TASK 16 INTRODUCTION

Annual monitoring of the Town of Nags Head (Town) beach and nearshore system, and conclusions from the Town's Beach Nourishment Master Plan, indicate that the summer of 2026 or 2027 is a likely appropriate timeframe for the next large-scale sand nourishment project on the Town's beaches. It is expected that a summer 2026 or 2027 nourishment project would require on the order of approximately 2.2 million cubic yards (cy) of sand, to be obtained by hopper dredge (and/or hydraulic cutterhead dredge) from previously-investigated borrow areas located within State waters offshore of the Nags Head oceanfront.

The scope of Task 16 is proposed to provide for the engineering design, permitting coordination, and preparation of construction documents for the Town as it implements this next Town-wide beach nourishment project.

Note: The Town's plan to nourish its beaches in 2026 or 2027 is based on an assumption that no other large beach restoration projects will be needed between now and then. If a severe coastal storm event incurs the need for emergency beach restoration, i.e. such as the Town pursued in collaboration with FEMA under FEMA's Public Assistance program Category G reimbursement, it is understood that such an event may change the extent and timing of the Town's next non-Federally funded beach nourishment project.

TASK 16 SCOPE OF WORK

M&N will provide professional services as described in the subtasks below to assist the Town to execute its next Town-wide beach nourishment project in accordance with Town policies and any applicable State of North Carolina procurement practices, and in compliance with applicable State and Federal environmental regulations. The project requires the following tasks:

Task 16.1 – Project Planning, Meetings and Coordination with Agencies and Stakeholder Groups

M&N will attend meetings and provide coordination services related to the beach nourishment project development, acquiring the necessary permits and addressing citizen and other stakeholder concerns. These will include meetings with Town staff and elected officials; regulatory and other governmental agencies such as NCDCM and USACE (and agencies invited by those lead agencies to comment on the permit application); potential construction contractors; and interested or concerned citizens. M&N's proposed fee for Task 16 includes an assumption of up to four (4) in-person meetings in Nags Head or in Washington, NC, and up to four (4) virtual meetings during the course of the 2026 or 2027 nourishment project development. Budget is included to develop presentations for these meetings, when needed.

Task 16.2 – Preliminary Engineering Design and Drawings Development

M&N will develop a preliminary (approximately 70% completion) set of engineering drawings and specifications for the proposed beach nourishment project. The preliminary engineering drawings will consist of preliminary plans and typical cross-sections for a proposed project that would restore the beach berm to the widths and volumes identified in the Beach Nourishment Master Plan. It is expected that the 2026 or 2027 beach nourishment project extent will include the nourished oceanfront of the Town of

Nags Head, from Bonnett Street in the north to the national park boundary adjacent to McCall Court in the south. The proposed berm width will vary along the Project area to achieve a distribution of alongshore fill density to be discussed and agreed with Town staff during project development.

M&N will compile existing data available for the project including available beach surveys and geophysical / geotechnical information collected by the M&N team and by others, and this existing data will become the base data set for the 2026 or 2027 beach nourishment design.

M&N will develop a new digital elevation model of the current survey at the time of preliminary design development (expected to be the most recent annual monitoring survey) to serve as the base map for the permit drawings and preliminary construction drawings.

M&N will identify the most suitable subsection of the borrow area S1 and verify the volume of beach compatible material available for use in the 2026 or 2027 nourishment project.

Deliverables from Task 16.2 to the Town will include:

- Preliminary construction plans and specifications at an approximate 70% level of completion, for Town review and comment prior to preparation of final plans and specifications for project bidding; and
- Preliminary Engineer's Opinion of Probable Construction Cost (OPCC) for the project.

Task 16.3 – Environmental Technical Documents and Permitting

M&N will prepare application packages for the Town to acquire state and federal permits for the project. Agency coordination and stakeholder interaction is expected to be an important part of this project. M&N will participate in an agency pre-project scoping meeting to determine appropriate documentation necessary to support permitting and regulatory review. M&N staff will be available for one additional agency meeting, if necessary, as the project progresses, or for public input.

M&N will work with the Town and with the U.S. Army Corps of Engineers (USACE), NC Division of Coastal Management (NCDCM) and NC Division of Water Resources to obtain permits to allow the Project to proceed. It is expected that the permit application will be similar to and will incorporate lessons learned from prior permits issued for the Town's 2019 beach nourishment and the Town's 2022 post-Dorian beach restoration. The permit drawings will be based on the preliminary engineering plans developed in Task 16.2, and the design of the berm restoration and the construction procedures to be followed will be in accordance with agency requirements. M&N will work closely with permit personnel to identify their requirements and restrictions.

Deliverables from Task 16.3 to the Town will include:

- Permit drawings consisting of preliminary plans and typical cross-sections and construction notes, along with a project narrative for coordination with permitting agencies;
- Notes / minutes of meetings and coordination with permitting agencies; and
- Permit applications and related correspondence occurring during permit review and processing.

Task 16.4 – Final Plans and Specifications and Bid Documents

M&N will develop a complete set of bid documents for advertisement by the Town. This will include a complete set of construction drawings, technical specifications, general provisions, and other necessary documents that form the complete bid package, and the Engineer's Opinion of Probable Construction Cost (OPCC) confirming M&N's opinion that the project can be constructed within the Town's available funds for the project. The preliminary plans will be revised based on the updated monitoring survey conducted prior to construction. It is assumed that the Town will be responsible for any right-of-

way/easement acquisitions as well as identification of staging areas.

Deliverables from Task 16.3 to the Town will include:

- A Prefinal set of plans and specifications for final review by the Town before submittal of the Final signed and sealed bid documents.
- Final bid documents, signed and sealed as necessary by a licensed North Carolina Professional Engineer, for the Town to use in project bidding.

TASK 16 EXCLUSIONS FROM SCOPE

This present Task 16 scope of work does not include any scope or fee for obtaining any new topographic or hydrographic (bathymetric) surveys, nor geophysical or geotechnical field data, nor laboratory testing.

It is assumed that the annual beach monitoring surveys, typically conducted by McKim and Creed under separate contract with the Town, would provide the necessary beach and nearshore topographic information for design and permitting. It is also expected that any bathymetry surveys of the borrow area could be conducted by McKim and Creed under their contract with the Town.

It is noted that permitting agencies required supplemental geotechnical borings and sediment analysis of the borrow areas during the 2022 post-Dorian project permitting. However, it is currently expected that the geophysical and geotechnical field investigations conducted in 2022 and 2023 for the Town's Beach Nourishment Master Plan would provide sufficient information to support the permitting of the proposed 2026 or 2027 beach nourishment project.

Services related to project bidding, negotiation, and award as well as construction observations and administration are not included in this scope of services.

TASK 16 PROJECT COST

The total estimated fee for the 2026 or 2027 Town Beach Renourishment Project tasks inclusive of all efforts is lump sum of **$481,940.00,** including expenses for reproduction and travel to the Town or Washington, NC for meetings. This fee excludes any additional survey, geophysical, geotechnical or environmental field investigations. If these are deemed necessary during design and permitting of the project, an additional scope and fee will be submitted to the Town for review and approval.

M&N proposes to invoice the Town monthly on a percent complete basis by Task. Our invoice format can be tailored to meet the Town's requirements and preferences, and the invoice would generally be accompanied by a cover letter or cover sheet summarizing progress on the Task during the invoice period.

The fees for each of these subtasks are summarized below:

Task 16: 2026 or 2027 Beach Renourishment Project	**M&N Fee**
Task 16.1 – Project Planning, Meetings and Coordination with Agencies and Stakeholder Groups	$86,500.00
Task 16.2 – Preliminary Engineering Design and Plan Development	$132,460.00
Task 16.3 – Environmental Technical Documents and Permitting	$165,140.00
Task 16.4 – Final Plans and Specifications and Bid Documents	$97,840.00
Total for Task 16	**$481,940.00**

TASK 16 PROJECT SCHEDULE

The total project duration is expected to be approximately **18 months** to complete design and permitting. At this time, project construction is expected to occur in the summer of 2026 or 2027, with a construction contract end date of approximately October of the corresponding year; this construction timeframe may vary with storm conditions, beach evolution, and the contracting environment over the next two to three years.