen and evaluate alternatives.

#### Base Map Preparation

Field survey information of existing key features will be collected from as-built information made available from the City and Caltrain. The data will be critical in determining how existing facilities could affect different alternatives. This scope of services assumes that topographic mapping and digital terrain modelling data gathered by Caltrain along the rail corridor for the electrification project will be available and no field survey will be conducted. If the Caltrain mapping not sufficient to cover the project area, it will be augmented with publically available aerial images.

#### **Task 2 Deliverables:**

- Traffic Data Tables
- Design Criteria

### **Task 3 – Community Engagement**

An outreach process designed to keep the community informed and to solicit input from a broad range of stakeholders will be an integral part of this Project. Stakeholders include local residents and businesses in proximity to downtown Menlo Park and organizations that represent special interest groups such as bicyclists (including commuter and recreational bicyclists). Many community interests need to be considered in this Project in addition to the more formal interests of local agencies such as Caltrain, the Joint Powers Board (JPB), UPRR, the CPUC, Menlo Park Fire Protection District, Chamber of Commerce, SFPUC, and the San Mateo County Transportation Authority (SMCTA).

#### **Development of Community Engagement Plan**

The AECOM team will develop a Community Engagement Plan outlining project goals, messages, tools and techniques, project protocols, an anticipated schedule for activities, and contact information.

#### **Public Outreach Meetings**

The AECOM team will prepare for, facilitate, and attend up to three public outreach meetings. We will coordinate with the City in creating the agenda and format of the meetings, prepare presentation and meeting materials, facilitate the meetings, and write a summary of each meeting. The community outreach plan will describe details for each meeting along with objectives and presentation materials to be developed.

The breakdown of effort for the meetings is as follows:

- In addition to facilitating the meetings, APEX will prepare the agenda and format of the meetings.
- AECOM will prepare presentation and meeting materials.
- AECOM, with input and review from APEX, will prepare a written summary of each meeting that will document the issues raised and discussed at each meeting

#### **Commission and City Council Meetings**

The AECOM team will prepare for and attend up to five Commission meetings and two City Council meetings. We will assist the City in preparing presentation materials for these meetings.

#### **Project Webpage and Fact Sheets**

The AECOM team will provide the City with a Project information data sheet (Fact Sheet) that can be uploaded easily for public viewing on the City's website. The intent of the Fact Sheet is to answer many of the public's frequently asked questions about the Project. This Fact Sheet will be updated after public outreach meetings or as new information arises that needs to be disseminated to stakeholders and the community.

A project webpage will be developed and maintained by the City; however, AECOM will provide the contents to upload to the project webpage.

#### **Project Mailings**

The AECOM team will assist the City with preparation of four Project mailings based on a mailing list furnished by the City. It is assumed that the four mailings will be distributed electronically by the City.

#### **Compilation and Stakeholder Database**

In coordination with the City, AECOM will prepare a database that lists interested and concerned stakeholders. This database will be used to distribute Project materials and public notices.

#### **Community Outreach Summary Report**

The AECOM team will create a summary of the details of all public outreach meetings for the Project, including any input received from attendees and from other community input (such as emails). The report is anticipated to be ten pages or less.

#### **3D Graphic Rendering and Simulation**

AECOM will prepare 3D graphic video simulation models for both alternatives with the following views:

- Views looking north and south along of Alma Street from Ravenswood Avenue intersection

- View of the Menlo Park Station, including the historic train depot/Chamber of Commerce building
- Views looking east and west along Ravenswood Avenue

AECOM will prepare a virtual reality model using Oculus or similar technology to present one demonstration at a public outreach meeting.

**Task 3 Deliverables:**

- Community Engagement Plan
- Community Outreach Summary Reports
- Fact sheets
- Stakeholder database
- 3D video simulation model

**Task 4 – Identify and Evaluate Grade Separation Conceptual Designs**

Alternatives Development and Screening Process

After the existing information has been collected, the previous studies have been evaluated, and the key issues have been identified, AECOM will work with the City to evaluate two alternatives: 1) an undercrossing at Ravenswood Avenue (lower Ravenswood Avenue while the tracks remain at the existing grade); and 2) a hybrid alternative (partially lowers Ravenswood Avenue and other impacted streets crossing the tracks in conjunction with partially raising the tracks). Two- and three-track Caltrain and HSR operations will be considered for both alternatives, which will likely require one or more iterations during the development process based on input from the stakeholders and community. The alternatives will then undergo a screening process.

AECOM will refine alternatives based on input received from stakeholders, then summarize the costs of each alternative, and list the pros and cons in a clear and concise format to better enable the City to make a decision on a preferred alternative.

Structure Advanced Planning Studies

Structure advance planning studies are an important element of the Project’s deliverables. Both alternatives will require an underpass structure to support railroad operations. Structure evaluation during the PSR phase will consider the following key design elements:

- Structure geometry
- Foundation type
- Construction staging and traffic maintenance
- Constructability and method of construction
- UPRR/Caltrain operational constraints
- Utility clearances
- Aesthetics
- Cost

Hydraulic and Groundwater Analysis

Alternatives with a significant amount of excavation will be evaluated to determine the need for a pump station due to groundwater and surface runoff requirements. The evaluation will be summarized the PSR.

Traffic and Multimodal Access Evaluations

The AECOM team will support with the definition of alternatives process for the two preferred alternatives by conducting a qualitative traffic circulation and multimodal access evaluation of the alternatives focused on the following factors and considerations:

- ADA access in accordance with Caltrans standards and guidelines on Accessibility and the 2010 ADA Standards for Accessible Design
- Safety for bicycles and pedestrians at crossing locations
- Vehicular circulation and access at crossing locations
- Park and ride and kiss and ride needs and access

- Menlo Park Caltrain Station access for pedestrians and bicyclists, with an emphasis on non-motorized safety and reducing conflict points with vehicular traffic and train operations
- Connections to other transit modes that serve the study area and the Menlo Park Station
- Evaluation of the magnitude of traffic impacts during construction in a narrative format

The AECOM team will summarize the results of the traffic circulation and multimodal access impacts evaluation in a technical memorandum and will provide support on the evaluation factors and metrics by reviewing and providing input, via email or conference call, on any documentation or analysis on this topic.

#### Constraints Analysis

A preliminary Project constraints analysis will be prepared. This analysis will determine the critical Project-specific issues that could affect feasibility, cost, and constructability. Any grade separation alternative will require significant coordination with rail operators to minimize operational impacts during and after construction. Impacts to future rail improvements, such as electrification, HSR, and a third passing track will also be considered.

Within the Project limits, the Caltrain's existing Menlo Park Station has historical significance and provides connections to other transit modes. Maintaining the existing facility and operations at the Station will need to be a part of the constraint analysis. Examples of other possible constraints include:

- UPRR and Caltrain operations
- Environmentally sensitive areas
- Rights-of-way, including access to properties
- Community and stakeholder concerns
- Visual and noise impacts
- Existing utilities
- Construction phasing
- Near-term and future grade separation impacts to adjacent crossings within the City limits
- Future pedestrian crossing impacts at Middle Avenue
- Natural waterways, such as San Francisquito Creek
- Funding

Using the utility map and matrix developed in Task 2, a utility conflict analysis will be conducted to identify existing utilities impacted by each alternative, and the impacts will be categorized as high or low risk.

#### Economic and Community Impact Analysis

AECOM's economic and community impact (ECI) analysts will provide an impact analysis that will summarize our findings and if necessary include appropriate allowances in the construction cost estimate to account for the project's potential short term adverse economic impacts (e.g. from business interruption or displacement). The analysis will also consider the potential positive short-term employment and revenues economic impacts from the construction on the City's economy as well as the various expected long-term economic benefits for the Menlo Park Business District.

The ECI analysis will primarily focus on developing preliminary high-level assessment of the potential costs and benefits of the project. At this stage, it is expected that the ECI analysis would be predominantly qualitative with any key differences between alternatives noted. If possible, some order of magnitude estimates may be developed to provide an indication of relative impact magnitudes between impact types and/or between the conceptual alternatives. When appropriate the ECI will identify typical state and federal approved methodologies and unit benefit values generally applicable for more detailed ECI analysis. The ECI analysis will also be careful to consider the potential differences between peak and off-peak periods when the traffic performance differences between the alternatives may be greatly reduced.

Benefit factors to be considered will include the aggregate travel time savings for private and commercial vehicles using the rail crossing from reduced waiting times and traffic congestion. The potential related benefits of avoided fuel cost savings and air quality impacts of reduced traffic idling would also be assessed. The potential for future safety benefits from the improved rail crossing will also be investigated. The potential applicability of other economic and community impacts such as reliability, liveability and community cohesion would also be qualitatively assessed.

Given the relatively limited nature of the traffic improvement, the effects on the Menlo Park Business District's market area and workforce access between the alternatives maybe expected to be very minor. Nonetheless, the CBI will assess the expected positive influence on the District's future economic development. The CBI will also qualitatively assess the potential benefit from the possible increased operation of the Menlo Park Caltrain station that could occur with a future grade-separated crossing.

The ECI analysis findings will be primarily presented in a matrix that will facilitate comparisons between alternative by benefit type and provide concise identification of each cost's and benefit's expected type and relative magnitude.

#### Construction Methods and Techniques

AECOM will evaluate potential construction methods and techniques. This will include evaluating impacts to possible future grade separations at all four project crossings for both alternatives. Our evaluation will consider future Caltrain electrification and HSR options and the evaluation of the feasibility and general impacts of accommodating a potential third passing railroad track through Menlo Park.

#### Preliminary Cost Analysis and Cost Risk Assessment

AECOM will prepare Preliminary Construction Estimates for the two alternatives. Estimates will be prepared using a format acceptable to the City and Caltrain. The cost estimate will identify construction work items, quantities, unity costs, and summarize the estimate total Project cost, including allowances for supplemental work, owner furnished materials, expenses, mobilization, contingencies and escalation.

An analysis will be conducted to evaluate the risk associated with the estimated Project cost. Although the normal practice of adding a Project contingency amount would provide a good basis for estimating the cost impact of the unknown and unquantifiable improvements during this phase of the Project, that practice does not factor in other effects such as labor and material price escalation, institutional and regulatory changes, unanticipated environmental mitigations, and disproportional changes in right-of-way costs. A qualitative and quantitative analysis of each potential risk factor will be conducted. The final estimated Project cost will include due considerations for these risks with appropriate factors applied to the Project cost to provide a mean average within standard deviation for Project cost estimates.

#### Selection of a Preferred Alternative

After completion of the evaluation for the two alternatives, AECOM will summarize all of the elements (overall cost, benefits, safety, business impacts, constructability, right-of-way, operations, traffic circulation, access, future improvements) in a matrix format. Based on this evaluation and feedback from all stakeholders, the City Council will select a preferred alternative with the most beneficial features and, at the same time, the fewest obstacles for achieving a successful Project. In addition, a summary of our assessment of the two alternatives will be documented in a white paper, which will be a precursor to preparation of the PSR. The white paper will also document alternatives previously considered in other historical reports as well as outline the anticipated coordination process required by Caltrain, JPB, and UPRR during project development.

#### **Task 4 Deliverables:**

- Structure Advance Planning Study
- Traffic Circulation and Multimodal Access Evaluation Technical Memorandum
- Economic and Community Impact Analysis Technical Memorandum
- Cost estimates
- Constraint matrix and white paper
- Utility conflict matrix

#### **Task 5 – Project Study Report and 15% Plan Set**

A PSR will be prepared, including the 15% conceptual design plans, which will encompass all of the aforementioned elements, with a focus on providing the necessary information to prepare a complete funding package. AECOM will submit a Draft PSR, receive and review stakeholder comments, address the stakeholders' comments, and then finalize the PSR. The intent of the Final PSR is to provide a realistic cost estimate for the preferred alternative.

In general, the following topics will be covered in the PSR.

- Introduction

- Recommendation
- Background
- Purpose and Need
- Viable and Rejected Alternatives
- Phased Construction Opportunities
- Preliminary Plans
- Traffic Studies
- Preliminary Cost Estimates
- Funding/Scheduling
- Right-of-Way Requirements
- Other Considerations

Conceptual design plans will be developed in a well-organized fashion and to a level of detail that will identify key issues and ultimately allow the City to make a smooth transition into final design. The 15% plan set will include the following drawings:

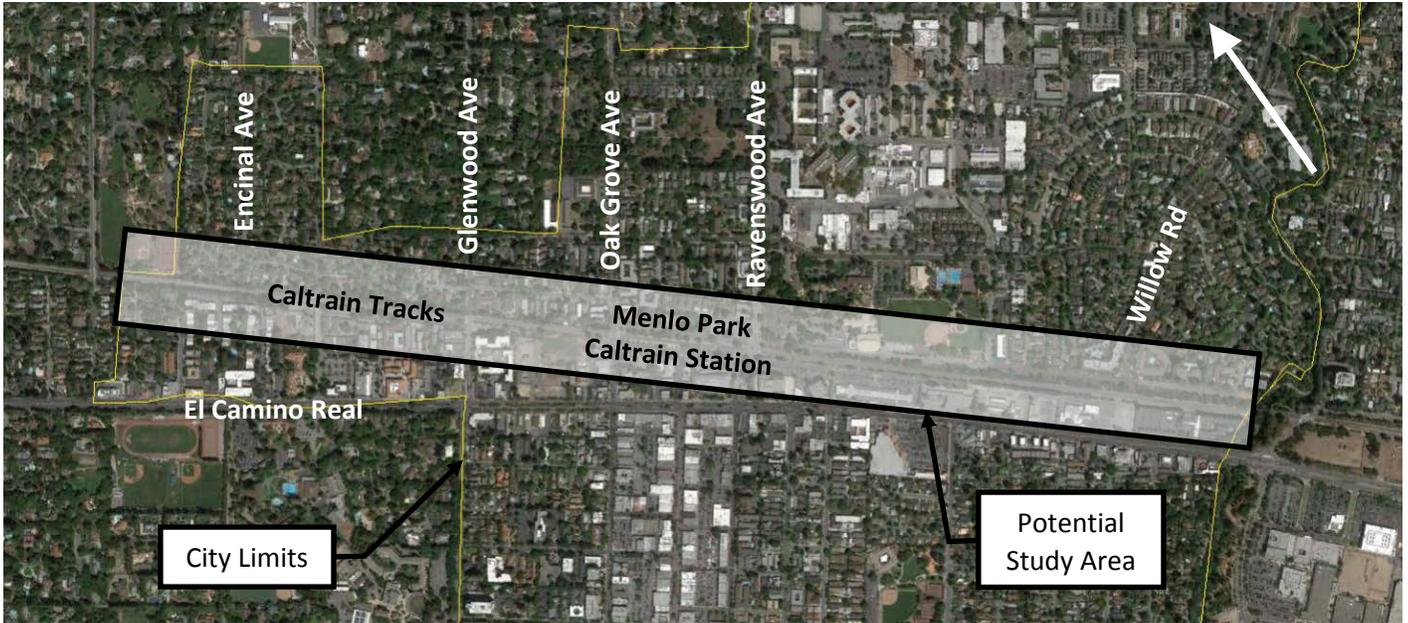
- Title sheet
- Typical cross sections
- Roadway plan and profile (including right-of-way and utilities)
- Railroad plan and profile (including right-of-way and utilities)
- Structural general plan

Task 5 Deliverable:

Draft and Final Project Study Report with 15% plan set

**Task 6 – Optional Services**

AECOM can provide additional services on an as-needed basis with written approval from the City. An allowance is identified for these services and these services could include additional meetings, traffic analysis, technical studies, exhibit preparation, estimates or alternative analysis/development.



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