Supplemental Council Agenda Report

To: Mayor Farrer and the Honorable Members of the City Council

Prepared by: Robert DuBoux, Public Works Director/City Engineer

Approved by: Reva Feldman, City Manager

Date prepared: December 3, 2019            Meeting date: December 9, 2019

Subject: Amendment to Professional Services Agreement with Moffatt & Nichol

RECOMMENDED ACTION: 1) Authorize the City Manager to execute Amendment No. 4 to the Professional Services Agreement with Moffatt & Nichol in the amount of $187,350 for professional engineering services to prepare an additional response regarding the Federal Emergency Management Agency (FEMA) Preliminary Coastal Flood Maps; and 2) Appropriate $213,280 from the General Fund Undesignated Reserve.

FISCAL IMPACT: Funding for these services was not included in the Adopted Budget for Fiscal Year 2019-2020. An appropriation of $213,280 from the General Fund Undesignated Reserve to Account Number 100-3008-5100 (Public Works Professional Services) is needed to perform the additional FEMA response and additional field survey work. The projected General Fund Undesignated Reserve at June 30, 2020 is $25 million.

WORK PLAN: This item was included as item 5m in the Adopted Work Plan for Fiscal Year 2019-2020.

DISCUSSION: Staff previously distributed this report without Amendment No. 4 attached.

ATTACHMENTS: Amendment No. 4 to Agreement with Moffatt & Nichol
AMENDMENT NO. 4 TO AGREEMENT

THIS AMENDMENT NO. 4 TO AGREEMENT is made and entered in the City of Malibu on December 9, 2019, by and between the CITY OF MALIBU, hereinafter referred to as City, and Moffatt & Nichol, hereinafter referred to as Consultant.

The City and the Consultant agree as follows:

RECATALS

A. On September 26, 2017, the City entered into an Agreement with Consultant for certain projects relating to FEMA’s Preliminary Coastal Flood Maps developed by the California Coastal Analysis and Mapping Program (the “Agreement”).

B. On November 13, 2017, the City amended the Agreement to perform a detailed review of 22 transects of the FEMA Preliminary Flood Maps and submit supporting data to FEMA as part of the City’s appeal.

C. On June 25, 2018, the City amended the Agreement to extend the term of the agreement and assist the City to provide a detailed response to FEMA’s comments of the City’s appeals.

D. On March 25, 2019, the City amended the Agreement to extend the term of the agreement and assist the City in replying to FEMA’s responses.

E. The desires to amend the Agreement to prepare a coastal Letter of Map Revision (LOMR), and the Consultant has submitted a proposal for this purpose that is acceptable to the City.

NOW THEREFORE, in consideration of their mutual promises, obligations and covenants hereinafter contained, the parties hereto agree as follows:

1. Section 1.0 – Scope of the Consultant’s Services, of the Agreement, is hereby amended as set forth in Exhibit A attached hereto.

2. Section 2.0 – Term of Agreement, of the Agreement, is hereby extended to March 24, 2021.

3. Section 4.0 – Compensation for Services, is hereby amended by $187,350 for a total not to exceed $272,350, and the Fee Schedule is hereby amended as set forth in Exhibit B.

4. All terms and conditions of the Agreement not amended by this Amendment Nos. 1 -3 not amended by this Amendment No. 4 remain in full force and effect.

This Agreement is executed on ________________, 2019, at Malibu, California, and effective as of December 9, 2019.

CITY OF MALIBU:

REVA FELDMAN, City Manager

ATTEST:

HEATHER GLASER, City Clerk
(seal)

APPROVED AS TO FORM:

CHRISTI HOGIN, City Attorney

CONSULTANT:

By: Michael McCarthy, Vice President
EXHIBIT A

Moffatt & Nichol (M&N) is pleased to submit this proposal to assist the City of Malibu in preparing a coastal Letter of Map Revision (LOMR). Our proposed scope of services, fee and schedule are provided below and on the following pages.

SCOPE OF WORK
To prepare the LOMR for submittal, the tasks listed below will be completed.

1. Prepare MT-2 Forms
   This task includes preparing Forms 1, 4, and 5, and maybe Forms 2 and 3.

2. Prepare a Project Narrative
   The project narrative shall include the following information:
   a. The locations of the revision areas and a description of the existing conditions;
   b. The datum used for mapping and modeling purposes, which effective transect and the Stillwater Elevation (SWEL) are derived from;
   c. Source/methodology for the starting wave conditions for Coastal Analysis; and
   d. All descriptions/explanations required by Application/Certification Form 4, entitled "Coastal Analysis Form."

3. Perform Coastal Analyses and Computations and Submit All Digital Files and Backup Information.
   Perform coastal analysis to determine the Base Flood Elevation (BFE) for each transect being studied. The detailed study for each transect includes the following:
   • Compute hourly total water level (TWL) for the 50-year study period, including performing refraction analysis to determine deep water equivalent wave parameters if Stockdon and DIM Methods are used and depth limited breaking wave height and wave direction at breaking zone if TAW method is used, as well as still water level, wave setup, and runup;
   • Perform statistical analyses of TWL to determine the BFE based on either the annual maximum TWLs or event over threshold TWLs; and
   • Perform wave overtopping hazard zone analyses, including over land propagation and landward extent of the special hazard areas.

The following three types of transects will be analyzed:
1) Add a new transect in the areas where BFE is very different between neighboring transects, as adding an additional transect in between may lower BFE. A total of seven (7) transects are recommended by adding one transect between Transects 10 and 11, 26 and 27, 27 and 28, 28 and 29, 32 and 33, 39 and 40, as well as 40 and 41. To perform analyses at these 7 transects, the following bathymetry/topographic data are required:
   a. The LiDAR data used in LA County PFIRM analyses to be requested from FEMA;
   b. Backshore Bluff/Revetment/Structure toe and crest elevations and foreshore slope to
be collected by the City’s surveyor; and
In addition to general analysis steps described in the main section to compute the TWL and ultimately the BFE for the 7 new transects, the following additional steps are required:
   a. Create new transects in GIS and determine beginning and end coordinates of the transects;
   b. Provide the transect coordinates to FEMA to request wave parameters (wave height, period, direction, etc.) at depths of 5 m, 10 m and 15 m;
   c. Provide the transect coordinates to the City’s surveyor to determine the Backshore bluff/revetment/structure toe, crest, and slope; and
   d. Cut transect profile from FEMA LiDAR data and compliment with survey data from the surveyor to create profile data for analysis.

2) Transects sheltered by headlands where BFE may be lowered by considering the oblique wave impacts. Potential Transects are 23, 25, 28, 38, 41, and 42. To perform this analysis, the following data shall be requested from FEMA:
   a. 50-year hourly still water surface elevations; and
   b. Wave parameters at 10-m and 5-m water depth.
   Note: Methodology needs to be approved by FEMA as there are no specific methods included in the Pacific Guidance or in the responses from FEMA. M&N will prepare a memo summarizing the methodology that will be used and submit it to FEMA to get FEMA’s concurrence to prevent any potential delay.

3) Transects where BFE is very high. The City/property owner may perform a new/more accurate survey. If the new survey shows a higher structure toe elevation, higher crest elevation, and/or milder foreshore slope, the BFE may be lowered. M&N reviewed the Preliminary BFES and identified eleven (11) candidate transects based on the high BFE elevation and whether there are properties located within the BFE zone. The 11 transects are listed in the table below as candidate transects for a new wading survey for the City’s references.
For these transects, a new transect profile will be created based on FEMA offshore data and backshore feature data collected by the City’s surveyor.

<table>
<thead>
<tr>
<th>Transect #</th>
<th>PFIRM BFE (ft NAVD88)</th>
<th>Houses in BFE Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>19.1</td>
<td>Yes</td>
</tr>
<tr>
<td>25</td>
<td>20.2</td>
<td>Yes</td>
</tr>
<tr>
<td>27</td>
<td>20.2</td>
<td>Yes</td>
</tr>
<tr>
<td>31</td>
<td>18.7</td>
<td>Yes</td>
</tr>
<tr>
<td>32</td>
<td>18.8</td>
<td>Yes</td>
</tr>
<tr>
<td>36</td>
<td>19.2</td>
<td>Yes</td>
</tr>
<tr>
<td>38</td>
<td>19.9</td>
<td>Parking Lot etc.</td>
</tr>
<tr>
<td>40</td>
<td>21.4</td>
<td>Yes</td>
</tr>
<tr>
<td>41</td>
<td>25.2</td>
<td>Yes</td>
</tr>
<tr>
<td>42</td>
<td>22</td>
<td>Yes</td>
</tr>
<tr>
<td>43</td>
<td>24.2</td>
<td>Yes</td>
</tr>
</tbody>
</table>
4. Prepare Certified Plans and Surveys
Coordinate and assist City’s surveyor with preparation and submittal of certified as-built plans and/or surveys for all hydraulic structures that are new or modified since the effective model or are being modeled using different geometry than the effective/preliminary model. The certified survey plans will be prepared by the surveyor.

5. Prepare Documentation of Legal Notices to Property Owners
Prepare and submit a draft copy of the notification for FEMA verification of content, prior to distribution. Prepare documentation of the individual legal notices to be sent to property owners who are affected by any increases in width and/or shifting of the floodplain of the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

6. Prepare and Submit Topographic Work Maps
Prepare and submit a topographic work map, certified (sealed, signed, and dated) by a registered Professional Engineer, that shows all applicable items listed in Section E of Application/Certification Form 4, entitled “Coastal Analysis Form.” Ensure there is consistency between the work map, the Coastal Analysis, and annotated Flood Insurance Rate Map (FIRM).

7. Prepare Annotated FIRM Maps
Prepare annotated FIRM maps where the FIRM map has been annotated to show the area to be revised and the revised floodplain and floodway delineations along with how the revised delineation of the floodplain will tie in to the effective delineation at the boundaries of the revised area.

8. Address FEMA Comments on LOMR
This is a placeholder for addressing comments on LOMR.

9. Project Management and Coordination with FEMA and the City
Prepare and attend tele-conference calls and prepare meeting minutes. Five tele-conference calls are assumed.
EXHIBIT B - PROPOSED FEE AND SCHEDULE

M&N can initiate work to assist the City upon the Notice to Proceed and agreement on contract amendment. We estimate the LOMR package can be completed in 3 months after initiation of the work or receiving the data from FEMA, whichever is later. The work is also pending on receiving survey data from City’s surveyor. It would take two months to finish the coastal analysis and mapping work after receiving all survey data.

M&N proposes to provide the services described above for an amount not to exceed $187,350 to be billed on a time and material basis. Monthly invoices will be submitted based on the percentage complete for each task. Task 8 is a place holder as it is difficult to estimate the effort currently.

<table>
<thead>
<tr>
<th>TASK</th>
<th>FEE</th>
</tr>
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<tbody>
<tr>
<td>1. Prepare MT-2 Forms</td>
<td>$15,100</td>
</tr>
<tr>
<td>2. Prepare Project Narratives</td>
<td>$7,500</td>
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<tr>
<td>3. Perform Coastal Analyses and Prepare Submittals</td>
<td>$73,000</td>
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<td>4. Coordinate Survey and Prepare Certified Plans and Surveys</td>
<td>$79,00</td>
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<tr>
<td>5. Prepare Documents of Legal Notices to Property Owners</td>
<td>$5,400</td>
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<tr>
<td>6. Prepare and Submit Topographic Work Maps</td>
<td>$16,000</td>
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<tr>
<td>7. Prepare Annotated FIRM Maps &amp; Official FIRM Maps</td>
<td>$23,300</td>
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<tr>
<td>8. Address FEMA Comments on LOMR (a place holder)</td>
<td>$30,000</td>
</tr>
<tr>
<td>9. Project Manage &amp; Coordination with FEMA &amp; City</td>
<td>$9,000</td>
</tr>
<tr>
<td>10. Misc. Reimbursables (Telephone, postage)</td>
<td>$150</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$187,350</strong></td>
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