ON-CALL PROFESSIONAL SERVICES AGREEMENT WITH DUDEK FOR ON-CALL MARINE / COASTAL ENGINEERING SERVICES

THIS ON-CALL PROFESSIONAL SERVICES AGREEMENT ("Agreement") is made and entered into as of this 15th day of April, 2025 ("Effective Date"), by and between the CITY OF NEWPORT BEACH, a California municipal corporation and charter city ("City"), and DUDEK, a California corporation ("Consultant"), whose address is 605 3rd Street , Encinitas, CA 92024, and is made with reference to the following:

RECITALS

A. City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of City.

B. City desires to engage Consultant to provide the City with on-call marine / coastal engineering services ("Project").

C. Consultant possesses the skill, experience, ability, background, certification and knowledge to provide the professional services described in this Agreement.

D. City has solicited and received a proposal from Consultant, has reviewed the previous experience and evaluated the expertise of Consultant, and desires to retain Consultant to render professional services under the terms and conditions set forth in this Agreement.

NOW, THEREFORE, it is mutually agreed by and between the undersigned parties as follows:

1. TERM

The term of this Agreement shall commence on the Effective Date, and shall terminate on April 14, 2030, unless terminated earlier as set forth herein.

2. SERVICES TO BE PERFORMED

2.1 Consultant shall perform the on-call services described in the Scope of Services attached hereto as Exhibit A and incorporated herein by reference ("Services" or "Work"). Upon written request from the Project Administrator as defined herein, Consultant shall provide a letter proposal for Services requested by the City (hereinafter referred to as the "Letter Proposal"). The Letter Proposal shall include the following:

2.1.1 A detailed description of the Services to be provided;

2.1.2 The position of each person to be assigned to perform the Services, and the name of the individuals to be assigned, if available;

2.1.3 The estimated number of hours and cost to complete the Services; and

2.1.4 The time needed to finish the specific project.

2.2 No Services shall be provided until the Project Administrator has provided written acceptance of the Letter Proposal. Once authorized to proceed, Consultant shall diligently perform the duties in the approved Letter Proposal.

3. TIME OF PERFORMANCE

3.1 Time is of the essence in the performance of Services under this Agreement and Consultant shall perform the Services in accordance with the schedule included in Exhibit A and the Letter Proposal. In the absence of a specific schedule, the Services shall be performed to completion in a diligent and timely manner. The failure by Consultant to strictly adhere to the schedule set forth in Exhibit A and the Letter Proposal, if any, or perform the Services in a diligent and timely manner may result in termination of this Agreement by City.

3.2 Notwithstanding the foregoing, Consultant shall not be responsible for delays due to causes beyond Consultant's reasonable control. However, in the case of any such delay in the Services to be provided for the Project, each party hereby agrees to provide notice within two (2) calendar days of the occurrence causing the delay to the other party so that all delays can be addressed.

3.3 Consultant shall submit all requests for extensions of time for performance in writing to the Project Administrator as defined herein not later than ten (10) calendar days after the start of the condition that purportedly causes a delay. The Project Administrator shall review all such requests and may grant reasonable time extensions for unforeseeable delays that are beyond Consultant's control.

3.4 For all time periods not specifically set forth herein, Consultant shall respond in the most expedient and appropriate manner under the circumstances, by hand-delivery or mail.

4. COMPENSATION TO CONSULTANT

4.1 City shall pay Consultant for the Services on a time and expense not-to-exceed basis in accordance with the provisions of this Section and the Letter Proposal and the Schedule of Billing Rates attached hereto as Exhibit B and incorporated herein by reference. Consultant's compensation for all Work performed in accordance with this Agreement, including all reimbursable items and subconsultant fees, shall not exceed **Five Hundred Thousand Dollars and 00/100 ($500,000.00),** without prior written authorization from City. No billing rate changes shall be made during the term of this Agreement without the prior written approval of City.

4.2 Consultant shall submit monthly invoices to City describing the Work performed the preceding month. Consultant's bills shall include the name of the person

who performed the Work, a brief description of the Services performed and/or the specific task in the Scope of Services to which it relates, the date the Services were performed, the number of hours spent on all Work billed on an hourly basis, and a description of any reimbursable expenditures. City shall pay Consultant no later than thirty (30) calendar days after approval of the monthly invoice by City staff.

4.3 City shall reimburse Consultant only for those costs or expenses specifically identified in Exhibit B to this Agreement and the Letter Proposal or specifically approved in writing in advance by City.

4.4 Consultant shall not receive any compensation for Extra Work performed without the prior written authorization of City. As used herein, "Extra Work" means any Work that is determined by City to be necessary for the proper completion of the Project, but which is not included within the Scope of Services and which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Compensation for any authorized Extra Work shall be paid in accordance with the Schedule of Billing Rates as set forth in Exhibit B and the Letter Proposal.

5. PROJECT MANAGER

5.1 Consultant shall designate a Project Manager, who shall coordinate all phases of the Project. This Project Manager shall be available to City at all reasonable times during the Agreement term. Consultant has designated Patrick Miskel to be its Project Manager. Consultant shall not remove or reassign the Project Manager or any personnel listed in Exhibit A or assign any new or replacement personnel to the Project without the prior written consent of City. City's approval shall not be unreasonably withheld with respect to the removal or assignment of non-key personnel.

5.2 Consultant, at the sole discretion of City, shall remove from the Project any of its personnel assigned to the performance of Services upon written request of City. Consultant warrants that it will continuously furnish the necessary personnel to complete the Project on a timely basis as contemplated by this Agreement.

5.3 If Consultant is performing inspection services for City, the Project Manager and any other assigned staff shall be equipped with a cellular phone to communicate with City staff. The Project Manager's cellular phone number shall be provided to City.

6. ADMINISTRATION

This Agreement will be administered by the Public Works Department. City's Director of Public Works or designee shall be the Project Administrator and shall have the authority to act for City under this Agreement. The Project Administrator shall represent City in all matters pertaining to the Services to be rendered pursuant to this Agreement.

7. CITY'S RESPONSIBILITIES

To assist Consultant in the execution of its responsibilities under this Agreement, City agrees to provide access to and upon request of Consultant, one copy of all existing

relevant information on file at City. City will provide all such materials in a timely manner so as not to cause delays in Consultant's Work schedule.

8. STANDARD OF CARE

8.1 All of the Services shall be performed by Consultant or under Consultant's supervision. Consultant represents that it possesses the professional and technical personnel required to perform the Services required by this Agreement, and that it will perform all Services in a manner commensurate with community professional standards and with the ordinary degree of skill and care that would be used by other reasonably competent practitioners of the same discipline under similar circumstances. All Services shall be performed by qualified and experienced personnel who are not employed by City. By delivery of completed Work, Consultant certifies that the Work conforms to the requirements of this Agreement, all applicable federal, state and local laws, and legally recognized professional standards.

8.2 Consultant represents and warrants to City that it has, shall obtain, and shall keep in full force and effect during the term hereof, at its sole cost and expense, all licenses, permits, qualifications, insurance and approvals of whatsoever nature that is legally required of Consultant to practice its profession. Consultant shall maintain a City of Newport Beach business license during the term of this Agreement.

8.3 Consultant shall not be responsible for delay, nor shall Consultant be responsible for damages or be in default or deemed to be in default by reason of strikes, lockouts, accidents, acts of God, or the failure of City to furnish timely information or to approve or disapprove Consultant's Work promptly, or delay or faulty performance by City, contractors, or governmental agencies.

9. HOLD HARMLESS

9.1 To the fullest extent permitted by law, Consultant shall indemnify, defend and hold harmless City, its City Council, boards and commissions, officers, agents, volunteers and employees (collectively, the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs) of every kind and nature whatsoever (individually, a Claim; collectively, "Claims"), and which relate (directly or indirectly) to the negligence, recklessness, or willful misconduct of the Consultant or its principals, officers, agents, employees, vendors, suppliers, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable, or any or all of them.

9.2 Notwithstanding the foregoing, nothing herein shall be construed to require Consultant to indemnify the Indemnified Parties from any Claim arising from the sole negligence, active negligence or willful misconduct of the Indemnified Parties. Nothing in this indemnity shall be construed as authorizing any award of attorneys' fees in any action

on or to enforce the terms of this Agreement. 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 the Consultant.

10. INDEPENDENT CONTRACTOR

It is understood that City retains Consultant on an independent contractor basis and Consultant is not an agent or employee of City. The manner and means of conducting the Work are under the control of Consultant, except to the extent they are limited by statute, rule or regulation and the expressed terms of this Agreement. No civil service status or other right of employment shall accrue to Consultant or its employees. Nothing in this Agreement shall be deemed to constitute approval for Consultant or any of Consultant's employees or agents, to be the agents or employees of City. Consultant shall have the responsibility for and control over the means of performing the Work, provided that Consultant is in compliance with the terms of this Agreement. Anything in this Agreement that may appear to give City the right to direct Consultant as to the details of the performance of the Work or to exercise a measure of control over Consultant shall mean only that Consultant shall follow the desires of City with respect to the results of the Services.

11. COOPERATION

Consultant agrees to work closely and cooperate fully with City's designated Project Administrator and any other agencies that may have jurisdiction or interest in the Work to be performed. City agrees to cooperate with the Consultant on the Project.

12. CITY POLICY

Consultant shall discuss and review all matters relating to policy and Project direction with City's Project Administrator in advance of all critical decision points in order to ensure the Project proceeds in a manner consistent with City goals and policies.

13. PROGRESS

Consultant is responsible for keeping the Project Administrator informed on a regular basis regarding the status and progress of the Project, activities performed and planned, and any meetings that have been scheduled or are desired.

14. INSURANCE

Without limiting Consultant's indemnification of City, and prior to commencement of Work, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement or for other periods as specified in this Agreement, policies of insurance of the type, amounts, terms and conditions described in the Insurance Requirements attached hereto as Exhibit C, and incorporated herein by reference.

15. PROHIBITION AGAINST ASSIGNMENTS AND TRANSFERS

Except as specifically authorized under this Agreement, the Services to be provided under this Agreement shall not be assigned, transferred contracted or subcontracted out without the prior written approval of City. Any of the following shall be construed as an assignment: The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Consultant, or of the interest of any general partner or joint venturer or syndicate member or cotenant if Consultant is a partnership or joint-venture or syndicate or co-tenancy, which shall result in changing the control of Consultant. Control means fifty percent (50%) or more of the voting power or twenty-five percent (25%) or more of the assets of the corporation, partnership or joint-venture.

16. SUBCONTRACTING

The subcontractors authorized by City, if any, to perform Work on this Project are identified in Exhibit A and the Letter Proposal. Consultant shall be fully responsible to City for all acts and omissions of any subcontractor. Nothing in this Agreement shall create any contractual relationship between City and any subcontractor nor shall it create any obligation on the part of City to pay or to see to the payment of any monies due to any such subcontractor other than as otherwise required by law. City is an intended beneficiary of any Work performed by the subcontractor for purposes of establishing a duty of care between the subcontractor and City. Except as specifically authorized herein, the Services to be provided under this Agreement shall not be otherwise assigned, transferred, contracted or subcontracted out without the prior written approval of City.

17. OWNERSHIP OF DOCUMENTS

17.1 Each and every report, draft, map, record, plan, document and other writing produced, including but not limited to, websites, blogs, social media accounts and applications (hereinafter "Documents"), prepared or caused to be prepared by Consultant, its officers, employees, agents and subcontractors, in the course of implementing this Agreement, shall become the exclusive property of City, and City shall have the sole right to use such materials in its discretion without further compensation to Consultant or any other party. Additionally, all material posted in cyberspace by Consultant, its officers, employees, agents and subcontractors, in the course of implementing this Agreement, shall become the exclusive property of City, and City shall have the sole right to use such materials in its discretion without further compensation to Consultant or any other party. Consultant shall, at Consultant's expense, provide such Documents, including all logins and password information to City upon prior written request.

17.2 Documents, including drawings and specifications, prepared by Consultant pursuant to this Agreement are not intended or represented to be suitable for reuse by City or others on any other project. Any use of completed Documents for other projects and any use of incomplete Documents without specific written authorization from Consultant will be at City's sole risk and without liability to Consultant. Further, any and all liability arising out of changes made to Consultant's deliverables under this Agreement by City or persons other than Consultant is waived against Consultant, and City assumes

full responsibility for such changes unless City has given Consultant prior notice and has received from Consultant written consent for such changes.

17.3 All written documents shall be transmitted to City in formats compatible with Microsoft Office and/or viewable with Adobe Acrobat.

18. CONFIDENTIALITY

All Documents, including drafts, preliminary drawings or plans, notes and communications that result from the Services in this Agreement, shall be kept confidential unless City expressly authorizes in writing the release of information.

19. INTELLECTUAL PROPERTY INDEMNITY

Consultant shall defend and indemnify City, its agents, officers, representatives and employees against any and all liability, including costs, for infringement or alleged infringement of any United States' letters patent, trademark, or copyright, including costs, contained in Consultant's Documents provided under this Agreement.

20. RECORDS

Consultant shall keep records and invoices in connection with the Services to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any Services, expenditures and disbursements charged to City, for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of City to examine, audit and make transcripts or copies of such records and invoices during regular business hours. Consultant shall allow inspection of all Work, data, Documents, proceedings and activities related to the Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

21. WITHHOLDINGS

City may withhold payment to Consultant of any disputed sums until satisfaction of the dispute with respect to such payment. Such withholding shall not be deemed to constitute a failure to pay according to the terms of this Agreement. Consultant shall not discontinue Work as a result of such withholding. Consultant shall have an immediate right to appeal to the City Manager or designee with respect to such disputed sums. Consultant shall be entitled to receive interest on any withheld sums at the rate of return that City earned on its investments during the time period, from the date of withholding of any amounts found to have been improperly withheld.

22. ERRORS AND OMISSIONS

In the event of errors or omissions that are due to the negligence or professional inexperience of Consultant which result in expense to City greater than what would have

resulted if there were not errors or omissions in the Work accomplished by Consultant, the additional design, construction and/or restoration expense shall be borne by Consultant. Nothing in this Section is intended to limit City's rights under the law or any other sections of this Agreement.

23. CITY'S RIGHT TO EMPLOY OTHER CONSULTANTS

City reserves the right to employ other Consultants in connection with the Project.

24. CONFLICTS OF INTEREST

24.1 Consultant or its employees may be subject to the provisions of the California Political Reform Act of 1974 (the "Act") and/or Government Code §§ 1090 et seq., which (1) require such persons to disclose any financial interest that may foreseeably be materially affected by the Work performed under this Agreement, and (2) prohibit such persons from making, or participating in making, decisions that will foreseeably financially affect such interest.

24.2 If subject to the Act and/or Government Code §§ 1090 et seq., Consultant shall conform to all requirements therein. Failure to do so constitutes a material breach and is grounds for immediate termination of this Agreement by City. Consultant shall indemnify and hold harmless City for any and all claims for damages resulting from Consultant's violation of this Section.

25. NOTICES

25.1 All notices, demands, requests or approvals, including any change in mailing address, to be given under the terms of this Agreement shall be given in writing, and conclusively shall be deemed served when delivered personally, or on the third business day after the deposit thereof in the United States mail, postage prepaid, first-class mail, addressed as hereinafter provided.

25.2 All notices, demands, requests or approvals from Consultant to City shall be addressed to City at:

Attn: Director of Public Works
Public Works Department
City of Newport Beach
100 Civic Center Drive
Newport Beach, CA 92660

25.3 All notices, demands, requests or approvals from City to Consultant shall be addressed to Consultant at:

Attn: Legal Department
DUDEK
605 3rd Street
Encinitas, CA 92024

26. CLAIMS

Unless a shorter time is specified elsewhere in this Agreement, before making its final request for payment under this Agreement, Consultant shall submit to City, in writing, all claims for compensation under or arising out of this Agreement. Consultant's acceptance of the final payment shall constitute a waiver of all claims for compensation under or arising out of this Agreement except those previously made in writing and identified by Consultant in writing as unsettled at the time of its final request for payment. Consultant and City expressly agree that in addition to any claims filing requirements set forth in the Agreement, Consultant shall be required to file any claim Consultant may have against City in strict conformance with the Government Claims Act (Government Code sections 900 *et seq.)*.

27. TERMINATION

27.1 In the event that either party fails or refuses to perform any of the provisions of this Agreement at the time and in the manner required, that party shall be deemed in default in the performance of this Agreement. If such default is not cured within a period of two (2) calendar days, or if more than two (2) calendar days are reasonably required to cure the default and the defaulting party fails to give adequate assurance of due performance within two (2) calendar days after receipt of written notice of default, specifying the nature of such default and the steps necessary to cure such default, and thereafter diligently take steps to cure the default, the non-defaulting party may terminate the Agreement forthwith by giving to the defaulting party written notice thereof.

27.2 Notwithstanding the above provisions, City shall have the right, at its sole and absolute discretion and without cause, of terminating this Agreement at any time by giving no less than seven (7) calendar days' prior written notice to Consultant. In the event of termination under this Section, City shall pay Consultant for Services satisfactorily performed and costs incurred up to the effective date of termination for which Consultant has not been previously paid. On the effective date of termination, Consultant shall deliver to City all reports, Documents and other information developed or accumulated in the performance of this Agreement, whether in draft or final form.

28. PREVAILING WAGES

28.1 If any of the Work contemplated under the Agreement is considered a "public work", pursuant to the applicable provisions of the Labor Code of the State of California, including but not limited to Section 1720 et seq., not less than the general prevailing rate of per diem wages including legal holidays and overtime Work for each craft or type of workman shall be paid to all workmen employed on such. In accordance with the California Labor Code (Sections 1770 et seq.), the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages in the locality in which the Work is to be performed for each craft, classification, or type of workman or mechanic needed to execute the Agreement. A copy of said determination is available by calling the prevailing wage hotline number (415) 703-4774, and requesting one from the Department of Industrial Relations. The Consultant is required to obtain the wage

determinations from the Department of Industrial Relations and post at the job site the prevailing rate or per diem wages. It shall be the obligation of the Consultant or any subcontractor under him/her to comply with all State of California labor laws, rules and regulations and the parties agree that the City shall not be liable for any violation thereof.

28.2 In such event, unless otherwise exempt by law, Consultant warrants that no contractor or subcontractor was listed on the bid proposal for the Services that it is not currently registered and qualified to perform public work. Consultant further warrants that it is currently registered and qualified to perform "public work" pursuant to California Labor Code section 1725.5 or any successor statute thereto and that no contractor or subcontractor will engage in the performance of the Services unless currently registered and qualified to perform public work. Unless otherwise exempt by law, Consultant warrants that no contractor or subcontractor was listed on the bid proposal for the Services that it is not currently registered and qualified to perform public work. Consultant further warrants that it is currently registered and qualified to perform "public work" pursuant to California Labor Code section 1725.5 or any successor statute thereto and that no contractor or subcontractor will engage in the performance of the Services unless currently registered and qualified to perform public work.

29. STANDARD PROVISIONS

29.1 Recitals. City and Consultant acknowledge that the above Recitals are true and correct and are hereby incorporated by reference into this Agreement.

29.2 Compliance with all Laws. Consultant shall, at its own cost and expense, comply with all statutes, ordinances, regulations and requirements of all governmental entities, including federal, state, county or municipal, whether now in force or hereinafter enacted. In addition, all Work prepared by Consultant shall conform to applicable City, county, state and federal laws, rules, regulations and permit requirements and be subject to approval of the Project Administrator and City.

29.3 Waiver. A waiver by either party of any breach, of any term, covenant or condition contained herein shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition contained herein, whether of the same or a different character.

29.4 Integrated Contract. This Agreement represents the full and complete understanding of every kind or nature whatsoever between the parties hereto, and all preliminary negotiations and agreements of whatsoever kind or nature are merged herein. No verbal agreement or implied covenant shall be held to vary the provisions herein.

29.5 Conflicts or Inconsistencies. In the event there are any conflicts or inconsistencies between this Agreement and the Scope of Services or any other attachments attached hereto, the terms of this Agreement shall govern.

29.6 Interpretation. The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or

against either party by reason of the authorship of the Agreement or any other rule of construction which might otherwise apply.

29.7 Amendments. This Agreement may be modified or amended only by a written document executed by both Consultant and City and approved as to form by the City Attorney.

29.8 Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.

29.9 Controlling Law and Venue. The laws of the State of California shall govern this Agreement and all matters relating to it and any action brought relating to this Agreement shall be adjudicated in a court of competent jurisdiction in the County of Orange, State of California.

29.10 Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment because race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, sexual orientation, age or any other impermissible basis under law.

29.11 No Attorneys' Fees. In the event of any dispute or legal action arising under this Agreement, the prevailing party shall not be entitled to attorneys' fees.

29.12 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original and all of which together shall constitute one (1) and the same instrument.

[SIGNATURES ON NEXT PAGE]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the dates written below.

APPROVED AS TO FORM:
CITY ATTORNEY'S OFFICE
Date: 3/20/25

By: _____
Aaron C. Harp
City Attorney

3.20.25 AH

ATTEST:
Date: _____

By: _____
Leilani I. Brown
City Clerk

CITY OF NEWPORT BEACH,
a California municipal corporation
Date: _____

By: _____
Joe Stapleton
Mayor

CONSULTANT: DUDEK, a California corporation
Date: _____

By: _____
Joseph Monaco
Chief Executive Officer

Date: _____

By: _____
Danielle M. Voss
Assistant Secretary

[END OF SIGNATURES]

Attachments: Exhibit A – Scope of Services
Exhibit B – Schedule of Billing Rates
Exhibit C – Insurance Requirements

EXHIBIT A
SCOPE OF SERVICES

Exhibit A
SCOPE OF SERVICES

Overview of Services Requested:

The following is a list of the services requested as part of this Agreement for on-call marine / coastal engineering services. Consultant will be responsible for deploying and storing any vessels or equipment related to services.

ON-CALL MARINE / COASTAL ENGINEERING SERVICES

On-Call Professional Marine / Coastal Engineering Services may be provided on an as-needed basis. The services requested include, but are not limited to, the following:

1. Assist in the design and permitting of docks, piers, floats, wharfs, gangways for public facilities, with attention to Americans with Disabilities Act (ADA) and other regulatory requirements.

2. Assist in the design and permitting of dredging projects within docks, marinas, small confined channels or larger main channels, using either the City's RGP-54 dredging permit or the traditional Individual Permit process (California Coastal Commission, Corps of Engineers, Water Board).

3. Collect sediment samples and generate grain size analysis reports.

4. Assist in the detailed management of the City's existing, five-year Regional General Permit (RGP-54) as well as negotiating any intermediate improvements to the program, as needed.

5. Provide various bathymetry surveys within docks, marinas, small confined channels or larger main channels.

6. Prepare dredged material Sampling and Analysis Plans (SAPs) and Sampling and Analysis Reports (SAR) in support of permitting activities with regulatory agencies including the Dredged Material Management Team (DMMT) and individual regulatory and resources agencies, as needed.

SCOPE OF SERVICES

7. Conduct field collection of marine sediments and marine test organisms as required for chemical and biological testing during a typical permitting project (usually dredging).

8. Conduct chemical, biological and toxicity testing/analyses of bulk sediments and marine test organisms to support chemical and biological testing during a typical permitting project (usually dredging).

9. Conduct Caulerpa and eelgrass surveys, or assist in managing these studies, including the harbor-wide biennial eelgrass survey as part of the "Eelgrass Protection and Mitigation Plan for Shallow Waters in Lower Newport Bay: An Ecosystem Based Management Approach."

10. Assist in the design and permitting of bulkheads and their structural components for public facilities or property owned by the City.

11. Project management with various harbor related tasks to assist the Public Works Department. Projects may include dock/bulkhead construction projects, permitting programs, organizing public outreach campaigns, or other projects as assigned by Public Works.

12. Depending upon the characteristics of a project and its potential for significant environmental effects, a CEQA review may be needed. For the scope of this proposal, the consultant may need to prepare an Initial Study.

13. Further CEQA analysis (negative declaration, mitigated negative declaration or an environmental impact report) will likely, but not necessarily always, be pursued through a separate, project-specific Request for Proposal. Please briefly list your experience and qualifications in the event these services, or a version thereof, are needed.

14. Preparation of record drawings.

15. Present projects, findings, information etc. at various public meetings including the City Council, Harbor Commission, various ad hoc committee meetings and other outreach events as required.

16. Other marine, coastal and/or harbor related engineering and professional services as needed.

TECHNICAL PROPOSAL

PROFESSIONAL CONSULTING SERVICES FOR ON-CALL MARINE/COASTAL ENGINEERING SERVICES

CITY OF NEWPORT BEACH
MARCH 4, 2025

27271 Las Ramblas, Suite 340 / Mission Viejo, CA 92691 / 949.450.2525

DUDEK

Cover Letter

March 4, 2025

Chris Miller
Public Works Manager
City of Newport Beach
City Hall, Second Floor, Bay D
100 Civic Center Drive
Newport Beach, California 92660

Subject: **Proposal for Professional Consulting Services for On-Call Marine/Coastal Engineering Services (Request for Proposal NO. 25-40)**

Dear Chris Miller:

The Dudek team understands that the City of Newport Beach (City) requires experienced consultants to provide professional services for marine/coastal engineering and other related specializations. Our proven track record of completing all types of waterfront projects demonstrates that we have the experience, local knowledge, and technical expertise necessary to complete any project the City envisions. We offer a deep bench of staff with engineering, permitting, environmental, and other technical capabilities as well as a reputation for applying a holistic, inclusive, and resilient approach. As local residents who enjoy Newport Beach's waterfront areas, we have a vested interest in the City's success in this field. Our team consists of Dudek as the prime consultant with two subconsultants: GeoEngineers for geotechnical enginering, and Reid Middleton for waterfront structural engineering. Together, the Dudek team provides the City with several distinct advantages:

DUDEK AT A GLANCE

- *Multidisciplinary environmental and engineering services*
- *Founded in 1980; 45 years in business*
- *20 offices*
- *900+ employees*
- *100% employee-owned*
- *Top 108 U.S. Environmental Firm (Engineering News-Record, 2023)*
- *Top 54 California Design Firm (Engineering News-Record, 2023)*

Extensive Technical Marine/Coastal Engineering Expertise. Our team offers comprehensive technical marine and coastal engineering expertise honed through years of experience on diverse and challenging projects. We have a complete technical understanding of coastal processes, including fluid mechanics, wave action, and sea level rise, and utilize state-of-the-art modeling and analysis tools to develop robust and sustainable solutions. Our engineering team includes dozens of coastal, structural, and geotechnical engineers with design experience on piers, docks, and other waterfront structures, and we have been entrusted by major clients, such as the U.S. Navy. Key staff provide both project experience directly with the City of Newport Beach and new perspectives compared to the marine engineering firms the City has recently been working with. In addition to engineering, our team's capabilities encompass the full range of services required to fulfill the Scope of Work, from public outreach to marine biological sciences. Our team structure will be engineer-led by Dudek with scientists, permitters, and planners in-house, which will result in more rapid and efficient project completion.

Local Multidisciplinary Team with Proven History in Newport Beach. Dudek as a firm has supported the City on a variety of complex engineering and environmental projects for the past 23 years. Our work with the City spans over 35 distinct contracts, including coastal consulting services. Recent projects include the Bay Crossing Water Transmission Mains and Big Canyon Habitat Restoration Project. We also maintain a longstanding, active on-call contract with the County of Orange, specializing in regulatory permitting and restoration services. Under this agreement, we have successfully delivered comprehensive solutions for over 60 projects and continue supporting the county with ongoing expertise and project execution. Our unique experience working as the current General Plan Update consultant, for example, gives Dudek unmatched insight into the City's broader planning philosophies and guidelines. Dudek's local office is in Mission Viejo, and our staff who live within, or in the direct vicinity of, Newport Beach have the flexibility to work remotely. This contract would be managed by Patrick Miskel, PE, who lived in Newport Beach for 8 years and actively spends much of his free time there as a volleyball player and runner.

Efficient Project Delivery and a Team Ready to Hit the Ground Running. Dudek prides itself on being a fast-paced, technology-driven company. Our approach to efficient project delivery centers on proactive planning, streamlined communication, and requiring all staff to be up to speed on the latest technologies and systems. Having the engineers, surveyors, and permitters in the same room and technologically integrated greatly improves productivity. Dudek, GeoEngineers, and Reid Middleton are actively working together on other waterfront projects, including the Carlsbad ADA Beach Access Ramps project, which means our team has an established relationship and is already connected with direct lines of communication. In total, our team's firms combine with over 1,200 staff ready to be quickly mobilized on projects of any size.

We are excited by the opportunity to work with the City of Newport Beach on their important coastal projects. A safe, accessible, and modern waterfront will provide residents and visitors with a space that can be enjoyed by all, underscoring the City's commitment to fostering an accessible and welcoming environment. Understanding that Newport Beach's shoreline includes protected native species and some of the country's most valuable property, our team would hold ourselves to the highest standard in completing your projects. Should you have any questions, or require additional information, please do not hesitate to call or email me at 949.738.5905 or pmiskel@dudek.com.

Joseph Monaco
President/CEO

Patrick Miskel
Project Manager

Joseph Monaco is authorized to sign on behalf of Dudek.

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1. Introduction and Scope of Work Understanding

Newport Beach

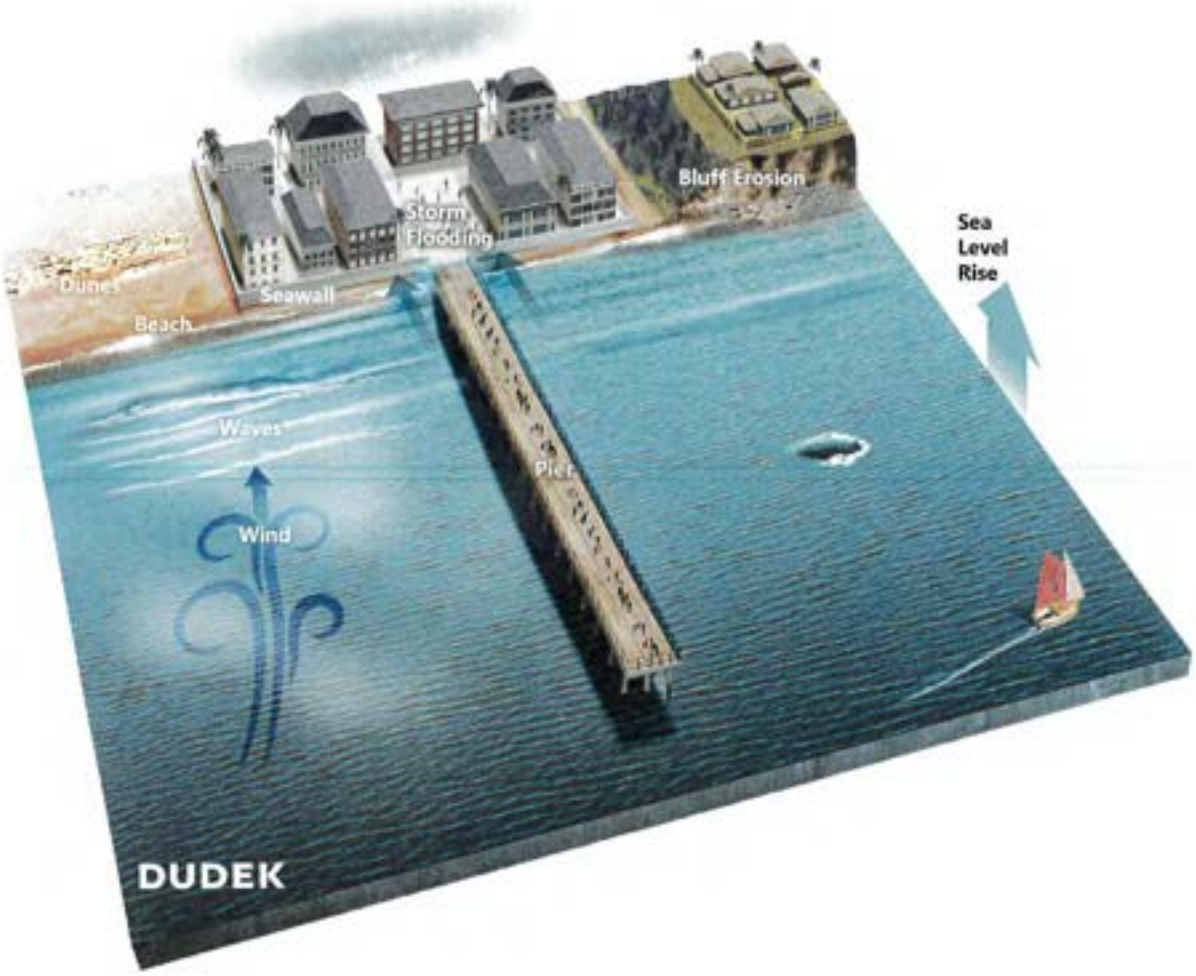
CITY WATERFRONT HISTORY

Throughout human history, vibrant urban waterfronts have functioned at the center point of societal commerce, recreation, and culture. Newport Beach's modern waterfront history began in 1870 when a sternwheeler from San Diego named "The Vaquero" first entered Newport's coastal lagoon to exchange lumber for local commodities. For the remainder of the 1800s, the waterfront was industrialized with a wharf supporting trains and cargo ships. In 1899, the federal government funded the expansion of San Pedro's waterfront with what is now the Port of Los Angeles, obviating the need for industrial port activities in Newport Beach. Then in 1905, the Pacific Electric Railroad connected the City of Los Angeles to Newport Beach with its iconic "Red Cars," paving the way for Newport Beach's future growth as a highly desirable hub for tourism and recreation. Today, Newport Beach is home to over 80,000 residents who welcome 7 million visitors annually to its beaches and retail centers, and Newport Harbor is one of the largest harbors on the U.S. West Coast accommodating approximately 10,000 boats and supports sailing, fishing, rowing, paddleboarding, and more.

City of Newport Beach in 1947.
Source: *Irvine Company*

NEED FOR MARINE/COASTAL ENGINEERING SUPPORT

The City of Newport Beach depends on marine/coastal engineering support to maintain its waterfront environmental and structural systems, and to improve coastal sites by applying the latest industry methods in technology and nature-based solutions. Those of us who have lived and worked in marine environments know how rapidly beach topography can be shifted by periodic big waves, and marine structures can degrade due to salt water and the constant forces induced by the motion of water. If waterfront infrastructure is not properly maintained by the end of its design life, then it can become hazardous to the public and harmful to the surrounding coastal environment. The most recent instance was on July 4, 2020 when high tides and large waves combined to cause severe flooding in Newport Beach's Balboa Peninsula neighborhood.



City-wide Coastal Engineering Features

The land surrounding Newport Harbor in its natural state was poorly suited for development due to the shifting sandbars, shallow mudflats, big storm waves, and strong tidal flows. In 1909, Newport Beach's shoreline was stabilized with its first wooden bulkhead segment, and since then the shoreline within Newport Harbor has been nearly fully stabilized with bulkheads that form the perimeter of the harbor and its various islands. Newport Beach's sandy beaches are maintained through a combination of engineered groin and jetty structures, as well as an ongoing sediment management program consisting of beach nourishment and berm development. All of these systems require planning, engineering, and permitting, and could benefit from modernization and the input of multiple professional perspectives.

In additional to the human development, Newport Beach supports native plant and animal species such as eelgrass within the harbor and Marbled Godwits along the beach. Despite the extensive urban development, the City's limits include a wealth of natural resources including the Crystal Cove tide pools and Back Bay wetlands and bluffs.

The Dudek Team

Dudek is a Southern California-based engineering and environmental consulting firm with nationwide offices and over 900 multidisciplinary engineers, planners, scientists, contractors, and support staff. We assist private and public clients on various projects that improve and evolve our communities, infrastructure, and natural environment. For 45 years, Dudek has successfully completed various coastal projects with engineering elements.

As the prime consultant, Dudek will provide overall management and City coordination. **Patrick Miskel, PE** is a senior coastal engineer with experience in Newport Beach and will lead the contract and all coordination as contract manager. As a local resident, Patrick has a deep, personal familiarity with all coastal areas of Newport Beach from years of trail runs along the Back Bay, family boat rides to enjoy the harbor Christmas lights, and other local involvement. Dudek's **Russ Bergholz, PE** will serve as principal in charge, bringing 30 years' engineering and project management experience on complex coastal projects, including recent projects in Newport Beach. The Dudek team also comprises two subcontractors: **GeoEngineers** for geotechnical engineering and **Reid Middleton** for waterfront structural engineering. Combined, our engineering team's depth and experience specifically on marine projects will allow us to fulfill project needs of any size.

CAPABILITY TO FULFILL SCOPE OF WORK

The Dudek Team's strength is our synergy. For successful project completion, the broad scope of work requires a large, diverse group of professionals optimally synchronized toward the same project goals. The Dudek Team is distinctly qualified to provide the City with the comprehensive experience, efficiency, and capacity to meet the Scope of Work's challenges. We offer the efficiency of a medium-sized firm with a depth of in-house coastal specialists ranging from bathymetric surveyors to former California Coastal Commission (CCC) permitting staff. Our staff in all categories are industry leaders, extending to our graphic design staff who generate visualizations for the National Aeronautics and Space Administration (NASA).

We are proud of our record of successful project completion in Newport Beach and our ongoing relationships with City staff. As a result of our local experience, Dudek is familiar and comfortable with the City processes and procedures for submittals, status reviews, invoicing, and project close-out. Our team has a working knowledge of the City's relevant coastal policy documents, including the 2022 Waterfront Project Guidelines and Standards Harbor Design Criteria, 2021 Design Criteria and Standard Drawings for Public Works Construction, and 2019 Sea Level Rise Vulnerability Assessment. The existing relationship between the Dudek team's three firms is established and very close and will allow us to hit the ground running. This exact teaming structure is working together on the ADA Beach Access Ramps project in Carlsbad which includes developing two new American with Disabilities Act (ADA)-accessible beach access ramps from the top of the coastal bluff to the beach level and includes coastal, structural, and geotechnical engineering, permitting, public outreach, and other relevant services.

Project Team Organizational Structure

Figure 1 below illustrates the Dudek team's organizational structure, with resumes provided in **Appendix A**. Only qualification category leads are shown; Dudek has many more specialists in our talent pool who will be involved in various tasks, as required.

ORGANIZATIONAL CHART

Figure 1. Organizational Chart

[1] *Reid Middleton*
[2] *GeoTechnical Engineering*

2. Qualifications and Firm Experience

Qualifications

Below are the primary service categories required to complete the tasks listed in the Scope of Work. Each service category below includes a summary of the Dudek team's capabilities, and a reference to which Scope of Work task each service category relates to. The Dudek team has the full professional capabilities to meet all tasks within the Scope of Work. Although, if additional specialized services are required, such as for environmental economics, then our staff has connections with leading firms that could provide the needed additional support.

COASTAL ENGINEERING

Coastal engineering is a specialized civil/environmental engineering branch focusing on the dynamic physical processes that occur in coastal waters and along the water-land interface. Effective coastal engineering depends upon a fundamental understanding of water-wave mechanics, fluid dynamics, sediment transport, ocean chemistry, and more. Coastal engineering expertise is required to design shorelines and coastal structures that can withstand the unique and complex forces encountered in coastal settings. Coastal engineering expertise ranges in breadth from global-scale oceanography to site-specific tidal exchange characteristics in coastal rivers. Each coastal project site is unique with design parameters that often interact and amplify in complex ways, especially with sea level rise factored in. Therefore, a combination of local knowledge and technical proficiency is valuable for properly assessing the forces in play at coastal sites.

COASTAL ENGINEERING

- *Fluid dynamics*
- *Water wave mechanics*
- *Current and wave forces*
- *Vessel wake analysis*
- *Beach nourishment*
- *Sea level rise*
- *King tides*

Coastal engineering plays a key role on projects in Newport Beach, considering the City's boundary includes many miles of sandy beaches, harbor bulkhead development, Back Bay bluffs and wetlands, and various other shoreline types. Newport Beach is exposed to a range of coastal hazards, including erosion and sea level rise, which add to the frequent routine maintenance required for saltwater-interfacing structures. Examples of coastal engineering project types in Newport Beach include design of dock piles, bulkheads, and revetments structures, calculating wave heights for beach runup, statistical analyses of projected water levels, buoyancy analyses, and more. Our coastal engineering staff calculate engineering design parameters for construction, conduct coastal science for wave transmission, sea level rise, and other types of analyses, and assess site feasibility and adaptation alternatives for planning initiatives.

Beyond the typical engineering tools, our staff are at the forefront of the industry, coordinating with top coastal engineering research institutions and utilizing the latest industry technologies. For example, our staff is leveraging artificial intelligence (AI) applications to develop Python statistical analysis code for more accurately estimating localized future king tides and wave conditions.

Photo taken in Newport Beach by Patrick Miskel, PE on December 18, 2023.

Relevant Scope of Work Tasks:

- 1. Assist in the design and permitting of docks, piers, floats, wharfs, and gangways for public facilities, with attention devoted to the ADA and other regulatory requirements.
- 2. Assist in the design and permitting of dredging projects within docks, marinas, small confined channels or larger main channels, using either the City's RGP-54 dredging permit or the traditional Individual Permit process (CCC, U.S. Army Corps of Engineers [USACE], Water Board).
- 10. Assist in the design and permitting of bulkheads and their structural components for public facilities or property owned by the City.
- 11. Project management with various harbor related tasks to assist the Public Works Department. Projects may include dock/bulkhead construction projects, permitting programs, organizing public outreach campaigns, or other projects as assigned by Public Works.
- 15. Present projects, findings, information, etc., at various public meetings, including the City Council, Harbor Commission, various ad hoc committee meetings, and other outreach events as required.

WATERFRONT STRUCTURAL ENGINEERING

Waterfront structural engineering encompasses the specialized analysis and design of structures in marine environments, including piers, wharfs, seawalls, and other coastal infrastructure. This discipline requires a deep understanding of the complex interactions between water, soil, and structural elements, as well as the ability to mitigate the impacts of waves, tides, and other coastal forces. In the context of a coastal on-call contract, waterfront structural engineering expertise is essential for providing solutions to a wide range of infrastructure challenges, from emergency repairs to long-term maintenance and rehabilitation.

WATERFRONT STRUCTURAL ENGINEERING

- *Sheet pile structural analysis*
- *Mooring studies*
- *Pier framing calculations*
- *Dock system design*
- *Constructability review*
- *Innovative floating structures*

Waterfront Structural Engineering services will primarily be provided by subconsultant Reid Middleton. Reid Middleton Inc. has 30 waterfront and structural engineers and designers who are experienced in the planning and design of various types of waterfront facilities. Over the past five decades, Reid Middleton has managed waterfront, coastal, and upland projects for prominent public, commercial, and private owners who were seeking high-quality, innovative solutions, and decisive

project management. Reid Middleton has completed 68 projects relating to waterfront structures in the last 25 years, including the design and repair of more than 60,000 square feet of fixed piers and dock structures, and over 10,000 linear feet of bulkheads along the Western Coast of the United States. Waterfront project experience includes the Port Angeles City Pier, Monterey Bay Aquarium Research Institute Dock Upgrade, and Port of Everett Segment C Bulkhead and I Dock Replacement. Reid Middleton also specializes in the engineering design of public access piers, docks serving tall ship moorage, and facilities servicing small recreational vessel day use and guest moorage.

Typical Seawall Hazards and Deterioration

Relevant Scope of Work Tasks:

- 1. Assist in the design and permitting of docks, piers, floats, wharfs, gangways for public facilities, with attention devoted to the ADA and other regulatory requirements.
- 10. Assist in the design and permitting of bulkheads and their structural components for public facilities or property owned by the City.

GEOTECHNICAL ENGINEERING

Geotechnical engineering focuses on the behavior of earth materials, such as soil and rock, and their interactions with engineered structures and natural sediment systems. In the context of a coastal engineering on-call contract, geotechnical engineering expertise is crucial for addressing geological hazards such as soil slope stability and erosion. Additionally, our team can provide site characterization, stability

analyses, seismic hazard assessments, and foundation design recommendations for coastal infrastructure projects ensuring that they are safe, durable, and resilient.

Geotechnical Engineering services will be provided by subconsultant GeoEngineers. GeoEngineers brings geotechnical engineering capabilities perfectly suited to assist in the design and permitting of waterfront and maritime structures such as docks, piers, floats, wharfs, and gangways. Understanding the intricacies of local geologic conditions and the specific regulatory environment, GeoEngineers tailors solutions to address each project with precision and adherence to all necessary guidelines, ensuring all designs meet the highest standards of safety.

GeoEngineers is proficient in the geotechnical design and permitting of waterfront earth retention structures, such as bulkheads, and their structural components. They additionally have extensive knowledge in earthwork design of foundation systems, particularly in both onshore and offshore pile installation. GeoEngineers also provides design services for temporary shoring, dewatering, and support trestles. While this service is typically not used by municipalities, our extensive experience working with contractors on these challenging projects provides a unique and valuable perspective when performing constructability reviews and value engineering studies for owners.

Relevant Scope of Work Tasks:

- 1. Assist in the design and permitting of docks, piers, floats, wharfs, gangways for public facilities, with attention to the ADA and other regulatory requirements.
- 2. Assist in the design and permitting of dredging projects within docks, marinas, small confined channels, or larger main channels, using either the City's RGP-54 dredging permit or the traditional Individual Permit process (CCC, USACE, Water Board).
- 10. Assist in the design and permitting of bulkheads and their structural components for public facilities or property owned by the City.
- 16. Other marine, coastal, and/or harbor-related engineering and professional services as needed.

STORMWATER ENGINEERING

Stormwater engineering plays a critical role in coastal waterfront projects by focusing on the management and mitigation of stormwater runoff to prevent flooding, erosion, and pollution. This specialized field combines hydrology, hydraulics, and environmental science to design and implement effective stormwater systems. By incorporating stormwater engineering principles, project developers can minimize the risk of storm-related damage and create resilient, sustainable coastal communities.

Dudek's stormwater engineers and hydrologists provide services for flood control infrastructure planning and design, natural drainage feature creation, watershed management, and water quality permit compliance. We plan and design stormwater systems that optimize valuable surface water assets while reducing risks to infrastructure and property. Our coastal project experience specifically includes urban surface water and stormwater infrastructure, as well as natural watershed systems. Our diverse experts includes the use of cutting-edge numerical modeling technology for hydrology and hydraulics analyses, source and conveyance assessment and control, and low-impact development techniques such as waterfront biofiltration and bioretention systems.

Relevant Scope of Work Tasks:

- 16. Other marine, coastal, and/or harbor-related engineering and professional services as needed.

COASTAL PLANNING

With over 30 miles of bay and ocean waterfront stretching from the northern border at the Santa Ana River mouth to Crystal Cove State Park in the south, Newport Beach's coastal zone is incredibly rich in coastal resources such as beaches, bluffs, wetlands, and riparian areas. These areas can be enjoyed from trails, parks, waterfront shops, and visitor accommodations. Coastal planning provides a framework for preserving and enhancing environmental, societal, and economic benefits for both residents and visitors.

The Newport Beach General Plan is a roadmap that guides land use decisions, shapes the community's physical form, and reflects the community's values. The Beaches, Bays, and Harbors Element establishes policies, strategies, and actions to manage water-dependent commercial and recreational activities, which establishes the foundation for future activities that may be conducted in and around the City. In addition to the General Plan, the City's certified Local Coastal Program (LCP) enables implementation of the California Coastal Act (CCA) in a way that is tailored to the local context. The City has the authority to issue coastal development permits (CDPs) for projects within its jurisdiction that are consistent with relevant LCP land use designations, development standards, and resource protection policies. In this way, the General Plan and LCP are critical tools to retain the marine and coastal character and quality of life in the City because permitted projects must conform to the policies therein.

Dudek San Diego Shoreline Atlas Project Planning

For more than 15 years, Dudek's specialized coastal planning practice has analyzed coastal hazards and prepared permit, planning, and guidance documents to build resilience along the California shoreline. Our team includes former staff from agencies such as USACE and CCC, and therefore brings unmatched institutional knowledge which helps us to anticipate issues and facilitate dialogue to successfully resolve them. We apply our expertise to compile and interpret disparate datasets to understand shoreline processes, frame restoration, and adaptation goals, and develop nature-based solutions. Creative problem-solving is necessary to develop coastal adaptation pathways with corresponding trigger points ("what to do and when") and demonstrate how alternatives such as ecological armoring, native oyster and eelgrass restoration, living seawalls, and beach nourishment can be phased to allow for flexibility and adaptive

management with changing conditions. Our coastal planners are experts in developing nature-based solutions and managing plan updates for sea level rise, both of which receive priority grant funding.

Relevant Scope of Work Tasks:

- 16. Other marine, coastal, and/or harbor-related engineering and professional services as needed.

COASTAL PERMITTING

For over 20 years, Dudek's specialized coastal permitting practice has led clients through California Coastal Commission (CCC) planning and permitting processes to achieve their project goals. We have successfully prepared and processed hundreds of coastal development permits (CDPs), appeals, and Local Coastal Program (LCP) projects for both public- and private-sector applicants throughout the state. As former CCC staff, we bring our deep knowledge of California coastal laws, regulations, procedures, and policy interpretation to every project. This unparalleled coastal permitting and planning experience, as well as established relationships with CCC staff, is what separates us from other firms in the field, and will result in a successful strategy of communication and collaboration between CCC and City staff. Policy disputes can arise between CCC staff and applicants, particularly local governments, and Dudek has excelled at navigated such obstacles by reaching compromises that achieve local objectives while honoring CCC authority.

Dudek's coastal permitting experience spans coastal hazards and sea level rise, public access and recreation, wetlands and environmentally sensitive habitat areas, coastal-dependent development, and visual quality. As full-time coastal permitters, we actively monitor changes in CCC's evolving regional and statewide coastal policy interpretation/implementation practices to provide the most current recommendations and guidance to our clients. Dudek will keep the City informed of matters that could affect CDPs, LCP Amendments (LCPAs), and all other matters related to the City's coastal permitting needs. Our coastal permitting staff have a proven tracked record within Newport Beach of finding permitting solutions to complex marine projects.

Relevant Scope of Work Tasks:

- 16. Other marine, coastal and/or harbor-related engineering and professional services as needed.

ENVIRONMENTAL/BIOLOGICAL SCIENCE

Dudek understands that the Scope of Work encompasses Caulerpa and eelgrass surveys, sediment sampling, or assisting in managing such studies for the City. We have a keen understanding of the City's terrestrial and aquatic species, and we understand critical implications of listed/special-status biological and jurisdictional resources. Our strong relationships with wildlife and regulatory agencies are instrumental to our team's success. Key team members are certified for Caulerpa and eelgrass surveys and have extensive experience performing these surveys. Dudek's Marine Services team provides specialist marine consultancy and survey services based on current science and technology to enable the sustainable management of the marine environment. We facilitate on-the-ground solutions for ecosystem restoration, natural resources management, mitigation strategies, monitoring programs and coastal development within marine and coastal areas to satisfy client needs. Our Marine Services team has a diverse background and extensive experience in marine, estuarine, and coastal environments. We provide a wide range of marine environmental services, from survey design and implementation to data analysis and final reporting, to help clients with projects that improve California communities, infrastructure, and the natural environment. The

Marine Services Team includes PADI-certified Instructors and Dive Masters, NAUI Scientific Divers, National Oceanic and Atmospheric Administration (NOAA) Fisheries, and California Department of Fish and Wildlife (CDFW)-certified Caulerpa surveyors, NOAA-Certified Protected Species Observers, as well as full-time planning, permitting, and design staff. Our in-house scuba dive program is fully outfitted for a variety of marine surveys and includes two research vessels for marine work.

Dudek's Marine Biologists provide multidisciplinary environmental solutions based on current science and technology to enable the sustainable management of the marine environment. We facilitate on-the-ground solutions for ecosystem restoration, natural resources management, mitigation strategies, monitoring programs, and coastal development within marine, estuarine, and coastal areas in California, from the Bay Area to San Diego. Whether offshore or at the land-sea interface, our staff have the background in scientific design, marine impact assessment, regulatory requirements, monitoring, and mitigation to offer the City quality service and support from project conception to the final report.

Relevant Scope of Work Tasks:

- 3. Collect sediment samples and generate grain size analysis reports.
- 6. Prepare dredged material Sampling and Analysis Plans (SAPs) and Sampling and Analysis Reports (SARs) in support of permitting activities with regulatory agencies, including the Dredged Material Management Team (DMMT) and individual regulatory and resources agencies, as needed.
- 7. Conduct field collection of marine sediments and marine test organisms as required for chemical and biological testing during a typical permitting project (usually dredging).
- 8. Conduct chemical, biological, and toxicity testing/analyses of bulk sediments and marine test organisms to support chemical and biological testing during a typical permitting project (usually dredging).
- 9. Conduct Caulerpa and eelgrass surveys, or assist in managing these studies, including the harborwide biennial eelgrass survey as part of the "Eelgrass Protection and Mitigation Plan for Shallow Waters in Lower Newport Bay: An Ecosystem Based Management Approach."

Photo taken in Newport Beach by Patrick Miskel, PE, on September 25, 2023

ENVIRONMENTAL PERMITTING

Dudek understands that the Scope of Work will require permitting support according to Sections 404 and 401 of the federal Clean Water Act and Rivers and Harbors Act in addition to coastal resource permitting, and that many consulting firms have staff who obtain standard permits from these resource agencies. However, we feel the key to success in permitting is having solid relationships with resource agency staff and a thorough knowledge of the ever-changing regulations, which only come with time and experience. The Dudek regulatory team includes seasoned regulatory specialists, each with an average of more than 15 years' experience preparing and processing permits with USACE (404 and 10 Individual and Nationwide), CDFW (1601, 1602, 1603, and 2081), Regional Water Quality Control Board (RWQCB) (401, 402), CCC, and U.S. Fish and Wildlife Service (Section 7, 4[d], and 10a consultations). Dudek's environmental permitting team is greatly aided by the strategic leadership of our in-house Regulatory Specialist who is a former USACE

Regulatory Branch Chief. We have developed outstanding relationships with regional resource agency personnel and have cultivated a reputation for superior and comprehensive jurisdictional delineations, permit applications, mitigation plans, biological studies, and geographic information system (GIS) services. Our positive reputation and relationships will help to reduce any agency uncertainty concerning our technical studies and permit applications, resulting in a more expeditious permit process for the City. We see our role as one of support for the City through advocacy and skilled negotiations rooted in building coalition with the agencies and establishing a partnership with staff that invites participation, feedback, and engagement.

The cornerstone of Dudek's environmental permitting approach is early and frequent coordination and communication with the resource agencies to expedite processing timelines and reduce conflicts. We understand the City has an existing Regional General Permit (RGP) 54 to authorize a multitude of activities, including, but not limited to, small-scale maintenance dredging; discharge of dredged material at adjacent beach sites (for beach nourishment); and small projects with minimal or no temporary impacts to eelgrass projects; and adopting the Eelgrass Plan as a part of the RGP 54 program. However, this permit is due to expire on December 21, 2025. A critical first step in our relationship with the City will be to schedule a meeting with City staff to better understand the successes and pitfalls of this permit to see where the program could be refined and/or improved to maximize efficiencies moving forward. The USACE Los Angeles District is severely underfunded and debilitatingly understaffed, resulting in significant permitting delays on local projects. This source of delay can be minimized by reviewing current tools and available funding programs to ensure a dedicated team of USACE permitting staff is available and able to prioritize not only the renewal of RGP 54, but future permitting projects under this on-call contract. We will coordinate with the City to review upcoming permitting workload demands to determine if there's sufficient need and demand to have the City engage in a Water Resources Development Act of 2000 (WRDA) agreement between the City and USACE. Section 214 of the WRDA allows USACE to accept funds from non-federal public entities, natural gas companies, and/or public-utility companies to provide priority review of their permit applications. This funding would be established in a Memorandum of Agreement between the City and USACE, the intent of which would be to streamline and expedite USACE environmental review under Section 404 of the Federal Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899 for City-designated priority projects.

Relevant Scope of Work Tasks:

- 4. Assist in the detailed management of the City's existing, 5-year Regional General Permit (RGP-54), as well as negotiating any intermediate improvements to the program, as needed.

HABITAT/WETLAND RESTORATION

Dudek restoration ecologists and landscape architects have the experience to provide restoration for a diversity of Newport Beach's habitats and jurisdictional features required for project mitigation within federal and state jurisdiction, the coastal zone, and for federal and state-listed species. Due to the increasing complexity of mitigation requirements, Dudek takes a proactive approach in gaining regulatory approvals with early assessment, which can minimize project impacts and identify appropriate restoration opportunities within the project or at off-site locations.

Our restoration specialists have in-depth knowledge of the entire restoration process—from performing initial site and mitigation opportunity assessment, developing written mitigation plans, generating restoration construction documents, cost estimating and bidding assistance through the various phases of construction to project monitoring, completion, and closeout. We control costs and maintain construction schedules by

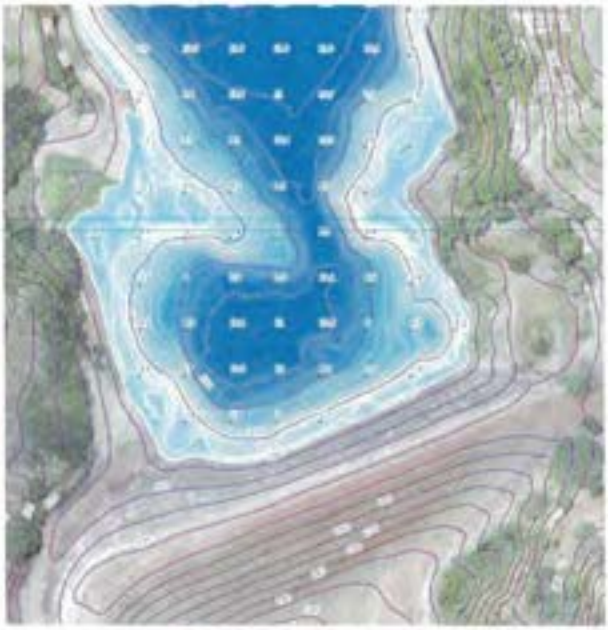
crafting comprehensive plans and specifications, as well as cost estimates based on current market rates that allow for effective cost–benefit analysis and informed decision-making.

Relevant Scope of Work Tasks:

- 16. Other marine, coastal, and/or harbor-related engineering and professional services as needed.

BATHYMETRIC AND TOPOGRAPHIC SURVEYING

Bathymetric surveying is a critical step in the process for maintaining safe and efficient navigation within harbors and channels and to avoid grounding out of dock systems. Dudek offers comprehensive bathymetric and topographic survey services designed to meet the City of Newport Beach's diverse needs. Our bathymetric surveys utilize advanced sonar technology to accurately map underwater terrain, providing critical data for projects such as dredging, habitat restoration, and infrastructure development. We employ state-of-the-art equipment, including multibeam and single-beam echo sounders, to ensure precise and reliable measurements. Our experienced team of hydrographers and surveyors is adept at navigating challenging environments, delivering high-resolution bathymetric maps that support informed decision-making and project planning.



Survey Topographic Contours

In addition to bathymetric surveys, Dudek excels in topographic surveying, offering detailed land surface mapping for a variety of applications. Our topographic surveys employ cutting-edge lidar technology and traditional surveying methods to capture accurate elevation data and terrain features. This information is essential for land development, environmental assessments, and engineering design. Our skilled surveyors are proficient in using the latest software and tools to process and analyze survey data, ensuring that our clients receive comprehensive and actionable insights. Subsequent to the field measurements, Dudek staff are adept at processing, packaging, and mapping the survey data. With a commitment to precision and quality, Dudek's topographic survey services provide a solid foundation for successful project execution.

Relevant Scope of Work Tasks:

- 5. Provide various bathymetry surveys within docks, marinas, small confined channels, or larger main channels.

GEOGRAPHIC INFORMATION SYSTEM (GIS)

Dudek's GIS services are integral to supporting a wide range of engineering projects. Our GIS team specializes in collecting, analyzing, and visualizing spatial data to provide comprehensive insights that enhance project planning and execution. By leveraging advanced GIS technology, we create detailed maps, models, and databases that inform decision-making processes. Whether it's for coastal infrastructure development, environmental assessments, or urban planning, our GIS services ensure that all spatial

aspects of a project are accurately represented and easily accessible. This allows engineers to identify potential challenges, optimize designs, and streamline project workflows.

In addition to data visualization, Dudek's GIS services include advanced spatial analysis and geospatial data management. Our experts utilize cutting-edge software to perform complex analyses such as terrain modeling, hydrological studies, and land use planning. These analyses help identify critical factors that could impact project outcomes, enabling proactive problem-solving and risk mitigation. Furthermore, our GIS team is adept at managing large datasets, ensuring data integrity and accessibility throughout the project lifecycle. By integrating GIS with other engineering tools and technologies, Dudek provides a holistic approach to project management, ultimately leading to more efficient and successful project delivery.

Relevant Scope of Work Tasks:

- 5. Provide various bathymetry surveys within docks, marinas, small confined channels, or larger main channels
- 16. Other marine, coastal, and/or harbor-related engineering and professional services as needed.

AUTOMATIC COMPUTER AIDED DESIGN (AUTOCAD)

The effective utilization of AutoCAD is essential for achieving precise and efficient design and execution for marine projects in Newport Beach. Given the complex nature of coastal environments, precision is critical for accounting for variability with tides and unique topographic features. Dudek provides quality technical contract documents services and record as-builts documentation for a variety of City, County, and state jurisdictions and agencies. We have a team of highly qualified professionals that combines well over 100 years' experience in preparing and completing precise documentation and archiving. Our team is focused and adept at utilizing the latest engineering design tools within AutoCAD Civil 3D for large, sophisticated civil engineering projects.

Our specialized AutoCAD staff will assist in preparation of record drawings, and engineering analysis for dredge volumes using Civil 3D volume surface tools. Staying focused with the requirements of projects, fully understanding and complying with City of Newport Beach Standards, and maintaining accurate internal processes and documents is our focus to ensure each project receives the highest-quality deliverables possible; after all, our work is our legacy.

Relevant Scope of Work Tasks:

- 14. Preparation of record drawings.

PUBLIC OUTREACH

Dudek supports local agencies in identifying specific areas where outreach and engagement are critical to meet objectives. We assist local agencies in drawing from the concerns and suggestions of multiple interested parties and groups, committees, and commissions to define community goals and coalesce around common purposes. Our staff is skilled in engaging with local community members and agency officials to weave community into the planning process. Effective language, appropriate and inclusive outreach, and engagement must be rooted in the local culture, sense of place, and identity of the people who make up the community. Dudek has experiencing conducting outreach and engagement in and around

the City of Newport Beach, and thus we are familiar with the unique priorities and challenges engaging the local community.

Dudek has extensive experience preparing compelling presentations for a wide variety of audiences, including City Councils, Commissions, Committees, and the general public. Prior to preparing a presentation, Dudek's outreach team will collaborate with City staff to understand the goals and objectives of the presentation. We will tailor presentation language to effectively communicate with technical and non-technical audiences. Dudek's outreach team collaborates with our in-house graphics and visual storytelling practice to create visually compelling, succinct, cogent presentations that facilitate two-way communication between the project team and the audience.

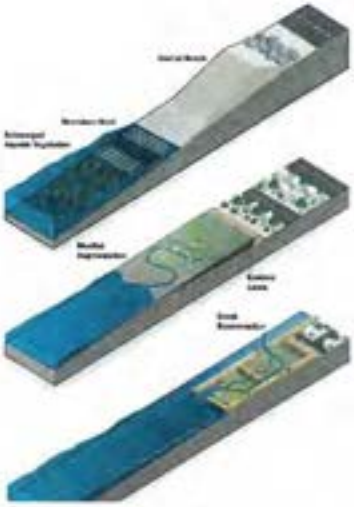
Relevant Scope of Work Tasks:

- 15. Present projects, findings, information etc., at various public meetings, including the City Council, Harbor Commission, various ad hoc committee meetings, and other outreach events as required.

GRAPHICS AND VISUAL STORYTELLING

Dudek's Graphics and Visual Storytelling team specializes in creating simple, elegant, and compelling visuals that communicate complex data and ideas. We understand that simplifying complex concepts (and stripping them of jargon) is the first critical step in conducting informed conversations with the public. Our visualizations harness multiple techniques—3D renderings, photo-realism, GIS, animation, interactivity, illustrative novels, and technical illustrations—to engage and inform both expert and non-expert audiences.

We have communicated complex data visually to the general public for over 30 years through work with major media outlets like the Los Angeles Times and scientific research institutions like the Jet Propulsion Lab in Pasadena. Our team has particular expertise in communicating complex messages related to engineering, biological, and coastal issues.



Dudek San Diego Shoreline Atlas Project Graphic: Nature-Based Solutions

Relevant Scope of Work Tasks:

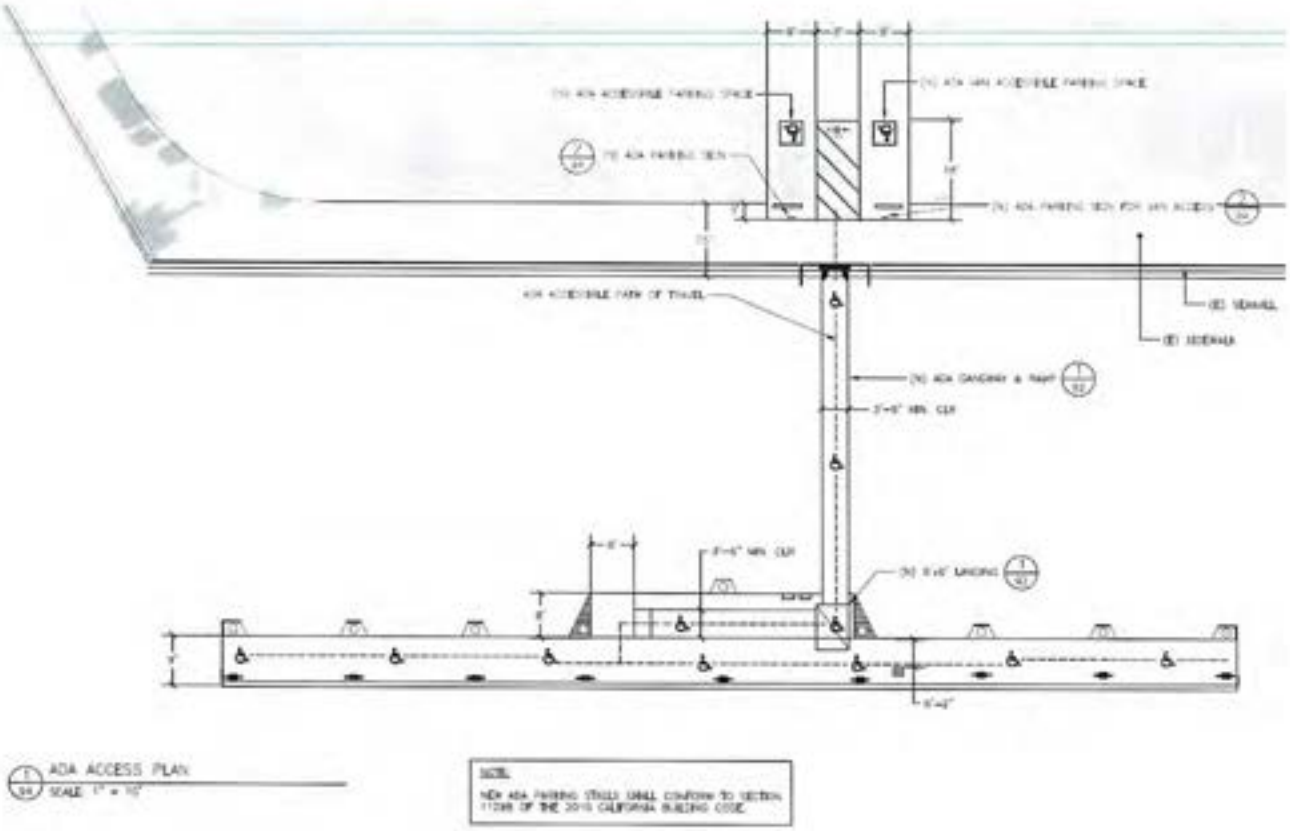
- 15. Present projects, findings, information, etc., at various public meetings, including the City Council, Harbor Commission, various ad hoc committee meetings, and other outreach events as required.

ADA ACCESSIBILITY

The Americans with Disabilities Act (ADA) requires that public facilities, including coastal infrastructure, provide equal access to individuals with disabilities. ADA accessibility expertise is essential for ensuring that coastal facilities, such as piers, boardwalks, and dock systems, meet accessibility standards. Our team can provide ADA accessibility assessments, design recommendations, and post-construction compliance field inspections to ensure that coastal infrastructure projects comply with regulations and provide safe and equal

access for all users. By incorporating ADA accessibility principles into coastal infrastructure design and construction, we can help create inclusive and accessible public spaces.

Coastal systems such as gangways, docks, and coastal trails are complex to design for ADA compliance due to tides and other factors, and often require exceptions or the application of best judgement to develop the most optimal solutions. Dudek staff have experience specifically with ADA accessibility in coastal environments, including the special provisions of California Building Code Chapter 11B Division 10 that provides specifics for boat slips and dock gangways. The same Dudek–GeoEngineers–Reid Middleton project team is currently working on one of California's largest and most landmark coastal ADA access projects in completing the engineering design of two major beach access ramps along the coastal bluffs in Carlsbad, California. Many of our team members have loved ones with physical impairments, and we will ensure to offer a voice for coastal accessibility, and we will pay extra attention to detail to ensure proper design.



Dock ADA Accessibility Plan

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Dudek offers one of California's largest and most experienced teams to review documents for California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) compliance. With over 200 on-call contracts throughout California, Dudek has built a reputation for providing supportive environmental, planning, regulatory, engineering, construction management, operations, and funding expertise for various public agencies. We service a wide range of municipalities and special districts throughout California, and have extensive experience preparing environmental impact reports (EIRs), environmental impact statements, initial studies (ISs), environmental assessments, mitigated negative declarations (MNDs), addendums, and other studies mandated by CEQA and NEPA. We apply practical CEQA/NEPA knowledge to ensure that environmental documents comply with current laws, regulations, and case law. We help our clients creatively solve regulatory challenges within financial and scheduling constraints. We can easily identify gaps and errors in analyses or reasoning and can anticipate any potential pitfall. Combining comprehensive analysis and research-based findings, Dudek prepares legally defensible environmental documents supported by substantial evidence, none of which have been successfully overturned in court. Our extensive experience preparing diverse and complex environmental documents along with our record of success against legal challenge makes us uniquely qualified to provide comprehensive environmental documents with the goal of making them airtight against challenge.

Our extensive experience gives Dudek a deep understanding of the specific challenges and issue areas associated with development within coastal areas. We understand the high profile and level of public awareness related to marine project development as well as the competing interested parties and the surrounding community that can put City of Newport Beach environmental documents under a microscope and impact the environmental review process. This allows us to provide insightful and meaningful analyses that will strengthen the City's environmental documents, streamline the document certification process, and produce documents that stand up to challenge.

OTHER QUALIFICATIONS

Although not as directly listed in the Scope of Work, the Dudek team has specialized staff for the following service categories that relate to the service categories listed above, and coastal engineering services in general:

- Waterfront ADA accessibility
- Oyster Biology
- Pipeline Alignment Analysis and Design
- Archaeology
- Film and Photography
- Cultural Resources
- Traffic and Transportation
- Groundwater Sustainability
- River Hydraulics/Hydrology
- Wastewater Management
- Natural Resources Management
- Air Quality and GHG Emissions
- Noise and Vibration Studies

3. Firm Experience

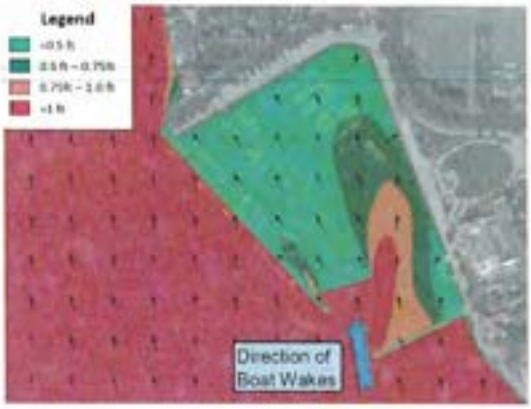
The following projects reflect our commitment to providing high-quality environmental documentation, planning, engineering, and permitting services as needed.

Coastal Engineering

VESSEL WAKE TRANSMISSION ASSESSMENT

This work was completed by the project manager, Patrick Miskel, PE, at his previous company.

Client: Port of San Diego
Project Location: San Diego, California
Project Dates: 2018–2019
Description: Tuna Harbor is a 14.5-acre commercial fishing marina located in central San Diego Bay adjacent to the federal deep draft navigation channel. The floating docks within the harbor experienced extensive and ongoing damage because of waves generated by boat wakes, which calculations showed were larger than fetch-limited wind waves. Numerical modeling was performed using SMS CMS-Wave to assess the effectiveness of various wave attenuation solutions, including installing vertical piles, a floating dock breakwater, or a baffle wall attached to the perimeter, fixed down. Assessment findings were summarized in a final report, including limiting wave parameters, solutions alternatives, and construction cost estimates.



KING HARBOR MAINTENANCE DREDGING

This work was completed by the project manager, Patrick Miskel, PE, at his previous company.

Client: Marina Village Associates LLC
Project Location: Redondo Beach, California
Project Dates: 2021–2023
Client Description: King Harbor covers 150 acres in the Los Angeles Metropolitan Area, and this phase of maintenance dredging included approximately 62,000 cubic yards of sediment. Engineering staff were tasked with performing all volume calculations and analysis in AutoCAD Civil 3D related to the dredge design. This required technical management of surface data, including pre-dredge surveys and design surfaces, building volume surfaces, creation of plan/section/detail view drawings to illustrate the dredge volume, and review of the report summarizing survey findings and dredge design. Following the engineering design phase, construction documents were developed including plans and specifications. Complexities were addressed related to the biological suitability of the materials with two separate sediment placement sites, scheduling to minimize noise, light pollution, and disruption to boating activities, and methods to take caution due to dredging along the riprap breakwater.

LOCH LOMOND MARINA ADA ACCESSIBILITY IMPROVEMENTS

This work was completed by the project manager, Patrick Miskel, PE, at his previous company.

Client: Marina Village Associates LLC
Project Location: San Rafael, California
Project Dates: 2019–2022
Description: As part of a broader luxury waterfront commercial residential development, upgrades were made to Loch Lomond Marina to achieve ADA accessibility throughout the site, including a timber boardwalk over a protected wetland and a concrete ADA ramp down into a playground. Engineering and ADA design of this site had to balance a variety of design factors, including ADA accessibility, the close vicinity of a protected wetland, SLR, king tides, and storm flooding. Our firm was selected for engineering design services and the development of all construction documents, including plans, specifications, cost estimates, calculations, and a stormwater pollution prevention plan. Engineering design included structural engineering of a pile-supported timber boardwalk and two vinyl sheet pile retaining walls, coastal engineering of king tide water levels to bring the ADA path above the flood level, and stormwater management. Construction phase services were provided through project completion. This project was successfully completed and is now functioning as a vibrant public waterfront for the local community.

Waterfront Structural Engineering

MOSS LANDING PIER UPGRADE

Client: Monterey Bay Aquarium Research Institute (MBARI)
Project Location: Moss Landing, California
Project Dates: 2024-Present
Description: Reid Middleton provided the 3D dynamic berthing and mooring analyses and 3D structural analysis to evaluate the capacity of the Monterey Bay Aquarium Research Institute (MBARI) Moss Landing Pier facility for the new large vessel (RV David Packard). The facility was designed for vessels smaller than the RV David Packard, which was constructed in 1988. Based on the findings from the analyses, Reid Middleton provided engineering design and permit support services to upgrade the pier facility, including replacing the existing timber fender piles with new plastic piles, installing anode pile jackets to protect concrete piles against corrosive environment, replacing mooring hardware, and installing a new mooring dolphin with a catwalk structure.

REPLACEMENT OF SEGMENT C BULKHEAD AND I DOCK

Client: Port of Everett
Project Location: Everett, Washington
Project Dates: 2014-2018
Description: Reid Middleton provided planning, design, permitting, and construction administration assistance services for renovating a bulkhead and marina dock system at the Port of Everett. The work was done in conjunction with a cleanup and redevelopment of a former shipyard and industrial area into a mixed-use waterfront redevelopment. Initial tasks included review and site inspection of existing conditions of the bulkhead, fixed piers, and floating docks. Reid Middleton provided alternative analysis phasing plans to coordinate continued operation and accommodation of the vessels during the environmental cleanup, which included dredging and capping of contaminated materials and removal of in-water shipyard structures. Reid Middleton prepared cost estimates for the alternatives. Permit services provided by Reid Middleton include preparation of permit drawings for the dock and bulkhead replacement, technical application information, and participation in the pre-application meeting with the Corps of Engineers and other regulatory agencies. Following the selection of a preferred alternative, Reid Middleton performed design for the new docks, boathouse moorages, replacement of 450 linear feet of two-stage timber bulkhead with a new sheet pile bulkhead and concrete cap, and civil utilities and design, including relocation of a pier fire protection sprinkler system, new stormwater and potable water utilities for the docks and upland. Reid Middleton prepared construction documents and provided bid and construction administration assistance services for the project.

FAST RESPONSE CUTTER HOMEPORT FACILITY

Client: U.S. Coast Guard
Project Location: Astoria, Oregon
Project Dates: 2018-2020
Description: Reid Middleton provided engineering design and environmental permit support services to develop the new Fast Response Cutter (FRC) Homeport Facility at East Tongue Astoria (RFP - DB Bid Documents). The professional engineering services include the design of a new, 250-foot-long by 36-foot-wide fixed pier with a new, 200-foot-long by 15-foot-wide floating dock on each side of the pier to accommodate mooring of two Fast Response Cutters (FRC)s, a boat bay building (70.5'x57'), and two modular buildings (12'x60' and 24'x60'). Reid Middleton also developed the dredging plan from planned mooring around the new pier to the Columbia River channel and shoreline protection plan to correct the long-term erosion problem.

Geotechnical Engineering

OCEAN BEACH PIER REPLACEMENT

Client: City of San Diego
Project Location: San Diego, California
Project Dates: 2023-Present
Description: GeoEngineers provides ongoing geotechnical investigation and engineering services in support of the development of a 30% preliminary design plan set. As part of the owner's representative team, the 30% design set will be included in a design-build RFP solicitation package. The project includes coordination of a geophysical/geotechnical field investigation, including explorations to be advanced from the pier deck and upon the coastal bluff adjacent to the pier; environmental permit acquisition associated with project explorations; geologic/seismic hazard analysis; and preliminary geotechnical design.

LUTHER BURBANK PARK DOCK REPAIR

Client: City of Mercer Island
Project Location: Mercer Island, Washington
Project Dates: 2020–2022
Description: GeoEngineers served as geotechnical engineer on this project to rehabilitate and upgrade the existing day moorage dock and pier, bulkhead, and surrounding access areas at Luther Burbank Park. Offshore improvements include replacing or reinforcing the existing pier piling and bulkhead walls and installing new dock guide piles. Upland improvements include seismic retrofit recommendations, low impact pavement design criteria and recommendations for constructing new pedestrian pathways. When petroleum impacted soils were encountered on site, GeoEngineers expanded the scope to include environmental services.

Stormwater Engineering

AS-NEEDED ENVIRONMENTAL SERVICES

Client: Los Angeles county Public Works
Project Location: Los Angeles, California
Project Dates: 2020-Present
Description: Under this contract, Dudek provides permitting support and environmental documentation for capital projects and O&M activities throughout the Public Works network of dams, reservoirs, spreading grounds, debris basins, and sediment placement sites. Services include preparing and reviewing CEQA/NEPA documents, permit applications, biological reports, mitigation monitoring reports, and restoration plans; preparing and negotiating permits with resource agencies; and providing strategic guidance on environmental-related issues and developing solutions to avoid and minimize project impacts. For the San Gabriel Reservoir Post-Fire Emergency Restoration Project, Dudek conducted biological surveys, including an aquatic resources delineation, jurisdictional determination, aquatic species inventories, and endangered species surveys for the emergency removal of sediment and the placement within the Burro Canyon Sediment Placement Site within the Angeles National Forest. Dudek successfully obtained state and federal Incidental Take Permits for Santa Ana sucker (Catostomus santaanae), and Dudek staff have conducted aquatic species translocations and are continuing to support Public Works in the permitting and implementation of this important project to protect public safety.

Coastal Planning

NEWPORT BEACH WILDLIFE CONNECTIVITY ASSESSMENT

Client: City of Newport Beach
Project Location: City of Newport Beach
Project Dates: 2022-Present
Description: In developing the City's General Plan Update, Dudek performed a Wildlife Connectivity Analysis addressing Assembly Bill 1889 (Room to Roam Act) in the City's Conservation and Open Space Element. This analysis included an assessment of least cost paths connecting environmentally sensitive habitat areas (ESHA), habitat types, and the relevant listed species present in each.

The analysis included findings on how different species travel between core habitat areas and how land use standards, regulations, and private landscaping could increase the connectivity of these areas by providing food, shelter, and undeveloped connections between core protected areas.

Coastal Permitting

ON-CALL COASTAL CONSULTING

Client: City of Newport Beach
Project Location: City of Newport Beach
Project Dates: 2022–Present
Description: Dudek is working with City of Newport Beach staff on various matters pertaining to compliance with the CCA, development within the coastal zone, and coordination with CCC. Currently, Dudek is submitting a request to CCC for the transfer of CDP jurisdiction from CCC to the City of Newport Beach (City) for lands meeting the criteria of Section 30613 of the CCA. Dudek has prepared application materials, GIS data layers, and map exhibits for areas subject to this request, including affected parcels, City boundaries, CCC jurisdiction, and aerial photos. In addition to detailed GIS map exhibits covering the City's shoreline and proposed permitting jurisdiction, Dudek coastal planners prepared a request cover letter that detailed the need and purpose of the request as well as its consistency with the relevant policies of the CCA and the procedures outlined in California Code of Regulations Title 14, Division 5.5. Dudek is on call to participate in monthly coordination meetings with City staff on an as-needed basis, including coordination with CCC and State Lands Commission staff.

Dudek is also currently preparing a CCC CDP application on behalf of the City for the Big Canyon Habitat Restoration Phase 3 Project. Dudek coastal planners are compiling necessary technical reports, plans, and project information to assemble a comprehensive CDP application that includes a consistency analysis detailing the project's compliance with relevant CCA policies. Subsequent tasks will include the preparation of presentations for CCC public hearings and related briefing booklets.

In addition to these project-specific tasks, Dudek planners can coordinate with and advise City staff on general matters regarding CCC coordination and coastal planning issues.

SAN JUAN CREEK OCEAN OUTFALL JUNCTION ST

Client: South Orange County Wastewater Authority
Project Location: Orange County, California
Project Dates: 2018–Ongoing
Description: The South Orange County Wastewater Authority (SOCWA) was established in 2001 to collect, treat, beneficially reuse, and dispose of wastewater to the mutual benefit of its 10 member agencies and the general public in South Orange County.

SOCWA proposed to repair an existing ocean outfall pipeline junction structure located on Doheny State Beach. The ocean outfall pipeline discharges secondarily treated and disinfected wastewater (effluent) into the ocean. The proposed repair is necessary to prevent further deterioration of the junction structure, which could result in effluent leaking onto the public beach. Dudek assembled a comprehensive CDP application that included a consistency analysis detailing the project's compliance with relevant CCA policies. This required extensive coordination with engineering staff and various resource agencies to ensure project timing and staging avoided and minimized impacts to public access and recreation as well as biological resources (nesting birds, grunion, and the monarch butterfly). Dudek drafted a Lateral Public Access Plan for the work area on Doheny State Beach. The CDP was approved by CCC in August 2020.

Dudek also assisted SOCWA on the Coastal Treatment Plant Export Sludge Force Main Replacement Project. We worked closely with CCC staff to complete condition compliance by finalizing a Public Access Plan for an area within Orange County Parks' Aliso and Wood Canyons Wilderness Park. In addition, we prepared a CDP Amendment (CDPA) extension application. The CDPA was issued by CCC in September 2020.

CITY OF SAN DIEGO MUNICIPAL WATERWAYS MAINTENANCE CDP SUPPORT

Client: City of San Diego, Public Works Department and Transportation and Storm Water Department
Project Location: San Diego, California
Project Dates: 2019–Ongoing
Description: Dudek coastal planners are working with the City of San Diego to prepare and submit four CDP applications to the CCC, including one emergency CDP, two CDPs for one-time repair and maintenance work, and one programmatic CDP that covers 5 years of ongoing repair and maintenance activities. These CDPs cover various municipal waterway maintenance projects throughout the City, including repairing and/or replacing stormwater channels, basins, and drains, removing accumulated sediment and vegetation, and managing invasive species. The proposed work also includes mitigation measures to create and restore wetland habitats and sensitive upland habitats impacted by the projects. Dudek coastal planners and biologists have coordinated with the City and CCC to ensure the proposed work is consistent with the CCA and LCP regarding the protection of biological resources, environmentally sensitive habitat areas, water quality, and public access and recreation. Dudek expeditiously prepared and submitted the CDP application packages, and consistency analyses and continues to support City staff through the CCC application review and filing process.

PISMO BEACH SLR VULNERABILITY ASSESSMENT AND LCP UPDATE

Client: City of Pismo Beach
Project Location: Pismo Beach, California
Project Dates: 2019–Ongoing
Description: Dudek is updating the City of Pismo Beach's combined LCP/General Plan (GP) to address updates to state law and potential impacts of SLR and associated coastal hazards. The City's LCP/GP is a combined document meeting both the state GP requirements and LCP requirements. The City's Land Use Plan (LUP) is outdated, and the City currently operates with two Zoning Ordinances (inland and coastal). Using the SLR Vulnerability Assessment and Adaptation Plan, Dudek is updating the City's Safety Element by drafting new goals, policies, and actions that reflect the unique character and priorities of various community interests within the City while ensuring consistency with CCA. Dudek has participated in monthly coordination calls between City and CCC staff, ensuring that critical issues are resolved promptly. Dudek also met the local technical advisory group to integrate this perspective into the policy development process. Throughout the LCP/General Plan update, Dudek has facilitated interested party engagement by assisting the City with public workshop information and materials.

In addition to the Safety Element, Dudek is working with the City to update its Land Use, Conservation and Open Space, and Noise Elements according to the CCC's most recent LCP Update Guide. These updates incorporate studies, including the Circulation Element, Accessory Dwelling Unit Ordinance, Short-Term Rental Ordinance, and Low-Cost Visitor Serving Accommodations Study.

In addition, the Dudek team is updating the City's Zoning Code and Implementation Plan. The City's goal was to produce a comprehensive, updated Zoning Ordinance and Implementation Plan grounded in current best practices that ensured compliance with federal and state laws, allowed for greater flexibility and ease of use, and corrected for the inconsistencies with the General Plan. The team started with a technical review of the 1983 Zoning Code (Coastal Implementation Plan), 1998 Zoning Code, and other relevant material for strengths, weaknesses, and effectiveness to implement the General Plan and LUP. Based on those findings, a new comprehensive Zoning Ordinance and Implementation Plan was prepared that implemented revisions aimed at a more modern, streamlined code, consistency with the General Plan and LUP, and updates to development standards.

VENICE SLR VULNERABILITY ASSESSMENT AND LCP UPDATE

Client: City of Los Angeles
Project Location: Los Angeles, California
Project Dates: 2017–Ongoing
Description: Dudek is working with the City of Los Angeles to prepare an LCP (LUP and Implementation Plan) for the uncertified community of Venice that addresses coastal hazards and SLR in accordance with the latest CCC guidance and findings from the Venice SLR Vulnerability Assesment. Venice's low-lying areas are particularly vulnerable to inland canal flooding. Dudek policies address potential impacts to critical infrastructure (tide gates, pump stations, outfalls, sewer, and power) and create land use development standards to build resilience. Dudek also provided key support with the development of three City-led public workshops by preparing materials to describe the project, results from the vulnerability assessment, and potential adaptation strategies, and incorporated community feedback into the policy development process. Dudek coastal planners are drafting new coastal hazard LUP policies and Implementation Plan requirements for completion and submittal to CCC for certification.

SAN DIEGO NORTH COAST CORRIDOR: PUBLIC WORKS PLAN/TRANSPORTATION AND RESOURCE ENHANCEMENT PROGRAM, LCPAS, NOTICES OF IMPENDING DEVELOPMENT

Client: San Diego Association of Governments (SANDAG)/California Department of Transportation (Caltrans)/WSP
Project Location: San Diego, California
Project Dates: 2014–Ongoing
Description: Dudek teamed with WSP to provide coastal planning and permitting for a 40-year transportation improvement program in the Interstate 5 and Los Angeles–San Diego (LOSSAN) rail corridors in northern San Diego County. The program included highway expansion, several lagoon bridge and interchange structure replacement, and community enhancement projects, double tracking and station improvements for the Los Angeles–San Diego–San Luis Obispo rail corridor, and development of a comprehensive coastal resource enhancement program addressing project impacts to five coastal lagoons and other natural resources within the 27-mile transportation corridor.

Dudek's coastal planning team prepared and processed the Public Works Plan (PWP), LCPAs for four cities, and a federal consistency review analysis for the transportation improvement program. The PWP is an alternative to project-by-project review and provides a comprehensive permitting vehicle for obtaining CCC approval of the plan's improvements pursuant to the CCA and LCPs. LCPAs were developed concurrently with the PWP to establish the policy framework for plan implementation, including developing specific standards to address SLR, wetland, and Environmentally Sensitive Habitat Area setback requirements, water quality criteria, agricultural resource impact mitigation, and project phasing.

Since CCC approval of the PWP in 2014, Dudek has continued to support SANDAG/Caltrans in implementation of the PWP by preparing and processing Notices of Impending Developments and CDPs for projects envisioned under the PWP. Dudek supports Caltrans with CCC coordination, participating in monthly meetings that ensure that continued communication and progress is made on each segment of the PWP. Dudek also assists Caltrans with CDP application submittals by reviewing technical documents and preparing detailed PWP policy consistency analyses that help to streamline CCC review of the CDP application, which are then utilized by CCC staff to write their staff report findings.

WHEELER NORTH REEF EXPANSION

Client: California State Lands Commission (CSLC)
Project Location: San Clemente, California
Project Dates: 2019–2020
Description: Southern California Edison sought to expand the existing 174-acre Wheeler North Reef, a human-made rocky reef, off the coast of San Clemente, California, by an additional 202 acres as mitigation related to the former operation of the San Onofre Nuclear Generating Station. Dudek provided CEQA planning, marine mammal monitoring, and tribal consultation, including archaeological diving. Dudek environmental planners, archaeologists, and marine biologists assisted CSLC and Southern California Edison, preparing a Subsequent EIR that tiered from the 1999 EIR analyzing the original 174-acre Wheeler North Reef. The Final Subsequent EIR was certified by CSLC in February 2019. Then, Dudek's marine biology team provided marine mammal observer services for the 2019 and 2020 construction seasons, including development of the marine wildlife monitoring plan. Archaeological resources were of great concern and required careful monitoring and consultation with the Acjachemen Nation of Juaneño Indians.

MISSION BAY PARK IMPROVEMENTS PROGRAM

Client: City of San Diego
Project Location: San Diego, California
Project Dates: 2017–Ongoing
Description: Dudek is overseeing this multimillion-dollar program to design several water quality improvement projects, an upland habitat expansion project, seawall rehabilitation, and improvements to infrastructure for pedestrians and cyclists throughout Mission Bay. Dudek has prepared 30% design documents for four tidal reestablishment projects at Rose Creek/De Anza Cove, North Fiesta Island, Cudahy Creek, and Tecolote Creek salt marsh restoration projects, totaling over 200 acres of new tidal wetlands. In addition, we work with coastal engineers to address shoreline retreat and identified living shoreline solutions that beneficially combine structural shoreline protection with nature-based solutions that enhance ecological functions. Baseline studies included a methodical baywide eelgrass survey involving side-scan sonar and dives to ground-truth sonar imagery, baywide vegetation mapping, wildlife surveys, jurisdictional delineations, and extensive database processing of the results from this extensive area. Ultimately, the design efforts, baseline studies, assessments, and public engagement will inform the development and completions of a Program EIR. Further efforts related to programmatic permitting throughout Mission Bay are included in the extensive scope of work, which includes approvals from the City of San Diego, RWQCB, CCC, and USACE.

As part of this program, Dudek managed the Mission Bay Oyster Feasibility Study. This goal of this study was to determine the feasibility of restoring native Olympia oysters (*Ostrea lurida*) in Mission Bay, San Diego, California for the purpose of shoreline resiliency and water quality improvements. Site visits were conducted to confirm the presence of Olympia oysters in the bay, and literature was reviewed to evaluate the conditions necessary for Olympia oyster survival and to confirm sources of larval input from nearby embayments. Water quality data was assessed to further confirm suitable conditions for Olympia oyster growth and survival. A pilot study was designed (including a proposed budget) to assess the success of two restoration methods that balance restoration constraints and ecosystem services provided based on local site conditions: (1) shell bags, which are susceptible to premature breakdown by heavy human activity and wave action, but reduce introduction of non-natural material and provide a greater area of oyster cover to increase water filtration; and (2) concrete reef balls, which introduce non-natural materials and collision risk in heavily trafficked areas, but are more resilient to heavy wave action and may be more effective at attenuating erosive wave energy. Recommendations for restoration locations and restoration approaches throughout the bay were based on goals/locations of known restoration plans and problematic conditions that would benefit from oyster restoration (i.e., poor water quality that would benefit from water filtration and erosive shorelines that would benefit from wave attenuation).

Environmental Permitting

SOUTHWESTERN YACHT CLUB ROUTINE MAINTENANCE DREDGING PROJECT

Client: Southwestern Yacht Club
Project Location: San Diego, California
Project Dates: 2019-2024
Description: Dudek prepared and processed regulatory permits with the Unified Port of San Diego, U.S. Army Corps of Engineers and Regional Water Quality Control Board to authorize annual maintenance dredging of up to 2,000 cubic yards (cy) of material over a 10-year period (for a total of 20,000 cubic yards) to a -5 foot depth (includes over-depth) Mean Lower Low Water (MLLW) at the South western Yacht Club Hoist and Sailing Area from 0.15 acre of navigable waters, which was necessary to return boater access to the area and to enable beneficial reuse beach nourishment of the dredged material at La Playa Beach, located in Shelter Island, San Diego.

SAN JUAN CREEK OCEAN OUTFALL REHABILITATION PROJECT

Client: South Orange County Wastewater Authority
Project Location: Dana Point, California
Project Dates: 2014–2021
Description: Dudek provided a suite of environmental services to the South Orange County Wastewater Authority to address the rehabilitation of an existing, deteriorating junction structure along the shoreline of Doheny State Beach to resolve its structural deficiencies as a measure to prevent potential future effluent leakage into the Pacific Ocean. Services provided included CEQA documentation, biological report preparation, cultural resource assessments, coastal resource permitting with the California Coastal Commission, regulatory permitting with the U.S. Army Corps of Engineers and Regional Water Quality Control Board under Sections 401 and 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and Endangered Species Act permitting. Our team also provided permit compliance and administration services during construction.

Habitat/Wetland Restoration

EDINGER BRIDGE REPLACEMENT PROJECT OFF-SITE MITIGATION

Client: Orange County Public Works
Project Location: South Talbert Preserve, Costa Mesa, California
Project Dates: 2015–Ongoing
Description: Services were comprehensive for the complete life cycle of this mitigation project, including initial planning, final design and implementation monitoring, and reporting through mitigation project completion and regulatory signoff, and assisting the County with post-mitigation preserve management. Dudek conducted the initial on-site assessment and an off-site search to land on off-site mitigation site selection at the south Talbert preserve for a required need of 1.25 acres of salt marsh establishment. Dudek developed a Habitat Mitigation and Monitoring Plan that was accepted by the California Coastal Commission, California Department of Fish and Wildlife, USACE, and the U. S. Fish and Wildlife Service and generated Restoration construction documents that included a salt marsh grading plan, irrigation and landscape plans, written specifications and a cost estimate. Dudek assisted the County with implementation, by serving as the project biologist beginning with installation and through the duration of the compensatory 5-year maintenance period, which included directing contractor installation, maintenance, reporting and coordinating regulatory signoff, which was successfully obtained in 2023.

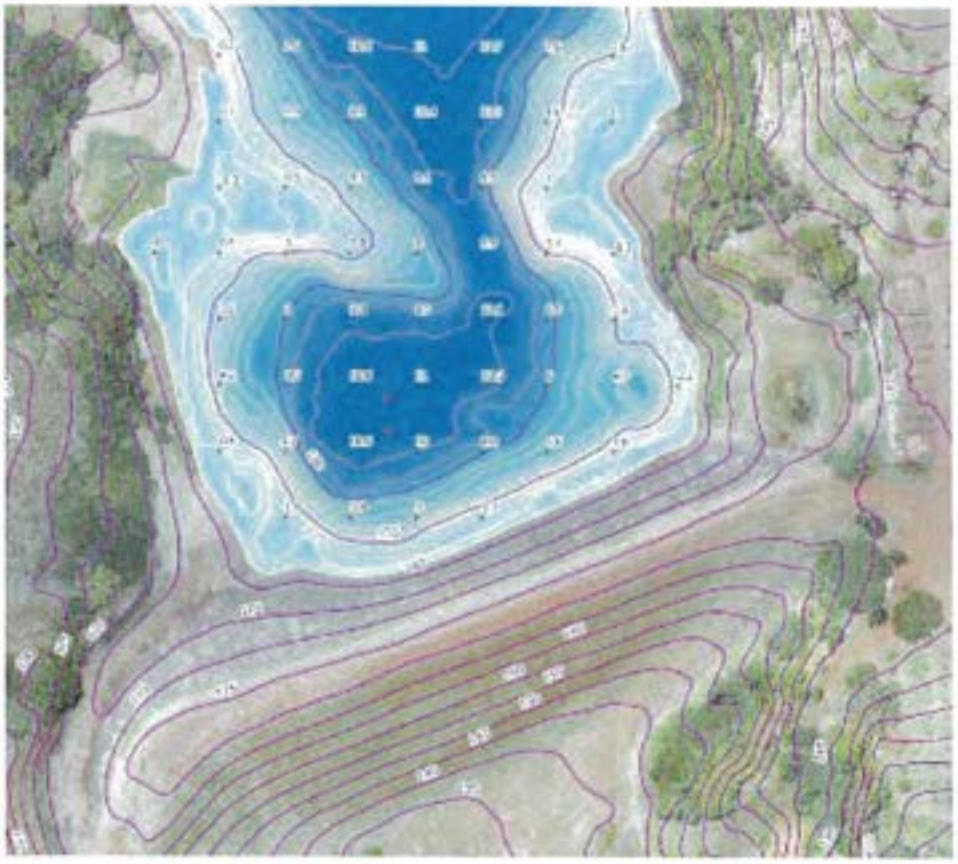
ORANGE COUNTY FEEDER UPPER NEWPORT BAY BLOW-OFF REHABILITATION MITIGATION PROJECT

Client: The Metropolitan Water District
Location: Newport Beach, California
Project Dates: 2017–Ongoing
Description: In addition to preparing the EIR and regulatory permitting, Dudek is providing off-site mitigation and on-site restoration services for the rehabilitation of an existing blow-off structure and improvement of the associated utility road, along Metropolitan Water District's (Metropolitan) Orange County Feeder, adjacent to Upper Newport Bay and the San Diego Creek Channel. Dudek assisted Metropolitan with identifying off-site mitigation opportunities within the Newport Back Bay service Area, developed a Habitat Mitigation and Monitoring Plan and is currently conducting 5-year mitigation monitoring and reporting for the project, which is being implemented for project's impacts to state and federal jurisdictional waters, including habitat occupied by the state and federal listed endangered least Bell's vireo. Mitigation includes a combination of: (1) 0.13-acre restoration of temporarily impacted wetlands at the project site; (2) 0.5-acre off-site non-native invasive plant removal (enhancement) at the Upper Newport Bay Ecological Reserve; and (3) 0.72-acre off-site riparian habitat mitigation comprising 0.68 acre of wetland creation and 0.04-acre restoration/rehabilitation of existing wetland at the CCC Community Based Restoration and Education Program's Newport Valley Restoration Site located in the City of Newport Beach, California.

Surveying and GIS

OMAO DAM

Client: Kauai Water Company
Location: Kauai, Hawaii
Project Dates: 2024-2025
Description: Dudek recently completed a comprehensive bathymetric survey of the Omao Reservoir on Kauai, aimed at providing detailed underwater terrain data to support reservoir management and maintenance efforts. Utilizing advanced multi-beam echo sounder technology, our team meticulously mapped the reservoir's bottom contours, identifying key features and potential areas of concern. The high-resolution bathymetric data collected during this survey is instrumental in assessing sediment accumulation, evaluating water storage capacity, and planning future dredging activities. Our experienced hydrographers ensured that the survey was conducted with precision, even in challenging conditions, to deliver accurate and reliable results. The bathymetric survey of the Omao Reservoir also included the integration of GPS and GIS technologies to enhance data accuracy and facilitate seamless data analysis. This integration allowed for the creation of detailed 3D models and contour maps, providing stakeholders with a clear visual representation of the reservoir's underwater landscape. The insights gained from this survey are crucial for informed decision-making regarding reservoir operations, environmental impact assessments, and infrastructure improvements. Dudek's commitment to utilizing cutting-edge technology and delivering high-quality data ensures that the Omao Reservoir management team has the necessary information to maintain and optimize this vital water resource.



Public Outreach

CITY OF GOLETA CREEK AND WATERSHED MANAGEMENT PLAN TECHNICAL ADVISORY COMMITTEE FACILITATION AND OUTREACH SUPPORT SERVICES; MS4 OUTREACH AND ENGAGEMENT SUPPORT SERVICES

Client: City of Goleta
Project Location: Goleta, California
Dates: 2019–Ongoing
Description: Since completing the City of Goleta's Creek and Watershed Management Plan (CWMP), Dudek has provided ongoing support for the implementation of the CWMP and the City's MS4 Program. This includes public outreach and engagement facilitation of the CWMP Technical Advisory Committee (TAC). Dudek has collaborated with City staff to determine content and strategies for TAC meetings, and how to collect TAC feedback on proposed capital improvement programs. Dudek has prepared CWMP outreach materials, including infographics, flyers, posters, PowerPoint presentations, social media posts, and an online GIS dashboard. Dudek works on educational and community events for the Environmental Services Division and the CWMP.

Dudek is also leading the day-to-day implementation of the City's MS4 program, including the production of monthly outreach and engagement materials. This includes social media content, video scripts, flier/handouts, posters, an online interactive GIS platform, and other custom graphics content.

Graphics and Visual Storytelling Project Examples

PORT OF SAN DIEGO ENVIRONMENTAL REVIEW FOR SHELLFISH AND SEAWEED AQUACULTURE PROGRAM (SSAP) IN AND AROUND THE SAN DIEGO BAY

Client: Port of San Diego
Project Location: San Diego, California
Project Dates: 2022-2024
Description: Dudek's Visual Storytelling team led the creation of visuals outlining proposed offshore facilities, pen types, and conceptual offshore arrays. We worked closely with the Port of San Diego to ensure the visuals met strict technical requirements. The figures explained the infrastructure of the Aquaculture program and outlined proposed offshore pen types, facilities, and mooring systems. They communicated the project's engineering to both expert and non-expert stakeholders.

CEQA Project Samples

ON-CALL CEQA AND NEPA DOCUMENTATION SERVICES

Client: Port of Los Angeles
Project Location: Los Angeles, California
Project Dates: 2016–Ongoing
Description: Dudek was contracted to provide on-call services to the Port of Los Angeles in 2013 and was selected again to provide on-call CEQA and NEPA documentation and environmental services through 2025. Dudek worked with Port of Los Angeles staff on the following projects: **Sustainability Annual Report and Plan Development; AltaSea Subsequent EIR and Environmental Assessment; AltaSea Interim Uses Historic Review; Global Rally Cross Noise Monitoring at Berths 45–47; Pasha Peel-Off Yard MND project; Berths 238–239 [PBF Energy] Marine Oil Terminal Wharf Improvements Project IS/MND; Berth 240 Transportation Vessels Manufacturing Facility Project IS/MND; SA Recycling Amendment to Permit No. 750 Project Subsequent EIR**. The Port of Los Angeles has high-profile marine based projects with all the issues that may arise in Newport Beach like eelgrass impacts, public projects that enhance coastal access, and public scrutiny. Like Newport Beach, the Port of Los Angeles prioritizes air emissions reduction and sustainable projects.

AS-NEEDED PROJECT REVIEW SERVICES

Client: San Diego Unified Port District
Project Location: San Diego, California
Project Dates: 2016–Ongoing
Description: Under an as-needed contract, Dudek provides project review services for the District. Dudek has completed the initial intake of tenant and District projects, reviewed project applications, coordinated with an extensive project review team within the District for project conditions of approval, and prepared Categories 1, 2, and 3 District Conditional Project Approval letters for hundreds of projects within the District. Dudek performs similar work for the San Diego Unified Port District that the City of Newport Beach is requesting. These include preparation of ISs for a wide variety of projects as well as peer review and project management services.

PORT HUENEME FORMER NAVY PROPERTY RESTORATION PROJECT MND

Client: Oxnard Harbor District
Project Location: Port Hueneme, California
Project Dates: 2021–2023
Description: Dudek provided CEQA documentation to the Oxnard Harbor District for the Former Navy Property Restoration Project in the Port of Hueneme. Our team was able to downsize the CEQA documentation from an EIR to an MND following additional historic resources review and diligence in the IS development. The project proposes the demolition of structures considered potentially significant historical resources to allow for expanded backlands and laydown use. In addition, the Dudek environmental documentation addresses air quality and GHG emissions from demolition activities, biological resources to account for potential nesting or roosting of birds or bats within or adjacent to the project site, historic resources, and hazards and hazardous materials. Our legally defensible MND helped the Oxnard Harbor District proceed in a timely and cost-efficient manner. The Oxnard Harbor District faces similar issues to the City of Newport Beach in terms of the need to use space efficiently, historic age structures demolition, and expedited schedules.

4. Resumes of Proposed Personnel

Resumes for proposed personnel are provided in **Appendix A.**

6. Advance Notice Requirements Statement

Dudek understands that projects can have tight deadlines and unexpected needs. Our team is well-equipped to respond on short notice, quickly mobilizing the right people and resources to get the job done. We can adapt to changing timelines while ensuring quality and reliability in our service.

7. Consultant Proposal Worksheet

8. Acknowledgement of City's Standard Terms and Conditions

Dudek understands and accepts the City's Standard Terms and Conditions.

Appendix A

Resumes

Patrick Miskel, PE

PROJECT MANAGER / COASTAL ENGINEERING

Patrick Miskel, Professional Civil Engineer (PE) is a senior coastal engineer with 11 years' professional experience specializing in coastal engineering, waterfront structural design, sea level rise analysis, water wave mechanics, waterfront facility ADA accessibility, and generally assessing and designing engineered components within coastal environments. His project work largely consists of comprehensive development of construction documents including drawings, specifications, and engineering calculations. Additionally, Patrick has completed numerous coastal hazards studies and coastal engineering reports for projects and sites throughout the State of California. Patrick has spent his entire career working as a coastal engineer in Orange County and spends much of his free time in Newport Beach.

Patrick's project roles range from Engineer of Record on a sheet pile retaining wall project in Louisiana to Engineering Project Manager during the construction phase of the development of the Anchorage 47 dock systems and promenade in Los Angeles. He also performs visual assessments on difficult-to-reach coastal sites such as seawalls exposed to wave impact, and waterfront building foundations that can only be accessed by boat.

Education

University of Florida
MS, Coastal and Oceanographic Engineering, 2014

University of California, Berkeley
BS, Civil Engineering, 2013

University of California, Santa Cruz
BA, American Studies, 2011

Certifications

Professional Civil Engineer (PE), CA No. 89522

Relevant Previous Experience

San Diego Bay Sustainable Shorelines Atlas, San Diego Unified Port District, San Diego, California. Serving as Project Lead Engineer and Senior Coastal Engineer. The San Diego Bay Sustainable Shorelines Atlas project is taking an innovative approach to assessing shoreline conditions throughout the entire San Diego Bay and developing an informed, quantitative approach to implementing sustainable shoreline design alternatives. As the engineering lead, I'm responsible for assuring the validity of all quantitative analysis methods and data applied by the engineering team, and ensuring all nature-based solutions proposed by the project's coastal planning team are feasible from an engineering/physics perspective. (Active)

Coastal Hazards Report, Private Residential Property Owner, Newport Beach, California. Served as Senior Coastal Engineer. Completed a wave runup and SLR analysis for the development of a new residential building at the property of 2701 Shell Street in Newport Beach, California. Performed all coastal engineering calculations necessary to support the design of the new residential building and assess impacts on the coastal environment. Performed concrete seawall condition assessment. Learned applicable regulatory requirements, including the City of Newport Beach "*Waterfront Project Guidelines*". Developed the final engineering report. (2023)

Balboa Yacht Basin Marina Preliminary Design, City of Newport Beach, California. Served as Senior Coastal Engineer. Conducted background research and developed preliminary marina layout alternatives for the 170-slip marina, including alternatives for ADA accessibility, gangways, and boat slip sizes and configurations. Had to thoroughly familiarize myself with the unique features of the marina and the relevant design codes including the

City of Newport Beach "*Waterfront Project Guidelines*" and California "*Marina Berthing Facilities Guidelines*". (2022)

Anchorage 47 Dock Replacement, Marina Del Rey, California. Served as Coastal Engineer and Project Manager. Design engineer for this project, which included the replacement of 11 docks, the land-side waterfront promenade, and an Americans with Disabilities Act (ADA)-accessible restroom; and improvements to the site parking lot and drainage. Acted as engineering project manager during the construction phase by attending weekly meetings, answering requests for information, and reviewing submittals. Questions raised during construction were related to structural design of abutment bearing piles, floating dock materials, underground utilities, handrails for ADA-access ramps, non-shrinking grout, gates and guardrails, pile driving equipment, parking lot paving, etc. (2016)

Marina Del Rey Boat Launch Facility Replacement, Marina Del Rey, California. Served as Senior Coastal Engineer and Project Manager. The project included replacement of the 24,000 square foot concrete boat launch ramp, three floating docks with pile foundations, and 205,000 square foot parking lot; and installation of a new ADA-accessible floating dock and four biofiltration units for stormwater management. Designed all project engineering components, including analysis of wind and wave loads on the docks and pile foundations, structural design of the new dock gangway platform, stormwater drainage flow of the parking lot and biofiltration units, and the site ADA-access system. (2023)

West Colyell Creek Bank Stabilization Project, Federal Emergency Management Agency, Denham Springs, Louisiana. Served as Senior Structural Engineer and Engineer of Record. Designed 133-foot steel sheet pile retaining wall along a creek susceptible to extreme flooding in a residential neighborhood. Developed structural engineering calculations for the retaining wall. Performed stormwater flow analysis to design a drainage system. Managed the engineering team in development of construction drawings. (2023)

King Harbor Maintenance Dredging, City of Redondo Beach, California. Served as Senior Coastal Engineer. King Harbor covers 150 acres of land in the Los Angeles Metropolitan Area, and this phase of dredging included approximately 62,000 cubic yards of sediment. Performed all volume calculations and analysis in AutoCAD Civil 3D related to the dredge design. These tasks include technical management of surface data, including pre-dredge surveys and design surfaces; building volume surfaces; creation of plan, section, and detail view drawings to illustrate the dredge volume; and review of the report summarizing survey findings and dredge design. (2023)

Shelter Bay Pile Repairs, Mill Valley, California. Served as Senior Coastal Engineer. Performed site inspection and engineering design of repairs to 190 piles supporting five above-water condominium buildings. Worked with repair product vendors to establish a repair plan for encasement of existing piles using installation of sacrificial anodes and Fiber Reinforced Polymer wraps. Worked extensively with environmental regulators to minimize pollution from above-water work and to implement asbestos abatement construction methods. (2019)

Publications

Miskel, Patrick. *Flow and Hydrography in a Semiarid Bay of the Gulf of California*. http://ufdcimages.uflib.ufl.edu/UF/E0/04/75/60/00001/MISKEL_P.pdf. December 2014.

Awards

Bob & Phyllis Dean Fellowship Award, 2014, for contributions to coastal engineering research within University of Florida's Engineering School of Sustainable Infrastructure & Environment.

Russ Bergholz, PE, PMP

PRINCIPAL IN CHARGE

Russ Bergholz is a principal engineer with 29 years' experience. Russ manages Dudek's Water Infrastructure Group and is responsible for the management and engineering of water-/recycled water–related system Master Plans and design projects. His experience includes the development of numerous water, recycled water, and sewer Master Plans; pipeline design projects (including trenchless technology); and infrastructure rehabilitation projects for many Southern California cities and special districts. He has a documented track record of keeping projects within scope and budget while maintaining quality control and addressing the critical success factors of his clients' projects. As a project manager, Russ is responsible for the tracking, monitoring, team delegation, deliverable quality assurance, engineering guidance, accounting, and client and subconsultant coordination associated with each project, including final stamp and signature of project plans and specifications.

Education

University of California, Davis
BS, Civil Engineering, 1995

Licenses and Certifications

Professional Civil Engineer, CA No. 59395

Project Management Institute PMP No. 1472209

Professional Affiliations

American Public Works Association

California Water Environment Association

Water Environment Federation

Project Experience

Newport Beach Pump Station Pressurization, OC San, Fountain Valley, California. Served as project manager. Following the Dudek-prepared pressurization and odor control study for the seven sewer lift stations in the Newport Beach region, OC San was in need of a design for the recommended improvements. Dudek was hired to complete the final design of the pressure relief project, which consisted of the addition of a wet well ventilation pipeline and passive odor scrubber at each sewer lift station, with chemical injection also added at one pump. The project included evaluation of numerous locations for the odor scrubbers and plumbing within the existing and congested pump station sites. The resulting improvements will eliminate operator risk and mitigate for the potential release of high hydrogen sulfide air into the atmosphere.

Bayside Drive Trunk Sewer Improvements, OC San, City of Newport Beach, California. Served as lead design engineer. Dudek completed design and construction assistance for the Bayside Drive Trunk Sewer Improvements for OC San. The project included structural in situ CIPP structural liner replacement of an existing 24-inch-diameter DIP sewer. This pipe was originally designed for full pipe flow but was converted later to open channel flow. After operating in open channel flow conditions, the DIP severely corroded inside. The 3,000 feet of pipe is located within a winding and hilly section of Bayside Drive in the City of Newport Beach along the edge of Newport Harbor. The work included site investigation, odor control, traffic control, preparation of a preliminary design report, final plans and specifications, and assistance with permits including a City of Newport Beach Encroachment Permit. The project was managed under a tight budget and schedule, with successful completion of the design and construction within the deadline. All stakeholders were very pleased with the final product.

Bay Crossing Water Main Replacement, City of Newport Beach, California. Project manager. The Newport Beach Peninsula and surrounding islands (Balboa, Harbor, Linda, Lido, and Channel) are provided water service through a combination of existing bridges and subaqueous crossings under the bay. Many of these subaqueous crossings are between 40 and 60 years old, and a failure could affect the ability to provide adequate fire flow to homes and businesses. Dudek conducted an evaluation of potential impacts in 2011 and is currently working on the preliminary design of eight new water pipeline crossings using a combination of construction methods including HDD and microtunneling. The project includes the preparation of an environmental impact report to address the CEQA requirements associated with the construction process. Once complete, the new pipelines will provide the City of Newport Beach with the reassurance of continued reliable water service to the public in and around the peninsula.

Newport Boulevard Water Main Relocation, Irvine Ranch Water District (IRWD), City of Irvine, California. Performed quality control. Project included the relocation of a 10-inch water main through a backyard alley to the main roadway on both sides of the project site. Work was challenged by the required lateral and meter relocations for approximately 300 customers along the alignment. Conducted quality control review of staged submittals of the project deliverables.

Bay Crossing Water Main Replacement, City of Newport Beach, California. Serving as project manager. The Newport Beach Peninsula and surrounding islands (Balboa, Harbor, Linda, Lido, and Channel) are provided water service through a combination of existing bridges and under the bay through a pipeline installation technique called subaqueous crossing. Many of these subaqueous crossings are between 40 and 60 years old; if a failure were to occur, it could affect the ability to provide adequate fire flow to homes and businesses. Dudek conducted an evaluation of potential impacts in 2011 and is currently working on the preliminary design of eight new water pipeline crossings using a combination of construction methods, including HDD and microtunneling. Being adjacent and under the bay, the project includes the preparation of an environmental impact report to address the CEQA requirements associated with the construction process. Once complete, the new pipelines will provide the City with the reassurance of continued reliable water service to the public in and around the peninsula.

Pressurization and Odor Control Study, OC San, Newport Beach, California. Served as project manager. The project involved assessing and making recommendations to resolve the safety concerns related to sewer pump station wet well pressurization, hydrogen sulfide corrosion, and odor nuisances. The study addressed two separate collection systems including seven different pump stations. Tasks included (1) assessing each of the seven pump stations to evaluate operating conditions and ventilation issues; (2) evaluating modifications, including liquid-phase, vapor-phase, and physical modifications; and (3) provide systematic, cost-effective recommendations to best resolve the aforementioned issues.

6-19 Costa Mesa Trunk Sewer, OC San, Fountain Valley, California. Served as project manager. During the preparation of the 2006 Facilities Master Plan, OC San identified ultimate system capacity issues within the Fairview Trunk pipeline and recognized a potential cost savings by diverting flow from Fairview Trunk through a new Costa Mesa Trunk Sewer to OC San Treatment Plant No. 2. Dudek was hired to evaluate numerous pipeline and pump station alternative combinations, consolidating the flows from seven existing sewer pump stations owned by Costa Mesa Sanitation District and City of Newport Beach to the proposed trunk sewer, conveying flow across Talbert Park and under the Santa Ana River. The final selected alignment included 3,400 linear feet of 30-inch gravity trunk sewer alignment and a 1,200-linear-foot double barrel 14-inch inverted siphon under the Santa Ana River using trenchless HDD. The selected alternative successfully allowed for the decommissioning of seven sewer lift stations, reducing inherent risks associated with operational failures, and reduced sewer flow within the Fairview Trunk Sewer.

WILLY AHN, PE, PHD

Waterfront Director

Reid Middleton, Inc.

Dr. Ahn is the director of waterfront group specializing in waterfront and port engineering. He is experienced in all aspects of waterfront and municipal-type projects, from feasibility analysis to design, cost estimating, and construction administration. Willy's waterfront experience includes commercial/industrial marine and port facilities, marinas, NAVY and USCG facilities, and ferry terminals. He has been a project manager on numerous waterfront projects and a marine structural engineer providing durable and cost-effective designs of various waterfront facilities for over 33 years. He has been serving in the ASCE/COPRI design standards for piers and wharves committee and mooring analysis task committee for many years. He published over 30 papers in journals, book chapters, and conference proceedings in the area of waterfront engineering and received several awards for his outstanding performance.

EDUCATION

PhD, Ocean Engineering, Florida Atlantic University

Master of Science, Ocean Engineering, Florida Atlantic University

Bachelor of Science, Naval Architecture and Ocean Engineering, Inha University, Korea

PROFESSIONAL REGISTRATION

Professional Engineer (Civil): WA, HI, FL, AK

LEED® Accredited Professional, U.S. Green Building Council

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE)

Coasts, Oceans, Ports, and Rivers Institute (COPRI)

Design Standards for Piers and Wharves Committee (ASCE/COPRI)

Mooring Analysis Task Committee (ASCE/COPRI)

Society of American Military Engineers (SAME)

Select project experience includes:

VENTURA HARBOR BOAT RAMP FLOAT REPLACEMENT, VENTURA PORT DISTRICT, CA

Project Principal. Reid Middleton provided engineering services for replacement of the boarding floats at the Ventura Harbor public boat launch. The project was funded by a grant from the California Department of Boating and Waterways. Services provided included design of the new boarding float system, the new float system, review submittals and coordination with the grant agency and the Port. Port standard hinge details were incorporated into the construction documents. The design allowed for a range of float systems that would meet the criteria providing a cost effective solution for the new boat ramp boarding float systems.

MONTEREY BAY AQUARIUM RESEARCH INSTITUTE (MBARI), MOSS LANDING PIER UPGRADE, MOSS LANDING, CA

Project Manager. Reid Middleton provided the 3D dynamic berthing and mooring analyses and 3D structural analysis to evaluate the capacity of the Monterey Bay Aquarium Research Institute (MBARI) Moss Landing Pier facility for the new large vessel (RV David Packard). The facility was designed for vessels smaller than the RV David Packard, which was constructed in 1988. Based on the findings from the analyses, Reid Middleton provided engineering design and permit support services to upgrade the pier, including replacing the existing timber fender piles with the new plastic piles, installoing anode pile jackets to protect concrete piles against corrosive environment, replacing mooring hardware, and installing a new mooring dolphin with a catwalk structure.

PORT OF SEATTLE, HARBOR ISLAND MARINA E-DOCK FLOATS & NORTH PIER IMPROVEMENT, SEATTLE, WA

Project Manager. Reid Middleton provided professional engineering services to improve the industrial floating dock and pier facilities for the tug boats and underwater work boats. The engineering services provided include design, environmental permit support, construction cost estimate, and engineering services during the bid and construction phases for the replacement of the existing south concrete floating dock (184'x10') with the new aluminum-framed floating dock, repair of the north concrete float (440'x10'), and replacement of the existing North Pier timber structure (62'x16') with the new steel-pile supported concrete pier structure.

Matthew Eckert, PhD, PE, GE

SENIOR GEOTECHNICAL CONSULTANT

Education

Ph.D., Civil Engineering, University of Akron
M.S., Civil Engineering, University of Akron
B.S., Civil Engineering, University of Akron

Registration

Professional Engineer: California (#45171)
Geotechnical Engineer: California (#2316)

Experience

Matthew has 42 years of experience in the practice and teaching of civil engineering. His consulting experience has concentrated on geotechnical and hydraulic engineering, whereas his academic experience has included teaching and research, primarily in engineering mechanics, geotechnical engineering, geotechnical engineering laboratory testing, and hydraulics. His geotechnical engineering experience has included subsurface investigations; site characterization; foundation design for buildings, piers, dry docks, and marinas, including both shallow and deep foundation systems; design of earth retaining systems and structures, including geotextile-reinforced slopes, tied-back walls, anchored bulkheads, cribwalls and other alternative wall systems, and cyclopean walls; and the design of slope stabilization systems, including slope buttresses, tie-back systems, and drilled piers. His representative experience includes:

- Newport Beach Marina Park, Newport Beach, California
- 2888 Bay Shore Drive Marina Replacement, Newport Beach, California
- City of San Diego, 10th Avenue Marine Terminal; San Diego, CA
- San Diego Unified Port District, B-Street Pier Replacement; San Diego, CA
- San Diego Unified Port District, Broadway Pier; San Diego, CA
- U.S. Navy Pier, Veterans Park; San Diego, CA
- San Diego Unified Port District, Sediment Remediation Former Campbell Shipyard; San Diego, CA
- Preliminary Seismic Assessment of Existing Piers 5000, 5002, and 5003, Naval Base Point Loma, San Diego, California
- U.S. Fish and Wildlife Service (USFWS), ponds 10, 10a and 11; Coronado, CA
- Dana Point Harbor Restoration, Dana Point, California
- Marina Del Rey Various Marina Projects, Marina Del Rey, County of Los Angeles, California
- Glorietta Bay Boat Ramp Replacement and Marina Improvements, Coronado, California
- Alamitos Bay Basin Marina Guide Piles, Long Beach, California

EXHIBIT B
SCHEDULE OF BILLING RATES

Exhibit B - Billing Rates

DUDEK 2025 Standard Schedule of Charges

Engineering Services

Project Director	$345.00/hr
Principal Engineer III	$320.00/hr
Principal Engineer II	$300.00/hr
Principal Engineer I	$290.00/hr
Program Manager	$275.00/hr
Senior Project Manager	$275.00/hr
Project Manager	$265.00/hr
Senior Engineer III	$260.00/hr
Senior Engineer II	$250.00/hr
Senior Engineer I	$240.00/hr
Project Engineer IV/Technician IV	$230.00/hr
Project Engineer III/Technician III	$220.00/hr
Project Engineer II/Technician II	$210.00/hr
Project Engineer I/Technician I	$190.00/hr
3D Production Manager	$220.00/hr
Senior Designer II	$210.00/hr
Senior Designer I	$200.00/hr
Designer	$190.00/hr
Assistant Designer	$185.00/hr
CADD Operator III	$180.00/hr
CADD Operator II	$170.00/hr
CADD Operator I	$155.00/hr
CADD Drafter	$145.00/hr
CADD Technician	$125.00/hr
Project Coordinator	$160.00/hr
Engineering Assistant	$125.00/hr

Environmental Services

Senior Project Director	$330.00/hr
Project Director	$285.00/hr
Senior Specialist V	$260.00/hr
Senior Specialist IV	$245.00/hr
Senior Specialist III	$235.00/hr
Senior Specialist II	$225.00/hr
Senior Specialist I	$210.00/hr
Specialist V	$195.00/hr
Specialist IV	$185.00/hr
Specialist III	$175.00/hr
Specialist II	$165.00/hr
Specialist I	$155.00/hr
Analyst V	$145.00/hr
Analyst IV	$135.00/hr
Analyst III	$125.00/hr
Analyst II	$115.00/hr
Analyst I	$105.00/hr
Technician III	$90.00/hr
Technician II	$80.00/hr
Technician I	$70.00/hr

Mapping and Surveying Services

Application Developer II	$220.00/hr
Application Developer I	$155.00/hr
GIS Analyst V	$205.00/hr
GIS Analyst IV	$170.00/hr
GIS Analyst III	$150.00/hr
GIS Analyst II	$135.00/hr
GIS Analyst I	$125.00/hr
UAS Pilot	$145.00/hr
Survey Lead	$235.00/hr
Survey Manager	$210.00/hr
Survey Crew Chief	$165.00/hr
Survey Rod Person	$120.00/hr
Survey Mapping Technician	$95.00/hr

Construction Management Services

Principal/Manager	$195.00/hr
Senior Construction Manager	$185.00/hr
Senior Project Manager	$180.00/hr
Construction Manager	$175.00/hr
Project Manager	$170.00/hr
Resident Engineer	$175.00/hr
Construction Engineer	$170.00/hr
On-site Owner's Representative	$160.00/hr
Prevailing Wage Inspector	$155.00/hr
Construction Inspector	$145.00/hr
Administrator/Labor Compliance	$120.00/hr

Hydrogeology/HazWaste Services

Project Director	$335.00/hr
Principal Hydrogeologist/Engineer III	$310.00/hr
Principal Hydrogeologist/Engineer II	$300.00/hr
Principal Hydrogeologist/Engineer I	$290.00/hr
Senior Hydrogeologist V/Engineer V	$265.00/hr
Senior Hydrogeologist IV/Engineer IV	$255.00/hr
Senior Hydrogeologist III/Engineer III	$245.00/hr
Senior Hydrogeologist II/Engineer II	$235.00/hr
Senior Hydrogeologist I/Engineer I	$225.00/hr
Project Hydrogeologist V/Engineer V	$215.00/hr
Project Hydrogeologist IV/Engineer IV	$205.00/hr
Project Hydrogeologist III/Engineer III	$195.00/hr
Project Hydrogeologist II/Engineer II	$185.00/hr
Project Hydrogeologist I/Engineer I	$175.00/hr
Hydrogeologist/Engineering Assistant	$140.00/hr
HazMat Field Technician	$125.00/hr

District Management & Operations

District General Manager	$230.00/hr
District Engineer	$215.00/hr
Operations Manager	$165.00/hr
District Secretary/Accountant	$145.00/hr
Collections System Manager	$145.00/hr
Grade V Operator	$135.00/hr
Grade IV Operator	$115.00/hr
Grade III Operator	$110.00/hr
Grade II Operator	$90.00/hr
Grade I Operator	$80.00/hr
Operator in Training	$75.00/hr
Collection Maintenance Worker	$80.00/hr

Creative Services

Creative Services IV	$175.00/hr
Creative Services III	$150.00/hr
Creative Services II	$140.00/hr
Creative Services I	$125.00/hr

Publications Services

Technical Editor IV	$175.00/hr
Technical Editor III	$150.00/hr
Technical Editor II	$140.00/hr
Technical Editor I	$125.00/hr
Publications Specialist IV	$130.00/hr
Publications Specialist III	$115.00/hr
Publications Specialist II	$110.00/hr
Publications Specialist I	$100.00/hr
Clerical Administration	$90.00/hr

Expert Witness – Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates.
Emergency and Holidays – Minimum charge of two hours will be billed at 1.75 times the normal rate.
Material and Outside Services – Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost.
Travel Expenses – Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost
Invoices, Late Charges – All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within 30 days from the date of the invoice. Client agrees to pay interest at a 10% annual rate for amounts unpaid greater than 30 days after the date of the invoice.
Annual Increases – Unless identified otherwise, these standard rates will increase in line with the CPI-U for the nearest urban area per the Department of Labor Statistics to where the work is being completed) or by 3% annually, whichever is higher.
Prevailing Wage – The rates listed above assume prevailing wage rates do not apply. If this assumption is incorrect Dudek reserves the right to adjust its rates accordingly.

*Subconsultant contract overhead rates may vary depending on the project scope, but will not exceed 10%.

Reid Middleton, Inc.
Exhibit "A" Schedule of Charges
Effective July 1, 2024 through June 30, 2025

I. Personnel

	Hourly Rate
Principal	$ 260.00 - $ 300.00
Associate Principal/Principal Engineer/Principal Planner/Principal Surveyor	$ 240.00 - $ 270.00
Associate	$ 215.00 - $ 240.00
Senior Engineer/Senior Planner/Senior Surveyor	$ 195.00 - $ 215.00
Senior Designer	$ 185.00 - $ 200.00
Project Engineer/Project Designer/Project Surveyor/Project Planner	$ 175.00 - $ 195.00
Design Engineer/Designer II/Design Technician/Survey Crew Chief/ Technical Writer II/ Graphic Designer II	$ 155.00 - $ 175.00
Designer I/Planner/CAD Technician II	$ 145.00 - $ 155.00
Project Administrator	$ 135.00 - $ 145.00
CAD Technician I/Survey Technician/Technician/Technical Writer I	$ 110.00 - $ 135.00
Survey Crew (1 Person/RTK/Robotic/Scanning)	$ 165.00
Survey Crew (2 Person/RTK/Robotic/Scanning)	$ 225.00
Survey Crew (3 Person/ RTK/Robotic/Scanning)	$ 280.00
Expert Witness/Forensic Engineering	1.5 times usual hourly rate (4 hour minimum)

Individuals not in the regular employ of Reid Middleton may occasionally be engaged to meet specific project requirements. Charges for such personnel will be comparable to charges for regular Reid Middleton personnel.

A premium may be charged if project requirements make overtime work necessary.

II. Equipment

	Rate
Design Software/Computer Aided Drafting	$ 12.00/hour

III. Reimbursable Expenses

Local Mileage - Automobile	$ 0.670/mile
Local Mileage - Survey Truck	$ 0.670/mile

Expenses that are directly attributable to the project are invoiced at cost plus 15%. These expenses include, but are not limited to, subconsultant or subcontractor services, travel and subsistence, communications, couriers, postage, fees and permits, document reproduction, special instrumentation and field equipment rental, premiums for additional insurance where required, special supplies, and other costs directly applicable to the project.

A new schedule of charges is issued and becomes effective July 1 each year. Charges for all work, including continuing projects initiated in prior years, will be based on the latest schedule of charges.

IV. Client Advances

Unless the parties agree otherwise in writing, charges for the following items shall be paid by the client directly, shall not be the responsibility of Reid Middleton, and shall be in addition to any fee stipulated in the agreement: government fees, including permit and review fees; soils testing fees and costs; charges for aerial photography; and charges for monuments. If Reid Middleton determines, in its discretion, to advance any of these costs in the interest of the project, the amount of the advance, plus a fifteen percent administrative fee, shall be paid by the client upon presentation of an invoice therefore.

Schedule of Charges - 2025

COMPENSATION

Our compensation will be determined on the basis of time and expenses in accordance with the following schedule unless a lump sum amount is so indicated in the proposal or services agreement. Current rates are:

PROFESSIONAL STAFF		
Staff 1 Scientist	$	152/hour
Staff 1 Engineer	$	160/hour
Staff 2 Scientist	$	174/hour
Staff 2 Engineer	$	182/hour
Staff 3 Scientist	$	198/hour
Staff 3 Engineer	$	206/hour
Project Scientist 1	$	229/hour
Project Engineer 1	$	237/hour
Project Scientist 2	$	236/hour
Project Engineer 2	$	244/hour
Senior Engineer/Scientist 1	$	265/hour
Senior Engineer/Scientist 2	$	290/hour
Associate	$	304/hour
Principal	$	332/hour
Senior Principal	$	354/hour
TECHNICAL SUPPORT STAFF		
Administrator 1	$	105/hour
Administrator 2	$	124/hour
Administrator 3	$	140/hour
CAD Technician	$	137/hour
CAD Designer	$	160/hour
Senior CAD Designer	$	186/hour
GIS Analyst	$	172/hour
Senior GIS Analyst	$	187/hour
GIS Coordinator	$	208/hour
*Technician	$	120/hour
*Senior Technician	$	145/hour
*Lead Technician	$	155/hour
Geotechnical Construction Specialist	$	203/hour
Environmental Database Manager	$	235/hour
Health and Safety Specialist	$	152/hour
Health and Safety Manager	$	208/hour

*Hours in excess of 8 hours in a day or 40 hours in a week will be charged at one and one-half times the hourly rates listed above.

Contracted professional and technical services will be charged at the applicable hourly rates listed above. Staff time spent providing expert services in disputes, mediation, arbitration and litigation will be billed at one and one-half times the above rates. Time spent in either local or inter-city travel, when travel is in the interest of this contract, will be charged in accordance with the foregoing schedule. A surcharge may be applied to night and weekend work. See proposal for details.

Rates for data storage and web-based access will be provided on a project-specific basis.

Associated Project Costs (APC)

Associated Project Costs (APC) equal to six percent (6%) of professional fees will be assessed. This fee allows GeoEngineers to invest in the necessary infrastructure to ensure we provide our clients with the latest technological and data security standards. The investments include maintaining and advancing technical tools and platforms across all aspects of our business, and strengthening our defenses against cyber threats to ensure data remains secure. These costs are not included in our hourly rates or direct expenses.

EQUIPMENT		
Air Quality Equipment, per Day	$	210.00
Air Sparging Field Test, per Day	$	110.00
Air/Vapor Monitoring Equipment (PID, 5-Gas Meter), per Day	$	110.00
Asbestos Sample Kit, Each	$	30.00
Blastmate, per Day	$	120.00
D&M Sampler, per Day	$	150.00
DO (Dissolved Oxygen) Kit, Each	$	25.00
Dynamic Cone Penetrometer, per Day	$	45.00
E-Tape (Electric Tape), per Day	$	35.00
Electric Density Gauge, per Day	$	110.00
Electric Density Gauge, per Week	$	430.00
Electric Density Gauge, per Month	$	1,400.00
Environmental Exploration Equipment, per Day	$	225.00
Field Data Acquisition Equipment (Field Tablet), per Day	$	55.00
Field Tablet, per Week	$	200.00
Field Tablet, per Month	$	750.00
Field Tablet with Cellular, per Day	$	75.00
Field Tablet with Cellular, per Week	$	300.00
Field Tablet with Cellular, per Month	$	1,000.00
Field Gear / Reconnaissance, per Day	$	55.00
Gas Detection Meters, per Day	$	105.00
Generator, per Day	$	110.00
Groundwater Pressure Transducer w/ Datalogger, per Day	$	55.00
Groundwater Pressure Transducer w/ Datalogger, per Week	$	220.00
Hand Auger, per Day	$	100.00
Inclinometer Probe, per Day, 1 Day minimum	$	210.00
Interface Probe, per Day	$	65.00
Iron Test Kit, Each	$	25.00
Laser Level, per Day	$	60.00
Low Flow Groundwater Sampling Equipment, per Day	$	235.00
Multiparameter Water Quality Meter, per Day	$	85.00
Nuclear Density Gage, per Hour, 1/2 Day minimum	$	15.00
Peristaltic Pump, per Day	$	50.00
pH Probe,/Meter per Day	$	20.00
PID, FID or OVA, per Day	$	130.00
Rock/Slope Fall Protection/Rigging Equipment, per Day	$	700.00
Saximeter, per Day	$	60.00
Scuba Diving Gear, per Day/per Diver	$	700.00
Shallow Soil Exploration Equipment, per Day	$	60.00
Soil Field Screening Equipment, per Day	$	20.00
Soil Sample Kit, Each	$	20.00
Steam Flow Meter, per Day	$	20.00
Strain Gauge Readout Equipment, per Day	$	50.00
Surface Water Flow Meter, per Day, 1/2 day minimum	$	50.00
Surface Water Quality Monitoring Equipment, per Day	$	50.00
Turbidity Meter, per Day	$	50.00
Vehicle usage, per Mile, or $30/half-day, whichever is greater	$	IRS Rate

Specialized and miscellaneous field equipment not listed above will be quoted on a project-specific basis.

OTHER SERVICES, SUPPLIES AND SPECIAL TAXES

Charges for services, equipment, supplies and facilities not furnished in accordance with the above schedule, and any unusual items of expense not customarily incurred in our normal operations, are charged at cost plus 15 percent. This includes shipping charges, subsistence, transportation, printing and reproduction, miscellaneous supplies and rentals, surveying services, drilling equipment, construction equipment, watercraft, aircraft, and special insurance which may be required. Taxes required by local jurisdictions for projects in specific geographic areas will be charged to projects at direct cost.

Per diem may be charged in lieu of subsistence and lodging.

Routinely used field supplies stocked in-house by GeoEngineers, at current rates, list available upon request.

In-house testing for geotechnical soil characteristics at current rates, list available upon request.

All rates are subject to change upon notification.

EXHIBIT C

INSURANCE REQUIREMENTS

1. Provision of Insurance: Without limiting Consultant's indemnification of City, and prior to commencement of Work, Consultant shall obtain, provide and maintain at its own expense during the term of this Contract, policies of insurance of the type and amounts described below and in a form satisfactory to City. Consultant agrees to provide insurance in accordance with requirements set forth here. If Consultant uses existing coverage to comply and that coverage does not meet these requirements, Consultant agrees to amend, supplement or endorse the existing coverage.

2. Acceptable Insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

3. Coverage Requirements.

   A. Workers' Compensation Insurance. Consultant shall maintain Workers' Compensation Insurance providing statutory benefits and Employer's Liability Insurance with limits of at least one million dollars ($1,000,000) each employee for bodily injury by accident and each employee for bodily injury by disease in accordance with the laws of the State of California.

      Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of City, its City Council, boards and commissions, officers, agents, volunteers and employees.

   B. General Liability Insurance. Consultant shall maintain commercial general liability insurance, and if necessary excess/umbrella liability insurance, with coverage at least as broad as provided by Insurance Services Office form CG 00 01, in an amount not less than two million dollars ($2,000,000) per occurrence, four million dollars ($4,000,000) general aggregate. The policy shall cover liability arising from bodily injury, property damage, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

   C. Automobile Liability Insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of Consultant arising out of or in connection with Work to be performed under this Contract, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than one million dollars ($1,000,000)

combined single limit for each accident.

D. Professional (Errors & Omissions) Insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of two million dollars ($2,000,000) per claim and four million dollars ($4,000,000) in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the Effective Date of this Agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the Services required by this Agreement.

E. Excess/Umbrella Liability Insurance. If any Excess or Umbrella Liability policies are used to meet the limits of liability required by this contract, then said policies shall be "following form" of the underlying policy coverage, terms, conditions, and provisions and shall meet all of the insurance requirements stated in this contract, including, but not limited to, the additional insured and primary & non-contributory insurance requirements stated herein. No insurance policies maintained by the City, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Consultant's primary and excess/umbrella liability policies are exhausted.

4. Other Insurance Requirements. The policies are to contain, or be endorsed to contain, the following provisions:

A. Waiver of Subrogation. All insurance coverage maintained or procured pursuant to this Contract shall be endorsed to waive subrogation against City, its City Council, boards and commissions, officers, agents, volunteers and employees, or shall specifically allow Consultant or others providing insurance evidence in compliance with these requirements to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subcontractors.

B. Additional Insured Status. All liability policies including general liability, excess/umbrella liability, and automobile liability, if required, but not including professional liability, shall provide or be endorsed to provide that City, its City Council, boards and commissions, officers, agents, volunteers and employees shall be included as additional insureds under such policies.

C. Primary and Non-Contributory. Consultant's insurance coverage shall be primary insurance and/or the primary source of recovery with respect to the City, its City Council, boards and commissions, officers, agents, volunteers and employees. All liability coverage shall apply on a primary basis and shall not require contribution from any insurance or self-insurance maintained by City.

D. Notice of Cancellation. All policies shall provide City with thirty (30) calendar days' notice of cancellation or nonrenewal of coverage (except for nonpayment for which ten (10) calendar days' notice is required) for each required coverage.

5. Additional Agreements Between the Parties. The parties hereby agree to the following:

A. Evidence of Insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation and other endorsements as specified herein for each coverage. All of the executed documents referenced in this Contract must be returned to City within ten (10) regular City business days after the date on the "Notification of Award". Insurance certificates and endorsements must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this Contract. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the City. If such coverage is cancelled or reduced, Consultant shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the City evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies. The City may request further documentation of all required insurance policies, including, but not limited to, policy declarations, memorandum of coverage, or endorsements, to ensure policies satisfy the above requirements.

B. City's Right to Revise Requirements. The City reserves the right at any time during the term of the Contract to change the amounts and types of insurance required by giving Consultant ninety (90) calendar days' advance written notice of such change. If such change results in substantial additional cost to Consultant, City and Consultant may renegotiate Consultant's compensation.

C. Right to Review Subcontracts. Consultant agrees that upon request, all agreements with subcontractors or others with whom Consultant enters into contracts with on behalf of City will be submitted to City for review. Failure of City to request copies of such agreements will not impose any liability on City, or its employees. Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that City is an additional insured on insurance required from subcontractors. For CGL coverage,

subcontractors shall provide coverage with a format at least as broad as CG 20 38 04 13.

D. Enforcement of Agreement Provisions. Consultant acknowledges and agrees that any actual or alleged failure on the part of City to inform Consultant of non-compliance with any requirement imposes no additional obligations on City nor does it waive any rights hereunder.

E. Requirements not Limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for higher limits maintained by the Consultant. Any available proceeds in excess of specified minimum limits of insurance and coverage shall be available to the City.

F. Self-Insured Retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these requirements unless approved by City.

G. City Remedies for Non-Compliance. If Consultant or any subconsultant fails to provide and maintain insurance as required herein, then City shall have the right but not the obligation, to purchase such insurance, to terminate this Agreement, or to suspend Consultant's right to proceed until proper evidence of insurance is provided. Any amounts paid by City shall, at City's sole option, be deducted from amounts payable to Consultant or reimbursed by Consultant upon demand.

H. Timely Notice of Claims. Consultant shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Contract, and that involve or may involve coverage under any of the required liability policies. City assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve City.

I. Consultant's Insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the Work.