

Council meeting of
August 10, 2010

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of Council:

SUBJECT: Public Works - Award a Consulting Services Agreement to AECOM USA, Inc., for the Pre-Design of the North Torrance Well Field Project. Expenditure: \$437,416.00

RECOMMENDATION

Recommendation of the Public Works Director that City Council award a Consulting Services Agreement to AECOM USA, Inc., in the amount of \$437,416.00, for engineering services for the Pre-Design of the North Torrance Well Field Project.

Funding

Funding for this work is available from North Torrance Well Field Project, C.I.P. No. 108.

BACKGROUND

The City of Torrance currently obtains potable water from three sources: the City's Well No. 6 in McMaster Park, the Water Replenishment District's (WRD) Goldsworthy Desalter, and the Metropolitan Water District (MWD).

Problems with the Sacramento Delta and the Colorado River are causing imported water to become much more expensive and causing MWD to reduce water allocations. In addition, the current drought conditions on the Delta have caused the MWD to require water reductions for all of its member agencies. Diversifying the water supplies for the City will reduce the impact of future water reductions and rate increases from MWD and provide long term cost savings.

Staff is currently finalizing a Water Business Plan to act as a policy guide for the next several years. A key element of the plan is for the City to diversify our water supply. Torrance owns 5,640 acre feet of annual groundwater pumping rights in the West Basin and access to this water is a key component of the plan. The plan includes a capital expenditure program for developing new pumping capacity to extract the City's allocated groundwater rights and for pumping additional stored water in times of need. This plan has been presented to the Water Commission and they have recognized the need for local water development.

Production from Well No. 6 has been declining for several years. The current production for Well No. 6 is approximately 1,200 acre feet per year. A new Well No. 9 has been drilled near Well No. 6 in McMaster Park and the associated pumping facilities are now under construction. This well is the first phase of developing additional pumping capacity so that the City can exercise our full pumping rights. This project was selected as the first phase because of the long history of good water quality at this location.

The City has acquired a property behind Yukon Elementary School for development of groundwater Well No. 10, a new storage tank, and treatment facilities. Development of the North Torrance Well Field Project would allow for the removal of the 900,000 gallon tank and pumping station in McMaster Park. The City has drilled a pilot well for Well No. 10 at the North Torrance well field site and now has the water quality and production capacity information needed to design well and treatment facilities.

ANALYSIS

The City sent a Request for Proposal (RFP) to five firms on April 22, 2010. Four engineering consulting firms responded to the City's RFP for the Pre-Design of the North Torrance Well Field Project:

• MWH	\$378,665
• Black & Veatch	\$385,600
• AECOM	\$437,416
• PSOMAS	\$511,199

An in-house committee of four staff from the Engineering Division and Water Operations Division reviewed the proposals. The evaluations were based on the firms understanding of the scope of work, experience with similar projects, quality of staff for work to be done, efficiency of project schedule and proposal fee and cost effectiveness. With respect to proposal fee and cost effectiveness, the committee looked at both total hours proposed and hours proposed to prepare the plans. There is a direct correlation between fee and hours proposed, and weight was given to the number of hours proposed to prepare the plans. For example, Psomas had 60% to 80% more total hours proposed, but proposed 118 hours less time to prepare plans than AECOM, which lowered their overall rating. The firms rated nearly even in the other categories, with AECOM rating higher in both experience with similar projects and quality of staff.

Although AECOM does not have the lowest fee, staff selected AECOM for their extensive water and well design experience and for having the most hours proposed to prepare plans. AECOM prepared the Well No. 9 Project designs and staff has found their work to be of good quality.

AECOM was ranked highest by three raters and ranked second by one. The table below is a summary of the evaluations total score by each rater:

RATER	AECOM	BLACK & VEATCH	MWH	PSOMAS
(1)	87	84	84	81
(2)	80	76	78	79
(3)	97	96	95	93
(4)	85	84	89	81

Respectfully Submitted,

ROBERT J. BESTE
Public Works Director



By John C. Dettle
Engineering Manager

CONCUR:



Robert J. Beste
Public Works Director



LeRoy J. Jackson
City Manager

Attachments: A. Consulting Services Agreement
B. Location map of North Torrance Well Field

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT (“Agreement”) is made and entered into as of August 10, 2010 (the “Effective Date”), by and between the CITY OF TORRANCE, a municipal corporation (“CITY”), and AECOM USA Inc., a New York corporation (“CONSULTANT”).

RECITALS:

- A. CITY wishes to retain the services of an experienced and qualified CONSULTANT to perform design services for the North Torrance Well Field Project.
- B. CONSULTANT represents that it is qualified to perform those services.

AGREEMENT:

1. SERVICES TO BE PERFORMED BY CONSULTANT

CONSULTANT will provide the services listed in the Scope of Services attached as Exhibit A. CONSULTANT warrants that all work and services set forth in the Scope of Services will be performed in a competent, professional and satisfactory manner.

2. TERM

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect from the Effective Date through February 10, 2011.

3. COMPENSATION

- A. CONSULTANT’s Fee.

For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the Compensation Schedule attached as Exhibit B, provided, however, that in no event will the total amount of money paid the CONSULTANT, for services initially contemplated by this Agreement, exceed the sum of \$437,416 (“Agreement Sum”), unless otherwise first approved in writing by CITY.

- B. Schedule of Payment.

Provided that the CONSULTANT is not in default under the terms of this Agreement, upon presentation of an invoice, CONSULTANT will be paid monthly the fees described in Paragraph 3.A. above, according to the Compensation Schedule. Payment will be due within 30 days after the date of the monthly invoice.

4. TERMINATION OF AGREEMENT

- A. Termination by CITY for Convenience.

- 1. CITY may, at any time, terminate the Agreement for CITY’s convenience and without cause.

2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONSULTANT will:
 - a. cease operations as directed by CITY in the notice;
 - b. take actions necessary, or that CITY may direct, for the protection and preservation of the work; and
 - c. except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
3. In case of such termination for CITY's convenience, CONSULTANT will be entitled to receive payment for work executed; and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party written notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.
2. In the event this Agreement is terminated for cause by the default of the CONSULTANT, the CITY may, at the expense of the CONSULTANT and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due the CONSULTANT under the terms of this Agreement will be retained by the CITY, but the retention will not release the CONSULTANT and its surety from liability for the default. Under these circumstances, however, the CONSULTANT and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.
3. Termination for cause will not affect or terminate any of the rights of the CITY as against the CONSULTANT or its surety then existing, or which may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event the CONSULTANT or any of its officers, directors, shareholders,

employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a public consultant or contractor; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause the CITY determines to be so serious and compelling as to affect CONSULTANT's responsibility as a public consultant or contractor, including but not limited to, debarment by another governmental agency, then the CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. The CITY will not take action until CONSULTANT has been given notice and an opportunity to present evidence in mitigation.

5. **FORCE MAJEURE**

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental control, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance shall be excused for a period equal to the period of such cause for failure to perform.

6. **RETENTION OF FUNDS**

CONSULTANT authorizes CITY to deduct from any amount payable to CONSULTANT (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate CITY for any losses, costs, liabilities, or damages suffered by CITY, and all amounts for which CITY may be liable to third parties, by reason of CONSULTANT's negligent acts or omissions or willful misconduct in performing or failing to perform CONSULTANT's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONSULTANT, or any indebtedness exists that appears to be the basis for a claim of lien, CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONSULTANT to insure, indemnify, and protect CITY as elsewhere provided in this Agreement.

7. **CITY REPRESENTATIVE**

The Public Works Director is designated as the “City Representative,” authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONSULTANT.

8. **CONSULTANT REPRESENTATIVE(S)**

The following principal(s) of CONSULTANT are designated as being the principal(s) and representative(s) of CONSULTANT authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

Matthew L. Thomas - Principal-in-Charge

9. **INDEPENDENT CONTRACTOR**

The CONSULTANT is, and at all times will remain as to CITY, a wholly independent contractor. Neither CITY nor any of its agents will have control over the conduct of the CONSULTANT or any of the CONSULTANT’s employees, except as otherwise set forth in this Agreement. The CONSULTANT may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY.

10. **BUSINESS LICENSE**

The CONSULTANT must obtain a City business license prior to the start of work under this Agreement, unless CONSULTANT is qualified for an exemption.

11. **OTHER LICENSES AND PERMITS**

CONSULTANT warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. **FAMILIARITY WITH WORK**

By executing this Agreement, CONSULTANT warrants that CONSULTANT (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, CONSULTANT warrants that CONSULTANT has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services set forth in this Agreement. Should CONSULTANT discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONSULTANT must immediately inform CITY of that fact and may not proceed except at CONSULTANT’s risk until written instructions are received from CITY.

13. CARE OF WORK

CONSULTANT must adopt reasonable methods during the term of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages, to persons or property, until acceptance of the work by CITY, except those losses or damages as may be caused by CITY's own negligence.

14. CONSULTANT'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS

Records of the CONSULTANT's time pertaining to the project, and records of accounts between CITY and the CONSULTANT, will be kept on a generally recognized accounting basis. CONSULTANT will also maintain all other records, including without limitation specifications, drawings, progress reports and the like, relating to the project. All records will be available to CITY during normal working hours. CONSULTANT will maintain these records for three years after final payment.

15. INDEMNIFICATION

CONSULTANT will indemnify, pay for cost of defense, and hold harmless CITY, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, or property loss. The obligation to indemnify, pay for cost of defense, and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, subconsultants or vendors. It is further agreed, CONSULTANT's obligations to indemnify, defend and hold harmless will apply, but only to the extent covered by CONSULTANT's negligence, even in the event of concurrent negligence on the part of CITY, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting from the sole negligence or willful misconduct of CITY, its officers, employees or agents. Payment by CITY is not a condition precedent to enforcement of this indemnity.

16. NON-LIABILITY OF CITY OFFICERS AND EMPLOYEES

No officer or employee of CITY will be personally liable to CONSULTANT, in the event of any default or breach by the CITY or for any amount that may become due to CONSULTANT.

17. INSURANCE

- A. CONSULTANT must maintain at its sole expense the following insurance, which will be full coverage not subject to self insurance provisions:
1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a. Primary Bodily Injury with limits of at least \$500,000 per person, \$1,000,000 per occurrence; and
 - b. Primary Property Damage of at least \$250,000 per occurrence; or
 - c. Combined single limits of \$1,000,000 per occurrence.
 2. General Liability including coverage for premises, products and completed operations, independent contractors/vendors, personal injury and contractual obligations with combined single limits of coverage of at least \$1,000,000 per occurrence.
 3. Professional liability insurance with limits of at least \$1,000,000 per claim and in the annual aggregate.
 4. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least \$1,000,000.
- B. The insurance provided by CONSULTANT will be primary and non-contributory
- C. CITY ("City of Torrance"), the Redevelopment Agency of the City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insured under the automobile and general liability policies.
- D. CONSULTANT must provide certificates of insurance and/or endorsements to the City Clerk of the City of Torrance before the commencement of work.
- E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without thirty days notice to CITY.

18. SUFFICIENCY OF INSURERS AND SURETIES

Insurance or bonds required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to CITY, the CONSULTANT agrees that the minimum limits of

any insurance policies or performance bonds required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONSULTANT will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

- A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.

- B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

20. NOTICE

- A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:
 - 1. Personal delivery. When personally delivered to the recipient: notice is effective on delivery.
 - 2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in an United States Postal Service office or mailbox.
 - 3. Certified mail. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.
 - 4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.
 - 5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

6. Addresses for purpose of giving notice are as follows:

CONSULTANT: AECOM USA, Inc.
1501 Quail Street
Newport Beach, CA 92660

Fax: 949-721-7142

CITY: City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90509-2970
Fax: (310) 618-2931

B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either CITY or CONSULTANT without the prior written consent of the other.

22. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of CITY and CONSULTANT as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might otherwise apply.

24. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

26. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. COMPLIANCE WITH STATUTES AND REGULATIONS

CONSULTANT will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. ATTORNEY'S FEES

Except as provided for in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. CONSULTANT'S AUTHORITY TO EXECUTE

The person(s) executing this Agreement on behalf of the CONSULTANT warrant that (i) the CONSULTANT is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of the CONSULTANT; (iii) by so executing this Agreement, the CONSULTANT is formally bound to the provisions of this Agreement;

and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONSULTANT is bound.

CITY OF TORRANCE
a Municipal Corporation

AECOM USA
a New York Corporation

Frank Scotto, Mayor

ATTEST:

By: _____
Matthew L. Thomas
Principal-in-Charge

Sue Herbers
City Clerk

APPROVED AS TO FORM:
JOHN L. FELLOWS III
City Attorney

By: _____

Attachments: Exhibit A Scope of Services
 Exhibit B Fee Schedule

Revised: 10/29/2008

EXHIBIT A
SCOPE OF SERVICES

Exhibit A

Scope of Services

I. PRELIMINARY DESIGN

1. Meetings and Agency Coordination

- a. Attend project kick-off meeting with City staff to review the project scope, schedule, budget and work plan. Adjust task schedule and work plan as required. Discuss design criteria and parameters with regard to booster pumping capacity, reservoir number and capacity, and future chemical treatment. Review requirements for architectural treatment of the building, security measures, and landscaping concept.
- b. Assist the City of Torrance in their coordination with Caltrans, SCE and the Torrance Unified School District with regard to resolving site access and drainage issues.
- c. Coordinate with Southern California Edison (SCE) for electrical service. Initiate application for service.

2. Data Gathering

- a. Obtain available survey records from the City of Torrance and Caltrans.
- b. Obtain property descriptions for the plant site and future Well No. 11 from the City of Torrance.
- c. Review existing street plans and existing water, sewer, storm drain and utility plans and maps in the possession of the City. Consultant is responsible for the copying of any documents.

3. Utility Research

A detailed utility search of the project areas will be conducted. Limits of work area on Yukon Avenue are from Well No. 9 in McMaster Park to 182nd Street, and for 182nd Street from Yukon to Crenshaw Boulevard. It will consist of:

- a. Contact Underground Services Alert (USA) for a computer printout of all utilities identified within the project limits.
- b. Send/deliver preliminary notice to each utility advising them of the project and requesting utility information.
- c. Send second utility notice including preliminary plans requesting that each utility verify locations of its facilities and identify any possible utility conflicts.
- d. Maintain a complete record of all utility contacts and responses and copy all correspondence to the City.

4. Potholing

- a. Determine locations where potholes should be made to accurately locate the depth of existing parallel or crossing utilities, including service laterals that may impact the alignment of any piping for the project. For budget purposes, assume 12 potholes.
- b. After approval from the City, have potholing performed by a licensed contractor and prepare a record showing the actual locations and depths of existing utilities, including service laterals

5. Design Survey/Mapping

- a. Provide field survey of project areas to establish horizontal and vertical control.
- b. Provide topographic survey, of the project site, Yukon Avenue from McMaster Park southerly to approximately 182nd Street, and the pipeline/road easements from Yukon to the project site, and 182nd Street from Yukon to Crenshaw. Locate all culture necessary to complete the design, including, as needed, cross sections as needed.
- c. Collect cover rim elevations, "dip" manholes, vaults, and valves for all utilities located within project limits.
- d. Verify locations of all existing water valves, water meters, fire hydrants, and other appurtenances.
- e. Locate potholes, Well No. 10 test hole, site for future Well No. 11, and any survey monuments or ties that may be affected by construction.
- f. Base maps shall be prepared at a scale of 1"=40', and include data from item 2 (Data Gathering).
- g. Plot utilities on base maps. Location of utilities will be based on information obtained from the available record documents, as revised due to USA markings and utility responses.
- h. Perform job walk to identify conflicts and inconsistencies.

6. Geotechnical Investigation

Perform a geotechnical investigation, including two bore holes at the plant site, and at other locations as recommended. Includes laboratory testing of soil samples, preparation of a geotechnical report summarizing findings and recommendations of parameters for structural design. The geotechnical subconsultant is recommending a total of 15 drill holes, seven within the project site and eight along the pipeline alignment.

7. Water Treatment Analysis

- a. Evaluate the water quality data provided for Wells 9 and 10.
- b. Provide storage and feed equipment for chloramination and fluoridation treatment.
- c. Based on anticipated future contaminant levels provided by the City, evaluate alternative treatment methods to provide acceptable water quality with respect to minimum contaminant levels.

- d. Meet with City staff to discuss alternatives, and the recommend treatment processes. This is one of the workshops described in the proposal Approach.
- e. Water Quality data shows TDS at 900 parts per million. TDS, TTHM and manganese will need to be addressed in pre-design and selection of treatment systems.
- f. Chlorides will need to be addressed in the future due to the saline plume. Provisions for Chloride treatment will need to be incorporated into site design.
- g. A fluoride skid at Well No. 9 shall be transported and utilized at Well No. 10.

8. Plant Site Plan

- a. Review the adequacy of the site for future Well No. 11, and how it will deliver flow to the plant site.
- b. Determine required sizing of the reservoir and building for the booster pump station, wellhead for Well No. 10, chemical rooms, restroom, lab room, engine/generator unit (portable or stationary), and electrical room. One or two buildings may be considered. Space is to be reserved for a future City use (billboard or cellular tower).
- c. Locate the proposed facilities on the site. Consider requirements for access and maintenance. Prepare three alternative site plans and review with City staff for input. These alternatives can be presented is a schematic format, to scale, for discussion with operations staff. This is one of the workshops described in the proposal Approach.
- d. The site plan shall incorporate Low Impact Design (LID) elements pursuant to current NPDES MS4 Permit requirements. This will involve providing onsite storage and/or minimizing impermeable surfaces (i.e. maximizing landscaped area, using porous pavement, etc). The County of Los Angeles Low Impact Development Standards Manual will be used as a guideline.
- e. Once reservoir at Well No. 10 site is established and operational, the reservoir and pump station at Well No. 9 are to be demolished and that site converted to grass with irrigation.

9. Utility Easement and Yukon Avenue Pipelines

The following pipelines are to be provided:

- Line carrying water from Well No. 9 and future Well No. 11 to the project site.
 - Treated water line from project site to the distribution line in Crenshaw Boulevard.
 - Drain/reservoir overflow line from the project site to connection to existing storm drain in Yukon Ave. at 182nd Street.
 - Sewer line for restroom, laboratory and future brine disposal, from project site to existing sewer in Yukon at 182nd Street.
- a. Evaluate location alternatives considering costs of construction, existing utility locations, citizen impacts, jurisdictional concerns and permit requirements. In addition, consider access to adjacent properties and traffic control during construction.
 - b. Prepare sketches of proposed connections to existing facilities.

- c. Prepare preliminary construction phasing schedule, if required.
- d. Discuss location alternatives with the City and obtain input prior to preparing plan and profile sheets.

10. Preliminary Design Report

The Preliminary Design Report (PDR) will define the various project components, including size and material for the reservoir, booster pump capacities, wellhead features, treatment processes, and chemical storage and feed system details. Drawings will be prepared showing the building floor plan(s), plant site layout, access road and pipeline alignments within Yukon Avenue and between Yukon Avenue and the plant site, in 182nd Street to Crenshaw Blvd., and a discharge line from the future Well No. 11 site. Since this document will be used as a basis for final design, requirements will be provided for City-preferred materials and equipment.

- a. Prepare a draft PDR, summarizing all details of the project. Include the Engineer's Estimate of Probable Construction Cost.
- b. Provide review copies of the draft PDR for City of Torrance review.
- c. Meet with City staff to review their comments and discuss revisions.
- d. Finalize the PDR and provide copies to the City of Torrance. Include a discussion of conventional design-bid-build and design-build, and compare based on schedule/cost savings and contractual issues, and make a recommendation for one.
- e. Prepare architectural renderings and color site plans and material boards of the proposed facilities for the City's use for City Council meetings and public. Architectural renderings and color site plans are anticipated to be revised to incorporate input from these meetings.

11. Prepare Preliminary Design Documents upon approval of the PDR.

These will consist of 30% complete drawings for civil/site work, architectural, structural, mechanical, HVAC, electrical, instrumentation, and site landscaping. Not all plans will be initiated; typically, drawings for details and sections will be developed during final design. Refer to the Preliminary Drawing list below. Plans will be submitted to the City of Torrance for review and comments, and revised as necessary. AutoCAD files and three sets of full-size bond copies will be provided to the City. Drawings will not include consultant title blocks or be stamped and signed. Calculations will be provided for structural components, as available. Technical specifications will not be prepared. AECOM will assist the City in preparing the design-build solicitation. Two meetings are assumed for discussion of the important nuances of design-build solicitations, and to obtain City input and direction. Interface with the City Attorney is anticipated.

AECOM has developed a comprehensive preliminary drawing list for the NTWF. AECOM will prepare only certain of these to varying levels for inclusion as the basis of the design-builder requirements, as noted.

PRELIMINARY DRAWING LIST - 30% DESIGN		
SHEET NO.	DWG. NO.	TITLE
GENERAL		
1	G-002	TITLE SHEET, DRAWING INDEX
2	G-002	GENERAL NOTES
CIVIL		
3	C-101	SITE PLAN
4	C-103	HORIZONTAL CONTROL PLAN
5	C-104	YARD PIPING PLAN
6	C-105	GRADING PLAN
7	C-106	McMASTER PARK FACILITIES-DEMO PLAN
8	C-201	YUKON AVE-WELL LINE PLAN AND PROFILE
9	C-202	YUKON AVE/EASEMENT-WELL LINE PLAN AND PROFILE
10	C-203	EASEMENT-WELL LINE PLAN AND PROFILE
11	C-204	EASEMENT- DISCHARGE LINE PLAN AND PROFILE
12	C-205	YUKON AVE DISCHARGE LINE PLAN AND PROFILE
13	C-206	182nd ST-DISCHARGE LINE PLAN AND PROFILE
14	C-207	182nd ST-DISCHARGE LINE PLAN AND PROFILE
15	C-208	182nd ST-DISCHARGE LINE PLAN AND PROFILE
16	C-209	EASEMENT-DRAIN AND SEWER LINES PLAN AND PROFILE
17	C-210	YUKON-DRAIN AND SEWER LINES PLAN AND PROFILE
18	C-211	ACCESS EASEMENT ROAD PLAN AND PROFILE
19	C-501	WELL DETAILS
20	C-502	FENCE AND GATE DETAILS
21	C-503	MISC DETAILS
22	C-504	MISC DETAILS
ARCHITECTURAL		
23	A-101	BLDG A FLOOR AND ROOF PLANS
24	A-102	BLDG B FLOOR AND ROOF PLANS
25	A-201	BUILDING A ELEVATIONS
26	A-202	BUILDING B ELEVATIONS

PRELIMINARY DRAWING LIST - 30% DESIGN		
SHEET NO	DWG NO	TITLE
27	A-301	BUILDING SECTIONS
28	A-302	RESTROOM DETAILS
29	A-501	DETAILS
30	A-502	DETAILS
STRUCTURAL		
31	S-101	RESERVOIR FOUNDATION/FLOOR PLAN
32	S-102	RESERVOIR ROOF GENERAL PLAN
33	S-103	RESERVOIR PARTIAL PLAN-ROOF SLAB
34	S-104	BLDG A FOUNDATION PLAN
35	S-105	BLDG A ROOF FRAMING PLAN AND DETAILS
36	S-106	BLDG B FOUNDATION PLAN
37	S-107	BLDG B ROOF FRAMING PLAN AND DETAILS
38	S-301	RESERVOIR SECTIONS
39	S-302	RESERVOIR SECTIONS
40	S-303	RESERVOIR SECTIONS AND DETAILS
41	S-304	RESERVOIR SECTIONS AND DETAILS
42	S-305	BUILDING SECTIONS AND DETAILS
43	S-501	TYPICAL DETAILS AND NOTES
44	S-502	TYPICAL DETAILS
45	S-503	TYPICAL DETAILS
MECHANICAL		
46	M-101	BLDG A FLOOR PLAN AND SCHEDULE
47	M-102	BLDG A HVAC AND PLUMBING PLAN
48	M-103	BLDG B FLOOR PLAN AND SCHEDULE
49	M-104	BLDG B HVAC AND PLUMBING PLAN
50	M-105	ENGINE-GENERATOR PLAN AND SECTIONS
51	M-501	WELL APPURTENANCES AND DETAILS
52	M-502	DETAILS
53	M-503	DETAILS

PROCESS		
54	D-001	PROCESS FLOW DIAGRAM
55	D-002	CHEMICAL SYSTEM SCHEMATICS
56	D-101	CHEM ROOM PLAN
57	D-501	DETAILS
58	D-502	DETAILS
ELECTRICAL		
59	E-001	ELECTRICAL LEGEND AND ABBREVIATIONS
60	E-101	SITE PLAN
61	E-103	BLDG A POWER AND CONTROL PLAN
62	E-104	BLDG A LIGHTING PLAN AND SCHEDULE
63	E-106	BLDG B POWER AND CONTROL PLAN
64	E-107	BLDG B LIGHTING PLAN AND SCHEDULE
65	E-201	DETAILS
66	E-202	DETAILS
67	E-601	SINGLE LINE DIAGRAM
68	E-602	CONDUIT SCHEDULE
69	E-603	PANEL SCHEDULE
70	E-604	CONTROL SCHEMATICS
71	E-605	CONTROL SCHEMATICS
INSTRUMENTATION		
72	N-001	INSTRUMENTATION LEGEND AND SYMBOLS
73	N-501	ICP LAYOUTS
74	N-502	INSTRUMENT DETAILS
75	N-503	ANALYZER PANEL LAYOUT
76	N-601	COMMUNICATION BLOCK DIAGRAM
77	N-602	WELLHEAD P&ID
78	N-603	SODIUM HYPOCHLORITE FEED SYSTEM P&ID
79	N-604	AMMONIA FEED SYSTEM P&ID
80	N-605	FLUORIDE FEED SYSTEM P&ID
81	N-606	ENGINE-GENERATOR P&ID
82	N-607	BOOSTER PUMP STATION P&ID

LANDSCAPING	
83	LANDSCAPE PLANTING PLAN
84	LANDSCAPE IRRIGATION PLAN
85	LANDSCAPE DETAILS
86	IRRIGATION DETAILS
	Plans AT 20% complete (56)
	Plans by design engineer (30)
Assumes a rectangular reinforced concrete reservoir	
Assumes two buildings (A and B)	

12. Environmental Documents

- a. Prepare Administrative Draft Initial Study and Proposed Mitigated Negative Declaration (IS/MND) and assess the project's impacts on the environment, using the City's Environmental Checklist. The analysis will be prepared based on the project description provided by the City and will respond to the Environmental Checklist Form and provide explanation to each question. The IS will address the proposed project only, as no alternatives are included in the scope of work at this time. It is assumed at this time that the project will not result in any significant adverse impacts.

One (1) copy of the Administrative Draft IS/MND will be e-mailed to the City for review.

- b. Prepare Mitigation Monitoring Plan (MMP) in cooperation with City staff. The plan will include all mitigation measures developed for the project and will include information such as the purpose, time frame, responsible party, and method of monitoring, for each measure. The plan will be included as part of the IS/MND.

One (1) copy of the Draft MMP will be e-mailed to the City for review.

- c. AECOM will coordinate with the City to discuss the findings of the IS/MND and MMP. The IS/MND and MMP will then be revised based on comments received, and a Final IS/MND will then be prepared and sent to the City. Please note that the cost estimate assumes one round of review for this task.

AECOM will prepare the required Notice of Intent (NOI) and Notice of Completion (NOC) for review and approval by the City. AECOM will coordinate with the City to create a mailing list of addresses, which AECOM will use to distribute the IS/MND for the required 30-day public review. The IS/MND will be distributed to all applicable

responsible agencies, trustee agencies, State Clearinghouse and interested parties. AECOM will then post the NOI with the County Clerk's Office and file the NOC with the State Clearinghouse.

- d. AECOM will respond to comments received on the IS/MND and prepare one (1) Draft Response to Comments Report (Report) for the City's review and comment. The responses contained in the Report will be revised, as appropriate and one (1) copy of the final Report will be sent to the City for use on this project. AECOM will make the required copies of this document and send a copy of the Report to all responsible agencies and other parties who commented on the IS/MND and provide a copy of the Report to responsible agencies ten (10) days before the City Council considers the approval of the project and adoption of the MND.

It should be noted that our cost estimate does not include the receipt of detailed/extensive comments from attorneys or special interest groups. Should such extensive comments be received, these comments will be discussed with the City prior to beginning preparation of responses. Based upon our understanding of this project, the level of controversy is considered low. AECOM assumes one round of review by the City for this task.

AECOM will prepare the required Notice of Determination (NOD) for review and approval by the City. Necessary revisions would be made to the NOD by AECOM before it is finalized. AECOM assumes one round of review for this task. AECOM will then file the NOD with the County Clerk's Office.

- e. For the purpose of this proposal, AECOM assumes, that in addition to the kick-off meeting, a total of three (3) meetings will be necessary during the IS/MND process. These meetings are anticipated to consist of one meeting during preparation of the Draft IS/MND, Planning Commission hearing and City Council hearing to certify the IS/MND.

13. Project Management, Meetings and Quality Control

- a. Project management will be provided for discipline coordination, City liaison and invoice preparation.
- b. Coordination meetings will be scheduled as necessary to discuss design issues and progress; five meetings are assumed.
- c. It is AECOM's standard practice to perform quality control reviews of all documents prior to submittal to the City. This is provided for each discipline by senior staff. Reviews will be made for the PDR, draft 30% and final 30% submittals.

II. ASSUMPTIONS

1. The following tasks will be the responsibility of the design engineer:
 - a. Final detailed coordination with the City for traffic control issues and Building Department permitting.
 - b. Final detailed coordination with Caltrans for pipeline crossings of the 405 Freeway. Three pipelines will cross at Yukon Avenue and one will cross at 182nd Street.
 - c. Completion of plans, final modification of City front-end documents and development of technical specifications.
 - d. Preparation of documents for the Caltrans access easement.
 - e. Surge analysis, if needed.
 - f. Structural design of the reservoir. AECOM will only perform rough calculations to determine reservoir wall thickness and footing dimensions.
2. The storm drain in the vicinity of Yukon Avenue and 182nd Street has capacity to accept reservoir drain and overflow discharge.
3. The Project Budget includes the cost for 12 potholes. If needed, additional potholes will be obtained at a cost of \$800 each.

III. ADDITIONAL ENGINEERING SERVICES

If requested by Client, AECOM will provide the following Additional Services, beyond the services included in Section I, Scope of Services:

- A. Attendance to additional meetings beyond those specifically identified in Section I.
- B. Assistance with public participation and communications, including planning and participation in public outreach programs, attendance to public meetings and workshops, etc.
- C. Planning, analysis or design of additional or alternative facilities.
- D. Construction phase services including such services as shop drawing review, office and field engineering support, field observation, construction contract administration, change order review and processing, preparation of record drawings, etc.
- E. Any additional project related services not specifically included in Section I, Scope of Services.

IV. CLIENT-FURNISHED SERVICES

The following services or information will be provided by Client or its consultants:

- A. Copies of all relevant reports, studies, drawings, correspondence, and other relevant project information or data.
- B. Assign one person to serve as the Client's project manager who has authority to represent the Client and will serve as the point of interface for all project issues and communications.

- C. Application and processing of all required permits.
- D. A complete written description of all pertinent project information and issues, including all unusual or critical requirements of the Client.
- E. Access to existing water, street, sewer, and storm drain plans in the possession of the City.
- F. Access to utility information, surveys, records, and drawings in the possession of the City.
- G. Copy of the City's Standard Plans for Public Works Construction, including traffic control standards.
- H. Computer disks containing the City's drawing templates (AutoCAD Release 14) AutoCAD Standards.

V. OTHER TERMS AND CONDITIONS

- A. **Right to Rely.** Consistent with the professional standard of care and unless specifically provided herein, AECOM shall be entitled to rely upon the accuracy of data and information provided by CLIENT or others without independent review or evaluation.
- B. **Opinions of Cost.** Any Opinion of the Construction Cost prepared by AECOM represents its judgment as a design professional and is supplied for the general guidance of CLIENT. Since AECOM has no control over the cost of labor and material, or over competitive bidding or market conditions, AECOM does not guarantee the accuracy of such opinions as compared to contractor bids or actual cost to CLIENT.
- C. **Contractor Indemnification/Insurance.** CLIENT will include in the general conditions of any construction contract, language which states that the construction contractor is required to hold harmless and defend the CLIENT, AECOM, and their agents, employees and consultants, from all suits and actions, including attorneys' fees, and all costs of litigation and judgments of any nature and description arising out of or incidental to the performance of the construction contract or work performed thereunder. The CLIENT, AECOM, their agents, employees and consultants shall also be named as additional insureds in any construction contractor's insurance policies.
- D. **Reuse of Documents/CADD Data.** Documents, drawings, specifications, and electronic information/data, including computer aided drafting and design ("CADD"), prepared by AECOM pursuant to this agreement are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any use of completed documents for other projects and any use of incomplete documents without specific written authorization from AECOM will be at CLIENT's sole risk and without liability to AECOM. CLIENT assumes full responsibility for such changes unless CLIENT has given AECOM prior notice and has received from AECOM written consent for such changes. Electronic data delivered to CLIENT shall not include the professional stamp or signature of an engineer or architect. CLIENT agrees that AECOM shall not be liable for claims, liabilities or losses arising out of, or connected with the decline of accuracy or readability of electronic data due to inappropriate storage conditions or duration.

EXHIBIT B
FEE SCHEDULE

**Exhibit B
Fee Schedule**

**North Torrance Wellfield Project
Preliminary Design Services**

City of Torrance

Task Description	Personnel Hours						Budget			
	Project Manager	Principal Eng/Arch	Senior Engineer	Associate Engineer	CAD Operator/Super	Clerical	Total Hours	Labor	Non-Labor Fee	Total
Preliminary Design										
1. Kick-Off Meeting and Agency Coordination										
a. Project kick-off meeting	4	12					16	\$ 3,440	\$ 80	\$ 3,520
b. Assist City in coordination with Caltrans, SCE and Torrance USD regarding site access and drainage issues.	8		24	24	6		62	\$ 9,034		\$ 9,034
c. Coordinate with SCE for electrical service		4	8		2		14	\$ 2,298		\$ 2,298
2. Data Gathering										
a. Obtain survey records from City and Caltrans	2			6		2	10	\$ 1,330		\$ 1,330
b. Obtain property descriptions for project site and Well 11 site		2					2	\$ 430		\$ 430
c. Review street and utility plans in possession of City			8	8			16	\$ 2,288		\$ 2,288
3. Utility Research										
a. Contact USA				4			4	\$ 500		\$ 500
b. Send preliminary notice to each utility regarding project				6		2	8	\$ 900		\$ 900
c. Send preliminary plans to utilities		2		6		2	10	\$ 1,330	\$ 50	\$ 1,380
d. Maintain record of utility contacts				4			4	\$ 500		\$ 500
4. Potholing										
a. Identify proposed pothole locations (up to 12)	1		6			1	8	\$ 1,256		\$ 1,256
b. Coordinate potholing			6			1	7	\$ 1,041	\$ 15,400	\$ 16,441
5. Design Survey/Mapping										
a. Establish control (included in item b below)							-	\$ -		\$ -
b. Topographic mapping for project site and pipeline routes							-	\$ -	\$ 58,000	\$ 58,000
c. Locate water meters, hydrants, and appurtenances. Pick up manholes and culture (included in item b above)							-	\$ -		\$ -
d. Locate potholes			2				2	\$ 322	\$ 3,000	\$ 3,322
e. Prepare base mapping at 40 scale			4		8		12	\$ 1,484		\$ 1,484
f. Plot utilities on base maps			16		40		56	\$ 6,776		\$ 6,776
g. Perform job walk to identify conflicts			6		1		7	\$ 1,041		\$ 1,041

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Fee Schedule**

**North Torrance Wellfield Project
Preliminary Design Services**

City of Torrance

Task Description	Personnel Hours						Budget			
	Project Manager	Principal Eng/Arch	Senior Engineer	Associate Engineer	CAD Operator/Super	Clerical	Total Hours	Labor	Non-Labor Fee	Total
6. Geotechnical Investigation										
a. Drill holes at project site and along pipeline, lab testing, prepare geotech report		4				1	5	\$ 935	\$ 29,000	\$ 29,935
7. Water Treatment Analysis										
a. Evaluate water quality data from Wells 9 and 10	4						4	\$ 860		\$ 860
b. For future contamination, evaluate and recommend additional treatment requirements	6	6				1	13	\$ 2,655		\$ 2,655
c. Meet with City staff to discuss treatment alternatives and recommend processes	6	6				1	13	\$ 2,655		\$ 2,655
d. Review possible TDS, THM and manganese treatments (included in item c)	6	6				2	14	\$ 2,730		\$ 2,730
e. Review possible treatment for chlorides (included in item c)										
f. Utilize fluoride equipment from Well 9 site (included in item c)										
8. Plant Site Plan										
a. Review adequacy of the site for proposed Well No. 11	2	4				1	7	\$ 1,365		\$ 1,365
b. Determine sizing requirements for reservoir and building(s) for the booster pumps, wellhead, chemical room, restroom, laboratory, E/G set, and electrical room. Also identify space requirement for future treatment equipment.	8	8	20		8		44	\$ 7,500		\$ 7,500
c. Locate proposed facilities on the site, considering requirements for maintenance access. Prepare three alternative site plans and review with City staff.	12	12	32		36		92	\$ 14,092		\$ 14,092
d. Incorporate Low Impact Design elements							8	\$ 920		\$ 920
e. Demo reservoir and BPS at Well 9 site		2					4			

**Exhibit B
Fee Schedule**

**North Torrance Wellfield Project
Preliminary Design Services**

City of Torrance

Task Description	Personnel Hours						Total Hours	Budget		
	Project Manager	Principal Eng/Arch	Senior Engineer	Associate Engineer	CAD Operator/Super	Clerical		Labor	Non-Labor Fee	Total
9. Utility Easement and Yukon Avenue Pipelines										
a. Evaluate location alternatives for water and drain lines, considering all impacts	8	8	12	16			44	\$ 7,052		\$ 7,052
b. Prepare sketches of proposed connections to existing facilities	4	4	12	30			50	\$ 6,802		\$ 6,802
c. Prepare preliminary construction phasing schedule	4		2		2		8	\$ 1,332		\$ 1,332
d. Discuss proposed locations with City staff prior to preparing plan and profile drawings.	6		6	4		1	17	\$ 2,751		\$ 2,751
10. Preliminary Design Report										
a. Prepare draft PDR summarizing all project details; include Engineer's Estimate	6	8	32	8	6	6	60	\$ 9,452	\$ 2,000	\$ 11,452
b. Provide review copies to City	4				4		8	\$ 1,160		\$ 1,160
c. Meet with City staff to review comments and discuss revisions	4	4					8	\$ 1,720		\$ 1,720
d. Finalize PDR, copies to City. Include discussion and comparison of Design/Build and Design/Bid/Build	6	6	20	4	6	6	42	\$ 6,670		\$ 6,670
e. Prepare renderings for City council and public information	4			8	16	1	29	\$ 3,615		\$ 3,615
11. Prepare Preliminary Design Documents										
a. Develop 30% complete plans	40	200	150	60	460		910	\$ 131,550	\$ 5,600	\$ 137,150
b. Submit plans to City of Torrance for review. Revise as necessary and provide AutoCAD drawing files to City. Provide			4		4		8	\$ 1,064		\$ 1,064
c. Assist City to develop design-build procurement solicitation documents	4	20	16			4	44	\$ 8,036		\$ 8,036
12. Environmental Documents										
a. Prepare draft IS and proposed MND		16	40	170	90	50	366	\$ 44,330		\$ 44,330
b. Prepare mitigation monitoring plan			2		6	2	10	\$ 1,102		\$ 1,102
c. Finalize and circulate IS/MND			4		24	26	54	\$ 5,114	\$ 900	\$ 6,014
d. Respond to comments and prepare final MND		4	18		36		58	\$ 7,538		\$ 7,538
e. Attend meetings (assume 3)		8	16				24	\$ 4,296	\$ 100	\$ 4,396

**Exhibit B
Fee Schedule**

**North Torrance Wellfield Project
Preliminary Design Services**

City of Torrance

Task Description	Personnel Hours						Budget			
	Project Manager	Principal Eng/Arch	Senior Engineer	Associate Engineer	CAD Operator/Super	Clerical	Total Hours	Labor	Non-Labor Fee	Total
13. Project Management, Meetings and Quality Control										
a. Project management for discipline coordination, City liaison, and invoice preparation	24					16	40	\$ 6,360		\$ 6,360
b. Coordination meetings as necessary to discuss progress and design issues. Three meetings are assumed	12	12				4	28	\$ 5,460	\$ 200	\$ 5,660
c. Quality control review of each submittal							-	\$ -		\$ -
Review PDR		8				4	12	\$ 2,020		\$ 2,020
Review draft 30% submittal		12					12	\$ 2,580		\$ 2,580
Review final 30% submittal		12					12	\$ 2,580		\$ 2,580
Total	185	358	466	304	798	145	2,246	\$ 323,086	\$ 114,330	\$ 437,416

Amounts shown are fee.

Personnel Category	\$/HR
Project Manager	\$215.00
Principal Engineer/Architect	\$215.00
Senior Engineer	\$161.00
Associate Engineer	\$125.00
CAD Operator/Supervisor	\$105.00
Clerical	\$75.00

