

SITE IMPROVEMENT PLANS FOR

FLORIDIAN BOAT BASIN PLAN

IN

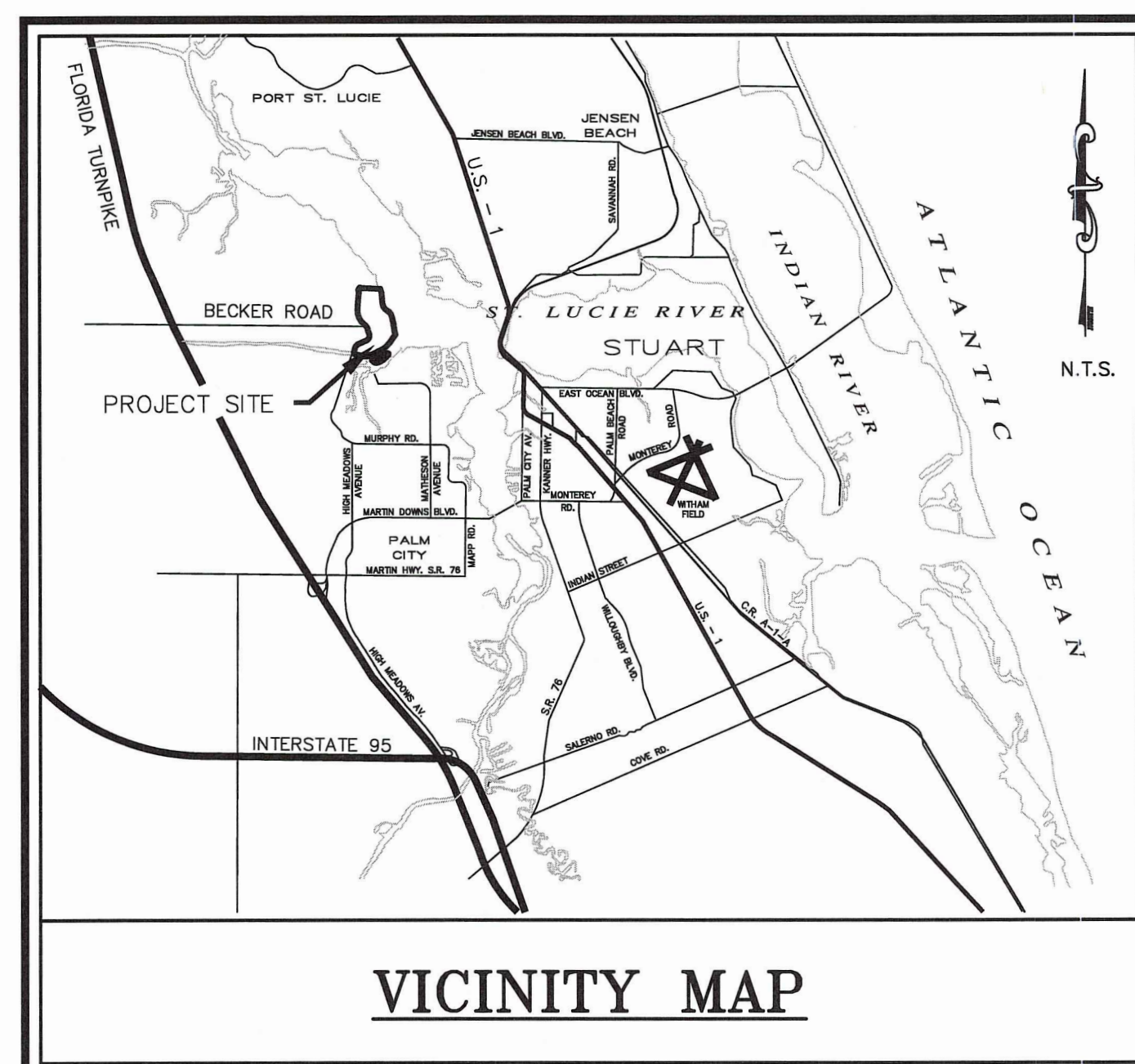
SECTION 1, TOWNSHIP 38 SOUTH, RANGE 40 EAST

MARTIN COUNTY, FLORIDA

PREPARED FOR

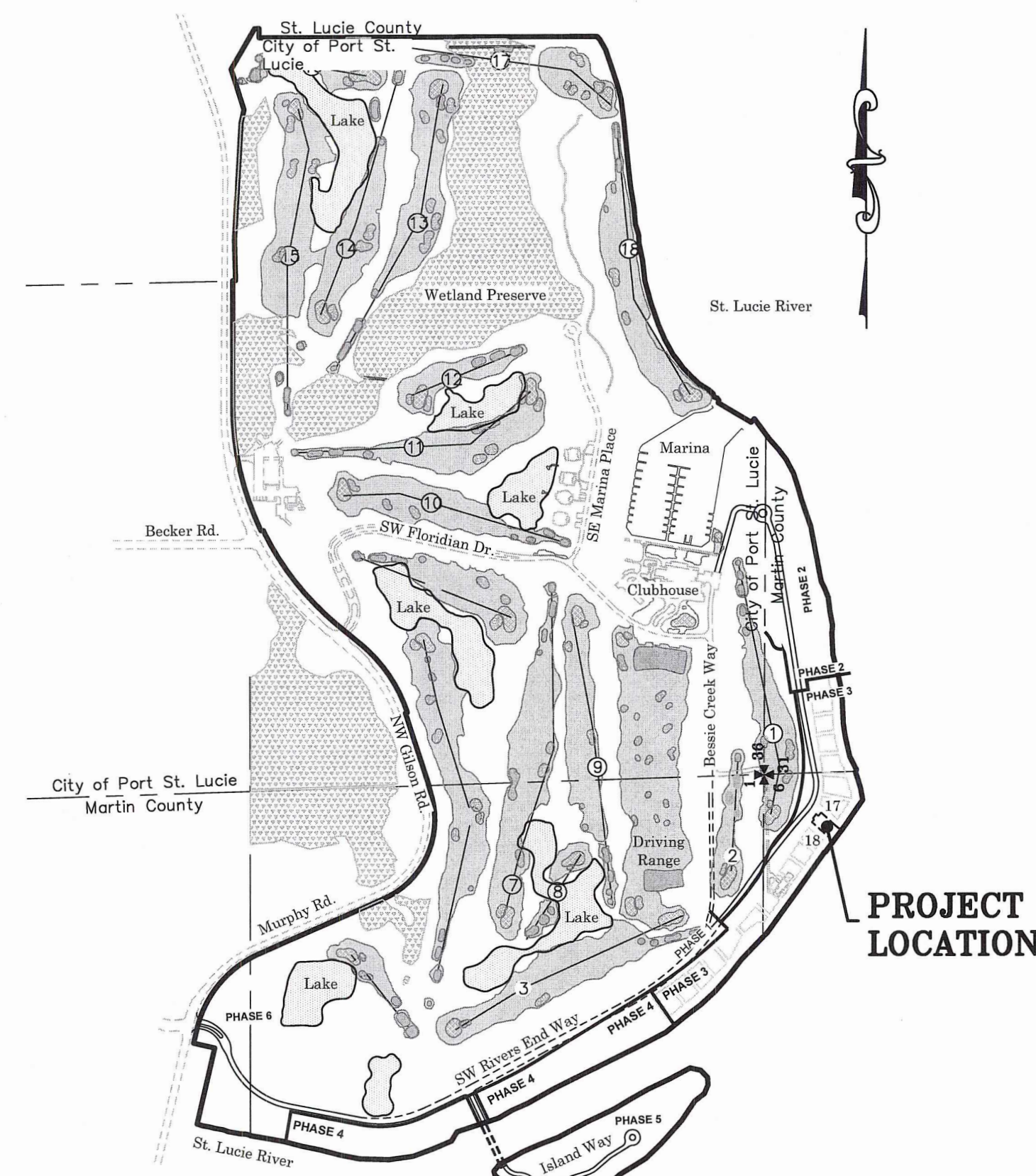
FLORIDIAN NATIONAL GOLF CLUB, LLC

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VICINITY MAP

SECTION 1 TOWNSHIP, 38 SOUTH, RANGE 40 EAST

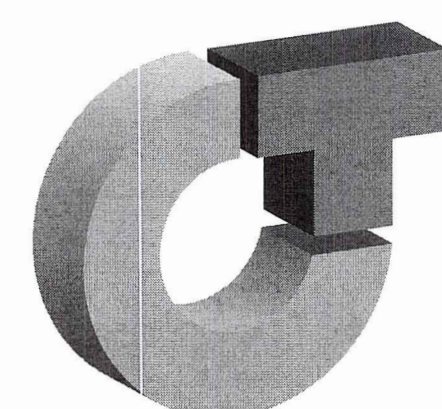


SITE LOCATION MAP

INDEX TO SHEETS	
SHEET NO.	DESCRIPTION
1	COVER
2	SITE PLAN
3	GRADING & DRAINAGE PLAN
4	SPECIFICATION & DETAILS
5	BOAT BASIN SWPPP
6	SWPPP NOTES

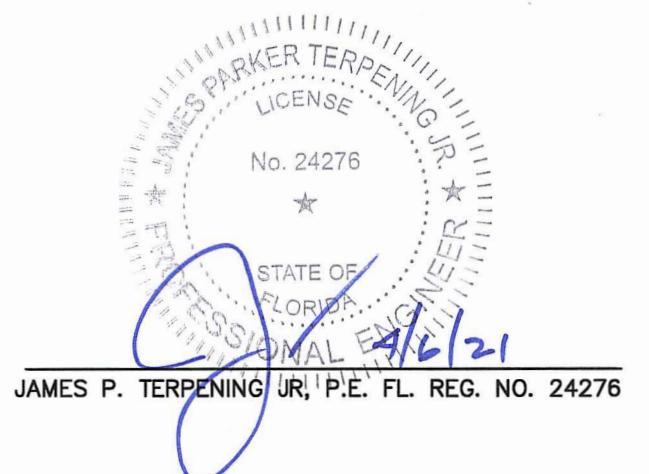
JURISDICTIONAL AUTHORITIES

MARTIN COUNTY	SITE DEVELOPMENT
MARTIN COUNTY UTILITIES	WATER AND WASTEWATER
SOUTH FLORIDA WATER MANAGEMENT	SITE DEVELOPMENT

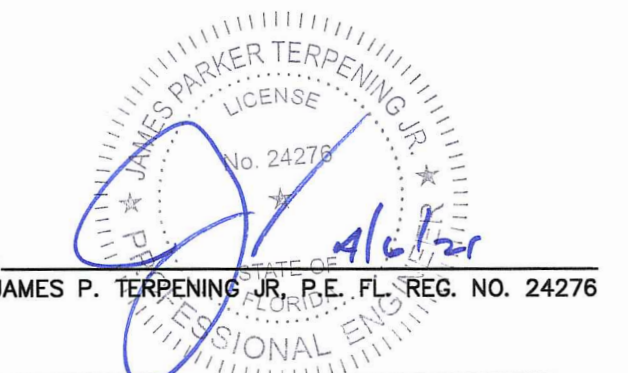
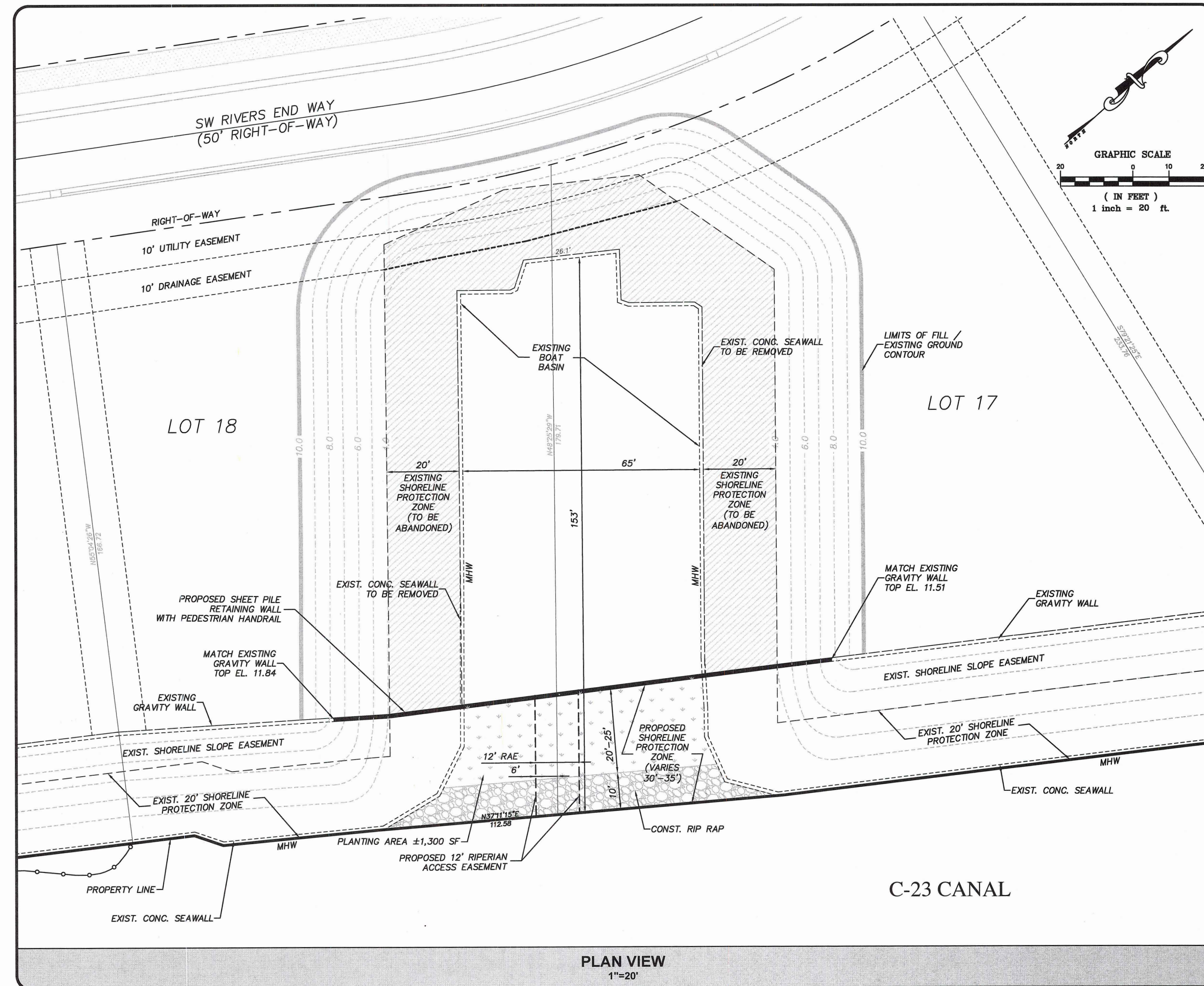


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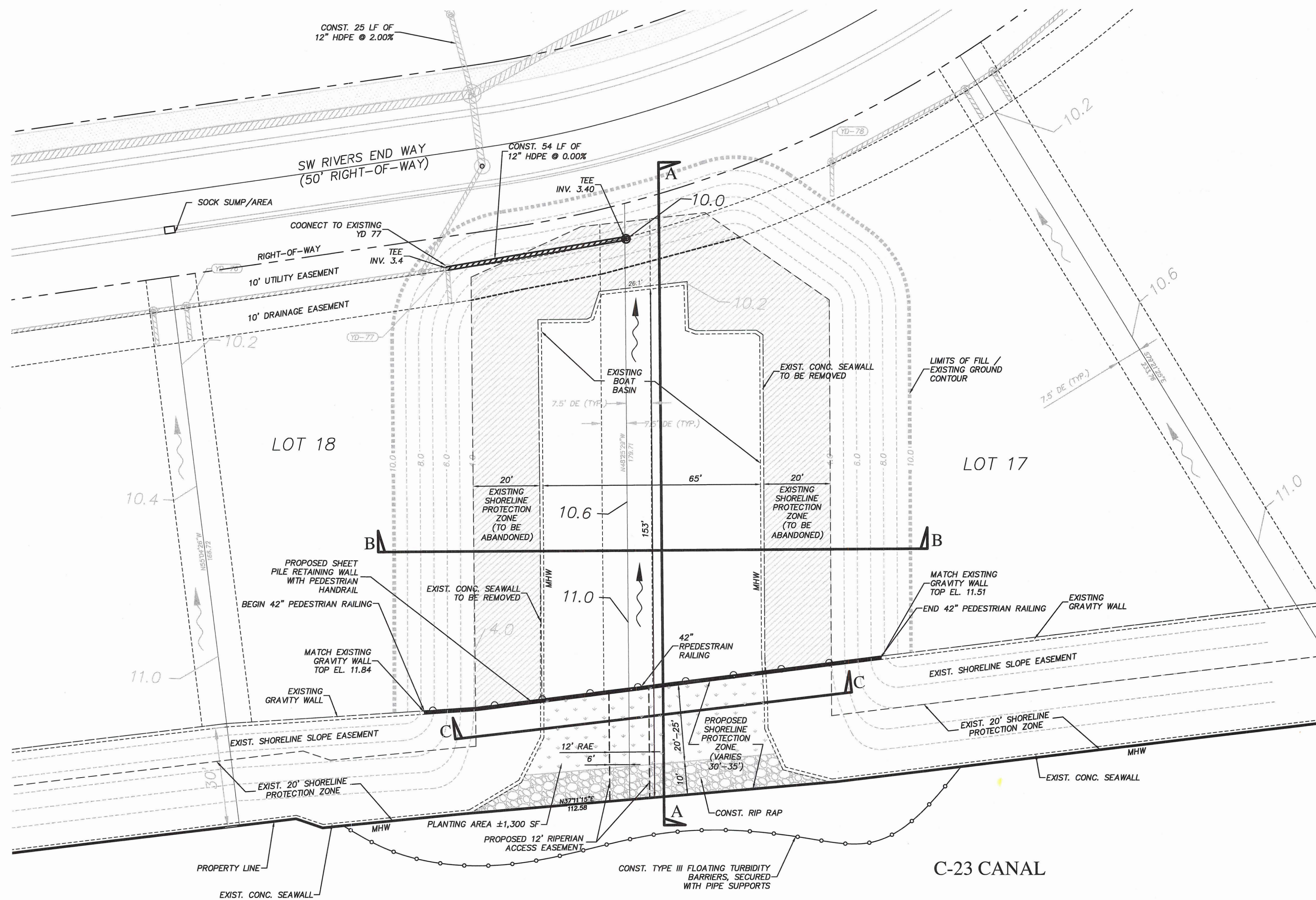
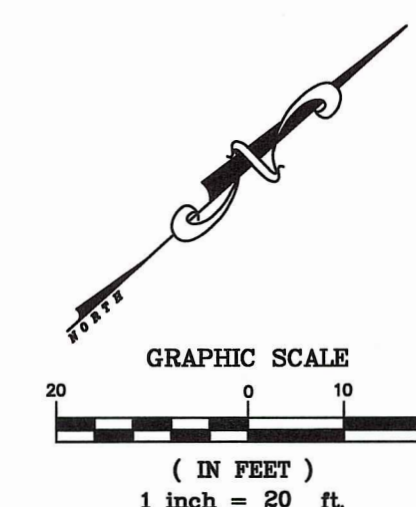
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SITE PLAN

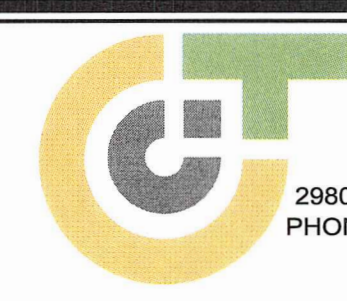
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VERT. SCALE: N/A
JOB No. 17-077
SHEET 2 of 6



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GRADING & DRAINAGE PLAN

1. GENERAL

- A. **Mobilization:** Mobilization shall meet the requirements of FDOT Section 101. This work shall include, but is not limited to, operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities, as required by State and local laws and regulations. The costs of bonds and any required insurance, and any other preconstruction expense necessary for the start of work, excluding the cost of construction materials, shall also be included in this section. This section also includes any and all work related to the final cleanup.
- B. **Construction Surveying:** The Owner shall provide horizontal control consisting of four control points. The Owner shall also provide vertical benchmarks as shown on the plans. This control shall be provided one time only. The Contractor is responsible for all other construction surveying. The Contractor is responsible to protect these reference points and the construction staking throughout the job. The Contractor shall bear the cost of any necessary restaking.
- C. **Soil Testing:** Soil Testing shall be performed by a certified testing laboratory. The contractor shall be responsible for payment of any failed tests and inspections.

2. EARTHWORK AND GRADING

- Materials and construction methods for earthwork, excavation, embankment and grading shall meet the requirements of FDOT Section 120 and shall be performed to achieve final grades, elevations and typical sections as shown on the plans for the proposed work.
- A. **Clearing and Grubbing:** Clearing and grubbing shall meet the requirements of FDOT Section 110 and shall be performed within the limits of the project work. This work shall include, but is not limited to, the removal of existing trees, brush stumps, roots and other objectionable material to a depth of 18 inches below the natural ground or design grade, whichever is lower. The areas to be cleared and grubbed generally consist of rights-of-way, utility easements, water management tracts, and portions of the lots as detailed on the plans. The Contractor shall confirm with the Owner the removal of any trees on the lots for possible preservation. All material shall be removed from the site of the project and shall be disposed of in accordance with local, regional, State and Federal laws, regulations and ordinances.
- B. **Rough Grade:** The Contractor shall grade the rights-of-way and lots to meet the requirements of FDOT Sections 110 and 120 and shall conform to the lines, grades, and typical sections as shown on the gold course architect's plans.
- C. **Fine Grade:** The Contractor shall fine grade the roadway to meet the requirements of FDOT Sections 110 and 120 and shall conform to the lines, grades and typical sections as shown on the gold course architect's plans.
- D. **Sod:** Sod shall meet the requirements of FDOT Section 570, 575, and 981 and shall be placed adjacent to the curbing for a minimum width of 24 inches.
- E. **Seed and Mulch:** Seed and mulch shall meet the requirements of FDOT Sections 570, 575, and 981 and shall be placed in all disturbed areas not otherwise addressed in plans provided by the owner.

3. DRAINAGE IMPROVEMENTS

Materials, trench excavation, pipe laying and backfilling operations for drainage improvements shall meet the requirements of FDOT Sections 125 and 430. Pipe shall be laid in true alignment in a pipe trench with an adequate supporting value and "bedded" to the detail shown in the plans and FDOT Section 430. All backfill shall be compacted to a minimum density of 95 percent of the maximum density as determined by AASHTO T-150, unless otherwise shown on the plans.

The Contractor shall provide all materials and labor to complete the work for drainage improvements at the locations, sizes, and types shown on the plans for the following items:

- A. **Reinforced Concrete Pipe:** Reinforced concrete pipe shall meet the requirements of Class III of ASTM C-76, Wall Thickness "B", Latest Revision, as modified by FDOT Section 941. Gaskets for pipe joints shall be round rubber gaskets and shall meet the requirements of FDOT Section 942.
- B. **Corrugated Metal Pipe:** Corrugated metal pipe shall meet the requirements of A.A.S.H.T.O. M-36 and F.D.O.T. Section 943 and shall be constructed as shown on the plans.
- C. **Corrugated Aluminum Pipe:** Corrugated aluminum-alloy pipe shall meet the requirements of A.A.S.H.T.O. M-196 and F.D.O.T. Section 945 and shall be constructed as shown on the plans.
- D. **Polyvinyl Chloride (PVC) Pipe:** PVC pipe shall meet the requirements of F.D.O.T. Section 948 and A.S.T.M. F-794, latest revision, and shall be constructed as shown on the plans.
- E. **High Density Polyethylene (H.D.P.E.) Pipe:** H.D.P.E. Pipe shall meet the requirements of F.D.O.T. and A.S.T.M., latest revision, and shall be air chamber construction. H.D.P.E. shall be constructed as shown on plans.
- F. **Concrete Collar:** Concrete collars shall meet the requirements of F.D.O.T. Standard Index No. 280 and shall be constructed to the detail shown on the plans.
- G. **Type "E" Inlet:** Precast concrete catch basins shall meet the requirements of ASTM C-478 and 64T FDOT Section 425. Catch basins shall be Class I concrete and shall be constructed to the detail as shown on the plans.
- H. **Storm Manhole and Control Structures:** Storm manholes shall meet the requirements of ASTM C-478 and 64T FDOT Section 425. Storm manholes shall be Class I concrete and shall be constructed to the detail as shown on the plans.
- I. **Mitered Ends:** Shall meet the requirement of FDOT Roadway and Traffic Design Standards Standard Index No. 272. Pipe lengths shown on all the drawings shown on the drawings do not include the length of the mitered end as indicated on Index No. 272.
- J. **Pipe lengths** are intended to reflect the length of pipe from the centerline of the structure to the centerline of structure.
- K. **Reduced Cover:** All storm drains with less than the minimum cover indicated on the detail sheets shall have a thickened base constructed in accordance with the details contained in the plans.

4. THE WORK

Existing Utilities and Structures:

Existing utilities, structures and facilities shown on the Drawings were located as accurately as possible from the records examined. No guarantee is made that all existing facilities are shown or that those shown are entirely accurate. The Contractor shall assure himself of the actual location of the utilities, structures, or facilities prior to performance of any work in the vicinity. The utility companies or utility agencies will co-operate with the Contractor's operations. Prior to start of the work, the Contractor shall request each utility agency to advise him of the location of their facilities in the vicinity. The Owner will assume no liability for damages sustained or cost incurred because of the Contractor's operation in the vicinity of existing utilities or structures, or to the temporary bracing and shoring of same. In the event that it is necessary to shore, brow, or swing a utility, the utility company or department affected should be contacted and their permission secured as to the method used for any such work.

Restoration of Damaged Structures or Utilities:

It shall be the responsibility of the Contractor to repair, rebuild or restore to its former condition, any and all portions of existing utilities, structures, equipment, appurtenances or facilities, other than those to be paid for under this Contract, which may be disturbed or damaged due to this construction operation, at no cost to the Owner.

Final Cleanup:

Upon completion of the work, but before final payment will be made, the Contractor shall clear and remove from the Project area, all falsework, equipment, surplus and discarded materials, rubbish and temporary structures which result from the work under this Agreement, and shall restore in an acceptable manner, all property which has been damaged during the prosecution of the work.

Record Information:

Upon completion of the work, but prior to submittal of the request for final payment, the Contractor shall obtain and submit record information to the Owner. This information shall include the following:

1. Drainage System:

- High points and low points of swales;
- Locations and grate and invert elevations of all structures;
- Location, size, type, length and invert of all culverts.

2. Paving and Grading:

Location and elevation of high and low points in roadway and any other changes in grade.

The record information shall be certified by a Florida Professional Land Surveyor. Locations shall be made by reference to centerline stationing and offset or by other means acceptable to the Owner. Elevations shall be according to the North American Vertical Datum (NAVD).

Guarantee:

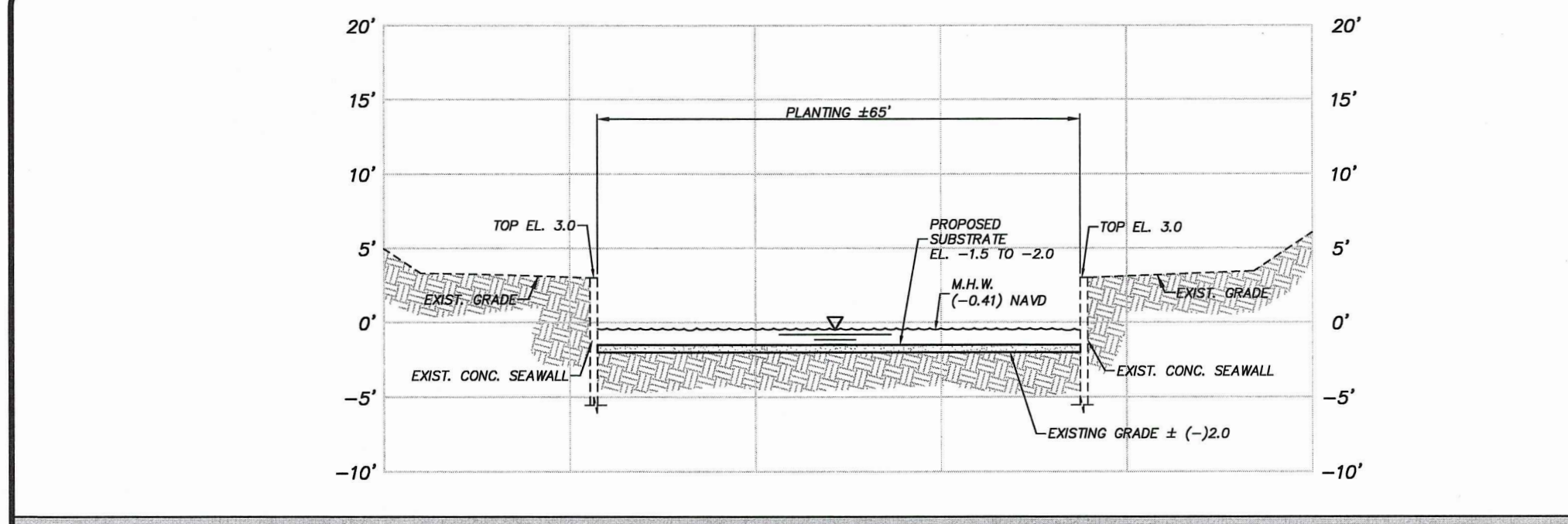
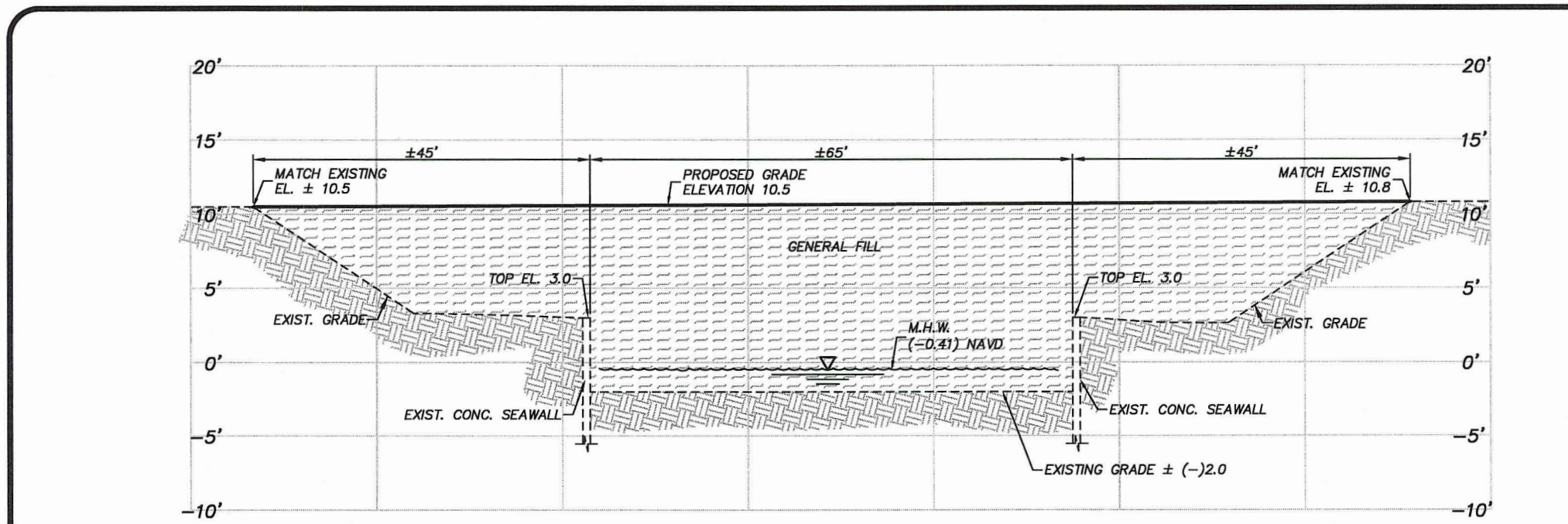
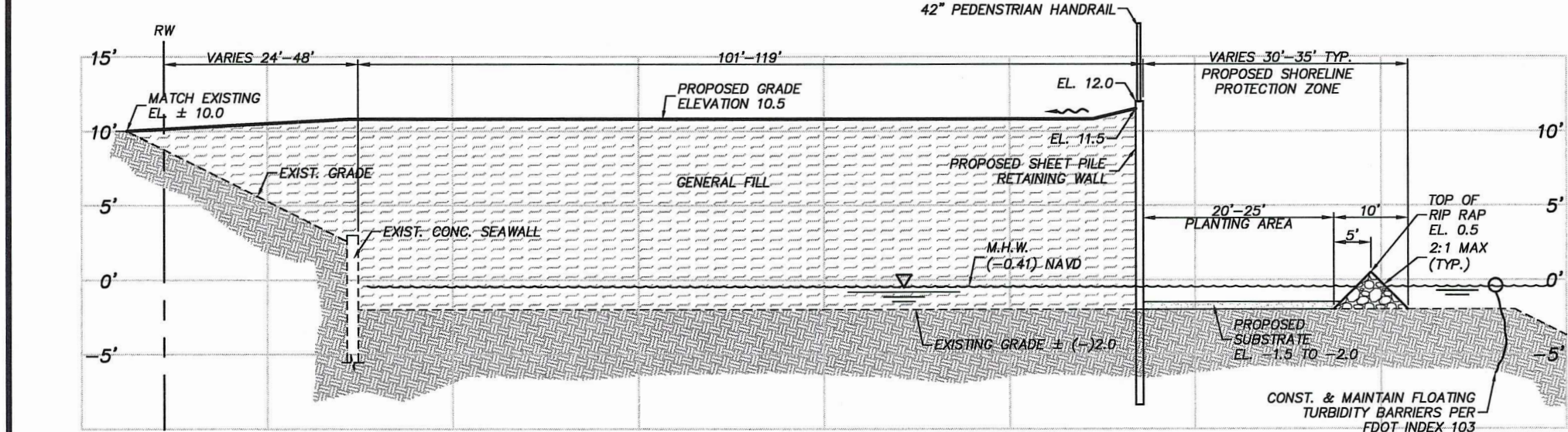
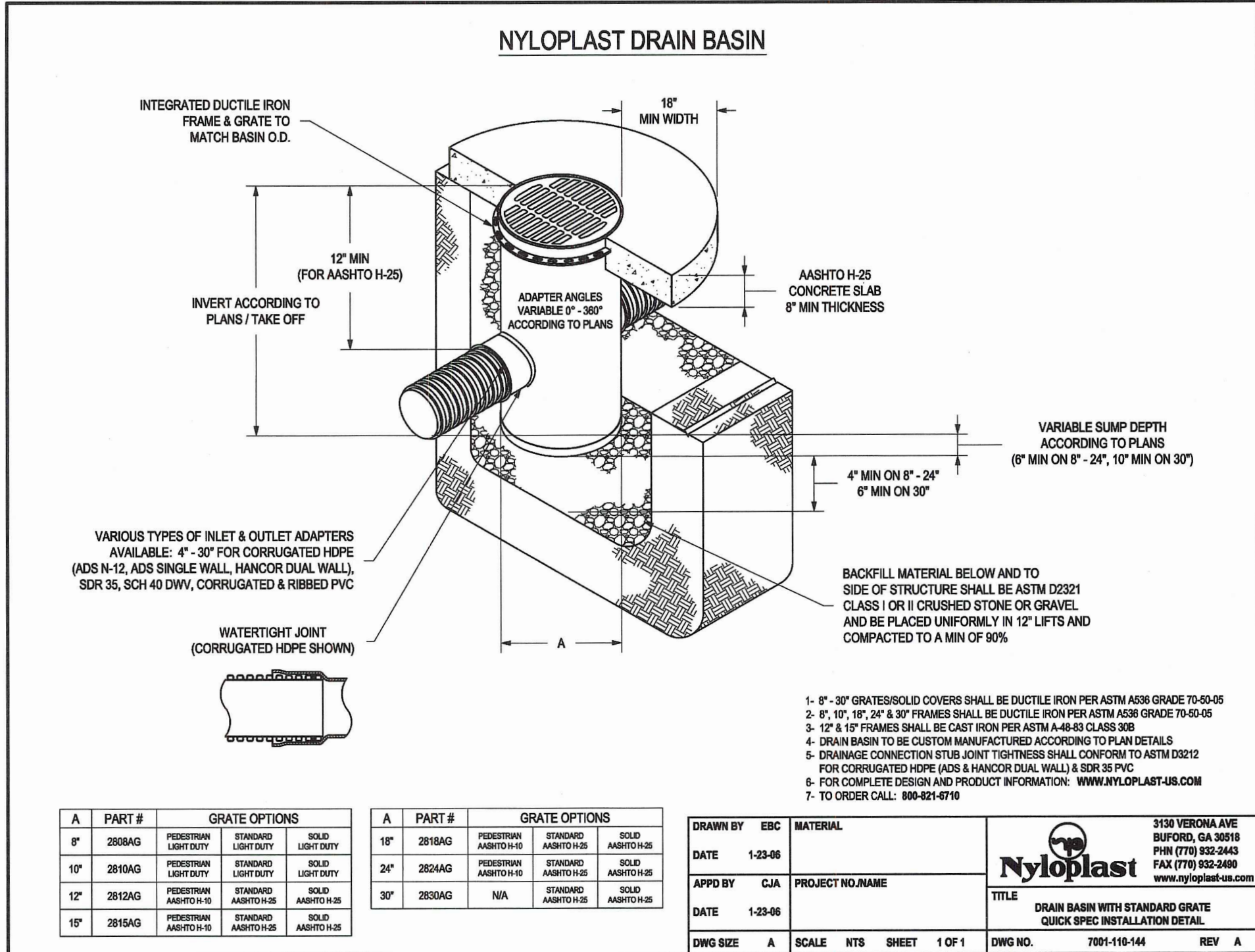
All materials and the installation thereof which are furnished and installed by the Contractor, under the terms of the Agreement, shall be guaranteed by the Contractor against defective workmanship, mechanical and physical defects, leakage, breakage, and other damages and failure under normal operation for a period of one (1) year from the date of final payment, said date to constitute the commencement of the one (1) year warranty period. All materials and installations proving to be defective within the specified period of the guaranty shall be replaced, without cost to the Owner, by the manufacturer or the Contractor. The period of guarantee of each such replacement shall be from and after the date of installation thereof.

Utility Contacts:

Florida Power & Light:	Rob Morris	(772) 223-4215	Rob.Morris@fpl.com
Bellsouth	James Virga	(772) 460-4452	James.Virga@att.com
Comcast (CATV):	Timothy Korndoerfer	(800) 266-2278	timothy.korndoerfer@comcast.net
Martin County Utilities	Bill Snyder	(772) 280-8332	bsnyder@martin.fl.us
Martin County Engineering	James Lambert	(772) 288-5927	jlambert@martin.fl.us

GENERAL NOTES

- Grassing shall be furnished and installed in conformance with the approved landscape plan. All disturbed areas not shown to be planted, mulched, etc. shall be seeded.
- Sod shall be placed such that the top of the grass is at the same elevation as the top of adjacent finish grade.
- The location of existing utilities shown is approximate only and must be field verified by the Contractor prior to beginning work.
- These plans shall not be used for construction unless they are marked "Approved for Construction" in the title block.
- All nuisance exotic vegetation on-site must be removed in conjunction with site development.
- Contractor to confirm limits of Preserve Areas and fence appropriately prior to starting construction.
- Contractor to obtain and review all permits prior to starting construction.
- Drawing scale may change due to reproduction.
- Maintenance of traffic must be in conformance with FDOT Specifications.
- Refer to Shoreline Planting Plan prepared by EW Consultants, Inc. for details of Shoreline Planting area.
- All Turbidity control measures (silt fence, floating turbidity barrier, etc.) shall be installed and maintained per plan.



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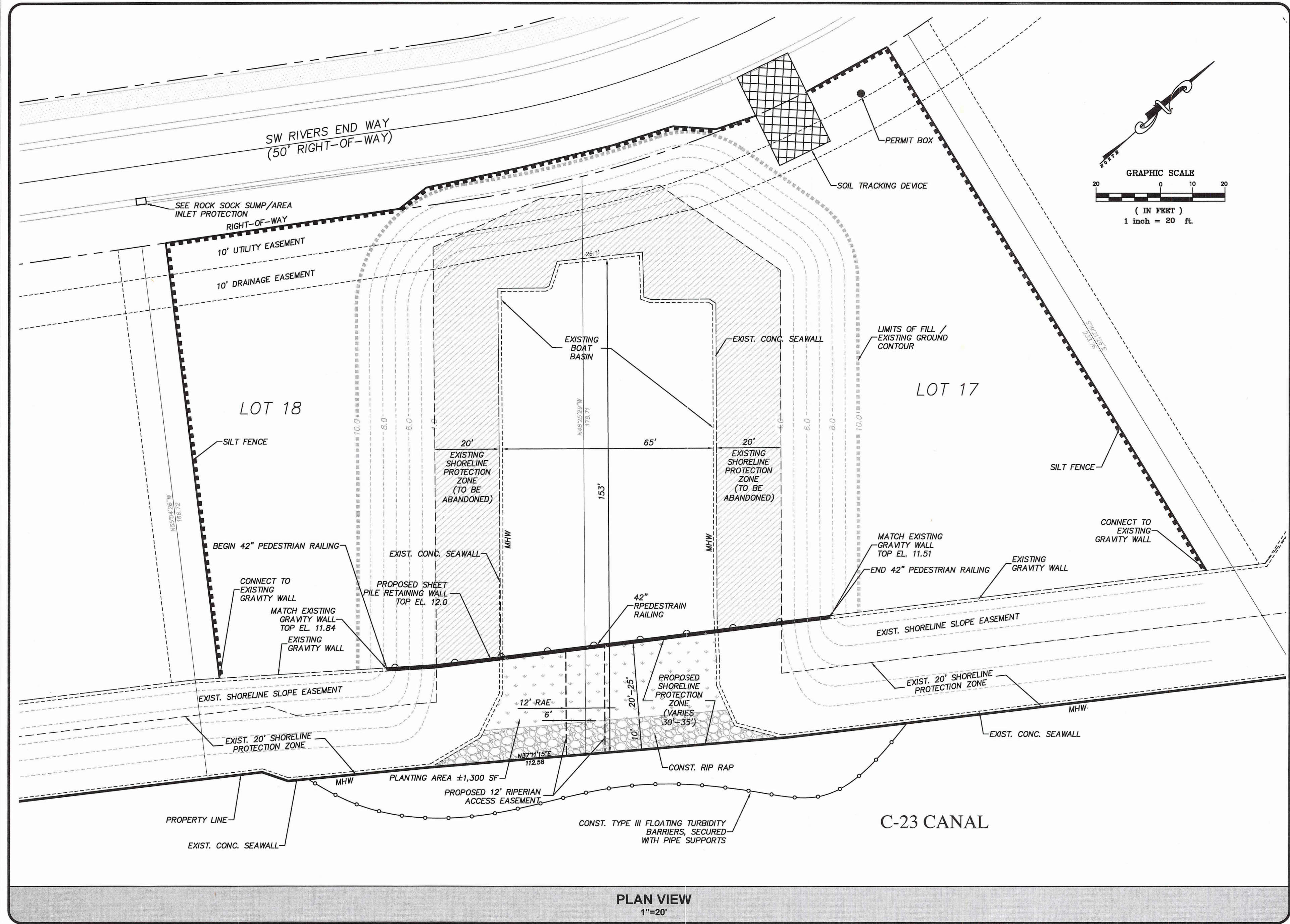
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SPECIFICATION & DETAILS

DATE: 03-30-21
HORIZ. SCALE: 1"=20'
VERT. SCALE: N/A
JOB No. 17-077
SHEET 4 of 6



General Notes:

1. Authorization to install erosion control devices and preserve barricades will be granted at the pre-construction meeting. This authorization shall be posted on the site, in the permit box, its location shown elsewhere on this page.
2. No additional land clearing shall commence until a satisfactory inspection of the required erosion control barricades has been obtained.
3. All construction barricades and silt fences will remain in place and be monitored for compliance by the permit holder during the permitted development activities.
4. Prior to scheduling a final environmental inspection, all barricades and erosion control devices shall be removed and disposed of by the contractor.

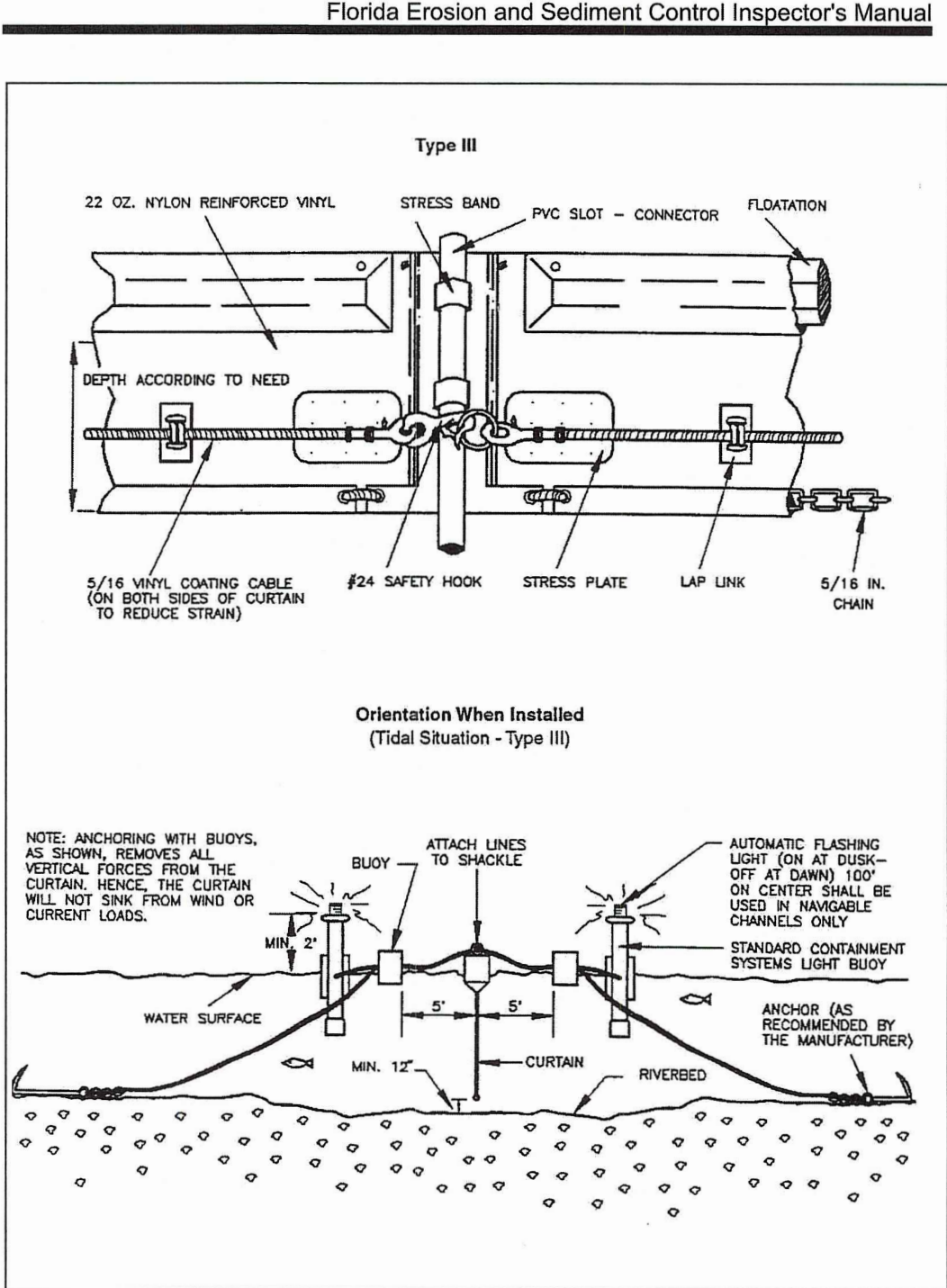


Plate 4.45b Type III Floating Turbidity Barrier
Source: American Boom and Barrier Corporation and VDOT Standard Sheets
4-120

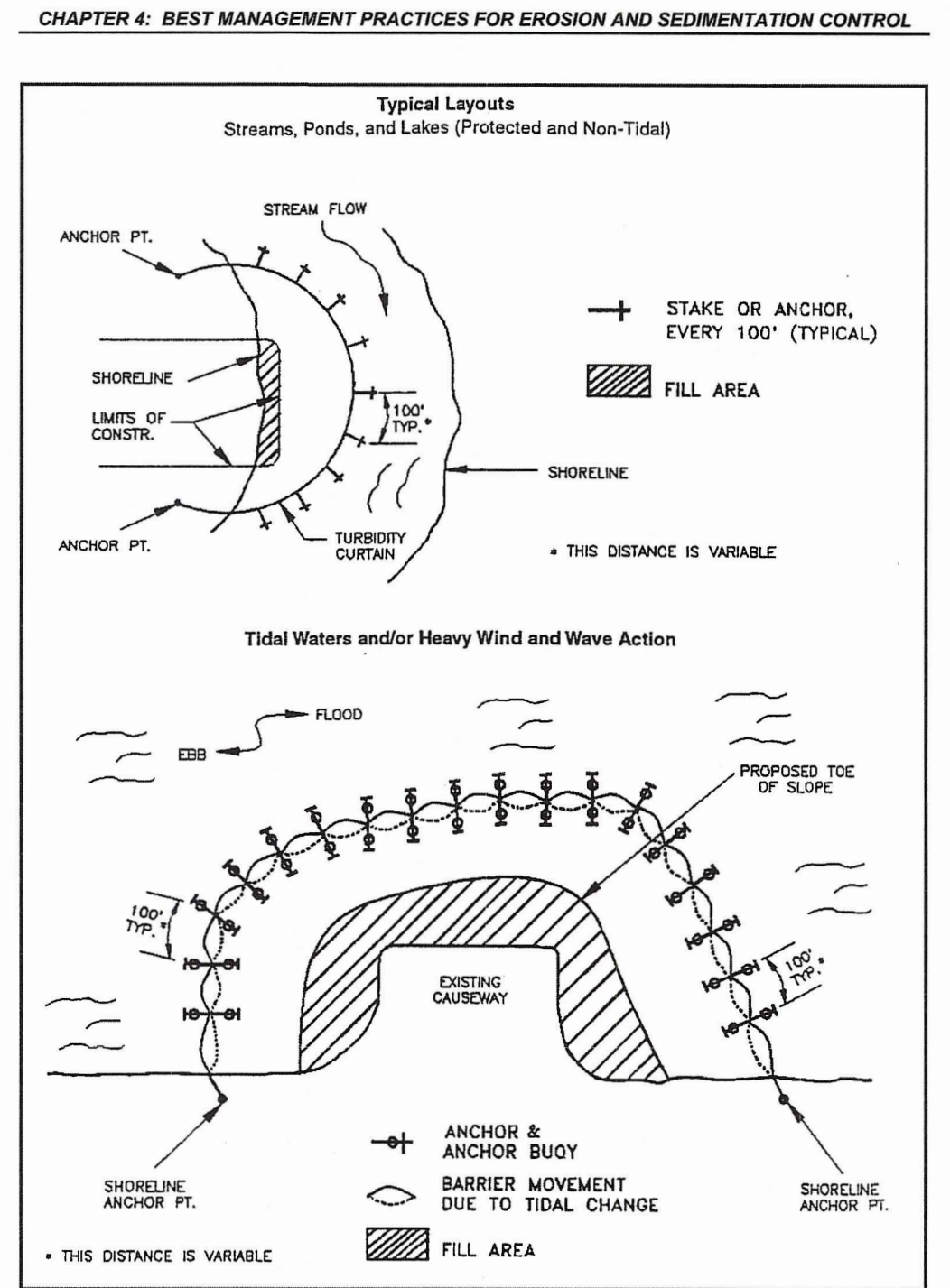


Figure 4.4n. Typical Installation Layouts
Source: FDOT Roadway and Traffic Design Standards

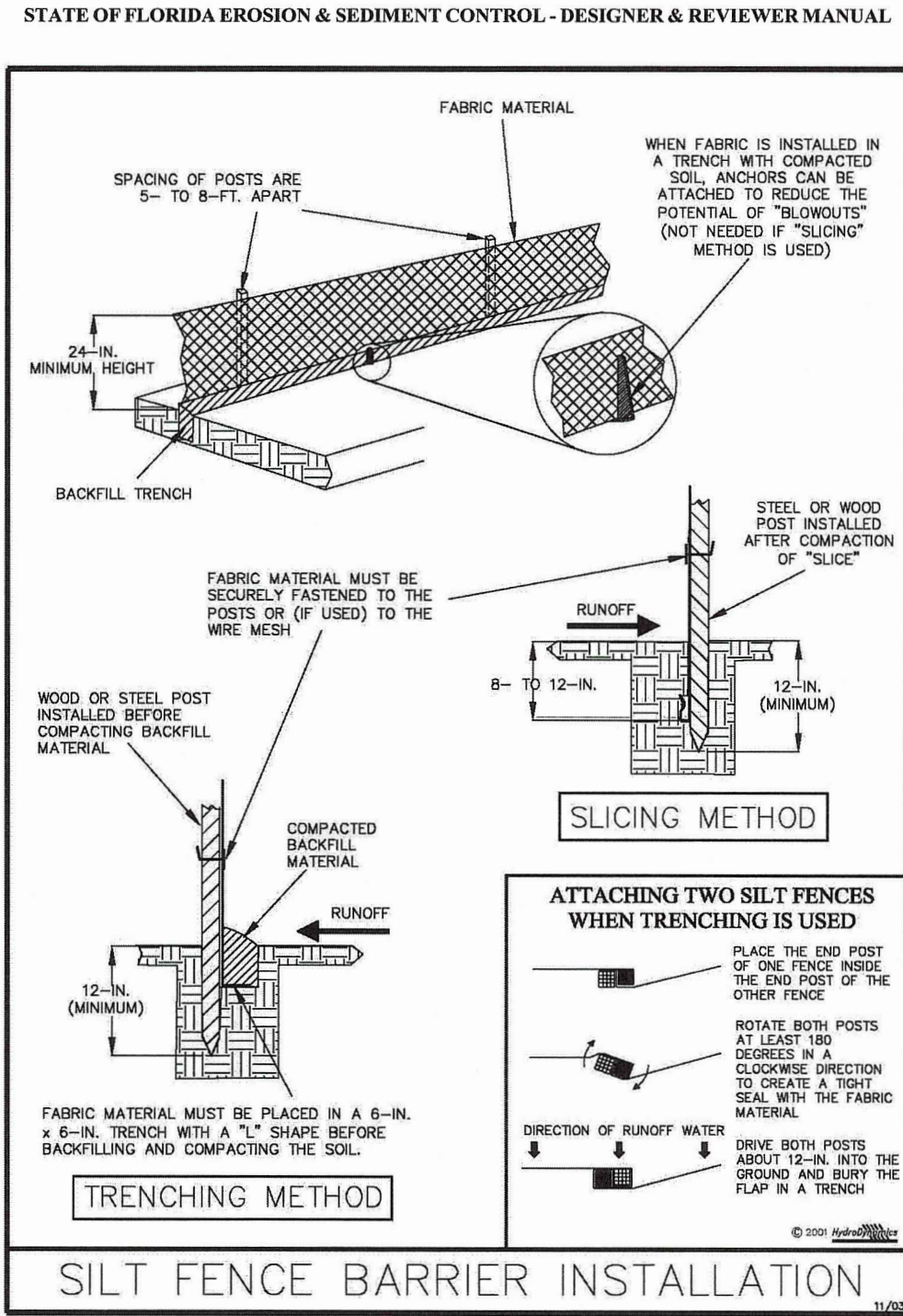
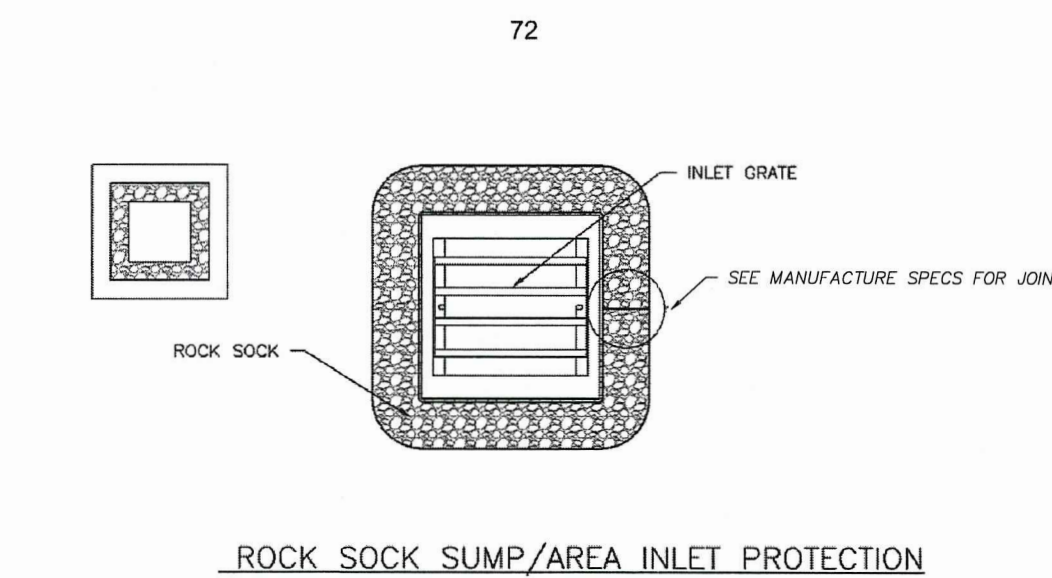


Figure V-40: Illustration of a Silt Fence Barrier
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V-7

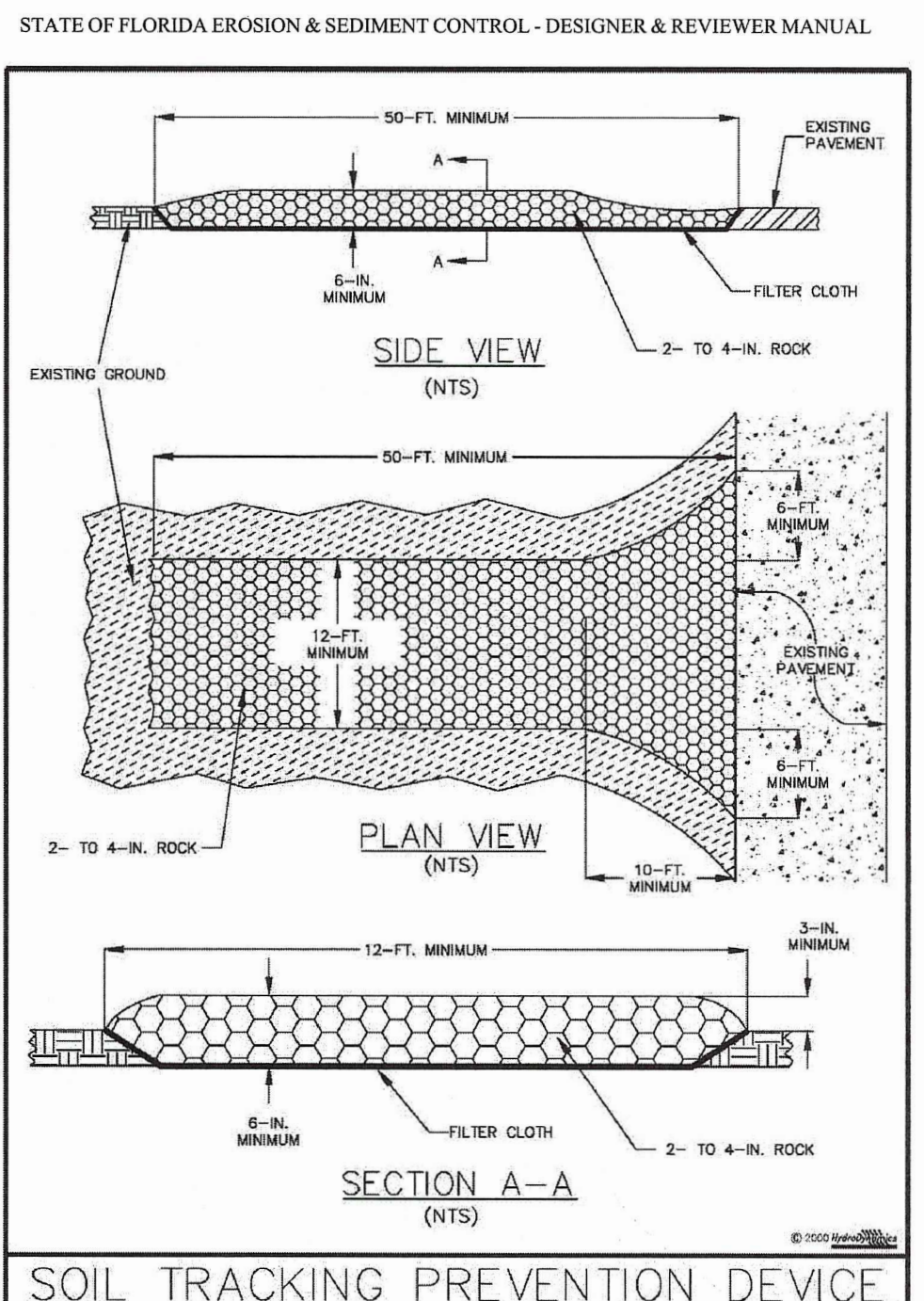


Figure V-14: Illustration of a Soil Tracking Prevention Device
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THE FLORIDIAN GOLF CLUB
BOAT BASIN SWPPP

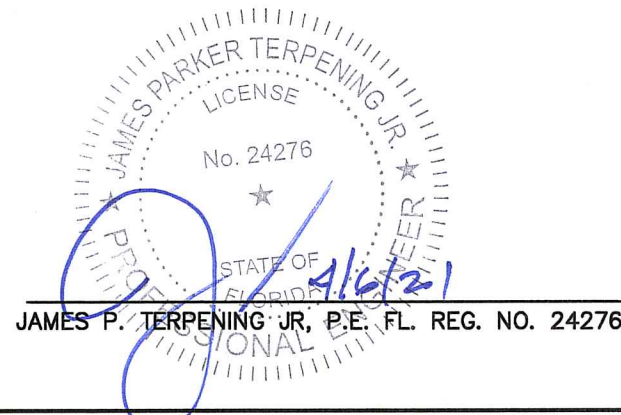
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Section 1	Project Name and location information:	Floridian Boat Basin Fill
Section 2	Describe the nature of the construction activity:	Filling of an old boat basin and shoreline restoration.
Section 3	Describe the intended sequence of major soil disturbing activities:	1. Install all of the proposed BMP's. 2. Install sheet piling. 3. Dewater boat basin. 4. Remove existing seawall. 5. Demuck existing basin. 6. Fill and grade basin. 7. Grade living shoreline. 8. Install shoreline rip rap. 9. Plant shoreline and upland fill areas.
Section 4	Total area of the site:	1.29 acres
Section 5	Total area of the site to be disturbed:	1.29 acres
Section 6	Existing data describing the soil or quality of any stormwater discharge from the site:	Arenas This site is part of The Floridian master stormwater system.
Section 7	Estimate the drainage area size for each discharge point:	1.29 acres
Section 8	Latitude and longitude of each discharge point and identify the receiving water or MS4 for each discharge point:	27°12'18.94"N, 80°17'5.31"W. The site discharges to the St. Lucie River.
Section 9	Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department or a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, FDOT, FDEP, and any subsequent amendments.	
	Silt fencing will be provided around the upland portion of the site. A Type III Turbidity Barrier will be installed on the waterward side of the site. A soil tracking device will be installed at the construction entrance. All existing roadway storm drainage system will have inlet protection devices. All of the BMP's will remain intact until completion of the project.	
Section 10	Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, vegetative preservation, etc.	
	The site will be seeded and sodded upon completion. The retaining wall is designed so that no site runoff will drain to the river.	
Section 11	Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on-site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.	
	As stated the proposed retaining wall has been designed to prevent water from entering the river.	
Section 12	Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres.	
	The site is only 1.29 acres.	
Section 13	Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	
	The site upon completion will drain into the Floridian Master stormwater system, where water quality and attenuation will be provided.	

Section 14	Waste disposal, this may include construction debris, chemicals, litter, and sanitary wastes:	All construction materials and debris will be placed in a dumpster and hauled off site to a landfill or other proper disposal site. No materials will be buried on site.
Section 15	Offsite vehicle tracking from construction entrances/exits:	Off site vehicle tracking of sediments and dust generation will be minimized via a rock construction entrance, street sweeping and the use of water to keep dust down.
Section 16	The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:	Florida-friendly fertilizers and pesticides will be used at a minimum and in accordance with the manufacturer's suggested application rates.
Section 17	The storage, application, generation and migration of all toxic substances:	All paints and other chemicals will be stored in a locked covered shed.
Section 18	Other:	Port-o-lets will be placed away from storm sewer systems, storm inlet(s), surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of polluted runoff.
Section 19	Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: • Silt fence shall be inspected at least weekly. Any required repairs shall be made immediately. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier. • The Turbidity Barriers shall be inspected weekly. Any required repairs shall be made immediately. • Maintenance shall be performed on the rock entrance when any void spaces are full of sediment. • Inlet(s)/outfalls shall be inspected immediately after each rain event and any required repairs to the filter inlets, silt fence, or filter fabric shall be performed immediately. • Bare areas of the site that were previously seeded shall be reseeded per manufacturer's instructions. • Mulch and sod that has been washed out shall be replaced immediately.
Section 20	Inspections: Describe the inspection and inspection documentation procedures, as required by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	Qualified personnel will inspect all points of discharges, all disturbed areas of construction that have not been stabilized, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been finally stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.
Section 21	Identify and describe all sources of non-stormwater discharges as allowed by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	None.
Section 22	All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."



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DESIGNED	JPT	03-30-21
CALCS.		
DRAWN	TG	03-30-21
DETAILED		
CHECKED	JPT	03-30-21
APPROVED	JPT	03-30-21

THE FLORIDIAN GOLF CLUB

SWPPP NOTES

DATE: 03-30-21
HORIZ. SCALE: 1"=20'
VERT. SCALE: N/A
JOB No. 17-077
SHEET 6 of 6