

SJCDPW’S PRELIMINARY WORK SCOPE

The Consultant shall perform professional and technical engineering services for the design of the proposed Grant Line Road Realignment Project (PROJECT) for the San Joaquin County Department of Public Works (SJCDPW). The purpose of the PROJECT is to provide enhanced traffic safety, improve operation of the roadway network, and meet future traffic demands by reducing congestion in the area in and around the community of Banta. The PROJECT improvements will include a raised concrete median, two travel lanes in each direction, a new grade crossing over UPRR tracks near Banta Road, left-turn channelization at select intersections, a modified intersection design at Bird Road, and paved shoulders on both sides of the road.

The successful firm (Consultant) shall be requested to enter into a consultant services agreement with the County as set forth in this Request for Proposals (RFP). Consultant work shall entail the following: conduct a focused outreach program to stakeholders; coordinate with Union Pacific Railroad (UPRR); perform topographic surveys and prepare base mapping; execute traffic-related surveys; prepare roadway and structure design; prepare traffic signal and lighting design; prepare roundabout design; perform storm drainage analysis and prepare plans; perform utility mapping and coordination and review utility relocation plans to minimize conflicts; schedule management and the completion of full Plans, Specifications, and Estimate (PS&E) construction documents, including roadway improvement plans, storm drainage facilities, traffic signal, roundabout, and lighting plans, and grade separation plans; conduct right-of-way support and surveys. The Consultant shall also perform project management. All submittals shall be provided to SJCDPW in Adobe PDF format unless otherwise specified.

The proposed roadway improvements were environmentally cleared by the County under the California Environmental Quality Act (CEQA) with the adoption of the Final Environmental Impact Report (EIR) in December 2018. PROJECT-specific environmental studies may be necessary to update the existing environmental documentation in accordance with CEQA guidelines. The PROJECT requires full clearance under the National Environmental Policy Act (NEPA) to maintain eligibility for Federal funding.

The Consultant shall be required to provide all labor, equipment, tools, and facilities necessary for the completion of the PROJECT’s design. SJCDPW’s goal, for scheduling purposes, is to have sixty-five percent (65%) design completed for the PROJECT within eighteen (18) months or less from issuance of the Notice to Proceed (NTP). Within this time, the necessary survey data will be collected and analyzed, and the roadway geometry/topography will be identified. Submission of the ninety-five percent (95%) design shall be due on or before twenty-four (24) months from issuance of the NTP. Right-of-Way activities shall be completed within thirty-six (36) months from issuance of the NTP. Submission of the Final signed PS&E shall be due on or before forty-two (42) months from issuance of the NTP.

SJCDPW has established a Disadvantaged Business Enterprise (DBE) goal of twenty-one percent (21%) for this RFP. The Consultant shall not discriminate against DBEs or other enterprises on the basis of race, color, sex or national origin in the consideration for performing requested professional services for the PROJECT. The Consultant is encouraged to afford full opportunity to DBEs to perform professional services in response to this RFP. In addition, SJCDPW does not have any Local Hire Policy requirements for this RFP, but the Consultant is encouraged to actively use local subconsultants that employ San Joaquin County residents.

SJCDPW’s Transportation Engineering Division will provide project management during the Consultant’s work effort and authorize payments to the Consultant. This Preliminary Scope of Work provides a general guide for Consultants to prepare and submit their statements of qualifications and technical proposals, which are expected to define and describe in further detail the successful completion of each task.

The CONSULTANT shall provide the following services:

TASK 1.0 PROJECT MANAGEMENT AND COORDINATION**TASK 1.1 PROJECT MANAGEMENT**

This task includes general project management of the PROJECT. Project management under this item includes management and tracking of project engineering design budget, administrative costs, project progress reporting, and project management coordination with SJCDPW. The Consultant shall prepare and update the project schedule on a monthly basis if the schedule has changed. The schedule shall show each activity, when that activity will begin, how long it will continue, and identify activities that are independent. Updated project schedules shall be submitted with the monthly progress report. The progress reports shall include progress-to-date, work completed over the invoiced period, outstanding team action items, problems encountered along with suggested solutions, and anticipated work for the next month.

This task shall also include assistance to SJCDPW pursuing grant funding opportunities that may include, but is not limited to: identification of grants relevant to PROJECT aspects; preparation of draft grant applications; coordination with stakeholders to secure PROJECT support; and grant submittal assistance. For proposal purposes, assume a minimum of three grant submittals that may include, but are not limited to: Trade Corridor Enhancement Program (TCEP), Railroad Crossing Elimination (RCE), and Better Utilizing Investments to Leverage Development (BUILD) grants. Coordination with UPRR regarding their direct participation with grade separation funding is included in Task 1.4 and is not considered part of this task.

TASK 1.2 PROJECT REVIEW MEETINGS

The Consultant shall schedule meetings with SJCDPW for the periodic review of PROJECT status and design concepts, which are expected to be a combination of online and in-person at SJCDPW's offices, with the majority being online. For proposal purposes, assume that meetings will be held monthly through environmental clearance. Thereafter, review meetings will be held every other month. The PROJECT review meetings shall incorporate the following design mileposts:

- 1) Pre-design or kick-off meeting;
- 2) Meeting to establish design criteria and identify key design features;
- 3) Meeting to establish geometric improvements and identify right-of-way acquisitions and easements;
- 4) NEPA Environmental analysis;
- 5) Coordination meeting with stakeholders and other agencies, including UPRR and the City of Tracy;
- 6) Meeting to perform Value Engineering;
- 7) Thirty-five percent (35%) design stage;
- 8) Sixty-five percent (65%) design stage;
- 9) Ninety-five percent (95%); and
- 10) One-hundred percent (100%) submittal

The pre-design or kick-off meeting shall be scheduled for the introduction of staff, establishment of communication channels, clarification of procedures and formats to be used, and discussion of a design program schedule. In addition, this meeting will review the scope of work; refine the work program; and set PROJECT goals, objectives, and criteria.

The Consultant shall prepare all meeting notices, agendas, and minutes in consultation with SJCDPW's Project Manager. This includes prior distribution of the meeting agenda, coordination of appropriate participants to attend, and distribution of the meeting minutes.

TASK 1.3 STAKEHOLDER COORDINATION

The Consultant shall review and update the existing stakeholder list for the PROJECT. The stakeholder list shall include, but is not limited to, the following: affected neighboring residents; local businesses; the City of Tracy; emergency responders; and the Banta Unified School District. One-on-one meetings with stakeholders, included in Task 2.0, will be required.

TASK 1.4 UPRR COORDINATION

The Consultant shall review the design criteria previously proposed during PROJECT development and discuss coordination strategies with SJCDPW prior to initiating contact with UPRR. The Consultant shall then establish all necessary communication channels between the PROJECT team and UPRR and coordinate with UPRR staff for approval of the new railroad crossing. This coordination includes, but is not limited to: UPRR plan review and approval; UPRR and California Public Utilities Commission coordination; a UPRR crossing agreement; and UPRR grade separation funding contribution. Under this task, the Consultant shall also identify any UPRR fees and costs to the County required to complete all required work.

TASK 2.0 PUBLIC OUTREACH

The Consultant shall conduct various meetings for the transfer and dissemination of information to the public and for periodic updates of PROJECT progress. The objectives are to promote participation in the process, build community consensus, and improve communication and understanding between decision-makers and community residents.

The Consultant must take care to ensure that key community constituents are consulted at critical decision points. Technical information must be shared and prepared in a form which is understood by all parties. The Consultant must ensure that the community participation is tailored to the local area and meets its special needs. Community residents, professional experts, and public officials must be actively engaged in a shared process of information gathering, problem identification, and priority setting. The Consultant must keep a careful record of community concerns and issues.

The conceptual roadway alignment has been approved by the Board of Supervisors and the Consultant's work activities shall support the development and delivery of the preferred improvements.

The Consultant shall attend up to three (3) public meetings for the presentation of concepts and design features to the public, and possibly the County Board of Supervisors. At least two (2) of these meetings shall be held in a facility near the PROJECT vicinity to present the PROJECT to neighboring residents and businesses for the exchange of information about the design and related issues. These meetings will be designed to provide information and to obtain feedback on the PROJECT features, projected impacts to adjacent properties and businesses, staging plans and detours, and construction scheduling.

The Consultant shall schedule all public meetings, make arrangements for facilities, prepare exhibits to illustrate design concepts and PROJECT features, issue meeting notices, and prepare agenda and minutes. The Consultant will record public comments, provide appropriate responses, and consider them

in the design when possible. The Consultant shall be responsible for compiling all comments and recommendations for administrative and public review.

Based on the stakeholder list developed in Task 1.3, the Consultant shall facilitate one-on-one meetings with stakeholders, property owners, or business owners and SJCDPW. The Consultant shall be prepared to discuss design impacts related to property frontages, turning movements, driveways, construction staging, etc. The Consultant shall obtain and record stakeholders' input and concerns and provide answers to their questions. One-on-one meetings are expected to be a combination of in-person and online with the majority being in-person on-site meetings. It is estimated that ten (10) or more meetings may be required.

TASK 3.0 MAPPING AND SURVEYING

The Consultant shall perform any and all surveys and base mapping necessary for detailed design, conform requirements to existing topography, and/or infrastructure design. The Consultant shall provide copies of all mapping and surveying documentation to SJCDPW in Adobe PDF and AutoCAD formats.

TASK 3.1 BASE MAPPING

PROJECT surveying and mapping shall include, but not be limited to: aerial photogrammetry; setting vertical and horizontal control; detailed topographic surveys; conform elevations and cross-sections; and major offsite structures or improvements worthy of design consideration.

Mapping product will be a digital photogrammetric base map, maximum 2-foot contours, with supplemental compiled field survey information at PROJECT conforms, and tied to the required datums. The horizontal control survey will be based on the North American Datum of 1983 using the California Coordinate System of 1983. The vertical control survey will be based on the National Geodetic Vertical Datum of 1929. The Consultant shall set aerial control using Global Positioning System (GPS) methods and a digital level to verify elevations. Control will be tied to existing roadway base lines where possible. The Consultant, or qualified subconsultant, shall prepare digital aerial photogrammetric mapping. The aerial mapping shall be supplemented with field survey conforms, utility features and drainage. The Consultant shall provide field verifications of topographic features (trees, fences, etc.) related to right-of-way acquisitions and easements.

TASK 3.2 RIGHT-OF-WAY MAPPING

The Consultant shall prepare all right-of-way mapping required for SJCDPW to establish existing County right of way and determine PROJECT impacts to affected properties during preliminary engineering design tasks, and to support Task 8.0, Right-of-Way.

TASK 3.3 SUPPLEMENTAL TOPOGRAPHIC SURVEYING

Upon completion of Task 6.1, 35% Stage Submittal, additional topographic surveys may be required. The Consultant shall confer with SJCDPW prior to performing any supplemental topographic surveys needed to finalize PROJECT design. For proposal purposes, assume a minimum of one hundred sixty (160) additional hours.

TASK 3.4 EXISTING UTILITY MAPPING

The Consultant shall prepare all mapping of existing utilities required for SJCDPW to determine PROJECT impacts to affected utilities during preliminary engineering design tasks, and to support Task

5.0, Utility Coordination and Conflict Resolution. The Consultant shall provide field verifications of all visible utilities prior to the commencement of utility coordination.

TASK 4.0 PRELIMINARY ENGINEERING

The Consultant shall perform any and all modeling, analyses, and preliminary design work necessary for detailed infrastructure design.

TASK 4.1 TRAFFIC MODELING AND ANALYSIS

The updated analysis shall include a review of the current traffic control inventories, daily traffic counts at the intersection and along Grant Line Road, vehicle classification counts, and reported traffic collisions. Updated vehicle counts shall be utilized to evaluate previous traffic projections and confirm future design volumes. The traffic analysis shall also review the proposed PROJECT geometrics in relation to existing roadways including access restrictions, sight distance criteria, and turn pocket lengths. Intersections identified as needing additional traffic control constructed shall be evaluated for both traffic signals and roundabouts. The Consultant shall prepare a traffic report documenting the existing traffic conditions and recommending updates to the approved roadway geometry for the PROJECT improvements where applicable. The Consultant shall provide copies of draft and final traffic reports to SJCDPW in Adobe PDF and Microsoft Word formats.

TASK 4.2 INTERSECTION DESIGN

The Consultant shall design new traffic signal systems for any intersection identified as needing such improvements in Task 4.1. Locations may include intersections of the new alignment with Banta Road, F Street, and Bird Road. PS&E bid documents shall be prepared according to San Joaquin County standards and specifications. The Consultant's scope of work for designing new traffic signal systems shall include, but not be limited to, the following: coordination with utilities for point of service connection; conflict determination; overhead line clearances and relocations; and location of all traffic signal equipment, including service and controller cabinets, video detection equipment, and poles. Intersection safety lighting shall also be evaluated.

If determined to be applicable in Task 4.1, the Consultant shall design a new multi-lane roundabout at the intersection of 11th Street and Bird Road. Preliminary plans for a concept roundabout at this intersection can be found in the Eleventh Street Special Purpose Plan Report, but final roundabout design shall conform to the latest standards and geometrics for multi-lane roundabouts. PS&E bid documents shall be prepared according to San Joaquin County standards and specifications. The Consultant's scope of work for designing a new roundabout shall include, but not be limited to, the following: removal of existing signal equipment; coordination with utilities for point of service connection for safety lighting, mapping and conflict determination; overhead line relocations; location of all traffic control devices; and traffic handling plans to minimize road closures and detours.

The Consultant shall evaluate the geometrics of the existing multi-lane roundabout at the intersection of 11th Street and Grant Line Road/Kasson Road. Final modifications to the existing roundabout design shall conform to the latest standards and geometrics for multi-lane roundabouts. PS&E bid documents shall be prepared according to San Joaquin County standards and specifications. The Consultant's scope of work for evaluating the existing roundabout shall include, but not be limited to, the following: modifications to approach lane geometry; adjustments to circulatory lane widths to accommodate truck traffic; closure of the Grant Line Road lane exiting the roundabout; location of all traffic control devices; and traffic handling plans to minimize road closures and detours.

The Consultant shall prepare an Intersection Design Report recommending intersection geometry and traffic control devices for the PROJECT improvements where applicable. The Consultant shall provide copies of all intersection geometrics to SJCDPW in Adobe PDF and AutoCAD formats.

TASK 4.3 STORM DRAINAGE ANALYSIS

The Consultant shall perform a drainage analysis for the PROJECT and the affected PROJECT area. The analysis will include the new roadway alignment, existing roadways to remain, and impacts on adjacent parcels. Impacts to drainage facilities beyond the PROJECT limits shall also be evaluated. In addition to determining runoff and drainage facilities, the analysis shall include the condition and flow capacities of existing channels and pipes on adjacent and intersecting roadways, and their capacity to handle any additional runoff due to the PROJECT.

The Consultant shall be responsible for the design, review coordination, permitting and other coordination necessary with SJCDPW, West Side Irrigation District, and the City of Tracy.

The Consultant shall map the existing storm drainage facilities from as-built information, data prepared in Task 3.4, and the Consultant's field verifications, and the Consultant will prepare options for improvements based on the evaluation of the existing storm drain facilities. These improvements could consist of, but are not limited to: new or upgraded storm drains; additional or upgraded inlets; and detention and/or retention ponds.

The Consultant shall evaluate and consider the PROJECT's compliance with National Pollution Discharge Elimination System (NPDES) requirements. With the increase in runoff and modification to existing drainage facilities, water quality Best Management Practices (BMPs) may be required for treating runoff. The Consultant shall prepare design options for BMPs, if any, in accordance with State requirements. The Consultant shall prepare a Drainage Report that documents the existing storm drainage facilities, the PROJECT water shed areas and runoff, and the proposed storm drainage facilities for the PROJECT. The Drainage Report shall include all supporting storm drainage calculations.

TASK 4.4 GEOMETRIC DESIGN LAYOUT

The Consultant shall review, compare the preliminary design criteria proposed in the Grant Line Road Corridor Project EIR with the latest editions of the San Joaquin County Improvement Standards, AASHTO standards, and the Caltrans Highway Design Manual, and propose final design criteria for use on the PROJECT. The design criteria should outline base assumptions used for the geometric design criteria of the PROJECT improvements, including, but not limited to, design speed, sight distance, minimum lane widths, taper lengths, and curb return radii. Upon approval of the final geometric design criteria, the Consultant shall prepare a technical memorandum summarizing and documenting the agreed upon geometric design criteria.

The geometric design criteria technical memorandum shall also have a full analysis of all required geometrics required for successful operation of the multi-lane roundabout to be constructed at the intersection of 11th Street and Bird Road, and a full analysis of all required geometrics required for modification of the existing multi-lane roundabout at the intersection of 11th Street and Grant Line Road/Kasson Road as a part of this PROJECT. The Consultant shall provide copies of all intersection geometrics to SJCDPW in Adobe PDF and AutoCAD formats.

TASK 4.5 GEOTECHNICAL STUDY

The Consultant shall obtain all geotechnical and/or geological information necessary for the design of the PROJECT. Geotechnical and/or geologic investigations shall be of sufficient detail to facilitate planning and detailed design of the PROJECT. This may require addressing issues including, but not limited to: pavement; retaining walls and slopes; and general soil characteristics. The Consultant shall provide a soils report that provides site-specific recommendations regarding design criteria to be used and construction practices. The Consultant, or qualified subconsultant, shall perform the following work towards completion of the geotechnical analysis:

1. Site investigation;
2. In-situ soil sampling, boring & laboratory tests;
3. Determination of soil “R” value in new pavement design areas;
4. Determination of ground and slope stability/ground water conditions;
5. Moisture Content and Unit Weight for in-situ property assessment;
6. Sieve analysis and Plasticity Index for classification; and
7. Traffic control measures as required for field operation.

The Consultant shall provide required notification to any affected agencies and Underground Service Alert (USA), prior to any subsurface explorations. The Consultant shall provide copies of draft and final geotechnical reports to SJCDPW in Adobe PDF and Microsoft Word formats for roadway structure section design.

TASK 5.0 UTILITY COORDINATION AND CONFLICT RESOLUTION

The Consultant shall be responsible for assisting in the relocation arrangements of all utilities impacted by the Project improvements. The Consultant shall contact PG&E and all affected utilities to coordinate the design and permitting of the PROJECT with input from the utility companies to identify potential conflicts, determine clearance and relocation requirements and establish the schedules for required utility relocations.

The Consultant shall be responsible for PROJECT review coordination, permitting and other coordination necessary with SJCDPW, PG&E and other utility companies as necessary to facilitate the design of the PROJECT. The Consultant shall prepare and present viable options, including exhibits to SJCDPW to resolve utility conflicts.

The Consultant shall provide the affected utilities with preliminary plans at a stage early enough to allow for their planning and design of utility relocation. Preliminary plans shall contain sufficient vertical and horizontal controls to allow a determination of relocation requirements, where applicable. The Consultant shall coordinate the relocation schedules of all affected utilities to assure timely completion of the proposed relocations. Utility relocations shall be incorporated into the PROJECT construction schedule, when necessary.

TASK 6.0 PLANS, SPECIFICATIONS AND ESTIMATE (PS&E)

The Consultant shall implement and maintain quality control procedures during the preparation of memoranda, working papers, reports, plans and drawings for the PROJECT. The quality control procedures will be in effect during the entire time work is being performed for the PROJECT. The quality control procedures will establish a process whereby all work product submittals are independently checked.

Milestones under this task shall include the thirty-five percent (35%) preliminary design stage submittal, sixty-five percent (65%) design stage submittal, ninety-five percent (95%) design stage submittal, one hundred percent (100%) submittal, and final advertising document submittal. The Consultant shall prepare construction documents consisting of PS&E in the English System sufficient for the administration and construction of the PROJECT. For completion of this task, the Consultant shall provide the following services:

TASK 6.1 35% PS&E SUBMITTAL

The Consultant shall prepare and submit to SJCDPW preliminary plans in Adobe PDF format and preliminary engineer's estimate in Microsoft Excel format. The drawings shall be scaled to 1"=20', and all plans submitted shall be prepared in accordance with SJCDPW design criteria. The work product shall consist of plans and elevations, and estimated costs sufficient to define the extent and nature of the PROJECT. The thirty-five percent (35%) design stage submittal for review and approval by SJCDPW shall include, but is not limited to the following:

1. Roadway Improvement Plans:

Based on the SJCDPW-approved Traffic Report, Geometric Design Criteria, and Geotechnical Report prepared in Task 4.1, 4.4, and 4.5 respectively, the Consultant shall submit preliminary plans showing the proposed new roadway improvements. Adjacent property ownership information will be included, and the plans shall show partial right-of-way acquisitions and easements. The proposed new roadway improvement plans shall include planimetrics to define roadway alignment, profile and potential conflicts, and typical cross-sections to define proposed structural section.

2. Drainage Plans:

Based upon the SJCDPW-approved Storm Drainage Analysis prepared in Task 4.3, the Consultant shall prepare preliminary plans showing the proposed storm drainage improvements. The proposed drainage system plan will be shown with profiles to ensure the system will work.

3. Traffic Signal, Roundabout, and Safety Lighting Plans:

Based upon the SJCDPW-approved Intersection Design Report prepared in Task 4.2, the Consultant shall prepare a preliminary traffic signal, roundabout and safety lighting layout for the PROJECT. All preliminary signal plans for PROJECT intersections will consist of signal standard layouts with signal head locations shown. The preliminary plans will include signal phasing diagrams, and proposed service points and controller locations. If Task 4.2 determines that a roundabout is feasible and preferred for the new alignment's intersection with 11th Street and Bird Road, the Consultant shall prepare a preliminary multi-lane roundabout layout for the PROJECT. The Consultant shall prepare preliminary plans for the intersection of 11th Street and Bird Road that will include circulatory roundabout lane widths, approach and departure lane widths and radii, truck apron and central median sizing, and splitter island dimensions. The Consultant shall also include safety lighting in these preliminary plans.

4. Pavement Striping Plans:

The Consultant shall survey all existing pavement delineation and markers over the PROJECT limits. Pavement legends shall also be surveyed and depicted on plans. The Consultant shall also prepare the design and layout of a final pavement striping plan with station and offset.

5. Utility Plans:

The Consultant shall coordinate with each utility to map their facilities and determine conflicts. In addition to any possible utility relocation, the preliminary plans will include utilities to be

abandoned, removed, disposed, disconnected, etc. The preliminary design will include technical feasibility, preliminary costs, and anticipated design. The Consultant shall prepare and present viable options to SJCDPW to resolve utility conflicts.

6. Preliminary Grade Separation Structure Plans:

The Consultant shall submit preliminary structural plans for the proposed grade separation in a format suitable for initial submission to Union Pacific Railroad.

After completion of the 35% PS&E submittal, the Consultant shall initiate a Value Engineering (VE) review of the PROJECT. The VE process shall begin with a study performed by a multidisciplinary team of qualified individuals focused on improving the value, function, performance, and lifecycle costs of the PROJECT. A technical memorandum detailing all Value Engineering Change Proposals (VECPs) shall be submitted to SJCDPW for review and approval. After SJCDPW acceptance of the technical memorandum, the Consultant shall incorporate all approved VECPs into the 65% PS&E submittal. The VE process shall be performed in accordance with current State and Federal Value Analysis guidelines and practices.

TASK 6.2 65% PS&E SUBMITTAL

The Consultant shall prepare and submit to SJCDPW plans in Adobe PDF format, preliminary engineer's estimate in Microsoft Excel format, and preliminary specifications in Adobe PDF and Microsoft Word formats. The sixty-five percent (65%) design stage submittal for review and approval by SJCDPW shall address all comments received from SJCDPW in Task 6.1. The Task 6.2 submittal shall also include, but is not limited to the following:

1. Traffic Signage Plans:

The Consultant shall conduct a comprehensive inventory of all traffic sign types within the PROJECT limits. The inventory shall provide a base for any recommended changes and/or additions and deletions. The Consultant shall prepare a complete construction plan for each construction phase throughout the PROJECT. Each phase of the PROJECT shall have a table listing the number and locations of highway signs.

2. Construction Staging/Traffic Handling Plans:

The Consultant shall prepare plans for the design and layout of the construction staging, showing alignments, widths, pavement sections, striping layout, and signing provisions. All construction staging shall be evaluated for viability utilizing design vehicles as approved by SJCDPW.

3. Grade Separation Structure Plans:

The Consultant shall prepare structural plans for the proposed grade separation suitable for initial submission to Union Pacific Railroad.

TASK 6.3 95% PS&E SUBMITTAL

The ninety-five percent (95%) design stage submittal for review and approval by SJCDPW shall address all comments received from SJCDPW in Tasks 6.1 and 6.2. The Task 6.3 submittal shall also include final draft PS&E including, but not limited to:

1. Title Sheet (SJCDPW format)
2. Typical Cross Sections
3. Roadway and Surface Improvements
4. Storm Drainage Improvements

5. Traffic Signal Plans (if applicable)
6. Roundabout Plans (if applicable)
7. Safety Lighting Plans
8. Traffic Signing and Striping Plans
9. Utility Plans
10. Staged Construction/Traffic Handling Plans
11. Grade Separation Structure Plans
12. Storm Water Pollution Prevention Plan Worksheet
13. Specifications
14. Engineer's Estimates

TASK 6.4 100% PS&E SUBMITTAL

The one-hundred percent (100%) design stage submittal for review and approval by SJCDPW shall address all comments received from SJCDPW in Tasks 6.1, 6.2, and 6.3. The Task 6.4 submittal shall include all final PS&E documentation required for successful advertising of the PROJECT by SJCDPW. Upon approval of the 100% stage submittal, PS&E development will be considered successfully completed.

TASK 6.5 FINAL PS&E DOCUMENT SUBMITTAL

Upon County approval of the 100% submittal, the Consultant shall provide SJCDPW with one hard copy and appropriate electronic files for each of all geotechnical, traffic, and/or other engineering reports prepared for the PROJECT. All plans will be prepared at a scale of 1"=20' unless determined otherwise by mutual agreement between Consultant and SJCDPW.

The Consultant shall provide the following hard copy deliverables:

1. 2 sets 24x36 plans
2. 2 sets 24x36 cross sections
3. 3 sets specifications
4. 3 copies engineer's estimates
5. 1 set 24x36 plans on mylar (or SJCDPW approved equivalent) for final signatures
6. AutoCAD format electronic files - plans and drawings
7. Microsoft Excel format electronic files - engineer's estimate
8. Microsoft Word format electronic files - specifications
9. 1 set Adobe PDF format electronic plans, specifications, and engineer's estimate

TASK 7.0 ENVIRONMENTAL CLEARANCE

The County began preparing an EIR in fall 2017 in accordance with California Environmental Quality Act (CEQA) guidelines, which was then made available for public comment as a Draft EIR from May to June 2018. The County adopted the Final EIR in December 2018 that identifies a preferred alternative for the PROJECT, which included a new at-grade crossing over UPRR tracks. This EIR also included a Mitigation Monitoring and Reporting Program. Environmental clearance for compliance with the National Environmental Policy Act (NEPA) has not begun, but will be a critical task for timely delivery of the PROJECT.

Following adoption of the EIR, and through coordination with UPRR, SJCDPW has agreed to phase the project such that an interim at-grade crossing can be constructed and an ultimate grade-separated crossing will be constructed. The scope of work for the PROJECT is structured for design of the ultimate

condition, a grade-separated crossing. However, SJCDPW wishes to environmentally clear both the interim and ultimate improvements at this time. For the purposes of the following tasks, the Consultant shall include the effort to environmentally clear both project phases (interim and ultimate).

TASK 7.1 NEPA STUDIES AND DOCUMENTATION

The Consultant shall review and analyze the previous environmental studies utilized in the preparation of the Grant Line Road Corridor Project EIR for CEQA clearance, and provide SJCDPW a list of additional studies that need to be prepared for NEPA clearance of the PROJECT. The Consultant shall review the Preliminary Environmental Study (PES) form previously submitted to Caltrans by SJCDPW, then prepare and submit an updated PES form within one month of the NTP. This task shall include preparation and submittal of all required studies and documentation required under NEPA guidelines, including and any revisions required for successful adoption.

The Consultant, in close coordination with the SJCDPW Project Manager, shall serve as the liaison between SJCDPW and Caltrans while securing all required NEPA clearance for the PROJECT. For proposal purposes, assume an Environmental Assessment (EA) resulting in a Finding of No Significant Impact (FONSI) as the highest appropriate level of documentation.

TASK 7.2 CEQA UPDATE, PRECONSTRUCTION SURVEYS, AND PERMITTING

The Consultant shall review and analyze the previous environmental documentation prepared for the Grant Line Road Corridor Project EIR approved in December 2018, and provide SJCDPW with a scope of work to refresh the environmental document for the PROJECT as a supplement to the EIR. This scope shall identify any technical studies or other documentation that may need updating prior to beginning construction of the PROJECT in accordance with CEQA guidelines.

The Consultant shall conduct field evaluations and preconstruction surveys in accordance with the previously approved Mitigation Monitoring and Reporting Program and prepare all required documents and reports. The Consultant shall be responsible for conducting all research and the coordination of all resource agencies. The Consultant's evaluation and surveys will determine the level and type of requirements to ensure compliance.

The Consultant shall submit to SJCDPW copies each of any documents and/or reports prepared for SJCDPW's review and approval. The Consultant shall be responsible for incorporating SJCDPW's comments and the preparation of completed final documents and/or reports. The Consultant shall be responsible for the preparation and filing of any notices and publications required under local, State and Federal guidelines.

The Consultant shall identify all permits required on this PROJECT throughout all phases of the work. The Consultant shall identify permitting requirements and, in conjunction with SJCDPW staff, establish how these requirements will be implemented. The incorporation of all permitting requirements in preliminary engineering, value engineering, environmental mitigation, and final engineering and PS&E shall be accomplished during the appropriate phases of the work. The Consultant shall prepare permit applications. The Consultant, in close coordination with the SJCDPW Project Manager, shall serve as the liaison between SJCDPW and other concerned agencies.

TASK 8.0 RIGHT-OF-WAY

SJCDPW will obtain all necessary easements and right of entry permits from affected property owners necessary for the PROJECT construction and permanent roadway configuration. As part of the meetings

with neighboring residents and local businesses for the exchange of information, the Consultant may be required to conduct field meetings with these constituents to facilitate easements and right of entry permits during PROJECT development. This may require preparation of exhibits and identifying the proposed easements and right-of-way through field stakes, painting, or other methods. The Consultant shall also locate, mark, and/or stake improvements or right-of-way to facilitate any utility relocations prior to construction.

SJCDPW shall obtain and pay for all preliminary title reports, referenced deeds and maps. SJCDPW shall prepare all legal descriptions and related plats. SJCDPW shall conduct all acquisition activities. Consultant will conduct appraisals and preliminary assessments of relocation benefits.

TASK 8.1 RIGHT-OF-WAY SERVICES

SJCDPW anticipates that right-of-way activities will also take place during the design effort related to up to ten (10) “partial” right-of-way acquisitions necessary for the proposed PROJECT. Some rights of entry and temporary construction easements may be necessary as well as the assessment of encroachments within County right-of-way.

The Consultant shall perform all field surveys as required by SJCDPW. Utilizing data collected in Task 3.2, the Consultant shall provide SJCDPW an electronic copy of all field survey data and prepare an exhibit for each affected parcel and right-of-way acquisition or easement, including related closure calculations.

The Consultant shall define for SJCDPW the controlling elements for all right-of-way acquisitions and easements. The Consultant shall prepare a Record of Survey, as required by the Professional Land Surveyor’s Act, to memorialize any permanent survey monuments set as part of the PROJECT.

TASK 8.2 LEGAL DESCRIPTIONS AND PLATS

The Consultant shall provide legal descriptions and related plats, and all other information and documents required for right-of-way acquisitions, easements and rights of entry. The Consultant shall coordinate with SJCDPW for any easements and rights of entry required including review of documents.

TASK 8.3 APPRAISALS

The Consultant shall conduct appraisals required for right-of-way acquisitions and coordinate with SJCDPW to review related reports and documents.

All appraisals and related services shall be conducted by a real estate appraiser licensed by the State of California and be completed in accordance with the Uniform Standards of Professional Appraisal Practice. The appraised value of just compensation for a property acquisition shall be summarized in an appraisal report consisting of, but not limited to, the following items:

- A statement of purpose and function for the appraisal, including any assumptions and limiting factors or conditions;
- A description of the property’s physical characteristics;
- An analysis of the property’s highest and best use, including the appropriate alternative approaches to value as applicable;
- A statement of the value of property rights;
- A statement of any damages or benefits to remainder property if applicable; and
- The signed certification and effective date of the valuation.

The Consultant shall have an independent appraiser complete a review appraisal for all acquisitions in accordance with the Caltrans LAPM.

TASK 9.0 BIDDING AND POST-AWARD ASSISTANCE

The Consultant shall provide assistance during the construction bidding process and during construction.

TASK 9.1 BIDDING AND AWARD ASSISTANCE

The Consultant shall provide assistance during the advertising and bidding phase. Assistance will involve providing clarification or answers to questions received from prospective bidders. This assistance could include necessary design revisions if SJCDPW deems it necessary. SJCDPW shall be responsible for receiving all inquiries and providing all responses to questions received during the bidding period.

TASK 9.2 DESIGN SERVICES DURING CONSTRUCTION

It is anticipated that the Consultant shall provide limited design assistance during construction, primarily consisting of field reviews and meetings (assume six), as requested by SJCDPW, plus responding to requests for information. The Consultant and, if necessary, appropriate design team members are expected to attend the following meetings: a preconstruction meeting; post construction meeting; construction coordination meetings in the field when necessary; and final punch list and job walk meeting. Construction management will be provided by SJCDPW or a firm selected by SJCDPW to provide construction management services. Others will be responsible for inspection, materials testing, processing payment requests, etc.

The Consultant shall provide SJCDPW or a firm selected by SJCDPW to provide construction management services all engineering records, survey information and data, cross sections, design memorandums, record of meetings conducted with area residents and business owners, and other information required to construct the PROJECT. If questions arise during construction over the intent of the design, the Consultant and appropriate design team members will be expected to respond to such questions in a timely fashion. The Consultant shall review, comment, and make recommendations on the Contractor's material submittals and shop drawings. Approval of contractor's shoring plans, detour signing, and traffic striping plans, etc. may be performed by others. The Consultant shall prepare record drawings and as-built revisions for the PROJECT. The Consultant shall take measure to assure the appropriate design team members' services during construction are included as required.

TASK 9.3 CONSTRUCTION STAKING - OPTIONAL

The Consultant shall provide construction staking services as required in contract specifications and special provisions and/or as required to construct the PROJECT and as directed by SJCDPW.