

**MINUTES  
HARBOUR HEIGHTS WATERWAY  
MUNICIPAL SERVICE BENEFIT UNIT (MSBU)**

**ADVISORY BOARD REGULAR MEETING  
THURSDAY, NOVEMBER 16, 2023**

**10:00 a.m. – 10:55 a.m.  
Charlotte Harbor Event Center  
75 Taylor Street, Punta Gorda, Florida**

**Members Present:** Jeff Good, Chair  
James McBride, Vice Chair  
Tom Mettner  
Lee Phillips  
David Stone

**Members Absent:** None

**County Staff:** Erica LeMaster, Community Liaison  
Zach Patchell, Projects Manager  
Lisa Eby, Executive Assistant

**Guests:** See attached sign-in sheet

**Call to Order / Roll Call:**

The meeting was called to order at 10:00 a.m. A roll call was taken, and a quorum was present.

**Changes to the Agenda / Motion to Approve Changes:**

None

**Citizen Input on Agenda Items (3-Minute Limit):**

None

**Approval of Minutes:**

The minutes from November 16, 2023, were approved as submitted.

**Unfinished Business:**

- a. Fiscal Year (FY)23 Post Storm Bathymetric Survey: Mr. Patchell discussed the results of the post storm bathymetric survey, advising the group that the results were detrimental enough to qualify for potential Federal Emergency Management Agency (FEMA) reimbursement focusing on the Balboa and Santa Barbara Waterway's having significant results. He explained the estimated timeline before funding would be received, the process of applying for funding, and stressed that FEMA will reimburse up to 75%. Discussion ensued regarding options to move forward with a dredge project sooner rather than later. The group discussed spot dredging vs. a large dredge project. Mr. Patchell explained cost savings of a larger project and the benefits of dredging more often. Mr. Patchell explained the benefits of an approved project vs. an unapproved project, pointing out that a dredge project has not been agreed upon at this time. The group discussed future initiatives for a dredge cycle and the efforts Public Works has put forth to determine the cause of the high dredging rates, and lack of contractor bids for dredging projects.
- b. FY23 Navigational Trimming - Desoto Waterway: Discussion ensued regarding the current budget of \$50,000 for navigational trimming of the Desoto Waterway. The group inquired about the timeline for navigational trimming. Mr. Patchell explained the process advising that it is quick once a project is approved by the group, also pointing out

previous bids have come in lower than budget. Mr. Phillips motioned to move forward with the navigational trimming of the Desoto Waterway. The motion was seconded and unanimously approved.

**New Business:**

a. Financial Reports: The FY23 quarter 2, quarter 3, and quarter 4 financial reports were reviewed as well as the FY24 adopted and FY25 Approved Budget.

**Citizen Input on MSBU Items (3-Minute Limit):**

- Mr. Hart inquired about the derelict seawall on the San Salvador Waterway.

**Advisory Board Open Discussion:**

Discussion ensued regarding waterway debris and the lack of funding to proceed with debris removal at this time. The group discussed the benefits of the county acquiring land to use as a spoil site and the cost saving benefits this would have for dredge costs.

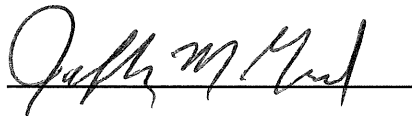
**Meeting Schedule / Items for Next Agenda:**

Future meetings are scheduled at 10:00 a.m. at the Charlotte Harbor Event Center as follows:

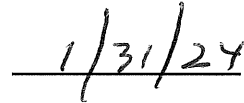
- January 31, 2024

Meeting adjourned at 10:55 a.m.

Submitted by: Erica LeMaster  
Public Works Department



Chair Signature



Date

**AGENDA  
HARBOUR HEIGHTS WATERWAY  
MUNICIPAL SERVICE BENEFIT UNIT (MSBU)**

**ADVISORY BOARD REGULAR MEETING  
THURSDAY, NOVEMBER 16, 2023**

**10:00 a.m., Charlotte Harbor Event Center  
75 Taylor Street, Punta Gorda, Florida**

**BOARD MEMBERS:** Jeff Good, Chair  
Lee Phillips, Vice-Chair  
James McBride  
Tom Mettner  
David Stone

**COUNTY STAFF:** Erica LeMaster, Community Liaison  
Karlene McDonald, Operations Supervisor

**PURPOSE:** Regular Meeting

1. Call to Order / Roll Call
2. Changes to the Agenda / Motion to Approve Changes
3. Citizen Input on Agenda Items (3-Minute Limit)
4. Approval of Minutes: April 27, 2023
5. Unfinished Business
  - a. FY23 Post Storm Bathymetric Survey
  - b. FY23 Navigational Trimming – DeSoto Waterway
6. New Business
  - a. Financial Reports
7. Citizen Input on MSBU items (3-Minute Limit)
8. Advisory Board Open Discussion
9. Meeting Schedule / Items for Next Agenda
10. Motion to Adjourn

## Harbour Heights Waterway MSBU

Fund Financial Report  
Oct. 1, 2022 - Mar. 31, 2023

|                                       | Actual<br>FY2022 | Adopted<br>Budget<br>FY2023 | YTD Actual<br>FY2023 | Projected<br>FY2023 |
|---------------------------------------|------------------|-----------------------------|----------------------|---------------------|
| <b>Beginning Balance</b>              | \$331,509        | \$291,084                   | \$328,144            | \$328,144           |
| <b>Revenues</b>                       |                  |                             |                      |                     |
| Assessments & Earnings                | 72,117           | 74,472                      | 69,795               | 74,472              |
| Grant & Subsidy Revenue               | -                | -                           | -                    | -                   |
| Loans & Borrowing                     | -                | -                           | -                    | -                   |
| <b>Total Revenue</b>                  | \$72,117         | \$74,472                    | \$69,795             | \$74,472            |
| <b>Expenditures</b>                   |                  |                             |                      |                     |
| Contract Services                     | -                | -                           | -                    | -                   |
| Survey                                | 5,307            | 30,000                      | 1,769                | 1,769               |
| Navigational Trimming                 | 19,450           | 50,000                      | -                    | 50,000              |
| Public Works Services                 | 5,199            | 3,934                       | -                    | 3,934               |
| Internal Charges                      | 855              | 898                         | 898                  | 898                 |
| Purchased Services                    | 951              | 1,548                       | 1,312                | 1,548               |
| Materials and Supplies                | -                | -                           | -                    | -                   |
| Capital Outlay                        | -                | -                           | -                    | -                   |
| Debt Services                         | -                | -                           | -                    | -                   |
| <b>Project Costs</b>                  |                  |                             |                      |                     |
| Harbour Heights Maint Dredge          | 43,720           | 64,895                      | -                    | -                   |
| <b>Total Expenditures</b>             | \$75,482         | \$151,275                   | \$3,979              | \$58,149            |
| <b>Reserves (Ending Fund Balance)</b> | \$328,144        | \$214,281                   | \$393,960            | \$344,467           |
| <i>Reserve %</i>                      | 81.3%            | 58.6%                       | 99.0%                | 85.6%               |

Date Prepared: 4/21/2023

# Harbour Heights Waterway MSBU

## Fund Financial Report

Oct. 1, 2022 - June 30, 2023

|                                       | Actual<br>FY2022 | Adopted<br>Budget<br>FY2023 | YTD Actual<br>FY2023 | Projected<br>FY2023 |
|---------------------------------------|------------------|-----------------------------|----------------------|---------------------|
| <b>Beginning Balance</b>              | \$331,509        | \$291,084                   | \$328,144            | \$328,144           |
| <b>Revenues</b>                       |                  |                             |                      |                     |
| Assessments & Earnings                | 72,117           | 74,472                      | 81,280               | 74,472              |
| Grant & Subsidy Revenue               | -                | -                           | -                    | -                   |
| Loans & Borrowing                     | -                | -                           | -                    | -                   |
| <b>Total Revenue</b>                  | \$72,117         | \$74,472                    | \$81,280             | \$74,472            |
| <b>Expenditures</b>                   |                  |                             |                      |                     |
| Contract Services                     | -                | -                           | -                    | -                   |
| Survey                                | 5,307            | 30,000                      | 1,769                | 1,769               |
| Navigational Trimming                 | 19,450           | 50,000                      | -                    | -                   |
| Public Works Services                 | 5,199            | 3,934                       | 36                   | 3,934               |
| Internal Charges                      | 855              | 898                         | 898                  | 898                 |
| Purchased Services                    | 951              | 1,548                       | 1,972                | 2,054               |
| Materials and Supplies                | -                | -                           | -                    | -                   |
| Capital Outlay                        | -                | -                           | -                    | -                   |
| Debt Services                         | -                | -                           | -                    | -                   |
| <b>Project Costs</b>                  |                  |                             |                      |                     |
| Harbour Heights Maint Dredge          | 43,720           | 64,895                      | -                    | -                   |
| <b>Total Expenditures</b>             | \$75,482         | \$151,275                   | \$4,676              | \$8,655             |
| <b>Reserves (Ending Fund Balance)</b> | \$328,144        | \$214,281                   | \$404,748            | \$393,961           |
| <i>Reserve %</i>                      | 81.3%            | 58.6%                       | 98.9%                | 97.9%               |

Date Prepared: 7/20/2023

# Harbour Heights Waterway MSBU

## Fund Financial Report

Oct. 1, 2022 - Sept. 30, 2023

*Unaudited as of 9.30.23*

|                                       | Actual<br>FY2022 | Adopted<br>Budget<br>FY2023 | YTD Actual<br>FY2023 | Projected<br>FY2023 |
|---------------------------------------|------------------|-----------------------------|----------------------|---------------------|
| <b>Beginning Balance</b>              | \$331,509        | \$291,084                   | \$328,144            | \$328,144           |
| <b>Revenues</b>                       |                  |                             |                      |                     |
| Assessments & Earnings                | 72,117           | 74,472                      | 86,735               | 86,735              |
| Grant & Subsidy Revenue               | -                | -                           | -                    | -                   |
| Loans & Borrowing                     | -                | -                           | -                    | -                   |
| <b>Total Revenue</b>                  | \$72,117         | \$74,472                    | \$86,735             | \$86,735            |
| <b>Expenditures</b>                   |                  |                             |                      |                     |
| Contract Services                     | -                | -                           | -                    | -                   |
| Survey                                | 5,307            | 30,000                      | 1,769                | 1,769               |
| Navigational Trimming                 | 19,450           | 50,000                      | -                    | -                   |
| Public Works Services                 | 5,199            | 3,934                       | 2,129                | 2,129               |
| Internal Charges                      | 855              | 898                         | 898                  | 898                 |
| Purchased Services                    | 951              | 1,548                       | 2,001                | 2,001               |
| Materials and Supplies                | -                | -                           | -                    | -                   |
| Capital Outlay                        | -                | -                           | -                    | -                   |
| Debt Services                         | -                | -                           | -                    | -                   |
| <b>Project Costs</b>                  |                  |                             |                      |                     |
| Harbour Heights Maint Dredge          | 43,720           | 64,895                      | -                    | -                   |
| <b>Total Expenditures</b>             | \$75,482         | \$151,275                   | \$6,797              | \$6,797             |
| <b>Reserves (Ending Fund Balance)</b> | \$328,144        | \$214,281                   | \$408,082            | \$408,082           |
| <i>Reserve %</i>                      | 81.3%            | 58.6%                       | 98.4%                | 98.4%               |

Date Prepared: 10/20/2023

# Harbour Heights Waterway MSBU

## Preliminary 2 Year Budget

### FY2024 & FY2025

**Estimated ERU's and Cost per ERU**

| <b>Vacant and Occupied</b>  | <b>FY2024</b>    | <b>FY2025</b> |
|-----------------------------|------------------|---------------|
| <i>Estimated ERU's</i>      | 386.800          | 386.800       |
| <i>Cost per ERU</i>         | \$ 300.00        | \$ 300.00     |
| <br>                        |                  |               |
| <b>Current FY23 Rate</b>    | <b>\$ 200.00</b> |               |
| <b>Current Maximum Rate</b> | <b>\$ 400.00</b> |               |

**Beginning Balance**

|  | <b>Preliminary Budget<br/>FY2024</b> | <b>Preliminary Budget<br/>FY2025</b> |
|--|--------------------------------------|--------------------------------------|
|  | \$ 314,736                           | \$ 60,606                            |

**Revenues**

**Assessments & Earnings**

|   |         |         |
|---|---------|---------|
| <i>Assessments</i>                                  | 116,040 | 116,040 |
| <i>Interest</i>                                     | 1,102   | 213     |
| <i>Net Inc/(Decr) Fair Market Value-Investments</i> | -       | -       |
| <i>Excess Fees /Tax Collector</i>                   | -       | -       |
| <i>Less 5% Reserve - FS 129.01(2)b</i>              | (5,858) | (5,813) |

**Grant & Subsidy Revenue**

|                                  |   |   |
|----------------------------------|---|---|
| <i>Interfund Trf-Canal Maint</i> | - | - |
|----------------------------------|---|---|

**Loans & Borrowing**

|                      |   |   |
|----------------------|---|---|
| <i>Debt Proceeds</i> | - | - |
|----------------------|---|---|

**Total Revenue**

|  |            |            |
|--|------------|------------|
|  | \$ 111,284 | \$ 110,440 |
|--|------------|------------|

**Expenditures**

**Contract Services**

|                               |   |   |
|-------------------------------|---|---|
| <i>Other Contractual Srvs</i> | - | - |
| <i>Drainage</i>               | - | - |

**Contract Services; other**

|                              |        |        |
|------------------------------|--------|--------|
| <i>Survey</i>                | 25,000 | 25,000 |
| <i>Navigational Trimming</i> | 50,000 | 50,000 |

|   | Preliminary<br>Budget<br>FY2024 | Preliminary<br>Budget<br>FY2025 |
|---|---------------------------------|---------------------------------|
| <b>Public Works Services</b>                |                                 |                                 |
| <i>Equip Repl Charges-PubWrks</i>           | 256                             | 256                             |
| <i>Operating Exp-PubWrks</i>                | 7,049                           | 4,742                           |
| <b>Internal Charges</b>                     |                                 |                                 |
| <i>Central/Indirect Svcs</i>                | 1,611                           | 991                             |
| <b>Purchased Services</b>                   |                                 |                                 |
| <i>Postage-MSBU Notices</i>                 | -                               | -                               |
| <i>Advertising-Legal</i>                    | -                               | -                               |
| <i>Collection Fee-Tax Collector</i>         | 2,321                           | 2,321                           |
| <b>Materials and Supplies</b>               |                                 |                                 |
| <b>Capital Outlay</b>                       |                                 |                                 |
| <b>Debt Services</b>                        |                                 |                                 |
| <i>Principal</i>                            | -                               | -                               |
| <i>Interest</i>                             | -                               | -                               |
| <b>Project Costs</b>                        |                                 |                                 |
| <b><i>Harbour Heights Maint. Dredge</i></b> |                                 |                                 |
| <i>Engineering</i>                          | 70,086                          | -                               |
| <i>Dredging</i>                             | 199,931                         | -                               |
| <i>Labor</i>                                | 9,160                           | -                               |
| <b>Total Expenditures</b>                   | 365,414                         | 83,310                          |
| <b>Reserves (Ending Fund Balance)</b>       | \$ 60,606                       | \$ 87,736                       |
| <i>Reserve %</i>                            | 14.2%                           | 51.3%                           |

Verified Date

1/24/2023



Capital Maintenance Schedule  
 Public Works - MSBU/TU Dredging  
 2024-2025

Project Costs (in thousands)

| Project Name                                     | 2024          | 2025         | 2026         | 2027       | 2028          | 2029       | TOTAL         |
|--|---------------|--------------|--------------|------------|---------------|------------|---------------|
| Alligator Creek - Entrance Channel               | 396           | 0            | 0            | 0          | 0             | 0          | 396           |
| Buena Vista WW Maint. Dredging FY23              | 451           | 0            | 0            | 0          | 0             | 0          | 451           |
| Don Pedro/Knight/Palm Island Re-nourishment FY20 | 692           | 203          | 123          | 95         | 0             | 0          | 1,113         |
| Don Pedro/Knight/Palm Island Re-nourishment FY28 | 0             | 0            | 0            | 55         | 9,770         | 195        | 10,020        |
| Gulf Cove WW Dredging                            | 1,888         | 46           | 37           | 28         | 19            | 10         | 2,028         |
| Harbour Heights WW Maintenance Dredging          | 279           | 0            | 0            | 0          | 0             | 0          | 279           |
| Hayward Canal Exterior Dredging                  | 199           | 0            | 0            | 0          | 0             | 0          | 199           |
| Hayward Canal Interior Dredging                  | 106           | 515          | 0            | 0          | 0             | 0          | 621           |
| Manasota Key Beach Nourishment FY20              | 1,474         | 479          | 442          | 263        | 0             | 0          | 2,658         |
| Manasota Key Beach Nourishment FY28              | 0             | 0            | 0            | 125        | 22,055        | 486        | 22,666        |
| Manchester WW Maintenance Dredging FY22          | 725           | 0            | 0            | 0          | 0             | 0          | 725           |
| NWPC Interior Channel Dredging FY22              | 720           | 0            | 0            | 0          | 0             | 0          | 720           |
| NWPC Exterior Dredging                           | 102           | 255          | 0            | 0          | 0             | 0          | 357           |
| Pirate Harbor Dredging FY23                      | 459           | 0            | 0            | 0          | 0             | 0          | 459           |
| South Gulf Cove WW Maintenance Dredging          | 1,680         | 0            | 0            | 0          | 0             | 0          | 1,680         |
| Stump Pass Maintenance Dredging FY22             | 1,001         | 274          | 0            | 0          | 0             | 0          | 1,275         |
| Stump Pass Maintenance Dredging FY26             | 0             | 151          | 4,535        | 30         | 30            | 95         | 4,841         |
| Suncoast Maintenance Dredge                      | 112           | 823          | 0            | 0          | 0             | 0          | 935           |
| <b>TOTAL</b>                                     | <b>10,284</b> | <b>2,745</b> | <b>5,138</b> | <b>596</b> | <b>31,874</b> | <b>786</b> | <b>51,423</b> |

# **FY2024 Tentative Meeting Schedule**

## **Harbour Heights Waterway**

### **MSBU Advisory Board**

**Wednesday's at 10:00 a.m. for the following dates:**

- **1/31/2024 – Charlotte Harbor Event Center**
- **5/8/2024 - Charlotte Harbor Event Center**
- **8/7/2024 - Charlotte Harbor Event Center**
- **10/30/2024 - Charlotte Harbor Event Center**

FILE NO. 2019-0081-011  
SHEET 11

COASTAL ENGINEERS INC.  
ENGINEERING CONSULTANTS

28421 BONITA CROSSINGS BLVD  
BONITA SPRINGS, FLORIDA 34104

PHONE: (239)643-2264  
WWW.COASTALENGINEERS.COM

FACE (239)643-1819  
SURVEYING, LB 2464

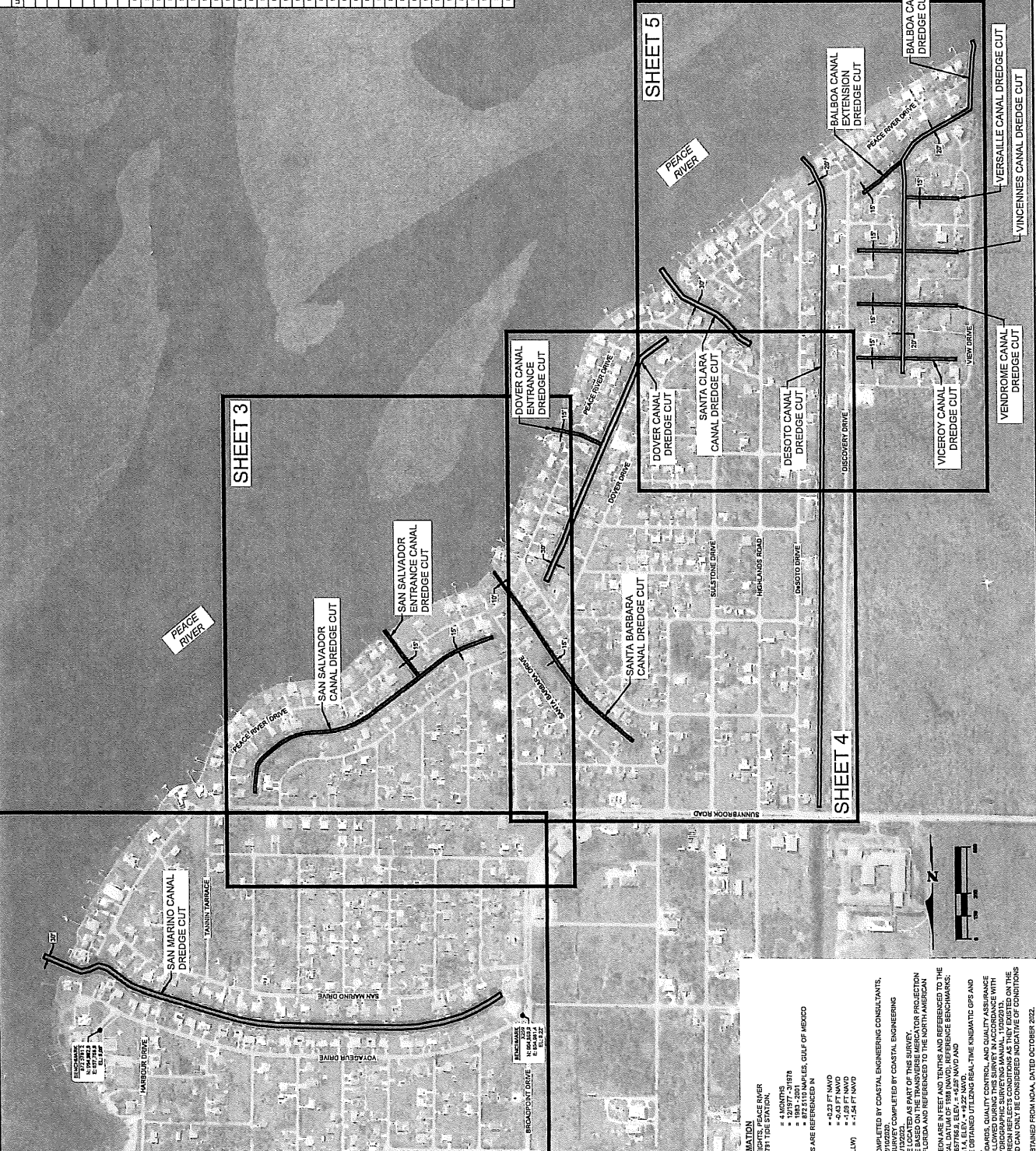
ENGINEERING & GEODISICAL SERVICES  
SURVEY AND MAPPING  
ENGINEERING, CA 2484

BATHYMETRIC SURVEY  
HARBOR HEIGHTS CHANNELS

CHARLOTTE COUNTY

DATE: 7/15/2023  
SCALE: AS NOTED  
DRAWN: VVA  
CHECKED: RFG  
TYP: RFG  
ACAD NO.: 23075 Harbor Heights Chm  
REF. NO.: 23-075

| LINE # | DIRECTION      | LENGTH | START POINT (N. E.)  | END POINT (N. E.)    |
|--------|----------------|--------|----------------------|----------------------|
| L1     | S 74° 42' 48"E | 219.22 | 848929.37, 163118.17 | 848930.27, 163118.17 |
| L2     | N 0° 16' 24"E  | 219.22 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L3     | N 0° 16' 24"E  | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L4     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L5     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L6     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L7     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L8     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L9     | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L10    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L11    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L12    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L13    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L14    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L15    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L16    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L17    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L18    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L19    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L20    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L21    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L22    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L23    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L24    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L25    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L26    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L27    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L28    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L29    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L30    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L31    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L32    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L33    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L34    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L35    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L36    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L37    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L38    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L39    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L40    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L41    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |
| L42    | S 74° 42' 48"E | 184.71 | 848930.27, 163118.17 | 848930.27, 163118.17 |



**PUBLISHED TIDAL INFORMATION**  
THE TIDAL DATUMS SHOWN ON THIS MAP ARE BASED ON FLORIDA TIDE GAUGE STATION NO. 86483. 2. TIME PERIOD  
• 2/19/77 - 3/19/88  
• 2/19/77 - 3/19/88  
• 2/19/77 - 3/19/88  
ELEVATIONS OF TIDAL DATUMS ARE REFERENCED IN  
MEAN HIGH WATER (MHW) = +6.33 FT NAVD  
MEAN TIDE LEVEL (MTL) = +6.03 FT NAVD  
MEAN LOWER LOW WATER (MLLW) = +3.54 FT NAVD

**NOTES**  
1. BATHYMETRIC SURVEY COMPLETED BY COASTAL ENGINEERS CONSULTANTS, INC. ON 10/20/2019 AND 12/02/2022. COMPLETED BY COASTAL ENGINEERS CONSULTANTS, INC. ON 01/12/2023.  
2. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83). ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD). REFERENCE BENCHMARKS: 86483 (ELEV. = 16.00 FT NAVD) AND 86484 (ELEV. = 15.15 FT NAVD).  
3. SURVEY ACCURACY STANDARDS, QUALITY CONTROL AND QUALITY ASSURANCE PROCEDURES ARE DESCRIBED IN THE BENCHMARK SURVEYING MANUAL, TYPED IN ACCORDANCE WITH THE SURVEYING STANDARDS FOR THE STATE OF FLORIDA, CHAPTER 250, PART 3.  
4. INFORMATION SHOWN ON THIS MAP IS THE PROPERTY OF COASTAL ENGINEERS CONSULTANTS, INC. AND SHOULD BE CONSIDERED A CONFIDENTIAL DOCUMENT.  
5. AERIAL PHOTOGRAPH OBTAINED FROM NOAA, DATED OCTOBER 2022.



AS NOTED

SCALE: AS NOTED

DRAWN: VVA

CHECKED: RFG

TYP: RFG

ACAD NO.: 23075 Harbor Heights Chm

REF. NO.: 23-075

DATE: 7/15/2023

PROJECT: HARBOR HEIGHTS CHANNELS

CLIENT: CHARLOTTE COUNTY

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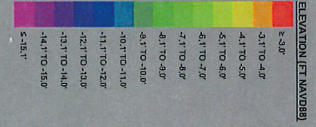
PROJECT: HARBOR HEIGHTS CHANNELS



**COASTAL ENGINEERING CONSULTANTS INC.**  
 Serving Florida Since 1977  
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 BONITA SPRINGS, FLORIDA 34104  
 COASTAL & MARINE ENGINEERING  
 ENVIRONMENTAL & GEOLOGICAL SERVICES  
 SURVEY AND MAPPING  
 ENGINEERING: CA 2464  
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 E-Mail: info@cecill.com

CLIENT: **CHARLOTTE COUNTY**  
 TITLE: **HARBOUR HEIGHTS CHANNELS BATHYMETRIC SURVEY**

|          |                           |        |                      |
|----------|---------------------------|--------|----------------------|
| DATE:    | 7/6/2023                  | SCALE: | AS NOTED             |
| DRAWN:   | VVA                       | E.B.   |                      |
| CHECKED: | RJE                       | PG.    |                      |
| SEC.     |                           | TWP.   | RNG.                 |
| ACAD NO. | 23075-Harbour Heights.dwg |        |                      |
| REF. NO. | 23,075                    | NO.    | DATE                 |
|          |                           | BY     | REVISION DESCRIPTION |



**LEGEND**  
 □ - CHANNEL CHANNEL MARKERS  
 ○ - CHANNEL APPROXIMATE SIZE  
 (Scale: 1:1000)

