



City of Palo Alto

City Council Staff Report

(ID # 10463)

Report Type: Consent Calendar

Meeting Date: 6/24/2019

Council Priority: Grade Separations

Summary Title: AECOM Contract Amendment #1 for Rail Grade Separation

**Title: Approval of Amendment Number 1 to Contract Number C18171057
With AECOM for Continued and Expanded Services for the Connecting Palo
Alto Rail Grade Separation Effort and to Increase Compensation by
\$1,206,126 for a Total Not-to-Exceed Amount of \$2,484,786**

From: City Manager

Lead Department: Transportation

Recommendation

Staff recommends that the City Council approve and authorize the City Manager or his designee to execute Amendment No. 1 to Contract C18171057 with AECOM for continued and expanded services for the Connecting Palo Alto Rail Grade Separation (PL-17001) effort and to increase compensation by \$1,206,126 for a total not-to-exceed amount of \$2,484,786.

Background

The City Council approved a contract with AECOM to serve as the primary consultant for the Connecting Palo Alto rail grade separation project on April 16, 2018. The approved contract (C18171057), for \$1,278,660, is shown with the staff report online at: <https://www.cityofpaloalto.org/civicax/filebank/documents/64464>.

On April 22, 2019, the City Council adopted a rail work plan and addressed many other aspects of the rail grade separation project. The adopted motion from the April 22, 2019 meeting included the following item related to the contract with AECOM:

- D. Direct Staff to return to Council with an amendment to contract C18171057 with AECOM to reflect scope changes and extension to October 2019 for Council selection of a preferred solution;

At the time, staff provided City Council with an explanation of the expected contract amendment, noting that with additional changes anticipated through the rail work plan,

the City Council could expect the contract amendment amount and scope to increase. The City Council adopted the rail workplan on April 22, 2019 with some additional direction given on May 13, 2019. Within the workplan, the City Council included information about what they felt was needed to get to a decision on a preferred solution in October 2019. The workplan includes things such as community engagement, City Council meeting check-ins, polling, and community meetings. The workplan also accounted for the City Council to approve a contract amendment with AECOM which reflects the City Council-adopted rail workplan and other changes to date in the AECOM contract. With the latest direction related to rail grade separation given by the City Council on May 13, 2019, staff was able to work with the consultant to finalize the proposed contract amendment attached to this report as **Attachment A**.

Discussion

The rail grade separation project is a highly dynamic process that has involved a high level of community engagement. In order to be most responsive to the needs of the community and the City Council as the project progresses, the consultant team scope of work has needed to be flexible for modification as needed. To date, this has included, for example, additional time needed to respond to community members, a robust scope of traffic analysis, and development of graphics and simulations to aid visualization of alternatives.

The original AECOM contract scope of services included quite a bit of community engagement; however, the City has needed more support from AECOM for community engagement than contemplated in the scope. An example of the additional engagement needed is the Community Advisory Panel (CAP). The CAP has been instrumental in providing feedback to staff and the consultants about how to improve materials for community meetings and meetings with the City Council, as well as engaging their neighbors on project progress for Connecting Palo Alto. The CAP was not listed in the original contract scope but the City Administration (based on City Council input) saw the CAP as a vital need and contract resources were shifted to accommodate it. This proposed contract amendment formalizes many of the changes in services provided to date and to be provided as a result of City Council meetings and community meetings as well as planning for needs over the next six (6) months in preparation of a City Council decision on a preferred solution and the project summary time needed thereafter. The specific elements of the contract amendment are outlined below by task.

Task 1: Project Management – the time extension of 12 months to the project schedule will extend general project management tasks required for managing all aspects of the planning effort. This task also accounts for meetings with outside agencies relevant to the project (e.g., Caltrain).

Task 2: Data Collection and Investigations – this task was increased to accommodate a larger scope for the traffic analysis task related to getting more detailed information for

the Churchill Avenue area. The analysis included new peak period turning movement counts (vehicular, pedestrian and bicycles) at all study intersections and a collision analysis for the Final Existing Conditions Report. The total number of study intersections was much higher than that originally scoped in response to community requests for traffic counts at more intersections. This work has already been completed. As noted under Task 6, AECOM is switching the traffic subconsultant for the rest of the traffic mitigation analysis needed.

Task 3: Technical Advisory Committee Meetings – the amendment for this task reduces the number of meetings for the Technical Advisory Committee (TAC). The reduction is to reflect the realistic number of meetings needed total. The work of the TAC is not needed at this time as staff and the consultant are often in conversations with the stakeholders involved in the TAC.

Task 4: Community Engagement – continued website maintenance, the addition of CAP meetings (which were not part of the original scope), and the additional renderings required as part of the community engagement. The CAP work was already completed. The contract amendment also accounts for the upcoming work needed for the Expanded Community Advisory Panel (XCAP) including meetings and material preparation. The XCAP will have their first meeting on June 19, 2019.

Task 5: Identify Alternatives for Analysis – no change to this task.

Task 6: Identify Recommended Alternatives – there are substantive amendments to this task which include:

- Clarification in the number of alternatives being examined and to what degree. This modification accounts for the alternatives the City Council has removed from consideration (such as the Citywide tunnel) as well as those that have been recently added for study (such as the Churchill viaduct and the two variations for the South Palo Alto tunnel).
- More detail on the additional traffic analysis to be done. This revised task clarifies how the traffic analysis should be conducted related to the alternative of a Churchill Ave. closure. It also defines additional traffic mitigation study needed for neighboring streets in the Churchill Ave. closure alternative. This task also reflects staff and the AECOM team having negotiated a substitution in traffic subconsultant to Hexagon Transportation Consultants, Inc.
- An explanation of what will be included in the Project Study Report (PSR). This is the report which will summarize all the work done by the consultant through the entire process. The report details are modifications from the original contract scope.

Task 7: Assist City with High Speed Rail Analysis – no change to this task.

Task 8: Financing Plan – the revised scope reflects City-requested changes to the financial analysis regarding funding sources and strategies. The City also increased the number of meetings for the financial team at AECOM related to this project to date. That work has already been completed. The amendment for this task also accounts for the additional financial research and meetings needed related to the work of the XCAP.

Additional Services: In order to address additional community and City Council needs as staff works with the XCAP, staff included a budget for additional services into the contract amendment. The Consultant will provide additional services only by advanced request and written authorization from the City Project Manager. The Consultant at the City's request shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort and Consultant's maximum compensation for the services based on rates set forth in the contract.

While maintaining prudent contract management oversight and financial controls, City staff has worked closely with the AECOM team to develop and negotiate the recommended contract amendment. Staff finds this contract amendment to be appropriate for the level of work needed for this project and recommends that the City Council approve this contract amendment.

Update on Connecting Palo Alto Rail Grade Separation Process:

Since the last time staff brought an update to the City Council on May 13, 2019, staff has been actively working to complete this contract amendment to ensure no gap in services from AECOM and also to factor in all contract scope changes to reflect City Council action and preferences. Staff worked to expand the membership of the Community Advisory Panel who advises the City Manager. The group is now called the Expanded Community Advisory Panel, or XCAP for short. The full meeting schedule for the XCAP group will be shared at the first meeting on June 19. The first meeting will take place at City Hall on June 19, 2019 from 4-6pm. The meeting materials will be uploaded to the www.cityofpaloalto.org/connectingpaloalto website after the meeting.

Timeline, Resource Impact, Policy Implications

Based on the amount of the contract amendment of \$1,206,126, sufficient funding for the AECOM contract amendment is expected to be available in the Railroad Grade Separation capital project, PL-17001. The total contract amount for the original contract is \$1,278,660, and to date \$1,212,614 has been billed and paid. The Railroad Grade Separation capital project has \$2,004,237 appropriated in Fiscal Year 2019 and a proposed \$4,108,000 in Fiscal Year 2020, which allows capacity to fund the proposed contract amendment for work done through the end of Fiscal Year 2019 and into Fiscal Year 2020.

Environmental Review

The recommendation in this report does not constitute a project in accordance with the California Environmental Quality Act and is therefore not subject to environmental review.

Attachments:

- Attachment A: AECOM Rail Program Management Services Contract Amendment No 1

**AMENDMENT NO. 1 TO CONTRACT NO. C18171057
BETWEEN THE CITY OF PALO ALTO AND
AECOM TECHNICAL SERVICES, INC.**

This Amendment No. 1 to Contract No. C18171057 ("Contract") is entered into June 24, 2019, by and between the CITY OF PALO ALTO, a California chartered municipal corporation ("CITY"), and AECOM TECHNICAL SERVICES, INC., a California corporation, located at 300 Lakeside Drive, Suite 400, Oakland, California, 94612 ("CONSULTANT").

RECITALS

A. The Contract was entered into between the parties on April 23, 2018 for a three-year term for the provision of providing program management, enhanced community engagement services, grade separation planning and alternatives analysis, and technical assistance on rail engineering and design, all related to CITY's Connecting Palo Alto Railroad Grade Separation Project.

B. The parties desire to amend the Contract to increase compensation by \$1,206,126.00 from \$1,278,660.00 to \$2,484,786.00 for the provision of revised and augmented Basic Services as described in Exhibit "A-1", Amendment No. 1, Supplemental Scope of Services, attached hereto.

NOW, THEREFORE, in consideration of the covenants, terms, conditions, and provisions of this Amendment, the parties agree:

SECTION 1. Section 4. NOT TO EXCEED COMPENSATION is hereby amended to read as follows:

"SECTION 4. NOT TO EXCEED COMPENSATION. The compensation to be paid to CONSULTANT for performance of the Services described in Exhibit "A" ("Basic Services"), and reimbursable expenses, shall not exceed Two Million Three Hundred Four Thousand Seven Hundred Eighty Six Dollars (\$2,304,786.00). CONSULTANT agrees to complete all Basic Services, including reimbursable expenses, within this amount. In the event Additional Services are authorized, the total compensation for Basic Services, Additional Services, and reimbursable expenses shall not exceed Two Million Four Hundred Eighty Four Thousand Seven Hundred Eighty Six Dollars (\$2,484,786.00). The applicable rates and schedule of payment are set out at Exhibit "C-1", entitled "HOURLY RATE SCHEDULE," which is attached to and made a part of this Agreement. Any work performed or expenses incurred for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to the CITY.

Additional Services, if any, shall be authorized in accordance with and subject to the provisions of Exhibit "C". CONSULTANT shall not receive any compensation for Additional Services performed without the prior written authorization of CITY. Additional Services shall mean any work that is determined by CITY to be necessary for the proper completion of the Project, but which is not included within the Scope of Services described at Exhibit "A".

SECTION 2. Exhibit "A-1" to this Amendment (attached hereto and incorporated herein) shall amend, but not replace, Exhibit "A" attached to the original Contract. References to "Exhibit 'A'" in the Contract shall mean both Exhibits "A" and "A-1" read together. To the extent the provisions of Exhibit "A-1" directly conflict with original Exhibit "A", the provisions of Exhibit "A-1" will control.

SECTION 3. The following exhibits to the Contract are hereby amended or added to read as set forth in the attachments to this Amendment, which are incorporated in full by this reference:

- a. Exhibit "A-1" entitled "AMENDMENT NO. 1, SUPPLEMENTAL SCOPE OF SERVICES" - Added
- b. Exhibit "B" entitled "SCHEDULE OF PERFORMANCE" - Amended
- c. Exhibit "C" entitled "COMPENSATION" - Amended
- d. Exhibit "C-2" entitled "HOURLY RATE SCHEDULE – AMENDMENT NO. 1" - Added

SECTION 4. Except as herein modified, all other provisions of the Contract, including any exhibits and subsequent amendments thereto, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

(Signature block on following Page)

CITY OF PALO ALTO

AECOM TECHNICAL SERVICES, INC.

DocuSigned by:

R. Martin Czarnecki

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R. Martin Czarnecki

Authorized Signatory

APPROVED AS TO FORM:

DocuSigned by:

Neil Harris

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Neil Harris

Vice President, Authorized Signatory

Attachments:

- EXHIBIT "A-1": AMENDMENT NO. 1, SUPPLEMENTAL SCOPE OF SERVICES
- EXHIBIT "B": SCHEDULE OF PERFORMANCE
- EXHIBIT "C": COMPENSATION
- EXHIBIT "C-2": HOURLY RATE SCHEDULE – AMENDMENT NO. 1

EXHIBIT "A-1"
AMENDMENT NO. 1
SUPPLEMENTAL SCOPE OF SERVICES

This Exhibit "A-1" Supplemental Scope of Services amends Exhibit "A" Scope of Services and should be read together therewith. To the extent the provisions of Exhibit "A-1" directly conflict with original Exhibit "A", the provisions of Exhibit "A-1" will control.

SCOPE OF WORK

CONSULTANT will manage the Project which will include required technical analyses of alternatives coupled with a comprehensive community and stakeholder engagement process aimed at identifying and implementing locally-preferred alternatives for modifications to the four existing at-grade crossings in Palo Alto. CONSULTANT will coordinate and manage the project in conjunction with CITY's staff. The revised goal of this process is to conduct the necessary analysis and community engagement to identify locally preferred alternatives by October 2019, so environmental analysis can begin in Spring 2020. As listed in the original scope, the list of the additional tasks anticipated for project is listed below followed by a detailed description of supplemental services for each task and associated deliverables.

Task 1: Project Management

Task 2: Data Collection and Investigations

Task 3: Convene TAC Meetings

Task 4: Community Engagement

Task 5: Identify Alternatives for Analysis

Task 6: Identify Recommended Alternatives

Task 7: Assist CITY with California High Speed Rail Environmental Analysis Phase

Task 8: Financing Plan

Task 1. Project Management

Task 1.1 – Project Management and Administration

For the period following execution of Amendment No. 1, CONSULTANT will continue to provide project management for each task for the duration of the Project. Management activities will consist of administration, coordination, and quality control, as follows:

- a. Prepare a scope, budget, and updated project schedule.
- b. Continue to supervise, coordinate, and monitor activities and product development for conformance with the scope of services and CITY standards.
- c. Continue to interface with CITY staff to assure format consistency of all deliverables.
- d. Prepare additional monthly invoices and progress reports.

Task 1.2 – Performance and Quality Monitoring

CONSULTANT will continue to use a project specific Quality Assurance Plan for technical reviews and detailed checking for work products including the work produced by CONSULTANT's subconsultants. CONSULTANT will continue to make sure that all work performed on the project is checked and that all deliverables undergo a quality review before submittal to the CITY.

Task 1.3 – Coordination Meeting

The total number of coordination meetings listed in the original Scope of Services has increased. An additional 22 bi-weekly meetings, 1 additional Safe Routes to School and 1 additional School Traffic Safety Committee, and 5 City Council meetings have been added as part of the Scope through Amendment No. 1. The total number of meetings is revised as follows:

- Kick-off meeting (assume 1)
- Design team coordination meetings (bi-weekly between April 2018 and February 2020 – assume 42)
- Rail Committee meetings (assume 8)
- City Council meetings (assume 9)
- ~~Planning and Transportation Commission Meetings (assume 4)~~ Removed from scope
- Project coordination meetings with other transportation agencies/local jurisdictions
 - Caltrain (assume 2)
 - Santa Clara Water District (assume 2)
 - Safe Routes to School (assume 2)
 - School Traffic Safety Committee (assume 2)
 - City Fire Department and Police Department (assume 2)
 - Other (assume 2)

Task 1.4 – Monthly Invoicing, Progress Reports and Schedule

CONSULTANT will prepare and update the project schedule based on the supplemental Scope of Services and submit the updated schedule to CITY staff for review and approval.

Task 1 Supplemental Deliverables:

- a. Updated monthly project schedule
- b. Meeting materials (agenda, action item list, minutes, PowerPoint presentations)
- c. Additional monthly invoices with progress report

Task 2. Data Collection and Review

All subtasks under Task 2 shall remain as stated in the original scope, except for Task 2.5 which is revised as follows.

Task 2.5 – Traffic Data Collection and Review

As part of the Supplemental Scope of Services, CONSULTANT will collect all relevant data such as existing documents, studies, guidelines, collision data and available traffic data. Based on the data collected, CONSULTANT will identify missing data and develop a data collection plan to collect traffic data (peak hour turning movement volumes during peak periods, 24-hour traffic volumes, mode split, and multimodal traffic patterns) for all modes of transportation and submit to CITY for approval. Upon approval, CONSULTANT will collect traffic data for all modes of transportation.

In addition, CONSULTANT will collect new peak period turning movement counts (vehicular, pedestrian and bicycles) at all study intersections and roadway segments based on the input received from the

community, Community Advisory Panel (CAP), and Rail Committee. CONSULTANT will conduct field observations to document existing conditions in the vicinity of the project. Based on the collision data collected, a collision analysis will be performed. CONSULTANT will generate a Draft and Final Existing Conditions Report documenting this work. CITY will review and provide comments as needed in order to achieve an accurate and quality report.

Task 2.5 Supplemental Deliverables

- a. Draft and Final Existing Traffic Conditions Report
- b. Raw data from traffic counts as requested by Community Advisory Panel (CAP)

Task 3. Palo Alto Technical Advisory Committee (TAC)

The number of assumed TAC meetings is reduced from 8 to 2.

Task 4. Community Engagement

Task 4.1 Updated Community Engagement Scope

CONSULTANT developed an outreach plan in coordination with CITY staff that was presented to City Council in June 2018. During the course of the project there have been some changes to the community engagement plan that include the following:

- a. CONSULTANT will present selected feasible alternatives, scoring, and rankings to the community through outreach meetings and the project website.
 - o Redesign homepage website based on input from CITY staff
 - o Maintain and update website throughout project duration which is anticipated to continue through February 2020 and discuss sit transition with CITY thereafter.
 - o Assist CITY with reformatting an evaluation matrix from the current state to a numerical or dynamic format. It is assumed that CITY will take the lead in developing the revised matrix, getting City Council approval of the matrix and collaborating with the XCAP. CONSULTANT's assistance will be limited to providing graphic support of the evaluation matrix and general comments on format.
- b. CONSULTANT will prepare for and facilitate community workshops. The number of workshops is reduced from six (6) to four (4). Additional technical staff will be required at the four (4) community workshops to serve station areas and be available for community questions related to noise, tunnels, finance, animations, stage construction, and bike/pedestrian facilities.
- c. CONSULTANT will prepare content for one direct project mailing. This number is being reduced from four (4) to one (1).
- d. CONSULTANT will prepare twenty-nine (29) (an additional 21 above the original scope) 3-D renderings/photo simulations for select alternatives as listed in the Task 4 Revised Deliverables listed below.
- e. CONSULTANT will prepare seven (7) (an additional 3 above the original scope) 360-degree color 3D animated videos as listed in Task 4 Supplemental Deliverables.
- f. Polling is not included in this scope of services. However, CONSULTANT will review polling results and materials and present them to Expanded Community Advisory Panel (XCAP).

Task 4.2 - Community Advisory Panel (CAP)

The original scope did not include Community Advisory Panel (CAP) efforts as part of the community outreach and engagement process. In June 2018, CITY began work on selecting a CAP that was to be

comprised of a dozen community members to advise the Project Team on project ideas and outreach opportunities. The CAP's responsibilities would be to connect with other community members/neighbors to help inform the process; amplify both decisions and concerns along the way, and finally, to give advice on what grade separation alternatives are best for Palo Alto. A panel of 12 community members was selected by CITY's City Manager to sit on the CAP. The CAP would:

- Collaborate with the project team by maintaining an open mind to alternatives, spending the time needed to understand constraints, and help find solutions to problems encountered along the way
- Help build an understanding of the project within the broader community
- Regularly attend CAP meetings
- Come prepared to the CAP meetings by reading project materials ahead when requested
- Provide honest feedback
- Contribute to the successful delivery of the preferred solution by supporting the project(s) after the preferred selection is approved

CONSULTANT will prepare all agenda's, meeting materials and summary reports for CAP meetings. There will be a total of seven CAP meetings.

Task 4.3 Expanded Community Advisory Panel (XCAP)

The City Council requested that an Expanded Community Advisory Panel (XCAP) be established. This structure will include a maximum of 15-18 members that includes the 8 members of the existing CAP who expressed an interest in continuing to serve the City; and other designees recommended by the City Manager.

The responsibility of the XCAP is to advise the City Manager on the recommended preferred alternative for the purpose of an Environmental Document. The XCAP will use the City Council approved evaluation criteria to facilitate its discussions. The evaluation criteria will be an interactive process led by CITY. Research, engineering, and other technical support for the XCAP will be provided by CONSULTANT, within the budget approved. CONSULTANT will assist CITY staff to facilitate the XCAP meetings. CONSULTANT will prepare the agendas, meeting materials, presentations and summary reports for XCAP meetings. CITY will conduct polls and prepare meeting materials for the XCAP meetings related to polling. Seven (7) meetings are anticipated at intervals of approximately two (2) to four (4) weeks apart beginning approximately in June 2019. The meetings will be scheduled in the late afternoon similar to the previous Community Advisory Panel (CAP) meetings.

CONSULTANT will prepare for and conduct a 3-6 hour design charrette/workshop with the XCAP members to let the XCAP express ideas and discuss the mitigation's needed for the Churchill closure alternative in particular at Embarcadero and the surrounding areas as well as the Meadow and Charleston intersections. CONSULTANT will prepare all exhibits and meeting/presentation materials for the charrette and follow up on the elements to be further researched as a result of the charrette. CONSULTANT will facilitate the charrette. CONSULTANT will summarize the results/outcome of the charrette in a meeting summary report. CONSULTANT will provide up to 7 technical staff members for the charrette, including the facilitator.

CONSULTANT will submit draft meeting materials, ideas and presentations to CITY staff for review and comment prior to the actual charrette.

Task 4 Revised Deliverables:

- a. Updated project website (includes one additional update in 2019 from initial setup and extend the website maintenance period through February 2020)
- b. Community workshops reduced from 6 to 4.
- c. Additional CONSULTANT and Subconsultant hours for staff attendance at 4 Community workshops
- d. Content for direct mailings reduced from 4 to 1
- e. Detailed color 3-D graphic renderings/photo simulations (original scope identified eight (8) 3-D rendering views – the supplemental scope identifies twenty-nine (29) 3-D rendering views)
 - Charleston- Meadow views (3 alternatives with 3 views each, 9 total views)
 - Citywide Tunnel views (1 alternative with 2 views, 2 total views)
 - Churchill Ave Bike/Ped crossing (2 alternatives with 1 view each, 2 total views)
 - Meadow and Charleston looking east from Park Avenue (3 alternatives at 2 locations with 1 view, 6 total views). Enhanced renderings to show architectural and/or landscape features that could be incorporated to minimize visual and/or noise impacts
 - Embarcadero/Alma Widenings (1 alternative with 4 views – 2 from Embarcadero and 2 from Alma)
 - Southern Tunnel (2 views, 1 at each portal)
 - Southern Tunnel with freight at grade (2 views)
 - Churchill Viaduct (2 views, one (1) from east one (1) from west)
- f. 3-D animation (original scope identified four (4) 3-D animations – the supplemental scope identified seven (7) 3-D animations)
 - Meadow/Charleston animation (total 3)
 - Tunnel within City Limits (City (total 1) - New
 - Southern Tunnel (total 1)
 - Southern Tunnel with freight at-grade (total 1) - New
 - Churchill Viaduct total 1) - New
- g. CAP agenda, presentation materials and summary reports (7 CAP meetings)
- h. XCAP agenda, presentation materials and summary reports (7 XCAP meetings)
- i. Agenda, presentation materials and summarized in a meeting summary report for a 3 to 6-hour design workshop/charrette with XCAP.

Task 5. Identify Alternatives for Analysis

No change in scope or fee.

Task 6. Identify Recommended Alternatives

Task 6.1- Alternatives Evaluation

The original scope was for CONSULTANT to develop engineering exhibits for eight (8) alternatives. Due to decisions made by the City Council as well as input from CITY staff, CONSULTANT evaluated nine (9) alternatives were nine (9) and the alternatives to be evaluated were modified over the course of the project. The final list of alternatives to be evaluated is listed below:

1. Tunnel within City Limits (Citywide tunnel) – removed on May 13, 2019

2. Meadow-Charleston Hybrid
3. Meadow-Charleston Trench
 - a. Meadow-Charleston Trench option with trench alignment along Alma to eliminate shoofly
4. Meadow-Charleston Viaduct
5. Churchill Closure
 - a. Evaluate Closure – Traffic Study and Traffic Mitigations
 - b. Evaluate Bike/Ped Crossing Alternatives with Closure – Rendering and Exhibits
 - c. Evaluate Embarcadero widening; evaluate Alma widening
6. Southern Tunnel – with freight rail operating on same tracks as Caltrain
7. Southern Tunnel – with freight rail at-grade separate from the Caltrain tracks.
8. Churchill Viaduct
9. The Palo Alto Avenue Closure and the Palo Alto Avenue hybrid alternatives. (This alternative was studied and has now been removed from further consideration. It is no longer included in this scope of work moving forward).

Task 6.2- Traffic Impact Analysis

The Scope of Work under this task has been revised based on the input received at the Community Meeting, Community Advisory Panel Meeting and Rail Committee Meeting. CONSULTANT will conduct multimodal level of service analysis to evaluate impacts on the transportation infrastructure for all modes of transportation during temporary closures or permanent closures of the roadways during the a.m. and p.m. peak periods. Impacts for permanent closures will be determined based on the projected demands for future conditions. CONSULTANT will utilize VTA Travel Demand model and local Travel Demand Model for future projections.

The total number of intersections and roadway segments that will be evaluated will be 46. Study intersections will be evaluated for the following conditions under each alternative:

- Existing Conditions
- Existing Conditions with Alternative
- Future Conditions
- Future Conditions with Alternative

For the temporary closures, study intersections will be evaluated for near-term instead of Future Conditions applying a growth rate for the near-term to project the traffic demands.

CONSULTANT will conduct origin-destination (O/D) study within the study area to understand the travel patterns, address community concerns, calibrate the travel demand model for future projections, and also re-routing of the existing traffic.

As part of the analysis, TIRE analysis to evaluate the increase in vehicle trips on local residential streets will be conducted. To conduct TIRE analysis, 24-hour traffic counts will be collected on each of the street segments. The TIRE analysis will be conducted for each alternative.

CONSULTANT will assist the CITY project team to develop recommended alternatives by conducting analysis to evaluate the impacts on traffic circulation and multi-modal access evaluations. Based on the analysis, recommendations will be provided to refine the alternatives to minimize the impacts on the

transportation network during construction and permanent improvements.

CONSULTANT will develop Draft and Final Traffic Impact Analysis Report, including the O/D study and the TIRE analysis for review and CITY final approval.

Task 6.3 - Traffic Micro-simulation Model for Existing Conditions

CONSULTANT will develop VISSIM micro-simulation model to replicate existing conditions at the existing at-grade crossings. The model will be calibrated and validated to the existing conditions data collected to date. The calibrated and validated model will establish the base conditions to evaluate the impacts of increased train frequency due to Caltrain Electrification Project. Impacts of gate downtime will be evaluated by comparing the following scenarios:

- Existing conditions
- Existing plus Caltrain Electrification Project

CONSULTANT will also evaluate if and when the condition of “unclearable queue” will occur and at what intersections the condition will occur. CONSULTANT will submit draft simulation to CITY for initial review and comment. CITY will review and provide comments as needed in order to achieve an accurate and quality final VISSIM micro simulation model.

Task 6.4 -Traffic Mitigation

CONSULTANT will review the Existing Conditions Report and the Traffic Impact Analysis Report prepared under Task 6.2 and determine if any additional traffic analysis is needed for those intersections.

- CONSULTANT will study traffic impacts at all current at-grade crossings and will develop traffic mitigation and traffic calming alternatives for the identified impacted intersections. This effort will include the tasks below for the Churchill closure. The budget also includes studying one additional street closure, for example Meadow Drive, which is to be determined.
- Taking the previous Existing Conditions report and more evenly spreading out the traffic impact for streets impacted by a Churchill Avenue closure. CONSULTANT will work with the City Manager and the XCAP on this evaluation.
- CONSULTANT will submit a draft report and meet with City to review the draft proposed mitigation alternatives. CITY will review and provide comments as needed in order to achieve an accurate and quality report.
- CONSULTANT will meet with community neighborhoods (assume 2 meetings) to discuss traffic calming measures due to potential closures.
- CONSULTANT will perform an evaluation of structural and civil impacts to Embarcadero and Alma are described in Task 6.1 as one of the alternatives.
- CONSULTANT will perform a traffic analysis for existing plus Caltrain Electrification Project.

This effort will also evaluate if and when the condition of “unclearable queue” will occur and at what intersections the condition will occur at any of the existing at-grade crossings.

Task 6.5 - Embarcadero / Alma Widening Concept Designs

CONSULTANT will evaluate the civil and structural issues associated with widening Embarcadero and

reconfiguring the existing grade separations on Alma and the rail right-of-way over Embarcadero. This effort will include preparing 15% engineering plans, preliminary cost estimates and renderings. 3D animations are not anticipated for this evaluation.

Two alternatives for a potential roundabout have been identified for the intersection of Embarcadero Road and Alma Street. CONSULTANT will analyze the traffic operations of the potential roundabout compared to the operations with the existing design. Operations will be analyzed for future conditions based on Palo Alto model forecasts. Use of the model will be necessary because one of the suggested ramps currently does not exist. CONSULTANT will calculate the delay and levels of service for the roundabout versus the current two stop-sign intersections for the AM and PM peak hours. CONSULTANT will perform counts of existing traffic.

CONSULTANT will meet with CITY to review the draft designs and findings. CITY will review and provide comments as needed in order to achieve an accurate and quality final report.

Task 6.6 - South Palo Alto Tunnel

At the April 2019 City Council meeting, Council directed staff to further explore a tunnel alternative for an alternative with freight trains and passenger trains underground (for the Meadow and Charleston crossings).

CONSULTANT will develop conceptual design for a freight and passenger rail in a tunnel that does not impact the station platforms at California Avenue Station to the north and San Antonio Station to the south. The north portal would begin just south of the California Avenue platform and end just north of the San Antonio Station within the city limits of Palo Alto.

In addition, CONSULTANT will identify design exceptions and constraints for the alternative. The effort will include developing design plans, profiles, cross-sections and a construction cost estimate.

Once engineering plan, profile and cross-sections are prepared, and submitted to CITY for initial review and comment, CONSULTANT will develop renderings and a 3D animation. This additional effort assumes four (4) rendering views: 2 at each portal and a 3D animation from north portal to south portal. This is included and described further in Task 4.

Task 6.7 - South Palo Alto Tunnel with freight at-grade separate from the Caltrain Tracks

At the May 2019 City Council meeting, Council directed staff to further explore a tunnel alternative for an alternative with passenger trains underground (for the Meadow and Charleston crossings) and the freight train at-grade.

CONSULTANT will develop conceptual design for a passenger rail in a tunnel and freight trains at-grade that does not impact the station platforms at California Avenue Station to the north and San Antonio Station to the south. The north portal would begin just south of the California Avenue platform and end just north of the San Antonio Station within the city limits of Palo Alto.

In addition, CONSULTANT will identify design exceptions and constraints for the alternative. The effort will include developing design plans, profile, cross-sections and a construction cost estimate.

Once engineering plan, profile and cross-sections are prepared and submitted to CITY for initial review and comment, CONSULTANT will develop renderings and a 3D animation. This additional effort assumes four rendering views: 2 at each portal and a 3D animation from north portal to south portal and is included and described in Task 4.

Task 6.8 - Churchill Viaduct

At the April 2019 City Council meeting, Council directed staff to explore a viaduct alternative near Churchill.

CONSULTANT will develop conceptual design for a freight and passenger rail on a viaduct. In addition, the CONSULTANT will identify design exceptions and constraints for the alternative. The effort will include developing design plan, profile, cross-sections and construction cost estimate.

Once engineering plan, profile and cross-sections are prepared, and submitted to City for initial review and comment, CONSULTANT will develop renderings and a 3D animation. This additional effort assumes four rendering views: 2 at each portal and a 3D animation from north portal to south portal and is included and described in Task 4.

Task 6.9 - Project Study Report (PSR)

At the conclusion of alternative evaluation and the community outreach program CONSULTANT will prepare a Project Study Report (PSR) that summarizes the recommendation of each alternative with advantages and disadvantages as well as evaluation criteria and metrics used to determine the recommended alternatives, including a discussion on the preferred/recommended alternative. The PSR will focus on recommended alternatives, but will also summarize historical information previously prepared on other alternatives to document the decisions made and inform decision makers on past work of this scope of services. The PSR will follow a Caltrain format so it can be used as a document to identify required funding for a recommended alternative and potential funding sources (see Task 8 for additional details on finance plan).

The proposed outline of the PSR is as follows:

- a. Executive Summary
- b. Table of Contents
- c. Introduction
- d. Background (Existing Conditions and Previous Studies)
- e. Purpose and Need
- f. Corridor and System Coordination
- g. Alternatives
 - o Roadway Design Criteria
 - o Railroad Design Criteria
 - o No-Build Alternative
 - o Viable Alternatives (Geometry, Opportunity and Constraints)
 - o Rejected Alternatives
 - o Construction Staging
 - o Right of Way Needs
 - o Utilities
- h. Evaluation of Traffic Conditions (Summary of Traffic Impact Analysis and Mitigations)
- i. Community Involvement
- j. Evaluation
- k. Environmental Determination Document
- l. Funding and Financing (as described in Task 7)
- m. Schedule
- n. Caltrain Coordination

- o. Project Reviews
- p. Project Personnel
- q. Attachments
 - o Preliminary Plans, Profiles, and Typical Sections for Alternatives
 - o Preliminary Utility Plans and Relocation Costs
 - o Preliminary Project Cost Estimates
 - o 3D Renderings
 - o Alternatives no longer considered as a result of City Council Action

This section will be used to show and provide brief explanation of the exhibits developed for alternatives that were eliminated from further consideration.

The PSR document will replace the Supplemental White Papers for trenching and tunneling, rail financing, and rail corridor circulation study, which were defined in the original scope of work. All information that was required as part of the original contract scope will be included in the PSR document. The draft PSR will be submitted to CITY for review and comment for final approval of the PSR.

Task 6 Deliverables

- a. Exhibits (engineering at a 15%-level for conceptual plan, profile and typical section for the alternatives listed in Task 6.1)
- b. Preliminary Construction Cost Estimates for alternatives listed in Task 6.1
- c. Evaluation matrices (to be included in the PSR and presented at community meetings)
- d. Draft and Final Existing Traffic Conditions Report
- e. Draft and Final Impact Analysis Traffic Report
- f. Draft and Final Micro-simulation Report
- g. Draft and Final Traffic Mitigations Report
- h. Draft and Final Embarcadero / Alma General Plan and Layout (to be included in the PSR and presented at a XCAP meeting)
- i. Draft and Final Project Study Report

Task 7. Assist the CITY during CAHSR Environmental Analysis Phase

No change in scope or fee.

Task 8. Financing Plan

The original scope entailed limited financial advisory services. Under this supplemental scope, CONSULTANT will provide financial advisory services to assist CITY in developing a financial approach and model for the design and construction of the railroad grade separations. This task includes meeting with CITY finance staff to get an understanding of CITY funding sources and commitments. CONSULTANT will investigate potential funding sources and identify funding shortfalls and if these can be resolved with viable funding sources and strategies. Strategies could include financing based on projections of future business and sales tax revenues, state and federal funding, TIFIA and RRIF financing, and real estate strategies such as value capture and development of air rights. In addition, based on input from the community, CONSULTANT will analyze other local sources, such as business license, gross receipts and head count taxes, and local bonding capacity after obtaining Measure B funding.

CONSULTANT finance staff will make presentations at CAP, XCAP, and Community meetings on potential funding sources and strategies as well as staff a station at the Community meetings; specifically dedicated to financing. Visualization of findings (graphs, diagrams, updated costs, etc.) will be developed to illustrate the

information to the community.

CONSULTANT will prepare a Draft and Final Funding Summary as part of the PSR. Draft and Final reports to be submitted to City for review and comment, as needed, in order to achieve an accurate and quality report.

Task 8 Deliverables

- a. Presentation materials for CAP, XCAP, Community Outreach and City Council meeting
- b. Funding Summary will be included in Draft and Final PSR

ADDITIONAL SERVICES

CONSULTANT will provide additional services only by advanced request and written authorization from CITY's Project Manager. CONSULTANT at CITY's request shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort and CONSULTANT's maximum compensation for the services based on rates set forth in the Agreement. The additional services shall be negotiated and agreed to in writing by CITY's Project Manager prior to commencement of the services. Payment for additional services is subject to all requirements and restrictions in this Agreement. Additional Services could also include additional meetings and/or additional studies/renderings at CITY's request.

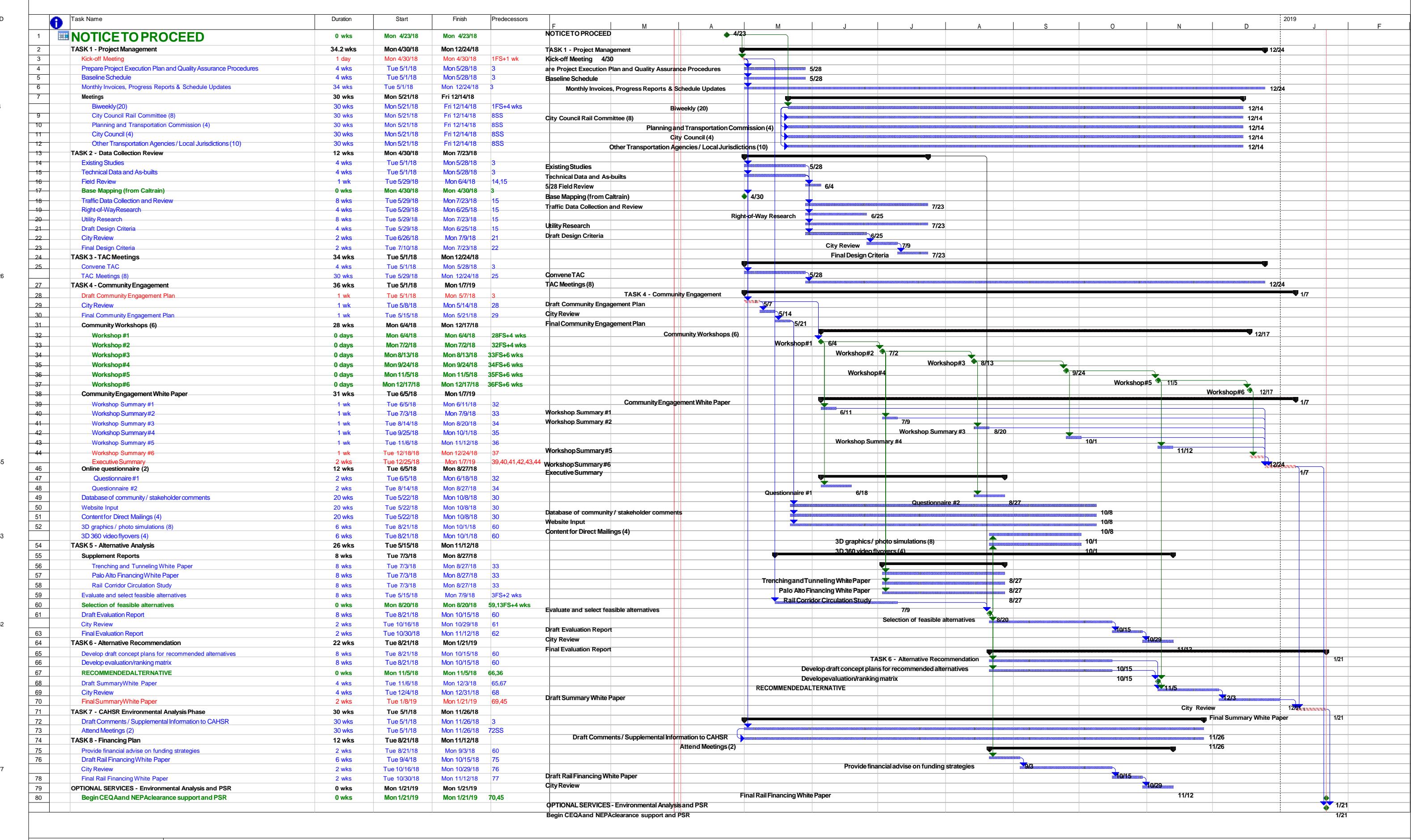
CITY may request that additional evaluations similar to the Churchill Viaduct. CONSULTANT will identify design exceptions and constraints for such evaluation. The effort will include developing plan, profile, cross-sections and construction cost estimates. Once engineering plans, profile and cross-sections are prepared, CONSULTANT will develop two renderings and a 3D animation. The cost of evaluating any additional alternative as described above will be \$65,000.

EXHIBIT "B"
SCHEDULE OF PERFORMANCE

CONSULTANT shall perform the Services so as to complete each task within the number of days/weeks specified on Attachment "B" Schedule of Performance. Attachment "B" reflects the currently anticipated schedule; CONSULTANT will regularly update the schedule in consultation with CITY's Project Manager. The time to complete each task may be increased or decreased by mutual written agreement of the project managers for CONSULTANT and CITY so long as all work is completed within the term of the Agreement.

(See following Page for Schedule)

City of Palo Alto Rail Program Management Services



SCHEDULE OF PERFORMANCE AMENDMENT NO. 1
(See Following Page for Schedule)

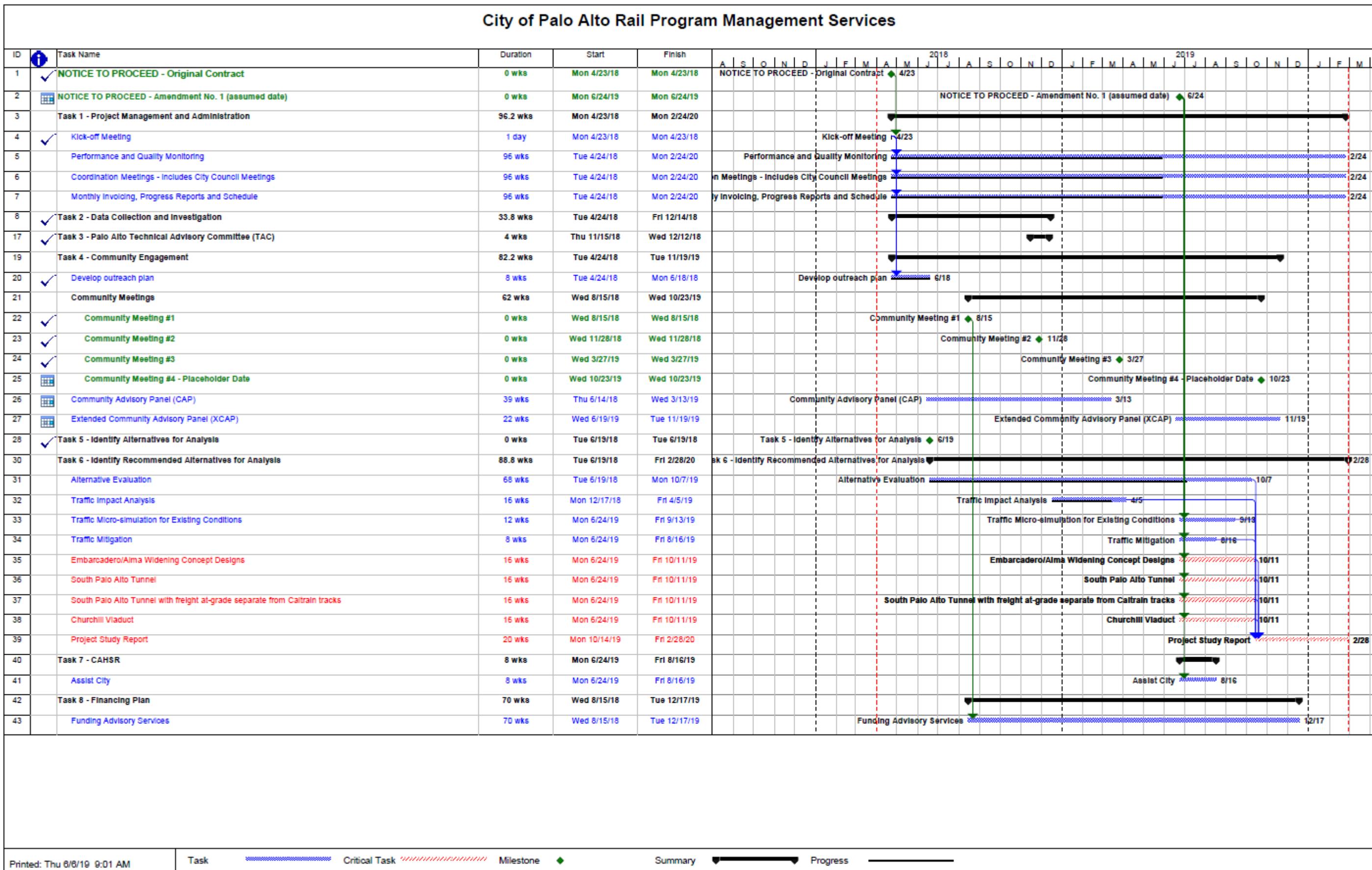


EXHIBIT "C"
COMPENSATION

CITY agrees to compensate CONSULTANT for professional services performed in accordance with the terms and conditions of this Agreement, and as set forth in the budget schedule below. Compensation shall be calculated based on the hourly rate schedule attached as Exhibit "C-1" up to the not to exceed budget amount for each task set forth below.

CONSULTANT shall perform the tasks and categories of work as outlined and budgeted below. CITY's Project Manager may approve in writing the transfer of budget amounts between any of the tasks or categories listed below provided the total compensation for Basic Services, including reimbursable expenses, and the total compensation for Additional Services do not exceed the amounts set forth in Section 4 of this Agreement.

TASK		ORIGINAL CONTRACT NOT TO EXCEED AMOUNT	NOT TO EXCEED AMOUNT ADDED OR (SUBTRACTED) BY AMENDMENT NO 1
Task 1	Project Management	\$225,184.00	\$136,825
Task 2	Data Collection & Review	\$121,117.20	\$12,360
Task 3	Convene Technical Advisory Committee Meetings	\$51,873.60	(\$39,806)
Task 4	Community Engagement	\$285,885.60	\$470,050
Task 5	Identify Alternative Analysis	\$177,420.00	\$0
Task 6	Identify Recommended Alternatives	\$312,523.20	\$387,406
Task 7	Assist with CAHSR Environmental Analysis Phase	\$32,424.00	\$0
Task 8	Financing Plan	\$28,032.00	\$59,290
	Reimbursables and Other Direct Costs	\$44,200.00	\$0
	Additional Services	0	\$180,000
	TOTAL CONTRACT AMOUNT	\$1,278,660.00	\$1,206,126
	MAXIMUM TOTAL COMPENSATION		\$2,484,786.00

TOTAL BASIC SERVICES (AMENDMENT NO. 1) **\$1,026,126.00**

TOTAL BASIC SERVICES (ORIGINAL CONTRACT) **\$1,234,460.00**

Reimbursable Expenses	\$44,200.00
Additional Services	\$180,000.00
Maximum Total Compensation	\$2,484,786.00

REIMBURSABLE EXPENSES

The administrative, overhead, secretarial time or secretarial overtime, word processing, photocopying, in-house printing, insurance and other ordinary business expenses are included within the scope of payment for services and are not reimbursable expenses. CITY shall reimburse CONSULTANT for the following reimbursable expenses at cost. Expenses for which CONSULTANT shall be reimbursed are:

- A. Travel outside the San Francisco Bay area, including transportation and meals, will be reimbursed at actual cost subject to the City of Palo Alto's policy for reimbursement of travel and meal expenses for City of Palo Alto employees.
- B. Long distance telephone service charges, cellular phone service charges, facsimile transmission and postage charges are reimbursable at actual cost.

All requests for payment of expenses shall be accompanied by appropriate backup information. Any expense anticipated to be more than \$2,500.00 shall be approved in advance by the CITY's project manager.

EXHIBIT C-2 HOURLY RATE SCHEDULE – AMENDMENT NO. 1

(This schedule shall apply to work performed after the effective date of Amendment No. 1.)

Amendment 1 - Palo Alto Railroad Grade Separation Program

Classification ==>	AECOM																					SUBS					ODCs	Total AECOM Hours	TOTAL \$				
	Project Manager	Project Engr - Track/Sys	Structures Manager	Deputy/ Lead PM	Project Engr	Support Services Manager	Senior Engr	Finance Manager	Alt Analysis Manager	Staff Engr	Project Controls	Project Engr - Civil	Project Engr - Bridge/ Ret Walls	Sr Engr - Cost Estimating	Finance Analyst	Junior Engr	Graphics Designer	Web Designer	Sr CADD	CADD	Sr Admin Assistant	Admin Assistant	Intern	Alta	Apex	TJKM	Hexagon	Merrill Morris					
	2019 Hourly Billing Rate ==>	\$290.00	\$270.00	\$261.00	\$252.00	\$249.00	\$240.00	\$227.00	\$224.00	\$209.00	\$208.00	\$201.00	\$194.00	\$191.00	\$190.00	\$165.00	\$155.00	\$144.00	\$144.00	\$134.00	\$108.00	\$68.00	\$88.00	\$67.00	1.00	1.00	1.00	1.00	1.00				
1.0 PROJECT MANAGEMENT																																	
Prepare a scope, budget, and updated project schedule	20																														60	\$15,010	
Supervise, coordinate and monitor activities and product development	40																														120	\$30,800	
Interface with City staff to assure format consistency	30																														90	\$23,100	
Prepare monthly invoices and progress reports	10																														42	\$21,452	
Biweekly Coordination Meetings (additional 22)	20	24									20	12																		100	\$29,574		
City Council Meetings (additional 5)	50																														135	\$39,585	
Safe Route to Schools & School Traffic Safety Committee (additional 1 each)	2																														26	\$7,770	
Delete Planning Commission and Transportation Commission Meetings (4)	-42																														-66	-\$30,466	
Subtotal Hours	130	24	0	6	0	244	24	0	0	0	22	0	0	0	0	57	0	0	0	0	22	0	0						507				
Subtotal Cost	\$37,700	\$6,480	\$0	\$1,512	\$0	\$58,560	\$5,448	\$0	\$0	\$0	\$4,422	\$0	\$0	\$0	\$0	\$8,835	\$0	\$0	\$0	\$0	\$2,156	\$0	\$0	\$2,752	\$11,942	-\$6,072	\$3,090	\$0	\$0	\$136,825			
2.0 DATA COLLECTION AND REVIEW																																	
Additional traffic data collection																															0	\$12,360	
Subtotal Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Subtotal Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,360		
3.0 PALO ALTO TECHNICAL ADVISORY COMMITTEE (TAC)																																	
Reduce TAC meetings from 8 to 2	-44																-36															-134	-\$39,806
Subtotal Hours	-44	0	0	-36	0	0	0	0	0	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-134			
Subtotal Cost	-\$12,615	\$0	\$0	-\$9,072	\$0	\$0	\$0	\$0	\$0	-\$3,708	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$3,168	\$0	\$0	-\$4,644	-\$6,599	\$0	\$0	\$0	-\$39,806				
4.0 COMMUNITY ENGAGEMENT																																	
Extension of website maintenance by 12 months to February 2020																	20														200	\$22,880	
Reduce community meetings from 6 to 4	-48																-48															-144	-\$43,434
Additional technical staff to attend 4 community meetings (see Task 8 for Finance Staff)	16	16		16		32												16			16										\$5,000	112	\$31,012
Reduce direct project mailings from 4 to 1																															-36	-\$5,490	
Increase 3D Renderings from 8 to 13 (additional 5 renderings)	5																	120		8												133	\$19,436
South Tunnel Renderings and Animation (2 renderings)	4																	100		10												174	\$27,360
South Tunnel with Freight At-grade Renderings and Animation (2 renderings)	4																	100		10												174	\$27,360
Churchill Viaduct Renderings and Animation (2 renderings)	4																	100		10												174	\$27,360
Embarcadero/Alma Widening Renderings (4 renderings)	4																	120		10												194	\$30,240
Additional renderings for M/C looking east from Park Avenue (6 renderings)	6																	180		12												198	\$28,836
CAP meeting attendance (7)	28	28									28	14									14										112	\$108,832	
CAP meetings PPT and meeting summary (7)	21										42										30											93	\$20,490
XCAP meetings attendance, PPT and meeting summary (7)	50										70	14									30											164	\$126,720
Support Reformatting of Evaluation Matrix	2										4	10					</td																

EXHIBIT C-2 HOURLY RATE SCHEDULE – AMENDMENT NO. 1

(This schedule shall apply to work performed after the effective date of Amendment No. 1.)

Amendment 1 - Palo Alto Railroad Grade Separation Program

Classification ==>		AECOM																							SUBS					ODCs	Total AECOM Hours	TOTAL \$			
		Project Manager	Project Engr - Track/Sys	Structures Manager	Deputy/ Lead PM	Project Engr	Support Services Manager	Senior Engr	Finance Manager	Alt Analysis Manager	Staff Engr	Project Controls	Project Engr - Civil	Project Engr - Bridge/ Ret Walls	Sr Engr - Cost Estimating	Finance Analyst	Junior Engr	Graphics Designer	Web Designer	Sr CADD	CADD	Sr Admin Assistant	Admin Assistant	Intern	Alta	Apex	TJKM	Hexagon	Merrill Morris						
2019 Hourly Billing Rate ==>																																			
6.0	IDENTIFY RECOMMENDED ALTERNATIVES																																		
	Traffic Impact Analysis and O-D Study																																		
	Palo Alto Avenue (increase alternatives evaluation from 8 to 9, 1 additional)	8	30							20		40			80	8	60					40													
	Reduce alternative analysis cost estimates from 8 to 6																																		
	Traffic Micro-simulation Model for Existing Conditions																																		
	Traffic Mitigation																																		
	Traffic Mitigation-Supplemental																																		
	Embarcadero/Alma Widening Concepts	2									40		20			50	2	40				30													
	Southern Tunnel Concept Engineering Study and Exhibits	2	20								16		20			50	2	40				30													
	Southern Tunnel with Freight At-grade Concept Engineering Study and Exhibits	2	20								16		20			50	2	40				30													
	Churchill Viaduct Concept Engineering Study and Exhibits	2	20								16		20			50	2	40				30													
	Subtotal Hours	18	90	0	0	0	0	0	109	0	121	0	0	280	18	160	0	0	0	0	159	0	0	0	0	0	0	0	0	0	954	954			
	Subtotal Cost	\$5,104	\$24,300	\$0	\$0	\$0	\$0	\$0	\$24,788	\$0	\$25,247	\$0	\$0	\$54,320	\$3,362	\$30,400	\$0	\$0	\$0	\$0	\$21,333	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$387,406			
8.0	FINANCING PLAN																																		
	Attendance and prep for CAP meetings and Community Meetings																40																		
	Analysis and research on local funding sources. Prep visualizations.																30																		
	Refine funding scenarios with cost alternatives																40																		
	Subtotal Hours	0	0	0	0	0	0	0	0	110	0	0	0	0	0	0	0	0	0	0	210	0	0	0	0	0	0	0	0	0	320	320			
	Subtotal Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,640	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59,290			
	TOTAL Hrs	169	233	16	-78	16	432	203	110	121	-18	22	280	18	160	210	153	800	40	159	90	22	20	0									3,395	3,395	
	TOTAL Cost	\$49,039	\$62,899	\$4,176	-\$19,656	\$3,984	\$103,680	\$46,126	\$24,640	\$25,247	-\$3,708	\$4,422	\$54,320	\$3,362	\$30,400	\$34,650	\$23,715	\$115,200	\$5,760	\$21,333	\$9,672	\$2,156	\$1,760	\$0	\$17,402	\$152,717	\$117,130	\$83,430	-\$930	\$10,000	3,395	\$1,026,126			

THE LEVEL OF EFFORT IS BASED ON THE FOLLOWING ASSUMPTIONS:

- Scope of work is as defined in Amendment 1 Scope of services.
- Expected timeline for the project is April 2018 - February 2020 (22 months).
- 2019 billing rates have been escalated approximately 3% above 2018 rates.
- Mark-up for subconsultants is 3%.
- It is assumed that readily available topographic information from the Caltrain Modernization Project will be used for base mapping, supplemented by publicly available aerial images.
- Property surveys, title searches & utility potholing are not included.
- A rendering costs about \$5000 each.
- Polling not included in scope - City to conduct polling through another source.
- Studying a new alternative plans, estimate, renderings, and animations is about \$65,000.

AECOM Billing Rate Table**2019 Rates**

Title	Rates
Principal in Charge/Project Sponsor	\$319.00
Project Manager	\$290.00
Project Engineer - Track / Systems	\$270.00
Structures Manager	\$261.00
Discipline Engineering Manager	\$258.00
QA/QC Manger	\$253.00
Deputy /Lead Project Manager	\$252.00
Project Engineer - RR Coordination	\$250.00
Project Engineer	\$249.00
Support Services Manager	\$240.00
Project Engineer - Geotechnical	\$232.00
Senior Engineer	\$227.00
Finance Manager	\$224.00
Alternative Analysis Manager	\$209.00
Staff Engineer	\$206.00
Project Controls	\$201.00
Project Engineer - Civil	\$194.00
Project Engineer - Bridge / Ret Walls	\$191.00
Sr Engineer - Cost Estimating	\$190.00
Senior Scientist	\$185.00
Web Developer	\$185.00
Senior Graphics Designer	\$180.00
Project Engineer - Cost Estimator	\$175.00
Scheduler	\$165.00
Finance Analyst	\$165.00
Project Engineer - ROW	\$162.00
Junior Engineer	\$155.00
Outreach Manager	\$155.00
Junior Project Controls	\$149.00
Scientist	\$144.00
Graphics Designer	\$144.00
Web Designer	\$144.00
Sr CADD	\$134.00
CADD	\$108.00
Junior Scientist	\$113.00
Outreach Coordinator	\$113.00
Senior Administrative Assistant	\$98.00
Administrative Assistant	\$88.00
Intern	\$67.00

Reimbursable Items to be Billed

Subcontracted Services	Cost plus 3%
Printing	At Cost
Miscellaneous Expenses	At Cost

APEX Billing Rate Table
2019 Rates

Title	Rate	Markup	Estimated Rate for Work Plan
Principal	\$283.00	3%	\$291.49
Outreach Manager	\$258.00	3%	\$265.74

Alta Planning + Design Billing Rate Table
2019 Rates

Title	Rate	Markup	Estimated Rate Used for Work Plan
Senior Principal	\$339.00	3%	\$349.17
Principal	\$283.00	3%	\$291.49
Principal	\$258.00	3%	\$265.74
Principal	\$230.00	3%	\$236.90
Principal - Senior Associate	\$214.00	3%	\$220.42
Principal - Senior Associate	\$193.00	3%	\$198.79
Principal - Senior Associate	\$187.00	3%	\$192.61
Principal - Senior Associate	\$182.00	3%	\$187.46
Principal - Senior Associate	\$177.00	3%	\$182.31
Senior Associate, Associate	\$170.00	3%	\$175.10
Senior Associate, Associate	\$162.00	3%	\$166.86
Senior Associate, Associate	\$157.00	3%	\$161.71
Associate Senior	\$148.00	3%	\$152.44
Associate Senior	\$143.00	3%	\$147.29
Associate Senior	\$135.00	3%	\$139.05
Senior + Level I	\$119.00	3%	\$122.57
Senior + Level I	\$110.00	3%	\$113.30
Level I + Level II	\$102.00	3%	\$105.06
Level I + Level II	\$92.00	3%	\$94.76
Administration	\$77.00	3%	\$79.31
Intern	\$70.00	3%	\$72.10

Hexagon Billing Rate Table**2019 Rates**

Title	Rate	Markup	Estimated Rate Used
President	\$280.00	3%	\$288.40
Principal	\$240.00	3%	\$247.20
Senior II	\$225.00	3%	\$231.75
Senior I	\$210.00	3%	\$216.30
Associate II	\$190.00	3%	\$195.70
Associate I	\$165.00	3%	\$169.95
Planner II	\$150.00	3%	\$154.50
Engineer II	\$150.00	3%	\$154.50
Planner I	\$125.00	3%	\$128.75
Engineer I	\$125.00	3%	\$128.75
Admin	\$105.00	3%	\$108.15
Graphics	\$105.00	3%	\$108.15
Senior CAD Tech	\$95.00	3%	\$97.85
Technician	\$75.00	3%	\$77.25
Intern	\$75.00	3%	\$77.25

Merrill Morris Partners Billing Rate Table
2019 Rates

Title	Rate	Markup	Estimated Rate Used for Work Plan
Principal Landscape Architect	\$202.00	3%	\$208.06
Sr Landscape Architect I	\$173.00	3%	\$178.19
Sr Landscape Architect Project Manager I	\$155.00	3%	\$159.65
Sr Landscape Project Manager I	\$155.00	3%	\$159.65
Landscape Architect Project Manager II	\$132.00	3%	\$135.96
Administration	\$82.00	3%	\$84.46

TJKM Billing Rate Table
2019 Rates

Title	Rate	Markup	Estimated Rate Used for Work Plan
Project Manager / Principal	\$253.00	3%	\$260.59
Sr Traffic Engineer / QA Manager / Task Lead	\$253.00	3%	\$260.59
Project Traffic Engineer	\$126.00	3%	\$129.78
Project Controls / Sr Administrator	\$108.00	3%	\$111.24
Project Controls / Administrator	\$94.00	3%	\$96.82
Staff Engineer / Designer	\$77.00	3%	\$79.31
Staff Engineer / CADD	\$81.00	3%	\$83.43

WRECO Billing Rate Table
2019 Rates

Title	Rate	Markup	Estimated Rate Used for Work Plan
Supervising Engineer	\$191.00	3%	\$196.73
Senior Engineer II	\$181.00	3%	\$186.43
Senior Engineer I	\$175.00	3%	\$180.25
Associate Engineer	\$120.00	3%	\$123.60
Project Engineer	\$120.00	3%	\$123.60
Staff Engineer	\$93.00	3%	\$95.79
Staff Engineer / CADD	\$90.00	3%	\$92.70
CADD	\$83.00	3%	\$85.49
Project Controls / Sr Administrator	\$72.00	3%	\$74.16
Principal Professional	\$113.00	3%	\$116.39
Supervising Professional II	\$93.00	3%	\$95.79
Supervising Professional I	\$77.00	3%	\$79.31
Senior Professional III	\$72.00	3%	\$74.16
Senior Professional II	\$62.00	3%	\$63.86
Senior Professional I	\$52.00	3%	\$53.56
Associate Professional III	\$46.00	3%	\$47.38
Associate Professional II	\$41.00	3%	\$42.23
Associate Professional I	\$36.00	3%	\$37.08
Staff Professional III	\$36.00	3%	\$37.08
Staff Professional II	\$31.00	3%	\$31.93
Staff Professional I	\$26.00	3%	\$26.78
Senior Technician III	\$52.00	3%	\$53.56
Senior Technician II	\$41.00	3%	\$42.23
Senior Technician I	\$36.00	3%	\$37.08
Technician III	\$31.00	3%	\$31.93
Technician II	\$26.00	3%	\$26.78
Technician I	\$21.00	3%	\$21.63
Sr Clerical / Tech Editor III	\$46.00	3%	\$47.38
Sr Clerical / Tech Editor II	\$41.00	3%	\$42.23
Sr Clerical / Tech Editor I	\$36.00	3%	\$37.08
Clerical / Tech Editor III	\$31.00	3%	\$31.93
Clerical / Tech Editor II	\$26.00	3%	\$26.78
Clerical / Tech Editor I	\$21.00	3%	\$21.63