



PROJECT LOCATION

CITY of TAMPA



DEPARTMENT OF TRANSPORTATION AND STORMWATER SERVICES STORMWATER ENGINEERING DIVISION

PLANS FOR
30TH STREET
OUTFALL
PROJECT # 1000580

Richard Alfred Hoel
RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

DES: MTM
DRN: MP
CKD: *MP*
DATE: *1-5-18*

No.	DATE	REVISIONS
3		
2		
1		

CITY of TAMPA
Department of Transportation and
Stormwater Services
Stormwater Engineering Division

COVER SHEET

LEGEND

ABBREVIATIONS

INDEX

EX STORMWATER

- FORCE MAIN
- PIPES & MANHOLES
- CATCH BASIN, GRATE
- DITCHES, SWALES

PROP STORMWATER

- FORCE MAIN
- PIPES & MANHOLES

OTHER UTILITIES

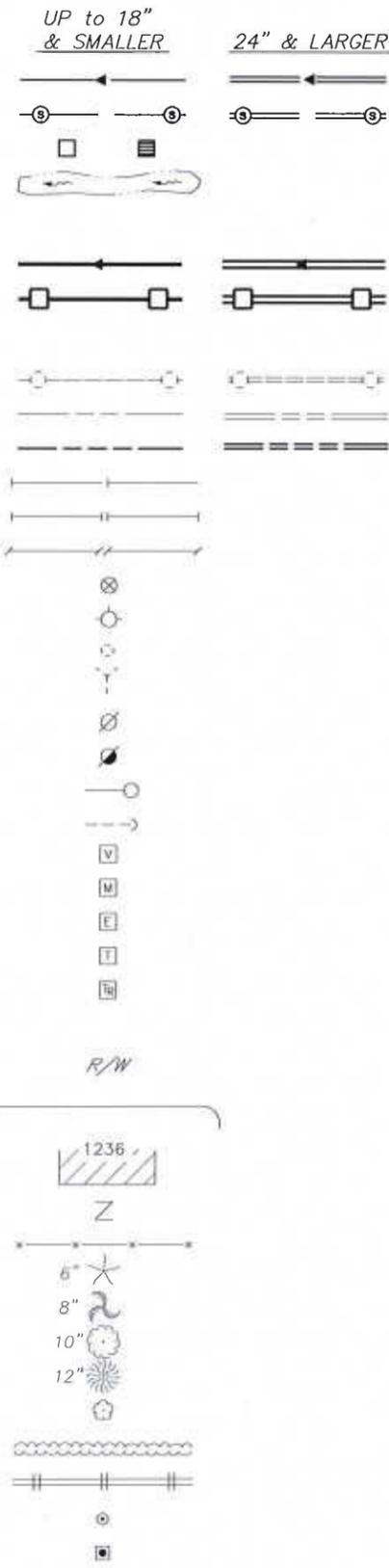
- SAN SEWER & MANHOLES
- WATER LINE
- GAS LINE

- ELECTRICAL CABLE or DUCT
- TELEPHONE CABLE or DUCT
- TV CABLE

- VALVE
- HYDRANT
- CLEAN OUT
- EXISTING WYE
- POWER POLE
- TELEPHONE POLE
- GUY POLE
- GUY WIRE
- VALVE VAULT
- WATER METER
- ELECTRICAL MANHOLE or VAULT
- TELEPHONE MANHOLE or VAULT
- TRAFFIC BOX or VAULT

OTHER FEATURES

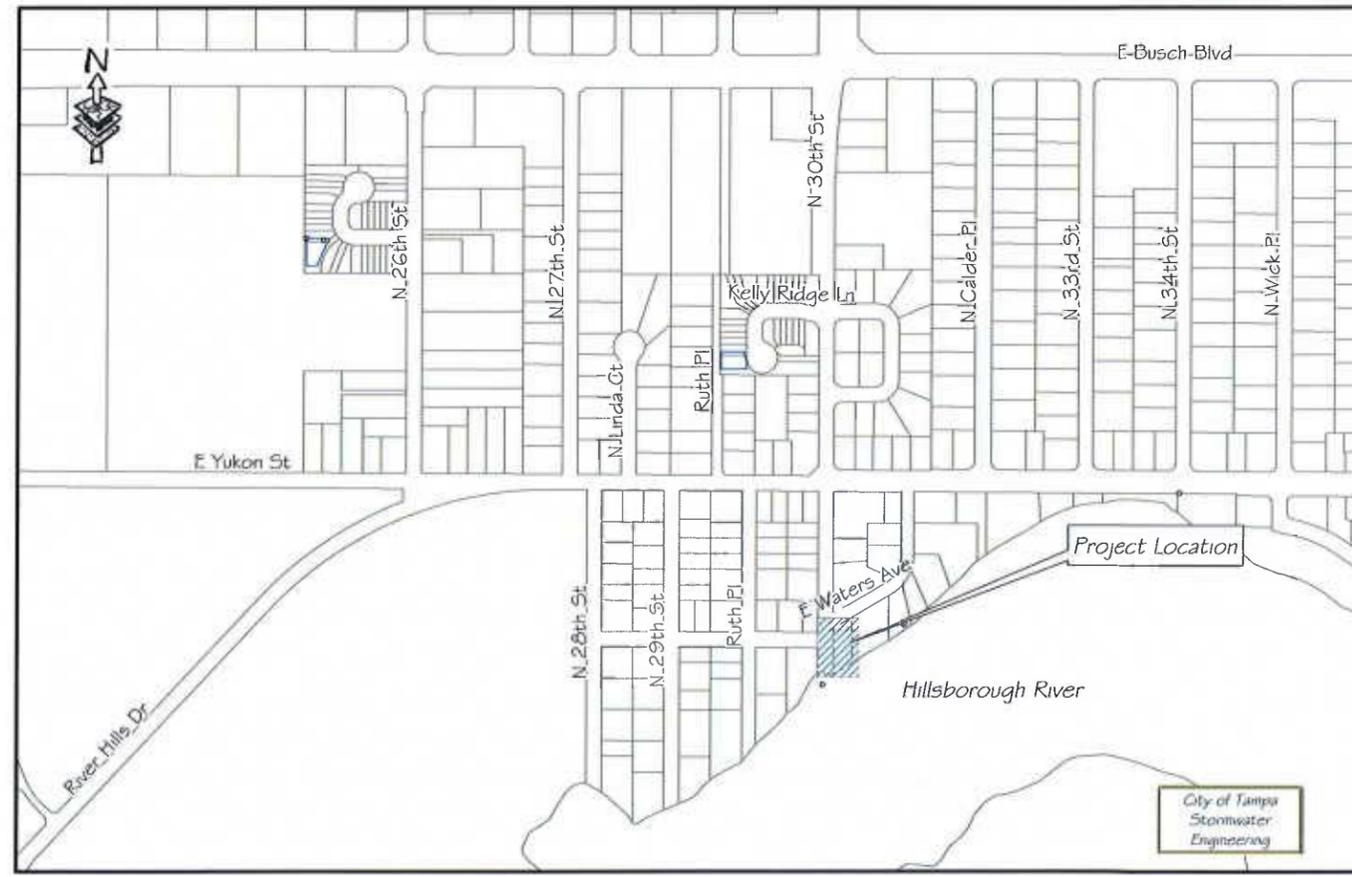
- RIGHT of WAY LINE
- EDGE of PAVEMENT
- BUILDING LIMIT
- PROPERTY OWNERSHIP
- FENCE
- CONIFER
- PALM
- OAK
- OTHER
- SHRUB
- HEDGE
- RAILROAD TRACKS
- IRON PIPE
- CONCRETE MONUMENT



- TOP of PIPE
- INVERT ELEVATION
- RIGHT of WAY
- MANHOLE
- POLYVINYL CHLORIDE PIPE
- VITRIFIED CLAY PIPE
- ADVANCED DRAINAGE SYSTEM
- DUCTILE IRON PIPE
- REINFORCED CONCRETE PIPE
- CONCRETE PIPE
- APPROXIMATE LOCATION
- BENCH MARK
- POINT of INTERSECTION

- TP
- IE or INV EL
- R/W
- MH
- PVCP
- VCP
- ADS
- DIP
- RCP
- CP
- AL
- BM
- PI

No.	DESCRIPTION
1	COVER SHEET
2	LEGEND, INDEX, AND MAP
3	GENERAL NOTES
4-6	EXISTING CONDITIONS, PLAN VIEW & ENVIROMENTAL IMPACT
7-8	SECTION VIEWS
9	BASIN DETAILS
10-11	DRAINAGE PLAN & PROFILE
12-13	VARIOUS DETAILS
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LOCATION MAP

PLOT

FILENAME

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
 DRN: ME
 CKD: RBS
 DATE: 5/5/10

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LEGEND, INDEX &
 LOCATION MAP

GENERAL NOTES

1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES WERE PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. VERIFY THE LOCATION AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO CONSTRUCTION. ALL LOCATIONS, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PLAN PREPARATION. THE CONTRACTOR IS CAUTIONED THAT THERE MAY BE OTHER UTILITIES AND/OR IMPROVEMENTS NOT SHOWN ON THE DRAWINGS WHICH MAY IMPACT THE WORK REPRESENTED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE, THEREFORE, FOR VERIFYING, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES (WHETHER SHOWN OR NOT ON THE PLANS) WHICH COULD AFFECT THE CONTRACTOR'S WORK. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE MAY BE SOME UTILITY CONFLICTS INHERENT IN THE PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES FROM ACCIDENTAL DAMAGE. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT UTILITIES NOTIFICATION CENTER (SUNSHINE STATE ONE CALL) AT 1-800-432-4770.
2. THE INFORMATION SHOWN IN THESE PLANS IS PROVIDED SOLELY FOR THE PURPOSE OF ASSISTING THE CONTRACTOR IN ASSESSING THE PHYSICAL CONDITIONS UNDER WHICH THE PROJECT IS TO BE BID AND CONSTRUCTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EVALUATION THE CONTRACTIBILITY OF THE PROJECT AND CONDUCTING HIS OWN INVESTIGATION INTO THE PHYSICAL CHARACTERISTICS OF THE PROJECT, INCLUDING THE EXISTENCE AND IMPACT OF ANY STRUCTURES, UTILITIES, OR OTHER SITE FEATURES (WHETHER SHOWN OR NOT SHOWN) PRIOR TO PREPARING AND SUBMITTING A SEALED BID.
3. FIELD CONDITIONS MAY NECESSITATE SLIGHT ALIGNMENT AND GRADE DEVIATIONS OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS DIRECTED BY THE ENGINEER.
4. CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL TEMPORARY BY-PASS OPERATIONS OF UTILITIES, IF REQUIRED, FOR THE COMPLETION OF THE WORK.
5. THE CONTRACTOR SHALL REPLACE ALL EXISTING PAVING, STABILIZED EARTH, CURBS, CONCRETE DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, IRRIGATION LINES, SIGNS AND OTHER IMPROVEMENTS WITH THE SAME TYPE OF MATERIAL THAT WAS DISTURBED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
6. THE CONTRACTOR SHALL PROTECT IN PLACE ALL FACILITIES AND PLANT MATERIALS THAT ARE NOT TO BE RELOCATED AND/OR REMOVED BUT ARE TO REMAIN.
7. CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION.
8. MAINTENANCE OF TRAFFIC WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAGMEN AS REQUIRED BY THE F.D.O.T. IN THE "MANUAL ON TRAFFIC CONTROL & SAFE PRACTICES." THE CONTRACTOR SHALL SUBMIT "MAINTENANCE OF TRAFFIC" PLANS TO THE CITY FOR APPROVAL.
9. CONTRACTOR SHALL PROVIDE CONTINUOUS ACCESS TO ALL RESIDENTIAL AND COMMERCIAL PROPERTIES FOR OWNERS, DELIVERY PERSONNEL AND MAINTENANCE STAFF.
10. RESTORATION OF ALL CURBS, LANDSCAPING, SOD, ACCESS DRIVES, STREETS AND ROADWAYS SHALL BE COMPLETE WITHIN (10) TEN CALENDAR DAYS OF INITIAL DISTURBANCE IN AREAS OUTSIDE THE PROJECT AREA; OR IN AREAS USED FOR ACCESS OR TRAFFIC BY THE GENERAL PUBLIC. THE RESTORED EARTH MUST BE STABILIZED WITHIN 72 HOURS.
11. CONTRACTOR SHALL MAINTAIN AN UPDATED SET OF CONSTRUCTION PLANS WITH CURRENT FIELD CHANGES MARKED THEREON. SAID PLANS SHALL BE DELIVERED TO THE PROJECT MANAGER UPON COMPLETION OF ALL CONSTRUCTION OPERATIONS. CONTRACTOR'S MARKUPS SHALL INDICATE ALL VALVES, FITTINGS AND APPURTENANCES IN GPS STATE PLAN COORDINATES. PIPES SHALL BE DIMENSIONALLY LOCATED, FROM THE R.O.W. LINE, BACK OF CURB AND/OR EDGE OF PAVEMENT WITH SUFFICIENT REGULARITY (NO LESS THAN EVERY 100 FT) TO PROVIDE ACCURATE FIELD LOCATION. CONTRACTOR SHALL ALSO IDENTIFY THE TOP OF PIPE ELEVATION AT EACH CHANGE IN HORIZONTAL OR VERTICAL LOCATION.
12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
13. CONTRACTOR SHALL RETURN THE ENTIRE AREA DISTURBED BY CONSTRUCTION ACTIVITIES TO THE ORIGINAL CONDITION OR BETTER UPON COMPLETION OF THE WORK, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
14. SOD USED TO REPLACE OWNER MAINTAINED AREAS IN THE RIGHT-OF-WAY SHALL BE OF THE SAME TYPE AND QUALITY THAT WAS IN PLACE PRIOR TO THE START OF CONSTRUCTION. ANY EXCEPTION MUST BE APPROVED BY THE ENGINEER.
15. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE AREA WITHIN THE CITY RIGHT-OF-WAY, PROPERTY LIMITS OR EASEMENTS AS SHOWN ON THE CONTRACT DRAWINGS.
16. OVERALL CLEAN UP SHALL BE ACCOMPLISHED BY THE CONTRACTOR IN ACCORDANCE WITH CITY STANDARDS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE LINE ITEM.
17. THE CONTRACTOR SHALL ENDEAVOR TO PROTECT PRIVATE PROPERTY. ANY DAMAGE CAUSED BY THE CONTRACTOR IN THE PERFORMANCE OF HIS WORK SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. PAYMENT WILL NOT BE MADE FOR THIS WORK.
18. ANY DAMAGE TO STATE, COUNTY OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. PAYMENT WILL NOT BE MADE FOR THIS WORK.
19. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BARRIERS IN COMPLIANCE WITH THE LATEST EDITION OF THE FLORIDA EROSION AND SEDIMENTATION CONTROL MANUAL, AND AS DIRECTED BY THE ENGINEER. THE MAINTENANCE OF EROSION CONTROL DEVICES AND THEIR COMPLETE REMOVAL ARE TO BE INCLUDED IN THE UNIT BID PRICE FOR EACH INDIVIDUAL ITEM.
20. CONTRACTOR SHALL INSTALL THE GRAVITY STORM DRAINS ACCORDING TO THE SLOPES AND ELEVATIONS SHOWN ON THE PLANS WITH NO INTERMEDIATE HIGH POINTS OR LOW POINTS BETWEEN THE INDICATED VERTICAL POINTS OF INTERSECTION.
21. ALL GRAVITY STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.
22. CONTRACTOR SHALL COORDINATE ANY UTILITY RELOCATIONS WITH UTILITY OWNER PRIOR TO UTILITY ADJUSTMENT. CONTRACTOR SHALL CONTACT UTILITY OWNERS AT THE BEGINING OF CONSTRUCTION TO ALLOW ADEQUATE TIME FOR UTILITY RELOCATION WORK.
23. OVERHEAD UTILITIES - THE CONTRACTOR IS TO PROTECT IN PLACE ALL OVERHEAD UTILITY LINES WITHIN THE PROJECT LIMITS.
24. ALL DISTURBED SIDEWALKS AND DRIVEWAYS DURING CONSTRUCTION ARE TO BE REPLACED IN LIKE KIND AND PER CITY OF TAMPA STANDARDS.
25. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.
26. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS FOR WORK WITHIN THE RIGHT OF WAYS.
27. BACKFILL (NO CLAY OR CLAYEY MATERIAL) SHALL BE COMPACTED IN 12 INCH LAYERS TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A.
28. BOLTS, WASHERS, NUTS, SCREWS, HOOKS, BRACKETS, HINGES, ETC. INSTALLED WITHIN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL UNLESS OTHERWISE SPECIFIED.
29. ALL METAL SURFACES COMING IN CONTACT WITH CONCRETE SHALL BE PROVIDED WITH NEOPRENE PADS OR 2 COATS OF COAL TAR EPOXY WITH PROPER SURFACE PREPARATION. CONTRACTOR SHALL SUBMIT SYSTEM(S) FOR APPROVAL.

SURVEY NOTES

1. FIELD WORK PERFORMED BY SUNCOAST LAND SURVEYING, INC.
DATE OF SURVEY: DECEMBER 17, 2014.
2. ELEVATIONS ARE BASED ON CITY OF TAMPA BENCHMARK "HV 02-0234" HAVING AN ELEVATION OF 42.0' AND CITY OF TAMPA BENCHMARK "HV 02-0257" HAVING AN ELEVATION OF 35.65' NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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DES: MTM
DRN: ME
CKD: BSG
DATE: 5-15

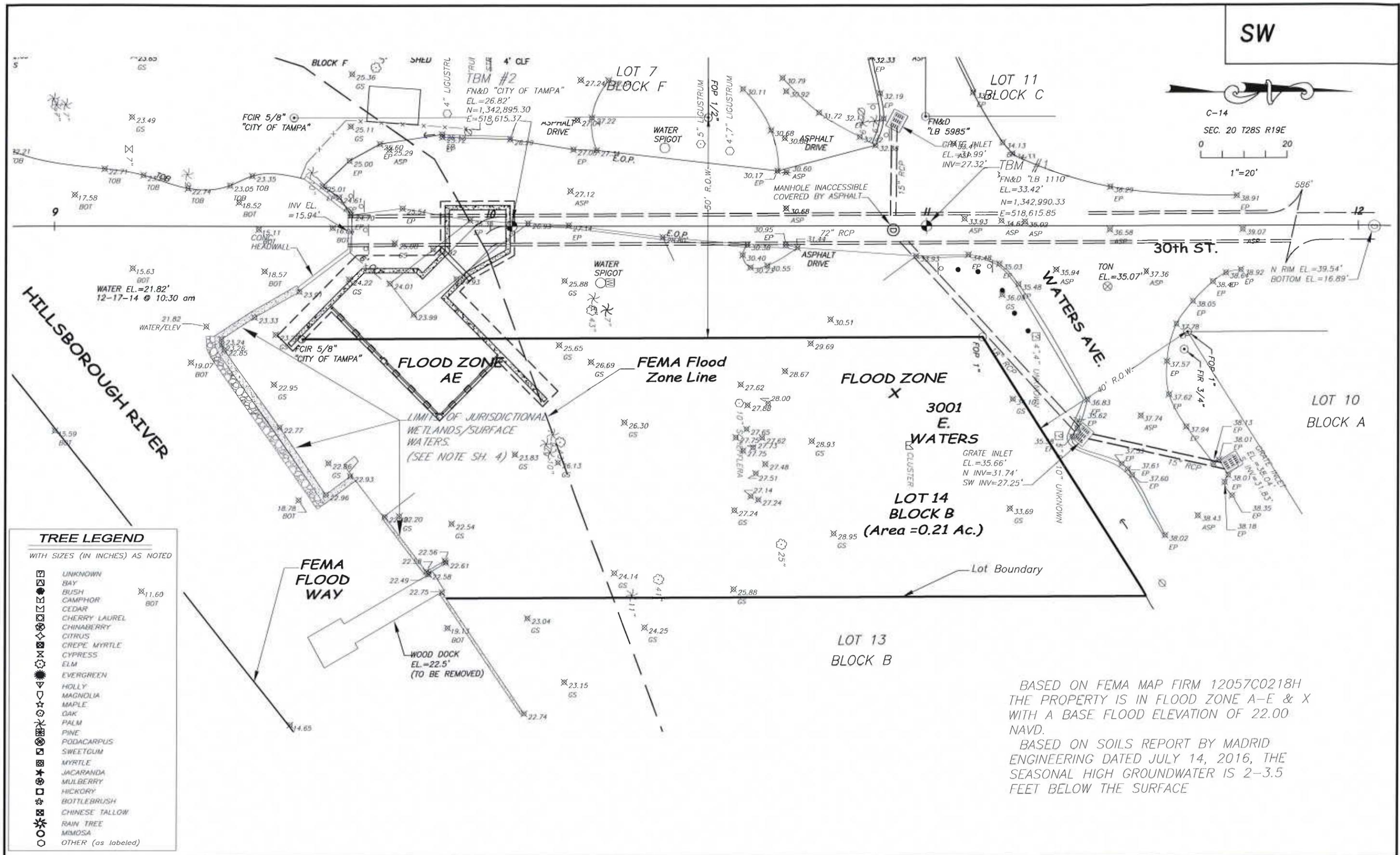
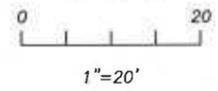
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Stormwater Engineering Division

30TH ST. OUTFALL PROJECT
GENERAL NOTES

SHEET
3
OF 13

SW

C-14
SEC. 20 T28S R19E



TREE LEGEND
WITH SIZES (IN INCHES) AS NOTED

	UNKNOWN
	BAY
	BUSH
	CAMPHOR
	CEDAR
	CHERRY LAUREL
	CHINABERRY
	CITRUS
	CREPE MYRTLE
	CYPRESS
	ELM
	EVERGREEN
	HOLLY
	MAGNOLIA
	MAPLE
	OAK
	PALM
	PINE
	PODACARPUS
	SWEETGUM
	MYRTLE
	JACARANDA
	MULBERRY
	HICKORY
	BOTTLEBRUSH
	CHINESE TALLOW
	RAIN TREE
	MIMOSA
	OTHER (as labeled)

BASED ON FEMA MAP FIRM 12057C0218H THE PROPERTY IS IN FLOOD ZONE A-E & X WITH A BASE FLOOD ELEVATION OF 22.00 NAVD.
BASED ON SOILS REPORT BY MADRID ENGINEERING DATED JULY 14, 2016, THE SEASONAL HIGH GROUNDWATER IS 2-3.5 FEET BELOW THE SURFACE

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30TH ST. OUTFALL PROJECT
EXISTING CONDITIONS

SHEET
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OF 13

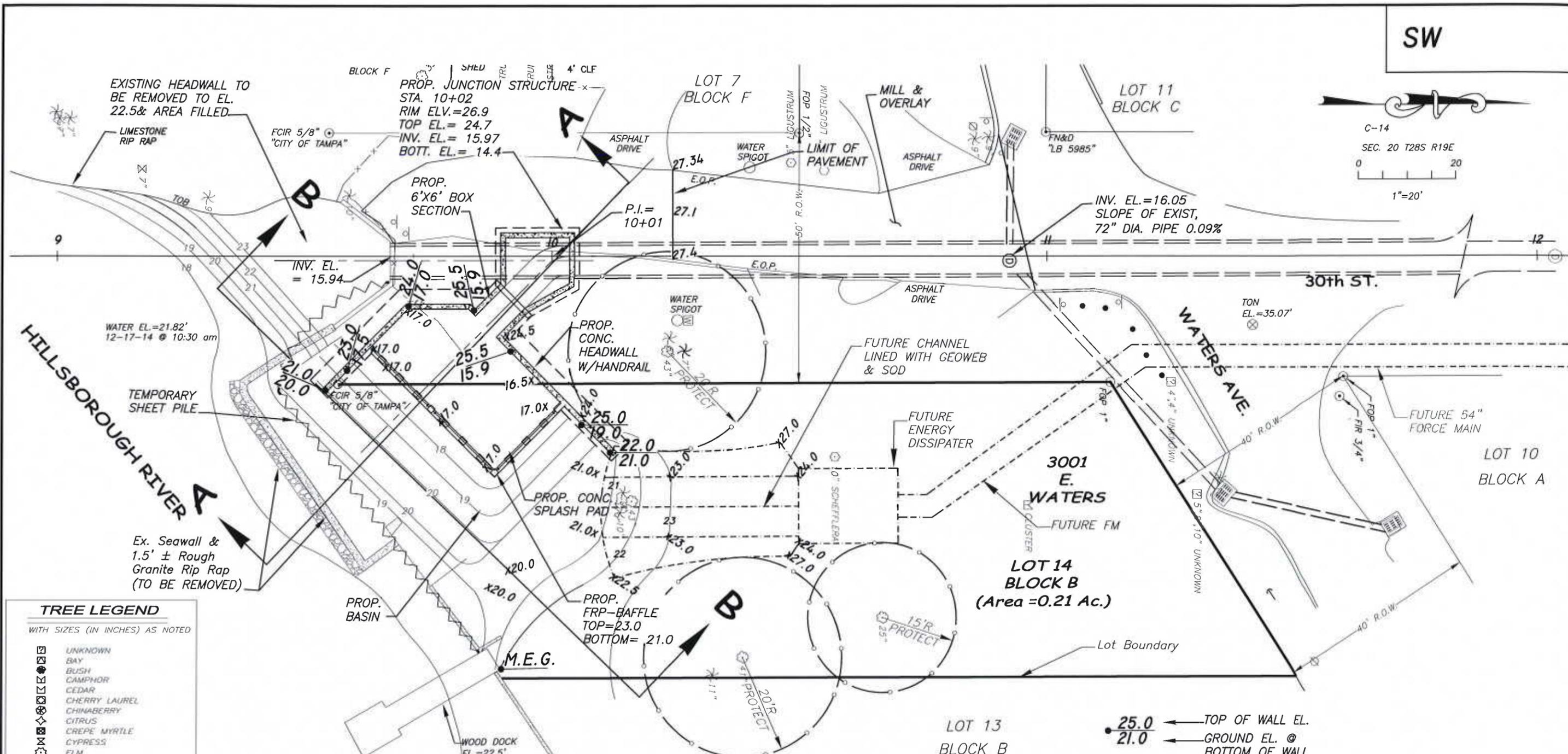
SW



C-14
SEC. 20 T28S R19E



1"=20'



TREE LEGEND

WITH SIZES (IN INCHES) AS NOTED

- UNKNOWN
- BAY
- BUSH
- CAMPOR
- CEDAR
- CHERRY LAUREL
- CHINABERRY
- CITRUS
- CREPE MYRTLE
- CYPRESS
- ELM
- EVERGREEN
- HOLLY
- MAGNOLIA
- MAPLE
- OAK
- PALM
- PINE
- PODACARPUS
- SWEETGUM
- MYRTLE
- JACARANDA
- MULBERRY
- HICKORY
- BOTTLEBRUSH
- CHINESE TALLOW
- RAIN TREE
- MIMOSA
- OTHER (as labeled)

25.0 ← TOP OF WALL EL.
 21.0 ← GROUND EL. @ BOTTOM OF WALL
 x23.0 ← PROP. ELEV.

ALL DISTURBED AREAS TO BE SODDED, UNLESS OTHERWISE NOTED.

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 DATE: 1-5-18

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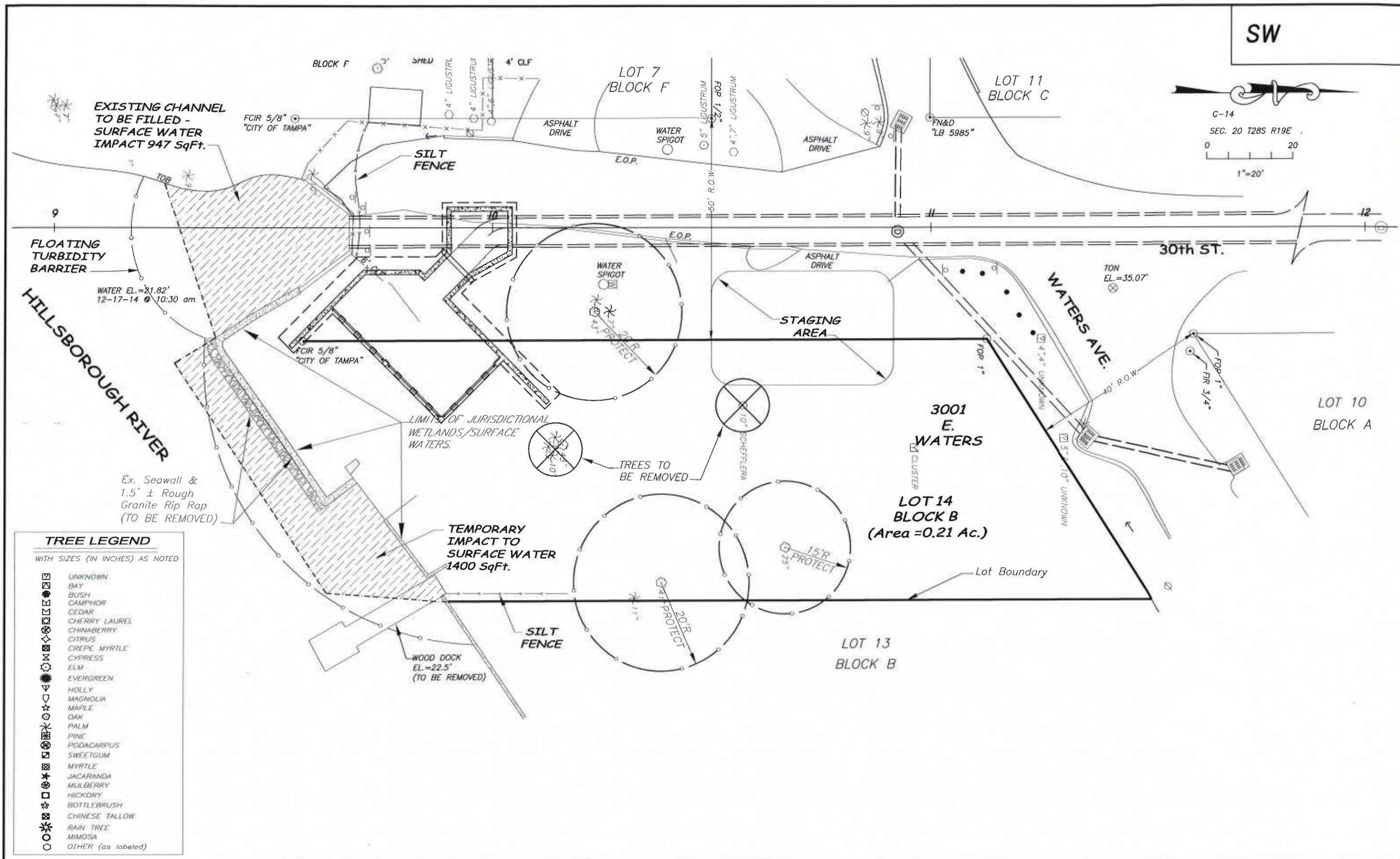
30TH ST. OUTFALL PROJECT
 PLAN VIEW

SHEET
5
 OF 13

SW



C-14
SEC. 20 T28S R19E
0 20
1"=20'



TREE LEGEND
WITH SIZES (IN INCHES) AS NOTED

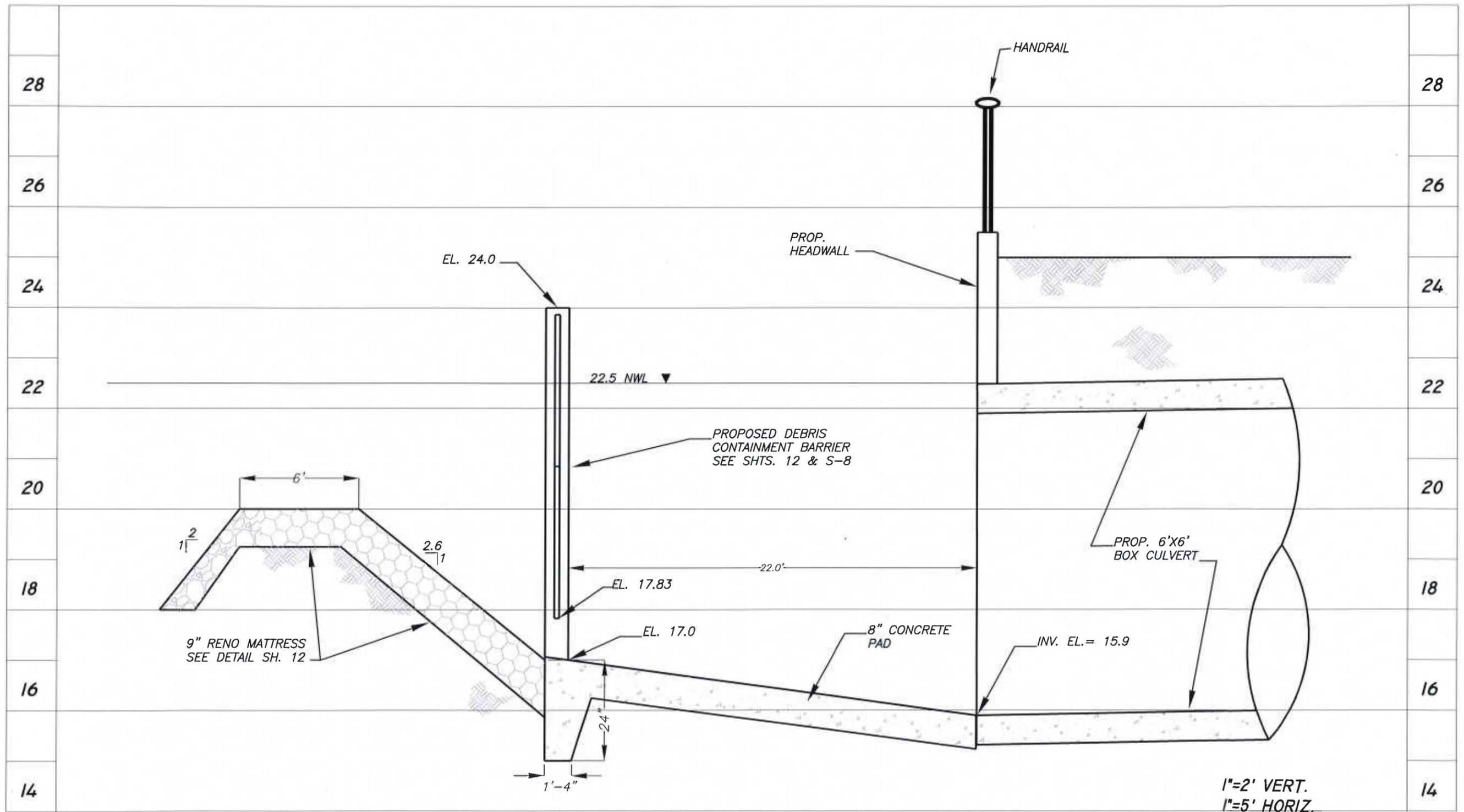
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○	BAY
●	BUSH
⊠	CAMPHOR
⊞	CEDAR
⊟	CHERRY LAUREL
⊠	CHINABERRY
⊡	CITRUS
⊢	CREPE MYRTLE
⊣	CYPRESS
⊤	ELM
⊥	EVERGREEN
⊦	HOLLY
⊧	MAGNOLIA
⊨	MAPLE
⊩	OAK
⊪	PALM
⊫	PINE
⊬	PODACARPUS
⊭	SWEETGUM
⊮	MYRTLE
⊯	JACARANDA
⊰	MULBERRY
⊱	HICKORY
⊲	BOTTLEBRUSH
⊳	CHINESE TALLOW
⊴	RAIN TREE
⊵	MIMOSA
○	OTHER (as labeled)

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30TH ST. OUTFALL PROJECT
ENVIROMENTAL IMPACT



SECTION A-A

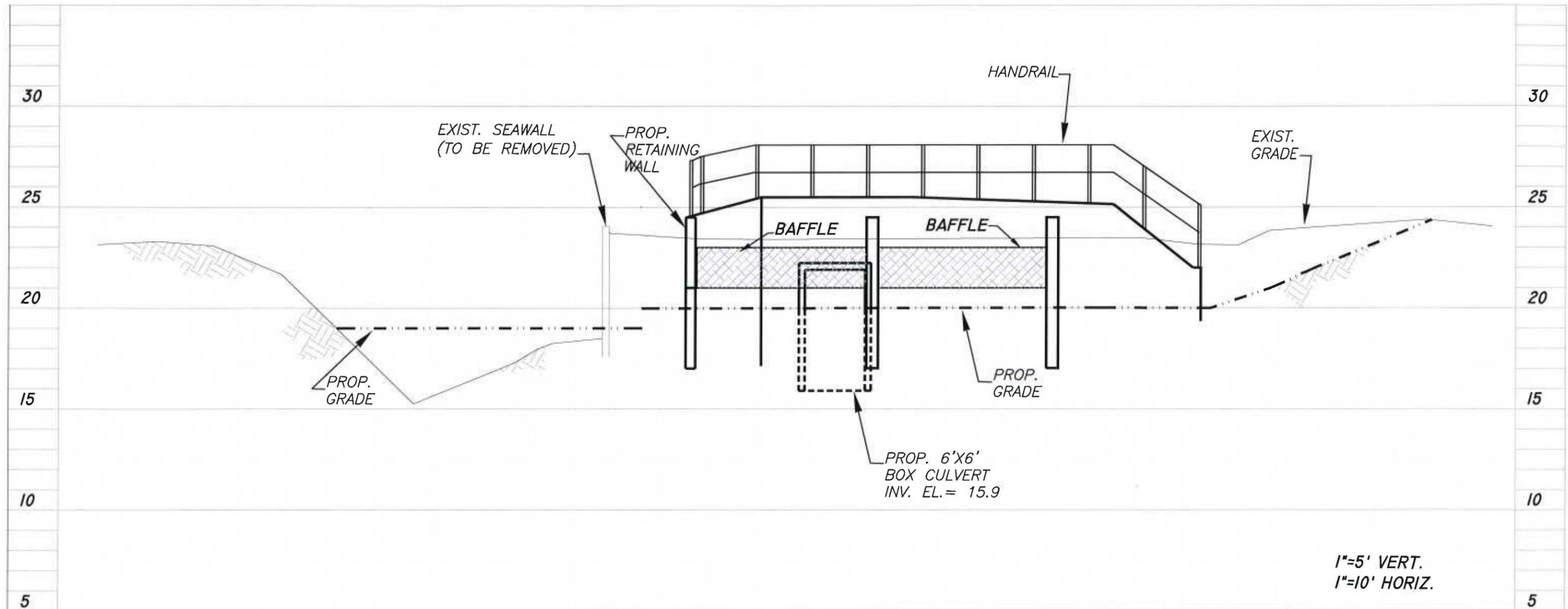
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30TH ST. OUTFALL PROJECT
BASIN SECTION

SW



SECTION B-B

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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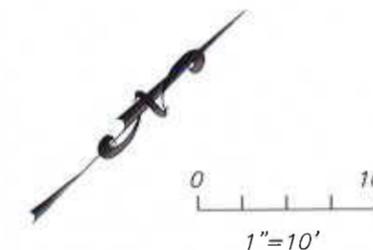
DES: MTM
 DRN: MP
 CKD: *PSG*
 DATE: *1-5-18*

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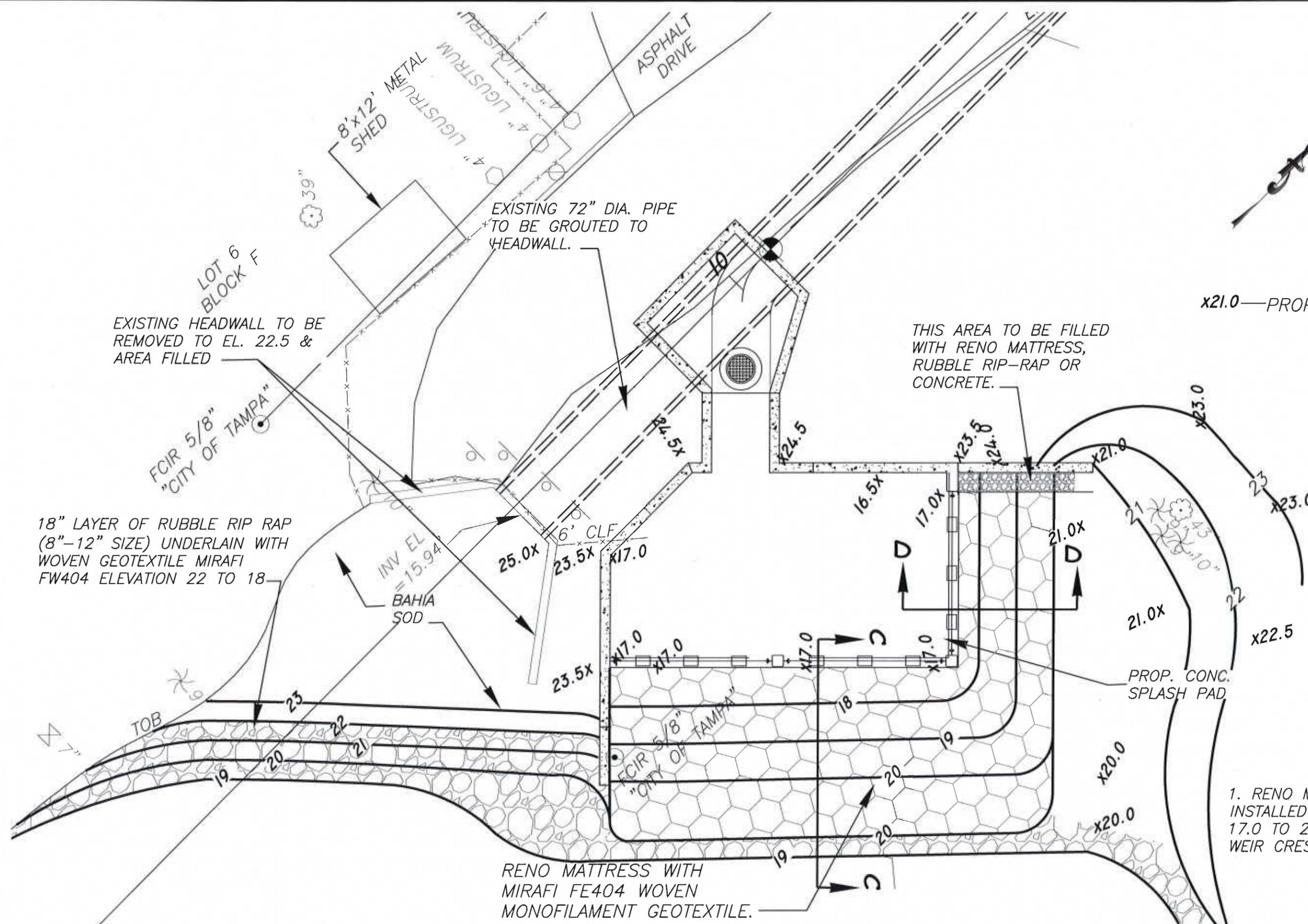
30TH ST. OUTFALL PROJECT
 SECTION VIEWS

SHEET
8
 OF 13

SW



x21.0—PROPOSED ELEVATION



EXISTING HEADWALL TO BE REMOVED TO EL. 22.5 & AREA FILLED

EXISTING 72" DIA. PIPE TO BE GROUTED TO HEADWALL.

THIS AREA TO BE FILLED WITH RENO MATTRESS, RUBBLE RIP-RAP OR CONCRETE.

18" LAYER OF RUBBLE RIP RAP (8"-12" SIZE) UNDERLAIN WITH WOVEN GEOTEXTILE MIRAFI FW404 ELEVATION 22 TO 18

INV EL. = 15.94

BAHIA SOD

PROP. CONC. SPLASH PAD

RENO MATTRESS WITH MIRAFI FE404 WOVEN MONOFILAMENT GEOTEXTILE.

1. RENO MATTRESSES INSTALLED FROM ELEV. 17.0 TO 20.0 AND OVER WEIR CREST.

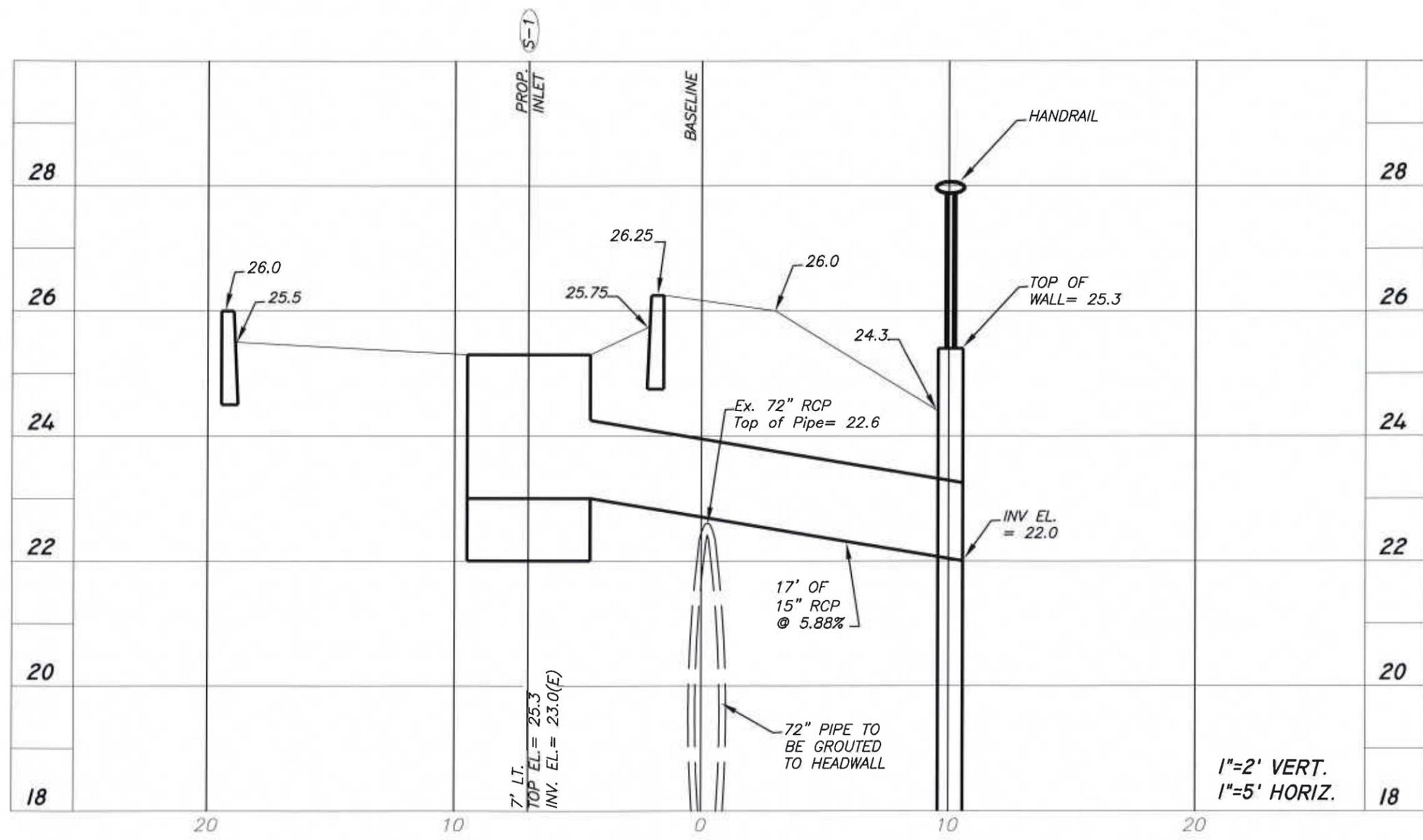
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30TH ST. OUTFALL PROJECT
BASIN DETAILS

SHEET 9 OF 13

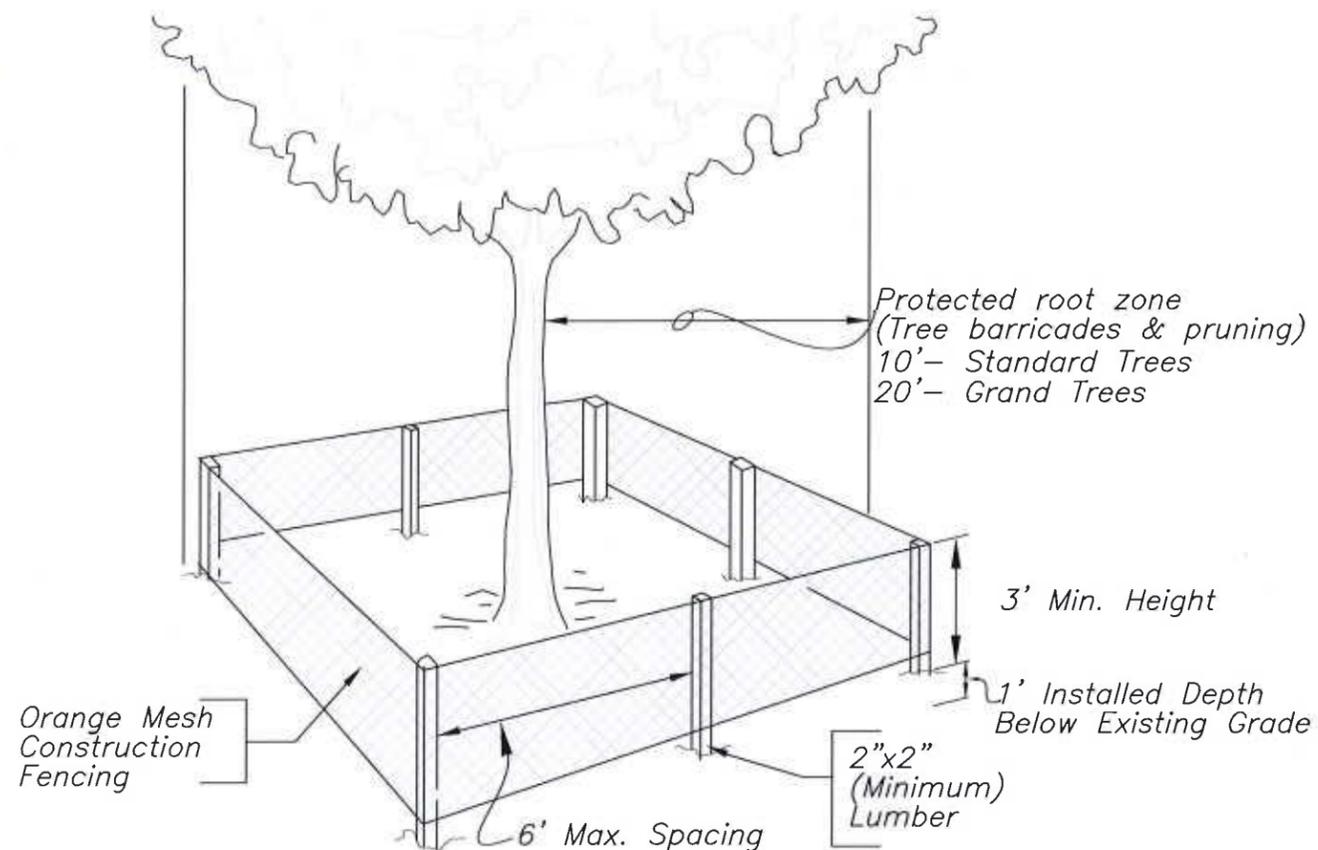


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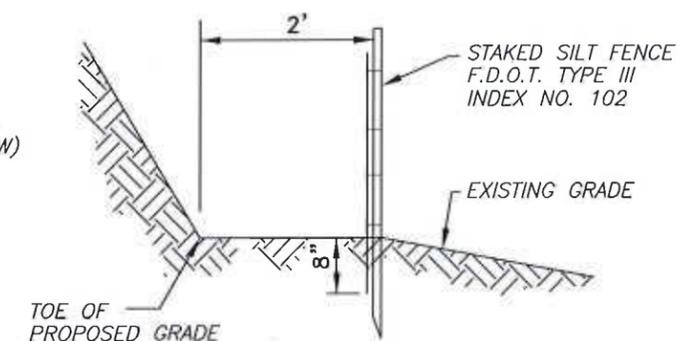
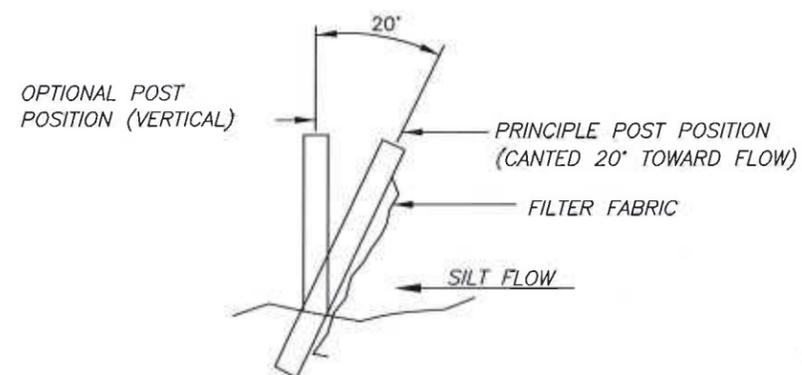
30TH ST. OUTFALL PROJECT
 PROP. ASPH & DRAINAGE PROF.



NOTES:

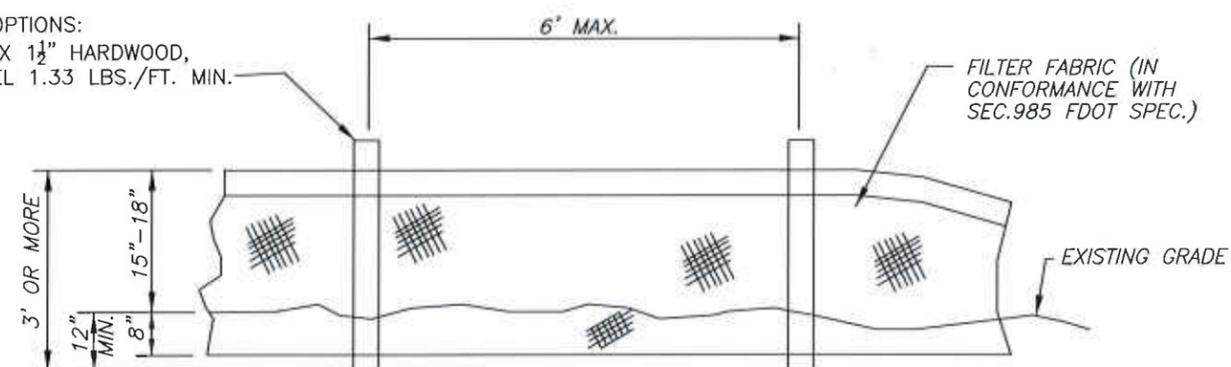
- * PROTECTIVE BARRICADES MAY BE REMOVED ONLY TO PREPARE THE DEVELOPMENT SITE FOR FINAL LANDSCAPING.
- * NO CHANGES TO THE EXISTING CONDITIONS WITHIN THE PROTECTIVE ROOT ZONE DURING THE CONSTRUCTION PROCESS.
- * ALL ROOTS MUST BE SEVERED CLEAN AT THE PROTECTIVE ROOT ZONE OF PROTECTED AND GRAND TREES TO PREVENT ROOT DAMAGE.
- * NO STORAGE OF MATERIALS OR VEHICLES WITHIN PROTECTIVE ZONE.

TYPICAL TREE BARRICADE DETAIL
PER CHAPTER 13 OF THE CITY OF TAMPA
TREE AND LANDSCAPE MANUAL



POST OPTIONS:

- 1½" X 1½" HARDWOOD,
- STEEL 1.33 LBS./FT. MIN.



FDOT TYPE III
SILT FENCE DETAIL

NTS

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30TH ST. OUTFALL PROJECT
TREE BARRICADE & SILT FENCE DETAILS