

**AGREEMENT FOR CONSULTANT SERVICES
BETWEEN
THE CITY OF SAN JOSE
AND
AECOM USA, INC.
FOR**

60-INCH BRICK INTERCEPTOR PHASE VIA PROJECT

THIS AGREEMENT is made and entered into this ____ day of _____ 2009, by and between the CITY OF SAN JOSE, a municipal corporation (hereinafter "CITY"), and AECOM USA, INC., a New York corporation authorized to transact business in the State of California (hereinafter "CONSULTANT").

RECITALS

The purpose for which this AGREEMENT is made, and all pertinent recitals, is listed on EXHIBIT A, entitled "RECITALS", which is attached hereto and incorporated herein.

THE PARTIES HEREBY AGREE AS FOLLOWS:

SECTION 1. SCOPE OF SERVICES.

CONSULTANT shall perform those services specified in detail in EXHIBIT B, entitled "SCOPE OF SERVICES", which is attached hereto and incorporated herein.

SECTION 2. TERM OF AGREEMENT.

The term of this AGREEMENT shall be from the date of execution to December 31, 2012, inclusive, subject to the provisions of SECTION 12 of this AGREEMENT. The Director of Public Works shall have the authority to extend the term of this AGREEMENT by One Hundred Eighty (180) days, in writing, so long as no other provision of this AGREEMENT is modified.

SECTION 3. SCHEDULE OF PERFORMANCE.

The services of CONSULTANT are to be completed according to the schedule set out in EXHIBIT C, entitled "SCHEDULE OF PERFORMANCE", which is attached hereto and incorporated herein. Time is of the essence in this AGREEMENT.

SECTION 4. COMPENSATION.

The compensation to be paid to CONSULTANT, including both payment for professional services and reimbursable expenses, shall not exceed Three Million Two Hundred Eleven Thousand Three Hundred Seventy-Eight Dollars (\$3,211,378). The rate and schedule of payment is set out in EXHIBIT D, entitled "COMPENSATION," which is attached hereto and incorporated herein.

SECTION 5. METHOD OF PAYMENT.

Each month, CONSULTANT shall furnish to the CITY a statement of the work performed for compensation during the preceding month. Such statement shall also include a detailed record of the month's actual reimbursable expenditures.

SECTION 6. INDEPENDENT CONTRACTOR.

It is understood and agreed that CONSULTANT, in the performance of the work and services agreed to be performed by CONSULTANT, shall act as and be an independent contractor and not an agent or employee of CITY; and as an independent contractor, CONSULTANT shall obtain no rights to retirement benefits or other benefits which accrue to CITY's employees, and CONSULTANT hereby expressly waives any claim it may have to any such rights.

SECTION 7. ASSIGNABILITY.

The parties agree that the expertise and experience of CONSULTANT are material considerations for this AGREEMENT. CONSULTANT shall not assign or transfer any interest in this AGREEMENT nor the performance of any of CONSULTANT's obligations hereunder, without the prior written consent of CITY, and any attempt by

CONSULTANT to so assign this AGREEMENT or any rights, duties, or obligations arising hereunder shall be void and of no effect.

SECTION 8. SUBCONTRACTORS.

A. Notwithstanding the provisions of Section 7 above, the CONSULTANT may use the following designated subconsultants in performing the following work under this AGREEMENT:

- | | |
|---|----------------------------------|
| 1. Trenchless Technology/Microtunneling | Brierley Associates |
| 2. Environmental Review/Permitting | David J. Powers & Associates |
| 3. Geotechnical Services | Geomatrix |
| 4. Surveying Services | HMH Engineers |
| 5. Cost Estimating | O'Connor Construction Management |

B. CONSULTANT shall be responsible for directing the work of the above named subconsultant(s) and for any compensation due to subconsultants. The CITY assumes no responsibility whatsoever concerning such compensation.

C. CONSULTANT shall not change or add or delete subconsultants without prior written approval of the CITY's Director of Public Works or designee ("Director").

SECTION 9. INDEMNIFICATION.

CONSULTANT shall defend, indemnify and hold harmless CITY, its officers, employees and agents against any claim, loss or liability arising out of or resulting in any way from work performed under this AGREEMENT due to the willful or negligent acts (active or passive) or omissions by CONSULTANT's officers, employees or agents. The acceptance of said services and duties by CITY shall not operate as a waiver of such right of indemnification.

SECTION 10. INSURANCE REQUIREMENTS.

CONSULTANT agrees to have and maintain the policies set forth in EXHIBIT E, entitled

"INSURANCE," which is attached hereto and incorporated herein. All policies, endorsements, certificates and/or binders shall be subject to approval by the Director of Human Resources or the Director's authorized designee ("Risk Manager") as to form and content. These requirements are subject to amendment or waiver if so approved in writing by the Risk Manager. CONSULTANT agrees to provide CITY with a copy of said policies, certificates and/or endorsements before work commences under this AGREEMENT.

SECTION 11. NONDISCRIMINATION.

CONSULTANT shall not discriminate, in any way, against any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin, in connection with or related to the performance of this AGREEMENT.

SECTION 12. TERMINATION.

- A. CITY shall have the right to terminate this AGREEMENT, without cause, by giving not less than seven (7) days' written notice of termination.
- B. If CONSULTANT fails to perform any of its material obligations under this AGREEMENT, in addition to all other remedies provided by law, CITY may terminate this AGREEMENT immediately upon written notice.
- C. CITY's Director of Public Works is empowered to terminate this AGREEMENT on behalf of CITY.
- D. In the event of termination, CONSULTANT shall deliver to CITY copies of all reports, documents, and other work performed by CONSULTANT under this AGREEMENT, and upon receipt thereof, CITY shall pay CONSULTANT for services performed and reimbursable expenses incurred to the date of termination in accordance with the provisions of EXHIBIT D.

SECTION 13. GOVERNING LAW.

CITY and CONSULTANT agree that the law governing this AGREEMENT shall be that of the State of California.

SECTION 14. COMPLIANCE WITH LAWS.

CONSULTANT shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local governments.

SECTION 15. CONFIDENTIAL INFORMATION.

All data, documents, discussions or other information developed or received by or for CONSULTANT in performance of this AGREEMENT are confidential and not to be disclosed to any person except as authorized by CITY, or as required by law.

SECTION 16. OWNERSHIP OF MATERIALS.

All reports, documents or other materials developed or discovered by CONSULTANT or any other person engaged directly or indirectly by CONSULTANT to perform the services required hereunder shall be and remain the property of CITY without restriction or limitation upon their use.

SECTION 17. WAIVER.

CONSULTANT agrees that waiver by CITY of any breach or violation of any term or condition of this AGREEMENT shall not be deemed to be a waiver of any other term or condition contained herein or a waiver of any subsequent breach or violation of the same or any other term or condition. The acceptance by CITY of the performance of any work or services by CONSULTANT shall not be deemed to be a waiver of any term or condition of this AGREEMENT.

SECTION 18. CONSULTANT'S BOOKS AND RECORDS.

A. CONSULTANT shall maintain any and all ledgers, books of account, invoices, vouchers, cancelled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to

CITY for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to CONSULTANT pursuant to this AGREEMENT.

- B. CONSULTANT shall maintain all documents and records which demonstrate performance under this AGREEMENT for a minimum period of three (3) years, or for any longer period required by law, from the date of termination or completion of this AGREEMENT.
- C. Any records or documents required to be maintained pursuant to this AGREEMENT shall be made available for inspection or audit at no cost to CITY, at any time during regular business hours, upon prior written request by the City Attorney, City Auditor, City Manager, or a designated representative of any of these officers. Copies of such documents shall be provided to CITY for inspection at City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at CONSULTANT's address indicated for receipt of notices in this AGREEMENT.
- D. Where CITY has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of CONSULTANT's business, CITY may, by written request by any of the above-named officers, require that custody of the records be given to CITY and that the records and documents be maintained in City Hall. Access to such records and documents shall be granted to any party authorized by CONSULTANT, CONSULTANT's representatives, or CONSULTANT's successor-in-interest.

SECTION 19. CONFLICT OF INTEREST.

CONSULTANT shall avoid all conflict of interest or appearance of conflict of interest in performance of this AGREEMENT.

SECTION 20. GIFTS.

- A. CONSULTANT is familiar with CITY's prohibition against the acceptance of any gift by a CITY officer or designated employee, which prohibition is found in Chapter 12.08 of the San Jose Municipal Code.
- B. CONSULTANT agrees not to offer any CITY officer or designated employee any gift prohibited by said Chapter.
- C. The offer or giving of any gift prohibited by Chapter 12.08 shall constitute a material breach of this AGREEMENT by CONSULTANT. In addition to any other remedies CITY may have in law or equity, CITY may terminate this AGREEMENT for such breach as provided in SECTION 12 of this AGREEMENT.

SECTION 21. DISQUALIFICATION OF FORMER EMPLOYEES.

CONSULTANT is familiar with the provisions relating to the disqualification of former officers and employees of CITY in matters which are connected with former duties or official responsibilities as set forth in Chapter 12.10 of the San Jose Municipal Code ("Revolving Door Ordinance"). CONSULTANT shall not utilize either directly or indirectly any officer, employee, or agent of CONSULTANT to perform services under this AGREEMENT, if in the performance of such services, the officer, employee, or agent would be in violation of the Revolving Door Ordinance.

SECTION 22. SPECIAL PROVISIONS.

Special provisions, if any, to this AGREEMENT are specified in EXHIBIT F, entitled, "SPECIAL PROVISIONS", which is attached hereto and incorporated herein.

SECTION 23. NOTICES.

All notices and other communications required or permitted to be given under this AGREEMENT shall be in writing and shall be personally served or mailed, postage prepaid and return receipt requested, addressed to the respective parties as follows:

To CITY: City of San Jose
Department of Public Works
Engineering and Construction Services
1661 Senter Road, Building A, First Floor
San Jose, CA 95112
Attn: Alan Kam, Project Manager

To CONSULTANT: AECOM USA, INC.
1390 Market Street, Suite 1100
San Francisco, CA 94102
Attn: Olivia Chen

Notice shall be deemed effective on the date personally delivered or, if mailed, three (3) days after deposit in the mail.

SECTION 24. VENUE.

In the event that suit shall be brought by either party to this contract, the parties agree that venue shall be exclusively vested in the state courts of the County of Santa Clara, or if federal jurisdiction is appropriate, exclusively in the United States District Court, Northern District of California, San Jose, California.

SECTION 25. PRIOR AGREEMENTS AND AMENDMENTS.

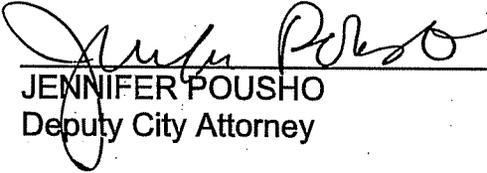
This AGREEMENT, including all Exhibits attached hereto, represents the entire understanding of the parties as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This AGREEMENT may only be modified by a written amendment duly executed by the parties to this AGREEMENT.

WITNESS THE EXECUTION HEREOF on the day and year first hereinabove written.

"CITY"

APPROVED AS TO FORM:

CITY OF SAN JOSE, a municipal corporation



JENNIFER POUSHO
Deputy City Attorney

By _____
LEE PRICE, MMC
City Clerk

"CONSULTANT"

AECOM USA, INC.,
A New York Corporation authorized to
transact business in the State of California

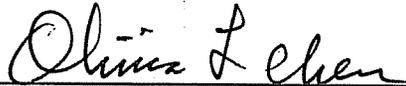
By  _____
Name: Olivia L. Chen
Title: Sr. Vice President

EXHIBIT A

RECITALS

WHEREAS, the CITY OF SAN JOSE desires to obtain consultant services to provide engineering services related to the 60-Inch Brick Interceptor Phase VIA project ("PROJECT"); and

WHEREAS, the engineering services include CONSULTANT 1) developing and analyzing design alternatives and making recommendations on the PROJECT's final alignment; 2) preparing final design, plans and specifications and bid documents; and 3) providing construction support services for the construction of the PROJECT; and;

WHEREAS, AECOM USA, INC. has the necessary professional expertise and skill to perform such services;

NOW, THEREFORE, the purpose of this AGREEMENT is to retain AECOM USA, INC. as CONSULTANT to CITY to perform those services specified in SECTION 1 of this AGREEMENT.

EXHIBIT B
SCOPE OF SERVICES

GENERAL PROJECT DESCRIPTION

CONSULTANT shall provide design and construction support services to assist the CITY in the construction of Phase VI of the Interceptor System, consisting of the replacement and realignment of approximately 4,500 linear feet of 60-inch diameter brick interceptor sewer with a new interceptor sewer between Structure G located at North Fourth Street and Commercial Street and Structure E located at Zanker Road and Old Bayshore Freeway (the "PROJECT"). The location is described in Exhibit B-1. The anticipated nominal diameter of the interceptor sewer is 72 inches.

CONSULTANT's services shall consist of the following ten main tasks:

1. Project Management.
2. Consensus Building.
3. Alternative Analyses.
4. Initial Design.
5. Final Design (60% complete).
6. Final Design (90%).
7. Final Design (100%).
8. Bid Document Preparation.
9. Preconstruction and Construction Support Services.
10. Additional Services.

PROJECT DESIGN STANDARDS

CONSULTANT shall design the PROJECT in compliance with the requirements of the 1992 CITY of San Jose Standard Specifications and 1992 CITY of San Jose Standard Plan Details and the Department of Public Works Sanitary Sewer Section Amended Specifications thereto.

The CITY's goal for the Phase VI reach of the interceptor system is to be able to:

1. Convey the future peak dry weather flow of 167 million gallons per day (mgd) through any combination of two of the three interceptors for maintenance purposes.
2. Convey the future peak wet weather flow of 250 mgd through the three interceptors.

The above goals are based on the sewer model from the CITY's Master Planning group and the assumption that a three-interceptor system is the optimum configuration for this reach. The actual total flow is 115 mgd.

SUBCONSULTANTS

CONSULTANT shall be solely responsible to the CITY for the content and quality of services and work product of each subconsultant. The services and work product of all subconsultants shall be satisfactory to the CITY's Director.

TASK 1 - PROJECT MANAGEMENT

CONSULTANT shall designate a Project Manager, acceptable to the Director, who shall be responsible for initiating the work, developing an Engineering Work Plan, implementing the project management procedures and controls, and maintaining effective communications among the CONSULTANT, CITY, and other involved agencies and organizations. The working interface between the CONSULTANT and CITY shall be defined by the following:

1. Within thirty (30) days after execution of this AGREEMENT by CITY, the CONSULTANT shall submit an Engineering Work Plan that shall include the following:
 - a. Description of the CONSULTANT's approach to perform the scope of services, including any constraints, specific strategies, or special considerations that apply.
 - b. The roles and responsibilities of the project team members, including subconsultants.
 - c. Procedures for maintaining quality control and adherence to budget and schedule.
 - d. A critical path method (CPM) schedule that details the activities of each subtask in an appropriate time frame consistent with the duration of this PROJECT.
 - e. A Control Budget that is supported by monthly cost and manpower forecasts for each subtask. The Engineering Work Plan shall be prepared to the degree of detail appropriate to the phase of the

PROJECT, as reasonably determined by CITY's Project Manager, and shall be progressively more detailed as engineering progresses. The Engineering Work Plan will be updated by the CONSULTANT upon selection of pipe alignment, verification of existing utilities, determination of recommended construction methodology or as deemed necessary by the CITY's Project Manager. During the PROJECT, CONSULTANT shall furnish Engineering Control Reports, based on the Engineering Work Plan. The Engineering Control Reports shall include the following:

- f. A narrative progress report of specific accomplishments during the reporting period, problems encountered or anticipated, accomplishments scheduled for the next reporting period, and results of quality control programs, technical evaluations, and inspections related to the design or construction of the PROJECT.
- g. A cost report that shows, for each task, the current period and cumulative expenditures to date, the estimated cost to completion, the approved budget, and a comparison of the latter two to show any variation.
- h. A revised critical path method schedule that compares actual to planned performance in terms of time and percent complete for each task.

Progress meetings will be held on a monthly basis to review budget and schedule status and discuss any issues or potential issues that arise.

The Engineering Control Reports shall include special submittals based upon productivity analyses or detailed performance projections as requested by CITY's Project Manager. The CONSULTANT shall, during the term of the PROJECT, provide the CITY with one (1) copy of the Engineering Control Report on a monthly basis, unless otherwise directed by the CITY's Project Manager. A new Engineering Control Report containing all the information set forth herein shall be due to the CITY's Project Manager on the first Tuesday of each month for the term of the PROJECT.

- 2. Quality Assurance (QA) will be ongoing throughout the PROJECT. CONSULTANT shall assign a Quality Assurance Manager (QAM) approved by the CITY's Project Manager, who shall have specialized experience in the design of interceptors and related facilities. Every technical memorandum, report, design, or other deliverable to the CITY is a QA milestone triggering action.

3. Overall Project Management will be ongoing throughout the execution of the PROJECT. The CONSULTANT will continuously monitor PROJECT progress as compared with budget expenditures and schedule to assure that the PROJECT is on track and resources are being effectively utilized. The budget and schedule status reports described above comprise an important part of this Project Management activity.

TASK 2 – CONSENSUS BUILDING

Successful implementation of the PROJECT will involve the cooperation of a number of stakeholders, as determined by the CITY's Project Manager. Various CITY departments will need to cooperate and work together during the design and construction phases of the PROJECT. The CONSULTANT will lead a team-building or partnering (Consensus Building) exercise to bring the critical stakeholders together at workshops, specifically arranged for this purpose. The goal of these workshops will be to gain consensus early and continuously on various design-, construction-, and operation-related issues. There will be regularly scheduled and issue-specific workshops. The issue-specific workshops shall include:

1. Alternative alignment analysis.
2. Alternative analysis for crossing of Highway 880.
3. Alternative analysis for crossing of Highway 101.
4. Environmental (CEQA) initial study.
5. Mitigated Negative Declaration (MND).
6. Geotechnical baseline reports.
7. Easements – including temporary construction easements and permanent maintenance easements.
8. Construction sequencing and scheduling.
9. Constructability review.
10. Structures F, G, and E modifications and/or replacement.
11. Interceptor hydraulics as related to the future Phase VII project.
12. Issues related to the interceptor system operation and maintenance.
13. Utility coordination.

CONSULTANT will initiate this Consensus Building exercise with an initial session of up to two days to define the PROJECT, the mission of the exercises and participants, and to define the known issues early for discussion and resolution. The regularly scheduled workshops are as outlined herein:

Workshop	Duration	Approximate Schedule
1) Initial Consensus Building Workshop	2 Days	45 Days After Notice to Proceed
2) 30 Percent Design Workshop	1 Day	2 Weeks After 30 Percent Submittal
3) 60 Percent Design Workshop	1 Day	2 Weeks After 60 Percent Submittal
4) 90 Percent Design Workshop	1 Day	2 Weeks After 90 Percent Submittal
5) Issue-Specific Workshops	1 Day (ea)	Up to 9 Meetings. As PROJECT MANAGER Determines are Needed
6) Utility Coordination Workshops (The utility coordination workshop needs to be conducted early in the predesign phase.)	1 Day (ea)	Up to 2 meetings. As PROJECT MANAGER Determines are Needed
7) Risk Management Workshop	1 Day (ea)	Up to 2 meetings. As PROJECT MANAGER Determines are Needed

Issue-specific Consensus Building workshops will be scheduled on an as-needed basis, as determined by the CITY's Project Manager, and attendance will be determined on a case-by-case basis, as determined by the CITY's Project Manager. It is anticipated that the issue-specific and utility coordination workshops (eight and two estimated, respectively) will be single day events. The product of these workshops will be Memoranda of Consensus outlining the issues discussed, solutions proposed, and a statement of the consensus reached and any related action items. CONSULTANT will facilitate the workshops by providing agenda, appropriate notifications, leading the discussion, and preparing and distributing the Memoranda of Consensus.

TASK 3 – ALTERNATIVE ANALYSES

CONSULTANT shall conduct alternative analyses for tunneling applications, horizontal and vertical alignment. The product of these alternative analyses will be a technical memorandum (TM), covering the pipeline alignment recommendations

(horizontal and vertical) and construction methods. The TM shall describe the alternative analyses, design criteria, and recommendations and shall consist of an executive summary supported by technical memoranda and appendices, as appropriate. CONSULTANT's services under this task shall include:

Subtask 3.A. Pipeline Crossing Alternatives. Evaluate various design alternatives for crossing Highways 101 and 880. Additionally, evaluate various methods to be utilized to accomplish those crossings, i.e., bore and jack, microtunneling, dewatering, etc.

Subtask 3.B. Pipeline Vertical Alignment. Develop, evaluate, and analyze three (3) design alternatives for pipeline vertical alignment and grade line to maintain airflow in the new interceptor.

Subtask 3.C. Pipeline Horizontal Alignment. Develop, evaluate, and analyze three (3) design alternatives for pipeline horizontal alignment from Structure F and/or G to Structure E and crossing locations under Highways 101 and 880.

Subtask 3.D. Pipeline Sizing and Hydraulics. Evaluate and analyze the new interceptor size as related to capacity. The criteria for the interceptor system for sizing shall be as follows:

1. Convey the future peak dry weather flow through any combination if one interceptor is taken off-line for maintenance purposes.
2. Convey the future peak wet weather flow through the interceptors if all interceptors are on-line.
3. Maximum $d/D = 67\%$.
4. Minimum velocity = 2.5 feet/sec at $d/D = 50\%$.
5. Manning's roughness coefficient; $n = 0.013$.
6. The CITY will provide the CONSULTANT figures for future peak dry weather flow and future peak wet weather flow concurrently with the issuance of the NTP.

Subtask 3.E. Not included in scope.

Subtask 3.F. Environmental Studies and CEQA Compliance.

1. **Initial Study.** CONSULTANT shall perform an initial environmental study. The initial study shall follow the CITY's initial study template found at the link <http://www.sanjoseca.gov/planning/eir/ConsultantPage.asp>. Upon review of the initial study, the CITY's Planning Department will determine the type of declaration or if an EIR is required.

To complete the initial study, CONSULTANT shall complete the following:

- a. Prepare a project description. Include the effect of the PROJECT on utilities and service systems.
- b. Following the BAAQMD CEQA Guidelines, prepare an air quality study.
- c. Conduct a biological resources reconnaissance. It is assumed that no rare, threatened, endangered, or special status species of flora or fauna are known to inhabit the site.
- d. Because the portion of the PROJECT through which the 60-inch brick sewer traverses is partially landscaped, conduct a tree survey.
- e. Determine if any portion of the site is within an archaeologically sensitive area. If it is, prepare an archaeological report. Meet with the CITY's Environmental Senior or Principal.
- f. Consult the CITY's Historic Preservation Officer, to determine if buildings on the site are over 45 years old. Complete the Historic - Review Sheet 9-06 form. If a California Department of Parks and Recreation review is required, prepare a Primary Record and the Building, Structure and Object Record; complete the CITY's Talley Sheet; and prepare a cover letter summarizing the building's significance and submit to the CITY's Environmental Principal Planner.
- g. Incorporate from the geotechnical engineering report prepared in Task 4, the description of the geologic hazard zone or liquefaction zone as applicable and the Phase I site assessment for property along the proposed alignment which has a history of hazardous material use, such as industrial uses, gas stations, and/or farmland.
- h. Prepare a hydrology and water quality assessment that will allow quantification of the effect of storm water flow during the construction of the PROJECT and once it is complete. Prepare a pervious and impervious surfaces comparison.
- i. Confirm that the subject site is not located in an area that is protected by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Prepare a summary memorandum.
- j. Conduct a site environmental noise study describing all residential and commercial areas where the existing noise levels are 60DNL or greater and all industrial areas where the existing noise levels are 70DNL or greater. Determine short-term noise impacts from

construction activities. Meet with the CITY's environmental team to discuss the noise report.

- k. Determine if the PROJECT will induce substantial population growth. The PROJECT site is located in an urbanized area of San Jose and well served by existing fire, police, school, park, and other public facilities, thus it is assumed that no non-sewer public facilities will have to be constructed to accommodate the PROJECT. The proposed PROJECT will also not increase the number of residents on the site, and therefore is not expected to impact the use of existing parks or recreation centers such that deterioration would occur or be accelerated.
- l. Coordinate with the construction impact mitigation plan (CIMP) as prepared by the CITY and prepare a traffic impact report to address traffic impacts during construction. Coordinate with the CITY's Department of Public Works to confirm that the PROJECT is in conformance with the CITY's Transportation Level of Service Policy (Council Policy 5-3) and will not create a significant long-term traffic impact.
- m. Prepare a draft findings of significance, and submit it for review. Meet with CITY staff to review, then revise and resubmit.

- 2. **Draft Mitigated Negative Declaration.** After the initial study is complete and if it is determined that the PROJECT will not have a significant effect on the environment, CONSULTANT shall prepare for the CITY's Director of Planning, Building & Code Enforcement a draft mitigated negative declaration (MND), which describes the PROJECT revisions that clearly mitigate the effects to a less than significant level. If it is determined an environmental impact report (EIR) is required, CONSULTANT shall prepare an EIR as an Additional Service.

CONSULTANT shall prepare the notice of the public review period and shall address the public's written comments regarding the information, analysis, and mitigation measures in the Draft MND. Before the MND is adopted, CONSULTANT shall prepare written responses to any comments and revise the Draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the Final MND.

CONSULTANT shall also prepare an application to request that the California Department of Fish and Game (DFG) evaluate the PROJECT and determine if it is eligible for a CEQA filing fee exemption. CITY will pay for DFG fees even if the effect on fish and wildlife is minimal or de

minimis. Information in the brief project description for the DFG will come directly from the CEQA document prepared for the PROJECT.

Subtask 3.G. Comparison of Alternatives. CONSULTANT shall prepare a summary analysis of the four alignment alternatives. The analysis shall summarize the analyses described in Subtasks 3.A through 3.E and also address the constructability, availability of right-of-way (ROW), the environmental, and the traffic impact of each. CONSULTANT shall conduct a workshop for the selection of the best alternative and prepare exhibits for and present the selected project to CITY management and/or the public.

Subtask 3.H. Pipeline Technical Memorandum. CONSULTANT shall summarize the results of the alternative analyses in a technical memorandum (TM) for CITY's review and written acceptance prior to proceeding with the PROJECT's initial design. (A portion of Subtask 4.A shall be completed and discussed in this TM: The intent is to identify any insurmountable/fatal conflicts with the four alignment alternatives prior to submission of the TM.) This TM will be used as guidance document for the design and any change from the TM design concept will be considered as additional services under Task 10.

TASK 4 - INITIAL DESIGN

CONSULTANT shall complete the preliminary design of the PROJECT for the alignment of the interceptor shown in Exhibit B-1. The initial design shall consist of two parts: Site Investigation and Initial Design (30 Percent Complete).

Subtask 4.A. Site Investigation/Background Gathering. The CONSULTANT shall investigate the full extent of the PROJECT site, as shown in Exhibit B-1, to determine if there are any potential utility conflicts with the proposed alignment of the PROJECT. The site investigation shall include reviewing plans and record drawings showing utilities or easements as well as visiting and inspecting the site itself. If the CONSULTANT determines that there are possible utility conflicts with the proposed sewer facilities, the CONSULTANT shall coordinate with the appropriate CITY departments and/or utility companies to determine the location of the utilities and easements in question. The CONSULTANT shall also obtain and review additional existing utility mapping including PG&E, Pac Bell, MCI, and others as applicable.

CONSULTANT acknowledges that it is of great importance to the CITY to identify as many conflicting utilities as possible during the design phase of the PROJECT. CONSULTANT agrees to use its best efforts as a design professional to locate and identify conflicting utilities consistent with the requirements and obligations of this Section 4.A. and of Section 5.A of the AGREEMENT. The CITY will provide all PROJECT-related information (including but not limited to, data, maps, reports, conceptual and preliminary plans, and photographs) and will assist CONSULTANT in obtaining available information along the PROJECT alignment.

CONSULTANT shall coordinate the PROJECT design with all utility companies for required utility relocations associated with the PROJECT and perform the following:

1. Contact Underground Service Alert (USA) during the initial design stage of the PROJECT and get a list of service carriers in the PROJECT area.
2. Contact each of the utility companies on the list and request information on existing utilities and utilities planned to be constructed within the PROJECT limits.
3. Locate underground utilities along the selected alignment and input to the base map.
4. Conduct at least two utility workshops with relevant utility companies during the 60 percent design stage for the purpose of discussing PROJECT design, clarifying the completeness and accuracy of utility layouts in the PROJECT plans, protection of existing utilities to remain in place, potential utility conflicts as well as timing and sequence of utility relocations. All relevant information on utility protection and relocation that may impact PROJECT construction schedule shall be included in the PROJECT specifications.
5. Recommend to the Director if additional utility potholing is necessary at areas where there may be potential utility conflicts.
6. During PROJECT design, contact the CITY's Utility Section regularly to determine if there are new utilities constructed within the PROJECT area. Contact person is Sal Kumar (408) 975-7364.

Subtask 4.B. Initial Design (30 Percent Complete). Based on the projected flows, provided by the CITY, and design criteria and preliminary layouts as established in the 1986 James M. Montgomery, Consulting Engineers, Inc. Fourth Major Interceptor Predesign Report, the CONSULTANT's first submittal under this task shall consist of initial design plans, initial technical specifications, and supporting background documentation. The initial design shall include the preliminary design of reconnections of laterals and collector sewers previously connected to the existing sewer. This submittal shall include the PROJECT's final alignment and the following:

1. **Pipeline Design Criteria.** The CONSULTANT shall prepare design criteria for the PROJECT. The design criteria shall be used during final design and summarized in a memorandum for review and written acceptance by the Director. Design criteria shall include, but not be limited to, pipe materials, allowable slopes, materials and hydraulic operation of Structures F, G, and E, pipe lining materials, gate structures and types, and identification of all permits required for the PROJECT.

2. **Initial Plan and Profile Drawings.** The CONSULTANT shall prepare plan and profile sheets indicating the location of existing utilities, general topography, and the proposed alignment of the PROJECT sewers and structures. Plan and profile drawings shall be two window with the plan view above (plan view will be manuscript type without aerial photo background) and profile with grid shown below. Horizontal and vertical scales of 1 inch equals 40 feet and 1 inch equals 4 feet, respectively, shall be used for the plan and profile sheets.
3. **Survey.** CONSULTANT's surveyor will perform aerial mapping and ground surveying to develop topography and to identify surface features and accessible underground utility structures (manholes and catch basins). Aerial mapping and surveying will be prepared in AutoCAD format.
The CONSULTANT shall prepare base maps showing site topography using a combination of aerial and ground surveying. Horizontal and vertical scales of 1 inch equals 40 feet and 1 inch equals 4 feet, respectively, shall be used for the plan and profile sheets. The aerial surveying and mapping shall be based on the new aerial survey work performed by CONSULTANT.
4. **Initial Right-of-Way Requirements.** The CONSULTANT shall coordinate the PROJECT's right-of-way requirements with the CITY's Engineering and Construction Services Division, Real Estate Division, Department of Planning, Building and Code Enforcement, Redevelopment Agency, and Department of Transportation. This work is to identify proposed future street widths, configurations, landscaping and right-of-way along the alignment as well as sizes of permanent and construction easements required to accommodate the proposed sewer interceptor and structures. The CONSULTANT shall summarize and present these findings in a report to the CITY's Project Manager.

Preparation of any easement documents shall be performed by the CONSULTANT as an Additional Service, upon prior written request by the Director or designee.
5. **Geotechnical Investigations.** CONSULTANT shall perform a geotechnical investigation for the PROJECT consisting of the following tasks: Review Available Information and Data, Conduct Field Exploration and Laboratory Testing Programs, Perform Engineering Analyses/Evaluations, and Prepare Geotechnical Reports. The scope of each subtask is described below.
 - a. **Review Background Information.** CONSULTANT shall compile and review available published and unpublished information and reports relevant to the geologic and geotechnical conditions along the pipeline

alignment and at the appurtenant facility sites. Sources of information will include prior geotechnical studies; geologic, soil, ground failure, and fault maps; and borings and well logs from the following possible sources: United States Geological Survey, California Geological Survey, City of San Jose, Caltrans, and CONSULTANT's project archives.

The CITY shall provide data from other pipelines that may have been constructed in the alignment vicinity. Available information will be summarized on maps, and copies of pertinent data will be retained. Pertinent information will be included in the geotechnical data report (GDR). Based on the information collected and reviewed in this subtask, the elements of the field exploration program shall be re-evaluated and refined.

- b. **Conduct Field Exploration and Laboratory Testing Programs.** Conditions along the pipeline alignment and at appurtenant facility sites shall be explored using rotary wash/auger borings. Exploration locations shall be reviewed for equipment access and marked in the field to comply with USA requirements. The exploration locations shall be staked and/or otherwise marked in the field for later identification and surveying by the PROJECT surveyors. Wherever possible, CONSULTANT also shall locate all exploration points using readily identifiable features that will be shown on the mapping (e.g., street intersections, etc.). All fieldwork shall be coordinated with the CITY.

Prior to beginning fieldwork, CONSULTANT shall develop and submit a Geotechnical Investigation Work Plan to the CITY's Project Manager for approval. The work plan shall include maps indicating the locations of proposed field exploration points, and access routes to those locations, if they are not readily accessible from the public right-of-way. The work plan shall include a table indicating the purpose of proposed exploration points, proposed depths, planned in situ testing, locations of proposed piezometers/wells, and environmental considerations associated with proposed exploration points. The work plan shall also include a tentative project schedule. Applicable portions of the work plan shall provide sufficient detail for obtaining permits for fieldwork and for public outreach staff to notify affected public in advance of fieldwork (if necessary).

CONSULTANT shall work closely with CITY staff to develop the methods needed to restore exploration locations. CONSULTANT shall communicate with the CITY's permitting agencies and the Santa Clara Valley Water District, complete permit applications, and work closely with the CITY staff to obtain permits needed for the exploration program. Before fieldwork begins, exploration points shall be checked

for the presence of underground utilities using USA and a private utility locator.

CONSULTANT understands that some boreholes might encounter soil and groundwater containing pollutants or hydrocarbons because of existing or past industrial development. CONSULTANT shall develop a project-specific health and safety plan before fieldwork begins. The plan shall be submitted for the CITY's review. A portable photo-ionization detector (PID) shall be used during the subsurface exploration program to monitor the air at each exploration location. If the PID detects elevated levels of volatile compounds or if evidence of other hazardous substances is observed, appropriate measures shall be taken to assure the health and safety of field personnel.

Exploration locations with an average spacing of approximately 500 feet along the pipeline alignment shall be used to characterize ground conditions. Along reaches where existing subsurface information is available, the spacing of exploration points may increase. The spacing of the exploration locations may decrease where information is required for trenchless pipe installation techniques (e.g., microtunneling). CONSULTANT estimates that the alignment and appurtenant facility sites can be adequately explored with approximately 10 borings.

Auger drilling techniques shall be used to advance the boring until groundwater is encountered. Below groundwater, rotary wash drilling techniques shall be used.

In general, borings along the pipeline alignment and at appurtenant facility sites shall be advanced to a depth of about 30 to 50 feet below ground surface and at least 15 feet below expected pipeline trench/appurtenant structure bottom slab elevations. Soil samples shall be logged by an experienced engineer or geologist that is supervised by a registered geotechnical engineer. Where borings are drilled through pavement, the borehole log shall note the thickness of the pavement section. Where used to explore tunneling locations, such as the crossing of Highways 101 and 880, borings shall be as much as 60 feet deep. Soil samples shall be obtained for visual classification and laboratory testing. Soil samples also will be collected for corrosion potential testing.

Soil cuttings that appear to be contaminated with potentially hazardous substances shall be temporarily stored in sealed drums and placed at a suitably secured site near the proposed pipeline alignment. CONSULTANT shall be responsible for sampling and testing the soil stored for substances and chemicals that are of

environmental concern. Any additional services related to drums, storage, and testing and disposal of contaminated materials, may be performed as Additional Services in accordance with Task 10 upon the prior written approval of the Director or designee. The CITY will provide the proper signatures for manifesting the material as necessary.

Cuttings that do not appear to be contaminated with potentially hazardous substances shall be temporarily stored in a dumpster that will be kept at the Structure E median island site. CONSULTANT shall be responsible for the installation of appropriate fencing of the dumpster and all costs related to the dumpster rental and fencing.

Piezometers shall be installed in six borings (one on each side of 101 and 880 and two as field-located) where long-term monitoring of groundwater levels is necessary. Monitoring of groundwater levels shall be by use of a data logger from the time of installation of the last monitoring well through design. Because groundwater and seepage during construction can cause significant difficulties, field permeability tests shall be performed in selected piezometers where high groundwater and granular soils are encountered. CONSULTANT has assumed that water generated from the pump tests can be dissipated in the CITY's sanitary sewer system. The purpose of these tests is to evaluate the hydraulic conductivity (permeability) of the soil. CONSULTANT shall incorporate provisions for the removal and proper abandonment of the piezometers into the construction contract documents.

In accordance with Santa Clara Valley Water District regulations, borings not converted into piezometers shall be backfilled with grout. Asphalt surfaces shall be repaired with cold patch or grouted to the surface. Methods used to dispose of the cuttings from the drilling operations shall be carefully coordinated with the CITY. The cuttings from the borings cannot be disposed of by spreading them out on the ground surface along the route.

CONSULTANT shall perform laboratory tests on selected samples recovered from the borings to evaluate the engineering properties of the soil along the pipeline alignment and at appurtenant facility sites. A standard set of tests, which may include Atterberg limits, grain size distribution including clay and silt percentage, moisture content, unit weight, compaction, shear/compressive strength, and consolidation shall be performed to evaluate the composition and characteristics of the soil pertinent to the performance and design of the pipeline and appurtenant facilities.

- c. **Perform Engineering Analyses/Evaluations.** Engineering analyses and evaluations shall be performed to develop recommendations and geotechnical parameters for the final design of the pipeline and the appurtenant facilities. Seismic design criteria for the pipeline and appurtenant facility sites shall be developed using the 2006 California Building Code (CBC) criteria.
- d. **Prepare Geotechnical Reports.** Geotechnical reports that shall be prepared and submitted to the CITY include:
- (1) *Geotechnical Data Report (GDR).* The GDR for the PROJECT shall contain factual information (such as the locations of subsurface exploration points, logs of boreholes, results of field and laboratory tests, and other supporting data) that were used to develop the interpretations of the subsurface conditions along the alignment and develop the geotechnical recommendations for the design of the PROJECT. The information in the GDR also is made available to contractors to help them prepare the bids for construction.
 - (2) *Geotechnical Memorandum for Design (GMD).* The GMD shall present descriptions and maps of pertinent geologic conditions, and profiles/cross sections (as appropriate) showing interpretations of subsurface soil and groundwater conditions. The GMD shall also summarize the analyses and evaluations and clearly present geotechnical recommendations for design. Specifically, the GMD shall include the following interpretations and recommendations for the pipeline alignment and the appurtenant facility sites:
 - (a) Geologic/soil conditions and potential hazards.
 - (b) Anticipated groundwater conditions and general dewatering requirements.
 - (c) Site preparation (including clearing, grubbing, stripping, preparation of fill and structure subgrades, and ground modification or improvement).
 - (d) Anticipated excavation conditions and general support requirements.
 - (e) Fill and backfill materials, compaction, and methods of placement.
 - (f) Unit weight of fill and backfill (moist and buoyant).

- (g) Drainage requirements beneath and adjacent to junction structures.
- (h) Methods to resist uplift forces.
- (i) Geotechnical design parameters for junction structures and appurtenant facilities.
 - 1) Allowable bearing pressures.
 - 2) Static and seismic lateral earth pressures (active, passive, at rest).
 - 3) Resistance to lateral loads.
 - 4) Effects of surcharge loads.
- (j) Amount of settlement (total and differential) including the effects of loading and unloading, when appropriate.

The discussions for the pipeline shall also include:

- (a) Anticipated excavation conditions, including trench stability, and general shoring requirements.
- (b) Identification of pipeline segments with subsurface conditions that may require special construction techniques such as soft/saturated soil, unstable trench bottoms, and expansive soil conditions and pipeline design considerations/parameters including:
 - 1) Pipe zone bedding and backfill requirements (materials and compaction, including the use of soil-cement slurry).
 - 2) Trench zone and final backfill.
 - 3) Ground surface restoration.
 - 4) Unit weight of backfill (moist and buoyant).
 - 5) Rankine's lateral pressure ratio times the coefficient of friction of backfill.
 - 6) Modulus of soil reaction.
 - 7) Coefficient of friction between pipe and backfill.

8) Cohesiveness.

- (3) *Deliverables.* The anticipated deliverables include Geotechnical Investigation Work Plan, PROJECT-specific Health and Safety Plan, Geotechnical Data Report, and Geotechnical Memorandum for Design. Five (5) hard copies of the draft and final work plan and geotechnical reports shall be submitted. Reports also shall be submitted in electronic (.pdf) format.
6. **Phase 1 Environmental Site Assessment.** CONSULTANT shall conduct a Phase I Environmental Site Assessment (ESA) to evaluate the possible presence of chemical constituents in soil and groundwater along the PROJECT alignment. This information will be used to assess potential environmental impairment to the PROJECT alignment and to identify related construction and PROJECT cost issues. The investigations shall include a site reconnaissance, review of available historical documents (commercially available Sanborn Fire Insurance maps, historical and current USGS maps, and/or aerial photographs), and a regulatory agency file search using a commercial database search firm to obtain information pertaining to environmental investigations on or near the possible pipeline alignment corridors. Additionally, regulatory agencies shall be visited to further review and evaluate the types and levels of the contamination possible at each environmental site identified along the alignment corridors and the documented depth to groundwater at certain locations. Field investigations are not included. If the results of the Phase I indicate that additional investigation is required, field investigations (including sampling to identify limits of contamination as they affect the PROJECT) to identify the types of hazardous materials and the impact said materials shall have on the construction of the PROJECT may be performed as additional work in accordance with Task 10, Additional Services. The results of the Phase I ESA shall be presented in a technical report. Five (5) copies of the draft technical report shall be delivered to the Director for review and written acceptance. After receipt of one set of consolidated comments from the CITY, the CONSULTANT shall modify the technical report and prepare and deliver five (5) copies of the final technical report.
7. **Geotechnical Baseline Report (GBR).** The CONSULTANT shall prepare a GBR. The primary purpose of the GBR is to establish contractual statement of the geotechnical conditions anticipated to be encountered during underground and subsurface construction in the context of the anticipated trenchless installation method. The GBR shall follow the Geotechnical Baseline Reports for Construction – Suggested Guidelines published by the American Society of Civil Engineers. A meeting will be held with the CITY personnel including but not limited to applicable engineering, legal, and contracts personnel to explain the

implications of a GBR and establish consensus on the use of this risk management tool. During this phase the deliverable for the GBR will be an outline of the proposed report and a contracting practices memo.

8. **Traffic Control Conceptual Plan.** The CONSULTANT shall provide a conceptual traffic control plan, developed by a registered traffic engineer, for the PROJECT. Specific items to be included in the traffic control conceptual plan shall include, but not be limited to, traffic impacts of construction, impacts on private businesses along the PROJECT alignment, lane closures, and complete road closures. At the written request of the CITY's Project Manager, CONSULTANT shall conduct a meeting of concerned businesses and homeowners along the PROJECT alignment at a location determined by the CITY. The purpose of the meeting is to present the PROJECT to the public and to identify any problem areas for construction of the PROJECT. The conceptual plan shall address the need, if any, for the closure of any streets during construction of the PROJECT and, should the need exist, the plan shall identify proposed vehicular and pedestrian rerouting alternatives.
9. **Estimated Cost of Construction.** The CONSULTANT shall submit to the CITY a preliminary engineer's opinion of probable construction cost of PROJECT, along with a basis of that estimate.
10. **Flow Diversion and Odor Mitigation During Construction.** The CONSULTANT shall furnish the CITY, in the form of a TM, a hydraulic analysis and requirements, for flow diversions, and flow diversion schematics for the PROJECT. The analysis shall also include the CONSULTANT's recommended options relating to bypass pumping and gravity diversions. The CONSULTANT shall also furnish preliminary recommendations on odor mitigation during the various phases of construction of the PROJECT. The CONSULTANT shall update these options and recommendations under Final Design Tasks 5 and 6.
11. **Risk Management Plan.** The CONSULTANT shall prepare a Risk Management Plan in accordance with requirements of the Code of Practice for the Risk Management of Tunnel Works 2006 (TCOP). As stated in the TCOP, risk management is a systematic approach to:
 - a. Identifying hazards and associated risks.
 - b. Quantifying risks including their schedule and cost implications.
 - c. Identifying pro-active actions planned to eliminate or mitigate risks.
 - d. Identifying methods to be utilized for the control of risks.

- e. Develop a risk register to be updated throughout design and construction.

An initial risk assessment workshop will be conducted to outline the risk assessment process and identify risks. The preliminary Risk Management Plan shall document the process and actions above.

Subtask 4.C. Meetings. During the 30 percent Initial Design stage, the CONSULTANT shall attend up to ten (10) meetings relative to the design, construction, and intended use or function of the PROJECT as requested by the CITY's Project Manager. Specialty subconsultants (geotechnical, tunneling, and structural) shall attend up to four meetings, as directed by the CITY's Project Manager, as part of the Initial Design (30 percent complete).

The CONSULTANT shall submit the items described in Task 4 to the CITY's Project Manager for review and written approval before commencing the performance of the services in Final Design Task 5. The submittal shall contain twenty-five (25) sets of documents for distribution within the CITY (10 sets) and to various utilities and agencies (15 sets). Plans shall be full-size, 24" x 36".

TASK 5 - FINAL DESIGN (60 PERCENT COMPLETE)

CONSULTANT shall submit to the CITY's Project Manager the Final Design - 60 Percent Complete submittal, which shall consist of progress prints of the plan and profiles and special details and progress prints of the technical specifications needed for the PROJECT. The submittal for the plans and specifications shall show, for construction purposes, the scope, plan and profiles, details, locations of existing utilities, proposed utility relocations, abandonment work, new easements, as required by the new pipeline alignment and measurements of the work to be performed by a contractor. The submittal shall include engineering or trench details that the CITY deems necessary for the construction of the PROJECT. The design of the pipelines, and structures, for the PROJECT shall include the following:

Subtask 5.A. Pipelines. The 60 percent final design shall include a pipeline alignment that reflects the proposed final design, allowing for design modifications of Tasks 5 and 6. The CONSULTANT shall perform utility potholes at up to 25 locations, as recommended by the CONSULTANT and approved by the CITY, for the purpose of identifying any potential utility conflicts and incorporating such information on the plans. If, based on all the information analyzed by the CONSULTANT, the CONSULTANT concludes that additional potholing, exploratory excavations or any other action is reasonably necessary in its professional judgment to identify the location of potential utility conflicts, CONSULTANT shall provide the CITY's Project Manager with a written report making such recommendation(s) and setting forth the basis for such recommendation(s). The CITY's Project Manager may authorize, in writing, the CONSULTANT to perform as

an Additional Service additional potholing or exploratory excavations, or to take any other action to identify potential utility conflicts identified by the CONSULTANT.

At each potholing and/or exploratory excavation, the CONSULTANT is responsible for coordinating with the relevant utility to ensure that a representative of the utility is present to observe the potholing and/or exploratory excavation. Upon CONSULTANT's request, the CITY's Project Manager may provide a written waiver of the presence of a representative of the relevant utility company at a particular potholing and/or exploratory excavation site. For purposes of the Protection of Underground Infrastructure provisions set forth in the Government Code, Section 4216.2 CONSULTANT shall be the "excavator." The 60 percent final design shall also include proposed flow diversion requirements, reinstatement of existing brick interceptor connections, anticipated construction schedule, tree replacement plans, traffic control plans, recommendations for mitigation of odors during PROJECT construction, and required construction easement and acquisitions of right-of-way. Technical specifications in draft form shall include anticipated sections needed to complete the PROJECT.

Subtask 5.B. Structures. The CONSULTANT shall provide the structural and mechanical design for the construction or modification of Structures E, F and G. The proposed structure construction shall be similar in the method of interceptor isolation and in gate design and configuration to the existing Structures E, F, and G. The submittal for the final design (60 percent complete) shall include progress plans and specifications required for the proposed structures. The submittal shall include structure configurations, dimensions, materials, structural details, anticipated gate locations, and potential construction sequencing for the structures. Anticipated junction structures are at Commercial and 5th, Commercial and 4th, 4th and Gish, and 4th and Old Bayshore. At Old Bayshore and Zanker, connection will be made to Structure E.

Subtask 5.C. Abandonment Plans. Not included in scope.

Subtask 5.D. 60 Percent Construction Cost Opinion. Not included in scope.

Subtask 5.E. 60 Percent Geotechnical Baseline Report. Not included in scope.

Subtask 5.F. Constructability Review. CONSULTANT will conduct a constructability review of the PROJECT construction documents. The review will focus on the construction of the PROJECT considering economics, availability of materials, and the interface to the existing treatment plant and processes. The constructability review will evaluate the PROJECT budget and the PROJECT schedule. The specified sequences of construction and established construction parameters will be reviewed for the purpose of identifying special issues that, if addressed prior to the construction phase, might reduce overall PROJECT cost,

time, and operations inconvenience. Interviews with the CITY and local contractors will be conducted to discuss/evaluate certain issues.

For the constructability review, the plans and specifications shall be reviewed to see that they:

1. Are reviewed with respect to contractor constructability and ease of construction management in terms of the "front-end" documents.
2. Specify materials, methods, and techniques that are compatible.
3. Include consideration of special limitations imposed by the site and existing facilities operations.
4. Contain specifications which adequately relate to the plans and are not unnecessarily restrictive.
5. Verify that permits have been obtained and the requirements have been incorporated into the contract documents.
6. Are compatible with generally accepted construction procedures/equipment.

Recommendations that can serve to improve constructability of the PROJECT, to minimize impacts to the interceptor sewer operations, and to enhance schedule and cost issues will be forwarded to the CITY in a TM. A supplemental review of the plans and specifications shall be conducted to confirm incorporation of the previous comments.

Subtask 5.G. Meetings. During the 60 percent final design stage, the CONSULTANT shall attend up to ten (10) meetings relative to the design, construction, and intended use or function of the PROJECT as requested by the CITY's Project Manager. Specialty subconsultants (geotechnical, tunneling, and structural) shall attend up to four (4) meetings as part of the final design (60 percent complete), as requested by the CITY's Project Manager.

The submittal for the final design (60 percent complete) shall contain twenty-five (25) sets of full size plans and technical specifications for distribution within the CITY (10 sets) and to utilities and other agencies (15 sets). The CONSULTANT shall submit Task 5 items to the Director for review and written approval before commencing Task 6.

TASK 6 - FINAL DESIGN (90 PERCENT COMPLETE)

The CONSULTANT shall continue with the final design of the PROJECT, incorporating the CITY's design comments and taking the PROJECT design from 60 percent complete to 90 percent complete. The CONSULTANT shall prepare final

plans and specifications for the construction of the PROJECT to a level where the plans and specifications are substantially completed and ready for CITY's 90 percent review.

The CONSULTANT shall submit to the CITY a submittal representing the final design (90 percent complete). The submittal shall consist of the plans and specifications, substantially complete, showing in detail, for construction purposes, the scope, pipe plan and profiles, design and details of structures, utility locations and relocations, abandonment works, new right-of-ways, as required, details, and measurements of the work to be performed by a contractor. This submittal shall be complete enough to use to bid the PROJECT, except for minor fine-tuning or revisions from the CITY. At this stage, CITY should have obtained all right-of-ways necessary to bid the PROJECT.

As part of the submittal, the CONSULTANT shall provide specific design items, such as odor mitigation measures, flow diversions, and sewer laterals realignment/reconnection during construction and other items requested by the CITY. The specifications shall be complete and include all required bid proposal forms and technical provisions clearly defining the PROJECT's scope of work. The CONSULTANT shall, on behalf of and with the consent of the CITY's Project Manager, apply for and obtain all permits necessary for the construction of this PROJECT. Encroachment and regulatory permits shall include but not be limited to those from the county, state, or federal governments, the water district, railroads, utilities, and any other agencies.

The design of the pipelines and structures shall include the following:

Subtask 6.A. Pipeline. The submittal for the final design (90 percent complete) shall include detailed plans and specifications of the proposed pipeline, sewer diversions, and construction staging.

Subtask 6.B. Structures. The submittal for the final design (90 percent complete) shall include detailed plans and specifications of the proposed structures and proposed modifications at Structure E.

Subtask 6.C. Abandonment Plan. Not included in scope.

Subtask 6.D. 90 Percent Construction Cost Estimate. Not included in scope.

Subtask 6.E. Meetings. During the 90 percent final design, CONSULTANT shall attend up to ten (10) meetings relative to the completion of the design, construction, and intended use or function of the PROJECT as requested by the Director. Specialty subconsultants (geotechnical, tunneling, and structural) shall attend up to four (4) meetings as part of the final design (90 percent complete), as determined by the CITY's Project Manager.

CONSULTANT shall coordinate the PROJECT design with all utility companies for required utility relocations associated with the PROJECT.

Subtask 6.F. Geotechnical Baseline Report (GBR). The CONSULTANT will prepare a 90 percent draft of the GBR.

Subtask 6.G. Risk Management Plan. The CONSULTANT will update the risk management to reflect mitigation measures implemented during design and provide and update risk register.

Subtask 6.H. Tunnel Contractor Prequalifications. The CONSULTANT will develop a Contractor Prequalification questionnaire to be utilized in the CITY's prequalification process and perform the following activities.

1. The Consultant shall develop a minimum construction experience requirement for bidders for the PROJECT ("Technical Prequalification") for incorporation into the CITY's standard prequalification questionnaire. A draft shall be submitted to the CITY for review and comments. The Consultant and CITY shall meet to discuss the CITY's comments.
2. Finalize prequalifications advertisement and prequalifications questionnaire. Submit one reproducible copy to the CITY's Project Manager.
3. Contact local cities, counties, consultants, and/or special districts, and identify a list of contractors that have prior experience with similar projects. Contact the contractors identified to advertise the CITY's project.
4. Facilitate the CITY's review of prequalifications submittals received from interested contractors.
5. Facilitate the CITY's interviews and evaluation process to define a list of qualified tunnel contractors.
6. Conduct an orientation meeting with selected tunnel contractor(s). Identify project data to be provided by the CITY to selected firms.

Subtask 6.I. Permitting Support.

1. CONSULTANT will prepare permit application packages, including application forms (to be signed by CITY), site plans and work descriptions, as required by permitting agency. CONSULTANT will apply

for permits and approvals required to construct the PROJECT on behalf of the CITY, other than those being obtained by the contractor that are specific to their operations (OSHA, air quality, etc.). Permit fees will be paid by the CITY at their actual cost.

2. Permits include two Caltrans encroachment permits and a CITY of San Jose encroachment permit (if required).
3. Coordinate with permit agency, revise plans per comments, and monitor status of permit to approval.
4. Incorporate permit conditions in the construction documents.

The submittal for the final design (90 percent complete) shall contain twenty (20) sets of full size plans and technical specifications. The CONSULTANT shall submit Task 6 items to the Director for written approval before commencing Task 7.

TASK 7 FINAL DESIGN (100 PERCENT COMPLETE)

The CONSULTANT shall complete the final design of the PROJECT, incorporating the CITY's 90 percent design comments and taking the PROJECT from 90 percent to 100 percent complete. At this stage, the PROJECT's plans and specifications are the final bid documents and shall be ready for signature by the Director. Also, CONSULTANT will have obtained all required encroachment and regulatory permits necessary to bid the PROJECT:

The CONSULTANT shall submit to the CITY a submittal representing the final design (100 percent complete). The submittal shall consist of the final plans and specifications showing in detail, for construction purposes, the scope, details, and measurements of the work to be performed by a contractor and shall show engineering or design details that the CITY deems necessary for the construction of the PROJECT. As part of the submittal, the CONSULTANT shall provide specific design items, such as odor mitigation measures, flow diversions, and sewer realignment/reconnection during construction and other items requested by the CITY.

The specifications shall also include copies of all permits and shall be in its final form. Permits shall include but not be limited to those from the county, state, or federal governments, the water district, railroads, utilities, and any other agencies. The design of the pipelines and structures shall include the following:

Subtask 7.A. Pipeline. The submittal for the final design (100 percent complete) shall include detailed plans and specifications of the proposed pipeline.

Subtask 7.B. Structures. The submittal for the final design (100 percent complete) shall include detailed plans and specifications of the proposed structures.

Subtask 7.C. Abandonment Design. Not included in scope.

Subtask 7.D. Opinion of Probable Construction Cost. As part of the 100 percent final design submittal, the CONSULTANT shall prepare and submit an amended Engineer's opinion of probable construction cost.

Subtask 7.E. Meetings. During the 100 percent final design, CONSULTANT shall attend up to four (4) meetings relative to the completion of the design, construction, and intended use or function of the PROJECT as requested by the CITY's Project Manager. Specialty subconsultants shall attend up to one (1) meeting as part of the final design (100 percent complete) as requested by the CITY's Project Manager.

Subtask 7.F. Geotechnical Baseline Report (GBR). The submittal for the final design (100 percent complete) shall include the final GBR

Subtask 7.G. Risk Management Plan. The submittal for the final design (100 percent complete) shall include a risk register to be included as part of the contract documents.

CONSULTANT shall coordinate the PROJECT design with all utility companies for required utility relocations associated with the PROJECT.

The submittal for the final design (100 percent complete) shall contain twenty five (25) sets of full size plans and technical specifications for distribution. The CONSULTANT shall submit Task 7 items to the CITY for approval before commencing Task 8.

TASK 8 BID DOCUMENT PREPARATION

Subtask 8.A. Bid Document Preparation. After the completion of the services in Task 7 and the Director's review and written approval of the Task 7 submittal, the CONSULTANT shall resubmit the plans and specifications complete as required by CITY ready for bidding. At the time CITY approves the CONSULTANT's final plans and specifications, the CONSULTANT shall furnish CITY with the following for the PROJECT:

1. An original set of the final plans and specifications stamped and signed by a Registered Civil Engineer.
2. One reproducible copy of the final plans and specifications. (The CITY will perform reproduction of the bid sets through its bid advertisement/reproduction vendor.)
3. A copy of all correspondence with CITY departments, the utility companies, and other agencies and private individuals relating to the PROJECT.

engineers. The contractor's safety plans are not considered part of the design of the PROJECT and are developed only for the contractor's method of construction. CONSULTANT estimates this task will take up to 500 engineering man-hours to complete. The CONSULTANT will be compensated on an hourly basis in accordance with the rates established in Exhibit D.

2. Respond to Requests for Information (RFIs) from construction contractor to clarify contract documents. CONSULTANT shall respond in writing to an RFI within five (5) working days or less. CONSULTANT estimates this task will take up to 340 engineering man-hours to complete. The CONSULTANT will be compensated on an hourly basis in accordance with the rates established in Exhibit D.
3. Assist CITY staff, as requested by the CITY's Project Manager, on PROJECT issues that may arise during construction and make recommendations to resolve these issues. CONSULTANT estimates this task will take up to 100 engineering man-hours to complete. The CONSULTANT will be compensated on an hourly basis in accordance with the rates established in Exhibit D.
4. Review, comment on, and make recommendations to the CITY's Project Manager regarding any potential change orders and prepare change order documentation, including changes in the plans and specifications, additional details, and estimate of time and cost. CONSULTANT estimates this task will take up to 1,300 engineering man-hours to complete. The CONSULTANT will be compensated on an hourly basis in accordance with the rates established in Exhibit D.
5. Review and provide written comments on any value engineering proposals from the construction contractor and make recommendations on CITY's best response to such proposals. CONSULTANT estimates this task will take up to 16 engineering man-hours to complete. The CONSULTANT will be compensated on an hourly basis in accordance with the rates established in Exhibit D.
6. Trenchless construction inspection will be full time during the excavation and support. Daily reports will be prepared documenting activities. The construction activities will be analyzed to identify potential problems or issues. Coordinate with the CITY and contractor to develop necessary mitigation measures as necessary.
7. Perform up to twenty five (25) site visits and attend up to twenty five (25) construction progress meetings by CONSULTANT's Project Manager and/or Project Engineer, as directed by the CITY's Project Manager. The purpose of these site visits and construction progress meetings is to

observe the general progress and quality of the Work completed by the contractor and to determine if the Work is proceeding in accordance with the Contract Documents.

8. Perform on-site construction consultation by CONSULTANT's staff at intervals appropriate to the stage of construction, as determined by the Project Manager based upon the CONSULTANT's recommendation. This task includes witnessing pipe joint testing (up to twenty five (25) trips) being performed by the contractor in the field. It also includes performing other construction observation support (up to fifty (50) trips) for testing of pipelines and structures and shall consist of providing qualified inspectors to enter the interceptor pipe and witness pipe leakage and/or structure testing and perform other construction observation tasks requiring confined space entry certification. CONSULTANT shall prepare brief but complete reports and submit them to the CITY's Project Manager.
9. Witness up to three (3) D-load tests of reinforced concrete pipe inspection at the supplier's plant. If CONSULTANT believes that additional number of trips is reasonably necessary in its professional judgment to complete the inspection, CONSULTANT shall provide the Director with a written report making such recommendation(s) and setting forth the basis for such recommendation(s). Additional trips for pipe inspection shall be Additional Services and shall be authorized, in writing, by the Director or designee.
10. Modify contract drawings to create record drawings (one full sized set of drawings and one electronic copy in AutoCAD format; record specifications shall not be prepared) within thirty (30) days following delivery of compiled "as-built" drawing (red-lined contract drawing markups) relating to the construction.
11. Provide management and coordination of design team, including all subconsultant services and all Additional Services.
12. Provide consultation by specialty subconsultants during the construction phase for geotechnical engineering, traffic engineering, and cultural resources monitoring. Provide attendance at up to five (5) construction meetings for each of the five (5) specialty subconsultants for a total of twenty five (25) meetings during construction, as requested by the CITY's Project Manager.

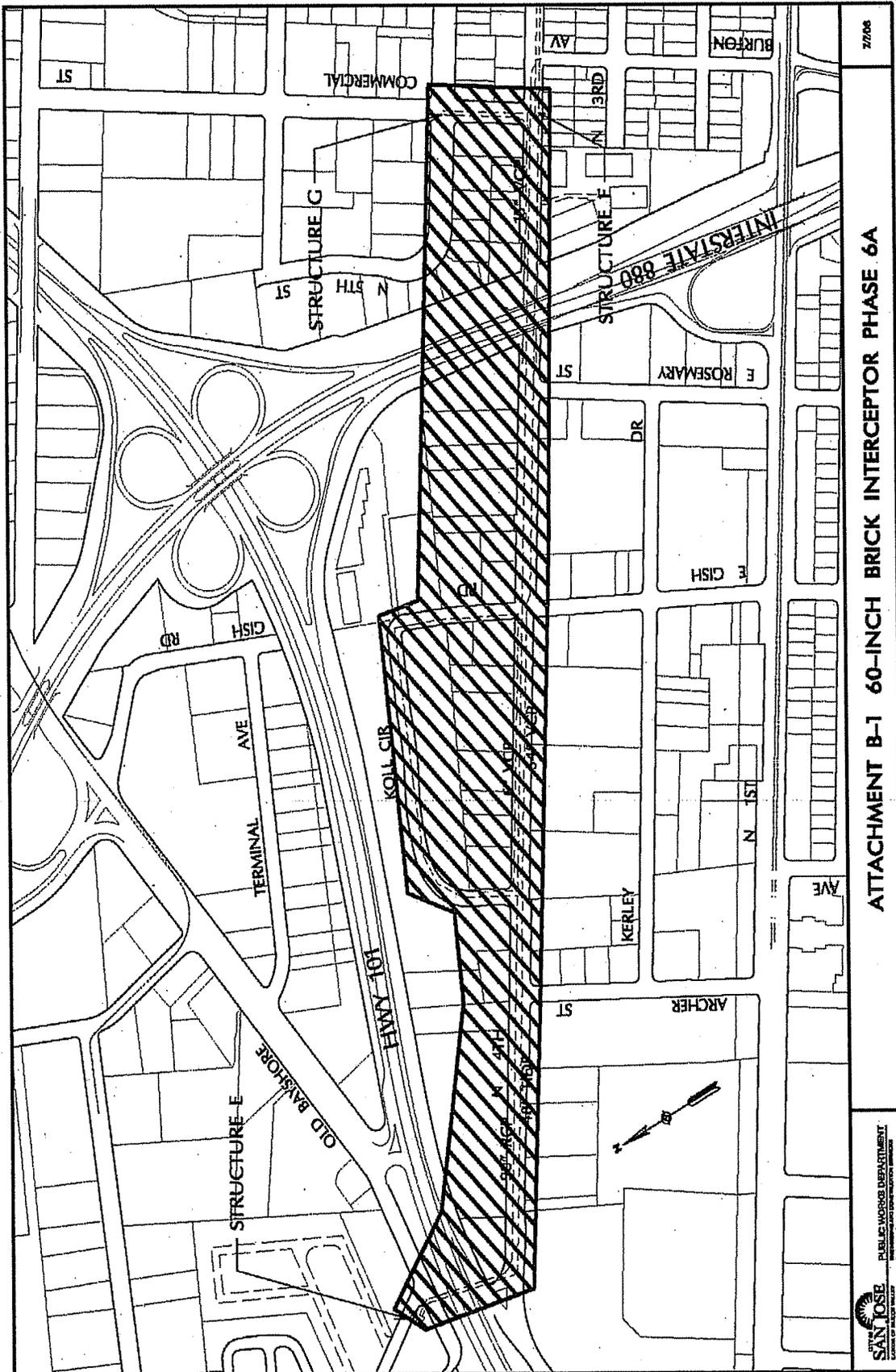
TASK 10 ADDITIONAL SERVICES

The CONSULTANT may perform the following additional services as requested by the Director and as so authorized in advance in writing by the Director or designee. Additional Services shall be paid for on time and material basis in accordance with

the rates set forth in Exhibit D, "Compensation", or as agreed upon by Director and CONSULTANT:

1. Prepare a Construction Impact Mitigation Plan (CIMP) for the PROJECT.
2. Evaluation of liquefaction-related hazards and recommendations for liquefaction mitigation.
3. Additional surveys, other than those set forth in Tasks 1 through 8.
4. Additional potholing for utility conflict verification as determined by the CITY's Project Manager based upon the recommendation of the CONSULTANT.
5. Technical specifications to accommodate hazardous materials other than as required from work in Task 4, if any are found in the construction area during geotechnical investigations.
6. Services to design and/or manage the construction of roadways, curbs, gutters, sidewalks, and other public improvements, if such services are necessary to coordinate with the design and/or construction of concurrent or future private developments which directly front on the PROJECT site.
7. Title reports for properties where easements or right-of-way is required for completion of the PROJECT.
8. Condemnation services.
9. Community Outreach Services, Draft and final handouts, mailers, and other public notification materials. Assist CITY in conducting public notification workshops.
10. Construction inspection other than the construction monitoring support as set forth in Task 9, including but not limited to, materials testing, backfill inspection, geotechnical inspections, and traffic control compliance.
11. Flow monitoring for dry and wet weather flow.
12. Field investigations (including sampling to identify limits of contamination as they affect the PROJECT) to identify the types of hazardous materials and the impact said materials shall have on the construction of the PROJECT.
13. Operations and maintenance manuals for both emergency and daily operations of interceptor system.
14. Legal support related to bid protests, claims or testimony in court.
15. Assisting the CITY in responding to and resolving contractor claims.
16. Additional meetings.
17. Design of abandonment plans for existing brick sewer.

Other services, not within the scope described above, related to design and construction services as directed by the Director or designee in writing.



2/208

ATTACHMENT B-1 60-INCH BRICK INTERCEPTOR PHASE 6A



EXHIBIT C
SCHEDULE OF PERFORMANCE

Work shall commence immediately upon the effective date of the Notice to Proceed (NTP) issued by the CITY for this PROJECT. The CONSULTANT shall schedule work such that tasks are completed in accordance with the schedule shown below.

<u>Task Name</u>	<u>Latest Completion Date</u>
Task 1: Project Management	961 days from Notice to Proceed (NTP)
Task 2: Consensus Building	343 days from NTP
Task 3: Alternative Analyses	111 days from NTP
Task 4: Initial Design	216 days from NTP
Task 5: Final Design (60 percent complete)	300 days from NTP
Task 6: Final Design (90 percent complete)	370 days from NTP
Task 7: Final Design (100 percent complete)	398 days from NTP
Task 8: Bid Document Preparation	468 days from NTP
Task 9: Pre-construction and Construction Support Services	961 days from NTP
Task 10: Additional services	1,142 days from NTP

The CITY will have the sole authority to modify any of the above completion dates, and the CITY's Director of Public Works or designee will authorize any such modifications in writing.

EXHIBIT D

COMPENSATION

A. Maximum Compensation

The maximum amount of compensation to be paid to CONSULTANT under this AGREEMENT, including both payment for professional services and reimbursable expenses, as well as Additional Services, provided by the CONSULTANT shall not exceed THREE MILLION TWO HUNDRED ELEVEN THOUSAND THREE HUNDRED SEVENTY-EIGHT DOLLARS (\$3,211,378). The maximum amount of compensation for all Additional Services shall not exceed ONE HUNDRED THOUSAND DOLLARS (\$100,000). CONSULTANT expressly agrees to perform all basic services as specified in Tasks 1 through 9 of the Exhibit B for an amount not to exceed THREE MILLION ONE HUNDRED ELEVEN THOUSAND THREE HUNDRED SEVENTY-EIGHT DOLLARS (\$3,111,378).

Compensation shall be subject to the following general restrictions: (1) Any hours worked and services rendered for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to the CITY; (2) Once the CITY accepts a particular task as complete, CONSULTANT shall not bill any further services against the budget for that task even if unexpended amounts remain in the budget, unless authorized in advance in writing by the CITY.

B. Budget

The maximum compensation, including professional services, reimbursable expenses, and Additional Services shall not exceed the indicated amount for the following work items:

<u>Description</u>	<u>Maximum Amount</u>
Basic Services	
Task 1 Project Management	\$332,420
Task 2 Consensus Building	\$189,795
Task 3 Alternative Analysis	\$215,036
Task 4 Initial Design	\$783,170
Task 5 Final Design (60% Complete)	\$304,062
Task 6 Final Design (90% Complete)	\$322,248
Task 7 Final Design (100% Complete)	\$137,904
Task 8 Bid Document Preparation	\$90,952
Task 9 Pre-Construction and Construction Support	<u>\$735,791</u>
Subtotal-Basic Services	\$3,111,378

Additional Services

Task 10 \$100,000

TOTAL BUDGET FOR BASIC AND ADDITIONAL SERVICES \$3,211,378

The Director or designee may shift any portion of the amounts set forth above to another item so long as the total does not exceed the maximum amount of compensation to be paid under the AGREEMENT. Any such adjustment must be in writing to be effective.

C. Monthly Invoices

1. CONSULTANT shall, during the term of this AGREEMENT, invoice the CITY on a monthly basis for all services performed under this AGREEMENT since the previous invoice and for all reimbursable expenses incurred since the previous invoice. The invoice shall set forth a detailed description of the services performed during the invoice period, the amount of hours expended in performing those services and the total amount to be paid. The invoice shall also provide a detailed description of and supporting documentation for all reimbursable expenses, including, but not limited to, the services performed during the invoice period by subcontractors, the amount of hours subcontractors expended in performing those services and the total amount to be paid to the subcontractors.
2. Provided the services and reimbursable expenses covered by the invoice have been completed in accordance with the provisions of this AGREEMENT, CITY shall pay the CONSULTANT at the amount shown on the invoice within thirty (30) days of Director's approval of the invoice.

D. Rate of Compensation for Professional Services

CITY agrees to compensate CONSULTANT at the hourly rates for professional services and Additional Services performed in accordance with the terms and conditions of this AGREEMENT set forth in Exhibit D-1.

In the event AGREEMENT is extended beyond December 31, 2012, CONSULTANT's maximum hourly rates for calendar years 2013 and beyond will be calculated by escalating the preceding calendar year maximum hourly billing rate by 4%.

E. Reimbursable Expenses

The CITY shall reimburse CONSULTANT for the cost of printing, plotting, reproduction, transportation, subsistence, equipment rentals, specialized field or laboratory tests and delivery expenses and all subconsultant services, incurred in performing the work required under this AGREEMENT at actual cost plus ten percent (10%). Any expenses incurred by the CONSULTANT not listed herein shall not be reimbursable unless the Director or his or her designee has preapproved, in writing, the incurrence of such expenses.

1. **Subconsultants** For billing purposes, the actual maximum hourly cost of services and reimbursable expenses provided by each subconsultant shall be as indicated below.

- a. **Brierley Associates** – See Exhibit D-2.
- b. **David J. Powers & Associates** – See Exhibit D-3.
- c. **AMEC Geomatrix** – See Exhibit D-4.
- d. **HMH Engineers** – See Exhibit D-5.
- e. **O'Connor Construction Management** – See Exhibit D-6

In the event this AGREEMENT is extended beyond December 31, 2012, Subconsultants' maximum hourly rates for calendar years 2013 and beyond will be calculated by escalating the preceding calendar year maximum hourly billing rate by 4%.

EXHIBIT D-1

AECOM USA, INC.				
CALENDAR YEAR FEE SCHEDULE				
ASCE GRADES	HOURLY BILLING RATE			
	2009	2010	2011	2012
1	\$ 109.20	\$ 114.66	\$ 120.39	\$ 126.41
2	\$ 127.05	\$ 133.40	\$ 140.07	\$ 147.08
3	\$ 145.95	\$ 153.25	\$ 160.91	\$ 168.96
4	\$ 161.70	\$ 169.79	\$ 178.27	\$ 187.19
5	\$ 177.45	\$ 186.32	\$ 195.64	\$ 205.42
6	\$ 211.05	\$ 221.60	\$ 232.68	\$ 244.32
7	\$ 229.95	\$ 241.45	\$ 253.52	\$ 266.20
8	\$ 241.50	\$ 253.58	\$ 266.25	\$ 279.57
9	\$ 241.50	\$ 253.58	\$ 266.25	\$ 279.57
<u>TECHNICAL SUPPORT</u>				
Design/CADD Supervisor	\$ 115.50	\$ 121.28	\$ 127.34	\$ 133.71
Senior Designer/CADD Operator	\$ 110.25	\$ 115.76	\$ 121.55	\$ 127.63
Drafter/CADD Operator	\$ 99.75	\$ 104.74	\$ 109.97	\$ 115.47
Clerical/General Office	\$ 70.35	\$ 73.87	\$ 77.56	\$ 81.44
<u>SURVEY</u>				
2-Person Crew – Labor (per hour)	\$ 226.80	\$ 238.14	\$ 250.05	\$ 262.55
Auto Mileage (per mile)	\$ 0.65	\$ 0.70	\$ 0.76	\$ 0.82
2-Person Crew – ODC (per day)	\$ 315.00	\$ 330.75	\$ 347.29	\$ 364.65

EXHIBIT D-2

BRIERLEY ASSOCIATES CALENDAR YEAR FEE SCHEDULE				
<u>PROFESSIONAL/ OFFICE</u>	<u>HOURLY BILLING RATE</u>			
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Chief Engineer	\$ 210.00	\$ 220.00	\$ 230.00	\$ 239.20
Principal Engineer	\$ 184.00	\$ 193.00	\$ 200.00	\$ 208.00
Senior Engineer/Scientist	\$ 163.00	\$ 171.00	\$ 180.00	\$ 187.20
Engineer	\$ 135.00	\$ 142.00	\$ 150.00	\$ 156.00
Associate Engineer	\$ 105.00	\$ 110.00	\$ 116.00	\$ 120.64
Engineering Aide	\$ 80.00	\$ 84.00	\$ 90.00	\$ 93.60
Administration Aide	\$ 48.00	\$ 50.00	\$ 52.00	\$ 54.08

Exhibit D-3

DAVID J. POWERS & ASSOCIATES, INC. CALENDAR YEAR FEE SCHEDULE				
TITLE	HOURLY BILLING RATE			
	2009	2010	2011	2012
Principal	\$ 209.00	\$ 213.00	\$ 218.00	\$ 226.72
Senior Environmental Specialist	\$ 184.00	\$ 187.00	\$ 191.00	\$ 198.64
Senior Project Manager	\$ 161.00	\$ 164.00	\$ 168.00	\$ 174.72
Environmental Specialist	\$ 148.00	\$ 151.00	\$ 154.00	\$ 160.16
Project Manager	\$ 138.00	\$ 140.00	\$ 143.00	\$ 148.72
Assistant Project Manager	\$ 100.00	\$ 102.00	\$ 104.00	\$ 108.16
Researcher	\$ 84.00	\$ 85.00	\$ 87.00	\$ 90.48
Draftsperson/Graphic Artist	\$ 79.00	\$ 80.00	\$ 82.00	\$ 85.28
Document Processor/Quality Control	\$ 79.00	\$ 80.00	\$ 82.00	\$ 85.28
Administrative Manager	\$ 79.00	\$ 80.00	\$ 82.00	\$ 85.28
Office Support	\$ 61.00	\$ 62.00	\$ 64.00	\$ 66.56

Exhibit D-4

AMEC GEOMATRIX CALENDAR YEAR FEE SCHEDULE				
AMEC GEOMATRIX CLASSIFICATION	HOURLY BILLING RATE			
	2009	2010	2011	2012
Principal	\$ 234.47	\$ 243.85	\$ 253.60	\$ 263.74
Senior II	\$ 168.11	\$ 174.83	\$ 181.83	\$ 189.10
Senior I	\$ 138.76	\$ 144.31	\$ 150.08	\$ 156.08
GIS Programmer	\$ 120.33	\$ 125.15	\$ 130.15	\$ 135.36
Project II	\$ 124.42	\$ 129.40	\$ 134.57	\$ 139.95
Project I	\$ 110.12	\$ 114.52	\$ 119.10	\$ 123.86
Staff II	\$ 98.80	\$ 102.75	\$ 106.86	\$ 111.13
Staff I	\$ 86.15	\$ 89.59	\$ 93.18	\$ 96.91
Senior Technician	\$ 116.96	\$ 121.64	\$ 126.50	\$ 131.56
Field Technician	\$ 70.16	\$ 72.96	\$ 75.88	\$ 78.92
CAD/Graphics	\$ 114.17	\$ 118.74	\$ 123.49	\$ 128.43
Project Assistant	\$ 92.47	\$ 96.17	\$ 100.02	\$ 104.02
Technical Editor	\$ 128.67	\$ 133.82	\$ 139.17	\$ 144.74
Project Support	\$ 83.39	\$ 86.73	\$ 90.19	\$ 93.80
Auto Mileage (per mile)	\$ 0.585	\$ 0.608	\$ 0.633	\$ 0.658
Travel Rates	Per Diem based on Location			
<u>In-House Reproduction</u>				
Non routine B&W copies (8-1/2x11 and 11x17)	\$0.10/Page			
Color Copies (8-1/2x11)	\$1.00/Page			
Color Copies (11x17)	\$1.50/Page			
Field Vehicle-Pickup Truck Subcontracted Services	\$100/Day, \$400/Week, \$1000/Month Actual Cost			

Exhibit D-5

HMH ENGINEERS CALENDAR YEAR FEE SCHEDULE				
<u>PROFESSIONAL/ OFFICE</u>	<u>HOURLY BILLING RATE</u>			
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Principal	\$ 218	\$ 227	\$ 236	\$ 246
Civil Engineering or Land Surveying Manager	\$ 180	\$ 187	\$ 194	\$ 202
Senior Civil Engineer, Land Surveyor or Landscape Architect	\$ 158	\$ 164	\$ 171	\$ 177
Project Civil Engineer, Planner, Land Surveyor or Landscape Architect	\$ 142	\$ 148	\$ 154	\$ 160
Engineer, Planner, Surveyor or Landscape Designer	\$ 136	\$ 141	\$ 147	\$ 153
Assistant Engineer, Surveyor, Planner or Landscape Designer	\$ 124	\$ 129	\$ 134	\$ 140
Junior Engineer, Surveyor, Planner or Landscape Designer	\$ 114	\$ 119	\$ 124	\$ 129
Senior Technician	\$ 134	\$ 139	\$ 145	\$ 150
Project Technician	\$ 122	\$ 127	\$ 132	\$ 137
Technician	\$ 112	\$ 116	\$ 121	\$ 125
Assistant Technician	\$ 106	\$ 110	\$ 114	\$ 119
Junior Technician	\$ 86	\$ 89	\$ 93	\$ 96
Project Support Staff	\$ 86	\$ 89	\$ 93	\$ 96
<u>FIELD SURVEYS</u>				
1-Person Field Crew	\$ 156	\$ 162	\$ 168	\$ 175
2-Person Field Crew	\$ 228	\$ 237	\$ 246	\$ 256
2-Person Field Crew with GPS	\$ 246	\$ 256	\$ 266	\$ 277
2-Person Field Crew with Laser Scanner	\$ 278	\$ 289	\$ 301	\$ 313
3-Person Field Crew	\$ 306	\$ 318	\$ 331	\$ 344
Senior Field Surveyor	\$ 146	\$ 152	\$ 158	\$ 164

Exhibit D-6

O'CONNOR CONSTRUCTION MANAGEMENT CALENDAR YEAR FEE SCHEDULE				
<u>PROFESSIONAL/ OFFICE</u>	HOURLY BILLING RATE			
	2009	2010	2011	2012
Principal	\$ 200	\$ 210	\$ 221	\$ 232
Estimating Manager	\$ 165	\$ 173	\$ 182	\$ 191
Senior Estimator	\$ 140	\$ 147	\$ 154	\$ 162
Estimator	\$ 120	\$ 126	\$ 132	\$ 139
Administration Assistant	\$ 55	\$ 58	\$ 61	\$ 64

EXHIBIT E
INSURANCE

CONSULTANT, at CONSULTANT's sole cost and expense, shall procure and maintain for the duration of this AGREEMENT insurance against claims for injuries to persons or damages to property which may arise from, or in connection with, the performance of the services hereunder by CONSULTANT, its agents, representatives, employees or subcontractors.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. The coverage provided by Insurance Services Office Commercial General Liability ("occurrence") Form Number CG 0001; and
2. The coverage provided by Insurance Services Office Form Number CA 0001 covering Automobile Liability. Coverage shall be included for all owned, nonowned and hired automobiles; and
3. Workers' Compensation insurance as required by the California Labor Code and Employers Liability insurance; and
4. Professional Liability Errors & Omissions for all professional services.

There shall be no endorsement reducing the scope of coverage required above.

B. Minimum Limits of Insurance

CONSULTANT shall maintain limits no less than:

1. Commercial General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit; and
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage; and

3. **Workers' Compensation and Employers Liability:** Workers' Compensation limits as required by the California Labor Code and Employers Liability limits of \$1,000,000 per accident; coverage shall be endorsed to state carrier waives its rights of subrogation against the CITY, its officers, employees, agents, and contractors; and
4. **Professional Liability Errors & Omissions** \$1,000,000 per occurrence/ Aggregate Limit.

C. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to, and approved by CITY's Risk Manager. At the option of CITY, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects CITY, its officers, employees, agents and contractors; or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses in an amount specified by the CITY's Risk Manager.

D. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. **Commercial General Liability and Automobile Liability Coverages**
 - a. **Insured.** The City of San Jose, its officers, employees, agents, and contractors, are to be covered as additional insureds as respects: Liability arising out of activities performed by or on behalf of, CONSULTANT; products and completed operations of CONSULTANT; premises owned, leased or used by CONSULTANT; and automobiles owned, leased, hired or borrowed by CONSULTANT. The coverage shall contain no special limitations on the scope of protection afforded to CITY, its officers, employees, agents and contractors.
 - b. **Contribution Not Required.** CONSULTANT's insurance coverage shall be primary insurance as respects CITY, its officers, employees, agents and contractors. Any insurance or self-insurance maintained by CITY, its officers, employees, agents or contractors shall be excess of CONSULTANT's insurance and shall not contribute with it.
 - c. **Provisions Regarding the Insured's Duties After Accident or Loss.** Any failure to comply with reporting provisions of the

policies by CONSULTANT shall not affect coverage provided CITY, its officers, employees, agents, or contractors.

- d. Coverage. Coverage shall state that 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.
- e. Waiver of Subrogation. Coverage shall contain a waiver of subrogation in favor of the CITY, its officers, employees, agents, and contractors.

2. All Coverages

Each insurance policy required by this AGREEMENT shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or reduced in limits except after thirty (30) days' prior written notice has been given to CITY's Risk Manager.

E. **Acceptability of Insurers**

Insurance is to be placed with insurers acceptable to CITY's Risk Manager.

F. **Verification of Coverage**

CONSULTANT shall furnish CITY with certificates of insurance and with original endorsements affecting coverage required by this AGREEMENT. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

Proof of insurance shall be mailed to the following address or any subsequent address as may be directed in writing by the Risk Manager:

CITY OF SAN JOSE – Human Resources
Risk Management
Attn: Connie Aparicio-Yanez
200 E. Santa Clara St., 2nd Floor Wing
San Jose, California 95113-1905

G. **Subcontractors**

CONSULTANT shall include all subcontractors as insureds under its policies or shall obtain separate certificates and endorsements for each subcontractor.

EXHIBIT F

SPECIAL PROVISIONS

In the performance of this Agreement:

1. Prohibition on Discrimination and Preferential Treatment.

CONSULTANT shall not discriminate against or grant preferential treatment to any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity or national origin.

This provision is applicable to recruiting, hiring, demotion, layoff, termination, compensation, fringe benefits, advancement, training, apprenticeship and other terms, conditions, or privileges of employment, subcontracting and purchasing.

Nothing herein shall be interpreted as precluding any reasonable accommodation provided to any person with a disability.

2. Compliance Reports.

If directed by the Compliance Officer of the CITY, CONSULTANT shall file, and cause any subcontractor to file, compliance reports with the Compliance Officer. Compliance reports shall be in the form and filed at such times as may be designated by the Compliance Officer. Compliance reports shall contain such information and be supported by such data or records as may be requested by the Compliance Officer to determine whether CONSULTANT or its subcontractor is complying with the nondiscrimination and nonpreference provisions of this Agreement and Chapter 4.08 of the Municipal Code.

3. Failure to Comply With Nondiscrimination Provisions.

If the Compliance Officer determines that the CONSULTANT has not complied with the nondiscrimination or nonpreference provisions of this Agreement, the CITY may terminate or suspend this Agreement, in whole or in part. Failure to comply with these provisions may also subject CONSULTANT and/or subcontractor to debarment proceedings pursuant to provisions of the San Jose Municipal Code. Failure to comply with these provisions is a violation of Chapter 4.08 of the San Jose Municipal Code and is a misdemeanor.

4. Subcontracts.

CONSULTANT shall include provisions 1 through 3, inclusive, in each subcontract entered into in furtherance of this Agreement so that such provisions are binding upon each of its subcontractors.

5. Waiver of Nondiscrimination Provisions.

The nondiscrimination provisions of this Agreement may be waived by the Compliance Officer, if the Compliance Officer determines that the CONSULTANT has its own nondiscrimination requirements or is bound in the performance of this Agreement by the nondiscrimination requirements of another governmental agency, and the nondiscrimination provisions of the CONSULTANT or other governmental agency are substantially the same as those imposed by the CITY.

6. Prevailing Wages.

CONSULTANT acknowledges that portions of the services required by this Agreement are a Public Work, subject to the provisions of Section 1771 of the California Labor Code. CONSULTANT shall pay, or cause to be paid, prevailing wages, as set forth in the California Labor Code Section 1770 *et. seq.*, for all labor performed to facilitate the professional services provided under this Agreement, including, but not limited to, inspection, surveying, drilling, trenching, and excavation. CONSULTANT shall include in all agreements for such labor, a requirements that the employer provide all workers with written notice that prevailing wages apply.

CONSULTANT shall maintain, or cause to be maintained, all records documenting the payment of prevailing wages as required by the State prevailing wage law. CONSULTANT shall maintain these records for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to CONSULTANT under this Agreement. CONSULTANT shall provide to the CITY, at no cost to the CITY, a copy of all such records within ten (10) working days of a request for such records by the CITY's Office of Equality Assurance.

CONSULTANT expressly agrees that the compensation agreed to between the parties includes all payment necessary to meet State prevailing wage law requirements.

7. Environmentally Preferable Procurement Policy.

CONSULTANT agrees that, in the performance of this Agreement, CONSULTANT shall perform its obligations under the agreement in conformance with City Council Policy 4-6, Environmentally Preferable Procurement Policy. A description for environmentally preferable procurement and the Policy can be

found on the CITY's website at the following link:
<http://www.sanjoseca.gov/esd/natural-energy-resources/epp.htm>.

Environmental procurement policies and activities related to the completion of work will include wherever practicable, but are not limited to:

- a. Use of recycled and/or recyclable products in daily operations (i.e. 30, 50, 100% PCW paper, chlorine process free; triclosan free hand cleaner, etc.)
- b. Use of Energy Star Compliant equipment.
- c. Vehicles and vehicle operations (i.e. Alternative Fuel, Hybrid, etc.)
- d. Internal waste reduction and reuse protocol(s).
- e. Water and resource conservation activities within facilities, including bans on individual serving bottled water and the use of compostable food service products, etc.

California all purpose acknowledgement

STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

On MAY 13 2009 before me LEE HARTGRAVE a notary public,

Personally appeared Olivia L. Chen

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under **PENALTY OF PERJURY** under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.
(seal)



Signature [Handwritten Signature]
Name (typed or printed)

My commission expires 12/26/10

AECOM

1501 Quail Street, Newport Beach, CA 92660-2726
T 949.476.3300 www.aecom.com

AECOM USA, INC.**CERTIFICATE OF ASSISTANT SECRETARY**

The undersigned, David W. Huchel, hereby certifies that he is now and at all times relevant hereto has been the duly elected and acting Assistant Secretary of AECOM USA, Inc., a New York corporation, and that the following resolutions amending the Restated By-Laws of said corporation were duly adopted by Unanimous Action of the Board of Directors of this corporation on January 5, 2009:

RESOLVED that, Section 3 of Article V of the Restated By-Laws of this Corporation be amended to read as follows:

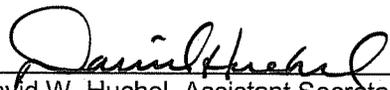
“Section 3. CONTRACTS, LEGAL INSTRUMENTS, ETC., HOW EXECUTED. Any officer of this corporation holding the title of Senior Vice President or higher, or any other person designated by resolution of the Board of Directors, may execute contracts or other legal instruments on behalf of the corporation or its divisions.”

The undersigned does further certify that the foregoing resolution has not been revoked, amended or modified, and is in full force and effect as of the date hereof.

The undersigned does further certify that, in accordance with Section 3, Article V of the By-Laws of said corporation, the Board of Directors, by resolution dated January 5, 2009, has designated that Olivia Chen may execute contracts or other legal instruments on behalf of the corporation or its divisions.

IN WITNESS WHEREOF, The undersigned has executed this Certificate of Assistant Secretary and has affixed the corporate seal of this corporation this 11th day of May, 2009.

AECOM USA, INC.

By: 

David W. Huchel, Assistant Secretary

(CORPORATE SEAL)