

RESOLUTION NO. 2017-099

A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE TASK ORDER 2017-07 WITH GHD, INC FOR PROFESSIONAL ENGINEERING DESIGN SERVICES ASSOCIATED WITH THE KEISER AVENUE RECONSTRUCTION (PROJECT NO. 2017-18) AND RELATED ACTIONS

WHEREAS, reconstruction of Keiser Avenue is necessary and required to fully implement the University District Specific Plan; and

WHEREAS, the Development Agreement between the City and the Vast Oak Property LP and University District LLC (Developer) requires the Developer to reconstruct Keiser Avenue as part of developing the portion of the University District known as Vast Oak North; and

WHEREAS, the affordable housing complex that allows the Developer to comply with the City's inclusionary housing ordinance is located in Vast Oak North; and

WHEREAS, the Development Agreement requires that construction of the affordable housing complex begin in March 2019, which requires that water supply and access be available from Keiser Avenue; and

WHEREAS, Section 4.17 of the Development Agreement provides a mechanism for the City to undertake offsite infrastructure improvements, including the reconstruction of Keiser Avenue, with funding provided by the developer; and

WHEREAS, City and Developer agree that the best way to ensure a timely start on the affordable housing complex is for the City and Developer to cooperate on the extension of Keiser Avenue with the City designing and constructing Keiser Avenue, including appropriate utility extensions, from Snyder Lane to Kerry Road in accordance with Section 4.17 of the Development Agreement; and

WHEREAS, in accordance with the City's Purchasing Policy, staff has issued request for qualifications for engineering design services, evaluated responses and determined that GHD, Inc. is most qualified to provide design services on this project; and

WHEREAS, staff has negotiated a scope of work for the project and an overall fee of \$1,158,296; and

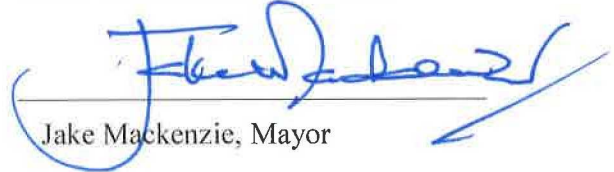
WHEREAS, the design phase of the Keiser Avenue reconstruction project is included in the City's approved Fiscal Year 2017-18 Capital Improvement Program with a total budget of \$1,333,683.

NOW, THEREFORE, BE IT RESOLVED that the City Manager is authorized to the execute the Task Order 2017-07 with GHD, Inc. attached hereto as Exhibit "A" and incorporated herein by reference, subject to minor modifications by the City Manager or City Attorney and the deposit of funds by the Developer in accordance with Section 4.17 of the Development Agreement.

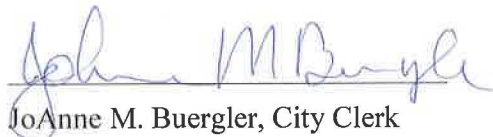
FURTHER RESOLVED that the Finance Director is hereby authorized to accept and appropriate funds from the developer as necessary to implement the design of the Keiser Avenue Reconstruction Project.

DULY AND REGULARLY ADOPTED this 8th day of August, 2017.

CITY OF ROHNERT PARK


Jake Mackenzie, Mayor

ATTEST:


JoAnne M. Buerger, City Clerk

Attachment: Exhibit A

AHANOTU: Aye BELFORTE: Aye CALLINAN: Aye STAFFORD: Aye MACKENZIE: Aye
AYES: (5) NOES: (0) ABSENT: (0) ABSTAIN: (0)

Resolution Exhibit A

GHD, INC. TASK ORDER NO. 2017-07

**CITY OF ROHNERT PARK
AND
GHD, INC.**

**AUTHORIZATION TO PROVIDE DESIGN AND COORDINATION
SERVICES FOR PROJECT NO. 2017-18 (KEISER AVENUE
RECONSTRUCTION)**

SECTION 1 – PURPOSE

The purpose of this Task Order is to authorize and direct **GHD, INC.** to proceed with the work specified in Section 2 below in accordance with the provisions of the MASTER AGREEMENT between the City of Rohnert Park ("City") and **GHD, INC.** ("Consultant") hereto dated July 12, 2016.

SECTION 2 – SCOPE OF WORK

The items authorized by this Task Order are presented in Exhibit "A" - Scope of Services.

SECTION 3 – COMPENSATION AND PAYMENT

Compensation shall be as provided in the MASTER AGREEMENT between the parties hereto referenced in SECTION 1 above. The total cost for services as set forth in SECTION 2 shall be actual costs (time and materials) based on Consultants' standard labor charges in accordance with the provisions of the MASTER AGREEMENT and as shown in Exhibit "B" for an amount not-to-exceed \$1,158,296.

SECTION 4 – TIME OF PERFORMANCE

The work described in SECTION 2 shall be completed by **August 31, 2019**, or as extended by the City Manager.

SECTION 5 – ITEMS AND CONDITIONS

All items and conditions contained in the MASTER AGREEMENT for professional services between City and Consultant are incorporated by reference.

Approved this **8th** day of **August, 2017**

CITY OF ROHNERT PARK

GHD, Inc.

Darrin Jenkins (Date)

Per Resolution No. 2017-____ adopted by the
Rohnert Park City Council at its meeting
Of August 8, 2017.

William Silva (Date)

ATTEST:

APPROVED AS TO FORM:

City Clerk

City Attorney

**SCOPE OF WORK
PROJECT MANAGEMENT AND DESIGN SERVICES FOR
THE KEISER AVENUE RECONSTRUCTION PROJECT
SNYDER LANE TO KERRY ROAD EXTENSION**

I. GENERAL DESCRIPTION

This scope is to provide professional engineering, project management, and other related services for the preparation of environmental compliance, permitting, and engineered design plans for the reconstruction and widening of Keiser Avenue, from Snyder Lane to Kerry Road; the scope includes preliminary design of the roundabout at the intersection of Snyder Lane and the associated conforms to the north and south as it relates to the pending Snyder Lane Rehabilitation Project (north, by others) and completion of the Snyder Lane Widening (south). Due to a March 1, 2019, deadline for the installation of water supply and fire access to the proposed affordable housing complex at the intersection of Keiser Avenue and Kerry Road, *a separate, coordinated construction bid package for the water main and supplemental paving is programmed in this scope of work.*

Anticipated disciplines include roadway, civil, hydrology/hydraulic, LID, roundabout, electrical, structural, construction signing, traffic, survey (topography/right of way), CEQA, permitting, landscape architecture, right of way management, public outreach (baseline), geotechnical investigation, overhead utility relocation (if possible) and/or utility undergrounding coordination, and utility evaluation and design. Optional tasks are identified below in the Scope of Services Outline and the detailed description below.

II. SCOPE OF SERVICES OUTLINE

Consultant services for the project will include the following tasks and subtasks to address the project elements above. The tasks address the RFQ scope of work items and have been ordered to be sequential or concurrent as best practical based on existing information. Task 4 has been added to support project development and other tasks have been provided (optional) for further or future support to the City. A detailed scope of work for each task and subtask follows this outline.

Task 1. Project Management and QA/QC

- 1.1 *Project Management and Internal Coordination*
- 1.2 *Project Schedule*
- 1.3 *Agency Coordination*
- 1.4 *Project Meetings*
- 1.5 *Progress Reporting/Invoicing*
- 1.6 *Quality Assurance/Quality Control*

Task 2. Data Collection and Review

- 2.1 *Background Research*
- 2.2 *Site Visit with City*
- 2.3 *Utility Potholing*
- 2.4 *Geotechnical Investigation*

Task 3. Topographic and Right of Way Survey

- 3.1 *Topographic Survey*
- 3.2 *Right of Way Survey*
- 3.3 *Legal Descriptions and Plats*

- Task 4. Community Outreach / Project Communication**
 - 4.1 *Community Outreach / Developer Coordination*
 - 4.2 *Community Outreach Program (Optional)*
- Task 5. Environmental Compliance and Permitting**
 - 5.1 *CEQA Project Description - Roundabout*
 - 5.2 *Resource Agency Permitting*
- Task 6. Preliminary Design / BOD Report**
 - 6.1 *Water Main Tech Memo*
 - 6.2 *BOD Report / 35% Plans, Quantities, and Estimate*
- Task 7. Water Main Design, Bid, and Construction**
 - 7.1 *60% PS&E Submittal – Water Main*
 - 7.2 *90% PS&E Submittal – Water Main*
 - 7.3 *Final Submittal – Water Main*
 - 7.4 *Water Main Project Ad/Bid Phase*
 - 7.5 *Water Main Project Construction Support*
- Task 8. Right of Way Support**
 - 8.1 *Identify Right of Way Needs*
 - 8.2 *ROW Appraisal and Acquisition Support*
 - 8.3 *Identify PG&E Easement Needs*
- Task 9. O/H Utility Relocation and Undergrounding/Rule 20B Coordination**
 - 9.1 *O/H Utility Relocation*
 - 9.2 *Utility Undergrounding Coordination*
- Task 10. Keiser Avenue Design**
 - 10.1 *60% PS&E Submittal – Keiser Avenue Reconstruction*
 - 10.2 *90% PS&E Submittal- Keiser Avenue Reconstruction*
 - 10.3 *Final PS&E Submittal- Keiser Avenue Reconstruction*
- Task 11. Construction Advertisement (Bid Phase)**
 - 11.1 *Keiser Avenue Project Ad/Bid Phase*
- Task 12. Construction Phase Support**
 - 12.1 *Keiser Avenue Project Construction Support*
 - 12.2 *Construction Management/Inspection (Optional)*

Each completed deliverable shall be delivered to the City of Rohnert Park, Development Services, at 130 Avram Avenue, Rohnert Park, CA 94928. All tasks and deliverables shall be completed or submitted in accordance with the included schedule. Consultant shall submit time and materials invoices monthly.

Below is a Detailed Scope of Work that describes the specific services, tasks, and deliverables to be completed by Consultant. Assumptions and exclusions related to the contract work are listed after the scope or services, or as applicable.

Though they are not anticipated, it is understood that this scope of work does not include any investigation or other services related to contaminated or hazardous materials. As an optional service, Consultant has local resources and the ability to assist with supplemental services in this area should the need arise.

III. DETAILED SCOPE OF WORK

Task 1. Project Management and QA/QC

Acting as an extension of City staff, management activities will consist of: project management and internal coordination, project schedule, agency coordination, project meetings, and quality assurance/quality control as stated in the following sub sections:

1.1 Project Management and Internal Coordination

Supervise, coordinate and monitor planning and design of the Project for conformance with standards and policies. The geometric standards will follow the most current City Standard Plans, Caltrans (English Unit) Highway Design Manual (HDM, current version), Caltrans 2015 (English Unit) Standard Plans, Caltrans 2015 (English Unit) Standard Specifications, and applicable City Standard Special Provisions or the current edition of these publications.

Consultant will include project management, predesign, design, permitting and coordination in order to deliver the project. Coordination will include active work with the University District developer and its consultants who will be designing and constructing Kerry Road extension and Keiser Avenue from Kerry Road to Petaluma Hill Road.

Coordinate the project with various Consultant functional groups to ensure timely delivery of qualified products. Consultant will utilize its standard core processes and implement a quality control procedure for design activities, perform in-house quality control reviews for major milestones, and submit project deliverables to the City for review in accordance with the approved schedule dates.

This task includes one (1) internal project kickoff meeting with key Consultant design team members. In preparation of the kickoff meeting, Consultant will prepare a Project Management Plan ("work plan") identifying all major tasks and key milestones, staff assignments and specifying roles and responsibilities of Consultant team members and the City.

It is understood that Bill Silva, P.E., will be the Project Manager and will be available for regular meetings at the City.

Deliverables

- Draft Project Management Plan (with draft work plan)
- Final Project Management Plan

Services Provided by City

- City will make arrangements for meeting room and meeting scheduling.
- City review by the various departments and divisions will be coordinated by City Design staff. Comments will be gathered and submitted to Consultant in one comment submittal package.

1.2 Project Schedule

Prepare a detailed Critical Path Method (CPM) schedule for the entire project (including the water line and roadway packages). Microsoft Project will be the software used for this task. Update the Microsoft Project CPM schedule, as a minimum on a monthly basis with the regular meetings or as needed and submit to the City. It is assumed that the awarded contractor will prepare a detailed construction schedule and Consultant will include a milestone schedule for "start" and "end" of construction.

Deliverables

- CPM schedule - one electronic PDF copy submitted via email.
- CPM schedule – monthly hardcopy updates.

1.3 Agency Coordination

Acting as an extension of City staff, actively manage and coordinate with the City, the City's right of way consultant, and involved agencies/stake holders to promote timely flow of information for each task activity. It is anticipated that the following City departments, outside agencies, and stakeholders are: City Public Works and Utilities, Sonoma County, PG&E/Utility Companies, CRPUSD, UD Developer/Engineers, and various regulatory agencies.

Consultant will be responsible for providing drafts of City Council or Planning Commission items necessary for accomplishing the project and will work with staff to carry these items through the approval process (e.g. City requires 3-weeks from the completion of a staff report in order to calendar an item for Council or Commission review).

Deliverables

- Meeting agenda and meeting notes will be prepared by Consultant and submitted to City for distribution. Meeting notes will be submitted within 10 working days of the meeting.
- Record of critical telephone communications will be provided by Consultant via email communication to City within 10 working days of the communication.
- As-needed meeting presentation materials and handouts will be provided by Consultant.

Services Provided by City

- Information regarding direct communication and documentation from City departments and outside agencies affecting the project design will be provided to Consultant via email and electronic documents (pdf)
- City will make arrangements for meeting room and meeting scheduling.
- City will provide consultant with access to its intranet (SharePoint) and this tool may available to the Keiser Avenue project team.

1.4 Project Meetings

Attend meetings such as project/design coordination meetings with the City and other design team members (20 meetings) and comment review sessions (5 meetings). The meetings will be held on regular monthly basis and as needed. Consultant assumes that the meetings will be held at the City offices. For purposes of the Fee Estimate, it is assumed that the Project Manager, the Project Engineer and up to two additional team members may be required to attend the meetings addressed under this task.

Deliverables

- Meeting agenda and meeting notes will be prepared by Consultant and submitted to City for distribution. Meeting notes will be submitted within 10 working days of the meeting.
- As-needed meeting presentation materials and handouts will be provided by Consultant.

Services Provided by City

- City will make arrangements for meeting room and meeting scheduling.

1.5 Progress Reporting/Invoicing

Prepare and submit monthly progress reports, including look-ahead schedule, with invoices in accordance with the City requirements. Control of project costs will be accomplished through a task-breakdown structure invoice format; data on each task will include current charges, to-date charges, estimated percent complete, and remaining balance – all by individual task. Budget will be monitored on a task level basis though final costs shall be based upon the time and materials (T&M) total project fee.

Deliverables

- Monthly progress and budget summary submitted electronically (email) with monthly (hard copy) invoice.

1.6 Quality Assurance/Quality Control

Consultant's senior staff will perform internal quality control review throughout the project life and the project QA manager will perform a quality assurance audit prior to major submittals to the City (per ISO 9001 Certification). Project Manager will be responsible for Quality Assurance. Matt Wargula will be responsible for overall Quality Control review and comment resolution within the GHD team. The QA/QC check plans and prints will be kept at the Consultant office and will be made available for review by the City.

Deliverables

Redlined review comment and response sheets

Task 2. Data Collection and Review

2.1 Background Research

This task will consist of data collection and review of activities, including assembling available information from the City and identifying additional data and information that is required to properly design the improvements. Consultant will request and review any readily available reports, studies, as-built/development plans from the City to identify roadway alignment, structural sections, other built features, right of way (ROW), near-term and future projects planned in the area and/or by the City and other pertinent information. This task will include coordination with the City and County staff to identify approval processes in the event purchase and development of land outside the City limits as required for the project.

Consultant will review all relevant previous studies, including historical traffic counts & other reports, such as UDSP EIR, NESP documents, General Plan EIR, PFFP, Storm Water Low Impact Development Technical Design Manual, Citywide Master Plans, and the Municipal Regional Permit. The Consultant shall rely on its own independent assessments and investigation, and not on information provided by the City.

2.2 Site Visit with City

Consultant will attend a project kick-off site visit with the City to review field conditions and develop a mutual understanding of the project design. Field investigations will be performed by Consultant engineers and coordinated with City staff to identify existing surface features, areas for improvements, potential alternatives, and photograph the site to serve as the basis for defining the constraints.

2.3 Utility Potholing

Consultant will review existing utility information and notify the City of potential conflicts with proposed improvements. For identified utility conflict locations, Consultant will propose those locations for potholing. The anticipated utilities to be considered include storm drain, sewer, water, recycled water, overhead and dry utilities (electric, u/g electric, communications, etc.). To collect data for the accurate design of these utilities, utility potholing is proposed to collect field verified subsurface information. For consideration, this task is highly recommended and it is anticipated that approximately **20 potholes** will be required for the project (all anticipated within or near Snyder Lane).

2.4 Geotechnical Investigation

Consultant will include review of readily-available geologic and geotechnical background information, including published maps, reports, construction drawings, and other documents available publically or supplied by the project team. Site reconnaissance will be performed to observe existing conditions, select locations for subsurface exploration, and pre-mark the site for utility location by Underground Service Alert as required. A follow-up reconnaissance will be performed to verify utility locations and finalize exploration and traffic control plans in order to acquire encroachment permits from the City of Rohnert Park.

Consultant will perform one day of subsurface exploration using truck-mounted drilling equipment to excavate approximately 10 to 12 shallow pavement cores to observe and document existing pavement sections and near surface soil conditions. Traffic control will be provided during the course of our exploration in accordance with our permit requirements which we anticipate to include signage and a single flag-man. We anticipate performing one core per 400- to 500-LF of roadway which should be appropriate for what we expect will be relatively uniform subsurface conditions. During our exploration, we will log existing pavement section thicknesses and collect bulk samples of the subgrade materials for material classification and laboratory determination of subgrade R-Value. We anticipate combining similar soil materials from several core locations into a single representative "composite" sample for laboratory analysis of R-Value and optimum soil/lime proportion testing.

Based on the results of our subsurface exploration and laboratory testing, we will perform engineering analyses in order to develop recommendations and design criteria for geotechnical facets of the project, which will be summarized in a brief letter report addressing the following:

- Summary of regional and local geologic conditions;
- Summary of existing pavement conditions (asphalt and baserock thicknesses);
- Summary of subsurface exploration and laboratory testing;
- Evaluation of relevant geologic hazards and conceptual mitigation measures;
- Recommendations for site preparation and grading, including discussion of excavation conditions for underground utilities and various pavement design section options for Keiser Avenue:
 - Conventional HMA and aggregate baserock sections for a range of Traffic Indexes (including a TI of 10)
 - Conventional HMA and aggregate baserock that are reinforced with geotextiles for a thinner section compared with an "unreinforced" section
 - Subgrade lime and/or cement treatment to improve expected low R-values at the site. We will discuss benefits of lime treatment if wintertime construction is desired;
- We will briefly discuss alternative pavement recycle-in-place strategies, although we expect the wider planned roadway and thin existing materials will not be conducive to these alternatives

on Keiser Avenue. *Snyder Lane* may be a candidate depending on the timing of the roundabout improvements.

- Recommendations for geotechnical site drainage and anticipated seasonal groundwater levels; and
- Recommendations for temporary or permanent paving on Snyder Lane depending on the timing of the roundabout improvements.
- Other geotechnical project components as needed.

Our letter report will also include a site plan and geologic map, summary of our field exploration and laboratory test data, and other plates and figures as needed to support our conclusions and recommendations.

Deliverables

- Draft Geotechnical Letter Report
- Final Geotechnical Letter Report

Services Provide by City

- Confirmation of Traffic Index for Keiser Avenue and Snyder Lane
- Participation in the preferred pavement section selection, if multiple viable options identified
- Confirmation of roundabout construction timing

Task 3. Topographic and Right of Way Survey

3.1 Topographic Survey

The topographic survey will be at a drawing scale of 1 inch = 20 feet, unless otherwise requested, with a one foot contour interval. The topographic survey will include the following:

- Topographic survey coverage area will begin at the intersection of Keiser Avenue and Petaluma Hill Road then head west along Keiser Avenue to the intersection with Snyder Lane. The width of the survey will be *10 feet north of the existing right of way* to 40 feet south of the existing edge of pavement. Cross sections will at intervals of approximately 50 feet. The frontage of buildings outside of this swath along Keiser Avenue will be surveyed for use in Rule 20 design and or driveway conform designs.
- Snyder Lane will mapped from the north side of the Hinebaugh Creek Bridge to the southerly side of the Crane Creek Keiser Avenue Reconstruction Bridge. Cross sections will at intervals of approximately 50 feet. Mapping will extend from apparent right of way to apparent right of way north of the Keiser Avenue intersection and face of curb to face of curb south of the Keiser Avenue intersection.
- Topographic survey will include mapping the proposed roundabout area and 25 feet beyond the proposed roundabout area, *including adjacent structures*.
- Topographic survey will include all necessary work to produce a topographic map, including features such as, but not limited to; building corners and elevations, curb lines, water meters, sewer cleanouts, valves, manholes (including rim, invert and pipe information), storm drainage structures, ditches, utility markings on the pavement, utility poles (with O/H line orientations), driveway and doorway locations, sidewalks, trees four (4) inches and larger, retaining wall or decorative walls, and any other pertinent information that could apply to the project during design.

- Topographic survey will be provided on North American Vertical Datum of 1988 as established by GPS observations.
- Topographic map to horizontally relate to the California Coordinate System of 1983, Zone II.
- Topographic survey will include underground utilities line work, including utility type and pipe size, based on record information and pothole data collected.
- Topographic survey will include pickup of potholing and boring locations
- Topographic map to horizontally A RIGHT OF WAY SURVEY IS PERFORMED UNDER TASK 3.2.

Deliverables

- Sealed hardcopy of Topographic Survey Map at 20 scale
- Autocad Civil 3D electronic "dwg" file

3.2 Right of Way Survey

- Consultant will assist with the right of way engineering to delineate the existing road right of ways throughout the project limits. This item will include the following:
- Perform the necessary boundary research to compile existing right of way data
- Draft record right of way based on existing record maps and found monumentation
- Label adjoining parcels with assessor parcel lines and street addresses.
- A Record of Survey is not currently scoped, however, due to the revision of right of ways along Snyder Lane and Keiser Avenue, including parcel lines between the City and the County, a Record of Survey is a *recommended* service. Two approaches to this include: file the record a survey after all the right of way acquisitions are done (show the final condition), or more preferably, show the resolved existing right of way, file the record of survey with the design centerline stationing on it, and then file the Record of Survey. It can then become a seamless base map for all legal descriptions and used for preparing the right of way acquisitions.

Services Provided by City

- Right of way lead, appraisal, acquisition services

3.3 Legal Descriptions and Plats

Consultant will prepare legal descriptions and plats for right of way acquisition. This proposal assumes that preparation of eight right of way acquisitions (i.e. partial acquisitions) and eight temporary construction easements will be needed.

- Assumes title reports will be provided by the City of Rohnert Park.

Task 4. Community Outreach / Project Communication

4.1 Community Outreach / Developer Coordination

This subtask includes baseline community outreach effort and is intended to cover minimum public outreach efforts for a project of this size. Consultant shall attend Council and Commission meetings for presentations and to report review findings. The Consultant will attend any public meetings, hearings, and community workshops regarding Environmental Documents and Engineering Design. Consultant shall respond to the public's concerns and questions during meetings. Consultant shall coordinate venues (e.g.

Community Center), presentations, and materials necessary for public meetings and workshops (2). It is anticipated that an initial workshop to communicate the project intent to the public and seek input would be held. Available information regarding driver awareness and training for roundabouts will be provided at the first workshop. A second workshop to provide feedback on meeting #1, incorporation of community input, and a project update would also be held.

Consultant will meet with individual owners where potential takes or easements (TCE or permanent) are required and discuss any areas where preferences can be inserted into the design. We will gather insights into drivers and motivations for the private property owners, middle school, and other users along the Keiser Avenue and Snyder Lane corridors.

Consultant will participate in workshops with adjacent developers and their engineer's to review the work scope for the City project and coordinate elements between the mutual projects. Scope includes up to 4 sessions with adjacent developers and related parties.

4.2 Community Outreach Program (Optional)

This subtask assumes the addition of a designated public outreach specialist and is intended to be a proactive and heightened level of public outreach that engages the community and stakeholders with a defined task and goal. The subtask describes the means and methods by which we will connect the community to the Keiser Avenue Reconstruction Project, which audiences need to be addressed, and the different techniques our team will employ to reach the audience. We will reach out to engage the community through emails, presentations to civic groups, a website dedicated to the project, and newspaper coverage when appropriate. We will also take advantage of the Farmer's market and store front displays to expand display coverage at key times.

We will be readily available to make scheduled presentation at key civic group meetings, including groups and locations such as Kiwanis, Rotary, the Senior Center, and Tomorrow's Leaders Today. In order to help avoid issues that might grow into unforeseen challenges, we will meet informally with key opinion makers and stakeholders to encourage a high level of dialogue.

Our team will aim to solicit responses from not only local residents, but individuals within the zip code, as well as tourists and visitors. We will use traveling display that will reside in locations such as the lobby of nearby coffee shops, stores, and the City Library. By concluding these week-long display sessions with open question and answer periods, our team will increase project awareness as well as gain insightful public feedback and participation.

With the City we will:

- Help the City establish a general policy before the project is complete in order to foster a transparent and traceable decision making process for the public;
- Identify an appropriate collection of educational and acceptance resources of a general nature;
- Implement widespread distribution of the resources using the media, websites, road maps etc.
- These information tools will be deployed through the Community Outreach process defined above, and will include question and answer periods with civic groups (Kiwanis, Rotary, Seniors Center, etc), interviews or feature stories in the local paper, and 1-2 Community-Wide Education Forums.

Task 5. Environmental Compliance and Permitting

5.1 CEQA Project Description - Roundabout

CEQA is understood to be covered under the University District EIR for the widening of Keiser Avenue and scope of utility improvements scoped in the two construction packages covered under this scope of work. For this subtask, GHD will prepare the project description for the future UDSP EIR Addendum consistent with the requirements of CEQA for the selected roundabout alternative from the BOD effort. This will include a description of modifications to Mitigation Measure TRA-4a, Install Traffic Signal at Snyder Lane/Keiser Avenue Intersection, and Mitigation Measure TRA-4b, Widen Keiser Avenue Westbound Approach, to include a roundabout instead of a traffic signal.

5.2 Resource Agency Permitting

The project is located within the Santa Rosa Plain and may effect habitat for CTS, a federally endangered and State threatened amphibian species. In addition, jurisdictional wetland features along Keiser Avenue will be impacted. Based on Figure 3 of the Santa Rosa Plain Conservation Strategy, the three endangered plant species on the Santa Rosa Plain are not anticipated to occur and no effect to listed plants is assumed.

Based on our understanding of the project, GHD anticipates the regulatory permits and approvals will be as follows:

- U.S. Army Corp of Engineers (USACE) – Section 404 Nationwide Permit (anticipated to be NWP 14, Linear Transportation Projects)
 - United States Fish and Wildlife Service (USFWS) - Section 7 Consultation
 - State Historic Preservation Officer (SHPO) - Section 106 Consultation (formal consultation not anticipated)
- North Coast Regional Water Quality Control Board (NCRWQCB) - 401 Water Quality Certification
- California Department of Fish and Wildlife (CDFW) - Section 2081 Incidental Take Permit

GHD will contact the resource agencies to verify the type of permit needed and to discuss any concerns the agencies may have with regard to the proposed project. Early consultation is important so that site-specific agency concerns can be identified and addressed during the design process. Applications should be submitted, at a minimum, 10 to 12 months prior to the expected start of construction.

In support of the application packages to the above agencies, the following reports will be prepared.

5.2.1 Wetland Delineation

GHD biologists and qualified wetland delineators will conduct a formal jurisdictional determination of the project site to identify and map existing jurisdictional waters of the US, including wetlands. The previously verified Preliminary Wetland Delineation for the Gee and School District properties will be used to supplement the Keiser Avenue Reconstruction Project delineation. The field effort and approach would follow the requirements of the USACE, including the routine determination methodology published in the 1987 Corps of Engineers Wetland Delineation Manual (1987 Manual), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.

GHD will prepare a Preliminary Wetland Delineation and report to be submitted to the City for review and subsequent submittal to USACE for verification. At the time the Preliminary Wetland Delineation is submitted, GHD also will request a pre-application review of the project. We have included one site visit with the USACE. We anticipate submitting the Preliminary Wetland Delineation prior to submitting the USACE Nationwide Permit application package.

5.2.2 Biological Resources Report

GHD will prepare a Biological Resources Report that includes a summary of preliminary investigations regarding biological resources within the project area and immediate vicinity (within 100-feet along project corridor). These investigations will compile: data found during a record search of the California Natural Diversity Database/Biogeographic Information and Observation System (CNDDDB/BIOS); a list of federal endangered and threatened species obtained from the U.S. Fish and Wildlife Service (USFWS); and a California Native Plant Society (CNPS) inventory for the project location. Finally, any relevant existing studies pertaining to the site will be reviewed, including the UDSP EIR.

GHD biology staff will conduct a reconnaissance level survey of biological and botanical resources within and immediately adjacent to the project area. While onsite, biologists will document species observed (flora and fauna) and conduct onsite vegetation community mapping. Conditions onsite will be outlined in the report and will be used to provide an assessment of the potential for occurrence of sensitive species. The report will include baseline data for CTS and listed plants, but protocol level surveys will not be performed.

5.2.3 Cultural Resources Report

In accordance with Mitigation Measure C-4a of the UDSP EIR, the project corridor will be surveyed to identify known archaeological sites. The Anthropological Studies Center at SSU, as part of the GHD Team, will conduct a review of records, maps and documents on file at the Northwest California Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, and publications and maps at the ASC. An archaeological field survey will be performed to identify and document archaeological resources with the project corridor. If any archaeological resources are found, they will be recorded. It is assumed that no more than three sites are found. A Cultural Resources Report will be prepared documenting the results of the research and field survey. This scope of work does not include a geoprobe investigation.

5.2.4 U.S. Army Corps of Engineers (Nationwide Permit and Section 7 Consultation)

A Corps Section 404 Nationwide Permit is anticipated to be required because the project may involve the placement of fill in jurisdictional waters of the U.S. It is anticipated that the project will qualify for a Nationwide Permit #14, Linear Transportation Projects. The wetland delineation will be the basis on which impacts on jurisdictional waters will be quantified and permitted under Sections 404 and 401 of the Clean Water Act. As noted above, when the Preliminary Wetland Delineation is submitted, GHD also will request a pre-application review of the project to facilitate the review and processing of the permit application when submitted. The pre-application review will be based on the 35% conceptual design. Consultation with the USFWS is anticipated, which will be supported by the Biological Resources Report. Although the USACE will require information regarding cultural resources and consultation with the tribes, formal consultation with SHPO is not anticipated.

GHD staff will prepare a complete USACE application package for review by the City and subsequent submittal to the USACE. The Biological Resources Report and Cultural Resources Report will be included in the package. GHD will submit the application based on the 60% design and include a contingency for

impacts in the event impacts increase from 60% to 90% design. GHD has included up to 25 hours of follow-up coordination with the USACE.

5.2.5 North Coast Regional Water Quality Control Board (401 Water Quality Certification)

A NCRWQCB Section 401 Water Quality Certification will be required because the project is anticipated to involve the placement of fill in waters of the State and the U.S. The Certification supports the approval of the USACE's Nationwide Permit.

GHD staff will prepare a complete NCRWQCB permit package for review by the City and subsequent submittal to the NCRWQCB. This package will include the Biological Resources Study, Wetland Delineation, and the UDSP EIR Notice of Determination (assumed to be provided by the City). The application package will require compliance with SWRCB MS4 Permit requirements. The project scope of work includes the design of LID improvements per the City adopted Santa Rosa/Sonoma County Low Impact Development Technical Design Manual. A filing fee, to be provided by the City, will be required with submittal of the application. GHD has included up to 25 hours of follow-up coordination with the NCRWQCB.

5.2.6 California Department of Fish and Wildlife (Incidental Take)

It is anticipated that the City will be required to apply for an Incidental Take Permit (ITP) from the CDFW to authorize potential impacts on CTS pursuant to Sections 2081(b) and (c) of the CESA. The GHD team will prepare the ITP application that describes the project impacts and mitigation. The Biological Resources Study prepared under Task 5.2, will be revised to meet the needs of the CDFW Section 2081 Incidental Take Permit.

GHD staff will prepare a complete CDFW Incidental Take permit package for review by the City and subsequent submittal to the CDFW. GHD has included up to 25 hours of follow-up coordination with the CDFW.

Deliverables

- Draft and Final Preliminary Wetland Delineation
- Draft and Final Biological Assessment
- Draft and Final Cultural Resources Report
- Draft and Final USACE Application Package
- Draft and Final NCRWQCB Application Package
- Draft and Final CDFW Application Package

Assumptions

The following assumptions were made in preparation of the environmental scope:

1. Impacts to wetlands will not exceed 0.5 acre, which would trigger an Individual U.S. Army Corps Permit.
2. Preliminary delineation prepared for Gee and School District properties is available (Ted Winfield; Brookfield).
3. Agencies will agree that Keiser Avenue Reconstruction Project is separate from improvements being made to the east portion of Keiser Avenue, and they are of separate utility.

4. USFW is expected to re-issue a CTS Biological Opinion in the coming months. Our scope and fee assumes that the survey and documentation protocols will not substantially change.
5. CTS protocol surveys will not be required.
6. CDFW will not take jurisdiction over the roadside ditches.
7. Mitigation will be provided through purchase of credits at a Mitigation bank.
8. Field investigations will not result in any new impacts not previously identified in the UDSP EIR or General Plan EIR.
9. Geoprobe investigation for cultural resources will not be necessary.
10. Tribal consultation will be performed by the City
11. Filing fees will be paid for by the City.

Task 6. Preliminary Design / BOD Report

6.1 Water Main Tech Memo

Consultant will prepare a technical memorandum to review, evaluate, and summarize the design elements for the water main project. Project elements such as diameter, material type, location, and other considerations. Findings from technical memorandum will provide basis of design for the water main within Keiser Avenue.

6.2 BOD Report / 35% Plans, Quantities, and Estimate

Consultant will prepare an alternatives analysis for up to three roundabout concepts and alignments. Based upon collective feedback from the team and City, a preferred alternative will be selected for further development. It is anticipated that the concepts will include at least one version with a roundabout at the entrance to the middle school. GHD will provide a conceptual layout based on the preferred alternative, including enhancement measures such as illuminations, signing, and striping. The concept will establish horizontal control and geometric elements including curb and sidewalk geometry, lane widths, channelization, lane transitions, pavement markings, and conform conditions including typical sections and dimensions for each leg, the roundabout circulatory roadway, and center island. Initial horizontal alignments will be provided for wet and dry utilities throughout the project limits, including preliminary points of connection and discharge.

For the roundabout, exhibits will be prepared showing the fast paths, decision sight distances, approach view angles, bus and truck turns through the roundabout.

Based upon feedback on the Concept Plan, GHD will prepare a Basis of Design (BOD) Report that incorporates the results of the topographical and permitting surveys, the geotechnical report and all preliminary utility sizing analysis. The purpose of this task is to review available documents for the assessment and design of utilities within the project limits. **It is understood that the initial program is to replace utilities in conflict, if needed, and extend/install water, sewer and storm drain. This task will seek to determine the appropriate utilities are installed that may need replacement within the project service life or near term.**

Consultant will review the various documents listed and other pertinent planning documents provided by the City during the project. Review of reference documents, together with the analysis described below – will provide a basis for conclusions.

The following list includes documents that are anticipated for use/reference:

- FEMA-updated Flood Insurance Rate Map (FIRM) for the 100-year floodplain
- City GIS / Utility Inventory Mapping
- City Utility System Master Plans
- Pending/ongoing development plans (ie. Affordable Housing, Brookfield, etc.)
- City General Plan and PFFP
- City of Rohnert Park Design and Construction Standards; and
- Sonoma County Storm Water Low Impact Development Technical Manual

From the findings of the research above and direction from the City, Consultant would review potential utility replacements within the study area that are undersized based on previous analysis, performance, or not meeting City minimum standard diameters, will be replaced within the project limits. Similarly, utilities that are beyond their design life (over 50 years of service assumed) or are made from materials that are no longer installed (i.e. ACP) will be considered for replacement. As such, a condition assessment is not proposed on those utilities. An optional condition assessment of existing utility infrastructure within the project area could be performed. Note: Utility system assessment of existing utilities located outside of the study area based on the review of existing documents alone may not capture system deficiencies that are solely based on corroded, structurally-deficient, or otherwise damaged portions of the utility.

As an option, Consultant could conduct a condition assessment of the remaining existing sewer, water and storm drain utilities inside the project area. Assessment would include CCTV inspection for sewer and storm drain gravity lines. Limited potholing and feedback from the City's utility staff is proposed for baseline condition assessment for the water system.

As an option, hydraulic analysis for each utility will be performed as applicable and if desired by the City. The primary assumption for each utility is that Masterplans will be used for sizing of the utilities to be replaced. If performed, the following outlines the basic approach for hydraulic analysis for each utility. Note: The analysis may not necessitate hydraulic modeling, but rather, review and refinement of previous recommendations within the study area.

General Plan build out scenario will be used as an assumption for modeling. Modeling will be limited to those that affect the pipes in the project area. Flow monitoring will be performed to establish the base flow and the impacts of I&I on peak flows through the project area.

GHD will provide the traffic analysis regarding the effectiveness of the revised mitigation measures in mitigating Impact TRA-4 of the UDSP EIR to less than significant. The traffic analysis will utilize the traffic volumes developed as part of the University District Specific Plan EIR and supplement with any other recent data available. The study will quantify the LOS, delay and queueing for the traffic signal (mitigation as noted in the EIR) to a roundabout alternative. The traffic analysis will support the development of roundabout alternatives developed at preliminary design level for the Basis of Design Report. Up to 3 alternatives are anticipated.

The Basis of Design Report will confirm the layout, right-of-way and permitting needs for the project as well as the design structural section and any other details that impact project design and implementation.

The Basis of Design Report will include an updated project schedule and any recommendations the consultant has on bid packaging or scheduling. It is anticipated that a separate package to construct the wet utilities ahead of the full surface improvements will facilitate schedule goals and ensure a fire water supply for the affordable apartment complex.

Along with the BOD, the Consultant will prepare 35% plans to submit for review by the City. The plans will be presented in 1"=20' scale plots. The anticipated plan sheets for the 35% level submittal are shown below. In summary, the plans will include concept level design of demolition, utilities, complete streets surface improvements, traffic signals, signing and striping, and proposed landscaping and storm water treatment locations. The project stationing line location will be established and will span the length of the corridor. The stationing values will be placed so stationing increases from south to north and west to east.

The project requires the design of a road widening and redevelopment/reconstruction of the corridor. The infrastructure is intended to improve traffic circulation, safety, and connectivity, while providing undergrounding and comprehensive utility improvements.

Consultant will work closely with PG&E during concept design to review joint trench needs, design preferences, and underground limits, for integration into the concept design.

It is anticipated that this project will need to comply with the storm water management requirements of the Storm Water Low Impact Development Technical Design Manual developed by the City of Santa Rosa and County of Sonoma, as related to the MS4 Permit.

After the 35% submittal, the submittal packages will be split into the Keiser Water Main Project and the Keiser Road Reconstruction Project.

Consultant anticipates submitting the following plan sheets as part of the 35% submittal:

Sheet Description

- Title Sheet & General Notes
- Typical Sections
- Construction Details (call outs and partial plans)
- Layout Sheets (Demolition, Utility, Surface Improvements, Traffic Signing and Striping, Landscape and LID locations, identify ROW needs, if any)
- Cross Sections

Consultant anticipates that the City staff will review the 35% contract documents and provide their responses back to Consultant in 2 weeks.

Consultant will prepare plans using AutoCAD C3D 2016.

Traffic services will include evaluation of the auxiliary lanes to determine value of construction phasing or initial implementation.

Conceptual (35%) plans will be prepared showing the striping layout for the entire length of the project, including appropriate tapers, recommended locations for pedestrian crossings, and conformance with existing striping. New signing will be indicated as appropriate for this level of design. The level of detail to be included will be sufficient for decision-making and cost-estimating.

Consultant will identify quantities and prepare an associated 35% level probable construction cost. Because some elements may not be fully identified at this stage, the estimate for this item will be developed based on anticipated final facilities. Unit costs will be based on upon existing Consultant cost data and information provided by the City for recent project bid results.

Deliverables

- Draft Basis of Design Report

- 35% plan set, project quantities, and cost estimate (four hardcopy full size sets) and electronic submittal (PDF)
- Final Basis of Design Report
- Collect comments and develop comment matrix

Services Provided by City

- Provide comments on BOD Reports and 35% PQ&E
- Recent City project bid results for similar work

Task 7. Water Main Design, Bid, and Construction

7.1 60% PS&E Submittal – Water Main

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, traffic, and environmental groups. In the budget analysis for the remainder of design efforts, GHD identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing
- Quantity Calculation
- Cost Estimation

Consultant will prepare 60% PS&E that will reflect responses to the 35% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant anticipates that the 60% plan set will include plan sheets such as Title Sheet, Typical Section, Utility Plan and Profile, Construction Details, Layouts, Grading and Paving, and Civil Details. The plan and profile drawings will include profiles of the proposed centerline. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets as part of the 60% submittal:

Sheet	Description
G-001	Title Sheet
G-002	Sheet Index/Key Map
G-003	Notes, Abbreviations and Legend 2
G-004	Notes, Abbreviations and Legend 2
G-005	Survey Control Diagram
G-006	Pothole Schedule
G-007	Geotechnical Borings
G-008	Typical Sections
U-101	Utility Plan & Profile 1

U-102	Utility Plan & Profile 2
U-103	Utility Plan & Profile 3
U-104	Utility Plan & Profile 4
U-105	Utility Plan & Profile 5
U-106	Utility Plan & Profile 6
U-107	Utility Plan & Profile 7
U-108	Water Connection Plan 1
U-109	Water Connection Plan 2
C-101	Keiser Ave Grading and Paving Plan 1
C-102	Keiser Ave Grading and Paving Plan 2
C-103	Keiser Ave Grading and Paving Plan 3
C-104	Keiser Ave Grading and Paving Plan 4
C-105	Keiser Ave Grading and Paving Plan 5
C-106	Keiser Ave Grading and Paving Plan 6
C-107	Keiser Ave Grading and Paving Plan 7
C-501	Civil Details 1
C-502	Civil Details 2
C-503	Civil Details 3

Consultant anticipates that the City staff will review the 60% contract documents and provide the responses back to Consultant in 2 weeks.

7.1.1 Prepare 60% Plans

Consultant will prepare plans using AutoCAD C3D 2016.

7.1.2 Prepare 60% Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

7.1.3 Prepare 60% level estimated probable construction cost

Consultant will prepare a 60% level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

7.1.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- 60% PS&E – Water Main (three full size hard copy sets)

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.

- City will provide example project technical specifications from a previous project for reference and format

7.2 90% PS&E Submittal – Water Main

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, traffic, and environmental groups. In the budget analysis for the remainder of design efforts, GHD identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing
- Quantity Calculation
- Cost Estimation

Consultant will prepare 90% PS&E that will reflect responses to the 60% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant anticipates that the 90% plan set will include plan sheets such as Title Sheet, Typical Section, Utility Plan and Profile, Construction Details, Layouts, Grading and Paving, and Civil Details. The plan and profile drawings will include profiles of the proposed centerline. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets as part of the 90% submittal:

Sheet	Description
G-001	Title Sheet
G-002	Sheet Index/Key Map
G-003	Notes, Abbreviations and Legend 2
G-004	Notes, Abbreviations and Legend 2
G-005	Survey Control Diagram
G-006	Pothole Schedule
G-007	Geotechnical Borings
G-008	Typical Sections
U-101	Utility Plan & Profile 1
U-102	Utility Plan & Profile 2
U-103	Utility Plan & Profile 3
U-104	Utility Plan & Profile 4
U-105	Utility Plan & Profile 5
U-106	Utility Plan & Profile 6
U-107	Utility Plan & Profile 7
U-108	Water Connection Plan 1
U-109	Water Connection Plan 2
C-101	Keiser Ave Grading and Paving Plan 1

C-102	Keiser Ave Grading and Paving Plan 2
C-103	Keiser Ave Grading and Paving Plan 3
C-104	Keiser Ave Grading and Paving Plan 4
C-105	Keiser Ave Grading and Paving Plan 5
C-106	Keiser Ave Grading and Paving Plan 6
C-107	Keiser Ave Grading and Paving Plan 7
C-501	Civil Details 1
C-502	Civil Details 2
C-503	Civil Details 3

Consultant anticipates that the City staff will review the 90% contract documents and provide the responses back to Consultant in 2 weeks.

7.2.1 Prepare 90% Plans

Consultant will prepare plans using AutoCAD C3D 2016.

7.2.2 Prepare 90% Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

7.2.3 Prepare 90% level estimated probable construction cost

Consultant will prepare a 90% level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

7.2.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- 90% PS&E – Water Main (three full size hard copy sets)

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.
- City will provide example project technical specifications from a previous project for reference and format

7.3 Final Submittal – Water Main

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, traffic, and environmental groups. In the budget analysis for the reminder of design efforts, GHD identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing

- Quantity Calculation
- Cost Estimation

Consultant will prepare Final PS&E that will reflect responses to the 90% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant anticipates that the Final plan set will include plan sheets such as Title Sheet, Typical Section, Utility Plan and Profile, Construction Details, Layouts, Grading and Paving, and Civil Details. The plan and profile drawings will include profiles of the proposed centerline. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets as part of the Final submittal:

Sheet Description – see 90% submittal scope above

7.3.1 Prepare Final Plans

Consultant will prepare plans using AutoCAD C3D 2016.

7.3.2 Prepare Final Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

7.3.3 Prepare final level estimated probable construction cost

Consultant will prepare a final level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

7.3.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- Final PS&E – Water Main (three full size hard copy sets)
- RE Folder

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.
- City will provide example project technical specifications from a previous project for reference and format

7.4 Water Main Project Ad/Bid Phase

Consultant will provide design and project coordination support during project advertisement by answering contractor inquiries and preparing any addendums that may be required.

7.4.1 Attend Pre-Bid meeting

Consultant will attend a prebid meeting if requested by City.

7.4.2 Respond to Technical Inquiries during Bidding

Consultant will review and respond to technical questions forwarded from the City during bid phase.

7.4.3 Prepare Addenda

Consultant will prepare and keep records of necessary addendum and modifications for City issuance. For purpose of the Fee Estimate, it is estimated that one (1) addendum will be prepared.

Deliverables

- Responses to RFIs
- Addenda
- Questions from bidders will be directed to GHD

Services Provided by City

- Pay for reproduction of Contract Documents for Plan Holders during bid phase
- Sample addendum format will be provided to Consultant
- Participate in advertisement and bid opening
- Attend pre-bid meeting, if any

7.5 Water Main Project Construction Support

Consultant will address submittal and shop drawing reviews, and respond to RFIs. Consultant will prepare technical bulletins during construction to supplement the plan information if needed. This task will be to coordinate and manage RFI evaluation and response process for those RFIs that are handled by Consultant including: log, transmit to design engineer for response, coordinate with design engineer on field status, track progress, review response, and transmit response to City Resident Engineer. For purposes of the Fee Estimate, it is estimated that the following deliverables will be included.

Deliverables

- Attend pre-construction meeting
- Review submittals and shop drawings (5)
- Respond to RFIs (10)
- Technical Bulletins (1)
- Assistance with Construction Contract Change Orders (1)
- RFI log (optional)

Task 8. Right of Way Support

8.1 Identify Right of Way Needs

Consultant will confirm the right-of-way needs through development of the project plans and associated perimeter improvements. Consultant is expected to coordinate closely with the City Consultant, including development of plats and legals (separate task), for completion of right-of-way acquisition and easement procurement.

8.2 ROW Appraisal and Acquisition Support

Consultant will coordinate with and manage the City right of way consultant to help maintain the right of way appraisal and acquisition schedule. This proposal assumes that preparation of eight right of way acquisitions (i.e. partial acquisitions) and eight temporary construction easements will be needed.

It is anticipated that appraisals will be completed in accordance with California Eminent Domain Law, California Government Code Section 7260 et seq., and the Uniform Standards of Professional Appraisal Practice (USPAP). The definition of "Fair Market Value" of the appraised property will be per the California Code of Civil Procedure, Section 1263.320. It is assumed no significant severance damages will need to be analyzed in the appraisal process. For purposes of schedule and scoping, it is understood that condemnation will not be required for acquisition of any property for the project.

8.3 Identify PG&E Easement Needs

Consultant will confirm the easement needs for PG&E (O/H and or utility undergrounding) through development of the project plans and associated perimeter improvements. Consultant is expected to coordinate closely with the City Consultant, including development of plats and legals (separate task), for completion of right-of-way acquisition and easement procurement.

Task 9. O/H Utility Relocation and Undergrounding/Rule 20B Coordination

It is assumed that the existing overhead utilities on the south side of Keiser Avenue can be relocated to the north as overhead utilities (i.e. no undergrounding). The following scope of services confirms this assumption and focuses on prioritization of utility provider coordination to best ensure that the Water Main and Keiser Avenue projects are delivered on schedule. Task 9.2 works closely with the preliminary design of the roundabout and utility providers to determine the undergrounding needs along Snyder Lane and Keiser Avenue for the future configuration, planned for 2021 construction.

9.1 O/H Utility Relocation

Consultant will coordinate with PG&E and related utility providers to relocate the existing overhead utilities located on the south side of Keiser Avenue from Snyder to approximately future Kerry Road location. These overhead lines bring electricity, telephone, and cable/communications from Snyder Lane to the few residents located on the north side of Keiser Lane.

9.2 Utility Undergrounding Coordination

Keiser Avenue and Snyder Lane (at roundabout transition) will involve the underground relocation of existing overhead utility lines (at a minimum at the roundabout) which include electrical distribution lines,

telephone, data, and cable TV for joint utilities under Rule 20B. In preparation for this pending effort (i.e. for roundabout and Snyder Lane Widening Phase 2 completion) coordination of undergrounding with PG&E is programmed in this task. It is understood that funding for this process will be through private funds, not PG&E (i.e. not Rule 20A). Since undergrounding is a long lead item, this will be an early coordination item, though it is understood to be a lower priority task than completion of the Water Main and Keiser Avenue Construction Projects ("Project").

Consultant will coordinate and utilize information and contacts established during preliminary design to assist PG&E with the information needed in the preparation of coordinated JT plans for utility undergrounding. Steps anticipated by PG&E during this phase that may require input, plan information, and coordination include the following:

- Intent Process with the utilities and other potential joint trench occupants
- Obtain design requirements and material/construction specifications from the confirmed joint trench occupants and other coordination with confirmed joint trench occupants as needed
- Define the size and quantity of conduits each utility company desires
- Define preferred position of utility undergrounding trench
- Define typical section of the utility undergrounding trench
- Establish priority for vault position along the joint trench
- Define specific service delivery points
- Determine if gas distribution will be relocated to joint trench/involved
- Coordinate development of the utility composite drawings
- Establish preliminary estimate of probable construction cost
- Establish the schedule for utility companies to commit to funding and approve their portion of the facilities
- Develop plan for temporary utility services
- Develop strategies for construction staging
- Develop strategy for cutover of individual services
- Assist with establishment of the JT cost sharing formula to be used in this project and gain agreement with the confirmed joint trench occupants
- Monitor the design and cost estimating processes and assist in preparation of the "Form B" of joint trench cost allocation to the confirmed joint trench occupants
- Prepare, distribute and receive authorization forms to construct from confirmed joint trench occupants
- Attend Monthly Meetings (12) – Project Manager

Task 10. Keiser Avenue Design

10.1 60% PS&E Submittal – Keiser Avenue Reconstruction

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, electrical, traffic, and environmental groups. In the budget analysis for the remainder of design efforts, Consultant identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing

- Quantity Calculation
- Cost Estimation

Consultant will prepare 90% PS&E that will reflect responses to the 60% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant staff will perform a site visit and note any existing drainage patterns along the length of the project segment. Consultant shall seek to collect surface runoff and convey it to existing drainage systems and/or newly constructed LID compliant facilities.

This project will need to comply with the storm water management requirements of the LID Guidelines. To meet the LID Guidelines, Consultant will:

- Evaluate the impacts of the project footprint; quantifying the area, the slopes, and the changed land cover.
- Prepare a Storm Water Pollution Prevention Plan; draft and final plans will be prepared and submitted to the City for review and approval.

Consultant anticipates that the 60% plan set will include plan sheets such as Title Sheet, Typical Section, Construction Details, Layouts (showing additional R/W needs, profiles, grading, drainage including LID facilities), Traffic Striping, Traffic Signs, Electrical/Lighting, Landscape Plans, Irrigation and Cross Sections. The plan and profile drawings will include profiles of the proposed centerline, median and curb profiles. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets (at partial completion) as part of the 60% submittal:

Sheet	Description
G-001	Title Sheet
G-002	Sheet Index/Key Map
G-003	Notes, Abbreviations and Legend 2
G-004	Notes, Abbreviations and Legend 2
G-005	Survey Control Diagram
G-006	Pothole Schedule
G-007	Geotechnical Borings
G-008	Typical Sections
D-101/4	Keiser Ave Demolition Plan 1-4
D-105	Snyder Lane Demolition Plan 1
U-101/9	Utility Plan & Profile 1-9
C-101/7	Keiser Ave Improvement Plan & Profile 1-7
C-108/111	Snyder Lane Improvement Plan & Profile 1-4
C-201/7	Keiser Ave Grading and Paving Plan 1-7
C-208/211	Snyder Lane Improvement Grading and Paving Plan 1-4
C-301/4	Keiser Ave Cross Sections 1-4
C-305/7	Snyder Lane Sections 1-3

C-401	Civil Grading Details 1
C-402	Civil Grading Details 2
C-403	Civil Grading Details 3
C-501/8	Civil Details 1-8
S-001	Structural Abbreviations, Notes
S-002	General Notes
S-101	Structural Plan
S-501	Structural Details
E-101/4	Keiser Ave Electrical Plan 1-4
E-105	Snyder Lane Electrical Plan 1
L-001	Landscape and Irrigation Notes
L-101/4	Keiser Ave Landscape Plan 1-4
L-105	Snyder Lane Landscape Plan 1
L-106/9	Keiser Ave Irrigation Plan 1-4
L-110	Snyder Lane Irrigation Plan 1
S-101/4	Keiser Ave Striping and Signing Plan 1-4
S-105	Snyder Lane Signing and Signing Plan 1

Consultant anticipates that the City staff will review the 60% contract documents and provide the responses back to Consultant in 3 weeks.

10.1.1 Prepare 60% Plans

Consultant will prepare plans using AutoCAD C3D 2016.

10.1.2 Prepare 60% Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

10.1.3 Prepare 60% level estimated probable construction cost

Consultant will prepare a 60% level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

10.1.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- 60% PS&E - Keiser Avenue Reconstruction (three full size hard copy sets)

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.
- City will provide example project technical specifications from a previous project for reference and format

10.2 90% PS&E Submittal- Keiser Avenue Reconstruction

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, electrical, traffic, and environmental groups. In the budget analysis for the remainder of design efforts, Consultant identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing
- Quantity Calculation
- Cost Estimation

Consultant will prepare 90% PS&E that will reflect responses to the 60% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant staff will perform a site visit and note any existing drainage patterns along the length of the project segment. Consultant shall seek to collect surface runoff and convey it to existing drainage systems and/or newly constructed LID compliant facilities.

This project will need to comply with the storm water management requirements of the LID Guidelines. To meet the LID Guidelines, Consultant will:

- Evaluate the impacts of the project footprint; quantifying the area, the slopes, and the changed land cover.
- Prepare a Storm Water Pollution Prevention Plan; draft and final plans will be prepared and submitted to the City for review and approval.

Consultant anticipates that the 90% plan set will include plan sheets such as Title Sheet, Typical Section, Construction Details, Layouts (showing additional R/W needs, profiles, grading, drainage including LID facilities), Traffic Striping, Traffic Signs, Electrical/Lighting, Structural, Landscape Plans, Irrigation and Cross Sections. The plan and profile drawings will include profiles of the proposed centerline, median and curb profiles. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets as part of the 90% submittal

Sheet	Description
G-001	Title Sheet
G-002	Sheet Index/Key Map
G-003	Notes, Abbreviations and Legend 2
G-004	Notes, Abbreviations and Legend 2
G-005	Survey Control Diagram
G-006	Pothole Schedule
G-007	Geotechnical Borings
G-008	Typical Sections
D-101/4	Keiser Ave Demolition Plan 1-4
D-105	Snyder Lane Demolition Plan 1
U-101/9	Utility Plan & Profile 1-9

C-101/7	Keiser Ave Improvement Plan & Profile 1-7
C-108/111	Snyder Lane Improvement Plan & Profile 1-4
C-201/7	Keiser Ave Grading and Paving Plan 1-7
C-208/211	Snyder Lane Improvement Grading and Paving Plan 1-4
C-301/4	Keiser Ave Cross Sections 1-4
C-305/7	Snyder Lane Sections 1-3
C-401	Civil Grading Details 1
C-402	Civil Grading Details 2
C-403	Civil Grading Details 3
C-501/8	Civil Details 1-8
S-001	Structural Abbreviations, Notes
S-002	General Notes
S-101	Structural Plan
S-501	Structural Details
E-101/4	Keiser Ave Electrical Plan 1-4
E-105	Snyder Lane Electrical Plan 1
L-001	Landscape and Irrigation Notes
L-101/4	Keiser Ave Landscape Plan 1-4
L-105	Snyder Lane Landscape Plan 1
L-106/9	Keiser Ave Irrigation Plan 1-4
L-110	Snyder Lane Irrigation Plan 1
S-101/4	Keiser Ave Striping and Signing Plan 1-4
S-105	Snyder Lane Signing and Signing Plan 1

Consultant anticipates that the City staff will review the 90% contract documents and provide the responses back to Consultant in 3 weeks.

10.2.1 Prepare 90% Plans

Consultant will prepare plans using AutoCAD C3D 2016.

10.2.2 Prepare 90% Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

10.2.3 Prepare 90% level estimated probable construction cost

Consultant will prepare a 90% level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

10.2.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- 90% PS&E - Keiser Avenue Reconstruction (three full size hard copy sets)

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.
- City will provide example project technical specifications from a previous project for reference and format

10.3 Final PS&E Submittal- Keiser Avenue Reconstruction

The major disciplines that will be involved in Consultant's design efforts will be the civil, survey, hydraulic, utility, electrical, traffic, structural, and environmental groups. In the budget analysis for the reminder of design efforts, Consultant identified the following four tasks involving the disciplines noted above:

- Plan Preparation
- Specification Writing
- Quantity Calculation
- Cost Estimation

Consultant will prepare Final PS&E that will reflect responses to the 90% plan set and also include various refined/additional contract details. Consultant will also provide the City with a set of draft project special provisions that will address issues such as materials specification, testing requirements, how each item will be measured and paid for, etc. Consultant expects that the City will provide a City Special Provisions standard boiler plate that also includes the front end portion of the specifications.

Consultant staff will perform a site visit and note any existing drainage patterns along the length of the project segment. Consultant shall seek to collect surface runoff and convey it to existing drainage systems and/or newly constructed LID compliant facilities.

This project will need to comply with the storm water management requirements of the LID Guidelines. To meet the LID Guidelines, Consultant will:

- Evaluate the impacts of the project footprint; quantifying the area, the slopes, and the changed land cover.
- Prepare a Storm Water Pollution Prevention Plan; draft and final plans will be prepared and submitted to the City for review and approval.

Consultant anticipates that the final plan set will include plan sheets such as Title Sheet, Typical Section, Construction Details, Layouts (showing additional R/W needs, profiles, grading, drainage including LID facilities), Traffic Striping, Traffic Signs, Electrical/Lighting, Structural, Landscape Plans, Irrigation and Cross Sections. The plan and profile drawings will include profiles of the proposed centerline, median and curb profiles. This submittal will also include Draft Special Provisions and Engineer's estimate. Consultant construction staff will perform a constructability review prior to the submittal.

Consultant anticipates the following tentative plan sheets as part of the Final submittal:

Sheet Description – see 90% Submittal – Keiser Avenue above

10.3.1 Prepare Final Plans

Consultant will prepare plans using AutoCAD C3D 2016.

10.3.2 Prepare Final Special Provisions

Consultant will prepare the project specifications in City ("Caltrans-style") format.

10.3.3 Prepare Final level estimated probable construction cost

Consultant will prepare a Final level estimated probable construction cost. For any elements that are not fully developed at this stage, the estimate for those items will be "assigned" based on similar facilities.

10.3.4 Perform Constructability Review

Consultant will perform a constructability review utilizing in-house Construction Management staff inspectors or engineers.

Deliverables

- Final PS&E - Keiser Avenue Reconstruction (three full size hard copy sets)
- RE Folder

Services Provided by City

- City will provide one comment package to Consultant.
- City will provide boilerplate specifications to use for "front end" and special provisions format in electronic (Microsoft WORD) format.
- City will provide example project technical specifications from a previous project for reference and format

Task 11. Construction Advertisement (Bid Phase)

11.1 Keiser Avenue Project Ad/Bid Phase

Consultant will provide design and project coordination support during project advertisement by answering contractor inquiries and preparing any addendums that may be required.

11.1.1 Attend Pre-Bid meeting

Consultant will attend a prebid meeting if requested by City.

11.1.2 Respond to Technical Inquiries during Bidding

Consultant will review and respond to technical questions forwarded from the City during bid phase.

11.1.3 Prepare Addenda

Consultant will prepare and keep records of necessary addendum and modifications for City issuance. For purpose of the Fee Estimate, it is estimated that two (2) addenda will be prepared.

Deliverables

- Responses to RFIs

- Addenda
- Questions from bidders will be directed to GHD

Services Provided by City

- Pay for reproduction of Contract Documents for Plan Holders during bid phase
- Sample addendum format will be provided to Consultant
- Participate in advertisement and bid opening.
- Attend pre-bid meeting, if any.

Task 12. Construction Phase Support

12.1 Keiser Avenue Project Construction Support

Consultant will address submittal and shop drawing reviews, and respond to RFIs. Consultant will prepare technical bulletins during construction to supplement the plan information if needed. This task will be to coordinate and manage RFI evaluation and response process for those RFIs that are handled by Consultant including: log, transmit to design engineer for response, coordinate with design engineer on field status, track progress, review response, and transmit response to City Resident Engineer. For purposes of the Fee Estimate, it is estimated that the following deliverables will be included.

Deliverables

- Attend pre-construction meeting
- Review submittals and shop drawings (15)
- Respond to RFIs (50)
- Technical Bulletins (3)
- Assistance with Construction Contract Change Orders (5)
- RFI log (optional)

12.2 Construction Management/Inspection (Optional)

[illegible]



EXHIBIT "B"

FEE SCHEDULE *

(July 2015)

Project Principal	\$ 210-260
Senior Professional	175-240
Professional	145-175
Principal Technical Officer	125-160
Senior Technical Officer	120-140
Drafter	100-140
Senior Administrative Officer	110-175
Administrative Officer	90-115
Senior Service Group Support	120-180
Service Group Support	90-115
Construction Manager	160-210
Senior Site Engineer	140-200
Site Engineer	120-165
Senior Inspector	115-160
Inspector	110-145
Surveyor	115-180

Employee time will be billed in accordance with the fees listed above. These rates are subject to change on a semi-annual basis. For other than professional employees, time spent over 8 hours per day, time spent on swing shifts, and time spent on Saturdays will be charged at 1.5 times the hourly billing rate. Work on Sundays will be charged at 2.0 times the hourly billing rate and holiday work will be charged at 2.5 times the hourly billing rate. All field personnel charges are portal to portal. Professional employees will not be charged out at premium charge rates for overtime work.

Expenses and other similar project related costs are billed out at cost plus 15%. The cost of using equipment and specialized supplies is billed on the basis of employee hours dedicated to projects. Our rates are:

- A. Office consumables: \$6.00/hr
- B. Environmental Dépt/Construction Inspector consumables: \$11.00/hr
- C. Survey Field consumables: \$15.00/hr
- D. Various Environmental, Construction and Land Surveying equipment: At market

Payment for work and expenses is due and payable upon receipt of our invoice. Amounts unpaid thirty (30) days after the issue date of our invoice shall be assessed a service charge of one and one half (1.5) percent per month.

(*) These rates do not apply to forensic-related services, or to work for which Prevailing Wage obligations exist. It is the responsibility of the client to notify GHD Inc in writing if Prevailing Wage obligations are applicable, in which case the fees will be adjusted proportionate to the increase in labor cost.