City of Long Beach
Working Together to Serve

Memorandum
3rd Council District
R-29

Date: June 15, 2010

To: Honorable Mayor Foster and Members of the City Council

From: Gary DeLong, Councilmember, 3rd District
Val Lerch, Vice Mayor, 9th District
Suja Lowenthal, Councilwoman, 2nd District
Gerrie Schipske, Councilwoman, 5th District

Subject: Naples Seawall Repair Project

During the April 6, 2010, Naples Seawalls study session the stability of the seawall infrastructure was discussed. From this study session it was made clear that the walls are in imminent danger of collapse.

The seawalls were first constructed in 1905, and then damaged in the 1933 earthquake. The Works Progress Administration rebuilt the seawalls in 1938. Over the course of the subsequent three decades, 1.5 feet of subsidence was recorded with high tides cresting over the seawall. In 1967, an 18-inch cap was added to the top of the original seawall. During the 1980's and 1990's, voids and seawall movement was detected and it was discovered that the tiebacks were failing. Over the past decade, the tiebacks were replaced at critical locations. Lastly, a 2009 study revealed vast deterioration of lower seawalls.

Due to the serious infrastructure concerns, the City has proposed to conduct the Naples Seawall Interim and Long Range Repair Project. The existing 11,000 lineal feet of seawalls are 70 years old and in need of replacement. The expected remaining life is 5 to 10 years. Full replacement at the most deteriorated sites would fully mitigate the immediate structural issues. The options are either waterside repairs (new concrete wall with sheet piles) or landside repairs (new synthetic wall with tie rods). Construction of replacement walls is estimated to require $9.5 million, and replacement of the entire seawall system is currently estimated at $60 million.

The Planning Commission approved the Mitigated Negative Declaration for the Interim and Long Range Repair Project on May 6, 2010.

Recommended Action: Request the City Council fund the Naples Seawalls project with $9.5 million of Tidelands funds.

AGENDA ITEM No. 4

CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 5th Floor Long Beach, CA 90802 (562) 570-6194 FAX (562) 570-6068

May 6, 2010

CHAIR AND PLANNING COMMISSIONERS
City of Long Beach
California

RECOMMENDATION:

Recommendation to Certify the Mitigated Negative Declaration (State Clearinghouse No. 2010011073) for the Naples Seawall Interim and Long Range Repair Project. (District 3)

APPLICANT: Mark Christoffels, City Engineer
Department of Public Works
City of Long Beach
333 W. Ocean Boulevard, 9th Floor
Long Beach, CA 90802

DISCUSSION

The City is proposing to conduct the Naples Seawall Interim and Long Range Repair Project, an effort that will affect approximately 11,000 lineal feet of existing seawall in the Naples community. Specifically, the project will involve interim and long range repairs and improvements to segments of the seawall surrounding Naples Island, Treasure Island, and opposing landside segments. The general vicinity of the project is illustrated on the Location and Vicinity Maps included as Exhibit A.

The goal of the project is to identify viable options for the stabilization of the seawall in its present deteriorating state and to extend the life of the seawalls. An investigation of the distressed concrete sheet pile seawall was performed to analyze its stability and develop repair concepts. Engineering assessments have been conducted regarding the various factors that have contributed to the seawall's horizontal, vertical, and rotational displacements from the original constructed positions. Interim as well as long range repairs have been recommended by the assessments. Interim repairs would consist of sinkhole repairs (gravel filled bag system beneath sinkholes), a tieback system (grouted rods to relieve stress), bulkhead repairs (underwater rock protection to relieve stress), and scour repairs (underwater rock protection). Since the existing seawalls are currently 70 years old, a replacement program (long range repairs) was also recommended. Long range repairs would include the option of waterside or landside repairs.

Through the Initial Study (IS) process and in accordance with the requirements of the California Environmental Quality Act (CEQA), a Mitigated Negative Declaration (MND) was determined to be

the appropriate level of environmental analysis for the proposed project. The IS/MND was prepared by RBF Consulting for the Department of Public Works. The MND analyzes the impacts of the project and sets forth mitigation measures in the following areas: Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, Noise and Transportation / Traffic. The MND document concludes that, with implementation of the identified mitigation measures, the project's potential significant adverse impacts will be reduced to a less than significant level.

The Draft IS/MND was available for public review and comment from January 26, 2010 to February 24, 2010. During the pubic review period, comments were received from two public agencies, the State Clearinghouse and the California Department of Transportation. The Draft IS/MND is included as Exhibit B.

The Final IS/MND provides the responses to the comments that were received during the public review period. Also included in the Final IS/MND is the Mitigation Monitoring and Reporting Plan (MMRP), which identifies the timing and responsible agencies for the implementation and monitoring of the mitigation measures. The MMRP ensures compliance with Public Resources Code Section 21081.6 during project implementation. The Final IS/MND is included as Exhibit C.

PUBLIC HEARING NOTICE

In accordance with Section 21.21.032 of the Long Beach Municipal Code (Noticing Requirements for Hearings), a notice announcing the public hearing was published in the Tuesday, April 20, 2010 edition of the Long Beach Press Telegram.

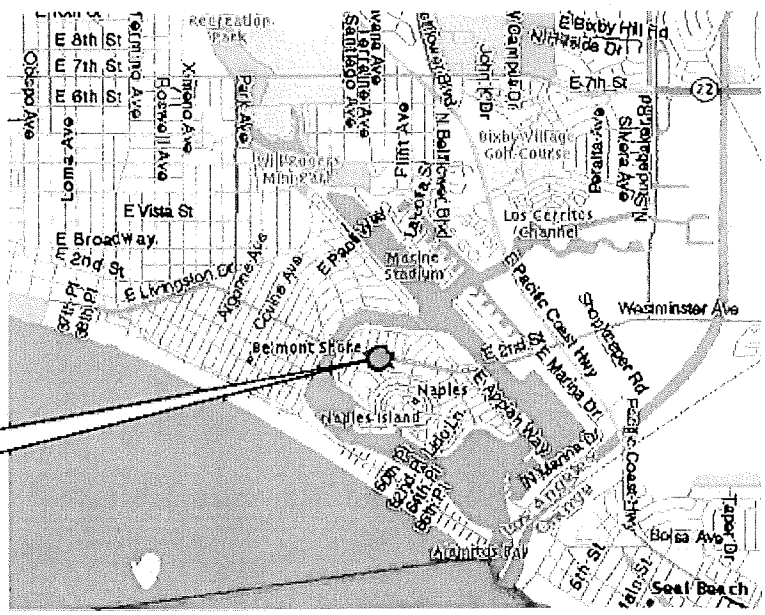
Respectfully submitted,

REGINALD HARRISON
INTERIM DIRECTOR OF DEVELOPMENT SERVICES

RH:JG
P:\Planning\PC Staff Reports (Pending)\Naples Seawall MND

Attachments
Exhibit A – Location and Vicinity Maps
Exhibit B – Draft IS/MND
Exhibit C – Final IS/MND

VICINITY MAP



LOCATION MAP

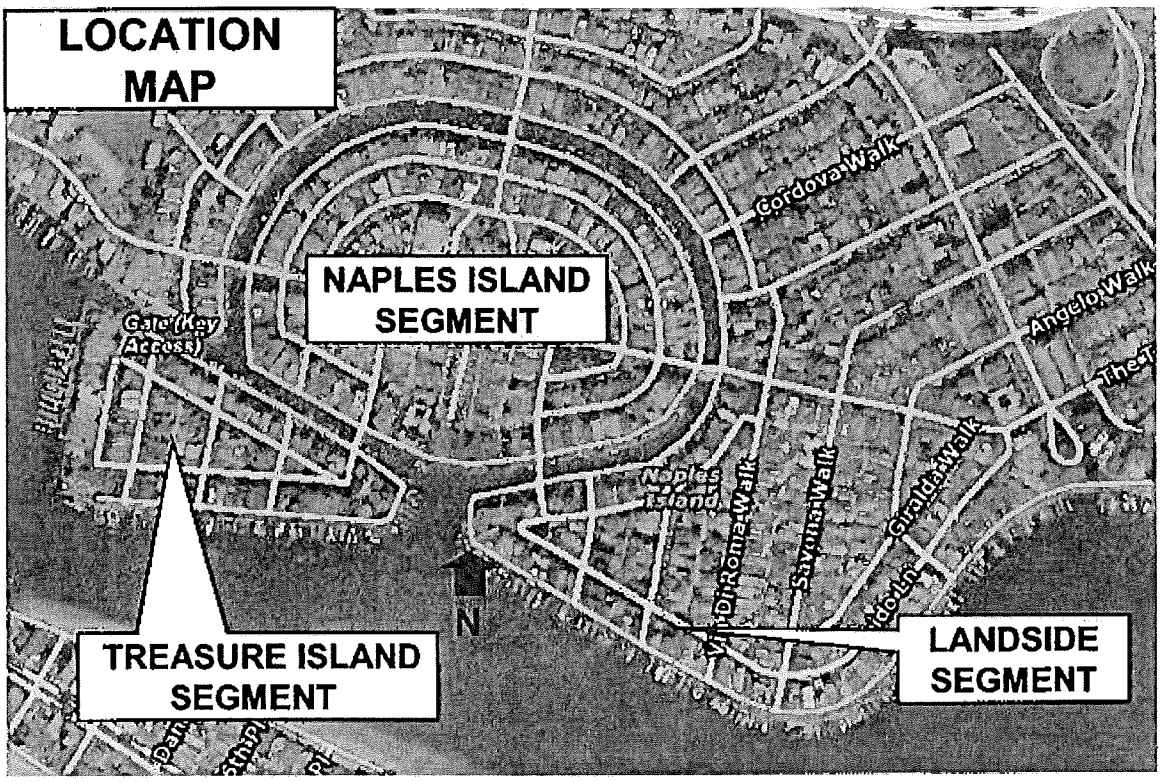
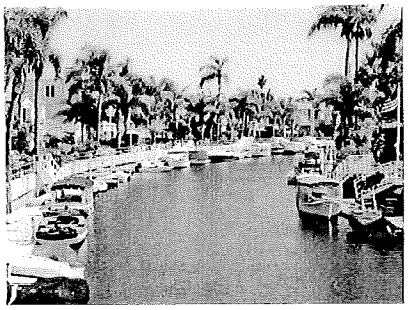


EXHIBIT A
LOCATION AND VICINITY MAPS

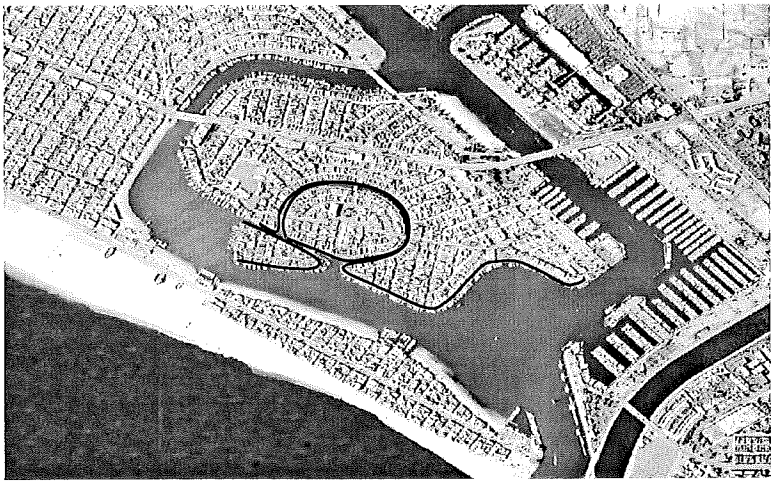
NAPLES SEAWALL INTERIM AND LONG RANGE REPAIR PROJECT

Department
of
Public Works

MAY 6, 2010

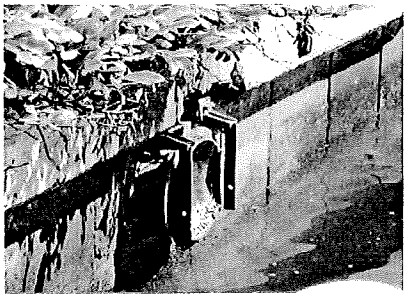


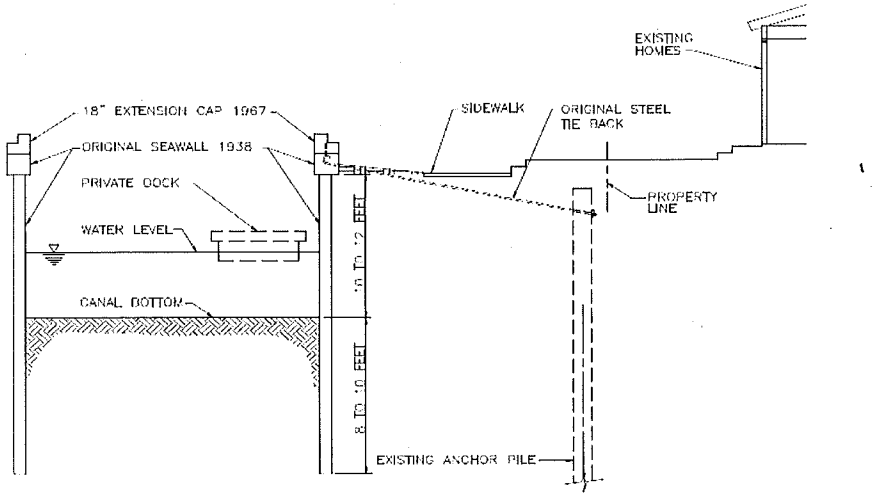
Seawall locations



History

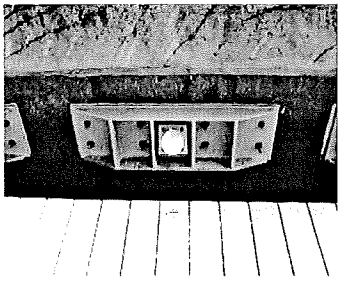
- 1905 canals dredged
- 1923 canals walls constructed
- 1933 canal walls damaged by earthquake
- 1938 canal walls rebuilt by WPA
- 1938-60's canal walls subside 1.5ft
- 1960's high tides crest over seawall
- 1967 18 inch cap added to top of original seawall
- 2000's Seawall tieback repairs at critical locations

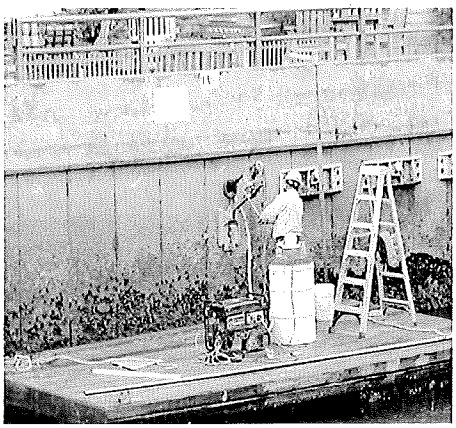


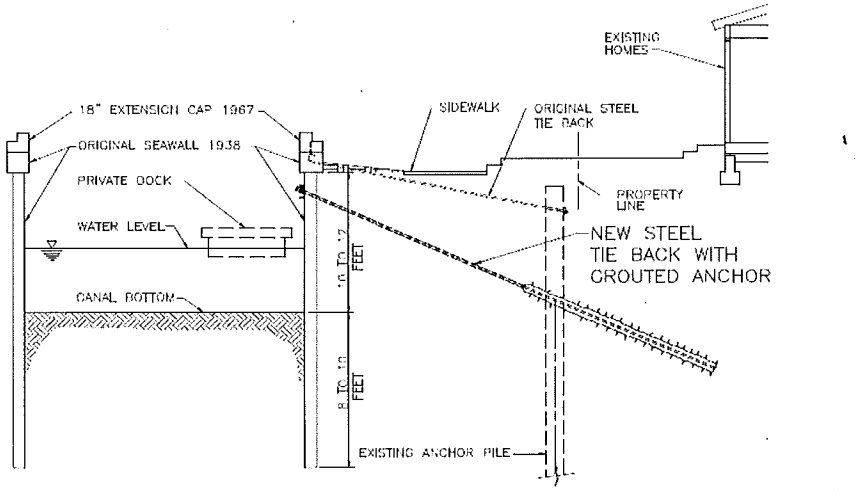


Seawall Tieback Repairs

- 2000's City replaces tiebacks at critical locations

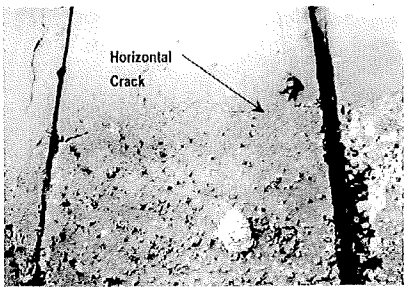


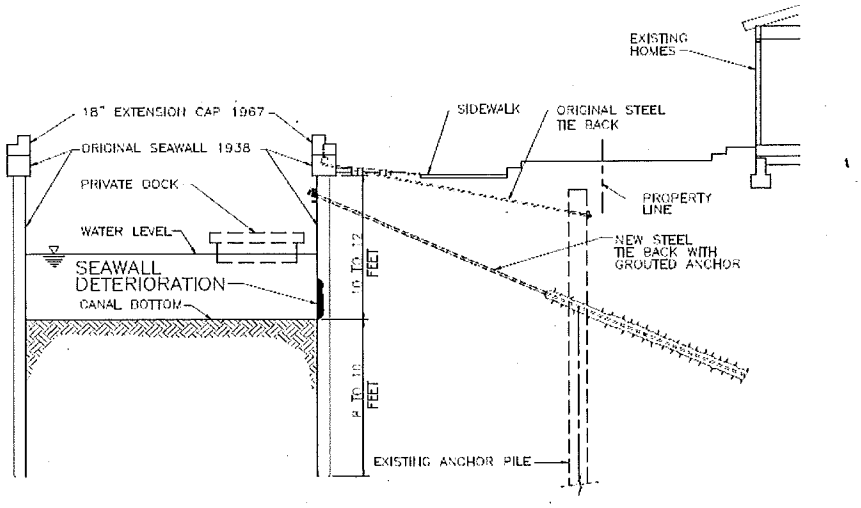




Current issues

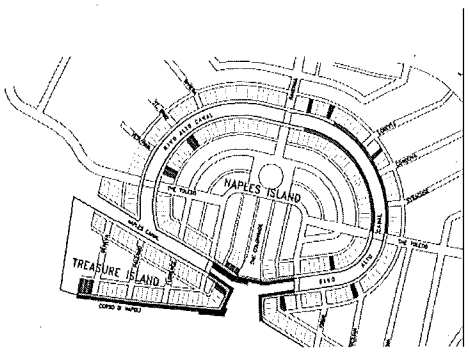
- 2009 Study reveals deterioration of lower seawalls





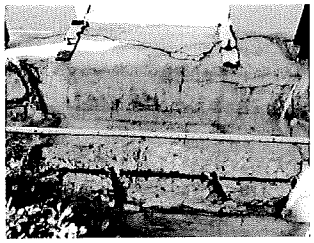
INTERIM REPAIRS

- Underwater rock protection and sheet piles to relieve stress
- Underwater rock protection to repair scours
- Tieback system with grouted rods to relieve stress

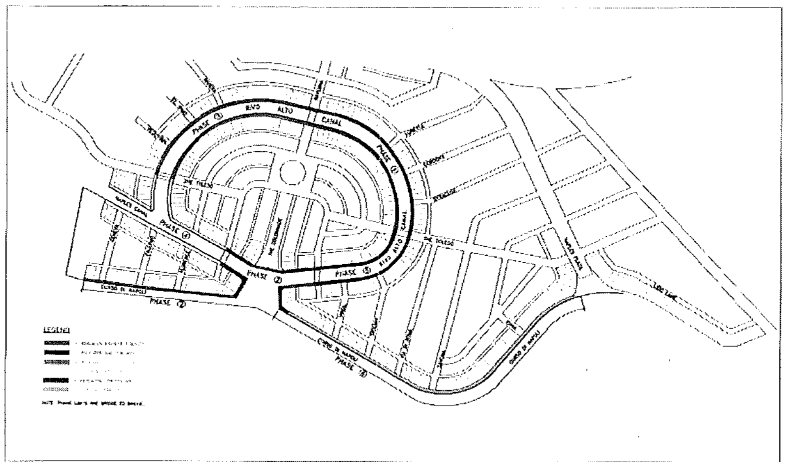


LONG RANGE REPAIRS

- Seawalls are reaching the end of their useful life
- Expected remaining life is 5 to 10 years depending on current condition and interim repairs that are constructed
- Options are the waterside repairs to the seawalls (new concrete wall with sheet piles) or the landside repairs to the seawalls (new synthetic wall with tie rods)



LONG RANGE REPAIRS



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NAPLES SEAWALL INTERIM AND LONG-RANGE REPAIR PROJECT • IS/MND

Long-Term Repairs Key Map

City of Long Beach
Working Together to Serve

Memorandum

Date: June 4, 2010

To: Councilwoman Gerrie Schipske, 5th District

From: Patrick H. West, City Manager PWest

Subject: **Naples Seawall Funding**

This memo is in response to your questions regarding the Naples Seawalls and the potential involvement of the Army Corps of Engineers in seawall construction and reconstruction.

Naples Seawalls Differ from Typical Ocean Seawalls

Federal assistance for the Naples Seawalls is an issue the City has discussed on multiple occasions with the Army Corps of Engineers over the past several years. During those discussions, the Army Corps has maintained that the Naples Seawalls are not in their jurisdiction and do not meet the typical definition of a project that would be eligible for federal Army Corps dollars. The Naples seawalls were constructed by the City to facilitate navigation through a channelized system in the community. Their benefit does not readily satisfy the stated mission of the U.S. Army Corps of Engineers for storm protection, federal navigation or beach erosion. These three missions are mandatory and characteristic of the Army Corps seawall-related projects, such as the projects you identified occurring in Encinitas and Solana Beach. Seawalls constructed by the Army Corps are intended to protect against significant storm and wave damage. In recent years, the Army Corps and City of Long Beach has conducted a study related to beach erosion on the peninsula, which has seawalls similar to those in Encinitas and Solana Beach. If the Corps were to build seawalls on Naples Island, the project could result in seawalls much higher than the community would want to meet the Army Corps's design standards. These types of studies also follow the process similar to the Breakwater study, and involve a one-year Reconnaissance phase and Feasibility Phase study. Based on previous conversations with the Army Corps and staff's experience with their study process, it is unlikely that federal interest would be found for the Naples Seawalls as a federal project.

Water Resources Development Act

Another opportunity to engage the Army Corps of Engineers is to add this project to their list of authorized projects through the Water Resources Development Act (WRDA) as a Section 219 (Water Infrastructure) project instead of asking the Corps to conduct a study. WRDA is authorizing legislation passed by Congress to determine projects that the Army Corps may participate in. The City recently submitted four WRDA requests to Senator Feinstein and Senator Boxer, one of which is a $25 million request for water infrastructure improvements for multiple projects in Long Beach, including the Naples Seawalls.

If authorized, these funds would take several years to materialize as both the Senate and the House must first pass WRDA, and then the City would need to submit requests to our Congressmembers through the annual appropriations process to be awarded funding. These dollars would require a 35 percent local match. The best-case scenario to access these funds would likely take four to five years, and would likely take longer than the best-case scenario. The prospects of Congressional approval to add these funds is slim, as the Army Corps is currently significantly underfunded and Congress is not expected to pass a WRDA bill in the near future.

Continued Discussion with the Army Corps Staff
City staff will continue to work with the Army Corps to explore any other opportunities. As a result of recent discussions with the Army Corps, the Army Corps Chief of Plan Formulation has expressed interest in visiting Naples to provide his assessment of potential future Army Corps involvement.

Breakwater Study Review of the Naples Seawalls
If the City and the Army Corps decide to embark on the East San Pedro Bay Ecosystem Restoration Study, the study would take into account any potential impact to any infrastructure impacted by a change in the Breakwater or other changes in the East San Pedro Bay, including the impact of potential increased surge in Alamitos Bay. However, the initial results of Moffatt and Nichol's preliminarily computer modeling showed no expected impact to the Naples Seawalls from the alternatives considered. It is unlikely that the Breakwater study would recommend federal investment in the Naples Seawalls as a result of the Breakwater study, as there would likely be other more cost-effective alternatives to prevent any increased surge from entering Alamitos Bay.

Review of Sloped Beaches Versus Seawalls
There are other methods available for constructing typical seawalls, such as the technology you mentioned at the website http://www.erosion.com/costs.asp. This technology substitutes sloped beaches for vertical walls. While this method may be an alternative for typical seawalls along the beach, it is not recommended as a solution for the Naples Seawalls. If the vertical Naples Seawalls were replaced with this technology, the sloped area required would either eliminate all the frontage of the properties along the canals or make the canals no longer navigable.

If you have any questions or require further information, please contact Tom Modica, Manager of Government Affairs, at 8-5091.

cc: Mayor and Members of the City Council
Suzanne Frick, Assistant City Manager
Mike Conway, Director of Public Works
Tom Modica, Manager of Government Affairs
Jyl Marden, Assistant to the City Manager
Van Scoyoc Associates

PHW: TM
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