

REPORT

To the Honorable Mayor and City Council
From the City Manager

March 23, 2009

SUBJECT

Amendment No. 1 to the Professional Service Agreement with Moffatt & Nichol for Exterior Levee Assessment

RECOMMENDATION

Approve, by motion, Amendment No. 1 to the professional service agreement with Moffatt & Nichol in an amount not to exceed \$50,000.00 and authorize the City Manager to increase the contract amount up to 10% of the amount of the proposed amendment if necessary.

BACKGROUND

On November 10, 2008, City Council approved an agreement with Moffatt & Nichol in an amount not to exceed \$113,344.00 for an initial assessment of levee conditions as part of the Exterior Levee Certification Program to satisfy the Federal Emergency Management Agency's levee certification requirement.

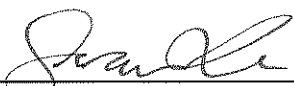
The initial study, which included assessment of levee crest elevation and geotechnical conditions, is near completion. Areas in need of further investigation have been identified during the initial study. The proposed amendment provides for this additional investigation. The scope of work has been increased to include a more detailed supplemental coastal engineering analysis and the administrative coordination required to procure permits from various agencies for the levee improvements.

ALTERNATIVES

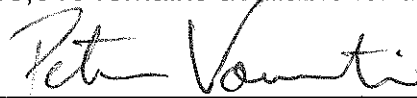
Council may choose not to approve Amendment No. 1 to the Agreement with Moffatt & Nichol and direct staff to modify the scope of work and/or select another consultant.

FISCAL IMPACT

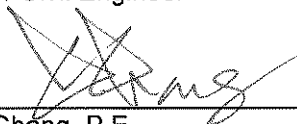
On November 10, 2008, Council approved and appropriated funds for the Exterior Levee Certification Project in the Fiscal Year 2008/09 – GID1-64 Facility Charges Construction Fund. As of January 31, 2009, \$283,619 remains available for this project.



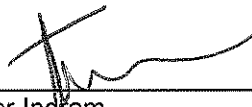
Grace Le, P.E.,
Senior Civil Engineer



Peter Vorametsanti, P.E.,
Acting Engineering and Construction Manager



Chu Chang, P.E.,
Acting Community Development Services Director



Peter Ingram
City Manager

ATTACHMENTS

Proposed Amendment No. 1 to the Agreement with Moffatt & Nichol dated December 1, 2008

RELATED DOCUMENTS IN CITY CLERK'S OFFICE

None

**AMENDMENT NO.1 TO AGREEMENT FOR CONSULTANT ENGINEERING SERVICES
(MOFFATT & NICHOL)**

This Amendment No.1 is entered into and effective as of the ___ day of _____, 2009, amending the agreement dated December 1, 2008, in the amount of One hundred thirteen thousand three hundred forty four Dollars (\$113,344.00) (the "Agreement") by and between the City of Redwood City, a charter city and municipal corporation ("City"), and Moffat & Nichol, ("Consultant") (collectively, the "Parties") for assessment of the perimeter levee protecting Redwood Shores.

RECITALS

A. The Parties desire to alter the Agreement's scope of work to include supplemental coastal engineering analysis and permit assistance; and

B. The Parties have negotiated and agreed to a supplemental scope of work and fee schedule, which is attached to and incorporated by this reference as Exhibit "A," Scope of Services and Fee.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, the Parties agree as follows:

1. In addition to those services contained in the Agreement, as may have been amended from time to time, Consultant will provide those services described in Exhibit "A." With this Amendment the total aggregate agreement amount shall not exceed One hundred sixty three thousand three hundred and forty four Dollars (\$166,344.00).

2. City will pay Consultant for all work associated with those services described in Exhibit "A" not to exceed Fifty thousand and 00/100 Dollars (\$50,000.00). Consultant will provide City, on a monthly basis, copies of invoices sufficiently detailed to include hours performed, hourly rates, and related activities and costs for approval by City.

3. Consultant will complete all work described in Exhibit "A" as specified in the original agreement.

4. All other provisions of the Agreement, as may have been amended from time to time, will remain in full force and effect.

5. All requisite insurance policies to be maintained by Consultant pursuant to the Agreement, as may have been amended from time to time, will include coverage for this Amendment.

6. The individuals executing this Amendment and the instruments referenced

in it on behalf of Consultant each represent and warrant that they have the legal power, right and actual authority to bind Consultant to the terms and conditions of this Amendment.

CONSULTANT

Moffatt & Nichol
2001 N. Main Street, Suite 360
Walnut Creek, CA 94596
925-944-5411 (telephone)
925-944-4732 (facsimile)

CITY OF REDWOOD CITY, a charter city and municipal corporation of the State of California

By:

*By:

Peter Ingram, City Manager

(sign here)

ATTEST:

(print name/title)

Silvia Vonderlinden, City Clerk

**By:

(sign here)

(print name/title)

If required by City, proper notarial acknowledgment of execution by Consultant must be attached. If a Corporation, Agreement must be signed by one corporate officer from each of the following two groups.

***Group A.**

Chairman,
President, **or**
Vice-President

****Group B.**

Secretary,
Assistant Secretary,
CFO **or** Assistant Treasurer

Otherwise, the corporation **must** attach a resolution certified by the secretary or assistant secretary under corporate seal empowering the officer(s) signing to bind the corporation.

EXHIBIT "A"

SCOPE OF SERVICES

The following Scope of Goods/Services is to be provided to the City by the Contractor under this Agreement:

**AMENDMENT NO.1 TO AGREEMENT FOR CONSULTANT ENGINEERING SERVICES
(MOFFATT & NICHOL)**

The Contractor's proposal entitled "Additional Scope - Levee Assessment Redwood Shores Levee System" ("Proposal") dated February 3, 2009 is attached to this Exhibit A and is incorporated by this reference. The Scope of Services to be provided to the City by the Contractor, the cost estimates and fees, and the time frame during which the Services are to be provided under this Agreement are fully set forth in the Proposal.



2001 N. Main Street
Suite 360
Walnut Creek, California 94596

(925) 944-5411
Fax (925) 944-4732

Grace Le, Sr. Civil Engineer
City of Redwood City
1017 Middlefield Road
Redwood City, CA 94063

Subj: Additional Scope - Levee Assessment
Redwood Shores Levee System
M&N File No: 6786

Dear Grace:

Per our earlier discussion, I have prepared a scope of work to conduct additional statistical analyses to estimate the deficiencies of the Redwood Shores levee system, as well as assist the Huffman-Broadway Group with procuring permits for levee improvements resulting from the Coastal Analysis. A detailed scope of work is provided below and a fee estimate is attached.

BACKGROUND

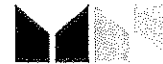
We are presently under contract with the City to prepare a Preliminary Coastal Assessment for the levee system, which includes a topographic survey and coastal engineering analyses. We have completed these tasks and identified areas which are deficient. However, a key finding of the work was that the combined 1% annual chance of flooding event, which FEMA bases their levee certification criteria on, is significantly influenced by bottom features around Bird Island and the probability of simultaneous occurrence of high water levels and wind waves in the area.

For the preliminary assessment, we used standard engineering assumptions to develop required crest elevations rather than site specific features, as they vary around the peninsula, and there is a good possibility that the additional analysis proposed will narrow down the range of crest elevations already calculated.

SCOPE OF WORK

Task 1: Supplemental Coastal Engineering Analysis

1. Refine the previously prepared wave hindcasts and include transformation of wind-waves, including wave refraction and wave dissipation, over the Bird Island marsh. This will be performed using the CEDAS numerical model or similar empirical programs
2. Since the record of water levels for the NOAA Redwood Creek gage was very short, develop a synthetic time series for the Empirical Simulation Technique (EST) simulation. This will include development of lookup tables to for wind-wave generation and wave runup based on the wave hindcast.
3. Develop annual maxima for still water levels and peak values. Perform a Generalized Extreme Value Distribution (GEVD) analysis to estimate the 1%-annual-chance peak



still water level, wave crest, and wave runup. Develop 95% confidence limits for the still water level.

4. Develop flood hazard levels based on the peak still water level, wave crest, and wave runup.
5. Document approach and results.

Task 2: Permit Assistance (Allowance)

This task is to provide assistance to the Huffman-Broadway Group (HBG) with procuring permits for levee improvements. Specific tasks will include providing a project description for use in the Army Corps, BCDC and Water Board permit applications, providing permit graphics and quantities of excavation and fill, and coordinating with agencies as requested by the City and HBG.

Since it is difficult to estimate a level of effort associated with procuring permits, we are recommending an allowance be set aside for this task. The labor and materials expended for this Task will be clearly detailed in our invoices, and all effort will be limited to permitting tasks only.

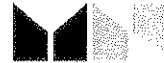
FEE & SCHEDULE

An estimate of hours by task is shown below. We will invoice monthly based on Time and Materials.

Task	Labor (\$185/hr)	Fee
Task 1: Supplemental Coastal Engineering Analysis		
1. Wave transformation analyses	24	\$4,440
2. Empirical Simulation Technique analysis (EST)	40	\$7,400
3. Generalized Extreme Value Analysis	16	\$2,960
4. Develop 1% flood hazard levels	16	\$2,960
5. Document approach & Results	40	\$7,400
6. Coordinate with FEMA / Meetings	24	\$4,440
Subtotal Task 1		\$29,600
Task 2: Permit Assistance		
Allowance		\$20,400
Subtotal Task 2		\$20,400
Total		\$50,000

As we have discussed, we can complete tasks 1 through 4 above in about 3 weeks once we start. We can start as soon as you authorize us.

Grace Le, Redwood City
Redwood Shores Levee Proposal



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Should you have any questions or comments, please contact me. Thank you for the opportunity to provide our services on this project.

Sincerely,

MOFFATT & NICHOL

Dilip Trivedi, Dr.Eng., P.E.
Project Manager