

Surfers Beach Restoration Project

Post-Construction Report and As-Built Documentation

Prepared by Brad Damitz, consultant to San Mateo County Harbor District. February 10, 2026

1. Introduction and Purpose

This Post-Construction Report has been prepared for the Surfers Beach Pilot Restoration Project (Project) to satisfy post-construction and as-built reporting requirements for all applicable permitting and funding agencies, including the California Coastal Commission (CCC), Greater Farallones National Marine Sanctuary (GFNMS), and the San Francisco Bay Regional Water Quality Control Board (RWQCB), and to support grant reporting obligations to Ocean Protection Council (OPC). This consolidated report is intended to serve as the required as-built report for post-construction documentation to agencies.

The purpose of this report is to document how the Project was constructed, describe the construction activities conducted within the various Project areas, and confirm that the work was completed in substantial conformance with approved plans and permit conditions. The report also provides a clear, consolidated record of the completed Project for regulatory review and future reference, including as-built plans, maps, photographs, and summaries of construction activities and outcomes.

2. Executive Summary

The Surfers Beach Pilot Restoration Project was implemented by the San Mateo County Harbor District (District) to address chronic harbor shoaling and accelerated coastal erosion at Surfer's Beach, adjacent to Pillar Point Harbor. These conditions are largely attributable to the construction of the East Breakwater approximately 60 years ago, which disrupted natural sediment transport processes along this shoreline.

The Project beneficially reused clean dredged sand from within Pillar Point Harbor to restore beach width and coastal resilience along approximately 1,300 feet of shoreline at Surfers Beach. The Project also implemented eelgrass mitigation activities within the harbor to offset impacts associated with dredging and to improve habitat conditions for marine species. The Project was funded through the Harbor District's Capital Improvement Program and supported by an approximately \$3 million grant from the Ocean Protection Council's SB 1 Track 2 Grant Program.

Construction commenced on July 28, 2025, following mobilization by the District's contractor, Vortex Marine Construction, Inc., and was completed on October 22, 2025. All construction and staging areas were restored to pre-project conditions, and all equipment was fully demobilized by the end of October 2025.

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The Project was constructed in substantial conformance with all required permit conditions. Construction proceeded without spills, releases, or incidents requiring agency notification. No deviations from the approved Project occurred that would affect coastal resources, public access, or surf conditions.

This report summarizes the construction process and identifies the as-built plans and photographic documentation that establish a baseline for future monitoring and evaluation of beach evolution, sediment behavior, and surf conditions at Surfers Beach.

Final constructed conditions are documented in the certified as-built plans (see Attachment B) and associated photographic documentation (see Attachment E), which establish the baseline for future monitoring and evaluation of beach evolution, sediment transport, and surf conditions.

3. Project Overview

3.1 Location

The Project is located within and adjacent to Pillar Point Harbor in Half Moon Bay, San Mateo County, California. Construction activities occurred within designated dredge areas inside the harbor and along a portion of the Surfer's Beach shoreline south of the harbor.

3.2 Project Objectives

The goal of the project is to study the potential benefits and impacts of implementing a pilot project that beneficially reuses approximately 75,000 to 100,000 cubic yards of sand dredged from Pillar Point Harbor and placed at Surfer's Beach. Project Objectives include:

- Prevent or mitigate beach erosion and sea cliff retreat
- Improve protection of Highway 1 and other structures
- Increase quality and quantity of public access and recreation
- Reduce the need for coastal armoring
- Improve biological habitat
- Improve operations of the boat launch ramp in PPH by removing sediments that interfere with the boat launch activities
- Improve navigation and anchorage in the East Basin by deepening significant shoaling areas
- Develop and implement a monitoring program that will be used to measure the project benefits and impacts, including physical and ecological considerations

3.3 Project Team

- **Project Proponent:** San Mateo County Harbor District
- **Construction Contractor:** Vortex Marine Construction, Inc.
- **Project Management:** Brad Damitz, Coastal Management Consultant

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- **Engineering and Design:** Environmental Science Associates (ESA)
- **Construction Management:** Joe Hill Consulting and Engineering Corporation (JHCE)
- **Eelgrass Mitigation Subcontractor:** Marine Taxonomic Resources, Ltd. (MTS)

4. Construction Summary

4.1 Mobilization and Site Preparation

Vortex Marine Construction, Inc. was given Notice to Proceed by the Harbor District on May 29, 2025, with mobilization of construction equipment and materials beginning on June 27, 2025. Mobilization included assembly of dredging equipment, installation of temporary pipelines, and establishment of staging areas in accordance with approved permits and plans.

Construction officially began on July 28, 2025. All construction activities were conducted during daylight hours. Temporary facilities and pipelines were installed and managed to maintain public safety and access along the shoreline and adjacent pedestrian corridors.

Project implementation followed the sequence of activities outlined below, with work phases coordinated as needed to accommodate site conditions and operational requirements, and biological timing constraints, including the need to complete eelgrass salvage and transplant activities within the appropriate growing season to support successful establishment prior to seasonal dormancy.:

1. Contractor mobilization and site preparation.
2. Dredging near the boat launch ramps and construction of the eelgrass mitigation area.
3. Completion of sediment placement at the eelgrass mitigation area and allowing placed sediment to settle.
4. Eelgrass salvage and transplant activities.
5. Dredging and hydraulic placement of sand at Surfers Beach, followed by final grading.
6. Contractor closeout, site restoration, and demobilization.

4.2 In-Harbor Dredging and Eelgrass Mitigation

Initial dredging activities focused on Dredge Areas 1B, and 1C, near the boat launch ramps in the east outer harbor of Pillar Point Harbor. Hydraulic suction dredging methods were used to remove clean sediment from designated dredge areas. The locations and extents of all approved dredge areas are shown on the certified as-built plans (see Attachment B).

During this initial phase of dredging, approximately 16,000 cubic yards of sediment was dredged from 1A and 1C and hydraulically pumped to the designated Eelgrass Mitigation Area site located in the west basin of the harbor near the west outer breakwater.

Prior to commencement of Phase 1 dredging, Marine Taxonomic Resources, Ltd. (MTS) conducted a small-scale preliminary eelgrass salvage and transplant effort. Eelgrass plants were salvaged from Dredge Areas 1A–1C and transplanted into suitable areas within the west basin

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of the harbor, adjacent to but outside the formal Eelgrass Mitigation Area, where sediment and depth conditions were optimal.

Following completion of sediment placement at the mitigation site (August 26, 2025) and an appropriate settlement period (through September 1, 2025), a second, larger-scale eelgrass salvage and transplant effort was conducted between September 1 and September 12, 2025. During this phase, eelgrass plants were salvaged from Dredge Area 2 and transplanted within the newly constructed Eelgrass Mitigation Area in the west basin. The final configuration and footprint of the Eelgrass Mitigation Area are depicted in the as-built plans (see Attachment B).

Dredging operations were conducted using up to two dredges operating concurrently in approved dredge areas, including areas near the boat launch ramps and along the east breakwater, to efficiently complete dredging and placement activities. Approximately 80,000 cubic yards of sand was dredged from Pillar Point Harbor and placed on Surfer's Beach

4.3 Sand Placement at Surfer's Beach

Following completion of in-harbor sediment placement and eelgrass mitigation activities, dredge pipelines were disassembled and reconfigured to deliver sand to Surfers Beach.

Dredging resumed in Dredge Area 1A, and sediment was hydraulically pumped to the northern end of the Surfers Beach placement area. During this initial phase of beach placement, approximately 10,000 cubic yards of sand were discharged directly onto the northern portion of the project area.

A second, larger dredge was mobilized to operate in Dredge Area 2, with a separate pipeline assembled to Surfers Beach. Following initial placement at the northern end, both pipelines were extended to the southern extent of the approximately 1,300-foot-long shoreline placement area. The final sand placement footprint and contours are shown on the certified as-built plans (see Attachment B).

In total, approximately 80,000 cubic yards of clean dredged sand was hydraulically pumped to Surfers Beach. Sand placement was accomplished through controlled slurry discharge and grading to achieve the approved design intent while accommodating site-specific conditions. Placement techniques included direct slurry discharge, temporary containment and ponding, and dozer contouring to facilitate effective distribution of sand and formation of the restored beach profile. Representative construction photographs illustrating placement methodologies are provided in Attachment E.

Dredging and sand placement operations at Surfers Beach were completed on October 22, 2025. Post-construction shoreline conditions from upcoast, downcoast, inland, and seaward viewpoints are included in Attachment E.

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4.4 Public Access Management

Public access was maintained throughout construction to the maximum extent feasible. Temporary interruptions associated with pipeline installation, pipeline crossings, and construction of a temporary beach access ramp were managed through active coordination with pedestrians and cyclists. Where temporary detours were necessary, construction crews worked to maintain safe passage and minimize disruptions.

4.5 Demobilization and Site Restoration

Upon completion of dredging and sand placement activities, all temporary construction facilities, pipelines, and staging areas were removed. All disturbed staging areas were restored to pre-project conditions. Vortex Marine Construction fully demobilized equipment by the end of October 2025.

4.6 Construction Summary Metrics

- Construction Start Date: July 28, 2025
- Completion of Dredging and Sand Placement: October 22, 2025
- Completion of Final Beach Grading: October 29, 2025
- Total Volume Dredged: 96,000 CY
- Volume Placed at Surfers Beach: 80,000 CY

5. Regulatory Compliance Summary

The Project was constructed in substantial conformance with all associated permit conditions. A detailed permit compliance matrix summarizing compliance with applicable conditions from the CCC, RWQCB, U.S. Army Corps of Engineers, and National Marine Sanctuaries is included as Attachment A. Areas of construction activity within waters of the State and along the shoreline are identified on the as-built plans (Attachment B) and in the accompanying photo documentation (Attachment E).

Public access along Surfers Beach and adjacent shoreline areas was maintained throughout construction. No spills, releases, or incidents requiring agency notification occurred. No deviations from the approved Project affecting coastal resources, shoreline processes, or surf conditions were identified.

6. As-Built Plans and Photographic Documentation

As-built plans have been prepared to document the final constructed condition of the Project. The as-built plans are substantially consistent with the approved Project and include vertical and horizontal references to inland surveyed benchmarks for use in future monitoring efforts.

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Color photographic documentation is provided to clearly show the as-built Project condition. Photographs include views from upcoast, downcoast, seaward, and inland vantage points, as well as additional viewpoints necessary to provide complete photographic coverage of the Project area. A site plan identifying the location, date, and time of each photographic viewpoint is included.

The as-built plans are submitted with certification by a licensed civil engineer with experience in coastal structures and processes, verifying that the Project was constructed in conformance with the approved plans and permit conditions.

This report and its attachments are intended to satisfy the RWQCB and CCC as-built report requirement and support submission of the required Notice of Project Construction Completion. The as-built documentation includes:

- Final certified construction plans marked to reflect field conditions (Attachment B);
- Post-construction photographs and viewpoint map (Attachment E);
- Identification of construction areas and in-water work locations; and
- A summary of the dates of initial disturbance and final completion of construction activities.

7. Post-Construction Condition and Monitoring Context

The Project is anticipated to evolve dynamically in response to natural coastal processes. The as-built documentation provided herein establishes a baseline for future monitoring and evaluation of beach profile changes, sediment transport behavior, and surf conditions at Surfers Beach.

The District will transition into a multi-year monitoring program to evaluate Project performance, including beach evolution, nearshore bathymetry, wave and sediment dynamics, and eelgrass mitigation success, consistent with approved monitoring plans.

8. Deviations, Incidents, and Notifications

No deviations from the approved Project requiring agency approval occurred during construction. No spills, hazardous material releases, or other incidents requiring notification to regulatory agencies were reported.

9. Attachments

- **Attachment A:** Permit Compliance Matrix (CCC and Other Agencies)
- **Attachment B:** As-Built Plans – Record Set (Engineer-Certified 02/06/2026)
- **Attachment C:** As-Built Survey
- **Attachment D:** Mobilization and Construction-phase Photographs
- **Attachment E:** As-Built Photopoint Documentation

Attachment A – Permit Compliance Matrix

Attachment B –

As-Built Plans Record Set (Engineer-Certified 02/06/2026)

Attachment C - As-Built Survey

Attachment D -

Mobilization and Construction-phase Photographs

Attachment E - As-Built Photopoint Documentation