
To: Mayor and City Council

From: Craig Middleton, City Manager
Robert Zadnik, Public Works Manager
Adrian Cormier, CLE Engineering

Subject: Beach Road Seawall Stabilization Project

Recommended Motion/Item Description

1. Consider the proposed design for Phase 1 stabilization of Beach Road and the Seawall.
2. Consider the Resolution of Emergency Declaration authorizing staff to publicly bid the project.

Issue

Over the past 18-month period, Public Works has observed measurable outward movement of a portion of the Beach Road Seawall, directly across from Peninsula Road. The root cause of this migration is wave action that is undermining the wall foundation. In 2015, the City addressed a similar defect to a section of the Beach Road Seawall near Main Street.

In April, staff was advised by CLE/Foth Engineering that stabilizing the seawall at Beach Road is essential and should be carried out as soon as possible. Coastal structural and geotechnical engineers initially provided staff with repair options and a preliminary project budget range. This information was presented during the regular City Council meeting in March 2018. The Council decided to authorize staff to further investigate a sheet pile design proposal. In April of 2018, staff returned to the Council and presented a more in-depth analysis of the wall migration, along with a proposed solution and budget that consisted of installing sheet piles along the bayward toe of the seawall for a length of 100 feet. The total cost for this work was estimated at approximately \$464,000 which included a construction contingency of 15 percent.

Designs for the project were developed during the summer, and CLE/Foth also investigated further, particularly in areas of the seawall immediately adjacent to the problem section. Last week, CLE/Foth determined that it would be prudent to expedite purchasing/contracting related to the project, and to ask the Council to take action that would signal the urgent nature of the problem and the need for all parties involved – permitting agencies, CLE/Foth, and the City – to move quickly. The seawall could potentially fail leaving the Beach Road levee unprotected.

Staff has prepared a resolution for the Council’s consideration that would declare the Beach Road Seawall stabilization project an emergency matter, which would then allow the City Manager to

use expedited procurement procedures to get the project bid quickly. Assuming cooperation and expeditious action by permitting agencies, staff would endeavor to get the project accomplished as soon as possible.

Background

As part of the work funded by the Local Levee Assistance Program (LLAP), Department of Water Resource (DWR) grant, CLE performed a structural inspection of the seawalls comprising portions of the Beach Road levee in 2017.

The concrete seawalls were found to be in typical condition for their age, however CLE identified a global issue of insufficient footing depth throughout the total length of the seawall. This has resulted in localized failures of the wall in the past due to rotation and/or sliding – likely caused by scouring of the beach profile over time. As sand and mud have been removed by wave action, the seawall has been undermined and has begun to shift. It is likely that the shallow footing condition exists along the entire length of the seawall.

It is important to note that the condition of the seawall is such that it can be augmented rather than replaced. The most effective way to stabilize and strengthen the seawall foundation is through the use of sheet piles.

CLE is proposing these sheet piles to be driven into the soil to an approximate depth of 35 feet and secured to the base of the existing wall. The total length for the project, originally recommended at 60-80 feet, increased to 100 feet as a result of coordination between CLE's structural engineer and MPEG's recent geotechnical findings. More recently, after further investigation, CLE/Foth is recommending that the City consider extending the repair to a 200-foot length of seawall, but that it move urgently to repair a 120-foot section of the seawall.

Environmental permitting is necessary for this project due to its proximity to the bay and potential impact on aquatic resources. After Council's authorization to pursue the repair project, the city authorized CLE on April 11th to prepare and submit permit applications to the following agencies:

- Army Corps of Engineers (ACOE) – Nationwide permit for repair.
- Bay Conservation and Development Commission (BCDC)
- California Environmental Quality Act (CEQA) – negative declaration
- California Regional Water Quality Control board (CA-RWQB) – Repair of existing structure
- CA-Fish & Wildlife

To date, the Army Corps, BCDC and the Regional Board have submitted initial comments, which have been responded to. We are waiting for comments from other agencies.

In the meantime, it would be advisable to move quickly on procurement so as to be ready to go once permit approvals are in hand. Work is expected to take 2-3 weeks. Ideally, the project would be accomplished in November. The attached resolution would declare the project to be a local emergency, and would authorize the City Manager to take necessary measures, without regard to

certain purchasing requirements and limits, to let contracts and expedite the accomplishment of the project.

Fiscal Impact

The current 2018/19 CIP Budget allocates \$480,000 towards the seawall stabilization project. This number is based on an estimate for repair of a 100-foot section of the seawall. Additional funding will be needed to complete the newly-recommended 120-foot section. Although, staff does not currently have a cost estimate for this increased scope of work, we would expect a 20% increase in cost for a 20% increase in the length of the repair. A more detailed cost will be prepared and presented to Council for approval once bidding is accomplished.

It is likely that portion of the design and permitting work may be eligible for LLAP grant funds. Staff will continue to work with Stetson Eng. and the Department of Water Resources to determine the extent of those crossover savings. Funds remaining from the 2017/18 CIP budget, and carried over into the current fiscal year, would be reprogrammed to pay for the increased cost of this project.

Recommendation

Consider the proposed design for Phase 1 stabilization of Beach Road and seawall. Adopt the proposed resolution declaring a local emergency at Beach Road, and authorizing the City Manager to procure goods and services without regard to standard purchasing procedures and limits in order to expedite the project.

Attachments

- Resolution.
- Beach Road Seawall Project Phase 1 Plans.

CITY OF BELVEDERE

RESOLUTION NO. 2018-

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BELVEDERE
DECLARING THE EXISTENCE OF A LOCAL EMERGENCY AT OR
NEAR THE BEACH ROAD SEAWALL, OPPOSITE PENINSULA ROAD, AND
AUTHORIZING THE EMERGENCY PROCUREMENT OF MATERIALS
AND LABOR WITHOUT COMPETITIVE BIDDING**

WHEREAS, the City of Belvedere has observed measurable outward movement to a segment of the Beach Road Seawall in February of 2018; and

WHEREAS, structural and geotechnical analysis have concluded that this seawall is in imminent threat of failure which may result in localized failure of the Beach Road levee and roadway including subsequent resident property damage; and

WHEREAS, this observed movement represents an “Emergency” as defined in Public Contract Code Section 1102 as “a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services”; and

WHEREAS, the City has imposed vehicle weight restrictions near the failure in order to protect persons and property; and

WHEREAS, the City finds that in order to stabilize the seawall and roadway to prevent and mitigate loss or impairment of life, health, property, and reopen the road to the public, it must act in an expeditious manner; and

WHEREAS, Public Contract Code Section 22035 provides alternative procedure for public projects in cases of emergency.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Belvedere hereby declares the existence of a local emergency at or in the vicinity of 50 Beach Road, Belvedere, and authorizes the City Manager to do everything necessary and appropriate, including exceeding the City Manager’s purchasing authority, to let contracts pursuant to Public Contract Code Section 22035 to reopen the roadway as soon as possible.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Belvedere on _____, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED: _____

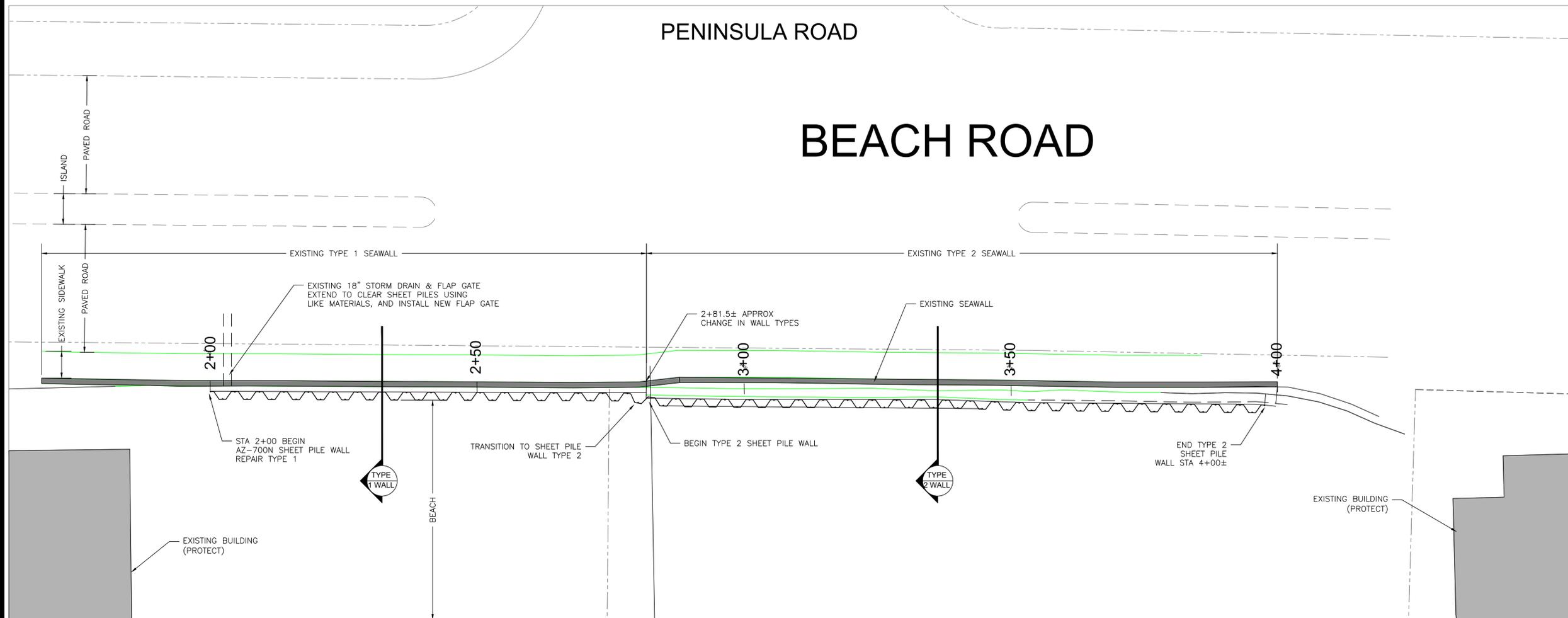
Robert McCaskill, Mayor

ATTEST: _____

Alison Foulis, City Clerk

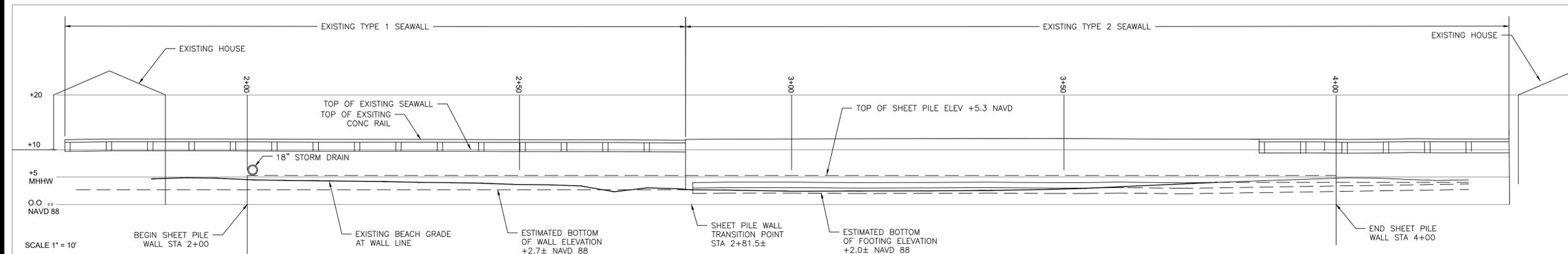
PENINSULA ROAD

BEACH ROAD



SEAWALL REPAIR - PLAN

SCALE 1" = 10'



SEAWALL REPAIR - PROFILE

SCALE 1" = 10'

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SEAL AND SIGNATURE

REVISIONS

ISSUANCE

SCALE

DRAWN BY	SHEET NUMBER
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PROJECT NO	
DATE	
SHEET X OF X	

