

**Council Meeting: July 17, 2012**

SUBJECT: Award of Contract for Engineering Design and Construction Support Services for Waterline Replacements 2012-13 Phase 2 (#F1106-70)

BACKGROUND

Approval is requested to award an engineering design and construction support contract in the amount of \$323,450 to HydroScience Engineers, Inc. of San Jose for the Water Line Replacement FY 2012-13 Project Phase 2 (Public Works Project No. UW-12/03-13). Approval is also requested for a 10% design contingency in the amount of \$32,345.

DISCUSSION

The City's water utility is aging and has many infrastructure renovation needs both in the short term and over a longer period. Capital Project 825451 (City-wide Water Line Replacement) provides for the ongoing replacement of aged and damaged water lines. The project also upgrades the water system by standardizing the materials used (PVC C-900 with tracer water line), replaces valves and fire hydrants, and upgrades fittings for seismic stability. To address the immediate needs in the water utility, the City issued Water Revenue Bonds in 2010 that provided approximately \$18 million in funding. In order to meet the highest priority infrastructure renovation needs in the most efficient manner and ensure the timely expenditure of bond proceeds, the Environmental Services Department is consolidating and reprioritizing its projects to accelerate the relatively straightforward and needed projects. Water pipeline replacement projects fall into this category.

Earlier this year, a competitive Request for Proposals (RFP) was issued to select a design consultant for the Water Line Replacement FY 2012-13 Project (Phase 1), which will replace approximately 21,000 lineal feet of pipe. In order to leverage current low construction prices, and to ensure the timely expenditure of bond proceeds, staff proposes to utilize this RFP process for the Phase 2 consolidated project, as more fully explained below.

The RFP for the Phase 1 project (No. F1111-33) was released on January 5, 2012. Thirty four (34) firms requested proposal documents, and the City received eight responsive proposals – a higher number of submittals than is customarily received and suggestive of a continued competitive environment which ultimately produces better value for the City.

An evaluation team consisting of Public Works and Environmental Services staff evaluated the proposals based on qualifications, experience, quality, cost and project understanding. The four highest ranking proposers (HydroScience Engineers, Inc., Lee & Ro, Bellecci & Associates, Inc. and Infrastructure Engineering Corporation) were invited for interviews with the evaluation team. The evaluation team identified Bellecci & Associates, Inc., of Pleasanton as the highest ranking firm and on April 3, 2012, Council awarded a contract in the amount of \$226,032 (plus a 10% design contingency of \$22,603) to Bellecci & Associates, Inc for Waterline Replacement FY 2012-13 (RTC No. 12-083).

The final rankings developed through the evaluation process were as follows:

Bellecci & Associates, Inc. of Pleasanton
HydroScience Engineers, Inc. of San Jose
Infrastructure Engineering Corp., of Menlo Park
Lee & Ro, Inc. of Walnut Creek

Staff provided the second ranked firm, HydroScience Engineers, Inc., with the opportunity to submit pricing for the consolidated Phase 2 project based on the submittal requirements outlined in the Phase 1 RFP. HydroScience agreed to perform the Phase 2 design work for \$323,450, which includes \$18,100 for optional hydraulic modeling work. The project scope for Phase 2 is significantly larger than the Phase 1 project and includes replacing approximately 16,000 lineal feet of existing pipe, gate valves, meters and hydrants and relining approximately 20,000 lineal feet of pipe. On a cost per lineal foot basis, the negotiated HydroScience pricing is comparable to the Phase 1 contract with Bellecci & Associates (the Bellecci proposal provided significant value to the City over and above the other proposals, as described in RTC No. 12-083).

The recommendation to award this contract to the second-ranked firm from the previous RFP is largely based on the number of competitive proposals received (eight) and the value pricing provided by the top-ranked firms. Awarding two contracts under the initial RFP ensures that design work continues to proceed unimpeded rather than starting a new competitive process, allowing for an expedient expenditure of bond proceeds.

FISCAL IMPACT

Project costs are as follows:

Design and construction support services	\$305,350
Optional services	<u>\$18,100</u>
Subtotal	\$323,450
Design contingency (10%)	<u>\$32,345</u>
Total costs	\$355,795

Budgeted funds in the amount of \$4,850,000 are available in Capital Project 825451 (City-wide Water Line Replacement). This funding will cover design and construction costs for the consolidated water line replacements. This project is funded by the Water Supply and Distribution Fund.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's Web site.

RECOMMENDATION

It is recommended that Council:

1. Award a contract in substantially the same form as the attached draft and in the amount of \$323,450 to HydroScience Engineers, Inc. for the subject project, and authorize the City Manager to execute the contract when all the necessary conditions have been met; and
2. Approve a 10% design contingency in the amount of \$32,345.

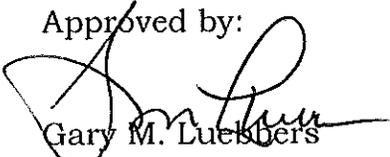
Reviewed by:


Grace K. Leung, Director of Finance
Prepared by: Pete Gonda, Purchasing Officer

Reviewed by:


Kent Steffens, Director, Public Works

Approved by:


Gary M. Luebers
City Manager

Attachments

- A. Draft Consultant Services Agreement

**ATTACHMENT A
DRAFT**

**CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF
SUNNYVALE AND HYDROSCIENCE ENGINEERS, INC. FOR DESIGN
AND CONSTRUCTION SUPPORT SERVICES
FOR WATER LINE REPLACEMENTS 2012-2013 PHASE 2**

THIS AGREEMENT, dated _____, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and HYDROSCIENCE ENGINEERS, INC. ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary for investigation, analysis, design, preparation of construction drawings and contract specifications, consultation, services during construction and other services for a project known as Water Line Replacements 2012-2013 Phase 2; and

WHEREAS, CONSULTANT represents that it, and its sub-consultants, if any, possess the professional qualifications and expertise to provide the required services and are licensed by the State of California to practice engineering in the required disciplines;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS AGREEMENT.

1. Services by CONSULTANT

CONSULTANT shall provide services in accordance with Exhibit "A" entitled "Scope of Work." All exhibits referenced in this Agreement are attached hereto and are incorporated herein by reference. To accomplish that end, CONSULTANT agrees to assign Mary Hoang, P.E. to this project, to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

Except as specified in this Agreement, CONSULTANT shall furnish all technical and professional services, including labor, material, equipment, transportation, supervision and expertise to perform all operations necessary and required to satisfactorily complete the services required in this Agreement.

2. Notice to Proceed/Completion of Services

- (a) CONSULTANT shall commence services upon receipt of a Notice to Proceed from CITY. Notice shall be deemed to have occurred three (3) calendar days after deposit in the regular course of the United States mail.
- (b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibit "A," CITY shall give CONSULTANT written Notice of Final Acceptance, and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when, in its opinion, it has satisfactorily completed the Scope of Work (Exhibit "A"), and if so requested, CITY shall make this determination within fourteen (14) days of such request.

3. Project Schedule

The Project Schedule is set forth in the attached Exhibit "A-1."

4. Payment of Fees and Expenses

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit "B" entitled "Compensation Schedule." All compensation will be based on monthly billings as provided in Exhibit "B." Compensation will not be due until said detailed billing is submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An estimate of the percent of total completion associated with the various categories of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submission of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B" for each phase. In no event shall the total amount of compensation payable under this agreement exceed the sum of Three Hundred Twenty Three Thousand Four Hundred Fifty and No/100 Dollars (\$323,450.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

5. No Assignment of Agreement

CONSULTANT bind themselves, their partners, successors, assigns, executors, and administrators to all covenants of this Agreement. Except as otherwise set forth in this Agreement, no interest in this Agreement or any of the work provided for under this Agreement shall be assigned or transferred, either voluntarily or by operation of law, without the prior written approval of CITY. However, claims for money due to or to become due to CONSULTANT from CITY under this Agreement may be assigned to a bank, trust company or other financial institutions, or to a trustee in bankruptcy, provided that written notice of any such assignment or transfer shall be first furnished to CITY. In case of the death of one or more members of CONSULTANT's firm, the surviving member or members shall complete the services covered by this Agreement. Any such assignment shall not relieve CONSULTANT from any liability under the terms of this Agreement.

6. Consultant is an Independent Contractor

CONSULTANT is not an agent or employee of CITY but is an independent contractor with full rights to manage its employees subject to the requirements of the law. All persons employed by CONSULTANT in connection with this Agreement will be employees of CONSULTANT and not employees of CITY in any respect. CONSULTANT is responsible for obtaining statutory Workers' Compensation coverage for its employees.

7. Consultant's Services to be Approved by a Registered Professional (Where Applicable)

All reports, costs estimates, plans and other documents which may be submitted or furnished by CONSULTANT shall be approved and signed by a qualified registered professional in the State of California. The title sheet for calculations, specifications and reports, and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of certificate and signature of the professional responsible for their preparation.

8. Standard of Workmanship

CONSULTANT represents and maintains that it is skilled in the professional calling necessary to perform the services and its duties and obligations, expressed and implied, contained herein, and CITY expressly relies upon CONSULTANT's representations regarding its skills and knowledge. CONSULTANT shall perform such services and duties in conformance to and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California.

The plans, designs, specifications, estimates, calculations reports and other documents furnished under the Scope of Work (Exhibit "A") shall be of a quality acceptable to CITY. The criteria for acceptance of the work provided under this Agreement shall be a product of neat appearance, well-organized, technically and grammatically correct, checked and having the maker and checker identified. The minimum standard of appearance, organization and content of the drawings shall be that used by CITY for similar projects.

9. Responsibility of CONSULTANT

CONSULTANT shall be responsible for the professional quality, technical accuracy and the coordination of the services furnished by it under this Agreement. Neither CITY's review, acceptance nor payment for any of the services required under this Agreement shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement and CONSULTANT shall be and remain liable to CITY in accordance with applicable law for all damages to CITY caused by CONSULTANT's negligent performance of any of the services furnished under this Agreement.

Any acceptance by CITY of plans, specifications, calculations, construction contract documents, reports, diagrams, maps and other material prepared by CONSULTANT shall not, in any respect, absolve CONSULTANT for the responsibility CONSULTANT has in accordance with customary standards of good engineering practice in compliance with applicable Federal, State, County and/or municipal laws, ordinances, regulations, rules and orders.

10. Right of CITY to Inspect Records of CONSULTANT

CITY, through its authorized employees, representatives, or agents, shall have the right, at any and all reasonable times, to audit the books and records including, but not limited to, invoices, vouchers, canceled checks, time cards of CONSULTANT for the purpose of verifying any and all charges made by CONSULTANT in connection with this Agreement. CONSULTANT shall maintain for a minimum period of three (3) years from the date of final payment to CONSULTANT or for any longer period required by law, sufficient books and records in accordance with generally accepted accounting practices to establish the correctness of all charges submitted to CITY by CONSULTANT. Any expenses not so recorded shall be disallowed by CITY.

11. Confidentiality of Material

All ideas, memoranda, specifications, plans, calculations, manufacturing procedures, data, drawings, descriptions, documents, discussions or other information

developed or received by or for CONSULTANT and all other written information submitted to CONSULTANT in connection with the performance of this Agreement shall be held confidential by CONSULTANT and shall not, without the prior written consent of CITY be used for any purposes other than the performance of the Project services, nor be disclosed to an entity not connected with the performance of the Project services. Nothing furnished to CONSULTANT which is otherwise known to CONSULTANT or is or becomes generally known to the related industry shall be deemed confidential. CONSULTANT shall not use CITY's name, insignia or distribute exploitative publicity pertaining to the services rendered under this Agreement in any magazine, trade paper, newspaper or other medium without the express written consent of CITY.

12. No Pledging of CITY's Credit

Under no circumstances shall CONSULTANT have the authority or power to pledge the credit of CITY or incur any obligation in the name of CITY.

13. Ownership of Material

All material, including information developed on computer(s), which shall include, but not be limited to, data, sketches, tracings, drawings, plans, diagrams, quantities, estimates, specifications, proposals, tests, maps, calculations, photographs, reports and other material developed, collected, prepared or caused to be prepared, under this Agreement shall be the property of CITY, but CONSULTANT may retain and use copies thereof.

CITY shall not be limited, in any way, in its use of said material, at any time, for work associated with Project. However, CONSULTANT shall not be responsible for damages resulting from the use of said material for work other than Project, including, but not limited to the release of this material to third parties for work other than on Project.

14. Hold Harmless/Indemnification

To the extent permitted by law (including, without limitation, California Civil Code section 2782.8), CONSULTANT agrees to indemnify, defend and hold harmless CITY, its officers and employees from any and all claims, demands, actions, causes of action, losses, damages, liabilities, known or unknown, and all costs and expenses, including reasonable attorneys' fees in connection with any injury or damage to persons or property to the extent arising out of any negligence, recklessness or willful misconduct of CONSULTANT, its officers, employees, agents, contractor, subcontractors or any officer, agent or employee thereof in relation to CONSULTANT's performance under this Agreement. Such defense and indemnification shall not apply in any instance of and to the extent caused by the sole negligence, recklessness or willful misconduct of CITY, its officers, employees, agents or representatives.

15. Insurance Requirements

CONSULTANT shall take out and maintain during the life of this Agreement policies of insurance as specified in Exhibit "C" attached and incorporated by reference, and shall provide all certificates and/or endorsements as specified in Exhibit "C."

16. No Third Party Beneficiary

This Agreement shall not be construed or deemed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action hereunder for any cause whatsoever.

17. Notices

All notices required by this Agreement, other than invoices for payment which shall be sent directly to Accounts Payable, shall be in writing, and shall be personally delivered, sent by first class with postage prepaid, or sent by commercial courier, addressed as follows:

To CITY: Craig Mobeck, Senior Engineer
 Department of Public Works
 CITY OF SUNNYVALE
 P. O. Box 3707
 Sunnyvale, CA 94088-3707

To CONSULTANT: HYDROSCIENCE ENGINEERS, INC.
 Attn: Mary Hoang
 4055 Evergreen Village Square, Suite 250
 San Jose, CA 95135

Nothing in this provision shall be construed to prohibit communication by more expedient means, such as by telephone or facsimile transmission, to accomplish timely communication. However, to constitute effective notice, written confirmation of a telephone conversation or an original of a facsimile transmission must be sent by first class mail, by commercial carrier, or hand-delivered. Each party may change the address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as of actual receipt; mailed notices shall be deemed communicated as of three days after mailing, unless such date is a date on which there is no mail service. In that event communication is deemed to occur on the next mail service day.

18. Waiver

CONSULTANT agrees that waiver by CITY of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement.

19. Amendments

No alterations or changes to the terms of this Agreement shall be valid unless made in writing and signed by both parties.

20. Integrated Agreement

This Agreement embodies the agreement between CITY and CONSULTANT and its terms and conditions. No verbal agreements or conversation with any officer, agent or employee of CITY prior to execution of this Agreement shall affect or modify

any of the terms or obligations contained in any documents comprising this Agreement. Any such verbal agreement shall be considered as unofficial information and in no way binding upon CITY.

21. Conflict of Interest

CONSULTANT certifies that to the best of its knowledge, no CITY employee or officer of any public agency interested in this Agreement has any pecuniary interest in the business of CONSULTANT and that no person associated with CONSULTANT has any interest that would conflict in any manner or degree with the performance of this Agreement.

22. California Agreement

This Agreement has been entered into in the State of California and this Agreement shall be governed by California law.

23. Records, Reports and Documentation

CONSULTANT shall maintain complete and accurate records of its operation, including any and all additional records required by CITY in writing. CONSULTANT shall submit to CITY any and all reports concerning its performance under this Agreement that may be requested by CITY in writing. CONSULTANT agrees to assist CITY in meeting CITY's reporting requirements to the state and other agencies with respect to CONSULTANT's work hereunder. All records, reports and documentation relating to the work performed under this Agreement shall be made available to City during the term of this Agreement.

24. Termination of Agreement

If CONSULTANT defaults in the performance of this Agreement, or materially breaches any of its provisions, CITY at its option may terminate this Agreement by giving written notice to CONSULTANT. If CITY fails to pay CONSULTANT, CONSULTANT at its option may terminate this Agreement if the failure is not remedied by CITY within thirty (30) days after written notification of failure to pay.

Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY also shall have the right to terminate this Agreement for any reason upon ten (10) days' written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.

25. Subcontracting

None of the services covered by this Agreement shall be subcontracted without the prior written consent of CITY. Such consent may be issued with notice to proceed if subcontract consultants are listed in the project work plan.

26. Fair Employment

CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, condition of physical handicap, religion, ethnic background or marital status, in violation of state or federal law.

27. Changes

CITY or CONSULTANT may, from time to time, request changes in the terms and conditions of this Agreement. Such changes, which are mutually agreed upon by CITY and CONSULTANT, shall be incorporated in amendments to this Agreement.

28. Other Agreements

This Agreement shall not prevent either Party from entering into similar agreements with others.

29. Severability Clause.

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

30. Captions

The captions of the various sections, paragraphs and subparagraphs, of the contract are for convenience only and shall not be considered nor referred to for resolving questions of interpretation.

31. Entire Agreement; Amendment

This writing constitutes the entire agreement between the parties relating to the services to be performed or materials to be furnished hereunder. No modification of this Agreement shall be effective unless and until such modification is evidenced by writing signed by all parties.

32. Miscellaneous

Time shall be of the essence in this Agreement. Failure on the part of either party to enforce any provision of this Agreement shall not be construed as a waiver of the right to compel enforcement of such provision or any other provision. This Agreement shall be governed and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the parties have executed this Agreement.

ATTEST:

CITY OF SUNNYVALE ("CITY")

By _____
City Clerk

By _____
City Manager

HYDROSCIENCE ENGINEERS, INC.
("CONSULTANT")

APPROVED AS TO FORM:

By _____

Name/Title

City Attorney

By _____

Name/Title

EXHIBIT "A"
SCOPE OF WORK



4055 Evergreen Village Square, Suite 250
San Jose, CA 95135
T: 408.363.3884 | F: 408.363.3886
www.hydroscience.com

May 25, 2012

David Gakle, Principal Buyer
City of Sunnyvale
Purchasing Division
650 West Olive Avenue
Sunnyvale, CA 94088-3707

**SUBJECT: Scope and Fee to Provide Engineering Design for the City of Sunnyvale
Water Line Replacement/Rehabilitation 2012-2013**

Dear Mr. Gakle,

HydroScience Engineers (HSe) appreciates the opportunity to provide the City with a scope and fee for the replacement/rehabilitation of water lines shown on the attached spreadsheet. Based on our understanding, this project must be designed and constructed by June 30, 2013. Therefore, below you will find our scope of work which we have developed to accomplish this objective.

Assumptions have been made to facilitate this accelerated design process as follows:

- Hydraulic analysis of the pipes to be replaced/rehabilitated has been performed by the City and is the basis of the identified pipe replacement size (In the event that pipe size needs to be verified, we have included an optional item for hydraulic modeling);
- Geotechnical Studies will not be required as all alignments are in City streets and all trenching and backfill will be in accordance with city standards;
- Based on input from the City, any requirements to address contaminated soils will be treated as an unknown condition and will be included in the project specifications.
- City review of the work products at the 30%, 60%, and 99% review will be accomplished within ten (10) working days. Comments on the 99% drawings will be limited to minor corrections and will not involve new design criteria for the project. The City's final comments will be included in the final plans and specifications which will be the 100% Plans and Specifications (Bid Set).
- HSe will use the City's currently adopted Standard Details for Water, unless directed otherwise.

SCOPE OF WORK

Based on our understanding of the project and our project approach, HSe proposes the following scope of work, which has been divided into seven major tasks and one optional task.

TASK 1 - PROJECT DESIGN MANAGEMENT

- 1.1 **Conduct kickoff meeting.** HSe will conduct a kickoff meeting with the project team members to establish lines of communication and coordination, confirm project goals and schedules, review existing documentation, and receive City input.

Deliverables

- Kickoff meeting agenda and minutes. Electronic PDF and MS Word 2003 versions.

1.2 Facilitate progress meetings. HSe will attend and facilitate up to three progress meetings with City staff. To maximize the team's efficiency and to save City staff time, these meetings will be combined with the submission of key deliverables as identified below. HSe will work with City staff to schedule the meeting, prepare the agenda, and provide meeting minutes.

- 30% Design review meeting will be held to review the preliminary alignment proposed for the replacement projects, constructability issues associated with the replacement and rehabilitation projects, standard details, potential traffic control issues, and any other design issues identified to date.
- 60% Design review meeting will be held to review drawings to date, constructability issues, utility conflicts, traffic control issues, draft specifications and special provisions, and any other design issues identified.
- 99% Design review meeting will be held to review the final plans and specifications for the project, comments will be limited to note changes and/or minor corrections and will not involve changes in design.

Deliverables

- Meeting agendas and minutes. Electronic PDF and MS Word 2003 versions.

1.3 Prepare and maintain a project design schedule. HSe will prepare a project design schedule that presents the expected progress of the project tasks in Microsoft Project format. The schedule will be updated with each submittal. Recommendations will be made for corrective action to address unanticipated delays to keep the project design schedule on track.

Deliverables

- Project Design Schedule. One (1) hard copy and electronic PDF version, with each design submittal.

1.4 Prepare and maintain a project decision log. HSe will prepare and maintain a project decision log that records design decisions. This log will include summaries of the decisions made, any key items used to reach those decisions, and any other relevant information. It is anticipated that most decisions will be made at or prior to the 60% design meeting with City staff.

Deliverables

- Project Decision Log. One (1) hard copy and electronic PDF version, with periodic updates issued with each design submittal.

1.5 Prepare monthly progress reports and invoices. HSe will prepare monthly progress reports outlining the team's progress on the project tasks. These reports will include summaries of progress meetings and recommendations for corrective actions to address

any unanticipated delays to help maintain the project schedule. These reports will correlate with the monthly invoices that will be prepared using the City's billing format.

Deliverables

- Monthly Progress Report and Invoice. One (1) hard copy and electronic PDF version

- 1.6 Provide Permitting/CEQA support.** A CDPH permit amendment is not anticipated. However, HSe will coordinate with CDPH if mitigations are required to comply with the newly adopted CDPH Waterworks Standards. No other permits are anticipated.

It is assumed the project will be "Categorically Exempt" from California Environmental Quality Act (CEQA), based on our understanding of the project and the CEQA requirements. HSe will prepare a memorandum which satisfies the requirement for CEQA documentation for the City to file with the County of Santa Clara.

The City will be responsible for all permit fees, if any.

Deliverables

- CEQA Memorandum. One (1) hardcopy and electronic PDF version

TASK 2 - TOPOGRAPHIC SURVEY

HSe's surveying subconsultant will prepare a topographic exhibit of the pipeline alignments using aerial photos supplemented by surveying along proposed alignments using GPS survey equipment for data collection with an accuracy of 0.1' both horizontally and vertically. This effort will be confined to the limits of the City Street from curb to curb, with the exception of locating the meter boxes for those meters to be replaced, fire hydrants, and other City-owned water system appurtenances outside the limits of the curb to curb location. The topographic survey will include the following:

- Location, rim, invert and pipe size of accessible storm drain manholes, storm drain inlets, and sanitary sewer manholes and inverts, including the nearest sanitary sewer and storm drain manhole in intersecting streets;
- Location of all surface facilities/utilities and USA marked utilities for full street Right of Way including street monuments, meter boxes, street lights, vaults and cleanouts;
- Location, rim, and top of valve nut for water valves.
- Location of fire hydrants, water meters, backflow devices,
- Location of City of Sunnyvale benchmarks; and
- Street centerline elevation at 50' intervals.

Using current Assessor's maps from the County of Santa Clara, a right-of-way overlay for the aerial photos will be prepared to show the street right-of-way lines and right-of-way lines of intersecting streets up to the curb return. The right-of-way will be tied to the field survey by locating sufficient street monuments. The final product will be in AutoCad format.

Surveying will conform to horizontal and vertical coordinate systems compatible with existing City benchmarks and monuments.

Deliverables

- Final topographic surveys will be the basis of the plan sheets and will be presented as part of design submittals.

TASK 3 - PRELIMINARY DESIGN

The City's set of standard specifications and special provisions will be used as the basis of the design specifications for the project as applicable. HSe will prepare the technical specifications and recommend revisions to the City's special provisions as needed.

The plan set submittals will be prepared in conformance with the City's preferred format to a level of detail suitable for the level of completion of the submittal.

Drawing submittals will consist of General and Civil plan and profile drawings. It is not expected that any electrical or instrumentation work is required at this time. Any electrical and instrumentation work requested by the City shall be scoped separately.

- 3.1 Preliminary Investigation.** A site investigation will be conducted to identify and verify existing facilities within the project boundaries. This site investigation will be performed by key members of the HSe team who will evaluate existing conditions, review the proposed realignment location, confirm the accuracy of the plan sheets, and photograph the alignment to document existing conditions where appropriate. HSe will review as-built drawings for the pipeline alignments. Record utility information will be obtained and analyzed to determine areas that will require additional investigative effort to determine the precise location of underground facilities. Utility information will be identified for all available underground utilities including, but not limited to, sanitary sewer, storm drainage, potable water, power, gas, and communication facilities, as well as any other underground utilities that may affect the design and/or construction of the project. Potholing to determine the exact location of utilities will not be performed, but rather for those facilities in question, contract drawings will require the contractor to field verify the location prior to construction.

It is assumed that the replacement/rehabilitation pipe segments of the project will not need to be modeled. It is assumed the size identified by the City is consistent with the City's design criteria for velocity, headloss, fireflow requirements and will maintain pressures throughout the system, as identified in the City's 2007 Water System Hydraulic Modeling report. If the City would like this analysis to be performed to confirm the size selected, we have provided a supplemental task.

Hydraulic modeling will be performed to identify the impacts and mitigations necessary for the segments to be shutdown and relined as part of this task. It is assumed that the City will provide HSe with the most updated version of the City's potable water hydraulic model available to ensure the accuracy of the analysis.

- 3.2 30% Preliminary Design.** HSe will prepare preliminary design drawings to the 30% level. Preliminary design will include design drawings complete to the level appropriate for the submittal. These drawings (1"=40' horizontal scale and 1"= 4' vertical scale) will identify existing physical features such as trees, power poles, utility vaults, utilities, existing water line and appurtenances, and location of the new waterline and appurtenances. Preliminary recommendations for rehabilitating the identified pipeline segments will be presented on a segment by segment evaluation in a brief Technical Memorandum. A 30% design review workshop will be held with the City. The 30% preliminary design submittal will contain the drawings and engineer's opinion of cost. The City will have ten (10) working days to comment on each submittal.

Deliverables

- 30% Preliminary Design. Five (5) hardcopies and electronic PDF version of half-size plans, and specifications.
- 30% Level Engineer's opinion of probable cost. Five (5) hardcopies and electronic PDF version
- Updated Design and Construction Schedule. Five (5) hardcopies and electronic PDF version

TASK 4 - DETAILED DESIGN

- 4.1 60% Design Submittal.** Based on the outcome of the preliminary design submittal, and the comments on that submittal, HSe will take the 30% preliminary design submittal and update the submittal to the 60% design level. The 60% design submittal will contain the drawings, specifications, engineer's opinion of cost, and responses to City comments on the 30% preliminary design. Drawings for the replacement pipeline will be detailed to show the centerline of the realignment, profile within the accuracy of the survey, a typical water service within the public right-of-way, typical water meter replacement detail, trench details, hydrant locations, and tie-in details for connection to the existing pipeline. For the rehabilitation project, location of the access pits will be shown including sequencing requirements. The City will have ten (10) working days to comment on the submittal. A 60% design review workshop will be held with the City. HSe will track all comments and document each comment response in a memo/email distributed to the reviewers.

Deliverables

- 60% Design Submittal. Five (5) hardcopies and electronic PDF version of half-size plans, specifications, and special provisions.
- 60% Level Engineer's opinion of probable cost. Five (5) hardcopies and electronic PDF version
- Updated Design and Construction Schedule. Five (5) hardcopies and electronic PDF version

- 4.2 99% Design Submittal.** City comments on the 60% design submittal will be incorporated into the 99% design submittal. The 99% design submittal will also further develop the detailed design to a level suitable for advertisement, pending City review.

The submittals will contain the drawings, specifications, engineer's opinion of cost, and responses to comments from the 60% design submittal. The City will have ten (10) working days to comment on the submittal. A 99% design review workshop will be held if desired by the City. HSe will track all comments and document each comment response in a memo/email distributed to the reviewers.

Deliverables

- 99% Design Submittal. Five (5) hardcopies and electronic PDF version of half-size plans, specifications, and special provisions.
- 99% Level Engineer's opinion of probable cost. Five (5) hardcopies and electronic PDF version
- Updated Design and Construction Schedule. Five (5) hardcopies and electronic PDF version

TASK 5 - BID PACKAGE

5.1 Package Preparation. HSe will submit the final design drawings, specifications, and special provisions, which will reflect any comments and modifications from the 99% review, as appropriate. The submittals will contain the drawings, specifications, engineer's opinion of cost, and responses to comments from the 99% design submittal. The final bid set submittal will be coordinated with the appropriate City documentation including the City's front end documents, standard provisions, and special provisions. The City will have ten (10) working days to review the 99% submittal. HSe will prepare the bid schedule and delineate the anticipated construction time period. In addition, HSe will provide the final Engineer's opinion of probable cost, tabulation of quantities of all work items and materials, and recommendation for allowed construction time period. All contract/front end documents will be coordinated with City Project Administration / Purchasing.

Deliverables

- Final Bid Set – stamped and signed on each sheet of the complete set of plans and the table of contents sheet of the complete technical specifications by the Engineer of Record. One (1) full-size (24" x 36") reproducible plan set, one (1) half-size reproducible plan set, one (1) set "camera ready" specifications, and electronic PDF version of all plans and specifications
- Final Engineer's opinion of probable cost. Five (5) hardcopies and electronic PDF version
- Updated Construction Schedule. Five (5) hardcopies and electronic PDF version
- Contract (Front End) Documents. All front end documents will be provided in electronic MS Word 2003 format and coordinated with Project Administration / Purchasing for inclusion in the final Contract documents. They will include:
 - Revised Special Provisions
 - Reviewed Supplemental General Provisions
 - Final Bid Schedule and/or schedule of values
 - Final List of Submittals
 - Final List of Information Available to Bidders with Disclaimer

- Reviewed Standard Construction Contract

TASK 6 - BIDDING SERVICES

Bidding services will include responding to questions posed by the bidders and preparing clarifications and addenda as required. All communication will be directed through the City's Purchasing Division. HSe will assist the City in reviewing contractor bids and will make a recommendation for award of the construction contract.

Deliverables

- Clarifications and Addenda as necessary. Electronic PDF version
- Responses to questions posed by bidders. Electronic PDF version

TASK 7 - CONSTRUCTION SUPPORT

The HSe team will review all technical submittals from the contractor in sufficient detail to determine whether or not the submitted item conforms with the intent of the plans and specifications. HSe will respond to requests for information (RFIs) and requests for clarification (RFCs) throughout construction as directed by the City. All RFI, RFC, and submittal reviews will be properly coordinated with the City's designated Construction Manager and/or Project Inspector. HSe will attend the pre-construction meeting and up to three additional construction meetings for the duration of the project.

Once the project construction is complete, HSe will prepare record drawings to reflect the as-built project condition. Red-line drawings from the contractor and/or City Inspector will be used as the basis for preparing the as-built drawings.

Deliverables

- Record Drawings. One (1) hard copy of full-size (24" x 36") record drawings and electronic AutoCad and PDF versions
- RFI and RFC responses. Electronic PDF version distributed to the City
- Submittal responses. Electronic PDF version distributed to the City
- Minutes of construction meetings. Electronic PDF version distributed to the City

OPTIONAL TASK A – HYDRAULIC MODELING UPDATE AND TRAINING

Using Innovyze's InfoWater modeling and management software, HSe will update the City's current potable water hydraulic model to reflect the City's potable water capital improvement projects that have been completed or are nearing completion since the last hydraulic model update, more specifically to evaluate the elements proposed for replacement as part of this project. Once complete, we will analyze the cumulative effect on the distribution system. The results of our analysis will be presented in a Technical Memorandum.

In addition, HSe will provide City staff up to 8 hours of training on how to perform basic functions using the City's hydraulic model.

Deliverables

- Technical Memorandum - Five (5) hardcopies and electronic PDF version.
- Electronic version of updated hydraulic model in InfoWater.

ANTICIPATED INVOLVEMENT OF CITY STAFF

The City shall provide any GIS data, such as property lines, street center lines, and contours, for the project alignments if available to the surveyor upon request. The City shall also provide record drawings of recent street improvements and of any City-owned underground utilities along the project alignments if available upon request. Additionally, the City shall provide HSe with the most current front end documents, standard provisions, and special provisions for incorporation into the design submittals. Finally, the City shall review all design submittals in a timely manner and make available the appropriate City personnel to address any issues that may arise during the design phase.

PROJECT SCHEDULE AND BUDGET

Attached you will find the schedule that we have proposed for this project which includes the optional task, but is not dependent upon that task being authorized. Also included is our fee proposal for this project which details our estimated fee by task, with the optional task being shown separately.

We look forward to working with the City on this project and continuing our relationship with City staff to accomplish the City's objective for this project. Should you have any questions about our proposal, please feel free to contact me at (408) 363-3884 or at mhoang@hydroscience.com.

Very truly yours,
HydroScience Engineers, Inc.



Mary Hoang, P.E.
Principal

Water Line Replacement Schedule Project 825451

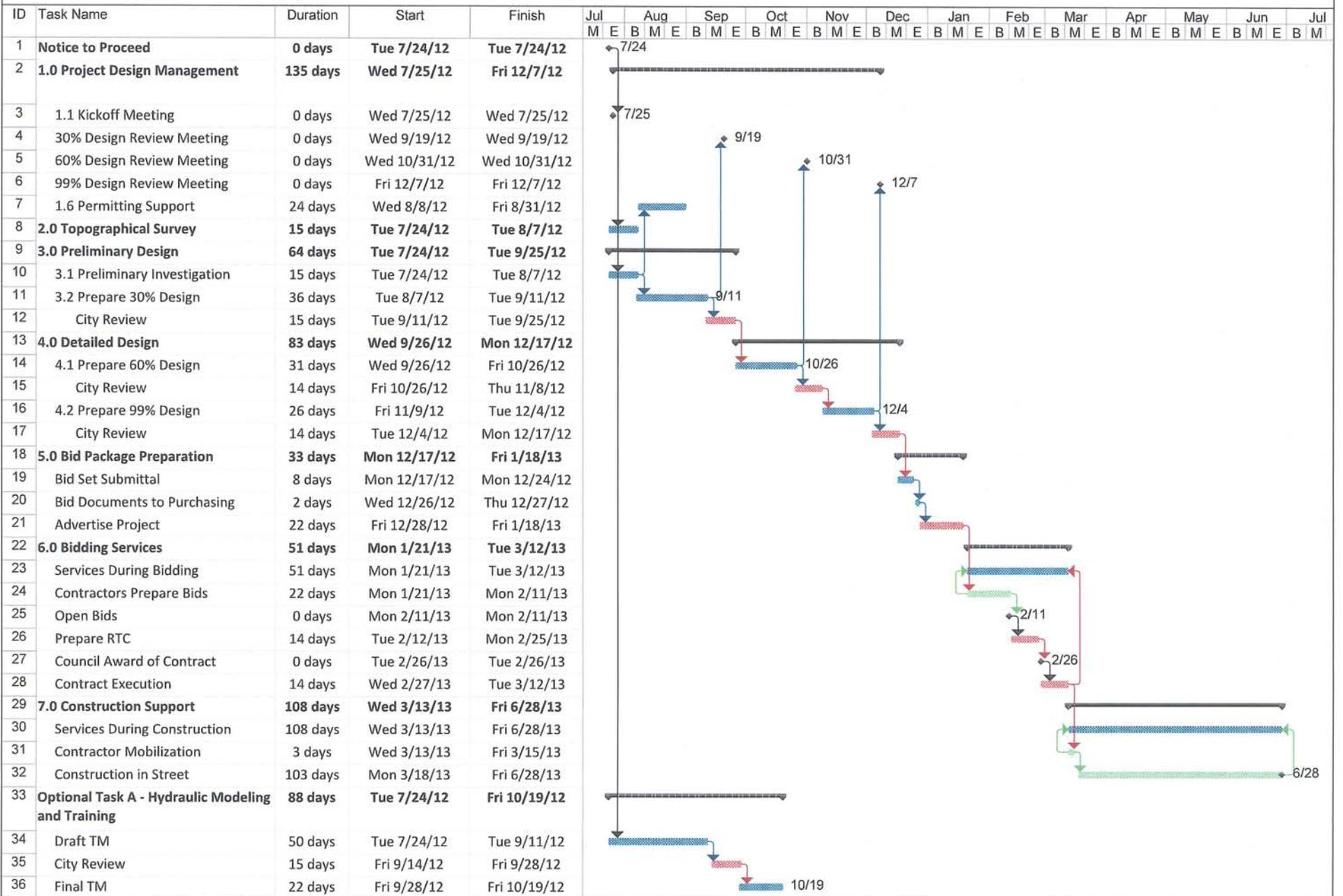
Project Locations 2012/13		Construction Description	
Infrastructure 1	Re-Line (Insituform PPL or equivalent) existing 24" & 30" ACCP and replace valves		Approx. Lineal Feet
B/M 309-332-349-372	Re-line existing 30" ACCP on Wolfe Rd, from Evelyn to Arques		3,850
B/M 372	Re-line existing 30" ACCP on Arques, from Wolfe to Britton		820
B/M 77 - 78	Re-line existing 24" DIP on Homestead Rd, from Mary to Wright		1,350
Planned Replacement 2009/2010			Total 6,020
Project Locations 2013/14			
Infrastructure 2a	Re-Line (Insituform PPL or equivalent) existing 24" & 30" ACCP and replace valves		Approx. Lineal Feet
B/M 389-412-429-468	Re-line existing 30" ACCP on Britton Ave, from Arques to Hwy101		5,475
B/M 493	Re-line existing 30" ACCP on Britton Ave, from Hwy 101 to Fair Oaks Hetch Hetchy		520
Planned Replacement 2014/2015			Total 5,995
Infrastructure 2b	Re-Line (Insituform PPL or equivalent) existing 24" & 30" ACCP and replace valves		Approx. Lineal Feet
B/M 172-189-212-229-252-269-292	Re-line existing 24" ACCP on Wolfe Rd, from Fremont to Ajax		6,470
B/M 291 - 292	Re-line existing 24" CIP on Ajax Dr, from Wolfe to Joshua		1,040
Planned Replacement 2014/2015			Total 7,510
Total Water Re-lining Footage			19,525
Project Locations 2014/15			
Washington	Upsize to 8" PVC, new service connections/meters/fire hydrants/gate valves		Approx. Lineal Feet
B/M 354 - 355	Replace 4" CI with 8" PVC on Washington Ave. between Pastoria and Sunset		1,170
B/M 391 - 410	Replace 4" CI with 6" PVC on Schroeder St. between Arques and Taylor		655
B/M 391 - 410	Replace 4" CI with 6" PVC on Jackson Ave. between Arques and Taylor		655
B/M 391 - 410	Replace 4" CI with 6" PVC on Bayview Ave. between Arques and Taylor		655
B/M 391 - 410	Replace 4" CI with 6" PVC on Roosevelt Ave. between Arques and Maude		1,505
			Total 4,640
Project Locations 2014/15 plus Distribution Mains			
Downtown Area	Upsize to 6" & 8" PVC, new service connections/meters//fire hydrants/gate valves		Approx. Lineal Feet
B/M 392	Replace 4" CI with 6" PVC on Lastreto Ave. between Arques and Maude		650
B/M 288 - 312	Replace 6" CI with 10" PVC" PVC on Carroll Ave. between OSF and Iowa		2,827
B/M 430 - 450	Replace 6" CI with 8" PVC on Duane Ave. between Gresham and Borregas		1,100
B/M 430	Replace 4" CI with 6" PVC on Maple Ave. between Arbor and Duane		830
B/M 431	Replace 4" CI with 6" PVC on Balsam Ave. between Bayview and Kirk		670
B/M 431	Replace 4" CI with 6" PVC on Cypress Ave. between Bayview and Kirk		670
B/M 431 - 450	Replace 4" CI with 6" PVC on Waite Ave. between Arbor and Duane		830
B/M 451	Replace 6" CI with 6" PVC on S. Fernwood Cir between Morse and W. Ferndale		635
B/M 451 - 470	Replace 6" CI with 6" PVC on W. Ferndale between N & S Ferndale		275
B/M 451 - 470	Replace 6" CI with 6" PVC on N. Ferndale Cir between Morse and W. Ferndale		630
B/M 451 - 470	Replace 4" CI with 6" PVC on Georgia Ave. between Glendale and Georgia Ct		1,100
B/M 451 - 470	Replace 4" CI with 6" PVC on Carolina Ave. between Glendale and Carolina Ct		1,100
			Total 11,317

Water Line Replacement Schedule Project 825451

Total Water Replacement Footage									15,957
--	--	--	--	--	--	--	--	--	---------------

EXHIBIT "A-1" - PROJECT SCHEDULE

Project Schedule for Water Line Replacement 2012-13



HydroScience Engineers | Hse Task City Task Contractor Task Summary Milestone

EXHIBIT "B" - COMPENSATION

City of Sunnyvale

Proposal For Engineering Design for Water Line Replacement/Rehabilitation 2012-13

5/25/2012

HydroScience Engineering

Page 1 of 1

Tasks		Labor								Sub-consultant	ODCs	Total		
Task #	Task Description	Title: Principal Name: Mary Hoang	Title: Engineer VI Name: Walter Sadler	Title: Engineer IV Name: Angela Singer	Title: Engineer IV Name: Brian Watanabe	Title: Engineer III Name: Kyle Horn	Title: Engineer V Name: Vance Cave	Title: Engineer I Name: Scheer & Salonga	Title: Admin Assistant Name: Terri Walker	Total Hours	HSe Total Labor Costs	Survey HMH Engineering Inc.	Other Direct Costs	Total Fee
	Hourly Billing Rates	\$175	\$150	\$130	\$130	\$120	\$140	\$95	\$50			LS		
1	Project Management	2	16	16	32				4	70	\$9,190			\$9,190
2	Surveying									0	\$0	\$47,000	\$4,700	\$51,700
3	Preliminary Design	4	24	152	240	0	0	120	4	544	\$66,860		\$250	\$67,110
4	Design	4	40	240	320	160	16	360	8	1,148	\$135,540		\$500	\$136,040
5	Bid Package	2	16	32	40	0	4	40	8	142	\$16,870		\$500	\$17,370
6	Services During Bidding		8	8	24	0	8	0	2	50	\$6,580		\$250	\$6,830
7	Services During Construction		8	10	40	0	24	60	2	144	\$16,860		\$250	\$17,110
	Proposal Subtotal	12	112	458	696	160	52	580	28	2,098	\$251,900	\$47,000	\$6,450	\$305,350
	Optional Services													
A	Hydraulic Modeling Update & Training	2	6	32	0	72	0	40	0	152	\$17,850		\$250	\$18,100
	Total Optional Services	2	6	32	0	72	0	40	0	152	\$17,850	\$0	\$250	\$18,100
	Total Including Optional Services	14	118	490	696	232	52	620	28	2,250	\$269,750	\$47,000	\$6,700	\$323,450

Notes:

HSe also does not charge our clients anything for use of computers, equipment, telephones, or other everyday resources we need to do our work.

The labor rates identified in this fee proposal are based on our 2012 standard billing rates. Those rates will remain in effect for the duration of this scope of work.

Expense subtotal includes markup on expenses and subconsultants.

This fee is inclusive of all markups, overhead, and profit.

Exhibit "C"

INSURANCE REQUIREMENTS FOR CONSULTANTS

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work by the Consultant, his agents, representatives, or employees.

Minimum Scope and Limits of Insurance: Consultant shall maintain limits no less than:

1. **Commercial General Liability:** \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury, personal injury and property damage. ISO Occurrence Form CG 0001 is required.
2. **Automobile Liability:** \$1,000,000 per accident for bodily injury and property damage. ISO Form CA 0001 is required.
3. **Workers' Compensation and Employer's Liability:** \$1,000,000 per accident for bodily injury or disease.
4. **Errors and Omissions** Liability Insurance appropriate to the Consultants Profession: \$1,000,000 per occurrence and \$2,000,000 aggregate.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by the City of Sunnyvale. The consultant shall guarantee payment of any losses and related investigations, claim administration and defense expenses within the deductible or self-insured retention.

Other Insurance Provisions

The **general liability** and **automobile liability** policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Sunnyvale, its officials, employees, agents and volunteers are to be covered as additional insureds with respects to liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the City of Sunnyvale, its officers, employees, agents or volunteers.
2. For any claims related to this project, the Consultant's insurance shall be primary. Any insurance or self-insurance maintained by the City of Sunnyvale, its officers, officials, employees, agents and volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City of Sunnyvale, its officers, officials, employees, agents or volunteers.

4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City of Sunnyvale.

Claims Made Coverage

If the General Liability and/or Errors & Omissions coverages are written on a claims-made form:

1. The retroactive date must be shown, and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five years after completion of the contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Consultant must purchase an extended period coverage for a minimum of five years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to the City of Sunnyvale for review.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City of Sunnyvale.

Verification of Coverage

Consultant shall furnish the City of Sunnyvale with original a Certificate of Insurance effecting the coverage required. The certificates are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates are to be received and approved by the City of Sunnyvale prior to commencement of work.