

APPENDIX A: SCOPE OF WORK

All services performed under this Contract shall be in conformance with all applicable Local, State, and/or Federal standards, regulations, policies, and procedures. The Consultant shall continuously make available, throughout the life of the Contract, the qualified personnel proposed to perform the services required. All such services or work assignments shall be authorized by individual task orders that may be issued under this Contract. The on-call City Engineer services may include but are not limited to the following tasks:

GENERAL TECHNICAL ASSISTANCE

1. Provide technical advice to City personnel assigned to Public Works activities.
2. Advise the City as to engineering and construction financing available from other governmental agencies and prepare and initiate applications for such funding.
3. Provide technical assistance for water, sewer, and storm drain issues.
4. Prepare drawings, diagrams, graphs, charts, databases, spreadsheets, and tables using common desktop, computer-aided design, and/or GIS software programs.
5. Attend meetings such as City Council, Planning Commission, staff meetings, and other meetings as requested.
6. Prepare/review preliminary scoping, budget estimates, and project schedules.

DEVELOPMENT

1. Review tentative maps and other submittals for land divisions and proposed developments and make recommendations related to engineering matters.
2. Develop and update Capital Improvement Plans.
3. Assist the City Manager on the Capital Improvement Program Budget to allow for the implementation of Master Plan Improvements.
4. Review and provide written comments on planning programs and land development matters.
5. Provide special engineering reports regarding such matters as assessment district formation, developer fees, and etc.
6. Meet with developers and members of the public on proposed development projects in order to communicate the processes and procedures involved with engineering and infrastructure development.
7. Check improvement plans for compliance with zoning requirements, City Design Standards, and adopted building codes.
8. Provide field observation inspection of the construction of improvements by private developers; recommend notice of completion and acceptance of the work.
9. Review, check and provide written recommendations of land use applications to City's Planning Department.
10. Assist in the preparation of "Conditions of Approval" for proposed development projects.
11. Evaluate and provide recommendations regarding developer proposed mitigation measures for development projects.
12. Establish performance, labor, and material bond amounts, when required, and require the posting of such securities and other development fees within the proper time sequence of development review.
13. Provide such necessary and related functions as are the normal practice of the City in the review of private developments.

DESIGN ENGINEERING SERVICES

1. Prepare plans and specifications for City projects.
2. Provide City staff with draft letters for the City to use in coordinating with all utility companies to obtain existing utility record plans, as-builts, schematics, etc. The existing utility information shall be shown on the final design plans.
3. Coordinate with pertinent regulatory agencies, stakeholders, material and equipment suppliers, etc.
4. Coordinate appropriate public outreach as directed by the City. For cost estimation, a total of three meetings may be assumed to meet with property owners, and potentially the City Council.
5. Conduct all field, topographic and control surveys, prepare all geotechnical studies and reports, and complete all design calculations. The consultant shall include in the Proposal the costs associated with obtaining a title report for all adjacent properties and include survey by a licensed surveyor of all property lines and easements. All topographic survey, property lines, and easements shall be mapped and accurately provided in AutoCAD format for use during design.
6. Produce 35% conceptual plans as well as 65%, 95%, and 100% PS&E submittal packages for City review.
7. Prepare final bid documents incorporating all comments from previous reviews. Final plans shall be plotted electronically to PDF in 22"x34" size, and shall be signed by the engineer in responsible charge licensed in the State of California, and ready for reproduction.

TRAFFIC ENGINEERING

1. Represent the City interfacing with the public, staff, and other governmental agencies to address any and all matters relating to proposed traffic/transportation plans within and/or affecting the City.
2. Assist staff in the development of engineering and development policies, regulations, ordinances, and resolutions related to traffic issues and standards.
3. Provide traffic engineering design, assist with contract administration, interact with staff, consultants, the public, community groups, engineers, contractors, and inspectors during all phases of the design and construction of Capital Improvement projects.
4. Review development proposals and conduct studies as appropriate to ensure consistency with City, County and State codes, standards, regulations, ordinances, policies, and statutes.

ENVIRONMENTAL COMPLIANCE AND PERMITTING

1. Be responsible for preparing, submitting, and obtaining all required permits and environmental review documentation required by State, local, and jurisdictional agencies needed to ensure this project is cleared for construction.
2. Prepare appropriate California Environmental Quality Act (CEQA) documents and any associated technical studies required to clear the project for construction.
3. Prepare a schedule of permits with the required timelines to ensure each permit is obtained prior to the start of construction.
4. All environmental documents shall be prepared in preliminary and final draft stages for City review, and shall incorporate any comments made during the preliminary document review.

CONSTRUCTION MANAGEMENT SERVICES

1. Develop final construction management staffing plan and project management plans for the construction and completion of capital improvement and other projects in accordance with the schedules of assigned projects.
2. Provide construction oversight and inspection of permit work with City streets and rights-of-way.
3. Review and recommend action for proposed change orders.
4. Tabulate, review, and evaluate bid documents received, make recommendations to City Council in the awards contracts.
5. Convene pre-construction meetings with staff, contractors, utility company representatives, and respond to bidders' questions during bidding.
6. Review all design plans, project implementation and construction contracts, project schedules and applicable project management guidelines.
7. Perform and assist in performing the duties of a Construction Inspector including civil, electrical, landscape, structural, building, and utility construction engineering. This work includes, but is not limited to, completing daily diaries, performing quantity calculations, checking grade and alignment, materials sampling and control, coordinating scheduling, reviewing certified payroll, conducting labor compliance interviews, and any other task, i.e. LEED commissioning, necessary to document and ensure compliance with project plans and specifications. Also, work shall include measuring and verifying progress of work for payment purposes.
8. Provide Contract administration and support services, including preparing correspondence, processing progress pay estimates and extra work billings, reviewing billings, and developing and maintaining complete and accurate project files, including asset management systems and electronic records management in accordance to Caltrans file and record procedures.
9. Provide construction engineering support to analyze project schedules for contract compliance purposes. In addition, the Consultant shall provide analysis of time impacts to the project schedule and provide recommendations.
10. Review and recommend and provide contract dispute expertise for project protests, Notice of Potential Claims, and Contract Claims. This work includes, but is not limited to, claims resolution principles, claims avoidance techniques, timeline awareness, risk analysis, and claim report writing.
11. Provide materials sampling and testing for construction projects. Perform and assist in performing materials and/or product manufacturing inspection in the field or at the manufacturer's plant location. Perform and assist in performing special inspections for building construction. This work includes, but is not limited to, verifying the materials and/or products conform to the plans, specifications, material tests, and quality control.
12. Conduct constructability reviews on draft construction plans and specifications and prepare an evaluation report of findings per applicable standards. The reviews shall identify contract plans and specification errors, omissions, and inconsistencies and assure overall Plan, Specification, & Estimate (PS&E) constructability, operability, and maintainability.
13. Provide support services for geotechnical and related work, including pavement condition assessment, for specific locations as requested. This work includes, but is not limited to, performing field investigations, evaluating, and making recommendations for conditions encountered during construction.
14. Conduct storm water monitoring to comply with Court Orders, fulfilling all permit obligations, and other activities as deemed appropriate. Prepare and/or ensure preparation of reports for CITY, Caltrans, Regional Water Quality Control Board(s) (RWQCB), and other agencies as appropriate.
15. Provide surveying and construction staking, for specific locations as requested. The Consultant shall perform surveying services using the latest technological equipment, including Global

Positioning System (GPS) equipment. The information shall be submitted in digital formats as requested.

16. Review Contractor provided traffic control plans for work within the public right-of-way.
17. Provide proactive on-site coordination with utility owners such as SMUD, PG&E, AT&T, and Comcast and construction contractors. Coordinate installation and testing services with the utility owners and contractors, as needed.
18. Provide City with electronic copies of all plans, designs, reports, permits and agreements, and contracts prepared under this Scope of Work.

PERSONNEL

The types of personnel that the Consultant shall be required to have available to provide the services requested include, but are not limited to:

1. Project Managers — The Consultant's Project Manager shall coordinate all matters with the CITY Project Manager, and meet, as needed, to discuss progress on the project(s). In addition to other specified responsibilities, the Project Manager shall be licensed as a Registered Civil Engineer in the State of California, with Public Agency construction and contract administration experience in the State of California. The Project Manager is responsible for all matters related to the Consultant personnel and operations.
2. Design Engineers — The Consultant shall provide design engineering staff with experience in bridge, highway, and facility design.
3. Resident Engineers (RE) — The RE shall be licensed as a Registered Civil Engineer in the State of California and shall perform all functions and responsibilities of a Construction Resident Engineer in administering the contracts they have been assigned.
4. Structures Representatives (SR) — The SR shall be licensed as a Registered Civil Engineer in the State of California and shall perform all functions and responsibilities of a Construction Structures Representative in administering the contracts they have been assigned. The SR may also serve as the RE on the same project.
5. Assistant Resident Engineers (ARE) — The ARE shall demonstrate construction contract administration experience and be capable of assisting the Resident Engineer in all aspects of required field and office construction engineering work.
6. Field Inspectors — The Consultant shall provide field construction inspectors, which have construction engineering experience on highway and major public works projects, structural inspectors, who have experience in structural construction inspection, building inspectors, which have demonstrated experience inspecting and managing building construction, and utility inspectors, which have demonstrated experience inspecting above or below ground utilities.
7. Land Surveyors (LS) — The Consultant shall provide LS capable of performing surveying and construction staking for specific locations as requested. LS shall be capable of performing surveying services using the latest technological equipment, including Global Positioning System (GPS) equipment.
8. Field Office Engineers/Draftspersons — Construction Office Engineers and Draftspersons shall demonstrate construction administration and engineering related experience and be capable of assisting the Resident Engineer in all aspects of required office construction engineering duties.
9. Contract Claims Engineers — Contract Claims Engineers shall demonstrate construction contracts experience.
10. Construction Materials Testers — Materials Testers shall possess proper certification, as required and shall be capable of assisting the Resident Engineer in all aspects of material testing work.

11. Production Staffing – Production Staff includes, but is not limited to, graphic designers and report writers.

EQUIPMENT

The types of equipment that CITY shall require the Consultant to have available to provide the services requested include, but are not limited to:

1. Office Equipment and Supplies (Consultant's Office) — The Consultant shall have adequate office equipment and supplies to complete the required work. Such equipment and supplies shall include, but are not limited to, computers, printers, plotters, and calculators.
2. Field Office, Equipment, and Supplies — The Consultant shall provide adequate field office, equipment and supplies as needed to complete the required field engineering work. The field office, equipment and supplies for field construction personnel could include, but is not limited to, personal protective equipment, field office facilities, vehicles suitable for the work to be performed, communications, computers, field office equipment, and supplies, access to all testing and laboratory facilities and equipment. In some circumstances the field office may be furnished by CITY.