

CORRECTED

7/31/2018

City of Naples  
c/o Stephanie Molloy; Natural Resource Manager  
295 Riverside Circle  
Naples, Fl. 34102  
[smolloy@naplesgov.com](mailto:smolloy@naplesgov.com)

Permit Number: 0345034-002 EM  
Modification of Permit Number 0345034-001 EI

Ms. Molloy:

Your request to modify the Permit No. 0345034-001 EI has been received and reviewed by Department staff.

The proposed permit modification is to:  
Reconfigure the layout of a previously authorized oyster restoration reef and change material type from shell in bags to a combination of shell in bags, loose shell and limestone rock.

After review by staff, the proposed modification is not expected to adversely affect water quality and will not be contrary to the public interest.

Modifications to the permit are shown as follows: deletions are struck through (i.e. ~~abc~~) and additions are underlined (i.e. abc).

The permittee is authorized to conduct oyster habitat restoration through the placement of: (1) bagged shell, loose shell and limestone rock as specified in the attached revised designs ~~in~~ approximately 4' x 4' pods having a maximum height of 5 feet, spaced at a minimum of 16 feet ~~apart~~; (2) three 150' x 13' reef ball wave attenuation structures to be placed at Site 1; and (3) navigational warning signs and public educational signs at each site. The project will be located within Naples Bay, Class II Waters, Unclassified for Shellfish Harvesting and Rocky Creek, Class III Waters. Authorized activities are depicted on the attached exhibits.

3 project drawings have been added 3 project drawings have been voided

Since the proposed modification(s) along with the above amended permit conditions and monitoring requirements are not expected to result in any adverse environmental impact and water quality degradation, the permit is hereby modified as requested. By copy of this letter and the attached drawings, we are notifying all necessary parties of the modification.

**This letter does not alter the permit other than as described above. This letter and referenced enclosures must be attached to the original permit. A copy of the original permit can be obtained here:**

[https://depdms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&\[guid=23.398631.1\]&\[profile=Permitting\\_Authorization\]](https://depdms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=23.398631.1]&[profile=Permitting_Authorization])

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

#### Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rule 28-106.201, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any email address, any facsimile number, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General

Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Thank you for applying to the Submerged Lands and Environmental Resource Permit Program. If you have any questions regarding this matter, please contact Jon Guinn by telephone at (239) 344-5650 or by e-mail at [Jonathan.Guinn@floridadep.gov](mailto:Jonathan.Guinn@floridadep.gov) When referring to this project, please reference the file number listed above.

Executed in Orlando, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Jon M. Iglehart  
Director of District Management  
South District

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this document and authorization to use sovereignty submerged lands, including all copies, were sent to the addressee and to the following listed persons:

U.S. Army Corps of Engineers, Fort Myers Office, [fdep.other@usace.army.mil](mailto:fdep.other@usace.army.mil)  
Collier County Property Appraiser, [dstaruch@collierappraiser.com](mailto:dstaruch@collierappraiser.com)  
FWC, Imperiled Species Management Section, [fwcconservationplanningservices@myfwc.com](mailto:fwcconservationplanningservices@myfwc.com)

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to Section 120.52(7), F.S., with the designated Department clerk, receipt of which is hereby acknowledged.



Clerk

July 25, 2018

Date

**Enclosures:**

3 New Project drawings  
13 Original Permit Drawings

# NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS

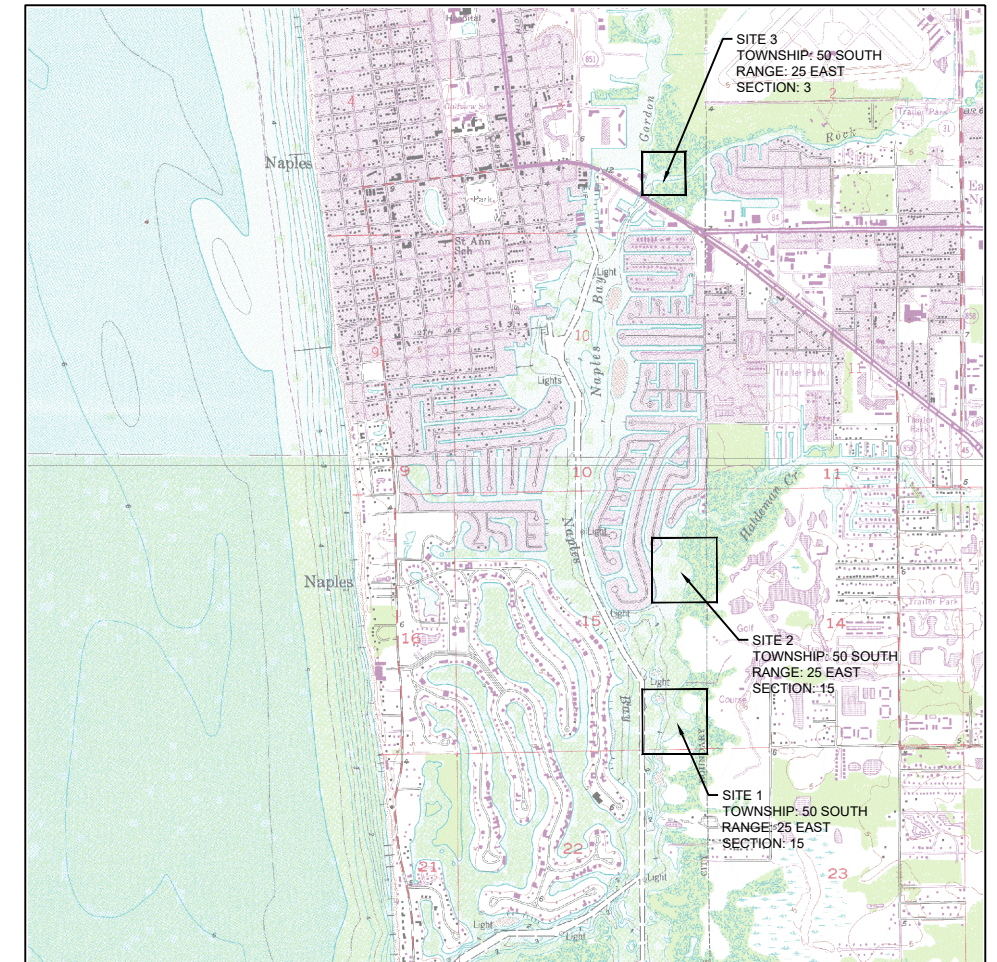
CITY OF NAPLES, COLLIER COUNTY, FLORIDA

90% SUBMITTAL  
PERMIT APPLICATION  
PURPOSES ONLY  
NOT FOR  
CONSTRUCTION



## DRAWING INDEX

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- C-12 USCG SIGNAGE DETAILS
- C-13 EROSION & SEDIMENT CONTROL DETAILS



VICINITY MAP  
1" = 2,000' (22x34)  
1" = 4,000' (11x17)

LOCATION MAP  
N.T.S.



Always call 811 two full business days before you dig



 <b>TAYLOR ENGINEERING INC.</b> 10151 DEERWOOD PARK BLVD. BLDG. 300, SUITE 300 JACKSONVILLE, FLORIDA 32256 (904)-731-7040 1675 PALM BEACH LAKES, SUITE 210 WEST PALM BEACH, FLORIDA 33401 (561)-640-7310 CERTIFICATE OF AUTHORIZATION # 4815	PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR REVIEW.	SEAL  90% SUBMITTAL PERMIT APPLICATION PURPOSES ONLY NOT FOR CONSTRUCTION  CLIFFORD L. TRUITT P.E. # 21194
	PROJECT TITLE  NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS CITY OF NAPLES, COLLIER COUNTY, FLORIDA	
PROJECT NO C2015-037	DATE AUGUST 2016	

**PROJECT NOTES**

DEFINITIONS

1. **OWNER:** CITY OF NAPLES AND THE ENTITY UNDER CONTRACT WITH THE CONTRACTOR TO PERFORM THE WORK.
2. **ENGINEER:** OWNER'S DESIGNATED REPRESENTATIVE FOR CONSTRUCTION INSPECTION AND OVERSIGHT.
3. **ENGINEER OF RECORD (EOR):** ENGINEER WHOSE NAME AND SEAL IS AFFIXED TO THE DRAWINGS AND SPECIFICATIONS.
4. **RECORD DRAWINGS:** RECORD DRAWINGS SHALL BE DEFINED AS A COPY OF THE ORIGINAL SIGNED AND SEALED DRAWINGS KEPT ONSITE AT ALL TIMES WHERE THE CONTRACTOR SHALL KEEP A RECORD OF ALL DEVIATIONS FROM THE ORIGINAL DRAWINGS MARKED IN RED PENCIL OR PEN.
5. **U.N.O.:** UNLESS NOTED OTHERWISE

PROJECT NOTES:

1. ALL ELEVATIONS SHOWN ARE IN FEET AND REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. HORIZONTAL COORDINATES ARE BASED ON STATE PLANE COORDINATE SYSTEM FOR THE EAST ZONE (901) OF FLORIDA NAD 83/90.
3. BATHYMETRIC SURVEYS CONDUCTED ON MARCH 2016 BY DaGOSTINO & WOOD, INC. THE INFORMATION DEPICTED ON THESE DRAWINGS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATIONS OF GENERAL CONDITIONS EXISTING AT THAT TIME.

GENERAL NOTES

1. THE CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE PRIOR TO INITIATING ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL STRUCTURES, OYSTER REEFS AND EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION TOGETHER WITH CITY OF NAPLES TO ENSURE PUBLIC AND PRIVATE SAFETY IN AND AROUND THE CONSTRUCTION SITE.
4. THE CONTRACTOR SHALL PLACE WARNING BUOYS AND SIGNS INDICATING THE AREAS AND LIMITS OF CONSTRUCTION.
5. THE CONTRACTOR SHALL COORDINATE WORK HOURS WITH OWNER TO MEET PROJECT SCHEDULE REQUIREMENTS.
6. THE CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS AND SHALL KEEP A RECORD OF ALL DEVIATIONS FROM THE ORIGINAL DRAWINGS MARKED IN RED PENCIL OR PEN. THE RECORD DRAWINGS SHALL BE KEPT ONSITE AND SHALL BE AVAILABLE FOR INSPECTION BY THE ENGINEER.
7. WHEN ALL SUBSTANTIAL WORK IS DONE AND BEFORE NOTICE OF FINAL COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUBMIT THE ORIGINAL RECORD DRAWINGS TO THE ENGINEER AND UP TO 5 FULL SIZE OR REDUCED SIZE COPIES AS REQUESTED BY THE ENGINEER.
8. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK FOR INSPECTION BY THE ENGINEER, REGULATORY AGENCIES, AND OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE ENGINEER AS NECESSARY FOR CONSTRUCTION INSPECTION AND AS-BUILT CERTIFICATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT APPROPRIATE AND APPROVED TIMES DURING THE COURSE OF THE WORK THAT THE CONTRACTOR IS READY FOR INSPECTION. WORK THAT IS ASSEMBLED OR COVERED SO THAT THE ENGINEER CANNOT INSPECT THE WORK PROPERLY SHALL BE DISASSEMBLED, UNCOVERED, OR DESTROYED AS NECESSARY FOR INSPECTION. THE COSTS OF REPAIR OR RESTORATION OF THIS WORK SHALL BE BORNE SOLELY BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL PROVIDE PERSONNEL AND EQUIPMENT FOR ENGINEER TO INSPECT AND INQUIRE ABOUT THE WORK. THIS MAY INCLUDE PROJECT MANAGERS, SUPERINTENDENTS, FOREMAN, LABORERS, LADDERS, HARD HATS, LIFTS, SCAFFOLDING, MEASURING DEVICES, SURVEY EQUIPMENT, LIFE JACKETS, ETC.
11. THE CONTRACTOR SHALL WARRANT THE WORK FOR A MINIMUM OF ONE YEAR UNLESS CLEARLY DEFINED OTHERWISE IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL DEFECTIVE MATERIALS AND WORK AT NO COSTS TO THE OWNER WITHIN THE STATED WARRANTY PERIOD.
12. ALL PERMANENT MATERIAL SHALL BE NEW, USED, RECONDITIONED, OR REMANUFACTURED MATERIAL SHALL NOT BE ALLOWED UNLESS APPROVED BY THE OWNER IN WRITING.
13. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
14. THE CONTRACTOR SHALL VERIFY THE EXISTENCE OF ALL ABOVE-GROUND, BELOW-GROUND, AND SUBMERGED UTILITIES WITHIN THE SITES. IF ANY UTILITIES ARE FOUND, CONTRACTOR MUST LOCATED & MARK LOCATIONS BEFORE BEGINNING WORK.
15. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT FACILITIES AND STRUCTURES CAUSED BY HIS ACTIVITIES DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL RESTORE ALL SUCH DAMAGES TO THEIR PRE-CONSTRUCTION CONDITION AT NO COSTS TO THE OWNER.
17. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. EROSION CONTROL MEASURES MUST BE IMPLEMENTED PRIOR TO ANY WORK COMMENCING AND BE MAINTAINED FOR THE DURATION OF THE PROJECT AND ONLY REMOVED WHEN ALL CONSTRUCTION AND INSTALLATION OF ALL OYSTER MESH BAGS, REEFBALL UNITS AND FOUNDATIONS FOR REEFBALL UNITS HAS BEEN COMPLETED.
18. THE CONTRACTOR MUST HAVE ALL USCG WARNING SIGNAGE AND ANY OTHER REQUIRED MARKERS, AND WARNING BUOYS IN PLACE BEFORE REMOVING WARNING BUOYS AND SIGNS INDICATING THE AREAS AND LIMITS OF CONSTRUCTION AND EROSION CONTROL MEASURES TO ENSURE THE PUBLIC IS AWARE OF PERMANENT SUBMERGED STRUCTURES WITHIN THE WATERWAYS.

PERMITS AND PERMIT CONDITIONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT SUPPLIED BY THE OWNER. COSTS OF OBTAINING PERMITS NOT SUPPLIED BY THE OWNER SHALL BE BORNE BY THE CONTRACTOR. THIS MAY INCLUDE BUT NOT BE LIMITED TO: NPDES PERMIT (OR NOI), CLEARING OR LAND DISTURBANCE PERMITS, TEMPORARY UTILITIES PERMITS, ETC.
2. UNLESS CLEARLY SPECIFIED OTHERWISE BY THE OWNER IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING ALL NOTICES OF COMMENCEMENTS AND NOTICES OF COMPLETION TO ALL PERMITTING AGENCIES INCLUDING PERMITS SUPPLIED BY THE OWNER.

AS-BUILT SURVEYS

1. UNLESS CLEARLY SPECIFIED OTHERWISE IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL INCLUDE THE COST OF AN AS-BUILT SURVEY IN THE BID PRICE AND SHALL STATE A SEPARATE PRICE FOR AN AS-BUILT SURVEY IN THE BID PRICE. THE AS-BUILT SURVEY SHALL BE SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA AND SHALL SHOW THE LOCATION AND ELEVATION OF ALL CONSTRUCTED OR INSTALLED FEATURES.
2. THE AS-BUILT SURVEY SHALL BE SUBMITTED IN DIGITAL AND 22" X 34" PAPER VERSIONS (UP TO 5 COPIES) TO THE ENGINEER FOR APPROVAL. THE AS-BUILT SURVEY SHALL BE PERFORMED IN THE SAME HORIZONTAL AND VERTICAL COORDINATE SYSTEM THE DRAWINGS ARE IN. DIGITAL DRAWINGS SHALL BE IN AUTOCAD 2008 OR NEWER VERSION.

SUBMITTALS AND TESTING REQUIREMENTS

1. ALL TESTING, EITHER PRE-CONSTRUCTION OR CONSTRUCTION, AS REQUIRED HEREIN OR IN THE CONTRACT DOCUMENTS, SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED TESTING COMPANY. THE COSTS OF ALL SUCH TESTING SHALL BE BORNE BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID PRICE.
2. THE QUALIFIED TESTING AGENCY SHALL BE APPROVED PER FDOT STANDARDS, AASHTO STANDARDS OR SIMILAR SUCH STANDARDS AS APPROVED BY THE ENGINEER. ALL TESTING WORK SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN FLORIDA AND SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IF REQUESTED.
3. UNLESS MODIFIED BY THE CONTRACT DOCUMENTS, SUBMITTALS AND REQUEST FOR INFORMATION SHALL BE SUBMITTED TO THE ENGINEER IN WRITING IN A FORMAT ACCEPTABLE TO THE ENGINEER AND SHALL BE SUBMITTED A MINIMUM OF 6 WORKING DAYS, PREFERABLY 10 WORKING DAYS, BEFORE ACTION IS REQUIRED.
4. ALL REQUIRED SUBMITTALS OR MANUFACTURER'S INFORMATION SHALL BE IN U.S. CUSTOMARY UNITS.
5. ALL SUBMITTALS REQUIRE APPROVAL BY THE ENGINEER U.N.O..
6. SUBMITTALS SHALL INCLUDE UP TO 7 COPIES AS REQUESTED BY THE ENGINEER UNLESS STATED OTHERWISE BY THE ENGINEER .



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 10151 DEERWOOD PARK BLVD.  
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 1675 PALM BEACH LAKES, SUITE 210  
 WEST PALM BEACH, FLORIDA 33401  
 (561)-640-7310  
 CERTIFICATE OF AUTHORIZATION # 4815

SEAL  
 90% SUBMITTAL PERMIT APPLICATION PURPOSES ONLY NOT FOR CONSTRUCTION  
 CLIFFORD L. TRUITT P.E. # 21194

PROJECT TITLE  
**NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS**  
 CITY OF NAPLES, COLLIER COUNTY, FLORIDA



PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR REVIEW.

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2015-037
DATE	AUGUST 2016
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**PROJECT NOTES**

**C-2**  
 SHEET 2 OF 13

REBECCA JOHNSON, 8/24/2016 9:37:09 AM, X:\wp\Projects\C2015037 Naples Bay Oyster Reef\Construction\C2015037-C-OverNotes.dwg



Florida Department of  
Environmental Protection

**Permit Number**  
11-0345034-001  
**South District**  
Fort Myers

**Received  
Electronically**  
Sept 20, 2016  
South District



LIMITS OF REEFBALL WAVE  
ATTENUATION STRUCTURE UNIT  
(TYPICAL)

LIMITS OF OYSTER RESTORATION

MEAN HIGH WATER  
ELEVATION: 0.30' NAVD88'

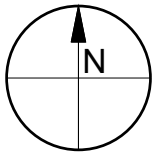
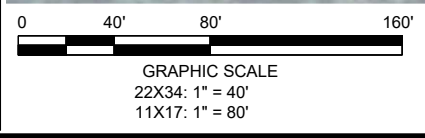
SITE 1  
3.46 ACRES

APPROXIMATE LOCATION OF  
EXISTING OYSTER REEF  
(LIMITS TO BE FIELD VERIFIED)

25' BUFFER

- ▲ CR1
- ▲ CR2
- ▲ CR3
- ▲ CR4
- ▲ CR5
- ▲ CR7
- ▲ CR8
- ▲ CR9
- ▲ CR10

GPS LOCATION LEGEND		
▲ CRX	GPS LOCATION OF CITY REEF	
○ 2.5 TX-X	GPS LOCATION OF MUCK DEPTH TRANSECTS	
	TRANSECT NUMBER	



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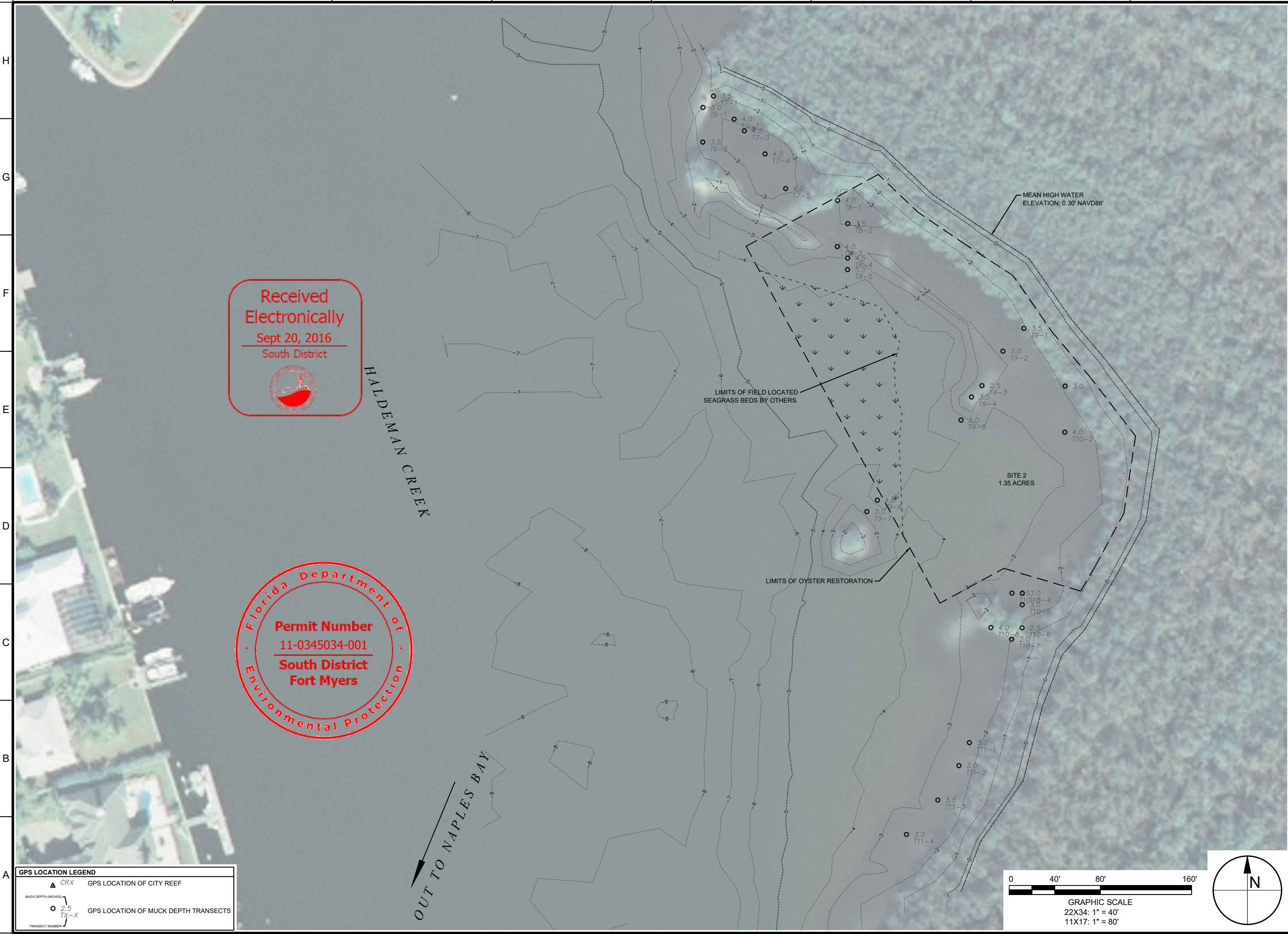
DRAWING TITLE  
**APPROXIMATE  
MUCK DEPTHS  
SITE 1**

**C-4**

SHEET 4 OF 13

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 MUCK DEPTHS  
 SITE 2**

C-5

SHEET 5 OF 13

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



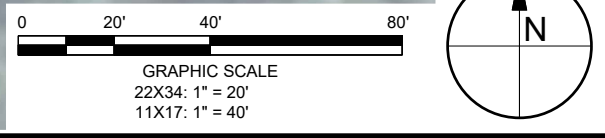
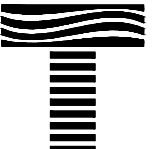
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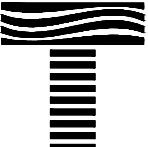
DRAWING TITLE  
**APPROXIMATE  
MUCK DEPTHS  
SITE 3**

**C-6**  
SHEET 6 OF 13

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REEFBALL WAVE ATTENUATION STRUCTURE UNIT LOCATION TABLE

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
101	646967.21	398611.92	REEFBALL UNIT 1
102	646893.91	398596.02	REEFBALL UNIT 1
103	646830.35	398635.84	REEFBALL UNIT 1
104	646837.26	398646.86	REEFBALL UNIT 1
105	646896.33	398609.85	REEFBALL UNIT 1
106	646964.45	398624.62	REEFBALL UNIT 1
201	646781.10	398644.46	REEFBALL UNIT 2
202	646707.80	398628.56	REEFBALL UNIT 2
203	646644.25	398668.38	REEFBALL UNIT 2
204	646651.15	398679.40	REEFBALL UNIT 2
205	646710.22	398642.39	REEFBALL UNIT 2
206	646778.35	398657.16	REEFBALL UNIT 2
301	646595.00	398676.99	REEFBALL UNIT 3
302	646521.70	398661.10	REEFBALL UNIT 3
303	646458.15	398700.92	REEFBALL UNIT 3
304	646465.05	398711.94	REEFBALL UNIT 3
305	646524.12	398674.93	REEFBALL UNIT 3
306	646592.24	398689.70	REEFBALL UNIT 3



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 BLDG. 300, SUITE 300  
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 (904)-731-7040  
 1675 PALM BEACH LAKES, SUITE 210  
 WEST PALM BEACH, FLORIDA 33401  
 (561)-640-7310  
 CERTIFICATE OF AUTHORIZATION # 4815

SEAL

90% SUBMITTAL PERMIT APPLICATION PURPOSES ONLY NOT FOR CONSTRUCTION

CLIFFORD L. TRUITT P.E. # 21194

PROJECT TITLE  
**NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS**  
 CITY OF NAPLES, COLLIER COUNTY, FLORIDA

Always call 811 two full business days before you dig



PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR REVIEW.

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2015-037
DATE	AUGUST 2016
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**SITE PLAN SITE 1**

**C-7**

SHEET 7 OF 13

Received Electronically  
 Sept 20, 2016  
 South District



**VOID**

OYSTER SITE 1 LOCATION TABLE

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
401	646961.49	398644.44	OYSTER SITE 1
402	646900.05	398631.12	OYSTER SITE 1
403	646831.33	398674.17	OYSTER SITE 1
404	646820.45	398724.36	OYSTER SITE 1
405	646793.19	398680.84	OYSTER SITE 1
406	646713.94	398663.66	OYSTER SITE 1
407	646645.23	398706.71	OYSTER SITE 1
408	646634.35	398756.90	OYSTER SITE 1
409	646607.08	398713.38	OYSTER SITE 1
410	646527.84	398696.20	OYSTER SITE 1
411	646461.34	398737.87	OYSTER SITE 1
412	646467.50	398809.32	OYSTER SITE 1
413	646510.76	398856.67	OYSTER SITE 1
414	646508.85	398893.70	OYSTER SITE 1
415	646436.02	398960.23	OYSTER SITE 1
416	646433.54	398981.50	OYSTER SITE 1
417	646401.36	399009.60	OYSTER SITE 1
418	646375.41	399058.13	OYSTER SITE 1
419	646421.65	399106.12	OYSTER SITE 1
420	646460.02	399121.12	OYSTER SITE 1
421	646485.32	399175.59	OYSTER SITE 1
422	646534.81	399158.87	OYSTER SITE 1
423	646567.33	399108.69	OYSTER SITE 1
424	646600.55	399086.28	OYSTER SITE 1
425	646663.55	399066.11	OYSTER SITE 1
426	646692.61	399026.33	OYSTER SITE 1
427	646737.66	398986.48	OYSTER SITE 1
428	646774.46	398934.70	OYSTER SITE 1
429	646830.67	398887.02	OYSTER SITE 1
430	646850.32	398856.66	OYSTER SITE 1
431	646876.39	398800.61	OYSTER SITE 1
432	646887.72	398763.20	OYSTER SITE 1
433	646903.21	398703.49	OYSTER SITE 1
434	646944.25	398700.83	OYSTER SITE 1
435	646968.94	398697.35	OYSTER SITE 1

Florida Department of Environmental Protection

**Permit Number**

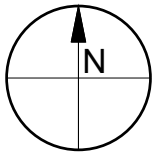
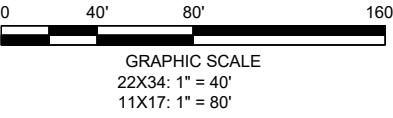
**11-0345034-001**

**South District**

**Fort Myers**


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- NOTES:
- EACH OYSTER CELL/POD SHALL BE 4' WIDE X 4' LONG, SPACED 16' O.C.. EACH ROW OF CELLS/PODS WILL BE STAGGERED.
  - A MINIMUM OFFSET FROM REEFBALL STRUCTURE & MEAN HIGH WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER CELL/POD.



OYSTER SITE 2 LOCATION TABLE			
POINT NUMBER	NORTHING	EASTING	DESCRIPTION
501	649909.25	398801.47	OYSTER SEEDING SITE 2
502	649888.06	398812.99	OYSTER SEEDING SITE 2
503	649869.27	398875.90	OYSTER SEEDING SITE 2
504	649856.47	398918.77	OYSTER SEEDING SITE 2
505	649824.97	398936.34	OYSTER SEEDING SITE 2
506	649807.09	398931.74	OYSTER SEEDING SITE 2
507	649785.21	398932.09	OYSTER SEEDING SITE 2
508	649761.95	398938.16	OYSTER SEEDING SITE 2
509	649737.40	398935.71	OYSTER SEEDING SITE 2
510	649710.56	398936.82	OYSTER SEEDING SITE 2
511	649655.91	398939.10	OYSTER SEEDING SITE 2
512	649596.43	398971.41	OYSTER SEEDING SITE 2
513	649626.98	399027.65	OYSTER SEEDING SITE 2
514	649607.06	399094.95	OYSTER SEEDING SITE 2
515	649675.08	399132.79	OYSTER SEEDING SITE 2
516	649742.92	399143.02	OYSTER SEEDING SITE 2
517	649794.69	399103.13	OYSTER SEEDING SITE 2
518	649833.91	399070.10	OYSTER SEEDING SITE 2
519	649883.67	399035.44	OYSTER SEEDING SITE 2
520	649911.87	398992.21	OYSTER SEEDING SITE 2
521	649938.98	398952.43	OYSTER SEEDING SITE 2
522	649972.26	398917.46	OYSTER SEEDING SITE 2

Received Electronically  
Sept 20, 2016  
South District

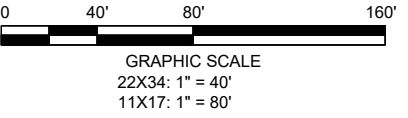


Florida Department of Environmental Protection  
Permit Number 11-0345034-001  
South District Fort Myers

**VOID**

MEAN HIGH WATER LINE  
ELEVATION: 0.30' NAVD88

NOTES:  
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2. A MINIMUM OFFSET FROM MEAN HIGH WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER CELL/POD.




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JACKSONVILLE, FLORIDA 32256  
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CITY OF NAPLES, COLLIER COUNTY, FLORIDA

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NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2015-037
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SCALE	AS SHOWN

DRAWING TITLE

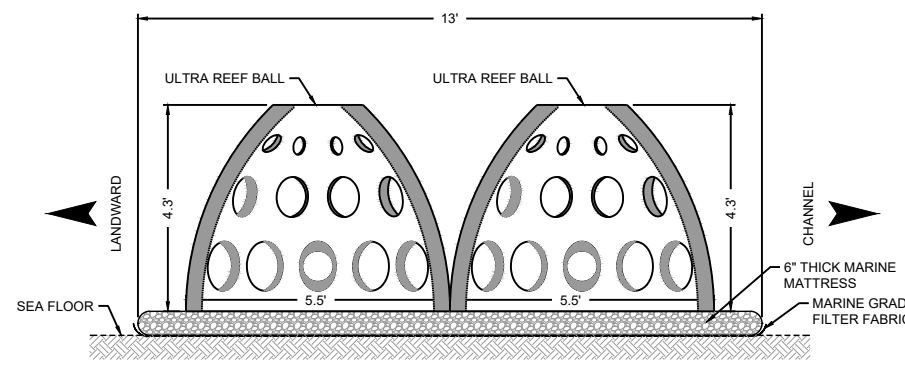
**SITE PLAN SITE 2**

**C-8**

SHEET 8 OF 13

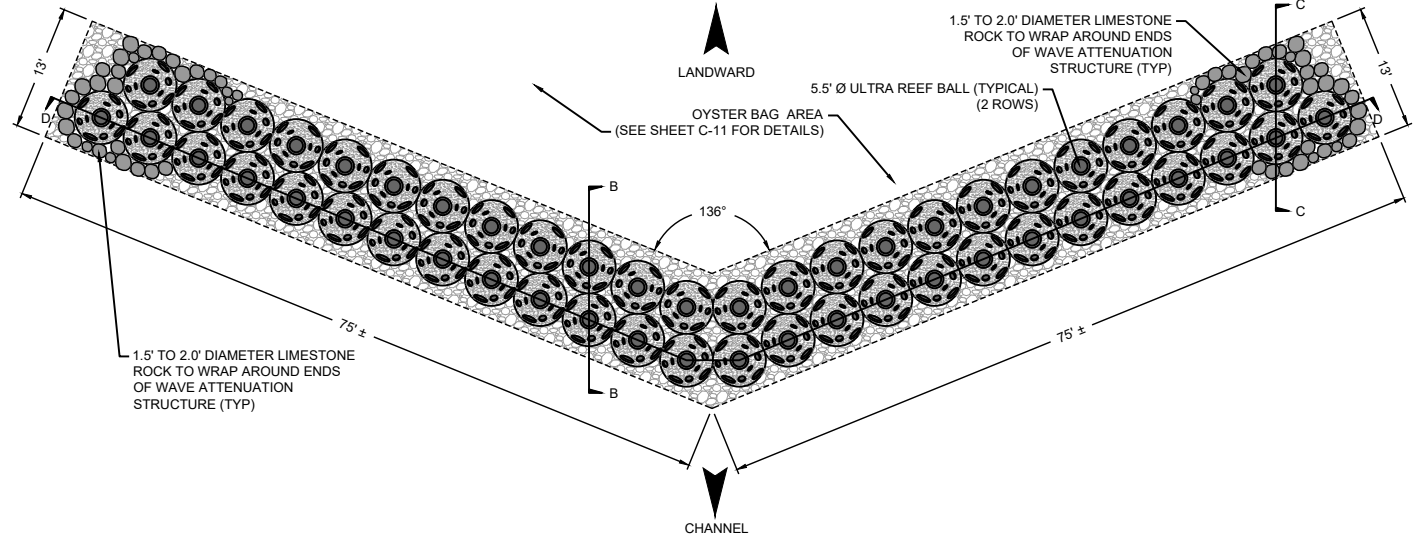
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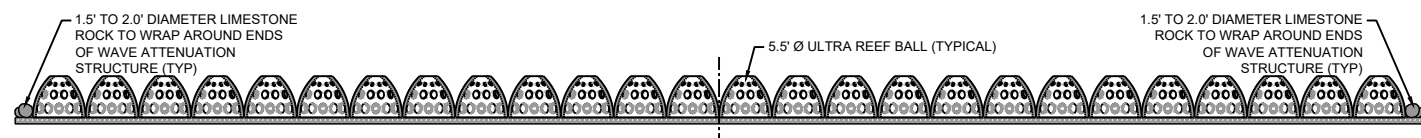
REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
OPTION 1 - 6" THICK MARINE MATTRESS

B-B C-10 22X34: 1" = 2' 11X17: 1" = 4'



REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION PLAN VIEW TYPICAL DETAIL

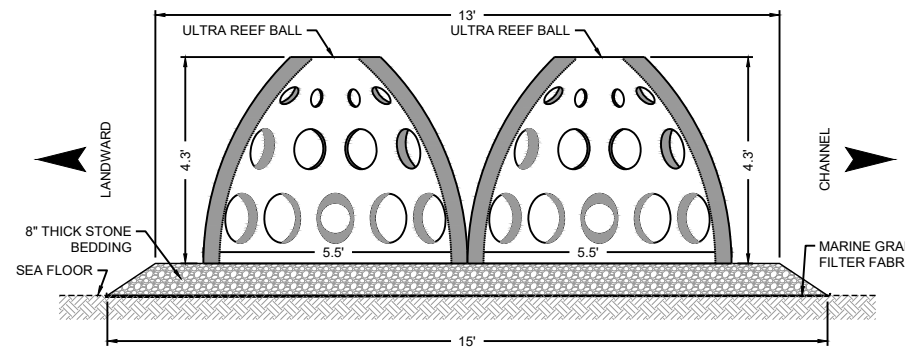
A C-7 22X34: 1" = 10' 11X17: 1" = 20'



REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION PROFILE SECTION DETAIL

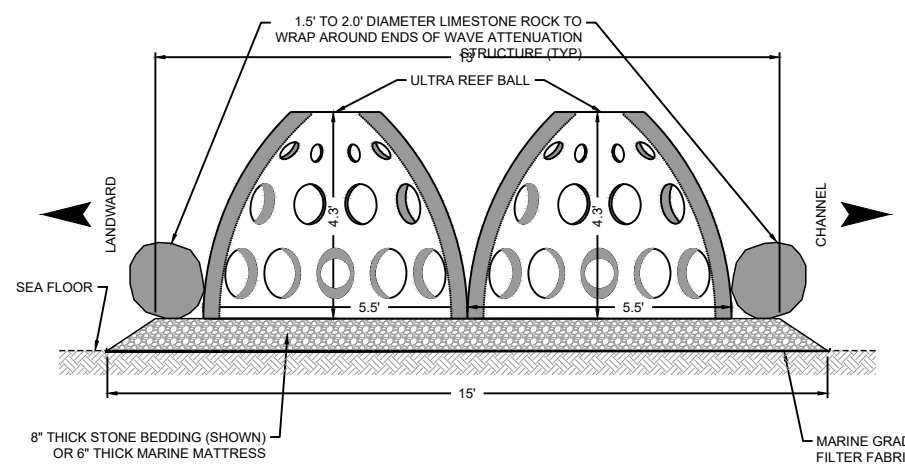
D-D C-10 22X34: 1" = 10' 11X17: 1" = 20'

NOTE: OYSTER BAGS TO BE PLACED IN LEE OF WAVE ATTENUATION STRUCTURE STRUCTURES, ALONG SHORELINES, AND WITHIN EXISTING NATURAL OYSTER REEF AREAS.



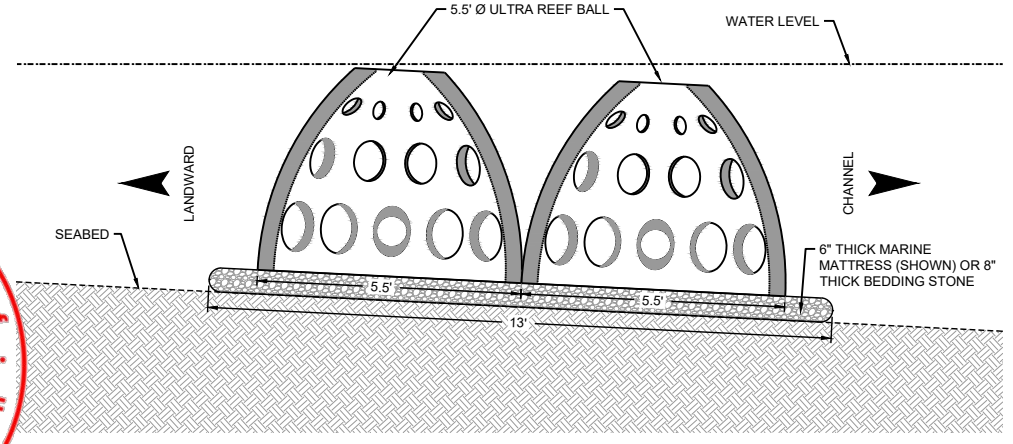
REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
OPTION 2 - 8" THICK BEDDING STONE

B-B C-10 22X34: 1" = 2' 11X17: 1" = 4'



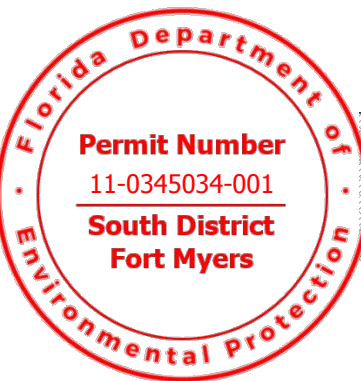
REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION CROSS SECTION  
AT ENDS OF UNIT WITH STONE WRAP AROUND

C-C C-10 22X34: 1" = 2' 11X17: 1" = 4'



REEFBALL WAVE ATTENUATION STRUCTURE CONFIGURATION SECTION VIEW TYPICAL DETAIL

22X34: 1" = 10' 11X17: 1" = 20'



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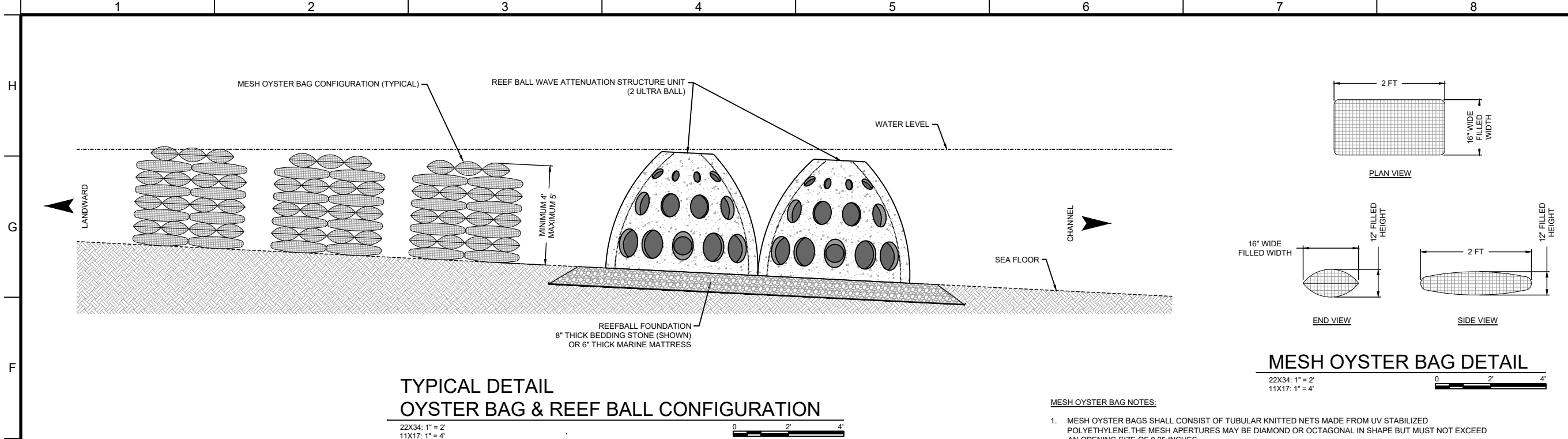
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CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE  
**REEFBALL TYPICAL DETAILS**

**C-10**

SHEET 10 OF 13



**TYPICAL DETAIL  
OYSTER BAG & REEF BALL CONFIGURATION**

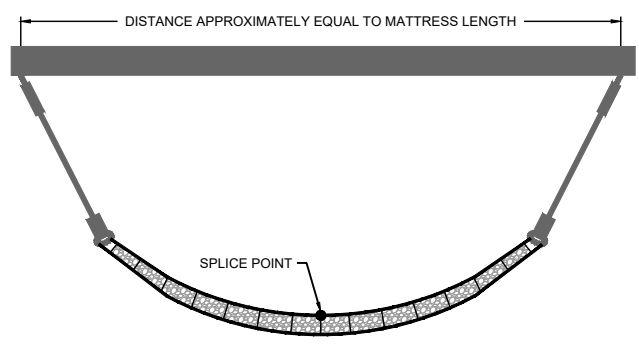
22X34: 1" = 2'  
11X17: 1" = 4'

**MESH OYSTER BAG DETAIL**

22X34: 1" = 2'  
11X17: 1" = 4'

**REEFBALL CONFIGURATION NOTES:**

- REEFBALL UNITS SHALL BE 4.3 FEET HIGH X 5.5 FEET WIDE AT THE BASE. UNITS TO BE INSTALLED SUCH THAT THE BASE OF EACH UNIT ABUTS & CONSISTS OF INTERLOCKING UNITS.
- POCKETS OF MUCK AND ORGANICS EXIST WITHIN THE SITE; THEREFORE FOUNDATION PREPARATION SHALL BE REQUIRED AND CONSIST OF 1 OF 2 OPTIONS:  
**FOUNDATION PREPARATION OPTION 1**  
THE CONTRACTOR MAY USE 6" THICK STONE FILLED MARINE MATTRESS WITH MARINE GRADE FILTER FABRIC PRE-ATTACHED TO THE BOTTOM. THE GRID SHALL BE 6X1600 OR EQUAL & SHALL WITHSTAND A MINIMUM LIFTING CAPACITY OF 32,900 LBS. THE MARINE MATTRESS STONE FILL MUST CONSIST OF 2" TO 4" LIMESTONE ROCK WITH HARD ANGULAR SHAPE.  
**FOUNDATION PREPARATION OPTION 2**  
THE CONTRACTOR MAY USE A STANDARD OF 8" THICK LAYER OF BEDDING STONE. THE BEDDING STONE MUST CONSIST OF NO. 3 STONE WITH AN AVERAGE OF DIAMETER OF 1.5 INCHES. MARINE GRADE FILTER FABRIC MUST BE PLACED ALONG THE SEA FLOOR PRIOR TO STONE PLACEMENT.
- THE CONTRACTOR MUST PLACE ROCK AROUND THE ENDS OF ALL REEF BALL WAVE ATTENUATION STRUCTURE UNITS TO PREVENT SCOUR. THE ROCK MUST BE 1.5 - 2.0 FEET IN DIAMETER AND SHALL OVERLAP THE LENGTH OF REEFBALL UNITS ALONG THE LANDWARD & SEAWARD SIDES BY TWO UNITS.

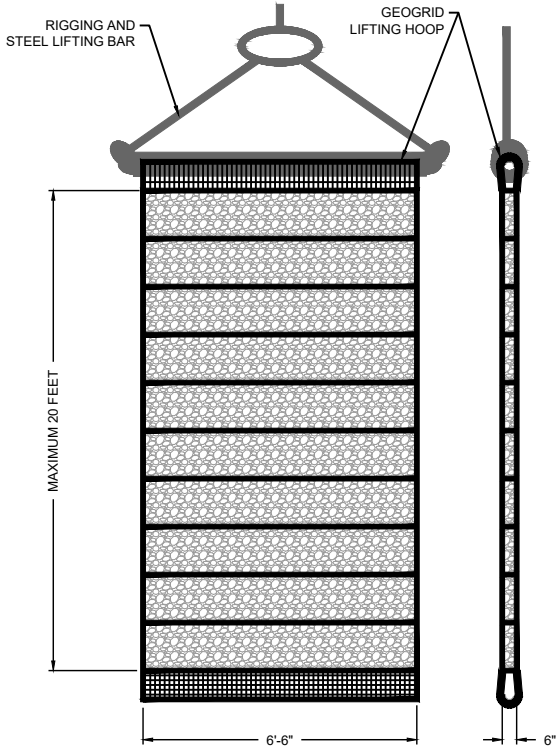


**MARINE MATTRESS  
TWO-ENDS LIFTING DETAIL**

NOT TO SCALE

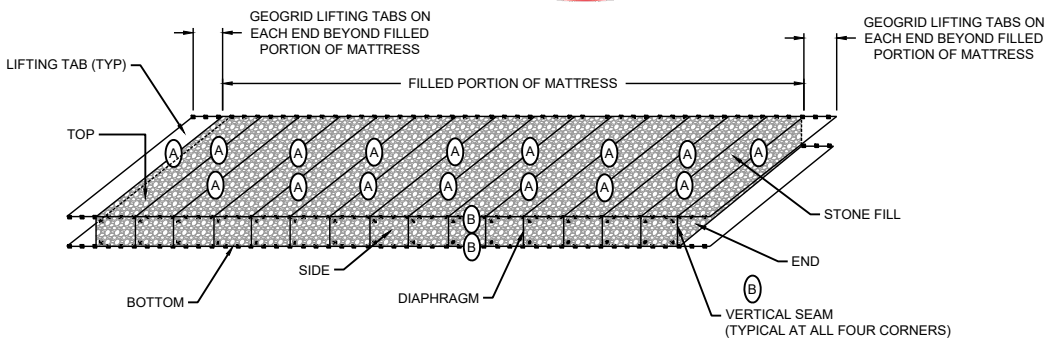
**MARINE MATTRESS NOTES:**

- ENDS, TOP, BOTTOM, SIDES, AND ANY EXTRA LENGTH USED FOR LIFTING OR ANCHORING PURPOSES SHALL BE COMPOSED OF LIKE MATERIAL.
- PLASTIC CABLE TIES MAY BE USED TO SECURE BODKIN CONNECTORS IN POSITION PRIOR TO TENSIONING OR FILLING OF MATTRESS UNIT.
- LIFTING BAR, RIGGING AND HANDLING MUST BE SUITABLE TO DISTRIBUTE THE LIFTING LOADS UNIFORMLY TO THE GEOGRID. LIFTING APPARATUS TO BE PROPOSED BY CONTRACTOR AND ENGINEER APPROVED. HANDLING AND LIFTING OF GRID MATERIALS AND MATTRESSES SHALL BE AVOIDED WHEN THE AMBIENT TEMPERATURE IS LOWER THAN 5 DEGREES BELOW ZERO, CELSIUS.
- STONE-FILLED COMPARTMENTS SHALL BE FORMED BY THE USE OF INTERNAL BAFFLES ACROSS EACH MAT AT A MAXIMUM SPACING OF APPROXIMATELY 2 FEET.
- ALL EXTERIOR SIDES AND INTERIOR BAFFLES AND LIFTING HOOPS SHALL BE FORMED WITH LIKE MATERIALS.
- SEE THE PROJECT SPECIFICATIONS REGARDING THE REQUIREMENTS FOR STONE FILL MATERIALS.
- FILLING SHALL BE ACCOMPLISHED SUCH THAT THE AVERAGE THICKNESS OF EACH MATTRESS DOES NOT EXCEED 6 INCHES.



**MARINE MATTRESS  
ONE-END LIFTING DETAIL**

NOT TO SCALE



**TYPICAL CONFIGURATION OF MARINE MATTRESS**

NOT TO SCALE

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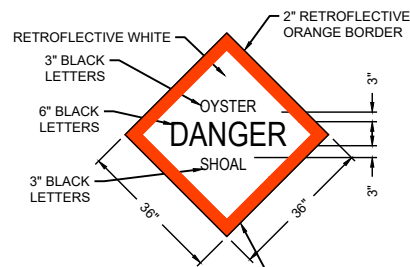
DRAWING TITLE  
**OYSTER BAG & MARINE  
MATTRESS DETAILS**

**C-11**  
SHEET 11 OF 13

REBECCA JOHNSON, 02/24/2016 9:38:50 AM, X:\wp\Projects\C2015037 Naples Bay Oyster Reef\Construction\C2015037-C-Details.dwg

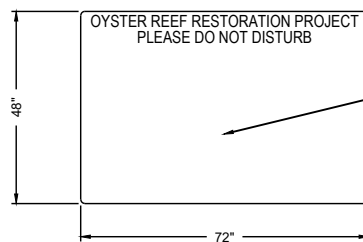
**USCG SIGNAGE NOTES:**

- ALL SIGNAGE SHALL COMPLY WITH THE CODES, REGULATIONS, AND STANDARDS SET FORTH IN "GUIDELINES FOR POSTING UNIFORM WATERWAY MARKERS IN FLORIDA'S WATERWAYS: LATEST REVISION" PRODUCED BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION AND THE UNITED STATES FISH AND WILDLIFE SERVICE. GUIDELINES ARE BASED ON FEDERAL REGISTER TITLE 33, CODE OF FEDERAL REGULATION (CFR), PART 62, 64, & 66.
- PILES:**
  - THE PILE SUPPORT FOR THE FLOAT BARRIERS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST MAXIMUM CHANNEL WATER VELOCITIES OF 20 FEET PER SECOND.
  - ALL PILES SHALL CONFORM TO THE REQUIREMENTS OF ASTM D25 WITH MINIMUM BUTT DIAMETERS OF TWELVE (12) INCHES.
  - TREATED PILES SHALL BE CLEAN PEELED AND PRESSURE TREATED IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-W-5728 AND AWWA STANDARDS C-3 AND P-5, WITH THE MINIMUM NET RETENTION INDICATED FOR SALTWATER USE AND FOR THE TYPE OF WOOD BEING TREATED.
  - PILES SHALL BE LIMITED TO THE USE OF THOSE SPECIES OF MINIMUM NET RETENTION AS SHOWN IN THE TABLES OF FEDERAL SPECIFICATION TT-W-5728.
  - TREATED PILES SHALL BE CAREFULLY HANDLED WITH NO SUDDEN DROPPING, BREAKING OF OUTER FIBERS, BRUISING, OR PENETRATING THE SURFACE WITH TOOLS.
  - CUT OR DAMAGED SURFACES OF PILES, INCLUDING THE TOPS OF ALL PILES AFTER HEADING, AND BOLT HOLES, SHALL BE GIVEN AFTER-TREATMENT CARE AS REQUIRED BY FEDERAL SPECIFICATION TT-W-5728.
  - IN ADDITION TO SUCH "AFTER-HEADING" TREATMENT, THE TOPS OF ALL PILES SHALL BE CAPPED WITH 20 GAUGE ALUMINUM SHEET METAL, FORMED IN THE FIELD WITH NO SHARP OR PROTRUDING EDGES AND FASTENED TO SIDE OF PILE WITH 6d STAINLESS STEEL NAILS AT 2" INCHES O. C. AROUND EDGE TO PROVIDE FOR "HEADING".
  - PILES SHALL BE FURNISHED IN LENGTHS AT LEAST ONE FOOT GREATER THAN THE LENGTHS SPECIFIED TO BE BELOW THE CUT-OFF ELEVATIONS.
- DRIVING PILES:**
  - NO PILES SHALL BE DRIVEN UNTIL THE EXCAVATION OR FILL IN THE AREA WHICH THEY ARE TO OCCUPY HAS BEEN COMPLETED TO THE REQUIRED GRADE.
  - THE MAXIMUM PERMISSIBLE DEVIATION FOR PILES OUT OF PLUMB OR OFF BATTER SHALL BE 2 PERCENT OF THE PILE LENGTH.
  - THE MAXIMUM PERMISSIBLE DEVIATION FROM INDICATED LOCATIONS SHALL BE 3 INCHES FOR EACH PILE.
  - PILES SHALL HAVE METAL SHOES WHEN LENSES OR STRATA OF HARD ROCK OCCUR IN THE OVERBURDEN.
  - PUNCHING OR DRILLING HOLES WILL BE PERFORMED WHERE NECESSARY TO PERMIT PILES TO PASS THROUGH THOSE STRATA AND REACH REQUIRED PENETRATION.
  - ALL PILES SHALL BE DRIVEN CONTINUOUSLY AND WITHOUT VOLUNTARY INTERRUPTION UNTIL THE REQUIRED DEPTH OF PENETRATION HAS BEEN ATTAINED WITH A TOLERANCE OF PLUS OR MINUS 1.5 FEET.
  - AFTER DRIVING AND BACK DRIVING, IF REQUIRED, ALL PILES SHALL BE CUT OFF AT THE CUTOFF LINE AND THE SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE OF THE WORK.
  - WATER JETS MAY BE USED IN DRIVING ONLY WHEN SPECIFICALLY AUTHORIZED. 1. AT LEAST TWO JETS SHALL BE USED IN ALL JETTING OPERATIONS. 2. ALL JETTED PILES SHALL BE DRIVEN FOR THE FINAL FIVE (5) FEET OF PENETRATION UNLESS OTHERWISE DIRECTED.
  - PILES THAT ARE DAMAGED, MISLOCATED, OR OUT OF ALIGNMENT SHALL BE WITHDRAWN AND REPLACED BY NEW PILES OR SHALL BE CUT OFF AND ABANDONED AND ADDITIONAL PILES DRIVEN.
- CABLE:**
  - ALL CABLE SHALL BE MINIMUM 1/4 INCH DIAMETER, STAINLESS STEEL WIRE CABLE. CABLE CLAMPS AND FASTENERS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST MAXIMUM CHANNEL WATER VELOCITIES OF 20 FEET PER SECOND.
  - THE CABLE LENGTH SHALL PROVIDE ADEQUATE SLACK TO ADDRESS THE VARIATION OF WATER STAGE.
  - CABLE CLAMPS SHALL BE SUPPLIED AS PER MANUFACTURER'S RECOMMENDATIONS.
  - THIMBLES, WIRE ROPE CLAMPS, FASTENERS, AND ACCESSORIES SHALL BE STAINLESS STEEL OF A TYPE AND GRADE AT LEAST EQUAL IN STRENGTH TO THE MINIMUM BREAKING STRENGTH OF THE WIRE ROPE.
  - EYE-BOLTS SHALL BE WELDLESS STAINLESS STEEL.
- HARDWARE:**
  - FASTENERS, NUTS, WASHERS AND ALL OTHER STEEL ITEMS SHALL BE TAMPER PROOF STAINLESS STEEL TYPE 316.
  - ALUMINUM MATERIAL SHALL CONFORM TO ALUMINUM ASSOCIATION ALLOY 5052 AND ALSO ASTM B209 FOR SHEETS AND PLATES, AND ASTM B221 FOR EXTRUDED SHAPES. ALUMINUM SHEETS AND PLATES SHALL HAVE ROUNDED OR BEVELED EDGES AND ROUNDED CORNERS.
- SIGNAGE:**
  - SIGN PANEL SHALL BE MARINE GRADE ALUMINUM NO. 5052, WITH WHITE BACKGROUND AND BLACK LETTERS CONFORMING TO FEDERAL STANDARD ALPHABET SERIES E. THE PANEL, LETTERING DESIGN AND ENAMELING SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
  - THE CONTRACTOR SHALL SUBMIT LETTERING DESIGN TO THE ENGINEER FOR APPROVAL.

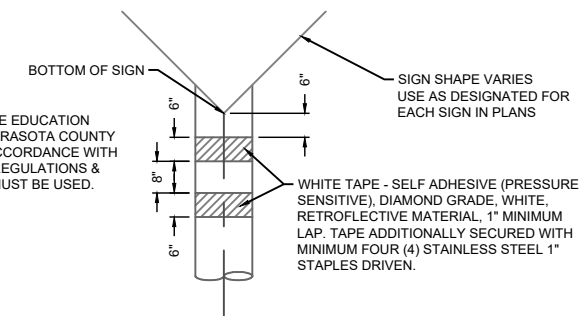


PERMIT NUMBER TO BE PERMANENTLY PLACED ON THE REAR SIDE OF MARKER BOARD IN 1" BLACK, BLOCK LETTERS.

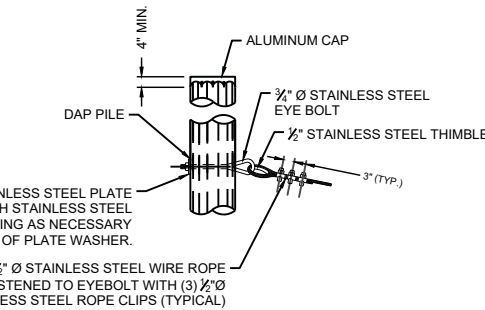
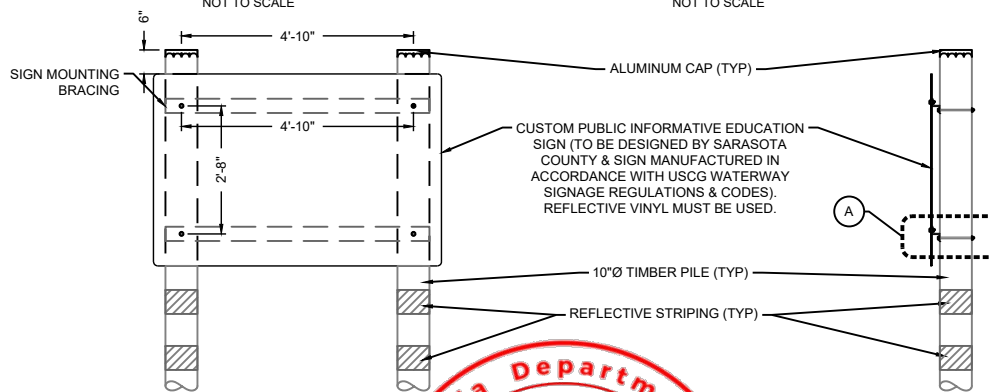
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NOT TO SCALE



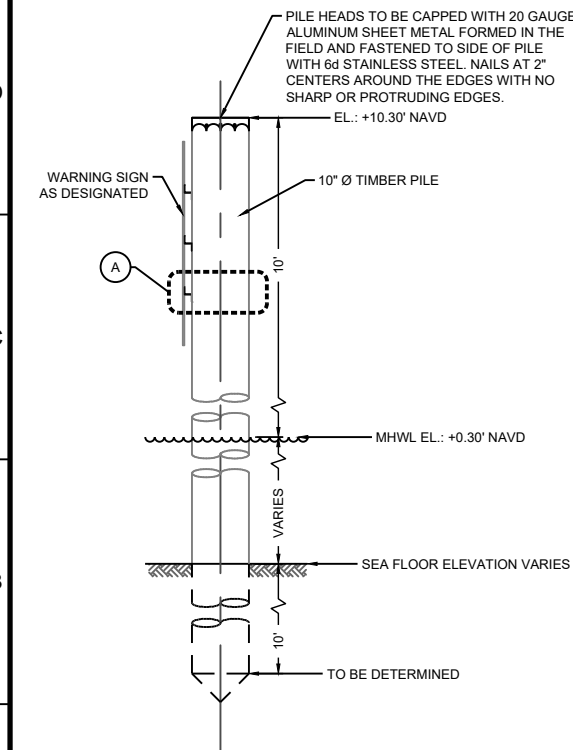
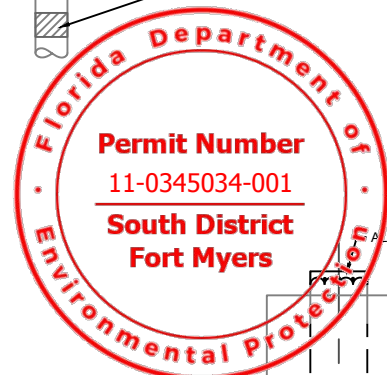
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NOT TO SCALE



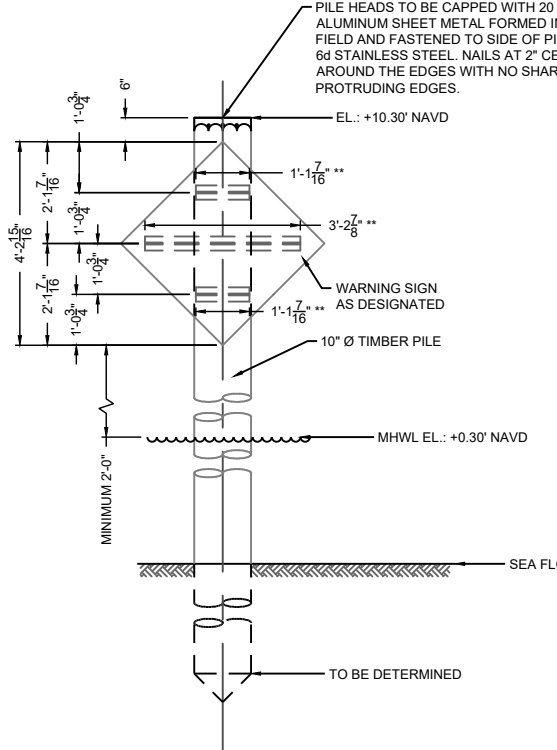
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NOT TO SCALE



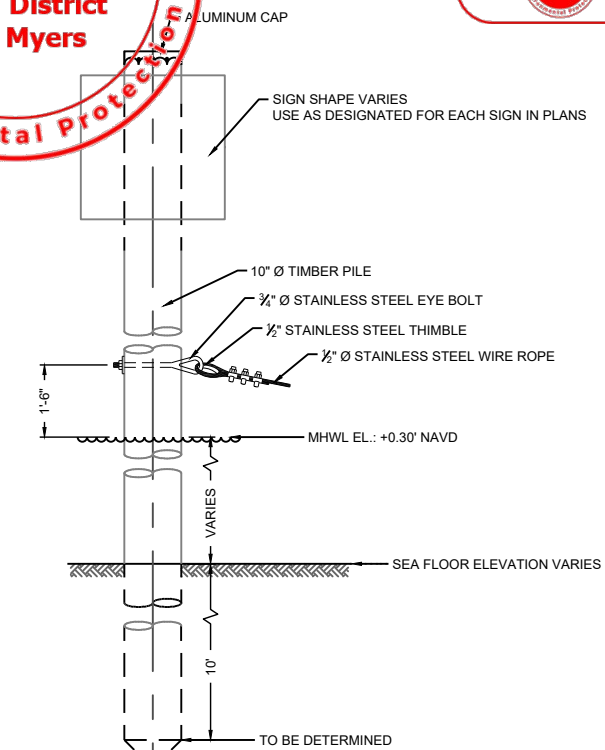
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NOT TO SCALE



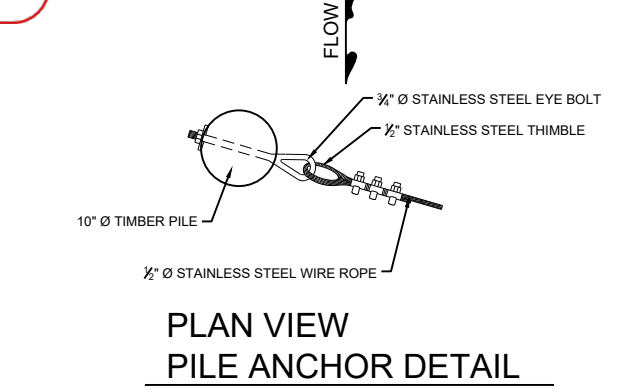
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NOT TO SCALE



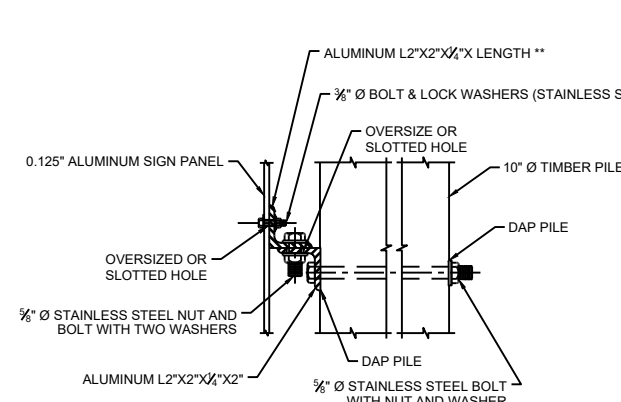
**FRONT VIEW WARNING SIGN & PILE DETAIL**  
NOT TO SCALE



**FRONT VIEW DETAIL SIGN & PILE WITH ANCHORING**  
NOT TO SCALE



**PLAN VIEW PILE ANCHOR DETAIL**  
NOT TO SCALE



**SIGN MOUNTING DETAIL**  
NOT TO SCALE

**TAYLOR ENGINEERING INC.**  
10151 DEERWOOD PARK BLVD.  
BLDG. 300, SUITE 300  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
1675 PALM BEACH LAKES, SUITE 210  
WEST PALM BEACH, FLORIDA 33401  
(561)-640-7310  
CERTIFICATE OF AUTHORIZATION # 4815

SEAL

**90% SUBMITTAL PERMIT APPLICATION PURPOSES ONLY NOT FOR CONSTRUCTION**

CLIFFORD L. TRUITT P.E. # 21194

**PROJECT TITLE**  
NAPLES BAY  
OYSTER RESTORATION  
CONSTRUCTION DRAWINGS  
CITY OF NAPLES, COLLIER COUNTY,  
FLORIDA

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**Sunshine811.com**

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR REVIEW.

NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	C2015-037
DATE	AUGUST 2016
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

DRAWING TITLE

**USCG SIGNAGE DETAILS**

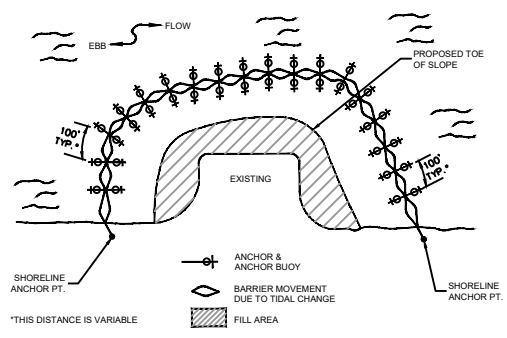
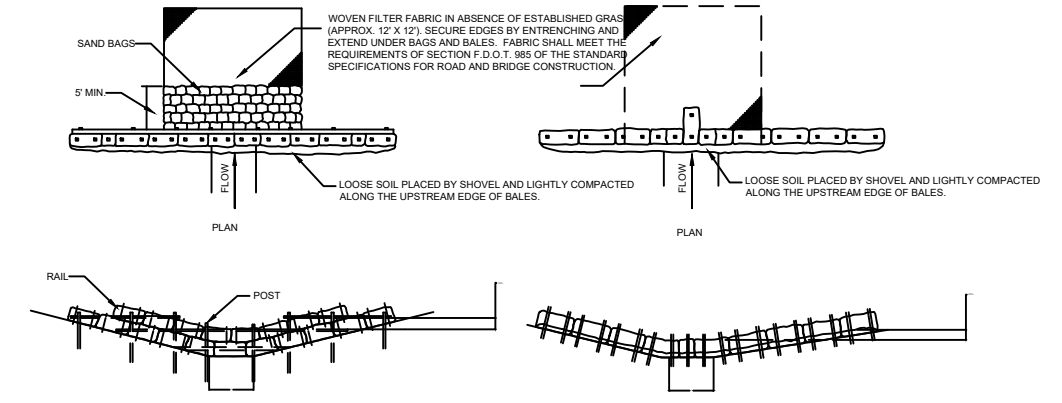
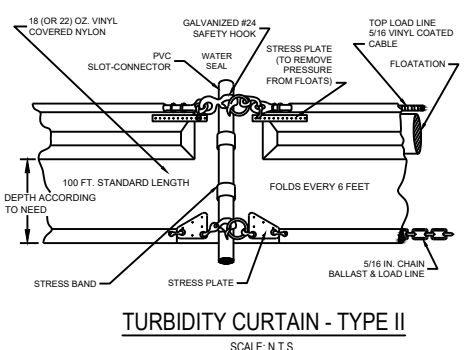
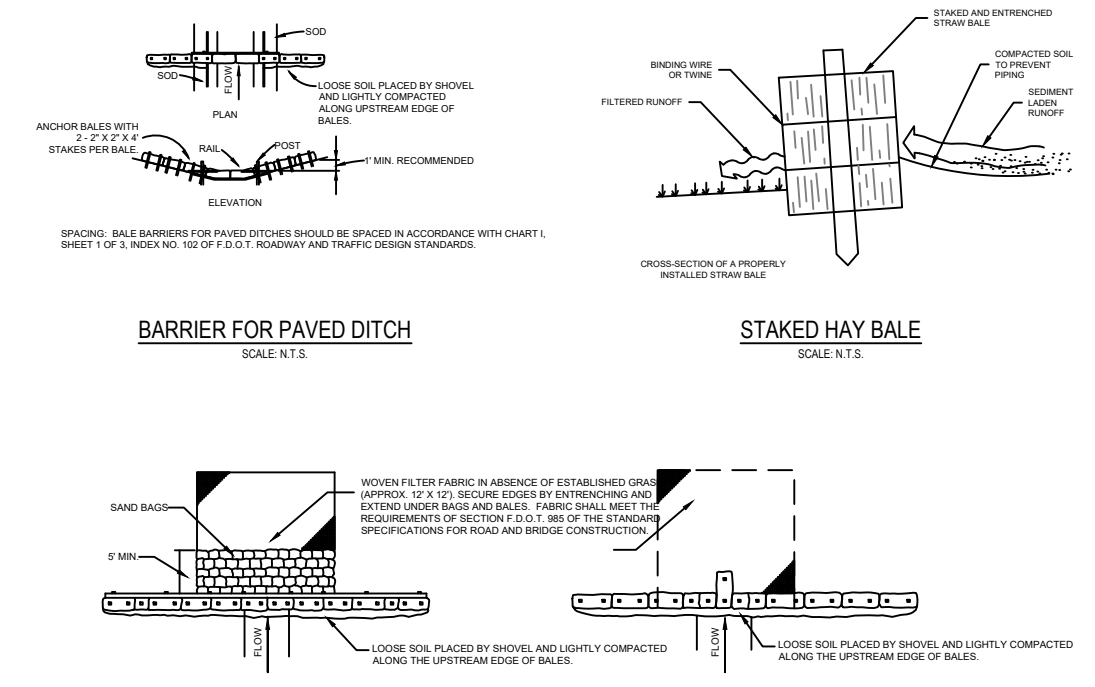
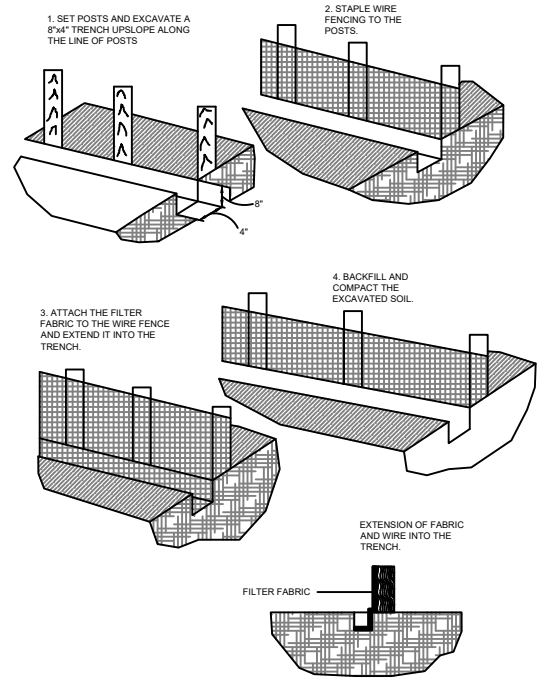
**C-12**  
SHEET 12 OF 13



**TAYLOR ENGINEERING INC.**  
 10151 DEERWOOD PARK BLVD.  
 BLDG. 300, SUITE 300  
 JACKSONVILLE, FLORIDA 32256  
 (904)-731-7040  
 1675 PALM BEACH LAKES, SUITE 210  
 WEST PALM BEACH, FLORIDA 33401  
 (561)-640-7310

CERTIFICATE OF AUTHORIZATION # 4815

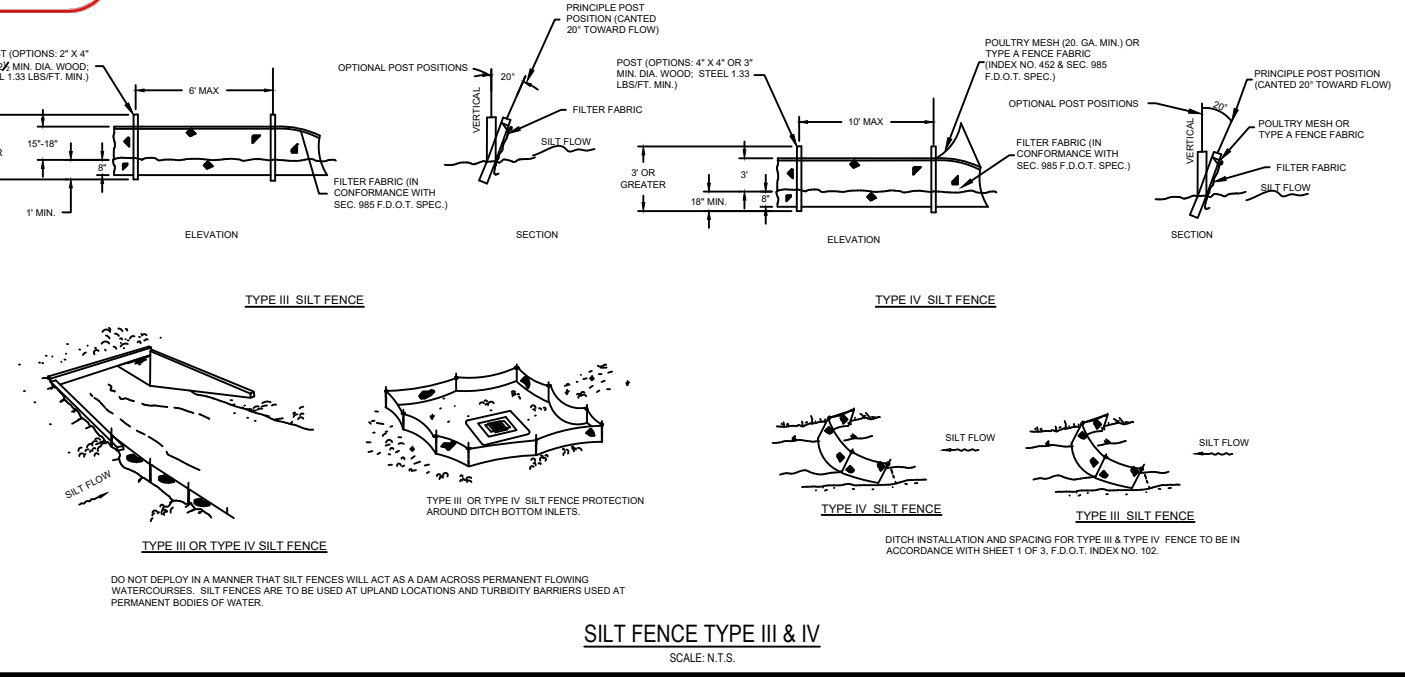
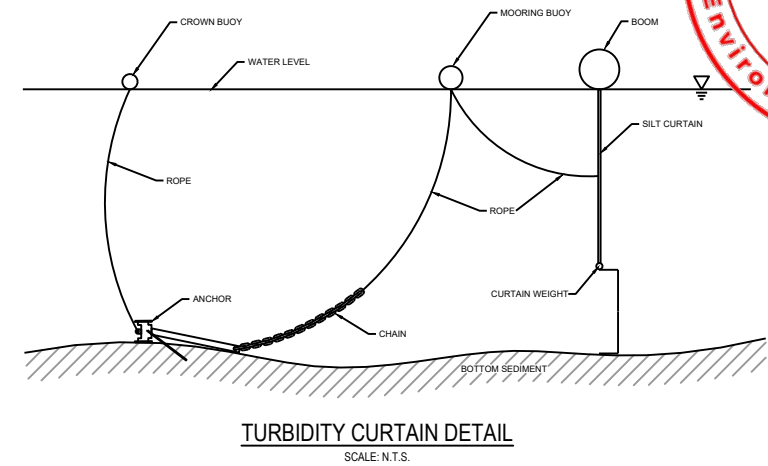
- EROSION CONTROL AND GRASSING/SODDING NOTES:**
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AND TURBIDITY SILTATION PREVENTION DEVICES AS NECESSARY TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND COMPLY WITH STATE WATER QUALITY CRITERIA FOR STORMWATER DISCHARGE. EROSION CONTROL MEASURES INCLUDE BUT ARE NOT LIMITED TO TURBIDITY SCREENS, MULCHING, HAY BALES, AND SILT FENCE. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSTRUCTION COSTS, AND FINES.
  - DISTURBED AREAS NOT INCLUDING ROADWAYS AND WETLANDS SHALL BE SEEDED/GRASSED, FERTILIZED, MULCHED, AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS AT ALL DISTURBED AREAS PER CITY STANDARDS AND SPECIFICATIONS AND MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
  - EROSION CONTROL MEASURES SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT.
  - EROSION CONTROL MEASURES SHALL BE PLACED TO CONTAIN ALL POINTS OF DISCHARGE TO SURFACE WATERS OR WETLANDS INCLUDING CURB INLETS, DITCH BOTTOM INLETS, DITCHES, AND DOWNSTREAM PORTIONS OF STREAMS AND TIDAL WATERS ADJACENT TO CONSTRUCTION.
  - 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A NPDES PERMIT TO FDEP.
  - THE CONTRACTOR SHALL WRAP STORM GRATES IN FILTER FABRIC TO PREVENT SEDIMENTATION OF THE STORM SEWER SYSTEM.
  - THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AND TURBIDITY SILTATION PREVENTION DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
  - SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. ALL TURBIDITY SILTATION PREVENTION DEVICES SHALL BE INSPECTED AFTER ANY STORM EVENTS TO ENSURE THAT ALL DEVICES ARE SECURELY IN PLACE AND UNDAMAGED. IF ANY DAMAGE HAS OCCURRED, THE CONTRACTOR SHALL ENSURE ALL DEVICES ARE FIXED AND/OR REPLACED AS REQUIRED AND SECURED PROPERLY.



**Received Electronically**  
 Sept 20, 2016  
 South District

**Florida Department of Environmental Protection**

**Permit Number**  
 11-0345034-001  
 South District  
 Fort Myers



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CLIFFORD L. TRUITT P.E. # 21194

**PROJECT TITLE**  
 NAPLES BAY OYSTER RESTORATION CONSTRUCTION DRAWINGS  
 CITY OF NAPLES, COLLIER COUNTY, FLORIDA

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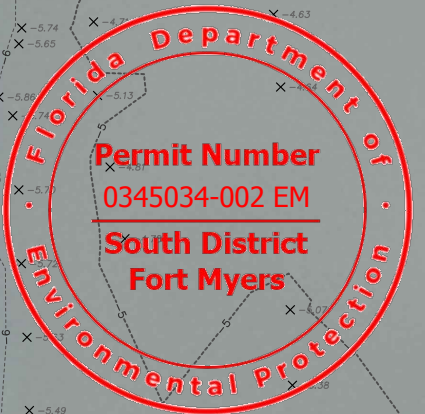
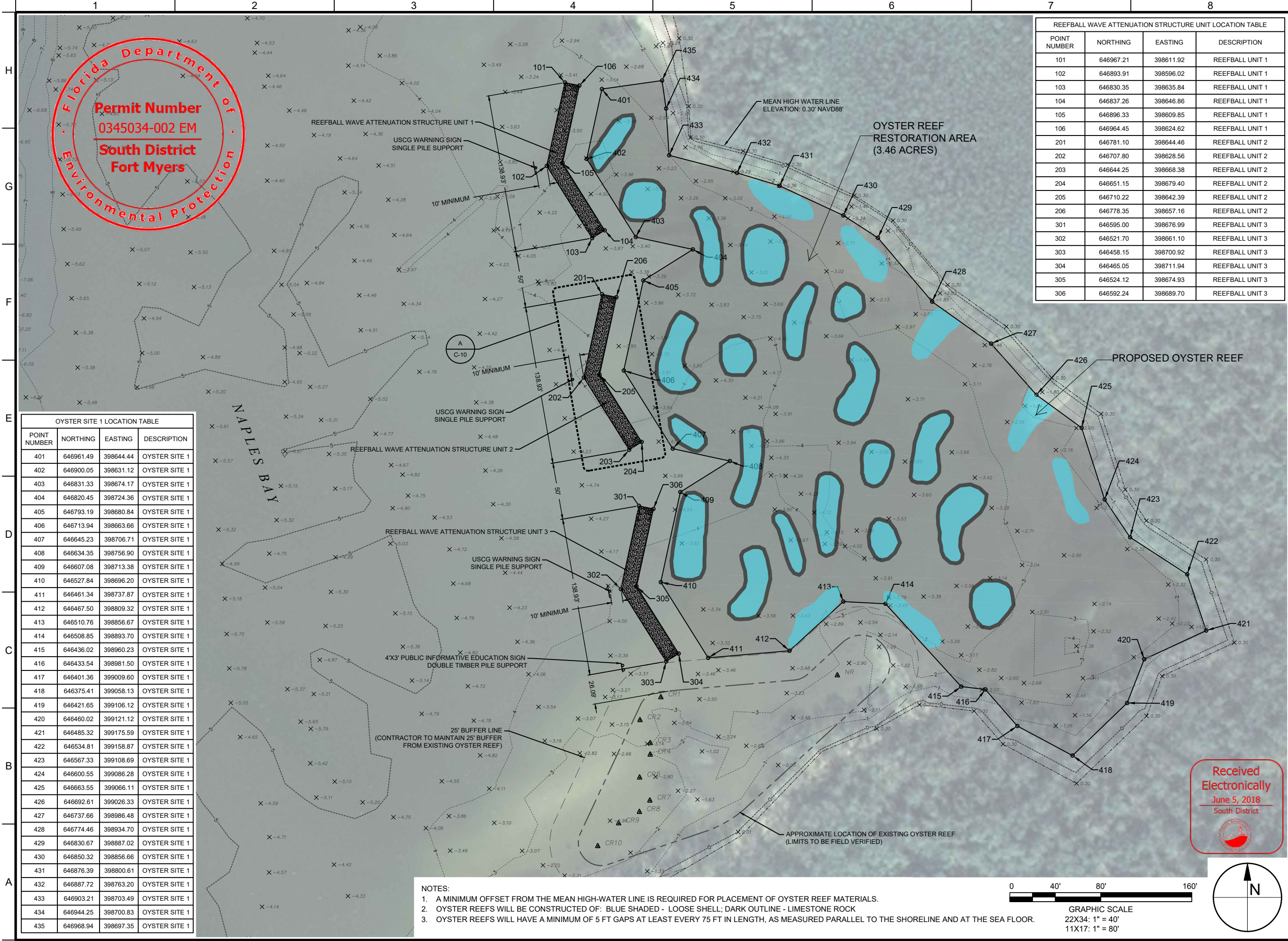
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PROJECT NO	C2015-037
DATE	AUGUST 2016
DESIGNED	JP
DRAWN	RLJ
CHECKED	CAS
REVIEWED	CLT
SCALE	AS SHOWN

**EROSION & SEDIMENT CONTROL DETAILS**

**C-13**  
 SHEET 13 OF 13

REBECCA JOHNSON, 02/24/2016 9:30:02 AM, X:\wp\Projects\2015\037 Naples Bay Oyster Reef Construction\2015-037-C-Turbidity.dwg



REEFBALL WAVE ATTENUATION STRUCTURE UNIT LOCATION TABLE

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
101	646967.21	398611.92	REEFBALL UNIT 1
102	646893.91	398596.02	REEFBALL UNIT 1
103	646830.35	398635.84	REEFBALL UNIT 1
104	646837.26	398646.86	REEFBALL UNIT 1
105	646896.33	398609.85	REEFBALL UNIT 1
106	646964.45	398624.62	REEFBALL UNIT 1
201	646781.10	398644.46	REEFBALL UNIT 2
202	646707.80	398628.56	REEFBALL UNIT 2
203	646644.25	398668.38	REEFBALL UNIT 2
204	646651.15	398679.40	REEFBALL UNIT 2
205	646710.22	398642.39	REEFBALL UNIT 2
206	646778.35	398657.16	REEFBALL UNIT 2
301	646595.00	398676.99	REEFBALL UNIT 3
302	646521.70	398661.10	REEFBALL UNIT 3
303	646458.15	398700.92	REEFBALL UNIT 3
304	646465.05	398711.94	REEFBALL UNIT 3
305	646524.12	398674.93	REEFBALL UNIT 3
306	646592.24	398689.70	REEFBALL UNIT 3

OYSTER SITE 1 LOCATION TABLE

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
401	646961.49	398644.44	OYSTER SITE 1
402	646900.05	398631.12	OYSTER SITE 1
403	646831.33	398674.17	OYSTER SITE 1
404	646820.45	398724.36	OYSTER SITE 1
405	646793.19	398680.84	OYSTER SITE 1
406	646713.94	398663.66	OYSTER SITE 1
407	646645.23	398706.71	OYSTER SITE 1
408	646634.35	398756.90	OYSTER SITE 1
409	646607.08	398713.38	OYSTER SITE 1
410	646527.84	398696.20	OYSTER SITE 1
411	646461.34	398737.87	OYSTER SITE 1
412	646467.50	398809.32	OYSTER SITE 1
413	646510.76	398856.67	OYSTER SITE 1
414	646508.85	398893.70	OYSTER SITE 1
415	646436.02	398960.23	OYSTER SITE 1
416	646433.54	398981.50	OYSTER SITE 1
417	646401.36	399009.60	OYSTER SITE 1
418	646375.41	399058.13	OYSTER SITE 1
419	646421.65	399106.12	OYSTER SITE 1
420	646460.02	399121.12	OYSTER SITE 1
421	646485.32	399175.59	OYSTER SITE 1
422	646534.81	399158.87	OYSTER SITE 1
423	646567.33	399108.69	OYSTER SITE 1
424	646600.55	399086.28	OYSTER SITE 1
425	646663.55	399066.11	OYSTER SITE 1
426	646692.61	399026.33	OYSTER SITE 1
427	646737.66	398986.48	OYSTER SITE 1
428	646774.46	398934.70	OYSTER SITE 1
429	646830.67	398887.02	OYSTER SITE 1
430	646850.32	398856.66	OYSTER SITE 1
431	646876.39	398800.61	OYSTER SITE 1
432	646887.72	398763.20	OYSTER SITE 1
433	646903.21	398703.49	OYSTER SITE 1
434	646944.25	398700.83	OYSTER SITE 1
435	646968.94	398697.35	OYSTER SITE 1



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PROJECT TITLE  
NAPLES BAY  
OYSTER RESTORATION  
CONSTRUCTION DRAWINGS  
CITY OF NAPLES, COLLIER COUNTY,  
FLORIDA

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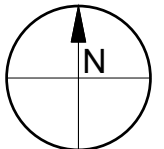
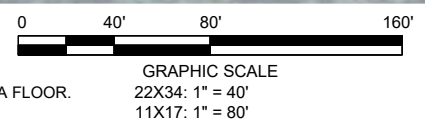
PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR REVIEW.

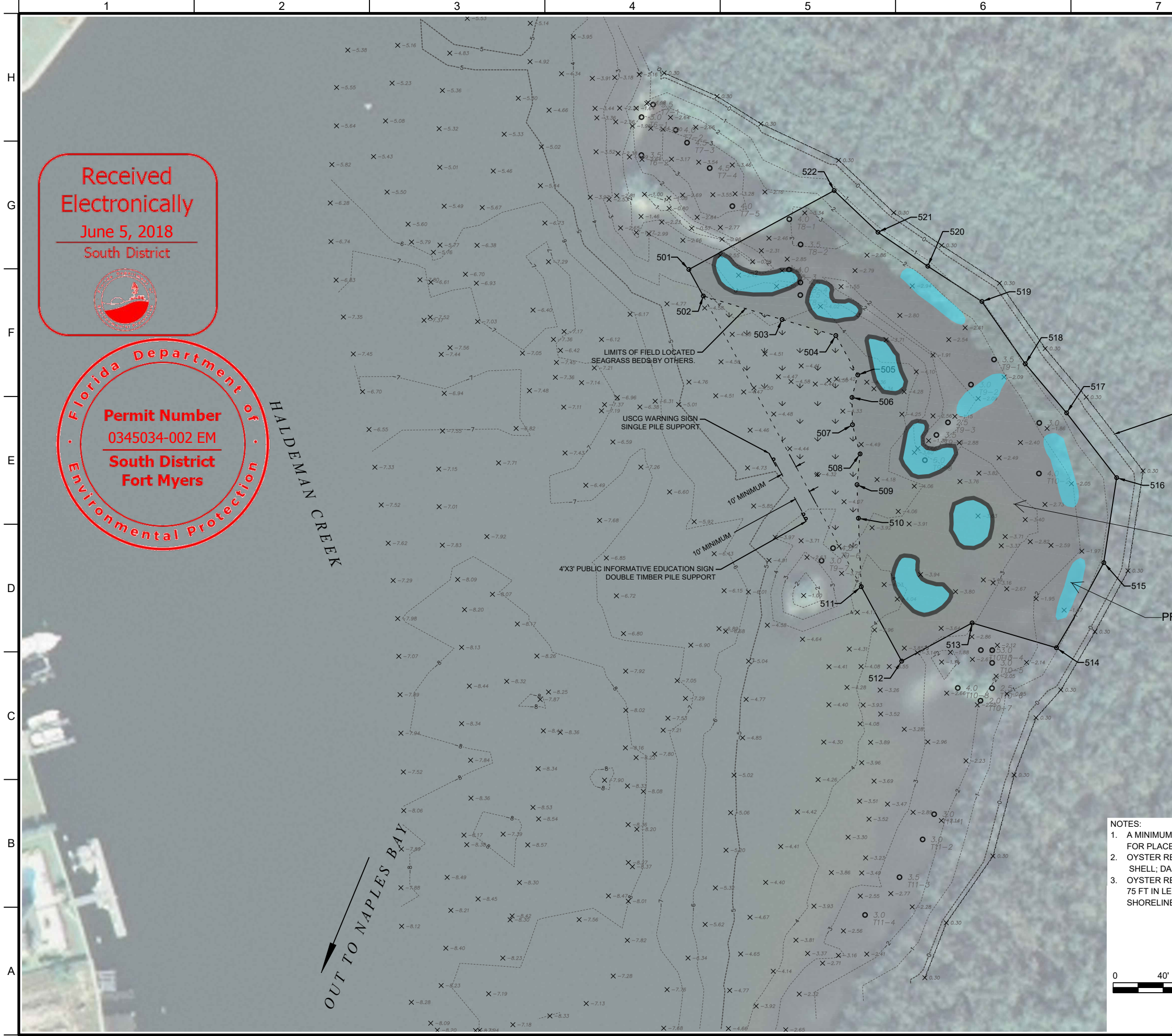
NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	
DATE DESIGNED	
DRAWN	
CHECKED	
REVIEWED	
SCALE	AS SHOWN
DRAWING TITLE	

SITE PLAN SITE 1  
SHEET 1 OF 3

- NOTES:
1. A MINIMUM OFFSET FROM THE MEAN HIGH-WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER REEF MATERIALS.
  2. OYSTER REEFS WILL BE CONSTRUCTED OF: BLUE SHADED - LOOSE SHELL; DARK OUTLINE - LIMESTONE ROCK
  3. OYSTER REEFS WILL HAVE A MINIMUM OF 5 FT GAPS AT LEAST EVERY 75 FT IN LENGTH, AS MEASURED PARALLEL TO THE SHORELINE AND AT THE SEA FLOOR.





OYSTER SITE 2 LOCATION TABLE			
POINT NUMBER	NORTHING	EASTING	DESCRIPTION
501	649909.25	398801.47	OYSTER SEEDING SITE 2
502	649888.06	398812.99	OYSTER SEEDING SITE 2
503	649869.27	398875.90	OYSTER SEEDING SITE 2
504	649856.47	398918.77	OYSTER SEEDING SITE 2
505	649824.97	398936.34	OYSTER SEEDING SITE 2
506	649807.09	398931.74	OYSTER SEEDING SITE 2
507	649785.21	398932.09	OYSTER SEEDING SITE 2
508	649761.95	398938.16	OYSTER SEEDING SITE 2
509	649737.40	398935.71	OYSTER SEEDING SITE 2
510	649710.56	398936.82	OYSTER SEEDING SITE 2
511	649655.91	398939.10	OYSTER SEEDING SITE 2
512	649596.43	398971.41	OYSTER SEEDING SITE 2
513	649626.98	399027.65	OYSTER SEEDING SITE 2
514	649607.06	399094.95	OYSTER SEEDING SITE 2
515	649675.08	399132.79	OYSTER SEEDING SITE 2
516	649742.92	399143.02	OYSTER SEEDING SITE 2
517	649794.69	399103.13	OYSTER SEEDING SITE 2
518	649833.91	399070.10	OYSTER SEEDING SITE 2
519	649883.67	399035.44	OYSTER SEEDING SITE 2
520	649911.87	398992.21	OYSTER SEEDING SITE 2
521	649938.98	398952.43	OYSTER SEEDING SITE 2
522	649972.26	398917.46	OYSTER SEEDING SITE 2

Received  
Electronically  
June 5, 2018  
South District

Permit Number  
0345034-002 EM  
South District  
Fort Myers



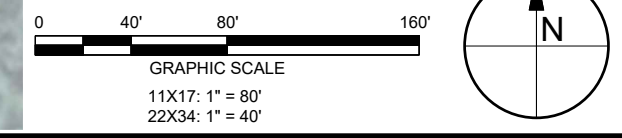
90% SUBMITTAL  
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CONSTRUCTION

PROJECT TITLE  
NAPLES BAY  
OYSTER RESTORATION  
CONSTRUCTION DRAWINGS  
CITY OF NAPLES, COLLIER COUNTY,  
FLORIDA



PRELIMINARY DRAWINGS: THESE DRAWINGS  
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TRANSMITTED FOR REVIEW.

- NOTES:
1. A MINIMUM OFFSET FROM THE MEAN HIGH-WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER REEF MATERIALS.
  2. OYSTER REEFS WILL BE CONSTRUCTED OF: BLUE SHADED - LOOSE SHELL; DARK OUTLINE - LIMESTONE ROCK
  3. OYSTER REEFS WILL HAVE A MINIMUM OF 5 FT GAPS AT LEAST EVERY 75 FT IN LENGTH, AS MEASURED PARALLEL TO THE SHORELINE AND AT THE SEA FLOOR.



NO	ZONE	REVISIONS / SUBMISSIONS	DATE

PROJECT NO	
DATE	
DESIGNED	
DRAWN	
CHECKED	
REVIEWED	
SCALE	AS SHOWN

DRAWING TITLE  
**SITE PLAN SITE 2**

**SHEET 2 OF 3**



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PROJECT TITLE  
**NAPLES BAY  
OYSTER RESTORATION  
CONSTRUCTION DRAWINGS**  
CITY OF NAPLES, COLLIER COUNTY,  
FLORIDA

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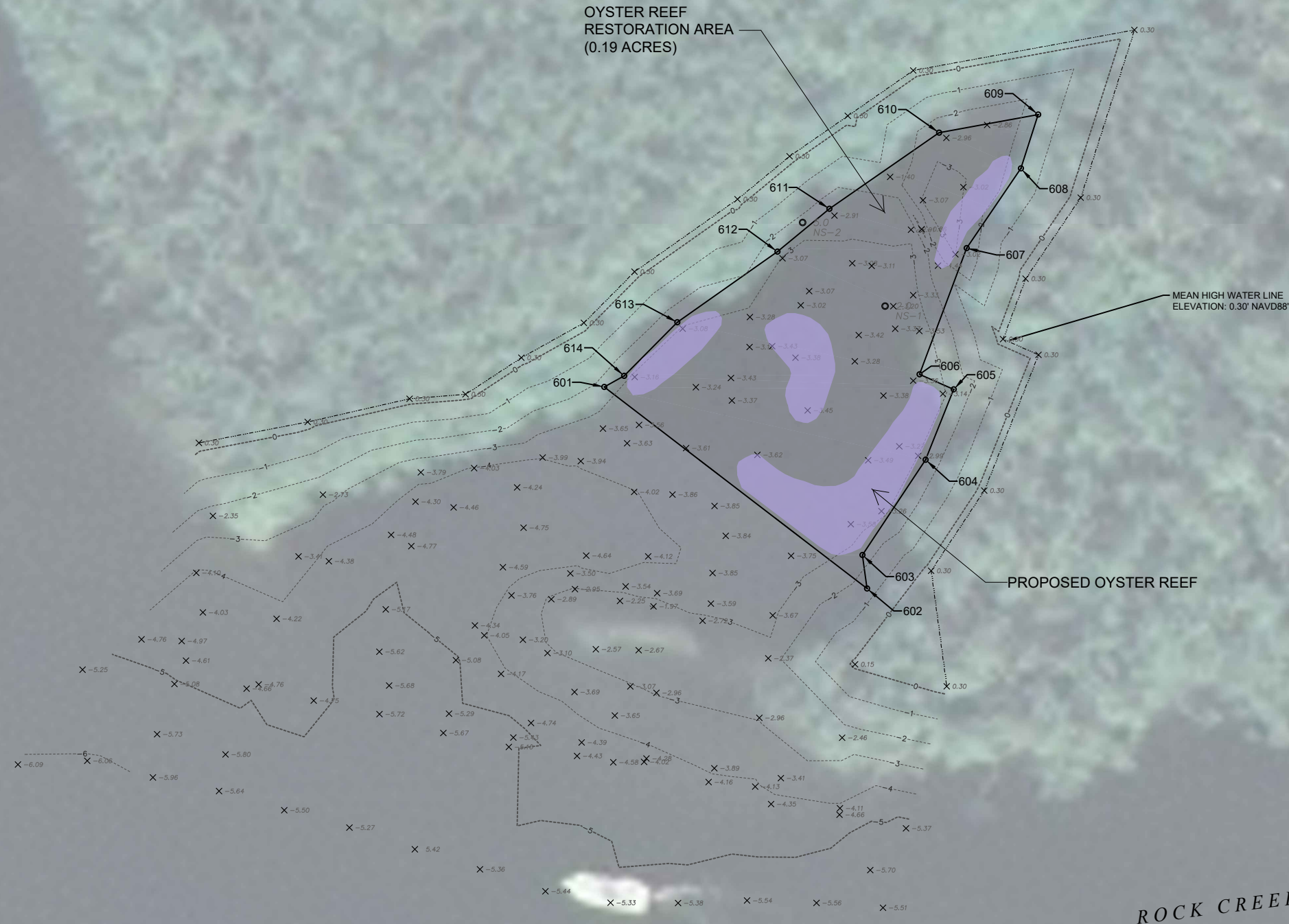
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NO.	REVISIONS / SUBMISSIONS	DATE

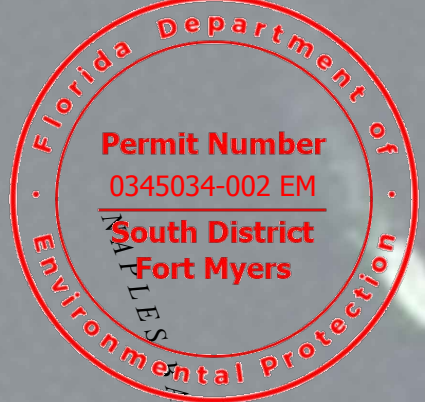
PROJECT NO	
DATE	
DESIGNED	
DRAWN	
CHECKED	
REVIEWED	
SCALE	AS SHOWN

DRAWING TITLE  
**SITE PLAN SITE 3**

**SHEET 3 OF 3**

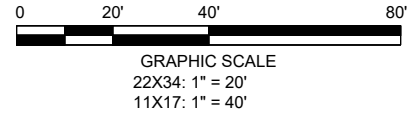
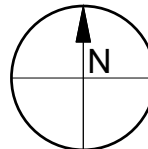


Received  
Electronically  
June 5, 2018  
South District



OYSTER SITE 3 LOCATION TABLE

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
601	657990.62	398436.80	OYSTER SEEDING SITE 3
602	657929.44	398516.55	OYSTER SEEDING SITE 3
603	657939.60	398515.18	OYSTER SEEDING SITE 3
604	657968.50	398534.34	OYSTER SEEDING SITE 3
605	657989.86	398542.87	OYSTER SEEDING SITE 3
606	657994.44	398532.50	OYSTER SEEDING SITE 3
607	658032.72	398546.79	OYSTER SEEDING SITE 3
608	658056.92	398563.24	OYSTER SEEDING SITE 3
609	658073.27	398568.48	OYSTER SEEDING SITE 3
610	658067.76	398538.43	OYSTER SEEDING SITE 3
611	658044.66	398505.14	OYSTER SEEDING SITE 3
612	658031.67	398489.38	OYSTER SEEDING SITE 3
613	658010.25	398458.96	OYSTER SEEDING SITE 3
614	657993.98	398442.83	OYSTER SEEDING SITE 3



- NOTES:
1. A MINIMUM OFFSET FROM THE MEAN HIGH-WATER LINE IS REQUIRED FOR PLACEMENT OF OYSTER CELL/POD.
  2. OYSTER REEFS WILL BE CONSTRUCTED OF: PURPLE SHADED - SHELL CONTAINED IN MESH BAGS.
  3. OYSTER REEFS WILL HAVE A MINIMUM OF 5 FT GAPS AT LEAST EVERY 75 FT IN LENGTH, AS MEASURED PARALLEL TO THE SHORELINE AND AT THE SEA FLOOR.