PROFESSIONAL SERVICES CONTRACT BETWEEN
THE CITY OF HUNTINGTON BEACH AND
MOFFATT & NICHOL
FOR
ON-CALL CIVIL ENGINEERING
& PROFESSIONAL CONSULTING SERVICES

THIS AGREEMENT ("Agreement") is made and entered into by and between the City of Huntington Beach, a municipal corporation of the State of California, hereinafter referred to as "CITY," and MOFFATT & NICHOL, a California Corporation hereinafter referred to as "CONSULTANT."

WHEREAS, CITY desires to engage the services of a consultant to provide On-Call Civil Engineering & Professional Consulting Services; and

Pursuant to documentation on file in the office of the City Clerk, the provisions of the Huntington Beach Municipal Code, Chapter 3.03, relating to procurement of professional service contracts have been complied with; and

CONSULTANT has been selected to perform these services,

NOW, THEREFORE, it is agreed by CITY and CONSULTANT as follows:

1. SCOPE OF SERVICES

CONSULTANT shall provide all services as described in **Exhibit "A,"** which is attached hereto and incorporated into this Agreement by this reference. These services shall sometimes hereinafter be referred to as the "PROJECT."

CONSULTANT hereby designates Weixia Jin who shall represent it and be its sole contact and agent in all consultations with CITY during the performance of this Agreement.

2. CITY STAFF ASSISTANCE

CITY shall assign a staff coordinator to work directly with CONSULTANT in the performance of this Agreement.

3. TERM; TIME OF PERFORMANCE

Time is of the essence of this Agreement. The services of CONSULTANT are to commence on _____, 20____ (the "Commencement Date"). This Agreement shall automatically terminate three (3) years from the Commencement Date, unless extended or sooner terminated as provided herein. All tasks specified in **Exhibit "A"** shall be completed no later than three (3) years from the Commencement Date. The time for performance of the tasks identified in **Exhibit "A"** are generally to be shown in **Exhibit "A."** This schedule may be amended to benefit the PROJECT if mutually agreed to in writing by CITY and CONSULTANT.

In the event the Commencement Date precedes the Effective Date, CONSULTANT shall be bound by all terms and conditions as provided herein.

4. COMPENSATION

In consideration of the performance of the services described herein, CITY agrees to pay CONSULTANT on a time and materials basis at the rates specified in **Exhibit "B,"** which is attached hereto and incorporated by reference into this Agreement, a fee, including all costs and expenses, not to exceed Two Million Dollars ($2,000,000.00).

5. EXTRA WORK

In the event CITY requires additional services not included in **Exhibit "A"** or changes in the scope of services described in **Exhibit "A,"** CONSULTANT will undertake such work only after receiving written authorization from CITY. Additional compensation for such extra work shall be allowed only if the prior written approval of CITY is obtained.

6. METHOD OF PAYMENT

CONSULTANT shall be paid pursuant to the terms of **Exhibit "B."**

7. DISPOSITION OF PLANS, ESTIMATES AND OTHER DOCUMENTS

CONSULTANT agrees that title to all materials prepared hereunder, including, without limitation, all original drawings, designs, reports, both field and office notices, calculations, computer code, language, data or programs, maps, memoranda, letters and other documents, shall belong to CITY, and CONSULTANT shall turn these materials over to CITY upon expiration or termination of this Agreement or upon PROJECT completion, whichever shall occur first. These materials may be used by CITY as it sees fit.

8. HOLD HARMLESS

A. CONSULTANT hereby agrees to protect, defend, indemnify and hold harmless CITY, its officers, elected or appointed officials, employees, agents and volunteers from and against any and all claims, damages, losses, expenses, judgments, demands and defense costs (including, without limitation, costs and fees of litigation of every nature or liability of any kind or nature) arising out of or in connection with CONSULTANT's (or CONSULTANT's subcontractors, if any) negligent (or alleged negligent) performance of this Agreement or its failure to comply with any of its obligations contained in this Agreement by CONSULTANT, its officers, agents or employees except such loss or damage which was caused by the sole negligence or willful misconduct of CITY. CONSULTANT will conduct all defense at its sole cost and expense and CITY shall approve selection of CONSULTANT's counsel. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as limitation upon the amount of indemnification to be provided by CONSULTANT.

B. To the extent that CONSULTANT performs "Design Professional Services" within the meaning of Civil Code Section 2782.8, then the following Hold Harmless provision applies in place of subsection A above:

"CONSULTANT hereby agrees to protect, defend, indemnify and hold harmless CITY and its officers, elected or appointed officials, employees, agents and volunteers, from and against any and all claims, damages, losses, expenses, demands and defense costs (including, without limitation, costs and fees of litigation of every nature or liability of any kind or nature) to the extent that the claims against CONSULTANT arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of CONSULTANT. In no event shall the cost to defend charged to CONSULTANT exceed CONSULTANT's proportionate percentage of fault. However, notwithstanding the previous sentence, in the event one or more other defendants to the claims and/or litigation is unable to pay its share of defense costs due to bankruptcy or dissolution of the business, CONSULTANT shall meet and confer with CITY and other defendants regarding unpaid defense costs. The duty to indemnify, including the duty and the cost to defend, is limited as provided in California Civil Code Section 2782.8.

C. Regardless of whether subparagraph A or B applies, CITY shall be reimbursed by CONSULTANT for all costs and attorney's fees incurred by CITY in enforcing this obligation. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by CONSULTANT.

9. PROFESSIONAL LIABILITY INSURANCE

CONSULTANT shall obtain and furnish to CITY a professional liability insurance policy covering the work performed by it hereunder. This policy shall provide coverage for CONSULTANT's professional liability in an amount not less than One Million Dollars ($1,000,000.00) per occurrence and in the aggregate. The above-mentioned insurance shall not contain a self-insured retention without the express written consent of CITY; however an insurance

policy "deductible" of Ten Thousand Dollars ($10,000.00) or less is permitted. A claims-made policy shall be acceptable if the policy further provides that:

A. The policy retroactive date coincides with or precedes the initiation of the scope of work (including subsequent policies purchased as renewals or replacements).

B. CONSULTANT shall notify CITY of circumstances or incidents that might give rise to future claims.

CONSULTANT will make every effort to maintain similar insurance during the required extended period of coverage following PROJECT completion. If insurance is terminated for any reason, CONSULTANT agrees to purchase an extended reporting provision of at least two (2) years to report claims arising from work performed in connection with this Agreement.

If CONSULTANT fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the CITY with required proof that insurance has been procured and is in force and paid for, the CITY shall have the right, at the CITY's election, to forthwith terminate this Agreement. Such termination shall not effect Consultant's right to be paid for its time and materials expended prior to notification of termination. CONSULTANT waives the right to receive compensation and agrees to indemnify the CITY for any work performed prior to approval of insurance by the CITY.

10. CERTIFICATE OF INSURANCE

Prior to commencing performance of the work hereunder, CONSULTANT shall furnish to CITY a certificate of insurance subject to approval of the City Attorney evidencing the foregoing insurance coverage as required by this Agreement; the certificate shall:

A. provide the name and policy number of each carrier and policy;

B. state that the policy is currently in force; and

C. shall promise that such policy shall not be suspended, voided or canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice; however, ten (10) days' prior written notice in the event of cancellation for nonpayment of premium.

CONSULTANT shall maintain the foregoing insurance coverage in force until the work under this Agreement is fully completed and accepted by CITY.

The requirement for carrying the foregoing insurance coverage shall not derogate from CONSULTANT's defense, hold harmless and indemnification obligations as set forth in this Agreement. CITY or its representative shall at all times have the right to demand the original or a copy of the policy of insurance. CONSULTANT shall pay, in a prompt and timely manner, the premiums on the insurance hereinabove required.

11. INDEPENDENT CONTRACTOR

CONSULTANT is, and shall be, acting at all times in the performance of this Agreement as an independent contractor herein and not as an employee of CITY. CONSULTANT shall secure at its own cost and expense, and be responsible for any and all payment of all taxes, social security, state disability insurance compensation, unemployment compensation and other payroll deductions for CONSULTANT and its officers, agents and employees and all business licenses, if any, in connection with the PROJECT and/or the services to be performed hereunder.

12. TERMINATION OF AGREEMENT

All work required hereunder shall be performed in a good and workmanlike manner. CITY may terminate CONSULTANT's services hereunder at any time with or without cause, and whether or not the PROJECT is fully complete. Any termination of this Agreement by CITY shall be made in writing, notice of which shall be delivered to CONSULTANT as provided herein. In the

event of termination, all finished and unfinished documents, exhibits, report, and evidence shall, at the option of CITY, become its property and shall be promptly delivered to it by CONSULTANT.

13. ASSIGNMENT AND DELEGATION

This Agreement is a personal service contract and the work hereunder shall not be assigned, delegated or subcontracted by CONSULTANT to any other person or entity without the prior express written consent of CITY. If an assignment, delegation or subcontract is approved, all approved assignees, delegates and subconsultants must satisfy the insurance requirements as set forth in Sections 9 and 10 hereinabove.

14. COPYRIGHTS/PATENTS

CITY shall own all rights to any patent or copyright on any work, item or material produced as a result of this Agreement.

15. CITY EMPLOYEES AND OFFICIALS

CONSULTANT shall employ no CITY official nor any regular CITY employee in the work performed pursuant to this Agreement. No officer or employee of CITY shall have any financial interest in this Agreement in violation of the applicable provisions of the California Government Code.

16. NOTICES

Any notices, certificates, or other communications hereunder shall be given either by personal delivery to CONSULTANT's agent (as designated in Section 1 hereinabove) or to CITY as the situation shall warrant, or by enclosing the same in a sealed envelope, postage prepaid, and depositing the same in the United States Postal Service, to the addresses specified below. CITY and CONSULTANT may designate different addresses to which subsequent notices, certificates or other communications will be sent by notifying the other party via personal delivery, a reputable overnight carrier or U. S. certified mail-return receipt requested:

TO CITY:

City of Huntington Beach
ATTN: Director of Public Works
2000 Main Street
Huntington Beach, CA 92648

TO CONSULTANT:

Moffatt & Nichol
Attn: Weixia Jin
555 Anton Blvd., Suite 400
Costa Mesa, CA 92626

17. CONSENT

When CITY's consent/approval is required under this Agreement, its consent/approval for one transaction or event shall not be deemed to be a consent/approval to any subsequent occurrence of the same or any other transaction or event.

18. MODIFICATION

No waiver or modification of any language in this Agreement shall be valid unless in writing and duly executed by both parties.

19. SECTION HEADINGS

The titles, captions, section, paragraph and subject headings, and descriptive phrases at the beginning of the various sections in this Agreement are merely descriptive and are included solely for convenience of reference only and are not representative of matters included or excluded from such provisions, and do not interpret, define, limit or describe, or construe the intent of the parties or affect the construction or interpretation of any provision of this Agreement.

20. INTERPRETATION OF THIS AGREEMENT

The language of all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against any of the parties. If any provision of this Agreement is held by an arbitrator or court of competent jurisdiction to be unenforceable, void, illegal or invalid, such holding shall not invalidate or affect the remaining covenants and provisions of this Agreement. No covenant or provision shall be deemed dependent upon any other unless so expressly provided here. As used in this Agreement, the masculine or

neuter gender and singular or plural number shall be deemed to include the other whenever the context so indicates or requires. Nothing contained herein shall be construed so as to require the commission of any act contrary to law, and wherever there is any conflict between any provision contained herein and any present or future statute, law, ordinance or regulation contrary to which the parties have no right to contract, then the latter shall prevail, and the provision of this Agreement which is hereby affected shall be curtailed and limited only to the extent necessary to bring it within the requirements of the law.

21. DUPLICATE ORIGINAL

The original of this Agreement and one or more copies hereto have been prepared and signed in counterparts as duplicate originals, each of which so executed shall, irrespective of the date of its execution and delivery, be deemed an original. Each duplicate original shall be deemed an original instrument as against any party who has signed it.

22. IMMIGRATION

CONSULTANT shall be responsible for full compliance with the immigration and naturalization laws of the United States and shall, in particular, comply with the provisions of the United States Code regarding employment verification.

23. LEGAL SERVICES SUBCONTRACTING PROHIBITED

CONSULTANT and CITY agree that CITY is not liable for payment of any subcontractor work involving legal services, and that such legal services are expressly outside the scope of services contemplated hereunder. CONSULTANT understands that pursuant to *Huntington Beach City Charter* Section 309, the City Attorney is the exclusive legal counsel for CITY; and CITY shall not be liable for payment of any legal services expenses incurred by CONSULTANT.

24. ATTORNEY'S FEES

In the event suit is brought by either party to construe, interpret and/or enforce the terms and/or provisions of this Agreement or to secure the performance hereof, each party shall bear its own attorney's fees, such that the prevailing party shall not be entitled to recover its attorney's fees from the nonprevailing party.

25. SURVIVAL

Terms and conditions of this Agreement, which by their sense and context survive the expiration or termination of this Agreement, shall so survive.

26. GOVERNING LAW

This Agreement shall be governed and construed in accordance with the laws of the State of California.

27. SIGNATORIES

Each undersigned represents and warrants that its signature hereinbelow has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify CITY fully for any injuries or damages to CITY in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

28. ENTIRETY

The parties acknowledge and agree that they are entering into this Agreement freely and voluntarily following extensive arm's length negotiation, and that each has had the opportunity to consult with legal counsel prior to executing this Agreement. The parties also acknowledge and agree that no representations, inducements, promises, agreements or warranties, oral or otherwise, have been made by that party or anyone acting on that party's behalf, which are not embodied in this Agreement, and that that party has not executed this Agreement in reliance on any representation, inducement, promise, agreement, warranty, fact or circumstance not expressly set forth in this

Agreement. This Agreement, and the attached exhibits, contain the entire agreement between the parties respecting the subject matter of this Agreement, and supersede all prior understandings and agreements whether oral or in writing between the parties respecting the subject matter hereof.

29. EFFECTIVE DATE

This Agreement shall be effective on the date of its approval by the City Council. This Agreement shall expire when terminated as provided herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their authorized officers.

CONSULTANT,
MOFFATT & NICHOL

By: _____
Weixia Jin
print name

ITS: *(circle one)* Chairman/President/Vice President

AND

By: _____
David Huchel
print name

ITS: *(circle one)* Secretary/Chief Financial Officer/Asst. Secretary - Treasurer

CITY OF HUNTINGTON BEACH, a municipal corporation of the State of California

_____
Mayor

_____
City Clerk

INITIATED AND APPROVED:

_____
Director of Public Works

REVIEWED AND APPROVED:

_____
City Manager

APPROVED AS TO FORM:

_____
City Attorney

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their authorized officers.

CONSULTANT,
MOFFATT & NICHOL

By:_____

_____
print name

ITS: *(circle one)* Chairman/President/Vice President

AND

By:_____

_____
print name

ITS: *(circle one)* Secretary/Chief Financial Officer/Asst. Secretary - Treasurer

CITY OF HUNTINGTON BEACH, a municipal corporation of the State of California

_____
Mayor

_____
City Clerk

INITIATED AND APPROVED:

_____
Director of Public Works

REVIEWED AND APPROVED:

_____
City Manager

APPROVED AS TO FORM:

_____
City Attorney

EXHIBIT "A"

A. STATEMENT OF WORK: (Narrative of work to be performed)

Provide On-Call Civil Engineering and Professional Consulting Services. If Consultant chooses to assign different personnel to the project, Consultant must submit names and qualifications of these staff to City for approval before commencing work.

B. CONSULTANT'S DUTIES AND RESPONSIBILITIES:

See Attached Exhibit A

C. CITY'S DUTIES AND RESPONSIBILITIES:

1. Furnish Scope of Work and provide a request for proposal for each project.

2. City shall issue a task order for each project based upon scope of services, work schedule, and fee proposal submitted.

D. WORK PROGRAM/PROJECT SCHEDULE:

A project schedule will be developed for each project assigned by the City.

Exhibit A

STATEMENT OF QUALIFICATIONS
City of Huntington Beach
March 2025

moffatt & nichol

Qualifications to Provide On-call Civil Engineering Professional Consulting Services

C. OCEAN ENGINEERING

CONTENTS

Disciplines of Civil Engineering Services Application Form

Circle all that apply

Civil Engineering Service Area	Bidding? Y/N (circle)
• Water/Sewer/Storm Water Engineering	Yes / (No)
• General Civil Engineering	Yes / (No)
• Ocean Engineering	(Yes) / No
• Environmental/Water Quality	Yes / (No)

REQUEST FOR PROPOSAL

VENDOR APPLICATION FORM

TYPE OF APPLICANT: ☐ NEW ☒ CURRENT VENDOR

Legal Contractual Name of Corporation: Moffatt & Nichol

Contact Person for Agreement: Weixia Jin, PhD, DCE, PE

Corporate Mailing Address: 555 Anton Blvd., Suite 400

City, State and Zip Code: Costa Mesa, CA 92626

E-Mail Address: wjin@moffattnichol.com

Phone: 657-261-2651 Fax: N/A

Contact Person for Proposals: Chris Webb

Title: Project Manager E-Mail Address: cwebb@moffattnichol.com

Business Telephone: 657-261-2686 Business Fax: N/A

Is your business: (check one)

☐ NON PROFIT CORPORATION ☒ FOR PROFIT CORPORATION

Is your business: (check one)

☒ CORPORATION
☐ INDIVIDUAL
☐ PARTNERSHIP
☐ LIMITED LIABILITY PARTNERSHIP
☐ SOLE PROPRIETORSHIP
☐ UNINCORPORATED ASSOCIATION

Names & Titles of Corporate Board Members
(Also list Names & Titles of persons with written authorization/resolution to sign contracts)

Names	Title	Phone
See attached sheet; all Board Members can be reached at:		(562) 590-6500

Federal Tax Identification Number: 95-1951343

City of Huntington Beach Business License Number: A286556
(If none, you must obtain a Huntington Beach Business License upon award of contract.)

City of Huntington Beach Business License Expiration Date: 05/31/2023

ATTACHMENT

Moffatt & Nichol

Title	Name	Address
President / Chief Executive Officer	Eric A. Nichol, PE	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Senior Vice President / ChiefFinancial Officer	Olie R. Abbamonto	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Senior Vice President / ChiefLegal Officer / Secretary	David W. Huchel	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Senior Vice President / ChiefOperations Officer	Douglas J. Plasencia, PE	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Senior Vice President	Richard M. Rhoads, PE	2185 N. California Blvd., Suite 500, Walnut Creek, CA 94596
Director / Chairman	Eric A. Nichol, PE	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	M. Kathleen Broadwater	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	Michelle Anghera	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	Pierce R. Homer	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	Ralph Larison	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	Rajan Sheth, PE , SE	4225 E. Conant Street, Suite 101, Long Beach, CA 90808
Director	Richard D. Steinke	4225 E. Conant Street, Suite 101, Long Beach, CA 90808

moffatt & nichol

555 Anton Blvd., Suite 400
Costa Mesa, CA 92626
Tel: (657) 261-2699
moffattnichol.com

A. VENDOR APPLICATION FORMS AND COVER LETTER

March 13, 2025

City of Huntington Beach
Public Works Department
2000 Main Street
Huntington Beach, CA 92648

Subject: **Statement of Qualifications to Provide On-Call Civil Engineering Professional Services; Category C. Ocean Engineering**

Dear Members of the Evaluation Committee,

Huntington Beach is a virtual paradise within north Orange County and Moffatt & Nichol is dedicated to seeing its character and attributes maintained and continually improved over time. The City of Huntington Beach (City) Public Works Department seeks an experienced ocean engineering consulting firm to solve problems with City infrastructure in coastal and marine environments. Moffatt & Nichol (M&N) is grateful to have had this same contract several times in the recent past (2015, 2018, and 2021) and has completed important work for the City. We appreciate the opportunity to continue serving as an extension of your staff to provide expertise in ocean and coastal engineering. M&N offers the City project continuity, familiarity, dependability, depth of resources, and staffing quality for this on-call ocean engineering contract. The following is a summary of the unique qualifications and overall benefits M&N will provide to the City.

ESTABLISHED COASTAL EXPERTS

As an incumbent firm with on-going and recently completed projects through our previous three ocean engineering contracts, we require little to no learning curve when responding to task orders and that saves the City money. We know the City staff, priorities, procedures, and preferences so we can be more efficient than other firms. M&N has established a proven process to get task orders completed for the City to avoid delays and conflicts.

HISTORY ALONG THE HUNTINGTON BEACH SHORELINE

As a firm, M&N has a long history providing planning and engineering services for projects along the Huntington Beach coastline. This unique experience equips us to continue ocean engineering services under various conditions. The institutional knowledge of our staff and firm about specific conditions, projects, and occurrences within Huntington Beach render us extremely capable of resolving technical issues along the shoreline. Examples of our experience include:

- Older projects of original designs of Huntington Harbour in the 1960's, the Huntington Beach Pier in 1990, and the Pacific Coast Highway Bridge over the Santa Ana River in 1991;
- More recent work at Bolsa Chica Wetlands and Pacific Coast Highway Bridge, Sunset Beach Winter Dike, Huntington Beach Wetlands Restoration, the City Waterline within the Harbour, and Sand Placement at Harbour Beaches;
- Specialty work conducting ocean water quality assessment associated with the oil spill in 2021; and
- Current work of Huntington Beach Bluffs Engineering, the Anaheim Bay Entrance Channel Reconfiguration, the Huntington Harbour Bridges Rehabilitation/Replacement Project, and coastal flooding over the beach at Sunset Beach during extreme high tides.

moffatt & nichol

555 Anton Blvd., Suite 400
Costa Mesa, CA 92626
Tel: (657) 261-2699
moffattnichol.com

EFFICIENT SUPPORT FOR KEY COASTAL PROJECTS

We can efficiently provide support work for ongoing, important projects such as Huntington Beach Bluffs restoration that is at the brink of moving into the final design phase, the annual construction and removal of the Sunset Beach Winter Sand Dike while addressing flooding over the beach during extreme high tides, and plan checks for the proposed restaurant on the Pier.

PROVIDING SIMILAR PUBLIC AGENCIES WITH ON-CALL SERVICES

Our team has provided similar and relevant services for nearby cities and other public agencies within Orange and Los Angeles counties. Similar open-end contract services are still being provided for the cities of Long Beach, Newport Beach, Dana Point; County of Orange; and State of California Department of State Parks. This is a testament to our reliability and customer satisfaction rates. These experiences equip us with a complete understandings of local environments, nearby community issues, coastal processes, and unique projects. It further equips us to share current approaches and solutions with the City of Huntington Beach that have been proven effective elsewhere.

LOCAL, COASTAL ENGINEERING FIRM

Founded in 1945, M&N has been headquartered in Long Beach for 80 years, and services will be primarily provided from our Costa Mesa office. With two offices within 10-20 miles of the City, our staff can respond to City needs quickly and efficiently. A significant number of our staff, including our proposed Project Manager, are residents and homeowners within the City of Huntington Beach. As such, not only do we know the local conditions and are well informed of local issues but our team also has a personal investment in the function and success of the City. M&N staff have an in-depth understanding of how the coastline functions and the marine infrastructure the City relies on to drive its economy and provide for its residents.

We will be providing project management, deliverables, and task order response from our Costa Mesa office located at 555 Anton, Suite 400, Costa Mesa, CA 92626. Please feel free to contact me by phone at (562) 810-3664 or via email at cwebb@moffattnichol.com any time to answer questions or provide additional information.

Sincerely,

MOFFATT & NICHOL

Chris Webb
Project Manager

Weixia Jin, PhD, DCE, PE
Principal-in-Charge, Vice President

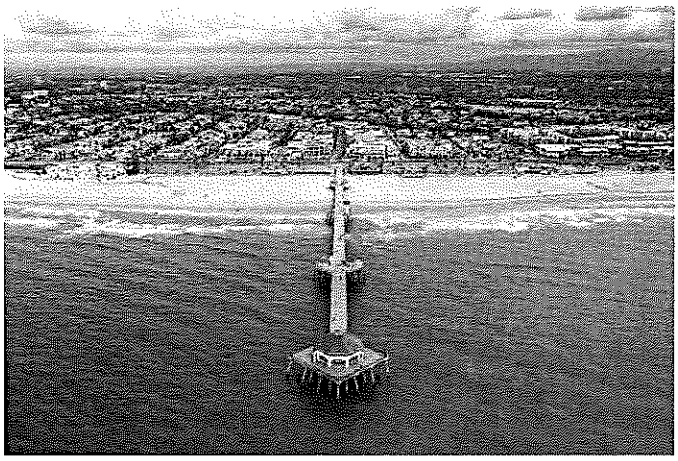
B. BACKGROUND & PROJECT SUMMARY SECTION

Understanding of the City

The City of Huntington Beach has beautiful and functioning coastlines along the open ocean and within Huntington Harbour. We understand the City beach south of the pier is a huge tourist attraction and source of revenue and thereby needs to be maintained and nourished. The beach north of the pier is leased from the State and provides additional recreational resources and economic revenue from beach-goers and visitors. We also understand the Bluffs are an attraction for all sorts of users, with a bicycle/pedestrian path along the top and dog beach along its base as well as surfing and sunbathing along its shore. The City's open ocean coastline is a literal paradise, and the Harbour provides unique opportunities for private docks, sailing, stand-up paddling, kayaking, and other outdoor activities. However, all coastlines will experience certain difficulties requiring coastal engineering solutions. Therefore, a variety of ocean engineering projects occur within the City and these projects include actions such as:

- beach sand nourishment from various sand sources,
- evaluation of coastal flooding over the beach during extreme high tides,
- design of the winter beach sand dike at Sunset Beach;
- design of the restoration of the Huntington Beach Bluffs,
- Sea level rise vulnerability assessments,
- pier inspection and maintenance,
- potential Harbour dredging, and
- technical support for various coastal studies, coastal zone management activities, and Coastal Commission permitting.

Our understanding of these types of projects and our relevant qualifications are summarized on the following pages.



Objectives to be Accomplished

Moffatt & Nichol clearly understands the objectives of the City and will assist the City to achieve them. The objectives to be accomplished for coastal and ocean engineering work include the items listed below.

1. Maintain a safe and enjoyable beach and coastal environment for residents and visitors;
2. Provide sufficient beach recreational area for all users with minimal use conflicts;
3. Allow sufficient space for special events on the beach and in beach parking areas;
4. Protect coastal infrastructure including Bluffs, restrooms, bike and pedestrian pathways, and other features from damage during storm events and over time with climate change and potential sea level rise.
5. Provide and maintain effectively functioning utilities and infrastructure along the coast and within the Harbour under all future conditions.
6. Maximize economic revenue prospects along the local coast by providing high quality visitor opportunities for recreation, dining, lodging, education, and an overall unique Surf City experience.
7. Provide for and potentially enhance locally sensitive environmental habitat areas to serve as protected places for species and interpretive opportunities for people where appropriate.

C. METHODOLOGY SECTION

Scope of Work

M&N helped to develop the discipline of coastal and ocean engineering since 1945. We started business in Long Beach working with the Ports and remain in Long Beach with offices in Costa Mesa and San Diego to serve southern California. Several of our experienced staff live and play in Huntington Beach, including our Project Manager. Therefore, M&N routinely works to solve engineering problems and prepare engineering plans associated with preserving coastal resources such as bluffs, wetlands, beaches, piers, seawalls, bulkheads, and harbors. We have prepared design manuals, created numerical models, and actively contribute to the field of coastal and ocean engineering on a continual basis.

We regularly study the ocean to quantify conditions of waves, tides, currents, sand movement, water quality and analyze their processes and determine their effects. This work is typically to support engineering analyses and designs, assessing performance and functions of coastal environments and resources, as well as maintenance and repair of coastal infrastructure. We also work to secure permits from regulatory agencies that oversee projects in the coastal zone such as the California Coastal Commission, U.S. Army Corps of Engineers, Regional Water Quality Control Board, State Lands Commission, and State Parks Department. Our experience at Huntington Beach is particularly strong. The following tasks are anticipated to be needed during the contract period.

TASK 1: ENGINEER SHORELINE STABILIZATION AND BEACH NOURISHMENT

M&N knows shoreline stabilization and beach nourishment from planning through entitlement, public outreach, preparing construction documents, and construction management. We have also successfully identified sand sources and funding opportunities for clients. Shoreline stabilization can take various forms, from hard structures (grey approaches) to soft features (green approaches). M&N is experienced at the full range of shoreline stabilization approaches from rock revetment and seawalls to beach nourishment and living shorelines, and combined hybrid solutions with dunes burying last lines of hard rock defense along eroding coasts. We design these projects for construction and develop monitoring and maintenance programs.

North Orange County's open coast benefits from beach nourishment at Surfside Colony by the Federal government. Beach nourishment provides a soft solution to coastal erosion and related storm damage, and opportunities for public recreation. Beaches are valuable economic engines at the local, state, and federal level, and serve as the best antidote for predicted rising sea levels. Huntington Beach benefits from this project and also benefits from sand bypassing at Bolsa Chica Wetlands.

Our understanding of the City's coastal processes will benefit the City in its unique coastal problems at the Bluffs, Sunset Beach, within the Harbour, and throughout the rest of the City's coast. Our experience with shoreline stabilization will be very helpful to address the Huntington Beach Bluffs erosion problem. Our approaches can also be applied to the Sunset Beach winter dike project and multiple other opportunities within the City, such as nourishing the beach at the foot of the Bluffs and at Harbour beaches.

TASK 2: CONDUCT COASTAL STUDIES AND COASTAL ZONE MANAGEMENT

M&N recently performed the SLR assessment to update the local coastal program for the City, conducted ocean water quality studies, and analyzed City beaches for dynamics affecting Huntington Beach Bluffs. We are also doing the plan check for a restaurant on the pier and are assessing flooding over Sunset Beach at high tide. We assume these projects may continue over time and new ones may become necessary. M&N will also provide technical support for securing Coastal Development Permits from the California Coastal Commission and will do that for the City as part of this project.

We have licenses for, and routinely apply, numerous advanced numerical modeling tools, including both public and private domain modeling suites, known and accepted by resource and permitting agencies. M&N's experience with all levels of numerical modeling allows the firm to select the right tool for the job, the first time. We use these advanced tools to simulate winds, waves, tides, SLR and tsunami conditions, as well as water quality and sediment transport processes to support complex coastal and littoral zone projects. These projects could involve SLR vulnerability assessments, ocean circulation and water quality, sand transport, surfing, habitat restoration, marine structures, dredging and dredged material management, and shoreline protection and restoration including living shorelines. As coastal planning requirements evolve over time with regards to predicted climate change and SLR, our firm remains at the forefront of technical analyses and advising clients in meeting requirements.

TASK 3: DREDGING

M&N has completed dredging for projects totaling more than half a billion cubic yards and ranging from incidental quantities as small as 5,000 cubic yards up to port backland creation involving 26 million cubic yards (the largest land creation project in the United States to date). Many of our dredging projects include preparing dredging design plans, permitting, long term management strategies, and/or construction documents. Many are also involved in high-end numerical hydrodynamic and sediment fate modeling. Any Harbour area dredging can be designed and managed effectively owing to our extensive local experience. We designed the dredging needed to install a new city waterline submerged/buried under the harbor's main channel during the Huntington Harbour Maintenance Dredging project.

TASK 4: INSPECT AND OFFER MAINTENANCE AND REPAIR RECOMMENDATIONS FOR COASTAL STRUCTURES

We designed the City pier, the bulkhead walls in the Harbour, and the Bolsa Chica jetties and can provide inspection and rehabilitation design services on coastal structures when needed. M&N serves waterfront clients worldwide and routinely provides designs for new structures and/or rehabilitation/repair of existing structures in all types of waterfront environments. The firm provides a full range of services essential for the toughest engineering challenges in the marine environment. Our projects range from repair, rehabilitation, and/or new construction of piers, wharves, sheetpile bulkhead walls, and bridges. Our in-house underwater inspection and rehabilitation service informs us of this work.

M&N's experience with shoreline protection structures includes rock (and other armor type) revetments, vertical seawalls, sand dikes, groins and offshore breakwaters. M&N has been responsible for design, implementation, and rehabilitation of more than 500 miles of shore protection structures along the Pacific, Atlantic, Gulf Coasts, and the Caribbean Sea. Our coastal engineering assessment is generally completed in terms of the beach's long-term and seasonal dynamic response, and for a range of wave and water level scenarios. We designed the rock slope protection present within the Bolsa Chica Wetlands along the perimeter levees and the award winning living shoreline at Cardiff State Beach.

TASK 5: PROVIDE HARBOR FACILITY DESIGN, REPAIR AND RECONSTRUCTION DESIGN

M&N has a long and successful history of small craft harbor design, including the design of Huntington Harbour in the 1960s. We intend to provide design services for new facilities, and inspection and rehabilitation design services for existing facilities. M&N has recent experience with marina redevelopment, rehabilitating floating slip marinas, marina launch ramps, and marina ancillary facilities. In each, we have provided full range of services from planning through design, permitting, preparation of bid packages, contractor selection assistance, construction support services, and construction management.

TASK 6: ATTEND AND FACILITATE MEETINGS

M&N will attend meetings as needed with the City over the course of this contract to initiate projects, present progress, and to interact with other agencies and the public. We are well-equipped to present information and show examples, graphics, matrices, and designs groups of various levels of expertise. We have outstanding graphics capabilities and staff with extensive presentation experience to assist the City to present challenging and complex issues.

Efforts to Achieve Client Satisfaction

PROJECT MANAGEMENT ORGANIZATION

The M&N team will have clearly defined roles under the leadership of the project manager and Huntington Beach resident Chris Webb. He will organize, assess, direct, integrate, coordinate, and control the work. A Project Management Plan will be developed to keep the project on schedule and within budget. M&N's project successes are based on flexibility and close coordination with clients during all phases of a project. This coordination is facilitated by supplementing the formal meeting process with action item lists, informal office visits, Newforma project management software, day-to- day communication options available such as email, shared files (FTP site), Webex, Zoom and/or Teams video conferencing for a proactive approach to problem identification and resolution.

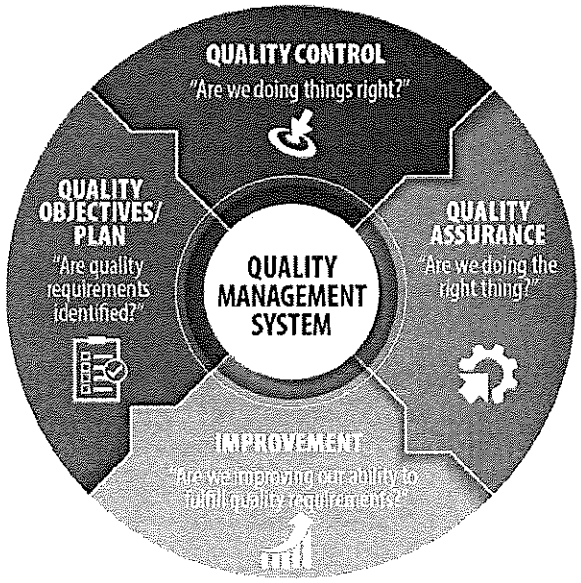
Successful coordination between the City's staff and our staff will determine the project's success. M&N has management tools in place to facilitate this coordination. One important tool is our Project Management Plan (PMP). The PMP is a flexible document that consists of a list of common-sense items that supplements the contractual scope of work. The PMP assists the project manager to identify, define, and prioritize the directive's essential elements and describe the process for completing the directive.

SCHEDULE, QUALITY, AND COST CONTROL

Schedule Control. Upon notice-to-proceed on specific task orders, Mr. Webb will develop a comprehensive project schedule, using Primavera or Microsoft Project. The project schedule will illustrate:

- the tasks required to complete the work
- task durations and impact on other tasks
- critical paths and interactions
- necessary input and feedback by others
- deliverables
- key milestone dates

Project schedules are developed in accordance with the work breakdown structure and are resource loaded for both hours and rates. Project schedules are maintained through our integrated project management software Newforma. The primary components will ascertain the validity of each time estimate, determine the amount of "float" time available throughout the various elements of the project, and concentrate on elements critical or near-critical to expeditious project completion.



Cost Control. The cost segment of our PMP enables us to define responsibility, schedule, and direct labor budgets for each task. This information will be continually updated to reflect the current status of each task order. We will use this system to develop and review the task order financial forecasts, and to review these forecasts against actual expenditures in order to develop Cost Reports. These Cost Reports will provide detailed analyses and a summary of costs to date. Along with regular team meetings, the Cost Reports will assist in keeping the task order work on schedule and within the design budget. Any construction budgets will also be closely monitored. Estimates of probable construction costs will be prepared and updated as the design progresses. If the project scope and complexity warrants, a risk- based cost estimate can be prepared and updated on a regular basis.

QUALITY ASSURANCE/QUALITY CONTROL

The nature of on-call type assignments, which can be driven by compressed or accelerated schedules, requires that "getting it right the first time" is more essential than ever. To this end, our work on numerous similar assignments has enabled us to develop a Quality process that meets strict international guidelines. M&N is certified as an ISO 9000 firm, and we follow and meet all ISO protocol.

We have a well-documented, formal in-house QA/QC program and it is M&N's policy to strive for excellence in the quality of all work performed. The basic components of our QA/QC program include:

- A Quality Manager is identified who will develop a quality plan commensurate with the needs and budget of the directive and verify that the plan is implemented.
- The Quality Plan for each directive defines the deliverables and work products to be reviewed, who will review, and when.
- Each deliverable is carefully reviewed internally for quality and consistency with industry standards and are documented and tracked with a formal procedure.
- Senior Reviewers will not have an active role in project design and will have a level of experience that exceeds that of the work being reviewed. The M&N team provides you with the ability to compile a review team for this contract that has a significant number of years of experience.
- Quality Plans are included in the overall PMP.
- The Quality Manager audits the project and the project manager and then compiles the records of the review process. ISO 9000 staff and consultants also perform independent audits periodically.

We are aware of the areas in a project's design and construction where things can "go wrong." One critical area of concern is utilities. Knowing what utilities exist on-site and where they are located is critical to constructing a project that will meet schedule and budget goals. The QA team will ensure the design team has done their due diligence to utilities including obtaining the latest as-built documents from the utility owner and potholing their locations if they are located in critical construction areas.

M&N is proud of its record of performance. We provide our clients with thoroughly integrated projects completed under well documented quality control standards. Our client satisfaction is illustrated by the fact that more than 90% of our work is done for repeat clients and we have been in business for 80 years.

PROJECT TRACKING AND PERFORMANCE MONITORING PROCEDURES

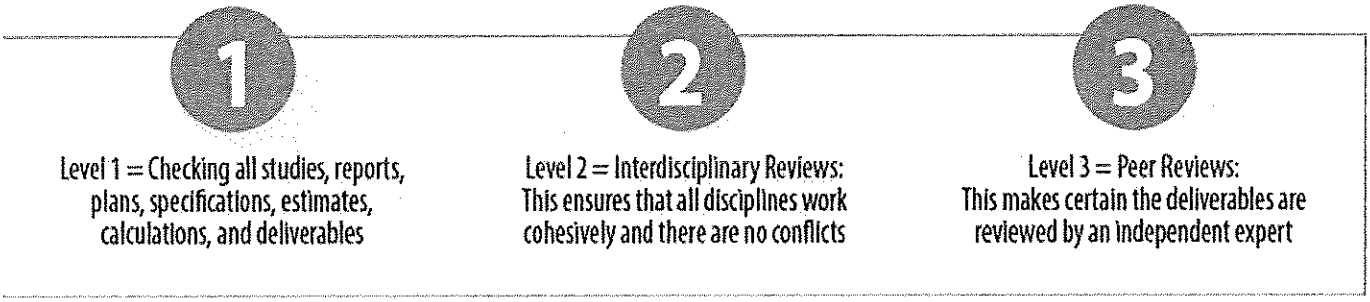
The project management information system Newforma allows us to track the progress of the design effort relative to the hours expended and the progress made. The system generates a Summary Report for each task order. For monitoring purposes, the Summary Report shows all activity that is scheduled to be accomplished on a month-to-month basis. In addition, for each task order the project manager and task leader will maintain a matrix for outstanding issues and project risks. This matrix will be shared with the project team and monitored on a regular basis. This matrix lists:

- The risk or issue with a brief explanation
- Identifies which team members are responsible for its resolution
- Provides a required date for resolution to avoid schedule impacts
- Provides an estimate of potential cost impacts

PROJECT PROGRESS REPORTING PROCEDURES

M&N's approach to project tracking and performance monitoring integrates the management of labor, cash flow, and schedules into one platform. This approach yields a global picture of related project elements, allowing the efficient retrieval of cost, time, and labor information at both the overall project, task order, and task order subtask level, while enabling the production of integrated project progress reporting. Further, it assists in forecasting near-term and long-term progress with respect to milestones, and fuels communications among the team.

This approach highlights the significance of competing issues, and offers a meaningful, realistic comparison of the relative importance of the task order needs by weighing the impacts against the overall directive goals.



Project Schedule

An example schedule for the Huntington Bluffs Project is provided below. This project is the one most likely to proceed in some fashion according to our understanding, and this is an example of the most complex and long-lasting project with our involvement.

PROPOSED SCHEDULE FOR HUNTINGTON BLUFFS REPAIR PERMITTING AND ENGINEERING

TASK	PROPOSED DATES
1. Wave Uprush Study and Sea Level Rise Assessment	Within 30 Days of Notice to Proceed
2. Conceptual Engineering Design	Within 60 Days of Notice to Proceed
3. Apply for Permits	Within 150 Days of Notice to Proceed
4. Permit Follow-up, Technical Support and Negotiation of Conditions	Extends from 150 to 300 Days from Notice to Proceed
5. Prepare Coastal Hazard Management Plan for the CCC	Within 200 Days of Notice to Proceed
6. CEQA Technical Support	From 90 to 360 Days after Notice to Proceed
7. Final Engineering for Construction	From 90 to 360 Days after Notice to Proceed
8. Attend Four Meetings and City Council Presentation	Quarterly Through the Duration of Project
9. Project Management	On-Going

Detailed Description of Specific Tasks for City Staff

The tasks needed for City staff are the following:

Task 1: Providing written task orders to initiate work;

Task 2: Complete reviews of deliverables submitted by our team.

Task 3: Provide direction on City expectations from each task order is also key prior to initiation of work.

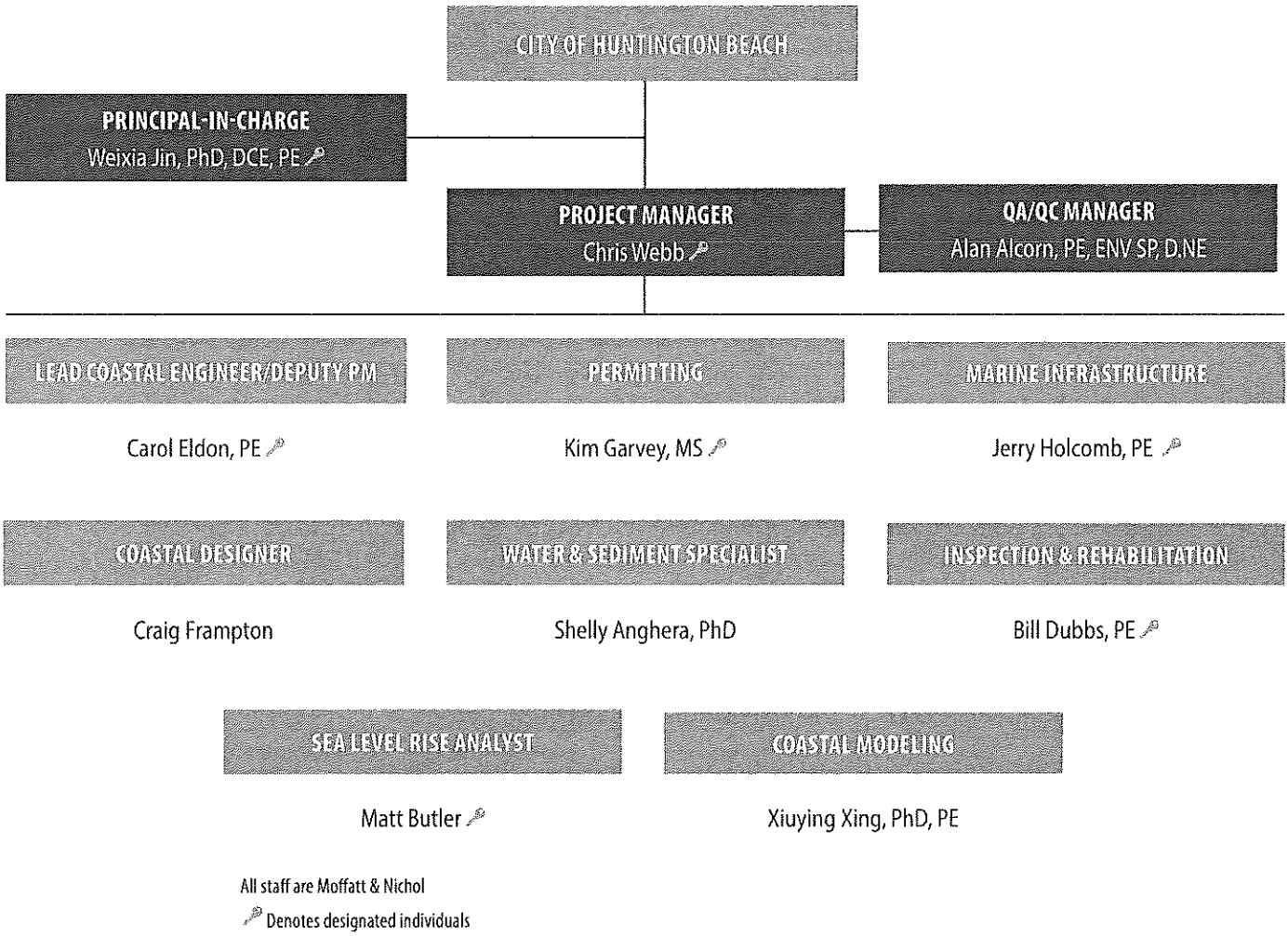
Task 4: Apply for permits to the Coastal Commission for a Coastal Development Permit and potentially to the State Department of Parks and Recreation for an Encroachment Permit. M&N to provide technical support for both, and/or complete permitting services if needed by the City.

The City staff have consistently completed these tasks effectively and we look forward to more opportunities working together.

D. STAFFING

Organizational Chart

M&N will provide the City with the benefit of team members who already understand the City's coastal environment and infrastructure. The proposed team below is comprised of engineers, scientists, and coastal planners who understand the current and ongoing coastal challenges the City faces and the City's goals to overcome those challenges through practical and resilient solutions. They combine their current and previous City experience with practical and resilient solutions to the complex coastal challenges experienced in Southern California. As a result, our team has the experience, expertise, capacity, and in-depth City experience to respond to task order requests quickly and effectively. Resumes for key staff are provided in the Appendix.



All staff are Moffatt & Nichol

Denotes designated individuals

E. QUALIFICATIONS

About Moffatt & Nichol

As one of the few firms that works exclusively in areas where land meets water, M&N has assisted City communities and State agencies on a variety of projects that include resilient design, recreational facilities, infrastructure protection, enhancement of beaches, and public access improvements. Our 80-year legacy began in California with coastal and harbor engineering, which has now evolved into a coastal resiliency practice.

Our experience stretches to both of the City's coastal borders. As a firm, M&N has a history supporting the planning, design, and maintenance of the City's coastline, infrastructure, and marine environments. From design to construction support, our team has been here to support Huntington Beach including harbour dredging, Huntington Beach Pier design, PCH/Bolsa Chica inlet bridge design, sea level rise (SLR) vulnerability assessment and local coastal program update, tidal wetlands, engineering and environmental services for Davenport Drive and Gilbert Drive bridges, bluff repair plans, and reconfiguration of the navigation channel Harbour entrance. With this history of collaboration, our team is committed to supporting the City's most important economic driver—its coastline.

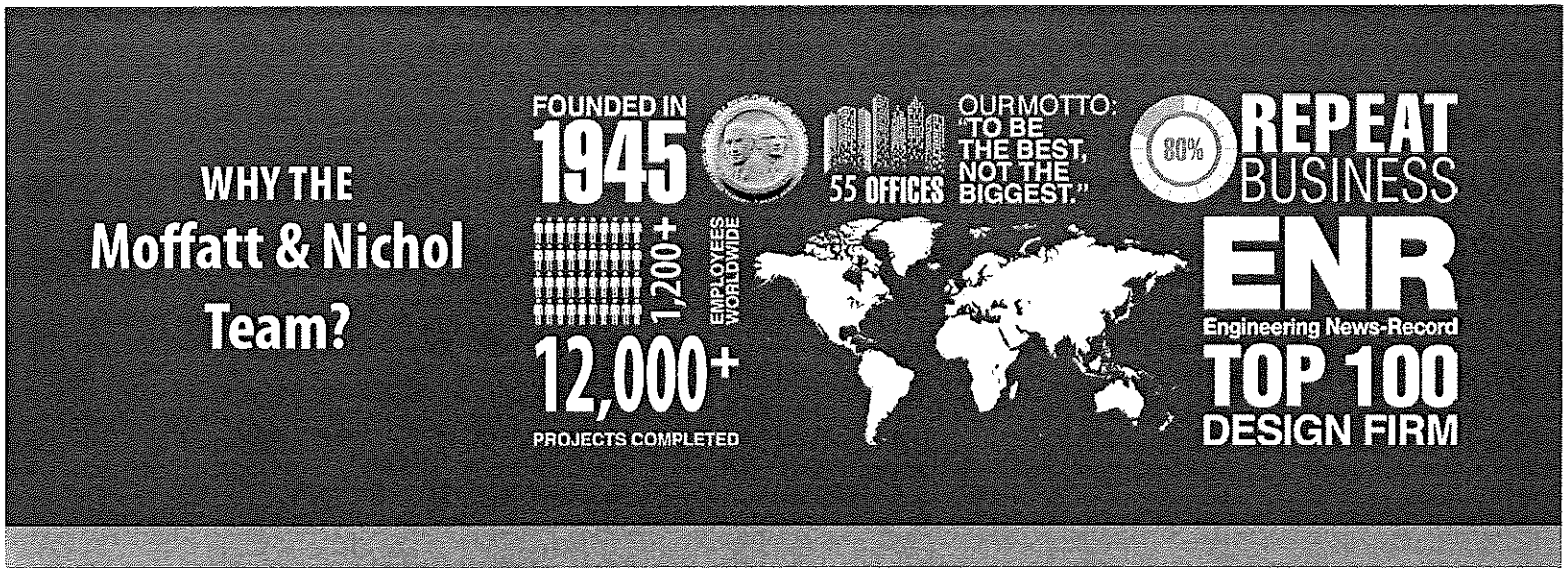
M&N has extensive experience and practical knowledge of the projects outlined in the City's ocean engineering scope of work as well as relevant technical knowledge of the City's coastline and harbor. M&N will continue to fully support the City for all ocean engineering services, as we have done for the City's previous three Ocean Engineering On-Calls.

M&N has provided ocean and coastal engineering services under on-call contracts to cities and agencies stretching from Los Angeles County to San Diego County. Our team is well-versed in utilizing our past Southern California coastal project experience for future coastal challenges be designing sustainable, resilient, and maintainable designs that support the coastal infrastructure for residents, visitors, and habitat.

Our staff includes one of the largest collections of coastal planners, engineers, and scientists focused on solving global issues related to coastal, estuarine, and riverine systems of any consulting firm in the US. The firm consists of more than 1,200 professional and technical staff—approximately 275 staff in our local offices - Long Beach and Costa Mesa. Our coastal engineers and scientists know the City's coastline, have an in-depth understanding of Southern California's unique coastal environment, and bring best practices from nearby, recently completed projects for local coastal clients.

UNIQUE QUALITIES AND BENEFITS TO THE CITY

M&N has on-going and completed work with the City under the current Ocean Engineering contract. Being chosen for this on-call allows us to continue providing the same demonstrated level of work the City has come to expect from M&N. We offer the City a team that has recently completed or is currently working on two similar service contracts for the City. M&N holds existing contracts with neighboring cities and agencies, as well as key stakeholders, including Orange County Public Works (OCPW), the Orange County Sanitation



District, OC Parks, California Department of Parks and Recreation, the Navy, and the cities of Seal Beach and Newport Beach. These working relationships are an important benefit, as our team will take into consideration complementing and similar projects, as well as on-going projects within the City's limits. M&N is adept at identifying and designing projects emphasizing coastal resilience. Our team will identify how different options could minimize vulnerabilities as far into the future as feasible. Our proposed team will utilize past project experience and lessons learned that can be applied to projects proposed for this Ocean Engineering contract.

Our proposed Project Manager, Chris Webb, is a familiar face with City staff and understands the City's goals, values, and objectives for this coastline. He leads a team that requires no learning curve and will offer the City a unique level of project and contract continuity. He lives and surfs in Huntington Beach, so the coast is of paramount importance to him.

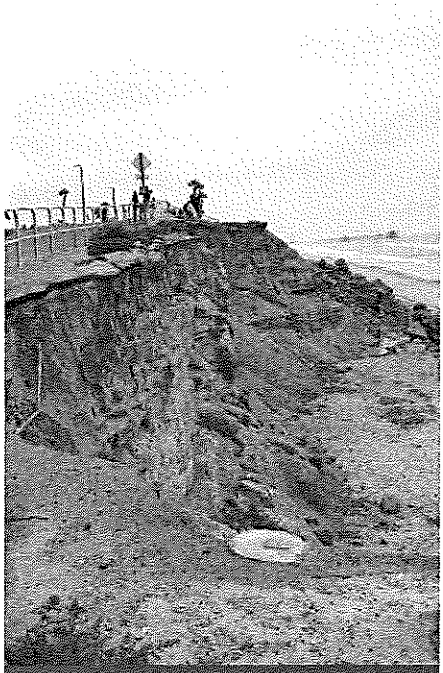
RELATED CORE SERVICES

Sea level rise: Addressing sea level rise is not as simple as "building it higher" because of significant infrastructure already in place. There will be vulnerabilities to facilities, cultural resources, recreation, and public access due to climate change. Our engineers specialize in creative solutions for the interface of water, shoreline, and uplands in the face of rising waters.

Nature-based shoreline: M&N's experience with shoreline protection includes rock (and other armor type) revetments, vertical seawalls, sand dikes, groins, offshore breakwaters, beach nourishment, and living shorelines. M&N knows how to design a nature-based shoreline to provide important ecosystem services of wave attenuation, reducing shoreline erosion, and increasing shoreline protection. Our living shoreline project at Cardiff State Beach received the 2020 Best Restored Beach Award from the American Shore and Beach Preservation Association.

Risk assessment: M&N's coastal engineers have routinely evaluated local and global sea levels as part of designing coastal flood protection projects, and they are familiar with risk-based, probabilistic methods used in project life-cycle analysis and risk assessments. Our team is particularly qualified to assess the vulnerability to sea level rise and to develop adaptation/ mitigation strategies for the City and will use our lessons learned from our previous on-call contracts to better serve your community.

Permitting coastal projects: M&N has extensive experience in regulatory permitting for many coastal projects. Our permitting staff have developed effective working relationships with the federal, state, and local regulatory agency staff. Our permitting experience includes obtaining federal, state and local agency approvals for coastal structures, wetlands, living shorelines, beach nourishment, harbor/ports, marinas, and bridge projects. We understand permitting timelines and interdependencies and are able to provide realistic permitting timelines to the City and then manage the CEQA and permits timeline critical path. We are able to craft permit applications to provide clients with maximum design and construction flexibility and minimize burdensome permit conditions.

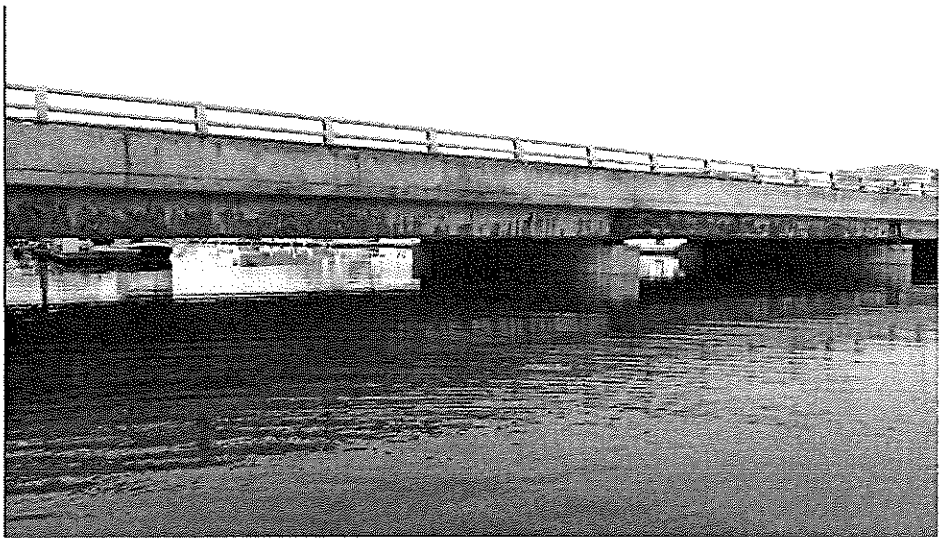


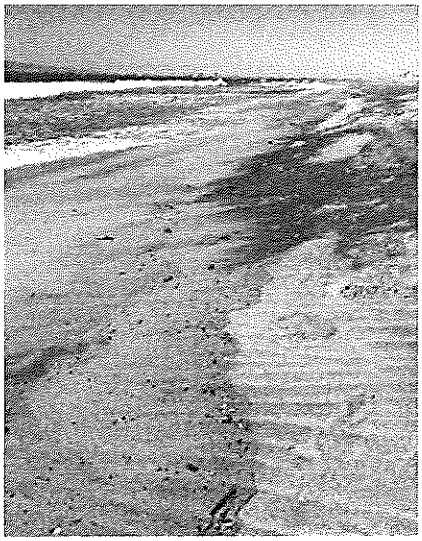
Through previously held on-call contracts, our proposed team members have completed multiple studies and tasks regarding bluff erosion at the Huntington Beach Bluffs.

M&N has completed projects in support of the Huntington Harbour

Similar Project Experience

The projects below represent our team's similar experience for projects of similar size and scope of work for municipalities throughout southern California. We have worked with our subconsultants on previous similar projects and our focus on high-quality delivery, customer service, and on-time performance makes our team the right choice for this project.





Huntington Beach

ON-CALL OCEAN ENGINEERING

CLIENT: City of Huntington Beach

LOCATION: Huntington Beach, CA

M&N was involved with 5 different task orders and each is described below.

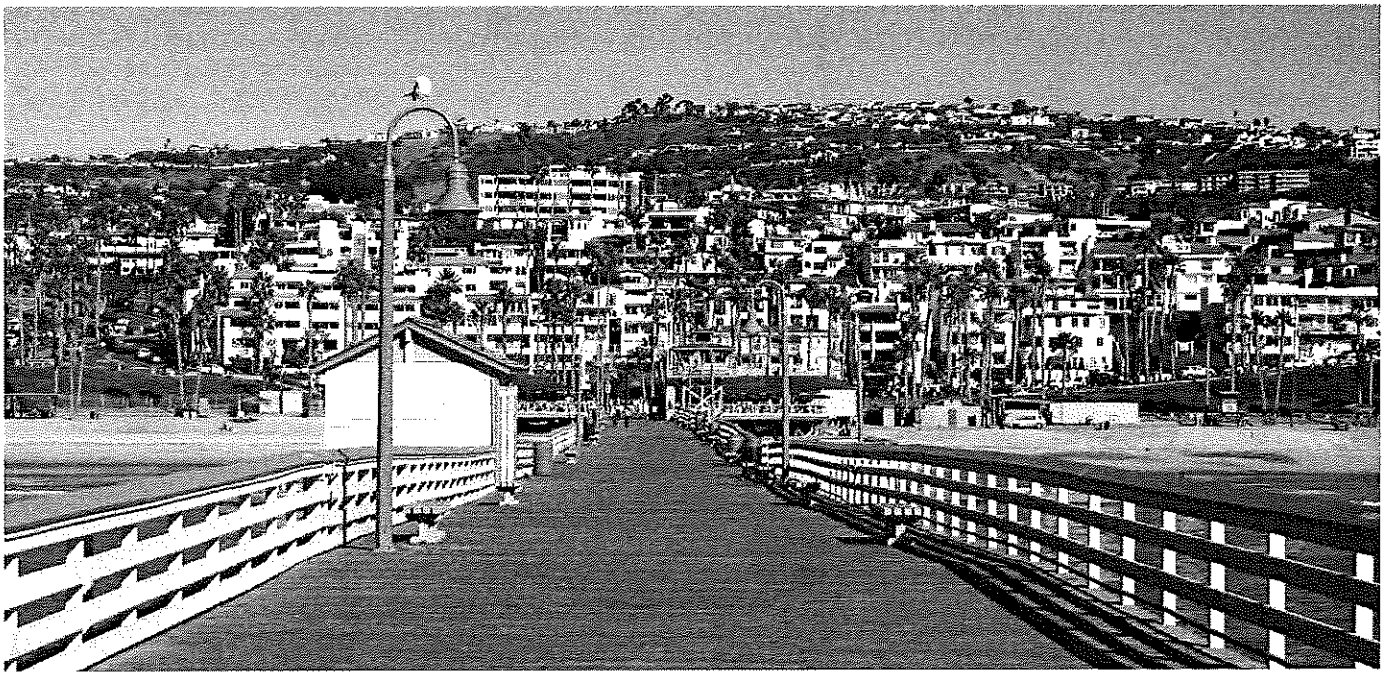
1. **Analysis of Davenport Bridge** – Our Inspection and Rehabilitation Team inspected the bridge for existing condition and reported back to the City. The bridge is planned for repair and the City is in the process of implementation now.
2. **Huntington Beach Bluffs Restoration** – Our team continues to provide engineering services for restoration of the retreating bluff close to the restroom at the south parking lot. The final design was submitted but the City chose to modify the project with a shotcrete wall so that design will need to be updated. The City secured permits with technical assistance from M&N.
3. **Oil Spill Emergency Response** – M&N responded to the 2021 oil spill by sampling and testing ocean water quality from the Santa Ana River to Seal Beach for approximately one month. The effort was intended to identify any oil contamination in seawater. Only small amounts were found along Bolsa Chica State Beach with none being sampled along the City at any point in time.
4. **Sunset Beach Wave Overtopping During Extreme High Tides** – Residents along Sunset Beach were concerned by waves overtopping the beach during summer evening high tides. Water ponded on the beach and there was concern about drainage back toward the homes. M&N is preparing recommendations now for City beach maintenance actions to reduce the flood risk.
5. **City Plan Check Support** – A developer proposes to place a restaurant on the pier and M&N was asked to assess the loads on the pier for its structural integrity. The process is ongoing and our team provided input on the first round of review.

DATES OF CONTRACT

2015 - Ongoing

KEY STAFF & RESPONSIBILITIES

- Chris Webb - Project Manager
- Weixia Jin - Coastal Engineering
- Kim Garvey - Permitting
- Matt Butler - Sea Level Rise Analyst
- Jerry Holcomb - Pier Plan Check



San Clemente Pier

ORANGE COUNTY ON-CALL CONTRACTS

CLIENT: County of Orange Parks & Public Works

LOCATION: Orange County, CA

Ocean Outlets Program

Orange County Public Works currently maintains five ocean outlets to provide flood control, improve public access along the beach, and restore water quality for upstream wetland habitat. The program involves excavation of sand from the outlet and beneficial re-use of the sand for nourishment on adjacent beaches.

In support of the County program, Moffatt & Nichol obtained U.S. Army Corps of Engineers, State Water Resources Control Board, and California Coastal Commission permits and completed a California Environmental Quality Act addendum. Moffatt & Nichol developed graphics, prepared regulatory permit applications, and worked with multiple regulatory and resource agencies' and cities' staff to obtain the necessary approvals. Moffatt & Nichol work also included update of the County's operations and maintenance manual. Moffatt & Nichol is currently supporting the County on permit compliance, including pre- and post-construction notifications, surf monitoring, and annual reports.

Permitting and Engineering On-call

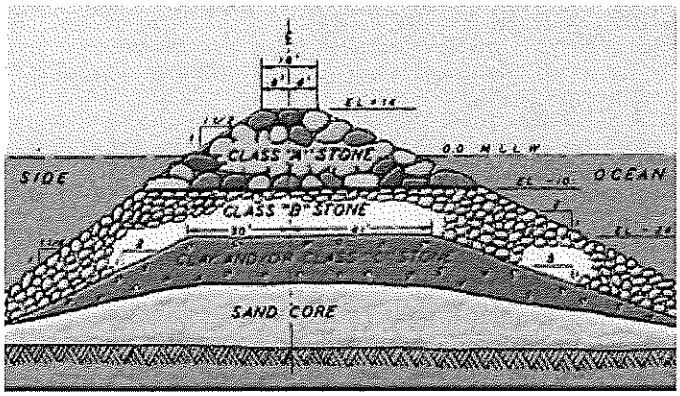
M&N has long been a partner and extension of the County of Orange Public Works and OC Parks staff, providing services under on-call contracts for projects within and surrounding their waterways. Currently, M&N is providing services to the County under three on-call contracts. The firm provided engineering services for more than 10 coastal and marine related projects including dredging and SLR assessments.

DATES OF CONTRACT

2017 - Ongoing

KEY STAFF & RESPONSIBILITIES

- Kim Garvey - Project Manager
- Weixia Jin - Coastal Engineering
- Alan Alcorn - QA/QC
- Chris Webb - Coastal Scientist



Long Beach Breakwater

Alamitos Bay Marina (Photo credit: Neil Rabinowitz).

LONG BEACH ON-CALL ENGINEERING

CLIENT: City of Long Beach

LOCATION: Long Beach, CA

M&N has held the City of Long Beach on-call engineering contract for more than 10 years and has been the primary firm for marine engineering services to the City and the Port of Long Beach. For the City on-call engineering contract, M&N has provided services on 33 tasks valued at over $4,000,000 in the last 4 years. These tasks have included coastal structural evaluations, SLR assessments, water quality modeling and enhancement programs, and marina design.

Alamitos Bay Marina

Moffatt & Nichol served as the lead design engineering firm for the reconstruction of the Alamitos Bay Marina, which involves the replacement of all docks and piling in Basins 1 through 7, which will transform the 1,967 existing slips into 1,625 new slips; repair of bulkheads; replacement of promenade railing, marina access gangways, and utilities; renovation of existing upland facilities, including repaving the parking lots, landscaping, and renovating or replacing 13 restrooms; basin dredging; and construction of a 10,500 square foot eelgrass mitigation site.

Moffatt & Nichol was responsible for providing complete construction plans, specifications, engineering estimates, permits, and construction support services. As part of the design-build team with the construction contractor, this effort included conducting field investigations to document and assess the existing facility conditions, preparing repair options to be value-engineered with the design-build team, and providing support and observations during construction.

Funded in-part by the California Division of Boating and Waterways, the marina recently completed construction under budget, which left funds remaining for future maintenance cycles. The first phase of construction took place in Basins 1, 2, 4 and 5 and encountered some initial challenges during dredging and demolition with a good portion of the sediment exceeding contamination limits for mercury and other constituents. The material was successfully repurposed for the construction of a new terminal in the Port of Long Beach's Middle Harbor project.

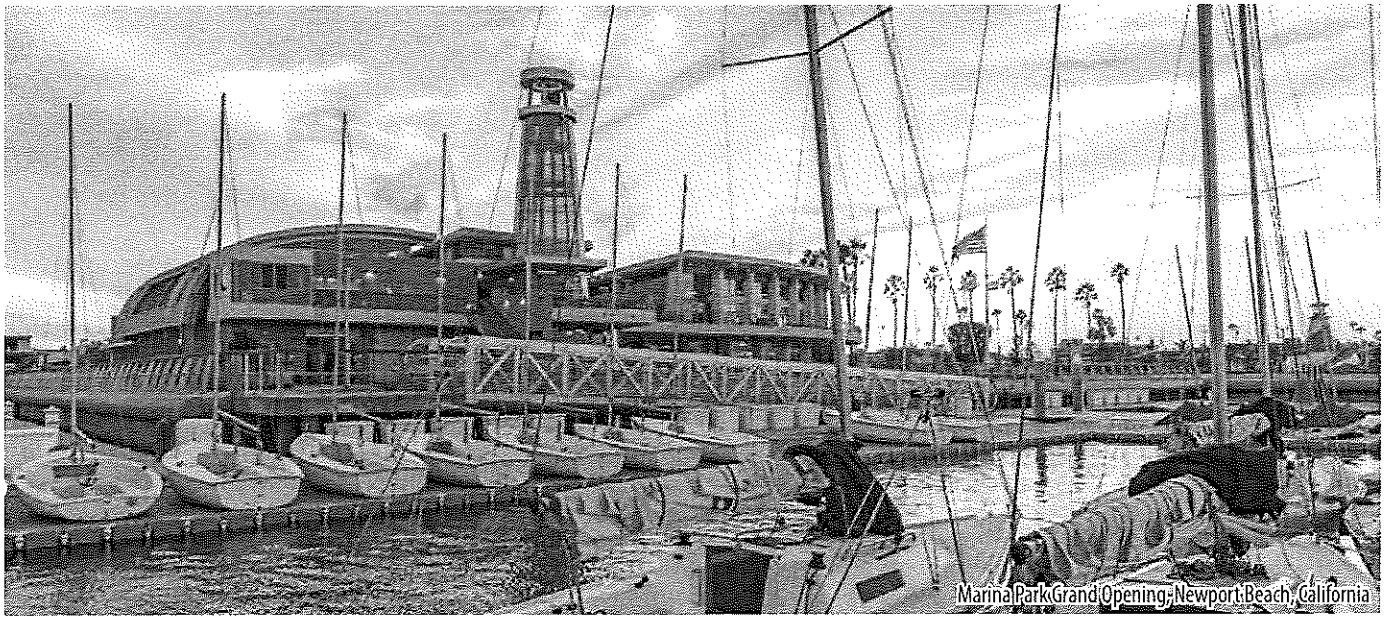
The second phase of construction, which included Basins 3, 6, and 7, incorporated lessons learned during the first phase of construction to complete the concrete floating dock construction ahead of schedule. Facilities included mechanical and electrical systems, vessel sewage pump-out stations provided throughout the marina, and individual in-slip pump-outs. The marina is accessed by newly incorporated ADA-compliant gangways along the continuous waterfront promenade.

DATES OF CONTRACT

2008 - Ongoing

KEY STAFF & RESPONSIBILITIES

- Kim Garvey - Project Manager
- Weixia Jin - Coastal Engineering
- Alan Alcorn - Technical Advisor
- Chris Webb - Water Quality



Marina Park Grand Opening; Newport Beach, California

MARINE ENGINEERING ON-CALL CITY OF NEWPORT BEACH

CLIENT: City of Newport Beach

LOCATION: Newport Beach, CA

M&N has held concurrent on-call contracts with the City of Newport Beach for marine engineering services since 2014. The firm is currently providing full-service marine engineering services for multiple projects and our primary role on this contract has been to support the City in maintaining public piers, bulkhead wall improvements, public vessel pump-out stations, dock and pier construction, dredging, moorings, and maintaining/ improving water quality. Through our current contract, M&N has provided marine engineering services for the City on more than 22 tasks totaling $900,000. Task orders include:

- Central Avenue Public Dock
- Bilge Water Treatment Pump
- City of Newport Beach Dredge Outfall Analysis
- Lafayette Public Walkway Emergency and Other Small Studies
- Newport Beach American Legion Bulkhead Repair
- Newport Pier Building Platform
- TO#2 Fall 2018 Beach Profile and Balboa Pier Survey Program and Winter
- Berm Drawings

Marina Park Harbor Development

The Marina Park Harbor development project involved transforming over 10 acres of mobile home residential housing into a community waterfront, including construction of a public park. The visitor marina is the first new marina approved on the California coastline in 28 years. Moffatt & Nichol was contracted to design the waterside elements and obtain regulatory agency permits, including U.S. Army Corps of Engineers, California Coastal Commission, and Regional Water Quality Control Board for the Marina Park development project. The project involved dredging, docks/piles, and construction of waterfront structures. The project creates a transient boat harbor complex, coupled with a public boating program. The waterside portion of the project involved creating a boat basin and providing docks and related utilities.

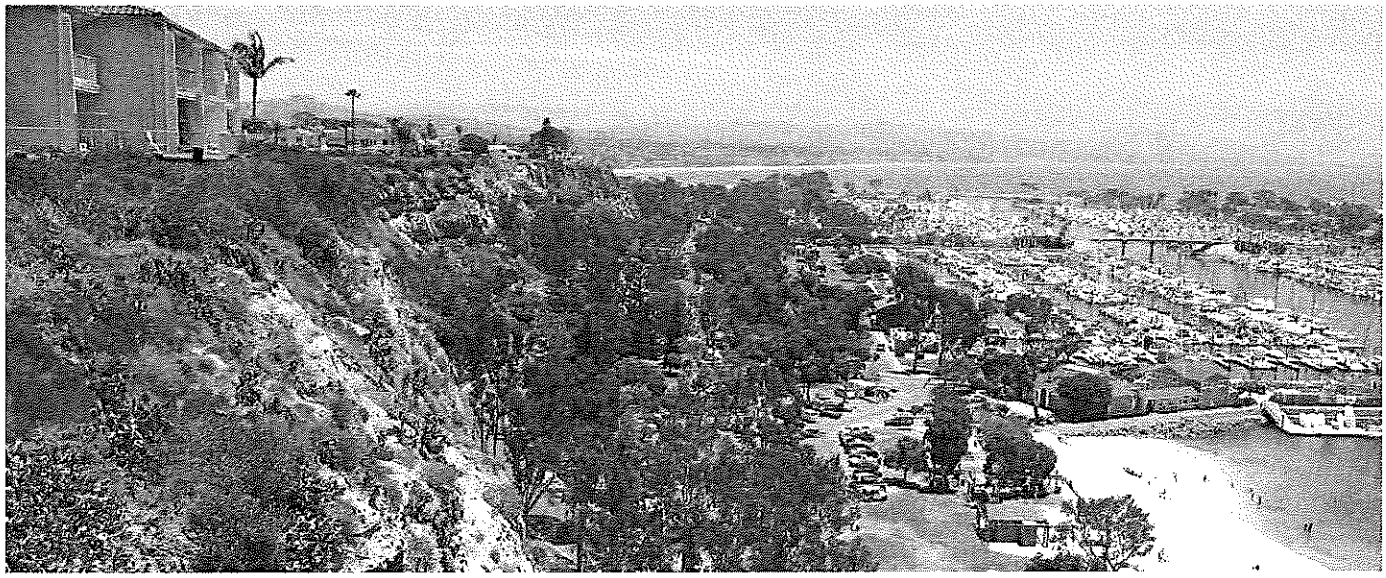
Approximately 45,000 cubic yards of sand material was dredged for the marina, with 36,000 cubic yards used for beach replenishment at three other beach front locations in the City of Newport Beach.

DATES OF CONTRACT

2014 - Ongoing

KEY STAFF & RESPONSIBILITIES

- Kim Garvey - Project Manager/Permitting
- Weixia Jin - Coastal Engineering
- Alan Alcorn - QA/QC
- Jerry Holcomb - Marine Engineering



Dana Point Harbor Revitalization

CITY OF DANA POINT ON-CALL ENGINEERING SERVICES

CLIENT: City of Dana Point

LOCATION: Dana Point, CA

Moffatt & Nichol performed various services for the City along the waterfront for multiple contracts over time. The services included Floodplain review for the current Federal Emergency Management Agency (FEMA) mapping effort. This work entailed analyzing the patterns of predicted flooding mapped by FEMA for existing conditions. FEMA mapping may apply certain assumptions that need to be verified and at times modified to yield a more accurate flood map. M&N also several Coastal Hazard Assessments for projects needing to be approved under the Local Coastal Program requirements. These Assessments project high water levels and wave run-up elevations for existing conditions and for future sea level rise conditions throughout the City. This information is then used to identify vulnerabilities along the City's shoreline and the need to consider adaptation strategies in the future. Future adaptation typically includes widening and raising beaches to provide buffering from future water and wave impacts, elevating shoreline development, protecting it from wave impacts, and/or gradually relocating it farther from the water. Work for the City also included Boat Launch Ramp Renovation. A more specific project description for the Boat Launch Ramp is provided below as an example.

Dana Point Boat Launch Ramp Renovation

This project included performing an initial site investigation, developing alternatives for the ramp configuration, attending public meetings, producing construction documents, and providing permitting and construction support services.

The site inspection included a detailed assessment of the two existing bulkheads surrounding the ramp, with recommendations on the long-term maintenance of the structures. The ramp construction incorporates the use of precast concrete panels to extend the lower portion of the ramp, a temporary cofferdam to hold back the seawater while the upper half of the ramp is cast-in-place, and boarding float docks manufactured from fiberglass.

The boat launch facility renovation was designed to take place in two phases to allow for uninterrupted boater access during construction. Other innovative features include the incorporation of a water quality filtration unit into the site drainage system to capture runoff from the boat washdown and parking areas and the use of plastic coated steel piles to hold the dock system in place. The project low bid result was within 2% of the engineer's estimate.

DATES OF CONTRACT

2017 - Ongoing

KEY STAFF & RESPONSIBILITIES

- WeiXia Jin - Coastal Engineering
- Chris Webb - QA/QC

References of Work Performed Form

(List 5 Local References)

Comany Name: Moffatt & Nichol

1. Name of Reference: On-call Ocean Engineering, Huntington Beach

Address: 2000 Main St #5, Huntington Beach, CA 92648

Contact Name: Tom Herbel, City Engineer Phone Number: (714) 375-5077

Email: tom.herbel@surfcity-hb.org

Dates of Business: 2015 - 2025

2. Name of Reference: On-call Contracts, Orange County Parks & Public Works

Address: 34551 Puerto Place, Dana Point, CA 92629

Contact Name: Susan Brodeur, Sr. Coastal Engineer Phone Number: (949) 585-6448

Email: susan.brodeur@ocparks.com

Dates of Business: 2017 - Ongoing

3. Name of Reference: City of Long Beach

Address: 2760 N Studebaker Rd, Long Beach, CA 90815

Contact Name: Charlene Angsuco Phone Number: (562) 570-5733

Email: charlene.angsuco@longbeach.gov

Dates of Business: 2008 - Ongoing

4. Name of Reference: Marine Engineering On-call, City of Newport Beach

Address: 100 Civic Center Drive, Bay 2D, Newport Beach, CA

Contact Name: Chris Miller, Public Works Phone Number: (949) 644-3043

Email: cmiller@newportbeachca.gov

Dates of Business: 2014 - Ongoing

5. Name of Reference: Dana Point

Address: 24650 Dana Point Harbor Drive, Santa Ana, CA, 92629

Contact Name: John Ciampa Phone Number: (949) 248-3591

Email: jciampa@ocdph.com

Dates of Business: 2017 - Ongoing

APPENDIX: Designated Individual's Resumes

In an effort to provide the highest level of service possible, proposed Project Manager Chris Webb has assembled a team of in-house staff who have worked together in the past on similar projects. M&N has brought together an expert and specialized team of professionals to provide the required services for the City for this project and each team member is highly-qualified to provide the services for which they are responsible.

CHRIS WEBB

Project Manager

YEARS OF EXPERIENCE
35

EDUCATION
BA, Physical Geography, San Diego State University
MA, Geography, San Diego State University

OFFICE LOCATION
Costa Mesa

AFFILIATIONS
California Shore and Beach Preservation Association

Chris Webb is an experienced project manager and supervisory coastal scientist with 35 years of experience in coastal planning and geomorphology, including projects involving SLR assessments, shoreline planning, coastal impact studies, beach nourishment, wetland restoration, riverine restoration, and water quality assessments. Chris specializes in assessment of coastal erosion problems, environmental restoration (beaches, wetlands, and rivers), and environmental permitting. As Project Manager, Chris will be the point of contact involved in active day-to-day management and project progress, and be accountable to the City, project stakeholders, and local community. He will be responsible for making sure that services and deliverables are within scope, on schedule, and within budget.

REPRESENTATIVE PROJECT EXPERIENCE

Ocean Engineering On-Call, City of Huntington Beach, CA. Served as coastal scientist on task orders to provide coastal engineering and analysis. He presently advises the City on construction of the Sunset Beach winter sand dike and was a contributor to the Huntington Bluffs Feasibility Study. He also directed water sampling and testing for the oil spill and managed the other task orders for Davenport Bridge inspection and the Pier restaurant plan check.

Huntington Beach Sea Level Rise Analysis and General Plan Update, Huntington Beach, CA. As part of an engineering consulting team, served as coastal scientist, assisting with sea level rise assessment, adaptation strategy development, and quality control and quality assurance for the sea level rise vulnerability assessment for this City of Huntington Beach project. Guided analyses based on local experience, reviewed and modified deliverables as needed to maximize quality and data accuracy, assisted with developing adaptation strategies, and participated in task force meetings associated with specific topic areas addressed in the General Plan Update.

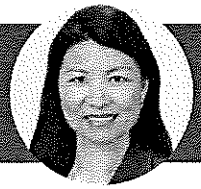
Bolsa Chica Wetlands Restoration, Orange County, CA. Assistant project manager and permitting lead to restore 880 acres of land purchased by the state. This project restored approximately 1,000 acres of wetlands and constructed a new tidal inlet. Considerations included maintaining a muted tidal regime in wetlands areas surrounding a full tidal basin through hydraulic controls and designing a stable inlet without significant interruption to longshore sediment transport.

Sunset Beach Winter Sand Dike Assessment, Huntington Beach, CA. As project manager, analyzed the need for a protective winter sand dike along Sunset Beach for the City of Huntington Beach and provided concept design. The beach was assessed for its vulnerability to wave overtopping, and the existing practice of installing the dike was reevaluated for its effectiveness. The dike was confirmed to be necessary, and the concept was revised to be lower and farther landward than recent installations to continue providing protection, while improving public access and views.

Huntington Beach Wetlands Restoration, Huntington Beach, CA. Project manager for preparation of the plans to restore the 191-acre Huntington Beach Wetlands. The wetlands were former full tidal salt marsh areas that had been isolated by diking. The regulatory agencies selected a preferred full tidal alternative from several options. M&N conceptually designed the alternative and each option, and provided cost estimates, monitoring requirements, and a course of future actions to take to implement the project. M&N subsequently assisted the client to secure grant funds for implementation and completed the final design for construction.

WEIXIA JIN, PHD, DCE, PE

Coastal Engineering & Hazards; Ocean & River Hydrology



YEARS OF EXPERIENCE
33

EDUCATION
PhD, Hydraulics & Water Resources
ME, Coastal and Ocean Engineering
BA, Harbor and Navigation Engineering

OFFICE LOCATION
Costa Mesa

REGISTRATION/ CERTIFICATION
Professional Engineer – California (Civil)
Diplomate, Coastal Engineering (DCE), Academy of Coastal, Ocean, Port and Navigation Engineers (ACOPNE)
GIS Certificate, Westech College

Dr. Weixia Jin joined Moffatt & Nichol in 1997 and has since participated in a wide range of wetlands, marina, coastal, estuary, watershed, and riverine engineering projects. Her engineering experience includes engineering designs of tidal control structures, revetments, tidal inlets, jetties, weirs, and shore protection structures; numerical modeling of wetland hydraulics, wetland and coastal water quality, wetland sedimentation, wave and tsunami propagations, and coastal watershed hydrology and hydraulics; engineering studies of wave runup, overtopping and damage; preparation of bridge hydraulics and sedimentation reports. She is fully trained in Moffatt & Nichol's Quality Management System and often serves in this role on area projects.

REPRESENTATIVE PROJECT EXPERIENCE

Final Design for Bolsa Chica Lowlands Restoration, Huntington Beach, CA. Coastal engineer who designed the tidal inlet and jetties connecting wetlands to the Pacific Ocean, water level control structures connecting the Full Tidal Basin and Muted Tidal Basins, shore protection alone the Full Tidal Basin, and the pre-filled ebb bar. Also performed studies and calculations of wave setup in the jetted inlet, sea level rise at project site, wave attenuation in the jetted entrance, wave runup and overtopping rate over the levees, riprap and revetment protections, as well as bridge hydraulic studies of Pacific Coastal Highway Bridge and Utility Bridge over the new tidal inlet.

Huntington Beach Wetlands Conceptual Restoration Plan, Huntington Beach, CA. Assistant project manager performed 1D and 2D tidal and flood hydrodynamic and circulation modeling of the existing hydraulic system and proposed wetland restoration alternatives. The project goals were to preserve, enhance, and restore fish and wildlife habitat of a tidally influenced ecosystem, while providing for ancillary water quality improvements, resilience with rising sea level, and public interpretive opportunities.

TPAD Digester Facility at Plant No. 2, Perimeter Screening Wall, OCSD, Huntington Beach, CA. Assistant project manager and lead coastal engineer for designing an over 1500 ft new perimeter screening wall. The new wall is a climate resilient mitigation measure for protecting the plant from a 100-year flood, adjusted for potential sea level rise in year 2075. The Plant No. 2 is located within the ASCE 7-16 Tsunami Design Zone and is categorized as a Tsunami Risk Category III Critical Facility. The new wall is designed to withstand storm surge, waves, flooding, and tsunami. A Mike21 Flexible Mesh hydrodynamic model developed in accordance with provisions of ASCE 7-16 was used to evaluate the site-specific tsunami conditions due to a MCT event. Tasks included simulating tsunami wave propagation from the ocean to the plant for multiple sea level conditions following ASCE 7-16 guidelines, calculating tsunami wave forces on the proposed new wall, as well as engineering design, specification preparation and cost estimate of the wall structures.

Huntington Beach Desalination and Sea Level Rise Analysis, Huntington Beach, CA. Project engineer who provided technical support on nearshore hydrodynamic, waves, and particle transport related to proposed desalination intakes. Tasks included reviewing available regional oceanic modeling system for Southern California Bight and San Pedro Shelf; numeric modeling of a near-shore tidal, wave, and particle track modeling with MIKE FM; and provide EIR support.

Huntington Beach General Plan Update, Huntington Beach, CA. Project engineer provided technical direction and guidance on numerical modeling of the riverine flooding, tidal hydrodynamic and sea level rise. The modeling results were used to map flood hazard zones and develop a geo-referenced inventory of affected infrastructure.

Huntington Beach Urban Runoff Investigation - Oceanographic Studies, Huntington Beach, CA. The project involved quantifying ocean circulation and water quality conditions along the coast in the vicinity of Huntington City and State Beaches as part of this investigation. Task manager performed hydrodynamic and water quality numerical modeling by using MIKE21.

CAROL ELDON, PE

Coastal Engineer & Hazards Lead; Flood Management

YEARS OF EXPERIENCE
34

EDUCATION
MS, Coastal/Ocean Engineering, Oregon State University
BS, Civil Engineering, Bucknell University

OFFICE LOCATION
Costa Mesa

REGISTRATION/ CERTIFICATION
Professional Engineer – California (Civil)

Carolyn (Carol) Eldon is a civil/coastal engineer with more than 20 years of experience in areas that include sediment management engineering solutions, coastal protection and wetland restoration investigations, and sea level rise vulnerability assessments. Her construction management experience includes design and construction oversight of roads and bridges, and construction quality assurance. Having recently joined M&N in summer 2023, Carol has worked on several key projects alongside Chris and M&N's coastal restoration group. She is a published author of seven coastal restoration study papers focused on beach retention, sand management, coastal structures, and groin impacts.

REPRESENTATIVE PROJECT EXPERIENCE

Sunset Beach Winter Sand Dike Assessment, Huntington Beach, CA. Led an assessment of the winter sand dike practice along Sunset Beach for the City of Huntington Beach, identifying hazards and proposing concept revisions. Addressed seawater ponding and flooding issues at key beach locations, which posed safety risks. Reevaluated the existing dike installation for its effectiveness in size and location and developed new concepts to mitigate hazards while enhancing protection, public access, and scenic views.

Living Levee Preliminary Design, Del Mar, CA. Assistant Project Manager for the nature-based flood risk mitigation project along the San Dieguito River. Responsibilities included conducting a flood hazard assessment, performing an engineering analysis, and ensuring integration of topographical, hydrological, structural, and environmental data into the project's design. Developed nature-based solutions that support flood protection and ecological restoration. Incorporated key aspects of the project, including adaptation strategies for sea-level rise and compliance with climate resiliency plans. Worked closely with stakeholders to ensure project goals were met, focusing on sustainable flood management and habitat conservation while aligning with community priorities.

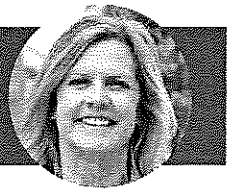
Los Cerritos Wetland Restoration, Seal Beach, CA. Assistant Project Manager for the final engineering construction design of a comprehensive wetland site development project over a 22-month period. Responsibilities included coordinating the preparation of 90% and 100% design plans, specifications, and cost estimates, incorporating complex environmental, geotechnical, and structural elements. Facilitated communication between the design team and key stakeholders to ensure project goals were met, including the relocation of utilities, the design and construction of a bridge structure, and landscape and irrigation improvements. Ensured key deliverables such as the geotechnical investigation report, and soil management plans were reflected in the final design. Will actively participate in bid support by assisting in RFP development, bid evaluation, and contractor selection, ensuring the project remains on schedule and within budget.

Spindrift Drive Beach Access Walkway Feasibility Study, La Jolla, CA. Assisted in writing and managing the Feasibility Study as part of an as-needed marine structural engineering contract with the City of San Diego. Responsibilities included utilizing geotechnical constraints, coastal hazards (wave runup, seal level rise, and future storm scenarios), visual and structural assessments, cost estimates, and accessibility parameters to provide viable design alternatives for beach access while ensuring adherence to California Coastal Commission regulations. The job was complicated by a non-compliant storm drain under the narrow, wave damaged walkway. Delivered project reports on schedule and within budget, addressing the unique challenges posed by coastal dynamics.

Seaport, San Diego, CA. Coastal engineer, working collaboratively for the Port of San Diego on a $3.5 billion waterfront destination development project to create ideas and deliver an urban beach and living shoreline on Kettner Mole that attracts visitors, creates opportunity, and builds communities. With an objective of resiliency, creative and practical infrastructure solutions that incorporate the best of today's science, while considering future viability and investment value over time are incorporated into the design. Early planning and mitigation strategies will be implemented in anticipation of sea level rise hazards.

KIM GARVEY

Permitting



Kimberly Garvey has obtained over 60 regulatory permits on a variety of coastal projects. Her permitting and environmental review experience includes determination of permitting requirements and schedules, coordination with regulatory agencies, permit applications, permit follow-up, development of project descriptions and construction methods for environmental review (CEQA and NEPA) documents, coastal impact analyses, and compensatory mitigation plans. The projects have involved the U.S. Army Corps of Engineers, State and Regional Water Boards, California Coastal Commission, California State Lands Commission, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, NOAA National Marine Fisheries, U.S. EPA, U.S. Coast Guard, and County and City agencies.

YEARS OF EXPERIENCE

35

EDUCATION

MS, Aeronautical and Astronautical Engineering, Purdue University, Indiana, 1989

BS, Mechanical Engineering, University of California, Santa Barbara, 1984

Certificate, Coastal Engineering, Old Dominion University, Virginia, 2006

OFFICE LOCATION

Long Beach

AFFILIATION

President, California Chapter of American Shore and Beach Preservation Association

REPRESENTATIVE PROJECT EXPERIENCE

Huntington Harbour Waterline Installation, Huntington Beach, CA. Project manager. Led development of engineering plans, permits acquisition, CEQA, sediment characterization, marine biology work, and construction support. Project includes installation of an under channel waterline.

Upper Magnolia Marsh, Huntington Beach, CA. Working with Plains All American and Huntington Beach Wetlands Conservancy staff to develop concepts and obtain regulatory permits for removal of an existing oil infrastructure within the marsh and subsequent wetlands restoration.

Huntington Beach Wetlands Restoration, Huntington Beach, CA. Led the regulatory permitting process. Permitting agencies included U.S. Army Corps of Engineers, California State Lands Commission, Regional Water Quality Control Board, California Coastal Commission, California State Parks, California Department of Fish & Game, Orange County, and City of Huntington Beach. The project objectives were to restore marsh habitat by re-introducing tidal influence and providing public access.

Bolsa Chica Wetlands Restoration, Orange County, CA. Coastal scientist who assisted in the application of permits from multiple agencies and supported design activities, including development of dewatering plan, oil spill protection, and construction traffic analysis. The project restored approximately 880 acres of wetlands and constructed a new tidal inlet through Bolsa Chica State Beach. Permitting agencies included the Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Coast Guard, Southern California Air Quality Management District, Orange County, and City of Huntington Beach.

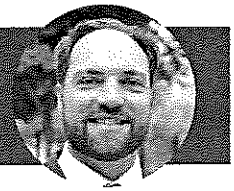
Sunset/Huntington Harbour Maintenance Dredging Project, Huntington Beach and Seal Beach, CA. Project manager who led preparation of engineering plans and bid documents, permits acquisition, CEQA, sediment characterization, bulkhead assessment, marine biology work, and construction support. Project included maintenance dredging of the harbor, offshore disposal, beneficial reuse of material, i.e., placement of material on adjacent Wildlife Refuge for marsh restoration and on adjacent shoreline for beach nourishment, and eelgrass impacts mitigation.

Hueneme Beach Shore Protection, Port Hueneme, CA. Obtained emergency permits and long-term regulatory permits for rock revetment shoreline protection. Supported development of CEQA document. Prepared coastal engineering analyses (wave uprush study) and engineering bid package and provided engineering support during construction.

Bay Island Bulkhead and Bridge Repair, Newport Beach, CA. Led permits process and supported CEQA process, including development of compensatory mitigation site. Regulatory agencies include the California Coastal Commission, U.S. Army Corps of Engineers, Regional Water Quality Control Board, U.S. Coast Guard, and the City of Newport Beach. The project is to repair existing bulkheads protecting the island and replace an existing bridge to the island.

JERRY HOLCOMB, PE

Marine Infrastructure



Jerry Holcomb brings 17 years of waterfront project design experience and specialized expertise in structural engineering and marine construction. His relevant experience includes design for floating structures, wave attenuator and fixed breakwater structures, waterfront earth retaining structures, fixed pier and pile-supported wharf structures, vessel mooring and berthing structures, and site utilities. Key roles in past projects include wave/environmental loading analysis, interpretive structural modeling analysis, developing project submittal documents, regulatory and local agency project permitting, and construction management.

YEARS OF EXPERIENCE

17

EDUCATION

BS, Civil Engineering with Structural Emphasis, California State Polytechnic University, Pomona 2008

OFFICE LOCATION

Long Beach

REGISTRATION/ CERTIFICATION

Professional Engineer – California (Civil) #80027

AFFILIATION

American Society of Civil Engineers (ASCE)
State Organization for Boating Access (SOBA)
California Association of Harbor Master and Port Captains, Annual Conference
Marina Recreation Association, ADA Standards Workshop
American Institute of Steel Construction (AISC)

REPRESENTATIVE PROJECT EXPERIENCE

Alamitos Bay Marina, Long Beach, CA. Construction manager for the design-build team of the Alamitos Bay Marina Rebuild. The marina was funded by the Department of Boating and Waterways for nearly 2,000 pleasure craft. The marina featured a new rock jetty entrance, bulkheads, floating mooring facilities, a fueling station, repair facility, and utilities both ashore and afloat. The marina also benefited from dredging and shore protection. Responsible for marina design tasks including structural site inspection, structural design of pile-supported platforms and floating dock guide piles, bulkhead and dock layout design, and civil design support on utilities, grading and drainage.

Dana Point Harbor Sailing and Events Center/Cover Pier ADA Access, Dana Point, CA. Project manager for the replacement of the existing facility floating docks and ADA access improvements. The proposed facilities serve as an educational small craft boating center and also provides non-motorized public boat launch capabilities. Responsibilities included preliminary alternatives analyses and regulatory permit coordination, development of construction drawings and specifications, ADA accessibility upgrades, and coordination with design team for concurrent Dana Point Harbor dredge construction project.

Marina Park Harbor Development, Newport Beach, CA. Project engineer for design of concrete sheet-pile bulkhead system, layout and design of floating docks, and dredge quantities estimates. Developed design of the dock and anchor systems (Piles), design of dock utilities, development of construction drawings and specifications, and ensuring compatibility with the appropriate building code standards.

Wilmington Waterfront Promenade, Los Angeles, CA. Project engineer responsible to lead permitting, structural engineering, electrical engineering and security design teams to develop plans, specifications and estimates as part of the Los Angeles Waterfront Redevelopment. Worked closely with landscape architectural firm to deliver the design of a park and urban walkway along the waterfront in Wilmington. Role and responsibilities included full design support for floating dock facilities that will be the future home port for public vessel access.

Upper Newport Bay Ecological Reserve, Newport Beach, CA. Project manager for the seawall design at the Upper Newport Bay Ecological Reserve, which is part of a joint-venture research facility between the CA Department of Fish and Game and the University of California, Irvine. One specific design aspect utilized that is essential to extending the life of the structure was the implementation of full double corrosion protection on all seawall and hardware surfaces. The $1.5M project was funded in part by the by the California Department of Fish and Game.

WILLIAM (BILL) DUBBS, PE

Inspection & Rehabilitation

YEARS OF EXPERIENCE
18

EDUCATION
BS, Structural Engineering, University of California at San Diego

OFFICE LOCATION
Long Beach

REGISTRATION/ CERTIFICATION
Professional Engineer – California (Civil) #75931

AFFILIATION
ASCE
COPRI Coast, Oceans, Ports, and Rivers Institute
PIANC
Society of Military Engineers, SAME
American Institute of Steel Construction

William Dubbs has worked on inspection and rehabilitation projects for clients that include the U.S. Navy; Ports of San Diego, Long Beach, Los Angeles, and San Francisco; Cities of Coronado, Oceanside, and San Diego, , as well as several major oil companies, private marinas, and terminal operators. He has been involved in projects for financial and military strategic locations around the globe. As a member of the company safety committee, William has implemented new safety equipment and standards and coordinated the field equipment and employee certification to comply with constantly changing industry regulations. He developed safe-diving practices for underwater engineer-diver inspection teams. William is a Qualified Person for Ultrasonic Thickness testing of steel structures.

- Performed follow-up rehabilitation design for structures requiring extension to service-life, re-purposing, and upgrades for modern code compliance.
- Developed plans to deal with construction issues related to $1.3B container terminal improvement program, where wide-scale defects were identified and analyzed.

REPRESENTATIVE PROJECT EXPERIENCE

Santa Monica Public Pier, Santa Monica, CA. Responsible for underwater dissolved oxygen testing of wrapped timber piles, as well as the operation of the submersible pneumatic timber coring device to determine the integrity of the remaining timber piles. 5332-02

Seal Beach Municipal Pier, Seal Beach, CA. Team leader for a post-event inspection of the Seal Beach Pier following a storm that brought unusually large surf and obvious damage to the pier. The team conducted above- and below-water inspections to determine the extent of damage, as well as the urgency for repair. Provided the client with a Post-Event Condition Rating of the timber pier and recommended actions for remediation of the structure. 3874-21, 3874-22, 3874-24

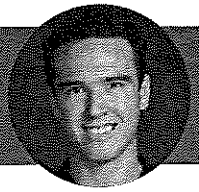
GP Gypsum Manufacturing, Long Beach, CA. Led an inspection of the area, analyzed the existing capacities of the steel plate flooring system, and recommended remediation to restore the floor to safe operating condition. The GP Gypsum Manufacturing building in Long Beach suffered structural deficiencies on the second floor, which impeded their ability to operate heavy equipment in that region. 5771-02

Port of Los Angeles Conoco Philips Berths 148-151, Los Angeles, CA. Boat operator and diver for the underwater inspection of over 300 concrete and timber piles. He was responsible for the acquisition and analyses for the dissolved oxygen tests and the timber cores. This terminal is a high risk facility subject to Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). Inspection included 100% Level 1, 10% Level 2, and 5% Level 3. Level 3 testing consisted of dissolved oxygen testing and underwater timber coring.

Port of Los Angeles Vopak Berth 101, Los Angeles, CA. Boat operator, dive supervisor and diver for the underwater inspection of over 700 feet of steel sheet pile bulkhead. This terminal is a Medium Risk Facility subject to Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). Inspection included 100% Level 1, 10% Level 2, and 5% Level 3. Level 3 testing was used to establish a corrosion profile which consisted of ultrasonic thickness measurements and electrical potential survey.

MATTHEW (MATT) BUTLER, EIT

Sea Level Rise Analyst



Matthew's coastal engineering experience comprises evaluating various interactions between numerous atmospheric conditions and analyzing their effects throughout the wave-structure interaction for both breaking and non-breaking wave types. He has interpreted the underlying turbulent processes and wave hydraulics of landward travelling waves including storm surge waves, surf zone waves, etc. His experience also includes employing physical and numerical modeling techniques along with empirically simulated trials to investigate wave overtopping differences amongst various coastal defense structures including vertical and composite seawalls, berms, revetments, etc. In addition, Matthew has conducted empirical sea level and costal land change estimations, seabed topographical analyses, tide gauge assessments, and disaster mitigation strategies for 2D/3D modeling of various coastal structures.

YEARS OF EXPERIENCE

6

EDUCATION

MS, Civil Engineering, University of East London

BS, Civil Engineering, California State University Long Beach

OFFICE LOCATION

Costa Mesa

AFFILIATION

Member of the Waterfront Destinations Team

2021 Social Chair for the Young Professionals Steering Committee

Member of the Southern California Coastal Discipline Team

Member of the NPS / GAOA Coordination Team

REPRESENTATIVE PROJECT EXPERIENCE

City of Huntington Beach Bluff Repair Design, Huntington Beach, CA. Conducted a wave runup analysis of proposed bluff repair alternative which examined 100-year storm conditions under a range of extreme water level conditions (100-year Surge and Extreme El Nino Water Levels) and three sea level rise scenarios (Present-Day, +1.0 SLR, and +2.0 SLR). Drafting a technical report to be reviewed by the City and California Coastal Commission (CCC) as well as responding to comments.

Newland Marsh Restoration Plan, Huntington Beach, CA. Tested out various RTK units for the company to consider investing in. Involved fieldwork/ diving in the Newland Marsh to retrieve, change, and redeploy numerous RBR Tide Gage & Aquadopp instruments at the tidal inlets as part of the M&N Monitoring Program. Post-fieldwork analyses include plotting stream velocities, analyzing ebb/flow current speeds, etc. Processed water levels and produced a compiled time series of the area specified along with Tidal Inundation Frequency Curves.

Marina Pacifica Sea Level Rise (SLR Report), Long Beach, CA. Conducted a Sea Level Rise Vulnerability Assessment for an Adaptive Work / Live Unit conversion of an existing commercial area which evaluated the marina's exposure, vulnerability, and capability to adapt to various scenarios of future sea level rise (SLR) in the area. In doing so, these various sea level rise scenarios were established and evaluated for future impacts on geologic elements (seismic & erosion), water levels, flooding / inundation, and future wave climate. Project alternatives were developed as future possible mitigation strategies.

Huntington Beach Offshore Oil Spill, Huntington Beach, CA. A key member of the offshore oil spill response team that conducted weeks of water quality sampling for the State Parks and Cities of Huntington Beach, Newport Beach, and San Clemente. Performed water quality sapling out in the surf zone and analyzed the collected samples for presence of PHs and TPH in order to inform the city, county, and state parks of potential human and ecological hazards. /03

Talbert Marsh Living Shoreline Support Services, Huntington Beach, CA. Tested out various RTK units for the company to consider in investing in. Involved fieldwork/ diving in the Talbert Marsh to retrieve, change, and redeploy numerous RBR Tide Gageinstruments at the tidal inlets as part of the M&N Monitoring Program. Post-fieldwork analyses include plotting stream velocities, analyzing ebb/flow current speeds, etc. Processed water levels and produced a compiled time series of the area specified along with Tidal Inundation Frequency Curves.

EXHIBIT "B"

Payment Schedule (Hourly Payment)

A. Hourly Rate

CONSULTANT'S fees for such services shall be based upon the following hourly rate and cost schedule:

SEE ATTACHED EXHIBIT B

B. Travel Charges for time during travel are not reimbursable.

C. Billing

1. All billing shall be done monthly in fifteen (15) minute increments and matched to an appropriate breakdown of the time that was taken to perform that work and who performed it.

2. Each month's bill should include a total to date. That total should provide, at a glance, the total fees and costs incurred to date for the project.

3. A copy of memoranda, letters, reports, calculations and other documentation prepared by CONSULTANT may be required to be submitted to CITY to demonstrate progress toward completion of tasks. In the event CITY rejects or has comments on any such product, CITY shall identify specific requirements for satisfactory completion.

4. CONSULTANT shall submit to CITY an invoice for each monthly payment due. Such invoice shall:

   A) Reference this Agreement;
   B) Describe the services performed;
   C) Show the total amount of the payment due;
   D) Include a certification by a principal member of CONSULTANT's firm that the work has been performed in accordance with the provisions of this Agreement; and
   E) For all payments include an estimate of the percentage of work completed.

Upon submission of any such invoice, if CITY is satisfied that CONSULTANT is making satisfactory progress toward completion of tasks in accordance with this Agreement, CITY shall approve the invoice, in which event payment shall be made within thirty (30) days of receipt of the invoice by CITY. Such approval shall not be unreasonably withheld. If CITY does not approve an invoice, CITY shall notify CONSULTANT in writing of the reasons for non-approval and the schedule of performance set forth in **Exhibit "A"** may at the option of CITY be suspended until the parties agree that past performance by CONSULTANT is in, or has been brought into compliance, or until this Agreement has expired or is terminated as provided herein.

5. Any billings for extra work or additional services authorized in advance and in writing by CITY shall be invoiced separately to CITY. Such invoice shall contain all of the information required above, and in addition shall list the hours expended and hourly rate charged for such time. Such invoices shall be approved by CITY if the work performed is in accordance with the extra work or additional services requested, and if CITY is satisfied that the statement of hours worked and costs incurred is accurate. Such approval shall not be unreasonably withheld. Any dispute between the parties concerning payment of such an invoice shall be treated as separate and apart from the ongoing performance of the remainder of this Agreement.

EXHIBIT "B"

FEE PROPOSAL
City of Huntington Beach
March 2025

moffatt & nichol

Fee Proposal for On-call Civil Engineering Professional Consulting Services

C. OCEAN ENGINEERING

F. FEE PROPOSAL

M&N Rate Sheet

RATE SCHEDULE FOR PROFESSIONAL SERVICES

	CLASSIFICATION	HOURLY RATES
PROFESSIONALS	Principal Engineer/Scientist	$350.00
	Supervisory / Senior Engineer/Scientist	$320.00
	Engineer/Scientist IV	$290.00
	Engineer/Scientist III	$270.00
	Engineer/Scientist II	$260.00
	Engineer/Scientist I	$220.00
	Staff Engineer/Scientist	$210.00
	Staff III	$190.00
	Staff II	$180.00
	Staff I	$160.00
	Field Tech II	$150.00
	Field Tech I	$120.00
	Clerical	$110.00

REIMBURSABLE EXPENSES (Unless Otherwise Provided in Written Agreement)

Subcontracts or Outside Services		Cost +10%
Reproductions	- In House	
	Mylar Plots (B/W)	$2.70/SF
	Color Plots	$4.90/SF
	Vellum Plots (B/W)	$1.70/SF
	Bond Plots (B/W)	$1.10/SF
	Drawing Reproduction	Cost +10%
	Document Reproduction	$0.17/sheet
	- Outside Reproduction	Cost +10%
Travel	Company Auto	Prevailing IRS
	Rental Vehicle	Cost
	Airfare	Cost
	Meals and Lodging	Cost
High Power Computer Usage		Cost

Effective March 1, 2024 until Revised

Assumed escalation of 4%