Captiva
Erosion Prevention District

November 2023 Board Meeting

Table of Contents

Please follow page numbers on top right corner

Board Meeting Agenda

Date: Monday, November 13th, 2023
Time: 1:00 P.M.
Location: Captiva Civic Association, 11550 Chapin Lane, Captiva, Florida, 33924
Via Zoom: https://us02web.zoom.us/j/82897488860
Telephone: +1 (305) 224-1968

1. **Call to Order**

2. **Roll Call**

3. **Approval of Minutes**
   A. October 9th, 2023 Board Meeting

4. **General Public Comments –** Limit 3 minutes per person

5. **Changes to the Agenda**

6. **Financial Reports**

7. **Old Business**
   A. APTIM Update
   B. Becker Update

8. **New Business**
   A. Bayside Adaptation Bid Selection
   B. Coastal Resiliency Manager
   C. 2024 Board Meeting Dates

9. **Administrative Update**

10. **Commissioner Comments**

11. **Adjournment**

In accordance with the Americans with Disability Act and F.S. 286.26; any person with a disability requiring any additional reasonable accommodation to participate in this meeting should call the CEPD office at phone 239.472.2472 or email a written request to mycepd@mycepd.com. One or more elected or appointed local government officials, including but not limited to the Captiva Erosion Prevention District, may be in attendance at this meeting. Any person who decides to appeal any decision of the Board of Commissioners with respect to any matter considered at this meeting will need a record of the proceedings and for such purposes may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. The law does not require the CEPD to transcribe verbatim minutes; therefore, the applicant must make the necessary arrangements with a private reporter or private reporting firm and bear the resulting expense.

October 2023 Board Meeting Minutes

1. Call to Order – See Video (00:00:00)

Chairman Walter called to order the October Board Meeting for the Captiva Erosion Prevention District at approximately 1:00 PM on Monday October 9th, 2023.

2. Roll Call – See Video (00:00:18)

Commissioners:

- Seat 1, Linda Laird, Secretary (Present Remotely)
- Seat 2, Rene Miville, Commissioner (Present)
- Seat 3, Bob Walter, Chairman (Present)
- Seat 4, John Wade, Commissioner (Present)
- Seat 5, Richard Pyle, Treasurer (Present)

  Chairman Walter motioned to vote to allow Secretary Laird to appear remotely, and Commissioner Miville seconded the motion. Vote passed unanimously 3-0

CEPD Staff:

- Daniel Munt, Executive Director (Present)
- John Riegert, Deputy Director (Present)
- Ralf Brookes, CEPD Attorney (Present)

3. Approval of Minutes – See Video (00:00:41)

A. September 11th, 2023, Board Meeting
B. September 11th, 2023, Tentative Budget Hearing
C. September 19th, 2023, Final Budget Hearing

Commissioner Miville made a motion to approve the minutes and Treasurer Pyle seconded the motion. The motion passed unanimously 4-0

4. General Public Comments – See Video (00:01:29)

No Comments were entered by the public.

5. Changes to the Agenda – See Video (00:01:45)

Proposal to change agenda item 8B to New Business 5A to appoint a new commissioner. Motion was made by Chairman Walter to vote to allow for the change. Treasurer Pyle Seconded the motion. Vote passed unanimously 4-0.

New Commissioner John Wade makes a statement and introduces himself.

Commissioner Miville Motioned to approve and appoint Commissioner Wade to his position, and Secretary Laird seconded the motion. Motion passed unanimously 4-0

6. Financial Reports – See Video (00:11:56)

Jason Smith was not present. Executive Director Munt and Treasurer Pyle provided an update on the financials and status of CEPD grants. Discussion was held.

7. Old Business – See Video (00:25:07)

A. Becker Update
Nick Mattews provides update on grants, including new $1,000,000 state grant from Division of Emergency Management announced by Governor DeSantis.

B. Phase 2 Coastal Resiliency RFQ Update
Carrie Schuman provided update for FDEP funding agreement.
Broadcast to 411 suppliers, 23 organizations have downloaded and have copies of the request. Pre-Bid conference for clarification on Wednesday 11th

8. New Business – See Video (00:45:42)

A. APTIM Update
Nicole Sharp provides update on the annual monitoring survey and presents new proposals.

I. Preconstruction Services Proposal - $140k + actual construction

Executive Director Munt, gives update on recent SCCF meeting, advocating urgency of proposals, stating costs, needs and expectations of beach nourishment project that would likely occur during sea turtle nesting season.

Commission Miville motioned to begin quote process for contractor bidding due by first week of January 2024. Treasurer Pyle seconded the motion. Motion passed unanimously 5-0

II. Emergency Dune Repair Proposal - $40k + actual construction
Discussion was held, and a public comment was entered by Sarah McClure.
Proposal was tabled.

9. Administrative Update – See Video (01:25:21)

Executive Director Munt, shared meeting with Lee County regarding an amendment to CEPD's existing Interlocal Agreement to include funding for reimbursement for an impending nourishment. Steve Boutelle will be reviewing current ILA and will serve as the point of contact for our county funding request moving forward.

10. Commissioner Comments – See Video (01:26:07)

Commissioner Wade asks a question regarding additional resources. Susie Henry entered a question from the Public.

11. Adjournment – See Video (01:36:52)

Commissioner Miville motioned to adjourn the meeting. Treasurer Pyle seconded the motion. Motion passed unanimously 5-0

In accordance with the Americans with Disability Act and F.S. 286.26; any person with a disability requiring any additional reasonable accommodation to participate in this meeting should call the CEPD office at phone 239.472.2472 or email a written request to mycepd@mycepd.com. One or more elected or appointed local government officials, including but not limited to the Captiva Erosion Prevention District, may be in attendance at this meeting. Any person who decides to appeal any decision of the Board of Commissioners with respect to any matter considered at this meeting will need a record of the proceedings and for such purposes may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. The law does not require the CEPD to transcribe verbatim minutes; therefore, the applicant must make the necessary arrangements with a private reporter or private reporting firm and bear the resulting expense.

7:48 AM
11/7/2023
Prepared by: JS

Captiva Erosion Prevention District
General Fund - Budget Performance Summary
For the One Month Ended October 31, 2023

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Actual - October '23	Budget - October '23	Actual - October '22	Budget - October '22	Actual YTD	YTD Budget	YTD Variance	Annual Budget	Residual Budget
Ordinary Income/Expense									
Income									
Ad Valorem Tax	$ -	$ -	$ 64.30	$ 54,245.75	$ -	$ -	$ -	$ 578,066.00	$ 578,066.00
Interest Income	1,650.94	1,666.67	4.71	12.50	1,650.94	1,666.67	(15.73)	20,000.00	18,349.06
Other Income	2,338.07	416.67	103.78	416.67	2,338.07	416.67	1,921.40	5,000.00	2,661.93
Total Income	3,989.01	2,083.33	172.79	54,674.92	3,989.01	2,083.33	1,905.68	603,066.00	599,076.99
Expense									
Administrative Expenses	26,391.80	26,798.00	18,468.57	7,916.66	26,391.80	26,798.00	406.20	101,500.00	75,108.20
Cost of Collecting Ad Valorem	4,605.21	5,855.21	0.00	1,708.34	4,605.21	5,855.21	1,250.00	20,000.00	15,394.79
Wages	5,733.12	12,333.33	4,668.35	12,500.00	5,733.12	12,333.33	6,600.21	148,000.00	142,266.88
Professional Fees	1,550.00	2,916.67	2,800.00	2,916.67	1,550.00	2,916.67	1,366.67	35,000.00	33,450.00
Reserves Transfer	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	0.00	84,450.00	77,412.50
Total Expense	45,317.63	54,940.71	32,974.42	32,079.17	45,317.63	54,940.71	9,623.08	388,950.00	343,632.37
Net Income	$ (41,328.62)	$ (52,857.38)	$ (32,801.63)	$ 22,595.75	$ (41,328.62)	$ (52,857.38)	$ 11,528.76	$ 214,116.00	$ 255,444.62

Cash basis- omitted all note disclosures
No assurance is provided on these financial statements.

7:47 AM
11/7/2023
Prepared by: JS

Captiva Erosion Prevention District
General Fund - Budget Performance Detail
For the One Month Ended October 31, 2023

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Actual - October '23	Budget - October '23	Actual - October '22	Budget - October '22	Actual YTD	YTD Budget	YTD Variance	Annual Budget	Residual Budget
Ordinary Income/Expense									
Income									
Ad Valorem Tax	0.00	0.00	64.30	54,245.75	0.00	0.00	-	578,066.00	578,066.00
Interest Income	1,650.94	1,666.67	4.71	12.50	1,650.94	1,666.67	(15.73)	20,000.00	18,349.06
Other Income	2,338.07	416.67	103.78	416.67	2,338.07	416.67	1,921.40	5,000.00	2,661.93
Total Income	3,989.01	2,083.33	172.79	54,674.92	3,989.01	2,083.33	1,905.68	603,066.00	599,076.99
Expense									
Administrative Expenses									
Advertising	0.00	1,250.00	3,506.28	1,250.00	0.00	1,250.00	1,250.00	15,000.00	15,000.00
Service Charges	315.67	416.67	206.08	250.00	315.67	416.67	101.00	5,000.00	4,684.33
Board Meeting Expenses	0.00	83.33	0.00	83.33	0.00	83.33	83.33	1,000.00	1,000.00
Dues and Subscriptions	6,915.00	6,915.00	240.00	625.00	6,915.00	6,915.00	0.00	11,000.00	4,085.00
Insurance	13,758.00	13,758.00	14,155.00	1,416.67	13,758.00	13,758.00	0.00	17,000.00	3,242.00
Office Expense	700.80	833.33	57.90	833.33	700.80	833.33	132.53	10,000.00	9,299.20
Postage	0.00	41.67	0.00	41.67	0.00	41.67	41.67	500.00	500.00
Rent Expense	2,350.64	1,416.67	0.00	1,250.00	2,350.64	1,416.67	(933.97)	17,000.00	14,649.36
Repairs	113.92	83.33	0.00	83.33	113.92	83.33	(30.59)	1,000.00	886.08
Travel and Per Diem	1,290.00	458.33	0.00	833.33	1,290.00	458.33	(831.67)	5,500.00	4,210.00
Telephone	315.10	458.33	0.00	250.00	315.10	458.33	143.23	5,500.00	5,184.90
Utilities	632.67	458.33	303.31	333.33	632.67	458.33	(174.34)	5,500.00	4,867.33
Website & Computer Maintenance	0.00	625.00	0.00	666.67	0.00	625.00	625.00	7,500.00	7,500.00
Total Administrative expenses	26,391.80	26,798.00	18,468.57	7,916.66	26,391.80	26,798.00	406.20	101,500.00	75,108.20
Wages and Professional Fees									
Wages	5,733.12	12,333.33	4,668.35	12,500.00	5,733.12	12,333.33	6,600.21	148,000.00	142,266.88
Professional Fees	1,550.00	2,916.67	2,800.00	2,916.67	1,550.00	2,916.67	1,366.67	35,000.00	33,450.00
Total Legal and Professional Fees	7,283.12	15,250.00	7,468.35	15,416.67	7,283.12	15,250.00	7,966.88	183,000.00	175,716.88
Cost of Collecting Ad Valorem									
Property Tax Appraiser Fees	4,605.21	4,605.21	0.00	416.67	4,605.21	4,605.21	0.00	5,000.00	394.79
Tax Collector Commissions	0.00	1,250.00	0.00	1,291.67	0.00	1,250.00	1,250.00	15,000.00	15,000.00
Total Cost of Collecting Ad Valorem	4,605.21	5,855.21	0.00	1,708.34	4,605.21	5,855.21	1,250.00	20,000.00	15,394.79
Reserves									
Operating Reserves Transfers	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	0.00	84,450.00	77,412.50
Total Expense	45,317.63	54,940.71	32,974.42	32,079.17	45,317.63	54,940.71	9,623.08	388,950.00	343,632.37
Net Income	$ (41,328.62)	$ (52,857.38)	$ (32,801.63)	$ 22,595.75	$ (41,328.62)	$ (52,857.38)	$ 11,528.76	$ 214,116.00	$ 255,444.62

Cash basis - omitted all note disclosures
No assurance is provided on these financial statements.

7:48 AM
11/7/2023
Prepared: JS

Captiva Erosion Prevention District
Capital Projects Fund - Budget Performance Summary
For the One Month Ended October 31, 2023

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Actual - October '23	Budget - October '23	Actual - October '22	Budget - October '22	YTD Actual	YTD Budget	YTD Variance	Annual Budget	Residual Budget
Ordinary Income/Expense									
Income									
Grant Income	$ 194,500.48	$ 195,000.00	$ -	$ 15,000.00	$ 194,500.48	$ 195,000.00	$ (499.52)	$ 861,482.00	$ 666,981.52
Interest Income	84,162.51	85,000.00	12.59	83.33	84,162.51	85,000.00	(837.49)	325,000.00	240,837.49
Other Miscellaneous Income	0.00	166.67	0.00	83.33	0.00	166.67	(166.67)	2,000.00	2,000.00
Parking Lot Revenue	26,461.30	0.00	0.00	0.00	26,461.30	0.00	26,461.30	500,000.00	473,538.70
Reserves - General	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	0.00	84,450.00	77,412.50
Special Assessments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	952,698.00	952,698.00
Total Income	312,161.79	287,204.17	7,050.09	22,204.16	312,161.79	287,204.17	24,957.62	2,725,630.00	2,413,468.21
Expense									
General Expenses	5,236.64	2,875.00	4,295.00	2,541.67	5,236.64	2,875.00	(2,361.64)	34,500.00	29,263.36
Parking Lot	19,236.58	11,791.67	5,576.80	18,833.33	19,236.58	11,791.67	(7,444.91)	141,500.00	122,263.42
Wages	8,033.84	21,666.67	5,329.00	16,666.67	8,033.84	21,666.67	13,632.83	260,000.00	251,966.16
Professional Fees	7,550.00	9,166.67	14,800.00	9,166.67	7,550.00	9,166.67	1,616.67	110,000.00	102,450.00
Capital Projects	22,926.04	72,083.33	25,861.47	59,583.33	22,926.04	72,083.33	49,157.29	865,000.00	842,073.96
Debt Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,794,059.00	2,794,059.00
Total Expense	62,983.10	117,583.33	55,862.27	106,791.67	62,983.10	117,583.33	54,600.23	4,205,059.00	4,142,075.90
Net Income	$ 249,178.69	$ 169,620.83	$ (48,812.18)	$ (84,587.51)	$ 249,178.69	$ 169,620.84	$ 79,557.85	$ (1,479,429.00)	$ (1,728,607.69)

Cash basis - omitted all note disclosures
No assurance is provided on these financial statements.

Captiva Erosion Prevention District
Capital Projects Fund - Budget Performance Detail
For the One Month Ended October 31, 2023

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Actual - October '23	Budget - October '23	Actual - October '22	Budget - October '22	YTD Actual	YTD Budget	YTD Variance	Annual Budget	Residual Budget
Ordinary Income/Expense									
Income									
Grant Income - Local	$ 194,500.48	$ 195,000.00	$ -	$ 15,000.00	$ 194,500.48	$ 195,000.00	$ (499.52)	$ 261,482.00	$ 66,981.52
Grant Income - State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600,000.00	600,000.00
Grant Income - Federal (FEMA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Income	84,162.51	85,000.00	12.59	83.33	84,162.51	85,000.00	(837.49)	325,000.00	240,837.49
Other Miscellaneous Revenues	0.00	166.67	0.00	83.33	0.00	166.67	(166.67)	2,000.00	2,000.00
Parking Lot Revenue	26,461.30	0.00	0.00	0.00	26,461.30	0.00	26,461.30	500,000.00	473,538.70
General Reserves	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	7,037.50	0.00	84,450.00	77,412.50
Special Assessments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	952,698.00	952,698.00
Total Income	312,161.79	287,204.17	7,050.09	22,204.16	312,161.79	287,204.17	24,957.62	2,725,630.00	2,413,468.21
Expense									
Service Charges	0.00	41.67	0.00	41.67	0.00	41.67	41.67	500.00	500.00
Cost of Assessment Collections	0.00	166.67	0.00	833.33	0.00	166.67	166.67	2,000.00	2,000.00
Insurance	2,886.00	416.67	4,295.00	416.67	2,886.00	416.67	(2,469.33)	5,000.00	2,114.00
Rent	2,350.64	1,416.67	0.00	1,250.00	2,350.64	1,416.67	(933.97)	17,000.00	14,649.36
Beach Vehicle	0.00	833.33	0.00	0.00	0.00	833.33	833.33	10,000.00	10,000.00
Total General Expense	5,236.64	2,875.00	4,295.00	2,541.67	5,236.64	2,875.00	(2,361.64)	34,500.00	29,263.36
Parking Lot Expenses									
Parking Collection Fees	1,285.79	1,500.00	32.95	3,000.00	1,285.79	1,500.00	214.21	18,000.00	16,714.21
Parking Maintenance	10,961.07	2,083.33	2,000.00	2,500.00	10,961.07	2,083.33	(8,877.74)	25,000.00	14,038.93
Portable Toilets	5,402.88	6,250.00	0.00	9,583.33	5,402.88	6,250.00	847.12	75,000.00	69,597.12
Signage	0.00	83.33	0.00	0.00	0.00	83.33	83.33	1,000.00	1,000.00
Sales Tax Expense	1,586.84	1,875.00	3,543.85	3,750.00	1,586.84	1,875.00	288.16	22,500.00	20,913.16
Total Parking Lot Expenses	19,236.58	11,791.67	5,576.80	18,833.33	19,236.58	11,791.67	(7,444.91)	141,500.00	122,263.42
Wages and Professional Fees									
Wages	8,033.84	21,666.67	5,329.00	16,666.67	8,033.84	21,666.67	13,632.83	260,000.00	251,966.16
Professional Fees	7,550.00	9,166.67	14,800.00	9,166.67	7,550.00	9,166.67	1,616.67	110,000.00	102,450.00
Total Wages and Professional Fees	15,583.84	30,833.33	20,129.00	25,833.34	15,583.84	30,833.33	15,249.49	370,000.00	354,416.16
Capital Projects									
Project Expenses	22,926.04	65,833.33	25,861.47	51,250.00	22,926.04	65,833.33	42,907.29	790,000.00	767,073.96
Grants to other agencies	0.00	6,250.00	0.00	8,333.33	0.00	6,250.00	6,250.00	75,000.00	75,000.00
Total Capital Projects	22,926.04	72,083.33	25,861.47	59,583.33	22,926.04	72,083.33	49,157.29	865,000.00	842,073.96
Debt Service									
Interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	330,456.00	330,456.00
Principal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,463,603.00	2,463,603.00
Total Debt Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,794,059.00	2,794,059.00
Total Expense	62,983.10	117,583.33	55,862.27	106,791.67	62,983.10	117,583.33	54,600.23	4,205,059.00	4,142,075.90
Net Income	249,178.69	169,620.83	(48,812.18)	(84,587.51)	249,178.69	169,620.84	79,557.85	(1,479,429.00)	(1,728,607.69)

Cash basis - omitted all note disclosures.
No assurance is provided on these financial statements.

CEPD - GENERAL FUND
Balance Sheet

	October 31, 2023	October 31, 2022
ASSETS		
Current Assets		
Checking/Savings		
BOTI Checking	$ 74,868.20	$ 272,450.71
Fifth Third Checking	35,850.68	-
Fifth Third Savings	458,145.55	-
Total Checking/Savings	568,864.43	272,450.71
Other Current Assets		
Due from Capital Projects Fund	20,174.29	11,154.74
Due from State of Florida	28,524.97	-
Total Other Current Assets	48,699.26	11,154.74
Total Current Assets	617,563.69	283,605.45
TOTAL ASSETS	$ 617,563.69	$ 283,605.45
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Other Current Liabilities		
Accrued Liabilities	15,705.75	1,434.32
Total Other Current Liabilities	15,705.75	1,434.32
Total Current Liabilities	15,705.75	1,434.32
Total Liabilities	15,705.75	1,434.32
Equity		
Fund Balance	643,186.56	314,972.76
Net Income	(41,328.62)	(32,801.63)
Total Equity	601,857.94	282,171.13
TOTAL LIABILITIES & EQUITY	$ 617,563.69	$ 283,605.45

CEPD - CAPITAL PROJECTS FUND
Balance Sheet

	October 31, 2023	October 31, 2022
ASSETS		
Current Assets		
Checking/Savings		
BOTI Checking	$ -	$ 388,546.04
Fifth Third Checking	224,091.28	-
Fifth Third Savings	4,291,692.18	-
Fifth Third Investments Money Market Account	159,459.36	2,876,104.18
Fifth Third Treasury Bill- Maturity Date 4/15/24	2,929,166.44	-
Fifth Third Treasury Bill- Maturity Date 4/15/25	2,497,953.86	-
Fifth Third Treasury Bill- Maturity Date 4/30/26	2,499,925.86	-
Fifth Third Treasury Bill- Maturity Date 3/15/26	758,687.95	-
Total Current Assets	13,360,976.93	3,264,650.22
Other Current Assets		
Utility Deposit	300.00	300.00
Due From General Fund	-	-
Total Other Current Assets	300.00	300.00
Total Current Assets	13,361,276.93	3,264,950.22
TOTAL ASSETS	$ 13,361,276.93	$ 3,264,950.22
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Due to General Fund	$ 20,174.29	$ 11,154.74
Equity		
Accumulated Reserves	1,180,224.00	2,921,966.00
Fund Balance	11,911,699.95	380,641.66
Net Income	249,178.69	(48,812.18)
Total Equity	13,341,102.64	3,253,795.48
TOTAL LIABILITIES & EQUITY	$ 13,361,276.93	$ 3,264,950.22

Loan Balance:	$ 15,587,541.47
Principal and Interest Payment Due May 1st 2024	2,628,830.59
Interest Payment Due November 1st 2023	165,227.94

Treasury Bills:

Purchase Price	Value at Maturity	Interest paid twice a year	Total Gain
4/15/2024- $2,929,166.44	3,075,000.00	5,765.53	163,130.15
4/15/2025- $2,497,953.86	2,542,000.00	33,363.75	210,864.89
4/30/2026- $2,499,925.86	2,588,000.00	30,732.50	303,201.64
3/15/2026- $758,687.95	733,000.00	16,950.63	76,015.83
			753,212.51

CAPTIVA EROSION PREVENTION DISTRICT
RESERVE ACCUMULATIONS
FISCAL YEAR ENDING 9/30/2024

	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Beginning Balance	$ 1,173,187	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224	$ 1,180,224
Reserves Transferred In												
Parking Revenue	-	-	-	-	-	-	-	-	-	-	-	-
Operating Reserves	7,037	-	-	-	-	-	-	-	-	-	-	-
2021 Project Contribution	-	-	-	-	-	-	-	-	-	-	-	-
Increase (Decrease) in Reserves	7,037	-	-	-	-	-	-	-	-	-	-	-
Total Accumulated Reserves	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**	**$ 1,180,224**

Cash basis - omitted all note disclosures
No assurance is provided on these financial statements.

CAPTIVA ISLAND

BAYSIDE ADAPTATION PLAN

October 25, 2023

PROPOSED TO:

CAPTIVA EROSION PREVENTION DISTRICT

PROPOSED BY:

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

APTIM

Aptim Environmental & Infrastructure, LLC
6401 Congress Avenue, Suite 140
Boca Raton, FL 33487
(561) 361-3199

October 25, 2023

Daniel Munt
Executive Director
Captiva Erosion Prevention District
Email: DMunt@mycepd.com

Subject: Captiva Bayside Adaptation Plan RFQ

Dear Members of the Selection Committee,

Captiva Island is a true gem with natural beauty and a unique charm. The white beaches and clear blue waters have not only captivated our hearts but has sparked a desire to share its magic with others. **Aptim Environmental & Infrastructure, LLC (APTIM), a Louisiana Limited Liability Company incorporated in 2002** has served the Captiva Erosion Prevention District (CEPD) as it strategically restored and enhanced the oceanfront shoreline decade by decade, culminating in the key protective infrastructure that has helped the community thrive through dozens of storms, including Hurricanes Charley and Ian. The Captiva Bayside Adaptation Plan may serve as the catalyst of a new era of protection provided by CEPD as tides rise and storm threats increase. APTIM and our team of proposed subconsultants (the APTIM team), Coastal Vista, AIM Engineering, Matterscan, Sasaki, ESA, and Richard Grosso are passionately committed to building consensus within the community for implementable projects, developing a plan likely to be funded by state resiliency funds and establishing a vision for a healthy, robust living shoreline along the bayside of the island that increases in value over the long term. On behalf of APTIM, we want to express our dedication to furthering the goals of CEPD by submitting our qualifications for the development of the Captiva Bayside Adaptation Plan (Plan).

OUR APPROACH - Utilizing the insight gained from completing the island-wide vulnerability assessment, APTIM understands the need for prioritizing adaptation along private shorelines, securing wastewater treatment infrastructure and coordinating with partners to increase the resilience of energy, communication and transportation systems. Our intent for the Plan will be to address these vulnerabilities and mitigate flood risk holistically, thoughtfully considering how erosion control improvements can protect the infrastructure on the island.

APTIM will reference the gold standard for resilient shorelines, the Waterfront Edge Design Guidelines (WEDG®) and incorporate its best practices for community engagement, maintaining access for docks and recreational boating and designing ecologically friendly buffers and barriers. By rendering a generous number of immersive, appealing images of feasible and implementable solutions to support the engineering report, the APTIM team will show the community the realm of possibilities. In coordination with the steering committee (Committee), we will gain buy-in from residents, regulators and funders to make the vision a reality.

BUILDING A VISION FOR BAYSIDE ADAPTATION - Our vision will support to rebuild strength of the coastal ecosystem protecting the shoreline, fortify the existing infrastructure and property values, and secure the future of the island as a prestigious, unique and thriving community with renowned beauty and strength.

WHY THE APTIM TEAM - The APTIM team has unmatched institutional knowledge as being the CEPD's sole and steadfast coastal consultant dating back to the mid-1980's through our legacy firms and understands the work that needs to be done. We have supported the CEPD in reaching this point through guidance on vulnerability assessments, the Resilient Florida program and other funding opportunities and initial concepts for adaptation planning. In listening intently to the expressed interests of the Commission, staff and committee members, we have broadened our vision and carefully selected local and nationally recognized team members that are leading the industry in designing living shorelines, developing adaptation plans and community engagement. APTIM will be the prime consultant, bringing proven project management experience to CEPD for various projects and we will provide the management and planning roles. The APTIM team consists of the

award- winning landscape architect, **Sasaki** and Sanibel's own premier private property landscape architect **Coastal Vista Design** who will lead the aesthetic visioning for conceptual solutions. APTIM is also proud to include Environmental Science Associates (**ESA)**, Florida's leading living shoreline implementor who will lead the environmental design and implementation analysis. Richard Grosso will lead the policy analysis to support the plan. To maximize the power driving the Engineering Report and Adaptation Plan, **AIM Engineering and Surveying, Inc.** will join the team with unmatched collective experience in flood control, designing resilient infrastructure systems and implementing projects in Florida. Together the APTIM team brings extensive coastal design, engineering and planning experience to CEPD. We present our relevant experience along shorelines not only in Captiva, but on Sanibel, the Town of Longboat Key, and across the state and through plans crafted specifically for island communities. For this RFQ, we are presenting the same management team currently working with the CEPD that you have come to know and rely on. Nicole Sharp, PE, will serve as the primary point of contact for this proposal and project.

BUSINESS PHILOSOPHY – Since our inception, APTIM has provided full-scale engineering, environmental remediation, operations and maintenance, program/construction management, and design and construction services for government and private sector clients, including remediation and restoration of contaminated sites, emergency response, and disaster recovery. With a combined workforce of **more than 3,500 employees** in over 49 corporate/project offices and more than 100 field offices, we provide reliable solutions while maintaining a relentless focus on safety and an uncompromising standard of quality.

Our personnel are valued for their expertise and dedication to client services and quality products. These attributes have resulted in a high rate of repeat clients and the kudos we receive for our work. We have a well-balanced mix of engineers, construction experts, project management professionals, and scientists to provide superior service to our clients. Our corporate headquarters is located at**: 1200 Brickyard Lane, Suite 202, Baton Rouge, LA 70802, Phone: 833.862.7846**. **The following is a list of our corporate principals:**

- Wade Bass
- Greg Coffman
- William Deane Jr.
- Steve Downey
- Mark Fallon
- Daniel Gray
- Todd Kindler
- Katherine Kolibas
- Bradley Lowe
- Ulrika Messer
- Margaret Phillips
- Mike Ramage
- Alan Weakley
- Mick Williams

We understand the critical work to be done for your community and make a positive commitment to perform in accordance with the terms of the proposal being submitted. We look forward to working with you again and anticipate the negotiation of mutually acceptable terms upon contract award. APTIM will leverage our unmatched knowledge, proven experience, and quality management services to ensure the successful delivery of this project.

Kind Regards,

Nicole Sharp, PE | Coastal Market Lead
Aptim Environmental & Infrastructure, LLC
(561) 361-3150 | nicole.sharp@aptim.com

Samantha Danchuk, PhD, PE | Resilience Lead
Aptim Environmental & Infrastructure, LLC
(561) 361-3199 | Samantha.danchuk@aptim.com

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

CERTIFICATE OF THE CORPORATE ASSISTANT SECRETARY OF APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

CORPORATE RESOLUTION

I, **Todd Kindler**, do hereby declare and certify that I am duly elected, qualified and acting Assistant Secretary of Aptim Environmental & Infrastructure, LLC, (the "Company"), a limited liability company duly organized and validly existing under the laws of the State of Louisiana, and that in such capacity, I do hereby declare and certify the following:

> In accordance with the authority granted by the Company's Managing Member and its governing documents (and associated approved delegations thereof), **NICOLE SHARP, Coastal Market Lead,** has the authority to and is empowered to act for and on behalf of the Company in executing in the name of the Company, any and all types of proposals, bids, contracts, agreements, documents and instruments of whatever nature or kind necessary relating to the **Request for Proposal for Captiva Erosion Prevention District for Captiva Bayside Adaptation Plan**

IN WITNESS WHEREOF, I have herewith signed my name and affixed the seal of Aptim Environmental & Infrastructure, LLC on this 20th day of October 2023.

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

By: _____
Name: Todd Kindler
Title: Assistant Secretary

Corporate Seal:

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

CERTIFICATE OF THE CORPORATE ASSISTANT SECRETARY OF APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

CORPORATE RESOLUTION

I, **Todd Kindler**, do hereby declare and certify that I am duly elected, qualified and acting Assistant Secretary of Aptim Environmental & Infrastructure, LLC, (the "Company"), a limited liability company duly organized and validly existing under the laws of the State of Louisiana, and that in such capacity, I do hereby declare and certify the following:

> In accordance with the authority granted by the Company's Managing Member and its governing documents (and associated approved delegations thereof), **SAMANTHA DANCHUK, Resiliency Market Lead,** has the authority to and is empowered to act for and on behalf of the Company in executing in the name of the Company, any and all types of proposals, bids, contracts, agreements, documents and instruments of whatever nature or kind necessary relating to the **Request for Proposal for Captiva Erosion Prevention District for Captiva Bayside Adaptation Plan**

IN WITNESS WHEREOF, I have herewith signed my name and affixed the seal of Aptim Environmental & Infrastructure, LLC on this 4th day of October 2023.

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

By:_____
Name: Todd Kindler
Title: Assistant Secretary

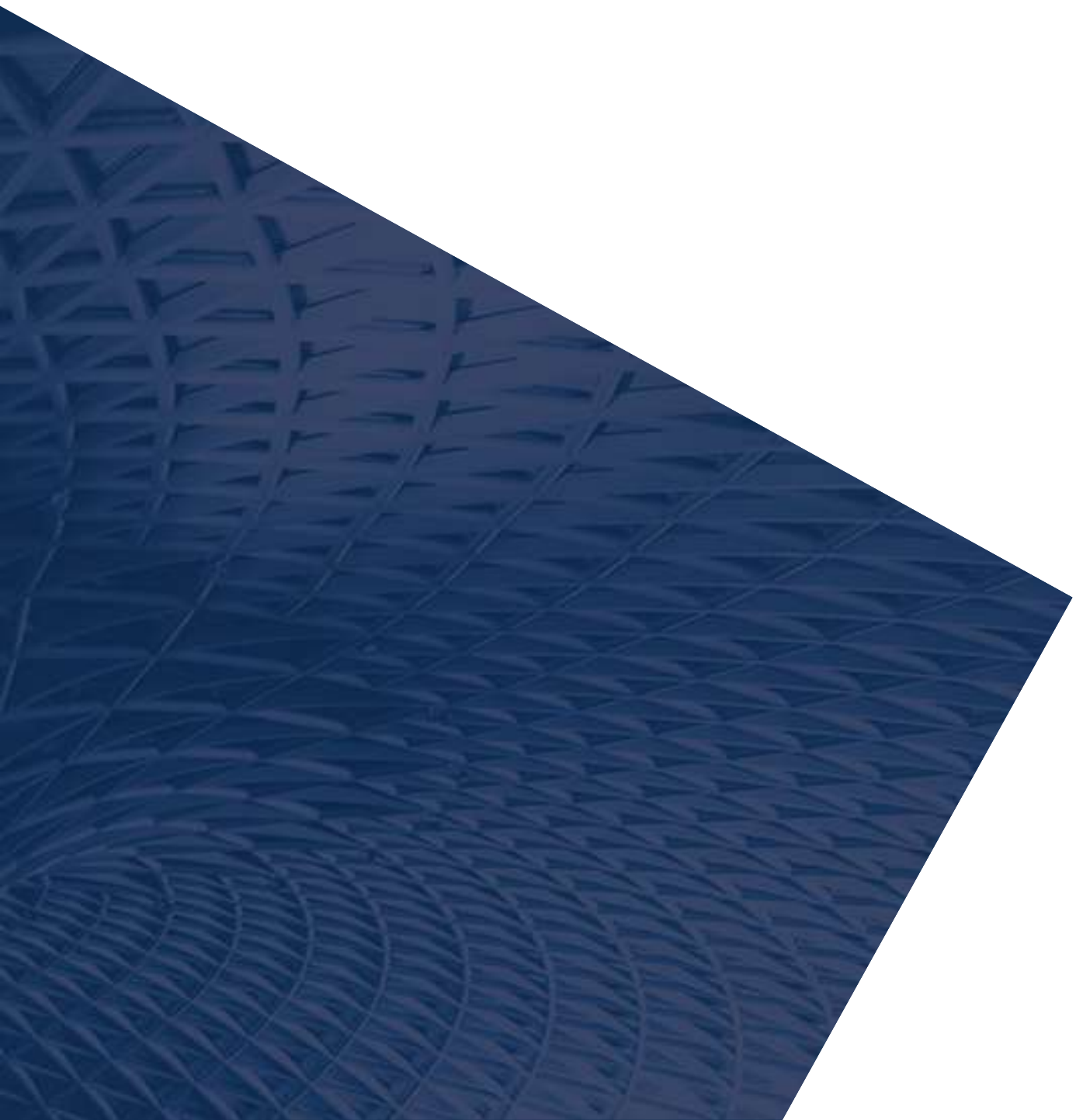
Corporate Seal:

Table of Contents

APTIM team member, Sasaki has led the design and visioning for the award-winning landmark shoreline redevelopment projects in Sarasota, Key West and along the Atlantic.

Sasaki's Greenwood Community Park Master Plan Honored by the 2023 ASLA Professional Award. Baton Rouge, LA

TAB 1 EXECUTIVE SUMMARY



Executive Summary

The APTIM team is ready to support the CEPD through the next era of building resilience along the bayfront shoreline through wise adaptation, collaboratively implemented by the community with an expectation of high returns on investment.

Expect the extraordinary. APTIM is your current coastal engineering consultant, and in partnership with CEPD, we have assessed the vulnerabilities on Captiva and aided in obtaining the Resilient Florida grant for this project. Recognizing the grand vision for this next step in building resilience into the Comprehensive Island-wide Management Plan, APTIM has engaged the most qualified, top tier partners in the industry to increase our capabilities in responding to any issues and interests that arise through this project. In summary, our approach will center on leveraging the experience and relationships of the team to expand the vision and feasibility of opportunities to adapt the shoreline on Captiva.

- APTIM will work directly with CEPD, serve as the primary point of contact to fulfill the requirements of this project and ensure we meet the timeline requirements of the steering committee, grant and Commission. APTIM will lead the adaptation plan development in concert with **AIM Engineering and Surveying, Inc.** Working with AIM, Lee County's prime consultant for flood mitigation analysis, planning and projects, will ensure alignment with intergovernmental planning objectives, funding, and best practice in reducing local flood risks. Raising the bar, **Richard Grosso, P.A.**, the state's foremost environmental policy advocate will advise on the most productive strategy for Captiva's long-term goals.

- Nature-based solutions for adaptation of the shoreline and submerged lands along the bayfront of Captiva will be envisioned and designed conceptually by **Environmental Science Associates (ESA) and Sasaki**. Their renderings and designs standout as the most inspiring and beautiful and have compelled community stakeholders and regulators to implement and celebrate living shoreline projects statewide. To make the renderings look real, **Matterscan** will be collecting digital twin images of Captiva. To further ensure concepts meet the high standards of Captiva residents, Sanibel's own **Coastal Vista Design** will support planning for harmonization and ground-truth the applicability of design elements. The APTIM team recognizes the CEPD's interest in visual options and will provide as many as **25 Conceptual Adaptation Drawings and renderings** for the CEPD and residents.

Vision for the Captiva Bayside

Let the beauty of Captiva's waters, coastlines, and the enjoyment of all who spend time there be the legacy of the island. Together, let's inspire consensus amongst residents for the need for action to prevent repetitive flooding and avoid weakness following natural disaster events. With a clear path for the future, the CEPD will be prepared to coordinate the necessary investments in adaptation and private property owners will have clearly defined roles and responsibilities. The Bayside Adaptation Plan will include short term and long-term actions to support robust protection along the bayfront with the co-benefits of preventing overtopping of shorelines, surge flooding of transportation, water, energy and communication infrastructure and limiting economic shocks to insurance rates, property values and emergency reserve funds. We stand ready to build upon the success of your beach management program and our understanding of CEPD process to protect the bayside and reap the rewards of a resilient future.

The focus areas for the adaptation plan and stakeholder engagement may center around the areas of vulnerability adjacent to Chadwick Bayou, Central Captiva, Roosevelt Channel and Blind Pass. Each area is subject to future flood risk and has unique opportunity for increased resilience through ecological restoration, flood protective infrastructure and consistent adaptation policy. Enhanced mangrove and seagrass areas coupled with shoreline stabilization may be used to derive cost-effective benefits. Such measures may mitigate flooding on an annual basis while giving residents additional time to adapt their own properties as sea level rises. ***A key success indicator for this project will be to identify feasible projects early in the timeline to support applying for the next phase of pre-design and construction funding for initial projects.***

APTIM's Committed to Adaptation in CEPD

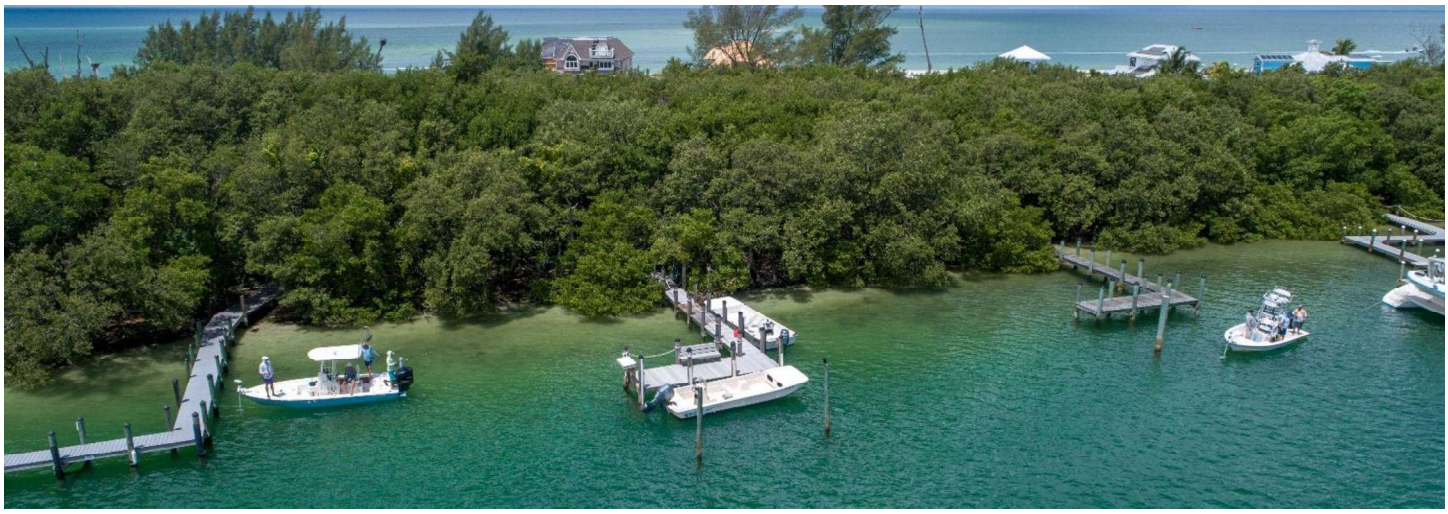
Aptim has managed, designed, and overseen the construction of these critical resilience projects in Captiva and the region.

- Hurricane Ian response and recovery efforts
- Beach and dune projects on Captiva since 1988
- Federal and State funding assistance
- Economic/Benefit calculations
- Rehabilitation of Redfish Pass terminal groin
- FDEP/ USACE permitting
- Island-wide Vulnerability Assessment

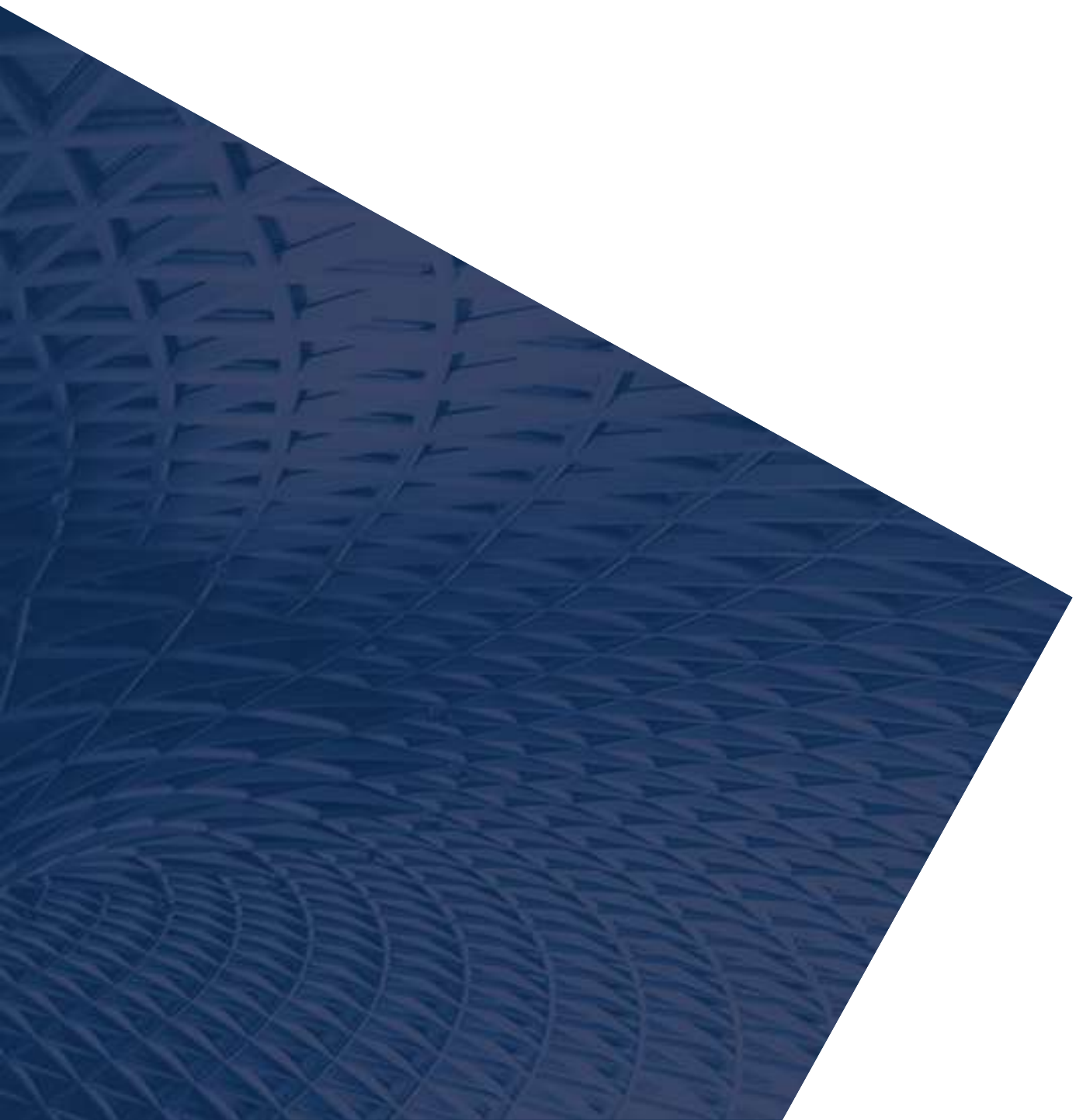
In previous work for CEPD, APTIM has identified the challenges of collecting easements from private property owners to construct bayfront projects and permitting large scale adaptation projects of sovereign submerged lands. With consideration of these challenges, APTIM has brought together the right industry leaders and community partners to efficiently deliver Captiva the solutions desired.

Proposal Summary

This proposal is organized to introduce the team and key staff, explain the approach and showcase our wealth of experience in adaptation planning, living shorelines and management of relevant grant projects. We commit to exceeding expectations and meeting the required timeline and budget.



TAB 2 RELEVANT EXPERIENCE



Relevant Experience

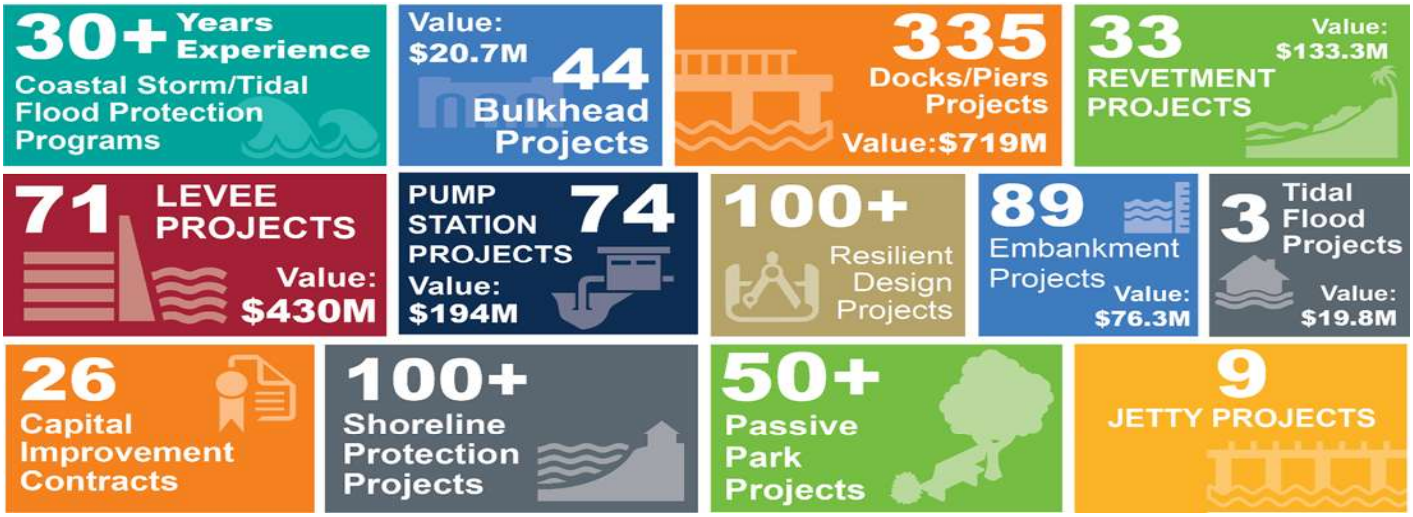
Aptim Environmental & Infrastructure, LLC (APTIM) provides expert professional community, policy, infrastructure, energy and economic resilience services for coastal resilience, disaster recovery, flood mitigation, energy efficiency and sustainable redevelopment projects. Our experience, innovative technologies, and national footprint have given us the opportunity to bring resilience and recovery support and innovation to state agencies, counties, cities, and municipalities throughout the nation. APTIM works to strengthen communities, so they are better prepared to resist climate change, bounce back after crisis, and rapidly recover with minimal outside assistance.

APTIM is a nationally recognized provider of resiliency consulting services: Platform Partner for the 100 Resilient Cities program and subject matter expert (SME) for 25+ jurisdictions under the Housing and Urban Development (HUD) National Disaster Resilience Competition (NDRC). These projects provide insightful practical lessons on evaluation criteria, decision points, policy and program objectives and implementation strategies to consider as part of the risk assessment and resilience plan approach. We offer CEPD the recent and relevant experience of a firm that has successfully managed 35 grant-funded programs valued at over $30B and was ranked by Engineering News-Record (ENR) as a top 10 environmental management firm.

APTIM has developed more than a dozen adaptation plans and hundreds of coastal projects. APTIM's submits the following **references** for relevant adaptation plans, described in detail in the project examples section.

- *Town of Longboat Key, Sea Level Rise and Recurring Flooding Adaptation Plan (page 6)*
- *South Florida Regional Planning Council, Military Installation Resilience Review (page 7)*
- *City of Delray Beach Sea Level Rise Plan (page 8)*

23 projects are highlighted in this proposal, both in this section and the "Other Information" section. These projects are directly relevant to Captiva but represent only a preview of the depth of relevant experience the APTIM team has in this field.



Project Team Including Subconsultants

Our proposed team commits to dedicating our time and expertise to see this project through completion. APTIM's multi-disciplinary team comprises knowledge-based engineers, planners, nature-based and hybrid solutions experts, biologists, environmental consultants, surveyors, community engagement professionals, resiliency experts, and specialists augmented by our key subconsultants:

Coastal Vista Design, Inc. (M/WBE) | Landscape Architecture is a Sanibel-based landscape architecture studio established by Leigh Gevelinger in 2016. We have provided landscape architecture services for many commercial and residential projects throughout Lee and Collier Counties.

Sasaki | Landscape Architecture has been guided by the commitment to a collaborative style of design for nearly 70 years. Sasaki's global experience includes award-winning work across a range of scales, disciplines, geographies, and industries.

Matterscan (WBE) | Digital Twins provides capture solutions for today's projects. We possess the resources, the experience, and the capabilities necessary to provide a complete range of digital twin development. We provide our clients with quality reality capture services backed by state-of-the-art equipment and software.

Environmental Science Associates (ESA) | Environmental Science, Nature-Based & Hybrid Solutions, Living Shorelines Formed in 1969, ESA brings more than 50 years of experience in a wide range of environmental services, including climate adaptation planning and resilience solutions; environmental assessments and impact statements; **permitting**, and **compliance**; living shorelines design, **ecosystem restoration and mitigation design**.

AIM Engineering & Surveying, Inc. (AIM) | Local Stormwater and Roadway Design and County Policy Expert Founded in Lee County in 1980, our services include general site civil; parks and recreation; water resources; environmental and permitting; marine and coastal engineering; utilities; transportation planning and design; project development and environment (PD&E) studies; surveying and mapping; geographic information systems (GIS); subsurface utility engineering (SUE); public outreach/involvement.

Team Organization Chart

Figure 2-1 portrays the organization chart for this effort. The chart highlights the **ten key personnel** that will lead project efforts across tasks, their anticipated roles. A summary of their previous experience is outlined in **Table 2-1**. Additional support staff available to assist with tasks are also outlined within the organization chart and will be instrumental in developing deliverables.

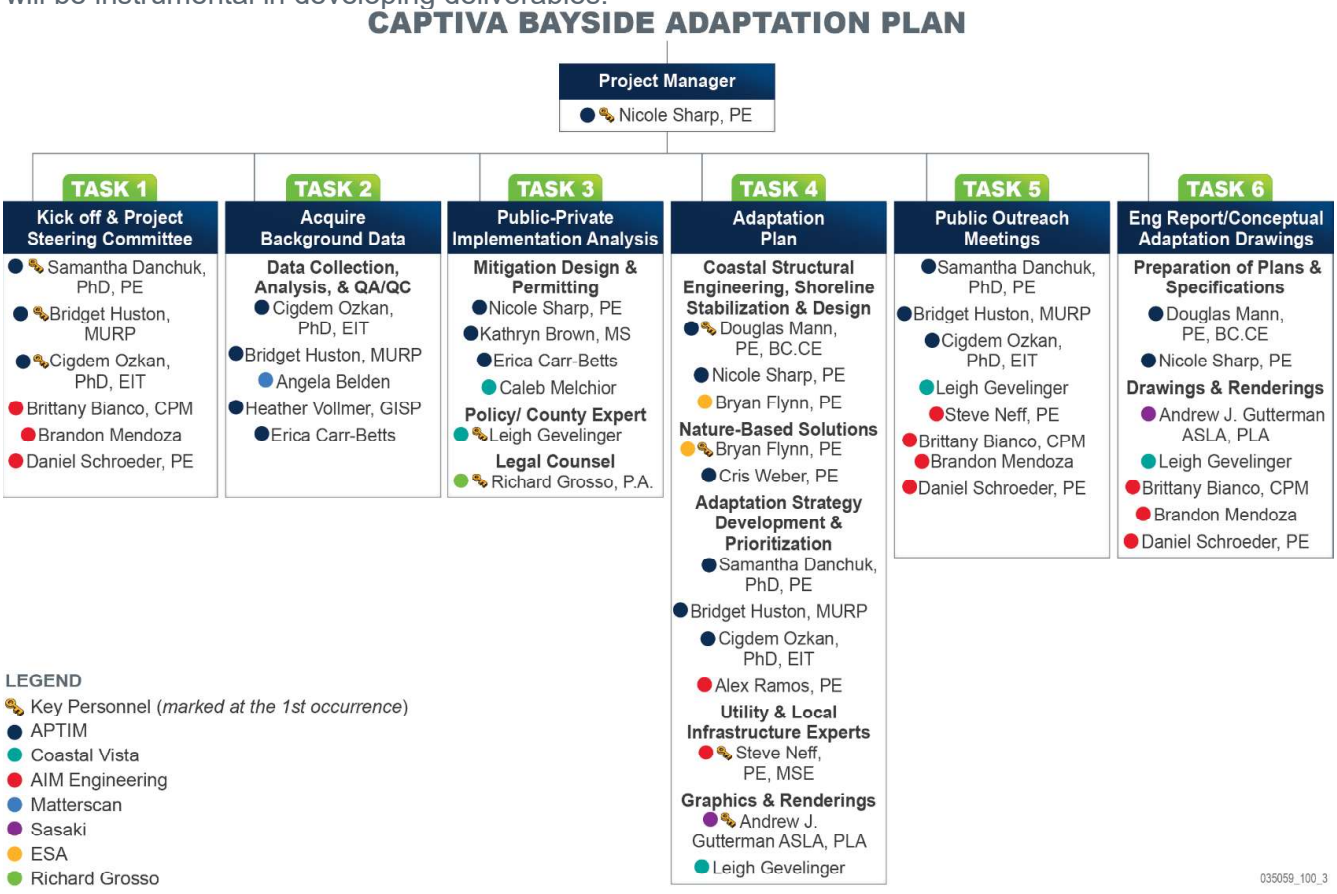


Figure 2-1. Organizational Chart

Key Personnel and Roles

Nicole Sharp, PE – Project Manager
- Direct experience managing Captiva's coastal projects since 2008.
- Has 15 years of experience, specializing in coastal restoration and modeling.
- Expertise in planning, design, engineering, specifications, field investigations, construction oversight, and feasibility studies of coastal engineering projects.
- Extensive experience in planning processes, complex environmental permitting, NEPA, and the review of EAs for projects in sensitive areas.

Samantha Danchuk, Ph.D., PE – Outreach Coordinator and Facilitator Adaptation Plan Developer
- 17 years of program/project management and resilient engineering experience.
- Seven years as Broward County's Assistant Chief Resilience Officer and Capital Program Administrator
- Ten years as a coastal resilience engineer with experience developing 10+ adaptation plans

Bridget Huston, MURP – Outreach Coordinator and Facilitator | Data Analyst | Adaptation Plan Developer
- Eight years of experience as resilience planner with experience in vulnerability assessments
- Experience in collecting, analyzing, and interpreting data for vulnerability assessment and conceptualizing adaptation strategies.
- Experience with community outreach and engagement strategies

Cigdem Ozkan, Ph.D, EI – Outreach Coordinator and Facilitator | Data Analyst | Adaptation Plan Developer
- Eight years of experience investigating innovative solutions to resiliency challenges.
- Experience in collecting, analyzing, and interpreting data and conceptualizing adaptation strategies.
- Experience in stormwater modeling, flood and erosion control, and coastal modeling

Douglas Mann, PE, BC.CE – Adaptation Plan and Engineering Report Developer
- 36+ years of experienced in all aspects of coastal engineering.
- Experienced in Environmental Resource permitting, and Florida Department of Environmental Protection Coastal Construction Control Line permitting.
- 2017 recipient of the Florida Shore & Beach Preservation Association Per Bruun Distinguished Service Award

Leigh Gevelinger, PLA – Landscape Architect | County Policy Expert | Conceptual Plan – Coastal Vista
- 17 years of experience with design-build landscape architecture and construction administration.
- Since 2010, worked on Sanibel & Captiva Islands and has a strong knowledge of local code, permitting, and construction processes.
- A deep knowledge of South Florida plants and ecosystem functions

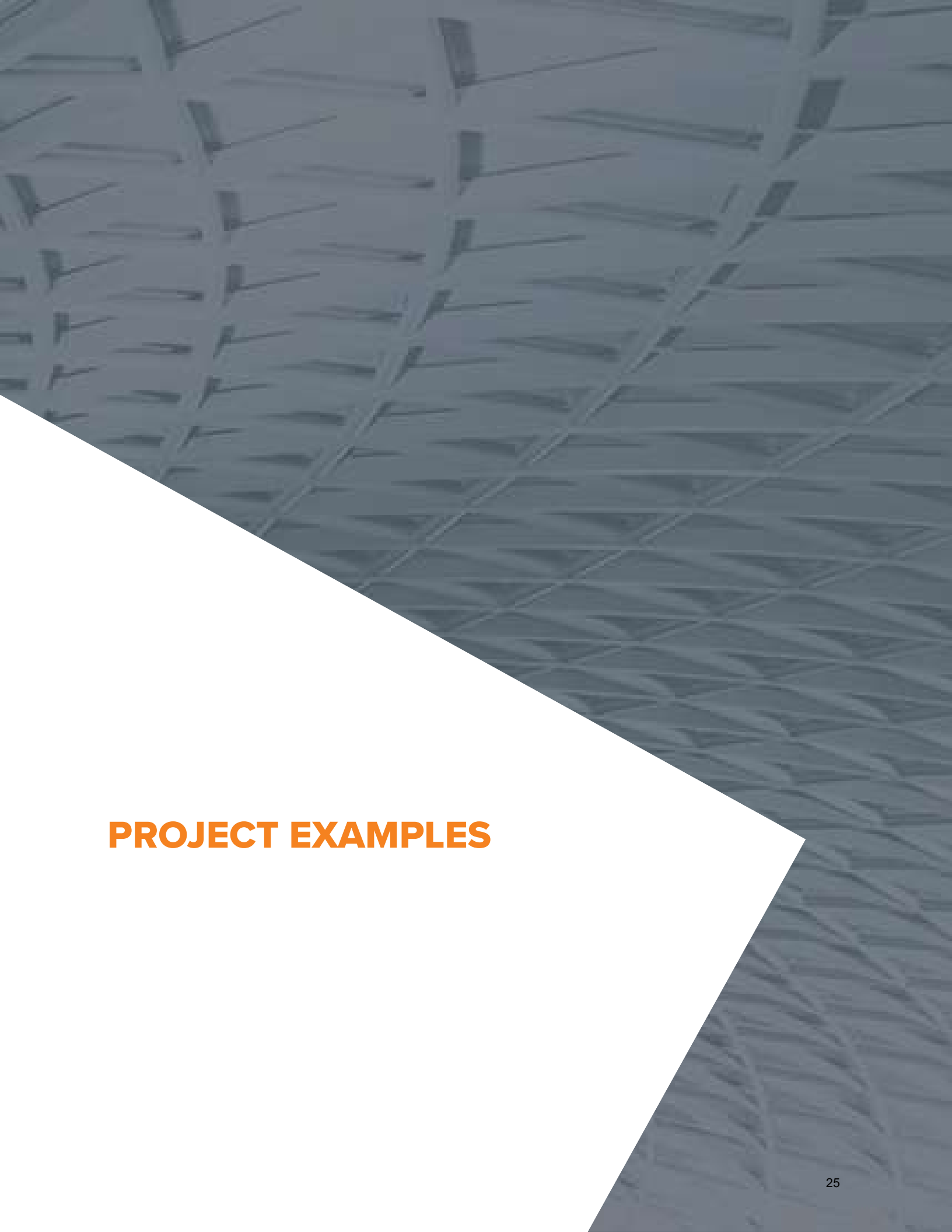
Andrew J. Gutterman ASLA, PLA – Landscape Architect | Conceptual Plan Designer – Sasaki
- 20 years of professional experience as an ASLA award-winning landscape architect.
- Keen understanding of natural systems that informs all aspects of the planning and design process.

Bryan Flynn, PE – Nature-Based and Hybrid Solutions, Living Shorelines SME – ESA
- 20 years' experience in coastal engineering, hydrographic surveying, permitting, project management, and construction administration.
- Expertise includes shoreline protection and coastal restoration, coastal monitoring, beach nourishment, inlet processes, and dredging and navigation.

Steve Neff, PE – Local Stormwater Infrastructure and Roads Specialist – AIM Engineering
- 40+ years of experience dedicated to engineering, construction, and public works.
- 30+ years of experience in permitting, water quality treatment, and flood mitigation and analysis.

Richard Grosso, P.A. – Environmental Policy Advocate
- Public interest environmental and land use lawyer with 35+ years of experience dedicated to advocating on behalf of clients seeking to use the law to promote and protect the public interest in preserving our natural resource, communities, and planet.
- Experienced in state, federal, administrative and civil court, and a member of the Florida Bar.

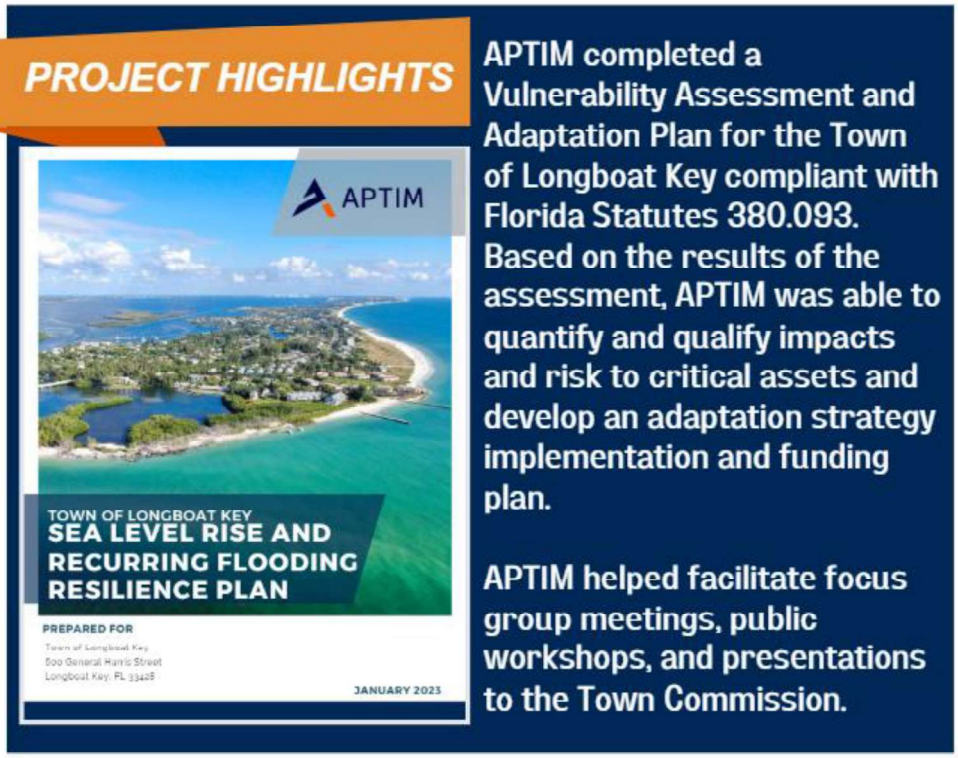
Table 2-1 Key Personnel and Roles



PROJECT EXAMPLES

Island-wide Adaptation Plan

LONGBOAT KEY, FLORIDA | APTIM



Client

Town of Longboat Key, FL

Project Dates

August 2019–2023

Project Budget

$259,936

Relevance/Highlights

- ✓ Bulkhead Elevation and Dune Assessments
- ✓ Vulnerability Assessment
- ✓ Resiliency Strategies
- ✓ Critical Infrastructure Mapping
- ✓ Public Meetings
- ✓ Funded by FDEP Resilience Florida Planning Grant
- ✓ FDEP compliant deliverables

Client Reference

Isaac Brownman
Public Works Director
Town of Longboat Key
501 Bay Isles Road
Longboat Key, FL
941.316.1988
ibrownman@longboatkey.org

Project Description

APTIM was contracted with the Town of Longboat Key to conduct an island-wide assessment of potential impacts from sea level rise and recurrent flooding on public and private infrastructure in Longboat Key. Our phased approach was as follows: conduct comprehensive flood exposure, sensitivity, and risk assessments for island and county, define impacts, develop adaptation strategies to formulate an implementation and funding plan. APTIM led and participated in focus group meetings, public workshops, and presentations to the Town Commission.

Project Successes

- Performed a community vulnerability assessment that examined historic, existing, and potential natural hazards and their impacts on the physical-built environment.
- Developed an adaptation plan for the Town fueled by the vulnerability assessment findings.
- Provided public engagement and town commission support to provide information on the study and to garner support for resiliency initiatives, policy, and the adaptation plan.
- Developed short- and medium-term resilient capital improvement plans based on conceptual design of recommended adaptation strategies.
- Identified potential funding sources and included in the adaptation plan based on eligibility of measures.
- Submit for grant reimbursement on behalf of Town and obtain acceptance of deliverables.

Military Adaptation Plans

KEY WEST, DANIA BEACH, HOMESTEAD, DESTIN, PANAMA CITY, PENSACOLA | APTIM

Project Description

The South Florida and Northwest Florida Military Installation Resilience Reviews (MIRR) support the long-term resilience of some of the Department of Defense's most significant military installations and the communities that support them.

APTIM is working on these two multi county Military Installation Resilience Reviews alongside other consultants. Both reviews follow a similar scope of work and necessitate similar tasks and deliverables. **The South Florida Military Installation Resilience Review** includes the Homestead Air Reserve Base (HARB), United States Army Garrison-Miami (USAG-Miami), US Naval Surface War Center South Florida Ocean Measurement Facility (SFOMF), and the United States Naval Air Station Key West (NASKW). **The North Florida Military Installation Resilience Review** includes the Eglin Air Force Base, Hurlburt Field, Tyndall Air Force Base, Naval Air Station Whiting Field, Naval Support Activity Panama City, and the Naval Air Station Pensacola.

APTIM performed environmental (flood, wind, heat, lightning, fire), socioeconomic (affordability of housing), and future conditions (age of infrastructure) vulnerability assessments for critical infrastructure, including all water systems and energy infrastructure on all installation locations that could be mitigated through community investments and solutions. APTIM facilitated numerous stakeholder meetings and interviews, working group meetings, and steering committee workshops to collect data and information, ground truth findings, and workshop adaptation strategies. The final phase of the projects was a design-build of approved resilient infrastructure projects. The project team identified recommendations and actions for DOD, stakeholders, and relevant agencies to address shared responsibility of climate risks. Recommendations included responsible parties, timelines of impacts, identification of priorities (short, medium, and long-term), estimated costs, a monitoring plan, appropriate financing mechanisms to implement the recommendations.

Project Successes

- Completed exposure, sensitivity, adaptive capacity, and risk assessments and associated geodatabase.
- Identified critical assets to be prioritized for adaptation to prevent potential infrastructure failure proactively and to assign the adaptation funding where it is needed the most.
- Developed adaptation strategies and workshopped feasibility and implementation for highest risk assets.

Client
South Florida Regional Planning Council

Project Dates
November 2022–January 2023 (Vulnerability Assessment)

Role
Subcontractor to Jacobs

Project Budget
$184,000

Relevance/Highlights
- ✓ Data collection and analysis
- ✓ Vulnerability assessment
- ✓ Working Group and SAC Workshops
- ✓ Stakeholder interviews
- ✓ Adaptation Planning

Client Reference
Christina Miskis
Project Manager
South Florida Regional Planning Council
1 Oakwood Blvd, Suite 250
Hollywood, FL 33021
(954) 924-3653
cmiskis@sfrpc.com

Seawall Adaptation Plan

DELRAY BEACH, FLORIDA | APTIM

Project Description

APTIM reviewed available water level data, analyze return periods of extreme events, and to determine water level projections for the City of Delray Beach's requested 30-year and 75-year planning horizons. Field investigations were performed to catalogue existing conditions of seawalls, stormwater inlets and outlets, and backflow prevention devices. Analyses of the collected field data were performed to support the City in assessing its vulnerability to future seasonal flooding and to identify options to protect its infrastructure and citizen's property. APTIM outlined capital improvements for 58 public stormwater outfalls, 20 city owned seawalls, and 800 privately owned seawalls. APTIM also recommended that the City of Delray Beach update their existing seawall ordinance to encourage private compliance with the findings of the study. Findings and recommendations were outlined in the 2018 Intracoastal Waterway Water Level & Infrastructure Vulnerability Study. APTIM participated in several public meetings.

Project Successes

- Engineers inspected seawalls and stormwater infrastructure and assessed the current conditions in relation to the suggested minimum seawall heights.
- Recommended raising city owned seawalls and provided a prioritization of seawall repairs and or replacements for Capital Improvement Plan.

Client
City of Delray Beach, FL

Role
Prime

Project Dates
2017–2019

Project Budget
$198,473.00

Relevance/Highlights
- ✓ Vulnerability Analysis
- ✓ Inrastructure Surveying
- ✓ Strategy Prioritization

Client Reference
Cynthia Buisson, P.E.
Engineering Division
City of Delray Beach
434 S. Swinton Ave.
Delray Beach, Florida 33444
(561) 243-7196
fuentesc@mydelraybeach.com

Chronic Flooding Adaptation Plan

TOWN OF CAROLINA BEACH, NC | APTIM

Project Description

In response to episodic flooding of major Town road from tides, storm surge, and rainfall, the Town retained APTIM to perform an assessment of recurring flooding due to elevated tides and storm surge within the yacht basin along Canal Drive. From the assessment of recurring storms and ongoing and future sea level rise, APTIM provided adaptation recommendations regarding 144 public and private bulkheads and the incorporation of additional backflow valves into Canal Drive's stormwater system. Subsequent to the initial work, APTIM has assisted the Town in providing a cost estimate for implementation of flood mitigation measures including bulkhead raising and stormwater improvements. APTIM has also assisted the Town in local ordinance development regarding bulkhead maintenance, reconstruction, and replacement.

Client
Town of Carolina Beach, NC

Role
Prime

Project Dates
2017-2019

Project Budget
$42,000

Relevance/Highlights
- ✓ Adaptation Planning
- ✓ Community Engagement
- ✓ Disaster Recovery

Client Reference
Ed Parvin, Deputy Town Manager; Town of Carolina Beach, 1121 N. Lake Park Blvd., Carolina Beach, NC 28428; (910) 465-2766, ed.parvin@carolinabeach.org

Resilient Shorelines Toolkit

BROWARD COUNTY, FLORIDA | ESA

Project Description

Local sea-level projections indicate approximately 2-feet of sea level rise by 2060 and has the potential to exceed 200-days of nuisance tidal flooding per year. Broward County has nearly 292 linear miles of hardened, and 98 miles of natural, coastal shorelines. To create sustainable neighborhoods and address future property risks the County needed to respond immediately. **ESA** assisted Broward County in creating a program that promotes living shorelines and seawall enhancement alternatives to increase coastal resiliency. The program developed shoreline protection solutions that created habitat and increased design elevations to combat sea level rise for a variety of residential and municipal shorelines while preserving viewshed and water access. The case-studies explored four general site conditions: shallow-water, low- and high-wake conditions, and deep-water, low- and high-wake conditions. The ESA Team created renderings, brochures, a technical report with cost estimates and presentations to be used by the County in community outreach events. These documents were designed to lead the resident or community leader through the permitting process and discuss pricing options for different project elements.

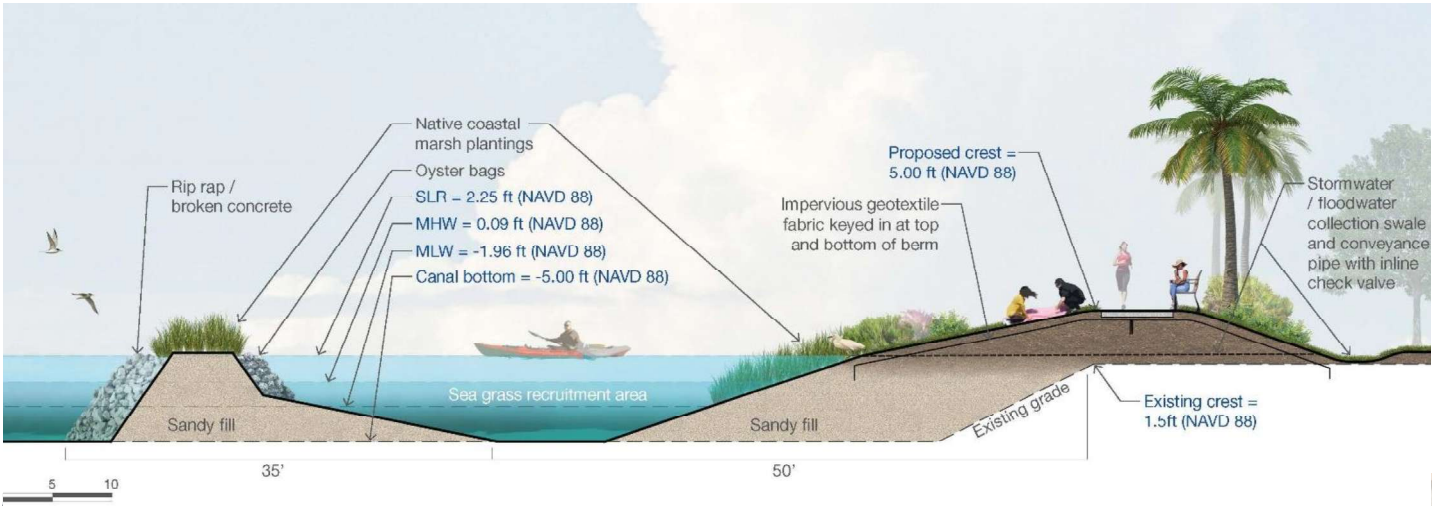
Client
Broward County

Role
Prime

Project Dates
May 2019 (completed)

Project Budget
$90,000 (fee)

Client Reference
Jennifer Jurado, Ph.D.
Chief Resilience Officer
Broward County
115 S. Andrews Ave.
Ft. Lauderdale, FL
954.519.0316
jjurado@broward.org



Philippe Park Living Shoreline

PINELLAS COUNTY, FLORIDA | ESA

Project Description

The Philippe Park site is located along the southern shoreline of the park along Old Tampa Bay. To help stabilize the eroded sections of this shoreline and provide another highly visible location for County residents to learn about the benefits of living shorelines, the County requested that ESA provide nature-based shoreline stabilization design options. Multiple options were designed for this area, inclusive of oyster beds, oyster bag arrays, and oyster domes, and offshore breakwaters depending upon the site's wave energy conditions. All design options were based upon the results of a coastal conditions analysis that utilized modeling data, site specific survey information and coastal design calculations to size the material to withstand the wave energy this site has experienced over the past 100 years. Each treatment also includes the installation of native wetland plants to further stabilize the shoreline behind the various wave energy treatments. The living shoreline also protects critical cultural resources associated with the shell mound in the park.

Client
Pinellas County, FL

Role
Prime

Project Dates
2021 - 2023

Project Budget
$67,000

Client Reference
Stacey Day, PhD
County Project Manager
(727) 464-4703
sday@pinellas.gov

Jungle Trail Shoreline Stabilization Project

INDIAN RIVER COUNTY, FLORIDA | ESA

Client Indian River County- Kirstin Leiendeckler, Project Engineer
1801 27th Street, Vero Beach, FL 32960 | (772) 226-1327

Date of Initiation / Completion
2019

Project Description The purpose of this project was to re-establish the eroded 4-foot shoulder of Jungle Trail to comply with County roadway specifications to increase the long-term resiliency of the roadway and the ability to provide safe passage to residents. Rock revetment and offshore breakwater designs were evaluated as potential solutions. A hybrid solution was chosen where limestone rip rap was placed to secure the long-term survival of mangroves and other native estuarine species planted along the new berm as an integral part of the shoreline stabilization. ESA provided Engineer of Record and Construction Administration Services.

Haya Park Living Shoreline Project

CITY OF TAMPA | ESA

Client City of Tampa- Karla Price, Project manager
3402 W. Columbus Drive, Tampa, FL 33607 | (813) 274-5134

Date of Initiation / Completion
2021/2022

Project Description ESA coordinated data collection efforts including topographic & bathymetric survey, vegetation, and wetland surveys to inform the permitting and design portions of the project. The purpose of this project was to protect the shoreline and the ancient oaks that were now vulnerable to collapse into the river. The project was phased to maximize grant funding with Phase 1 installing rip rap breakwater sills to dissipate boat wakes. Then fill was placed in Phase 2 to rebuild and revegetate the shoreline.

Southern Lee County Flood Mitigation Plan (SLCFMP)

LEE COUNTY, FLORIDA | AIM

Project Description

AIM Engineering & Surveying, Inc. (AIM) led the efforts on this large regional flood mitigation plan. The primary objective was the development of preliminary concept projects within the study area (southern Lee County) that would provide the ability to substantially mitigate future flooding due to significant storm events such as the combined Invest 92L and Hurricane Irma event. A system-wide approach aided in understanding the regional improvements when implementing concept projects, as well as identifying and mitigating adverse impacts to upstream and downstream components. The objectives of the SLCFMP included the development of a large scale regional hydrologic model for southern Lee County to evaluate the system impact of the collective concept projects for mitigating flood conditions. With data from this model, high-level evaluation reports were prepared for each concept including a preliminary Opinion of Probable cost.

Client
Lee County

Role
Prime

Project Dates
11/2019- 08/2020

Project Budget
$1.8 million

Client Reference
Luis Molina, Lee County Project Manager
(239) 533-8132 (Office)
(239) 822-7823 (Cell)
LMolina@leegov.com

A Project Prioritization Matrix was prepared to assist Lee County in evaluating concept implementation. As part of the regional modeling effort, a future conditions model was developed to look at the impacts of development growth as well as sea level rise. This same model looked at basin storage needs based on new development and evaluated and recommended allowable stormwater discharge rates for these new developments within each watershed basin. Finally, there was a model developed to focus on analyzing a storage/controlled discharge concept for the Crew-Flint Pen area relative to flood mitigation, but also looking at the year-round hydrological effect on this property. Throughout all this effort, coordination with various agencies and stakeholders was an ongoing objective. The project was successfully completed with several concepts being implemented now.

BIG Arts Landscape Design, Sanibel

SANIBEL ISLAND, FLORIDA | COASTAL VISTA DESIGN

Client Reference Lee Ellen Harder, Executive Director, BIG Arts Sanibel | 90 Dunlap Road, Sanibel, FL | (239) 395-0900 | lharder@bigarts.org

Date of Initiation / Completion
2023 | Ongoing

Project Description The design team preserved the original building footprint which is integral to the history of BIG Arts while expanding the function of the building and the campus. Coastal Vista Design evaluated existing site issues, mapped existing vegetation, and created a 100% native plant design for the BIG Arts Sanibel campus. Our studio created concepts which received positive reviews from the BIG Arts Board and community, then guided the design team through permitting with the City of Sanibel.

City Adaptation Plan

ALBANY, GA | APTIM

Client Reference Derrick L. Brown, Chief Financial Officer, Procurement Division City of Albany - 222 Pine Ave, Suite 260, Albany, GA 31701 | (229) 431-2107 | dbrown@albanyga.gov

Date of Initiation / Completion
2019 | 2020

Project Description APTIM was contracted by City of Albany, GA to develop the City's Resiliency Plan. This project is funded by the Community Development Block Grant for Disaster Recovery (CDBG-DR) and founded on a comprehensive city-wide property survey. APTIM's primary goal is to create a resilient community, equipped to withstand and recover from unexpected weather events. The plan encompasses various elements, from building codes to utilities and flood prevention, all designed to fortify Albany against natural disasters.

Sarasota Bayfront Master Plan

SARASOTA COUNTY, FLORIDA | SASAKI

Project Description

The Sarasota Bayfront Master Plan lays the groundwork to transform a 53-acre, city owned site on the stunning “Cultural Coast” of Florida into a more inclusive and welcoming community waterfront destination. The project delivers a long-term master plan to guide future improvements to the valuable site—establishing a cultural and economic legacy for the region while ensuring open, public access to the Bayfront. The Sarasota Bayfront Planning Organization, a nine-person citizen board, hired **Sasaki** in 2017 to lead this Master Planning effort. Since then, Sasaki and Agency Landscape + Planning have led the process of giving shape to the community’s vision. The site occupies a prime location with sweeping waterfront views and is anchored by several beloved cultural institutions. However, until now, the site has not fully leveraged its inherent potential to serve as a treasured community asset, as it sits covered in surface parking lots that make it 65% percent impervious. The plan, once implemented, will enhance the cultural vitality of the site, provide expanded public open space, improve connectivity to other parts of the city, and offer an economically and environmentally sustainable long-term management strategy.

Client

Sarasota Bayfront Planning Organization

Role

Prime

Project Dates

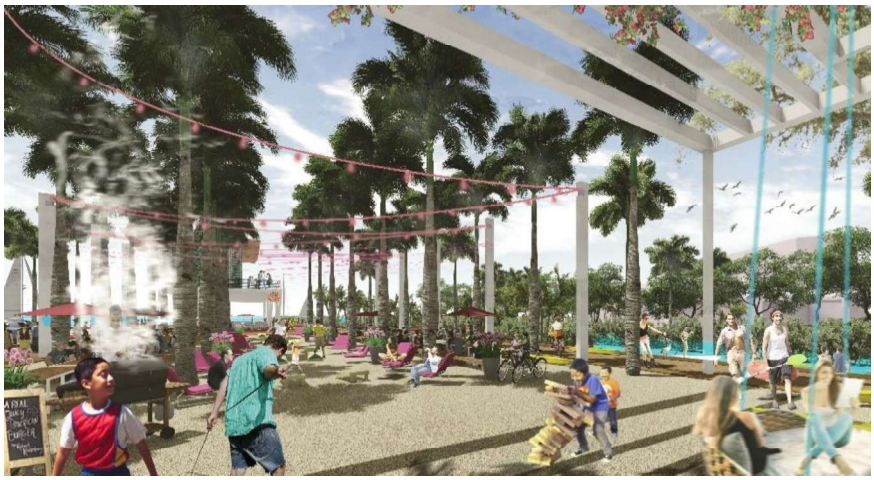
2/2018 - 6/2019

Project Budget

$850,000

Client Reference

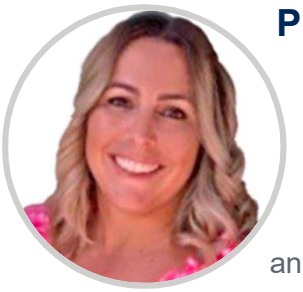
Bill Waddill, Director Sarasota Bayfront Planning Organization
655 N Tamiami Trail Sarasota, FL 34236
bill.waddill@sbpo.org
941.266.1717



RESUMES

NICOLE S. SHARP, PE

PROJECT MANAGER | **APTIM**



Professional Summary

Ms. Nicole Sharp, PE, is the Coastal Market Lead/Program Manager for the Coastal Restoration & Modeling Team. She has a well-rounded background in coastal management through working in both the public and private sector. She has designed, permitted, and supervised construction of multifaceted coastal projects in Florida, including projects on the West Coast. In 2017, she was awarded the Local Government Award from FSBPA for outstanding leadership for the preservation of Florida's beaches, especially her involvement with numerous beach and inlet projects that make up Florida's comprehensive beach management program.

Education

- MS, Coastal and Oceanographic Engineering, University of Florida
- BCE, Civil Engineering, University of Delaware

Professional License or Certification

- Professional Engineer, Florida, License No. 74708, Active

Skills & Experience

- ✓ Coastal Zone Management
- ✓ Coastal Resiliency
- ✓ Shoreline Stabilization
- ✓ Environmental Permitting
- ✓ Public Outreach

Years w/APTIM

✓ 9

15

YEARS EXPERIENCE

Relevant Experience

Captiva Island Sea Level Rise Analysis and Grant Assistance; Lee County, FL

Project Manager assisting the CEPD with the update of their sea level rise vulnerability analysis necessary for state funding eligibility and additional immediate preparatory actions to support applications for resilience and coastal infrastructure funding. Updated the sea level rise vulnerability analysis for Captiva Island to include sea level rise scenarios for planning horizons 2040 and 2070 based on the National Oceanographic and Atmospheric Administration (NOAA) Intermediate Low and Intermediate High projections. Identified the vulnerabilities affecting CEPD's jurisdictional area, private property, and the ability for CEPD to fulfill its responsibilities.

Captiva Island Beach Renourishment Project, Lee County, FL

Ms. Sharp assists the Captiva Erosion Prevention District with the overall management of CEPD's coastal management program. Provided project management, planning, and construction oversight of 2021 Captiva Renourishment Project. EOR for borrow area portion of project and related geotechnical components. Assisting CEPD with required post-construction monitoring of project in addition to reimbursement from FEMA and FDEP. Most recently, performing post-storm assessments following Hurricane Ian and developing rehabilitation strategy with federal and local partners.

Collier County Coastal Storm Risk Management Study; Collier County, FL; Collier County

Senior Co-Project Manager responsible for continued support to Collier County for USACE feasibility study for Collier County. Assisted with coordination and negotiations with USACE staff from multiple districts in addition to providing project support. This support has included review of Tentatively Selected Plan, engineering and modeling, economics and benefit analysis, environmental considerations, and real estate. Services also included review of final model optimization and report prepared for the Agency Decision Milestone meeting.

Collier County Coastal Management Program (Beaches and Inlets); Collier County, FL

Ms. Sharp assists Collier County with their comprehensive beach management program, including beach restoration, inlet management and dredging, and funding assistance. Ms. Sharp was the project engineer responsible for the design and permitting of Collier County's 2013-14 renourishment project. Responsibilities also included the preparation and submittal of Federal and State Joint Coastal Permit. For the 2013-14 project, Ms. Sharp coordinated and conducted the pre-bid and pre-construction meetings and provided construction oversight. She was also the project engineer associated with the Collier County Naples Beach Emergency Berm Restoration Project and Collier County Berm Restoration Project at Naples and Park Shore, both of which were truck haul. Ms. Sharp served as the program manager of the 2023 Collier County Emergency Berm project following the passage of Hurricane Ian. Ms. Sharp led project design, development of construction plans and specifications, and performed construction administration.

Pinellas County Coastal Management Program and Plan, Pinellas County, FL

Senior Coastal Engineer responsible for the review and development of the assessment of multiple coastal structures. Assisted with the historic research of the structures, including design and regulatory documentation, monitoring reports, and other historic documents to review and evaluate the design purpose, design life, general structure performance, and historic maintenance of the structures prior to conducting field inspections. Most recently served as Engineer of Record for the Sunset Beach, Pass-a-Grille Beach, Belleair Beach, and Upham Beach dune repair project following the passage of Hurricane Idalia. Provided dune design, development of specifications and construction plans, review of upland sand sources, and construction administration and oversight for the project in an expedited timeline to protect vulnerable upland infrastructure.

Sector 3 Beach and Dune Restoration; Indian River County, FL

Senior Project Manager and Engineer of Record responsible for the Sector 3 Beach and Dune Renourishment Project to restore the beach from damage caused by Hurricanes Matthew, Irma, and Dorian. Efforts have included final permit coordination, development of construction plans and specifications for both dredge and truck haul, and bidding assistance for the County. She has also assisted the County with their easement acquisition strategy in conjunction to assisting the County in their coordination with Federal Emergency Management Agency (FEMA). Ms. Sharp oversees the post-construction monitoring report for permit compliance. Most recently performed storm damage assessments and reporting for FEMA from Hurricanes Ian and Nicole and led the engineering, design, and agency coordination for the post-storm rehabilitation project planned for Winter 23/24.

Broward County Natural Resources Administrator; Broward County, FL*

Ms. Sharp was the Natural Resources Administrator at Broward County and has extensive experience with planning and implementing coastal projects. While at Broward County, she coordinated with state and federal resource agencies (FDEP, Florida Fish and Wildlife Conservation Commission, USACE, USFWS, NMFS, U.S. Environmental Protection Agency (USEPA)), assisted in preparation and review of engineering and environmental analyses (Environmental and Biological Assessments), and presented and participated in public briefings/meetings. Led negotiations with NMFS to develop sound terms and conditions which ultimately lead to issuance of a Biological Opinion with favorable terms and conditions for the projects. She also performed easement acquisitions (including Use Agreements with the State of Florida) required for the Certification of Lands, prepared State grant funding requests annually, and led the negotiation of multiple Project Partnership Agreements (PPA) for maintenance and emergency USACE projects.

**Projects completed with another firm*

SAMANTHA DANCHUK, PHD, PE

OUTREACH COORDINATOR AND FACILITATOR | ADAPTATION PLAN DEVELOPMENT | **APTIM**

Professional Summary

Dr. Samantha Danchuk is the Program Manager for APTIM's Florida Resiliency Program. She has **experience in vulnerability and risk assessments, coastal hazard modeling, strategic flood and energy resilience policy, and futureproofed infrastructure engineering**, supporting environmental sustainability and redeveloping vulnerable regions. Dr. Danchuk also has experience in stakeholder outreach to gain consensus on proposed policies, identify goals and objectives, collect data, lead public forums and focus groups, and interview individuals. She has been at the forefront of resiliency efforts in Florida. She has a **formidable reputation as a trusted source** amongst regional and national climate adaptation networks and is credited as the technical lead for nationally recognized policy and project case studies.

Relevant Experience

Captiva Island Flood Risk Vulnerability Assessment

Project manager and resilience engineer responsible for coastal hazard vulnerability assessment, risk mapping using GIS, resilient capital improvement plan and community adaptation strategy. Supported presentations to elected officials and special committee on sea level rise. Developed materials for public education on risk and coastal processes.

Longboat Key Sea Level Rise Vulnerability Assessment and Adaptation Plan

Project manager and resilience engineer responsible for coastal hazard vulnerability assessment, risk mapping, resilient capital improvement plan and community adaptation strategy. Presented to elected officials and stakeholders and integrated public feedback in deliverables.

South Florida Military Installation Resilience Review (MIRR), Vulnerability Assessment and Data Collection

Project Manager for environmental, socioeconomic, and future conditions vulnerability assessment of the ability of the military to carry out its missions on Homestead Air Force Reserve Base, SOUTHCOM, Naval Surface Warfare Center and Naval Air Station Key West that could be mitigated through community investments and solutions. Interviewed focus groups of data owners including utilities, local governments, and infrastructure owners to identify vulnerabilities. Supported organization and presentations for workshops to identify critical missions, project objectives and potential projects.

Education

- PhD Civil Engineering, Louisiana State University
- MS Environmental Engineering, University of California, Berkeley
- BS Environmental and Civil Engineering, Florida State University

Professional License or Certification

- Professional Engineer, Civil, Florida, 73868
- LEED-Green Associate
- WEDG Associate
- Critical Infrastructure Protection, Texas A&M Engineering
- Facilitation, Natural Resources Leadership Institute

Skills & Experience

- ✓ Project Management
- ✓ Vulnerability/Risk Assessment
- ✓ Community Engagement

Years w/APTIM

✓ 2

17

YEARS EXPERIENCE

Northwest Florida Military Installation Resilience Review (MIRR), Vulnerability Assessment and Data Collection

Project Manager for environmental, socioeconomic, and future conditions vulnerability assessment of the ability of the military to carry out its missions on Eglin Air Force Base, Hurlburt Field, Naval Support Activity Panama City, Naval Air Station Pensacola, Tyndall Air Force Base, Naval Air Station Whiting Field, and major tenant units. Tasks included data collection, modeling impacts of potential threats, resilience assessment, asset prioritization, and base and community engagement.

Broward County Communitywide County Action Plans

Project manager, co-developer and Climate Change Task Force staff liaison. Plans were developed based on Scope 1-3 Greenhouse Gas Emissions Inventories, risk assessments for heat and flooding, Community Energy Strategic Plans, Renewable Energy Action Plans and Heat Mitigation Strategy. Facilitated dozens of workshops for public outreach, delivered training program for employees, staffed task forces, delivered polls and interactive and youth focused engagement throughout project. Supported facilitation and delivery of 12 regional implementation workshops for the South Florida Regional Climate Change Compact. Developed YouTube series and high school curriculum for eLearning of resilience topics.

Sandsprit Park and St. Lucie Inlet South Jetty Martin County, FL

Dr. Danchuk as the coastal resilience program manager completed a sea level rise analysis for the park infrastructure, mapping areas of inundation, providing criteria for design elevations and suggesting flood adaptation strategies for short and long term.

AARFRC Atlantic Council–Miami Dade County Resiliency Hub and Vulnerability Assessment

Project Manager for countywide risk assessment of electrical infrastructure and social vulnerabilities to support siting of resilience hub prototypes. Developed new methodology for weighting energy burden, local system reliability and infrastructure risk by census tract. Developed criteria and questions for stakeholder outreach and interviewed residents.

Rebuild by Design US Atlas of Disasters

Responsible for data analytics of climate impacts and federal disaster funding by county and state paired with maps of rated return on investment for resilience investments, energy reliability, social vulnerability and estimation of future damage costs. Supported development of website content, presentations, and visuals to deliver unique analysis of national datasets. Engaged with media outlets, federal agencies, and project developers.

Related Studies

Program Manager/ Coordinator

Adaptation

- Decision Analysis for A Sustainable Environment, Economy & Society (DASEES), EPA
- Urban Green Infrastructure Lab, Earth Economics, regulatory tools and incentives and financing

Economics

- Economic Impacts of Storm Surge and Tidal Flooding, COAST model in Hollywood, International Metropole Project
- Business Case for Resilience for Southeast Florida- return on investment of regional climate-resilient infrastructure upgrades
- Dania Beach REMI Modeling- 1st of its kind application for sea level rise adaptation scenarios, basis for above.

Flood Risk

- Flood Risk Management Study for Tidally Influenced Coastal Areas, USACE- storm surge and sea level rise modeling to inform infrastructure elevations
- Critical Infrastructure and Future Flood Resilience in South Florida, NOAA, Deltares and Broward, innovative visualization of direct and cascading flood impacts
- Cascading Effects of Future Flooding Transportation Disruption, NOAA, Deltares, FIU, ICF

BRIDGET HUSTON, MURP

OUTREACH COORDINATOR AND FACILITATOR | DATA ANALYST | ADAPTATION PLAN DEVELOPMENT | **APTIM**

Professional Summary

Ms. Bridget Huston is a resilience planner and project assistant with experience in vulnerability assessments, applying visualization and climate scenario tools for project evaluation, plan development and implementation, grant proposal and report writing, qualitative and quantitative data collection and analysis, community outreach and engagement, surveying, and educational programming.

Education

- MS, Urban and Regional Planning, Florida Atlantic University
- MS, Environmental Science, Florida Atlantic University
- BS, Biology, University of Florida

Skills & Experience

- ✓ Vulnerability Assessments
- ✓ Technical Writing
- ✓ Spatial Analyses via GIS
- ✓ Data Collection and Analysis
- ✓ Community Outreach

Years w/APTIM

- ✓ 1

8

YEARS EXPERIENCE

Relevant Experience

Captiva Island Flood Risk Vulnerability Assessment

Collected, analyzed, and interpreted data, conceptualized adaptation strategies, and generated assessment reports. Created funding opportunities matrix for adaptation strategies and community education resources.

Longboat Key Sea Level Rise Vulnerability Assessment and Adaptation Plan

Quality Assurance/Quality Control (QA/QC), data synthetization, and technical reporting. Assisted with interpretation of data and conceptualization of innovative adaptation strategies and infrastructure investments.

South Florida Military Installation Resilience Review, South Florida

Collected data for four local military installations across three counties via continuous outreach and research. Analyzed, interpreted, and summarized results from exposure, sensitivity, adaptive capacity, and risk analyses and wrote various technical memos.

Miami-Dade Countywide Resilient Hub Network Strategy Project

Creation of Energy Reliability Vulnerability Assessment and Evaluation Data collection related to energy sector and infrastructure, energy reliability, energy use, demographics, etc., and conducted vulnerability assessment via matrix development and spatial analysis.

Enterprise Portfolio Project Tool

Assisted with data collection and hazard risk scoring methodology, encompassing eleven hazard types including hurricanes, earthquake, sea level rise, and fires hazards. Examined impact of social vulnerability across hazards and geographic scales.

Rebuild by Design Atlas of Disaster

Reviewed Atlas of Disaster reports for each state and provided feedback and edits before final production.

CIGDEM OZKAN, PHD, EIT

DATA ANALYSIS & PLAN DEVELOPMENT | **APTIM**

Professional Summary

Dr. Cigdem Ozkan has eight years of experience investigating innovative solutions to resiliency problems and energy demands through an environmentalist approach. She integrates nature-based solutions with engineered infrastructures to resolve complex environmental challenges.

Education

- PhD Civil and Environmental Engineering, University of Central Florida
- MS Civil and Environmental Engineering, University of Central Florida
- BS Civil Engineering, Middle East Technical University, Ankara, Turkey

Professional License or Certification

- Engineering Intern, 2021, 73850, Active, Texas, 07/2029

Skills & Experience

- ✓ Energy Resilience
- ✓ Data Collection & Analysis
- ✓ Vulnerability and Risk Assessment
- ✓ Technical Writing

Years w/APTIM

✓ < 1

8

YEARS EXPERIENCE

Relevant Experience

Sea Level Vulnerability Assessment, Captiva Island, FL

Performed QA/QC and assisted with final submission phases. APTIM updated the sea level rise vulnerability analysis necessary for state funding eligibility and additional immediate preparatory actions to support applications for resilience and coastal infrastructure funding.

Sea Level Rise and Recurring Flooding Resilience Plan, Longboat Key, FL

Contributed to final submittal phase of the Resilience Plan report via providing reviews and assisting with updates. APTIM supported the final phase of the development of an adaptation plan to address sea level rise and recurring flooding for the Town of Longboat Key.

South Florida Military Installation Resilience Review

Contributed to final submittal phase via mission critical data set refinement, data analysis & visualization. Performed QA/QC. APTIM identified the risks, hazards, and vulnerabilities of concern as it relates to the ability of the military to carry out its missions on the base that could be mitigated through investments and solutions.

Town of Waverly Stormwater Management Structure Design, Waverly, VA

APTIM was scoped to provide a remedy to repeated, nuisance flooding in the main intersection in the town of Waverly. A wet pond was proposed as the most feasible option to mitigate flooding. Dr. Ozkan was responsible from developing a stormwater model to estimate the drainage volumes that would be diverted to the wet pond area. She utilized ICPR4, CatchmentSIM, and ArcGIS Pro to develop the drainage area and analyze the impacts of the designed wet pond. Designed proposed stormwater collection network and assisted in pond design.

AARFRC Atlantic Council–Miami Dade County Resiliency Hub and Vulnerability Assessment

Evaluated the vulnerability of the energy infrastructure system to potential hazards and assessed the socioeconomic vulnerabilities related to energy. Conducted data collection and exposure analysis, led Geographical Information System (GIS) efforts, and contributed to building a scoring methodology to determine top priority areas to inform site-selection.

DOUGLAS MANN, PE,

ADAPTATION PLAN AND ENGINEERING REPORT DEVELOPER | **APTIM**

Professional Summary

Douglas Mann, PE, BC.CE, has worked as a coastal engineer with APTIM since 1987. He is experienced in all aspects of coastal engineering including dredge and fill projects for material disposal and beach nourishment, beach and inlet engineering, coastal structure design (including breakwaters, groins, seawalls, jetties, and Permeable Adjustable Groin (PAG)) as well as marine-related upland structures. He has been involved in the design and construction of boat ramps, marina renovations, and other boating related projects. Mr. Mann is experienced in Joint Coastal permitting, Environmental Resource permitting, and Florida Department of Environmental Protection Coastal Construction Control Line permitting. Mr. Mann was awarded the Florida Shore & Beach Preservation Association Per Bruun Distinguished Service Award in 2017.

Education

- MS, Coastal and Oceanographic Engineering, University of Florida, 1987
- BCE, Civil Engineering, University of Delaware, 1985

Professional License or Certification

- Professional Engineer, Florida, License No. 44046, Active
- Board Certified in Coastal Engineering by Academy of Coastal Ocean, Port, and Navigation Engineers, ASCE, 2010

Skills & Experience

- ✓ Completed 50 coastal and marine infrastructure projects
- ✓ Stakeholder engagement and advocacy

Years w/APTIM

- ✓ 36

36

YEARS EXPERIENCE

Relevant Experience

Sanibel Causeway Island B, Shoreline Stabilization Project, Lee County, FL

Engineer of record for a structural stabilization (t-head groins, terminal structures, revetment enhancement) and beach nourishment project of the park surrounding the road right of way for the 0.5-mile-long Island B. The linear park provides passive recreational opportunities to resident and guests and has suffered long term erosion of the shoreline and beach gullying from wave action and untreated stormwater runoff. Engineer of record for a structural stabilization (terminal structures, revetment enhancement, mangrove planter) and beach nourishment project of the park surrounding the road right of way for the 0.5-mile-long Island A. Project manager for park enhancements (bathrooms, roads, parking areas, stormwater improvements, on both islands). All shoreline stabilization was designed and constructed in the immediate vicinity of seagrass resources.

Broward County Shore Protection Project, Broward County, FL

Project manager for the development of the General Reevaluation Report for the second renourishment of the 10-mile-long authorized Segment II shoreline. Consulting engineer on Segment III nourishment. Performed economic analyses, engineering of fill quantities, borrow area design, cost estimating, and permitting of the project. (1999-2004). Project manager for environmental, geotechnical, and surveying services for the implementation of the above project with upland sand source. (2012-2016). Project manager for the long term

physical and environmental monitoring services (2016- current). Staff engineer for services associated with the construction of 4.5-acre precast concrete unit reef (2014-current).

Martin County Coastal Program, Martin County, FL

Since 2020, APTIM has provided coastal engineering, environmental consulting, and surveying services to Martin County, this has included St. Lucie Inlet, Inlet Management, South Jetty, Navigation, 96th Street Construction Access Bulkhead, Sandsprit Park Boat Ramp Improvements and Stuart Causeway Boat Ramp Improvements. Mr. Mann has been consulting with the project managers to apply sound engineering and regulatory approaches and construction lessons learned to optimize project designs. Served as engineer of record for the 30% design of the Sandsprit Park boat ramp replacement project.

Initial Assessment of Vulnerability due to Sea Level Rise and Recurring Storm Events, Town of Longboat Key, FL

Performed preliminary assessment of vulnerabilities to private and public infrastructure due to sea level rise and recurring storm events. Project manager for the data collection of stormwater infrastructure, and bulkhead elevations in critical areas of the Town.

South Lake Worth Inlet Sediment Budget and Seawall Replacement Projects Palm Beach County, FL

Project Manager for the completion of a periodic update to the sediment budget for South Lake Worth Inlet including reviewing beach and inlet survey data, volumetric analyses to quantify the measured volumetric changes north, south and within the inlet's area of influence and participation at TAC meetings. Engineer of record for the design and permitting of new seawalls along 1100 linear feet of seawall on the north and south interior sides of the inlet. Design addresses ADA issues within the park and access to the seawall cap/fishing platform. Design addresses existing high levels of steel sheet pile corrosion through cathodic protection design.

Collier County Marine Engineering Services, Collier County, FL

Engineer of record for multiple boat ramp, dock and replacement projects. At Caxambas Pass Park, 600 feet of bulkhead, dock, and a single boat ramp will be replaced. At Collier Boulevard Boat Ramp Park, designed 250 feet of bulkhead improvements at busy County boat ramp and added a 120-foot-long ADA compatible floating dock, immediately adjacent to mangrove habitat. At Cocohatchee River Park, a new 30-foot-long floating dock will be added to better serve transient jet ski users and kayak users.

City of Deerfield Beach, Beach Management Plan, Deerfield Beach, FL

Engineer of record for the City's Beach Management Plan, which outlines the benefits of maintaining the recreational beach, developed an economic basis for supporting beach preservation within the City limits, identified long term erosional trends and potential storm impacts, and identifies funding strategies to pay for the upkeep of the beach and dune system.

LEIGH GEVELINGER, PLA, LEED AP

LANDSCAPE ARCHITECT | COUNTY POLICY EXPERT | RENDERING DESIGNER | **COASTAL VISTA DESIGN**

Professional Summary

Leigh Gevelinger is the founder and lead landscape architect of Coastal Vista Design. Gevelinger has over 17 years of experience with design-build landscape architecture services and construction administration. Together with her team, Gevelinger brings a deep knowledge of south Florida plants and ecosystem functions, with a thorough understanding of the challenges and opportunities of landscape installation and management in south Florida. Gevelinger has worked on Sanibel & Captiva Islands since 2010 and has a strong knowledge of local code, permitting, and construction processes.

Education

- BLA, Landscape Architecture, University of Wisconsin Madison, 2007

Professional License or Certification

- Registered Landscape Architect, FL, #LA6667171

Skills & Experience

- ✓ Knowledge of south Florida plants and ecosystems
- ✓ Local Code, Permitting and Construction processes

Years w/Coastal Vista

- ✓ 7

17

YEARS EXPERIENCE

Relevant Experience

Numerous Residential/Condominium Shoreline Stabilization Projects – Pre & Post Hurricane Ian – Sanibel, FL

Provided permit plans for City of Sanibel and FDEP seaward of the CCCL on numerous properties. Services: Documentation of existing conditions, designed, permitted, and provided construction administration services for dune and shoreline mitigation planting installation for shoreline stabilization on behalf of property owners. Start Date: Ongoing

Collier County GGG Aubrey Rogers High School

Zyscovich Architects – Arnaldo Delgado, AIA, 305-372-5222, adelgado@zyscovich.com 60 acres / ecological planting for a technology and innovation-focused high school / services: site design, planting design, permitting, construction administration / Start date: 2019 End date: 2023

BIG Arts Sanibel Campus

Lee Ellen Harder, Executive Director, BIG Arts, 239-395-0900, 900 Dunlop Road, Sanibel, FL 2.4 acres / Sanibel native-only planting design for community theatre and arts center / services: planting design, permitting, construction administration / Start date: 2018 End date: 2020.

Paradise Coast Sports Complex

Parker/ Mudgett/ Smith / Architects – W. Jeffery Mudgett, AIA, 239-332-1171, wjm@pmsarch.com 180 acres / botanical garden-style planting throughout a sports facility, focused on native and regionally-adapted planting / services: planting design, permitting, construction / Start date: 2018 End date: Phases 1 + 2 complete 2023, Phases 3-9 ongoing.

Woodring Road – Living Shoreline Project – Sanibel

Hans Wilson & Associates / Kelley Brothers, Inc. / City of Sanibel Natural Resources Department Services: Provided on-site supervision of mangrove trimming work and mitigation documentation during site construction and installation activities. Maintain current certification of mangrove competency through City of Sanibel & Licensed Landscape Architect. / Start date: April 2022 End date: June 2022

Residential Project – Spartina Stabilization - Captiva Bayside

Windward Construction / Property Owner / Lee County / Residential bayside new construction project – Mangrove mitigation and stabilization of bayside property with spartina per Army Corp requirements. / Services: planting design, permitting, construction administration / Start date: 2019 - End date: May 2023

Residential/Condominium Project – Mangrove Installation Project - Captiva Bayside

Captiva Bay Villas – Mangrove shoreline stabilization – Lee County Services: designed, permitted, and oversaw mangrove mitigation planting installation for shoreline stabilization through Lee County on behalf of property owners. Start date: 2018 End date: July 2018 - December 2018

Bailey Matthews National Shell Museum

Shell Museum & Educational Foundation, 239-395-2233, 3075 Sanibel-Captiva Road, Sanibel, FL2.2 acres / Sanibel native-only planting design for public attraction and historic Sanibel venue / services: planting design, permitting, construction administration / Start date: 2017 End date: 2020.

Collier Community Foundation Tree Planting

Naples Botanical Garden (NBG) – Isabel Soto – 239-315-7225, isoto@naplesgarden.org 8 sites / review of existing underserved parks throughout Collier County, site visits to evaluate conditions and identify potential tree locations with Collier Parks & Recreation and NBG staff, site specific tree planting recommendations, mapping and landscape graphics for recommended tree planting / Start date: 2020 End date: 2021

ANDREW GUTTERMAN, PLA, ASLA

LANDSCAPE ARCHITECT | **SASAKI**

Professional Summary

Andrew brings over 20 years of professional experience as a landscape architect, and his understanding of natural systems informs all aspects of his planning and design process. His background in ecology has helped foster a deep appreciation for the beauty and complexity of the natural world and a strong belief that these qualities can be brought to the built environment in meaningful ways. Andrew's thoughtful approach is characterized by attentiveness to client needs, site conditions, and historical context. His experience spans the full spectrum of project types, with a particular emphasis on creating high quality landscapes in the public realm.

Education

- MLA, Landscape Architecture, Harvard University Graduate School of Design
- BS, Ecology and Evolutionary Biology, University of Connecticut

Professional License or Certification

- Licensed Landscape Architect: MA, CT, KY, ME, MI, NH, NJ, and RI

Skills & Experience

- ✓ Understanding of ecological systems

Years w/Sasaki

- ✓ 7

20

YEARS EXPERIENCE

Relevant Experience

- Imagine Clearwater Master Plan; Clearwater, Florida
- Bonnet Springs Park; Lakeland, Florida
- Comprehensive Campus Master; Decatur, Georgia
- Case Western Reserve University The Nord Family Greenway; Cleveland, Ohio
- Case Western Reserve University Main Quad Restoration; Cleveland, Ohio
- Connecticut College Master Plan; New London, Connecticut
- Copley Square Park Boston, Massachusetts
- Dartmouth College Collis Center Landscape; Hanover, New Hampshire
- Dartmouth College Undergraduate Housing Study; Hanover, New Hampshire
- Dixie State University Campus Master Plan; St. George, Utah
- Doan Brook Landscape Improvements; Cleveland, Ohio
- Greenwich Academy Master Plan, Greenwich, Connecticut
- Holderness School Athletics Center; Plymouth, New Hampshire
- Monterrey Tec Expedition Blueship Landscape; Monterrey, Mexico
- Nichols College Master Plan; Dudley, Massachusetts
- Quinnipiac University South Quad Landscape; Hamden, Connecticut
- St. Thomas Aquinus Faith-Based Dormitory; West Lafayette, Indiana
- Tecnologico de Monterrey Queretaro Library; Monterrey, Mexico
- The Frederick Gunn School Lizzie and Jonathan Tisch Center for Innovation and Active Citizenship Landscape; Washington, Connecticut
- The Lawrenceville School Campus Master Plan; Lawrenceville, New Jersey
- The Lawrenceville School Dining and Athletics Center Landscape; Lawrenceville, New Jersey

BRYAN D. FLYNN, PE

NATURE-BASED AND HYBRID SOLUTIONS, LIVING SHORELINES EXPERT | **ESA**

Professional Summary

Bryan Flynn has 20 years' professional experience in coastal engineering, hydrographic surveying, permitting, project management, and construction administration. His areas of expertise include permitting, shoreline protection and coastal restoration, coastal monitoring, beach nourishment, inlet processes, dredging and navigation. Bryan has served as the project manager and/or lead engineer on challenging projects involving multiple stakeholders for clients including water management districts, municipalities, ports, inlet districts, private corporations, and federal and state governments in Florida, the Caribbean, Louisiana, Texas, and Delaware.

Education

- ME, Civil Engineering, Water Resources, University of South Florida, 2008
- BS, Ocean Engineering, Florida Institute of Technology, 2000

Professional License or Certification

- Professional Engineer #70856, Florida; #38926, Alabama
- Florida Department of Environmental Protection stormwater/ National Pollutant Discharge Elimination System certification #29445

Skills & Experience

- ✓ Shoreline Protection and Coastal Restoration
- ✓ Beach Nourishment
- ✓ Stakeholder Meetings

Years w/AIM

- ✓ 8

20

YEARS EXPERIENCE

Relevant Experience

Developing Resilient Shorelines; Broward County, FL

Project Manager. Broward County is addressing sea-level rise by setting seawall design heights and providing residents with design renderings for various seawall enhancement and living shoreline options. ESA was hired to formulate the engineered designs and provide professional renderings to create an informational pamphlet, which also included permitting guidance for Broward County residents. Bryan worked closely with ESA's team of coastal scientists to formulate the design options and then presented this information to the county's Shoreline Resilience Working Group.

Rising Waters Task Force Report; Delray Beach, FL

This project was a planning initiative for the City of Delray Beach. The report included input from several local stakeholders and technical experts. The goal of the report was to raise awareness of the impacts of climate change and sea-level rise on the coastal community. The efforts ultimately will lead to a coastal resiliency/ vulnerability analysis performed for the city.

Audubon Islands Living Shoreline Project; Pinellas County, FL. (Subconsultant to Landon Moore and Associates)

Coastal Engineer. This project, sponsored by Audubon Florida, entailed performing a coastal conditions analysis and wave modeling to guide the design of nature-based shoreline protection options to protect three rookery islands within Pinellas County. Audubon Florida manages three spoil islands—Dunedin-Sand Key, Indian Rocks Beach, and Dog Leg Key—in Pinellas County as critical bird rookeries/nesting habitat. The

islands are subject to wave impacts from both local wind-waves and vessel traffic. ESA compiled wind, wave, tide, storm surge, sea-level rise and bathymetric information on each site. ESA visited each of the islands, collecting submerged aquatic vegetation locations and sediment samples. ESA also collected wind-wave and boat wake measurements by deploying cameras at the three project locations and recording the water surface elevations. ESA applied the 2-D Coastal Modeling System-Wave model to simulate nearshore coastal processes at all three project locations. Extreme wind speeds corresponding to the 10-year and 20-year events were modeled in combination with a range of water levels, which included contributions from tides (e.g., mean higher high water), storm surge, and mid-century sea-level rise. Wave run-up and overtopping, reflection, and transmission coefficients were calculated for each island, which helped in sizing the precast concrete units. Once the shoreline treatment elements were chosen, the maximum scour at each location was also determined using the grain-size distribution from the sediment samples. ESA provided design suggestions and modifications as well as assisting with presentations of the findings to regulatory agencies.

Haya Park Living Shoreline Project; City of Tampa, FL

Ignacio Haya Park was losing shoreline, which endangered several large oak trees that are a signature feature of the Hillsborough River landscape. ESA coordinated survey and geotechnical data collection efforts and performed a tree survey and environmental assessment of the site. Bryan designed and permitted the rehabilitation of previous shoreline stabilization efforts, which included extending stormwater outfalls through the living shoreline features, directing runoff deeper into the river where shoreline scour would not be an issue. Repairs were made to a riprap revetment and wooden stem wall near the Hillsborough Avenue Bridge, and the existing living shoreline was rehabilitated with new larger riprap offshore, fill placement, and additional plantings along shore. The stormwater ditch at the southern portion of the project area was re-contoured to provide additional surface area for wetland plantings, and a sump was created to control sediment.

Sarasota Bay Estuary Program; Sarasota Bay, FL

Coastal Engineer. Bryan provided design and permitting support, cost estimation and feasibility reports for the following Sarasota Bay Estuary Program restoration projects:

- GT Bray Park – stream restoration
- FISH Preserve Phases 3 & 4 – hydrologic and habitat restoration.
- Blackburn Point Living Shoreline Project
- Neville Preserve sediment assessment

Safety Harbor Living Shoreline Stabilization Project; Safety Harbor, FL

The primary objective of this project is to enhance coastal resilience by removing an existing seawall and replacing it with a living shoreline feature. Additionally, the existing spring outfall from the Safety Harbor Resort and Spa will be improved by removing a portion of the pipe to recreate a natural intersection between the spring and the estuarine waters of Old Tampa Bay. The city hired ESA to design and permit the restoration activities and secure grant funding. ESA secured permits and provided bidding support to the city to hire a contractor to remove the existing seawall, headwall, and portion of the outflow pipe, as well as any non-native invasive species or other debris. The contractor provided grading, installation of riprap, geotextile, piping, and clean sand. The city coordinated community volunteers to install oyster habitat and native wetland/transitional plants along the top of bank. The spring pool was planted with estuarine-dependent marsh grass and transitional plants surrounding the area.

STEVE NEFF, PE

LOCAL STORMWATER INFRASTRUCTURE AND ROAD SPECIALIST | **AIM ENGINEERING & SURVEYING**

Professional Summary

Mr. Neff's lengthy career has been dedicated to the Engineering, Construction, and Public Works sectors; having spent 30+ years with the City of Cape Coral in various roles, including Public Works Director. His role with the City required extensive interaction with the City Manager and City Council, as well as various Department Heads, governmental agencies, and consulting firms. His experience gives him a profound understanding of various areas of public and corporate interests, including contract management, team building, negotiations, budget planning, and public presentations; all of which he has channeled into his role as Contract Manager/Project Director for AIM on numerous projects and multiple task-based/continuing services contracts.

Education

- BS, Civil Engineering, Purdue University, Indiana, 1978

Professional License or Certification

- Professional Engineer, Florida #33205, 1983

Skills & Experience

- ✓ Contract Management
- ✓ Negotiation
- ✓ Budget Planning
- ✓ Public Presentations

Years w/AIM

- ✓ 6

46

YEARS EXPERIENCE

Relevant Experience

Jordan Marsh Water Quality Treatment Park Design & Permitting; City of Sanibel

Project Director for the design, engineering, and permitting of this water quality treatment park located on a portion of public and private conservation land on Sanibel Island. The park was designed as a multi-purpose surface water treatment facility and will maximize opportunities for water quality improvement and storage, as well as provide expanded recreational opportunities and an improved habitat for residents and visitors.

Southern Lee County Flood Mitigation Plan; Lee County

Project Manager. AIM was responsible for preparing a flood mitigation plan in response to the significant flooding that took place in Lee County as part of Invest 92L and Hurricane Irma in 2017. Several concept plans were developed to reduce/mitigate the County's future flood potential south of the Caloosahatchee River. A 3D regional watershed model was developed for this effort, and up to 40 concept projects will be modeled to determine the benefit of the proposed concepts. AIM also provided Engineer Opinions of Probable Costs as well as a prioritization matrix for the preliminary concepts.

Post Irma Flooding Analysis; Lee County

Project Manager. AIM provided a high-level evaluation of drainage for three large watersheds in east Lee County immediately south of the Caloosahatchee River. The Orange River, Hickey's Creek, and Bedman Creek watersheds experienced flooding because of intense rainfall from Irma. AIM collected data relative to high water elevations, impediments to flow, and a high-level review of systems. A summary was provided and included potential short-term relief activities as well as possible needs for further studies of more significant long-term beneficial projects.

Wild Turkey Strand Surface Water Diversion; Lee County

Project Manager. This project involved implementation of restoration activities to reclaim agricultural lands and enhance wetlands. AIM was tasked with evaluation of existing conditions; topographic survey; environmental assessments; and surface water analysis to prepare plans, documents, and permit applications for proposed enhancements; as well as assisting with the bidding and construction phase. Enhancements include wetland flow ways, ponds to provide dry season refugia, and uplands; reducing flow that was being forced west to residential areas and redirecting through the County-created and restored ecosystems and is configured to maintain suspected inflows.

Gator Slough/Yellow Fever Creek Interconnect; Lee County Natural Resources

Project Manager on this contract for hydrologic and water quality modeling and preparing plans and specifications for the restoration of the upper reaches of the Yellow Fever Creek Watershed. The project included a stormwater pumping system, wetland hydro-period restoration, control structures, water quality enhancements, and rehydration of a creek system, as well as aerial photography and photogrammetry, survey, engineering, planning and design, construction services, permitting, and coordination with government agencies.

West Marsh Preserve Design & Permitting; LA-MSID

Project Manager. This project included evaluation, design, permitting, and construction phase services for the creation of a 206-acre surface water storage and treatment wetland facility serving the Orange River Basin in CEPD. The project also involved the preservation and enhancement of existing wetland and natural areas and is being constructed as part of a partnering agreement between LA-MSID and FDOT. In exchange for their participation, FDOT received compensating water quality storage and fill embankment material for SR 82 improvements.

RICHARD GROSSO, P.A.

ENVIRONMENTAL POLICY ADVOCATE | **RICHARD GROSSO LAW**

Professional Summary

Richard Grosso, President of Richard Grosso, P.A., in Plantation, FL, is a widely recognized lawyer and advocate, with 37 years of experience as a public interest litigator, appellate lawyer, advocate and counselor in the areas of federal and Florida environmental, land use, constitutional, property rights and related governmental and administrative law. He offers services throughout Florida and in Washington DC.

Mr. Grosso is a former Law Professor at the Shepard Broad College of Law at Nova Southeastern University in Ft. Lauderdale, Florida, where he taught in the areas of environmental, energy, land use, administrative, appellate practice and federal and state constitutional law. He is the former Executive Director and General Counsel of the Everglades Law Center, Inc., (ELC) a public interest law firm which represents citizens and environmental interests in environmental and land use matters concerning the Florida Everglades, Florida Keys and the south Florida ecosystem in general. He is also a former Legal Director for 1000 Friends of Florida, and attorney for the Florida departments of Community Affairs and Environmental Regulation. Over his 37 – years as a practicing lawyer, he has represented numerous public interest clients and the state of Florida in federal and state administrative and judicial proceedings. He frequently appears as an advocate before local governments, state and federal agencies, and other bodies concerning land use and environmental issues, and as a practicing attorney in state, federal, and administrative tribunals.

Mr. Grosso has worked extensively on the local, state and federal policy, legal and agency decision-making aspects of the Comprehensive Everglades Restoration Plan, cutting edge "carrying capacity" land use planning in the Florida Keys, climate and sea level rise sustainability issues in south Florida and a wide variety of environmental and land use issues throughout Florida. Richard's work and analysis has been quoted or referenced in the New York Times, the Washington Post, Forbes, Politico, National and Florida Public Radio, in almost every major news media in Florida, and other newspapers and blogs across the country and around the world.

Education

- JD, Florida State College of Law, 1986
- BS, Political Science, Florida State University, 1983, Pi Sigma Alpha Honor Society Vice President, Government Studies Association
- AA, Miami-Dade Community College, 1981 - Dean's List

Professional Licenses or Certifications

- Bar Admission, Supreme Court of the United States
- Bar Admission, United States' District Court for the Northern District of Florida
- Bar Admission, United States' District Court for the Middle District of Florida
- Bar Admission, United States' District Court for the Southern District of Florida
- Bar Admission, State of Florida, 1986

Skills & Experience

- ✓ Environmental Law
- ✓ Environmental Permitting
- ✓ Land Use Matters

37

YEARS EXPERIENCE

Relevant Experience

Richard Grosso, P.A. President Plantation, FL

Jan. 2018- present; Consultation and representation of public interest clients in land use, environmental and related governmental matters before local, state and federal agencies and state and federal courts and administrative tribunals.

Shepard Broad College of Law, Nova Southeastern University, Ft. Lauderdale, FL

Professor of Law – 2007 to 2021; Assistant Professor of Law 1998 - 2007 Directed the law school's land use and environmental law practice clinic, where he represented clients in judicial and administrative litigation and government advocacy and supervised and mentored law student clinical practice. Taught constitutional law, land use, environmental, energy and administrative law and appellate practice.

Everglades Law Center, Inc., Ft. Lauderdale, FL

Executive Director\General Counsel - March 1996 to December 2010; Responsible for administrative and legal activities of non-profit, public interest law firm which represents clients in litigation, appeals and administrative advocacy on major legal cases and public policy decisions impacting the south Florida ecosystem. Extensive state and federal trial and appellate practice on cases of significant precedential value. Lectures and writes frequently on legal and policy issues concerning environmental and land use law and policy. Clients included federal, state and local environmental organizations.

1000 Friends of Florida, Tallahassee & Ft. Lauderdale, FL

Legal Director - August 1990 to March 1996; Responsible for all legal activities of growth management advocacy NGO.

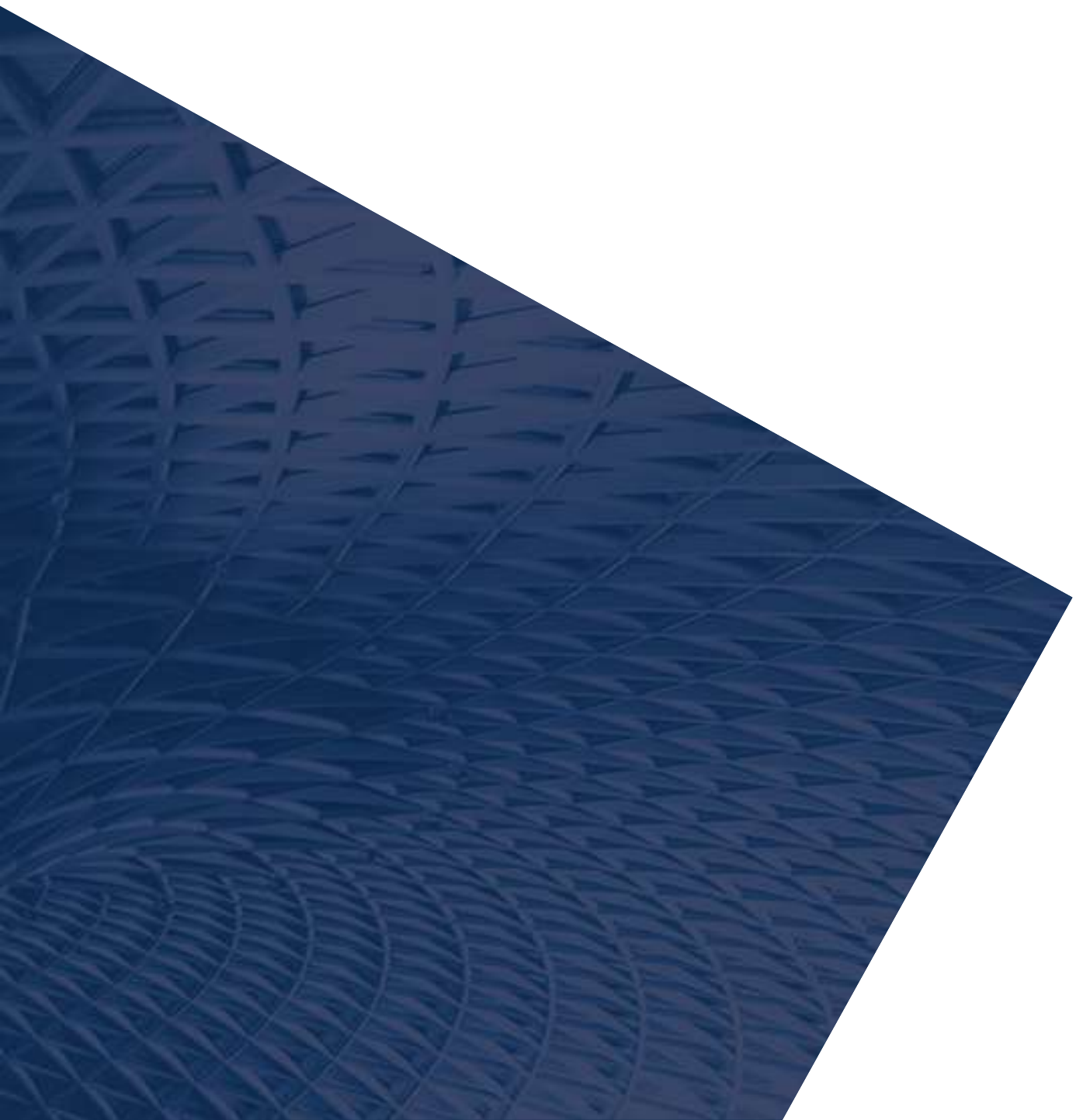
Florida Department of Community Affairs, Tallahassee, FL

Assistant General Counsel - June 1989 to August 1990; Represented state agency in administrative challenges to local government comprehensive plans and policy plans of regional planning councils.

Florida Department of Environmental Regulation, Tallahassee, FL

Assistant General Counsel - December 1986 to June 1989; Duties included trial and appellate work as well as advisory duties relating to environmental permitting. Heavy emphasis in administrative law and inverse condemnation defense. Extensive trial and appellate practice.

TAB 3 PROJECT APPROACH

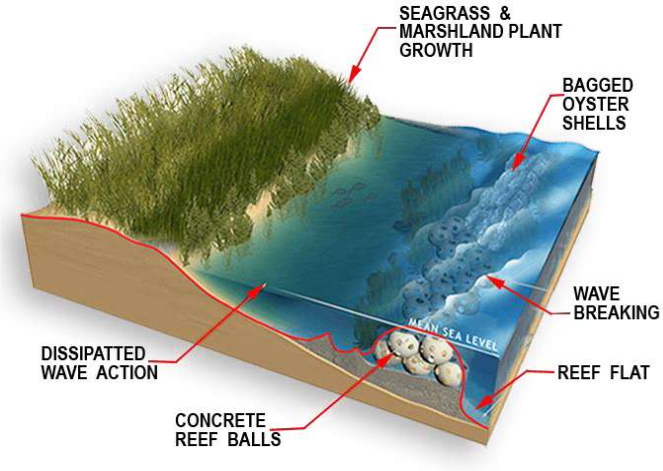


Project Approach

APTIM acknowledges and has a comprehensive understanding of the Project, its scope of work, and goals. APTIM affirms that we can meet the stated project schedule of November 30, 2024, for the services included in this document. We are fully prepared and dedicated to delivering our final product to CEPD.

Project Management | APTIM uses a proven project delivery and control system that is customized and scaled to clients' individual needs and capacity. The system supports project administration and daily review and analysis of project performance. APTIM will apply **quality assurance/control procedures** to check for data completeness, accuracy, consistency, transparency, and relevance throughout the project.

Ground-Truthing Data | We will coordinate efforts with multiple stakeholders and experts to ground truth data, assumptions, and the feasibility and applicability of proposed actions. We found this step to be essential during the vulnerability analysis and have budgeted time for the local architect and flood mitigation experts to vet data.



Nature-Based Solutions (NBS)
Source: https://ewn.erdc.dren.mil/

Grant Compliance | The APTIM team has successfully completed projects in compliance with the Resilient Florida Grant Program within six coastal counties- Manatee, Sarasota, Lee, Broward, Miami-Dade, and Monroe Counties. The key is to communicate findings and interests with the state early in the project.

Commitment to Nature-based and Hybrid Solutions | We are committed to implementing the principles outlined in the "Goal and Guiding Principle Document for Captiva & Sanibel Coastal Adaptation Planning." We will base our strategies on the best available scientific information and technical expertise. Our goal is to develop an adaptation plan that balances the preservation of critical ecosystems, infrastructure, and economic interests while enhancing the resilience of Captiva Island. We will utilize emerging NBS technologies where applicable, feasible, and permittable.

TASK 1: Kick off and Project Steering Committee

The APTIM team will assist CEPD with coordinating logistics and communications necessary for hosting a kick-off meeting within the first month of the project. APTIM will also host three steering committee progress meetings at the following key project milestones:

1. **March 2024 | Commencement of Task 4 (Adaptation Plan):** Steering Committee Members will be briefed on the findings of the background data compilation and public- private implementation analysis.
2. **June 2024 | Completion of Task 4 (Adaptation Plan):** Steering Committee will be able to review the draft plan and provide insights, edits, and reccomendations.
3. **September 2024 | During the course of Task 6 (Engineering Report and Conceptual Adaptation Drawings):** The APTIM team will present cconceptual plans for prioritized projects to obtain feedback.

The APTIM team will also hold monthly meetings between our project team and CEPD staff to provide progress updates, review outstanding items, and discuss next steps. Prior to each meeting, the APTIM team will prepare meeting materials including invites, sign in sheets, agendas, presentations, and will be responsible for all logistics and coordination. Meeting notes will be recorded at meetings and provided to CEPD. APTIM has a productive long-term relationship with CEPD, and our project manager and team stand ready to continue providing high quality service and frequent attendance at meetings to support project delivery.

TASK 2: Acquire Background Data

Having conducted the vulnerability assessment for Captiva Island, the APTIM team has a strong head start and has already collected relevant background data. Such data included critical infrastructure and other assets, LiDAR, flood elevations, and a comprehensive list of both privately- and publicly owned seawalls and roadways.

Key APTIM team members will be responsible for acquiring all necessary background data for the development of the Adaptation Plan. Research conducted during this task will focus on **assessing the feasibility, effectiveness, and localized fit of potential adaptation strategies**. The **local experience** of the APTIM, Coastal Vista, and AIM team members positions our larger team to be able to **expedite this data collection process** and provide unique and vetted perspectives. Our team is familiar with the local landscape, flooding projections and bayside dynamics, and neighborhood designations and compositions, and also has experience with nearby implementation of successful and innovative adaptation strategies that incorporated nature-based solutions. APTIM will leverage existing data to streamline our analysis and minimize duplication of effort while incorporating any additional data sources to fill in any data gaps including seagrass and mangrove maps, wetland and general surveys, geotechnical sampling. We will achieve this by **organizing outreach, and requesting data from local agencies, utilities, and organizations**.

The vulnerability assessment relied on available, vetted, datasets and reports to represent a few infrastructure types, and APTIM believes that to better tailor strategies additional surveying and data collection for **as- built seawall height survey data, comprehensive stormwater data,** and **official data for electrical transformers and utility boxes,** would be advantageous.

TASK 3: Public-Private Implementation Analysis

Captiva Island faces a unique challenge in terms of implementing adaptation projects due to the extensive privately owned land on the island's bayside. To address this complexity, the Public-Private Implementation Analysis is a critical component of the Captiva Bayside Adaptation Plan. We recognize the need for easement collections and outreach to confirm likely participation by private property owners for a successful implementation analysis. Our team seeks to provide a comprehensive understanding of the challenges, opportunities, and considerations related to implementing climate adaptation projects on privately owned lands.

Identifying Ownership and Jurisdiction | Public-private implementation analysis begins by clearly identifying the ownership and jurisdiction of different areas on the Island's bayside. Distinguishing between publicly owned lands, privately owned properties, and identifying the sovereign submerged areas is essential for the determination of authority and the type of projects can be implemented.

Strategic Analysis | A central focus of the public-private implementation analysis is to assess the strategic options for implementing the adaptation projects. Key considerations will include funding mechanisms, permitting requirements, the roles of various entities or agencies, and the unique challenges posed by Captiva's proximity to state-owned aquatic preserves and conservation lands.

Policy Considerations | Policy considerations and authority will be of paramount importance with the public-private implementation analysis. Our approach will involve a comprehensive examination of CEPD's authority to implement projects on privately owned lands. Additionally, our environmental policy advisor, **Richard Grosso, P.A.,** will address the requirements for public projects on private lands, ensuring full consideration of implications and process.

Stakeholder Engagement, Incentives, and Standards | To encourage the implementation of climate adaptation strategies on private lands, our approach will delve into potential incentives. These

Living shorelines application on a private property in Captiva Bayfront (Coastal Vista)

incentives may encompass financial or regulatory measures. Stakeholder engagement and community involvement will be pivotal aspects of our approach.

TASK 4: Adaptation Plan

*APTIM led the Resilient Florida compliant **vulnerability assessment** necessary for state grant funding that will serve as the basis for the adaptation plan.*

APTIM's experience with coastal planning and design paired with our recent experience assisting CEPD in developing Captiva's Sea Level Rise Flood Vulnerability Assessment, positions us to produce a comprehensive, locally customized, accessible, and detailed Adaptation Plan. The following describes our team's approach and initial perception of the necessary elements to be included in the plan.

Prioritization of Adaptation Needs | We will prioritize adaptation needs based on the indicated at-risk infrastructure of the vulnerability assessment and a minimum existing capacity to adapt, ensuring that the most critical areas of concern are addressed in the adaptation plan. This will be done in consultation with Steering Committee members and community members and in accordance with statutory requirements.

Identification of Adaptation Strategies and Prioritization of Projects | Adaptation strategies will target the identified vulnerabilities from the recent assessment, including the evacuation route, the bayfront shorelines and seawalls and recurrent flood risks in the floodplain. We will meticulously curate a **comprehensive suite of adaptation strategies** that represents a blend of both structural and non-structural measures, with a **pronounced emphasis on nature-based and hybrid solutions** where applicable. Adaptation strategies will address tidal flooding and high frequency surge events, potential overwash along the low-lying bayfront shorelines, sea level rise inundation and future drainage restrictions associated with sea level rise.

Potential Strategies

Living Shoreline with Resilient Engineered Features | A vegetated shoreline habitat would reduce wave damage to infrastructure and mitigate erosion along bayfront properties and shared community infrastructure while providing ecosystem services. A resilient living shoreline may also incorporate impermeable barriers to mitigate tidal flooding where feasible. Since the **bayfront shoreline is privately owned**, visualization of options of a bayfront living shoreline and assessment of its performance, potential impacts and benefits would support outreach to obtain shoreline owners' support for implementation prior to advancing the permitting process. APTIM can perform hydrodynamic modeling using DELFT3D+SWAN to evaluate the performance, benefits and impacts of bayfront living shoreline alternatives on adjacent upland, shorelines and wetlands. Model results will assist in the refinement of strategy.

Minimum Shoreline Elevation Policy for Bayfront Properties | Setting construction standards would ensure that shoreline adaptations mitigate the effects of tidal flooding and sea level rise by preventing flood trespassing onto roads and across properties. The implementation of such a policy requires a **partnership with private property owners** and community engagement. The APTIM ELEVATE tool can extract accurate seawall heights along the island. This cost-effective method precludes the need for mobile LiDAR or land surveys of individual seawalls for planning purposes.

Mangrove Adaptation Plan | Mangroves located near Captiva provide various ecosystem services to the island including shoreline protection from storm and hurricane winds, waves, and floods and erosion prevention. The tangled root systems of the mangroves stabilize sediments, and their filtration system helps to improve water quality. A Mangrove Adaptation Plan would protect and sustain the mangroves near the island in order to secure these services support the island in the future. Model mangrove sustainability and shoreline erosion with sea level rise will be performed utilizing *NOAA's Sea Level Affecting Marshes Model (SLAMM)*. This modeling will simulate potential impacts of long-term sea level rise on mangrove wetlands and shorelines.

Resilient Dune Strategy | The strategy would help protect landward property from damage and flooding, increase coastal storm protection, help minimize the effect of sea level rise, and provide erosion control. The strategy may include filling gaps in existing dunes, increasing the elevations of low dunes or adding walkovers or other features to mitigate storm surge and flood risk through dunes.

Feasibility Analysis | The adaptation plan will include **a robust feasibility component**, encompassing a comprehensive funding analysis and implementation strategy analysis. Adaptation strategies will be evaluated based on previous analyses, existing data and coordination with the CEPD. If feasible, adaptation strategies will be developed to derive co-benefits for community resilience including water quality improvements. Costs of adaptation strategies will be estimated based on libraries developed as part of the U.S. Army Corps of Engineers South Atlantic Coastal Study or recent project costs.

Prioritized Projects for Each Asset Class | A list of projects will be generated as defined in subsection 380.093(2), F.S. Based on the findings of the analysis, APTIM recommends that coastal infrastructure be adapted to resist flood elevations of at least **3.5 feet NAVD**. Without this level of protection, evacuation routes, 27% of roads, the fire station, two water treatment facilities, the post office, the library and up to 70% of building footprints are at risk of some flooding in the near to mid-term. The implementation strategy will incorporate a pragmatic roadmap, outlining **clear milestones and timelines** for the successful execution of the proposed projects.

Recognizing the pivotal role of policy in facilitating effective adaptation measures, our plan will include a set of comprehensive **policy recommendations**. Adaptation strategies concerning beach and shore restoration and erosion control will be **recommended for incorporation within the Comprehensive Beach and Shore Program**. To guide private adaptation and increase the likelihood that the community has systemic resilience to flooding, a **new policy regarding tidal flood barriers** along shorelines and enhancement of green infrastructure along the waterfront will be recommended. Assets identified for hardening, elevation, or **physical adaptation** to mitigate flood risks will be accompanied by detailed plans ready for subsequent design, permitting, and construction. The optimized sequencing of measures and anticipated funding sources will be clearly outlined in the plan.

ACTIONS BY IMPLEMENTATION TIMEFRAME

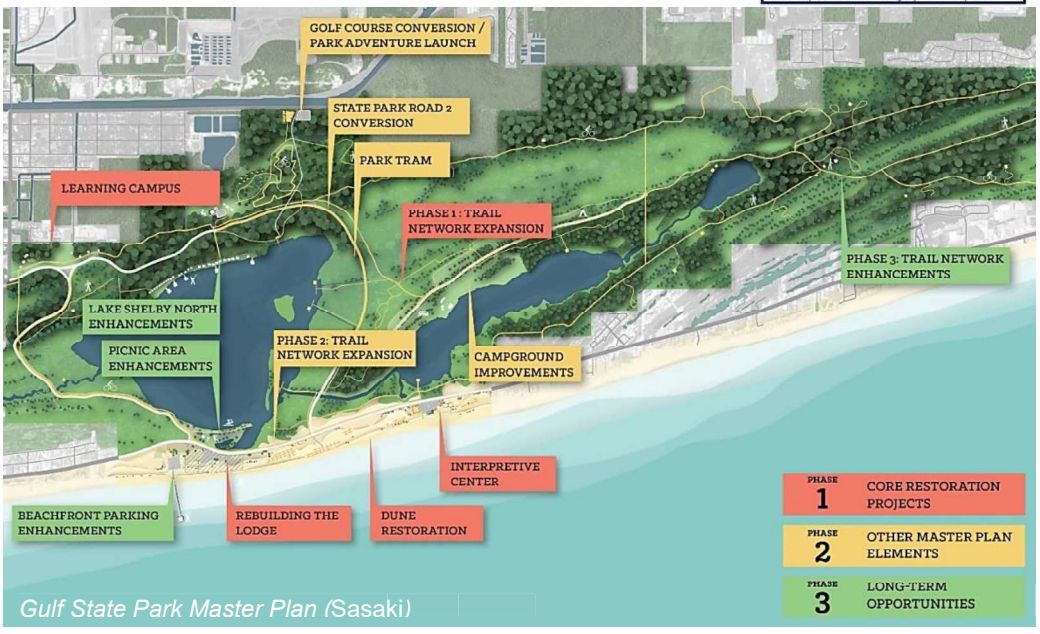
Near Term (0-5 Years)	
Action 1	Install and Maintain Tide Valves
Action 2	Implement Tidal Flood Barrier Policy
Action 6	Monitor Infiltration and Corrosion of Utility Assets
Action 7	Amend Stormwater Management Strategy
Action 15	Evaluate Opportunities to Integrate Green Infrastructure
Action 16	Adopt Policy Map Showing Sea Level Rise Projections
Action 17	Continue to Support Resilience Standards in Policies
Action 18	Consider Adaptation Needs in Evaluation of Redevelopment Impacts
Action 19	Encourage Private Adaptation
Action 20	Maintain or Improve Community Rating System Grade
Action 21	Conduct Community Outreach
Action 22	Prepare for Intergovernmental and Stakeholder Coordination
Action 23	Encourage Floodproofing of Electrical Charging Stations and Battery Storage Equipment
Action 24	Prioritizing Recovery Projects After Storm
Action 25	Schedule Proposed Projects Based on Urgency, Funding Availability and Potential for Bundling
Mid Term (5-10 Years)	
Action 3	Integrate Lift Stations and Stormwater Pumps into Capital Program
Action 8	Floodproof Vulnerable Electrical Equipment at Lift Stations
Action 9	Increase Resilience of Dune System
Action 10	Maintain Access and Evacuation Routes
Action 11	Maintain Condition of Roads Experiencing Tidal Flooding and Seepage
Action 12	Maintain Beach Access Points
Action 13	Increase Water Quality Monitoring Near Septic Systems
Action 14	Plan for Mangrove Adaptation
Long Term (<20 Years)	
Action 4	Evaluate Performance of Dry Retention Areas, Wet Detention Areas and French Drains
Action 5	Install Road Berm and Pump Stations

Timeframes

Now
Near term represents planning horizon for urgent priorities and existing risks that should be addressed in next 5 years.

2040
Mid term planning horizon affords time to address future risks anticipated by 2040. Policies initiated in near term are assumed to be fully implemented.

2070
Long term planning horizon affords time to address future risks anticipated by 2070. Critical infrastructure installed today will need to be replaced at end of 50 year life cycle.



*Gulf State Park Master Plan (*Sasaki*)*


Sarasota Bayfront Master Plan Public Meeting (Sasaki)

TASK 5: Public Outreach Meetings

APTIM understands the critical role that meaningful local input plays throughout the adaptation plan process. We will organize and facilitate four bimonthly public outreach meetings throughout Tasks 3, 4, and 6, during **February, April, June, and August 2024.** The purpose of the public outreach meetings will be to educate the public, present the proposed strategies for Captiva's bayside vulnerabilities, and to gather community- specific input to refine the assumptions used when assessing the feasibility of presented strategies. APTIM will meet with residents and community leaders to understand local experiences with severe weather and to pinpoint community goals for customizing and prioritizing adaptation strategies. Our team will integrate on-demand immersive virtual platforms into outreach. APTIM understands the need for providing access to project information throughout the project and will provide online resources, video recordings and opportunities for virtual interactions to increase participation and gain consensus at key decision points in the project.

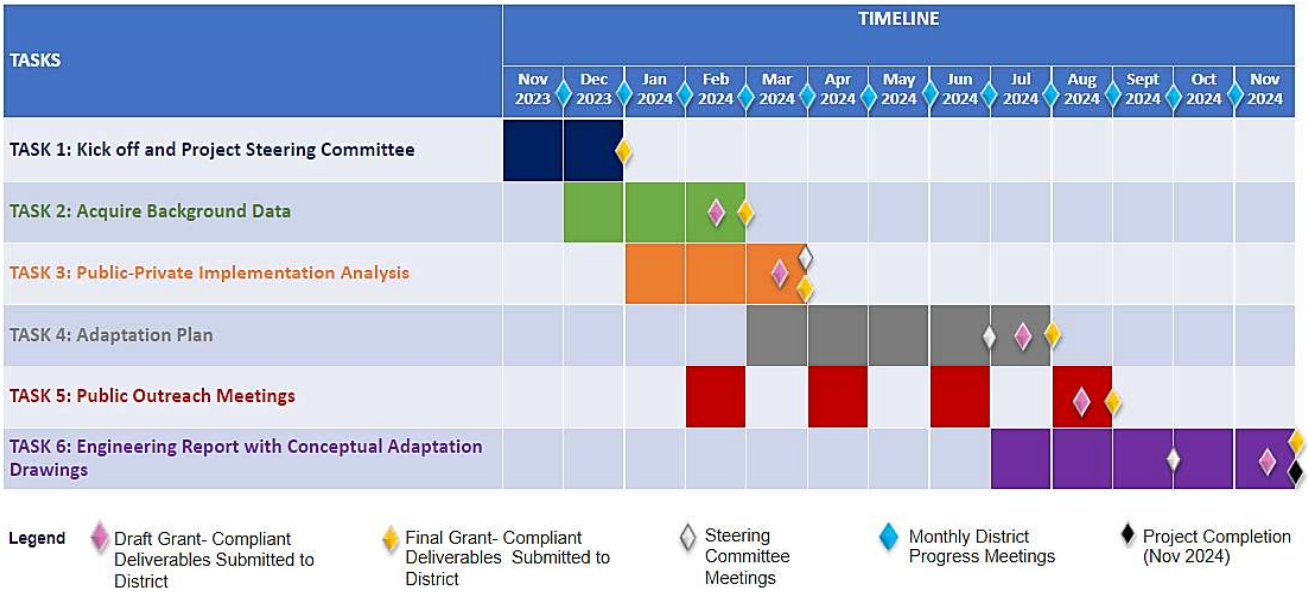
TASK 6: Engineering Report with Conceptual Adaptation Drawings

Living shorelines and nature-based solutions will be the key components of our approach achieving the goal of floodproofing the island and preserving the natural shorelines of the Bayside. As the APTIM team, we recognize the significance of providing numerous design alternatives, including as many as **10-15 Conceptual Adaptation Drawings and renderings** for the CEPD and stakeholders to choose from. Additionally, a thorough **Engineering Report and Plans** at the 30%, 60%, 90%, and final design stages to get the input from the CEPD, and tailor the design based on the input from CEPD and the public outreach. Engineering Plans will include plan, profile, and cross-sectional views of the design, including typical sections where applicable. To this end, we have assembled a team of experienced Florida-registered Professional Engineers and Adaptation Professionals, locally experienced and globally recognized landscape architects. **30%, 60%, 90% design checkpoints allow for rigorous quality control by our team of experts**. Additionally, they ensure that the evolving project designs align with the objectives, thereby minimizing the risk of deviations that could lead to increased costs or timeline delays. We will also deliver a comprehensive list of applicable regulatory requirements for each of the asset adaptations identified as most critical.

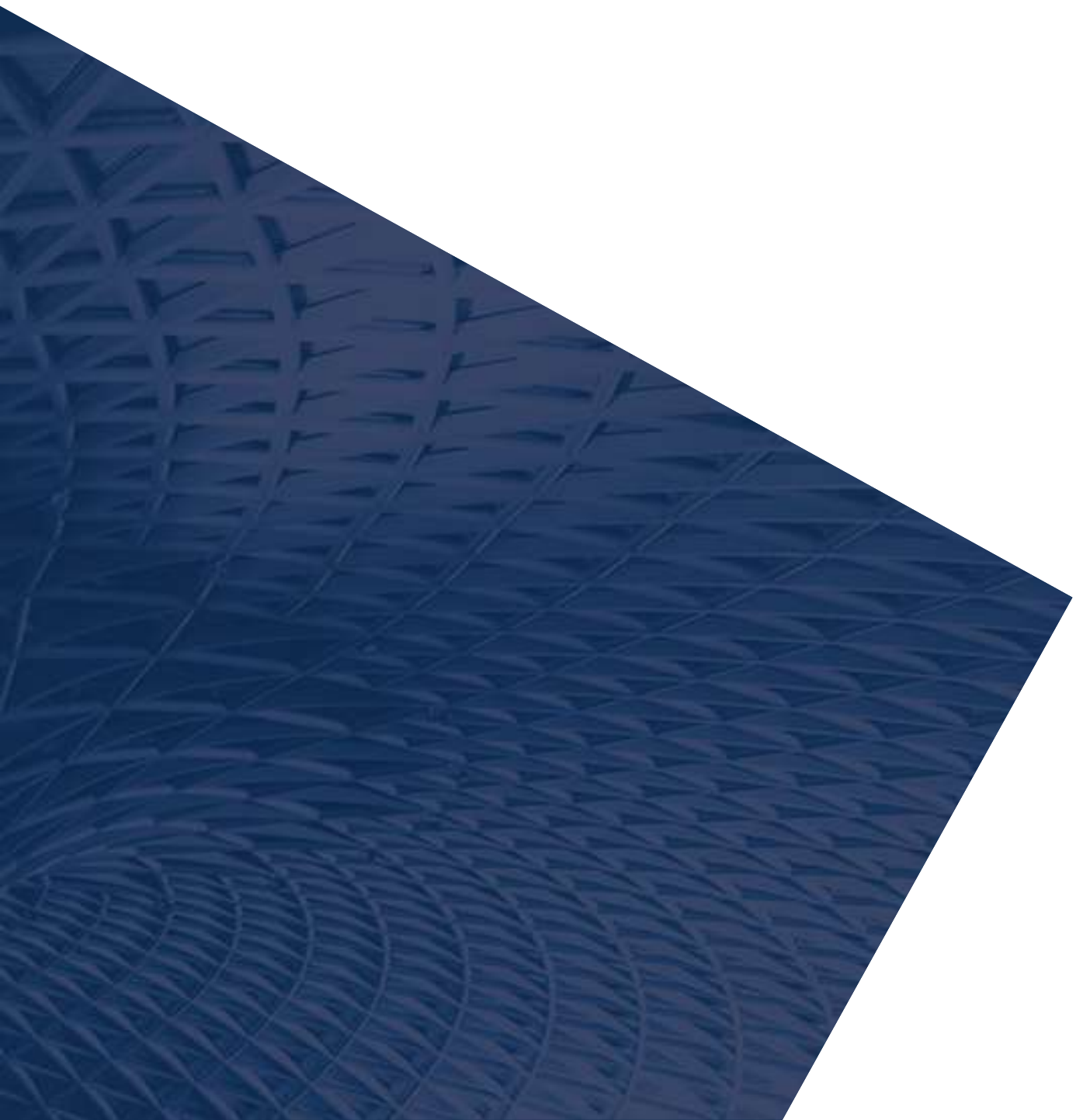
Construction Cost Estimates will be developed in tandem with the design plans, offering CEPD insights into the projected costs at each stage of the projects. This is aimed to empower the CEPD to make informed decisions, and allocate resources optimally as directed in the grant work plan.

Proposed Activity Schedule

APTIM has prepared a timeline (Figure) that adheres to the proposed project duration within the RFQ from contract execution and spans across approximately 12 months (November 2023- November 2024)



TAB 4 OTHER INFORMATION



Other Information

Understanding of Adaptation Plans | APTIM excels in identifying and prioritizing critical infrastructure and assets, working collaboratively to develop prioritization mechanisms that align with unique needs. Our approach emphasizes the development of tailored resilience strategies, including evaluating the benefits and costs of implementing these strategies to ensure they are economically feasible and address the objectives of unique localities and landscapes. APTIM understands the importance of engaging in collaborative planning, centering public participation to shape resilience plans that resonate with local communities and stakeholders.

We are equally committed to translating strategies into action. Our seasoned experts provide the technical prowess needed to assist in developing and updating the internal documents and manuals of municipalities and communities, ensuring they align seamlessly with recommended adaptation strategies and flood resilience initiatives. APTIM has developed strategies in the past that encompass the management of shorelines, stormwater and public assets, preparing for redevelopment, supporting community engagement and planning for future capital investments.

When implementing plans, APTIM provides a description of each proposed implementation strategy with lists of key focus areas and relevant stakeholders to support implementation. Strategies are then organized and prioritized by planning horizons which include current conditions, mid-term, and long-term. To further support implementation, APTIM provides a schedule of resilience projects, preliminary costs as well as a breakdown of the anticipated return on investment.

Adaptation Planning for Public and Private Shorelines and Sovereign Submerged Lands |

Private adaptation requires action and consent from property owners who will decide how much to invest and when to maintain their assets. Much of the vulnerable infrastructure along Captiva is privately owned and would require private adaptation. Repeat disruption or incompatible projects could occur without coordination. Through policy and providing planning guidance, CEPD could support private adaptation.

While adaptation focuses heavily on physical resilience strategies and actions, the support and implementation of resilience policies is critical to guiding private adaptation. Examples of recommended actions to ensure resilience standards are supported include:

- ✓ Continue to require review of permit applications for proximity to at-risk areas and require flood risk mitigation measures to be included in application.
- ✓ Continue to require drainage permits for redevelopment.
- ✓ Continue to update comprehensive plan for consistency with Peril of Flood legislation.

Our team has experiencing working with residents to encourage and gain consensus on various strategies so that implementation can commence across private land. To achieve harmonizing of adaptation measures, localities must purchase right of ways for road adaptation, and easements for living shorelines.

Paradise Coast Sports Complex (Coastal Vista Design)

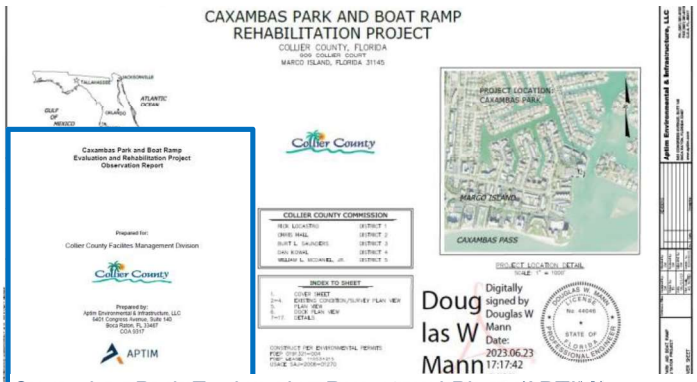
Broward County - Developing Resilient Shorelines (ESA)

Understanding of Engineering Reports and Creation of Conceptual Design Drawings|

Our team's understanding of Engineering Reports and Creation of Conceptual Design Drawings are best illustrated with our successfully completed project reports and design drawings shown below.

Sarasota Bayfront (Sasaki)

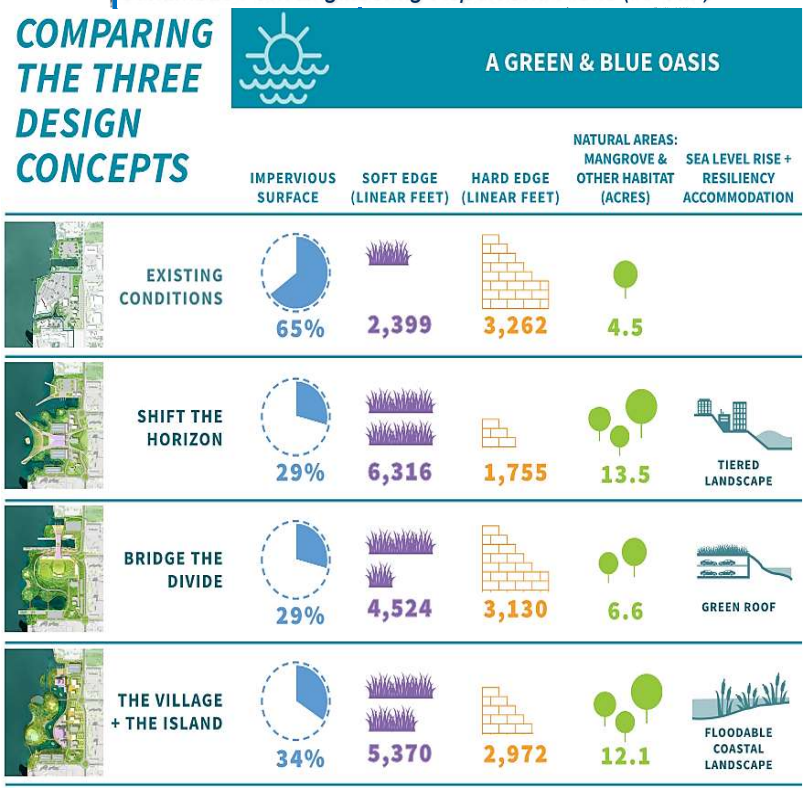
Broward County - Developing Resilient Shorelines (ESA)



Caxambas Park Engineering Report and Plans (APTIM)

Experience Identifying and Assessing Nature-Based and Hybrid Solutions

Our team has developed and successfully implemented numerous nature-based and green-gray adaptation strategies as shown in below images. Our experts conduct a detailed suitability assessment using GIS based living shoreline suitability models and considering the roles coastal tidal flooding, sea level rise, and level of coastal erosion. In our experience working on nature-based and hybrid solutions, we have found that a comprehensive multi-layer approach that employs both nature-based solutions such as oyster-based habitats, and hard structures like nearshore breakwaters work best in providing multiple layers of protection to the shorelines while improving water quality, supporting wave attenuation, and restoring the ecosystems.



The Sarasota Bayfront Master Plan (Sasaki)

We are enthusiastic about utilizing emerging technologies (examples shown on the bottom right) Our proposed adaptation strategies will employ the use of 3D printed concrete blocks, habitat panels along sea walls and other waterfront infrastructure, and flood-proof glass walls along the shorelines where the unobstructed view is desired. These cutting-edge technologies will not only enhance resilience but also maintain visual aesthetics while safeguarding the bayside shores. Our living shoreline experts have vast experience in design and permitting of nature-based applications.


The Sarasota Bayfront Master Plan (Sasaki)


Broward County Living Shorelines (ESA)

Familiarity with Non-Structural Strategies

The team has ample experience with recommending and implementing non-structural strategies, including policy amendments and administrative actions. Policies such as tidal flood barrier requirements and providing a minimum elevation for barriers help to encourage adaptation. Our team has experience with developing strategies based on the following recommendations:

- ✓ Operating and maintaining stormwater management infrastructure to control flooding and provide environmental benefits.
- ✓ Setting resilient redevelopment standards in zones of future land use element
- ✓ Adding resilience needs to roadway priority project rankings.
- ✓ Mitigating for corrosion and roadbed failure.
- ✓ Planting salt tolerant vegetation in inundation areas.
- ✓ Requiring tidal flood barriers of minimum elevation to prevent inundation of common property/ streets (no gaps in barrier)
- ✓ Implementing incremental adaptation by private property owners
- ✓ Allowing natural adaptation of wetlands and avoiding conflict with flood protection measures


Artificial Reefs/ Reef Balls


FENEX flood-proof glass walls, Ft. Laude

nit, low-carbon concrete, Boca Raton, FL


University of Miami – SEAHIVE design


Design - Living SeaWall, Miami, FL


1Print, Pompano Beach, FL

Completed Projects for Clients | The following project vignettes illustrate our team's experience in adaptation and resilience plans, living shorelines, green infrastructure design and additional relevant projects for clients in the United States, Florida, and other regions of the United States, on islands including barrier islands, and for state and local government clients.

Captiva Flood Vulnerability Assessment | APTIM

Client CEPD | **Date of Initiation / Completion** 2022 / 2023

Description/Services: APTIM conducted an island-wide vulnerability assessment for the Captiva Erosion Prevention District (CEPD) necessary for state funding eligibility. Flood and sea level rise scenarios were mapped to determine the on and off island critical infrastructure that would be exposed and impacted and to identify high risk assets. APTIM identified vulnerabilities affecting CEPD's jurisdictional area, private property, and the ability of CEPD to fulfill its responsibilities based on exposure, sensitivity, and risk to flood hazards.

Sanibel Causeway Shoreline Stabilization Project | APTIM

Client Lee County | **Date of Initiation / Completion** 2017 / 2022

Description/Services: The purpose of the stabilization project was to address the erosion of the San Carlos Bay and Pine Island Sound shorelines of Sanibel Causeway on Island B and address the storm water runoff from the causeway road, which was impacting the upland infrastructure, destabilizing the shoreline while taking into consideration adjacent seagrass habitats and the recreational areas used by the public.

Ohio Creek Flood Resiliency Adaptation Strategy | APTIM

Client City of Norfolk | **Date of Initiation / Completion** 2016 / 2018

Description/Services This project reestablished the eroded 4-foot shoulder of Jungle Trail complying with County roadway specifications to increase the long-term resiliency of the roadway and the ability to provide safe passage to residents. Rock revetment and breakwater designs were evaluated as potential solutions. A hybrid solution was chosen- limestone rip rap was placed to secure the long-term survival of mangroves and other native estuarine species along the new berm as an integral part of shoreline stabilization.

Mallory Square Master Plan | Sasaki

Client City of Key West, FL | **Date of Initiation / Completion** 2022 / Ongoing

Description/Services: Sasaki led in-depth conversations with city officials, business owners, performers, vendors, and the broader community to develop a visionary master plan for Mallory Square. The plan introduces significant shade elements all driven by a cultural and ecological narrative that utilizes lush planters and stone blocks carve out shaded seating areas and flexible spaces.

Pellicer Flats Mitigation Bank | APTIM

Client LRA Hammock Beach, LLC | **Date of Initiation / Completion** 2012 / 2016

Description/Services: APTIM was contracted for design and permitting, survey and data collection, modeling and mitigation planning to establish the Pellicer Flats Mitigation project. APTIM staff coordinated with agencies to permit the restoration of mangrove and marsh shorelines along a series of restored mosquito ditches. APTIM supported the application of the Uniform Mitigation Assessment Method during mitigation design, negotiations during pre-application meetings, and developed plans and specifications.

West Marsh Preserve Design, Permitting, & Construction Phase Services, Lehigh Acres, Florida | AIM

Client Lehigh Acres Municipal Services Improvement District | **Date of Initiation/ Completion** 2013 / 2021

Description/Services AIM provided design, permitting, surveying, and construction phase services for this

multi-phase project involving the creation of treatment wetlands to provide water quality treatment and additional surface water storage capacity in the LA-MSID Able Canal (Orange River) basin for large storm events. AIM conducted a Digital Terrain Model (DTM), environmental assessment, hydraulic modeling of the system in conjunction with the existing Harns Marsh facility to optimize operation and performance.

Bonnet Springs Park| Sasaki

Client Lakeland, FL

Date of Initiation / Completion 2021 / 2022

Description/Services: Sasaki led the design effort to transform a 168-acre former industrial and agricultural brownfield in Lakeland, Florida into Bonnet Springs Park. The major natural features of the park include the remediation of the polluted brownfield, resilient stormwater treatment strategies, the restoration of the park's namesake Lake Bonnet, wetlands and sand seep spring, and the protection and restoration of a mature live oak grove. New landscape amenities are designed to extend the visitor experience.

Gulf State Park Master Plan & Implementation | Sasaki

Client The University of Alabama

Date of Initiation / Completion 2016 / 2018

Description/Services: The project includes five key elements—enhancing the visitor experience, building a research and education center, constructing an interpretive center focused on dune ecology, rebuilding a lodge at Gulf State Park, and restoring the dunes. The master plan provides the context and overarching vision for the park, building on its unique assets to help the park become an international model of environmental and economic sustainability and demonstrating best practices for outdoor recreation.

Collins Park Revetment Rehabilitation | APTIM

Client PPG Industries, Inc.

Date of Initiation / Completion 2019 / 2020

Description/Services: APTIM conducted a site investigation to evaluate the current condition of the revetment and to develop repair alternatives to restore the revetment. Design criteria included wind speed, wave height, current speed, ice forces, storm surge, and overtopping were considered based on the 100-year storm event impacting the Kill van Kull. The design includes 2-foot diameter armor stone over a geotextile with a 2:1 slope. The top of the revetment elevation varies between +8' NAVD and +13' NAVD, and ties into the proposed upland grade.

Residential Backwater Valve Installation Program, New York | APTIM

Client Governor's Office of Storm Recovery

Date of Initiation / Completion 2022 / Ongoing

Description/Services: APTIM helped implement the Residential Backwater Valve Installation Program, which provides free resiliency audits, elevation certificates, and backwater valve installations to low-income New Yorkers living in the 100-year or 500-year floodplain. The program includes identifying home resiliency strategies, cost estimates, and financing options; and helping program participants understand options and determine what strategies are right for them.

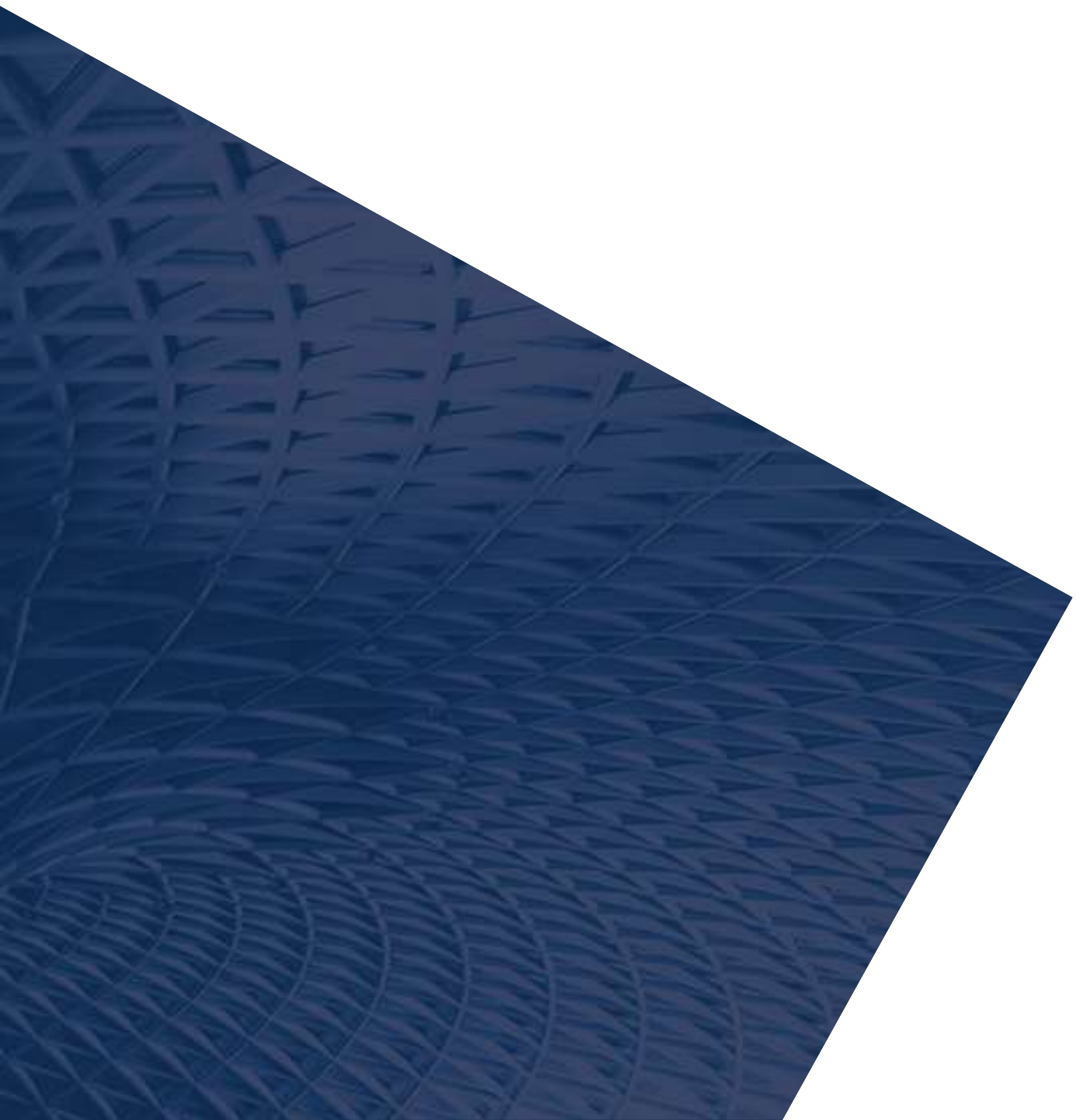
EPA Sea Level Rise and Water Supply Adaptation | APTIM

Client Governor's Office of Storm Recovery

Date of Initiation / Completion 2022 / Ongoing

Description/Services: APTIM assessed the vulnerability of Massachusetts coastal communities to storm surge, saltwater intrusion and projected sea level rise. This work was performed using a surface water model HEC-RAS/HEC-HMS and a storm surge mode SLOSH. EPA then requested additional work to determine the predicted storm surge for different categories of hurricanes and sea level rise scenarios at locations in Connecticut and Virginia.

TAB 5 COST BREAKDOWN ACROSS TASKS AND SCHEDULE PROPOSAL



Cost Breakdown Across Tasks & Proposed Schedule

A. Detailed Budget Per Task

The APTIM team is willing and able to meet time and budget requirements of this contract.

APTIM and our sub-consultants, Coastal Vista, AIM Engineering, Matterscan, Sasaki, ESA, and Richard Grosso are proud of our history of maintaining long-term client relationships. APTIM has worked with many of our coastal clients for over 20 years by meeting time and budget requirements, Captiva Island being one of our long-term clients. We are committed to working with CEPD and continuing the development of our relationship to ensure all projects and tasks are completed on schedule and within budget.

Table 5-1 illustrates APTIM's comprehensive breakdown of anticipated pricing across tasks. The estimated cost for the project scope is $500,000, which includes Kick-Off and Project Steering Committee, Acquiring Backgroun Data, Public-Private Implementation Analysis, Adaptation Plan, Public Outreach Metings, and Engineering Report with Conceptual Adaptation Drawings. This estimate is based on our experience and accounts for the level of detail and stakeholder involvement required for this project.

Task	Estimated Cost
Task 1 - Kick off and Project Steering Committee	$41,305
Task 2 - Acquire Background Data	$28,070
Task 3 - Public-Private Implementation Analysis	$85,417
Task 4 - Adaptation Plan	$162,192
Task 5 - Public Outreach Meetings	$34,810
Task 6 - Engineering Report with Conceptual Adaptation Drawings	$148,206
Total	**$500,000**

Table 5-1 Proposed Budget per Task

Accounting Controls and Budget Management

The APTIM team utilizes advanced project management and accounting software that provide project managers continual access to project budgets, schedules, and resources. Reports are issued weekly to project managers and directors of the business. This system helps with expenditure management and helps ensure the project team is on track to complete the required scope within the contracted budget. We continuously evaluate our progress to determine if the expenditure of the budget matches the expected timeline of the project.

The work plan includes any necessary meetings with employees, the steering committee, and the public. APTIM acknowledges that no additional costs or fees will be paid, including but not limited to travel costs, per diems, telephone charges, facsimile charges, and postage charges.

Development of Achievable Schedule

For each task assignment, time will be taken up front to make sure the APTIM team understands the task needs. A detailed work plan with appropriate staffing will be designed to fit within CEPD's budget and timeline. The schedule can be updated per the decisions made during kick-off meeting, steering committee meetings, public outreach, and by focusing on the most critical elements required to complete the task assignment.

Our proposed schedule meets the requirements set forth in the FDEP grant and the budget equals the total available funding amount awarded through the grant and committed by CEPD as match.

We have used CEPD's proposed project timeline provided to develop our proposed schedule shown on the next page. Considering that the Project Timeline provided in the FDEP Grant Work Plan indicates an end date of 4/30/2025, APTIM's proposed schedule provides CEPD an additional 5 months to preprare for FDEP submittals. We stand ready to be flexible and adaptable to CEPD's needs and directions, including support with FDEP deliverables.

Schedule Management

Once the schedule is developed, the APTIM team will work with CEPD to track performance and ensure we are meeting interim deliverable deadlines. We will inform CEPD if there are any new developments that may affect the schedule positively or negatively. Our experts can provide monthly progress updates integrated with billing details. Monthly reporting summarizes work progress for the preceding month, anticipated work for the following month, and highlights any critical issues affecting the project schedule and budget.

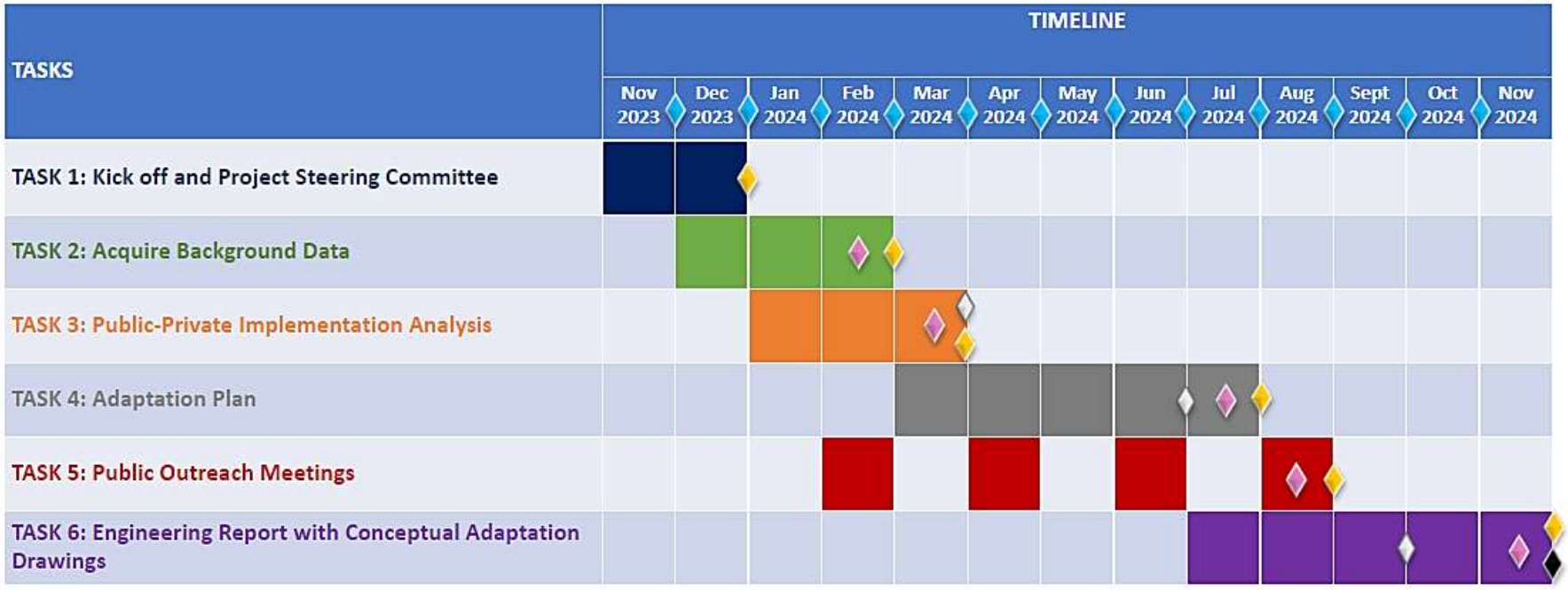
Our project approach is detailed in Tab 3, and detailed deliverables for each phase are listed on the next page.

B. Other Services

APTIM team may use the additional services listed in **Table 5-2** to complete the tasks in a timely manner. This table reflects the hourly rates and titles associated with staff available to provide additional services for this project.

Additional Services	Staff Title	Rates
Easement Collection Services	Outreach Professional	$90/hour
Environmental & Physical Surveys	Surveyor	$160/hour
Circulation Modeling for Permitting	Modeler	$170/hour

Table 5-2 Hourly Rates and Titles for Additional Services



Task 1 Deliverables:

- Meeting agendas to include location, date, and time of meeting(s)
- Meeting sign-in sheets with attendee names and affiliation
- A copy of the presentation(s) and any materials created for distribution at the meeting(s)
- A summary report of committee recommendations

Task 2 Deliverables:

- A technical report to outline the data compiled and findings of the gap analysis.
- A summary report to include identified data gaps and actions taken to rectify them.

Task 3 Deliverable:

- A written implementation analysis

Task 4 Deliverable:

- Final Adaptation Plan

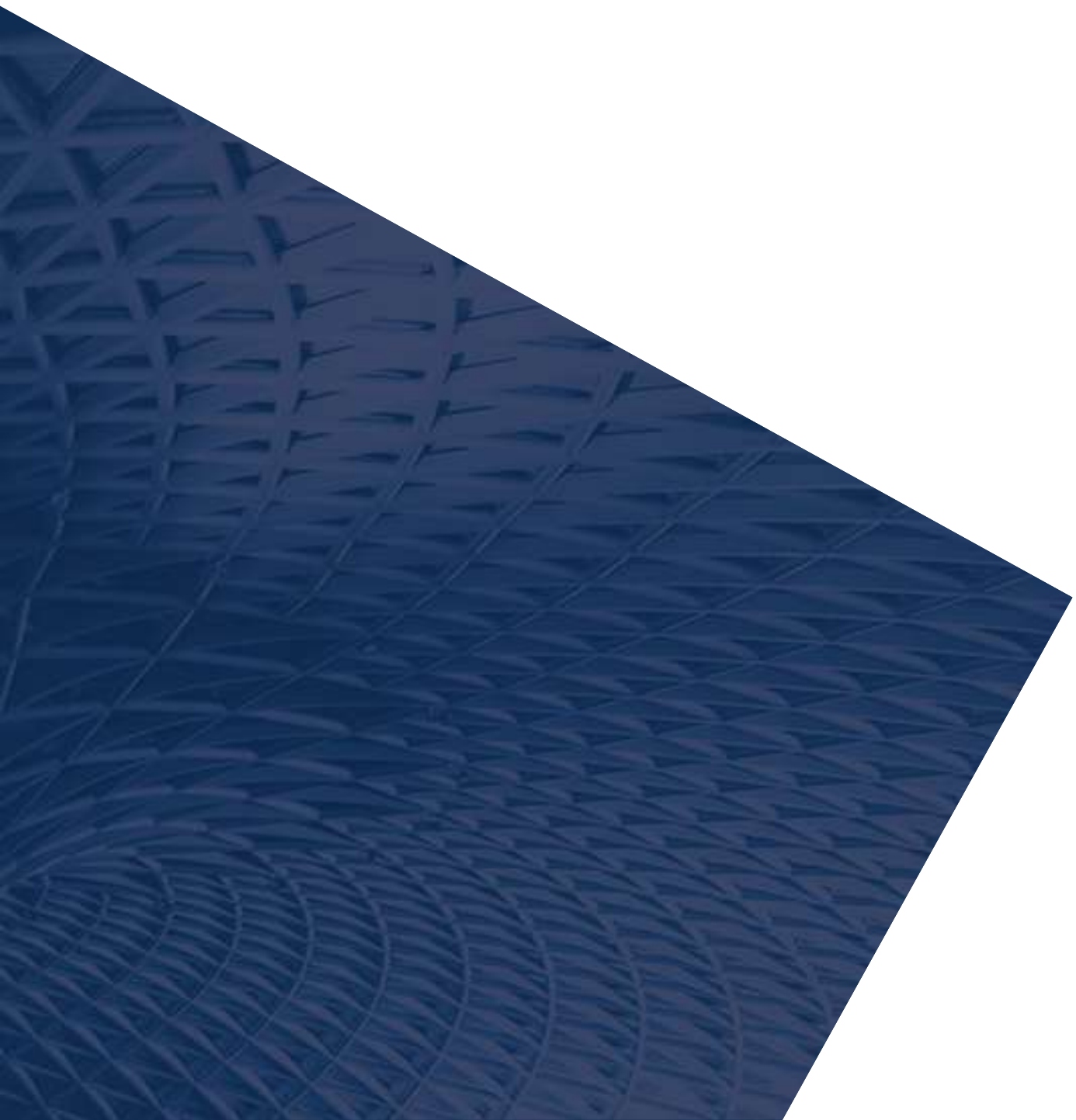
Task 5 Deliverables:

- Meeting agendas to include location, date, and time of meeting.
- Meeting sign-in sheets with attendee names and affiliation
- A copy of the presentation(s) and any materials created in preparation of or for distribution at the meetings, as applicable.
- A copy of the file or weblink of the video or audio recording from the meetings, if applicable; and
- A summary report including attendee input and meeting outcomes.

Task 6 Deliverables:

- An Engineering Report including conceptual drawings for priority assets or specific parts or portions of the critical and other assets which are most vulnerable, where physical adaptations are possible and recommended.
- A list of applicable regulatory requirements for each of the asset adaptations identified as most critical.

TAB 6 CORPORATE INFORMATION



Corporate Information

(1) A list of the officers and directors of the entity.

- Wade Bass
- Greg Coffman
- Steve Downey
- Mark Fallon
- Daniel Gray
- Todd Kindler
- Katherine Kolibas
- Bradley Lowe
- Margaret Phillips
- Mick Williams
- William Deane Jr.
- Alan Weakley
- Mike Ramage
- Ulrika Messer

(2) The number of years the person or entity has been operating and, if different, the number of years it has been providing the services, goods, or construction services called for in the bid specifications (include a list of similar projects).

- 2002 (22 years)
- Please refer to Tab 2 – Relevant Experience for our list of similar projects

(3) The number of years the person or entity has operated under its present name and any prior names.

- Aptim Environmental & Infrastructure, LLC since 12.31.2018 (4.5 years)
- f/k/a Aptim Environmental & Infrastructure, Inc.,
- f/k/a CB&I Environmental & Infrastructure, Inc.
- f/k/a Shaw Environmental Inc.

(4) Answers to the following questions regarding claims and suits:

a. Has the person, principals, entity, or any entity previously owned, operated or directed by any of its officers, major shareholders or directors, ever failed to complete work or provide the goods for which it has contracted? If yes, provide details;

No

b. Are there any judgments, claims, arbitration proceeding or suits pending or outstanding against the person, principal of the entity, or entity, or any entity previously owned, operated or directed by any of its officers, directors, or general partners? If yes, provide details;

Aptim Environmental & Infrastructure, LLC and its affiliates have been and may from time to time be named as a defendant in legal actions claiming damages in connection with engineering and construction projects, technology licenses and other matters. These are typically claims that arise in the normal course of business, including employment-related claims and contractual disputes or claims for personal injury or property damage which occur in connection with services performed relating to project or construction sites. Contractual disputes normally involve claims relating to the timely completion of projects, performance of equipment or technologies, design or other engineering services or project construction services provided by us. We do not

believe that any of our pending contractual, employment-related personal injury or property damage claims and disputes will have a material effect on our future results of operations, financial position or cash flow. Attached herewith is a list of matters and claims from the past five (5) years involving or relating to the bidding entity (Aptim Environmental & Infrastructure, LLC), and/or its officers, directors, and employees, that may be responsive to one or more of the questions in Tab 6, Section 4, subparts (a) through (d).

c. Has the person, principal of the entity, entity, or any entity previously owned, operated or directed by any of its officers, major shareholders or directors, within the last five (5) years, been a party to any lawsuit, arbitration, or mediation with regard to a contract for services, goods or construction services similar to those requested in the specifications with private or public entities? If yes, provide details;

No

d. Has the person, principal of the entity, or any entity previously owned, operated or directed by any of its officers, owners, partners, major shareholders or directors, ever initiated litigation against previous clients or been sued by previous clients in connection with a contract to provide services, goods or construction services? If yes, provide details

No

e. Whether, within the last five (5) years, the owner, an officer, general partner, principal, controlling shareholder or major creditor of the person or entity was an officer, director, general partner, principal, controlling shareholder or major creditor of any other entity that failed to perform services or furnish goods similar to those sought in the request for competitive solicitation;

No

f. Credit References (minimum of three), including name, current address and current telephone number; and

See attached

g. Financial statements for the prior three years for the responding entity or for any entity that is a subsidiary to the responding entity.

See attached

Aptim Environmental & Infrastructure, LLC					
Matter Name	**Type of Incident**	**Date of Incident**	**What was the initial circumstance for this action?**	**Jurisdiction**	**Final Outcome**
Landfill Gas Collection System Expanision [Audit No. 2 40-59636-218]	Wage and Hour	2018	The Division of Labor Standards Enforcement issued a Notice of Investigation regarding compliance with apprenticeships.	CA Labor Commissioner's Office	Resolved
Hartfield, Vernon A.	Alleged Employment Discrimination	2018	Vernon Hartfield filed a lawsuit alleging racial discrimination in violation of the Title VII of the Civil Rights Act of 1964. Mr. Hartfield contends that he was denied job opportunities within his own department and was overlooked for a position in another department. Mr. Hartfield's employment at the Flint Hills site in Port Arthur, TX was terminated in a reduction in force on about May 12, 2017.	U.S. District Court for the Southern District of Texas	Resolved
Bryant, Hilary and Akenyemi Johnson [NYCHA]	Alleged Employment Discrimination	2018	NYCHA Construction Project Manager Hilary Bryant filed a complaint with the New York City Housing Authority alleging race and national origin discrimination against current Aptim Environmental & Infrastructure, Inc. employee James Ohnigian. Mr. Ohnigian is the NYCHA Consultant & Acting Executive Project Manager assigned to the NYCHA Capital Projects, Project Management Department Team 3.	New York City Housing Authority Department of Equal Opportunity	Resolved
1. Elias Jorge "George" Ictech-Bendeck v. Progressive Waste Solutions of LA, Inc., et al.; 2. Larry Bernard, Sr. and Mona Bernard v. Progressive Waste Connections, APTIM Corporation, AND Parish of Jefferson; 3. Savannah Thompson v. Louisiana Regional Landfill Company, Aptim Corp., Parish of Jefferson, IESI LA Corporation; 4. Nicole M. Landry-Boudreaux v. Progressive Waste Connections, APTIM Corporation, AND Parish of Jefferson; and 5. Schaumburg, Seth v. Progressive Waste Connections, APTIM Corporation, and Parish of Jefferson; 6. Addison, Frederick, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 7. Anderson, Charles et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 8. Brunet, Michael, et al. et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 9. Winningkof, Mary Ann, et al. et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 10. Calligan, Rickey, et al. v. et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 11. Griffin, Regenia, et al. et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al. 12. Fleming, Deborah, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al. 13. Gambino, Craig, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al. 14. Rantz, Edward, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al. 15. Brown, Debra Phelps, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.; 16. Green, Geneva, et al. v. Progressive Waste Solutions of LA, Inc., Aptim Corp., et al.	Alleged Negligence	2018 and 2019	Multiple Petitions for Damages filed against several defendants relating to alleged noxious odors emanating from the Jefferson Parish, Louisiana Landfill. These companion cases arise out of the same set of facts and circumstances.	24th JDC for the Parish of Jefferson, Louisiana	Ongoing

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Final Outcome
Grant, Kevongh J. v. Aptim Environmental & Infrastructure, LLC and Witt O'Brien	Alleged Negligence	2019	Kevongh Grant filed a lawsuit in the Superior Court of the Virgin Islands relating to an alleged vehicle accident on 11/1/18 involving alleged APTIM employees and an APTIM vehicle.	Superior Court of the Virgin Islands, Division of St. Croix	Resolved
O'Reilly Plumbing and Construction, Inc. v. Lionsgate Disaster Relief, LLC, Witt O'Brien, Aptim Environmental and Infrastructure, Inc., and AECOM [LIT]	Alleged Negligence	2019	This is a breach of contract and negligence action by a second-tier subcontractor, primarily against Aptim subcontractor Lionsgate, but also naming Aptim and Program Manager Witt O'Brien under a negligent hiring theory.	Superior Court of the Virgin Islands, Division of St. Croix	Ongoing
Samuel, Edward v. Aptim Environmental & Infrastructure, LLC	Alleged Negligence	2019	Edward Samuel filed a lawsuit in the Superior Court of the Virgin Islands, Division of St. Croix alleging negligent roof repair, which led to water inside the house, then a slip-and fall injury.	Superior Court of the Virgin Islands, Division of St. Croix	Resolved
Allco, LLC & Allco Virgin Islands, LLC v. Aptim Environmental & Infrastructure, LLC f/k/a Aptim Environmental & Infrastructure, Inc. and Jonathon Hunt	Alleged Contract Breach/Dispute	2019	Allco is an Aptim subcontractor on the USVI STEP (roofing) program. Allco's project work is complete. Certain items are "disputed" under the subcontract and will be paid upon resolution.	19th JDC for the Parish of East Baton Rouge, LA	Resolved
Giery, Damon, et al. v. Atlas Elevation Group, Inc., et al.	Alleged Negligence	2019	Plaintiffs filed a Complaint against Atlas Elevation Group, Inc., CB&I n/k/a McDermott International, Inc., et al. regarding the RREM program and repairs to Plaintiff's home for damages caused by Superstorm Sandy. Plaintiff alleges that CB&I was hired by NJDCA as one of its program mangers and was negligent in failing to ensure that all program requirements were met in all planning, construction and payment events.	Superior Court of New Jersey, Mercer County	Resolved
Bettencourt, Anthony [CA DIR]	Wage and Hour	2019	Anthony Bettencourt filed a claim with the California Department of Industrial Relations alleging that he was paid straight time for overtime for 325.30 hours during the period from February 26, 2016 through August 10, 2018, in the amount of $9,331.09. He also contends he was not paid final wages when due so seeks a $12,622.80 penalty for 30 days of wages. His total claim is for $21,953.89.	California Department of Industrial Relations	Resolved
Sikorski, Damion [CA DIR]	Wage and Hour	2019	Damion Sikorski filed a claim with the California Department of Industrial Relations alleging that he was paid straight time for overtime and is owed various penalties under CA law. Sikorski's total claim is $51,245.73.	CA Department of Industrial Relations	Resolved
Bush, Dillun L. v. Aptim Environmental & Infrastructure, LLC, Greenwich Insurance Company, Sedgwick Claims Management Services, Inc., Donlen Trust and Noel M. Soto	Auto	2019	Our driver, Noel Soto, stated while he was pulling out on to Gauthier Road, he partially went in the ditch, leaving his truck partially in the road with no lights. Another driver, Dillun Bush, was traveling on Gauthier Road in a SUV and, after applying his breaks, hit Soto's vehicle. A witness confirmed Soto's truck was partially in the ditch and partially on the road with no lights, that he heard the crash and Mr. Bush's SUV was traveling at a high rate of speed with no lights on. Both drivers confirmed that they did not need medical attention. Mr. Soto was given 2 citations--improper turn and suspended driver's license.	14th Judicial District Court-Parish of Calcasieu, Louisiana	Resolved

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Final Outcome
Avalon Funding Corporation v. Aptim Environmental & Infrastructure, LLC	Alleged Contract Breach/Dispute	2019	Avalon Funding is a lender to Aptim subcontractor Lions Gate (LG) with regard to the USVI STEP program. The two entered into a factoring agreement and Avalon apparently advanced funds to LG in return for ownership of LGs project receivables. As an initial matter there is disagreement as to what is owed to LG for work on the project. There is also an undisputed amount owed to LG. In addition, Avalon's course-of-dealing included "estoppel agreements" which purported to list amounts owed by Aptim and to bind Aptim to make those payments by a date certain without any right of setoff, etc.	Superior Court of the State of California, County of Orange	Resolved
Riverside County LFG Coil System Expansion Wage Claim [Audit No. 40-67085-267]	Wage and Hour	2019	The Division of Labor Standards Enforcement issued a Request for Payroll Records and a Notice of Investigation regarding compliance with apprenticeship requirements.	California Labor Commissioner's Office	Resolved
Heacock, Anthony [CA DIR]	Wage and Hour	2019	Anthony Heacock filed a claim with the California Department of Industrial Relations alleging that he was paid straight time for overtime and is owed various penalties under CA law.	CA Department of Industrial Relations	Resolved

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Final Outcome
1. Blankenberg, James v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 2. Brewer, Ryan v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 3. Duckworth, Joseph v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 4. Esteves, Edgar v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 5. Ford, Steven v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 6. Forrett, Ian v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 7. Fralick, Michael v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 8. Kinnicutt, Travis v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 9. Kliegl, Daniel v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 10. Ledrew, Christopher v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 11. Lewis, Douglas v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 12. Neizil, Jacob v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 13. O'Dell, Fredv. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 14. O'Neal, Joshua v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 15. Rahder, Andrewv. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 16. Whitman, Richard v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 17. Witten, Nicholas v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.;	Alleged Negligent Misrepresentation	2019 and 2021	Multiple suits in the Superior Court of the Virgin Islands alleging that defendants engaged in intentional or negligent misrepresentation or misrepresentation by interference, fraud, breach of contract, negligence by Defendants Witt O'Brien, APTIM, AECOM, Navigation and Patriot in contracting with the Campbell Defendants, and that Virgin Islands Housing Finance Authority improperly contracted with Defendants O'Brien, APTIM and AECOM. These companion cases arise out of the same set of facts and circumstances and were initally filed as one lawsuit in 2019 and severed in 2021.	Superior Court of the Virgin Islands, Division of St. Croix	Resolved
Fenster, Trudy v. Witt O'Brien, LLC, Aptim Environmental & Infrastructure, LLC, Lionsgate Disaster Relief, LLC and Virgin Islands Housing Finance Authority	Alleged Negligence	2020	Trudy Fenster filed a lawsuit in the Superior Court of the Virgin Islands, Division of St. Croix alleging negligent roof repair and negligent hiring.	Superior Court of the Virgin Islands, Division of St. Croix, USVI	Ongoing
DSW Homes v. Aptim Environmental & Infrastructure, LLC and Jonathon Hunt	Alleged Contract Breach/Dispute	2020	DSW is a pay-when-paid subcontractor on the USVI STEP (roofing) program. DSWs project work is complete. Aptim has yet to be paid by HFA for much of the work performed by DSW and we, therefore, argue payment is not due.	19th Judicial District Court for the Parish of East Baton Rouge, Louisiana	Resolved
United States of America ex rel. Scionti Consturction Group, LLC v. Aptim Environmental & Infrastructure, LLC	Alleged Contract Breach/Dispute	2020	A second-tier subcontractor filed a Miller Act claim with an unjust enrichment count.	U.S. District Court-USVI-Division of St. Croix	Resolved

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Final Outcome
Nathaniel Phillips, Tesroy Phillips and Three In One LLC v. Woodforest Construction, LLC, Allco, Aptim Environmental & Infrastructure, LLC, Virgin Ilands Finance Authority and Witt O'Brien	Alleged Contract Breach/Dispute	2020	This is a claim for nonpayment by Phillips, who claims to have been a labor broker for a third-tier subcontractor Woodforest Construction (hired by Allco). The other plaintiff also claims nonpayment by Woodforest, purportedly due under a joint venture agreement.	U.S. District Court-USVI-Division of St. Croix	Ongoing
Allen, Mark	Alleged Whistleblower/Retaliation	2020	LDAR Technician Mark Allen filed a whistle blower claim with OSHA alleging that APTIM terminated his employment in retaliation for his action in raising safety concerns at client's (Targa) premises. Aptim Environmental & Infrastructure employed Allen as an LDAR Technician from October 1, 2019 until February 7, 2020. APTIM terminated his employment after the client denied him access to their site due to performance problems	OSHA	Resolved
Hurlocker, John v. Aptim Services, LLC	Wage and Hour	2021	John Hurlocker submitted a notice to the CA Labor and Workforce Development of his intent to file an action under the Private Attorneys General Act of 2004 ("PAGA"). He also filed a lawsuit in federal court in northern CA, alleging federal and state law class and collective claims on behalf of similarly situated employees who were paid straight time overtime. The claims are asserted against Aptim Services, LLC (notably, not his employing entity) for violations of the CA Labor Code and federal law. Specific state allegations include failure to pay wages, failure to provide compensation for missed meal and rest periods, violating record keeping requirements, unlawfully collecting, receiving, or withholding wages and failure to pay wages promptly following termination of employment. Aptim Environmental & Infrastructure, LLC employed Mr. Hurlocker as a Scientist V at Humboldt Bay in Eureka, CA from 5/20/14 through 7/31/18 and from 11/3/2018 until APTIM terminated his employment on 9/15/19 in a reduction in force at the end of the project.	U.S. District Court-Northern District of California	Resolved
Patriot Response Group, LLC v. Aptim Environmental & Infrastructure, LLC, Domingo Camarano, Jonathon Hunt and Lissa Metoyer	Alleged Contract Breach/Dispute	2021	Patriot Response Group, LLC filed suit against APTIM for nonpayment of funds from work in the USVI.	19th Judicial District Court for the Parish of East Baton Rouge, Louisiana	Resolved
Hunt, Guillot & Associates, LLC v. Aptim Environmental & Infrastructure	Alleged Contract Breach/Dispute	2021	Hunt, Guillot & Associates, LLC filed suit against Aptim Environmental & Infrastructure alleging breach of contract, unjust enrichment, quantum meriut, suit on sworn account and violation of Texas Government Code Section 2251 in relation to work completed after Hurricane Harvey.	District Court of Harris County, TX	Ongoing
William Grit vs Koch Remediation and Environmental Services, LLC, Global Remediation and Environmental Services, LLC, Aptim Environmental and Infrastructure Inc. f/k/a CBI Environmental and Infrastructure Inc, Kennedy Jenks Consulting	Alleged Negligence	2021	William Grit alleges Aptim f/k/a CB&I failed to test wells on his property from 2014-2018 resulting in personal harm.	District Court of Shawnee County, Kansas	Ongoing

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Final Outcome
Chitolie, Allan, d/b/a Chitolie Trucking Services v. Aptim Environmental & Infrastructure, LLC	Allged Contract Breach/Dispute	2022	Allan Chitolie, d/b/a Chitolie Trucking Services filed suit against Aptim Environmental & Infrastructure, LLC alleging unpaid invoices in the amount of $110,000.	Superior Court of the Virgin Islands, District of St. Croix	Resolved
Pitts, Valerie	Alleged Discrimination/Retaliation	2022	Valerie Pitts dual-filed a charge of discrimination with the Equal Employment Opportunity Commission and the Louisiana Commission on Human Rights alleging discrimination on the basis of race (African-American) and gender (female) and retaliation in violation of Title VII of the Civil Rights Act of 1964. Ms. Pitts contends that she was forced to resign due to a hostile working environment after receiving two written warnings from her managers. Aptim Environmental & Infrastructure, LLC employed Ms. Pitts as an administrator in the GOHSEP Hurricane Ida recovery project from June 20, 2022 through July 8, 2022. She resigned her employment following discipline based upon performance failures.	Equal Employment Opportunity Commission	Resolved
Entergy New Orleans v. Coastal Protection and Restoration Authority, Great Lakes Dredge & Dock Company, LLC of Louisiana, Aptim Corp., et al.	Alleged Negligence	2023	Entergy New Orleans filed suit against CPRA, Great Lakes Dredge & Dock Company, APTIM, GeoEngineers, and Southern Shores Engineering due damage to Entergy's pipeline that allegedly resulted from the "block shift" that occurred during construction of Marsh Containment Area No. 2 on the Golden Triangle Project. Aptim retained by CPRA to design the Project; Southern Shores was the engineer of record for the Project and a sub to APTIM; Geo was a sub to APTIM as the geotechnical engineer on the Project and Great Lakes was retained by CPRA to construct the project.	19th Judicial District Court for the Parish of East Baton Rouge, Louisiana	Ongoing

Aptim Environmental & Infrastructure, LLC

1200 Brickyard Lane, Suite 202
Baton Rouge, LA 70802

Charter #: 35251103 D
Year and State of Corporation: 2002 - LOUISIANA
Type of Business: Environmental
Name of Parent Company: Aptim Corp.
Tax I.D. #: 77-0589932

Executive Officers:
Allen Weakley - President
1200 Brickyard Lane, Suite 202
Baton Rouge, LA 70802

Financial Operation:
Dawn Aydell, Director, Accounting
1200 Brickyard Lane, Suite 202
Baton Rouge, LA 70802

Bank Information:
Santander Bank N.A.
www.confirmation.com

Account No. 8937028506

Business References:

Maxim Crane Works
725 Central Ave, Jefferson, LA 70121
Amanda Maher
Phone: 504.733.9400 / Fax: 504.434.4126
Amaher@maximcrane.com

United Rentals
11580 Chef Menteur Hwy.
New Orleans, LA 70129
(504) 315-9186 office
(504) 265-9506 fax
Sherry Courtade
Scourtad@ur.com

The Shaw Group
30103 Sunland Drive
Walker, LA 70785
Kristen B. Gouedy
Phone: 225-791-3212
kgouedy@theshawgrp.com

Ram Tool Construction Supply Co.
4500 5th Avenue South, Building A
Birmingham, AL 35222
(205)714-3300 office
(205)322-6348 fax
arcustomerrequest@ramtool.com

Aptim Environmental & Infrastructure LLC

CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2022 and 2021
With Independent Accountant's Review Report

Captiva Island

Bayside Adaptation Plan

CUMMINS | CEDERBERG
Coastal & Marine Engineering

CUMMINS | CEDERBERG
Coastal & Marine Engineering

October 25, 2023

Captiva Erosion Prevention District
11513 Andy Rosse Lane
Captiva, FL 33924

RE: Captiva Island Bayside Adaptation Plan

Dear selection committee members,

Cummins Cederberg, Inc. (Cummins Cederberg) is a leading coastal and waterfront engineering, resiliency planning, and environmental consulting firm in Florida. Our firm focuses exclusively on coastal, marine, and environmental projects specializing in solutions to complex coastal and marine engineering challenges. Since the firm's inception, our core services have been solely focused on tidally influenced projects throughout Florida and the Caribbean.

Firm Profile. Cummins Cederberg was founded by Jason Cummins, PE, and Jannek Cederberg, PE in 2010. As a small business, our success is built upon our commitment to high quality work, professional excellence, and transparency as the foundation of our firm. This commitment has led to strong, long-standing client relationships. Nearly 80% of our business is through repeat clients and referrals – for which we believe there is no greater compliment! With over 45 professional employees, our team consists of coastal and marine structural engineers, engineer-divers, construction managers, marine scientists, ecologists, planning professionals, environmental policy specialists, grant managers, geologists, and regulatory permitting experts.

More than one-third of our staff bring over 20+ years of experience in their fields of expertise and over 75% of our professional staff hold advanced degrees in engineering or sciences, maintain professional certifications (e.g. Envision Sustainability (ENV SP), Waterfront Edge Design Guidelines (WEDG), Certified Floodplain Managers (CFM), and LEED AP), hold positions on advisory boards as well as distinguished state and national professional organizations (FSBPA, ASCE, WEDA). Our firm proudly applies Waterfront Edge Design Guidelines (WEDG) and ISI Envision Sustainability criteria into all our projects. The Cummins Cederberg team was curated specifically for this project with a focus on vulnerability assessments, sea level rise, and adaptation planning.

Team. The team will be led by Danielle Irwin, a Senior Director with Cummins Cederberg and former Deputy Director at the Florida Department of Environmental Protection's Division of Water Resource Management and Bureau of Beaches and Coastal Systems. Danielle's recent experience managing adaptation projects includes enhancing shorelines of breakwater islands protecting the largest municipal marina in Florida, providing a range of shoreline solutions for municipalities experiencing tidal flooding, and successfully managing the grant funds and applying for new funding opportunities on each of these.

We have assembled a team of subconsultants for this project with whom we have not only worked before but were selected because they each have experience working on waterfront projects and understanding the unique challenges. **Chen Moore and Associates** will be providing civil engineering services relative to stormwater management and upland flooding impacts. **Cheryl Hapke** with **Fugro** will be providing adaptation planning support and geospatial data collection and analysis. Cheryl brings an established working relationship with Captiva relative to coastal resiliency. **Akerman LLP** will be providing land use and policy support relative to public-private implementation. **The Balmoral Group** will be providing economic analysis relative to the potential financial impacts of infrastructure or policy changes on property values, tax revenue, and similar financial matters.

Location. Cummins Cederberg is headquartered in Miami and located at 201 Alhambra Circle, Suite 601, Coral Gables, FL. The firm maintains 5 additional full-service offices in Sarasota, St. Petersburg, Tallahassee, Jupiter, and Fort Lauderdale. This contract will be serviced through our Sarasota office located at 1491 2nd Street, Suite E, Sarasota, FL.

Project Understanding. As a true Florida coastal engineering firm who has been involved in vulnerability assessments and adaptation planning throughout the State for more than a decade, we understand the importance of evaluating flood risks and infrastructure vulnerabilities in order to develop a comprehensive, proactive, and flexible planning approach that aims to identify current and future adaptation and resilience measures needed to mitigate flood risks.

Our direct experience with conducting regional, county, municipal, and site-specific vulnerability assessments, adaptation alternatives, and resilience planning for public and private clients will serve to seamlessly support the Captiva Bayside Adaptation Plan.

The Adaptation Plan will be one of several important steps toward enhancing Captiva's resilience to future water levels, storms, and rainfall events. Resiliency enhancement is a long-game process that requires diligence to enhance municipal infrastructure needs. During this process, new data, assumptions, community needs, and sea level rise projections will continue to evolve. The key to ensuring a viable and actionable resilience plan is intimate knowledge of the process required to achieve project implementation.

As Captiva starts to move from the planning phase to the implementation phase, Cummins Cederberg will work with stakeholders to develop infrastructure concepts and policy changes that are suitable and feasible based on permitability, functionality, cost-effectiveness, environmental impact, and most important community support.

A fusion of talent with a demonstrated ability to complete challenging engineering projects utilizing creative and unique solutions combined with our exceptional relationships with local, regional, state, and federal agencies will provide the District with a team who can meet any of its adaptation planning needs, both now and in the future. We commit to perform and complete the services and understand the strict time and budget requirements. Again, we appreciate the opportunity to submit our qualifications and stand ready to assist with this important project. Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,
CUMMINS CEDERBERG, INC.

Jannek Cederberg, PE
Principal
jcederberg@CumminsCederberg.com
305-741-6155

Danielle Irwin, CFM, PWS, WEDG, LEED AP
Project Manager
dirwin@CumminsCederberg.com
850-852-0095

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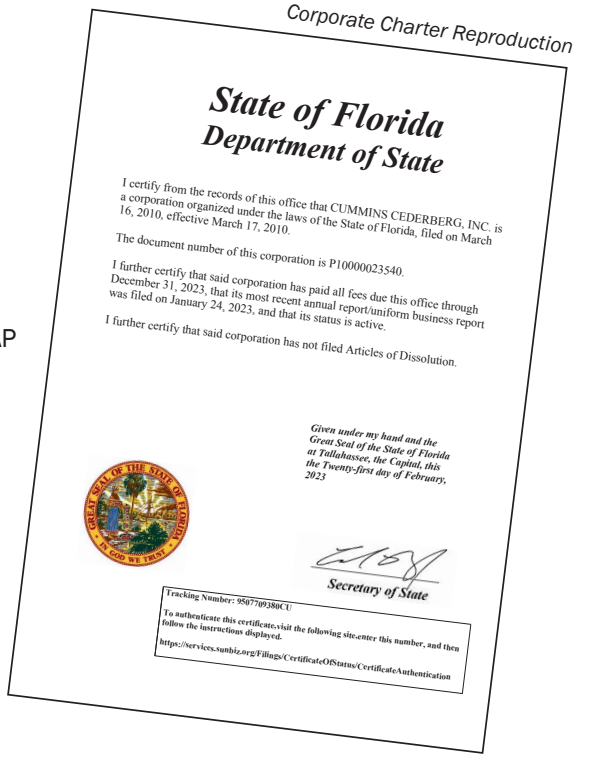

State of Florida
Department of State

I certify from the records of this office that CUMMINS CEDERBERG, INC. is a corporation organized under the laws of the State of Florida, filed on March 16, 2010, effective March 17, 2010.

The document number of this corporation is P10000023540.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on January 24, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twenty-first day of February, 2023

Secretary of State

Tracking Number: 950770380CU

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TABLE OF CONTENTS

01. LETTER & EXECUTIVE SUMMARY

Since our inception, we have successfully grown and established ourselves as the leading engineering firm for complex coastal and marine engineering projects in Florida and the Caribbean with **offices in Miami, Fort Lauderdale, Jupiter, St. Petersburg, Sarasota, and Tallahassee.** Cummins Cederberg is repeatedly selected ahead of larger national engineering firms due to our unique and focused qualifications combined with a personalized, hands-on approach. Our success is built on providing high quality work in a transparent manner in order to build long term relationships resulting in organic growth through repeat clients and referrals.

Cummins Cederberg is one of few coastal engineering firms who has moved past the adaptation planning phase many communities are currently in, and into adaptation design, permitting, and construction of shovel-ready projects with funding. This uniquely positions Cummins Cederberg ahead of other firms by understanding, and having worked through, additional challenges that arise as these projects are implemented. In addition to engineering and environmental constraints, the Cummins Cederberg team has addressed funding, land ownership, public outreach, and constructability factors that arise as adaptation project move from words on a page into reality. We recognize the Captiva Bayside Adaptation Plan will include a District strategy that will have a direct, tangible effect on the community in both the short- and long-term as individual projects, ordinance changes, and funding mechanisms are implemented. Educating the public and the District, as well as establishing a clear, consistent message, is the best way to create a unified resiliency movement to achieve island-wide resilience as Captiva faces a new reality to which we must adapt.

The Cummins Cederberg team includes Florida Registered Professional Engineers with extensive experience in the planning, design, permitting, and construction of shoreline stabilization and flood mitigation projects. Our specific experience includes design of various types of shoreline stabilization tailored to specific site conditions including seawalls, rock revetments, living shoreline, and hybrids thereof for shoreline stabilization and flood mitigation treatments. In addition, our team has a thorough understanding of coastal dynamics and the use of advanced computer models to evaluate tides, waves, storm surge, scour, and water levels, as well as hydrodynamic and wave loadings. This experience is leveraged to optimize the longevity and performance of each coastal improvement project. Our team is also highly experienced in sea level rise and adaptation planning and design as well as implementation of flood mitigation infrastructure.

48
Team Members

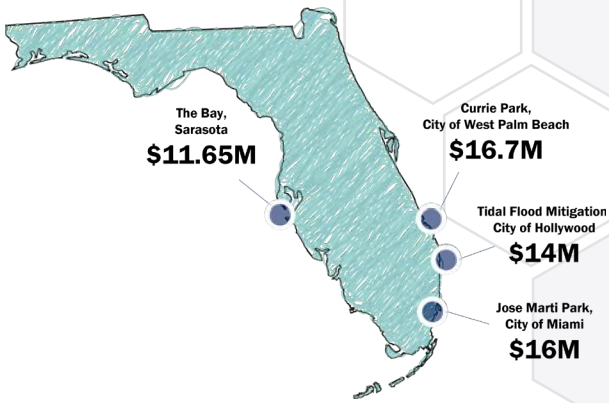
18
Coastal & Marine Engineers

17
Environmental Specialists

Cummins Cederberg has an in-house team of marine biologists and regulatory experts with experience in local, state, and federal coastal permitting, marine resource surveys, artificial reef design and monitoring, NEPA documentation, Endangered Species Act Section 7 consultation, and Essential Fish Habitat Assessments. Our team includes former executive level Florida Department of Environmental Protection (FDEP), US Army Corps of Engineers (USACE), and Water Management District staff with intimate knowledge of the regulatory process and professional relationships with agency personnel. We bring project experience related to assessing and negotiating marine resource impacts with the regulatory agencies, regional sand management, inlet management, beach nourishment, restoration, FEMA funding from storm impacts, and compliance with stringent sand specifications and hardbottom mitigation requirements. Our biologists work hand in hand with our engineers to ensure projects are completed on time and budget to exceed your project goals, while protecting natural coastal resources.

The Cummins Cederberg in-house team of grant administration and policy experts brings a specialized array of resiliency, coastal and marine engineering design, waterfront infrastructure adaptation and implementation, policy, and planning qualifications to support the District. We recognize developing a plan that cannot be funded will not benefit the District or local Captivans. Our team not only has experience successfully applying for grant awards, but also administering projects that have included elements such as waterfront parks, transportation infrastructure, stormwater improvements, and utilizing innovative technology. We understand the specific reporting requirements, protocols, and deadlines that must be followed to qualify and maintain funding from award to completion. We have secured $45 million and administered over $60 million of grant funding for public clients and recently supported private clients to secure funding under the Hurricane Restoration Reimbursement Program through FDEP. We understand the criticality of maximizing and leveraging every dollar to successfully accomplish the recommendations arising from the Captiva Bayside Adaptation Plan.

Signature Project Grant Awards



While this RFQ does not include scope for construction, Cummins Cederberg recognizes the importance of considering constructability early in the conceptual adaptation design phase. Decisions made during design inception should be carefully vetted so the District can avoid conflicts during construction, which can lead to schedule overruns and expensive change orders. Our construction management staff have experience on both the contractor and design side with project management and oversight specifically for shoreline stabilization (e.g., living shorelines, seawalls, revetments) and marina projects throughout Florida including reviewing contract terms, construction specifications, construction methodology, permit compliance, and reviews. Having former marine contractors on staff can result in a substantial cost savings when it comes to constructability reviews and estimating. During construction planning, Cummins Cederberg can collect the bid documents for the District, as well as manage the bid process. Our construction management process includes regular site visits and progress reports to the District staff.

On the Adaptive Redesign of Jose Marti Park project, ***Danielle Irwin elevated project coordination to regulatory management and leadership to assist in authorizing this adaptation project.*** *Our project managers have in depth knowledge of regulations and policy, often more than the regulators processing permit applications for our innovative waterfront solutions*

Relevant Experience

02. RELEVANT EXPERIENCE

Adaptation Planning and Coastal Resiliency

Cummins Cederberg has prepared several community and regional vulnerability assessments and flood mitigation plans to analyze the effects of sea level rise and storm surge for both public and private clients. In addition to developing vulnerability assessments in accordance with Florida legislation Section 380.093 F.S., we have completed many general adaptation planning and coastal resiliency projects incorporating background data collection and review, site investigations, environmental assessments, water level analyses, asset resiliency evaluations, and inundation mapping. As engineers, we are able to take these projects into design by developing flood mitigation concepts and rough order of magnitude (ROM) opinion of probable costs (OPCs).

We recently developed flood risk mitigation plans for seven waterfront parks in Miami-Dade County totaling over 2,000 acres, which identified at-risk critical infrastructure and operations. As part of the project, a range of flood adaptation alternatives were developed, and design concepts were provided for the County's use in subsequent capital improvement planning and budgeting. This study was unique, as it combined sea level rise projections, practical concepts, and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life. The study provided a roadmap for Miami-Dade County park infrastructure improvement planning through the year 2100.

As part of our work at Currie Park in Palm Beach County and the City of Hollywood, we developed a suite of tidal flood barriers, including innovative living shoreline configurations to increase resiliency and natural habitat.

We recently completed Phase 1 of the first of its kind FDOT district-wide sea level rise analysis for District 1. The project entailed review of historical tidal data and the evaluation of sea level rise and storm surge scenarios to analyze potential impacts to critical transportation infrastructure throughout District 1 including Captiva. The analysis included the NOAA intermediate low and intermediate high sea level rise scenarios projected out to year 2100. The work included identifying areas susceptible to inundation, mapping of emergency evacuation routes, and development of alternatives to support civil/stormwater drainage design.

As part of our work with in the private sector, we recently completed Adaptation Plans for developers at Little Palm Island in the Florida Keys and the waterfront golf courses at Indian Creek in Miami-Dade County, Seminole Country Club in Palm Beach County, and Jupiter Island Club in Martin County. These projects included a review of water levels, inundation mapping, design of flood mitigation concepts, and development of a resiliency roadmap (i.e., adaptation pathways) to identify opportune time to implement infrastructure improvements.

Cummins Cederberg team member recently prepared and completed three vulnerability assessment and resiliency plans under grant funding provided by the FDEP Resilience Coastline Program (RCP) for Sarasota County, the City of Venice, and the City of Punta Gorda. In each of these projects we worked closely with the municipalities to identify critical publicly owned infrastructure, led the coastal storm surge and sea level rise analysis, facilitated multiple public workshops and stakeholder outreach efforts, provided recommendations for comprehensive plan amendments, and prepared a comprehensive written Resilience Plan to include an exhaustive matrix of funding opportunities to assist with future phases. The Resilience Plan was incorporated into other regional and community planning documents in compliance with the "Peril of Flood" statute. These planning documents included Comprehensive Plans, Long-range Transportation Plans, and Risk Mitigation Plans.

Cummins Cederberg has in-house policy expertise with substantial federal and state grant management experience. Cummins Cederberg's Tallahassee office is comprised of policy leaders, regulatory administrators, and grant project managers who have previously worked for FDEP and other state agencies. Their varied experience includes developing and budgeting funding agency programs, administering grant awards with sub recipients and municipalities, preparing, and submitting grant applications on behalf of clients, administering grant contracts, and complying with state and federal grant requirements in consulting services and construction contracts.

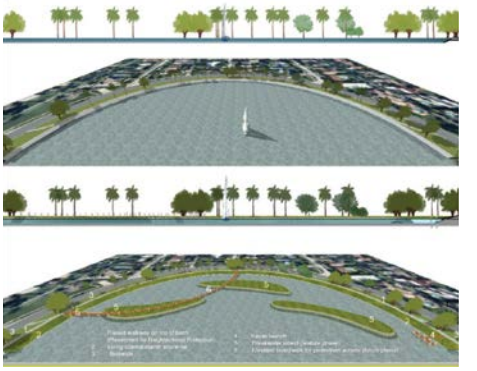
Dinner Key Marina Breakwaters Adaptation, *City of Miami, FL*
David Hoot, PE - City of Miami
444 SW 2nd Ave., Miami, FL 33130
561-289-9170, dhoot@miamigov.com
May 2022 - Ongoing
Cummins Cederberg is leading the coastal and marine engineering team to protect the largest marina on the east coast by armoring the spoil islands at key locations. The scope of work included site assessments for data collection and coastal analysis, specifically assessing the islands at high tide to determine existing flood conditions, sediment transportation, and current vegetation. Concept designs included three levels of protection and recreational activities around the barrier islands. The project plans to pursue future grants to enhance the shoreline and use more nature-based solutions as the coastal infrastructure to serve recreational and storm protection purposes.


The Dinner Key Marina Breakwaters Adaptation will set the standard for coastal resiliency utilizing natural solutions to showcase how spoil islands and nature based features can mitigate the impacts of storms on coastal communities

Jose Marti Park Adaptive Redesign, *City of Miami, FL*
Keith Ng, CFM - City of Miami
444 SW 2nd Ave Miami, FL, 33130
305-416-1298, keithng@miamigov.com
2019 - Ongoing
The redesign of this 13-acre, multi-use recreational space on the Miami River explores ways in which the park can minimize tidal flood impacts to the surrounding neighborhood, adapt to sea level rise, and enhance waterfront access to residents. The Jose Marti Park Adaptive Redesign will serve as a model for resilient waterfront parks that can adapt to current and future flood risks associated with climate change through the lenses of economy, ecology, and equity. Cummins Cederberg is responsible for the inundation modeling, waterfront engineering design, environmental permitting, and grant management.


Jose Marti Park Adaptive Redesign includes a floating boardwalk, living shoreline, living seawall, mangrove planters, and a water taxi slip

Tidal Flood Mitigation and Shoreline Protection, *City of Hollywood, FL*
Jose Cortes, LEED AP - City of Hollywood
309 N. 21st Avenue, Hollywood, FL 33020
954-921-3410, jcortes@hollywoodfl.org
2020 - Ongoing
Cummins Cederberg is assisting the City with their Tidal Flooding Mitigation and Shoreline Protection project. The scope includes evaluation of 22 City owned shoreline segments along 10,000+ feet of shoreline within North Lake, South Lake, and the Intracoastal Waterway. Conceptual designs have been prepared for each shoreline segment to provide site specific solutions to address tidal flooding. Concepts include living shorelines, rock revetments, and bulkheads and are consistent with the new City and County tidal flood barrier ordinances.


Adaptation strategies for the City of Hollywood included various shoreline options for each site - not a one size fits all approach

Little Palm Island Adaptation Plan, *Munson Island, FL*
Clayton Meyer - American Equity Investment Life Insurance Company
6000 Westown Pkwy,West Des Moines, IA 50266
908-577-0066, clayton.meyer@american-equity.com
Oct. 2022 - Dec. 2022
Cummins Cederberg performed a site inspection of the mainland access and resort parcels of Little Palm Island Resort to evaluate the coastal resiliency against sea level rise, shoreline erosion, and storm surge. The assessment included inventory and cursory evaluation of existing structures relative to operations, condition, and service life. Cummins Cederberg identified the areas of infrastructure with the highest risks of failure and inundation under existing and future water levels.


Mitigation strategies and an implementation schedule was developed for Little Palm Island to increase the island's resiliency

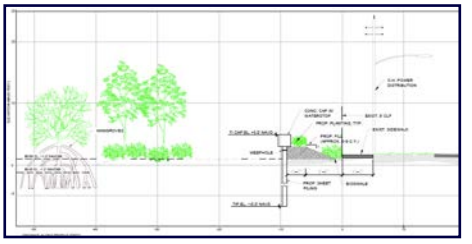
Currie Park Redevelopment Master Plan, *City of West Palm Beach, FL*
Leah Rockwell - City of West Palm Beach
401 Clematis St., West Palm Beach, FL 33401
561-804-4904, lrockwell@wpb.org
2020 - Ongoing
Cummins Cederberg has completed Phase I and is currently on Phase II which includes the marine resources surveying, engineering design, environmental permitting, and grant implementation support for the waterfront work including rock revetment, living shoreline, boat ramp improvements, kayak launches, new over water piers and boardwalks, and "social" steps down to the water. A bathymetric survey, preliminary coastal analysis, environmental feasibility, and grant opportunity research were conducted, as well as the preparation of a marina implementation strategy.


Working with the City of West Palm Beach, Cummins Cederberg assisted in successfully securing and is now managing a $16M grant from the Florida Department of Economic Opportunity to be used to implement the master plan

Sawfish Bay Park Shoreline Improvements, *Jupiter, FL*
Stephanie Thoburn, AICP, ASLA - Town of Jupiter
210 Military Trail, Jupiter, FL 33458
561-741-2342, stepht@jupiter.fl.us
Sept. 2021 - Ongoing
As part of a multi-year project to environmentally restore a historic marina basin and protect the shoreline of a municipal park, Cummins Cederberg is assisting the Town of Jupiter implement living shoreline elements at Sawfish Bay Park. Cummins Cederberg completed an engineering inspection of approximately 1,000 LF of existing vinyl bulkhead, a flushing analysis study, and a marine resources survey for the historic marina basin. Design included sections of living shoreline including mangrove planters, rock revetments, and reef ball units in configurations that will accomplish the Town of Jupiter's goals of increasing coastal resiliency and enhancing natural habitat, while minimizing design and permitting costs.


By partnering with a local high school science program, Cummins Cederberg and the Town were able to host a community event with the students including casting the reef ball molds and deploying them along the shoreline

Holland Park Flood Adaptation, *City of Hollywood, FL*
Jose Cortes, LEED AP - City of Hollywood
309 N. 21st Avenue, Hollywood, FL 33020
954-921-3410, jcortes@hollywoodfl.org
2020 - Ongoing
The purpose of this project is to elevate areas of the park through fill placement and associated shoreline stabilization measures to enhance the coastal resiliency and protect the adjacent neighborhood against projected sea level rise and storm surge. Concept design included a continuous elevated berm for the access road and pedestrian walkways and a sheet pile bulkhead with upland fill to reduce groundwater seepage. Exotic species removal will be incorporated into the design to create an on-site mitigation bank.


Our team worked with the City to develop site specific solutions during the concept development, including walkthroughs to identify critical design criteria

Waterfront Parks Sea Level Rise Adaptation Plan, *Miami-Dade County, FL*
Angel Trujillo - Miami-Dade County
275 NW 2nd Street, Miami, FL 33128
305-755-7800, angel.trujillo@miamidade.gov
Sept. 2019 - 2021
Led the preparation of a Sea Level Rise and Flood Mitigation Roadmap for seven waterfront parks throughout Miami-Dade County. This plan combined sea level rise projections, practical concepts and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life. In this way, the plan, provided a clear roadmap for Miami-Dade County relative to further planning infrastructure improvements in the Park until 2100.


Over 2,000 acres of waterfront park space was evaluated as part of the Counties waterfront adaptation plan

Little Palm Island Adaptation Plan

Munson Island, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Cummins Cederberg performed a site inspection of the mainland access and resort parcels of Little Palm Island Resort to evaluate the coastal resiliency against sea level rise, shoreline erosion, and storm surge. The assessment included inventory and cursory evaluation of existing structures relative to operations, condition, and service life. Cummins Cederberg identified the areas of infrastructure with the highest risks of failure and inundation under existing and future water levels.

Mitigation strategies were developed to address the points of exposure and increase resiliency for the mainland and Resort. The mitigation measures considered short and long-term risks, as well as the level of protection provided, maintenance costs, regulatory constraints, phasing potential, operational impacts, service life, and capital costs. An implementation schedule was planned based on the short and long-term risks to minimize operational impacts and costs to the client.

**Referenced project*

Scope:

- *Permit history due diligence*
- *Topography compilation*
- *Storm surge and sea level rise projections*
- *Above-water site inspection*
- *Coastal resiliency report*
- *Flood inundation mapping*

Client Reference:

Clayton Meyer
Portfolio Manager, Commercial Real Estate
American Equity Investment Life Insurance Company
908-577-0066
clayton.meyer@american-equity.com

Dates:

Oct. 2022 - Dec. 2022

Total Fees:

$65,510

Indian Creek Village Vulnerability Assessment

Miami-Dade County, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Evaluated the coastal resiliency of Indian Creek Country Club including potential for sea level rise, vulnerability assessments, and provided recommendations for potential mitigation measures as part of the club's planned upgrades to their property. The club had experienced difficulties with flooding, shutting down portions of the course. The evaluation and recommendations will consider both short and long-term impacts to operations, as well as the service life of existing amenities and future improvements to the club.

This project was carried out in two phases of services, the first phase of services measured the overall vulnerability assessment of the Club and surrounding areas of influence. LiDAR survey data and tidal gauges were used to develop water level projections and flood maps. A seawall assessment was conducted to develop an inventory and evaluation of existing structures relative to operations, condition, and service life. A team of engineer-divers from Cummins Cederberg performed an above and below water inspection of the approximately 1,200 LF of seawall along the southwest shoreline, and approximately 3,730 LF of shoreline and seawall along the north side of the island, which a reinforcement project was conducted several years ago.

The second phase of services included specific technical support to the design team for upcoming infrastructure projects, such as the improvements to the golf course. Conceptual mitigation measures were developed to address points of exposure and increase resiliency for the Club. These recommendations were based on the flood mapping conducted under the first phase, meetings with the Club, and sea level rise projections.

**Referenced project*

Scope:

- *Sea level rise projections*
- *Photogrammetric analyses*
- *Seawall Inspection*
- *Vulnerability assessment*
- *Flood mapping*
- *Mitigation measures*

Client Reference:

Clarece Depkin, CMP
General Manager
Indian Creek Country Club
55 Indian Creek Island Road
Indian Creek Village, FL 33154
305-866-5751 ext 111
cdepkin@
indiancreekcountryclub.org

Dates:

Oct. 2022 - Dec. 20222

Total Fees:

$35,830

Waterfront Parks SLR Adaptation Plan

Miami-Dade County, Florida

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Led the preparation of a Sea Level Rise and Flood Mitigation Roadmap for seven waterfront parks throughout Miami-Dade County. The primary objective was to analyze the impacts of sea level rise on the park's infrastructure and operations, as well as develop flood mitigation and adaptation concepts for planning and budgeting purposes. These parks are relatively low lying, which results in flooding to some areas during high tide events. Flooding is a nuisance to visitors, as areas become inaccessible.

Cummins Cederberg compiled existing survey data provided by the County overlaid with LiDAR data to prepare a comprehensive topographic map of the park study area.

This comprehensive map was used as the basis for development of an implementation roadmap. Cummins Cederberg developed a site specific roadmap for each of the seven waterfront county parks. The roadmaps are unique, as they combine sea level rise projections, practical concepts and on-the-ground implementation experience with maintenance and replacement requirements relative to overall service life.

Cummins Cederberg prepared studies for: Matheson Hammock Park, Crandon Park, Haulover Park, Virginia Key Park, Biscayne Shores & Gardens Park, Black Point Marina, and Homestead Bayfront Park totaling over 2,000 acres.

**Referenced project*

Scope:

- *Coastal engineering*
- *Numerical modeling resiliency*
- *Flood mitigation*
- *Condition assessment*
- *Adaptation planning*
- *Stakeholder involvement*
- *Capital improvement planning*

Client Reference:

Angel Trujillo
Miami-Dade County Parks, Recreation, & Open Spaces
275 NW 2nd Street,
Miami, FL 33128
305-755-7800
angel.trujillo@miamidade.gov

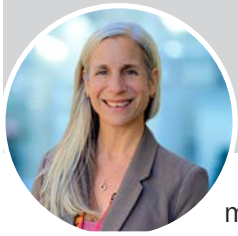
Dates:

2018 - 2021

Total Fees:

$698,405

KEY PERSONNEL

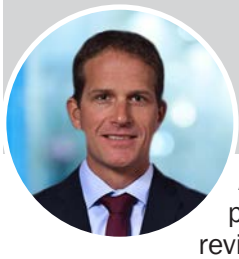


Danielle Irwin, CFM, PWS, WEDG, LEED AP
Project Manager

Danielle specializes in water resource management and has extensive expertise in adaptation implementation funding, waterfront development, shoreline erosion prevention, coastal management, stormwater practices, resiliency planning, sovereignty submerged lands regulations, and marine habitat assessments. Danielle leads the grant writing team at Cummins Cederberg, recently responsible for the award of over $45M in funding for coastal projects to our municipal clients. Prior to joining Cummins Cederberg, Danielle served at the FDEP as Deputy Director of the Division of Water Resource Management overseeing nine,statewide regulatory programs, Environmental Resource Permitting, Joint Coastal Permitting, and Coastal Construction Control Line Permitting. In addition, she held the position of Chief of FDEP's Bureau of Beaches & Coastal Systems, leading the State's coastal management programs including funding.

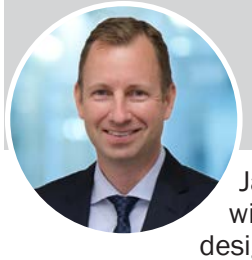
Jenna Phillips
Senior Coastal Engineer

Jenna has over 17 years of experience in a broad range of coastal/marine engineering works, including the preparation of feasibility studies, beach management plans, coastal assessments, coastal structure design, resiliency planning and flood vulnerability analyses, numerical modeling, living shoreline/nature-based planning and design, environmental restoration and mitigation, structural assessment and rehabilitation, beach design and renourishment, dredging and dredged material management, and regulatory coordination/ permitting. Jenna has designed a variety of new and rehabilitated marinas and docks, jetties, breakwaters/ groins, artificial reefs, navigation channels, mooring fields, and shoreline stabilization projects. She also has experience in designing living shorelines, artificial reef, and nature-based projects.



Jason Cummins, PE
QA/QC Manager,
Principal Engineer

As the QA/QC Manager, Jason will provide ongoing oversight and thorough review of all tasks and deliverables. Quality assurance and control plans will be developed and strictly followed for each task order. Coordination with Captiva and the Cummins Cederberg team during task development will streamline a more efficient process. Jason has designed shoreline stabilization and coastal structure projects including living shorelines for public and private clients, steel sheet pile bulkheads, breakwaters, groins, jetties, fixed docks, and wave attenuators.



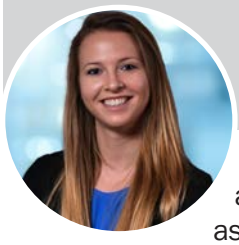
Jannek Cederberg, PE
Principal-in-Charge,
Senior Coastal Engineer

Jannek is a senior coastal engineer with extensive experience in planning, designing, and permitting coastal and marine projects in Florida. Jannek is formally trained as a civil engineer, specializing in coastal engineering from the Technical University of Denmark. He has more than 20 years of experience in marine field investigations, hydrodynamics, linear and nonlinear wave dynamics, sediment transport, hurricanes, numerical modeling, coastal structure design, sea level rise, environmental permitting, and infrastructure projects.

Jordon Cheifet, PE, CFM
Senior Coastal Engineer

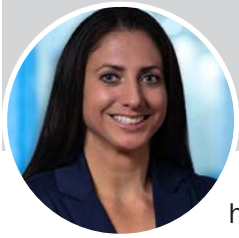
Jordon is a coastal and marine engineer with more than 18 years of technical and project management experience, including coastal engineering, beach nourishment design, waterfront structure design, FEMA coastal floodplain mapping, shoreline restoration/ stabilization design, numerical modeling, and marina design. His field experience includes underwater waterfront facility inspections, GIS/GPS data collection and analysis, surveying, and construction administration.

KEY PERSONNEL



Rebecah Delp, WEDG
Marine Scientist &
Environmental Permitting

Rebecah is responsible for performing aquatic and terrestrial biological assessments, writing technical and analytical reports, and assisting with local, state, and federal environmental permitting. Rebecah specializes on projects with a focus on environmental compliance, benthic marine resource mapping and monitoring, habitat restoration and mitigation, coral relocation, and scientific report writing. She is an experienced diver and knowledgeable in South Florida and Caribbean species identification.



Gina Chiello
Marine Scientist &
Environmental Permitting

As a former reviewer with the FDEP, Gina has a strong background in regulatory proceedings, including environmental and land use regulations at the local, state, and federal levels. Gina also played an instrumental role in the FDEP Dive Team during her time with the Department.Gina's professional knowledge and experience with permitting and marine resource surveys across a variety of programs and sites, have equipped her to successfully implement projects while meeting regulatory challenges.

Valerie Seidel
Economics & Funding
Strategies

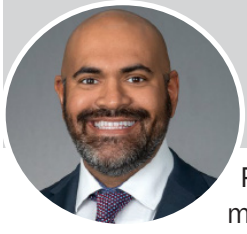
Valerie's economics experience focuses on infrastructure and natural resource valuation, GIS and statistical models of resource allocation and optimization, and cost-benefit analysis. She has demonstrated expertise in data synthesis of numerous data types for objectives ranging from sea level rise vulnerability analysis to economic development. Completed projects include researching economic impacts of public policies to application of econometric methods. She has proven ability to manage detailed and sensitive projects successfully, participate in public forums to address concerns of stakeholders, and generate innovative solutions to complex issues.

Cheryl Hapke, PhD
Community Liaison

Dr. Cheryl Hapke is a coastal geologist with more than 25 years of experience studying coastal processes and working with decision-makers impacted by the challenges of coastal climate risk and resilience, which include municipalities, private coastal facilities, insurers, government entities, and other stakeholders. Her clients need technical expertise to answer questions about future risks and provide solutions for mitigating impacts. She understands the future holds significant risks, and her technical expertise allows her to communicate foundational science to clients and diverse stakeholder groups.

Spencer Crowley
Land Ownership &
Policy Support

Spencer focuses on land use and environmental permitting matters, including zoning, growth management, urban development, transportation, sovereignty submerged lands, coastal regulation, marina permitting, wetlands, and water resources. In addition to his private practice, Spencer has served on several waterfront boards. In 2008, County Commissioner Carlos Gimenez appointed Spencer to the committee charged with reviewing and recommending changes to Miami-Dade County's Manatee Protection Plan.



Patrick Kaimrajh, PE
Civil/Stormwater Engineering

Patrick specializes in leading and managing civil engineering design, permitting, and construction oversight. Patrick has worked for a variety of public sector clients at the City, County, and State level, as well as private development clients. His experience includes preparation of final design packages including paving, grading, drainage collection systems with controlled outfalls and injection wells in coastal areas, water distribution systems, wastewater collection systems and lift stations, pavement marking and signage, traffic control and phasing, and erosion and sediment control plans.

SUB-CONSULTANTS

We have assembled a team to complete the scope listed within this adaptation plan. As mentioned the team will be led by Danielle Irwin who specializes in water resource management and has extensive expertise in waterfront development, shoreline erosion prevention, coastal management, stormwater practices, resiliency planning, sovereignty submerged lands regulations, marinas/ports/inlets, and marine habitat assessments.

Our team will remain committed to this project until completion.

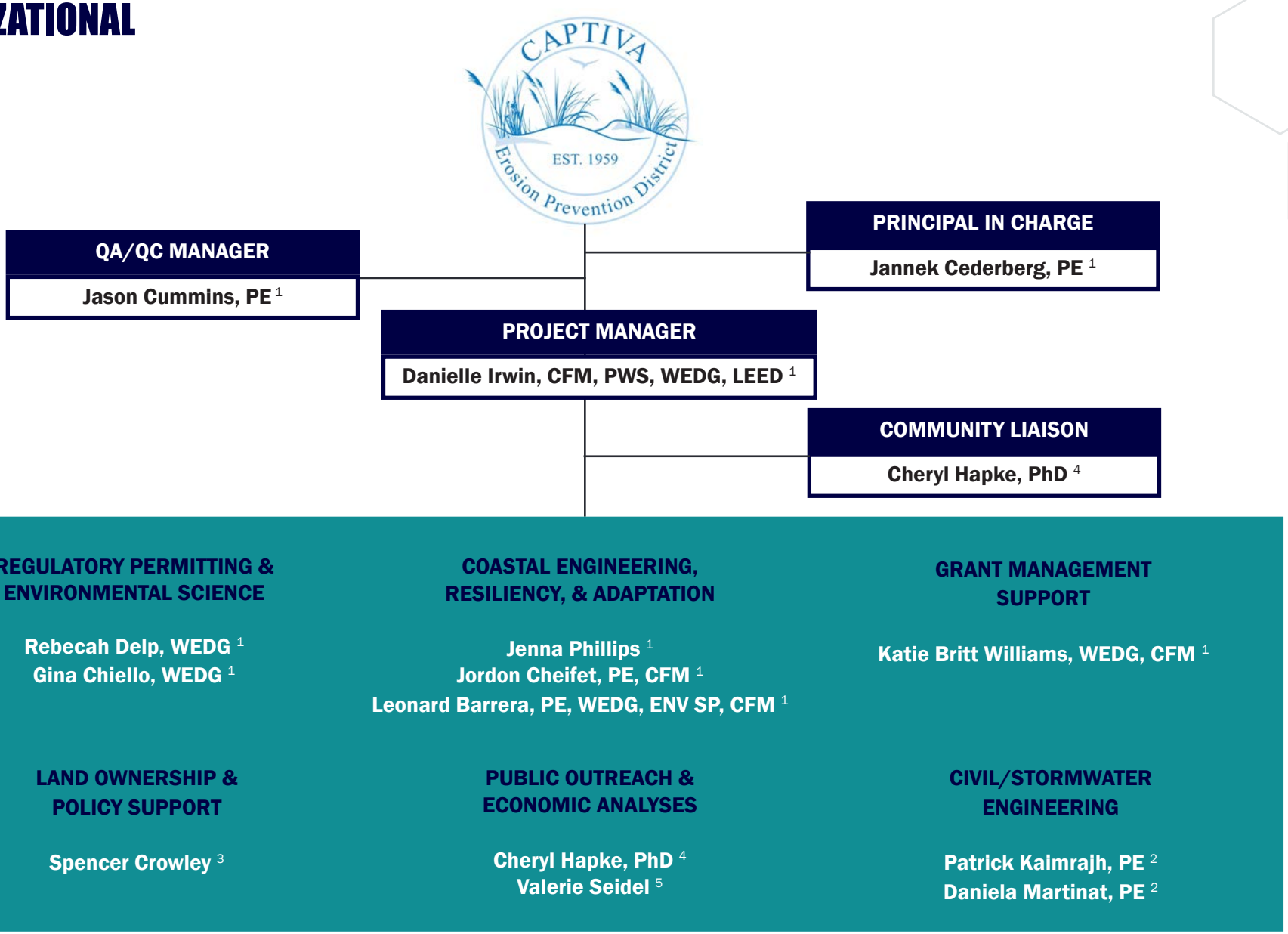
Chen Moore and Associates is leading the civil and stormwater engineering portion and has experience with public, semi-public and private clients. Their experience includes a wide range of civil engineering solutions involving water resources, and water and sanitary sewer engineering services including large scale master planning and modeling, existing system assessments, design and rehabilitation from the level of a basis of design report through design, permitting and construction administration services.

Akerman LLP will provide guidance when supporting design alternatives as they may overlap with private properties. Akerman's nationally recognized Land Use and Development Practice advises a nationwide roster of real estate developers, landowners, investors, and lenders on the full spectrum of land use and development matters, including acquisitions, land assemblage, project and public finance, land use entitlements, development incentives, and zoning and concurrency issues.

The Balmoral Group is a small, women owned business that operates within the nexus of public policy and socioeconomic outcomes related to infrastructure, utilities, and natural resources. They will be looking at a range of funding strategies, specifically potential special assessments to private properties. As a niche engineering and economic consulting firm, they have produced landmark, precedent-setting projects over the past 18 years. Their professionals apply specialized expertise in geospatial modeling, economic theory, funding access, engineering design and social equity to address and solve complex issues for their clients.

Fugro is a globally recognized geospatial solutions provider that specializes in collecting, analyzing, and interpreting data related to the earth's surface and subsurface. ***Specifically, their team member Dr. Cheryl Hapke led the Vulnerability Assessment and Coastal Adaptation Concept Designs for the island community of Captiva. She has direct experience working with community to present initial designs, gather community feedback, and incorporate revisions towards developing an adaptation pathway.***

ORGANIZATIONAL CHART



1. Cummins Cederberg; 2. Chen Moore and Associates; 3. Akerman LLP; 4. Fugro; 5. The Balmoral Group

CUMMINS | CEDERBERG
Coastal & Marine Engineering

DANIELLE IRWIN, CFM, PWS, WEDG, LEED AP

Project Manager

YEARS OF EXPERIENCE

- 22

EDUCATION

- MSc Oceanography, Florida State University
- BA Environmental Studies, University of Southern California
- BSc Biology, University of Southern California

CERTIFICATIONS

- Certified Floodplain Manager
- Professional Wetland Scientist
- LEED Accredited Professional BD&C
- WEDG Associate

PROFESSIONAL AFFILIATIONS

- Florida Association of Environmental Professionals, Tallahassee Area Chapter
- Appointee, Leon County Water Resources Committee
- Society of Wetland Scientists
- Florida Floodplain Managers Association
- Association of State Floodplain Managers
- US Green Building Council

RELEVANT PROJECT EXPERIENCE

Dinner Key Marina Breakwaters Mitigation, *City of Miami, Florida.* Resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900's, man-made spoil islands have provided protective services to upland areas including the historic Pan Am Seaplane Terminal in the 1930s but have worn over time and sustained considerable damage from Hurricane Irma in 2017. Scope includes restoration, increase in sea level rise resilience and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Waterfront Adaptation at Jose Marti Park, *Miami, Florida.* The adaptive redesign of this 13-acre, multi-use recreational space on the Miami River explores ways in which the park can minimize tidal flood impacts to the surrounding neighborhood, adapt to sea-level rise, and enhance waterfront access to residents. Danielle led the environmental permitting, and grant management. The Jose Marti park redesign will serve as a model for resilient waterfront parks that can adapt to current and future flood risks associated with climate change and sea-level rise.

Apalachee Regional Vulnerability Assessment, *Apalachee Region, Florida.* Provided QA/QC review of critical asset data inventory, data gap analysis, flood depth results by asset, coordination with clients and regional stakeholders for data collection efforts, and review the final deliverable report. Danielle also provided policy related input specific to application of Section 380.093 F.S. The report illustrated and quantified the exposure and sensitivity of critical and regionally significant assets to tidal, SLR, and coastal storm surge flooding for 9 counties in the Apalachee region.

Tidal Flood Protection Ordinance, *City of Hollywood, Florida.* Project manager responsible for review of the Broward County model ordinance for tidal flood barriers. The purpose of this review was ensure the new ordinance was adaptable to the current and future conditions of the City of Hollywood. After coordination with the City, two public hearings, and a presentation to the City the ordinance was accepted.

Bal Harbour Village Vulnerability Assessment, *Bal Harbour Village, Florida.* Grant application and award of $169,700 to perform a village-wide vulnerability assessment compliant with s. 380.093, F.S. Scope includes the acquisition of background data, exposure and sensitivity analysis, peril of flood comprehensive plan updates, public outreach meetings, a Vulnerability Assessment Report, identification of critical asset focus areas, and a Coastal Resilience Adaptation Plan.

Currie Park Redevelopment, *West Palm Beach, Florida.* Coordinated grant application for the Currie Park Redevelopment and sea level rise adaptation project. Coordinated with the FDEO to receive CDBG-mitigation grant through US Department of Housing and Urban Development. Lead the environmental assessment to meet federal grant requirements.

CUMMINS | CEDERBERG
Coastal & Marine Engineering

JANNEK CEDERBERG, PE

Principal-in-Charge

YEARS OF EXPERIENCE

- 22

EDUCATION

- MSc Coastal Engineering, Technical University of Denmark

LICENSES

- Florida PE No. 69839

PROFESSIONAL AFFILIATIONS

- Permanent International Association of Navigation Congress
- Member of PIANC Working group Design and Operational Guidelines for "Superyacht Facilities"
- Danish Society of Hydraulic Engineering
- Florida Association of Environmental Professionals
- Port Everglades Association
- Florida Engineering Society Miami Chapter
- Florida Bar's Environmental and Law Use Law Section
- Biscayne Watershed Management Advisory Board

RELEVANT PROJECT EXPERIENCE

Miami-Dade County Waterfront Parks Sea Level Rise & Flood Mitigation Roadmap, *Coral Gables, Florida.* Senior Project Manager for analysis of the impacts of sea level rise on park's infrastructure and operations, as well as flood mitigation concepts for planning and budgeting. Compiled existing survey and LiDAR data to prepare general topographic map; infrastructure condition assessment, remaining service life and adaption feasibility relative to sea level rise; assessment of environmental conditions on site to understand and document current conditions, as it would relate to environmental permitting; conducted an engineering analysis to provide extreme tide water levels; developed flood mitigation concepts and preliminary cost estimates; coordinated stakeholder involvement; and developed an implementation strategy. Project sites included Matheson Hammock, Crandon, Haulover, Virginia Key, Biscayne Shores and Gardens, Blackpoint Marina, and Homestead Bayfront Park.

FDOT D1 Coastal Asset Management, *Collier County, Florida.* (Phase I complete, Phase II ongoing). Principal Engineer responsible for conducting extensive research to assess the vulnerability of coastal assets in FDOT District 1 counties, the first district-wide sea level rise analysis effort for FDOT. The scope included creation of future tidal projections based on evaluating historical tidal measurements and the expected impact of climate change to sea level rise, local to District 1, until the year 2100. These projections were applied in a water level analysis to identify critical low-lying infrastructure throughout the district that is at risk to sea level rise and storm surge.

Dinner Key Marina Breakwaters Mitigation, *City of Miami, Florida.* Principal Engineer for resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900's, man-made spoil islands have provided protective services to upland areas but have worn over time. Scope includes restoration, increase in sea level rise resilience and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Town of Bay Harbor Islands Resiliency and Seawall Condition Assessment, *Bay Harbor Islands, Florida.* Shoreline assessment and island resiliency study for the entire Town of Bay Harbor Islands. The shoreline assessment included 20,000 LF of shoreline, including seawalls, rock revetment, residential areas, bridges, and the causeway that connects the Town to the mainland. LiDAR survey data was processed to provide 3D elevation map, and an analysis of the water levels to predict sea level rise, along with tidal data analysis.

Adaptive Redesign of Jose Marti Park, *City of Miami, Florida.* Serving as a model for resilient waterfront parks that can adapt to current and future flood rises associated with climate change and sea level rise, this project explores ways to minimize tidal flood impacts and enhance waterfront access to residents. Jannek led the inundation modeling, and waterfront engineering design, while the Cummins Cederberg team also led the environmental permitting, coordination with FIND, and grant management.

CUMMINS | CEDERBERG
Coastal & Marine Engineering

JASON CUMMINS, PE

QA/QC Manager, Principal Engineer

YEARS OF EXPERIENCE
- 17

EDUCATION
- MSc Coastal and Oceanographic Engineering, University of Florida
- BSc Civil Engineering, University of Florida

LICENSES
- Florida PE No. 71538

Certifications
- Certified Diver
- FHWA A-NHI 130091 Underwater Bridge Inspection – National Highway Institute and Association of Diving Contractors

PROFESSIONAL AFFILIATIONS
- Urban Land Institute, SE Florida/Caribbean, Member
- American Society of Civil Engineers
- American Institute of Architects
- South Florida Association of Environmental Professionals

RELEVANT PROJECT EXPERIENCE

Storm Surge Protection Wall & Wetland Restoration at Vizcaya Museum & Gardens, *Miami, Florida.* Site plan for storm surge protection wall, environmental wetland restoration and public space. Grant application, regulatory permitting, and engineering design for marine works. Storm surge wall was designed with reinforced concrete able to withstand storm surge and high wave loads associated with tropical storm event.

Dade Boulevard/Collins Canal Shoreline Stabilization & Seawall Replacement, *Miami Beach, Florida.* Marine engineering and construction drawings for 2,670 LF of shoreline stabilization associated with a linear park and bike path. Structural design of steel sheet pile and reinforced concrete cap, including barrier wall connection, and utility crossover detail for FPL 69KV oil-filled transmission line.

Indian Creek Village Country Club Vulnerability, *Miami-Dade County, Florida.* QA/QC to evaluate coastal resiliency of the Club including potential sea level rise, vulnerability assessments and provided recommendations for potential mitigation measures as part of the club's planned upgrades to their property. Conceptual mitigation measures were developed to address points of exposure and increase resiliency for the Club.

Dinner Key Marina Breakwaters Mitigation, *City of Miami, Florida.* QA/QC for resiliency and mitigation improvements to one of the largest public marinas on the east coast of the US. Originally created in the early 1900's, man-made spoil islands have provided protective services to upland areas. Scope includes restoration, increase in sea level rise resilience and storm protection, recreational enhancements, and consideration of potential additional funding opportunities.

Brickell Key Coastal Resiliency Study, *Miami, Florida.* Assessment of condition of the existing shoreline and infrastructure in order to understand the effects of sea level rise on normal and extreme conditions (hurricanes). An inspection of existing coastal infrastructure was conducted to identify vulnerable areas along the entire shoreline perimeter. Analysis of sea level rise and extreme tide events were conducted to understand water level design conditions. The potential for increased storm impacts was assessed. Recommendations for long term planning was provided along with mitigation options. Construction documents and environmental permitting was conducted for the design. The design focused on adapting existing infrastructure to provide a cost-effective solution.

FDOT A1A Seawall, *Indian River County, Florida.* Scour and wave load analysis for proposed seawall for almost 2 miles of shoreline that experienced significant erosion during Hurricane Mathew. A hydrodynamic MIKE21 model was established to simulate tidal and storm surge flow. A MIKE21 wave model was developed to simulate the wave conditions during extreme events. The scour associated with a 100-year event was determined and proper scour protection was designed. Wave loads were calculated for the proposed seawall for extreme event under varying conditions and water levels.

CUMMINS | CEDERBERG
Coastal & Marine Engineering

JENNA PHILLIPS, EI
Senior Coastal Engineer

YEARS OF EXPERIENCE
- 17

EDUCATION
- MSc Ocean Engineering, Florida Institute of Technology
- BSc Ocean Engineering, Florida Institute of Technology

LICENSES
- Engineer Intern
- Open Water Certified Diver - National Association of Underwater Instructors (NAUI)

PROFESSIONAL AFFILIATIONS
- Coastal, Oceans, Ports, and Rivers Institute (COPRI), ASCE – Policy Committee Chair
- American Society of Civil Engineers – Energy, Environment, and Water Policy Committee Member
- American Shore & Beach Preservation Association – Science & Technology Committee Member
- Western Dredging Association (WEDA)
- WEDA, Education Commission
- Propeller Club, Port Manatee
- Sarasota County Coastal Advisory Committee (2019-present)

RELEVANT PROJECT EXPERIENCE

Sarasota County Coastal Conditions Analysis and Vulnerability Assessment, *Sarasota, County, Florida.* Served as project manager and technical lead responsible for shoreline conditions assessment for coastal barrier island beaches, managed and unmanaged, to determine historic shoreline position and volumetric changes. Project included conducting vulnerability analysis for barrier islands to identify at risk critical assets, develop adaptation strategies, and prepare a Resilience Plan. Project included public outreach, grant reporting, GIS data collection and analysis, and regional planning documents.*

Apalachee Regional Vulnerability Assessment, *Apalachee Region, Florida.* Project Manager and technical lead for a 9-county vulnerability assessment funded under the Resilient Florida grant program in accordance with Section 380.093 F.S. Responsible for leading multidiscipline team of coastal engineers, climate scientists, policy planners and GIS specialists to develop a comprehensive critical asset inventory for the regional coastal counties, with emphasis on publicly owned and regionally significant assets and collected LiDAR and water level data for vulnerability assessment. Provided QA/QC review of coastal and sea level rise analysis, which utlized 2 FEMA storm surge scenarios and NOAA sea level rise projects for 2040 and 2070 planning horizons. Assessment included critical asset exposure and sensitivity analysis for 30 flood scenarios. Flood scenarios and flood depths were characterized, spatially mapped and summarized in tabular format for the assessment report deliverable.

Punta Gorda Climate Adaptation Plan, *Punta Gorda, Florida.* As project manager, lead a multi-disciplinary team to prepare an update to the City's 2009 Climate Adaptation Plan and create a living shoreline technical guidance document. Performed vulnerability analysis using GIS-based bathtub model, available digital elevation data, and the latest available sea level rise projections published by IPCC. Report identifies vulnerable thresholds and qualitatively delineates areas of vulnerability, as well as recommendations to the City's Comprehensive Plan and coastal management element language. Climate Plan update includes a wide range of micro and macro level adaptation strategies.*

City of Venice Vulnerability Analysis and Resiliency Plan, *Venice, Florida.* Project manager and technical lead responsible for performance of a vulnerability analysis using a GIS modified bathtub model to determine depth/damage curves for critical public infrastructure. Project consists of conducting a vulnerability analysis, development of adaptation strategies, prioritization of key infrastructure, public outreach, grant reporting, and preparation of a resiliency plan.*

Bal Harbour Village Coastal Management, *Bal Harbour Village, Florida.* Senior Coastal Engineer responsible for submitting an FDEP Resilient Florida grant application and work plan development as part of Cummins Cederberg's ongoing coastal management program.

**Services provided with prior firm*

CUMMINS | CEDERBERG
Coastal & Marine Engineering

JORDON CHEIFET, PE, CFM

Senior Coastal Engineer

YEARS OF EXPERIENCE
- 18

EDUCATION
- MSc Ocean and Resources Engineering, University of Hawaii
- BSc Civil Engineering, Pennsylvania State University

LICENSES
- Florida PE No. 72876

CERTIFICATIONS
- Certified Floodplain Manager
- Certified Video Ray ROV Operator
- Surface Supplied Air Underwater Inspection Certification
- Advanced/Rescue/Nitrox SCUBA

PROFESSIONAL AFFILIATIONS
- Association of State Floodplain Managers, Member
- Florida Floodplain Managers Association, Member

RELEVANT PROJECT EXPERIENCE

Tidal Flood Mitigation and Shoreline Protection, *Hollywood, Florida.* The project consists of evaluating 22 areas, covering over 10,000 linear feet of shoreline. Each area will have specific solutions to address seasonal flooding challenges, which may entail the design and implementation of varied shoreline protection infrastructure such as of living shorelines, rock revetments, and bulkheads, to meet the requirements of the new Broward County ordinance. He has performed upland and in-water engineering site inspections along City owned shoreline to evaluate conditions of existing seawalls and revetments. Analyzed tide gauge data to determine tidal prisms, lag time, and water elevation differences. The analysis from this data will be used in the design of the flood mitigation structures.

Currie Park Redevelopment, *West Palm Beach, Florida.* Jordon is the EOR for all the waterfront design for the Currie Park Redevelopment project. Project includes marine surveying, engineering design, environmental permitting, and grant implementation support for the waterfront work including rock revetment, living shoreline, boat ramp improvements, kayak launches, new over water piers and boardwalks, and “social” steps down to the water.

City of Deerfield Beach Stormwater Master Plan, *Deerfield Beach, Florida.* Conducted a field investigation to evaluate existing coastal stormwater and flood defense structures in tidal waters relative to service life for the City. The project included a detailed analysis of historical water levels to establish design water levels based on king tides, storm events, and long-term sea level rise projections. Recommendations for maintenance and repairs were summarized in a Coastal Condition and Resiliency Report.

Riverside Village Shoreline Improvements, *Jensen Beach, Florida.* Provided structural/coastal engineering design for 480 feet of shoreline stabilization along an eroding shoreline. Project included rock revetment, kayak ramp, bulkhead, overwater viewing platform, and landscape restoration. Services performed included wave load analyses, scour analyses, structural design of composite bulkhead and timber viewing platform, and construction administration. Construction is currently underway.

Southern Palm Beach Island Comprehensive Shoreline Stabilization, *Town of Palm Beach, Florida.* Provided coastal engineering support to respond to public comments associated with the USACE Environmental Impact Statement review process. Technical responses were prepared based on a review of the basis of design and technical documentation used to prepare the draft and final EIS documents.*

Kristi House Shoreline Stabilization, Miami, Florida. Provided structural/coastal engineering design for 525 feet of shoreline stabilization along an eroded portion of Wagner Creek. The project included a steel sheet pile bulkhead and armor stones with transition grading to the existing upland parking lot. Services performed included scour analyses, wave load analyses, and structure design.

**Services provided with prior firm*

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Leonard Barrera, PE, WEDG, ENV SP, CFM

Senior Coastal Engineer

YEARS OF EXPERIENCE
- 9

EDUCATION
- MSc Ocean Engineering, University of Miami
- BSc Civil Engineering, University of Miami

LICENSES
- Florida PE No. 90872
- Puerto Rico PE No. 28385

CERTIFICATIONS
- Waterfront Edge Design Guidelines Associate
- Envision Sustainability Professional
- Federal Aviation Administration Remote Pilot
- Certified Flood Plain Manager

PROFESSIONAL AFFILIATIONS
- American Society of Civil Engineers
- Coastal, Oceans, Ports, and Rivers Institute (COPRI), ASCE – South Florida Co-Chair
- Society of Hispanic Professional Engineers
- Urban Land Institute SE Florida/Caribbean

RELEVANT PROJECT EXPERIENCE

FDOT D1 Coastal Asset Management, *Collier County, Florida.* (Phase I complete, Phase II ongoing). Senior Coastal Engineer who performed a sea level rise and water level analysis to identify critical infrastructure, evaluate impacts, and prepare flood mitigation concepts. Developed preliminary cost estimates for improvement and budget planning purposes.

Matheson Hammock Park Sea Level Rise Flood Mitigation Study, *Coral Gables, Florida*. Assisted in preparing a Sea Level Rise Flood Mitigation Study to analyze the impacts of sea level rise on the park's infrastructure and operations, as well as develop flood mitigation concepts for planning and budgeting. Compiled existing survey data within the Park and LiDAR data for the area to prepare a general topographic map for the Park; assessed the condition of existing infrastructure to understand conditions, remaining service life and adaption feasibility relative to sea level rise; performed an assessment of the environmental conditions on site to generally understand and document current conditions, as it would relate to environmental permitting; conducted an engineering analysis to provide extreme tide water levels; developed flood mitigation concepts and preliminary cost estimates; coordinated stakeholder involvement; developed an implementation strategy; and presented the results and findings into a report.

Town of Bay Harbor Islands Resiliency and Seawall Condition Assessment, *Bay Harbor Islands, Florida*. Shoreline assessment and island resiliency study for the entire Town. The shoreline assessment included 20,000 feet of shoreline, including seawalls, rock revetment, residential areas, bridges, and they causeway that connects the town to the mainland. LiDAR survey data was processed to provide 3D elevation map, and an analysis of the water levels to predict sea level rise, along with tidal data analysis.

Brickell Key Island Coastal Resiliency Study, *Brickell Key Island, Florida.* Site inspection to identify vulnerable areas, including the perimeter of the entire Brickell Key Island. Analyses of sea level rise and extreme tide events were conducted to understand water level design conditions. The potential for increased storm impacts was assessed. Recommendations for long term planning was provided along with mitigation options. Construction documents and environmental permitting was conducted for the design. The design focused on adapting existing infrastructure to provide a cost-effective solution.

Tidal Flood Mitigation and Shoreline Protection*, Hollywood, Florida.* The project consists of evaluating 22 areas, covering over 10,000 linear feet of shoreline, along the areas known as North and South Lake in the City of Hollywood. Each area will have specific solutions to address seasonal flooding challenges, which may entail the design and implementation of varied shoreline protection infrastructure such as of living shorelines, rock revetments, and bulkheads, to meet the requirements of the new Broward County ordinance.

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Coastal & Marine Engineering

KATIE BRITT WILLIAMS, WEDG, CFM

Grant Manager

YEARS OF EXPERIENCE

- 10

EDUCATION

- MSc Natural Resource Conservation, University of Florida
- BA Environmental Science & Policy, Florida State University

CERTIFICATIONS

- Certified Floodplain Manager
- WEDG Associate

PROFESSIONAL AFFILIATIONS

- UF IFAS Natural Resource Leadership Fellow, Class XVII
- Florida Floodplain Managers Association, Member
- Board Member of Tallahassee Area Environmental Professionals
- American Water Resource Association, Member
- City of Tallahassee Environmental Review Board
- Leadership Tallahassee Graduate

RELEVANT PROJECT EXPERIENCE

City of Sarasota Bay Resiliency Initiative, *Sarasota, Florida.* Leading the administration of the 2.^M grant from FDEP along with supplemental funding from WCIND. Deputy Project Manager role supporting and managing the project budget, schedules and project milestones. Project includes supporting the planning, design, and construction of a replacement seawall and implementing living shoreline and other nature based solutions along City owned shorelines. Project also includes soliciting a contractor to upgrade Citywide topographic mapping, aerial, and mobile LiDAR data.

Shoreline and Seawall Shoreline Vulnerability, *St. Petersburg, Florida.* Deputy Project Manager role on implementation of the project. Leading the grant management of the FL Commerce (FDEO) Mitigation planning grant($900,000) that is supporting the majority of the project funding to draft a Strategic Seawall Capital Improvement Plan for improvements to 71,900 linear feet of seawalls to mitigate against adverse impacts from future natural and man-made disasters. The Plan will review existing seawall conditions, develop design criteria and concepts to improve flood protection and erosion control, and establish a strategy to implement prioritized projects.

Jose Marti Park Waterfront Adaptation Project, *Miami, Florida.* The City of Miami received a FIND grant to perform a waterfront adaptation project at Jose Marti Park to improve the park to be more resilient to future flooding due to sea level rise. Ms. Williams also assisted in the complex permitting efforts by preparing application package materials for Miami-Dade County DERM, SFWMD, and the USACE. She also coordination the complex requests for additional information associated with the applications. Permitting efforts also consisted of formal pre-application meetings, a 1957 Butler Act Disclaimer, sovereign submerged lands lease application, adherence to the Miami-Dade County Manatee Protection Plan, ROW permitting, and BOCC coordination. Additionally, the project aims to be the first WEDG-certified project in Florida,

Apalachee Regional Vulnerability Assessment, *Apalachee Region, Florida.* Provided stakeholder outreach, managed the County and ARPC contact list, and coordinated with the ARPC for GIS data. Funded through a Resilient Florida grant, the report illustrated and quantified the exposure and sensitivity of critical and regionally significant assets to tidal, SLR, and coastal storm surge flooding for 9 counties in the Apalachee region.

Tidal Flood Protection Ordinance, *City of Hollywood, Florida.* Project management support for the Broward County Model ordinance for tidal flood barriers. The purpose of this review was to ensure the new ordinance was adaptable to the current and future conditions of the City of Hollywood.

County Shoreline Resiliency Planning, *Palm Beach County, Florida.* Project management support to update County's local mitigation strategy (LMS). Updates to the strategy included updating the priority list to include sea level rise adaptation strategies for publicly owned seawalls. LMS applications were approved and added to the County's LMS.

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Coastal & Marine Engineering

REBECAH DELP, WEDG

Marine Scientist and Environmental Permitting

YEARS OF EXPERIENCE

- 5

EDUCATION

- MPS Tropical Marine Ecosystem Management, Rosenstiel School for Marine and Atmospheric Science, University of Miami
- BS Biology, Minor Marine Science, Wittenberg University

CERTIFICATIONS

- Waterfront Edge Design Guidelines (WEDG) Associate
- PADI Rescue Diver
- Nitrox Diver
- DAN Oxygen First Aid for Scuba Diving Injuries
- American Academy of Underwater Sciences (AAUS) Scientific Diver Certified, University of Miami 2017, AAUS Compliant
- Motorboat Operator Certification (MOCC)
- SFAEP Wetland Delineation Training

PROFESSIONAL AFFILIATIONS

- America Academy of Underwater Sciences (AAUS), Individual Member
- Florida Association of Environmental Professionals (FAEP), Member

RELEVANT PROJECT EXPERIENCE

Jose Marti Park Waterfront Adaptation Project, *Miami, Florida.* The City of Miami received a FIND grant to perform a waterfront adaptation project at Jose Marti Park in order to improve the park to be more resilient to future flooding due to sea level rise. Rebecah performed a drop-camera survey within the Miami River to assess presence of submerged marine resources within the proposed project footprint. She also assisted in the complex permitting efforts by preparing application package materials for Miami-Dade County DERM, SFWMD, and the USACE. Permitting efforts consisted of formal pre-application meetings, a 1957 Butler Act Disclaimer, sovereign submerged lands lease application, adherence to the Miami-Dade County Manatee Protection Plan, a restrictive covenant, and BCC coordination. Additionally, the project aims to be the first WEDG certified project in Florida, which Rebecah assisted in gathering necessary criteria requirements and information for.

Crandon Park & Haulover Park Sea Level Rise Flooding Mitigation Studies, *Miami, Florida.* Managed project team to assess coastal resiliency and create a sea level rise road map and action plan. The study included compiling existing survey data, including LiDAR survey data, performing site assessments to analyze existing infrastructure and environmental conditions at the park, conducting engineering analyses on sea level rise projections and local tidal data in order to predict future water levels, performing inundation mapping using existing elevation data to gage flooding vulnerability, creating flood mitigation concepts and recommendations, and providing preliminary costs estimates of recommended improvements. A final sea level rise flooding mitigation study report was provided to Miami-Dade County Parks, Recreation, and Open Spaces for their internal use and future infrastructure implementation schedule planning. Proposed improvements recommended by 2040, totaling over $190M between the two parks, were included in the report.

Historic Virginia Key Beach Park Sea Level Rise Flooding Mitigation Study, *Miami, Florida.* Managed project team to assess coastal resiliency and create a sea level rise road map and action plan. The study included compiling existing survey data, including LiDAR survey data, performing site assessments to analyze existing infrastructure and environmental conditions at the park, conducting engineering analyses on sea level rise projections and local tidal data in order to predict future water levels, performing inundation mapping using existing elevation data to gage flooding vulnerability, creating flood mitigation concepts and recommendations, and providing preliminary costs estimates of recommended improvements. A final sea level rise flood mitigation study report was provided to Miami-Dade County Parks, Recreation, and Open Spaces for internal use and future capital improvement project planning.

Crandon Park Marina North Shoreline Rip Rap, *Key Biscayne, Florida.* Cummins Cederberg designed and permitted a breakwater and mangrove planter system.Rebecah created a marsh grass planting plan which was needed to stabilize the mangrove planter side slope and incorporated into the final design.

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Coastal & Marine Engineering

GINA CHIELLO, WEDG

Senior Director, Marine Scientist

YEARS OF EXPERIENCE

- 15

EDUCATION

- Graduate Certificate, Geographic Information Systems, Florida Atlantic University
- BSc Marine Biology, University of West Florida

CERTIFICATIONS

- NAUI Rescue Diver; PADI Enriched Air Nitrox Diver (IAND/EANx)
- AAUS Scientific Diver Certified
- FDEP Stormwater, Erosion and Sedimentation Control Inspector
- Waterfront Edge Design Guidelines Associate

PROFESSIONAL AFFILIATIONS

- America Academy of Underwater Sciences Individual Member
- Florida Association of Environmental Professionals, Treasure Coast Chapter, President
- Florida Association of Environmental Professionals, Vice President
- Urban Land Institute SE Florida/Caribbean
- Environmental and Land Use Law Section of the Florida Bar
- Leadership Palm Beach County, Alumni

RELEVANT PROJECT EXPERIENCE

Sawfish Bay Park Shoreline Improvements, *Jupiter, Florida.* Responsible for permitting and marine resource surveying for a multi-phased project to environmentally restore a historic marina basin and protect the shoreline of a municipal park. The project includes caping sand for seagrass recruitment, living shoreline, rock revetment, and reef ball units in configurations that will accomplish the Town of Jupiter's goals of increasing coastal resiliency and enhancing natural habitat, while minimizing design and permitting costs. USACE and FDEP permits secured for Phases 1 and 2.

Currie Park Enhancement Project, *City of West Palm Beach, Florida*. Currie Park is a 13.6-acre public waterfront park. The city is preparing an adaptive redesign of the park to mitigate flooding from rainfall, king tides, and sea level rise. Project manager responsible for the coastal components of the project's master plan including but not limited to permitting feasibility, concept planning, marina implementation strategy, public outreach interpretation and grant funding options master plan completed 2021. Responsible for fieldwork, engineering, permitting, and grant management to implement the master plan. State and federal permits underway. Additionally, assisted with securing a DEO grant which was awarded to the project in the amount of $16M.

Sea Level Rise & Flood Mitigation Studies, *Miami-Dade County, Florida.* Conducted sea level rise studies at various Miami-Dade County Parks including Matheson Hammock, Haulover, Crandon, Biscayne Shores and Gardens, Black Point Marina, and Homestead Bayfront Park. Performed all review and quality control for environmental permitting and environmental surveying.

Matheson Hammock Boardwalk Permitting, *Miami-Dade County, Florida.* This project involves the construction of a new boardwalk along a mangrove trail within Matheson Hammock Park involving mangrove trimming and some wetland impacts. Performed a wetland delineation, design development, permitting, and mitigation planning and calculations for the newly proposed boardwalk. Coordination with USACE, FDEP, DERM, NFC and EEL is underway.

Roads Vulnerability Pilot Study Environmental Permitting, *Monroe County, Florida*. Performed wetland delineation of mangrove habitat in support of permitting a pilot study to raise roads in Monroe County identified as vulnerable to sea level rise impacts. Consulted with FWS, obtained a 'No Permit Required' letter from the USACE and coordinated with the NPS relative to land ownership issues.

Shoreline Stabilization at Jungle Island, *Miami, Florida.* Project manager responsible for marine resource surveying, permitting and overseeing engineering design and plans. Performed a qualitative marine resource and vegetative survey along 1,100 linear feet of shoreline at the site to identify the location, species, and extent of natural resources. Permits from FDEP, USACE and DERM were secured.

Cheryl J. Hapke, Ph.D.

Principal Consultant– Coastal Resilience and Ocean Science (CROS) - Americas Region

Personal Information

Profile

Dr. Cheryl Hapke is a Principal Consultant, Coastal Resilience with Fugro. She is a coastal geologist with more than 25 years of experience studying coastal processes and working with decision-makers impacted by the challenges of coastal climate risk and resilience, which include municipalities, private coastal facilities, insurers, government entities, and other stakeholders. Her clients need technical expertise to answer questions about future risks and provide solutions for mitigating impacts. She understands the future holds significant risks, and her technical expertise allows her to communicate foundational science to clients and diverse stakeholder groups. Using her deep understanding of complex system dynamics, she develops state-of-the-art tools and data-driven approaches to efficiently provide insight into risks and identify solutions to help mitigate them. Dr. Hapke has extensive experience overseeing and managing large projects and coordinating across diverse groups of stakeholders and partners. In addition, she has served as a technical advisor on coastal change hazards to state and federal agencies and international groups and authored numerous peer-reviewed journal articles.

Qualifications

2002 - Ph.D., Coastal Geology, University of California Santa Cruz, Santa Cruz, California,

Achievements and Awards

2023 - Distinguished Alumni Award, University of Pittsburgh, Department of Geology and Environmental Science

2021 - Presidential Citation, Association of Environmental and Engineering Geologists

2020 - Jahns Distinguished Lecturer for Excellence in Applied Environmental Science

Relevant Experience

2019-2020

Coastal Vulnerability Assessment, Captiva, FL - Project lead on study that conducted a site characterization of coastal typology and land use for the island community of Captiva, FL, including the open ocean and estuarine coasts. The vulnerability assessment required the compilation of GIS data of community assets including commercial and residential buildings, roadways, evacuation routes, and critical facilities. We integrated sea level rise flood inundation model outputs from NOAA to evaluate what future conditions may be for the island's assets for the future scenarios. A subsequent risk assessment identified the numbers and locations of various assets that would be impacted progressively as sea levels rise.

2021-2022

Coastal Adaptation Conceptual Designs, Captiva, FL - Project lead on study that used the foundational information from the Captiva Vulnerability Assessment to develop conceptual nature-based adaptation strategies for various locations on the bayside of the island. The designs consider the exposure to waves and currents, the gradient, accommodation space, and tidal flow. We worked closely with the community to present initial designs, gather feedback, and incorporate revisions to work towards developing an adaptation pathway. The designs are in the adaptation categories of protection or accommodation.

T. Spencer Crowley III

Co-Chair, Land Use and Development Practice

Miami
T: +1 305 982 5549

spencer.crowley@akerman.com
vCard

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Notable Work

Marina and Coastal Permitting

Mega Yacht Arena: Representing client in permitting of 50 slip mega yacht marina. Project involves negotiation of submerged land lease with the city, waiver of public purpose restriction by the Board of Trustees of the Internal Improvement trust Fund, permitting managed mooring field as seagrass mitigation for the project

Allied Marine and Bertram Yacht Headquarters: Represented former owner of Allied Marine and Bertram Yacht headquarters in Miami, specifically in matters related to marina slip allocations, maintenance dredging, and fortification of aging coastal infrastructure

Permitting: Assist city of Miami with permitting of public seawall using pilot program between US Army Corps of Engineers and National Marine Fisheries Service

Land Use

Brickell City Centre: Represented Swire Properties in development of the Brickell City Centre project in downtown Miami, a $1.5 billion, 5.5 million square foot mixed-use development in the city's financial district. The project includes office space, retail, residential units, hotel, and underground parking. A model of large-scale mixed-use projects, it is the first Special Area Plan built under the Miami 21 Zoning Code.

Midtown Miami Project: Represent client in regards to Midtown Miami project in Miami, Florida. Advised client in land use, zoning, and site plan approval matters for 56 acre urban infill project in downtown Miami which will contain 645,000 square feet of retail development and 4,500 residential units.

Areas of Experience

Real Estate
Economic Development and Incentives Environment and Natural Resources
Environment and Natural Resources Policy and Regulation
Florida Land Use and Entitlements
State Legislative and Executive Lobbying
Land Use and Development
Local Government Advocacy
Public-Private Partnerships
Water Task Force
Hospitality
Hospitality Regulatory Compliance
Hospitality Acquisition and Development

Education

J.D., University of Florida Levin College of Law, 2001, Certificate in Environmental and Land Use Law
M.B.A., University of Florida, 2001, Specialization in Real Estate and Urban Analysis
M.A., University of Miami Rosenstiel School of Marine and Atmospheric Sciences, 1998
A.B., Duke University, Environmental Science and Policy, Geology, 1996

Admissions

Bars

Florida

VALERIE SEIDEL
Chief Economist

Valerie's economics experience focuses on infrastructure and natural resource valuation, GIS and statistical models of resource allocation and optimization, and cost-benefit analysis. She has demonstrated expertise in data synthesis of numerous data types for objectives ranging from sea level rise vulnerability analysis to economic development. Completed projects include researching economic impacts of public policies to application of econometric methods. She has proven ability to manage detailed and sensitive projects successfully, participate in public forums to address concerns of stakeholders, and generate innovative solutions to complex issues.

EXPERIENCE
37 years

EDUCATION
- Master of Commerce in Economics, University of Sydney, Australia
- Post-graduate studies: Environmental Economics, University of Central Florida;
- Bachelor of Science Accounting, Economics University of Tampa

PROFESSIONAL AFFILIATIONS
- Leadership Florida Class XXXI
- American Applied Economics Association
- Association of Environmental and Resource Economists

RELATED EXPERIENCE

Roadmap to Resiliency, Florida Department of Transportation, District One - Project Manager for analysis of all FDOT assets that may be vulnerable to sea level rise and climate-induced hazards. Analysis included evaluating riverine areas in inland counties for tidal interactions, GIS analysis of roadway, drainage system, and bridge data, and assessment of combined King Tide, hurricane and climate model impacts. Using existing data to manage District costs, prepared technical memorandum including policy recommendations, operational implications, and suggested data collection going forward to maintain current information on District vulnerability.

Coastal Resiliency Management Alternatives for Martin and Okaloosa Counties, Cost-Benefit Analysis, FDEO - Project Manager. Evaluated the costs and benefits of alternative adaptation strategies for coastal resiliency. Economic principles were used to develop pilot policies for managing and mitigating issues related to coastal resiliency suitable for the counties' comprehensive plans. Parcel-level analysis estimated the change in relative benefits from different policy alternatives over time and calculated the value of incentives necessary to successfully implement specific policies. Analysis included property values, impacts on public infrastructure and natural resources. NOAA Funded, the final deliverable was intended to be a template transferrable to all coastal Florida counties.

Vulnerability Assessment Phase I & II, Nassau County - Project Manager for FDEP-funded vulnerability assessment for this coastal county. Evaluated topographic, demographic and land use data to identify communities at risk from multiple scenarios of flood risk due to storm surge, sea level rise, or altered hydrology. Led public meetings and directed GIS map production to show vulnerable populations, properties and businesses.

Economic Valuation for the Coastal Heartlands National Estuary Program, CHNEP- Principal for this economic valuation of CHNEP's 6,800 square mile area (including Lee County). Tasks included stakeholder input and data collection to support economic and fiscal impact analysis, and cost-benefit analysis of case study restoration projects. Estimated economic values for tourism, recreational spending, commerce including fisheries and agricultural production, property values, values of conservation lands, as well as associated tax revenues.

Patrick Kaimrajh, P.E.
Principal Engineer

Hire Date: 10/03/2011
Years with other firms: 3

Education
Bachelor of Science, Civil Engineering, University of Miami, 2010

Registration
Professional Engineer, Florida, 78535, 2015

Professional Affiliations
American Society of Civil Engineers
American Water Works Association
Florida Engineering Leadership Institute
Florida Engineering Society
University of Miami Civil Engineering Industry Advisory Board
Urban Land Institute

Awards
2017-2018 Miami-Dade ASCE Engineer of the Year

Patrick is Director of Land Development/Principal Engineer for CMA and specializes in leading and managing civil engineering design, permitting, and construction oversight. Patrick has worked for a variety of public sector clients at the City, County and State level, as well as private development clients in commercial, hospitality, healthcare, industrial, mixed-use, and residential market sectors. Land development involves numerous engineering specialties to transform a plot of land into a built environment. Patrick has the expertise needed to complete complex land development projects. His experience includes preparation of final design packages including paving, grading, drainage collection systems with controlled outfalls and injection wells in coastal areas, water distribution systems, wastewater collection systems and lift stations, pavement marking and signage, traffic control and phasing, and erosion and sediment control plans.

Project Experience

Miami Beach Sunset Islands 3 & 4 ROW Improvement Program. Ric-Man International. CMA provided civil engineering and landscape architecture for the utility infrastructure and roadway reconstruction of two islands (Sunset Islands 3 and 4) off the Miami Beach west coast, along the inter-coastal waterway. The project was publicly bid as a design-build and funded by the City of Miami Beach. It required coordination with various agencies including the City of Miami Beach, the Miami-Dade Water and Sewer Department, the Miami-Dade Public Works Department, the Miami-Dade Regulatory and Economic Resources Department and others. The project consisted of the replacement of 8" potable water mains, the lining of existing sanitary sewer mains, a completely new storm water drainage system, including discharge pumps and outfalls, the undergrounding of all existing overhead utilities, new service connections to all properties, complete roadway reconstruction and grading with new pavement section and curb, landscaping, signage and striping.

CERP FL Keys Ridal Restoration. Florida Department of Environmental Protection. The project consists of two (2) proposed tidal connections between Florida Bay and the Atlantic Ocean via culverts crossing Overseas Highway (US Highway 1), located within the City of Marathon in Monroe County, Florida. The first location is Unnamed Creek between Fat Deer Key and Long Point Key, south of Mile Marker 56 (width 450 feet) and the second location is a tidal connection adjacent to Little Crawl Key (width 300 feet). CMA served as a subconsultant to Cummins Cederberg, as the civil engineer and landscape architect of record.

D-16 & D-18 Pump Station Rehabilitation. Town of Palm Beach. The CMA team provided civil, mechanical, electrical, and structural engineering design and permitting services for the rehabilitation of the existing D-16 and D-18 stormwater pump stations at the western ends of Jungle Road and El Brillo Way. CMA also provided a detailed structural analysis and provided repair recommendations for adjacent concrete facilities and developed a modification to the trash grate within the wet well to reduce the difficulty of maintenance access.

Killian Park Road Stormwater Improvements. Village of Pinecrest. The Village of Pinecrest contracted CMA to review an existing residential area along Killian Park Road from SW 110 Street to SW 112 Street after receiving reports from residents concerning stormwater/flooding problems. Chen Moore and Associates conducted an analysis of the project area and designed and permitted improvements to meet the Village Level of Service for Stormwater. CMA also assisted the Village throughout the bidding process and selection of a contractor, field observations during construction and close out of the project for the proposed improvements.

chen moore and associates

Daniela Martinat, P.E.
Project Engineer

Hire Date: 04/06/2021
Years with other firms: 5

Education
Bachelor of Science, Civil Engineering, Florida Atlantic University, 2015

Registration
Engineer In Training, Florida, 1100019751, 2016
Professional Engineer, Florida, 93311, 2022

Professional Affiliations
American Society of Civil Engineers

Daniela is a Project Engineer for CMA's engineering team and has experience working on various aspects of civil engineering design, plan preparation, permitting efforts, scheduling project activities, and construction oversight while leading complete project design teams. Her experience includes utility coordination; site grading; pavement analysis, water distribution systems; sanitary sewer collection systems; lift station design; stormwater management system and drainage analysis; roadway design; maintenance of traffic and phasing; pavement marking; signage; and erosion control. She prepares project scope, budget, schedule, reviews and approves meeting agendas, minutes, and estimates of probable costs. She oversees the permitting processes, coordinates with all agencies and responds to comments and request for information. She is responsible for integrating the internal quality control process including review of all contract documents for compliance with industry and engineering standards.

Project Experience

Colonial Club Condominium Association Drainage Improvements. Colonial Club Condominium. The Colonial Club Condominium property has had flooding issues since the replacement of the seawall, likely due to the elimination of seepage through the previous bulkhead. CMA designed and oversaw construction of a stormwater management system to collect, treat and discharge the excess runoff and provide flood protection to the community.

Davis Road Stormwater Improvements - Canal Road to 10th Avenue North. Village of Palm Springs. CMA provided engineering design services to improve the level of service of the drainage in this area. Flooding currently occurs along Andros Road between Tortuga Road and Davis Road, and along Davis Road, south of Andros Road during storm events. The project included rehabilitating the existing swales and retrofitting the existing outfalls to Lake Worth Drainage District L-11 Canal and Sago Park Lake. For this project, a hydrologic and hydraulic (H&H) model was developed of the stormwater management system to determine the improved flood protection of different proposed conditions. To verify the model. The existing condition was simulated and compared to historical observations of flooding. After validation a suite of alternative scenarios was developed to compare design alternatives. The most preferred design was selected as the basis of design for the proposed stormwater improvements.

Intracoastal Waterway 16-in I.D. Force Main Crossing. City of Riviera Beach Utility District. The City's 2013 Water and Wastewater Master Plan identified the need for redundancy in the sewer system and recommended the installation of a 16-inch inside diameter (I.D.) force main crossing the Intracoastal Waterway. The design also proposes interconnecting two lift stations for redundancy. It is estimated that the project will consist of approximately 5,500 LF of 16-inch I.D. force main installed via horizontal directional drill and 6,300 LF of 16-inch I.D. force main installed via open cut. The scope of services includes benthic, bathymetric and topographic survey, geotechnical investigation, subsurface utility exploration, and a Basis of Design Report to identify design parameters, property availability, route analysis, regulatory agency criteria, and construction considerations. The remaining scope of services includes design, permitting, bidding assistance and construction administration.

El Portal Stormwater Improvements. Village of Tequesta. CMA is providing design engineering services for drainage improvements along El Portal Drive between Fariview West and Country Club Drive. Proposed improvements include upgrades to existing grassed swales and installation of stormwater infrastructure including culverts and inlets to provide positive drainage connections to the existing stormwater management system.

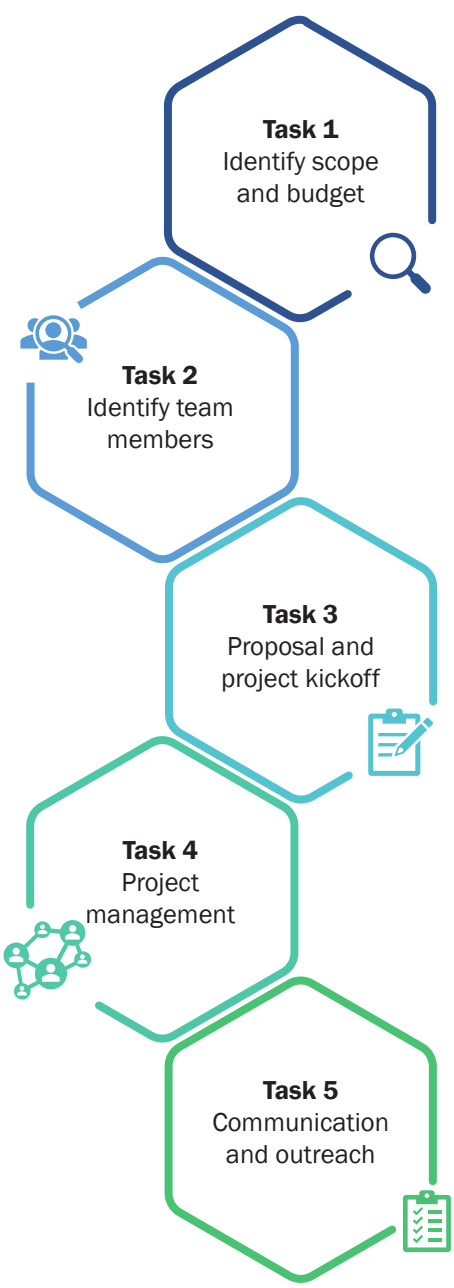
Project Approach

03. PROJECT APPROACH

General Approach

Our general approach utilizes a dynamic team of technical staff including coastal engineers, marine structural engineers, marine scientists, land-use attorneys, economists, civil engineers, and regulatory experts to meet the District's needs, as well as coastal resiliency specialists with a long history working with Captivans to ensure that the project, goals, methodologies, and conclusions are understood and supported by community stakeholders.

Our team is prepared to assist the District to develop the Captiva Bayside Adaptation Plan, and ensuring it complies with all technical and funding standards, while maintaining regulatory agency requirements. The Cummins Cederberg team will be an extension of the District and is committed to assisting in all aspects of project management from initial kickoff meetings to project closeout. Our team management process will be used for managing and integrating all activities associated with each task utilizing the following detailed 5-step approach:



Task 1: Identify scope and budget. The first step will include early communications with the District to gain a full understanding of the scope of the project. We will work with the District to identify the project needs in order to develop the scope, qualifications, staffing, and budget estimate for each task along with potential phasing. Developing a full understanding of the needs of the project early on will help to avoid change orders as the project progresses and schedule overruns.

Task 2: Identify team members. Upon approval of the project scope by the District, we will immediately coordinate with the team (e.g., coastal engineering, environmental services, land use, economics) to select appropriate team members and staff to fulfill the requirements of each task. Our goals during this step are to identify the best suited personnel to address the task at hand, as well as to provide a highly responsive team who can conduct the requested work within the District's desired timeframe and budget to meet the grant requirements.

Task 3: Proposal and project kickoff. Upon authorization to proceed, we will schedule a project kickoff meeting and immediately notify the District to discuss the project assignment and to develop and issue scopes of work for each subconsultant to clearly define the roles, responsibilities, project objectives, schedules, and expected deliverables for each team member. Effective channels of communication will be established, including points of contact and procedures for feedback.

Task 4: Project management. As part of overall project management, our team will obtain regular progress updates from our subconsultants and provide progress reports to the District as needed or as determined during project kickoff. We will regularly coordinate with the District to monitor the progress of individual tasks and will communicate often with District staff to ensure our team is meeting

or exceeding the level of quality and responsiveness the District expects. We will communicate frequently with the District to confirm our team is compliant with established procedures.

Task 5: Communication and reporting. To maximize the effectiveness of the project and gain public support for the plan, our team will develop presentations and outreach programming to engage with local stakeholders and community members. These programs will address the various adaptation strategies to address sea level rise, storm surge, and other long-term impacts identified during previous efforts; the challenges faced in the decision-making process; and the reasoning that informed the conceptual design concepts in the form of costs and benefits to the local environment and economy.

Quality Assurance and Control

Our quality management philosophy is focused on essential elements including customer satisfaction, management responsibility, continuous improvement, and proactive prevention (instead of reaction). We believe Project Management and Quality Management should complement each other as they work together. We have developed basic principles that guide our approach to quality management of our project deliverables throughout the project lifecycle.

As a top priority for Cummins Cederberg, quality drives our overall project management approach. Jason Cummins, PE, will serve as QA/QC Manager and will ensure each team member follows proven quality protocols. He will coordinate overall QA/QC, review project QA/QC plans, and review and verify satisfactory QA/QC procedures. He will also be responsible for working with Danielle Irwin, who will serve as Project Manager, to ensure said QA/QC procedures are being followed by all members of the team, including subconsultants.

With several former regulators on staff, who bring unmatched insight into the environmental regulatory permitting process, including senior staff from the FDEP and the USACE, we have an unmatched understanding of the State and Federal rules and regulations, and their application to complex coastal and marine projects, including adaptation plans. Through environmental permitting due diligence, our regulatory experts will review the overall concepts and individual project components to evaluate their feasibility and confirm they are not only permittable, but also ensure a streamlined permit process when eventually submitted to the regulatory agencies. Each concept will be evaluated to ensure they clearly address the project's goals and applicable rules and regulations to include avoidance, minimization, and compensation of any impacts to aquatic functions and values.

Ground Truthing

Ground truthing in the context of addressing sea level rise and coastal resilience involves a multifaceted technical approach. It is understood the scope of this RFQ is not a peer review of the work by others (e.g., APTIM); however, some level of ground truthing can be completed to provide an additional level of comfort to the District and local stakeholders that the Captiva Bayside Adaptation Plan is formed on a sound foundation. For example, water levels published for nearby communities can be reviewed to compare water levels and the latest NOAA sea level rise projections can be reviewed to determine if changes have been made. Discussions with Public Works can be held to discuss recent grade changes, large erosion events, beach nourishments, and similar projects that would result in variations from the most-recent LiDAR data (circa 2018) and current conditions. Further, resampling and analysis of LiDAR data can be completed to identify existing seawall cap elevations using remote methods so detailed field surveys are not needed to save project budget. Cummins Cederberg completed this exercise for the City of Hollywood to simulate inland inundation on a parcel-by-parcel basis.

Acknowledgment Statement

Cummins Cederberg has read the details of the Request for Qualifications and background documents, including existing reports such as the Sea Level Rise Vulnerability Analysis (APTIM, 2023), Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022), and the Phase I Legal Memorandum (Erin Deady, Date Unknown). We understand the project's scope of work and goals both in the short- and long-term. We have reviewed the stated project schedule for the services included in the RFQ and will work with the District and local community stakeholders to complete the project by November 30, 2024.

Technical Approach

The Cummins Cederberg team of engineers, scientists, and additional technical staff are familiar with the flooding issues Captiva is facing and understand the technical expertise required to develop a comprehensive Adaptation Plan for the priority areas identified on the bay side. Many of our subconsultants have also gained direct experience working with us on coastal resiliency projects including the City of Hollywood Tidal Flood Mitigation and FDOT D1 Roadmap to Resiliency.

As a leader in the resiliency and adaptation plan space in the State of Florida, Cummins Cederberg will leverage our experience produce a list of prioritized bayside adaptation areas. Using our experience developing resiliency roadmaps for all of Miami-Dade County's waterfront parks, we understand the need to prioritize and phase individual components of an adaptation plan.

For example, improvements to a fire station before raising the road providing access to the fire station would result in inaccessibility during an extreme event. Understanding how disparate elements of community work together is vital to developing a comprehensive plan.

The following summarizes our technical approach to servicing this adaptation plan and describes how the Cummins Cederberg team will assist the District with each area of the scope of work described under this RFQ.

Kick off and Project Steering Committee

Upon contract award, Cummins Cederberg will meet with District staff to understand project goals, confirm schedule and budget, establish a key list of stakeholders and determine an appropriate public outreach approach as needed (while not explicitly required in the Grant Work Plan, this is a component generally favored by the Resilient Florida Grant Program). We believe the key to success for any project is COMMUNICATION, which begins at project start! During this meeting, we will establish regular biweekly progress meetings with District staff and the Project Steering Committee to understand their specific concerns for the Adaptation Plan.

As part of the kickoff meeting discussion, we will also identify available data to be provided by the District, such as GIS asset data, and discuss any notable areas where flooding is prevalent not previously identified. Additionally, we will review the Grant Agreement and Grant Work Plan as well as attachments between FDEP and the District to provide full support from our Grant Administration team. **Notably, our grants team has secured over $45M in grant funding for our municipal and local government clients – among which our firm is actively managing over $60M.**

Additionally, our team is intimately familiar with the Resilient Florida grant program – among others – and we have applied, negotiated, and managed them, including Resilient Florida grants for nearly 5 years (before the program name changed to Resilient Florida). **We can seamlessly support the District's needs to ensure the project is executed in accordance with the grants so as to not only jeopardize current funding, but also bolster the District's opportunity for future funding.**

Acquire Background Data

Cummins Cederberg will research and compile the data needed to develop the Adaptation Plan. We will identify existing data to avoid duplicative efforts and data gaps or data of low quality. New data collection efforts will be initiated to obtain the most recent and best available data, including but not limited to:

- Topographic/Bathymetric survey data within the City and in the nearshore
- GIS asset data including elevation certificates, as-built plans, and relevant building permits within the municipal boundary
- Marine resource surveys to map mangroves and submerged resources (e.g., seagrass, corals)
- Existing utility layout to avoid conflicts with proposed works
- Existing construction easements to facilitate access

Public-Private Implementation Analysis

Cummins Cederberg will evaluate ownership issues which may arise based on the ownership status of each parcel. An initial review of the Phase 1 Legal Memorandum (Erin Deady, Date Unknown) appears to indicate the District has broad authority to implement measures on public and private land provided they are "considered erosion prevention... and are necessary or useful in the protection of the lands." Therefore, it appears the District has flexibility in the Adaptation Plan.

We will work with our internal expert on Sovereign Submerged Lands and land use attorney (Akerman)

to review the preliminary legal opinion and complete a thorough evaluation of the concepts, both structure-based and policy-based, to ensure they align with the District's goals and expectations. For example, the District and stakeholders may need to consider obtaining construction easements to allow construction on private property or perpetual easements to allow the District to access private property for ongoing maintenance due to long-term deterioration, sea level rise, or storm damage.

New construction could also change access, so ADA requirements are no longer met if not considered in the design. The Adaptation Plan may include incentives for private homeowners to complete projects or work together with adjacent parcels to form more continuous and consistent shoreline treatments. This strategy may create more cost savings throughout the project lifecycle for private homeowners as well as, potentially, the District. Our experience with the City of Hollywood's Tidal Flood project will be leveraged as Cummins Cederberg supported the City navigating the legal basis for installing tidal flood barriers on land leased to private homeowners that required demolition of the private docks.

Adaptation Plan

Cummins Cederberg will work with the District to develop a comprehensive Captiva Bayside Adaptation Plan that outlines and expands up short-, intermediate-, and long-term strategies identified in the Sea Level Rise Vulnerability Analysis (APTIM, 2023) and Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022) for implementation in order to reduce or mitigate flood risks. The Adaptation Plan will consider local and regional goals to ensure the proposed island-wide strategies align rather than contradict with regional stakeholder initiatives.

Additionally, the Adaptation Plan will be consistent with the Florida Adaptation Planning Guidebook. The Plan will include an assessment of adaptive capacities for each publicly owned critical and regionally significant asset, develop prioritization of adaptation needs within each critical asset class, and identify a matrix of adaptation strategies. Our team will also evaluate potential focus areas and adaptation action areas as necessary, conduct additional stakeholder engagement and integrate this adaptation and resiliency plan into other existing City and County Planning documents, including but not limited to the Lee County Code of Ordinances and Comprehensive Plan.

Adaptation to coastal erosion and sea level rise along the bayside of Captiva will require multiple approaches over time as **no one category or specific adaptation strategy is considered the "best" option forever.** Uncertainties in the timing of storm waves occurring at high tides, the increase of water levels in the future, and projected extents of future coastal erosion and inundation, require consideration of feasible adaptation strategies over both short- and long-term time scales with an adaptation pathways approach.

An adaptation pathway helps visualize the sequences of possible adaptation responses through time in a stepwise manner. Each modification is designed to meet a certain performance level over a period of time, and once a threshold is reached where the results are no longer acceptable, a transition to another strategy or modification of the existing strategy is required. Before this point is reached, planning should be undertaken to identify possible triggers and anticipate the lag times associated with outreach, permitting, design, and construction. Due to the uncertainty over future physical conditions, natural variability, and changing societal values, adaptation pathways should remain flexible.

The moment of an adaptation tipping point or trigger helps identify when a change in path is necessary; however, not all actions can be implemented at once. As a result, trigger points are used that are hindcast from a potential tipping point, providing lead time for permitting and other considerations. Adaptation plans that utilize selected triggers in a robust manner are important for facilitating planning, which incorporates the inherent uncertainty and risk surrounding the effects of sea level rise and climate change hazards on coastal areas.

Public Outreach Meetings

Cummins Cederberg has extensive experience with public outreach meetings and communicating technical concepts to non-technical audiences. As a mid-sized firm, we have the experience of working not only with large municipalities but also with single-family homeowners and multi-family HOAs, which uniquely positions us to understand the individual needs of a community. Also, our size allows our principals to be involved and provide rapid decision making on issues that may affect the community or the project.

We will leverage our experience in communications and outreach strategy to present a unified message and solicit and consider public input. Our staff are experts in gathering community support and building public will around projects while providing low-cost, high-quality outreach programming. We will work with the District to

ensure public meetings are designed to solicit feedback and engage the community early on in the planning and conceptual design process. Events are streamlined so residents can provide feedback and make their concerns known in a short period of time, allowing them to get back to their homes and families.

We can also collaborate with the District, residents, and local stakeholders, including the Captiva Community Panel, Sanibel-Captiva Conservation Foundation, and City of Sanibel, to collaborate to determine the highest priority concerns from both quantitative and qualitative perspectives. This process can be used in any community engagement process to prioritize community desires across multiple public meetings and stakeholder engagements and inform the design decisions that will affect the community's quality of life.

Cummins Cederberg will strive to effectively communicate the many aspects of the plan and concepts therein. We prioritize communicating the factors considered with each strategy and concept, specifically the permitability, function, cost-effectiveness, fundability, and environmental impact. We have done this previously by creating a matrix of potential adaptation options to clearly present the information in a graphical form. We will be sure to explain Florida's unique challenges with regard to sea level rise, including storm surge, porous limestone, leaching septic tanks, ecosystem health, and an aging infrastructure, which creates a complex web of interconnected systems that must be considered fully to effectively and responsibly implement any project.

Engineering Report with Conceptual Adaptation Drawings

Cummins Cederberg will prepare a comprehensive engineering report detailing the finding of each task. The report will serve as the foundational document to manage resiliency for Captiva through the end of the century. We recognize that the infrastructure and policy changes implemented now must consider current needs and future conditions. A detailed description of the adaptation strategy for critical and other assets, or portions thereof, will be included.

As part of the report, conceptual adaptation drawings will be developed and be consistent with an approximate 30%-level design. Each concept will be drawn to scale and consider zoning setbacks, water levels, protection levels, typical engineering design principals, adjacent marine resources, and constructability. The conceptual plans will be signed and sealed by a Florida-registered Professional Engineer. Cummins Cederberg will utilize our in-house database of costs for similar marine works to develop Rough Order of Magnitude (ROM) Opinions of Probable Costs (OPC) for each concept to support planning and future grant funding endeavors. A field reconnaissance program will be developed, which will include site visits by a Cummins Cederberg engineer to document the existing conditions, potential challenges, and to support conceptual design.

Project Schedule

The District's timeline in the short- and long-term must be considered with each task. While short-term efforts are well defined and governed by the grant, long-term efforts, including infrastructure and planning changes, must be implemented with urgency to increase the resiliency of Captiva. A preliminary timeline for each subtask to meet the District's timeline for the project relative to the established grant deadlines can be found in Tab 5.

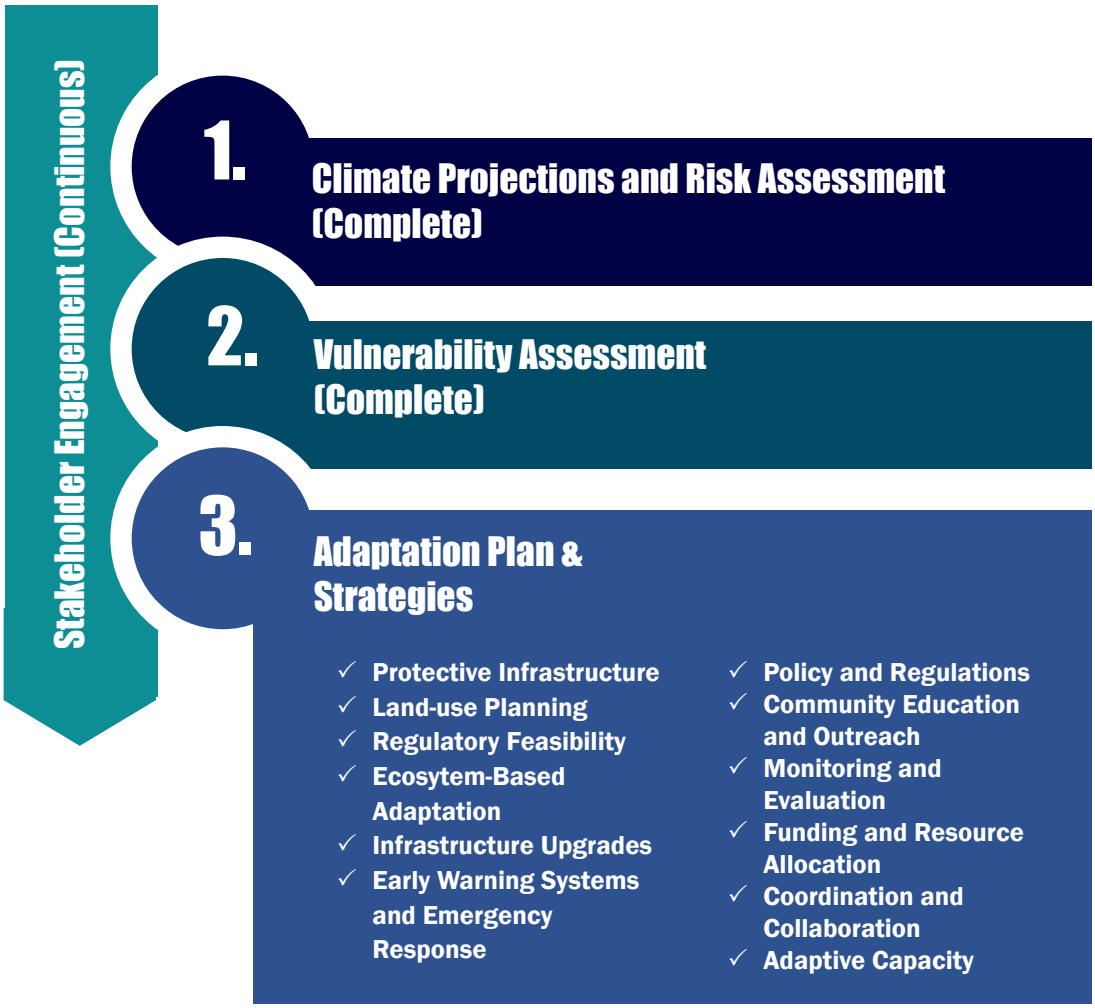
Innovative Methods or Concepts

Cummins Cederberg developed a database for the FDEP of state-permitted living shorelines from 2010 – Present. We will leverage this proprietary knowledge base to develop and propose living shorelines that have been successfully permitted in Florida to avoid proposing a non-feasible solution. To build out this database we led meetings with each agency and their office of technology/IT department as needed to ensure the data complies with agency standards. Upon completing this project, we presented the FDEP with a GIS geodatabase with metadata, the living shoreline permit database, maps and charts summarizing the living shoreline project information, and contact information from our outreach efforts. While building out the database, team members attended Florida Sea Grant's Marine Contractor Living Shoreline Training Course to better understand not only how to permit the shorelines, but to develop a hands on approach to the construction side to ensure our designs are buildable.

Other Information

04. OTHER INFORMATION

A) Understanding of Adaptation Plans and the creation of related goals, objectives, and policies.
Adaptation plans are essential strategies aimed at mitigating the impact of sea level rise and increased flooding from hurricanes. These plans are developed to protect communities, infrastructure, and ecosystems from the adverse effects of climate change. Adaptation plans must consider many interconnected components to arrive at feasible goals, meet plan objectives, and create policies that balance protection with continued community enjoyment. While developing adaptation plans for other municipalities, the Cummins Cederberg has identified the following key considerations that must be assessed and evaluated carefully and thoroughly to meet the Adaptation Plan's intent:



B) Firm's experience and understanding of adaptation planning for both public and privately-owned shorelines and sovereign submerged lands.
The Cummins Cederberg team is uniquely positioned to address the inevitable challenge of adaptation planning for both public and privately-owned shorelines and sovereign submerged lands. We have direct experience with similar issues from our work on the City of Hollywood Tidal Flooding project, which included the City building tidal flood barriers along City-owned parcels. As we worked through permitting and design, the City discovered that private homeowners had leased the area immediately waterward of the City-owned parcels to build private docks. As a result, the City-built tidal flood barriers would restrict the access to the private docks used by the homeowners immediately upland on the other side of the right-of-way. Early engagement and education of the private homeowners was required to explain the

project, specifically the benefit provided by the barriers relative to upland flooding. Also, Cummins Cederberg supported the internal City counsel to provide technical assistance through the process. The Cummins Cederberg team includes experts on Sovereign Submerged Lands issues relative to adaptation planning. The in-water improvements we have permitting and designed for the City of Hollywood, Jose Marti Park in Miami, Currie Park in West Palm Beach, and The Bay in the City of Sarasota required careful evaluation of sovereign submerged lands and proximity to Federal channels (i.e., Intracoastal Waterway) and aquatic preserves.

C) Firm's understanding of Engineering Reports and the creation of conceptual design drawings.
Engineering reports and the creation of conceptual design drawings are essential components of the design and development process. Both play a crucial role in the successful planning, development, and execution of our engineering projects. With a keen focus on adaptation and its far-reaching implications, our team excels in crafting reports that meticulously analyze the dynamic coastal environment, predicting future scenarios and vulnerabilities. Most importantly, our experience working for myriad public and private clients allows us to understand that a technical report must communicate technical ideas and concepts to a non-technical audience. Reports serve as a written record and communication tool, while conceptual design drawings provide a visual representation of initial design ideas. Also, Jason Cummins, one of our founders and principal engineers, will be serving as QA/QC Manager to ensure all work products a of the utmost quality and meet the District's expectations. We also recognize that the Engineering Reports are frequently living documents that are modified as future conditions and needs are encountered; therefore, we write our engineering reports in way that allows for these changes to easily be incorporated.

Our conceptual design drawings will provide a comprehensive and systematic presentation of technical information related to infrastructure projects presented in the Adaptation Plan. They play a crucial role in documenting, analyzing, and communicating the various aspects of a project including layout, scale, and aesthetics. Conceptual design drawings will show our visual representation of the adaptation design ideas and facilitate decision making by both the District and local community. They are typically created during the early stages of the project, before detailed design and engineering work begins, and can be updated as the project progresses. Our extensive work for private homeowners and developers has shown us the importance of realistic conceptual designs as a non-technical audience may not fully grasp a technical engineering drawing.

D) Firm's understanding and experience identifying and assessing nature-based solutions and hybrid (green-grey) adaptation strategies with respect to projected climate change impacts, including flooding impacts such as coastal tidal flooding, sea level rise (SLR), and coastal erosion.
Cummins Cederberg understands that implementing nature-based solutions and adaptation strategies to mitigate flooding impacts due to climate change is a holistic and interdisciplinary process that requires collaboration between engineers, environmental specialists, policymakers, and the local community. The goal is to enhance resilience and reduce the risks associated with sea level rise, coastal erosion, and other flooding events while preserving and restoring natural ecosystems. Identifying the suitability of nature-based solutions for each priority area is of paramount importance to ensure the treatment for each area or parcel is effective and functional during normal and extreme events. Cummins Cederberg will work with the District to conduct a thorough review of each concept and policy change at a broad and granular level to meet the project goals.

Our team has led several of the most significant ongoing or implemented sea level rise adaptation projects in Florida. We have developed executable resiliency roadmaps for many communities including seven Miami-Dade County's waterfront parks plans (+2,000 acres), which are currently in various stages of implementation. For the City of Hollywood, we are leading their $26M shoreline adaptation project in the Lakes neighborhood, which is significantly exposed to tidal flooding and subject to Florida Resiliency grant deadlines and reporting requirements. We also supported the City with review and implementation of their recently adopted seawall ordinance. At Jose Marti Park in the City of Miami, we led the waterfront design, providing the City with a toolbox of shoreline stabilization options ranging from living shoreline, rock revetment, and a recently permitted living seawall. For the Town of Bay Harbor Island, we performed inspections for the entire Town-wide shoreline to develop a GIS inventory with an evaluation of sea level rise exposure. The outcome of this project directly resulted in updates to the Town's Stormwater Masterplan.

E) Firm's familiarity with non-structural strategies such as best management practices, proposed ordinance changes, etc.

The Cummins Cederberg recognizes that achieving resiliency through adaptation requires a multi-pronged approach. In addition to engineering solutions, a suite of best management practices (BMPs) should be developed to complement physical changes. Cummins Cederberg always looks to enhance or expand planting areas to not only reduce wave energy and provide shoreline stabilization, but also to provide habitat and a more natural aesthetic. Further, we have developed maintenance plans for these areas to maintain their health and function. The Captiva Bayside Adaptation Plan will require review and potential changes to the stormwater management within the City. Specifically, BMPs may include re-locating equipment where accessibility is guaranteed if maintenance is regularly needed and inundation is possible, or to build redundant systems. Other potential BMPs for consideration include maintaining accurate as-built drawings so lost, damaged, or inaccessible equipment can be located and identified.

Cummins Cederberg provided a technical review of the Broward County model ordinance for tidal flooding to provide recommendations and modifications to ensure the model ordinance was consistent with the local municipality and their specific needs. We reviewed the Broward County Model Ordinance, the City of Hollywood draft Ordinance, other municipal seawall ordinances within and outside of Broward County, and additional code reviews requested by the City. We conducted research, outreach to other municipalities, outreach and interviews with leading experts, attendance at public meetings, policy-level engineering reviews, consolidation of findings, and formulation of recommendations.

F) Firm's completed projects for clients in the United States, Florida, in the Southwest region of the United States, on islands including barrier islands, and for state and local governmental clients.

The Cummins Cederberg team has worked extensively on adaptation and resiliency projects throughout Florida and the United States, including projects in South Padre Island, TX; Captiva, FL; Naples, FL; multiple locations in CA; and Seaside, OR. Our focus is on the waterfront, almost exclusively on work along the Intracoastal Waterway, Atlantic Ocean, Gulf of Mexico, and the barrier islands in between. We understand that challenges of work on barriers islands including exposure on multiple sides, proximity to inlets, exclusive neighborhoods, and construction challenges due to limited access. More than half of our work is for state and local governments, so we understand the specific internal and external requirements of these projects.

Most recently, Cummins Cederberg completed a Coastal Asset Management Plan for all of FDOT District 1, which includes the City of Captiva. This is the first district wide sea level rise analysis for FDOT in Florida. The scope included creation of future tidal projections based on evaluating historical tidal measurements and the expected impact of climate change to sea level rise, local to District 1, until the year 2100. These projections were applied in a water level analysis to identify critical low-lying infrastructure throughout the district that is at risk to sea level rise and storm surge. Mitigation concepts were then developed which included designs for harmonization to roadway surroundings, natural or developed, along with the roadway improvements to assist neighboring adaption.

G) Describe any additional value-added benefits your firm/organization can offer the District not enumerated in the scope of work, submittal requirement responses or evaluation criteria.

The Cummins Cederberg team will provide a comprehensive suite of service to the District to support the current RFQ as well as future phases of the Project as Captiva moves to become a more resilient community. In addition to the services outlined in the RFQ, we can provide access to the following value-added benefits, which may improve the Adaptation even further:

Marine Inspections

The District and many private homeowners utilize coastal structures to stabilize and protect their shorelines on both the Gulf of Mexico and Pine Island Sound (i.e., bayside) waterfront through a combination of revetments and seawalls, in addition to traditional beach nourishment undertaken by the District. The maintenance of these structures can significantly extend their service life and reduce capital costs incurred by owners to replace these expensive structures. Cummins Cederberg is unique in Florida by bringing expertise in both coastal engineering and structural engineering. We are capable of fielding two OSHA-compliant dive teams to conduct underwater investigations of coastal structures. Our staff includes eight engineer-divers, seven of which are registered Professional Engineers in Florida. As the District moves forward with the Captiva Bayside Adaptation Plan project, many Captivans may argue that their

private structures do not need improvement. The District, through potential ordinance changes, may elect to require private structures be assessed by a Professional Engineer with coastal structure to determine if these structures are structurally sound and provide the level of protection required of the Plan. Implementation of a periodic maintenance program consisting of routine above- and underwater structural investigations could provide the District and private homeowners with valuable information. Cummins Cederberg can assist the District to develop and implement this management program, which could also include a plan for post-storm assessments of these assets.

Drones/Aerial Photography

The use of aerial photography provides an invaluable tool to observe changes to Captiva's coastline and upland areas. Cummins Cederberg owns and operates an Unmanned Aerial Vehicle (UAV), or drone, which we routinely use to collect data (e.g., photography, elevations) along the shoreline and in other difficult to access locations for our projects. We could deploy our drone to rapidly assess shoreline changes after a coastal storm, monitor shoreline improvement construction progress, evaluate king tide inundation relative to projections, or to supplement aerial photography efforts by other entities. Our technical staff includes three Federal Aviation Administration (FAA) certified remote pilots for small, unmanned aircraft systems (i.e., drone pilot) who can not only efficiently operate the drone, but are familiar with the legal requirements for filing a flight plan with the FAA and applying for the appropriate permits to work in Captiva's airspace.

Cummins Cederberg utilizes UAV's for surveying shoreline and dune systems

Bathymetric LiDAR Mapping

The US Army Corps of Engineers periodically collects elevation data after storm events (i.e., hurricanes) to document shoreline erosion. As the District has come to understand through management of Gulf-side beaches, this data proves valuable to document shoreline changes and erosion. There are two primary limitations with the status quo: timing and depth. The Corps only mobilizes their LiDAR equipment after a storm and may not reflect current conditions of the island. Through Cheryl Hapke's firm, Fugro, the District has access to the new RAMMS (Rapid Airborne Multibeam Mapping System) technology, which could deployed more frequently than the Corps' schedule. RAMMS is a new bathymetric lidar system that delivers industry-leading depth penetration and point densities for nearshore and coastal mapping in turbid waters. Using this data would provide the District with the most current data to support planning and design as part of this project.

H) Proposer shall provide any additional project experience that will give an indication of the Proposer's overall abilities.

The Cummins Cederberg includes Dr. Cheryl Hapke, who will serve as Community Liaison for this project, and brings extensive experience working on Captiva and is familiar with needs of the District and Captivans. In 2021-2022, she led a team of scientists in the development of a series of conceptual nature-based adaptation designs for five Captiva bayside priority areas identified by the community based on the sea level rise vulnerability assessment her team completed in 2020. The first stage was to evaluate each area for exposure to waves and tidal currents, availability of space to accommodate the adaptation strategy, the current land use, and the gradient. The second stage involved the development of potential design elements for each of the areas. This included an extensive literature review of a variety of adaptation design elements successfully implemented in similar subtropical estuarine environments and focused on nature-based solutions to adhere to Captiva's Community Plan. The study resulted in a conceptual nature-based adaptation strategy design for each of the five typical priority areas, consisting of a combination of design elements optimal to that particular area, that takes into consideration efficacy, costs, and sustainability in their formulation. The project was undertaken in close consultation with the Captiva Sea Level Rise Committee, and the results were presented to the Captiva Community Panel, the Captiva Erosion Prevention Board, and at a broader community meeting on the island.

In 2019-2020, on behalf of the Captiva Sea Level Rise Committee, Dr. Hapke led a team of scientists in the assessment of the vulnerabilities of different community sectors to high tide inundation including sea level rise on Captiva Island. The assessment included acquisition and review of sea level rise data for a range of future scenarios; acquisition

and review of publicly accessible GIS data for relevant asset sectors; and analysis and mapping of existing and future vulnerabilities for relevant community sectors over time using best available data. The assessment clearly identified that the bayside of Captiva was the most vulnerable, especially by the time sea levels rise 2 ft. In addition, Dr. Hapke served as the coastal science subject matter expert to the Captiva Sea Level Rise committee, including attending monthly meetings and providing scientific advice.

In 2023, the Corps re-opened the Collier County Coastal Storm Risk Management Plan for review. On behalf of the Conservancy for Southwest Florida, Dr. Hapke led a team of scientists in the development of a series of nature-based strategies to be proposed as alternatives to the gray and hard features being proposed by Corps. For the Naples Bay region, the team developed conceptual nature-based solutions as a comprehensive and integrated system designed to work together whilst benefiting the ecosystem. The team created artistic renderings of the alternative strategies that clearly communicated the function and appearance of the portfolio of options to be used in both internal discussion as well as for external communication at community meetings. The team provided a powerful communication tool kit to demonstrate the benefits of nature-based solutions not only for the natural environment but also for community infrastructure.

I) If the Proposer will require any other information from the District not included in this Request for Proposal or require from the District any information in a particular computerized format in order to carry out the Scope of Services in Section 3, the Proposer shall also include such requirement in this section, i.e. Tab 4.

The Cummins Cederberg team will research and compile the data needed to develop the adaptation plan as outlined in the scope of work to identify data gaps and avoid duplicative data collection efforts. In addition to thoroughly reviewing existing reports such as the Sea Level Rise Vulnerability Analysis (APTIM, 2023), Captiva Island Vulnerability Assessment and Adaptation Plan (Brizaga, 2022), and the Phase I Legal Memorandum (Erin Deady, Date Unknown), Cummins Cederberg will review existing data used to support previous studies or infrastructure projects. Specific data requests of the District may include digital copies of surveys, GIS shapefiles/geodatabses of critical assets, and historical maps/aerial photographs. Further, historical versions of ordinances, environmental/building permits, and copies of the grant applications will be requests to provide a comprehensive product. A preliminary review of existing elevation data indicates the most recent available LiDAR elevation data is from 2018 (Pre-Hurricane Ian) and may not be indicative of existing conditions. The Cummins Cederberg team could potentially deploy subconsultant Fugro's RAMMS system to collect current Captiva-specific elevation data to provide the most current baseline for conceptual design.

J) If the Proposer cannot fully comply with any of the terms contained in the draft contract, shown in Section Two, all deviations to the terms must be spelled out in this section, i.e. Tab 4. This is particularly important for the timely completion and submission of deliverables to meet the schedules in the grants.

Cummins Cederberg will comply with the terms and conditions listed in the draft contract shown in section two of the RFQ. We recognize the sensitivity of the grant funding and commit to the timely completion and submission of deliverables to meet grant schedule deadlines.

Cost Breakdown Across Tasks/Schedule

05. COST BREAKDOWN ACROSS TASKS & SCHEDULE

Project Timeline		2023							2024					
Task	**Budget Allocation**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**
1. Kickoff and Project Steering Committee	**$10,000**													
1.1 Project Kickoff Meeting		■	■											
1.2 Monthly Progress Meetings		■	■	■	■	■	■	■	■	■	■	■	■	■
2. Acquire Background Data	**$20,000**													
2.1 Compile Background Data and Identify Gaps			■	■										
2.2 Review & Process Existing Topo/Bathy Data				■	■									
2.3 Prepare Technical and Summary Reports				■	■	■								
3. Public-Private Implementation Analysis	**$30,000**													
3.1 Strategic Analysis of Adaptation Strategies					■	■								
3.2 Develop Standards and Evaluatoin Criteria						■	■							
3.3 Analysis and Findings Report						■	■	■						
4. Adaptation Plan	**$200,000**													
4.1 Prioritizations and Strategy Idenitfication							■	■						
4.2 Prioritize Projects for Asset Classes							■	■						
4.3 Feasibility Study and Policy Recommendations							■	■	■					
4.4 Development of Adaptation Pathways								■	■	■				
4.5 Final Adaptation Plan									■	■	■			
5. Public Outreach Meetings	**$40,000**													
5.1 Public Outreach					■	■	■	■	■	■	■			
6. Engineering Report with Conceptual Adaptation Drawings	**$200,000**													
6.1 Develop Conceptual Designs								■	■	■	■			
6.2 Narrative for Designs										■	■	■	■	
6.3 Engineering Report											■	■	■	■

06. CORPORATE INFORMATION

1. List of officers and directors of the entity.
Jannek Cederberg, PE
Jason Cummins, PE

2. The number of years the entity has been operating.
13 years

3. The number of years the entity has been operated under its present name.
13 years

4. Answers to the following questions regarding claims and suits:

a) Has the person, principals, entity, or any entity previously owns, operated or directed by any of its officers, major shareholders or directors, ever failed to complete work or provide the goods for which it has contracted?
No

b) Are there any judgments, claims, arbitration proceeding or suits pending or outstanding against the person, principal of the entity, or entity, or any entity previously owned, operated or directed by any of its officers, directors, or general partners?
No

c) Has the person, principal of the entity, or any entity previously owned, operated or directed by any of its officers, major shareholders or directors within the last five (5) years, been a party to any lawsuit, arbitration, or mediation with regard to a contract for services, goods or construction services similar to those requested in the specifications with private or public entities?
No

d) Has the person principal of the entity, or any entity previously owned, operated or directed by any of its officers, owners, partners, major shareholders or directors, ever initiated litigation against previous clients or been sued by previous clients in connection with a contract to provide services, goods, or construction services? If yes, provide details; e) Whether, within the last five (5) years, the owner, an officer, general partner, principal, controlling shareholder or major creditor of the person or entity was an officer, director, general partner, principal, controlling shareholder or major creditor of any entity that failed to perform services or furnish goods similar to those sought in the request for competitive solicitation.
No

f) Credit References:

CPA:

Brian Misiunas
bmisiunas@psms-cpa.com
Haller Robbins Epelbaum Misiunas, LLC
3444 Main Highway
Second Floor
Miami, Florida 33133
305/858-5800

Banker:

Max Vazquez
Senior Vice President
Regional Branch Manager
First National Bank of South Florida
5750 Sunset Drive
S. Miami, Florida 33143
305/662-5447

Insurance Broker:

Patricia Lane Schmaltz
Executive Vice President
Lassiterware
1300 North Westshore Blvd.
Suite 110
Tampa, Florida 33607
800/845-8437

g) Financial Statements for the prior three years for the responding entity

Please see separate file.

District-required Documents

07. CERTIFICATE
OF INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/26/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Wendy Tyree		
LassiterWare LLC	PHONE (A/C, No, Ext): (800) 845-8437	FAX (A/C, No): (888) 883-8680	
1300 N. Westshore Blvd.	E-MAIL ADDRESS: wendyt@lassiterware.com		
Suite 110	INSURER(S) AFFORDING COVERAGE		NAIC #
Tampa FL 33607	INSURER A: American Casualty Co-Reading		20427
INSURED	INSURER B: Continental Insurance Company		35289
Cummins Cederberg, Inc.	INSURER C: Benchmark Ins Co		41394
201 Alhambra Circle, Suite 601	INSURER D: Pacific Insurance Company Ltd		10046
	INSURER E :		
Coral Gables FL 33134	INSURER F :		

COVERAGES | CERTIFICATE NUMBER: 23-24 Cert | REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	☒ COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	☐ CLAIMS-MADE ☒ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 15,000
				7034507431	09/26/2023	09/26/2024	PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	☐ POLICY ☒ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	☒ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS			7034507445	09/26/2023	09/26/2024	BODILY INJURY (Per accident)	$
	☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
							PIP-Basic	$ 10,000
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	Y / N					☒ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N	N/A	MWC2200075-01	09/26/2023	09/26/2024	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
D	Professional Liability / Pollution Incident Liability (Claims-Made)			OH046445623	09/30/2023	09/26/2024	Each Claim	$2,000,000
							Aggregate	$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
~Evidence of Insurance c/o Cummins Cederberg, Inc. 201 Alhambra Circle, Suite 601 Coral Gables FL 33134	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Alicia Anne Schmidt

ACORD 25 (2015/03) The ACORD name and logo are registered marks of ACORD

BUSINESS
TAX RECEIPT

City of Sarasota Local Business Tax Division
City Hall Annex Bldg.
1565 1st Street
Sarasota, FL 34236
Phone: (941) 263-6469
Fax: (941) 954-4178

October 18, 2023

Cummins Cederberg Inc
Attn: Monica Nuevo
201 Alhambra Cir Suite 601
Coral Gables, FL 33134

RE: Local Business Tax Receipt Approval and Balance Due Notice

Dear Monica Nuevo:

You are hereby notified that your application for a Local Business Tax Receipt has been approved for the address below but the outstanding fees have not been paid.

Name: **Cummins Cederberg Inc**
DBA: **Cummins Cederberg Inc**
Address: **1491 2nd St Suite E**
City, State Zip: **Sarasota, FL 34236**

To complete processing of your application, all fees must be paid in full. The balance due on your application is $71.85. Payment may be rendered by Check or Money Order made payable to City of Sarasota Local Business Tax Division.

You may also pay for your application electronically through the City of Sarasota Local Business Tax Division Portal. A link to this portal is located on our website: https://ftgportal.sarasotafl.gov/. If you cannot find your Tax Receipt listed, select the "Can't find your existing application listed?" option. Then enter your Application ID: 2024-0075789 and your Phone Number: (305)741-6155 to access your application.

Should you have any questions, please feel free to contact this office.

Thank you,

City of Sarasota Local Business Tax Division

Application ID: 2024-0075789

003349

Local Business Tax Receipt

Miami–Dade County, State of Florida

–THIS IS NOT A BILL – DO NOT PAY

LBT

6603626

BUSINESS NAME/LOCATION
CUMMINS CEDERBERG INC
201 ALHAMBRA CIR STE 601
CORAL GABLES FL 33134–5199

RECEIPT NO.
RENEWAL
6874342

EXPIRES
SEPTEMBER 30, 2024
Must be displayed at place of business
Pursuant to County Code
Chapter 8A – Art. 9 & 10

OWNER
CUMMINS CEDERBERG INC
C/O JANNEK CEDERBERG, PRES

Employee(s) 1

SEC. TYPE OF BUSINESS
212 P.A./CORP/PARTNERSHIP/FIRM
EB29062

PAYMENT RECEIVED BY TAX COLLECTOR
$45.00 07/27/2023
FPPU06–23–004156

This Local Business Tax Receipt only confirms payment of the Local Business Tax. The Receipt is not a license, permit, or a certification of the holder's qualifications, to do business. Holder must comply with any governmental or nongovernmental regulatory laws and requirements which apply to the business.

The RECEIPT NO. above must be displayed on all commercial vehicles – Miami–Dade Code Sec 8a–276.

For more information, visit www.miamidade.gov/taxcollector

BUSINESS LICENSE

THE OFFICIAL SITE OF THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION

ONLINE SERVICES

- Apply for a License
- Verify a Licensee
- View Food & Lodging Inspections
- File a Complaint
- Continuing Education Course Search
- View Application Status
- Find Exam Information
- Unlicensed Activity Search
- AB&T Delinquent Invoice & Activity List Search

LICENSEE DETAILS

9:25:01 AM 8/16/2023

Licensee Information

Name:	**CUMMINS CEDERBERG, INC. (Primary Name)**
Main Address:	**201 ALHAMBRA CIRCLE SUITE 601 CORAL GABLES Florida 33134**
County:	**DADE**

License Information

License Type:	**Engineering Business Registry**
Rank:	**Registry**
License Number:	**29062**
Status:	**Current**
Licensure Date:	**04/02/2010**
Expires:	

Special Qualifications	Qualification Effective

Alternate Names

View Related License Information
View License Complaint

State of Florida
Department of State

I certify from the records of this office that CUMMINS CEDERBERG, INC. is a corporation organized under the laws of the State of Florida, filed on March 16, 2010, effective March 17, 2010.

The document number of this corporation is P10000023540.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on January 24, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twenty-first day of February, 2023

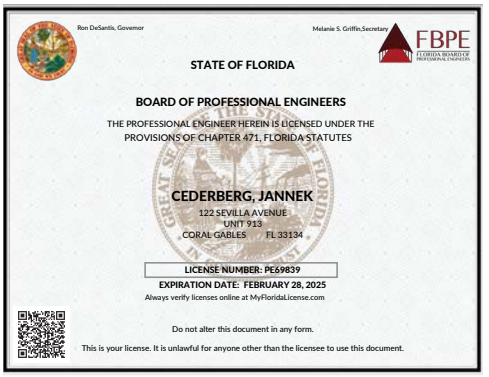
Secretary of State

Tracking Number: 9507709380CU

To authenticate this certificate,visit the following site,enter this number, and then follow the instructions displayed.

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

CUMMINS | CEDERBERG
Coastal & Marine Engineering


Ron DeSantis, Governor
Melanie S. Griffin,Secretary
FBPE
STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
CEDERBERG, JANNEK
122 SEVILLA AVENUE
UNIT 913
CORAL GABLES FL 33134
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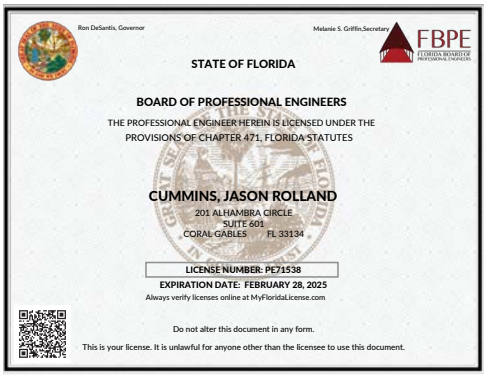
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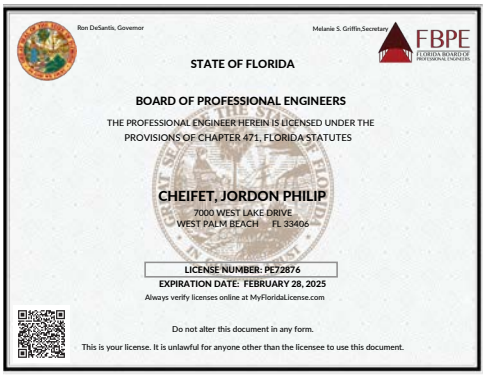
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WEST PALM BEACH FL 33406
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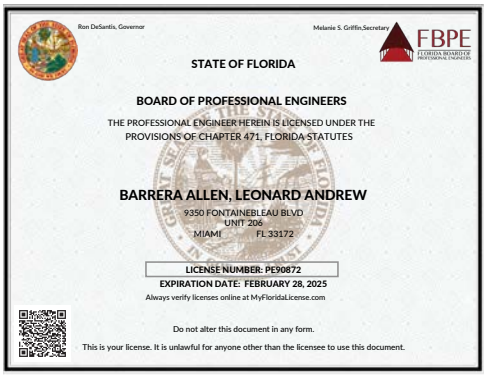
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BARRERA ALLEN, LEONARD ANDREW
9350 FONTAINEBLEAU BLVD
UNIT 206
MIAMI FL 33172
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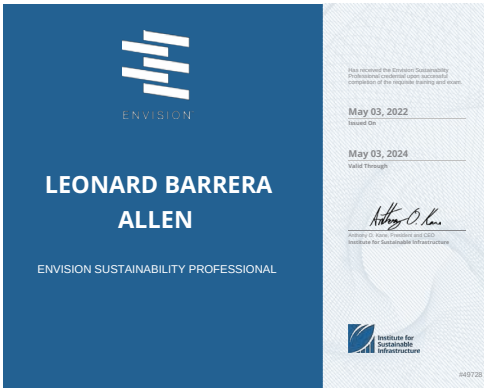
FLOODPLAIN MANAGERS, INC.
CERTIFICATION BOARD OF REGENTS
Jordon P. Cheifet, CFM
ASFPM CERTIFIED FLOODPLAIN MANAGER

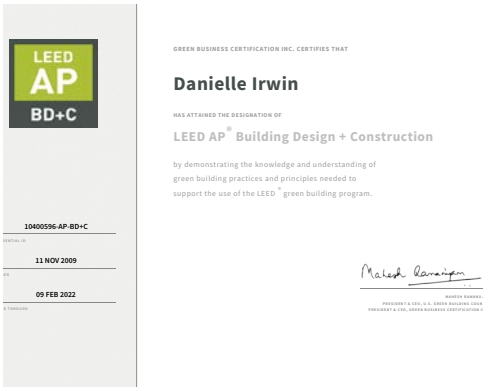

ASSOCIATION OF STATE
FLOODPLAIN MANAGERS, INC.
CERTIFICATION BOARD OF REGENTS
Leonard A. Barrera Allen, CFM
ASFPM CERTIFIED FLOODPLAIN MANAGER


ASSOCIATION OF STATE
FLOODPLAIN MANAGERS, INC.
CERTIFICATION BOARD OF REGENTS
Danielle H. Irwin, CFM
ASFPM CERTIFIED FLOODPLAIN MANAGER


ASSOCIATION OF STATE
FLOODPLAIN MANAGERS, INC.
CERTIFICATION BOARD OF REGENTS
Katie Britt Williams, CFM
ASFPM CERTIFIED FLOODPLAIN MANAGER

CUMMINS | CEDERBERG
Coastal & Marine Engineering



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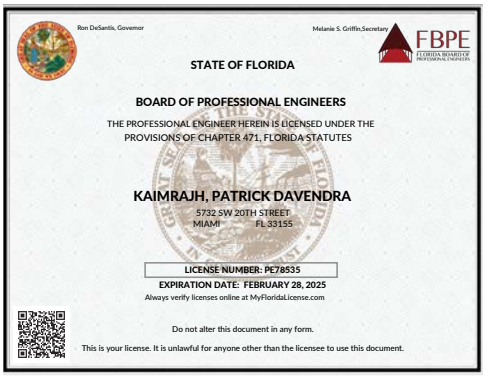
3:09:10 PM 6/25/2021
Search for a Licensee
Apply for a License
View Application Status
Find Exam Information
File a Complaint
AB&T Delinquent Invoice & Activity List Search
Licensee Details
Licensee Information
Name: CUMMINS CEDERBERG, INC. (Primary Name)
Main Address: 7550 RED ROAD SUITE 217 SOUTH MIAMI Florida 33143
County: DADE
License Mailing:
LicenseLocation:
License Information
License Type: Registry
Rank: Registry
License Number: 29062
Status: Current
Licensure Date: 04/02/2010
Expires:



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Melanie S. Griffin,Secretary

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STATE OF FLORIDA

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THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

KAIMRAJH, PATRICK DAVENDRA

5732 SW 20TH STREET
MIAMI FL 33155

LICENSE NUMBER: PE78535

EXPIRATION DATE: FEBRUARY 28, 2025

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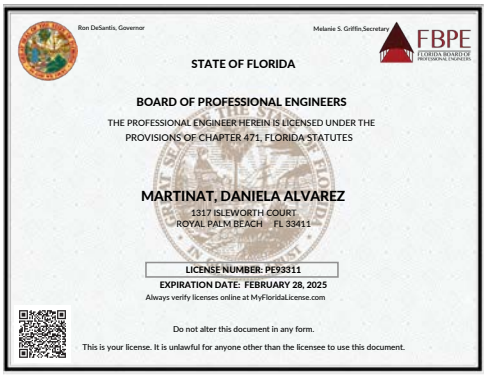

Ron DeSantis, Governor

Melanie S. Griffin,Secretary

FBPE

FLORIDA BOARD OF PROFESSIONAL ENGINEERS

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

MARTINAT, DANIELA ALVAREZ

1317 ISLEWORTH COURT
ROYAL PALM BEACH FL 33411

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Office of the Captiva Erosion Prevention District
11513 Andy Rosse Lane, Unit 4
P.O. Box 365
Captiva, Florida 33924
(239) 472-2472
mycepd@mycepd.com
www.mycepd.com

Captiva Erosion Prevention District Annual Meeting Schedule 2024

Regular Board Meetings

Location: Captiva Civic Association, 11550 Chapin Lane Captiva, Florida 33924 at 1 p.m.

January 8th
February 12th
March 11th
April 8th
May 13th
June 10th
July 8th
August 12th
September 9th
October 7th
November 4th
December 9th

Workshop Meetings*

Every Thursday at 1 p.m. at 11513 Andy Rosse Lane Unit 4 Captiva, Florida 33924
Virtual access provided for the public
*Subject to cancellation