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CITY OF FORT LAUDERDALE

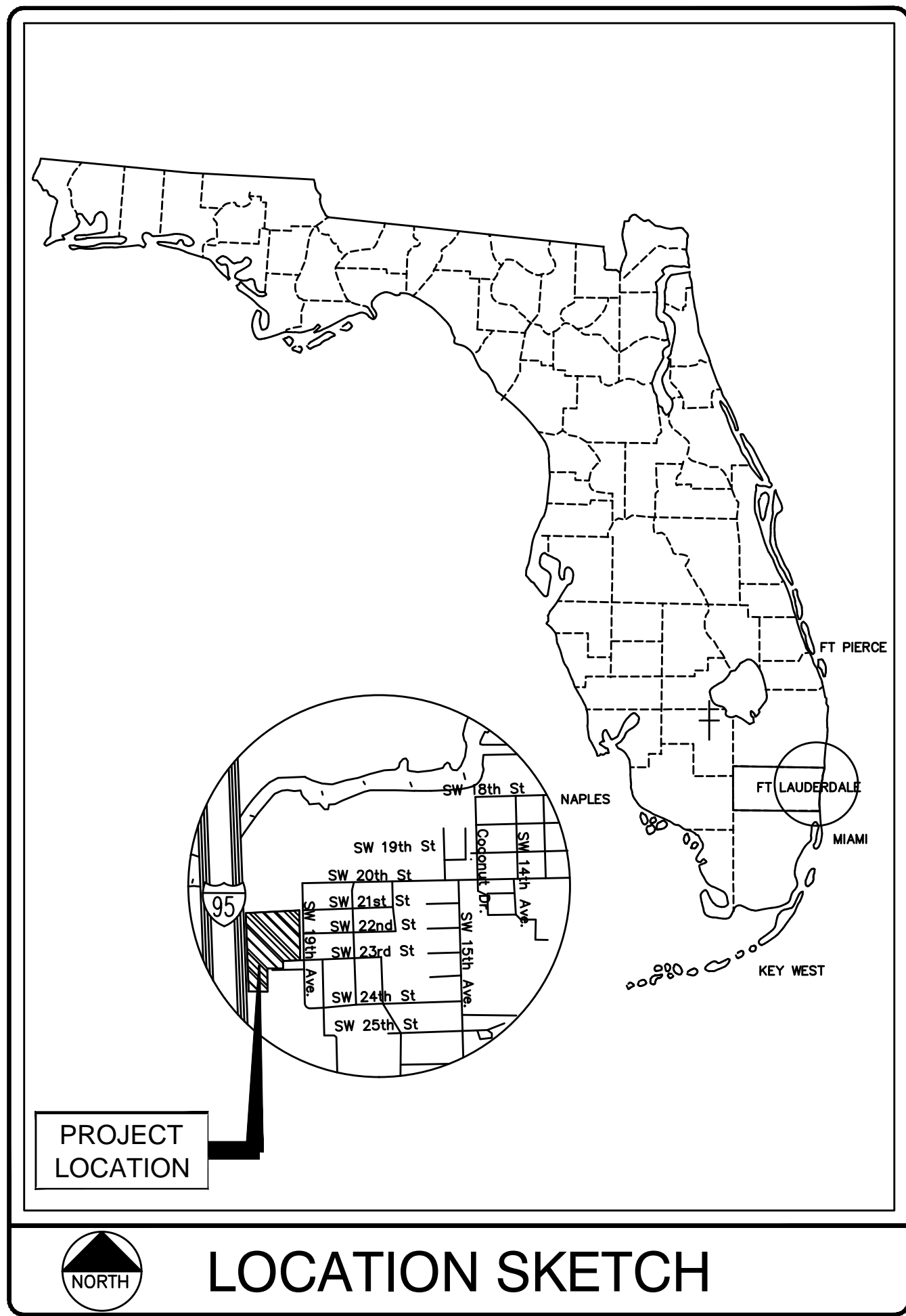
PROJECT #11419 STORMWATER IMPROVEMENTS RIVER OAKS STORMWATER PRESERVE

FORT LAUDERDALE, FLORIDA

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- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs



**PROJECT #11419
RIVER OAKS
STORMWATER PRESERVE**

**CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE**
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

FORT LAUDERDALE CITY COMMISSION

JOHN P. "JACK" SEILER	MAYOR
BRUCE G. ROBERTS	COMMISSIONER - DISTRICT I
DEAN J. TRANTALIS	COMMISSIONER - DISTRICT II
ROBERT L. MCKINZIE	COMMISSIONER - DISTRICT III
ROMNEY ROGERS	COMMISSIONER - DISTRICT IV

PROJECT MANAGER	JOB TITLE	PHONE NO.
PATRICK J. GIBNEY, P.E.	VICE PRESIDENT ENGINEERING	954-739-6400

DATE: 01/10/2019
CAD FILE: 11419-COVER
DRAWING FILE No.: 4-135-81

BID SET

GENERAL NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
2. REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
3. SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED CRAVEN THOMPSON & ASSOCIATES, INC.
4. HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
5. RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
6. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
7. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
8. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
9. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
11. CONTRACTOR SHALL REPLACE SURROUNDING LAND COVER AFFECTED BY CONSTRUCTION ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, PAVERS, SIDEWALK, SOD, AND LANDSCAPING, TO EXISTING OR BETTER CONDITIONS.
12. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.
14. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH THESE REGULATIONS.
15. GROUNDWATER FROM ALL DEWATERING OPERATIONS SHALL BE DISCHARGED TO AN ENVIRONMENTALLY ACCEPTABLE LOCATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
17. FOR REFERENCE MONUMENTS, SEE SURVEY DRAWING.
18. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
19. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
20. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
21. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH BCTED AND FDOT REQUIREMENTS.
22. PIPING, FITTINGS, AND APPURTENANCES FOR DUCTILE IRON PIPE SHALL BE RESTRAINED JOINT WHERE SHOWN ON THE PLANS OR AS OTHERWISE SPECIFICALLY SPECIFIED IN THE CONTRACT DRAWINGS.
23. RESILIENT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7- FEET OF COVER FROM TOP OF PIPE IS PRESENT OR AS OTHERWISE SPECIFICALLY SPECIFIED IN THE CONTRACT DRAWINGS.
24. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF FORT LAUDERDALE.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
26. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.
27. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.
28. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE EXISTING RIGHTS-OF-WAY.
29. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.
30. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.
31. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING CONSTRUCTION.
32. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECIFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
33. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
34. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.
35. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
36. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
37. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
38. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
39. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
40. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
41. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAPPED WITH ASPHALT.
42. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL.
43. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
44. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.

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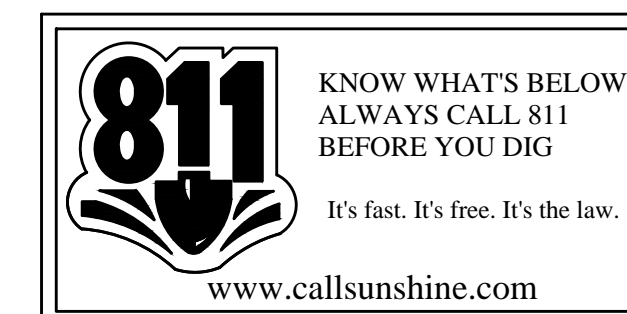
FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000014
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- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs



ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 1988)



ENGINEER:
PATRICK J. GIBNEY
REG. No. 49428
DATE: 10/28/2018
TEL: 954-739-6400
FAX: 954-739-6409

DRAWN BY: L.C./M.N. 10/30/2018
DESIGNED BY: W.R./M.N. VERT 1"=2'
CHECKED BY: A.G. HOR 1"=40'
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

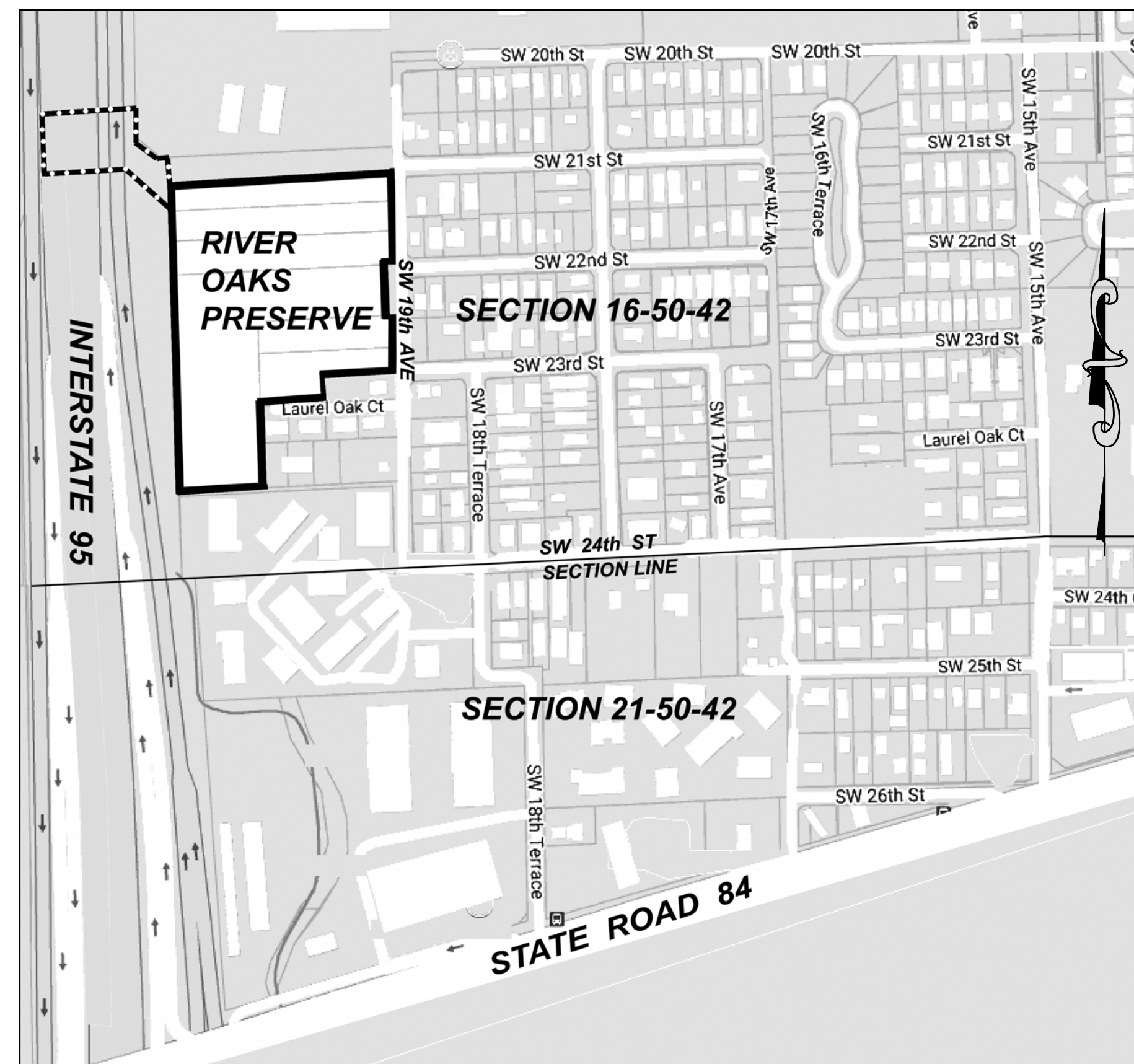
NO.	DATE	BY	CHK'D	REVISIONS	
				DESCRIPTION	

PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
GENERAL NOTES

SHEET NO.
G-02
TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81

GENERAL NOTES:

- THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE CITY OF FORT LAUDERDALE, FLORIDA, AND HAZEN AND SAWYER, INC. FOR THE EXPRESS PURPOSE STATED HEREON AS RELATED TO OUR CONTRACT.
- THE PURPOSE OF THIS SURVEY WAS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL AND COLLECT ABOVE GROUND AND VISIBLE IMPROVEMENTS WITHIN AND ALONG THE RIGHTS-OF-WAYS DELINEATED HEREON WITHIN THE PROJECT LIMITS. THE IMPROVEMENTS ALSO INCLUDED INFORMATION INSIDE OF THE STORM WATER AND SANITARY SEWER STRUCTURES, IF ACCESSIBLE, SUCH AS, INVERTS, WEIRS, PIPE SIZES AND MATERIALS, AND BOTTOM OF STRUCTURES.
- THE EXPECTED USE OF THIS SURVEY AND MAP IS FOR COMMERCIAL/HIGH RISK, THEREFORE THIS SURVEY IS CLASSIFIED AS COMMERCIAL/HIGH RISK LINEAR AND EXCEEDS THE MINIMUM RELATIVE DISTANCE ACCURACY OF 1 FOOT IN 10,000 FEET AS REQUIRED BY THE FLORIDA STANDARDS OF PRACTICE (5J-17, F.A.C.).
- THE ELEVATIONS SHOWN HEREON ARE RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FOLLOWING BENCHMARKS:
 (A) FLORIDA DEPARTMENT OF TRANSPORTATION STATE ROAD 84 BENCHMARK C4 ELEVATION = 5.276' (NAVD88) STAMPED 84-86-04-C4 FROM FDOT PROJECT NETWORK CONTROL SPECIFIC PURPOSE SURVEY - FINANCIAL PROJECT NO 228243-1-32-01.
 (B) FLORIDA DEPARTMENT OF TRANSPORTATION STATE ROAD 84 BENCHMARK C6 ELEVATION = 6.573' (NAVD88) STAMPED 84-86-04-C6 FROM FDOT PROJECT NETWORK CONTROL SPECIFIC PURPOSE SURVEY - FINANCIAL PROJECT NO 228243-1-32-01.
- THIS PROJECT WAS PERFORMED IN THE FIELD DURING THE MONTH OF OCTOBER, 2017 USING INFORMATION FROM A PREVIOUS SURVEYS UNDER CRAVEN THOMPSON & ASSOCIATES, INC (CTA) PROJECT NUMBER 16-0042-001-01 AND AN EXTENSIVE FIELD SURVEY OF THE SITE AND THE SURROUNDING ROADWAYS WITHIN THE FOLLOWING BROWARD COUNTY RECORDED PLATS:
 A: PLAT BOOK 9, PAGE 46 "OSCEOLA PARK"
 B: PLAT BOOK 22, PAGE 34 "OSBOURNE PARK"
 C: PLAT BOOK 34, PAGE 32 "WOEHLKE SUBDIVISION"
 D: PLAT BOOK 127, PAGE 33 "OSCEOLA PARK APARTMENTS"
 E: PLAT BOOK 155, PAGE 35 "THE R.B.F. PLAT"
 F: PLAT BOOK 168, PAGE 42 "LAUDERDALE MARINE CENTER"
 G: PLAT BOOK 175, PAGE 177 "GEORGIAN OAKS"
 H: PLAT BOOK 176, PAGE 175 "LAUDERDALE MARINE CENTER PLAT NO II"
 I: PLAT BOOK 177, PAGE 78 "RIO COLONY"
- THE COORDINATES SHOWN HEREON ARE RELATIVE TO STATE PLANE, FLORIDA EAST ZONE, NAD83 (90), UNITS U.S. SURVEY FEET, AND BASED ON REAL TIME KINEMATIC (RTK) GPS UTILIZING THE TRIMBLE STATE-WIDE VRS NETWORK, AND ADJUSTED TO A STATIC GPS CONTROL NETWORK CTA PERFORMED FOR THE CITY OF FORT LAUDERDALE IN 2016.
- SECTIONAL INFORMATION AND RIGHT-OF-WAY LINES SHOWN HEREON ARE BASED ON THE RECORDED PLATS AND FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAPS AND PROJECT CONTROL NETWORKS.
- CTA FIELD BOOK REFERENCES: FIELD BOOK (FB) 2859, PAGES 44-79 & FB 2860 PAGES 19-39
- ALL PLATS SHOWN HEREON REFER TO RECORDED PLATS IN BROWARD COUNTY.
- NO TITLE DOCUMENTS WERE SUPPLIED TO THE SURVEYOR FOR REVIEW.



LOCATION MAP
 PORTION OF SECTION 16 & 21, TOWNSHIP 50 SOUTH, RANGE 42 EAST
 NOT TO SCALE



SHEET LAYOUT
 NOT TO SCALE

CONTROL LEGEND:

- ⊙ IRON PIPE
- ⊙ IRON ROD
- ⊙ NAIL&TAB
- PERMANENT REFERENCE MONUMENT
- ▲ PKNAIL SPIKE

ABBREVIATION LEGEND:

- B.C.R BROWARD COUNTY RECORDS
- CMP CORRUGATED METAL PIPE
- FND FOUND
- HDPE HIGH DENSITY POLYETHYLENE
- I.E. INVERT ELEVATION
- MH MANHOLE
- P.B. PLAT BOOK
- PG PAGE
- PRM PERMANENT REFERENCE MONUMENT
- PVC POLYVINYL CHLORIDE
- R.E. RIM ELEVATION
- R/W RIGHT OF WAY
- SAN RIM ELEVATION
- TR TREE

LEGEND:

- ↑ ANCHOR
- ⊙ BACK FLOW PREVENTER
- BOLLARD
- ⊙ CATV PEDESTAL
- ⊙ CATCH BASIN
- ⊙ ELECTRICAL PULL BOX
- ⊙ FIRE HYDRANT
- ⊙ MAILBOX
- ⊙ OUTFALL
- ⊙ PLUG
- ⊙ SANITARY CLEAN OUT
- ⊙ SANITARY MANHOLE
- ⊙ SIGN
- ⊙ STEEL I-BEAM
- ⊙ TELEPHONE PEDESTAL
- ⊙ WATER METER
- ⊙ WATER VALVE
- ⊙ WOOD POST
- ⊙ WOOD LIGHT POLE
- ⊙ WOOD TELEPHONE POLE
- ⊙ PALM TREE
- ⊙ SHADE TREE
- ⊙ PINE TREE
- OVER HEAD WIRES
- TOP OF BANK
- TOE OF SLOPE
- LIMITED ACCESS R/W LINE

DESCRIPTION: PROVIDED BY CLIENT

PARCEL I:

A PORTION OF THE SOUTHWEST ONE-QUARTER (SW ¼) OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, BROWARD COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH 72.365 FEET OF THE FOLLOWING DESCRIBED PARCEL:

THAT PORTION OF THE WEST HALF OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER AND THE WEST ONE-HALF OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, LYING NORTH OF A LINE WHICH IS 898.96 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SECTION 16, AND LYING SOUTH OF A LINE THAT IS 1123.70 FEET NORTH OF AND PARALLEL TO THE SAID SOUTH BOUNDS OF SAID SECTION 16, EXCEPTING THEREFROM THE RIGHT OF WAY OF SEABOARD AIR LINE RAILWAY; ALSO EXCEPTING THEREFROM THE WEST 210.00 FEET OF ABOVE PARCEL; ALSO EXCEPTING THEREFROM THE EAST 704.50 FEET OF THE SOUTH 80.00 FEET OF THE ABOVE DESCRIBED PARCEL, SAID LANDS SITUATE, LYING AND BEING IN BROWARD COUNTY, FLORIDA, LYING EAST OF THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE 95.

PARCEL II:

THE EAST 704.50 FEET OF THE SOUTH 80 FEET OF THE PORTION OF THE WEST ½ OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼ AND THE WEST ½ OF THE EAST ½ OF THE SOUTHWEST ¼ OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, LYING NORTH OF A LINE WHICH IS 898.96 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SECTION 16, AND LYING SOUTH OF A LINE THAT IS 1123.70 FEET NORTH OF AND PARALLEL TO THE SAID SOUTH BOUNDARY OF SAID SECTION 16;

AND ALSO

LESS AND EXCEPT THE LANDS LYING WITHIN THE BOUNDARIES OF INTERSTATE I-95.

SAID LANDS SITUATE, LYING AND BEING IN BROWARD COUNTY, FLORIDA.

PARCEL III:

THE NORTH 90.00 FEET OF THE FOLLOWING TRACT:

THAT PORTION OF THE WEST ¼ OF THE SOUTHWEST ¼ AND THE WEST ½ OF THE EAST ½ OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼ OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, LYING NORTH OF A LINE WHICH IS 674.31 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SECTION 16, AND LYING SOUTH OF A LINE WHICH IS 898.96 FEET NORTH OF AND PARALLEL TO THE SAID SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM THAT PART THEREOF LYING WEST OF THE EAST RIGHT OF WAY LINE OF INTERSTATE HIGHWAY 95.

PARCEL IV:

PARCEL "A" OF THE R.B.F. PLAT, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 155, PAGE 35 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

PARCEL V:

THE EAST 375 FEET OF THE FOLLOWING DESCRIBED PROPERTY:

THE WEST ½ OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼ AND THE WEST ½ OF THE EAST ½ OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼ OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, LYING NORTH OF A LINE WHICH IS 449.54 FEET NORTH OF THE PARALLEL TO THE SOUTH BOUNDARY OF SECTION 16, AND LYING SOUTH OF A LINE WHICH IS 674.31 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM THE SOUTH 139 FEET THEREOF.

PARCEL VI:

THE EAST 375 FEET OF THE NORTH 139 FEET OF THE SOUTH 588.54 FEET OF THE WEST ¾ OF THE SOUTHWEST ¼ OF THE SOUTHWEST ¼, LESS THE EAST 200 FEET OF THE SOUTH 75 FEET, SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42 EAST, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

SAID LANDS LYING AND BEING IN THE CITY OF FORT LAUDERDALE, BROWARD COUNTY, FLORIDA.

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY AND OTHER PERTINENT DATA SHOWN HEREON, CONFORMS TO THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN THE STATE OF FLORIDA, AS OUTLINED IN RULES 5J-17, (FLORIDA ADMINISTRATIVE CODE) AS ADOPTED BY THE DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN SEPTEMBER, 1981, AS AMENDED, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES AND THAT SAID SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS PREPARED UNDER MY DIRECTION.

LAST DATE OF FIELD WORK: 11/21/2017

RICHARD D. PRYCE., FOR THE FIRM
 FLORIDA PROFESSIONAL SURVEYOR MAPPER NO 4038
 CRAVEN THOMPSON & ASSOCIATES, INC.
 LICENSED BUSINESS NUMBER NO. 271

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SURVEYOR
 RICHARD D. PRYCE
 FL FSM NO. 4038
 DATE:

DRAWN BY: DATE:
 JDR
 DESIGNED BY: SCALE: NTA
 CHECKED BY: ROP
 FIELD BOOK: 2859(44-79) 2860(19-39)

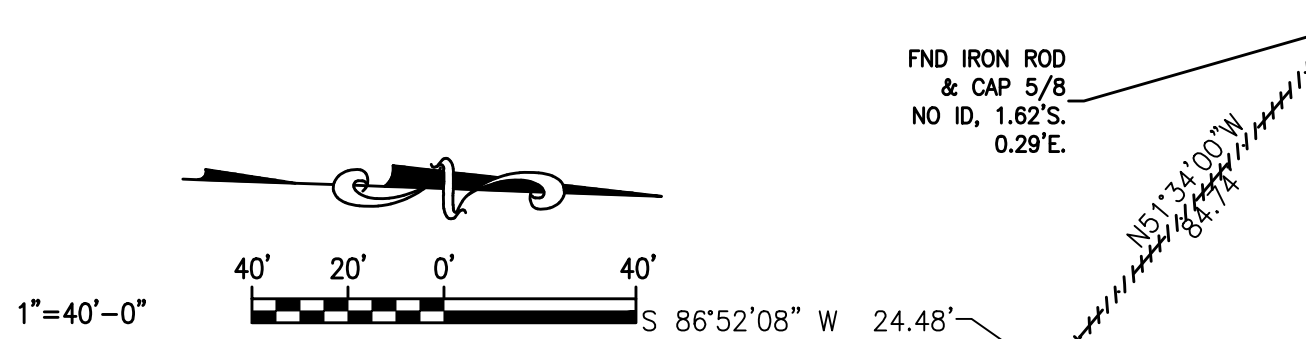
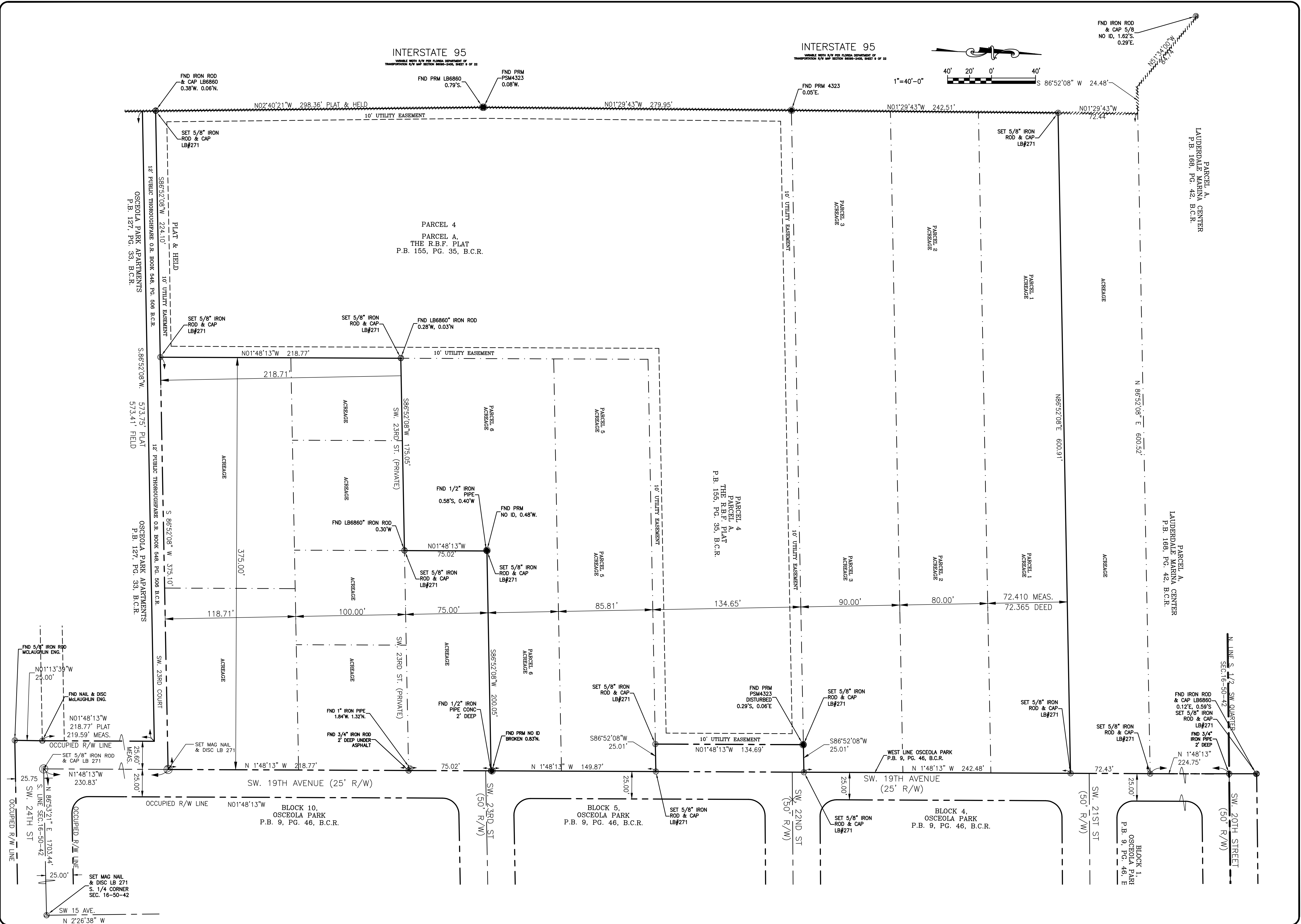
CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
SURVEY NOTES
BOUNDARY/TOPOGRAPHIC SURVEY

SHEET NO.	OF
SG-01	8
TOTAL:	40
CAD FILE:	11419SURV
DRAWING FILE NO.	4-135-81



SURVEYOR
 #Name
 FL PSM NO. #NO.
 DATE: XX/XX/XX
 TEL: 954-XXX-XXXX
 FAX: 954-XXX-XXXX

DRAWN BY: DATE: 11/29/17
 XX
 DESIGNED BY: SCALE: 1" = 50'
 XX
 CHECKED BY: XX
 FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION


PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
SURVEY PLAN
BOUNDARY/TOPOGRAPHIC SURVEY

SHEET NO. OF
SU-01 8
 TOTAL: 40
 CAD FILE: 11419SURV
 DRAWING FILE NO. 4-135-81

SURVEYOR
 #Name
 FL PSM NO. #NO.
 DATE: XX/XX/XX
 TEL: 954-XXX-XXXX
 FAX: 954-XXX-XXXX

DRAWN BY: XX
 DATE: 11/1/17
 DESIGNED BY: XX
 SCALE: 1"=20'
 CHECKED BY: XX
 FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

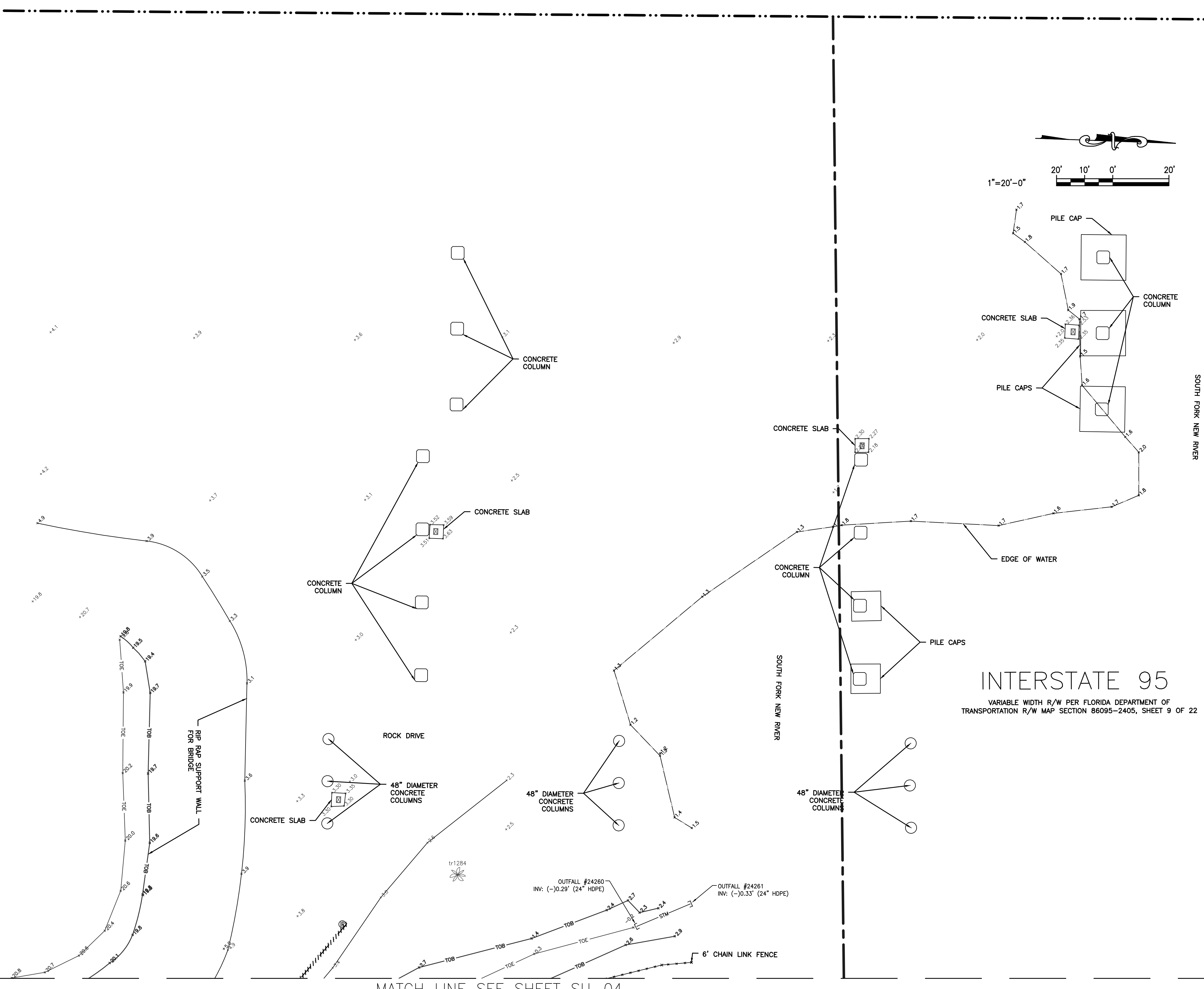


100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
BOUNDARY/TOPOGRAPHIC SURVEY
DETAIL SHEET

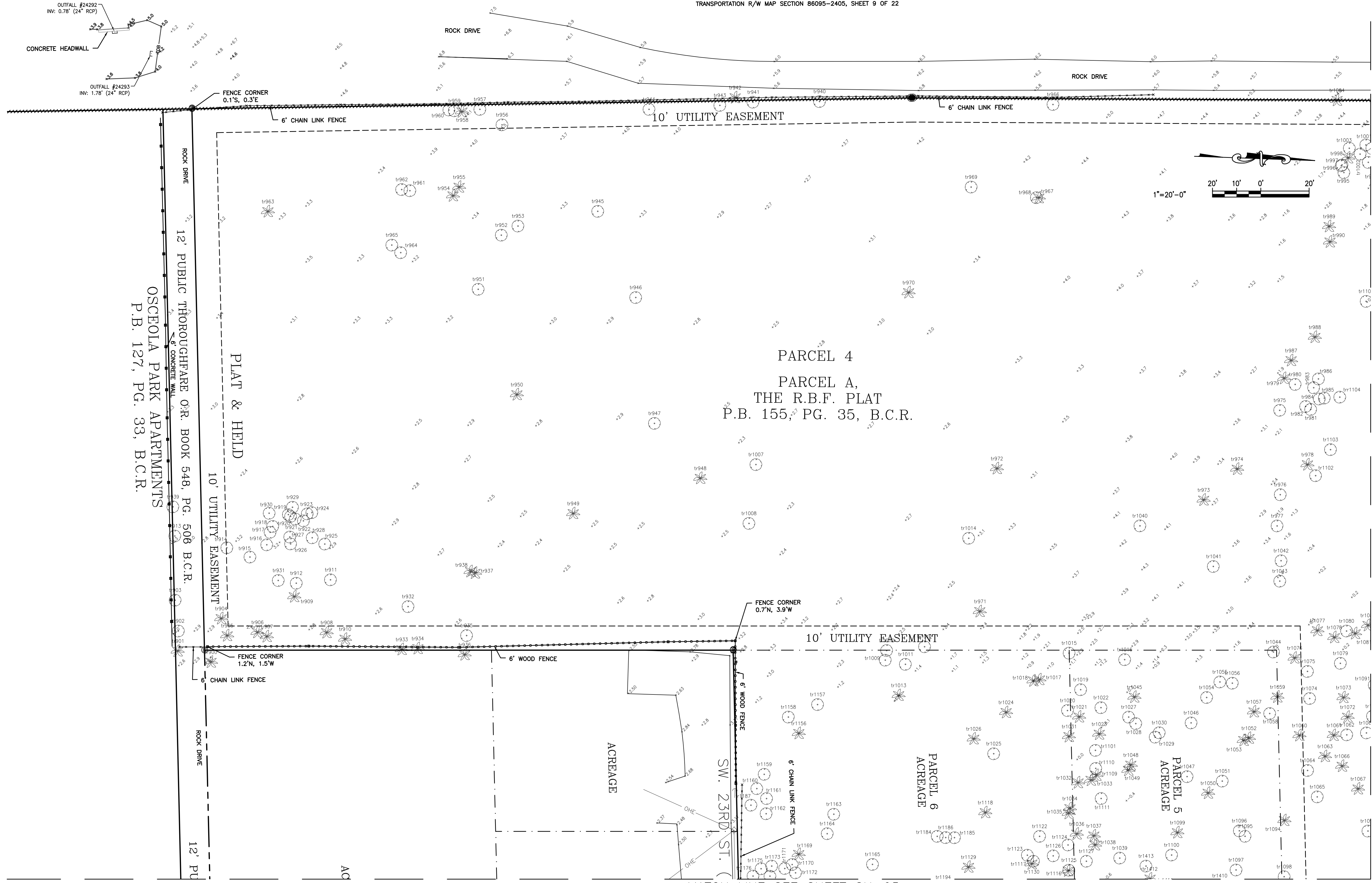
SHEET NO. **SU-02** OF **8**
 TOTAL: 40
 CAD FILE: 11419SURV
 DRAWING FILE NO. 4-135-81



MATCH LINE SEE SHEET SU-04

INTERSTATE 95

VARIABLE WIDTH R/W PER FLORIDA DEPARTMENT OF TRANSPORTATION R/W MAP SECTION 86095-2405, SHEET 9 OF 22




PARCEL 4
 PARCEL A,
 THE R.B.F. PLAT
 P.B. 155, PG. 35, B.C.R.

OSCEOLA PARK APARTMENTS
 P.B. 127, PG. 33, B.C.R.

MATCH LINE SEE SHEET SU-04

MATCH LINE SEE SHEET SU-05

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE



100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
DETAIL SHEET
BOUNDARY/TOPOGRAPHIC SURVEY

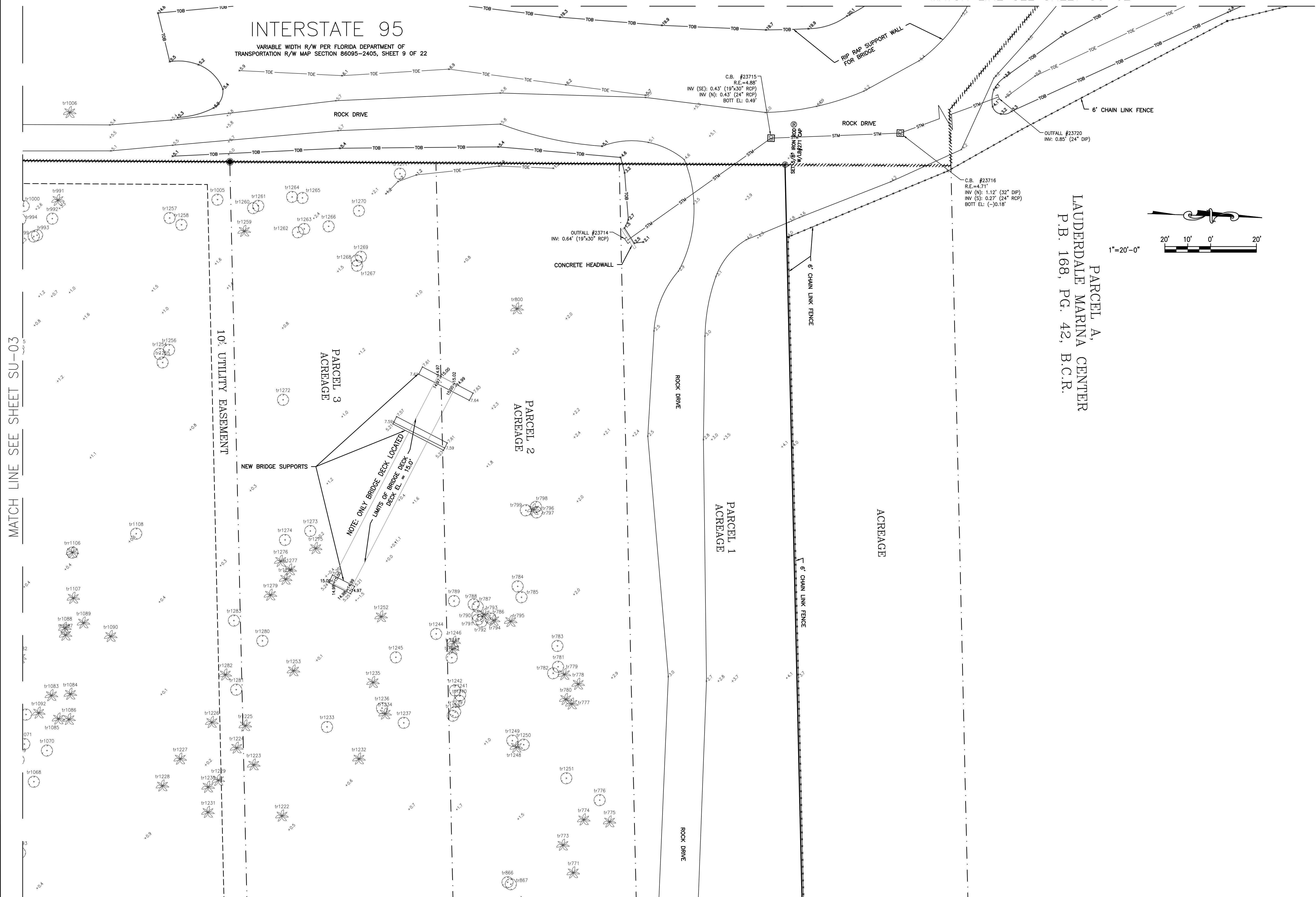
SHEET NO.	OF
SU-03	8
TOTAL:	40
CAD FILE:	11419SURV
DRAWING FILE NO.	4-135-81

SURVEYOR	DATE:
#Name	11/1/17
FL PSM NO. #NO.	DESIGNED BY SCALE:
DATE: XX/XX/XX	XX XX 1"=20'
	CHECKED BY:
	XX XX
	FIELD BOOK:
	XXXX

MATCH LINE SEE SHEET SU-02

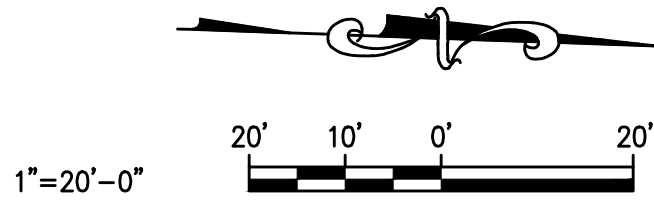
INTERSTATE 95

VARIABLE WIDTH R/W PER FLORIDA DEPARTMENT OF TRANSPORTATION R/W MAP SECTION 86095-2405, SHEET 9 OF 22



MATCH LINE SEE SHEET SU-03

PARCEL A,
LAUDERDALE MARINA CENTER
P.B. 168, PG. 42, B.C.R.



MATCH LINE SEE SHEET SU-06

SURVEYOR
#Name
FL PSM NO. #NO.
DATE: XX/XX/XX
TEL: 954-XXX-XXXX
FAX: 954-XXX-XXXX

DRAWN BY: XX
DATE: 11/1/17
DESIGNED BY: XX
SCALE: 1"=20'
CHECKED BY: XX
FIELD BOOK: XXXX

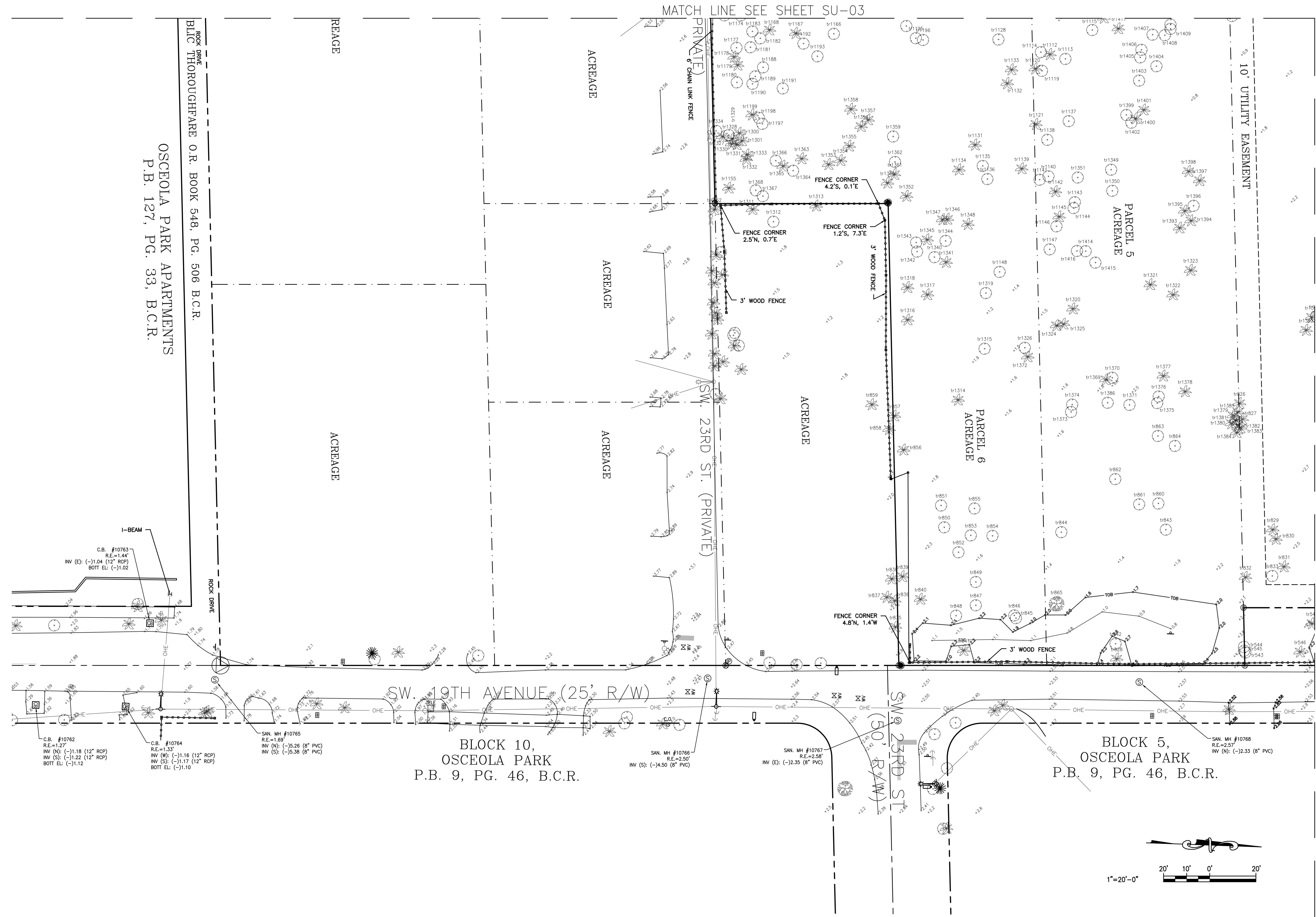
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
BOUNDARY/TOPOGRAPHIC SURVEY
DETAIL SHEET

SHEET NO.	OF
SU-04	8
TOTAL:	40
CAD FILE:	11419SURV
DRAWING FILE NO.	4-135-81

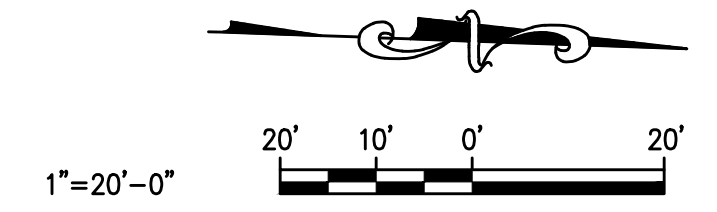


OSCEOLA PARK APARTMENTS
P.B. 127, PG. 33, B.C.R.

ROOK DRIVE
BLK THOROUGHFARE O.R. BOOK 548, PG. 506 B.C.R.

BLOCK 10,
OSCEOLA PARK
P.B. 9, PG. 46, B.C.R.

BLOCK 5,
OSCEOLA PARK
P.B. 9, PG. 46, B.C.R.



SURVEYOR	DATE	11/1/17
#Name	DESIGNED BY	SCALE: 1"=20'
FL PSM NO. #NO.	CHECKED BY	XX
DATE: XX/XX/XX	FIELD BOOK	XXXX

PROJECT #	11419
STORMWATER IMPROVEMENTS	
RIVER OAKS PRESERVE SURVEY	
DETAIL SHEET	
BOUNDARY/TOPOGRAPHIC SURVEY	

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION

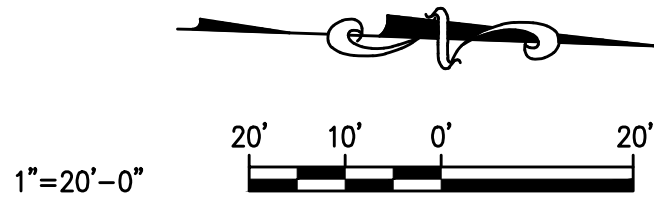
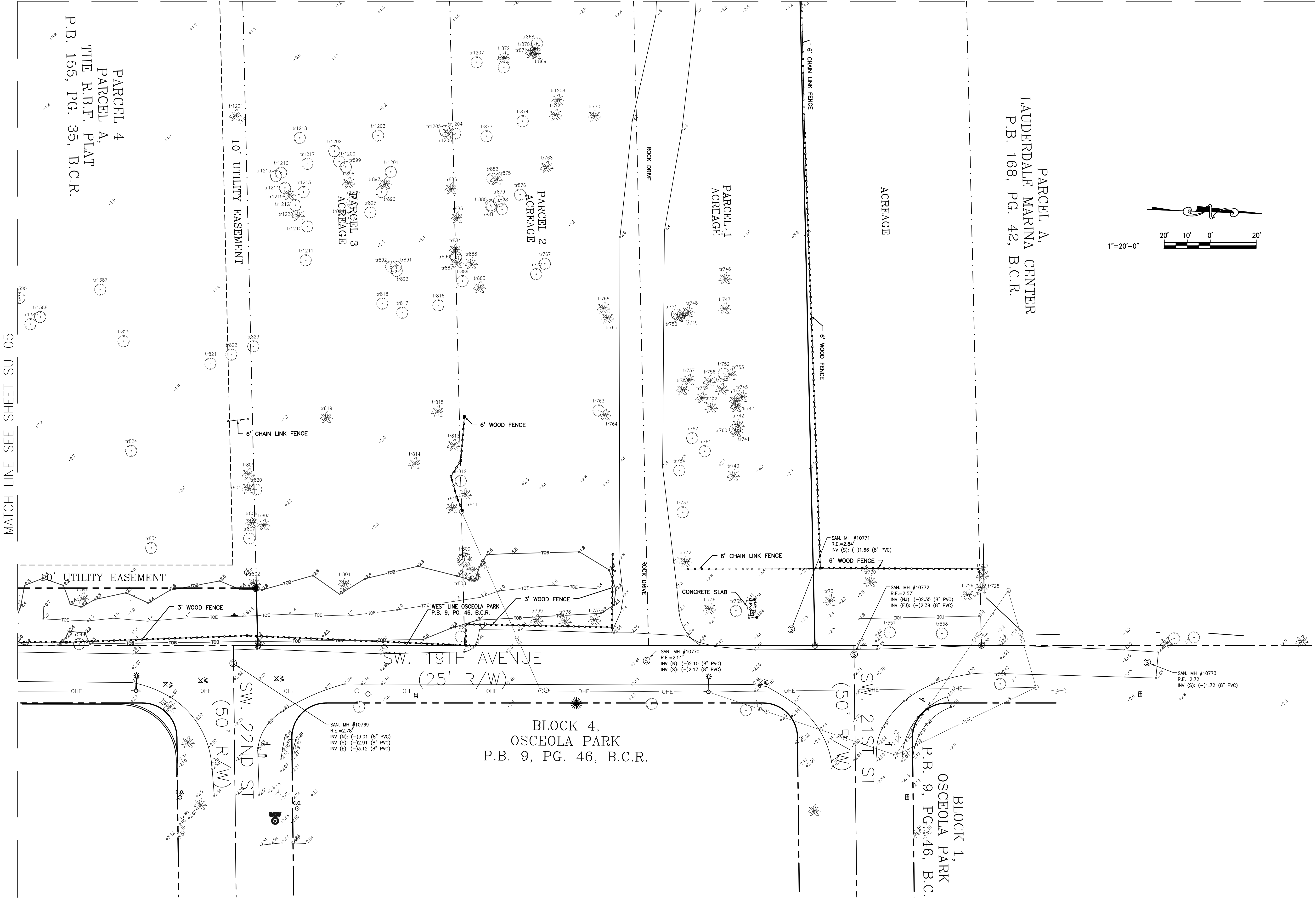
SHEET NO. 08 OF 08

TOTAL: 40

CAD FILE: 11419SURV

DRAWING FILE NO. 4-135-81

MATCH LINE SEE SHEET SU-04



MATCH LINE SEE SHEET SU-05

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 14119
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
BOUNDARY/TOPOGRAPHIC SURVEY
DETAIL SHEET

SHEET NO.	OF
SU-06	8
TOTAL:	40
CAD FILE:	11419SURV
DRAWING FILE NO.	4-135-81

SURVEYOR
 #Name
 FL PSM NO. #NO.
 DATE: XX/XX/XX
 TEL: 954-XXX-XXXX
 FAX: 954-XXX-XXXX

DRAWN BY: XX
 DATE: 11/1/17
 DESIGNED BY: XX
 SCALE: 1"=20'
 CHECKED BY: XX
 FIELD BOOK: XXXX

Table with columns for tree ID, species, size, and location. The table is organized into multiple columns for readability, listing various tree types like OAK, BISHOFFIA, MAHOGANY, etc.

SURVEYOR
#Name
FL ESM NO.#NO.
DATE: XX/XX/XX

DATE: 11/1/17
DRAWN BY: XX
DESIGNED BY: SCALE: 1"=20'
CHECKED BY: XX
FIELD BOOK: XXXX


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

Table with columns: NO., DATE, BY, CHK'D, DESCRIPTION. This is a REVISIONS table for tracking changes to the drawing.

PROJECT # 11419
STORMWATER IMPROVEMENTS
RIVER OAKS PRESERVE SURVEY
TREE CHART
BOUNDARY/TPOGRAPHIC SURVEY

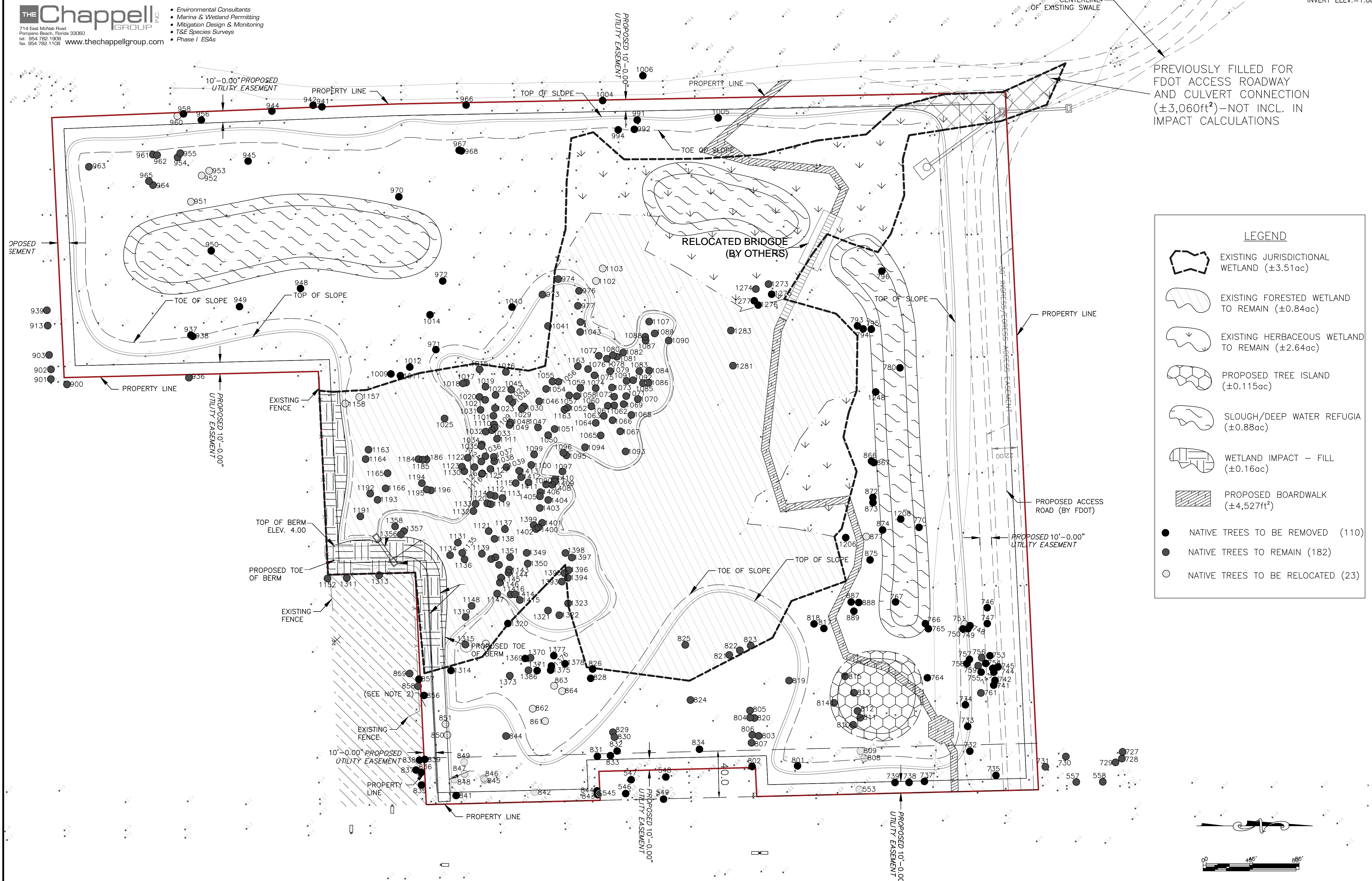
SHEET NO. OF
SU-07 8
TOTAL: 40
CAD FILE: 11419SURV
DRAWING FILE NO. 4-135-81

CRAVEN • THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3583 N.W. 33RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-8409 TEL: (954) 739-8400
 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114

THE Chappell GROUP
 INC.
 714 East McNeil Road
 Pompano Beach, Florida 33060
 TEL: 954.782.1906
 FAX: 954.782.1108 www.thechappellgroup.com

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

NATIVE TREE EXHIBIT



PREVIOUSLY FILLED FOR
 FDOT ACCESS ROADWAY
 AND CULVERT CONNECTION
 (±3,060ft²)-NOT INCL. IN
 IMPACT CALCULATIONS

LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING FORESTED WETLAND TO REMAIN (±0.84ac)
- EXISTING HERBACEOUS WETLAND TO REMAIN (±2.64ac)
- PROPOSED TREE ISLAND (±0.115ac)
- SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- WETLAND IMPACT - FILL (±0.16ac)
- PROPOSED BOARDWALK (±4,527ft²)
- NATIVE TREES TO BE REMOVED (110)
- NATIVE TREES TO REMAIN (182)
- NATIVE TREES TO BE RELOCATED (23)

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT. 1"=40'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 NATIVE TREE EXHIBIT

SHEET NO. TD-1
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

GRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
 3543 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-6409 TEL: (954) 739-6400
 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 500114

THE Chappell GROUP INC.
 714 East McAbie Road
 Pompano Beach, Florida 33060
 TEL: 954-782-1109
 FAX: 954-782-1108 www.thechappellgroup.com

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

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TREE #	SCIENTIFIC NAME	COMMON NAME	CONDITION	CALIPER INCHES
543	Quercus spp.	Oak	Removed	30
544	Quercus spp.	Oak	Removed	30
545	Quercus spp.	Oak	Relocated	12
546	Sabal palmetto	Sabal Palm	Removed	12
547	Sabal palmetto	Sabal Palm	Removed	11
548	Sabal palmetto	Sabal Palm	Removed	11
549	Quercus virginiana	Live Oak	Removed	122
553	Quercus spp.	Oak	Relocated	7
727	Roystonea regia	Royal Palm	Remain	7
730	Sabal palmetto	Sabal Palm	Remain	10
731	Roystonea regia	Royal palm	Remain	19
732	Roystonea regia	Royal palm	Removed	19
733	Quercus spp.	Oak	Removed	18
734	Quercus spp.	Oak	Removed	10
735	Quercus spp.	Oak	Removed	15
737	Roystonea regia	Royal Palm	Removed	18
738	Roystonea regia	Royal Palm	Removed	20
739	Roystonea regia	Royal Palm	Removed	20
741	Sabal palmetto	Sabal Palm	Removed	12
742	Roystonea regia	Royal Palm	Removed	14
743	Sabal palmetto	Sabal Palm	Removed	12
744	Sabal palmetto	Sabal Palm	Removed	12
745	Sabal palmetto	Sabal Palm	Removed	14
746	Roystonea regia	Royal Palm	Removed	14
747	Roystonea regia	Royal Palm	Removed	14
748	Roystonea regia	Royal Palm	Removed	15
749	Roystonea regia	Royal Palm	Removed	18
750	Roystonea regia	Royal Palm	Removed	16
751	Quercus spp.	Oak	Relocated	4
753	Sabal palmetto	Sabal Palm	Removed	12
754	Sabal palmetto	Sabal Palm	Removed	11
755	Sabal palmetto	Sabal Palm	Removed	10
756	Sabal palmetto	Sabal Palm	Remain	12
757	Sabal palmetto	Sabal Palm	Removed	10
758	Sabal palmetto	Sabal Palm	Removed	12
759	Sabal palmetto	Sabal Palm	Remain	12
764	Roystonea regia	Royal Palm	Removed	18
765	Roystonea regia	Royal Palm	Removed	18
766	Sabal palmetto	Sabal Palm	Removed	13
767	Quercus spp.	Oak	Removed	18
770	Roystonea regia	Royal Palm	Removed	13
780	Roystonea regia	Royal Palm	Removed	15
793	Roystonea regia	Royal Palm	Removed	15
794	Roystonea regia	Royal Palm	Removed	11
795	Roystonea regia	Royal Palm	Removed	14
796	Roystonea regia	Royal Palm	Removed	16
801	Roystonea regia	Royal Palm	Removed	14
802	Roystonea regia	Royal Palm	Removed	18
803	Roystonea regia	Royal Palm	Remain	10
804	Roystonea regia	Royal Palm	Remain	16
805	Sabal palmetto	Sabal Palm	Remain	15
806	Sabal palmetto	Sabal Palm	Remain	14
807	Ficus aurea	Strangler Fig	Remain	40
810	Sabal palmetto	Sabal Palm	Remain	11
811	Sabal palmetto	Sabal Palm	Remain	12
812	Quercus spp.	Oak	Remain	42
813	Sabal palmetto	Sabal Palm	Remain	14
814	Sabal palmetto	Sabal Palm	Remain	14
817	Quercus virginiana	Live Oak	Removed	54
818	Quercus virginiana	Live Oak	Removed	54
819	Roystonea regia	Royal Palm	Remain	6
821	Roystonea regia	Royal Palm	Remain	34
822	Quercus spp.	Oak	Remain	15
823	Quercus spp.	Oak	Remain	24
824	Quercus spp.	Oak	Remain	30
826	Roystonea regia	Royal Palm	Removed	12
828	Roystonea regia	Royal Palm	Removed	16
829	Sabal palmetto	Sabal Palm	Remain	12
830	Sabal palmetto	Sabal Palm	Remain	12
831	Sabal palmetto	Sabal Palm	Removed	12
832	Sabal palmetto	Sabal Palm	Removed	14
833	Ficus aurea	Strangler Fig	Removed	30
834	Quercus spp.	Oak	Removed	36
835	Roystonea regia	Royal Palm	Removed	7
836	Roystonea regia	Royal Palm	Removed	12
837	Roystonea regia	Royal Palm	Removed	5
838	Roystonea regia	Royal Palm	Removed	12
839	Roystonea regia	Royal Palm	Removed	16
841	Sabal palmetto	Sabal Palm	Removed	15
842	Quercus spp.	Oak	Relocated	5

TREE #	SCIENTIFIC NAME	COMMON NAME	CONDITION	CALIPER INCHES
843	Quercus spp.	Oak	Removed	5
844	Quercus spp.	Oak	Relocated	7
845	Quercus spp.	Oak	Relocated	4
846	Acer rubrum	Red Maple	Relocated	12
847	Quercus spp.	Oak	Relocated	4
848	Quercus spp.	Oak	Relocated	4
849	Quercus spp.	Oak	Relocated	9
850	Quercus spp.	Oak	Relocated	5
851	Quercus spp.	Oak	Relocated	5
856	Sabal palmetto	Sabal Palm	Removed	14
857	Roystonea regia	Royal Palm	Removed	20
861	Quercus spp.	Oak	Relocated	4
862	Quercus spp.	Oak	Relocated	5
864	Quercus spp.	Oak	Relocated	6
866	Quercus spp.	Oak	Removed	11
867	Quercus spp.	Oak	Removed	13
872	Roystonea regia	Royal pam	Removed	16
873	Ficus aurea	Strangler Fig	Removed	40
874	Quercus spp.	Oak	Removed	16
875	Roystonea regia	Royal Palm	Removed	16
887	Sabal palmetto	Sabal Palm	Removed	14
888	Sabal palmetto	Sabal Palm	Removed	11
889	Taxodium distichum	Bald Cypress	Removed	20
901	Roystonea regia	Royal Palm	Remain	24
913	Swietenia mahagoni	Mahogany	Remain	7
937	Sabal palmetto	Sabal Palm	Removed	18
938	Sabal palmetto	Sabal Palm	Removed	18
939	Swietenia mahagoni	Mahogany	Remain	8
941	Swietenia mahagoni	Mahogany	Removed	15
942	Sabal palmetto	Sabal Palm	Removed	18
944	Swietenia mahagoni	Mahogany	Removed	20
945	Ficus aurea	Strangler Fig	Removed	30
948	Sabal palmetto	Sabal Palm	Removed	10
949	Sabal palmetto	Sabal Palm	Removed	10
950	Sabal palmetto	Sabal Palm	Removed	12
951	Swietenia mahagoni	Mahogany	Relocated	5
952	Swietenia mahagoni	Mahogany	Relocated	5
953	Swietenia mahagoni	Mahogany	Relocated	4
954	Serenoa repens	Saw Palmetto Palm	Remain	20
955	Serenoa repens	Saw Palmetto Palm	Remain	20
956	Quercus spp.	Oak	Removed	15
958	Serenoa repens	Saw Palmetto Palm	Removed	18
959	Swietenia mahagoni	Mahogany	Relocated	12
963	Sabal palmetto	Sabal Palm	Remain	18
966	Swietenia mahagoni	Mahogany	Removed	10
967	Sabal palmetto	Sabal Palm	Removed	18
968	Ficus aurea	Strangler Fig	Removed	6
970	Sabal palmetto	Sabal Palm	Removed	18
971	Sabal palmetto	Sabal Palm	Removed	12
972	Sabal palmetto	Sabal Palm	Removed	12
973	Sabal palmetto	Sabal Palm	Remain	18
974	Sabal palmetto	Sabal Palm	Remain	18
976	Ficus aurea	Strangler Fig	Remain	30
977	Ficus aurea	Strangler Fig	Remain	84
991	Sabal palmetto	Sabal Palm	Removed	18
992	Ficus aurea	Strangler Fig	Removed	18
994	Ficus aurea	Strangler Fig	Removed	30
998	Sabal palmetto	Sabal Palm	Removed	15
1004	Roystonea regia	Royal Palm	Removed	18
1005	Ficus aurea	Strangler Fig	Removed	72
1006	Roystonea regia	Royal Palm	Removed	8
1009	Coccoloba diversifolia	Pidgeon Plum	Removed	12
1011	Coccoloba diversifolia	Pidgeon Plum	Removed	36
1012	Coccoloba diversifolia	Pidgeon Plum	Removed	18
1014	Leucaena leucocephala	Wild Tamarind	Removed	4
1015	Quercus spp.	Oak	Remain	12
1016	Quercus spp.	Oak	Remain	12
1017	Roystonea regia	Royal Palm	Remain	18
1018	Roystonea regia	Royal Palm	Remain	12
1019	Annona glabra	Pond Apple	Remain	4
1020	Annona glabra	Pond Apple	Remain	8
1021	Sabal palmetto	Sabal Palm	Remain	8
1022	Annona glabra	Pond Apple	Remain	4
1023	Roystonea regia	Royal Palm	Remain	12
1025	Annona glabra	Pond Apple	Remain	12
1027	Annona glabra	Pond Apple	Remain	4
1028	Annona glabra	Pond Apple	Remain	6
1029	Annona glabra	Pond Apple	Remain	4
1030	Annona glabra	Pond Apple	Remain	6
1031	Roystonea regia	Royal Palm	Remain	18

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48426
 DATE: 10/26/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DRAWN BY: L.C./M.N. 1/18/2019
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=40'
 CHECKED BY: A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
NATIVE TREE DISPOSITION PLAN

SHEET NO. **TD-2**

TOTAL: **40**

CAD FILE: 11419-004-SITE

DRAWING FILE NO. 4-135-81

GRAVEN + THOMPSON AND ASSOCIATES, INC. ENGINEERS • PLANNERS • SURVEYORS 3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309 FAX: (954) 739-8409 TEL: (954) 739-8400

THE Chappell GROUP INC. 714 East Mohabi Road Pompano Beach, Florida 33069 Tel: 954.792.1938 Fax: 954.792.1108 www.thechappellgroup.com

- Environmental Consultants
Marina & Wetland Permitting
Mitigation Design & Monitoring
TSE Species Surveys
Phase I ESAs

Table with 5 columns: TREE #, SCIENTIFIC NAME, COMMON NAME, CONDITION, CALIPER INCHES. Contains 119 rows of tree data.

Table with 5 columns: TREE #, SCIENTIFIC NAME, COMMON NAME, CONDITION, CALIPER INCHES. Contains 136 rows of tree data.

ENGINEER: PATRICK J. GIBNEY REG. No. 48428 DATE: 10/26/2018

DRAWN BY: DATE: 1/18/2019 L.C./M.N. W.R./M.N. VERT. 1"=2' HOF 1"=40' A.G. FIELD BOOK:

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING & ARCHITECTURE 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

Table for REVISIONS with columns: NO., DATE, BY, CHK'D, DESCRIPTION.

PROJECT # 11419 RIVER OAKS PRESERVE ENVIRONMENTAL SITE PLAN NATIVE TREE DISPOSITION PLAN SHEET NO. TD-3 TOTAL: 40 CAD FILE: 11419-004-SITE DRAWING FILE NO. 4-135-81

CRAVEN + THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
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 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000114

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PLANTING PLAN

MARSH (± 4.0 ac)

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Pontederia cordata</i>	Pickerelweed	3' o/c	5,000	BR	(-)1.0' - 0' NAVD
<i>Sagittaria latifolia</i>	Duck potato	3' o/c	5,000	BR	(-)1.0' - 0' NAVD
<i>Sagittaria lancifolia</i>	Arrow arum	3' o/c	2,400	BR	(-)1.0' - (-)0.5' NAVD
<i>Thalia geniculata</i>	Fireflag	3' o/c	2,260	BR	(-)1.0' - 0' NAVD
<i>Crinum americanum</i>	Swamp lily	3' o/c	3,200	BR	(-)0.5' - 0' NAVD
Subtotal			17,860		

TREES

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Taxodium distichum</i>	Bald cypress	10' o/c	80	7gal	0' - 1.0' NAVD
<i>Pinus elliotii</i>	Slash pine	10' o/c	70	7gal	0.5' - 4.0' NAVD
<i>Sabal palmetto</i>	Cabbage palm	10' o/c	150	8-10'	0.5' - 4.0' NAVD
Subtotal			300		

SHRUBS & GROUNDCOVERS

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Tripsacum dactyloides</i>	Fakahatchee grass	4' o/c	180	1gal	3.0' - 4.0' NAVD
<i>Spartina bakeri</i>	Sand cordgrass	4' o/c	200	1gal	1.0' - 4.0' NAVD
<i>Hamelia patens</i>	Firebush	4' o/c	600	1gal	0.5' - 4.0' NAVD
<i>Psychotria nervosa</i>	Wild coffee	4' o/c	600	1gal	0.5' - 4.0' NAVD
<i>Muhlenbergia capillaris</i>	Muhly grass	4' o/c	300	LN	0.5' - 4.0' NAVD
Subtotal			1,880		

TOTAL 20,040

SLOUGH (± 0.88ac)

<i>Scirpus californicus</i>	Giant bulrush	3' o/c	1,060	BR	0.5' - (-) 2.0' NAVD
<i>Nymphaea odorata</i>	White water lily	3' o/c	3,200	BR	0.5' - (-) 2.0' NAVD
Subtotal			4,260		

TREE ISLAND (± 0.925 ac)

TREES

EXISTING TREES TO REMAIN ON TREE ISLANDS AND SUPPLEMENTAL PLANTINGS TO BE DONE WITH RELOCATED TREES

SHRUBS & GROUNDCOVERS

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Chrysobalanus icaco</i>	Cocoplum	4' o/c	850	1gal	1.0' - 4.0' NAVD
<i>Tripsacum dactyloides</i>	Fakahatchee grass	4' o/c	200	1gal	>3.0' NAVD
<i>Hamelia patens</i>	Firebush	4' o/c	850	1gal	1.0' - 4.0' NAVD
<i>Psychotria nervosa</i>	Wild coffee	4' o/c	620	1gal	1.0' - 4.0' NAVD
Subtotal			2,520		

SIZE ABBREVIATIONS

BR = Bare root

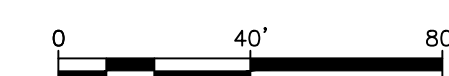
LN = Liner

1gal = 1 gallon

8-10' = 8-10' in height



MITIGATION SIGNAGE (TYP.)



ENGINEER:
 PATRICK J. GIBNEY
 04/09
 DATE: 10/28/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DATE: 1/18/2019
 L.C./M.N.:
 DESIGNED BY: SCALE:
 W.R./M.N.: VERT 1"=2'
 CHECKED BY: HOR 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY (CHKD)	DESCRIPTION

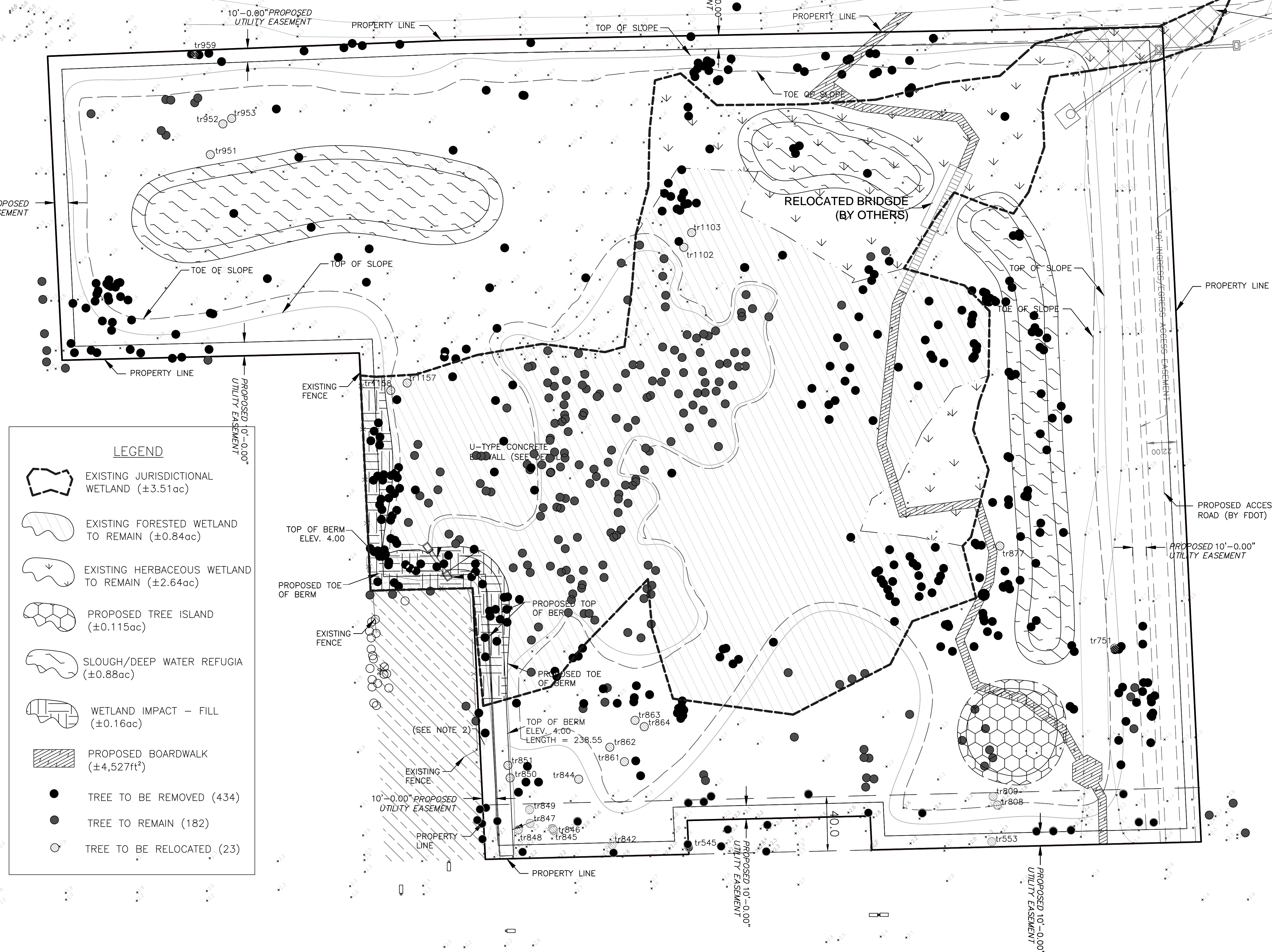
PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 PLANTING PLAN

SHEET NO.
TD-4
 TOTAL: 40
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-B1

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 fax: 954.782.1106



LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING FORESTED WETLAND TO REMAIN (±0.84ac)
- EXISTING HERBACEOUS WETLAND TO REMAIN (±2.64ac)
- PROPOSED TREE ISLAND (±0.115ac)
- SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- WETLAND IMPACT - FILL (±0.16ac)
- PROPOSED BOARDWALK (±4,527ft²)
- TREE TO BE REMOVED (434)
- TREE TO REMAIN (182)
- TREE TO BE RELOCATED (23)

TREES TO BE RELOCATED

tr545	12" OAK
tr553	7" OAK
tr751	4" OAK
tr808	12" MANGO
tr809	12" MANGO
tr951	5" MAHOGANY
tr952	5" MAHOGANY
tr953	4" MAHOGANY
tr959	12" MAHOGANY
tr842	5" OAK
tr861	4" OAK
tr862	5" OAK
tr863	12" BLACK OLIVE
tr864	6" OAK
tr844	7" OAK
tr845	4" OAK
tr846	12" MAPLE
tr847	4" OAK
tr848	4" OAK
tr849	9" OAK
tr850	5" OAK
tr851	5" OAK
tr877	5" ROYAL POINCIANA
tr1102	10" OAK
tr1103	12" OAK
tr1157	8" WILLOW
tr1158	8" WILLOW

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DESIGNED BY: SCALE: 1"=2'-0"
 W.R./M.N. VERT
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

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 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
TREE EXHIBIT

SHEET NO. **10**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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- T&E Species Surveys
- Phase I ESAs

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

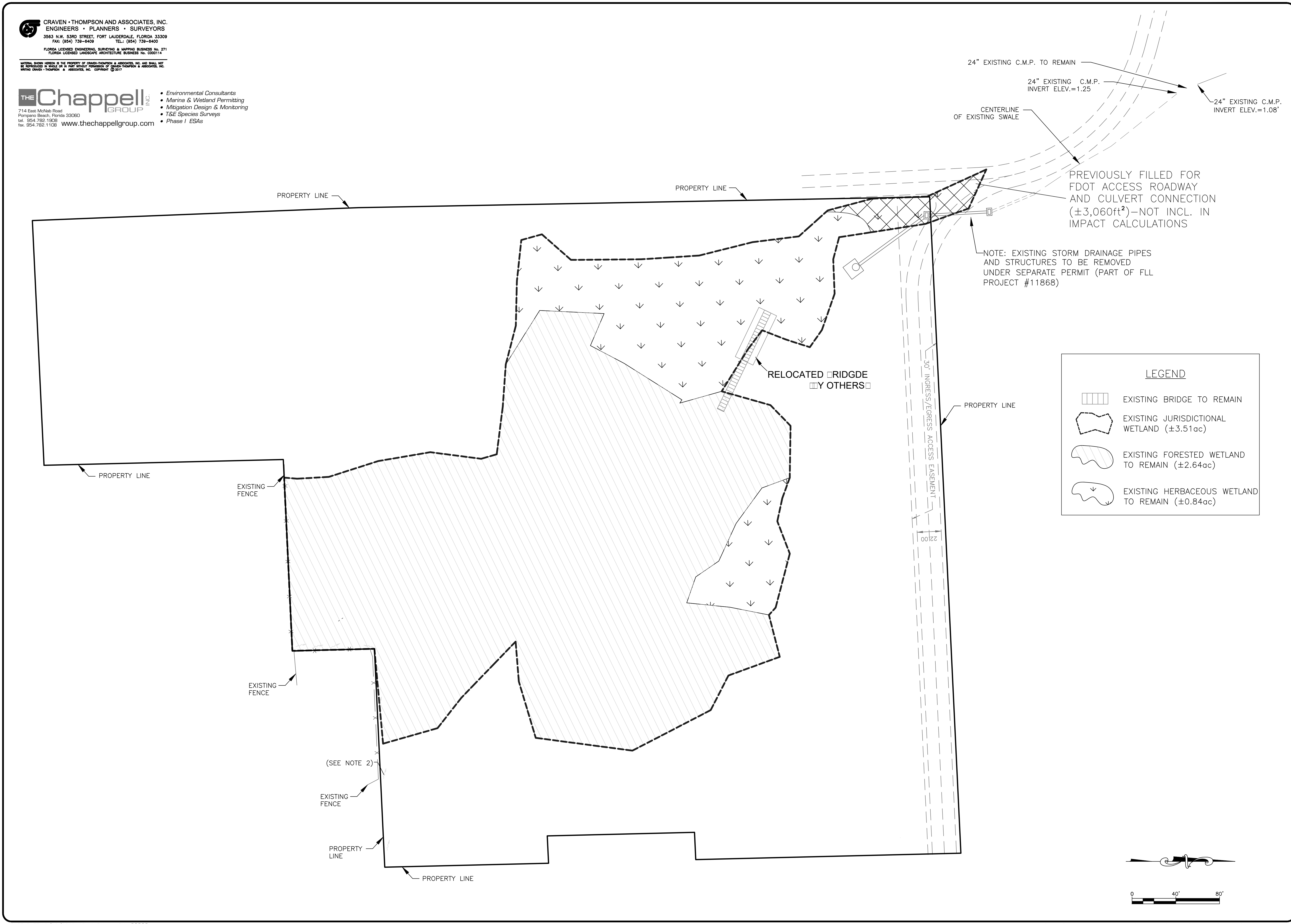
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 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOF 1"=40'
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 FIELD BOOK:

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 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY / CHKD

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
EXISTING CONDITIONS

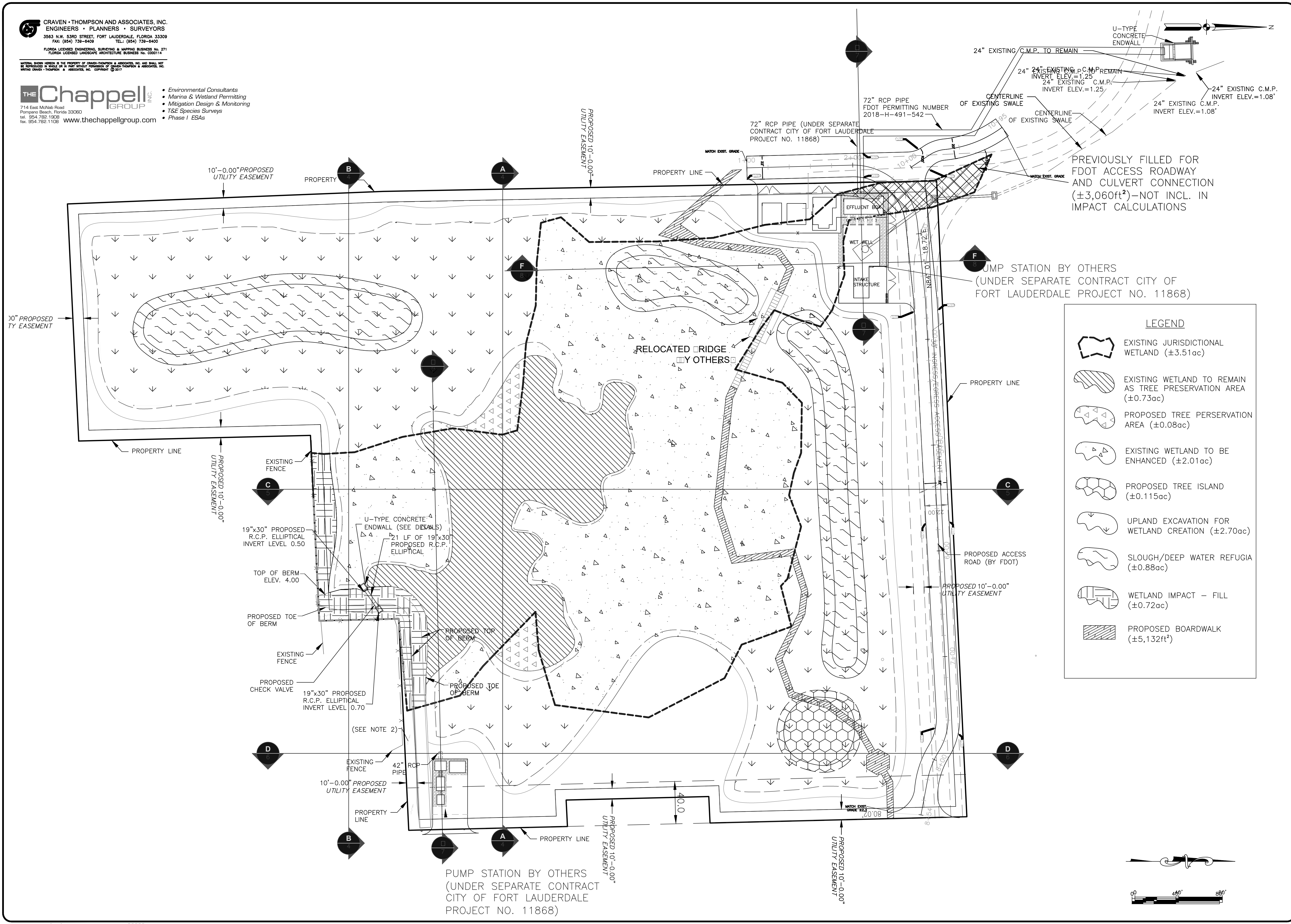
SHEET NO. **C-1**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81



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- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs



LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING WETLAND TO REMAIN AS TREE PRESERVATION AREA (±0.73ac)
- PROPOSED TREE PRESERVATION AREA (±0.08ac)
- EXISTING WETLAND TO BE ENHANCED (±2.01ac)
- PROPOSED TREE ISLAND (±0.115ac)
- UPLAND EXCAVATION FOR WETLAND CREATION (±2.70ac)
- SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- WETLAND IMPACT - FILL (±0.72ac)
- PROPOSED BOARDWALK (±5,132ft²)

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DRAWN BY: DATE: 2/7/2019
 L.C./M.N. 2/7/2019
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=40'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

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 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
PROPOSED CONDITIONS

SHEET NO. **C-2**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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- Phase I ESAs



ENGINEER: PATRICK J. GIBNEY
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 FAX: 954-739-8409

DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=40'
 CHECKED BY: HOF 1"=40'
 A.G. FIELD BOOK:

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 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
DREDGE & FILL

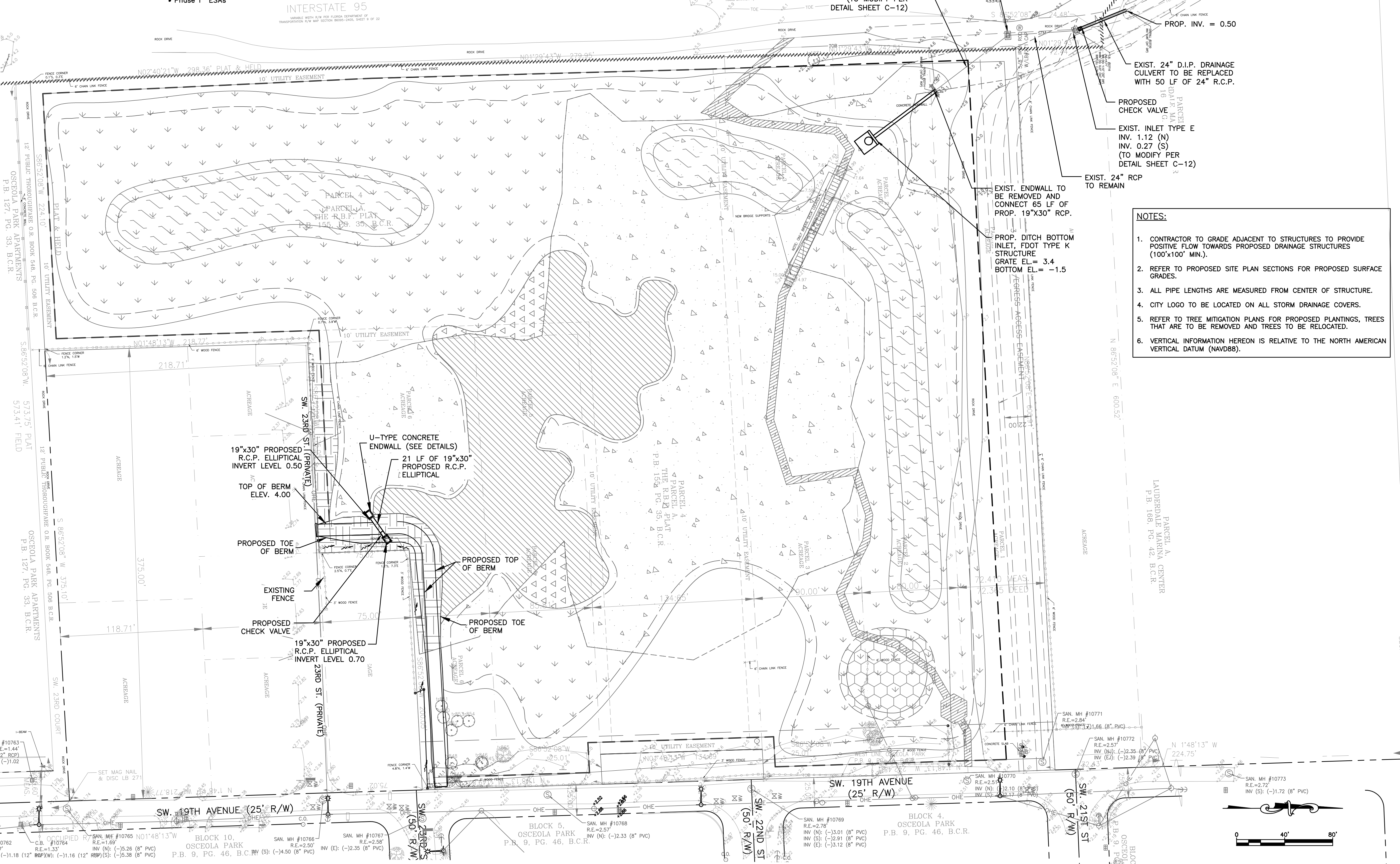
SHEET NO. **C-3**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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 Phase I ESAs

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- T&E Species Surveys
- Phase I ESAs

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- NOTES:**
1. CONTRACTOR TO GRADE ADJACENT TO STRUCTURES TO PROVIDE POSITIVE FLOW TOWARDS PROPOSED DRAINAGE STRUCTURES (100'x100' MIN.).
 2. REFER TO PROPOSED SITE PLAN SECTIONS FOR PROPOSED SURFACE GRADES.
 3. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE.
 4. CITY LOGO TO BE LOCATED ON ALL STORM DRAINAGE COVERS.
 5. REFER TO TREE MITIGATION PLANS FOR PROPOSED PLANTINGS, TREES THAT ARE TO BE REMOVED AND TREES TO BE RELOCATED.
 6. VERTICAL INFORMATION HEREON IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88).

ENGINEER:
 PATRICK J. GIBNEY
 REG. NO. 49429
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 FAX: 954-789-6409

DRAWN BY: DATE: 10/30/2018
DESIGNED BY: SCALE:
W.R./M.N.: VERT 1"=2'
CHECKED BY: HOR 1"=40'
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FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE



100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CH'D	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
CIVIL
PROPOSED DRAINAGE IMPROVEMENTS PLAN

SHEET NO. C-4
TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO.: 4-135-81

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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0000114

THE Chappell GROUP INC.
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 Mitigation Design & Monitoring
 T&E Species Surveys
 Phase I ESAs

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

INTERSTATE 95
 VARIABLE WITH R/W PER FLORIDA DEPARTMENT OF TRANSPORTATION R/W MAP SECTION 8600-2400, SHEET 9 OF 22

INTERSTATE 95
 VARIABLE WITH R/W PER FLORIDA DEPARTMENT OF TRANSPORTATION R/W MAP SECTION 8600-2400, SHEET 9 OF 22

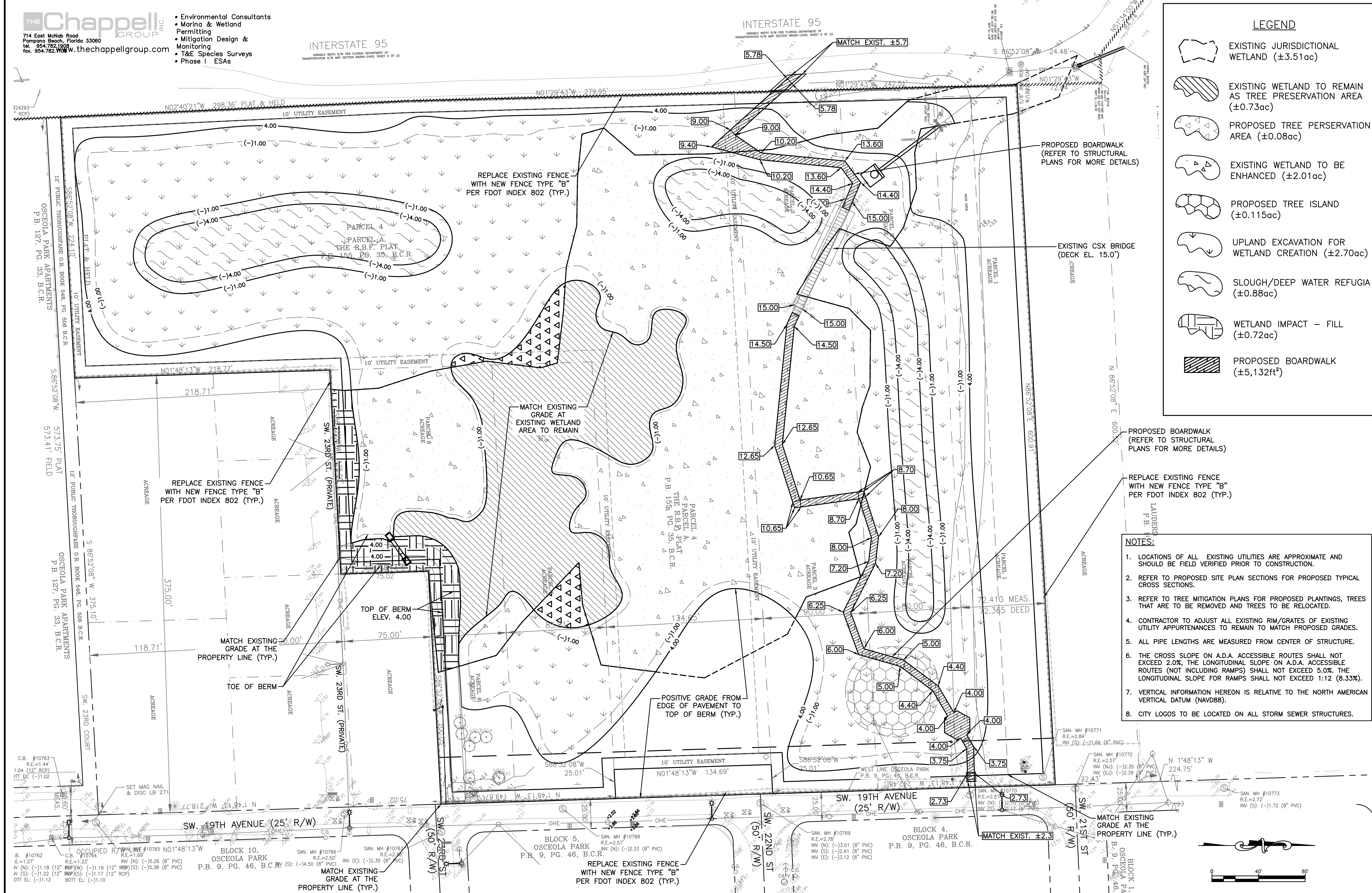
LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING WETLAND TO REMAIN AS TREE PRESERVATION AREA (±0.73ac)
- PROPOSED TREE PRESERVATION AREA (±0.08ac)
- EXISTING WETLAND TO BE ENHANCED (±2.01ac)
- PROPOSED TREE ISLAND (±0.115ac)
- UPLAND EXCAVATION FOR WETLAND CREATION (±2.70ac)
- SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- WETLAND IMPACT - FILL (±0.72ac)
- PROPOSED BOARDWALK (±5,132ft²)

PROPOSED BOARDWALK (REFER TO STRUCTURAL PLANS FOR MORE DETAILS)

REPLACE EXISTING FENCE WITH NEW FENCE TYPE "B" PER FDOT INDEX 802 (TYP.)

- NOTES:**
1. LOCATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
 2. REFER TO PROPOSED SITE PLAN SECTIONS FOR PROPOSED TYPICAL CROSS SECTIONS.
 3. REFER TO TREE MITIGATION PLANS FOR PROPOSED PLANTINGS, TREES THAT ARE TO BE REMOVED AND TREES TO BE RELOCATED.
 4. CONTRACTOR TO ADJUST ALL EXISTING RIM/GRATES OF EXISTING UTILITY APPURTENANCES TO REMAIN TO MATCH PROPOSED GRADES.
 5. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE.
 6. THE CROSS SLOPE ON A.D.A. ACCESSIBLE ROUTES SHALL NOT EXCEED 2.0%. THE LONGITUDINAL SLOPE ON A.D.A. ACCESSIBLE ROUTES (NOT INCLUDING RAMPS) SHALL NOT EXCEED 5.0%. THE LONGITUDINAL SLOPE FOR RAMPS SHALL NOT EXCEED 1:12 (8.33%).
 7. VERTICAL INFORMATION HEREON IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88).
 8. CITY LOGOS TO BE LOCATED ON ALL STORM SEWER STRUCTURES.



ENGINEER: PATRICK J. GIBNEY
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 DATE: 10/26/2016
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 FAX: 954-739-6409

DRAWN BY: L.C./M.N.
 DESIGNED BY: SCALE:
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOR 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
 CIVIL
 SITE PLAN
 PROPOSED GRADING PLAN

SHEET NO. **C-5**

TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

ENGINEER:
 PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
TEL: 954-739-6400
FAX: 954-739-6409

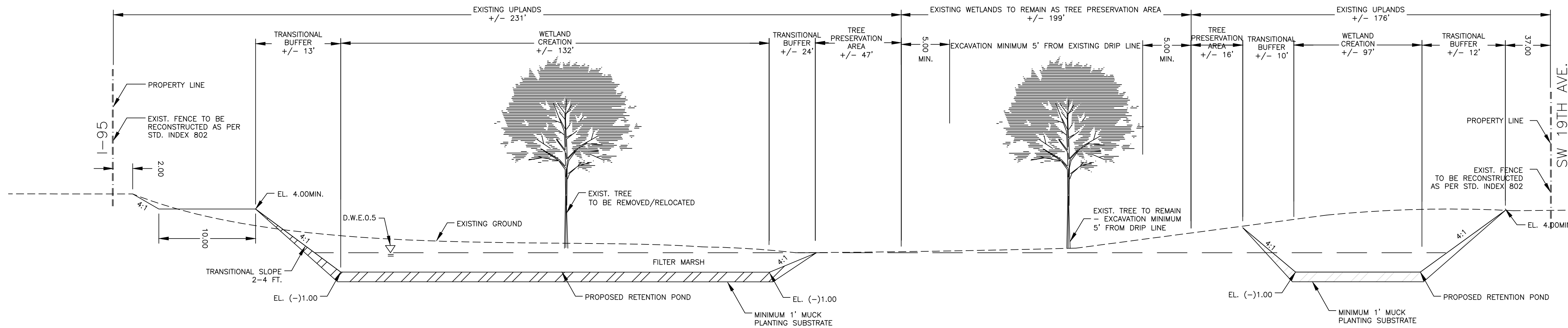
DRAWN BY:
 L.C./M.N.
 2/7/2019
DESIGNED BY:
 W.R./M.N.
 VERT 1"=2'
 HOF 1"=40'
CHECKED BY:
 A.G.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

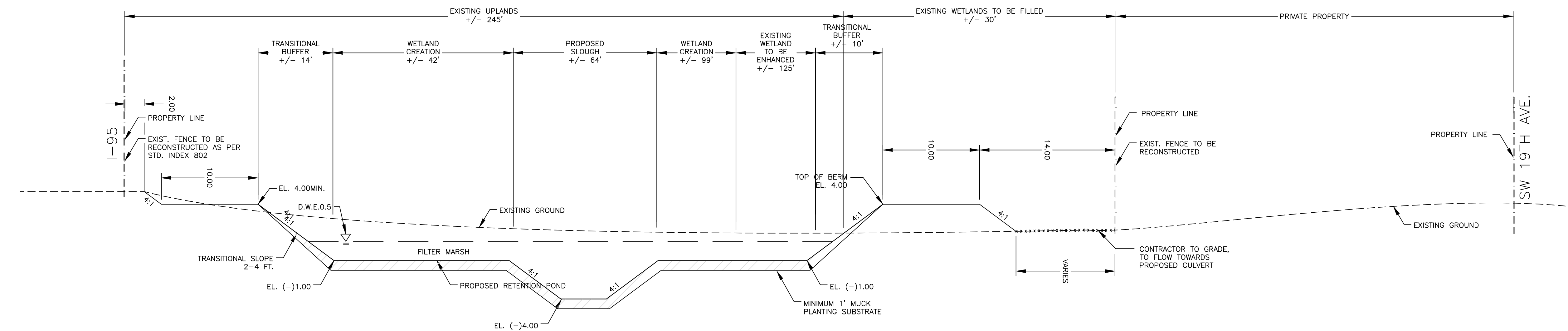
NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTIONS A & B

SHEET NO.
C-6
TOTAL: 40
CAD FILE:
 11419-004-SITE
DRAWING FILE NO.
 4-135-81

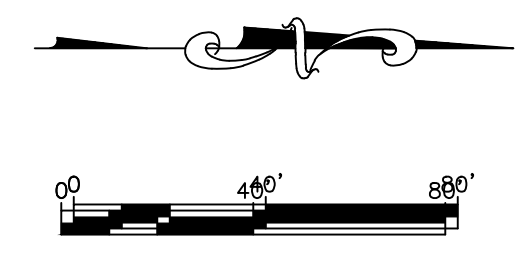


SECTION A-A



SECTION B-B

NOTE: ELEVATIONS SHOWN IN NAVD88



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ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

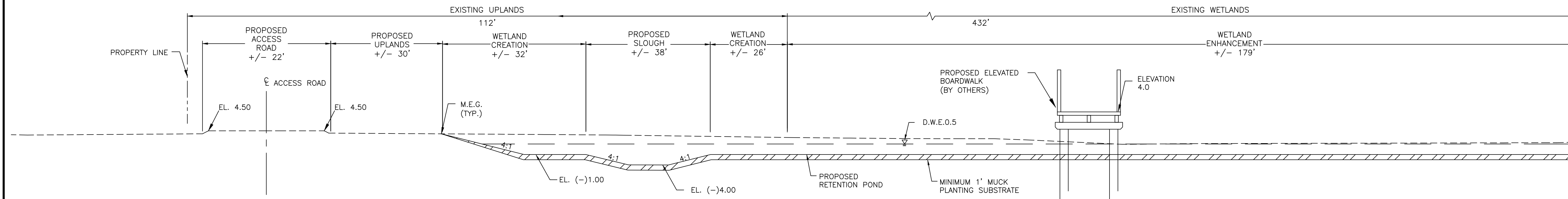
DRAWN BY: L.C./M.N. DATE: 2/7/2019
 DESIGNED BY: W.B./M.N. SCALE: VERT 1"=2'
 CHECKED BY: A.G. HOF 1"=40'
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

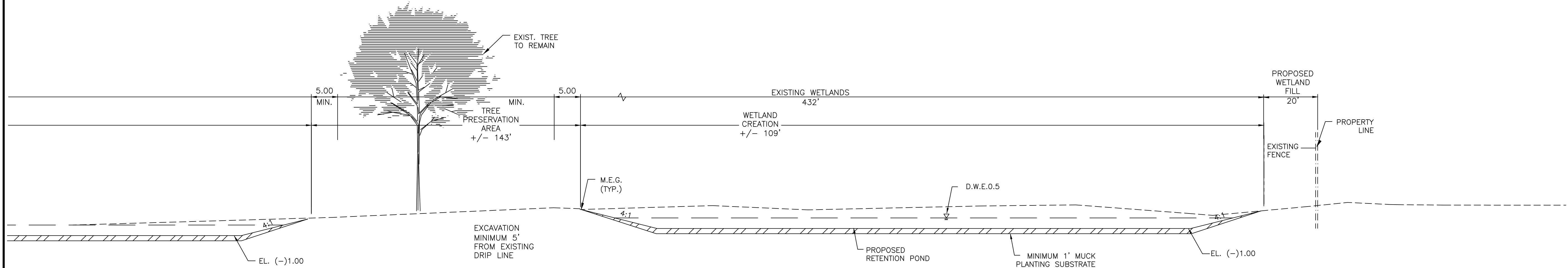
NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 SECTION C

SHEET NO. **C-7**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81



SECTION C-C



SECTION C-C CONT.

NOTE: ELEVATIONS SHOWN IN NAVD88



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 3583 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-8409 TEL: (954) 739-8400
 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114


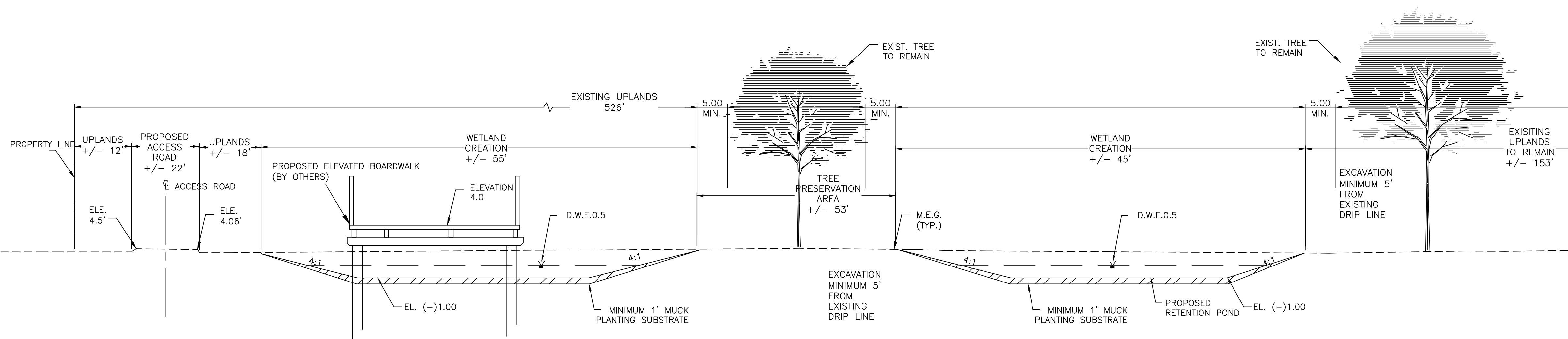
THE Chappell GROUP
 714 East McNeil Road
 Pompano Beach, Florida 33060
 Tel: 954-782-1938
 Fax: 954-782-1138 www.thechappellgroup.com

- Environmental Consultants
- Marine & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

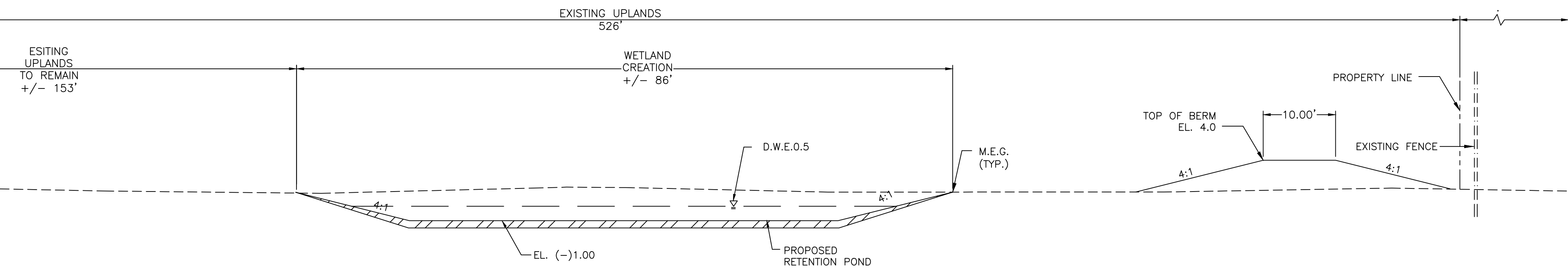
ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DRAWN BY: L.C./M.N. DATE: 2/7/2019
 DESIGNED BY: W.B./M.N. SCALE: 1"=2'
 CHECKED BY: A.G. HOR 1"=40'
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

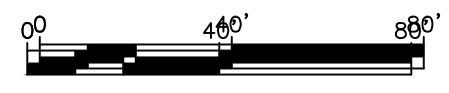



SECTION D-D



SECTION D-D CONT.

NOTE: ELEVATIONS SHOWN IN NAVD88



REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 SECTION D

SHEET NO. C-8
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

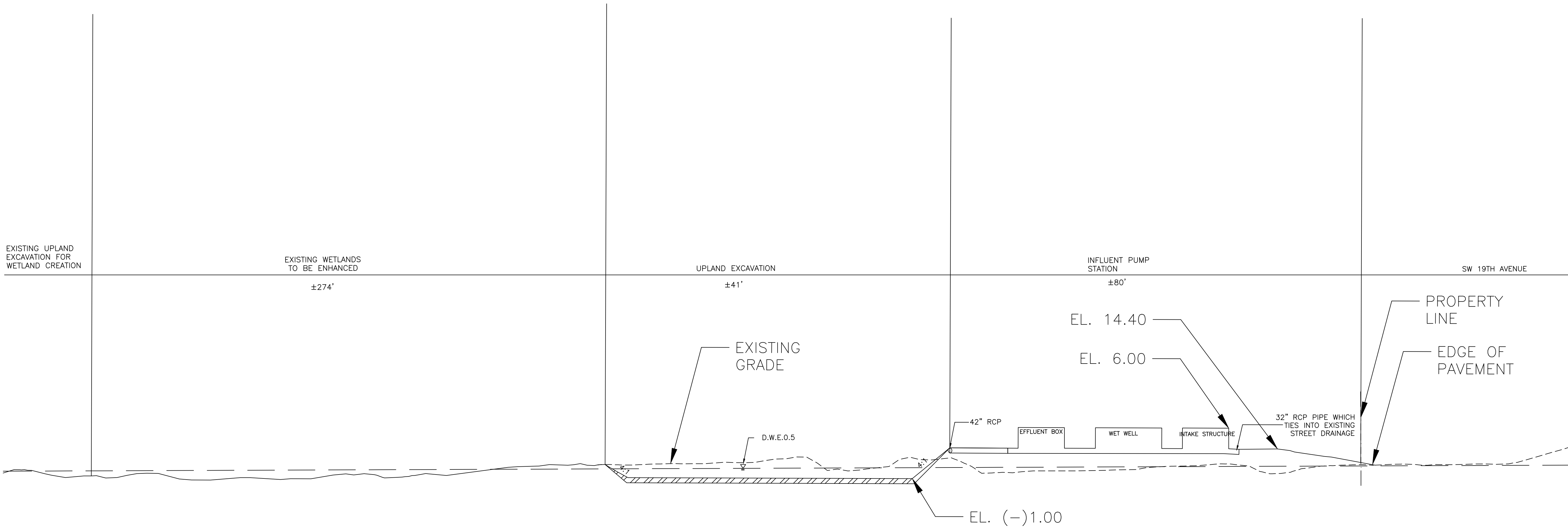
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 ENGINEERS • PLANNERS • SURVEYORS
 3583 N.W. 33RD STREET, FORT LAUDERDALE, FLORIDA 33309
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 INC.
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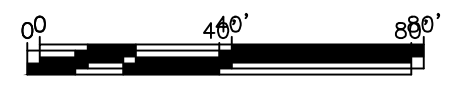
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SECTION E-E

NOTE: ELEVATIONS SHOWN IN NAVD88



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 FAX: 954-739-8409

DRAWN BY: L.C./M.N. DATE: 2/7/2019
 DESIGNED BY: W.B./M.N. SCALE: VERT 1"=2', HOR 1"=40'
 CHECKED BY: A.G.
 FIELD BOOK:

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 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION E

SHEET NO. **C-9**
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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- Mitigation Design & Monitoring
- TSE Species Surveys
- Phase I ESAs

ENGINEER:
 PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

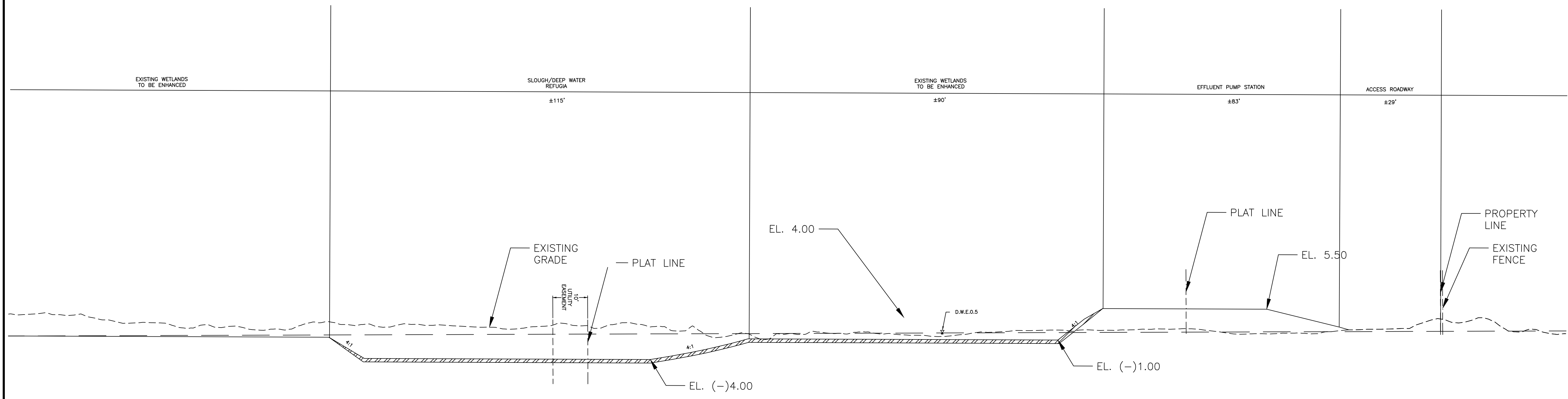
DRAWN BY:
 L.C./M.N. 2/7/2019
 DESIGNED BY: SCALE:
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

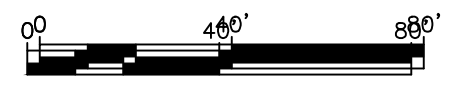
PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION F

SHEET NO.
C-10
 TOTAL: 40
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-81



SECTION □-□

NOTE: ELEVATIONS SHOWN IN NAVD88



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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114

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- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- TSE Species Surveys
- Phase I ESAs

ENGINEER:
 PATRICK J. GIBNEY
 REG. NO. 48428
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 TEL: 954-739-8400
 FAX: 954-739-8409

DRAWN BY:
 L.C./M.N. 2/7/2019
 DESIGNED BY: SCALE:
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

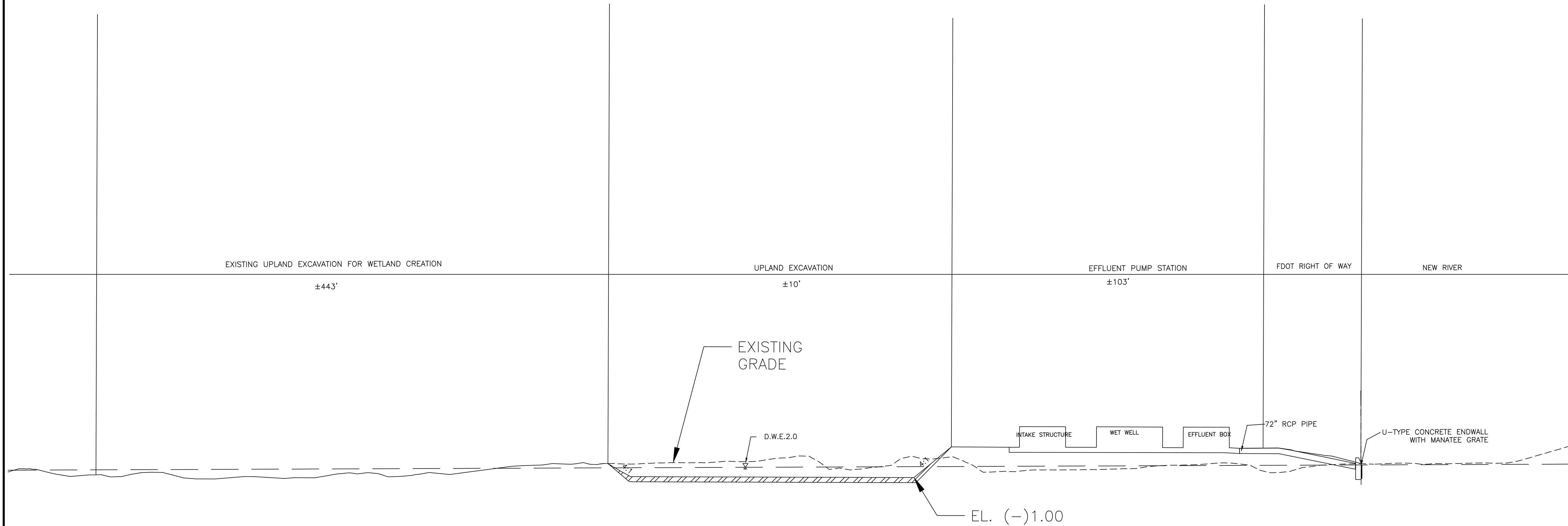
CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY / CHK'D

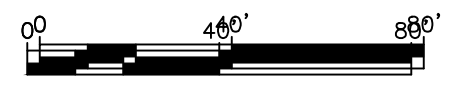
PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 SECTION G

SHEET NO.
C-11
 TOTAL: 40
 CAD FILE:
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 DRAWING FILE NO.
 4-135-81

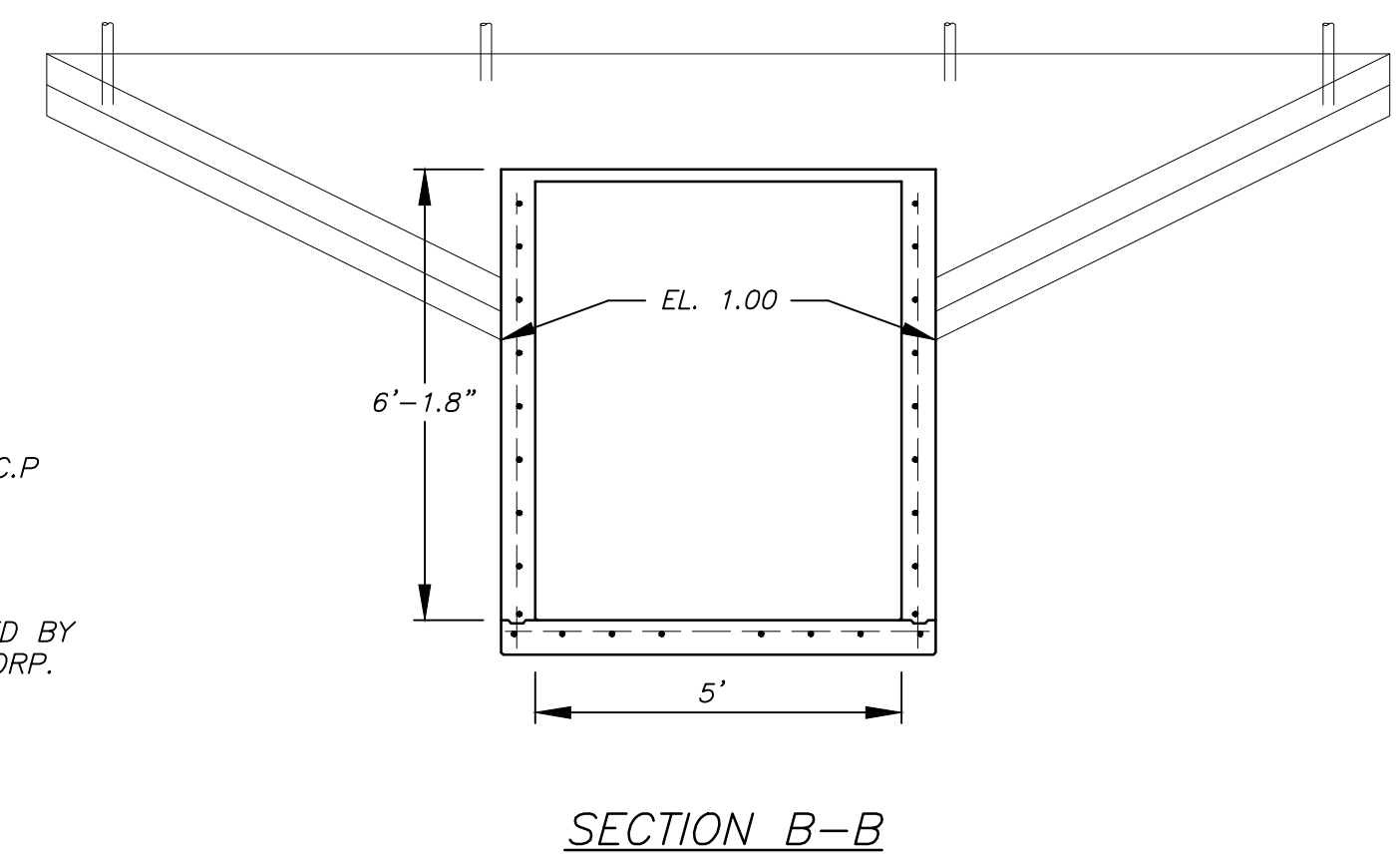
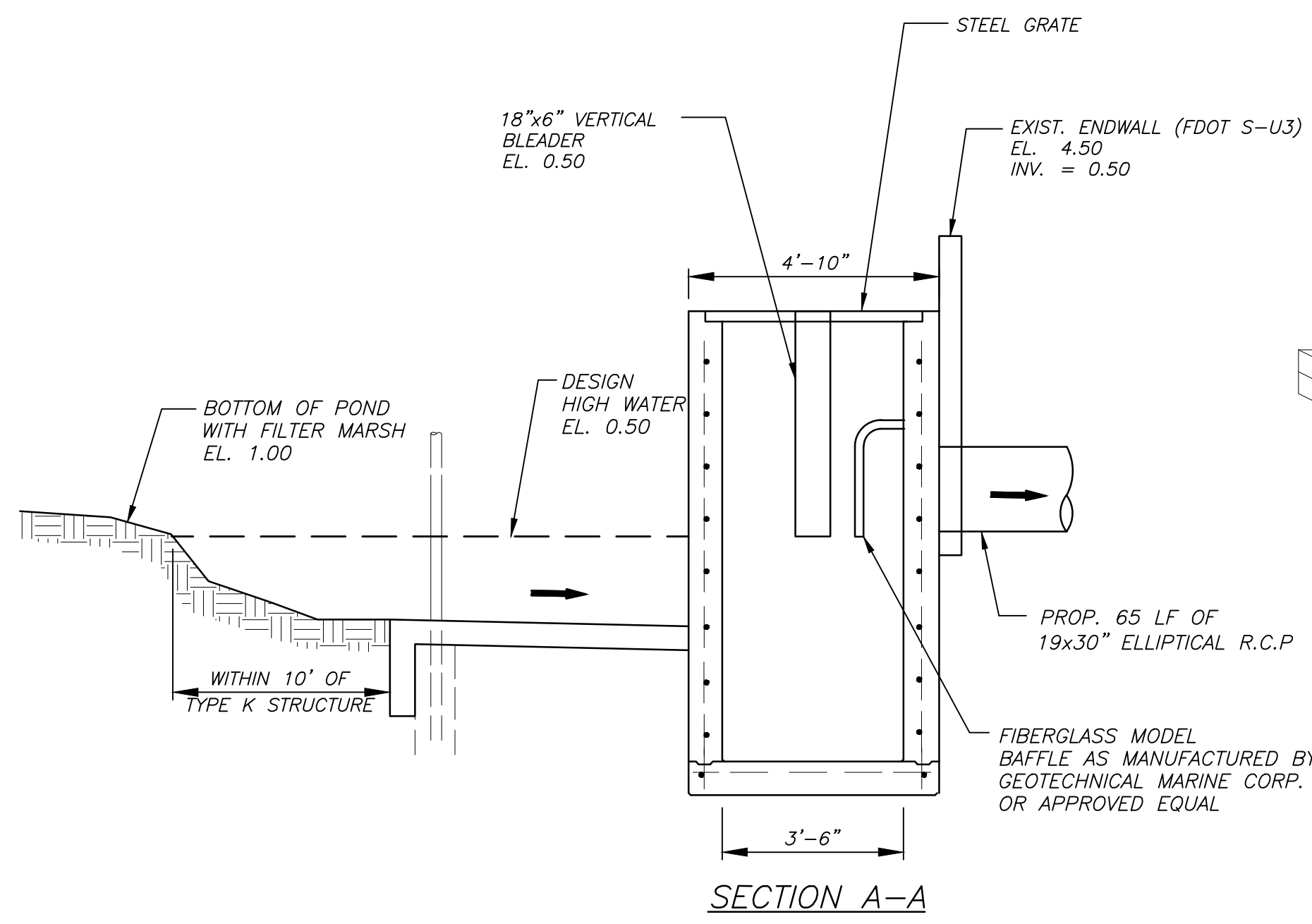
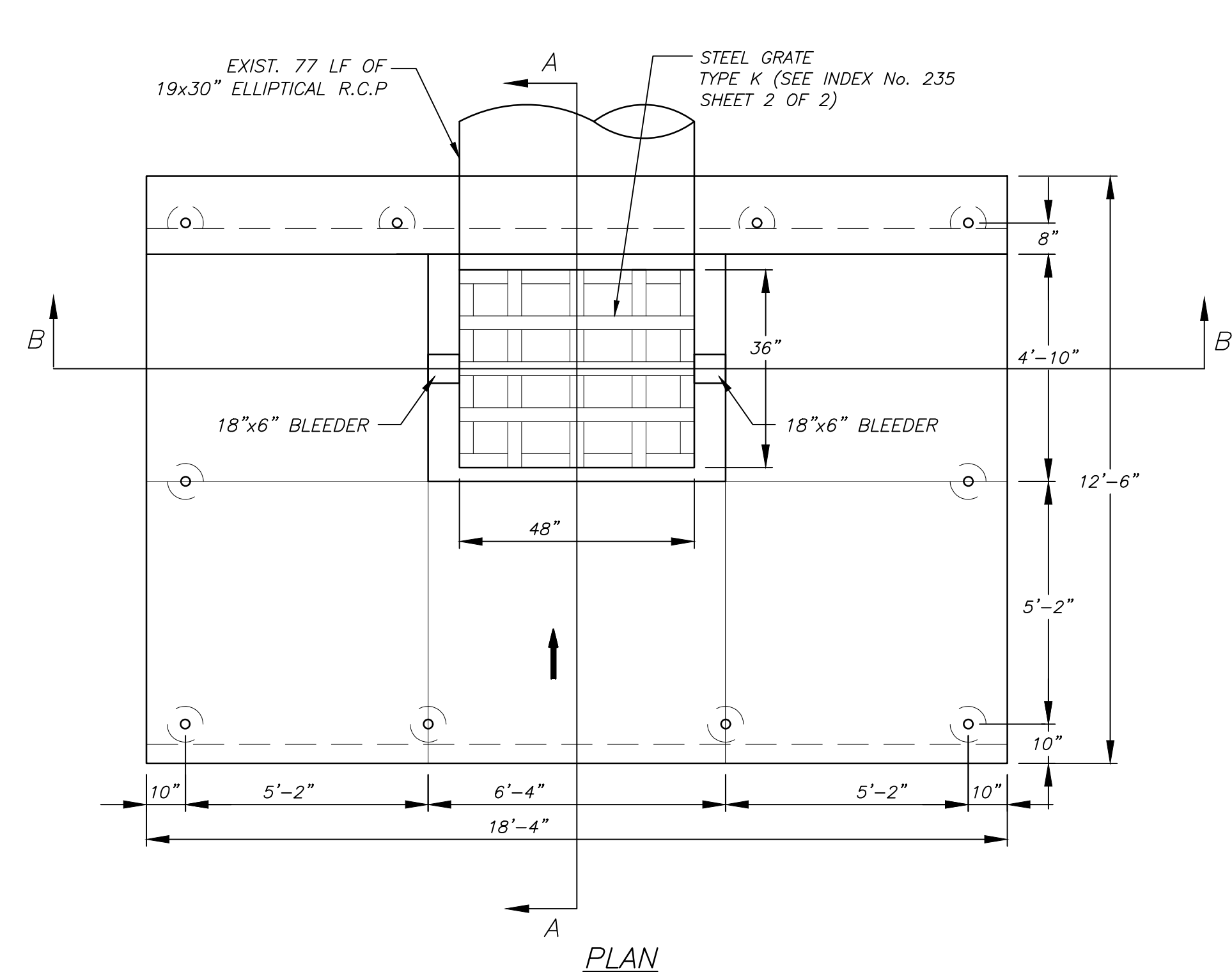


SECTION G-G

NOTE: ELEVATIONS SHOWN IN NAVD88

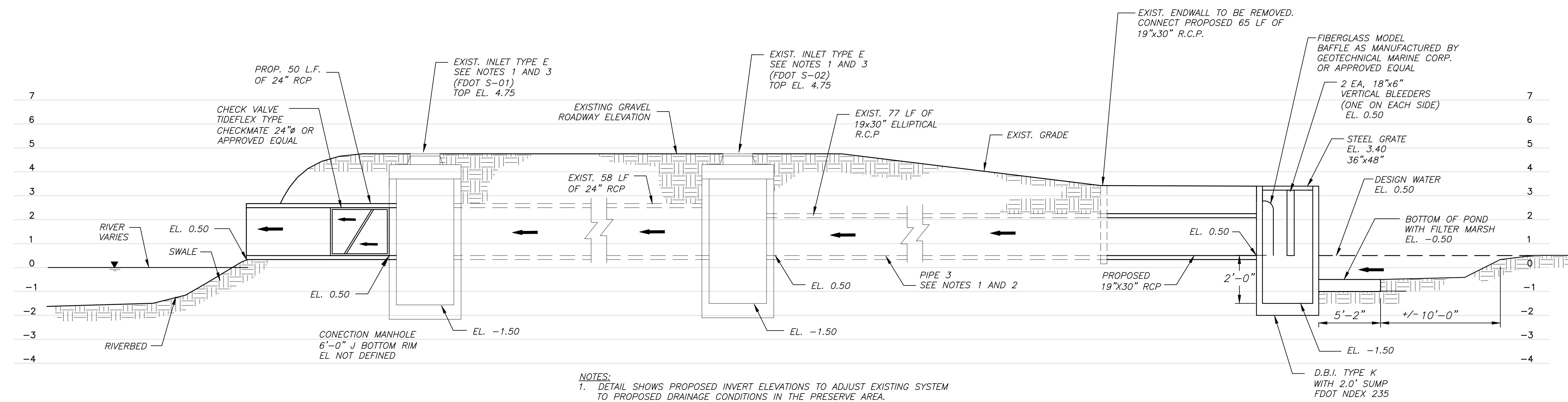


NOTE:
1 ALL ELEVATIONS ON THE PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.



NOTE:
REFER TO DETAIL BELOW FOR PIPES AND STRUCTURE INVERT ELEVATIONS.

DITCH BOTTOM INLET TYPE K
FDOT INDEX 235



NOTES:
1. DETAIL SHOWS PROPOSED INVERT ELEVATIONS TO ADJUST EXISTING SYSTEM TO PROPOSED DRAINAGE CONDITIONS IN THE PRESERVE AREA.
2. CONTRACTOR TO MODIFY PIPE AS SHOWN.
3. CONTRACTOR TO MODIFY STRUCTURE TO ACCOMMODATE PROPOSED PIPE INVERTS.
4. ALL EXISTING PIPES SIZES AND DRAINAGE STRUCTURES WERE TAKEN FROM THE SURVEY BY CRAVEN THOMPSON & ASSOCIATES, INC.

POND WITH FILTER AND MARSH - OUTFALL DETAIL

CRAVEN • THOMPSON AND ASSOCIATES, INC.
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3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
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THE Chappell GROUP INC.
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• Environmental Consultants
• Marina & Wetland Permitting
• Mitigation Design & Monitoring
• T&E Species Surveys
• Phase I ESAs

ENGINEER: PATRICK J. GIBNEY
DATE: 10/30/2018
TEL: 954-739-6400
FAX: 954-739-6409

DRAWN BY: L.C./M.N.
DESIGNED BY: W.R./M.N.
CHECKED BY: A.G.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

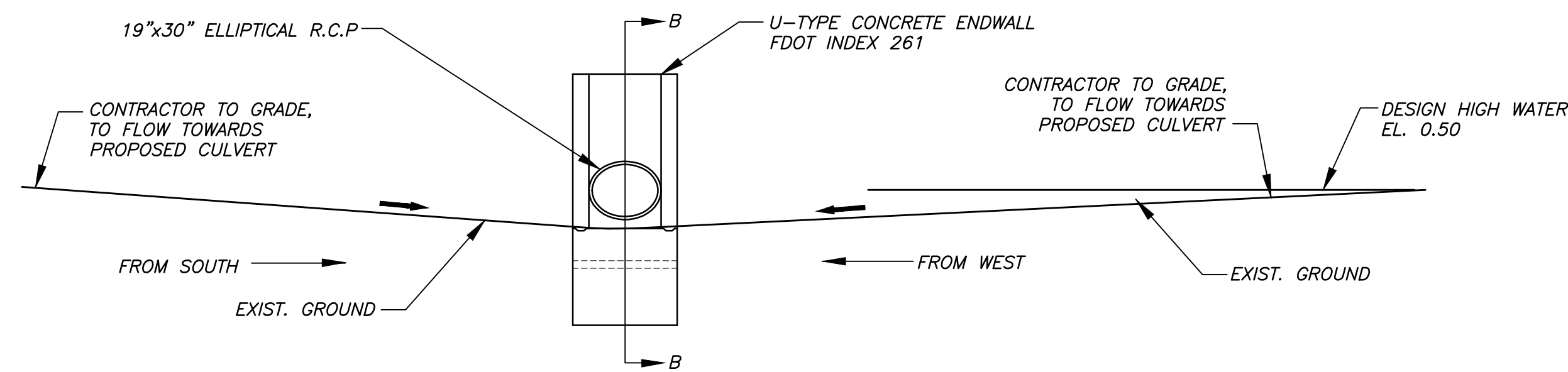
PROJECT # 11419
RIVER OAKS PRESERVE
CIVIL
PROPOSED STORMWATER DRAINAGE DETAILS

SHEET NO. **C-12**
TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81

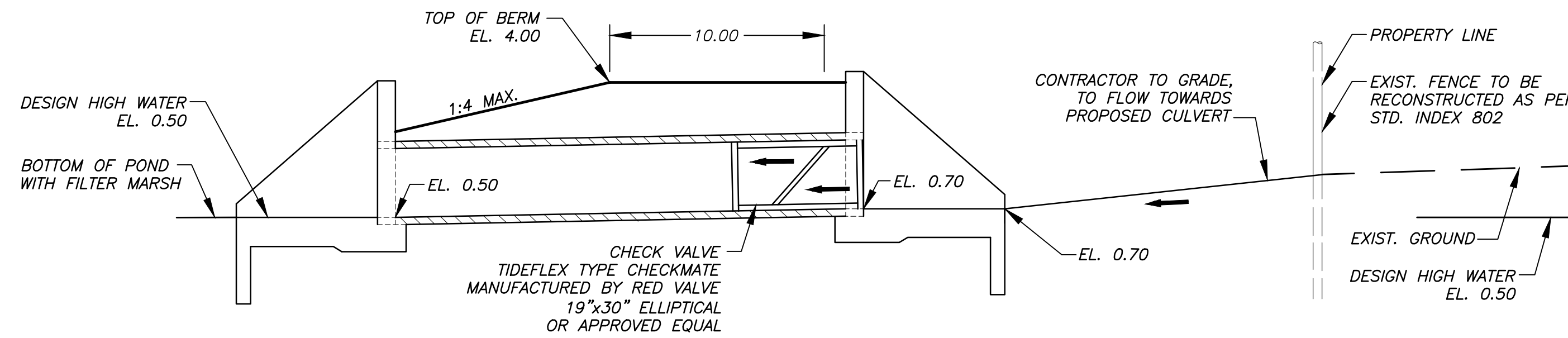
CRAVEN • THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-6409 TEL: (954) 739-6400
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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114

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 714 East McNab Road
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 tel. 954.782.1900
 fax. 954.782.1900
 www.thechappellgroup.com

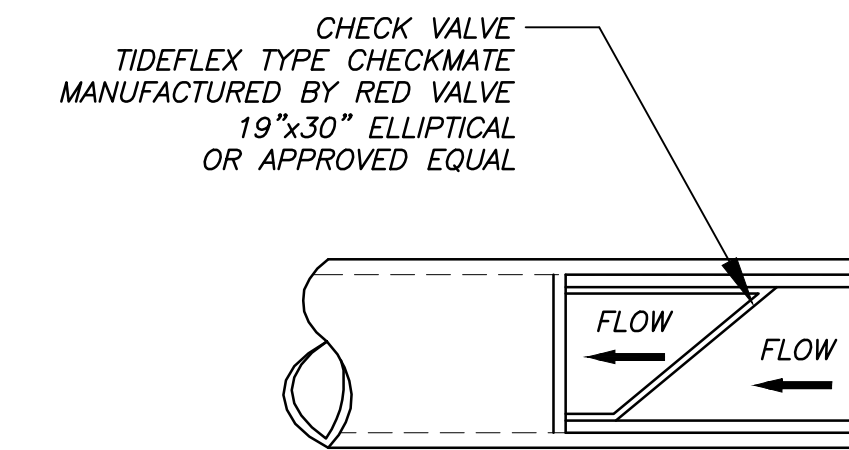
- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs



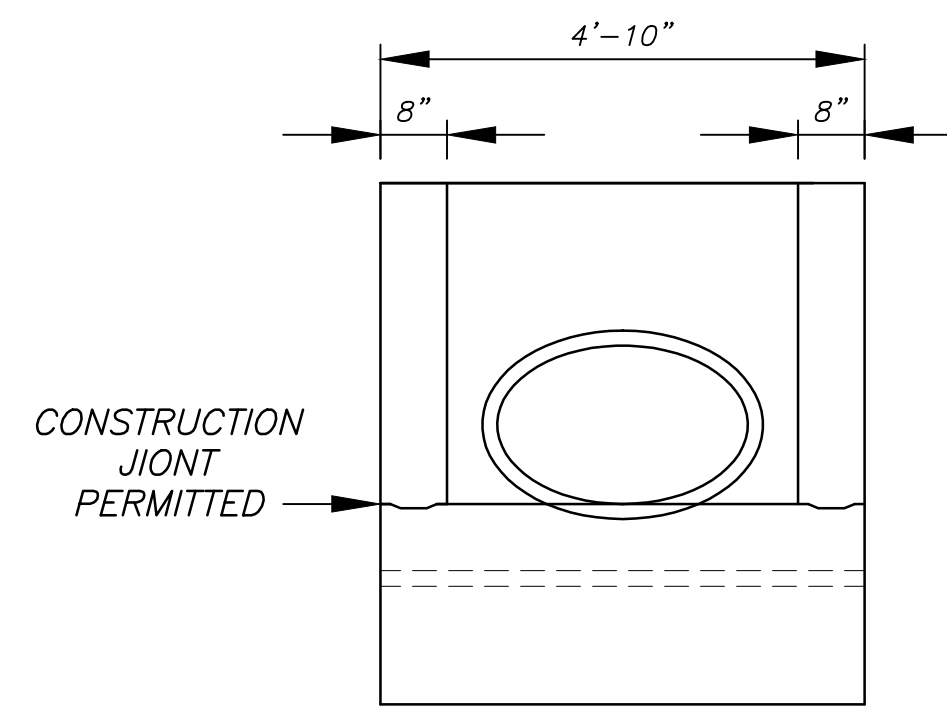
OUTFALL DETAIL - OFFSITE PROPERTY



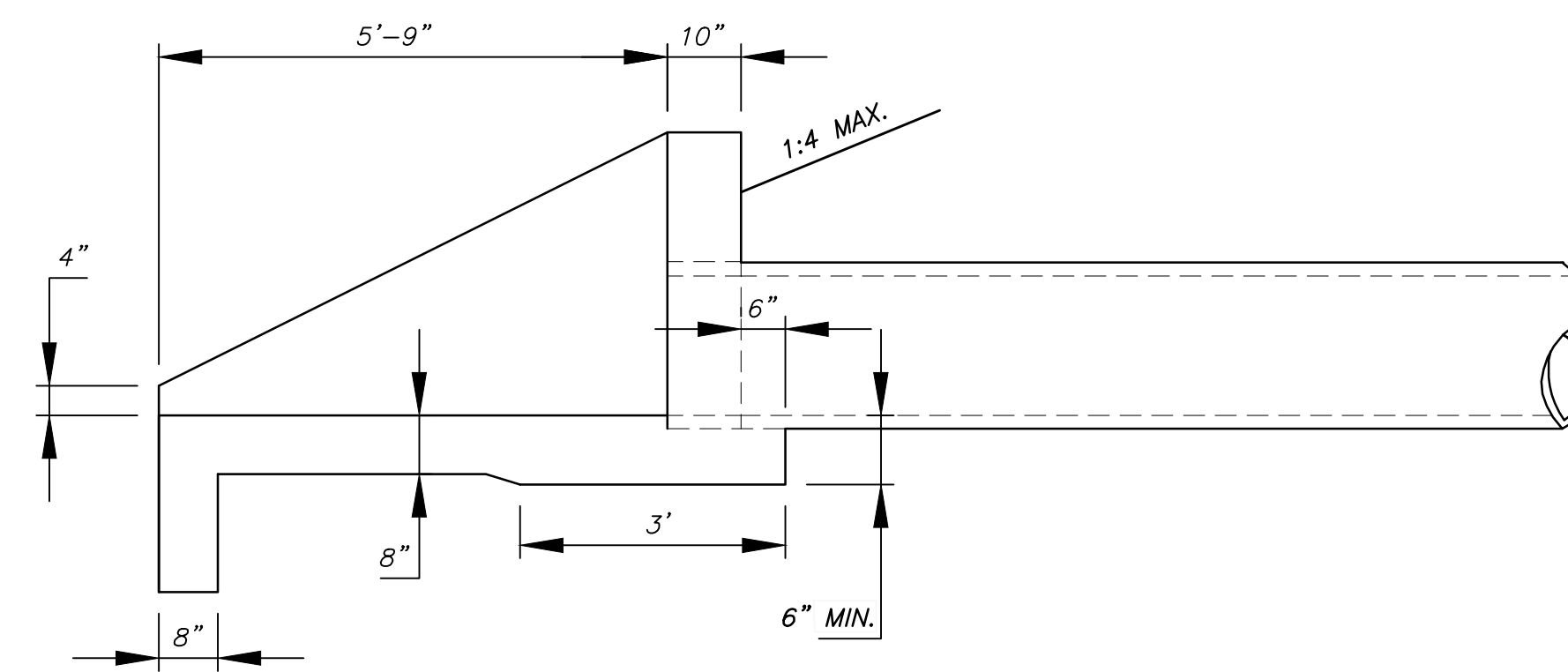
SECTION B-B



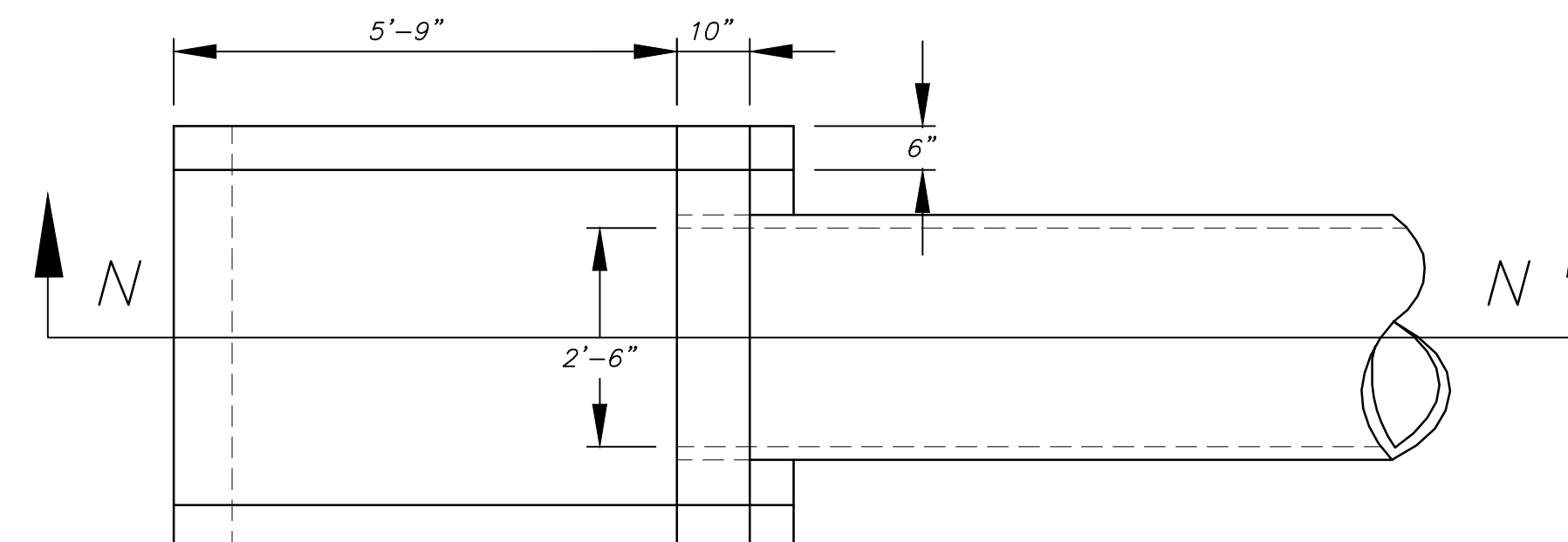
CHECK VALVE DETAIL



END VIEW



SECTION N-N



PLAN

NOTE:

- 1 ALL ELEVATIONS ON THE PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 49428
 DATE: 10/26/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DRAWN BY: DATE: 10/30/2018
 L.C./M.N. 10/30/2018
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOR 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CH'D	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 CIVIL
 PROPOSED STORMWATER DRAINAGE DETAILS

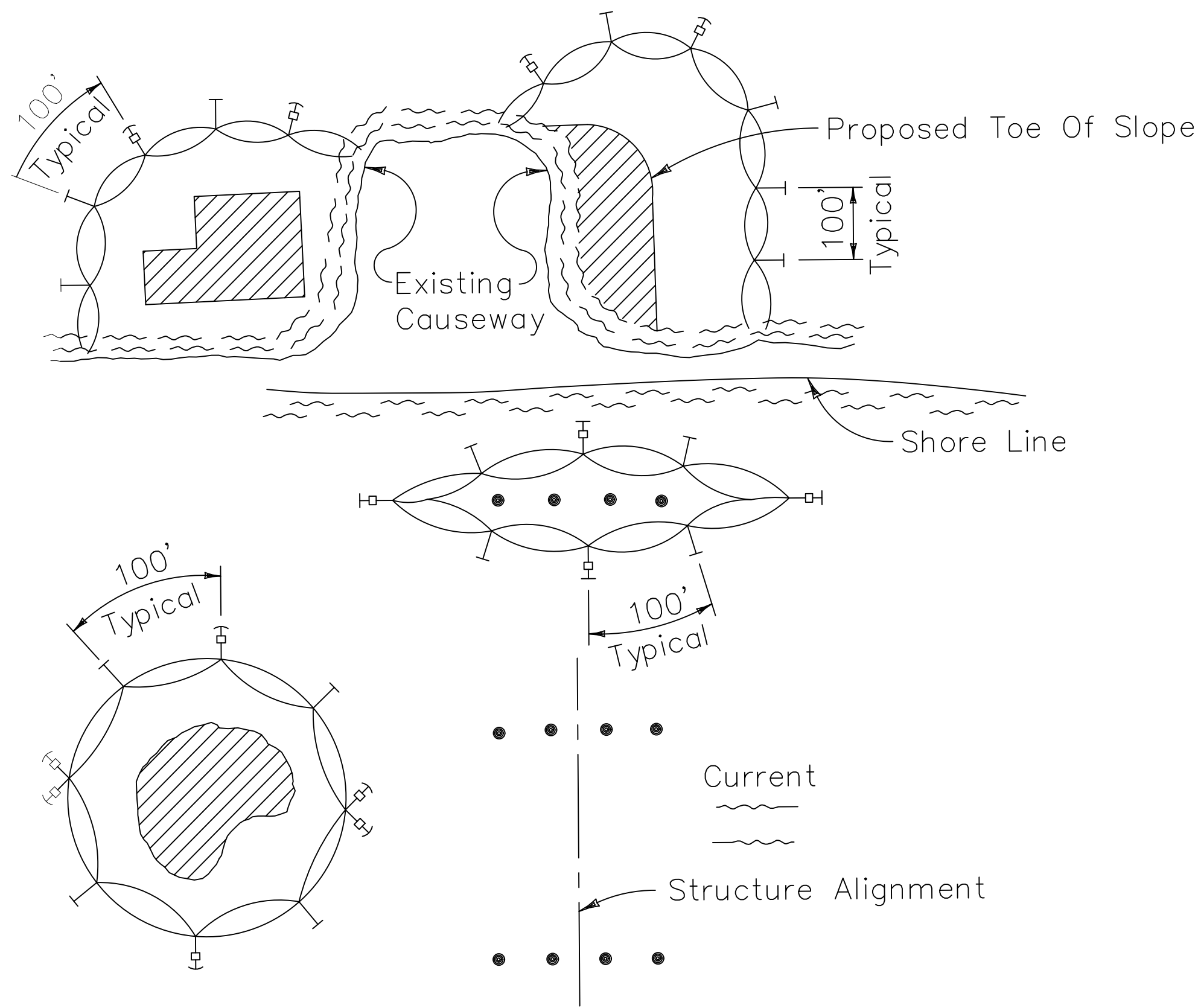
SHEET NO. C-13
 TOTAL: 40
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000114

THE Chappell GROUP INC.
 714 East McNeil Road
 Pompano Beach, Florida 33060
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 fax. 954.782.1108 www.thechappellgroup.com

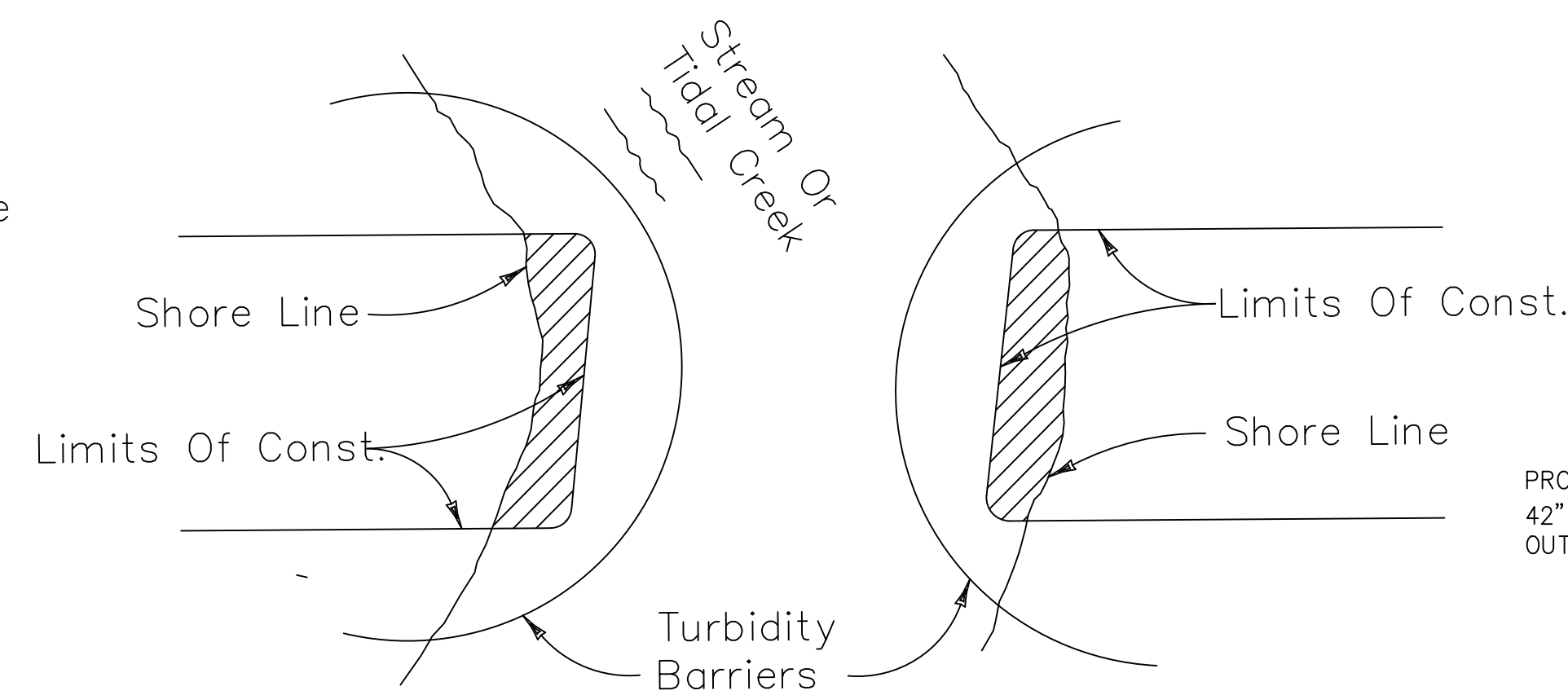
- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- TSE Species Surveys
- Phase I ESAs

TURBIDITY BARRIER APPLICATIONS

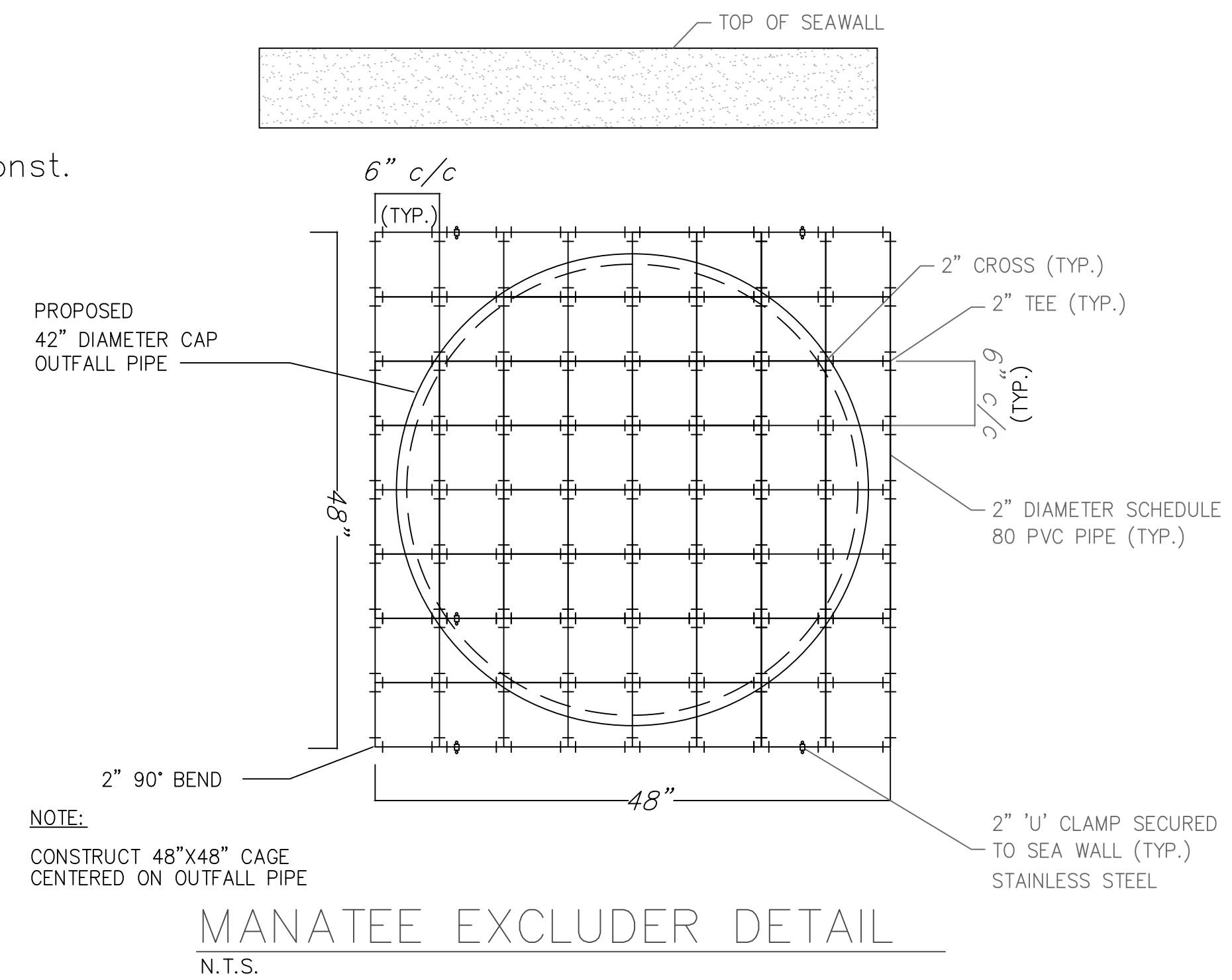


LEGEND

- Pile Locations
- ▨ Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

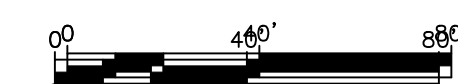


Note:
 Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.



ENGINEER: PATRICK J. GIBNEY
 DATE: 10/26/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DATE: 10/30/2018
 L.C./M.N.:
 DESIGNED BY: SCALE:
 W.R./M.N.: VERT 1"=2'
 CHECKED BY: HOR 1"=40'
 A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY / CHKD

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
EROSION CONTROL DETAILS



SHEET NO.
C-14
 TOTAL: 40
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-B1

GNRL09 - DEMOLITION NOTES Monday, July 11, 2019

DEMOLITION NOTES:



GENERAL DEMOLITION SPECIFICATIONS:

- THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
- PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.
- CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.
- THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
- THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.
 - DEMOLITION AND REMOVAL OF A 5' MIN ± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.
 - REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.
- PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.
- PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.
- ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL.
- WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).
- ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS <small>100 North Andrews Avenue, Fort Lauderdale, Florida 33301</small>	DEMOLITION NOTES	 GNRL 009 <small>2017/07/13</small>
	SHEET 1	

GNRL09 - DEMOLITION NOTES Monday, July 11, 2019



- ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ON THE DRAWINGS ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
- CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.
- FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.
- REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.
- MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.
- PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.
- ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE-FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.
- ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
- ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.


 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS <small>100 North Andrews Avenue, Fort Lauderdale, Florida 33301</small>	DEMOLITION NOTES	 GNRL 009 <small>2017/07/13</small>
	SHEET 2	

GNRL09 - DEMOLITION NOTES Monday, July 11, 2019


PRE-DEMOLITION RESPONSIBILITIES:

- UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND THE CONTRACTOR.
- PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK.
- PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR SHALL UTILIZE FOR RECYCLING AND DISPOSAL OF SPECIFIC MATERIALS. CONTRACTOR TO INDICATE THE MATERIALS INTENDED FOR RECYCLING AND THE MATERIALS INTENDED FOR DISPOSAL FOR OWNER'S APPROVAL.
- PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE THE OWNER SKETCHES SHOWING PROPOSED HAULING ROUTES TO RECYCLING AND DISPOSAL FACILITIES FOR APPROVAL.
- PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION.
- EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE CITY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
- THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY.
- PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL FIELD LOCATE EXISTING UNDERGROUND UTILITIES WITH THE UTILITY OWNERS.
- THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION'S OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON DEMOLITION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- SUNSHINE STATE ONE CALL OF FLORIDA, INC. REQUIRES THE CONTRACTOR TO CALL TWO (2) FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) PRIOR TO BREAKING GROUND TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

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CHECKED BY: HOR 1"=40'
 A.G.
FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY (CHKD)

PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
CITY STANDARD DETAILS
DEMOLITION NOTES - SHEET 1

SHEET NO.
DT-1
TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO.
 4-135-81



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DEMOLITION SAFETY:

- ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
- PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS, STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
- BUILDING MATERIALS TO BE REMOVED SHALL BE TESTED FOR ASBESTOS AND LEAD PAINT.
- IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, DISPOSE OF PETROLEUM WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION:



- WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
- WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY, OR VALLEY GUTTER IS REMOVED FOR INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., SHALL BE REPLACED WITH NEW PAVEMENT, ETC. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.
- CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE DRAWINGS. HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPLACEMENT. REPLACEMENT PAVEMENT, SIDEWALK, ETC., SHALL BE NEW.

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DEMOLITION PERMITTING:



- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE, RELOCATE, OR PRESERVE EXISTING LANDSCAPE AND TREES.
- ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREST HEIGHT (DBH) SHALL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT (BCEPGMD).
- SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

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DEMOLITION EROSION AND SEDIMENT CONTROL NOTES:

- THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO SHALL BE SELECTED TO PERFORM THE WORK AND SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
- PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.
- DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
- METHODS MAY INCLUDE TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
- EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
- THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE EROSION AND SEDIMENT CONTROL INSTALLATIONS FOR FAILURE OR SIGNS OF FAILURE OR MALFUNCTION. REPAIR OR REPLACE THE EROSION AND SEDIMENT CONTROL INSTALLATIONS IMMEDIATELY UPON DISCOVERY OF FAILURE OR MALFUNCTION.
- INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.
- THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.
- DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.
- PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:
 - PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED, AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.
 - REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).

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- 10.3. SELECT LOCATIONS FOR PLACEMENT OF EXCAVATED MATERIAL, WHERE SUITABLE FOR FILL OR UNSUITABLE MATERIAL, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPING FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FOR CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.
- 10.4. SELECT / DESIGNATE ACCESS ROUTING FOR DEMOLITION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN SHALL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.
- 10.5. CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR DEMOLITION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THOSE AREAS.
- 10.6. SPOIL MOUNDS SHALL NOT BE LEFT FOR MORE THAN ONE WEEK PRIOR TO REPLACEMENT UNLESS PROTECTIVE CONTAINMENT MEASURES IN THE WORK AREA ARE APPLIED.
- 10.7. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF REGRADING, SWALE SLOPES AND THE CONSTRUCTED OR DISTURBED AREAS.
11. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPs) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES. A NOTICE OF INTENT (NOI) SHALL BE FILED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
12. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MAINTAIN ALL RECORDS REQUIRED BY ITS NPDES STORMWATER PERMIT FOR ITS CONSTRUCTION ACTIVITIES.
13. PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH CITY'S DETAIL SHALL BE ERECTED AS NOTED ON PLANS. ALL PROPOSED CATCH BASINS SHALL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER INLET INSERTS INTO THE FRAME AND GRATE. SILT FENCES AND FILTER INLET INSERTS SHALL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.
14. CONTRACTOR SHALL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND SHALL ENSURE ITS STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING SHALL BE RESTORED TO NEW CONDITION UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN FOUR HORIZONTAL TO ONE VERTICAL SHALL BE PEGGED.
15. ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION.
16. TO ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED, CONTRACTOR SHALL PUT INTO PRACTICE THE METHODS DETAILED IN FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 106 (2010 DESIGN STANDARDS) AND BMPs.

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17. DUST GENERATED FROM CONSTRUCTION SHALL BE MINIMIZED BY DAILY WATERING OF THE SITE.
18. AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING IS DISTURBED, THE SILT FENCING SHALL BE RESTORED TO ITS ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING SECURED.
19. A QUALIFIED INSPECTOR, PROVIDED BY THE CONTRACTOR, SHALL INSPECT ALL POINTS OF DISCHARGE INTO NEARBY SURFACE WATER. THE INSPECTION SHALL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. INSPECTION INCLUDES THE WRITTEN RECORDING OF THE CONDITION OF ALL DISCHARGE POINTS, INTEGRITY OF SILT FENCING, DAILY DUST CONTROL MEASURES, VEHICULAR TRAFFIC AND CONSTRUCTION MATERIAL STORAGE AND DISPOSAL. WRITTEN RECORD OF ALL INSPECTIONS SHALL BE STORED BY THE CONTRACTOR.
20. THE INSPECTION REPORT SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING INFORMATION: NAME AND QUALIFICATION OF PERSONNEL MAKING THE INSPECTION, DATE OF INSPECTION, RAINFALL DATE, MAJOR OBSERVATIONS RELATING TO THE SWPPP, ACTIONS TAKEN BY CONTRACTOR AND ANY INCIDENT OF NONCOMPLIANCE WITH PERMIT. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENT OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT.
21. THE CONTRACTOR SHALL RETAIN A COPY OF THE SWPPP AND ALL REPORTS, RECORDS AND DOCUMENTATION REQUIRED BY THE PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
22. THE CONTRACTOR SHALL RETAIN THE SWPPP, NOI AND ALL RECORDS ASSOCIATED THEREWITH FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED.
23. SEE LANDSCAPE PLANS FOR TREE REMOVAL AND LANDSCAPE DEMOLITION.
24. CONTRACTOR SHALL COORDINATE THROUGH CITY'S CONSTRUCTION DIVISION AND CITY'S PARKS DEPARTMENT ON HOW TO STOCK AND RE-USE EXCAVATED SOIL FROM SITE (AS APPLICABLE TO THE PROJECT).

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- INTERRUPTION OF EXISTING UTILITIES :**
1. ANY DEMOLITION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR WRITTEN NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY.
 2. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK.
 3. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL-TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR.
 4. EACH CUSTOMER AFFECTED BY THE SHUT-DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

TEMPORARY DEMOLITION FACILITIES :

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING DEMOLITION.
2. MAINTENANCE OF TRAFFIC (MOT) IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
4. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS WRITTEN PERMISSION OF THE CITY OR RESPECTIVE GOVERNING AGENCY.

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- WASTE MANAGEMENT PLAN :**
1. IMPLEMENT A WASTE MANAGEMENT PLAN FOR APPROVAL BY THE OWNER. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION AND OTHER ITEMS AS NEEDED TO IMPLEMENT THE WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
 2. DESIGNATE A WASTE MANAGEMENT COORDINATOR TO BE RESPONSIBLE FOR IMPLEMENTING, MONITORING AND REPORTING STATUS OF WASTE MANAGEMENT WORK PLAN. COORDINATOR SHALL BE PRESENT AT PROJECT SITE FULL-TIME FOR DURATION OF PROJECT.
 3. TRAIN WORKERS, SUBCONTRACTORS AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK AT THE PROJECT SITE.
 4. DISTRIBUTE A WASTE MANAGEMENT PLAN BEFORE WORK BEGINS. REVIEW PLAN PROCEDURES AND LOCATION ESTABLISHED FOR SALVAGE, RECYCLING AND DISPOSAL.
- RECYCLING DEMOLITION WASTE :**
1. SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT THE PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL.
 2. PROVIDE APPROPRIATELY MARKED CONTAINERS OR BINS FOR CONTROLLING RECYCLABLE WASTE UNTIL THEY ARE REMOVED FROM THE PROJECT SITE. INCLUDE A LIST OF ACCEPTABLE AND UNACCEPTABLE MATERIALS AT EACH CONTAINER AND BIN.
 3. INSPECT CONTAINERS AND BINS FOR CONTAMINATION AND REMOVE CONTAMINATED MATERIALS IF FOUND.
 4. STOCKPILE PROCESSED MATERIALS ON-SITE WITHOUT INTERMIXING WITH OTHER MATERIALS. PLACE, GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
 5. STOCKPILE MATERIALS AWAY FROM DEMOLITION AREA. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.
 6. STORE COMPONENTS OFF THE GROUND AND PROTECT FROM THE WEATHER.
 7. REMOVE RECYCLABLE WASTE OFF THE OWNER'S PROPERTY AND TRANSPORT TO RECYCLING RECEIVER OR PROCESSOR.
 8. ASPHALTIC CONCRETE PAVING: BREAK UP AND TRANSPORT PAVING TO ASPHALT RECYCLING FACILITY.
 9. CONCRETE: REMOVE REINFORCEMENT AND OTHER METALS FROM CONCRETE AND SORT WITH OTHER METALS.
 10. MASONRY: MASONRY WASTE SHALL INCLUDE WHOLE OR BROKEN BRICK AND CONCRETE MASONRY UNITS. WHOLE MASONRY UNITS SHALL BE CLEANED AND REUSED OR DONATED. BROKEN MASONRY SHALL BE CRUSHED AND USED AS FILL FOR OFFSITE AREAS. REMOVE METAL REINFORCEMENT, ANCHORS AND TIES FROM MASONRY AND SORT WITH OTHER METALS.

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11. METALS: METALS FROM REINFORCED CONCRETE, REINFORCED MASONRY, STRUCTURAL STEEL MEMBERS, FLASHING AND SHEET METAL, CONDUIT PIPE, SIDING, PIPING AND WIRING SHALL BE SEPARATED BY TYPE.
 12. STRUCTURAL STEEL: STACK MEMBERS ACCORDING TO THEIR SIZE, TYPE AND LENGTH.
 13. NUTS AND BOLTS: REMOVE BOLTS, NUTS, WASHERS AND OTHER ROUGH HARDWARE.
 14. SITE-CLEARING WASTE SHALL BE RECYCLED BY CHIPPING BRUSH, BRANCHES AND TREES, THEN HAUL TO WOOD RECYCLING CENTER.
- DISPOSAL OF WASTE :**
1. GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.
 2. EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.
 3. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT SHALL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
 4. BURNING: DO NOT BURN WASTE MATERIALS.
 5. DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

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PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DEMOLITION NOTES
SHEET 11

GNRL
009
2017/07/19

PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
CITY STANDARD DETAILS
DEMOLITION NOTES - SHEET 2

SHEET NO.
DT-2
TOTAL FILE: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81


TRAFFIC CONTROL PLAN NOTES:

- THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660, MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
- THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.
- THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
- A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
- EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
- THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
- TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.
- CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATS CERTIFIED.
- THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TRAFFIC CONTROL PLAN NOTES	ISSUE NO. GNRL 002 ISSUED 2017/07/13
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FDOT GENERAL NOTES:

- ALL MATERIALS AND CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (2010 EDITION), STANDARD SPECIFICATIONS (2010 EDITION) AND THE SUPPLEMENTS THERETO.
- THE APPLICANT'S ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION SHALL INSURE THAT THE MAINTENANCE OF TRAFFIC PLAN (MOT) FOR THE PROJECT IS IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX NUMBER (600 SERIES) AND THIS DOCUMENT; THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (D.S. DEPARTMENT OF TRANSPORTATION, FHWA).
- AT THE END OF EACH WORK PERIOD, ANY DROP-OFF IN THE AREA ADJACENT TO THE TRAVEL WAY OF THE STATE ROAD SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRIER WALL AT THE CONTRACTOR'S EXPENSE.
- IF THE PERMITTED WORK IS ON A ROADWAY THAT HAS BEEN SELECTED AS A HURRICANE OR DISASTER EVACUATION ROUTE, THE APPLICANT, AT THE PRE-CONSTRUCTION CONFERENCE IS REQUIRED TO PRESENT, AS PART OF THE WORK PLAN, AN EMERGENCY FUNCTIONAL RESTORATION PLAN TO ADDRESS EVENTUALITIES SUCH AS HURRICANES.
- THE CONTRACTOR MUST CALL THE APPROPRIATE COUNTY TRAFFIC ENGINEERING DIVISION, HAVING JURISDICTION OVER THE PROJECT AT LEAST 48 HOURS, BEFORE ANY EXCAVATION WITHIN THE FDOT RIGHT-OF-WAY TO DETERMINE THE LOCATION OF THE EXISTING TRAFFIC SIGNAL INTERCONNECT CABLE.
- THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION DURING CONSTRUCTION. RELOCATION OF UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANIES AFTER IDENTIFICATION OF CONFLICT BY CONTRACTOR. CONTRACTOR WILL NOTIFY ENGINEER IN ADVANCE BEFORE ANY RELOCATION.
- BEFORE PERMIT APPROVAL AND CONSTRUCTION OF THIS PROJECT, THE APPLICANT MUST CONTACT THE FLORIDA DEPARTMENT OF TRANSPORTATION LOCAL MAINTENANCE OFFICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE TELEPHONE NUMBER IS 954-776-4300 OR 1-800-300-8236. THE APPLICANT AT THE EARLIEST CONVENIENT TIME SHALL NOTIFY IN WRITING ALL RIGHT-OF-WAY USERS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
- ALL MOT LANE CLOSURE SIGNS SHALL BE COVERED WHEN LANES ARE NOT CLOSED. NO LANES ARE TO BE CLOSED EXCEPT AT TIMES PRESCRIBED BY THE DEPARTMENT.
- SODDING SHALL BE IN ACCORDANCE WITH SECTION 575.
- ALL CURB CUT RAMPS MUST FACE IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- SPECIFY THE ALPHANUMERIC IDENTIFICATION FOR THE CURB CUT RAMPS PER STANDARD INDEX 304. A COPY OF THE APPROPRIATE DETAIL(S) MUST BE SHOWN ON THE PLANS.
- FLAGGERS MUST BE PRESENT DURING THE INGRESS AND EGRESS OF CONSTRUCTION VEHICLES TO AND FROM THE PROJECT SITE. WARNING SIGNS MUST BE ERECTED ADVISING MOTORIST OF TRUCKS ENTERING THE HIGHWAY.

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	FDOT GENERAL NOTES	ISSUE NO. GNRL 003 ISSUED 2016/08/21
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BROWARD COUNTY COMMUNICATION NOTES:

- THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED)'S COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC UNDER PUBLICATIONS.
- IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.
- IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.
- IF THERE ARE CELLULAR COMMUNICATIONS WITHIN YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.
- ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS IN ADVANCE.

**BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION**

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON:


WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON :

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

UTILITY OWNER CONTACT PERSON :

INTERCONNECT COMMUNICATIONS CABLES - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BROWARD COUNTY COMMUNICATION NOTES	ISSUE NO. GNRL 006 ISSUED 2016/08/21
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- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

 **MUE Engineers, Inc.**

ENGINEER:
PATRICK J. GIBNEY
REG. NO. 49428
DATE: 10/28/2018

DATE: 10/30/2018
L.C./M.N.:
DESIGNED BY/SCALE: W.R./M.N.
VERT 1"=2'
CHECKED BY: A.G.
HOR 1"=40'
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE



100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY (CHK'D)


PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
CITY STANDARD DETAILS
GENERAL NOTES

SHEET NO.
DT-3

TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81

DRAINAGE NOTES:

- DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) OR REINFORCED CONCRETE (RCP), THE USE OF RCP PIPE FOR PUBLIC ROADWAY CROSSINGS IS PREFERRED.
- CATCH BASINS, INLETS AND JUNCTION BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS.
- PRIOR TO BACKFILLING EXFILTRATION TRENCHES, DRAINAGE INLETS OR MANHOLES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING INSPECTOR FOR AN INSPECTION.
- DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY CITY.
- ALL PIPES SHALL BE LAID IN DRY TRENCH. ALL MUCK OR UNSUITABLE MATERIALS IN TRENCHES, INLETS OR MANHOLES SHALL BE REMOVED AND BACKFILLED WITH SELECTED MATERIAL APPROVED BY THE ENGINEER.
- MINIMUM COVER FOR HDPE PIPE UNDER ASPHALT SHALL BE 24-INCH COMPACTED LIMEROCK BASE. MINIMUM COVER FOR PIPE UNDER GRASS SHALL BE 18" COMPACTED SUBGRADE.
- THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
- MAINTENANCE ACCESS SHALL BE PROVIDED ON BOTH SIDES OF EXFILTRATION TRENCHES IN THE FORM OF MANHOLES OR CATCH BASINS. THE MAXIMUM DISTANCE BETWEEN STORM STRUCTURES SHALL NOT EXCEED TREE HUNDRED (300) FEET).
- ALL EXFILTRATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DOCUMENT TITLED "DRAINAGE DESIGN GUIDE", LATEST EDITION.
- GEOTEXTILE MATERIALS USED IN THE CONSTRUCTION OF EXFILTRATION TRENCHES SHALL BE IN ACCORDANCE WITH THE CRITERIA OF FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS LATEST EDITION AND CITY OF FORT LAUDERDALE'S SPECIFICATIONS.

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DRAINAGE NOTES	ISSUE NO. GNRL 008 ISSUED 2017/07/13
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ISSUE: GREEN INFRASTRUCTURE NOTES Manual, Rev. 1, 2017

GENERAL NOTES:

- FOR RIGHT-OF-WAY (ROW) GREEN INFRASTRUCTURE (GI) FACILITIES WITH DIMENSIONS THAT DEVIATE FROM THE GI STANDARDS AS SHOWN ON CONTRACT PLANS DUE TO FIELD CONDITIONS, REFER TO THE DIMENSION SCHEDULE AND SPECIFICATIONS.
- THE BOTTOM OF THE GI FACILITY SHOULD BE NO LESS THAN 6" ABOVE OF THE SEASONAL HIGH WATER TABLE (SHWT) AND THE UNDERDRAIN SHOULD BE NO LESS THAN 12" ABOVE THE SHWT.
- SEE RELATED GI SPECIFICATIONS.

POROUS CONCRETE:

- MAXIMUM JOINT SPACE IS 1".
- CONTRACTOR SHALL TRIM (VIA SAWCUT) POROUS CONCRETE PANELS TO NO MORE THAN 6" ON ANY END.
- NO POROUS CONCRETE PANEL SHALL BE LESS THEN 4' IN LENGTH WITHOUT THE ENGINEER'S APPROVAL.
- ADJUST THE LIMIT OF WORK TO AVOID END PANELS LESS THEN 4' IN LENGTH.
- CONTRACTOR SHALL INSTALL #57 STONE IN LIFTS OF 12" (MAX) AND SHALL MAKE TWO PASSES OF A PLATE COMPACTOR (200 LBS MIN) OVER EACH LIFT PRIOR TO INSTALLATION OF #6 LEVELING COURSE.
- AT THE DIRECTION OF THE ENGINEER, CONTRACTOR TO REPLACE ANY CURB OR DRIVEWAY APRON THAT IS DAMAGED DURING CONSTRUCTION.

STORMWATER BUMP-OUT:

- THE LOWEST PLANTING MEDIA SURFACE IN STORMWATER BUMP-OUTS SHOULD BE LEVEL ALONG THE ALIGNMENT OF THE STREET. A MILD SLOPE NO GREATER THAN 1 PERCENT IS ACCEPTABLE BUT A LEVEL SURFACE IS RECOMMENDED. IF SURROUNDING SLOPES ARE STEEP, IMPERMEABLE BARRIERS SUCH AS SURFACE CHECK DAMS CAN HELP MAINTAIN A LEVEL SURFACE, AS SHOWN ON CONTRACT DRAWINGS. NOTE THIS DOES NOT APPLY TO THE CROSS-GRADING, IF USED, FROM THE PERIMETER OF THE BUMP-OUT DOWN TO THE LOWEST PLANTING MEDIA SURFACE.
- WITH THE EXCEPTION OF TREES, MAXIMUM VEGETATION HEIGHT AT MATURITY SHOULD BE NO GREATER THAN 36" ABOVE THE SURROUNDING SIDEWALK ELEVATION, UNLESS OTHERWISE APPROVED BY THE ENGINEER. PLANT SELECTION AND PLACEMENT SHOULD BE DONE TO PREVENT ENCROACHMENT OF PLANTS OUTSIDE OF THE LIMITS OF THE STORMWATER BUMP-OUT AND IN CONSIDERATION OF MAINTAINING ADEQUATE SIGHT LINES BASED ON THE PLACEMENT OF THE STORMWATER BUMP-OUT.
- ALTHOUGH NOT SHOWN, EXTENDING THE VEGETATED AREA OF A BUMP-OUT INTO THE LIMITS OF THE SIDEWALK IS PERMITTED WHERE SHOWN ON THE CONTRACT DRAWINGS. HOWEVER, ANY REQUIREMENTS/GUIDELINES FOR OTHER STORMWATER CONTROLS LOCATED IN THE SIDEWALK APPLY.

VEGETATION/TREES:

- THE CONTRACTOR SHALL OBTAIN THE NECESSARY TREE PLANTING PERMIT FROM THE CITY PRIOR TO THE START OF WORK. ALL NECESSARY TREE PLANTING SHALL BE SUPERVISED BY A CERTIFIED ARBORIST.
- NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNLESS SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER AND WITH APPROVAL FROM THE CITY.
- TREES SHALL BE STAKED. TREE STAKES ARE TO BE REMOVED BY THE CONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING.
- REPLACEMENT TREES SHALL BE PLANTED WITHIN THE PROJECT AREA AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH STANDARD HIGHWAY SPECIFICATIONS.

 CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	GREEN INFRASTRUCTURE NOTES	ISSUE NO. GREN 001 ISSUED 2017/01
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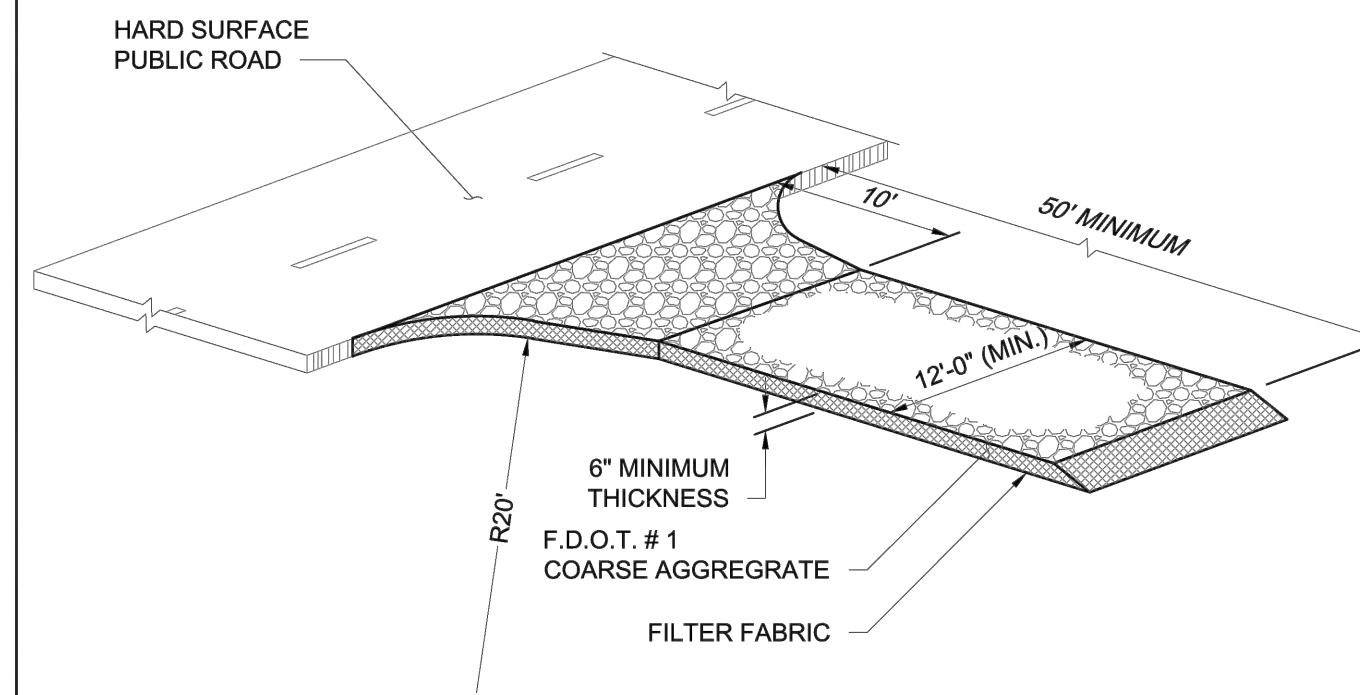
EROSION AND SEDIMENT CONTROL:

- CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL STATE AND OTHER GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
- DURING CONSTRUCTION ALL CATCH BASIN INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CATCH BASIN.
- SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT DISCHARGE OF SEDIMENT ONTO ADJACENT UNDISTURBED AREAS, OR OFF-SITE AREAS.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- ALL EXPOSED AREAS SHALL BE SODDED AS SPECIFIED WITHIN 30 DAYS OF FINAL GRADING.
- MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY CITY, COUNTY, AND STATE OF FLORIDA ON SITE INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.
- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
- IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- BURNING OF DEBRIS WILL NOT BE ALLOWED.
- CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE IF IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES IF EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC. THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS THE FIRST ITEM OF WORK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	EROSION AND SEDIMENT CONTROL NOTES SHEET 1	SHEET NO. ESC 001
		DATE: 2017/07/08

- THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM APPLIES TO ALL CONSTRUCTION ACTIVITY THAT: 1) CONTRIBUTE STORMWATER DISCHARGES TO SURFACE WATER OF THE STATE OR INTO A MUNICIPAL SEWER SYSTEM (MS4); 2) DISTURBS ONE OR MORE ACRES OF LAND, OR 3) LESS THAN ONE ACRE IS INCLUDED IF THE ACTIVITY IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT WILL MEET OR EXCEED THE ONCE ACRE THRESHOLD. DISTURB INCLUDES CLEARING, GRADING AND EXCAVATING.
- FOR CONSTRUCTION ACTIVITY THAT IS SUBJECT TO THE NPDES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM, THE CONTRACTOR SHALL:
 - OBTAIN A GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DOCUMENT 62-621.300(4)(A).
 - COMPLY WITH ALL REQUIREMENTS OF THE GENERIC PERMIT.
 - DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
 - COMPLETE A NOTICE OF INTENT (NOI) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FORM 62-621.300(4)(B) IN ITS ENTIRETY USING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S WEBSITE.
- SUBMIT COPIES OF THE SWPPP AND THE NOI TO THE ENGINEER AS INFORMATIONAL RECORDS. THESE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER.
- CONTRACTOR TO CLEAN AND REPAIR ALL EXISTING STORMWATER INFRASTRUCTURE THAT IS IMPACTED BY CONSTRUCTION ACTIVITIES, BEFORE LEAVING THE JOBSITE.
- CONTRACTOR TO REMOVE ALL FILTER FABRIC AND POLLUTION PREVENTION ITEMS BEFORE THE FINAL WALK-THROUGH.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	EROSION AND SEDIMENT CONTROL NOTES SHEET 2	SHEET NO. ESC 001
		DATE: 2017/07/08



NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	GRAVEL CONSTRUCTION ENTRANCE	SHEET NO. ESC 002
		DATE: 2017/07/08

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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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MUEngineers, Inc.

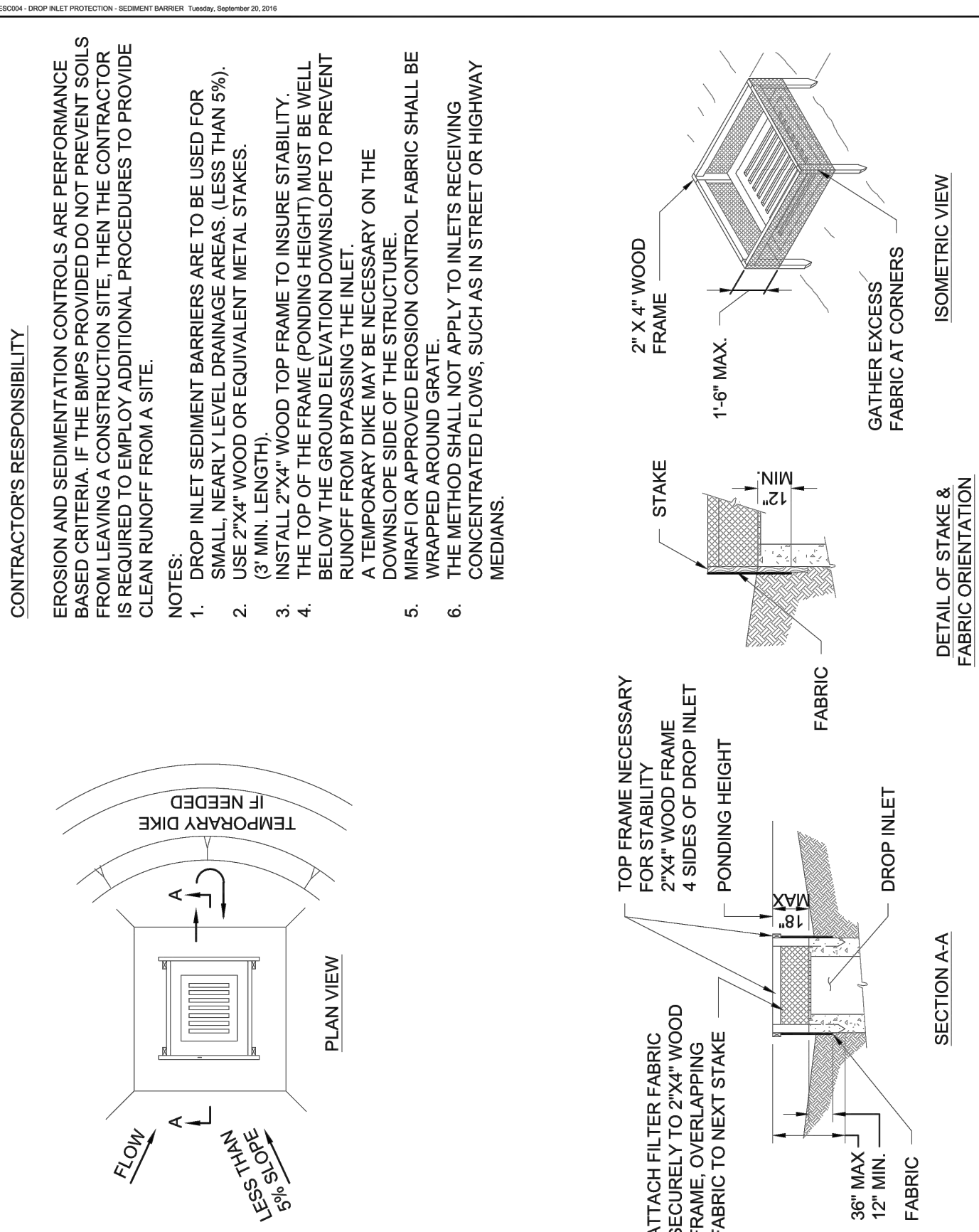
ENGINEER:
 PATRICK J. GIBNEY
 REG. NO: 49428
 DATE: 10/28/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DATE: 10/30/2018
DESIGNED BY: SCALE: W.R./M.N. VERT 1"=2'
CHECKED BY: HOR 1"=40'
 A.G.
FIELD BOOK:

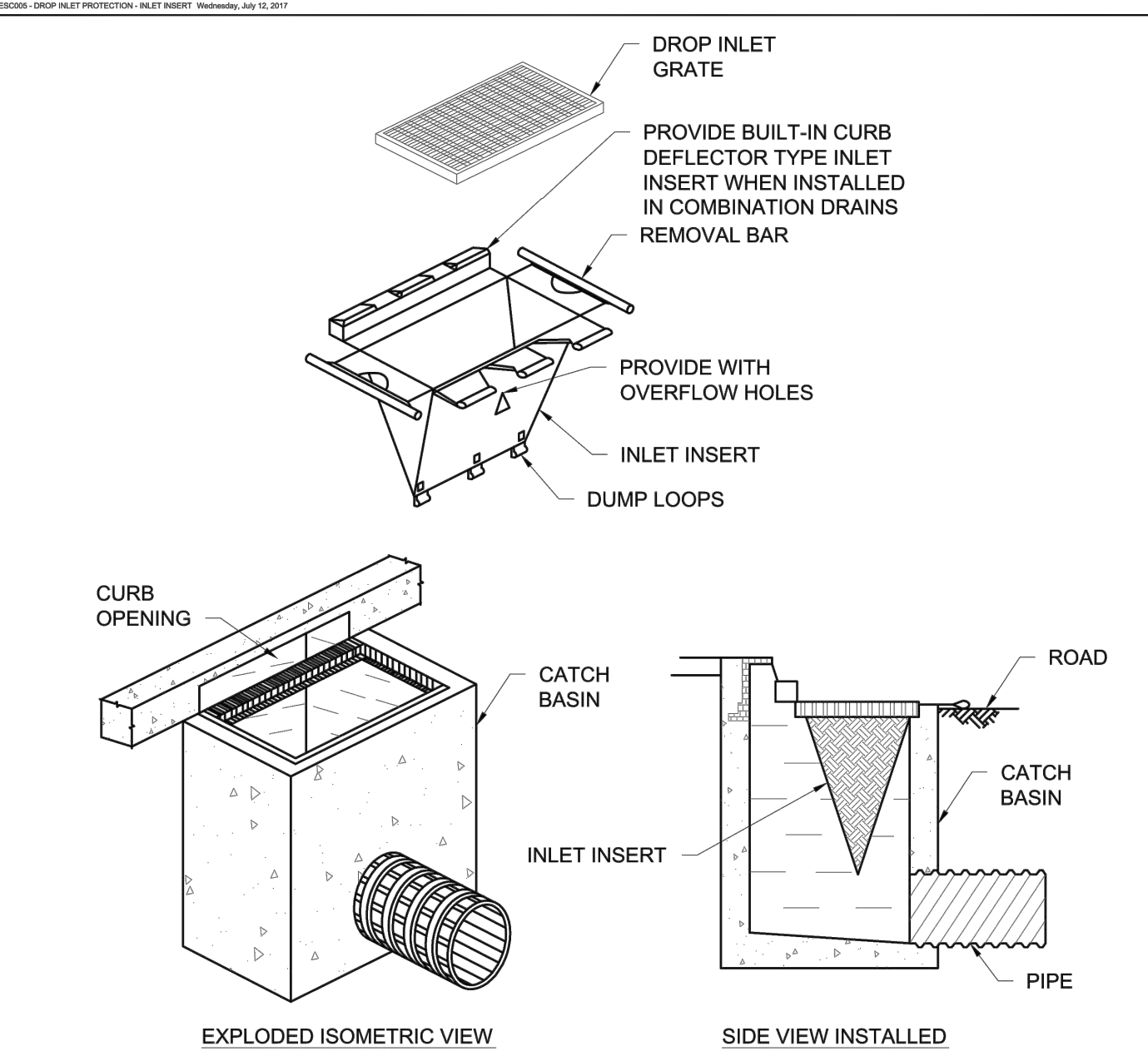
CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY (CHK'D)

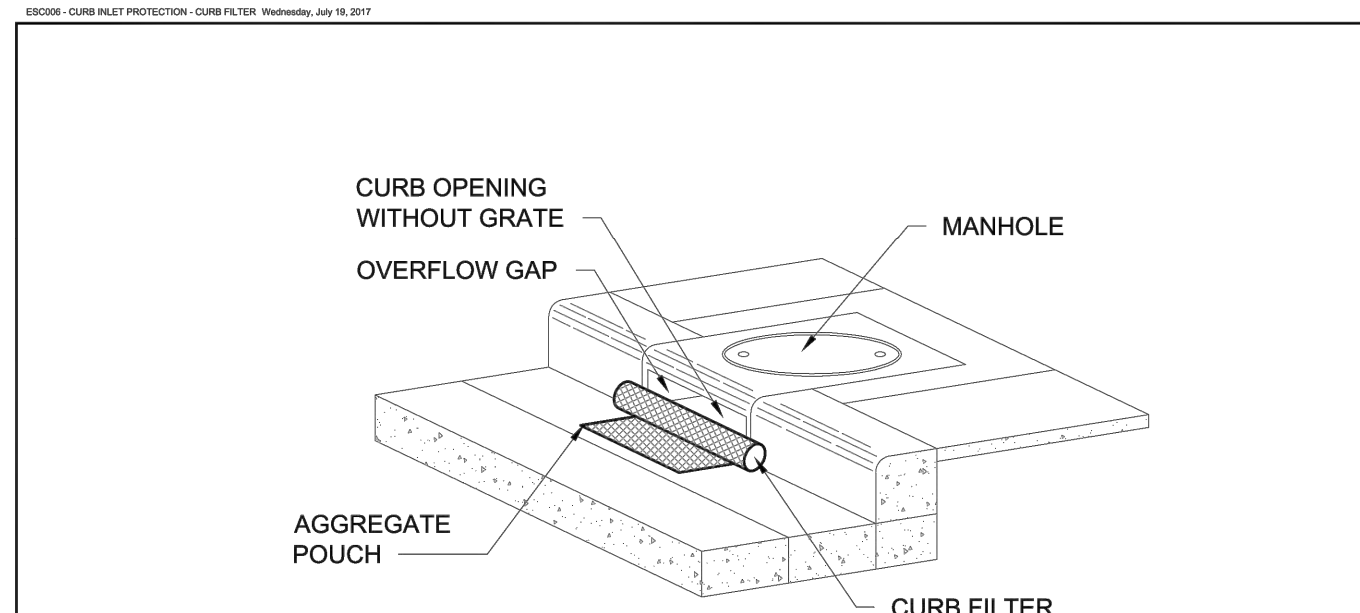


CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DROP INLET PROTECTION - SEDIMENT BARRIER	SHEET NO. ESC 004
		DATE: 2016/09/21



- NOTES:**
- THE INLET INSERT SHALL BE A SEDIMENT CONTROL DEVICE DESIGNED FOR DROP INLETS OR COMBINATION DRAINS WHERE A DROP INLET IS COUPLED WITH A CURB INLET.
 - THE INLET INSERT SHALL BE MADE OF A PERMEABLE GEOTEXTILE THAT ALLOWS WATER TO PASS BUT PREVENTS SILT AND SEDIMENT FROM CLOGGING THE DRAIN SYSTEM.
 - THE CONTRACTOR SHALL CLEAN AND INSPECT REGULARLY AND AFTER EVERY MAJOR RAIN EVENT.
 - INLET INSERTS SHALL BE "SILTSACK" BY ACF ENVIRONMENTAL, OR EQUAL. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DROP INLET PROTECTION - INLET INSERT	SHEET NO. ESC 005
		DATE: 2017/07/12



NOTES:

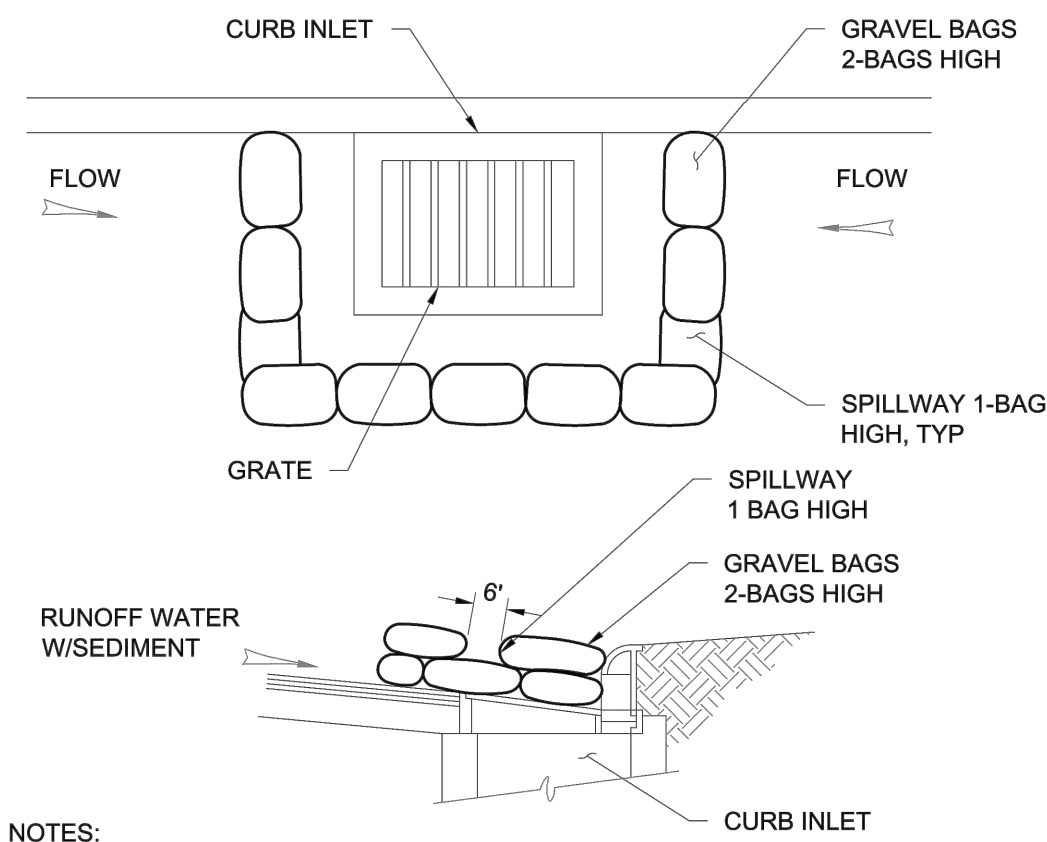
- INSTALL CURB FILTERS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM.
- THE CURB FILTER SHALL BE DANDY CURB AS MANUFACTURED BY DANDY PRODUCTS INC., OR EQUAL. SUBMIT SHOP A SHOP DRAWING FOR THE CURB FILTERS.
- THE CURB FILTER SHALL FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.
- THE CURB FILTER SHALL HAVE A POUCH ON THE STREET SIDE OF THE UNIT FOR STONE AGGREGATE TO HOLD THE FILTER IN PLACE.
- THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY ORANGE MONOFILAMENT FABRIC.
- FILL POUCH WITH FDOT #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.
- CENTER THE UNIT AGAINST CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING.
- THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CURB INLET PROTECTION - CURB FILTER	SHEET NO. ESC 006
		DATE: 2017/07/19

PROJECT # 11419
 RIVER OAKS
 STORMWATER PRESERVE
 CITY STANDARD DETAILS
 EROSION CONTROL - SHEET 1

SHEET NO.	DT-4
TOTAL:	40
CAD FILE:	11419-004-SITE
DRAWING FILE NO.	4-135-81

ESC07 - CURB INLET PROTECTION - GRAVEL BAG DRAWING July 18, 2017



NOTES:

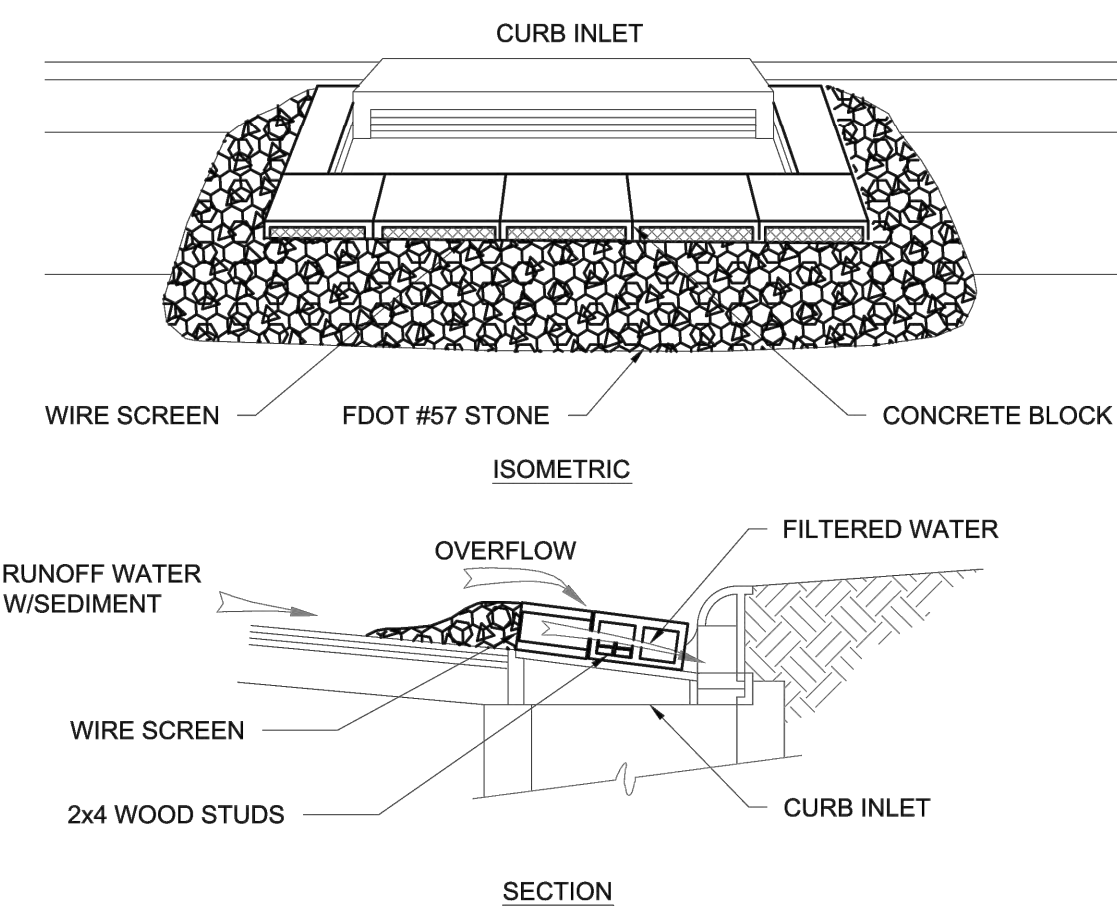
1. A SPILLWAY SHALL BE DESIGNATED FOR EACH DIRECTION OF APPROACHING FLOW AS SHOWN. THE SPILLWAY SHALL BE LOCATED TO ALLOW THE MAXIMUM AMOUNT OF STORMWATER TO POOL WITHOUT FLOODING AREAS UP GRADE OF THE INLET.
2. FOR INLETS THAT ARE NOT ADJACENT TO CURBS, PLACE GRAVEL BAGS ONE BAG HIGH AROUND THE ENTIRETY OF THE INLET TO ACCOMMODATE FLOW FROM ALL DIRECTIONS.
3. BAG MATERIAL: BAGS SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D4355.
4. BAG SIZE: EACH GRAVEL-FILLED BAG SHALL BE 18-INCHES X 12-INCHES X 3-INCHES AND HAVE A MASS OF APPROXIMATELY 33 LBS. ALTERNATIVE BAG SIZES SHALL BE CONSIDERED BASED ON LOCALLY AVAILABLE MATERIALS.
5. FILL MATERIAL: GRAVEL SHALL BE PEA GRAVEL 3/8 INCHES IN DIAMETER AND SHALL BE CLEAN AND FREE OF CLAY BALLS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CURB INLET PROTECTION - GRAVEL BAG

ESC 007
2017/08/06

ESC08 - CURB INLET PROTECTION - BLOCK AND STONE DRAWING July 18, 2017



NOTES:

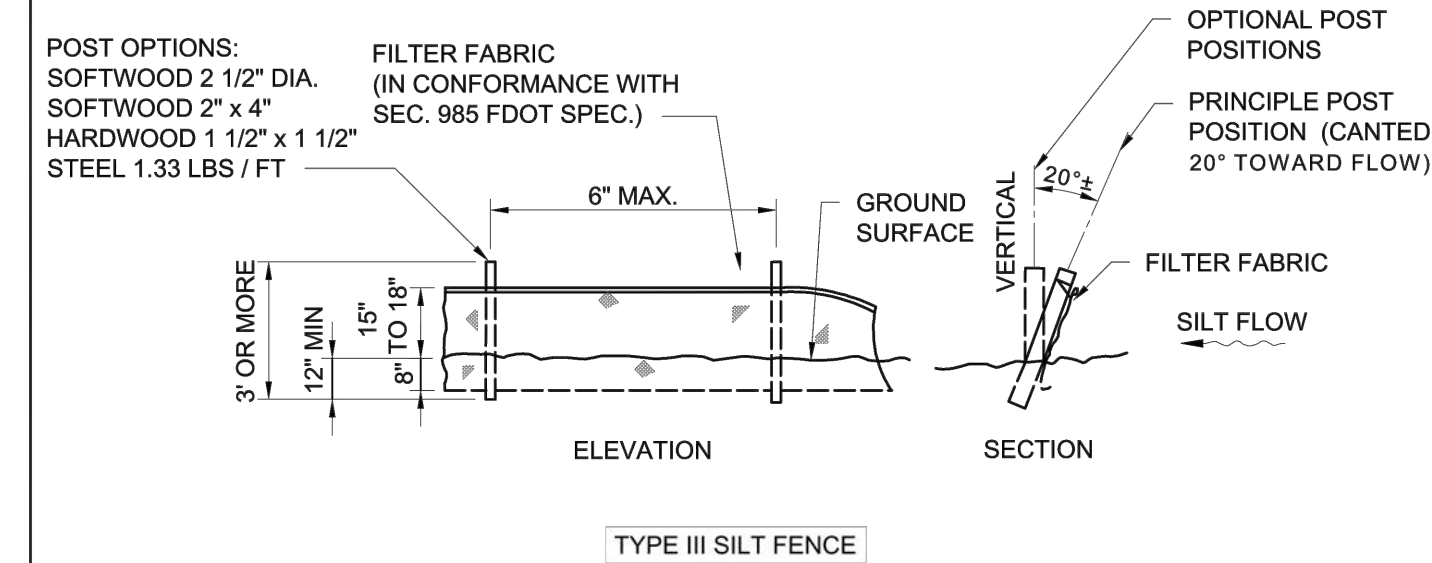
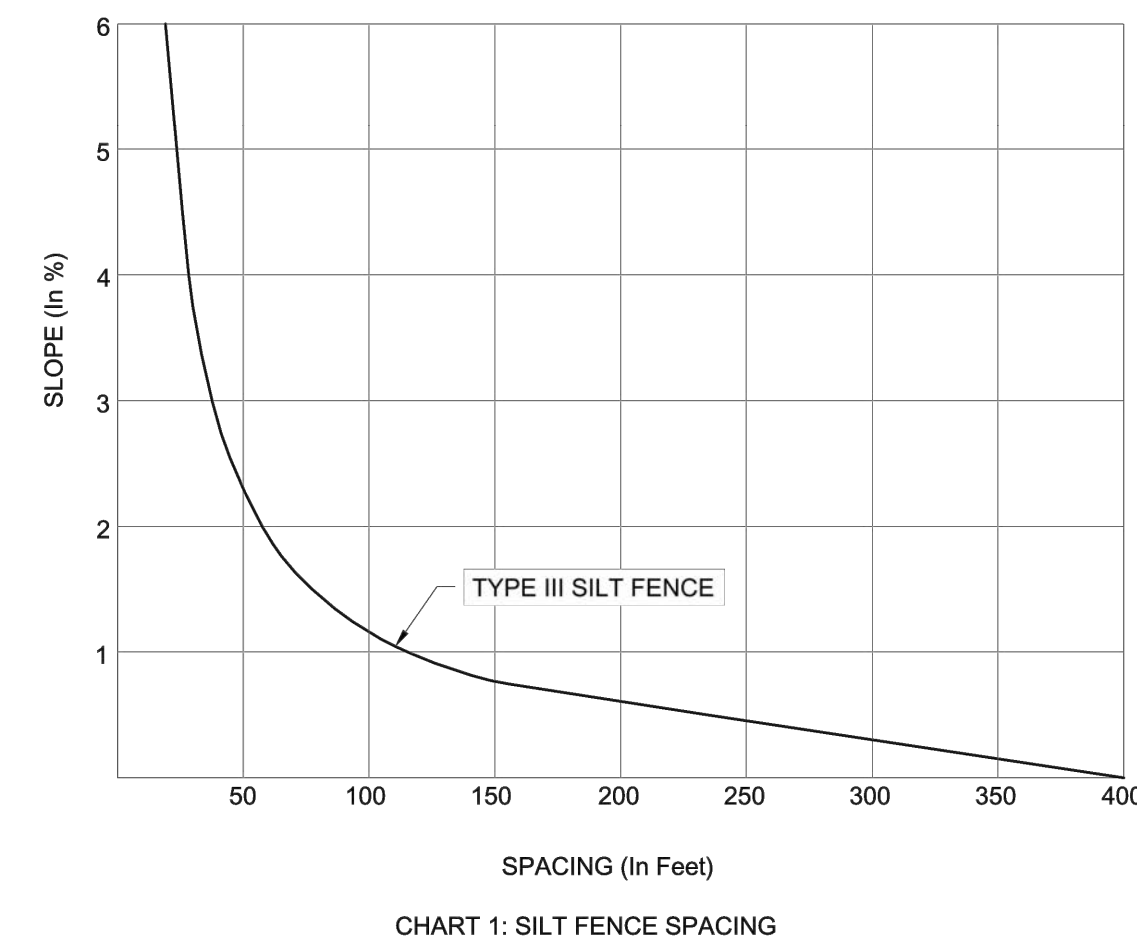
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2 - 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR INLETS IN ROADWAYS WITH HEAVY TRAFFIC CONDITIONS PREFABRICATED FILTER INSERTS MAY BE USED.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CURB INLET PROTECTION - BLOCK AND STONE

ESC 007
2017/07/08

ESC09 - SILT FENCE SHEET 1 Drawing July 12, 2017



CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SILT FENCE - SHEET 1

ESC 009
2017/07/12

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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

MUEngineers, Inc.

ENGINEER: PATRICK J. GIBNEY
REG. NO. 49428
DATE: 10/28/2018
TEL: 954-739-6400
FAX: 954-739-6409

DRAWN BY: DATE: 10/30/2018
L.C./M.N.
DESIGNED BY: SCALE: VERT 1"=2'
W.R./M.N. HOR 1"=40'
CHECKED BY: A.G.
FIELD BOOK:

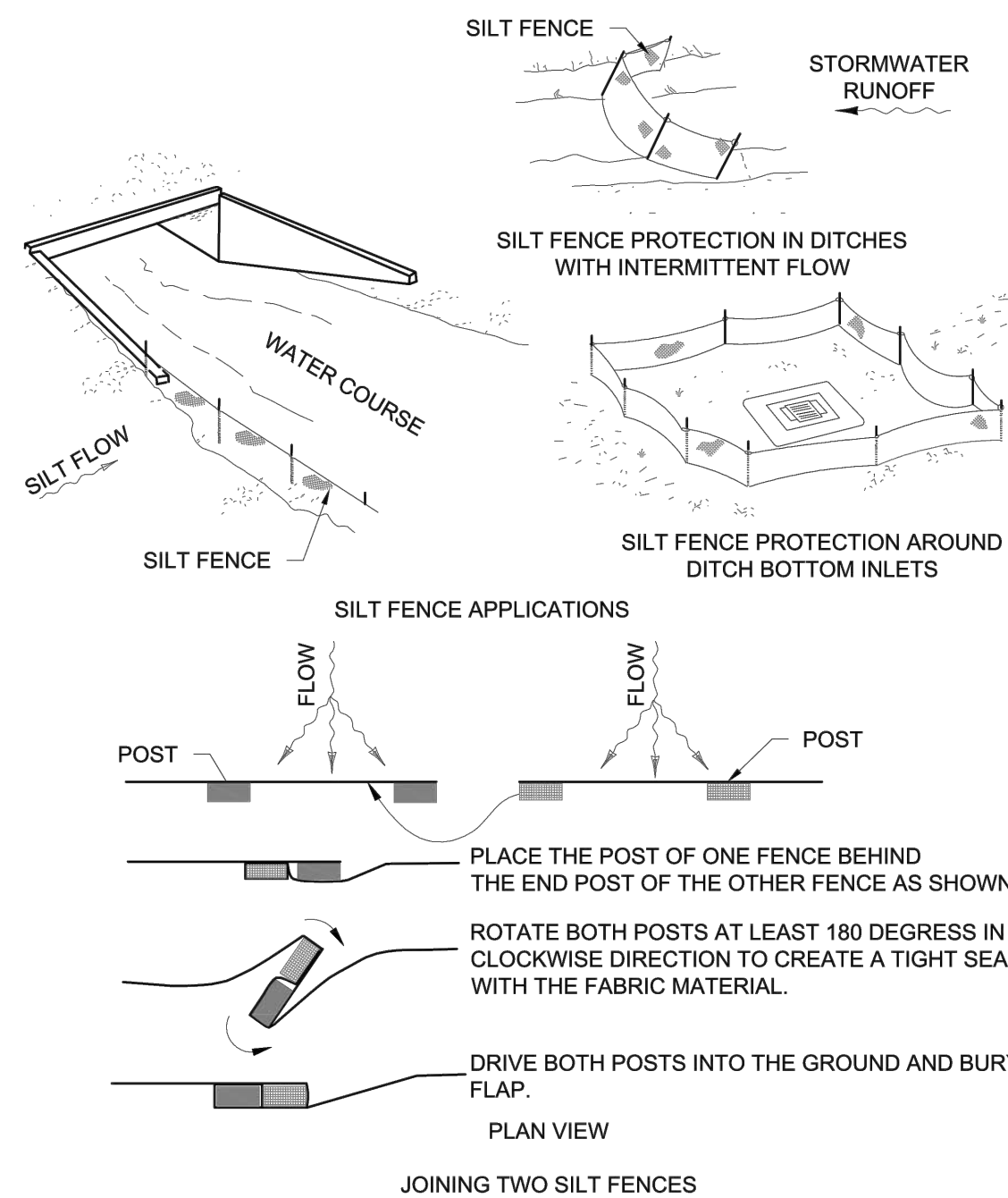
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
CITY STANDARD DETAILS
EROSION CONTROL - SHEET 2

SHEET NO. DT-5
TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81

ESC10 - SILT FENCE SHEET 2 Drawing July 11, 2017



NOTES:

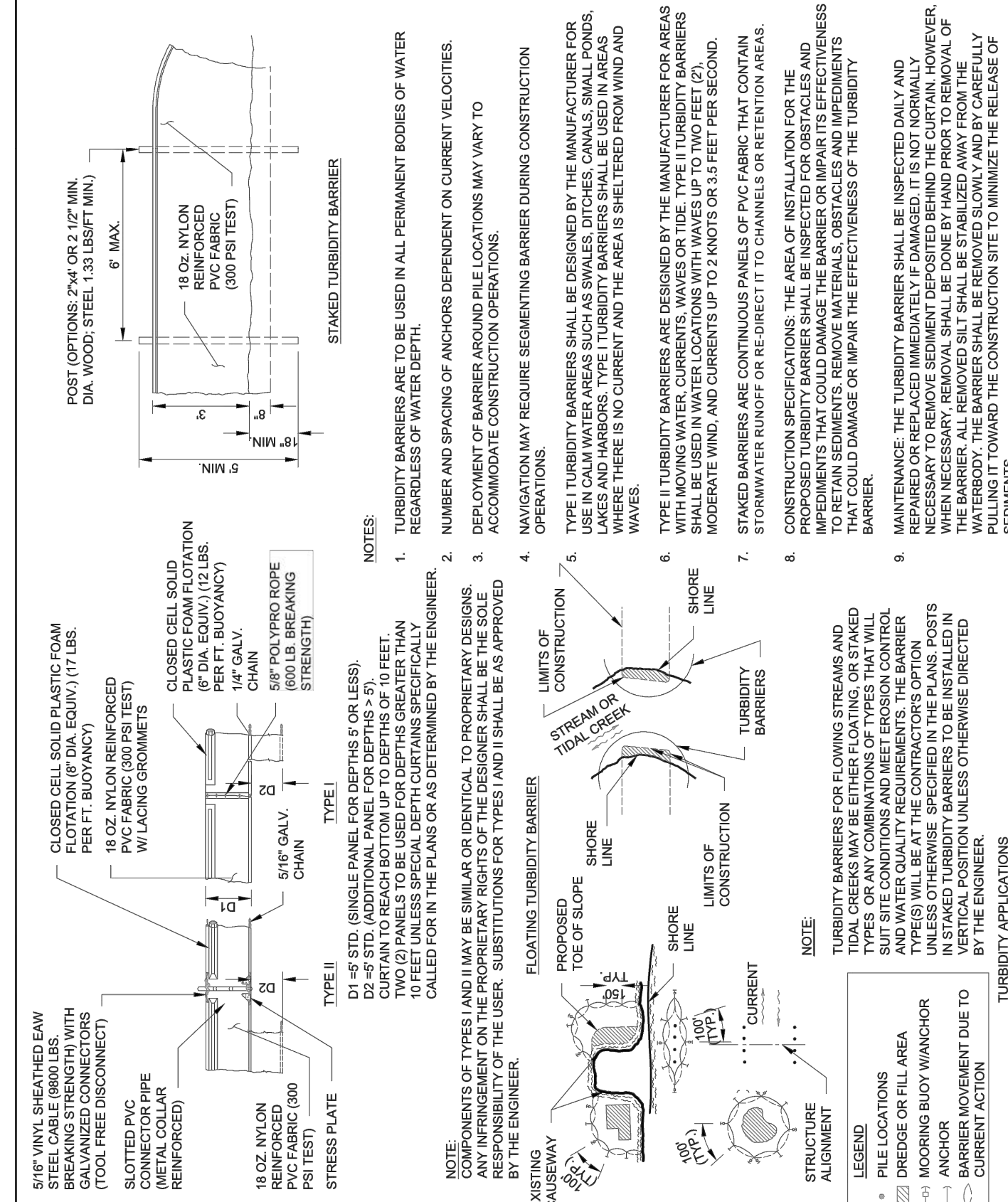
1. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.
2. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
3. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

CITY OF FORT LAUDERDALE
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SILT FENCE - SHEET 2

ESC 010
2017/07/11

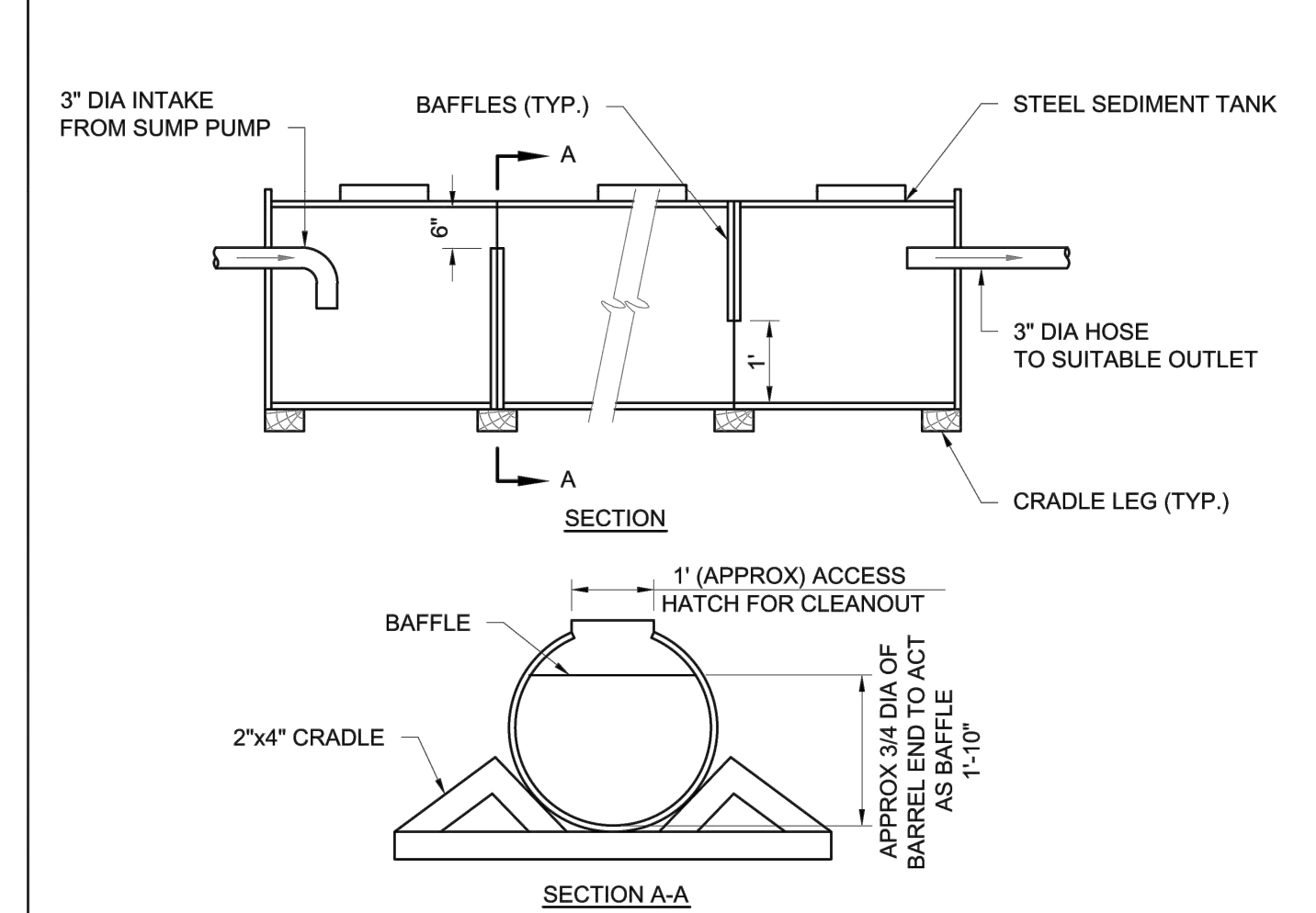
ESC11 - TURBIDITY BARRIER - FLOATING DRAWING July 18, 2017



TURBIDITY BARRIER - FLOATING

ESC 011
2017/07/08

ESC12 - PORTABLE SEDIMENT TANK DRAWING July 18, 2017



NOTES:

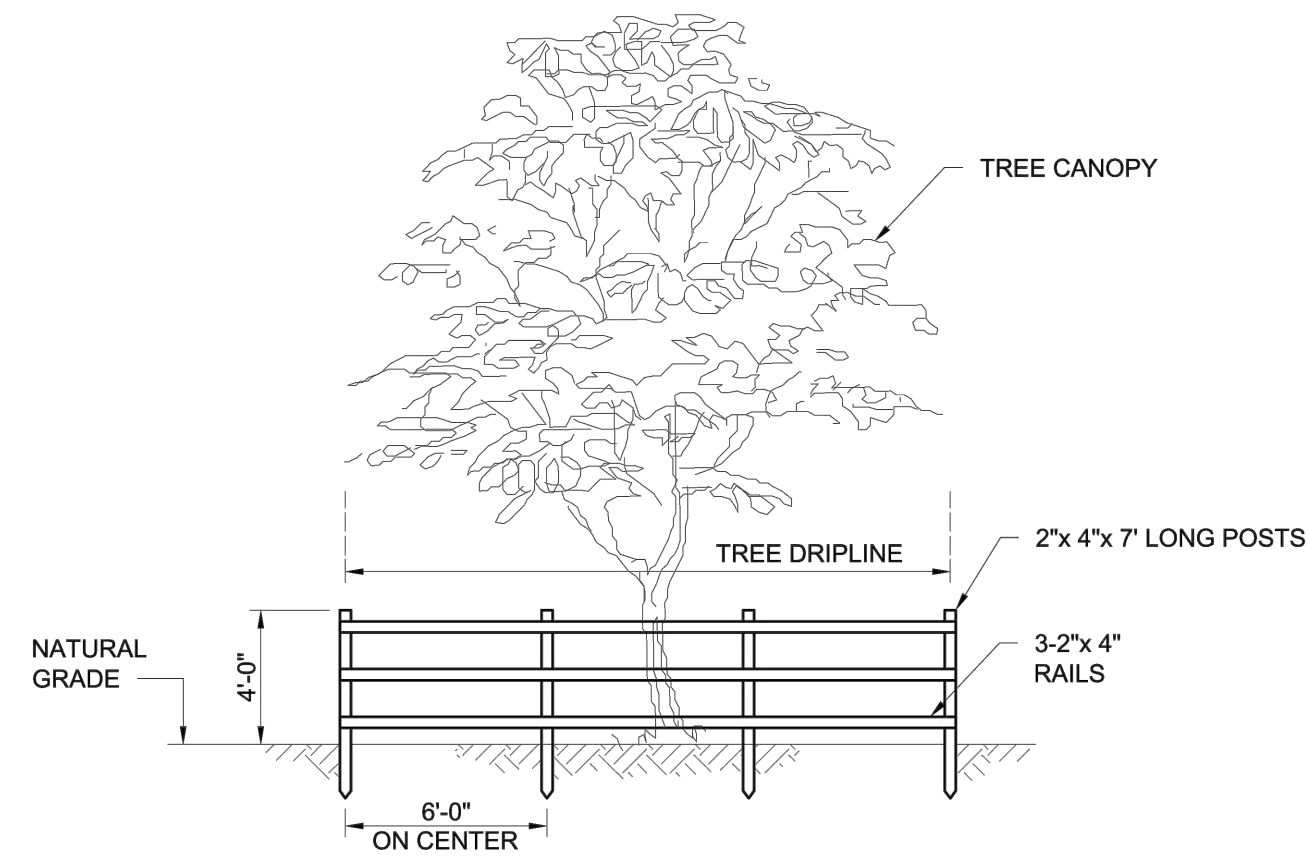
1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE, AN APPROVED LOCATION IN WHICH FURTHER SEDIMENT TRANSPORT WILL NOT OCCUR OR AS APPROVED BY THE INSPECTOR.
3. PORTABLE SEDIMENT TANK SHALL BE AN ABOVE GROUND HORIZONTAL SINGLE-WALL UL-142 MANUFACTURED BY HIGHLAND TANK OR WEIR BOX MANUFACTURED BY RAIN FOR RENT OR EQUIVALENT.

CITY OF FORT LAUDERDALE
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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PORTABLE SEDIMENT TANK

ESC 012
2017/07/08

ROAD101 - TREE PROTECTION BARRIER Monday, July 11, 2017



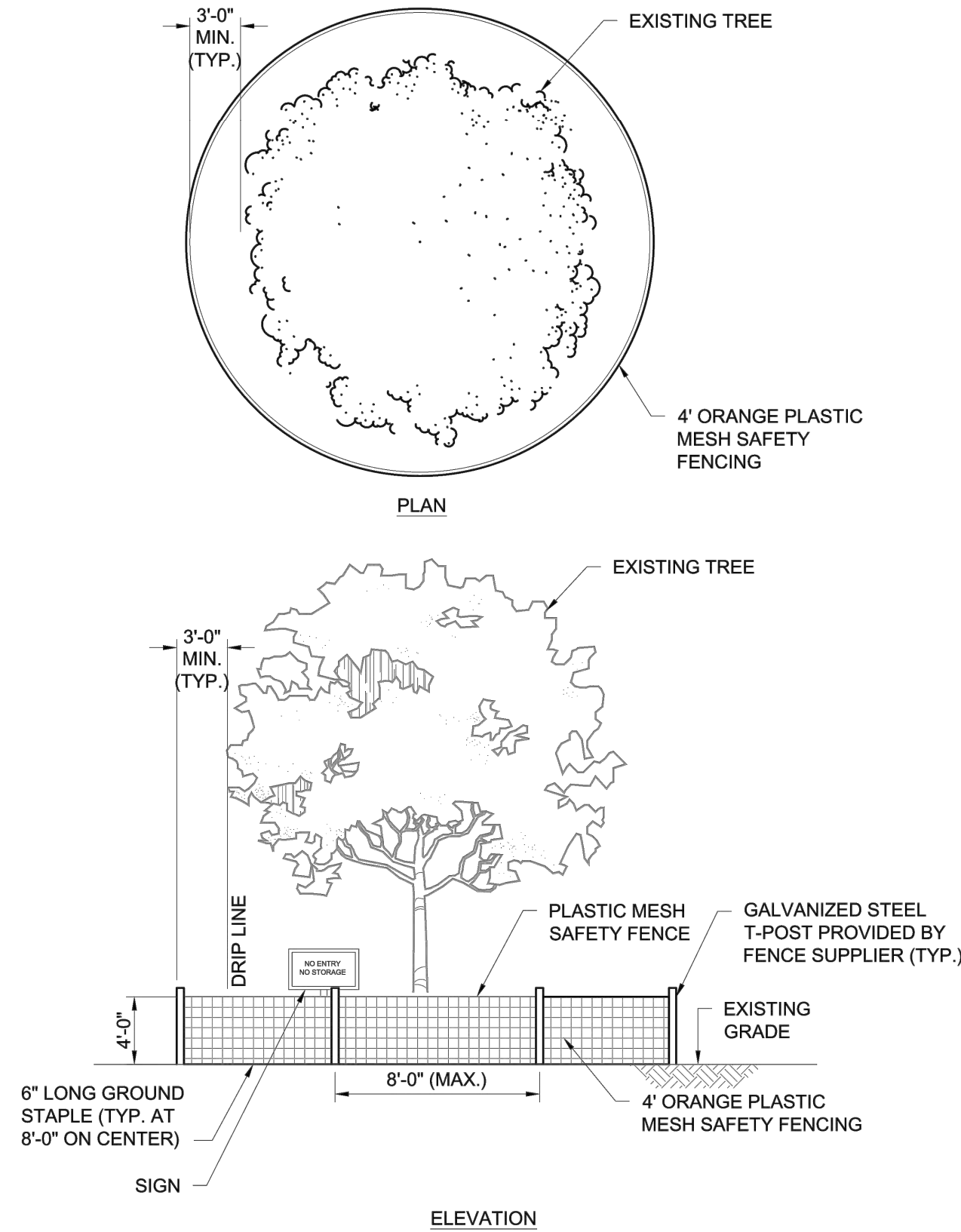
- NOTES:**
- BEFORE SITE CLEARING BEGINS PROVIDE NECESSARY MEASURES TO ASSURE SURVIVAL OF VEGETATION.
 - REMOVE BARRIERS AND RESTORE SURFACES PRIOR TO FINAL CLOSEOUT.

CITY OF FORT LAUDERDALE
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TREE PROTECTION BARRIER

SHEET NO.
ROAD 101
DATE:
2017/07/17

ROAD101 - TREE PROTECTION FENCE Monday, July 11, 2017

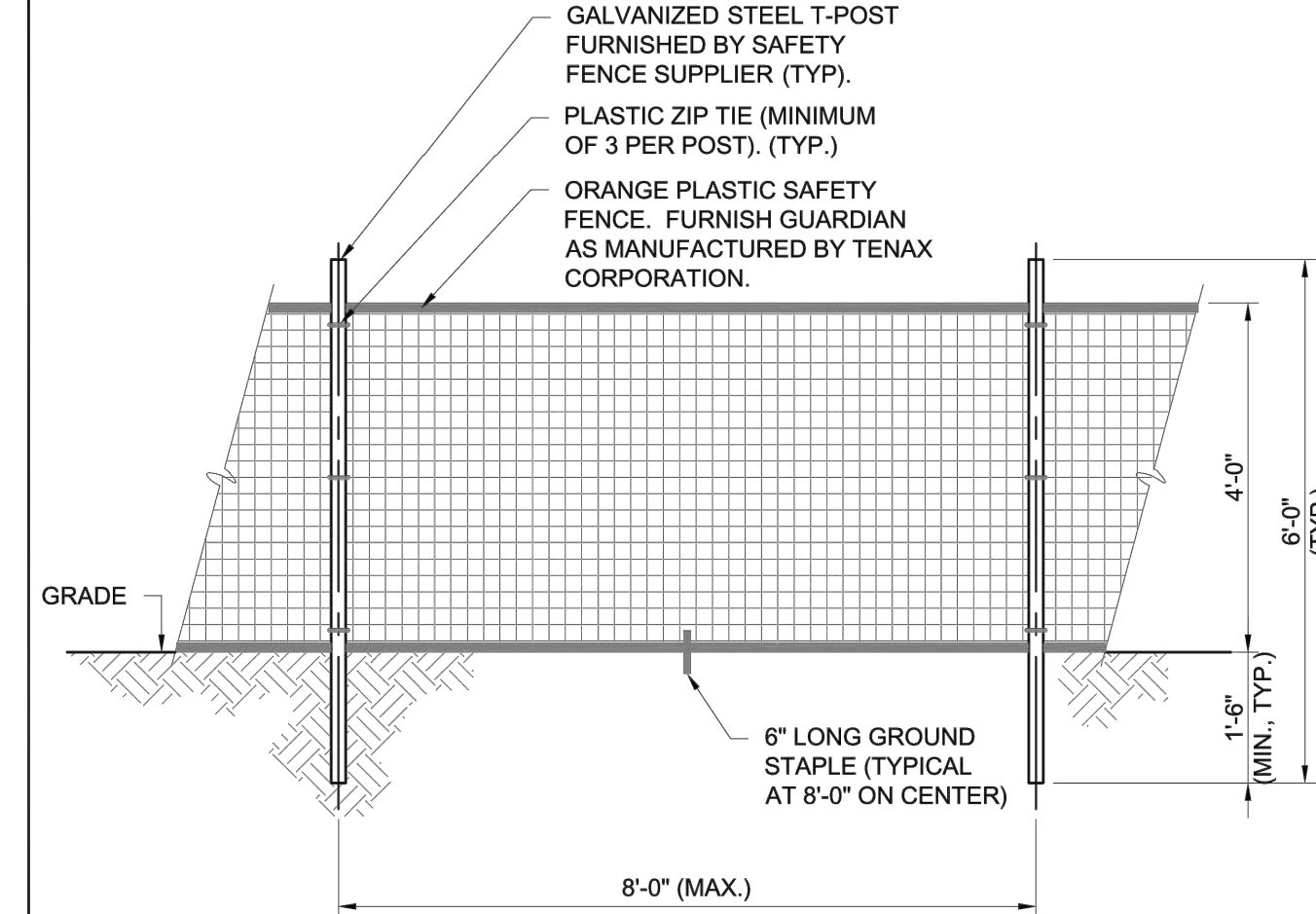


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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TREE PROTECTION FENCE

SHEET NO.
ROAD 102
DATE:
2017/07/24

ROAD101 - PLASTIC SAFETY FENCE Tuesday, September 26, 2016



- NOTES:**
- REBAR SHALL NOT BE USED FOR SUPPORTING THE FENCE.
 - LOOP THE ZIP TIES THROUGH THE AVAILABLE HOLES OR "TEETH" IN THE POST TO PREVENT THE FENCE FROM SLIDING DOWN THE POST.
 - PLASTIC ZIP TIES SHALL BE AS FOLLOWS:
A. MINIMUM WIDTH = 0.3 INCHES.
B. LENGTH = AS REQUIRED.
C. COLOR = BLACK WITH UV STABILIZER.

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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PLASTIC SAFETY FENCE

SHEET NO.
ROAD 103
DATE:
2016/09/21

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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0000114

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- Environmental Consultants
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- Phase I ESAs

MUEngineers, Inc.

ENGINEER:
PATRICK J. GIBNEY
REG. NO. 49428
DATE: 10/28/2018
TEL: 954-739-6400
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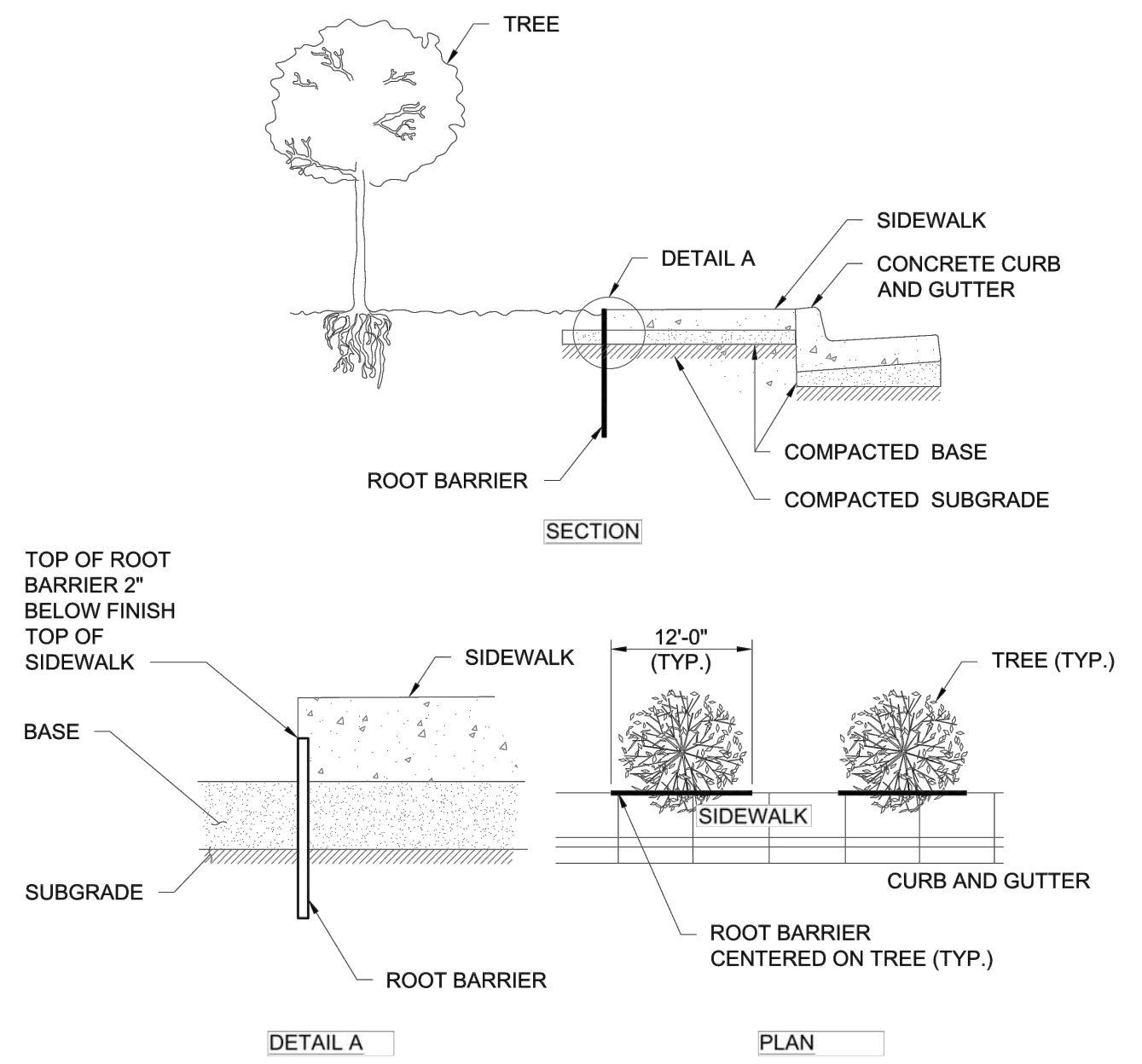
DRAWN BY: 10/30/2018
L.C./M.N.
DESIGNED BY: SCALE:
W.R./M.N. VERT 1"=2'
CHECKED BY: HOR 1"=40'
A.G.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

ROAD104 - ROOT BARRIER Wednesday, September 21, 2016



- NOTES:**
- ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS WITHIN 8'-0" OF SIDEWALK OR AS INDICATED ON THE PLANS.
 - ROOT BARRIER SHALL BE UB 24-2 BY DEEPROOT, OR EQUAL. SUBMIT SHOP DRAWING.
 - TRENCH TO APPROPRIATE DEPTH FOR INSTALLATION OF ROOT BARRIER SO THAT TOP OF BARRIER IS 2" BELOW TOP OF SIDEWALK.
 - PLACE ROOT BARRIER IN TRENCH, VERTICAL RIBS MUST FACE TOWARD TREE ROOTS.
 - BACKFILL AND COMPACT.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

ROOT BARRIER

SHEET NO.
ROAD 104
DATE:
2016/09/21

PROJECT # 11419
RIVER OAKS
STORMWATER PRESERVE
CITY STANDARD DETAILS
EROSION CONTROL - SHEET 3

SHEET NO.
DT-6

TOTAL: 40
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81

00STRUCTURAL NOTES

- ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF MUENGINEERS, INC.
- ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF MUENGINEERS, INC.

010000-GENERAL:

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS.
- CONSULT THESE DRAWINGS FOR DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- DO NOT SCALE DRAWINGS TO OBTAIN DIMENSIONAL INFORMATION.
- NOTES, TYPICAL DETAILS AND SCHEDULES APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF A SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. MUENGINEERS' PRESENCE OR REVIEW OF WORK DOES NOT INCLUDE THE ADEQUACY OF THE CONTRACTORS' MEANS OR METHODS OF CONSTRUCTION.
- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE STRUCTURE IS COMPLETE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY MEANS AND METHODS OF CONSTRUCTION OR FOR ANY RELATED SAFETY PRECAUTIONS OR PROGRAMS.

010001-DESIGN LOADS:

- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE AND APPLICABLE REFERENCE STANDARDS.
- ALL VERTICAL ELEMENTS LOCATED ABOVE FLOOR AREAS AND SEPARATING SLABS PLACED AT DIFFERENT ELEVATIONS WHEN POSITIONED WITHIN 3'-6" FROM FINISHED FLOOR ELEVATION SHALL, IN ADDITION TO ALL OTHER APPLICABLE LOADS BE DESIGNED AS A GUARDRAIL. (FOLLOWING GUIDELINES OF THE FLORIDA BUILDING CODE): THIS INCLUDES WINDOWS, LOUVERS, CURTAIN WALLS, STOREFRONTS, ETC.
- THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:
 - DECK AREAS:**
 - LIVE LOAD 100 psf
 - DEAD LOAD 5 psf
 - WIND:**
 - ASCE 7-10
 - EXPOSURE C
 - BROWARD COUNTY: RISK CATEGORY II
 - ULTIMATE DESIGN WIND SPEED $V_{ult}=170$ MPH (3-SECOND GUST)
 - NOMINAL DESIGN WIND SPEED $V_{as}=132$ MPH (3-SECOND GUST)

010004-SHOP DRAWINGS REVIEW:

- SHOP DRAWINGS SHALL BE SUBMITTED IN ELECTRONIC PDF FORMAT ONLY.
- SHOP DRAWINGS SHALL BE SUBMITTED VIA E-MAIL TO [HYPERLINK "mailto:ADMIN@MUENGINEERS.COM"](mailto:ADMIN@MUENGINEERS.COM) ADMIN@MUENGINEERS.COM.
- PRINTED PAPER COPIES WILL NOT BE REVIEWED AND RETURNED WITHOUT MUENGINEERS' REVIEW.
- SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ALL FRAMING SHOWN ON THESE DRAWINGS INCLUDING, BUT NOT LIMITED TO: CONCRETE MIXES, CONCRETE AND MASONRY REINFORCNG, STRUCTURAL STEEL AND CONNECTIONS, STEEL DECK, LIGHT GAUGE FRAMING, WOOD ROOF TRUSS FRAMING.
- ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF MUENGINEERS, INC. ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF MUENGINEERS, INC. USERS WILL SIGN A RELEASE.
- SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, CONSTRUCTION METHODS, DIMENSIONING, OTHER TRADE REQUIREMENTS ETC. PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER.
- DRAWINGS WITHOUT CONTRACTOR'S APPROVAL STAMP AND WHICH HAVE NOT BEEN REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT MUENGINEERS' REVIEW.
- MUENGINEERS RESERVES A TWO WEEK SHOP DRAWING REVIEW TIME (FROM THE DATE OF RECEIPT).
- IN CASES OF A CONFLICT, INFORMATION PRESENTED ON STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THAT WITHIN SHOP DRAWINGS, UNLESS SPECIFICALLY NOTED BY MUENGINEERS IN WRITING.
- THROUGH THE PROCESS OF A CURSORY REVIEW, MUENGINEERS ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ERRORS OR OMISSIONS. ANY ERRORS OR OMISSIONS IRRESPECTIVE OF MUENGINEERS' COMMENTS OR DURATION OF THE REVIEW SHALL BE THE RESPONSIBILITY OF AND MUST BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL SERVICE CHARGE EVEN IF SUCH WORK WAS DONE IN ACCORDANCE WITH THE SHOP DRAWINGS.
- CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. REVIEW WILL BE LIMITED TO THE FLAGGED AND NOTED ITEMS CAUSING THE RE-SUBMITTAL.

012300-CONTRACTOR PROPOSED CHANGES AND SUBSTITUTIONS:

- PROPOSED CHANGES OR SUBSTITUTIONS TO STRUCTURAL DETAILS OR PLANS SHALL BE SUBMITTED TO MUENGINEERS FOR REVIEW AND APPROVAL.
- SUBMITTALS SHALL CONTAIN FULL DOCUMENTATION OF CHANGES OR SUBSTITUTIONS WITH SUPPORTING, SEALED CALCULATIONS (WHERE APPLICABLE).
- THE REVIEW OF CHANGES AND SUBSTITUTIONS, RE-ANALYSIS AND/OR RE-DRAFTING TO INCORPORATE CHANGES OR SUBSTITUTIONS INTO CONTRACT DOCUMENTS ARE ADDITIONAL SERVICES FOR THE EOR.
- CONSTRUCTION COST REVISIONS ARE BETWEEN THE CONTRACTOR AND OWNER AND ARE NOT REVIEWED BY MUENGINEERS.

316219-ROUND TIMBER PILES:

- PILES SHALL COMPLY WITH ASTM D25 AND BE TREATED (AWPB STD-MLP P5-72) SOUTHERN PINE WITH A MINIMUM BUTT DIAMETER OF 12 INCHES.
- PILES SHALL BE DRIVEN A MINIMUM OF XX FEET INTO BEARING STRATA AND ACHIEVE A MINIMUM SAFE BEARING CAPACITY OF XX TONS AS COMPUTED BY AN APPROPRIATE DRIVING FORMULA.
- PILE DRIVING OPERATIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.
- LOCATION OF PILES:
 - AN AS-BUILT SURVEY OF PILE LOCATIONS SHALL BE PERFORMED BY A FLORIDA REGISTERED LAND SURVEYOR.
 - PILES SHALL BE LOCATED ON THE AS-BUILT DRAWINGS HORIZONTALLY AND VERTICALLY FROM THE DESIGN LOCATION.
 - SUBMIT THE AS-BUILT DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
 - CONTRACTOR IS RESPONSIBLE FOR ENGINEERING COSTS ASSOCIATED WITH REDESIGNS CAUSED BY IMPROPER PILE LOCATIONS.

061000-WOOD:

- STRUCTURAL WOOD COMPONENTS (BEAMS, JOISTS, RAFTERS, ETC.) SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES OF **NO. 2** SOUTHERN PINE CONFORMING TO THE LATEST EDITION OF NDS, AS FOLLOWS:
 - SHEAR Fv 175 psi
 - BENDING 2X4 Fb 1,100 psi
 - BENDING 2X6 Fb 1,000 psi
 - BENDING 2X8 Fb 925 psi
 - BENDING 2X10 Fb 800 psi
 - BENDING 2X12 Fb 750 psi

WOOD FRAMING CONNECTORS:

- CONNECTOR MODEL NUMBERS SHOWN ARE CONNECTORS AS MANUFACTURED BY *SIMPSON STRONG-TIE C.*, 5956 W. LAS POSITAS BOULEVARD, PLEASANTON, CA 94588.
- SUBSTITUTIONS ARE ACCEPTABLE WITH THE APPROVAL OF THE STRUCTURAL ENGINEER.
- UNLESS SHOWN OTHERWISE, INSTALL SIZE AND NUMBER OF FASTENERS SHOWN IN LATEST SIMPSON CATALOG.
- SEE TABLE FOR REQUIRED CONNECTOR MATERIAL AND FINISHES BASED ON APPLICATION.

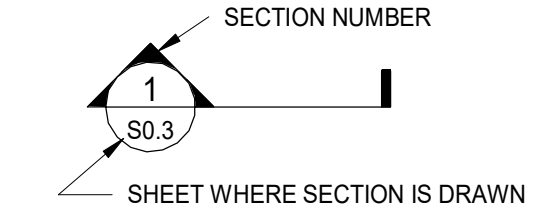
061500-TIMBER DECKING:

- FLOOR DECKING SHALL BE 2X6 #2 SOUTHERN PINE WOOD DECKING CONNECTED TO ALL SUPPORTING ELEMENTS WITH MINIMUM (2) 20 GAUGE STAINLESS STEEL SCREWS AT EVERY CONNECTION. INSTALLATION SHALL BE IN CONTROLLED RANDOM LAYUP PATTERN FASTENED IN ACCORDANCE WITH AITC 112.

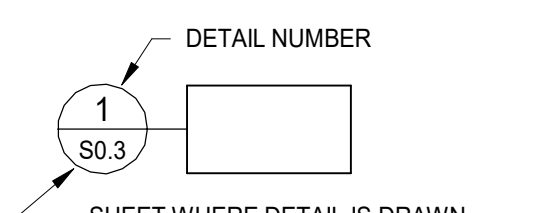
055213 RAILING SHOPS:

- THIS RAILING IS DESIGNED TO MEET SECTIONS OF THE CODE GOVERNING ELEVATED BALCONIES AND STRUCTURAL RAILINGS (25PSF ON GROSS AREA, 50PLF ON POSTS, 200 LB MIN PER FBC 1618.4.6 [WITHIN HVHZ]).
- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2017 FLORIDA BUILDING CODE.

LEGENDS



SECTION MARK



DETAIL MARK

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS MAY BE USED IN THE DRAWINGS.

#	NUMBER
ABV.	ABOVE
ALUM.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
BF	BRACED FRAME
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
C	CAMBER
CANTIL	CANTILEVER
CL	CENTERLINE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
D&E	DRILL AND EPOXY
DB	BAR DIAMETER
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EACH	EACH
EF	EACH FACE
EL	ELEVATION
EMBED	EMBEDMENT, EMBEDDED
ENGR	ENGINEER
EQ	EQUAL
ETR	EXISTING TO REMAIN
ETBD	EXISTING TO BE DEMOLISHED
ETBR	EXISTING TO BE RESTORED
ETBM	EXISTING TO BE MODIFIED
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FBC	FLORIDA BUILDING CODE
Fc	28 DAY CONCRETE STRENGTH=
FLR	FLOOR
Fy=	YIELD STRENGTH=
GA	GAUGE
GALV	GALVANIZE(D)
GC	GENERAL CONTRACTOR
HORIZ	HORIZONTAL
IN	INCH
INFO	INFORMATION
INT	INTERIOR
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
MFR	MANUFACTURER
MISC	MISCELLANEOUS
MTL	METAL
NA	NOT APPLICABLE
NTS	NOT TO SCALE
Ø	ROUND, DIAMETER
PAR	PARALLEL
PCF	POUNDS PER CUBIC FOOT
PCY	POUNDS PER CUBIC YARD
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
RC	REINFORCED CONCRETE
REF	REFERENCE
REQD	REQUIRED
SCHED	SCHEDULE(D)
SCDs	STRUCTURAL CONSTRUCTION DOCUMENTS
SDS	SELF-DRILLING SCREW
SECT	SECTION
SHT	SHEET
SPEC	SPECIFICATION
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE, STRUCTURAL
TEMP	TEMPORARY
THD	THREADED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VERT	VERTICAL
W/	WITH
W/O	WITH OUT
WBL	WOOD BLOCKING
WD	WOOD

ENGINEER: MARCUS O. UNTERMEYER
 REG. NO. FL. P.E. # 65860
 DATE: 01/07/2019

DRAWN BY:	DATE:
MM/M	01/07/2019
DESIGNED BY:	SCALE:
YR	A5' NOTED
CHECKED BY:	WJ
FIELD BOOK:	X/XXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISITONS:		DESCRIPTION
NO.	DATE	BY

PROJECT # 11419
 STORMWATER PRESERVE
 RIVER OAKS NEIGHBORHOOD
 PROPOSED

SHEET NO.	
S-0.00	
TOTAL:	40
CAD FILE:	
DRAWING FILE NO.	4-135-81

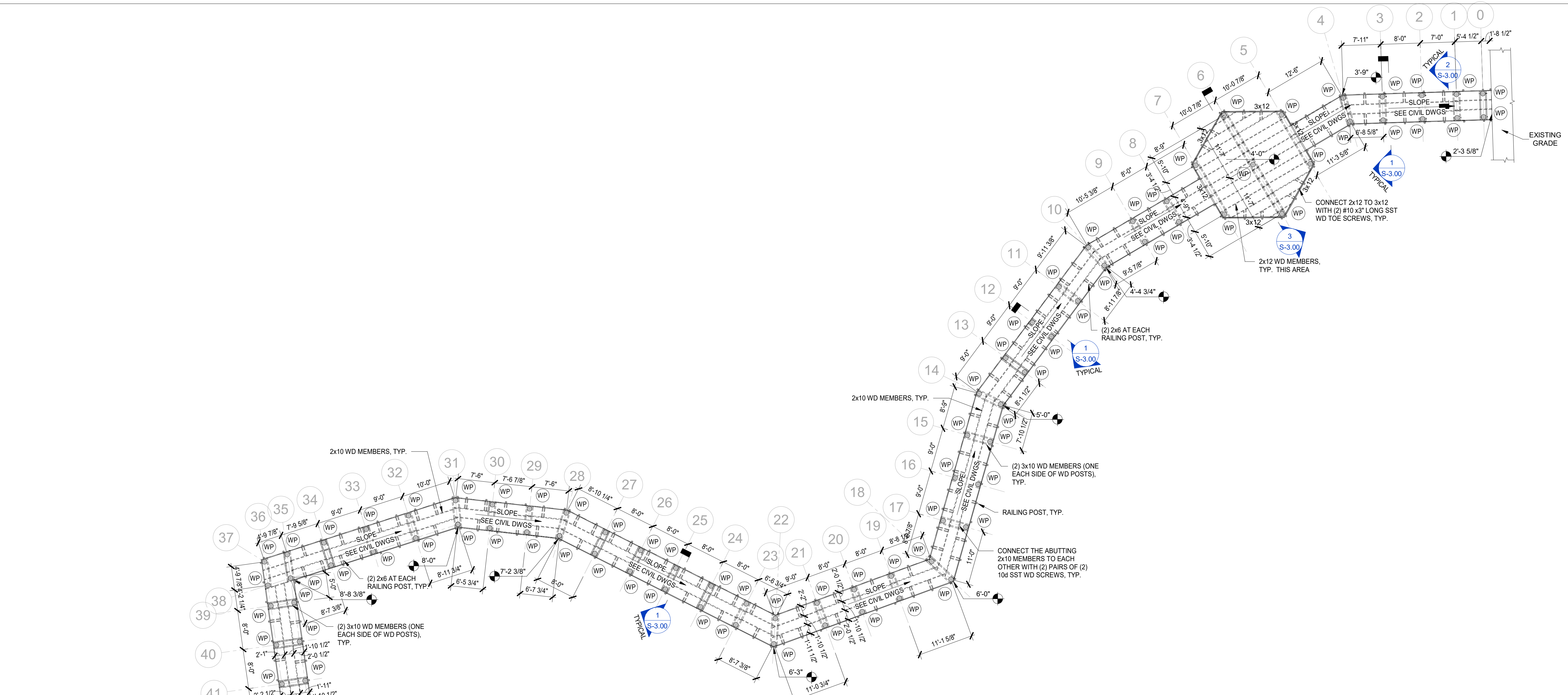
SHEET INDEX	
SHT NO.	DESCRIPTION
S-0.00	STRUCTURAL NOTES
S-2.00	PARTIAL MAIN DECK LAYOUT PLAN - AREA 'A'
S-2.01	PARTIAL MAIN DECK LAYOUT PLAN - AREA 'B'
S-3.00	SECTIONS AND DETAILS
S-4.00	3D VIEWS

Certificate of Authorization No.29348

CONSULTING STRUCTURAL ENGINEERS

3440 N.E. 12TH AVENUE
 OAKLAND PARK, FL 33334
 PH: 954-324-4730
 FAX: 954-653-4170

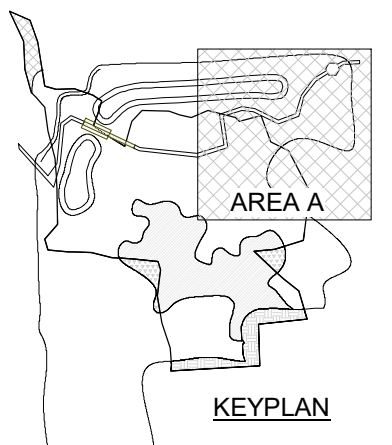
NOTE: MUE16101902
 THESE DRAWINGS, ALONG WITH THE ARCHITECTURAL DRAWINGS, AND PROJECT MANUAL CONSTITUTE A SINGULAR CONTRACT DOCUMENT AND MUST BE USED TOGETHER IN THEIR ENTIRETY IN THE CONSTRUCTION OF THIS PROJECT.



1 PARTIAL MAIN DECK LAYOUT PLAN - AREA 'A'
S-2.00 3/32" = 1'-0"

- FOUNDATION PLAN NOTES:**
- FOR DIMENSIONS NOT SHOWN SEE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS.
 - VERIFY ALL DIMENSIONS, ELEVATIONS AND SLAB FINISHES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION.
 - COORDINATE ALL SLAB OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- WOOD FRAMING NOTES:**
- FLOOR CONSTRUCTION SHALL BE PRESSURE TREATED WOOD FRAMING AS INDICATED ON THE PLANS, SHEATHED WITH SHEATHED WITH 2x6 P.T. WOOD DECKING; CONNECT ALL WOOD DECKING MEMBERS TO ALL WOOD FRAMING MEMBERS BELOW WITH (2) 2 1/2" LONG COUNTERSUNK STAINLESS STEEL WOOD SCREWS
 - ALL WOOD FRAMING MEMBERS SHALL BE PRESSURE TREATED.
 - INSTALL ONE ROW OF CONTINUOUS BRIDGERS/BLOCKING AT MID-SPAN OF FLOOR JOISTS.
 - ALL HARDWARE SUCH AS BOLTS, PLATES, WASHERS NUTS, NAILS AND SCREWS SHALL BE STAINLESS STEEL
 - ALL SIMPSON CONNECTOR SHALL BE STAINLESS STEEL IF AVAILABLE, HOT-DIP GALVANIZED IF STAINLESS IS NOT AVAILABLE AND ZMAX COATED IF STAINLESS AND HOT-DIP GALVANIZED CONNECTORS ARE NOT AVAILABLE FOR THE SPECIFIED CONNECTORS.
 - FOR THE SLOPE OF THE BOARD WALK, PLEASE REFER TO THE ARCHITECTURAL DRAWINGS.
 - WP INDICATES A 12" DIA. P.T. WOOD PILE WITH MINIMUM 15" EMBEDMENT INTO THE SOIL BELOW; SEE THE GEOTECHNICAL REPORT FOR FURTHER PILE SPECIFICATIONS, INSTALLATION DIRECTIONS AND RECOMMENDATIONS.

IMPORTANT NOTE:
ALL WOOD MEMBERS SHALL BE PRESSURE TREATED, ALL BOLTS, NUTS, THREADED RODS, NAILS, SCREWS, LAG BOLTS, STRAPS AND ANY OTHER METAL HARDWARE SHALL BE STAINLESS STEEL.



MUEngineers, Inc.
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OAKLAND PARK, FL 33334
PH: 954-324-4730
FAX: 954-653-4170

ENGINEER: MARCUS O. UNTERMEYER
REG. NO. FL P.E. # 65860
DATE: 01/07/2019

DRAWN BY: M/M	DATE: 01.07.2019
DESIGNED BY: Y/R	SCALE: AS NOTED
CHECKED BY: M/J	FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

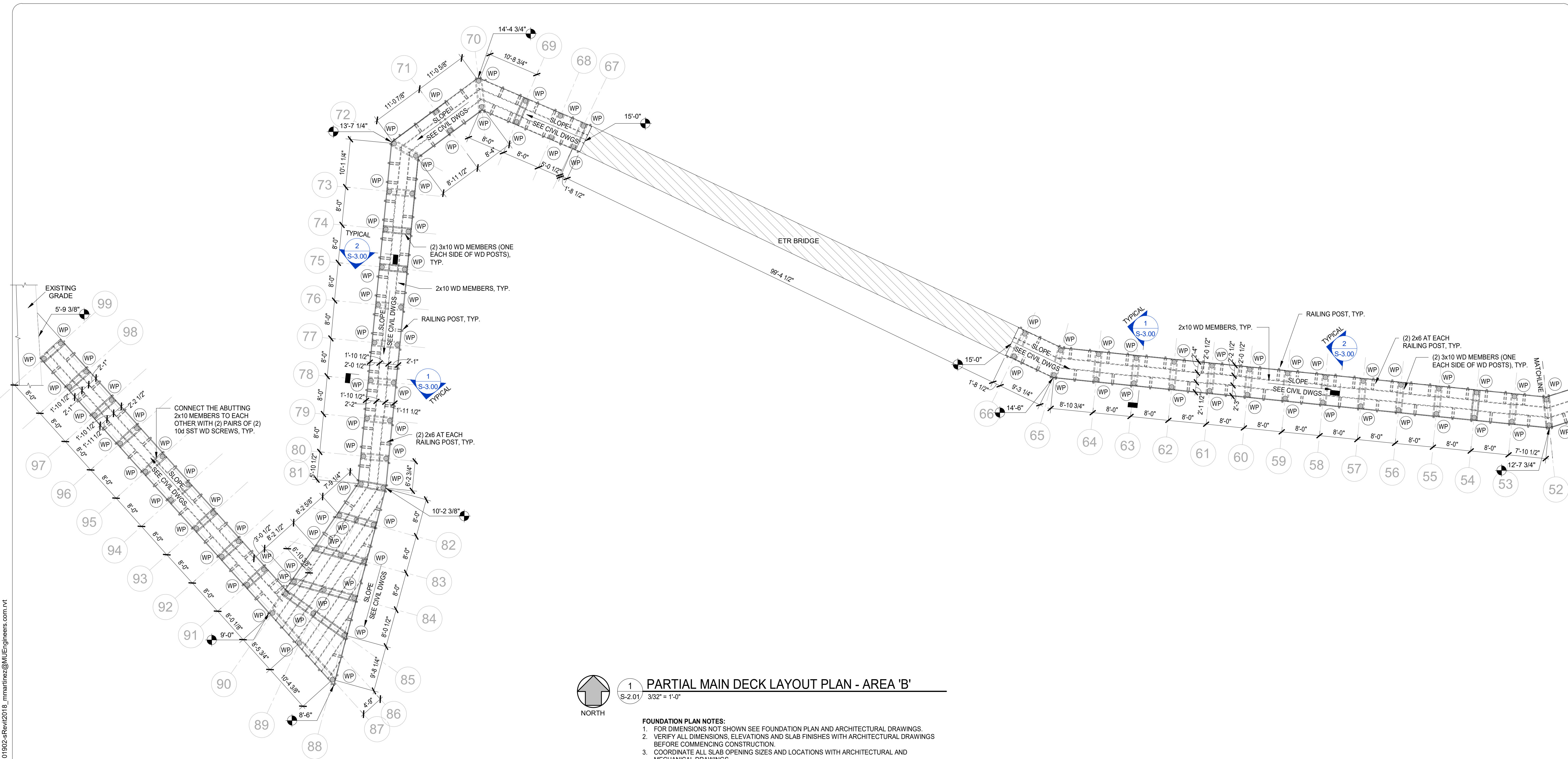
NO.	DATE	BY	DESCRIPTION

PROJECT # 11419
STORMWATER PRESERVE
RIVER OAKS NEIGHBORHOOD
PROPOSED

SHEET NO. **S-2.00**
TOTAL: 40
CAD FILE: -
DRAWING FILE NO. 4-135-81

NOTE: MUE16101902
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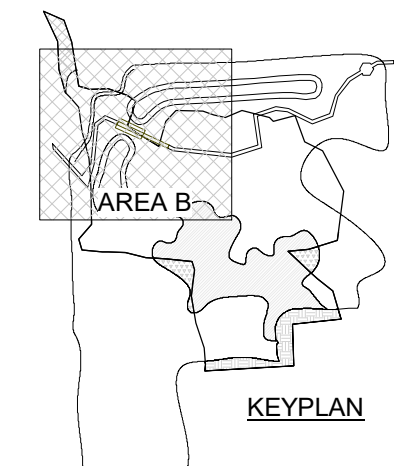


1 PARTIAL MAIN DECK LAYOUT PLAN - AREA 'B'
 S-2.01 3/32" = 1'-0"



- FOUNDATION PLAN NOTES:**
- FOR DIMENSIONS NOT SHOWN SEE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS.
 - VERIFY ALL DIMENSIONS, ELEVATIONS AND SLAB FINISHES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION.
 - COORDINATE ALL SLAB OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- WOOD FRAMING NOTES:**
- FLOOR CONSTRUCTION SHALL BE PRESSURE TREATED WOOD FRAMING AS INDICATED ON THE PLANS. SHEATHED WITH SHEATHED WITH 2x6 P.T. WOOD DECKING; CONNECT ALL WOOD DECKING MEMBERS TO ALL WOOD FRAMING MEMBERS BELOW WITH (2) 2 1/2" LONG COUNTERSUNK STAINLESS STEEL WOOD SCREWS
 - ALL WOOD FRAMING MEMBERS SHALL BE PRESSURE TREATED.
 - INSTALL ONE ROW OF CONTINUOUS BRIDGING/BLOCKING AT MID-SPAN OF FLOOR JOISTS.
 - ALL HARDWARE SUCH AS BOLTS, PLATES, WASHERS NUTS, NAILS AND SCREWS SHALL BE STAINLESS STEEL
 - ALL SIMPSON CONNECTOR SHALL BE STAINLESS STEEL IF AVAILABLE, HOT-DIP GALVANIZED IF STAINLESS IS NOT AVAILABLE AND ZMAX COATED IF STAINLESS AND HOT-DIP GALVANIZED CONNECTORS ARE NOT AVAILABLE FOR THE SPECIFIED CONNECTORS.
 - FOR THE SLOPE OF THE BOARD WALK, PLEASE REFER TO THE ARCHITECTURAL DRAWINGS.
 - WP INDICATES A 12" DIA. P.T. WOOD PILE WITH MINIMUM 15'-0" EMBEDMENT INTO THE SOIL BELOW. SEE THE GEOTECHNICAL REPORT FOR FURTHER PILE SPECIFICATIONS, INSTALLATION DIRECTIONS AND RECOMMENDATIONS.

IMPORTANT NOTE:
 ALL WOOD MEMBERS SHALL BE PRESSURE TREATED. ALL BOLTS, NUTS, THREADED RODS, NAILS, SCREWS, LAG BOLTS, STRAPS AND ANY OTHER METAL HARDWARE SHALL BE STAINLESS STEEL.



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 OAKLAND PARK, FL 33334
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ENGINEER: MARCUS O. UNTERMEYER
 REG. NO. FL. P.E. # 63860
 DATE: 01/07/2019

DATE: 01.07.2019
 DRAWN BY: MAM
 DESIGNED BY: YR
 CHECKED BY: MJJ
 FIELD BOOK: XXXX

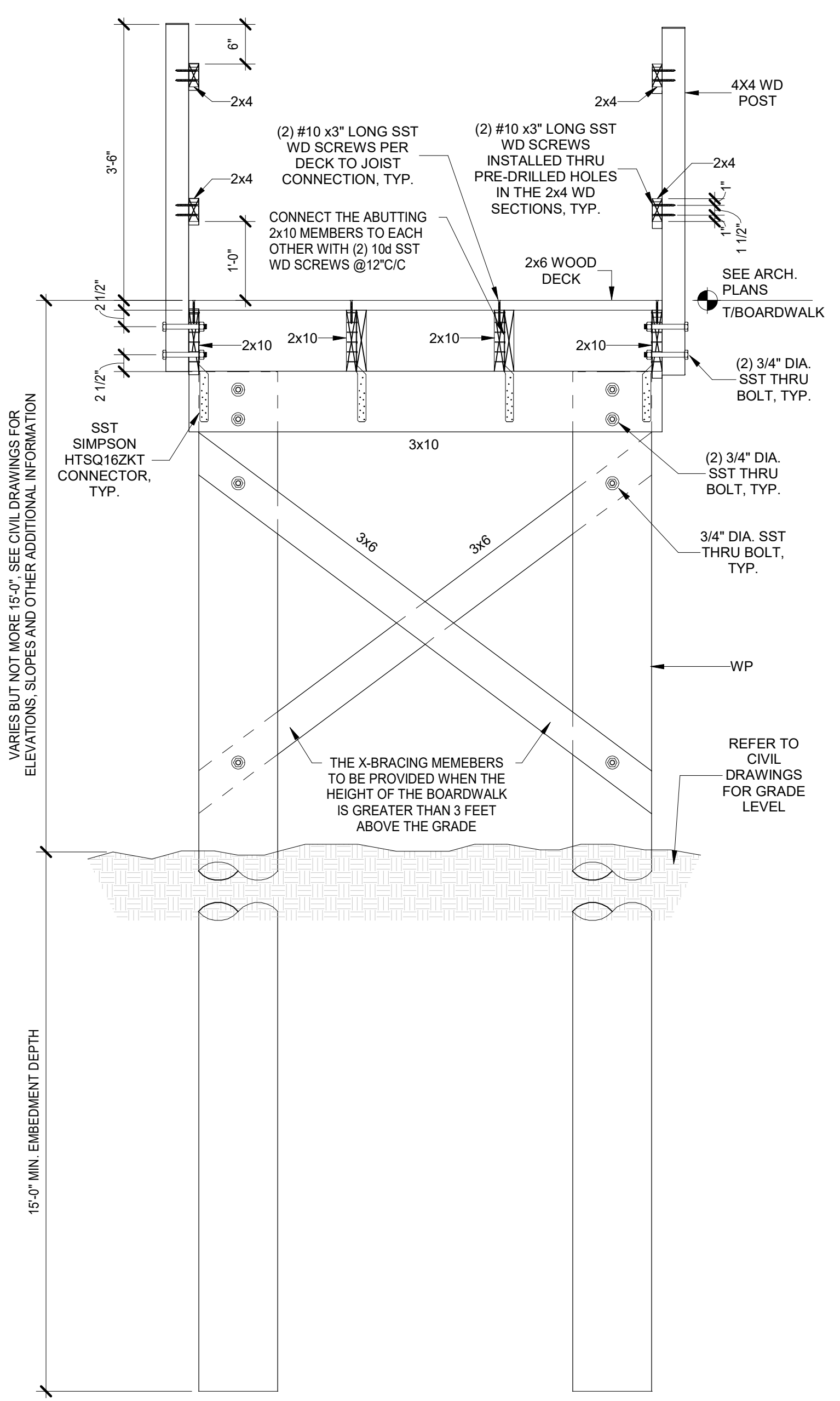
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

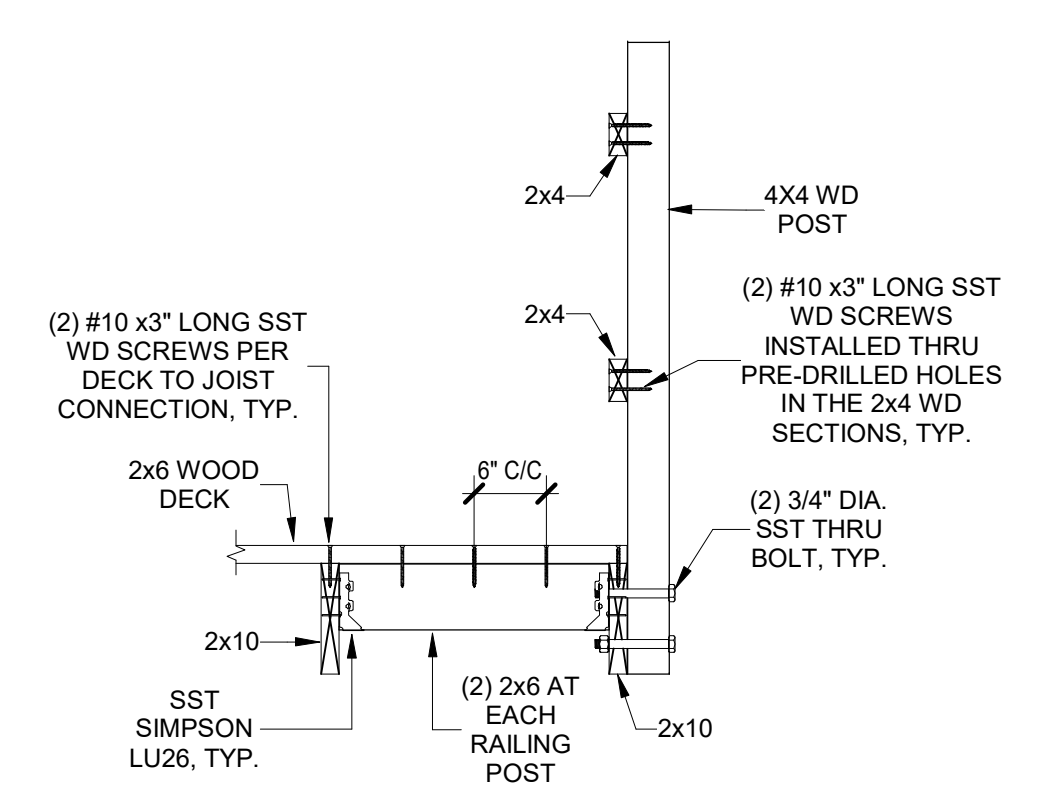
NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 11419
STORMWATER PRESERVE
RIVER OAKS NEIGHBORHOOD
PROPOSED

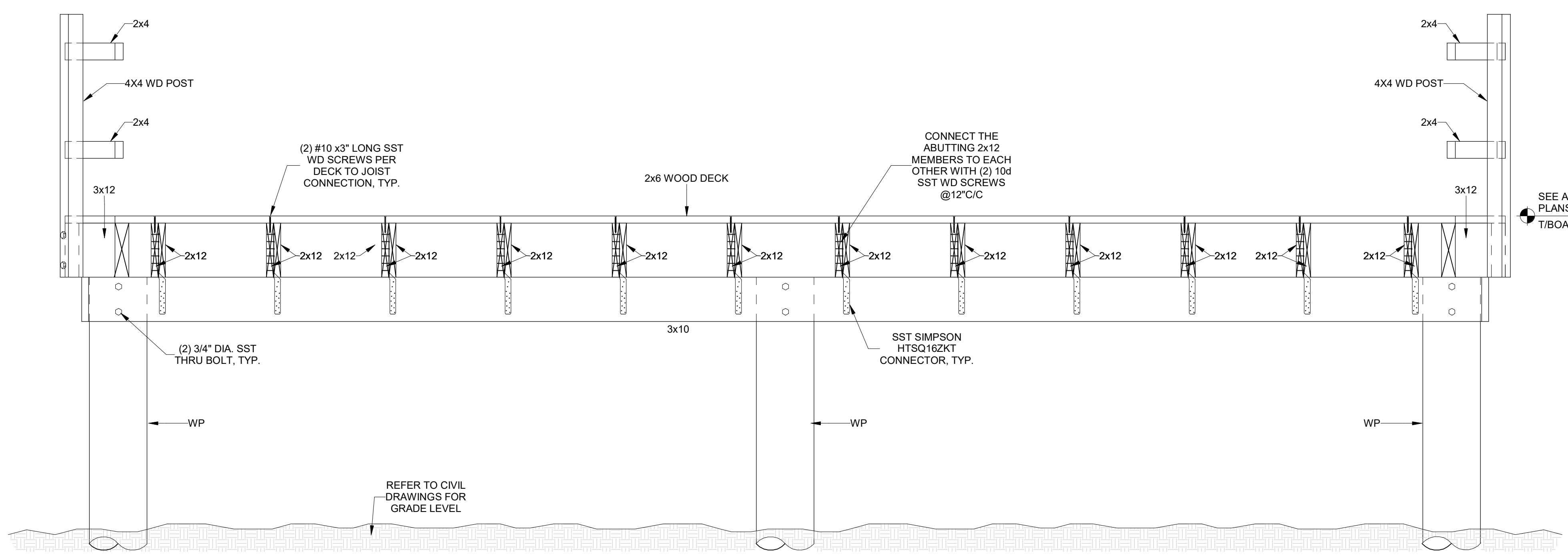
SHEET NO. **S-2.01**
 TOTAL: 40
 CAD FILE: -
 DRAWING FILE NO. 4-135-81



1 TYPICAL BOARDWALK SECTION
S-3.00 3/4" = 1'-0"



2 TYPICAL RAILING POST CONNECTION
S-3.00 3/4" = 1'-0"



3 3/S-3.00
S-3.00 3/4" = 1'-0"

STRUCTURAL COLUMN MATERIAL TAKEOFF			
DESCRIPTION	MATERIAL: NAME	MATERIAL: COUNT	REMARKS
4x4 WD RAILING POST	SEE NOTES AND SECTIONS	428	AVERAGE LENGTH OF RAILING POST SHALL BE 52.75" MIN.
12" DIA. WD PILES	SEE NOTES AND SECTIONS	196	

STRUCTURAL FRAMING MATERIAL TAKEOFF			
DESCRIPTION	MATERIAL: NAME	MATERIAL: COUNT	REMARKS
2x4 WD RAIL FRAMING MEMBER	SEE NOTES AND SECTIONS	332	
2x6 WD FRAMING MEMBER	SEE NOTES AND SECTIONS	484	
2x10 WD FRAMING MEMBER	SEE NOTES AND SECTIONS	388	
2x12 WD FRAMING MEMBER	SEE NOTES AND SECTIONS	24	
3x6 WD X-BRACING FRAMING MEMBER	SEE NOTES AND SECTIONS	176	
3x10 WD FRAMING MEMBER	SEE NOTES AND SECTIONS	185	
3x12 WD FRAMING MEMBER	SEE NOTES AND SECTIONS	6	

FLOOR MATERIAL TAKEOFF			
DESCRIPTION	MATERIAL: NAME	MATERIAL: AREA	REMARKS
1 1/2" WD 2x6 FLOOR DECKING	SEE NOTES AND SECTIONS	5125 SF	

- NOTES:
- ALL FASTENERS AND HARDWARE SUCH AS BOLTS, WASHERS, NUTS, NAILS, SCREWS, ETC. SHALL BE STAINLESS STEEL.
 - ALL PLATES, ANGLES AND WELDED PLATE ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED.
 - CONNECT THE ABUTTING 2x10 MEMBERS TO EACH OTHER WITH (2) PAIRS OF (2) 10d S&S WD SCREWS, TYP.



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ENGINEER:
MARCUS O. UNTERMEYER
REG. NO. FL P.E. # 63860
DATE: 01/07/2019

DRAWN BY: DATE: 01.07.2019
MMM
DESIGNED BY: SCALE: AS NOTED
YR
CHECKED BY: MJJ
FIELD BOOK: XXXX

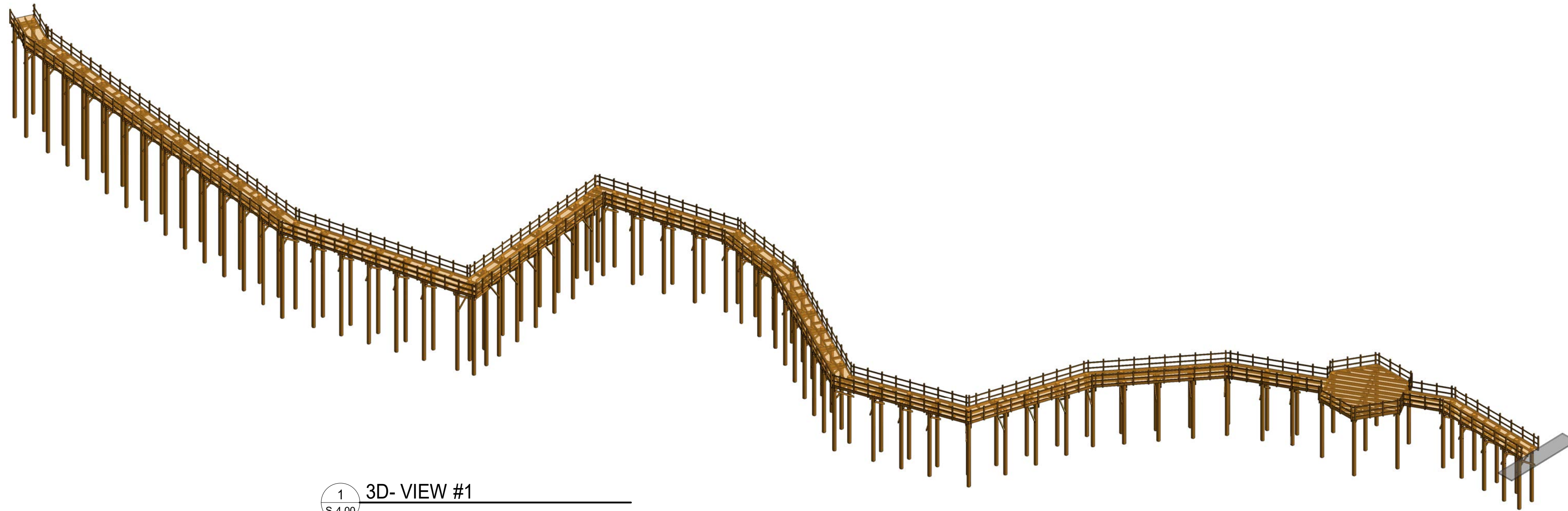
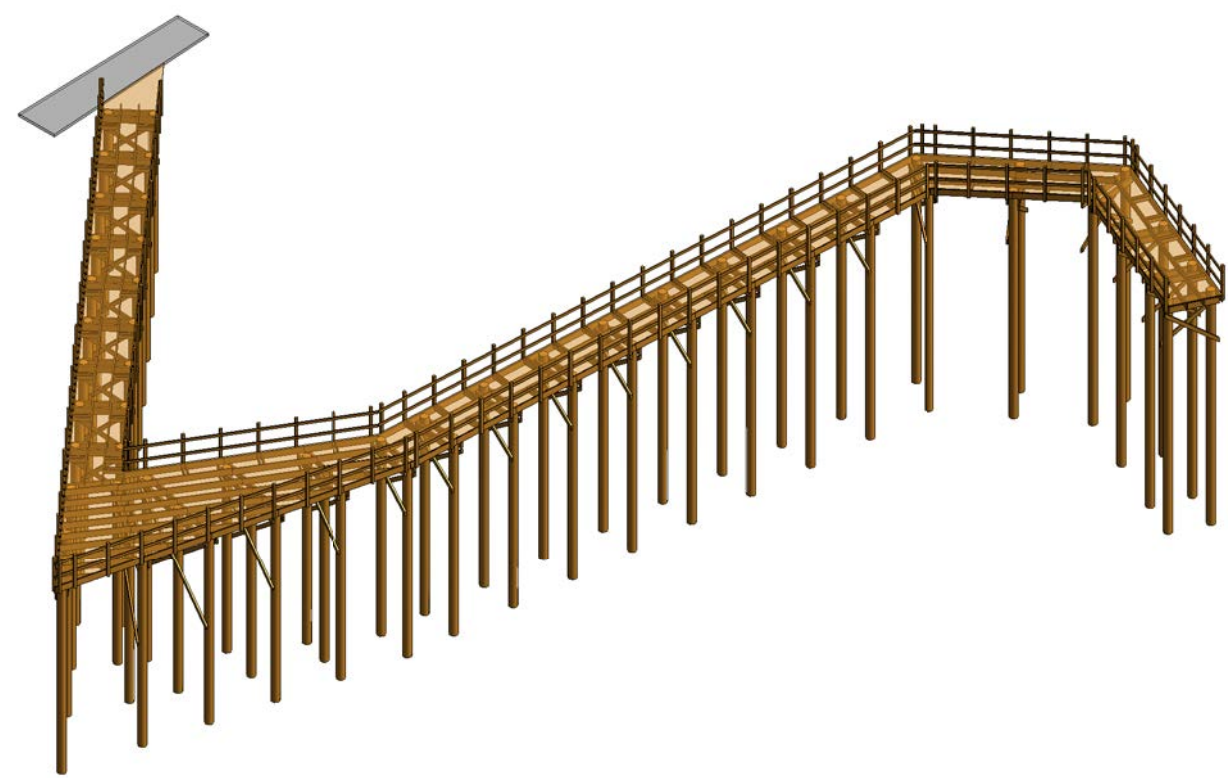
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ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 11419
STORMWATER PRESERVE
RIVER OAKS NEIGHBORHOOD
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SHEET NO.
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TOTAL: 40
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4-135-81



1 3D-VIEW #1
S-4.00



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ENGINEER:
MARCUS O. UNTERWIEGER
REG. NO. FL P.E. # 63860
DATE: 01/07/2019

DRAWN BY: DATE: 01.07.2019
MM/DD/YYYY
DESIGNED BY: SCALE: AS NOTED
YR AS NOTED
CHECKED BY: M/J
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
STORMWATER PRESERVE
RIVER OAKS NEIGHBORHOOD
PROPOSED

SHEET NO.
S-4.00
TOTAL: 40
CAD FILE: --
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FINANCE DEPARTMENT PRE-BID MEETING SIGN-IN SHEET



DATE: 09/05/2019

TIME: 10:00 AM PM

OPENING DATE: 09/26/2019

PROCUREMENT CONTACT: Penelope Burger

ITB #: 12242-493

ITB TITLE: River Oaks Preserve

NAME	COMPANY	PHONE	EMAIL
Anthony Bonet	Waypoint Contracting	786-608-1406	abonet@waypointci.com
BARRY REED	Shoreline Foundation	3053453180	breed@shorelinefoundation.com
Stefanie Martillo	Continental Construction USA LLC	305-704-7396	Info@usacontinental.com
Wendi Nance	EarthBalance	561-758-0424	wnance@earthbalance.com
ED BROCCOLI	MBIZ CONSTRUCTION, INC.	954-486-8404	ebrocc@mbizconstruction.com
Don West	WEST CONSTRUCTION	561-588-2022	DWEST@WESTCONSTRUCTION.COM
Kameisha Hamilton	COFL	954 828 4020	khamilton@fortlauderdale.gov
Penelope Burger	COLL	954 828 5189	pburger@fortlauderdale.gov

Form approved By: **Jodi S. Hart**, Manager of Procurement and Contracts | Page: 1 of 1 | Rev: 3 | Revision Date: 04/16/2018 | Author: LP

Q:\PURCHASING\FINAL FORMS\FINAL FORMS - ISO COMPLIANT\Approved Forms\ITB Documents

BID NO. 12242-493
RIVER OAKS PRESERVE PROJECT
(P11419)

ADDENDUM NO. 3

ISSUED: September 25, 2019

This Addendum is being issued to provide the following information and clarification/response to post Q&A concerns. It is hereby made a part of the Plans and Specifications and shall be included with all contract documents.

Acknowledge receipt of this Addendum by inserting its number and date on the CITB Construction Bid Certification Page.

1. Bid Opening date has been changed to **FRIDAY, OCTOBER 4, 2019.**

2. CLARIFICATION/RESPONSES:

a) **Question:** **Is there a bid bond form that needs to be used for the above project?**

Response: *The City does not provide bid bond forms. Please check with your bonding company for assistance with bid bonds.*

b) **Question:** **What does the contractor do with the "excavated material"? Will it be used to build the embankment berm? or does it have to be hauled and disposed of?**

Response: *Excavated material to be used to build the embankment berm. Excess excavated material to be hauled off-site.*

c) **Question:** **Does the "muck" have to be purchased and imported by the contractor or is this material available on site?**

Response: *See Section 02980, Wetland Planting, Specification 2.01 C. If the material on site meets the planting substrate specification, then it can be used.*

d) **Question:** Do all trees that remain have to have protecting fencing?

Response: Yes, all trees to remain must be protected with protecting fencing. Please see the attached tree protection detail from the City of Fort Lauderdale. This detail is included in our tree removal plan set that we are waiting approval on for the tree removal permit.

All other terms, conditions, and specifications remain unchanged.

Maureen Lewis, MBA, P2P23
Procurement Specialist

Company Name: _____
(please print)

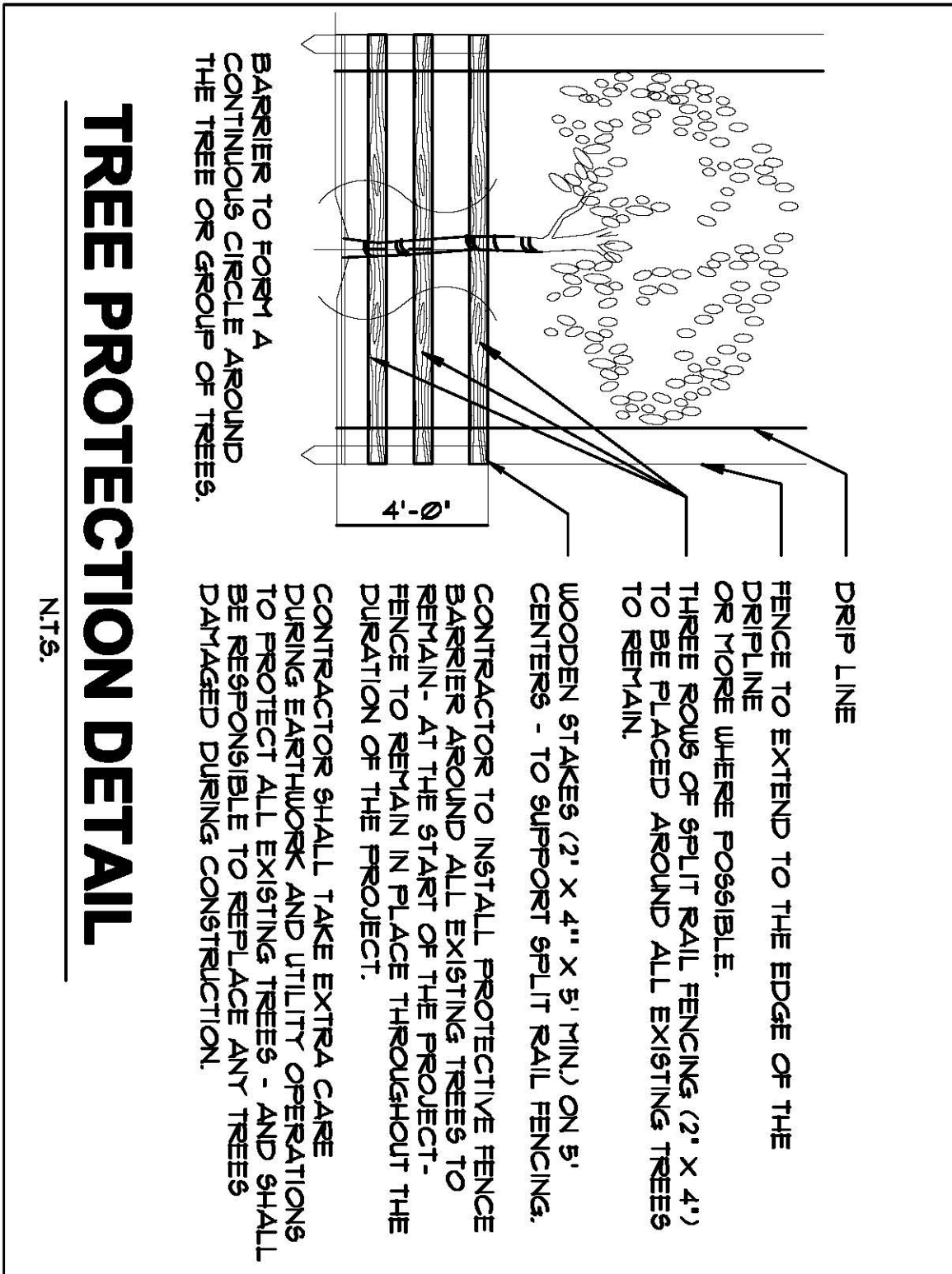
Bidder's Signature: _____

Date: _____



TREE PROTECTION DETAIL

Rev: 1 | Revision Date: 4/10/2018 | I.D. Number: TPD



TREE PROTECTION DETAIL

N.T.S.

Question and Answers for Bid #12242-493 - River Oaks Preserve Project P11419**Overall Bid Questions****Question 1**

What is the official budget for this project? (Submitted: Aug 23, 2019 8:44:05 AM EDT)

Answer

- A. The budget is approximately 1.9M (Answered: Aug 27, 2019 10:41:54 AM EDT)

Question 2

Has design of the park already been established? Or is there opportunity to aid with design of the open space, wetlands, and elevated boardwalk? If listed in a different solicitation, where would we find this?

(Submitted: Aug 23, 2019 2:06:47 PM EDT)

Answer

- Yes, Design of the park is as noted on the bid package. There is no possibility to aid with design of the open space, wetlands or elevated boardwalk. (Answered: Aug 27, 2019 10:22:50 AM EDT)

Question 3

Structural fiber composites offer a 100-year material design and ultra low 30 year maintenance solution. Can structural composite materials be considered for the entire boardwalk? (Submitted: Aug 28, 2019 9:04:17 AM EDT)

Answer

- Please refer to General Conditions Section GC-03 Substitutions. (Answered: Sep 4, 2019 9:57:34 AM EDT)

Question 4

The plan pages are not to scale. Please provide corrected plans. (Submitted: Sep 4, 2019 3:07:55 PM EDT)

Answer

- See Addendum No. 2. (Answered: Sep 5, 2019 4:21:01 PM EDT)

Question 5

Will a sign-in sheet from the pre-bid meeting be posted? (Submitted: Sep 6, 2019 9:56:06 AM EDT)

Answer

- Yes, pre-bid sign-in sheet is posted. (Answered: Sep 9, 2019 4:15:35 PM EDT)

Question 6

After reviewing the scope of work and forecasting a schedule for completion, we conclude that the 150 days to substantial completion is insufficient time for this project. Will the City consider increasing the time to substantially complete by an additional 90 days? (Submitted: Sep 9, 2019 3:12:40 PM EDT)

Answer

- The request for an additional 90 days extension to substantial will require FDEP pre-approval. Therefore, Bidders are to bid on the solicitation as released. (Answered: Sep 23, 2019 8:50:50 AM EDT)

Question 7

Please Clarify Sections where notations are missing. (Submitted: Sep 16, 2019 4:17:10 PM EDT)

Answer

- Please provide/indicate the sections where the notations are missing. (Answered: Sep 25, 2019 11:07:48 AM EDT)

Question 8

Measurement and Payment Item 1.17: please confirm that the Contractor is to included watering for one year. (Submitted: Sep 16, 2019 4:34:35 PM EDT)

Answer

- Yes, watering for one year should be included. (Answered: Sep 25, 2019 2:22:44 PM EDT)

Question 9

Is there a bid bond form that needs to be used for the above project? (Submitted: Sep 25, 2019 3:55:49 PM EDT)

Answer

- The City does not provide bid bond forms. Please check with your bonding company for assistance with bid bonds. (Answered: Sep 25, 2019 3:58:19 PM EDT)

Question 10

What does the contractor do with the "excavated material"? Will it be used to build the embankment berm? or does it have to be hauled and disposed of? (Submitted: Sep 25, 2019 3:56:09 PM EDT)

Answer

- Excavated material to be used to build the embankment berm. Excess excavated material to be hauled off-site. (Answered: Sep 25, 2019 3:58:19 PM EDT)

Question 11

Does the "muck" have to be purchased and imported by the contractor or is this material available on site? (Submitted: Sep 25, 2019 3:56:28 PM EDT)

Answer

- See Section 02980, Wetland Planting, Specification 2.01 C. If the material on site meets the planting substrate specification, then it can be used. (Answered: Sep 25, 2019 3:58:19 PM EDT)

Question 12

Do all trees that remain have to have protecting fencing? (Submitted: Sep 25, 2019 3:56:48 PM EDT)

Answer

- Yes, all trees to remain must be protected with protecting fencing. Please see the attached tree protection detail from the City of Fort Lauderdale. This detail is included in our tree removal plan set that we are waiting approval on for the tree removal permit. (Answered: Sep 25, 2019 3:58:19 PM EDT)