FLORIDA DEPARTMENT OF
Environmental Protection

Southeast District
3301 Gun Club Road, MSC7210-1
West Palm Beach, FL 33406
561-681-6600

Project Name: Miami Marine Stadium Boat Ramp

Permittee/Authorized Entity:
City of Miami
c/o Daniel Rotenberg, Director DREAM
444 SW 2nd Avenue
Miami, Florida 33130
Email: DRotenberg@miamigov.com

Authorized Agent:
TYLIN International
c/o Sara Gutekunst
Email: sara.gutekunst@tylin.com

Environmental Resource Permit - Granted

State-owned Submerged Lands Authorization – Not Applicable

U.S. Army Corps of Engineers Authorization –Separate Corps Authorization Required

Permit No.: 13-306513-011-EI

Permit Issuance Date: November 28, 2018

Permit Construction Phase Expiration Date: November 28, 2023

PROJECT LOCATION

The activities authorized by this Permit are located within Biscayne Bay, within the Biscayne Bay Aquatic Preserve, Outstanding Florida Waters, Class III Waters, adjacent to 3501 Rickenbacker Causeway, Miami, (Section 17, Township 54 South, Range 42 East), in Miami-Dade County (Latitude N 25° 44' 34.35", Longitude W 80° 10' 10.43"). Offsite mitigation will occur at various locations within Biscayne Bay Aquatic Preserve.

PROJECT DESCRIPTION

This permit authorizes the installation of two fixed/floating dock finger piers totaling 1,481 sq. ft, installation of a 60 ft. by 86 ft. (5,160 sq. ft.) boat ramp, and 218 ln. ft. of riprap that extends 6 ft. waterward of MHWL. A portion of the boat ramp is located within the footprint of a previously existing non-functional boat ramp and will be expanded from the historic location.

This permit authorizes 4,211 ft² of work in surface waters. The bottom substrate consists of a sandy, silty muck bottom layer with scattered shell and rock along with submerged aquatic vegetation, including seagrass and macroalgae. Mangroves were also present along the shoreline including three white mangroves (*Laguncularia recemosa*) and two black mangroves (*Avicennia germinans*). Seagrass was present within the project area varying from mostly sparse (1 %-20%) to moderate (21% - 60%) coverage of three different species including shoal grass (*Halodule wrightii*), turtle grass (*Thalassia testudinum*), and manatee grass (*Syringodium filiforme*). Shoal grass was present in moderate densities (20% - 60%) compared to the percent cover of the other species. Adverse direct and secondary impacts to 0.03 acres (1,400 sq. ft.) of seagrass habitat shall occur as the impacts could not be further reduced or eliminated by decreasing the waterward extent of the boat ramp due insufficient water depths for boaters to off-load/load their boats landward of the proposed extent. Mitigation will be provided to offset these adverse direct and secondary impacts to seagrass habitat. The five mangroves will be relocated to a previously permitted mangrove restoration site on the west side of the Marine Stadium to avoid adverse impacts to these mangroves.

To offset unavoidable adverse impacts to 0.032 acres (1,400 sq. ft) of seagrass habitat, the permittee provided a mitigation plan that includes offsite seagrass restoration through the removal of derelict vessels within the Biscayne Bay Aquatic Preserve. The selection of derelict vessel sites will be conducted after permit issuance, but prior to construction, and will be monitored to ensure seagrass recruitment is successful.

The attached standard manatee conditions (version 2011) shall be adhered to during all in-water work. Prior to construction commencement, weighted floating turbidity curtains, extending to within one-foot from the submerged bottom shall be utilized around the project area to ensure that any turbidity resulting from construction activities will be contained within the project boundaries. All water bodies, including any adjacent submerged aquatic vegetation outside the specific limits of construction authorized by this permit shall be protected from erosion, siltation, sedimentation, and/or scouring.

AUTHORIZATIONS

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

As staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), the Department has determined the activity is not on submerged lands owned by the State of Florida. Therefore, your project is not subject to the requirements of Chapter 253, F.S., or Rule 18-21, F.A.C.

Federal Authorization

Your proposed activity as outlined on your application and attached drawings does not qualify for Federal authorization pursuant to the State Programmatic General Permit and a SEPARATE permit or authorization shall be required from the Corps. You must
apply separately to the Corps using the appropriate federal application form (ENG 4345). More information about Corps permitting may be found online in the Jacksonville District Regulatory Division Sourcebook.

Authority for review - an agreement with the USACOE entitled “Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection, or Duly Authorized Designee, State Programmatic General Permit”, Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Coastal Zone Management

Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

Water Quality Certification

This permit also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations

You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT

The activities described must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**

- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit, as described.

SPECIFIC CONDITIONS- PROJECT FORMS & ATTACHMENTS

(1) The attached project drawings (sheets 1 through 13); the Standard Manatee Conditions for In-Water Work, 2011, which can be downloaded at can be downloaded at http://myfwc.com/media/415448/Manatee_StdCondIn_waterWork.pdf; and DEP forms 62-330.310(1); 62-330.310(2); 62-330.340(1); and 62-330.350(1), which may be downloaded at http://www.dep.state.fl.us/water/wetlands/erp/forms.htm become part of this permit. If the permittee does not have access to the Internet, please contact the Department at (561) 681-6600 to request the aforementioned forms and/or document(s).

SPECIFIC CONDITIONS - PRIOR TO CONSTRUCTION

(2) After selection of the contractor to perform the authorized activities and prior to the initiation of any work authorized by this permit, the permittee (or authorized agent) and the contractor shall attend a pre-construction conference with a representative of the Department. It shall be the responsibility of the permittee to contact the Department's Compliance Assistance Program, by email SED_Compliance@FloridaDEP.gov, or by phone (561) 681-6600, to schedule the pre-construction conference.

(3) Prior to the initiation of any work authorized by this permit, floating turbidity curtains with weighted skirts that extend to within one foot of the bottom shall be placed around the project site, and shall be maintained and remain in place for the duration of the project construction to ensure that turbid discharges do not occur outside the boundaries of the floating turbidity screens. The permittee shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order during all phases of construction authorized by this permit until all areas that were disturbed during construction are sufficiently stabilized to prevent turbid discharges.

(4) Prior to construction of the in-water portions of the project, the mitigation plan for the Miami Marine Stadium Boat Ramp shall be implemented, as described in the attached document entitled, "Seagrass Mitigation Plan, Derelict Vessel Removal".

SPECIFIC CONDITIONS – MITIGATION

(5) FDEP shall be notified prior to each vessel removal and be provided the vessel location(s) and size.

(6) A "Time Zero" Monitoring Report shall be submitted within 30 days of completion for each mitigation site. The report shall include the following:
   a. Location map (with gps coordinates)
   b. Size of the vessel removed
   c. Size of the mitigation area – length and width of the halo
   d. Surrounding seagrass community (species and percent cover)
   e. Color photographs to provide an accurate representation of each mitigation area. The photographs shall be taken from fixed reference points and directions, which are shown on a scaled plan view.

(7) Subsequent Mitigation Monitoring Reports shall be submitted annually for five years and shall include the following for each mitigation area: (Data shall be submitted in tabular form; subsample number and size shall be determined by a statistically valid method)

   a. Color photographic prints taken from the reference points established in the Time Zero Monitoring Report.

   b. Detailed description of statistical methods used, which must include the following:

      i. Subsample method and map of sampling locations.
      ii. Method used to determine percent cover and growth.
      iii. Statistical analyses used.

   c. Total percent cover by recruited seagrasses.

   d. Seagrass species composition with estimates of the contribution of each species to percent cover.

   e. Data documenting the hydrologic regime (seasonal high and normal pool; ordinary high; or mean high and low water elevations).

   f. Photocopy of the field notes depicting the raw data collected.

(8) The mitigation shall be deemed successful when all of the following conditions are met at three years:
   a. The functional gain determined by UMAM for each mitigation site is achieved
   b. The percent cover of seagrass within the mitigation area must match the percent cover of the surrounding seagrass community determined and described in the "Time Zero" Monitoring Report.

(9) The responsibility to assess if the mitigation is meeting the permit-specified success criteria shall not fall solely on the Department. In the event the permittee becomes aware mitigation is not meeting the success criteria (based on either site observations or review of monitoring reports), the permittee, no later than 6 months before the permit construction phase expiration date, shall be responsible to submit an alternative mitigation plan to the Department for review and approval. The permittee shall

implement the alternative restoration plan no later than 60 days after receiving Department approval.

SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES

(10) All watercraft associated with the construction of the permitted activities shall only operate within waters of sufficient depth (one-foot clearance from the deepest draft of the vessel (barge) to the submerged bottom) so as to preclude bottom scouring or prop dredging.

(11) There shall be no storage or stockpiling of tools and materials (i.e., lumber, pilings, debris), along the shoreline adjacent to waters of the state. All excess lumber, scrap wood, trash, garbage, and any other type of debris shall be removed from wetlands/waters of the state within 14 days of completion of the work authorized in this permit. All construction equipment/tools and materials shall be transported to and from the site via upland roadways and barges and all equipment/tools and materials shall be stored on the construction barges or uplands.

(12) The riprap shall be fully constructed, prior to the placement of any backfill material. Any fill material used behind the bulkhead shall be clean fill and free of vegetative matter, trash, rebar, garbage, toxic or hazardous waste, or any other unsuitable materials

(13) The installation of the riprap will be performed as per the attached permit drawings. Riprap shall consist of unconsolidated boulders, rocks, or clean concrete rubble without exposed reinforcing rods or similar protrusions. The riprap shall be free of sediment, debris, and toxic or otherwise deleterious substance. The riprap shall have a diameter of 12 to 36 inches.

(14) The slope of the riprap shall be no steeper than 2H:1V (horizontal:vertical). The riprap shall extend a maximum of 6 ft. feet waterward from the toe of the boat ramp. Filter cloth shall be placed under the riprap to prevent shoreline erosion.

SPECIFIC CONDITIONS – MONITORING/REPORTING REQUIREMENTS

(14) Turbidity levels outside the construction area shall not exceed 0 NTU's above background levels. The following measures shall be taken immediately by the permittee whenever turbidity levels within waters of the State surrounding the project site exceed ambient turbidity levels of the surrounding Outstanding Florida Waters:

a) Notify the Department at (561) 681-6600 or SED.ERPcompliance@dep.state.fl.us at the time the violation is first detected.
b) Immediately cease all work contributing to the water quality violation.
c) Stabilize all exposed soils contributing to the violation. Modify the work procedures that were responsible for the violation, install more turbidity containment devices, and repair any non-functional turbidity containment devices.

d) As required, perform turbidity monitoring per Specific Conditions.
e) Resume construction activities once turbidity levels outside turbidity curtains fall below background levels.

(15) Water turbidity levels shall be monitored outside the limits of the required turbidity control devices. Samples shall be taken every four hours until turbidity subsides at one foot above the bottom, mid-depth, and one-foot below the surface at monitoring stations located as follows:

a) Approximately 100 feet up-current of the work sites and clearly outside the influence of construction activities. (This shall serve as the natural background sample against which other turbidity readings shall be compared.)
b) Directly outside the turbidity curtains surrounding the work sites and within the densest portion of any visible turbidity plume. (This sample shall serve as the compliance sample.)

(16) During dock, boat ramp, and rip rap construction activities, the permittee or permittee's contractor shall collect the following turbidity monitoring data at the frequency and water depths directed by the Specific Condition above:

a) Date and time of sampling event
b) Turbidity sampling results (background NTUs, compliance NTUs, and the difference between them)
c) Description of data collection methods
d) An aerial map indicating the sampling locations
e) Depth of sample(s)
f) Weather conditions at times of sampling
g) Tidal stage and direction of flow

Data shall be collected in a turbidity log and shall include a statement by the individual responsible for implementation of the sampling program attesting to the authenticity, precision, limits of detection, and accuracy of the data. The turbidity log shall be scanned and sent on a weekly basis to the ERP Compliance Assurance Program via email at SED.ERPcompliance@dep.state.fl.us. The subject line of the email shall include the project name, permit number, and the title "Turbidity Monitoring Reports."

SPECIFIC CONDITIONS – OPERATION AND MAINTENANCE ACTIVITIES

(14) There shall be a minimum 12-inch clearance between the deepest draft of the vessel (with the motor in the down position) and the submerged bottom at mean low water.

(15) This permit authorizes 8 temporary wet slips and 90 dry slips.

SPECIFIC CONDITIONS – MANATEE CONDITIONS

(16) The Standard Manatee Construction Conditions for In-water Work (2011) must be followed for all in-water activity.

(17) Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. Please see the Florida Fish and Wildlife Conservation Commission website for information on how to obtain appropriate signs:
http://www.myfwc.com/docs/WildlifeHabitats/Manatee_EducationalSign.pdf

GENERAL CONDITIONS FOR INDIVIDUAL PERMITS

The following general conditions are binding on all individual permits issued under chapter 62-330, F.A.C., except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

(1) All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

(2) A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

(3) Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

(4) At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," [October 1, 2013], which is incorporated by reference in paragraph 62-330.350(1)(d), F.A.C., indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.

(5) Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

(6) Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex – "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
b. For all other activities – "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

(7) If the final operation and maintenance entity is a third party:

a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

(8) The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

(9) This permit does not:

a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
b. Convey to the permittee or create in the permittee any interest in real property;
c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

(10) Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

(11) The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

(12) The permittee shall notify the Agency in writing:

a. Immediately if any previously submitted information is discovered to be inaccurate; and
b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

(13) Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

(14) If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

(15) Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

(16) The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

(17) This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

(18) A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

NOTICE OF RIGHTS

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 21 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 21 days of publication of the notice or within 21 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 21 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 sections 373.114(1)(a) or 373.4275, Florida Statutes, may also seek appellate review of this order before the Land and Water Adjudicatory Commission under section 373.114(1) or 373.4275, Florida Statutes. 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.

Any Party to this Order has the right to seek judicial review of the Order Pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of the Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 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 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.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Diane Pupa
Program Administrator – Permitting and Waste Cleanup
Southeast District

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

FDEP – Diane Pupa, Christopher Weller, Katie Lizza, Juliana Gomez, Richard Ohnmacht
FDEP - Biscayne Bay AP, Biscayne.Bay@floridadep.gov
Lisa Spadafina, Miami-Dade County RER, spadaL2@miamidade.gov
Sara Gutekunst, TYLIN International, sara.gutekunst@tylin.com
Colin Henderson, TYLIN International, colin.henderson@tylin.com

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk **Date** November 28, 2018

Attachments:
Project Drawings and Design Specs., 13 pages
Standard Manatee Conditions for In-Water Work, 2011, can be downloaded at http://myfwc.com/media/415448/Manatee_StdCondIn_waterWork.pdf
Seagrass Mitigation Plan, Derelict Vessel Removal, 6 pages
As-built Certification and Request for Conversion to Operational Phase Form 62-330.310(1)*
Request for Transfer to the Perpetual Operation Entity Form 62-330.310(2)*
Request to Transfer Permit Form 62-330.340(1)*
Commencement Notice Form 62-330.350(1)*
*Can be downloaded at: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/forms-environmental-resource

MIAMI MARINE STADIUM BOAT RAMP

FOR

CITY OF MIAMI

VIRGINIA KEY, FL 33149

Commission:

Mayor
Francis Suarez

D1 Commissioner
Wilfredo (Willy) Gort

Vice Chairman/ D2 Commissioner
Ken Russell

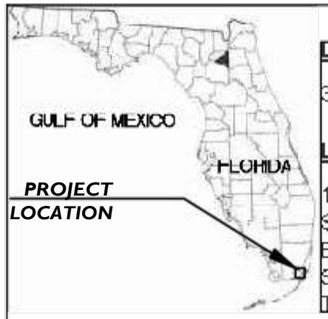
D3 Commissioner
Joe Carollo

D4 Commissioner
Manolo Reyes

Chairman/ D5 Commissioner
Keon Hardemon

City Manager
Emilio T. Gonzalez, Ph.D.

Capital Improvements Program Director
Steven C. Williamson



LOCATION:

3501 RICKENBACKER CSWY Miami, FL 33149-1021

LEGAL DESCRIPTION:

17 18 54 42 20.487 AC M/L BEG 1709.52FTW & 1954.40FTNW OF SE COR OF SEC TH N 45 DEG W 3075FT S 00 DEG W 650FT 45 DEG E2620FT N 44 DEG E 460FT TO POB LESS BEG 1709FTS & 1954.40FTNW OF SE COR OF SEC TH SW263FT NW90FT NE63FT NW245FT NE200FT SE335FT TO POB LESS PORT OF CITY OF MIAMI OWNED LAND ON VIRGINIA

	INDEX OF DRAWINGS
	COVER SHEET
P-1.0	GENERAL NOTES
P-2.0	SITEPLAN
P-3.0	PARKING LOT DRAINAGE
P-4.0	GRADING PLAN
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CM-1.0	GENERAL NOTES BOAT RAMP
CM-1.1	EXISTING CONDITIONS
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CM-2.1	BOAT RAMP LONGITUDINAL SECTION
CM-2.2	DOCKS CROSS SECTION
CM-2.3	DETAIL

VICINITY MAP N.T.S.

NORTH

MIAMI MARINE STADIUM BOAT RAMP PROJECT LOCATION MAP

N.T.S. NORTH

GOVERNING STANDARDS AND SPECIFICATIONS:

- *FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2014, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2014, AS AMENDED BY CONTRACT DOCUMENTS.*
- *CITY OF MIAMI ENGINEERING STANDARDS FOR DESIGN AND CONSTRUCTION DATED DECEMBER 2010*
- *MIAMI 21 CODE DATED MAY 2010.*

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CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS

Project Name
CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS
MIAMI MARINE STADIUM
3501 Rickenbacker Causeway
CITY OF MIAMI, FLORIDA

Plans Prepared By:
TYLIN INTERNATIONAL

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Seal

Drawing Title
MARINE STADIUM BOAT RAMP

COVER SHEET

GENERAL NOTES

1. GENERAL NOTES ON THE PROJECT PLANS AND DRAWINGS ARE SOLELY TO AID AND ASSIST THE CONTRACTOR WITH THE FIELD OPERATIONS FOR THE PROJECT. SAID GENERAL NOTES MAY NOT FULLY DESCRIBE ALL OF THE REQUIREMENTS FOR AN ITEM . THEREFORE, THE CONTRACTOR SHALL READ AND VERIFY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE PLANS, SPECIFICATIONS, GENERAL TERMS AND CONDITIONS, AND THE SUPPLEMENTAL TERMS AND CONDITIONS, TO FULLY UNDERSTAND AND COMPLY WITH ALL THE REQUIREMENTS THEREIN.

2. THE CONTRACTOR MUST HAND EXCAVATE AROUND AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE EXPECTED OR SUSPECTED IN ORDER TO AVOID DAMAGES . THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND COSTS TO CORRECT DAMAGES RESULTING FROM FAILURE TO TAKE ALL NECESSARY PRECAUTIONS INCLUDING LOCATING, MARKING AND CAREFUL EXCAVATION, AND SHOULD BE INCIDENTAL TO THE COST OF THE PROJECT.

3. IT IS THE OBLIGATION OF THE BIDDER OR THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION AND SATISFY HIMSELF FULLY OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID. FAILURE TO DO SO, WILL NOT RELIEVE HIM OF HIS OBLIGATION TO COMPLETE THE WORK FULLY AND ACCEPTABLE TO THE ENGINEER AND THE OWNER FOR THE CONSIDERATION SET FORTH IN HIS BID.

4. CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM PRINTS FOR CONSTRUCTION PURPOSES.

5. ALL DISTURBED GRASS AREAS SHALL BE RESTORED WITH SUITABLE SOIL AND SOLID ST AUGUSTINE SOD IF NOT SPECIFIED OTHERWISE ON THE PLANS.

6. IT IS THE INTENT OF THESE PLANS TO BE IN COMPLIANCE WITH APPLICABLE CODES OF AUTHORITIES HAVING JURISDICTION . ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

7. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, UTILITIES AND UTILITY MARKERS, WHICH MAY NOT BE SHOWN ON PLANS. ANY EXISTING STRUCTURES, PAVEMENT, TREES, UTILITIES, UTILITY MARKERS OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

8. ANY DISCREPANCIES IN THESE DRAWINGS WITH THE FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. CONSTRUCTION SHALL NOT CONTINUE UNTIL ENGINEER ADDRESSES THE DISCREPANCIES.

CONSTRUCTION NOTES

1. ALL WORK TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF AND ACCEPTABLE TO CITY OF MIAMI PUBLIC WORKS DEPARTMENT AND MIAMI-DADE COUNTY R. E.R.

2. . CONTRACTOR SHALL PROVIDE HIS OWN LINE AND GRADE FROM HORIZONTAL AND VERTICAL CONTROL. CONTRACTOR SHALL ALSO PROVIDE "AS BUiIT" GRADES CERTIFIED BY A REGISTERED LAND SURVEYOR AS REQUIRED BY THE CITY OF MIAMI PUBLIC WORKS DEPARTMENT .

3. BID PRICES SHALL INCLUDE ALL LABOR, EQUIPMENT , MATERIALS AND INCIDENTALS COMPLETE IN PLACE, TESTED, AND ACCEPTED BY THE ENGINEER.

4. THE CONTRACTOR SHALL USE SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO WORK .

5. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING INLETS AND CULVERTS CLEAN OF DEBRIS AND ANY OTHER MATERIALS USED DURING CONSTRUCTION. THIS SHALL BE DONE DURING THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. ALL EXISTING LINES AND STRUCTURES SHALL BE CLEANED PRIOR TO FINAL INSPECTION AND ACCEPTANCE.

6. CONTRACTOR SHALL CONTACT SUNSHINE AT (800) 432-4770 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.

7. ALL TREES TO BE RELOCATED OUTSIDE OF CONSTRUCTION AREA WHERE FEASIBLE . UNAVOIDABLE IMPACT TO MANGROVE TREES ARE TO BE MITIGATED IN ACCORDANCE TO APPROVED PERMITS.

8. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL ITEMS LISTED IN PROJECT SPECIFICATION (WHERE APPLICABLE).

9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.

10. ALL EXISTING DRAINAGE STRUCTURES AND PIPES ARE TO REMAIN AND TO BE PROTECTED UNLESS OTHERWISE SPECIFIED AND APPROVED.

11. CONTRACTOR SHALL IMPLEMENT AND ENFORCE ALL NPDES EROSION AND SEDIMENT CONTROL RULES AND REGULATIONS.

12. CONTRACT SHALL INCLUDE IN THE BID PRICE FOR CLEARING AND GRUBBING.

ENVIRONMENTAL NOTES

1. ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES.

2. THE CONTRACTOR SHALL REVIEW ENVIRONMENTAL REQUIREMENTS OF ANY PROPOSED STAGING AREAS WITH THE PROJECT ENGINEER AT LEAST SEVENTY- TWO (72) HOURS PRIOR TO USE.

3. NO STAGING OR OTHER ACTIVITIES FOR THIS PROJECT WILL BE ALLOWED WITHIN ENVIRONMENTALLY SENSITIVE AREAS.

4. CONTRACTOR SHALL NOT STAGE OR OPERATE EQUIPMENT WITHIN THE DRIPLINE OF TREES.

5. CONTRACTOR TO PROVIDE A CERTIFIED ARBORIST WHO WILL DETERMINE ANY ROOT PRUNING AND ANY OTHER TRIMMING ACTIVITIES . COST TO BE INCIDENTAL TO CONSTRUCTION . NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

STRUCTURAL NOTES

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOOT 2015 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

DESIGN SHALL BE IN ACCORDANCE WITH THE FOOT STRUCTURES MANUAL JANUARY 2015, AND SUBSEQUENT STRUCTURES DESIGN BULLETINS, THE FOOT STRUCTURAL DESIGN STANDARD INDEXES/DRAWINGS, 2015, AS AMENDED BY CONTRACT DOCUMENTS, AND ALL SUBSEQUENT INTERIMS .

ENVIRONMENT IS CLASSIFIED AS EXTREMELY AGGRESSIVE.

MATERIALS

5.1. BULKHEADS REINFORCED C.I.P. CONCRETE CAP : CONCRETE CLASS V(SPECIAL) f'c 6,000psi, WITH SILICA FUME, METAKAOLIN, OR ULTRA FINE FLY ASH.

CONCRETE COVER

3"CLEAR COVER, COVER DOES NOT INCLUDE TOLERANCES . REFER TO FOOT SPECIFICATION 415 FOR ALLOWABLE TOLERANCES.

PLAN DIMENSIONS

ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

UTILITIES

8.1. LOCATIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS.
8.2. FOR STORM DRAINS AND OTHER UTILITIES, FOLLOW GENERAL NOTES ON PROCEDURES INVOLVING EXISTING UTILITIES.

JOINTS IN CONCRETE : CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED IN THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

CUT AND FILL OPERATIONS

10.1. THE CONTRACTOR SHALL NOTIFY ADJACENT OWNERS AND INVOLVED UTILITIES IN WRITING TWO (2) WEEKS BEFORE EXCAVATION OPERATIONS BEGIN.
10.2. . QUANTITIES FOR CUT AND FILL SHOWN IN THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE BIDDING.
10.3. ANY EXCAVATED MATERIAL THAT IS DEEMED BY THE ENGINEER UNSUITABLE FOR FILLING SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AT AN APPROVED FACILITY OR DUMP SITE. THE COST FOR DISPOSAL OF UNSUITABLE MATERIAL SHALL BE INCLUDED IN THE COST OF CUT AND FILL.

PROJECT
MIAMI MARINE STADIUM BOAT RAMPS

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SEAL

FRANCISCO J. ALONSO
P.E. No. 66918

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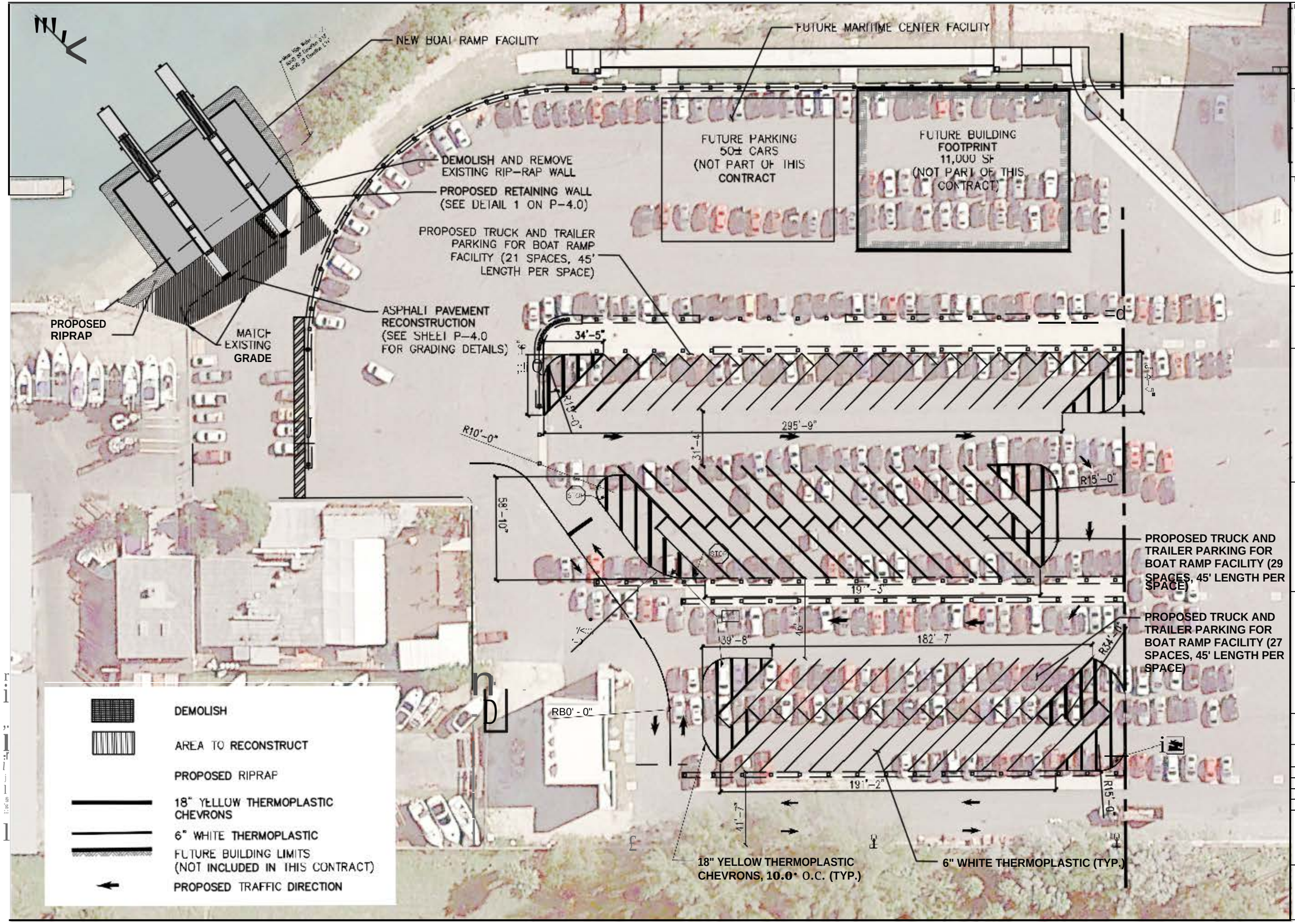
SHEET TITLE

GENERAL NOTES

SHEET

P-1.0



PROJECT

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P.E. No. 66918

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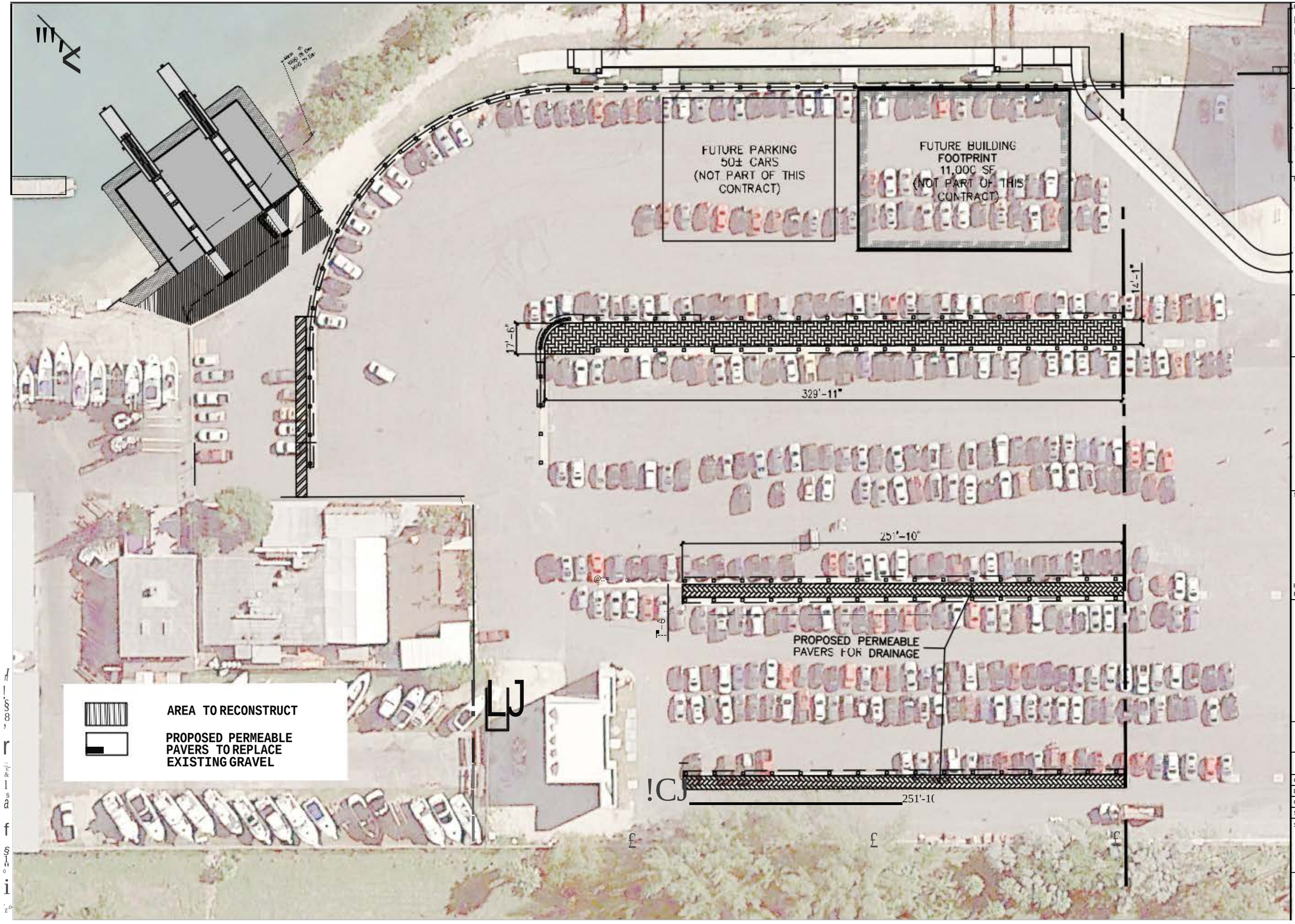
SHEET TITLE

SITEPLAN

SHEET

P-2.0



PROJECT

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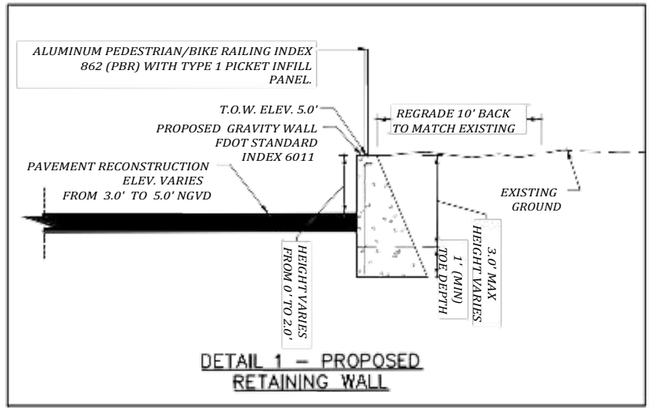
SHEET TITLE

PARKING
LOT DRAINAGE

SHEET

P-3.0



DETAIL 1 – PROPOSED RETAINING WALL

PROPOSED GUIDE PILE, TYP.

5.00' PROPOSED ELEVATION

PAVEMENT AREA TO RECONSTRUCT

PROPOSED GANGWAY, TYP.

PROPOSED FLOATING DOCK, TYP.

PROPOSED CONC. BOAT RAMP TYP.

Mean High Water Line +/-
NAVD 88 Elevation 0.18'
NGVD 29 Elevation 1.74

PROP. RETAINING WALL – SEE DETAIL 1 ON THIS SHEET

REGRADE GRAVEL AREA TO MEET EXSTING GRADE

MATCH EXISTING ELEV. 2.59'

PROPOSED FIXED DOCK, TYP. (ELEV. +5.0')

3.00'

20'-0"

5.00'

2'-11"

TOP OF WALL ELEV. 5.00'

13'-6"

5.38'

MATCH EXIST. ELEV. 5.17'

5.29'

MATCH EXIST. ELEV. 5.08'

36'-11"

60'-2"

PROJECT
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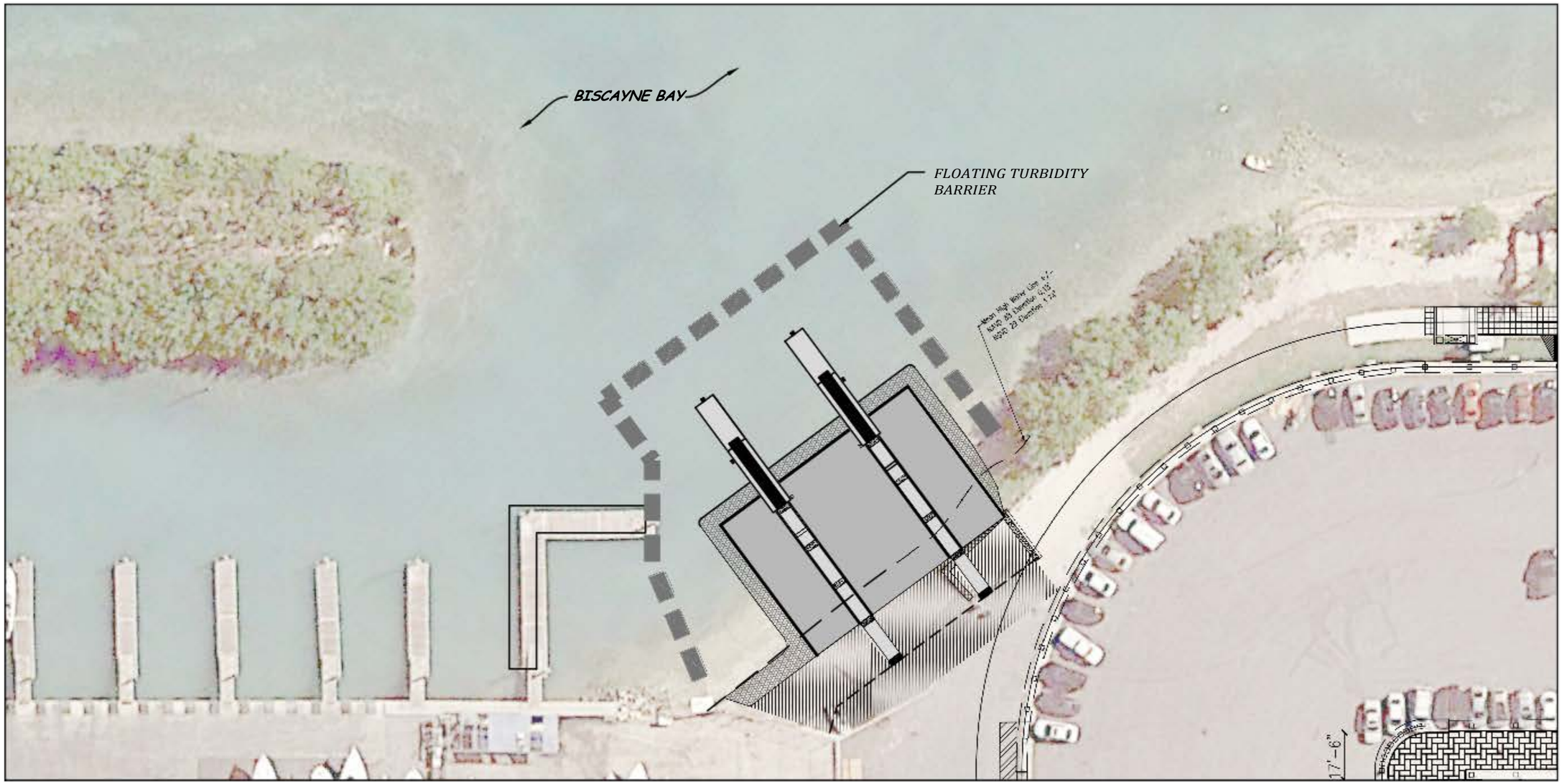
SHEET TITLE
GRADING PLAN

SHEET
P-4.0



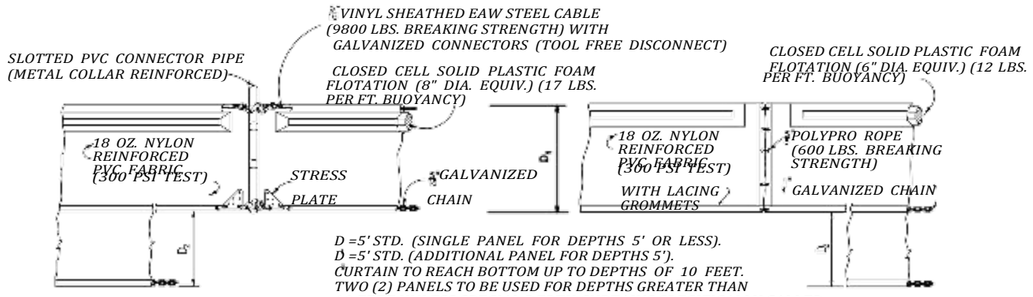
TURBIDITY BARRIER

TURBIDITY BARRIER NOTES

1. TURBIDITY CURTAINS SHALL BE DEPLOYED IN A MANNER NOT TO ENTANGLE OR HARM MANATEES.
2. TURBIDITY SHALL BE MONITORED AS OUTLINED IN THE REGULATORY PERMITS.
3. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF THE WATER DEPTH.
4. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
5. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
6. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.

EROSION/SEDIMENT CONTROL NOTES

THE PURPOSE OF EROSION CONTROL IS TO PREVENT POLLUTION OF BODIES OF WATER ON OR ADJACENT TO THE PROJECT SITE. IN ADDITION, EROSION CONTROL SHALL PREVENT DAMAGE TO ADJACENT PROPERTY, AND WORK IN PROGRESS. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT ALL EROSION CONTROL DEVICES PERIODICALLY AND AFTER EVERY RAINFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.



D =5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D =5' STD. (ADDITIONAL PANEL FOR DEPTHS 5').
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET.
TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

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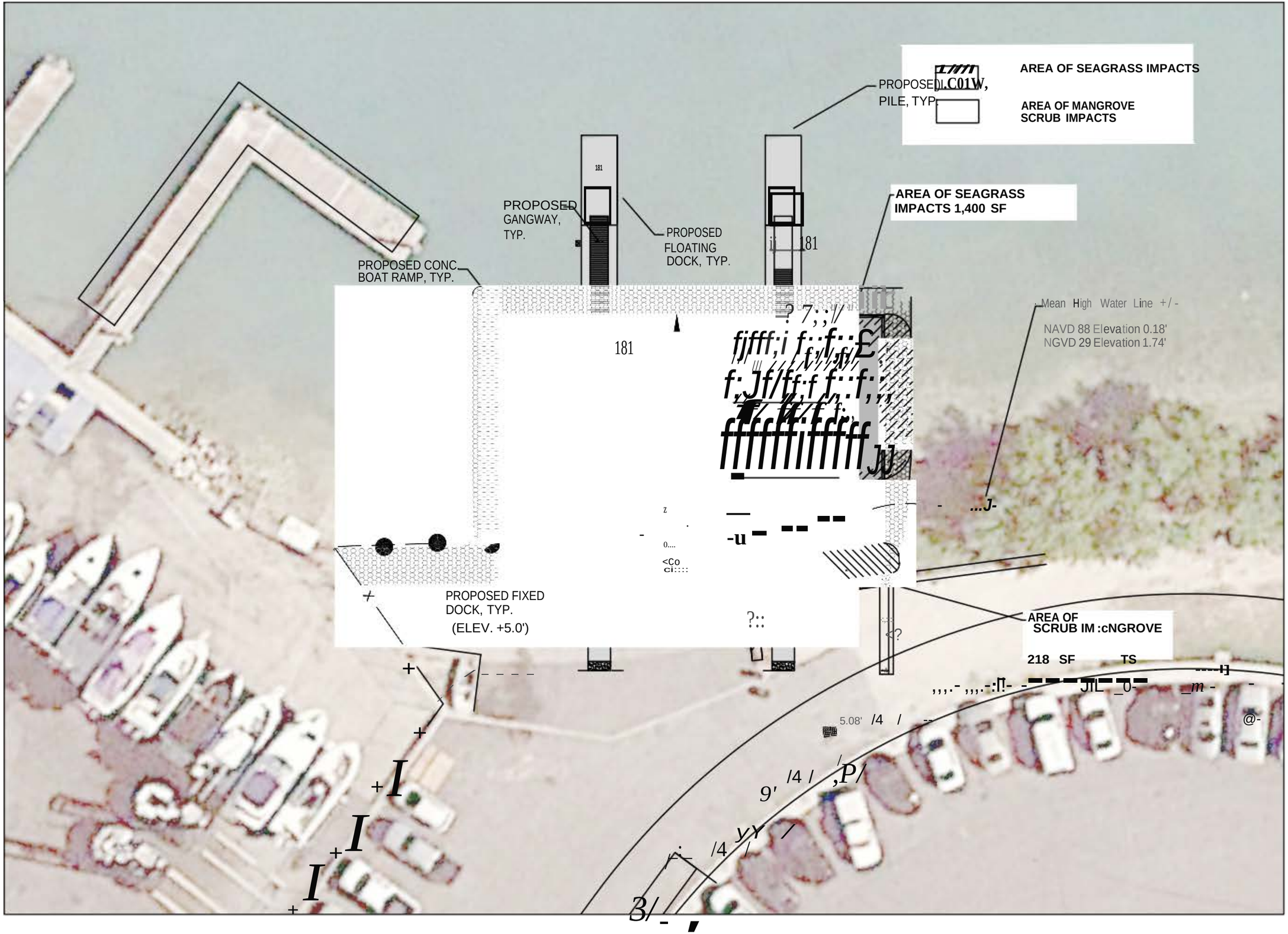
SHEET TITLE
TURBIDITY CONTROL

SHEET
P-5.0



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SCALE	1":40'

SHEET TITLE

ENVIRONMENTAL IMPACTS

SHEET

P-6.0

1. General

1.1. The work consists of providing all construction, labor, equipment, material and operations in connection with the repair of the seawall and related improvements as shown on these drawings.

1.2. Any discrepancies in the plans with the field conditions shall be brought to the immediate attention of the Engineer. Construction shall not continue until the Engineer has addressed the discrepancies.

1.3. The contractor shall take all necessary precautions to protect existing structures in the project vicinity. Any damage to private or public property within the Project vicinity, including staging sites, work and access areas shall be repaired promptly by the Contractor. Any damage as a result of the Contractor's operations shall be repaired at no cost to the Owner. All access and staging areas shall be kept neat, orderly and in a safe manner. All access and staging areas shall be restored to the pre-construction condition upon project completion at the cost of the Contractor. The site shall be restored by removing and finishing all evidence for construction. In the event infrastructure (such as walkways, sidewalks, fences, vegetation, etc.) is temporarily removed or relocated or there is unauthorized damage to vegetation and/or facilities by the Contractor, the Contractor shall restore all damage to structures and natural features to pre-construction conditions or better.

1.4. Utilities are not shown in the plans. Contractor is responsible for locating all present utilities prior to construction.

1.5. Contractor is responsible for providing proper clearance and protection to all overhead wires and obstructions.

1.6. The Contractor shall exclude the public from the work areas in the immediate vicinity of operations. Contractor shall provide appropriate safety measures to protect the public.

1.7. All new structural work including concrete and reinforcement shall be accurately field measured and dimensions verified by the Contractor prior to ordering materials. Contractor shall be prepared to make field adjustments to accurately fit the new work to existing conditions.

1.8. No construction shall commence until all required permits and approvals have been secured and the contractor has been issued Notice to Proceed.

1.9. Attention is directed to the fact that these plans may have been changed in size by reproduction. This should be considered when obtaining scaled data.

1.10. Construction work shall be executed in accordance with all local, state, and national building codes and governing regulations.FDEP, USACE, and Broward County. Contractor shall adhere to all conditions of the permits and exemptions.

1.11. Extend existing drainage pipes through steel sheet pile at same elevation.

2. Layout and Testing

2.1. All construction stakeout shall be performed by and paid for by the contractor under the supervision of a surveyor registered in the state of Florida. All testing and inspection for concrete materials shall be in accordance with FDOT specifications and shall be performed by an independent testing laboratory.

3. Demolition

3.1. Contractor shall verify the extents, location and quantities of existing elements to be removed.

3.2. All debris within the limits of the project shall be hauled off site by the Contractor, as directed by the Owner, and disposed of at an appropriate facility.

3.3. Contractor shall not damage any structural components beyond the demolition requirements depicted in these drawings. Any damage shall be repaired at the Contractor's expense.

4. Concrete

4.1. Forms for this work shall be made of either wood or metal. They shall be straight and free of warp or bends. They shall have sufficient strength and rigidity, when staked, to resist the pressure of the concrete without springing. If wooden forms are used, they shall be of adequate section and shall have a flat surface on top. Forms shall have a depth at least equal to the vertical dimensions for the depth of the concrete being deposited against them. When ready for the concrete to be deposited, they shall not vary from the approved line and grade, and shall be kept so until the concrete has set.

4.2. Just prior to placing the concrete any wooden forms shall be moistened and all steel reinforcing shall be rinsed with fresh water. The concrete shall be placed in the forms and tamped in place so that all honeycombs will be eliminated and sufficient mortar brought to a smooth even finish by means of a float.

4.3. Contractor shall be prepared to place concrete of lower members of the marine structures in submerged conditions utilizing tremie methods at no additional cost.

4.4. No concrete shall be poured during unfavorable weather or sea conditions.

4.5. All steel shall have a minimum of 3 inches concrete cover, unless otherwise noted. No chairs or other metal shall protrude from surface of concrete.

4.6. Cast-in-place concrete shall be a minimum of 5,000 PSI compressive strength at 28 days. Water cement ratio (W/C) shall be less than or equal to 0.4. Provide mix design for a Class IV concrete for an extremely aggressive (marine) environment in accordance with FDOT specifications. Provide sufficient amount of fly ash and silica fume to the cement content. Contractor shall provide mix design to Engineer for Engineer or Special Inspector.

4.8. When surface finishing is completed, the structure shall be protected against wave splash for two days and cured per applicable paragraphs of Section 400-16 of the FDOT Standard Specifications. Curing shall occur for at least 7 days.

4.9. A surface penetrant sealer of alkyl-alkoxy silane classification, such as BASF Enviroseal, or approved equal shall be applied all exposed concrete.

4.10. Apply Sika Armatec 110 bonding agent, or approved equal, at construction joints prior to placement of new concrete.

4.11. Components not constructed according to these specifications shall be removed and replaced properly at the expense of the contractor.

4.12. The faces of the finished structures shall be true, straight, and of uniform width, free from humps, sags, or other irregularities except as specified in the plans. The contractor shall replace any deficient segments.

4.13. Concrete Formworkers and Finishers:
The contractor shall supply a sufficient number of experienced concrete formworkers and finishers in order to complete the work. A concrete foreman who has a thorough understanding of the plans, specifications, and referenced specifications shall supervise all formworkers and finishers. No sub-standard workmanship will be accepted.

4.14. Concrete Transportation:
Concrete delivered from a ready mix plant shall be transported in accordance to FDOT Section 345-13. Concrete that is not placed in the form within the specified time limits will be rejected and not included in the work. Contractor shall bear all costs for rejected concrete. Concrete shall not be placed in the forms until the reinforcing steel placement has been approved by the Engineer.

4.15. Reinforced Concrete Materials Testing:
The Contractor shall have an independent testing laboratory test the concrete used in the work. The test shall include 7, 14, and 28 day compressive strength tests. The results shall be supplied to the Engineer. The tests shall be in accordance with ASTM C31, C39, and C617.

4.16. Adhesive bonded dowels shall be installed in accordance with FDOT Section 416.

5. Steel

5.1. All reinforcing steel shall conform to ASTM A615, Grade 60, deformed bars free from loose rust and scale.

5.2. Reinforcing steel, supports, and tie wire shall be hot-dipped galvanized in accordance with ASTM A767.

5.3. MMFX or CHROMX 4100 steel can be used as an alternate to hot-dipped galvanized steel at Contractors option, with no additional cost to owner.

5.4. Steel shall be placed as shown in the plans. All accessories shall be plastic only to support reinforcing exposed to weather. All reinforcing steel shall be accurately located and firmly held in place before and during the place of concrete.

6. Concrete Piles

6.1. Piles shall be 14" square prestressed concrete piles with (8) 0.6" diameter strands, grade 270 ksi, LRS.

6.2. Concrete to be minimum 6,000 psi, and follow FDOT Class-V concrete specifications. Minimum concrete cover to internal reinforcement shall be 3" on all sides.

6.3. Piles shall be driven a minimum of 12 feet into firm material and provide a minimum bearing capacity of 25 tons/pile. Pile logs shall be recorded for all driven piles.

6.4. Piles shall be cut off at elevations shown in the plans and sections herein.

6.5. Contractor to submit shop drawings for concrete piles.

6.6. Piles shall be from a FDOT certified facility of prestressed concrete products.

7. Tidal Data

7.1. Contractor may need to adjust his work plan to account for actual water levels and changing water levels. The site may be subject to variable wave and surge conditions and it is the responsibility of the contractor to provide temporary support for marine structures and shoreline during construction. Tidal data obtained from Virginia Key, Florida Station ID 8723214.

8. Submittals

8.1. Review of submittals by the structural engineer is for general conformance with the design concept as presented by the contract documents. No detailed check of quantities or dimensions will be made.

8.2. All shop drawings must bear evidence of the Contractor's approval prior to submitting to the Engineer.

8.3. The following minimum submittals shall be prepared by the Contractor and submitted to the Engineer for review and approval prior to related construction activity:

8.3.1. Schedule for completion of work with tasks and durations defined

8.3.2. Demolition Methods & Disposal Plan

8.3.3. Concrete Mix Design

8.3.4. Reinforcing Steel

8.3.5. Precast concrete piles slabs

8.3.6. Dock hardware

9. Design Criteria

10.1 FBC 2014, ASCE 7-10 unoccupied wind Vult= 175 mph, Vasd = 136 mph Risk

10.2 Dock/Ramp LL = 100 psf.

10.3 Design Vessel LOA = 40'

10.4 Occupied Wave Ht. = 1.5 ft

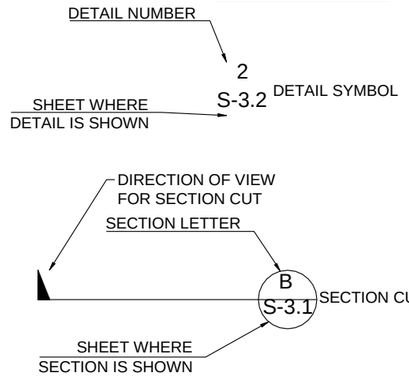
Unoccupied Wave Ht. = 2 ft

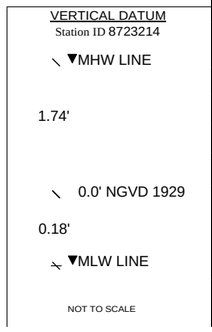
Storm Surge = 2 ft (Mean Range NOAA)

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CONT	CONTINUOUS
CONT'D	CONTINUED
CTD	CENTERED
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
KSI	KIPS PER SQUARE INCH
LOA	LENGTH OVERALL
MHW	MEAN HIGH WATER
MIN	MINIMUM
MLW	MEAN LOW WATER
NAVD	NORTH AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
PERA	PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS
PSI	POUNDS PER SQUARE INCH
TYP	TYPICAL
USACE	UNITED STATES ARMY CORPS OF ENGINEERS
W/C	WATER/CEMENT RATIO

SYMBOLS LEGEND





PROJECT
MIAMI MARINE STADIUM
BOAT RAMPS

RICKENBACKER CAUSEWAY
MIAMI, FLORIDA 33435

TY·LIN INTERNATIONAL
201 Alhambra Circle Suite 900
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COA # 29062

CUMMINS | CEDERBERG
Coastal & Marine Engineering

DEPARTMENT OF ENVIRONMENTAL PROTECTION – STATE OF FLORIDA

Permit Number

SEAL
13-306513-011-E

Southeast District

JASON S. TAYLOR, P.E. 60277

SUBMISSION / REVISION	DATE	ISSUE

CC PROJECT NO.	39102
DRAWN	VC
CHECKED	
SCALE	AS SHOWN

SHEET TITLE
GENERAL NOTES

SHEET 3 OF 5

GM 1.0

N

0 10 20

GRAPHIC SCALE
11X17: 1"=20'

NOTES:
1. SURVEY BY E.R. BROWN & ASSOCIATES INC. DATED ON 08/04/17.
2. HORIZONTAL COORDINATES ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE NAD 83(1990)
3. ELEVATIONS ARE IN REFERENCE TO THE NATIONAL GEODETIC VERTICAL DATUM, 1929(NGVD29).

Marine Stadium

Imagery Date: 3/21/2017 25°44'

PROJECT
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JASON S. TAYLOR, P.E. 60277

CC PROJECT NO.	39102
DRAWN	VC
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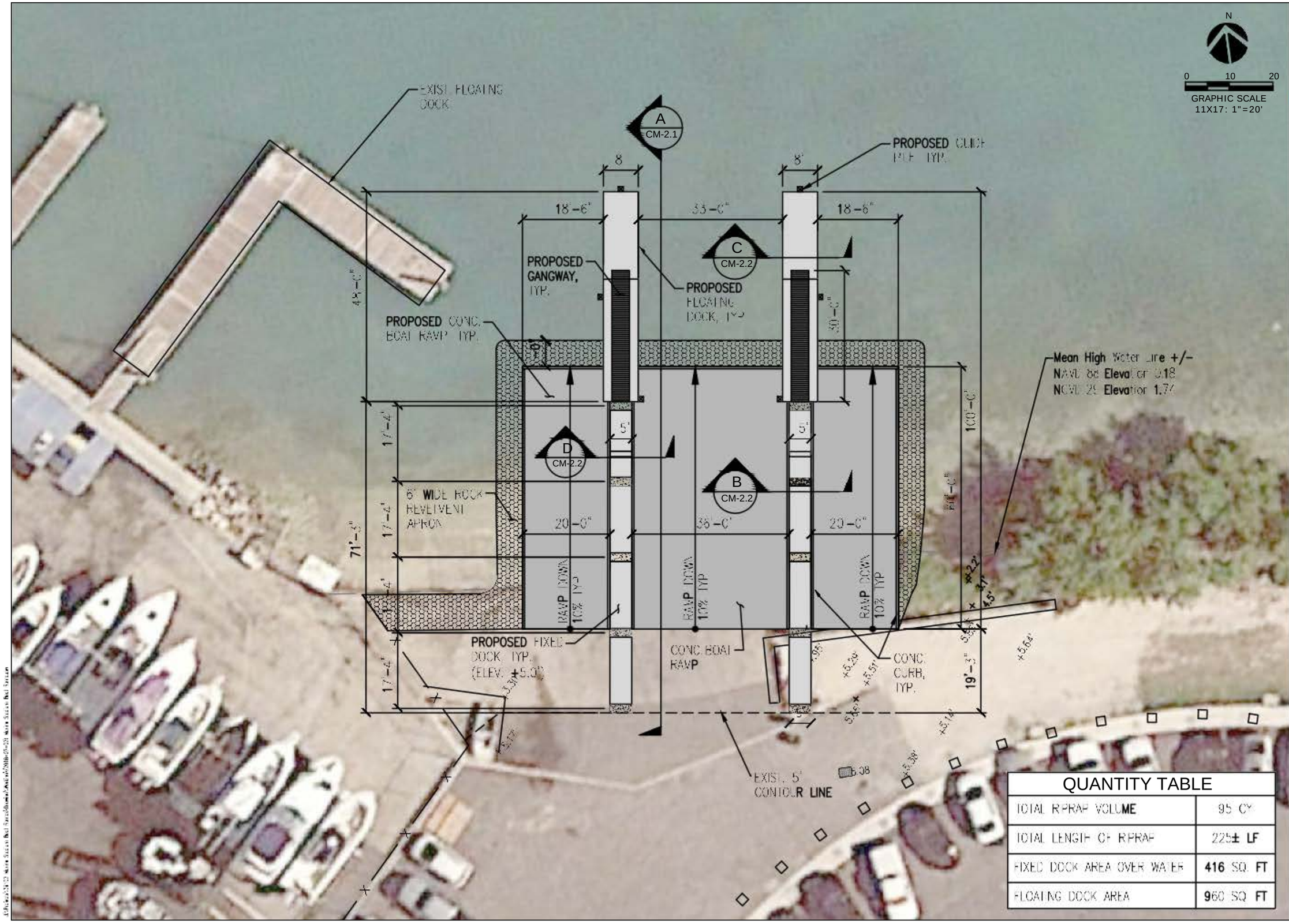
SCALE	AS SHOWN

SHEET TITLE
EXISTING CONDITIONS

SHEET 3 OF 5

CM-1.1



QUANTITY TABLE	
TOTAL RIPRAP VOLUME	95 CY
TOTAL LENGTH OF RIPRAP	225± LF
FIXED DOCK AREA OVER WATER	416 SQ. FT
FLOATING DOCK AREA	960 SQ FT

PROJECT

MIAMI MARINE STADIUM BOAT RAMPS

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MIAMI, FLORIDA 33435

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JASON S. TAYLOR, P.E. 60277

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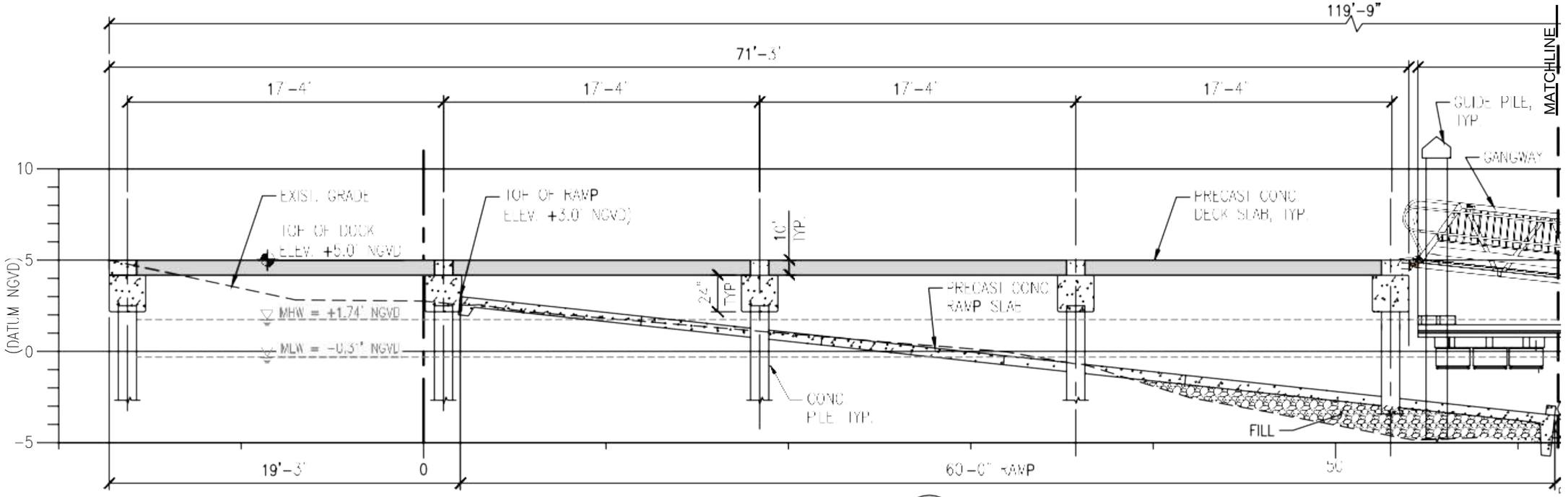
DRAWN	VC
CHECKED	
SCALE	AS SHOWN

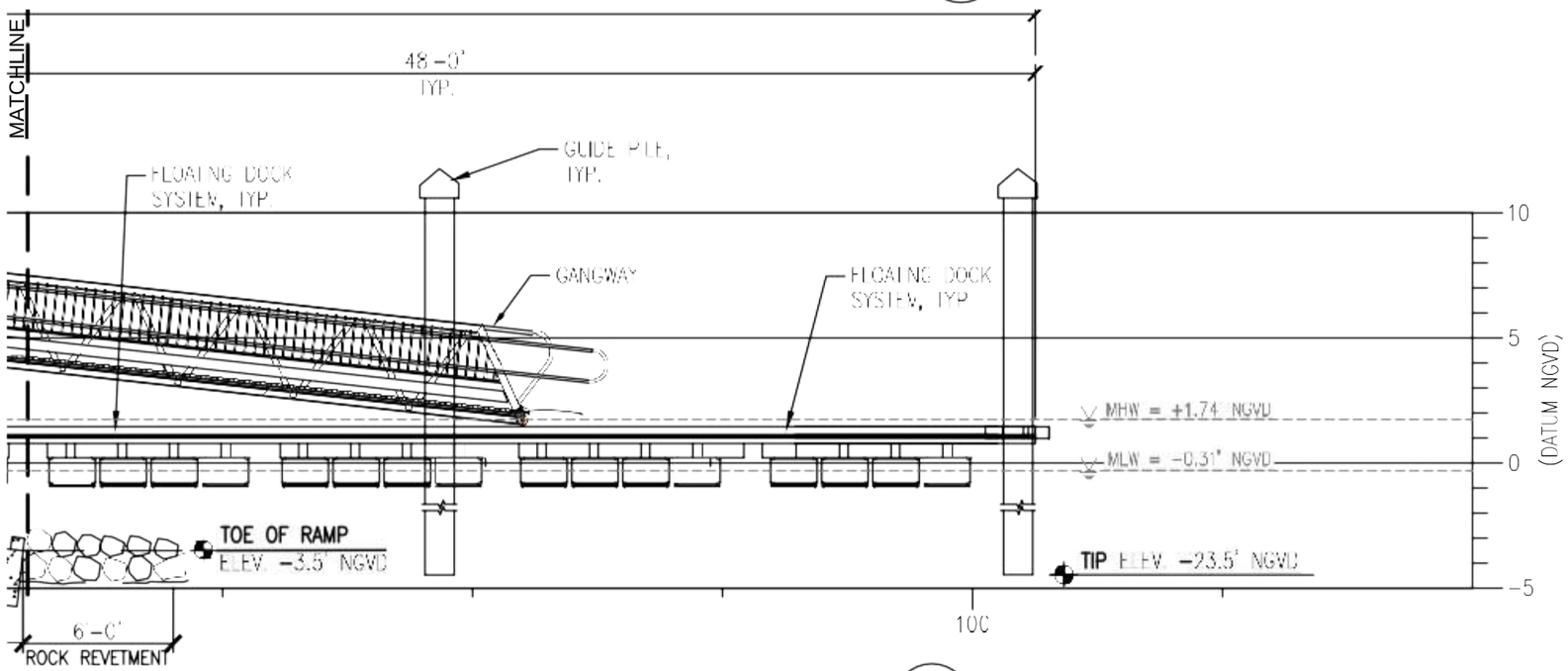
SHEET TITLE

SHEET 4 OF 5

CM-2.0



LONGITUDINAL SECTION A
SCALE: 1:6 (11X17) S-2.0



LONGITUDINAL SECTION A
SCALE: 1:5 (11X17) S-2.0

PROJECT
MIAMI MARINE STADIUM BOAT RAMPS

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SCALE	AS SHOWN

SHEET TITLE

SHEET 5 OF 5

CM-2.1

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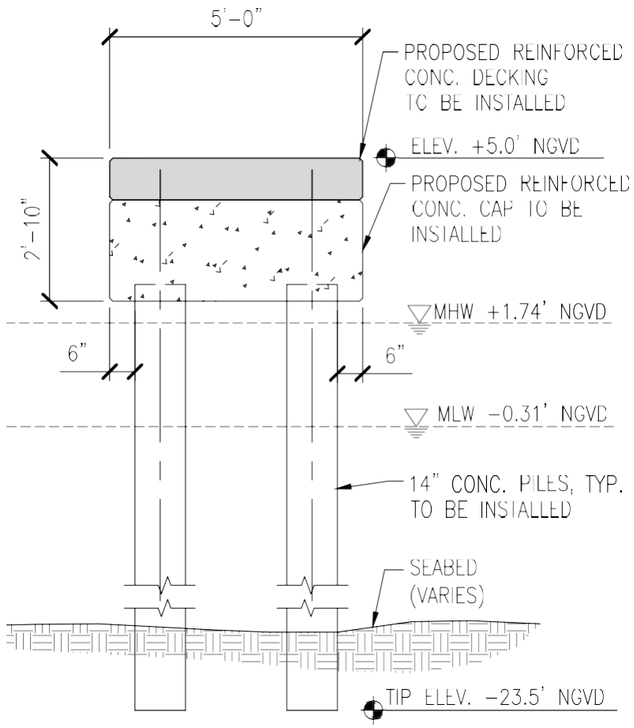

DOCK SECTION B
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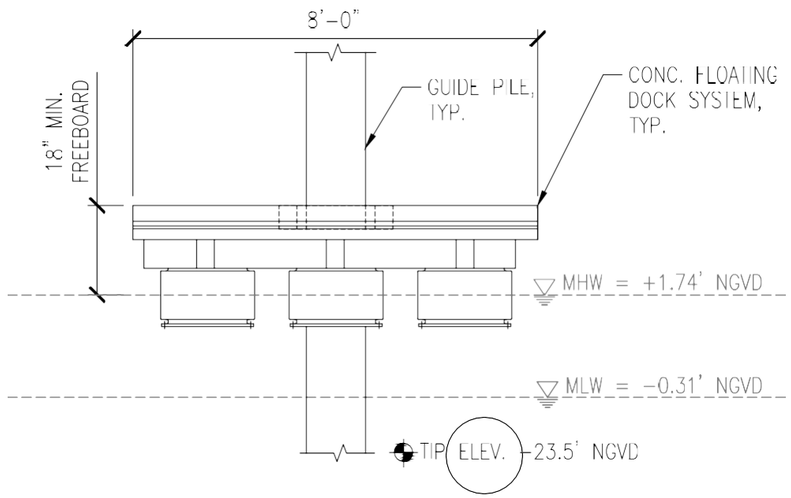

DOCK SECTION C
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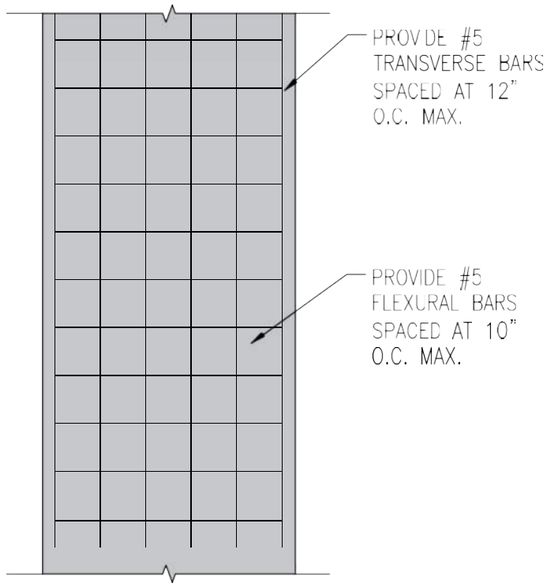

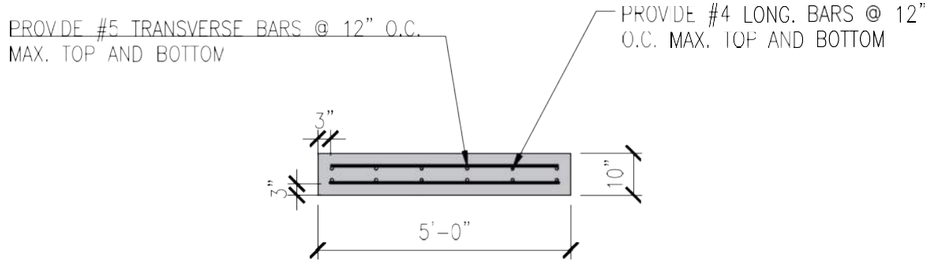

DOCK SLAB SECTION D
SCALE: 1:3 (11X17) S-2.0

PROJECT
MIAMI MARINE STADIUM BOAT RAMPS

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MIAMI, FLORIDA 33435

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COA # 29062

CUMMINS | CEDERBERG
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Permit N
13-306513
Southe st

STATE OF FLORIDA - DEPARTMENT OF

SEAL

JASON S. TAYLOR, P.E. 60277

SUBMISSION / REVISION	DATE	ISSUE

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DRAWN	VC
CHECKED	
SCALE	AS SHOWN

SHEET TITLE

SHEET 5 OF 5

CM-2.2

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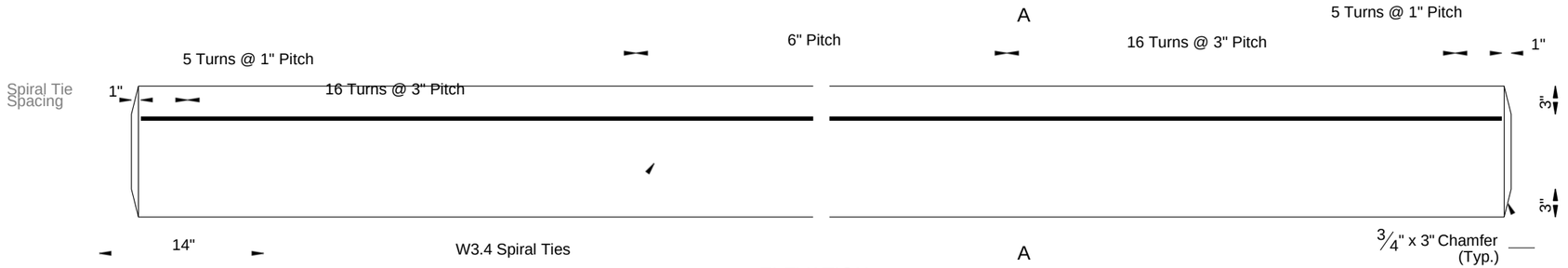
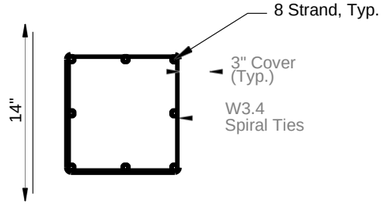


ELEVATION



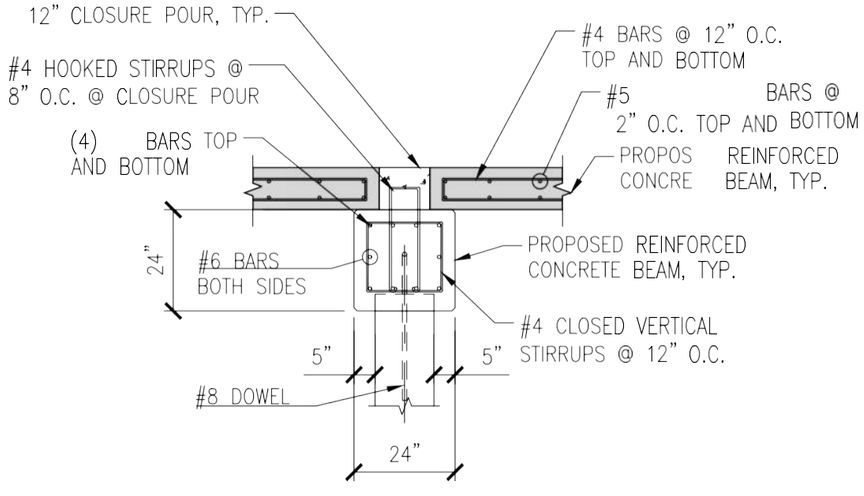
SECTION A-A

14"x14" PILE SPECIFICATION:

Fc' 6,000 PSI (MIN)
2. 3" COVER ON ALL REI
3. ALL PILINGS SHALL CONFORM TO FDOT CONCR. CLASS V SPEC.
4. PILING TO ACHIEVE BEARING CAPACITY OF 35 TONS
5. CONTRACTOR TO MAINTAIN P LOGS.

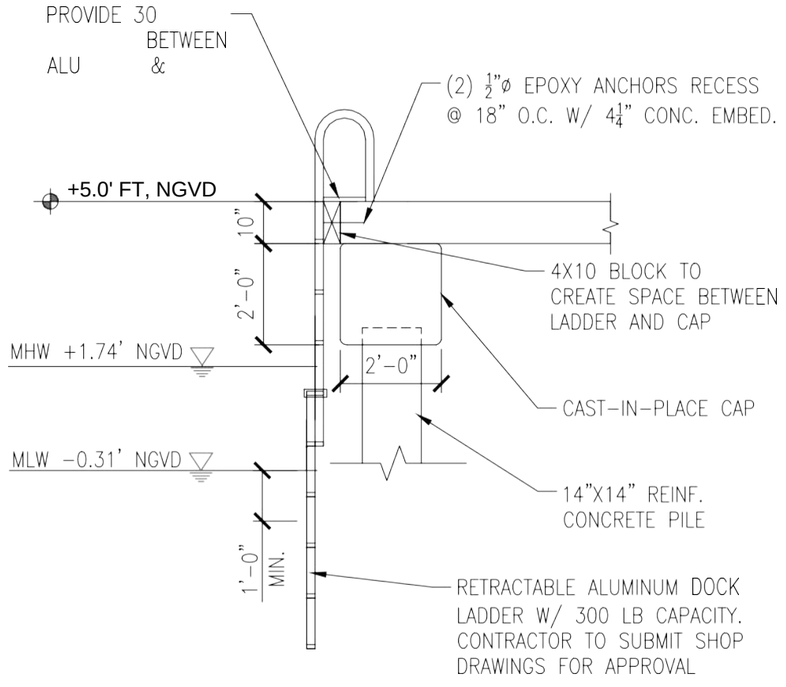
PROPOSED P.S CONCRETE PILE DETAIL (TYP.) 1

N.T.S. CM-2.0



PROPOSED REINFORCING DETAIL 2

SCALE: 1:3 (11X17) CM-2.1



LADDER DETAIL 3

SCALE: 1:3 (11X17) CM-2.1

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SEAL

JASON S. TAYLOR, P.E. 60277

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SCALE	AS SHOWN

SHEET TITLE

SHEET 5 OF 5

CM-2.3

J:\Projects\39102 Marine Stadium Boat Ramps\Drawing\Working\(2018-07-02) Marine Stadium Boat Ramp.dwg

TY·LIN INTERNATIONAL

Miami Marine Stadium Boat Ramp
City of Miami
Permit/Application No. 13-0306513-011-EI
Seagrass Mitigation Plan
Derelict Vessel Removal

Introduction

The proposed project includes the installation of two fixed/floating dock finger piers and the replacement of a boat ramp in order to enhance recreational access to Biscayne Bay. The project site is located at the Miami Marine Stadium on Virginia Key in the City of Miami. Existing conditions include a deficient boat ramp adjacent to an unconsolidated shoreline of mangroves, sparse vegetation and a concrete bag seawall. The substrate in the project area consists of a sandy, silty muck bottom layer with scattered shell and rock and dense macroalgae. Three (3) species of seagrass were observed within the project area in varying densities, including turtle grass *(Thalassia testudinum)*, shoal grass *(Halodule wrightii)*, and manatee grass *(Syringodium filiforme).*

In order to offset unavoidable impacts associated with the proposed project, seagrass mitigation is proposed in the form of derelict vessel removal within Miami-Dade County, Florida. The proposed mitigation will restore seagrass habitat within the Biscayne Bay Aquatic Preserve through the removal of sunken, abandoned vessels/debris. Based on consultation with FDEP, the area of seagrass mitigation required will be consistent with a functional gain of at least 0.018 based on a UMAM evaluation of the seagrass impact area. The following outlines the mitigation and monitoring plan that will be implemented by the City of Miami and/or its representatives.

Determination of Credits

The Uniform Mitigation Assessment Method (UMAM) was used to determine the functional loss due to unavoidable impacts to approximately 1,400 square feet of seagrass. Based on the UMAM scores developed in coordination with FDEP, a function gain of 0.018 of off-site, in-kind seagrass mitigation is required to offset direct impacts to 0.03 acres (1,400 square feet) and secondary impacts to 0.03 acres of seagrass habitat within the Miami Marine Stadium project site. UMAM scores for the evaluation are included as **Attachment A**. A summary table is provided on the following page:

		Location and Landscape Support		Water Environment		Community Structure			
Impact Type	**Acres**	**Current**	**With Impact**	**Current**	**With Impact**	**Current**	**With Impact**	**Impact Delta**	**Functional Loss**
Direct Impact	0.03	6	0	6	2	6	0	0.53	0.016
Secondary Impact	0.03	6	5	6	6	6	5	0.07	0.002
							Total		**0.018**

Table 1: UMAM Analysis Summary Table

Site Selection

Derelict vessels can become hazards to navigation, become locations for illegal activity, and cause damage to submerged aquatic resources if submerged or anchored improperly. Due to shading and/or scouring, derelict vessels often result in a much larger impact area than the footprint of the vessel itself. According to the City of Miami Police Department (COMPD), nearly 150 vessels were documented after Hurricane Irma in September 2017, and many still need to be removed. The Florida Fish and Wildlife Conservation Commission (FWC), the City of Miami Police Department Marine Patrol and the Miami-Dade Department of Regulatory and Economic Resources (RER) document derelict vessel sightings and coordinate to remove them from the water. Because derelict vessels cannot be pre-claimed by entities for permitting purposes, and because the agencies must adhere to strict protocol in notifying vessel owners prior to removal, the specific vessels that will be utilized for this mitigation plan will be identified after authorization to perform the proposed work is granted and the City of Miami has established a timeline for vessel removals. No in-water work on the proposed project is to commence prior to the removal of all vessels required for mitigation. FDEP will be notified prior to vessel removal in order to establish baseline conditions and to determine how many vessels will need to be removed.

Derelict vessels positioned within a benthic habitat comparable to the impact site will be selected. Seagrass coverage within 50 feet of the hull of each derelict vessel must consist of at least 30% bottom density of seagrass. A baseline report describing the benthic conditions within each vessel's impact footprint will be provided within 30 days of each extraction. The baseline report will include a UMAM analysis of each vessel removal site for approval by FDEP.

Methodology

The removal of all derelict vessels will be coordinated and/or supervised by RER and/or other applicable agencies (e.g. City of Miami Marine Patrol, FWC, etc.). All work will proceed according to the Best Management Practices for Standard Manatee Conditions for in-water work and the National Marine Fisheries Service's "Sea Turtle and Smalltooth Sawfish Construction Conditions."

Weighted turbidity curtains will be placed around the derelict vessels, if necessary. Turbidity curtains will extend to within one (1) foot of the submerged bottom and the ends will be secured by stakes, if needed. If hazardous, flammable or loose debris metal is present, it will be contained and removed prior to vessel extraction. Appropriate measures of disposal will be taken as determined by regulatory agencies. Once the hull has been stripped clean of excess debris, a crane will be used to lift it out of the bay. Depending on the type of vessel and state of disrepair, the vessel will most likely be floated using pumps or floats, then slings will be placed to lift the vessel vertically off the bottom. If close enough to the shoreline, vessels may be removed using an upland crane from the shore. Otherwise, the vessels will be removed using a barge-mounted crane. After the vessels are lifted from the bay and hauled to land, they will be disposed of at an approved landfill or recycling facility.

Barges with an estimated 2.5' of draft will operate only in areas of suitable depth (minimum 3.5') to maintain a minimum of one foot of clearance between the bay bottom and the barge to minimize potential impacts to existing seagrass. If the derelict vessel site does not contain adequate water depth for barge use and it is not feasible to use an upland crane, the derelict vessel will be broken down into smaller pieces in-water using a hydraulic powered hand saw. The pieces will then be loaded onto a floating platform/shallow draft vessel and hauled to dry land for disposal.

Modifications to this general work plan may be necessary on a case-by-case basis as determined by the selected marine contractor. FDEP shall be notified of the selected marine contractor and any changes made to the vessel removal methodology prior to the commencement of work.

Monitoring Guidelines

Following each vessel's removal, four 24" x 2" diameter PVC pipes will be installed into the bay bottom at the corners of the vessel footprint to mark the site for future underwater reference (the pipe will extend 12" off the bottom). GPS coordinates will also be recorded. Recruitment at the mitigation site(s) will match a targeted functional value established by a UMAM analysis of each mitigation site during the baseline survey. A baseline survey will be conducted prior to annual monitoring to establish the targeted functional value. A reference site will also be selected in order to establish baseline conditions of the adjacent area and to monitor community-wide ambient effects throughout the monitoring period. Monitoring will be completed during seagrass growing season, beginning with a time zero report after project completion, and annual monitoring for five (5) years. A total of six (6) reports will be submitted to FDEP.

The initial time zero monitoring event will occur within thirty (30) days of the derelict vessel removal(s). For the time zero and subsequent reports, quantitative monitoring will employ the Braun-Blanquet method with quadrat sampling conducted along transects within the recruitment areas. A minimum of one (1) transect will be established in each of the recruitment areas, each with a minimum of four (4) quadrat samples. $0.25m^2$ quadrats will be spaced a maximum of five (5) feet apart. If the recruitment area is greater than ten (10) feet wide, multiple transects will be placed and will be spaced a maximum of ten (10) feet apart. For a recruitment area 10-20' wide,

two transects will be placed, for an area 20-30'wide, three transects will be placed, etc. All seagrass species occurring in quadrats will be listed, and a score based on the cover of the species in that quadrat will be assigned (Table 1, below). Cover, as defined for this purpose, is the fraction of the total quadrat area that is obscured by a species when viewed from directly above. Photographs will include each of the sample quadrats, along with supplemental observations within the monitoring areas. Incidental observations of existing site conditions and/or changes, along with observations of fish and wildlife will be recorded on each monitoring event.

Score	Cover
0	Taxa absent from quadrat
0.1	Taxa represented by a solitary shoot, <5% cover
0.5	Taxa represented by a few (<5) shoots, >5% cover
1	Taxa represented by many (>5) shoots, <5% cover
2	Taxa represented by many (>5) shoots, 5 - 25% cover
3	Taxa represented by many (>5) shoots, 25 - 50% cover
4	Taxa represented by many (>5) shoots, 50 - 75% cover
5	Taxa represented by many (>5) shoots, 75 - 100% cover

Measurable success criteria shall include a pre-determined acreage for a functional gain of 0.018. If the mitigation area is not trending towards success by the end of the 3rd annual monitoring event, a contingency mitigation plan will be submitted to FDEP for review within 30 days of receipt of the annual report.

APPENDIX A
UMAM Scores

MODIFIABLE SUMMARY TABLE

Site/Project Name:	Application Number:	Date:
Miami Marine Boat Ramp Improvements	13-306513-EI	October 30, 2018

Impact Summary

Assessment Area		Impact Type	Location and Landscape Support		Water Environment		Community Structure		Impact Delta	Acres	Functional Loss
			Current	w/Impact	Current	w/Impact	Current	w/Impact			
1	Seagrass	Direct Impact	6	0	6	2	6	0	0.53	0.03	0.016
2	Seagrass Secondary	Secondary Impact	6	5	6	6	6	5	0.07	0.03	0.002
3											
4											
5											
6											
								TOTAL		0.06	0.018

Mitigation Summary

Assessment Area		Mitigation Type	Location and Landscape Support		Water Environment		Community Structure		Mitigation Delta	Time Lag	Risk	PAF	RFG	Acres	Functional Gain
			w/o Mit	w/Mit	w/o Mit	w/Mit	w/o Mit	w/Mit							
1															
2															
3															
4															
5															
6															
													TOTAL	0.00	0.000

TEMPORAL LAG TABLE

YEAR	T-factor	YEAR	T-factor	YEAR	T-factor
< or = 1	1	11-15	1.46	41-45	3.03
2	1.03	16-20	1.68	46-50	3.34
3	1.07	21-25	1.92	51-55	3.65
4	1.10	26-30	2.18	>55	3.91
5	1.14	31-35	2.45		
6-10	1.25	36-40	2.73		

TOTALS

Impacts	Acres	Mitigation - Upland	Acres	Mitigation - Wetland	Acres
				Creation	0.00
		Restoration	0.00	Restoration	0.00
Direct Impacts	0.03	Enhancement	0.00	Enhancement	0.00
Secondary Impacts	0.00	Preservation	0.00	Preservation	0.00
Total Impacts	**0.03**	**Total Upland Mitigati**	**0.00**	**Total Wetland Mitigation**	**0.00**

Total Functional Loss	**0.018**
Total Functional Gain	**0.000**
Mitigation Deficit	**-0.018**

MIAMI MARINE STADIUM BOAT RAMP

FOR

CITY OF MIAMI

VIRGINIA KEY, FL 33149

Commission:

Mayor
Francis Suarez

D1 Commissioner
Wilfredo (Willy) Gort

Vice Chairman/ D2 Commissioner
Ken Russell

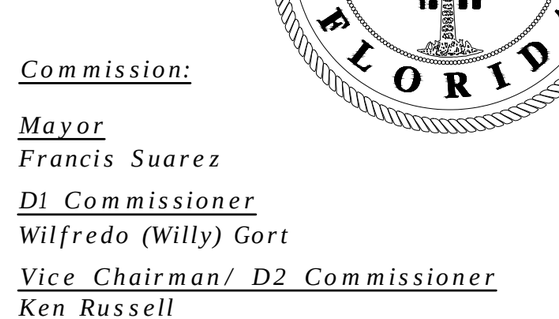
D3 Commissioner
Joe Carollo

D4 Commissioner
Manolo Reyes

Chairman/ D5 Commissioner
Keon Hardemon

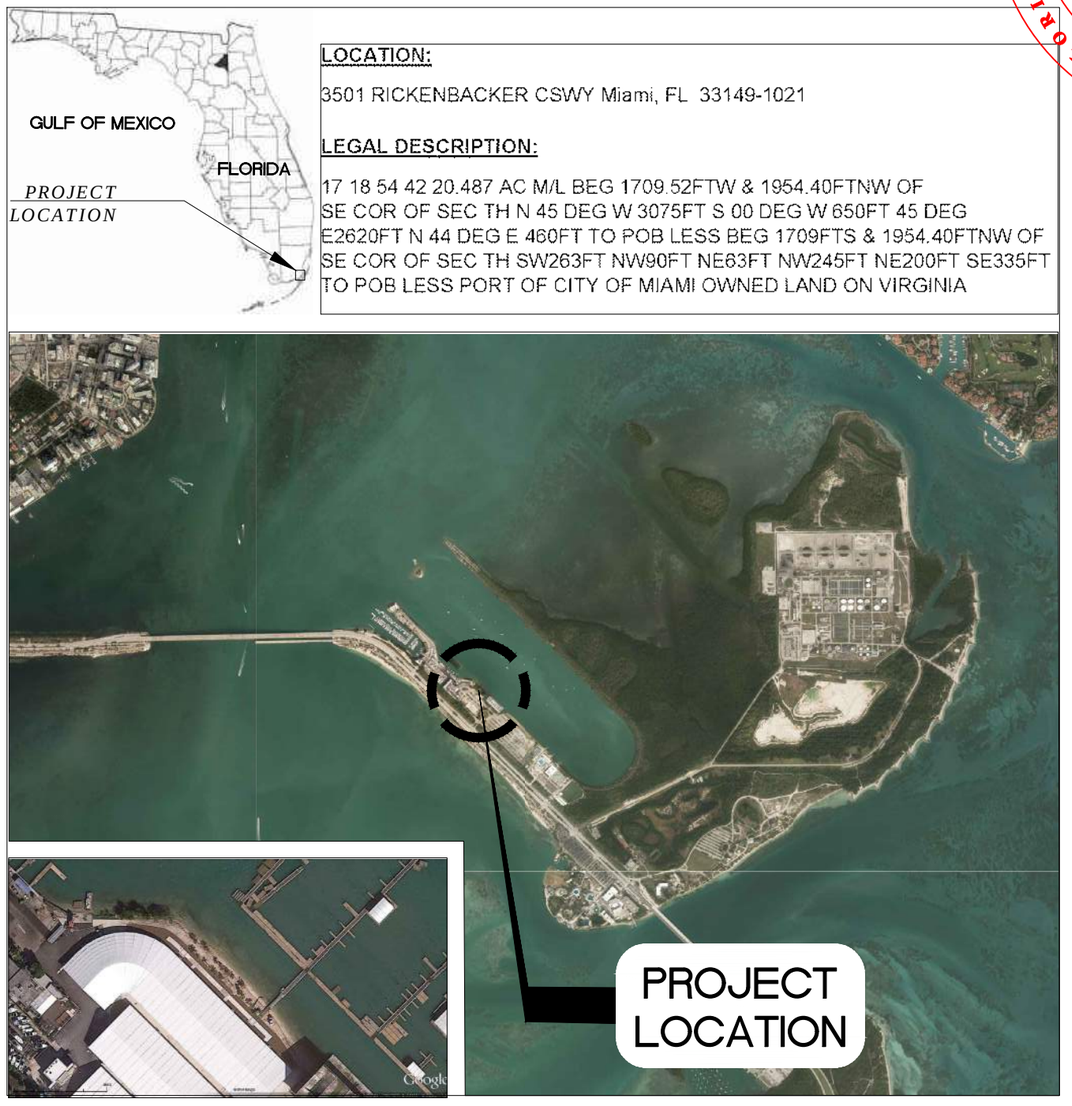
City Manager
Emilio T. Gonzalez, Ph.D.

Capital Improvements Program Director
Steven C. Williamson



VICINITY MAP N.T.S.

NORTH



LOCATION:

3501 RICKENBACKER CSWY Miami, FL 33149-1021

LEGAL DESCRIPTION:

17 18 54 42 20.487 AC M/L BEG 1709.52FTW & 1954.40FTNW OF SE COR OF SEC TH N 45 DEG W 3075FT S 00 DEG W 650FT 45 DEG E2620FT N 44 DEG E 460FT TO POB LESS BEG 1709FTS & 1954.40FTNW OF SE COR OF SEC TH SW263FT NW90FT NE63FT NW245FT NE200FT SE335FT TO POB LESS PORT OF CITY OF MIAMI OWNED LAND ON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION – STATE OF FLORIDA

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13-306513-011-EI

Southeast District

INDEX OF DRAWINGS

GOVERNING STANDARDS AND SPECIFICATIONS:

- *FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2014, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2014, AS AMENDED BY CONTRACT DOCUMENTS.*
- *CITY OF MIAMI ENGINEERING STANDARDS FOR DESIGN AND CONSTRUCTION DATED DECEMBER 2010*
- *MIAMI 21 CODE DATED MAY 2010.*

MIAMI MARINE STADIUM BOAT RAMP PROJECT LOCATION MAP

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CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS

Project Name

CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS
MIAMI MARINE STADIUM
3501 Rickenbacker Causeway
CITY OF MIAMI, FLORIDA

Revision	Description	Date

Plans Prepared By:

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Coastal & Marine Engineering

Seal

FRANCISCO ALONSO, P.E.
STATE OF FLORIDA LICENSE NO. 66918
201 Alhambra Circle Suite 900
Coral Gables, Florida 33134

Drawing Title

MARINE STADIUM BOAT RAMP

Scale: AS SHOWN	Designed: MA	COVER SHEET
TYLin Proj. No.: 55191.09	Drawn: MA	
Date: 6-22-2018	Checked: CH	

GENERAL NOTES

1. GENERAL NOTES ON THE PROJECT PLANS AND DRAWINGS ARE SOLELY TO AID AND ASSIST THE CONTRACTOR WITH THE FIELD OPERATIONS FOR THE PROJECT. SAID GENERAL NOTES MAY NOT FULLY DESCRIBE ALL OF THE REQUIREMENTS FOR AN ITEM. THEREFORE, THE CONTRACTOR SHALL READ AND VERIFY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE PLANS, SPECIFICATIONS, GENERAL TERMS AND CONDITIONS, AND THE SUPPLEMENTAL TERMS AND CONDITIONS, TO FULLY UNDERSTAND AND COMPLY WITH ALL THE REQUIREMENTS THEREIN.

2. THE CONTRACTOR MUST HAND EXCAVATE AROUND AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE EXPECTED OR SUSPECTED IN ORDER TO AVOID DAMAGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND COSTS TO CORRECT DAMAGES RESULTING FROM FAILURE TO TAKE ALL NECESSARY PRECAUTIONS INCLUDING LOCATING, MARKING AND CAREFUL EXCAVATION, AND SHOULD BE INCIDENTAL TO THE COST OF THE PROJECT.

3. IT IS THE OBLIGATION OF THE BIDDER OR THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION AND SATISFY HIMSELF FULLY OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID. FAILURE TO DO SO, WILL NOT RELIEVE HIM OF HIS OBLIGATION TO COMPLETE THE WORK FULLY AND ACCEPTABLE TO THE ENGINEER AND THE OWNER FOR THE CONSIDERATION SET FORTH IN HIS BID.

4. CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM PRINTS FOR CONSTRUCTION PURPOSES.

5. ALL DISTURBED GRASS AREAS SHALL BE RESTORED WITH SUITABLE SOIL AND SOLID ST AUGUSTINE SOD IF NOT SPECIFIED OTHERWISE ON THE PLANS.

6. IT IS THE INTENT OF THESE PLANS TO BE IN COMPLIANCE WITH APPLICABLE CODES OF AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

7. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, UTILITIES AND UTILITY MARKERS, WHICH MAY NOT BE SHOWN ON PLANS. ANY EXISTING STRUCTURES, PAVEMENT, TREES, UTILITIES, UTILITY MARKERS OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

8. ANY DISCREPANCIES IN THESE DRAWINGS WITH THE FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. CONSTRUCTION SHALL NOT CONTINUE UNTIL ENGINEER ADDRESSES THE DISCREPANCIES.

CONSTRUCTION NOTES

1. ALL WORK TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF AND ACCEPTABLE TO CITY OF MIAMI PUBLIC WORKS DEPARTMENT AND MIAMI–DADE COUNTY R.E.R.

2. CONTRACTOR SHALL PROVIDE HIS OWN LINE AND GRADE FROM HORIZONTAL AND VERTICAL CONTROL. CONTRACTOR SHALL ALSO PROVIDE "AS BUILT" GRADES CERTIFIED BY A REGISTERED LAND SURVEYOR AS REQUIRED BY THE CITY OF MIAMI PUBLIC WORKS DEPARTMENT.

3. BID PRICES SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS COMPLETE IN PLACE, TESTED, AND ACCEPTED BY THE ENGINEER.

4. THE CONTRACTOR SHALL USE SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO WORK.

5. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING INLETS AND CULVERTS CLEAN OF DEBRIS AND ANY OTHER MATERIALS USED DURING CONSTRUCTION. THIS SHALL BE DONE DURING THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. ALL EXISTING LINES AND STRUCTURES SHALL BE CLEANED PRIOR TO FINAL INSPECTION AND ACCEPTANCE.

6. CONTRACTOR SHALL CONTACT SUNSHINE AT (800) 432–4770 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.

7. ALL TREES TO BE RELOCATED OUTSIDE OF CONSTRUCTION AREA WHERE FEASIBLE. UNAVOIDABLE IMPACT TO MANGROVE TREES ARE TO BE MITIGATED IN ACCORDANCE TO APPROVED PERMITS.

8. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL ITEMS LISTED IN PROJECT SPECIFICATION (WHERE APPLICABLE).

9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.

10. ALL EXISTING DRAINAGE STRUCTURES AND PIPES ARE TO REMAIN AND TO BE PROTECTED UNLESS OTHERWISE SPECIFIED AND APPROVED.

11. CONTRACTOR SHALL IMPLEMENT AND ENFORCE ALL NPDES EROSION AND SEDIMENT CONTROL RULES AND REGULATIONS.

12. CONTRACT SHALL INCLUDE IN THE BID PRICE FOR CLEARING AND GRUBBING.

ENVIRONMENTAL NOTES

1. ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES.

2. THE CONTRACTOR SHALL REVIEW ENVIRONMENTAL REQUIREMENTS OF ANY PROPOSED STAGING AREAS WITH THE PROJECT ENGINEER AT LEAST SEVENTY–TWO (72) HOURS PRIOR TO USE.

3. NO STAGING OR OTHER ACTIVITIES FOR THIS PROJECT WILL BE ALLOWED WITHIN ENVIRONMENTALLY SENSITIVE AREAS.

4. CONTRACTOR SHALL NOT STAGE OR OPERATE EQUIPMENT WITHIN THE DRIPLINE OF TREES.

5. CONTRACTOR TO PROVIDE A CERTIFIED ARBORIST WHO WILL DETERMINE ANY ROOT PRUNING AND ANY OTHER TRIMMING ACTIVITIES. COST TO BE INCIDENTAL TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION – STATE OF FLORIDA

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13-306513-011-EI

Southeast District

STRUCTURAL NOTES

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FDOT 2015 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

DESIGN SHALL BE IN ACCORDANCE WITH THE FDOT STRUCTURES MANUAL JANUARY 2015, AND SUBSEQUENT STRUCTURES DESIGN BULLETINS, THE FDOT STRUCTURAL DESIGN STANDARD INDEXES/DRAWINGS, 2015, AS AMENDED BY CONTRACT DOCUMENTS, AND ALL SUBSEQUENT INTERIMS.

ENVIRONMENT IS CLASSIFIED AS EXTREMELY AGGRESSIVE.

MATERIALS
5.1. BULKHEADS REINFORCED C.I.P. CONCRETE CAP: CONCRETE CLASS V(SPECIAL) f'c = 6,000psi, WITH SILICA FUME, METAKAOLIN, OR ULTRA FINE FLY ASH.

CONCRETE COVER
3"CLEAR COVER, COVER DOES NOT INCLUDE TOLERANCES. REFER TO FDOT SPECIFICATION 415 FOR ALLOWABLE TOLERANCES.

PLAN DIMENSIONS
ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

UTILITIES
8.1. LOCATIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS.
8.2. FOR STORM DRAINS AND OTHER UTILITIES, FOLLOW GENERAL NOTES ON PROCEDURES INVOLVING EXISTING UTILITIES.

JOINTS IN CONCRETE: CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED IN THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

CUT AND FILL OPERATIONS
10.1. THE CONTRACTOR SHALL NOTIFY ADJACENT OWNERS AND INVOLVED UTILITIES IN WRITING TWO (2) WEEKS BEFORE EXCAVATION OPERATIONS BEGIN.
10.2. QUANTITIES FOR CUT AND FILL SHOWN IN THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE BIDDING.
10.3. ANY EXCAVATED MATERIAL THAT IS DEEMED BY THE ENGINEER UNSUITABLE FOR FILLING SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR AT AN APPROVED FACILITY OR DUMP SITE. THE COST FOR DISPOSAL OF UNSUITABLE MATERIAL SHALL BE INCLUDED IN THE COST OF CUT AND FILL.

PROJECT
MIAMI MARINE STADIUM BOAT RAMPS

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P.E. No. 66918

ISSUE	DATE	SUBMISSION / REVISION

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SCALE	

SHEET TITLE

GENERAL NOTES

SHEET

P-1.0

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NEW BOAT RAMP FACILITY

Mean High Water Line +/-
NAVD 88 Elevation 0.18'
NGVD 29 Elevation 1.74'

FUTURE MARITIME CENTER FACILITY

FUTURE PARKING
50± CARS
(NOT PART OF THIS CONTRACT)

FUTURE BUILDING FOOTPRINT
11,000 SF
(NOT PART OF THIS CONTRACT)

DEMOLISH AND REMOVE EXISTING RIP-RAP WALL

PROPOSED RETAINING WALL (SEE DETAIL 1 ON P-4.0)

PROPOSED TRUCK AND TRAILER PARKING FOR BOAT RAMP FACILITY (21 SPACES, 45' LENGTH PER SPACE)

ASPHALT PAVEMENT RECONSTRUCTION (SEE SHEET P-4.0 FOR GRADING DETAILS)

PROPOSED RIPRAP

MATCH EXISTING GRADE

34'-5"
34'-6"
R15'-0"
295'-9"
31'-4"
34'-5"
R10'-0"
R15'-0"
STOP
58'-1"
R15'-0"
STOP
191'-3"
WRONG WAY
46'-1"
39'-8"
182'-7"
R34'-0"
R80'-0"
191'-2"
41'-7"
R15'-0"

PROPOSED TRUCK AND TRAILER PARKING FOR BOAT RAMP FACILITY (29 SPACES, 45' LENGTH PER SPACE)

PROPOSED TRUCK AND TRAILER PARKING FOR BOAT RAMP FACILITY (27 SPACES, 45' LENGTH PER SPACE)

18" YELLOW THERMOPLASTIC CHEVRONS, 10.0' O.C. (TYP.)

6" WHITE THERMOPLASTIC (TYP.)

DEPARTMENT OF ENVIRONMENTAL PROTECTION - STATE OF FLORIDA

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Southeast District

DEMOLISH

AREA TO RECONSTRUCT

PROPOSED RIPRAP

18" YELLOW THERMOPLASTIC CHEVRONS

6" WHITE THERMOPLASTIC

FUTURE BUILDING LIMITS (NOT INCLUDED IN THIS CONTRACT)

PROPOSED TRAFFIC DIRECTION

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PROJECT
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SHEET TITLE
SITEPLAN

SHEET
P-2.0

Mean High Water Line +/-
NAVD 88 Elevation 0.08'
NGVD 29 Elevation 1.74'

FUTURE PARKING
50± CARS
(NOT PART OF THIS
CONTRACT)

FUTURE BUILDING
FOOTPRINT
11,000 SF
(NOT PART OF THIS
CONTRACT)

17'-6"

329'-11"

14'-1"

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251'-10"

7'-6"

PROPOSED PERMEABLE
PAVERS FOR DRAINAGE

7'-6"

251'-10"

AREA TO RECONSTRUCT

PROPOSED PERMEABLE
PAVERS TO REPLACE
EXISTING GRAVEL

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PROJECT
MIAMI MARINE STADIUM
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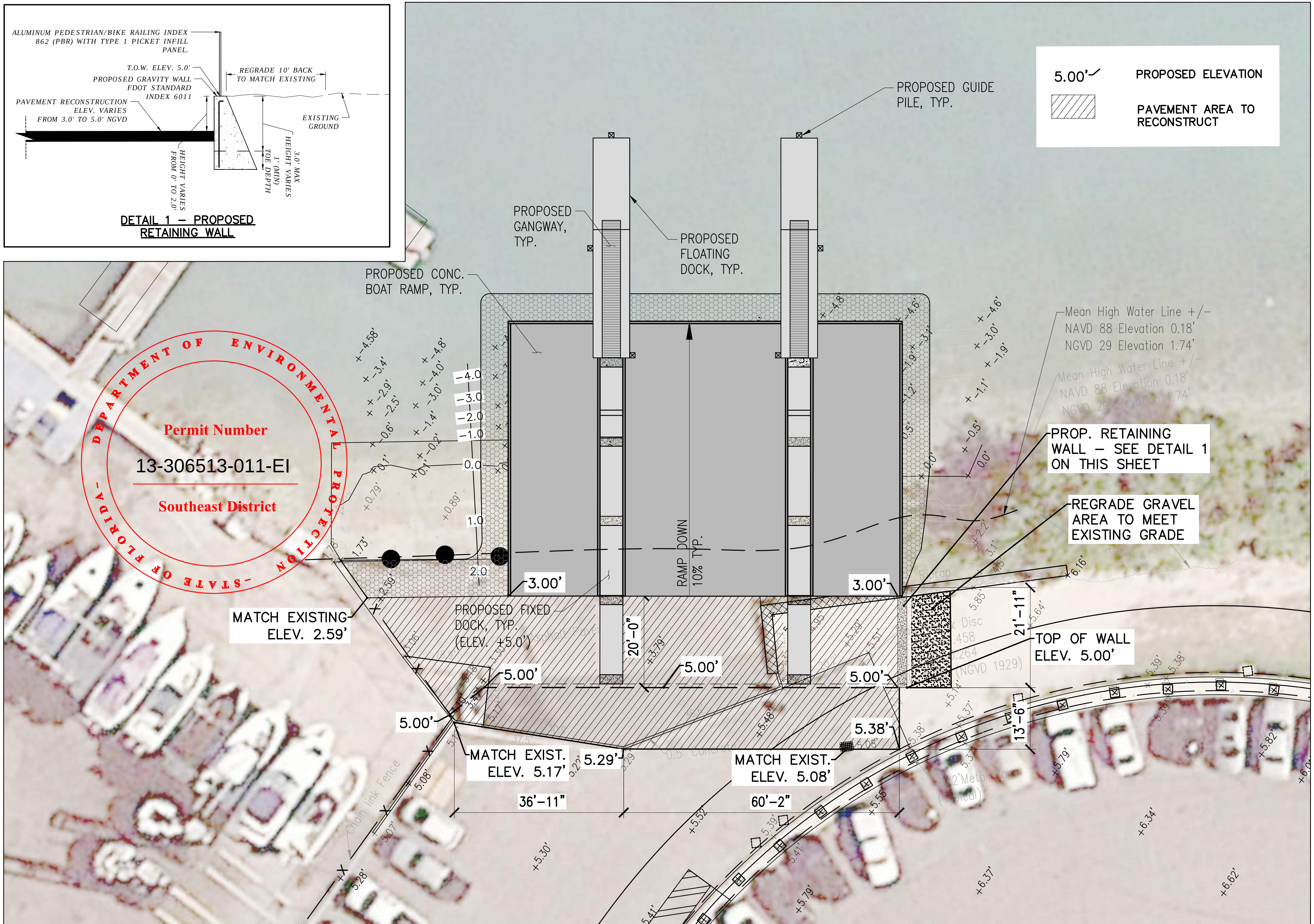
SHEET TITLE

PARKING
LOT DRAINAGE

SHEET

P-3.0



PROJECT
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SHEET TITLE
GRADING PLAN

SHEET
P-4.0

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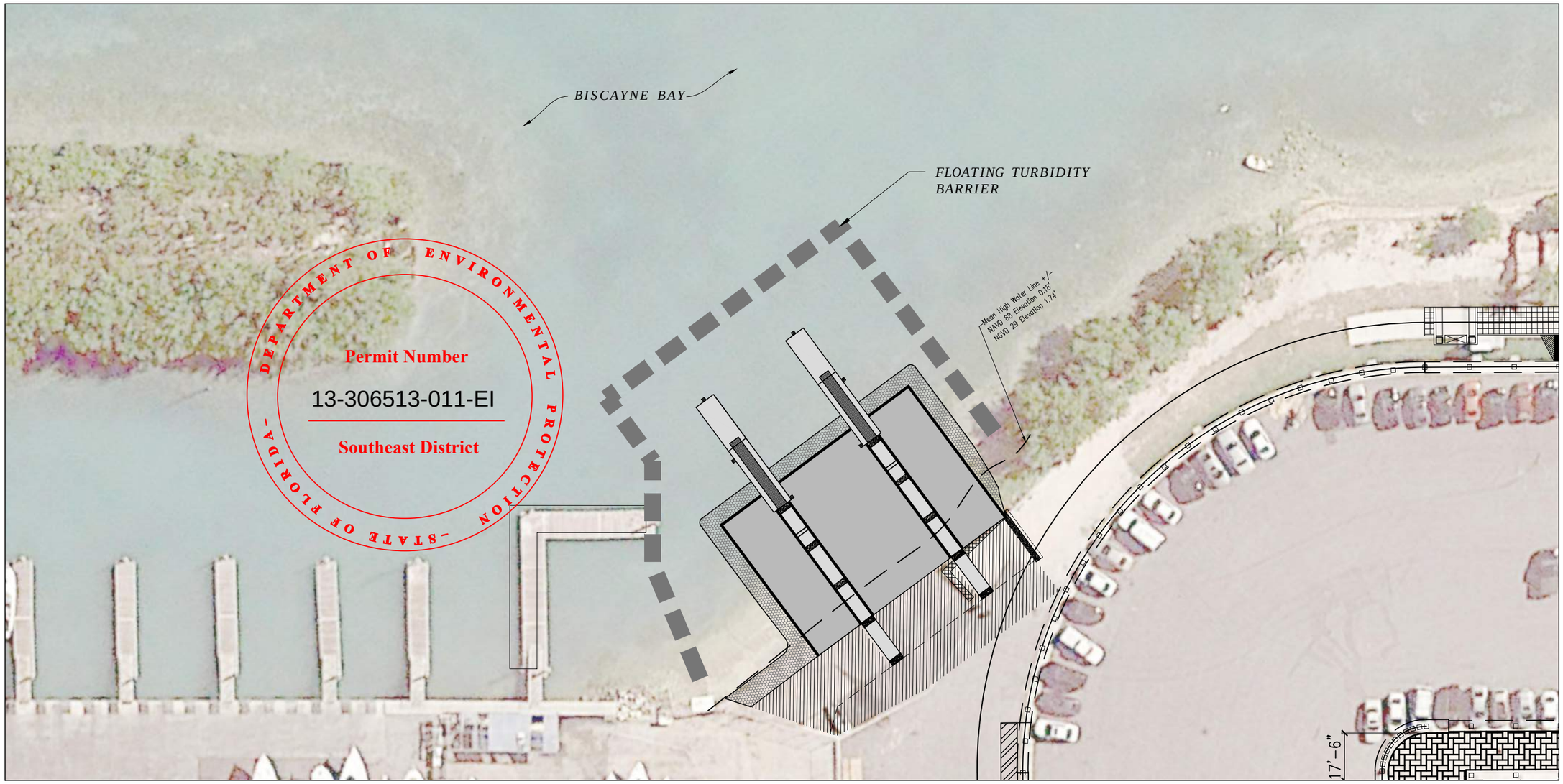

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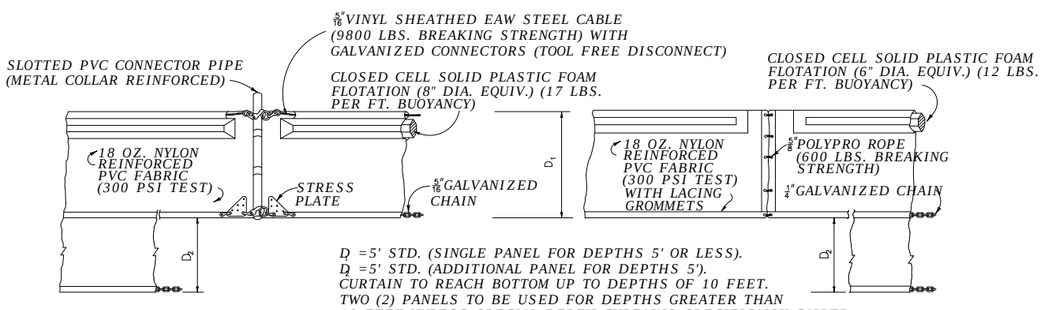
TURBIDITY BARRIER

TURBIDITY BARRIER NOTES

1. *TURBIDITY CURTAINS SHALL BE DEPLOYED IN A MANNER NOT TO ENTANGLE OR HARM MANATEES.*
2. *TURBIDITY SHALL BE MONITORED AS OUTLINED IN THE REGULATORY PERMITS.*
3. *TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF THE WATER DEPTH.*
4. *NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.*
5. *DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.*
6. *NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.*

EROSION/SEDIMENT CONTROL NOTES

THE PURPOSE OF EROSION CONTROL IS TO PREVENT POLLUTION OF BODIES OF WATER ON OR ADJACENT TO THE PROJECT SITE. IN ADDITION, EROSION CONTROL SHALL PREVENT DAMAGE TO ADJACENT PROPERTY, AND WORK IN PROGRESS. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT ALL EROSION CONTROL DEVICES PERIODICALLY AND AFTER EVERY RAINFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.



D1 =5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D2 =5' STD. (ADDITIONAL PANEL FOR DEPTHS 5').
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET.
TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

PROJECT

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RICKENBACKER CAUSEWAY
MIAMI, FLORIDA 33435

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TURBIDITY CONTROL

SHEET

P-5.0

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AREA OF SEAGRASS IMPACTS

AREA OF MANGROVE SCRUB IMPACTS

PROPOSED CONC. BOAT RAMP, TYP.

PROPOSED GANGWAY, TYP.

PROPOSED FLOATING DOCK, TYP.

AREA OF SEAGRASS IMPACTS 1,400 SF

Mean High Water Line +/-
NAVD 88 Elevation 0.18'
NGVD 29 Elevation 1.74'

RAMP DOWN 10% TYP.

PROPOSED FIXED DOCK, TYP. (ELEV. +5.0')

AREA OF MANGROVE SCRUB IMPACTS 218 SF

5.08'

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SHEET TITLE

ENVIRONMENTAL IMPACTS

SHEET

P-6.0

1. General

1.1. The work consists of providing all construction, labor, equipment, material and operations in connection with the repair of the seawall and related improvements as shown on these drawings.

1.2. Any discrepancies in the plans with the field conditions shall be brought to the immediate attention of the Engineer. Construction shall not continue until the Engineer has addressed the discrepancies.

1.3. The contractor shall take all necessary precautions to protect existing structures in the project vicinity. Any damage to private or public property within the Project vicinity, including staging sites, work and access areas shall be repaired promptly by the Contractor. Any damage as a result of the Contractor's operations shall be repaired at no cost to the Owner. All access and staging areas shall be kept neat, orderly and in a safe manner. All access and staging areas shall be restored to the pre-construction condition upon project completion at the cost of the Contractor. The site shall be restored by removing and finishing all evidence for construction. In the event infrastructure (such as walkways, sidewalks, fences, vegetation, etc.) is temporarily removed or relocated or there is unauthorized damage to vegetation and/or facilities by the Contractor, the Contractor shall restore all damage to structures and natural features to pre-construction conditions or better.

1.4. Utilities are not shown in the plans. Contractor is responsible for locating all present utilities prior to construction.

1.5. Contractor is responsible for providing proper clearance and protection to all overhead wires and obstructions.

1.6. The Contractor shall exclude the public from the work areas in the immediate vicinity of operations. Contractor shall provide appropriate safety measures to protect the public.

1.7. All new structural work including concrete and reinforcement shall be accurately field measured and dimensions verified by the Contractor prior to ordering materials. Contractor shall be prepared to make field adjustments to accurately fit the new work to existing conditions.

1.8. No construction shall commence until all required permits and approvals have been secured and the contractor has been issued Notice to Proceed.

1.9. Attention is directed to the fact that these plans may have been changed in size by reproduction. This should be considered when obtaining scaled data.

1.10. Construction work shall be executed in accordance with all local, state, and national building codes and governing regulations.FDEP, USACE, and Broward County. Contractor shall adhere to all conditions of the permits and exemptions.

1.11. Extend existing drainage pipes through steel sheet pile at same elevation.

2. Layout and Testing

2.1. All construction stakeout shall be performed by and paid for by the contractor under the supervision of a surveyor registered in the state of Florida. All testing and inspection for concrete materials shall be in accordance with FDOT specifications and shall be performed by an independent testing laboratory.

3. Demolition

3.1. Contractor shall verify the extents, location and quantities of existing elements to be removed.

3.2. All debris within the limits of the project shall be hauled off site by the Contractor, as directed by the Owner, and disposed of at an appropriate facility.

3.3. Contractor shall not damage any structural components beyond the demolition requirements depicted in these drawings. Any damage shall be repaired at the Contractor's expense.

4. Concrete

4.1. Forms for this work shall be made of either wood or metal. They shall be straight and free of warp or bends. They shall have sufficient strength and rigidity, when staked, to resist the pressure of the concrete without springing. If wooden forms are used, they shall be of adequate section and shall have a flat surface on top. Forms shall have a depth at least equal to the vertical dimensions for the depth of the concrete being deposited against them. When ready for the concrete to be deposited, they shall not vary from the approved line and grade, and shall be kept so until the concrete has set.

4.2. Just prior to placing the concrete any wooden forms shall be moistened and all steel reinforcing shall be rinsed with fresh water. The concrete shall be placed in the forms and tamped in place so that all honeycombs will be eliminated and sufficient mortar brought to a smooth even finish by means of a float.

4.3. Contractor shall be prepared to place concrete of lower members of the marine structures in submerged conditions utilizing tremie methods at no additional cost.

4.4. No concrete shall be poured during unfavorable weather or sea conditions.

4.5. All steel shall have a minimum of 3 inches concrete cover, unless otherwise noted. No chairs or other metal shall protrude from surface of concrete.

4.6. Cast-in-place concrete shall be a minimum of 5,000 PSI compressive strength at 28 days. Water cement ratio (W/C) shall be less than or equal to 0.4. Provide mix design for a Class IV concrete for an extremely aggressive (marine) environment in accordance with FDOT specifications. Provide sufficient amount of fly ash and silica fume to the cement content. Contractor shall provide mix design to Engineer for approval 10 days prior to concrete placement.

4.7. No water shall be added to concrete at the job site unless authorized by the Engineer or Special Inspector.

4.8. When surface finishing is completed, the structure shall be protected against wave splash for two days and cured per applicable paragraphs of Section 400-16 of the FDOT Standard Specifications. Curing shall occur for at least 7 days.

4.9. A surface penetrant sealer of alkyl-alkoxy silane classification, such as BASF Enviroseal, or approved equal shall be applied all exposed concrete.

4.10. Apply Sika Armatec 110 bonding agent, or approved equal, at construction joints prior to placement of new concrete.

4.11. Components not constructed according to these specifications shall be removed and replaced properly at the expense of the contractor.

4.12. The faces of the finished structures shall be true, straight, and of uniform width, free from humps, sags, or other irregularities except as specified in the plans. The contractor shall replace any deficient segments.

4.13. Concrete Formworkers and Finishers:
The contractor shall supply a sufficient number of experienced concrete formworkers and finishers in order to complete the work. A concrete foreman who has a thorough understanding of the plans, specifications, and referenced specifications shall supervise all formworkers and finishers. No sub-standard workmanship will be accepted.

4.14. Concrete Transportation:
Concrete delivered from a ready mix plant shall be transported in accordance to FDOT Section 345-13. Concrete that is not placed in the form within the specified time limits will be rejected and not included in the work. Contractor shall bear all costs for rejected concrete. Concrete shall not be placed in the forms until the reinforcing steel placement has been approved by the Engineer.

4.15. Reinforced Concrete Materials Testing:
The Contractor shall have an independent testing laboratory test the concrete used in the work. The test shall include 7, 14, and 28 day compressive strength tests. The results shall be supplied to the Engineer. The tests shall be in accordance with ASTM C31, C39, and C617.

4.16. Adhesive bonded dowels shall be installed in accordance with FDOT Section 416.

5. Steel

5.1. All reinforcing steel shall conform to ASTM A615, Grade 60, deformed bars free from loose rust and scale.

5.2. Reinforcing steel, supports, and tie wire shall be hot-dipped galvanized in accordance with ASTM A767.

5.3. MMFX or CHROMX 4100 steel can be used as an alternate to hot-dipped galvanized steel at Contractors option, with no additional cost to owner.

5.4. Steel shall be placed as shown in the plans. All accessories shall be plastic only to support reinforcing exposed to weather. All reinforcing steel shall be accurately located and firmly held in place before and during the place of concrete.

6. Concrete Piles

6.1. Piles shall be 14" square prestressed concrete piles with (8) 0.6" diameter strands, grade 270 ksi, LRS.

6.2. Concrete to be minimum 6,000 psi, and follow FDOT Class-V concrete specifications. Minimum concrete cover to internal reinforcement shall be 3" on all sides.

6.3. Piles shall be driven a minimum of 12 feet into firm material and provide a minimum bearing capacity of 25 tons/pile. Pile logs shall be recorded for all driven piles.

6.4. Piles shall be cut off at elevations shown in the plans and sections herein.

6.5. Contractor to submit shop drawings for concrete piles.

6.6. Piles shall be from a FDOT certified facility of prestressed concrete products.

7. Tidal Data

7.1. Contractor may need to adjust his work plan to account for actual water levels and changing water levels. The site may be subject to variable wave and surge conditions and it is the responsibility of the contractor to provide temporary support for marine structures and shoreline during construction. Tidal data obtained from Virginia Key, Florida Station ID 8723214.

8. Submittals

8.1. Review of submittals by the structural engineer is for general conformance with the design concept as presented by the contract documents. No detailed check of quantities or dimensions will be made.

8.2. All shop drawings must bear evidence of the Contractor's approval prior to submitting to the Engineer.

8.3. The following minimum submittals shall be prepared by the Contractor and submitted to the Engineer for review and approval prior to related construction activity:

8.3.1. Schedule for completion of work with tasks and durations defined

8.3.2. Demolition Methods & Disposal Plan

8.3.3. Concrete Mix Design

8.3.4. Reinforcing Steel

8.3.5. Precast concrete piles slabs

8.3.6. Dock hardware

9. Design Criteria

10.1 FBC 2014, ASCE 7-10 unoccupied wind Vult= 175 mph, Vasd = 136 mph Risk Cat. II, Exp. D, Gcpi = 0
occupied wind V= 40 mph (sustained)

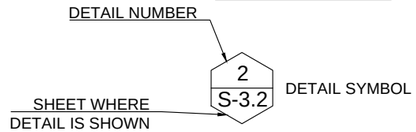
10.2 Dock/Ramp LL = 100 psf.

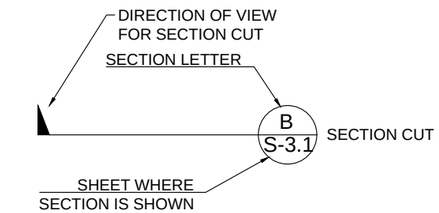
10.3 Design Vessel LOA = 40'

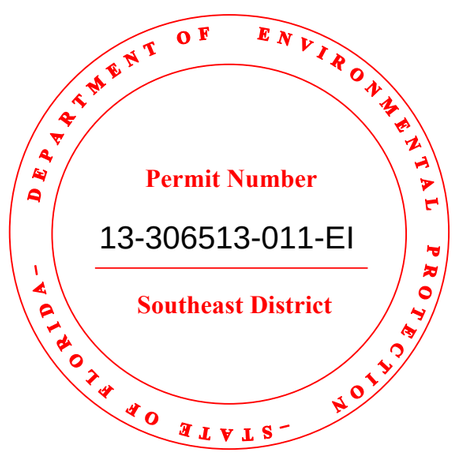
10.4 Occupied Wave Ht. = 1.5 ft
Unoccupied Wave Ht. = 2 ft
Storm Surge = 2 ft (Mean Range NOAA)

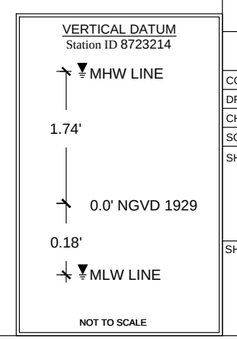
ABBREVIATIONS	
ACI	AMERICAN CONCRETE INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CONT	CONTINUOUS
CONT'D	CONTINUED
CTD	CENTERED
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
KSI	KIPS PER SQUARE INCH
LOA	LENGTH OVERALL
MHW	MEAN HIGH WATER
MIN	MINIMUM
MLW	MEAN LOW WATER
NAVD	NORTH AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
PERA	PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS
PSI	POUNDS PER SQUARE INCH
TYP	TYPICAL
USACE	UNITED STATES ARMY CORPS OF ENGINEERS
W/C	WATER/CEMENT RATIO

SYMBOLS LEGEND









PROJECT
MIAMI MARINE STADIUM BOAT RAMPS

RICKENBACKER CAUSEWAY
MIAMI, FLORIDA 33435

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SEAL

JASON S. TAYLOR, P.E. 60277

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CC PROJECT NO.	39102
DRAWN	VC
CHECKED	
SCALE	AS SHOWN

SHEET TITLE
GENERAL NOTES

SHEET 3 OF 5

CM-1.0

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PROJECT

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EXISTING CONDITIONS

SHEET 3 OF 5

CM-1.1

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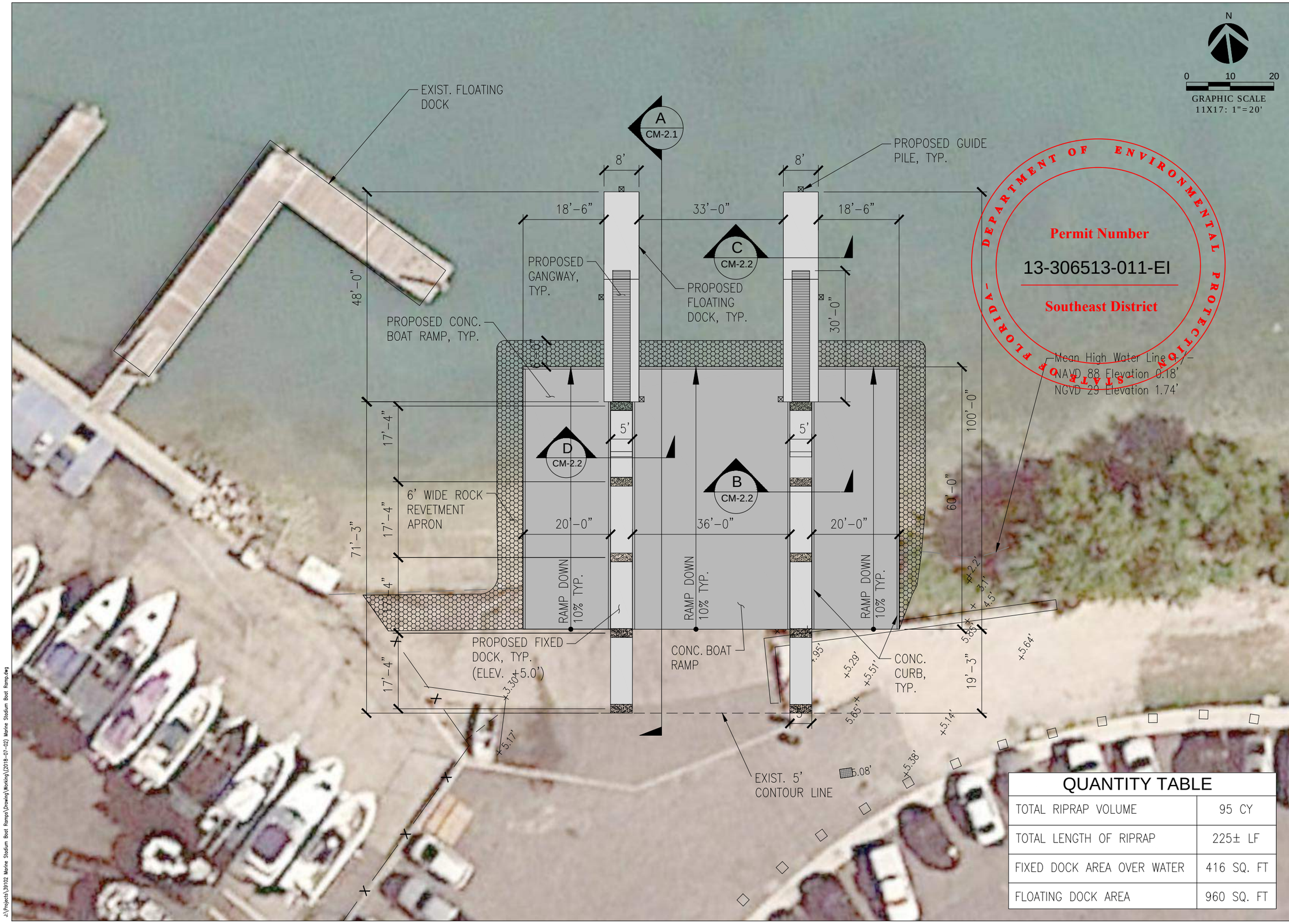

DEPARTMENT OF ENVIRONMENTAL PROTECTION – STATE OF FLORIDA

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13-306513-011-EI

Southeast District

QUANTITY TABLE	
TOTAL RIPRAP VOLUME	95 CY
TOTAL LENGTH OF RIPRAP	225± LF
FIXED DOCK AREA OVER WATER	416 SQ. FT
FLOATING DOCK AREA	960 SQ. FT

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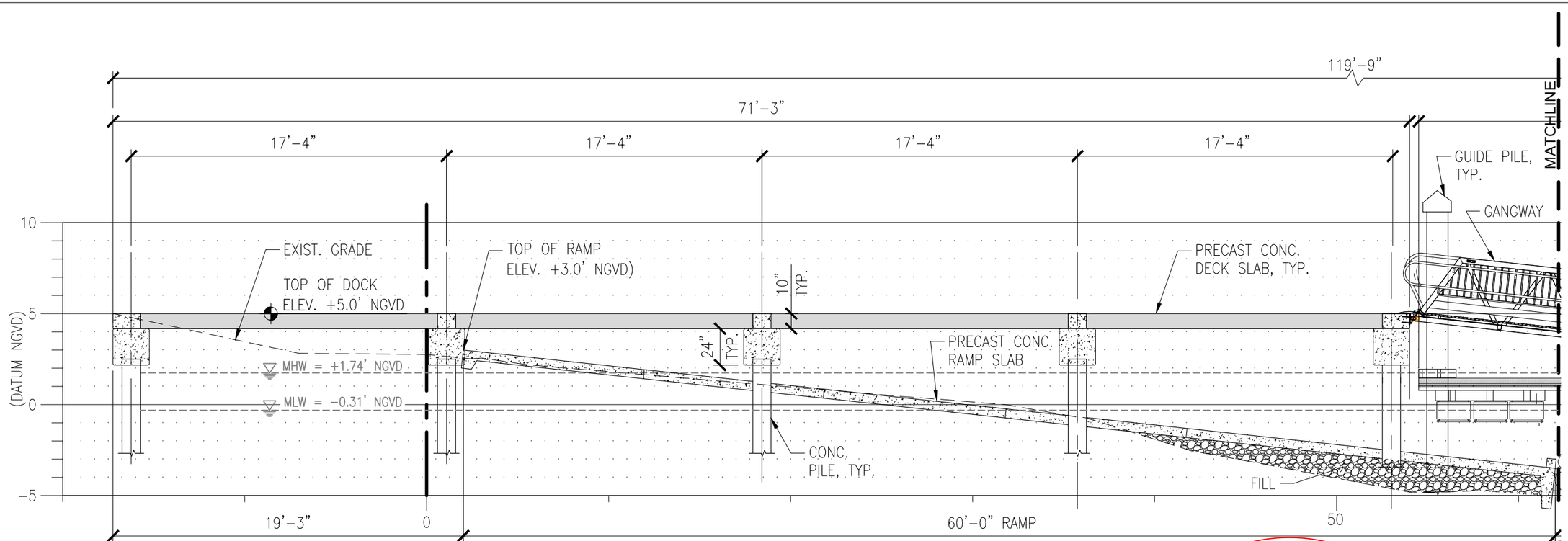

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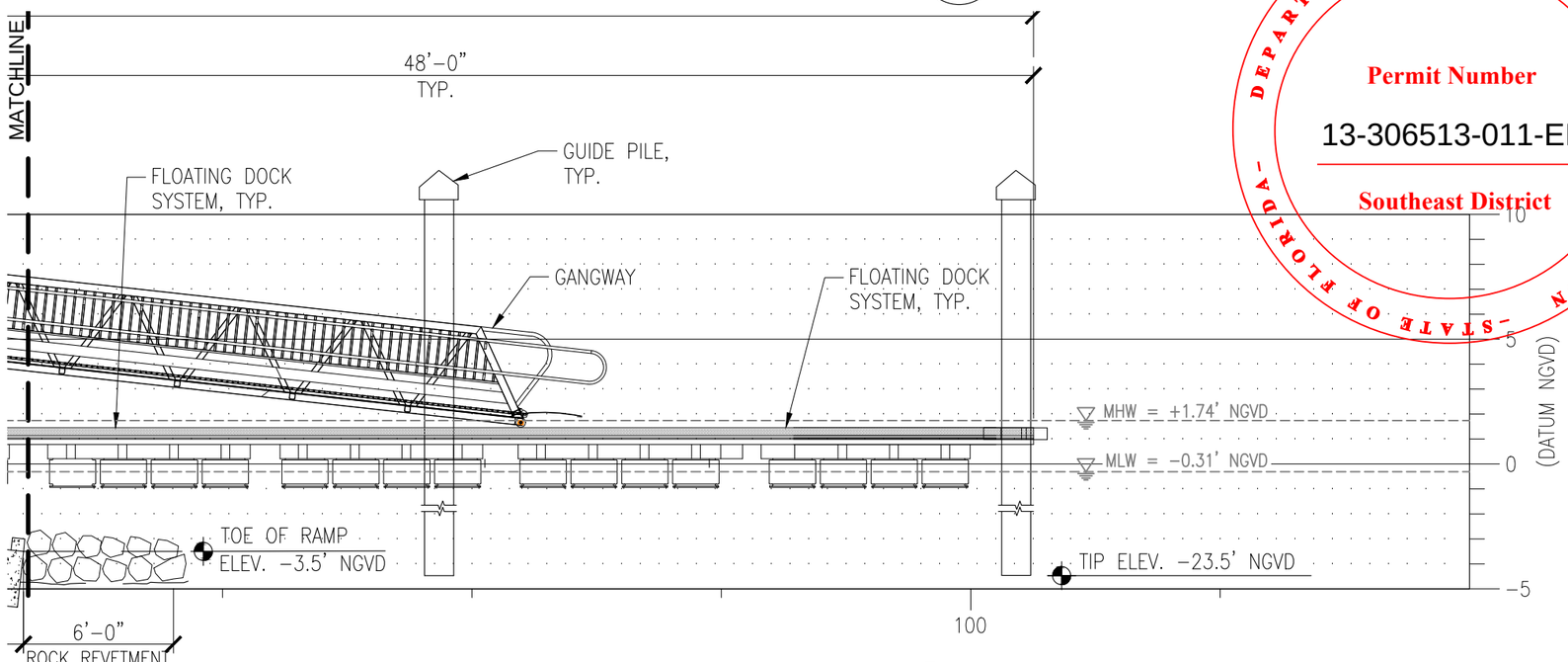

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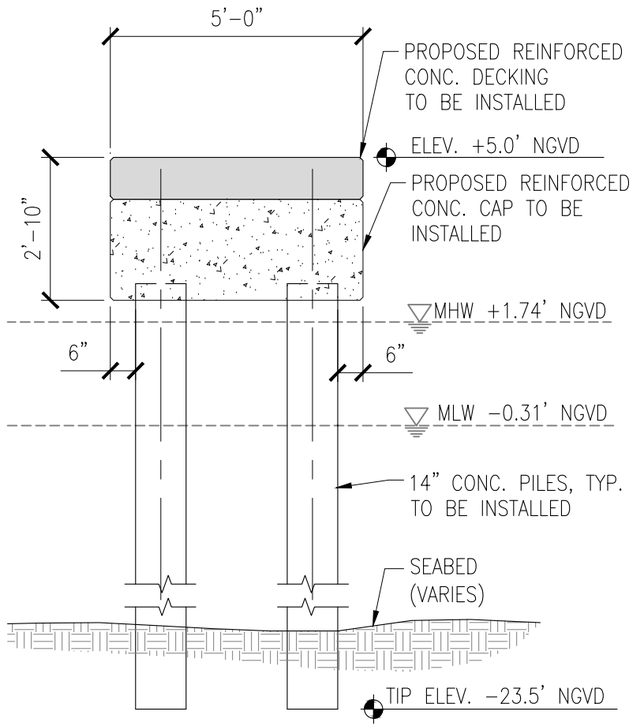

DOCK SECTION B
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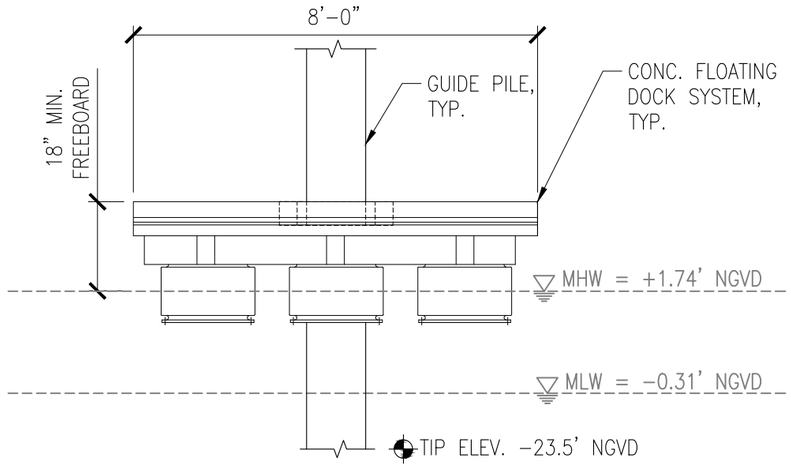

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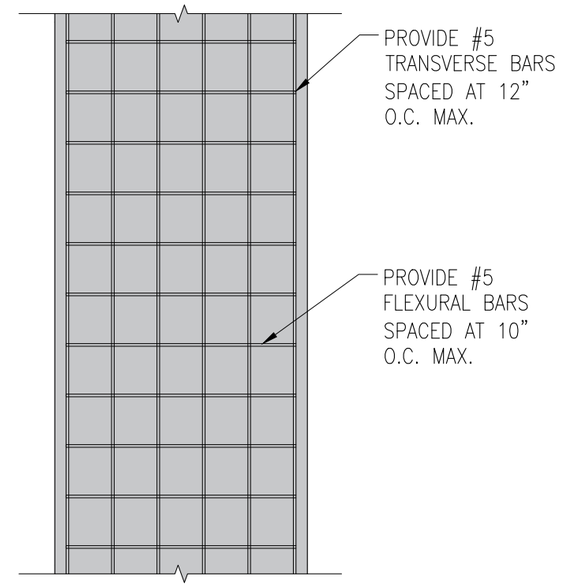

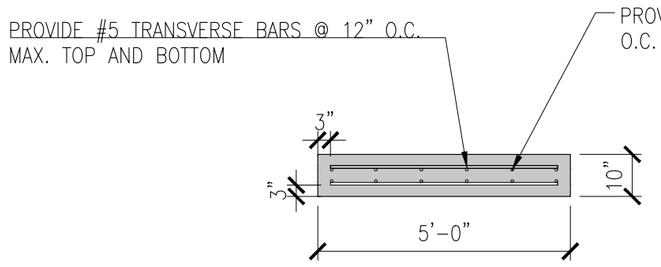

DOCK SLAB SECTION D
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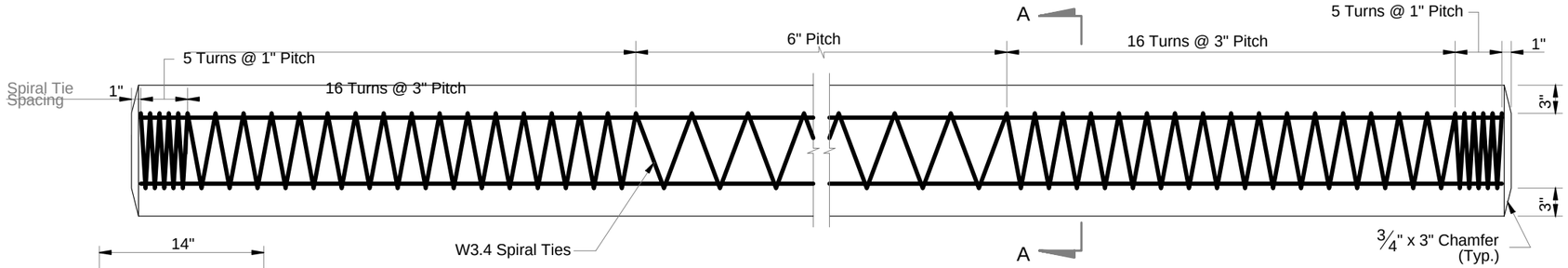
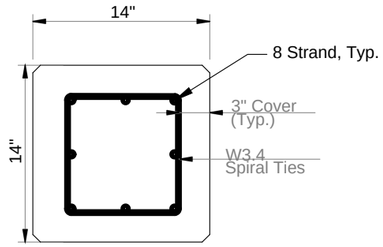


ELEVATION



SECTION A-A

14"x14" PILE SPECIFICATION:

1. Fc' = 6,000 PSI (MIN)
2. MIN. 3" COVER ON ALL REIN.
3. ALL PILINGS SHALL CONFORM TO FDOT CONCR. CLASS V SPEC.
4. PILING TO ACHIEVE BEARING CAPACITY OF 35 TONS
5. CONTRACTOR TO MAINTAIN PILE LOGS.

PROPOSED P.S CONCRETE PILE DETAIL (TYP.)

N.T.S.

1 / CM-2.0

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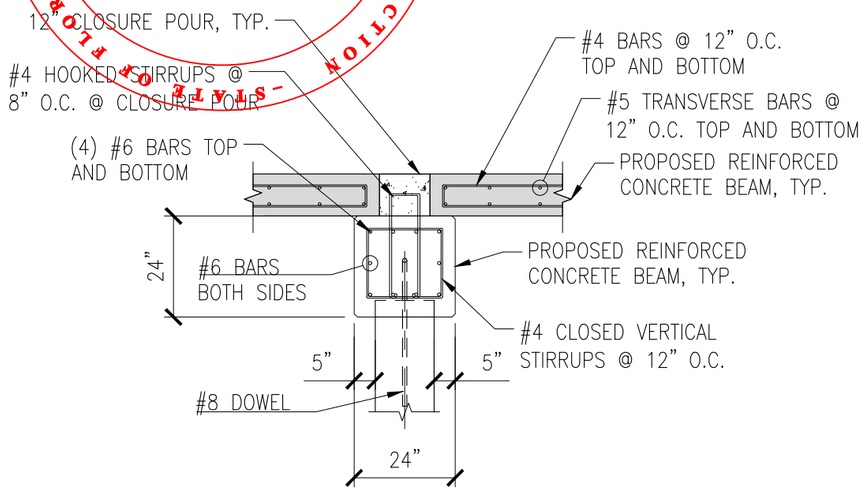

PROPOSED REINFORCING DETAIL

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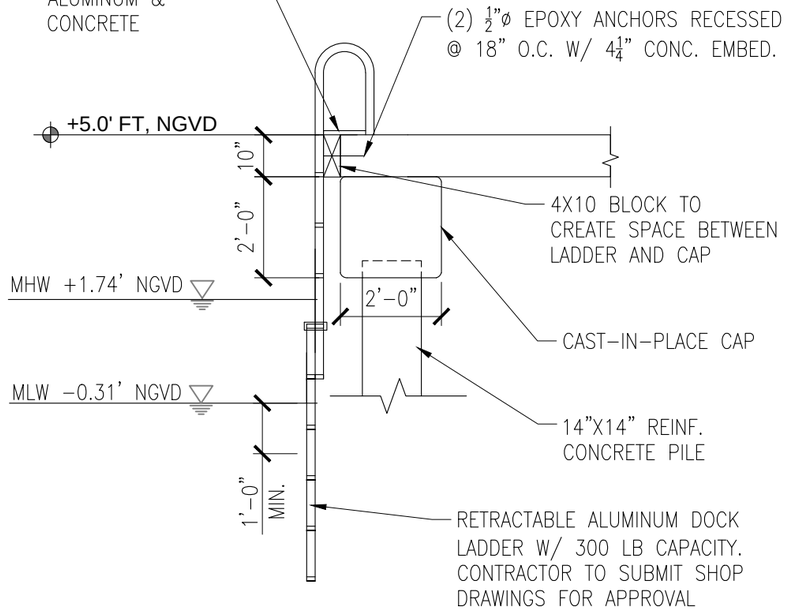
2 / CM-2.1



LADDER DETAIL

SCALE: 1:3 (11X17)

3 / CM-2.1

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