

Council Meeting of
August 7, 2007

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

Members of Council:

SUBJECT: Public Works - Consulting Services Agreement with Case Land Surveyors Inc. for Survey of the North Torrance Water Main Replacement Project, CIP No. I-74, and other as-needed survey services. Expenditure: \$81,375

RECOMMENDATION

The Public Works Director recommends the City Council approve a Consulting Services Agreement with Case Land Surveying, Inc. in the amount not to exceed \$81,375 for survey of North Torrance Water Main Replacement Project, CIP No. I-74, and other as-needed survey service for the City of Torrance water system.

Funding

Funding for this Agreement is available from CIP No. I-74.

BACKGROUND

The North Torrance Water Main Replacement Project, CIP No. I-74, will replace approximately 31,000 lineal feet of existing 6" diameter cast iron pipe with new ductile iron pipe. The existing water mains were installed circa 1951. They are in need of replacement due to extensive corrosion damage and a high frequency of water main breaks. Plans for this project will be prepared by the Engineering Division staff of the Public Works Department.

Included in this contract are as-needed surveying services for a period of two years. The Scope of Work includes an additional 6,200 lineal feet of work throughout the city related to water main replacement and construction. The Public Works Department frequently has to replace water mains that have not been identified to coordinate with developer or utility projects. This Agreement will allow us to quickly prepare those plans in-house.

The Public Works Department has also included two years of annual survey to monitor movement at the Walteria and Ben Haggott Reservoirs. These measurements are taken once a year to determine if there has been any movement of the reservoirs.

Half the reservoir footprints are on fill material and monitoring them for any settlement has been recommended by the State Department of Dam Safety. The dirt fill slope around the reservoirs is considered by the State of California to be an earthen dam. No significant settlement has been observed.

ANALYSIS

The Request for Proposal for this project was mailed out on April 19, 2007 to five survey companies. Of these five, only two responded by the May 10, 2007 deadline with the following results:

<u>Surveyor</u>	<u>Amount</u>
Case Land Surveying, Inc.	\$81,375
KDM Meridian	\$110,425

Case Land Surveying, Inc. had previously done similar work for the City of Torrance and staff has found their work to be professional and reliable.

The Public Works Director recommends that Council award a Consulting Services Agreement to Case Land Surveying, Inc. in the amount not to exceed \$81,375. The breakdown of those costs is as follows:

CIP No. I-74 Survey & Base Maps	\$64,400
Miscellaneous Survey & Base Maps	\$13,440
Survey of Walteria & Ben Haggott Reservoirs	\$3,535

Respectfully submitted,

ROBERT E. BESTE
Public Works Director



By John Dettle
Project Manager

CONCUR:



Robert J. Beste
Public Works Director



LeRoy J. Jackson
City Manager

for Attachment: A. Consulting Services Agreement

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of August 7, 2007 (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and Case Land Surveying Inc., a California Corporation ("CONSULTANT").

RECITALS:

- A. CITY wishes to retain the services of an experienced and qualified CONSULTANT to provide topographic survey services for North Torrance Water Main Replacement CIP I-74, as-need survey and the survey monitoring for settlement of the Ben Haggott and Walteria Reservoirs.
- 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 August 6, 2009.

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 \$81,375 ("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**

John Dettle 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:

Larry Case, President/CEO
Stacy Case, Secretary/CFO

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, loss of use, 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 party 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 occurrence.
 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, 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: Case Land Surveying, Inc.
614 N. Eckhoff Street
Orange, CA 92868

Fax: 714-628-8905

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

Case Land Surveying, Inc.
california Corporation

Frank Scotto, Mayor

By: _____

ATTEST:

Larry V. Case
President

Sue Herbers
City Clerk

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

By: _____

Attachments: Exhibit A Scope of Services
 Exhibit B Compensation Schedule

Revised: 1/30/01

EXHIBIT "A"**Scope of Services****1.0 PROJECT DEFINITION AND BACKGROUND****TASK 1**

The City of Torrance is seeking proposals from qualified firms to provide topographic surveying services for the North Torrance Water Main Replacement Project. The water main is located in North Torrance between Hawthorne Boulevard to the west and Crenshaw Boulevard to the east, Redondo Beach Boulevard to the north and Artesia Boulevard to the south. Also included is surveying for the T1 connection on 190th street between the 405 freeway on/off ramp to the west and Western Avenue to the east. See Figure 1 for locations.

The purpose of this project is to replace approximately 31,000 lineal feet of existing 6" diameter cast iron pipe with new 8"/12" diameter ductile iron pipe.

TASK 2

The firm is to provide an as-needed surveying service for a period of two years. The survey cost will be based on approximately 6,200 lineal feet and/or an hourly rate.

TASK 3

The City conducts annual survey to measure movement of the Walteria and Ben Haggott Reservoirs using GPS method. Horizontal Northing and Easting coordinates and vertical elevations of existing permanent bench mark and survey monuments at the reservoirs are required. Figures 2, 3 and 4 show the location of benchmarks, data and monuments completed in 2001 to 2004 and 2006. A comparison of the existing and new survey data will determine if there is movement. The reservoirs are located at the intersection of Crenshaw Boulevard and Rolling Hills Road.

2.0 SUMMARY OF SCOPE OF WORK**TASK 1 and TASK 2**

1. Initial Meeting
 - a. Attend project kick-off meeting with City of Torrance staff to review the project scope, schedule, budget and work plan. Adjust task schedule and work plan as required.
2. Data Gathering
 - a. Obtain available survey records, centerline ties, benchmark, and right-of-way information from the City of Torrance or City of Gardena as required.

- b. Collect and review existing street plans and existing water, sewer, storm drain and utility plans and maps from each City.
3. Design Survey
- a. Provide field survey to establish horizontal and vertical control.
 - b. Run levels to tie-in County/City BM.
 - c. Collect cross-sectional data at approximately 50' intervals along each street as described above.
 - d. Collect cover rim elevations for all utilities located within project limits.
 - e. Perform office drafting to label street center line stationing.
 - f. Perform topographic survey. Survey crews will be utilized to physically locate all existing features, objects and obstructions, including but not limited to: walkways, sidewalks, driveways, curb and gutter, trees, fire hydrants, water meters, valves, signs, street lights, power poles, utility vaults, etc., located within the roadway rights-of-way.
 - g. City will provide an electronic digital file of blank plan and profile drawing. Surveyor shall use this drawing to prepare base maps at scale of 1"=40' with 1 foot interval contours with record centerlines, record rights-of-way, sidelines, and addresses/parcel numbers using data gathered from Item 2 (Data Gathering) and design survey data. Four (4) sets of architectural D size completed blue print plans to be provided to the City.
 - h. Tables for street intersection stationing, and utility stationing.
 - i. All plans shall be prepared in AutoCAD (Release 2004 or later version).
 - j. A copy of the entire location and the base plans to be provided to the City on an electronic digital file format.

TASK 3

- a. The surveying firm shall use existing benchmarks to conduct horizontal and vertical surveys using GPS method and summary report preparation for the Walteria and Ben Haggott Reservoirs as shown in Figures 2 and 3. The surveyor shall survey the horizontal and vertical locations of twelve existing monuments, five existing piezometers and the Los Angeles County monitoring well as shown in Figures 2 and 3 to the nearest 0.01 foot. These monuments are to be tied to the benchmark on the SE corner of the reservoir site. An excel spreadsheet showing existing horizontal coordinates and vertical elevations of the monuments is included in Figure 4. The spreadsheet, in electronic format, will be given to the surveying firm upon award of contract.
- b. The surveying firm shall prepare a letter report summarizing horizontal and vertical monitoring point establishment and surveying activities. The report will include updating the "MS Excel" spreadsheet with the Northing and Easting coordinates of the survey monuments. It is the intent of the City to re-measure horizontal coordinates and vertical elevations annually. A draft copy of the final report will be submitted to the City.

EXHIBIT "B"**Cost Breakdown**

Task 1- \$64,400.00 Topographic surveying for the North Torrance Water Main Replacement Project located between Hawthorne Boulevard to the west and Crenshaw Boulevard to the east, Redondo Beach Boulevard to the north and Artesia Boulevard to the south. Surveying for the T1 connection on 190th Street between the 405 freeway on/off ramp to the west and Western Avenue to the east. (Approximately 31,000 lineal feet.)

Classification	Hourly Bill Rate	Estimated Hours Required	Extended Price
2-Man Crew (Party Chief & Chainman)	\$185.00	230	\$42,550.00
Survey Manager/Office Calcs, Plotting, Etc.	\$95.00	230	\$21,850.00

Task 2- \$13,440.00 As needed surveying service for a period of two years based on approximately 6,200 lineal feet.

Classification	Hourly Bill Rate	Estimated Hours Required	Extended Price
2-Man Crew (Party Chief & Chainman)	\$185.00	48	\$8,800.00
Survey Manager/Office Calcs, Plotting, Etc.	\$95.00	48	\$4,560.00

Task 3- \$3,535 Annual survey to measure movement of the Walteria and Ben Haggot Reservoirs using GPS method.

Classification	Hourly Bill Rate	Estimated Hours Required	Extended Price
2-Man Crew (Party Chief & Chainman)	\$185.00	15	\$2,755.00
Survey Manager/Office Calcs, Plotting, Etc.	\$95.00	8	\$760.00