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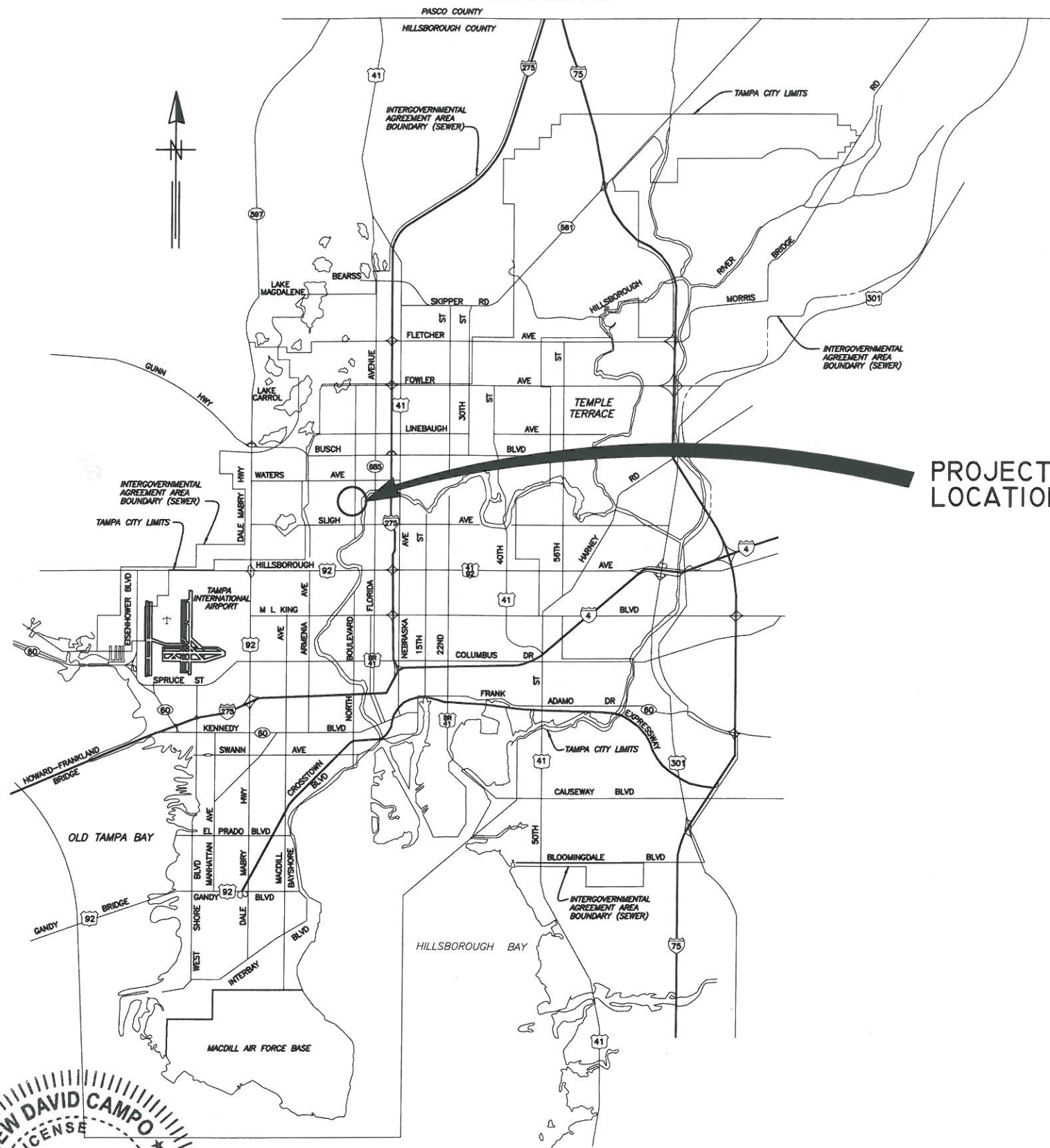
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LOCATION MAP

SW



PROJECT LOCATION

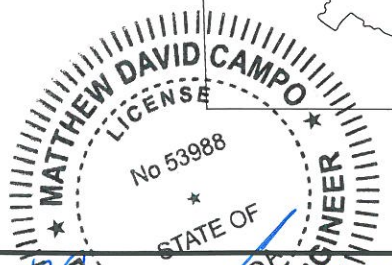
CITY of TAMPA



DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

PLANS FOR
WHATLEY DITCH STORMWATER IMPROVEMENTS
CONTRACT No. 14-C-00030

100% SUBMITTAL



MATTHEW D. CAMPO
CAMPO ENGINEERING, INC.
FBPR CERT. OF AUTHORIZATION NO.: 26726

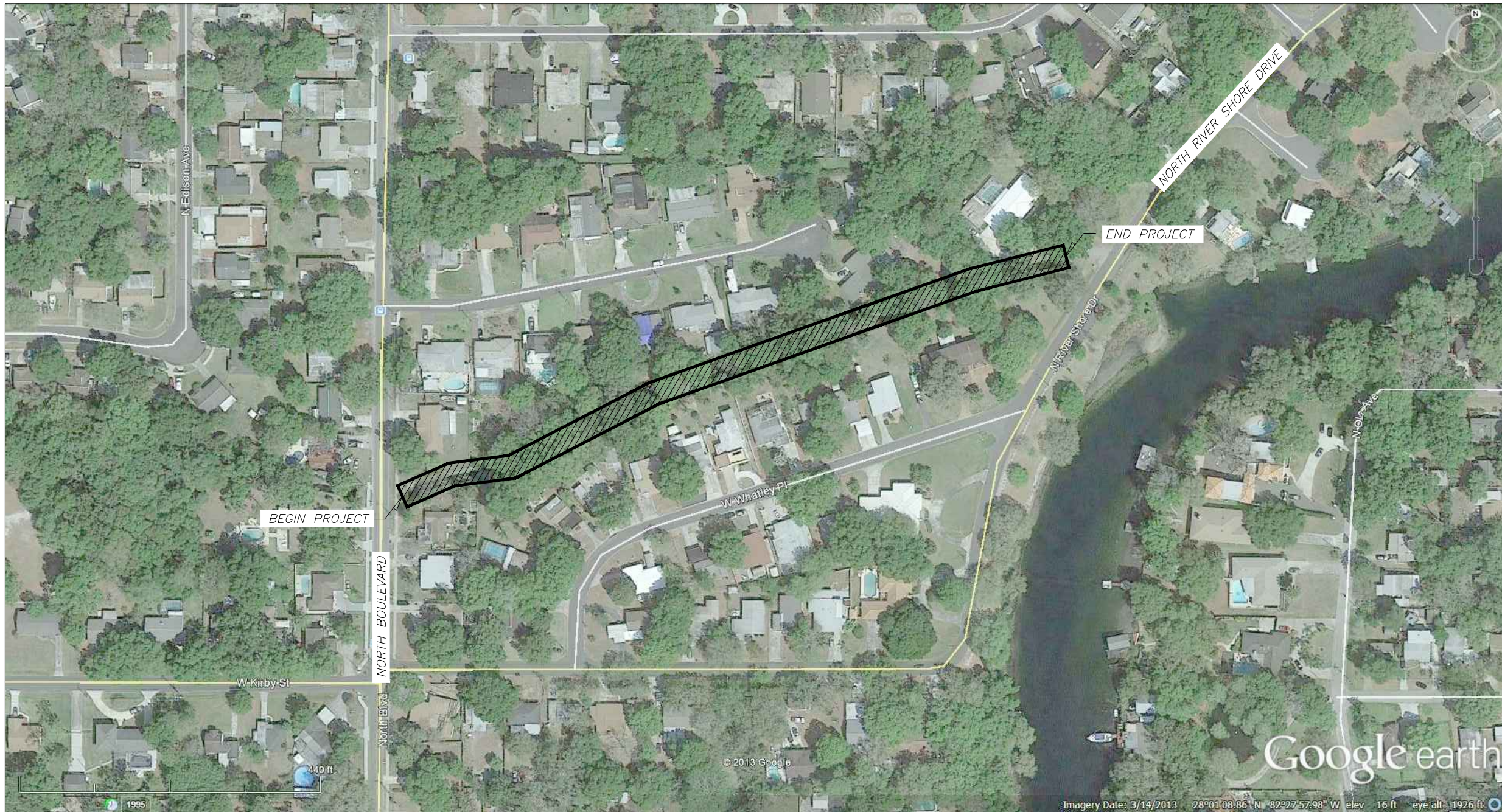
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MDC	1	10/13	

CITY of TAMPA
DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

ST 0095
SHEET
1
OF 18
COVER SHEET

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PROJECT LOCATION MAP
NTS

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INDEX

1	COVER SHEET
2	INDEX & LOCATION MAP
3	LEGEND & KEY MAP
4-5	GENERAL AND CONSTRUCTION NOTES
6-9	STORMWATER PLAN & PROFILE
10-14	CROSS SECTIONS
15-19	STORMWATER DETAILS
20-21	HABITAT RESTORATION PLANS
22	HABITAT RESTORATION DETAILS

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5			2		
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CITY of TAMPA
Department of Public Works
Stormwater Division

WHATLEY DITCH
STORMWATER IMPROVEMENTS
INDEX & LOCATION MAP

ST 0095
SHEET
2
OF 22

LEGEND

<u>EX SEWERS</u>	<u>UP to 24" & SMALLER</u>	<u>24" & LARGER</u>
EX FORCE MAIN	---	====
EX SAN SEWER & MANHOLES	---○---	====○====
EX STORM SEWER & MANHOLES	---⊙---	====⊙====
<u>PROP SEWERS</u>		
PROP STORM SEWER & MANHOLES	—●—	—●—
<u>OTHER FEATURES</u>		
RIGHT of WAY LINE	---RW---	
EDGE of PAVEMENT	---	
WATER LINE	---	
GAS LINE	---	
CATCH BASIN, GRATE	□	▣
LIGHT POLE	☼	

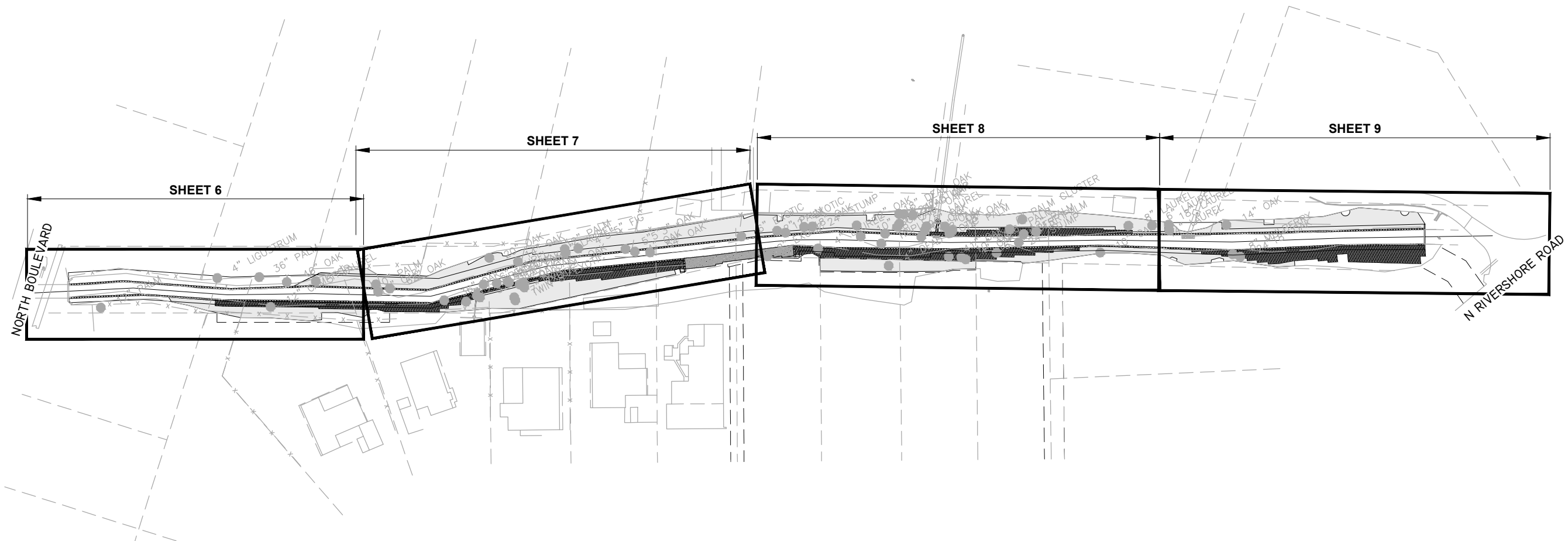
POWER POLE	∅
BUILDING LIMIT	▨
EXISTING FENCE	x-x-x-x-x
PROPOSED 4' CHAINLINK FENCE	x-x-x-x-x
EXISTING FIRE HYDRANT ASSEMBLY	⊙
SILT FENCE	—EC—EC—
RENO MAT	▨
GABION BASKETS	▨
HYDRAMAX - HYDRAGS SEEDED AREAS	▨
ENVIROMAT EL400 AREAS	▨
EXISTING TREE	● 4" LIGUSTRUM

SURFACE WATER AREAS

TOTAL EX. T.O.B. AREA (SURFACE WATER) = 40,953 SF = 0.940 AC
 TOTAL PROP. T.O.B. AREA (SURFACE WATER) = 41,144 SF = 0.945 AC
 NET CHANGE = 191 SF (0.0044 AC) INCREASE IN SURFACE WATER

ABBREVIATIONS

ELEVATION	EL	DUCTILE IRON PIPE	DIP
INVERT ELEVATION	IE or INV	REINFORCED CONCRETE PIPE	RCP
RIGHT of WAY	R/W	CONCRETE PIPE	CP
MANHOLE	MH	APPROXIMATE LOCATION	AL
POLYVINYL CHLORIDE PIPE	PVC	FORCE MAIN	FM
VITRIFIED CLAY PIPE	VCP	SANITARY	SAN
ADVANCED DRAINAGE SYSTEM	ADS	WATER MAIN	WM
MITERED END SECTION	M.E.S.	CORRUGATED METAL PIPE	CMP
REINFORCED CONCRETE PIPE	RCP	ELLIPTICAL REINFORCED CONC PIPE	ERCP
EXISTING	EXIST	PROPOSED	PROP
SQUARE FEET	SF	LINEAR FEET	LF
CONCRETE	CONC	CONSTRUCT	CONST



KEY MAP

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WHATLEY DITCH
 STORMWATER IMPROVEMENTS
 LEGEND & KEY MAP

ST 0095
 SHEET
3
 OF 22

GENERAL NOTES:

1. ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. NAVD 1988 ELEV = NGVD 1929 ELEV - 0.78'
2. LOCATIONS, ELEVATIONS AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS, OF ALL EXISTING UTILITIES, STRUCTURE, AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION. GAS, VERIZON, WATER MAIN, WATER SERVICES, SEWER LATERALS AND OTHER SUBSURFACE PIPING HAS NOT BEEN LOCATED. ENGINEER OF RECORD SHOWS LOCATIONS AS APPROXIMATE AS PROVIDED BY OTHERS.
3. EXISTING UTILITIES AND TOPOGRAPHIC INFORMATION DENOTED BY UPPER AND LOWER CASE. PROPOSED WORK DENOTED BY ALL UPPER CASE.
4. THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
5. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC, TELEPHONE AND OTHER COMMUNICATION CABLES AND CONDUIT WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.
6. PRIOR TO ANY CONSTRUCTION, CONTACT TAMPA ELECTRIC COMPANY (PH 228-4111) FOR EXACT LOCATION OF UNDERGROUND LINES. TECO TO RELOCATE ANY CONFLICTING LINES.
7. PRIOR TO ANY CONSTRUCTION, CONTACT VERIZON FOR EXACT LOCATION OF UNDERGROUND LINES. VERIZON TO RELOCATE ANY CONFLICTING LINES.
8. STATIONS AND OFFSETS GIVEN ARE TO THE CENTER LINE OF THE INLETS AND MANHOLES, AND REFER TO THE SURVEY BASE LINES.
9. THE SOLID WASTE DEPARTMENT IS TO BE NOTIFIED PRIOR TO ANY STREET CLOSURES IN THE PROJECT AREA.
10. TREE REMOVAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING SITE CLEARING PERMIT PRIOR TO START OF ANY CONSTRUCTION.
11. NECESSARY ROOT PRUNING AND TRIMMING OF BRANCHES SHALL BE DONE BY A CERTIFIED ARBORIST.
12. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE LATEST "TREE ORDINANCE" OF THE CITY OF TAMPA. THE CONTRACTOR IS REQUIRED TO RELOCATE THE TREES REMOVED AS A PART OF THE NECESSARY CONSTRUCTION INDICATED ON PLANS. HOWEVER, NO TREE SHALL BE REMOVED WITHOUT APPROVAL OF THE PARKS DEPARTMENT.
13. SOD ALL THE DISTURBED AREAS AS DIRECTED BY THE ENGINEER AND NOTED ON PLANS.
14. WHERE CONNECTIONS TO EXISTING DRIVES AND WALKS ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.
15. STREET SIGNS, STREET MARKERS AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER.
16. MAILBOXES SHALL BE REMOVED AND REPLACED AS NECESSARY.
17. DRIVEWAYS SHALL BE RECONSTRUCTED IN ACCORDANCE WITH CHAPTER 25 OF THE CITY CODE AND THE TRANSPORTATION TECHNICAL MANUAL. DEVIATION FROM ESTABLISHED STANDARDS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER.
18. THE CONTRACTOR SHALL PROTECT ALL TREES IN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE. NO TREES SHALL BE PRUNED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PARKS & RECREATION DEPARTMENT, NATURAL RESOURCES DIVISION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. ROOT PRUNING MAY BE REQUIRED AT CERTAIN LOCATIONS AND SHALL BE COMPLETED IN ACCORDANCE WITH CHAPTER 13 TECHNICAL MANUAL SPECIFICATIONS.
19. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE CITY OF TAMPA DEPARTMENT ORDINANCES AND REGULATIONS.
20. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL APPLICABLE PERMITS ON-SITE AND SHALL BE RESPONSIBLE TO ADHERE TO ALL PERMIT CONDITIONS DURING CONSTRUCTION.
21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
22. COMPACTION FOR PIPE BACKFILL SHALL COMPLY WITH AASHTO T-99 (100%).

SITE NOTES:

1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN CITY OF TAMPA STORMWATER TECHNICAL MANUAL.
2. ALL RIGHT-OF-WAY INSTALLATIONS MUST COMPLY WITH THE CITY OF TAMPA STANDARDS AND TECHNICAL MANUALS.
3. IN AREAS WHERE FILL MATERIAL IS REQUIRED, THE EXISTING VEGETATION AND ROOTS SHALL BE REMOVED PRIOR TO PLACING ANY FILL MATERIAL. THE FILL SHALL BE PLACED IN LIFTS NO GREATER THAN 12 INCHES AS MEASURED LOOSE, AND COMPACTED TO A UNIFORM DENSITY ASTM D698. THE MATERIAL SHALL BE COMPACTED AT A MOISTURE CONTENT PERMITTING THE SPECIFIED COMPACTION. THE FILL SHALL BE TESTED BY AN INDEPENDENT TESTING LABORATORY AND THE RESULTS SUPPLIED TO THE ENGINEER.
4. THE CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH THE ENGINEER FOR MAKING ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS. HOWEVER, THIS IN NO WAY RELIEVES THE CONTRACTOR OF HIS RESPONSIBILITY FOR CONSTRUCTING THE PROJECT TO ACCOMPLISH THE INTENT OF THE PLANS.
5. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING BEFORE COMMENCING CONSTRUCTION UNLESS SPECIFICALLY EXEMPTED BY THE PLANS.
6. EROSION/SEDIMENTATION CONTROL: THE CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN), IF REQUIRED TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND, AS REQUIRED, IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE, EITHER BY NATURAL DRAINAGE OR BY VEHICLE TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR LOCAL AUTHORITIES.
7. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
8. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION OR FUGITIVE DUST.
9. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33. WIRE FABRIC SHALL CONFORM TO ASTM A185. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-04. SIX-INCH (6") MESH, 10-GAUGE WIRE FABRIC SHALL BE USED IN SLABS FOUR INCHES (4") THICK. SIX-INCH (6") MESH WIRE FABRIC SHALL BE USED IN SLABS THICKER THAN FOUR INCHES (4"). SUBSURFACE SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH UNDER TEN-FOOT (10') STRAIGHT EDGE.

TREE PROTECTION NOTES:

1. PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES AND GRAND TREES DURING SITE CLEARING, AND SHALL REMAIN IN PLACE UNTIL LAND ALTERATION, SITE CLEARING AND CONSTRUCTION ACTIVITIES ARE COMPLETE. BARRICADES SHALL BE ERECTED AT A MINIMUM DISTANCE OF TEN FEET (10') FROM THE BARK OF PROTECTED TREES AND TWENTY FEET (20') FROM THE BARK OF GRAND TREES.
2. REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN TREE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION.
3. A MINIMUM DISTANCE OF TEN FEET (10') SHALL BE MAINTAINED FROM ALL PROTECTED TREES WHEN INSTALLING UNDERGROUND UTILITIES. IF THIS RESULTS IN UNREASONABLE HARDSHIP, A SOIL AUGER SHALL BE USED TO TUNNEL UNDER THE ROOT SYSTEMS.
4. THE CONTRACTOR IS REQUIRED TO PREVENT DAMAGE TO TREES WHICH ARE TO REMAIN. THE CONTRACTOR SHALL BE LIABLE FOR FINES DUE TO ALL DAMAGE OF TREES THAT ARE DESIGNATED TO BE SAVED DURING CONSTRUCTION. SPECIAL CARE IS REQUIRED TO PREVENT DAMAGE TO TREES WHICH ARE TO REMAIN.
5. INSTALLATION OF ARTIFICIAL BARRIERS SUCH AS PROTECTIVE BARRICADES, FENCES, POSTS, OR WALLS SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES AND GRAND TREES. FOOTERS FOR WALLS SHALL BE AT THE POINT WHERE LARGER ROOTS ARE ENCOUNTERED, AND THE ROOTS SHALL BE BRIDGED. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES OR GRAND TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.
6. ALL ROOTS TO BE REMOVED DURING THE SITE CLEARING PHASE SHALL BE SEVERED CLEAN AT THE PERIMETER OF THE DESIGNATED PROTECTED RADIUS AND SHALL BE DONE BY A CERTIFIED ARBORIST.
7. ALL TREES SHALL BE PROTECTED, ROOT PRUNING AND CANOPY PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST. ALL ROOT PRUNING AS WELL AS CANOPY PRUNING SHALL BE PERFORMED UNDER THE CITY OF TAMPA PARKS DEPARTMENT SUPERVISION.
8. A TWO-INCH (2") LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES AND GRAND TREES DURING THE SITE CLEARING PHASE.

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CITY of TAMPA
 Department of Public Works
 Stormwater Division

WHATLEY DITCH
 STORMWATER IMPROVEMENTS
 GENERAL & CONSTRUCTION NOTES

NPDES/FDEP NOTICE OF INTENT AND REPORTING NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF THE EROSION AND SEDIMENTATION CONTROL PLAN TO BE SUBMITTED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE PLAN SHALL INCLUDE THE FOLLOWING:
 - A. NARRATIVE: A BRIEF DESCRIPTION OF THE OVERALL STRATEGY FOR EROSION AND SEDIMENT CONTROL.
 - B. MAP/SITE PLAN: SITE PLAN WHICH SHOWS THE EXISTING AND FINAL ELEVATION CONTOURS, CRITICAL AREAS WITHIN OR NEAR THE PROJECT AREA, EXISTING VEGETATION, LIMITS OF CLEARING AND GRADING, AND LOCATIONS AND NAMES OF EROSION AND SEDIMENT CONTROL MEASURES, WITH DIMENSIONS.
 - C. CONSTRUCTION DETAILS
 - D. CALCULATIONS: INCLUDE CALCULATIONS USED TO SIZE THE CONTROL MEASURES AND THE DESIGN ASSUMPTIONS FOR SEDIMENT BASINS AND TRAPS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BEFORE AND AFTER EACH RAIN EVENT OF 1/4 INCH OR MORE.
3. DISTURBED AREAS WHICH HAVE BEEN BROUGHT TO FINAL GRADE OR WHICH WILL REMAIN AT ROUGH GRADE FOR 14 DAYS OR MORE SHALL RECEIVE PERMANENT STABILIZATION IMMEDIATELY.
4. CONTRACTOR SHALL MAINTAIN ON-GOING INSPECTION REPORTS FOR EROSION & SEDIMENT CONTROL INSPECTIONS AND MAINTENANCE.
5. CONTRACTOR SHALL HAVE A CERTIFIED INSPECTOR ON STAFF AND BE RESPONSIBLE FOR ALL NPDES REPORTING.
6. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING, OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
7. THE CONTRACTOR SHALL SUBMIT THE REQUIRED NPDES/FDEP NOTICE OF INTENT 30 DAYS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL RAINFALL AND DISCHARGE LOGS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION A NOTICE OF TERMINATION SHALL BE FILED WITH FDEP.

EROSION/TURBIDITY CONTROL NOTES:

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO WETLANDS SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.
4. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN THE WETLANDS OR IN A POSITION CLOSE ENOUGH THERETO TO BE WASHED AWAY BY HIGH WATER OR RUNOFF.
5. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE AND ARE NOT LIMITED TO, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.
6. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND 3PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
7. THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOILS ARE STABILIZED.
8. SILT FENCE SHALL BE LOCATED AT THE PERIMETER OF CONSTRUCTION LIMITS, AS DEFINED BY FIELD CONDITIONS.
9. CONTRACTOR IS TO PROVIDE EROSION CONTROL AND 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, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
10. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

CONSTRUCTION NOTES:

1. CONTRACTOR TO CLEAN ENTIRE LIMITS OF DITCH AND REMOVE ALL EXISTING DEBRIS, RUBBLE, ROCK, ETC.
2. CONTRACTOR TO REUSE EXISTING ROCK & GRANITE CURB WHERE APPROPRIATE IN THE GABION WALLS & RENO MATS. PRIOR TO ITS USE, THE ROCK, CONCRETE AND GRANITE TO BE CRUSHED TO APPROPRIATE SIZE & WASHED OF ALL FINES.
3. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY WITH BAHIA SOD.
4. CONTRACTOR TO RESTORE DISTURBED RESIDENTIAL YARDS WITHIN FENCE AND CONSTRUCTION LIMITS WITH BAHIA, ST. AUGUSTINE, AND/OR LIKE KIND OF SOD. PAYMENT FOR ANY LANDSCAPE REPLACEMENT ON PRIVATE PROPERTY TO BE NEGOTIATED DURING CONSTRUCTION.
5. CONTRACTOR TO PROTECT EXISTING IRRIGATION SYSTEMS AND ANY OTHER UTILITIES IN RESIDENTIAL YARDS WITHIN CONSTRUCTION LIMITS AND/OR RESTORE ANY DAMAGED SYSTEMS DURING CONSTRUCTION BACK TO EXISTING CONDITIONS. PAYMENT FOR IRRIGATION REPAIRS AND REPLACEMENT ON PRIVATE PROPERTY TO BE NEGOTIATED DURING CONSTRUCTION
6. CONTRACTOR TO BACKFILL WITHIN ENVIROMAT VOIDED AREAS AND ON TOP WITH ORGANIC TOPSOIL AND THEN HYDROSEED THE ENVIROMAT AREA AND STABILIZED SLOPES WITH BAHIA SEED, MULCH & HYDRAMAX-HYDRAGS MIXTURE UPON COMPLETION.
7. CONTRACTOR TO HYDROSEED RENO MATS AND GABIAN BASKETS WITH BAHIA SEED UPON COMPLETION.
8. CONTRACTOR TO PROTECT EXISTING PRIVATE FENCES DURING CONSTRUCTION OR REPLACE IN LIKE KIND.
9. CONTRACTOR TO PROTECT THE EXISTING CONDUIT THAT IS TO REMAIN.
10. ALL REMOVAL WITHIN PROPOSED EXCAVATION AREAS IS PART OF PIPE, WALL, GABION, RENO MATS & ENVIROMAT CONSTRUCTION.
11. PRICE FOR ALL REMOVAL, AS SHOWN ON THE PLANS OUTSIDE OF CONSTRUCTION EXCAVATION AREA, SHALL BE INCLUDED IN THE VARIOUS ITEMS OF THE STORMWATER UNIT PRICE ITEMS.
12. CONTRACTOR SHALL CONTACT SUNSHINE WITHIN 48 HOURS PRIOR TO ANY CONSTRUCTION.
13. CONTRACTOR TO PROTECT ALL POWER POLES & SUBSURFACE UTILITIES. IN THE EVENT OF A CONFLICT THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY PROVIDER.
14. ALL RCP PIPES SHALL BE CLASS IV, WITH MIN. COVER OF 12".
15. CONTRACTOR TO DEWATER/BYPASS PUMP THE CHANNELIZED FLOW AS NECESSARY TO MAINTAIN EXISTING FLOW PATTERNS DURING CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE NECESSARY DIKE/TEMPORARY DAM AS NEEDED TO CONTROL AND PUMP DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A PUMPING PLAN TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
16. IT IS RECOMMENDED FOR THE CONSTRUCTION TO TAKE PLACE DURING THE DRY SEASON. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULING DIRECTLY WITH THE CITY OF TAMPA.
17. ALL EXISTING PIPE AND DRAINAGE CONNECTIONS INTO THE DITCH SHALL BE MAINTAINED AND CONSTRUCTED IN A SIMILAR MANNER TO THE PIPE PENETRATION DETAIL ON SHEET 17.
18. ALL TEMPORARY CONSTRUCTION EASEMENT AREAS AND CONSTRUCTION ACCESS AREAS ARE TO BE RESTORED TO ORIGINAL CONDITION AND AT A MINIMUM SHALL BE DRESSED WITH BAHIA SOD OR SIMILAR.
19. CONTRACTOR TO MAINTAIN SILT FENCE AROUND ALL STORED MATERIALS.
20. THE CONTRACTOR SHALL HAND IRRIGATE ALL PLANTED TREES WITH A PUMP FROM THE CANAL WATER. THEE TREES TO BE WATERED FOR A PERIOD OF 6 MONTHS FROM THE TIME THE TREES ARE PLANTED. IRRIGATION FREQUENCY SHALL BE AS OFTEN ENOUGH FOR THE TREES TO MAINTAIN HEALTHY CONDITION AND BECOME ESTABLISHED. AFTER A PERIOD OF 6 MONTHS THE CONTRACTOR AND A REPRESENTATIVE FROM THE ENGINEER OF RECORD SHALL INSPECT ALL PLANTED TREES AND ANY UNHEALTHY TREE SHALL BE REPLACED BY THE CONTRACTOR.

BIDDING NOTES:

1. ALL REMOVAL WITHIN PROPOSED EXCAVATION AREAS ARE PART OF PIPE, INLET AND / OR MANHOLE CONSTRUCTION.
2. PRICE FOR ALL REMOVAL, AS SHOWN ON THE PLANS OUTSIDE OF CONSTRUCTION EXCAVATION AREA, SHALL BE INCLUDED IN THE VARIOUS ITEMS OF THE STORMWATER UNIT PRICES.

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 DRN: JJB
 CKD: MDC
 DATE: 10/13

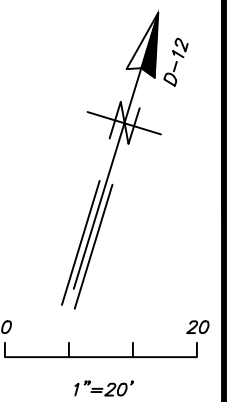
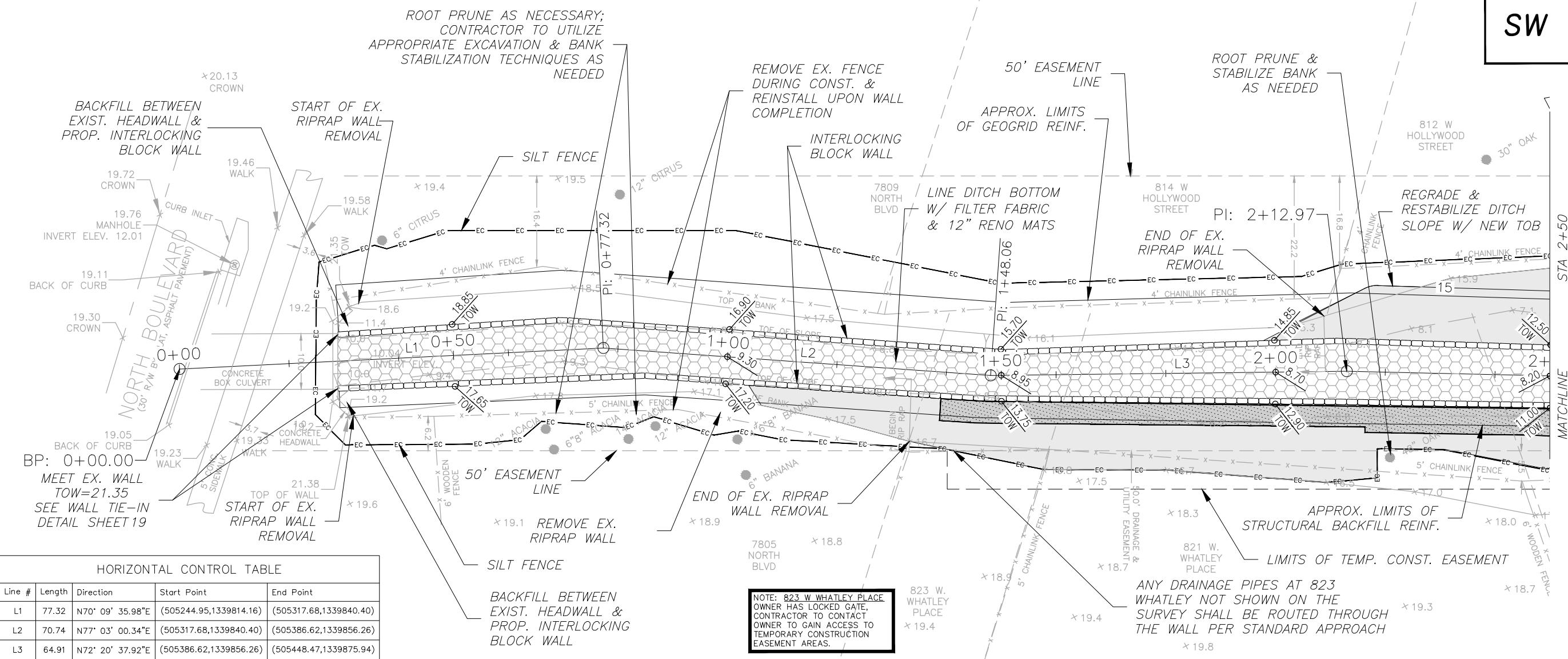
CITY of TAMPA
 Department of Public Works
 Stormwater Division

WHATLEY DITCH
 STORMWATER IMPROVEMENTS
 GENERAL & CONSTRUCTION NOTES

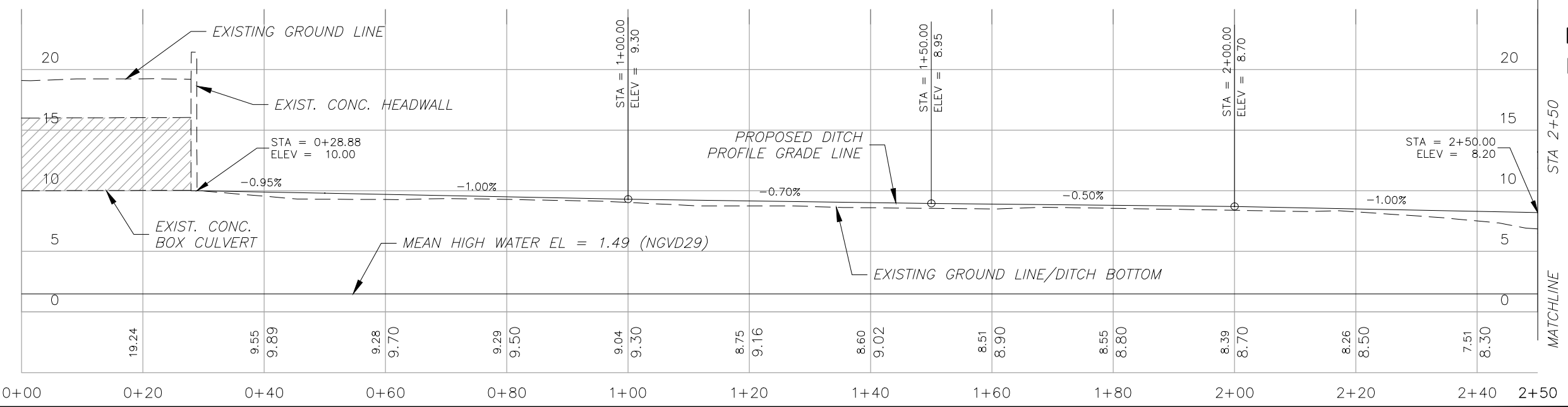
ST 0095
 SHEET
5
 OF 22

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SW



HORIZONTAL CONTROL TABLE				
Line #	Length	Direction	Start Point	End Point
L1	77.32	N70° 09' 35.98"E	(505244.95,1339814.16)	(505317.68,1339840.40)
L2	70.74	N77° 03' 00.34"E	(505317.68,1339840.40)	(505386.62,1339856.26)
L3	64.91	N72° 20' 37.92"E	(505386.62,1339856.26)	(505448.47,1339875.94)



SCALE:
1"=20' HORIZ.
1"=10' VERT.

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

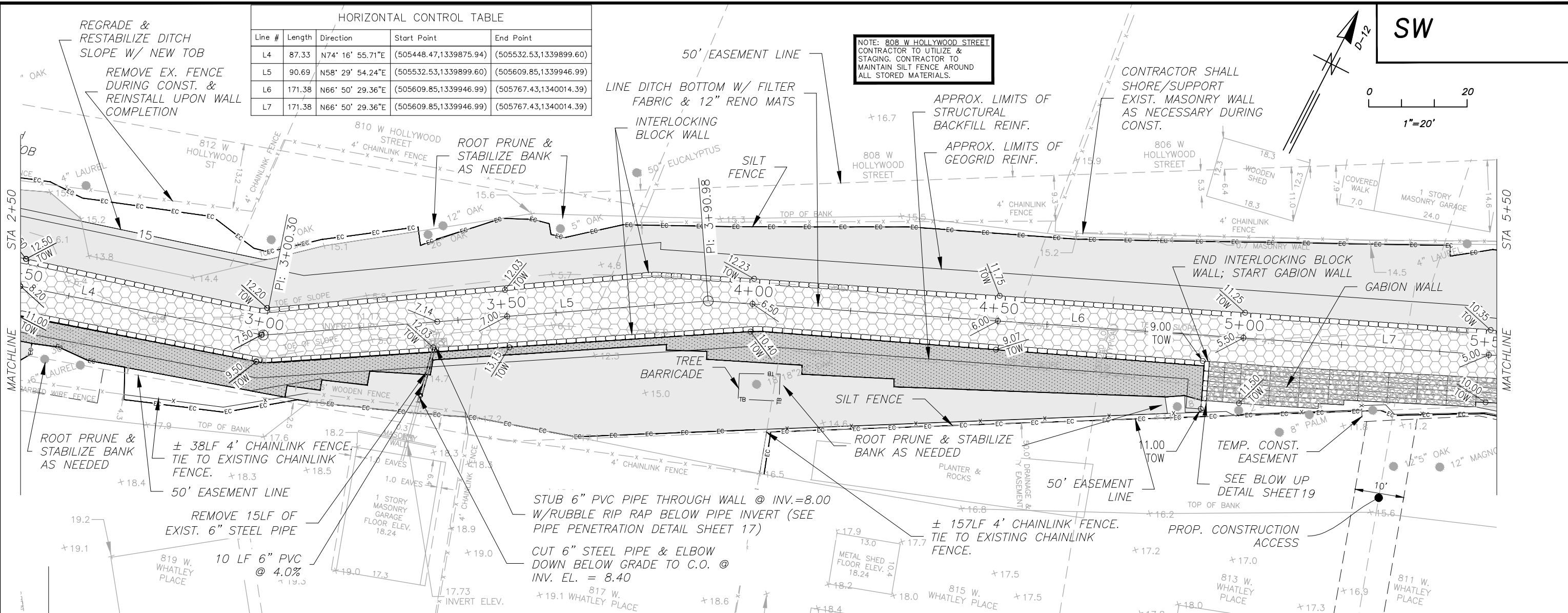
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DRN: JJB
CKD: MDC
DATE: 10/13

CITY of TAMPA
Department of Public Works
Stormwater Division

WHATLEY DITCH
STORMWATER IMPROVEMENTS
PLAN & PROFILE

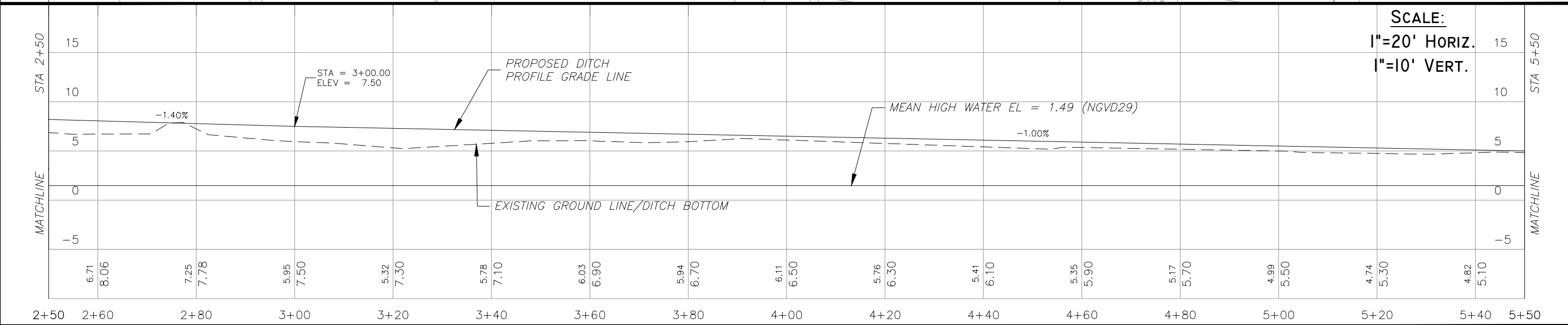
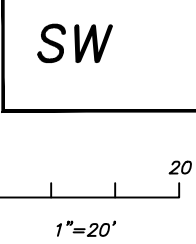
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SHEET
6
OF 22

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HORIZONTAL CONTROL TABLE				
Line #	Length	Direction	Start Point	End Point
L4	87.33	N74° 16' 55.71"E	(505448.47,1339875.94)	(505532.53,1339899.60)
L5	90.69	N58° 29' 54.24"E	(505532.53,1339899.60)	(505609.85,1339946.99)
L6	171.38	N66° 50' 29.36"E	(505609.85,1339946.99)	(505767.43,1340014.39)
L7	171.38	N66° 50' 29.36"E	(505609.85,1339946.99)	(505767.43,1340014.39)

NOTE: 808 W HOLLYWOOD STREET CONTRACTOR TO UTILIZE & STAGING. CONTRACTOR TO MAINTAIN SILT FENCE AROUND ALL STORED MATERIALS.



SCALE:
1"=20' HORIZ.
1"=10' VERT.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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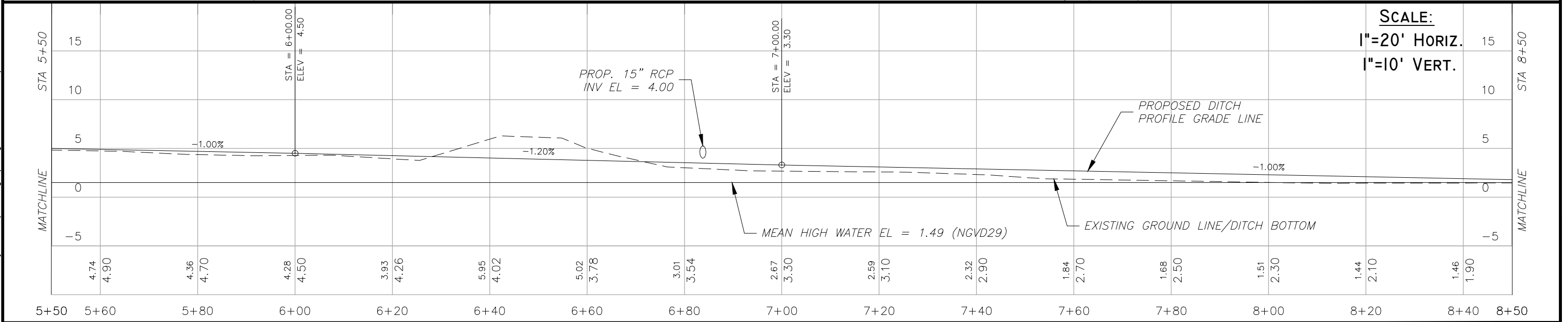
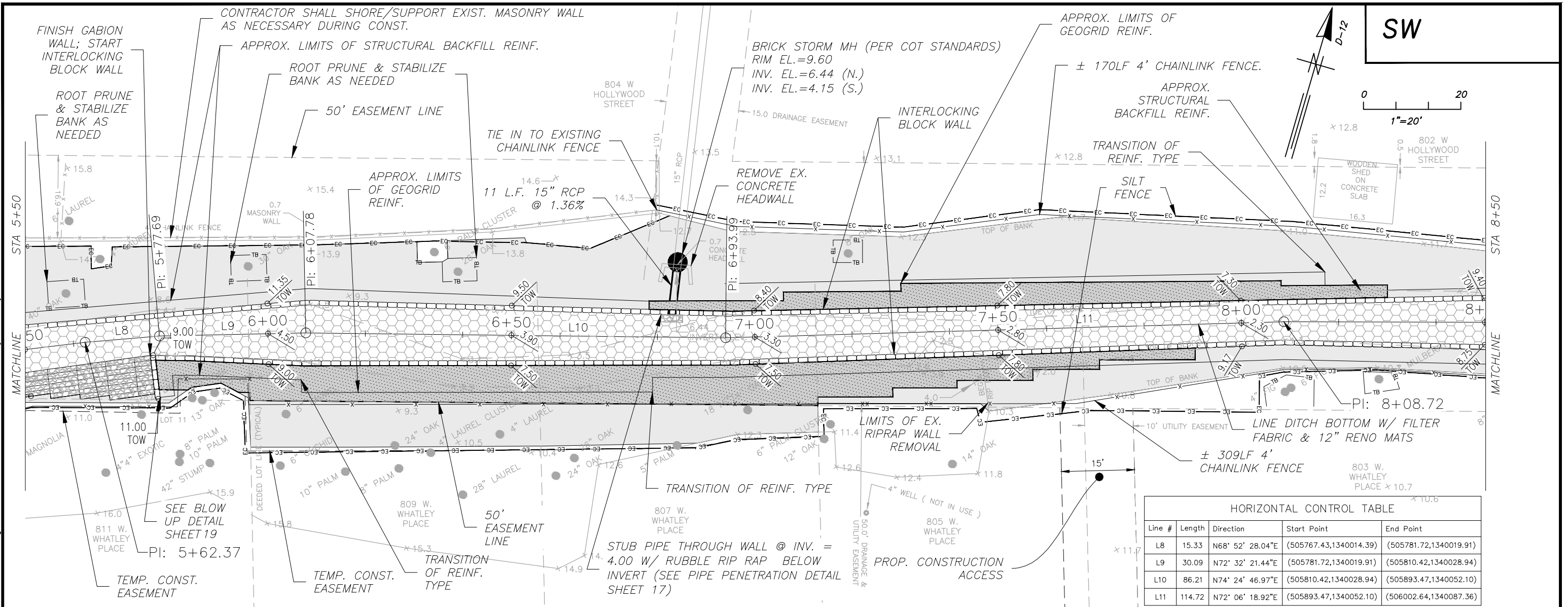
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DATE: 10/13

CITY of TAMPA
Department of Public Works
Stormwater Division

WHATLEY DITCH
STORMWATER IMPROVEMENTS
PLAN & PROFILE

ST 0095
SHEET
7
OF 22

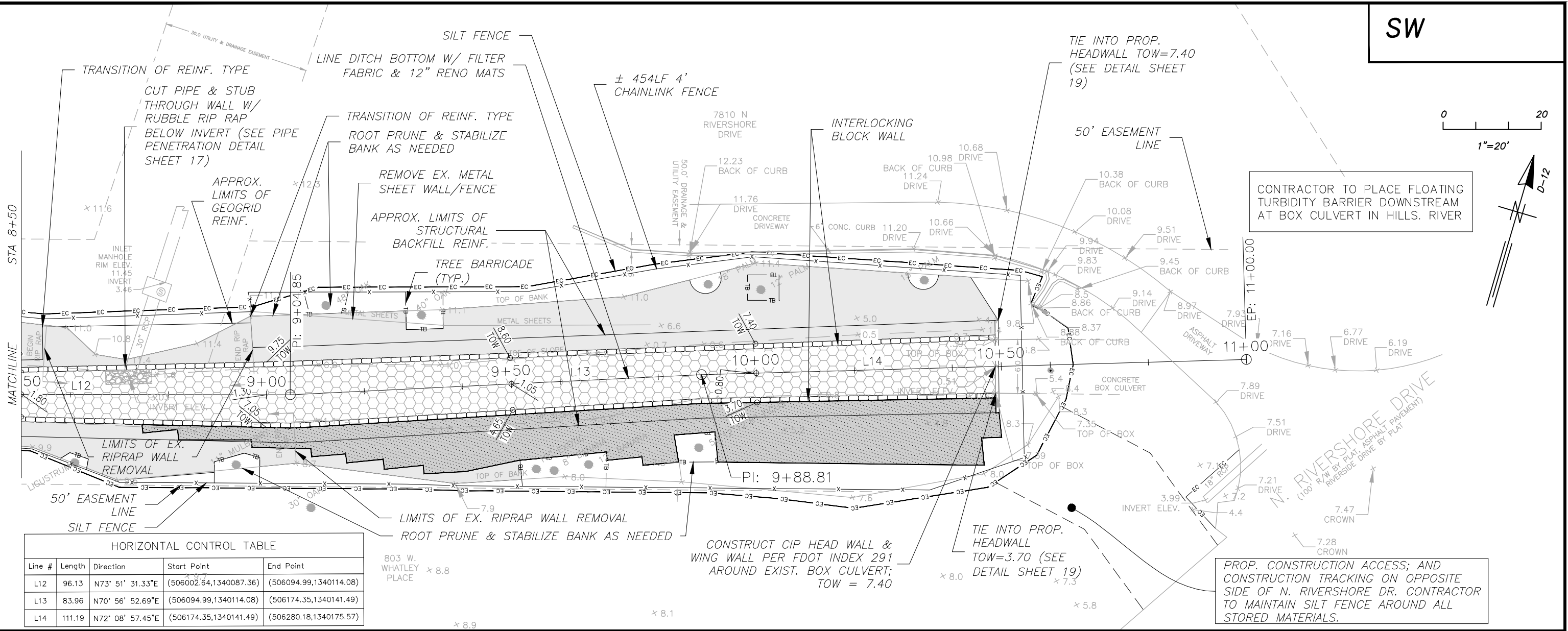
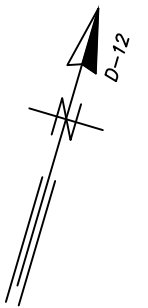
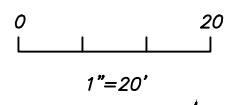
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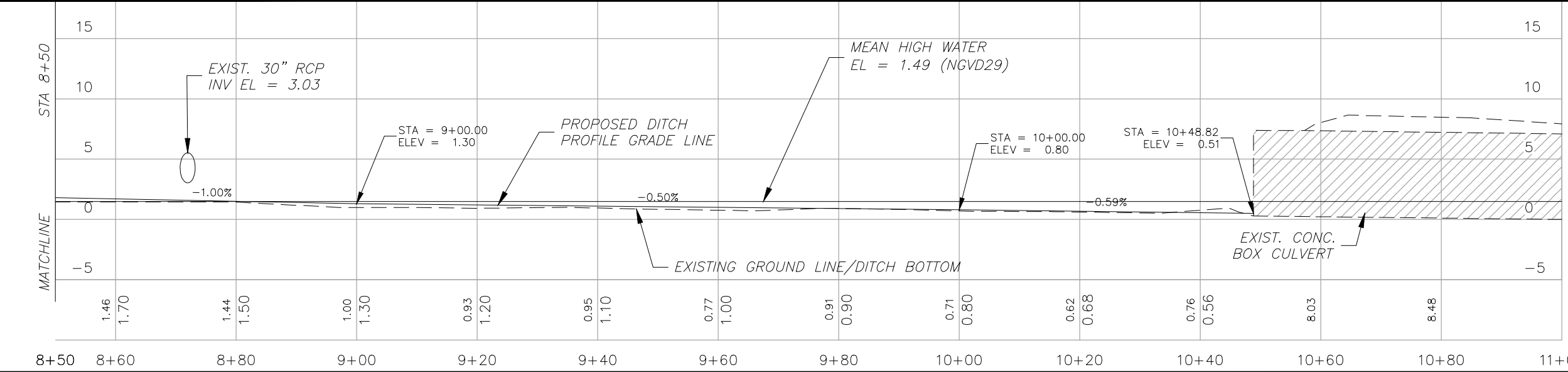
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DRN: JJB			SHEET
CKD: MDC			8
DATE: 10/13			OF 22

SW



HORIZONTAL CONTROL TABLE

Line #	Length	Direction	Start Point	End Point
L12	96.13	N73° 51' 31.33"E	(506002.64,1340087.36)	(506094.99,1340114.08)
L13	83.96	N70° 56' 52.69"E	(506094.99,1340114.08)	(506174.35,1340141.49)
L14	111.19	N72° 08' 57.45"E	(506174.35,1340141.49)	(506280.18,1340175.57)



SCALE:
1"=20' HORIZ.
1"=10' VERT.

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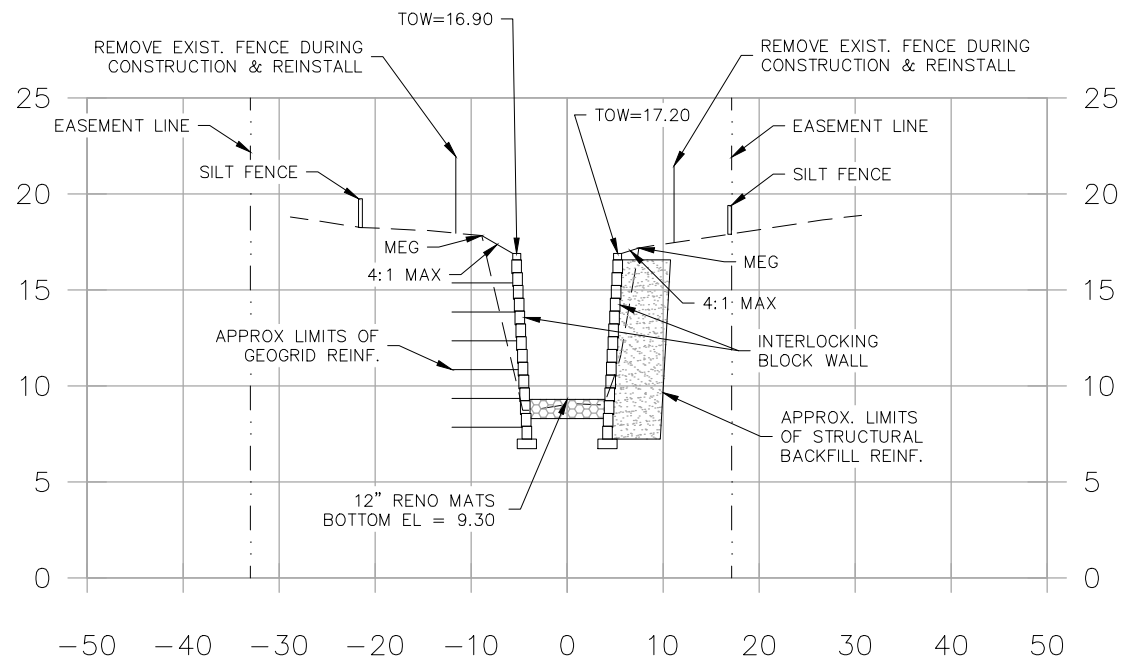
CITY of TAMPA
Department of Public Works
Stormwater Division

WHATLEY DITCH
STORMWATER IMPROVEMENTS
PLAN & PROFILE

ST 0095
SHEET
9
OF 22

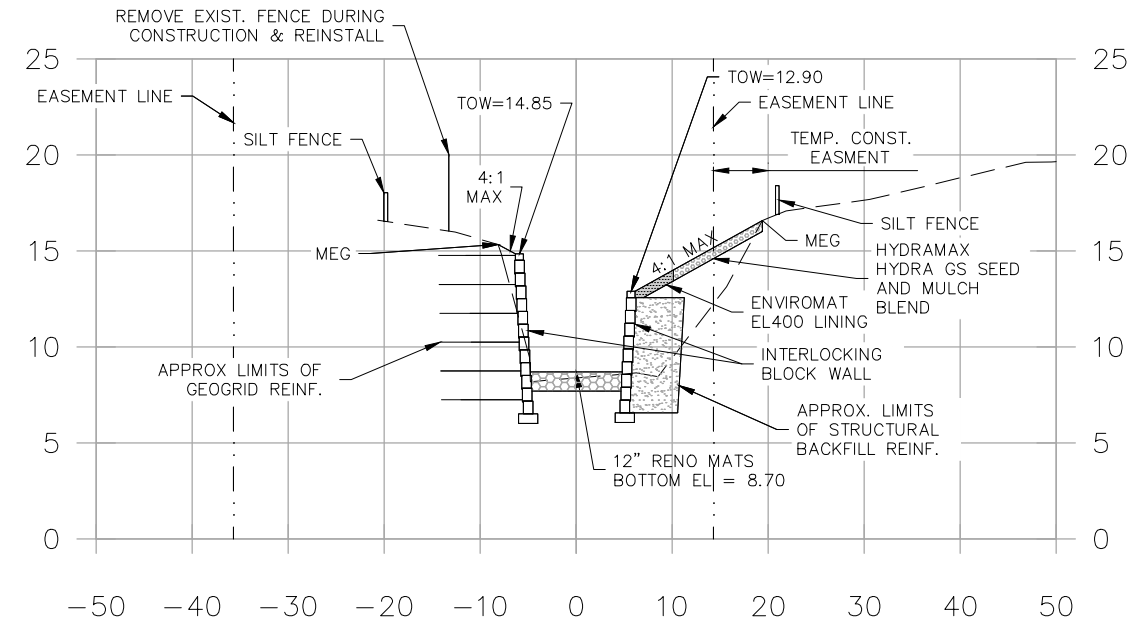
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NOTE:
LIMITS OF STRUCTURAL BACKFILL & GEOGRID REINFORCEMENT ARE ONLY APPROXIMATE AS DEPICTED ON THESE PLANS. ACTUAL STRUCTURAL DESIGN AND REINFORCEMENT TO BE SPECIFIED BY WALL INSTALLER



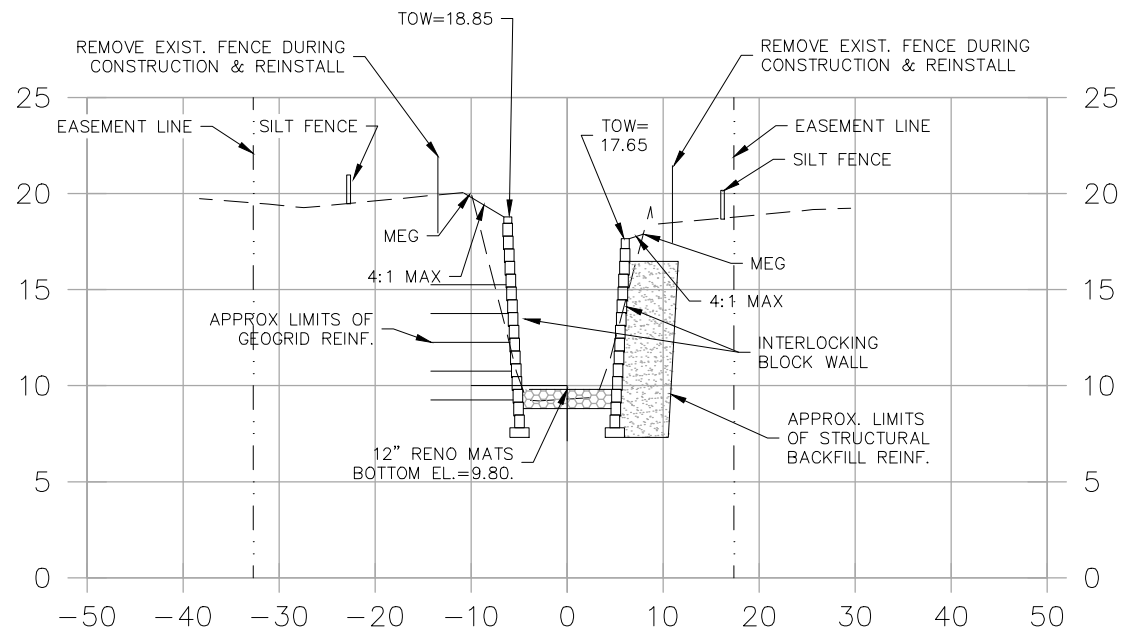
SECTION 1+00

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1"=10' VERTICAL



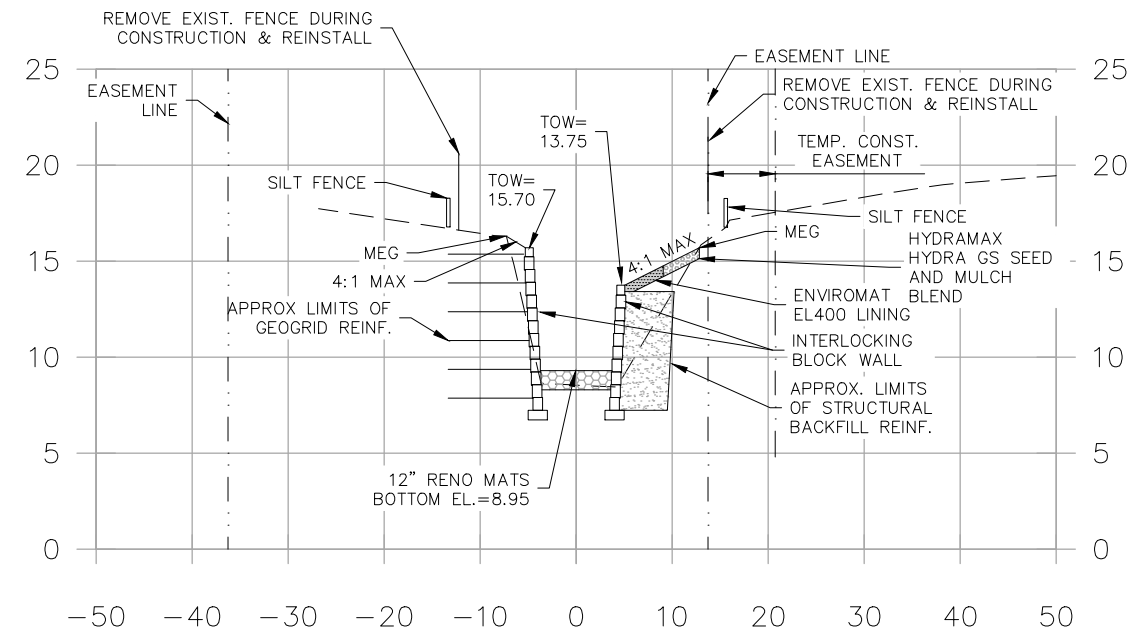
SECTION 2+00

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1"=10' VERTICAL



SECTION 0+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL



SECTION 1+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL

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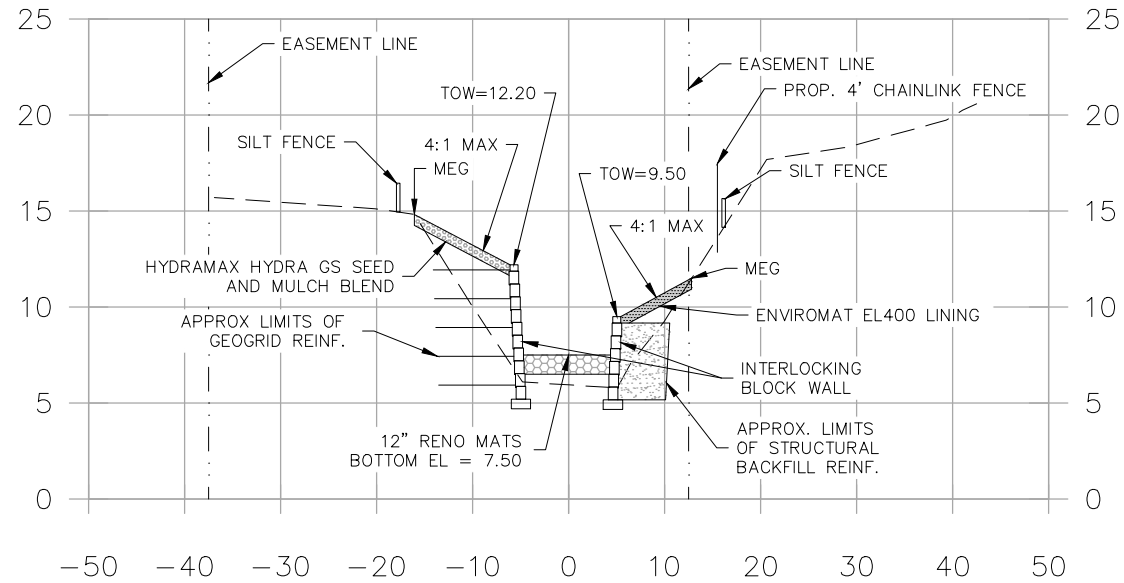
CITY of TAMPA
Department of Public Works
Stormwater Division

WHATLEY DITCH
STORMWATER IMPROVEMENTS
CROSS SECTIONS

ST 0095
SHEET
10
OF 22

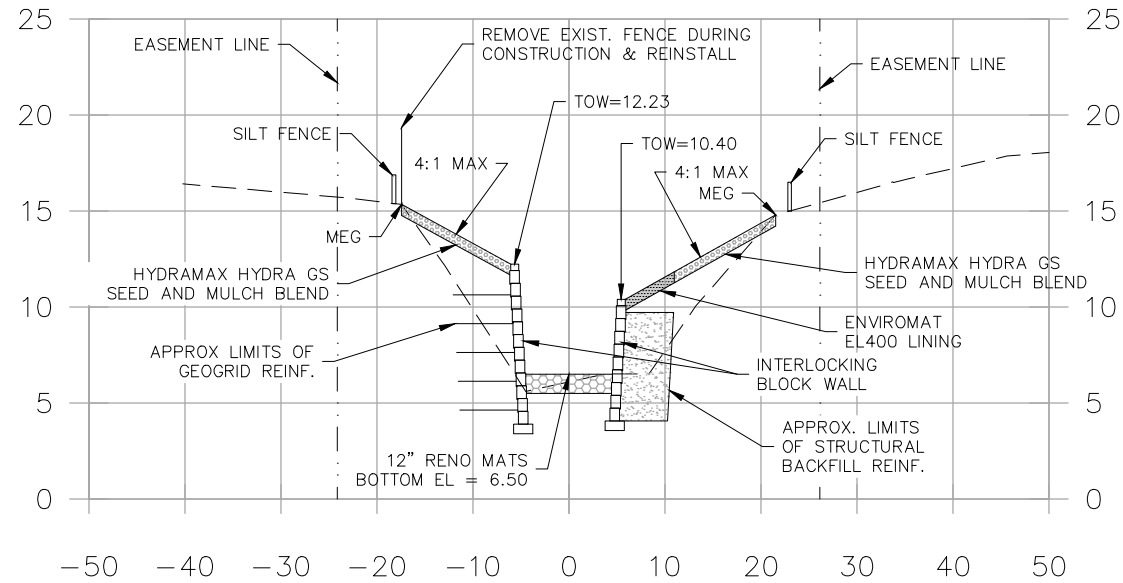
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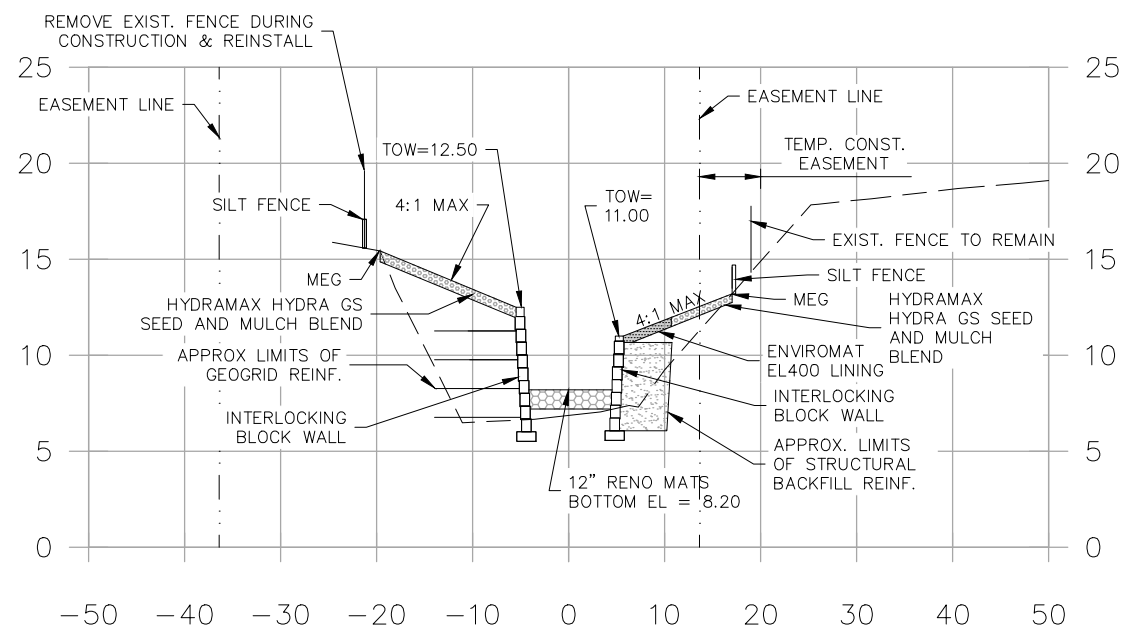
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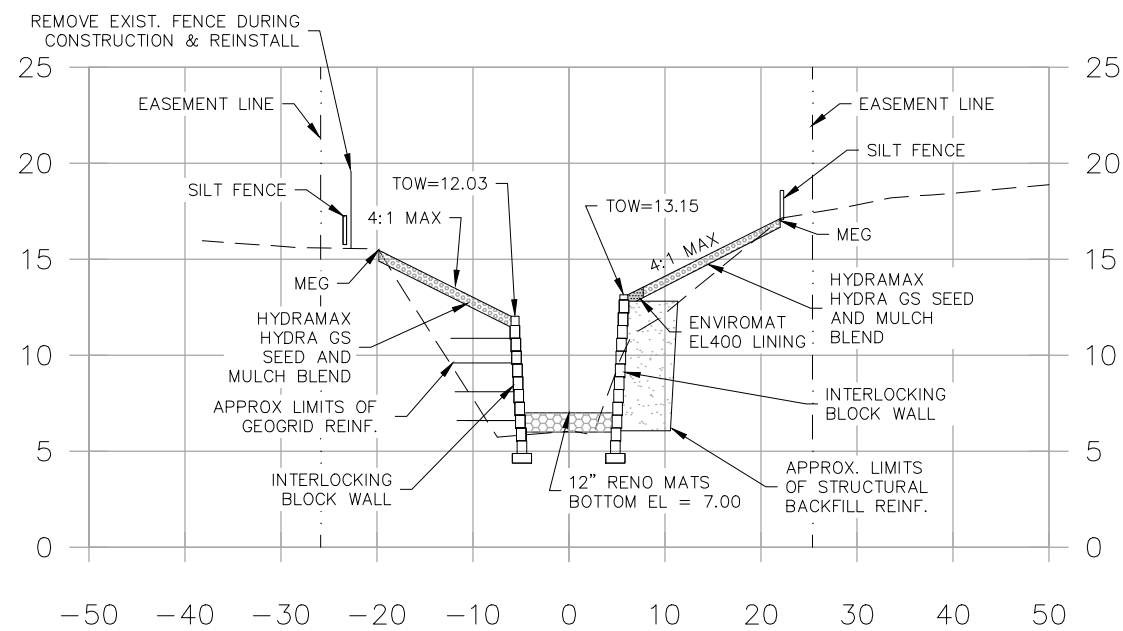
SECTION 4+00

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1"=10' VERTICAL



SECTION 2+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL



SECTION 3+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL

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Stormwater Division

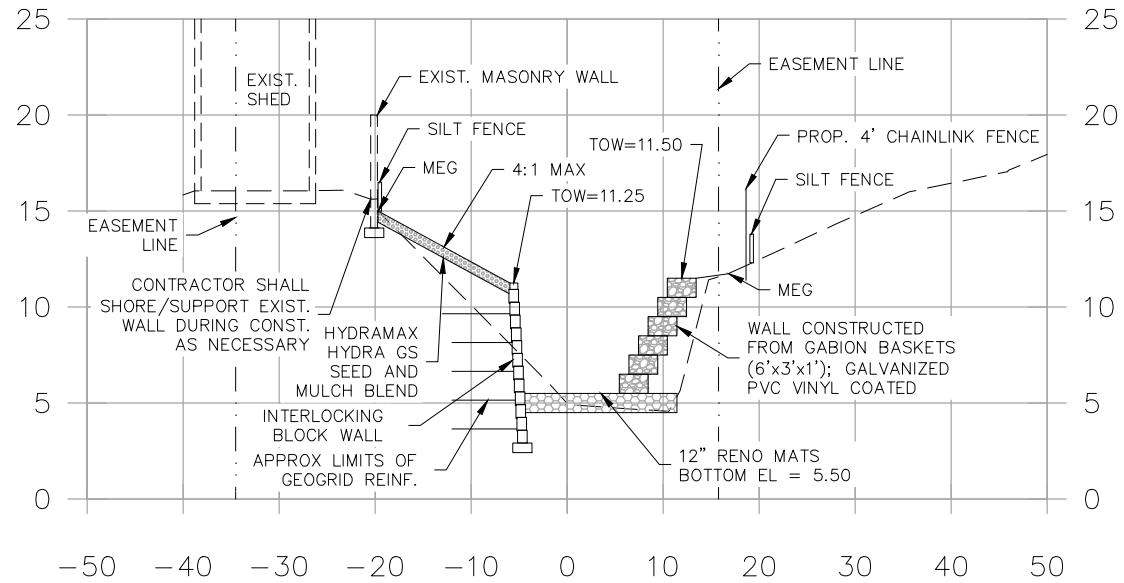
WHATLEY DITCH
STORMWATER IMPROVEMENTS
CROSS SECTIONS

ST 0095
SHEET
11
OF 22

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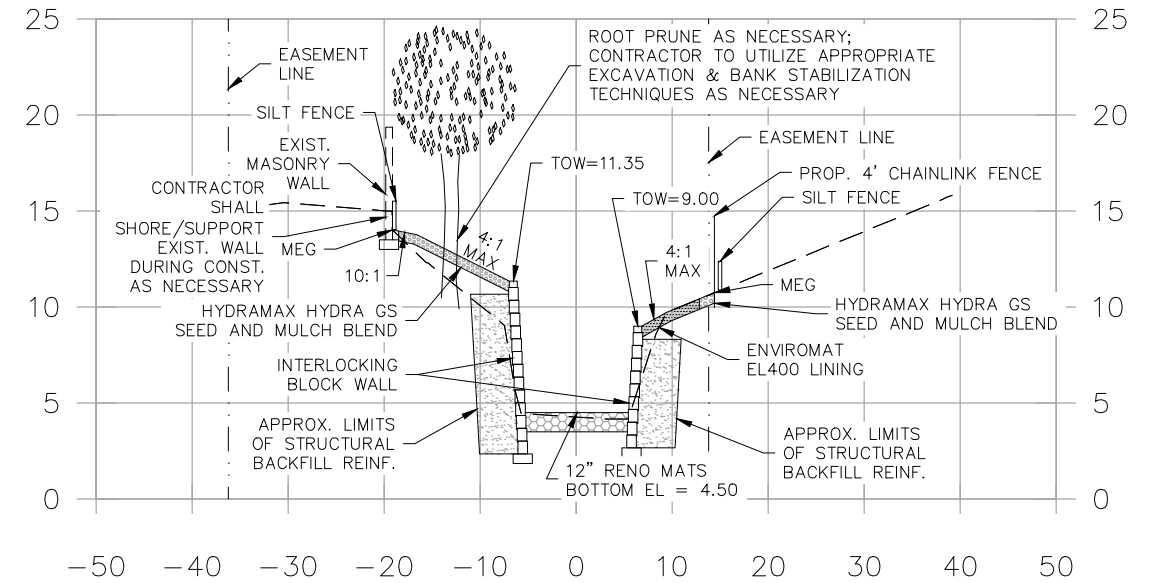
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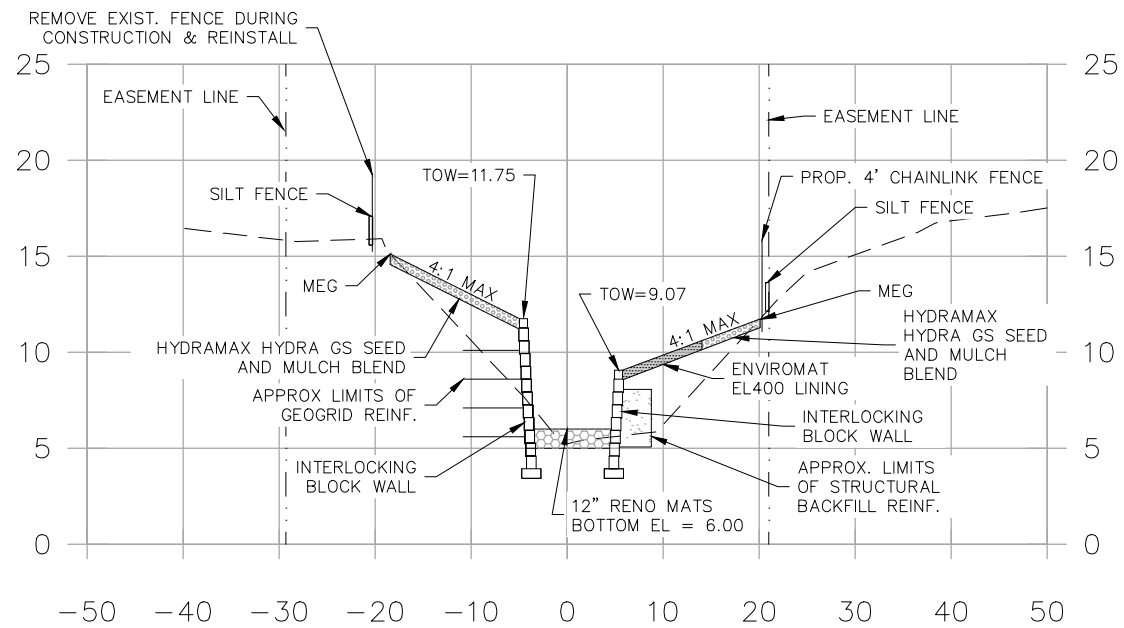
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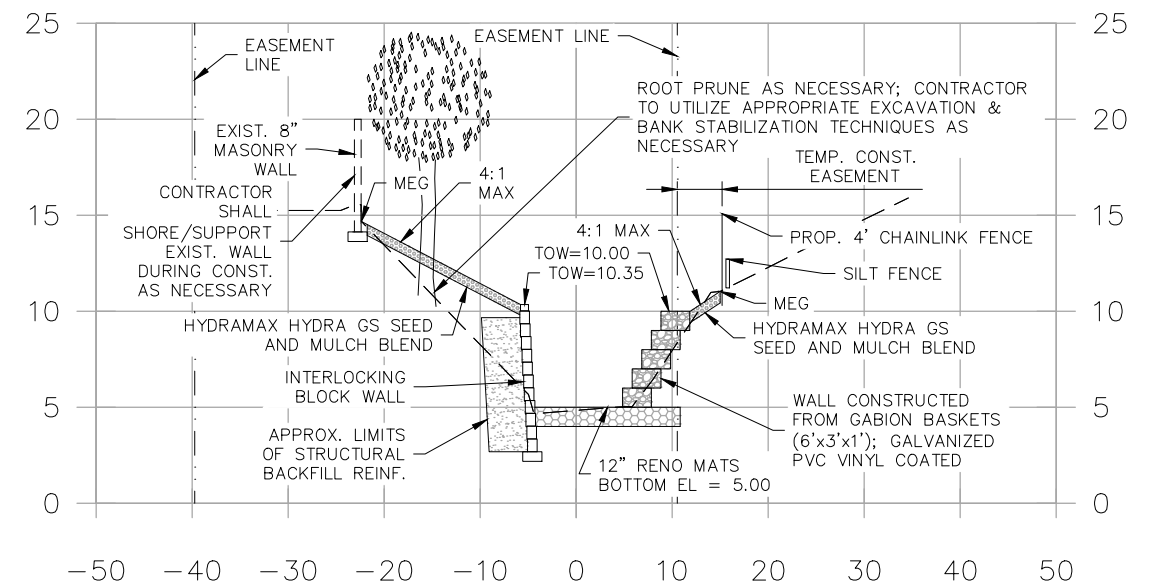
SECTION 6+00

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1"=10' VERTICAL



SECTION 4+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL



SECTION 5+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL

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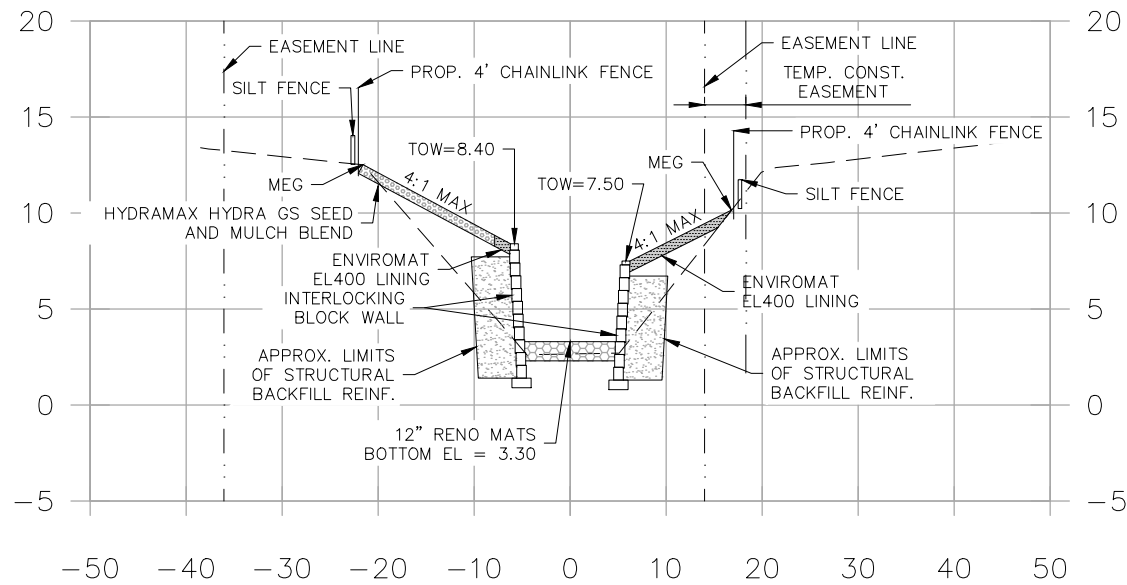
CITY of TAMPA
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WHATLEY DITCH
STORMWATER IMPROVEMENTS
CROSS SECTIONS

ST 0095
SHEET
12
OF 22

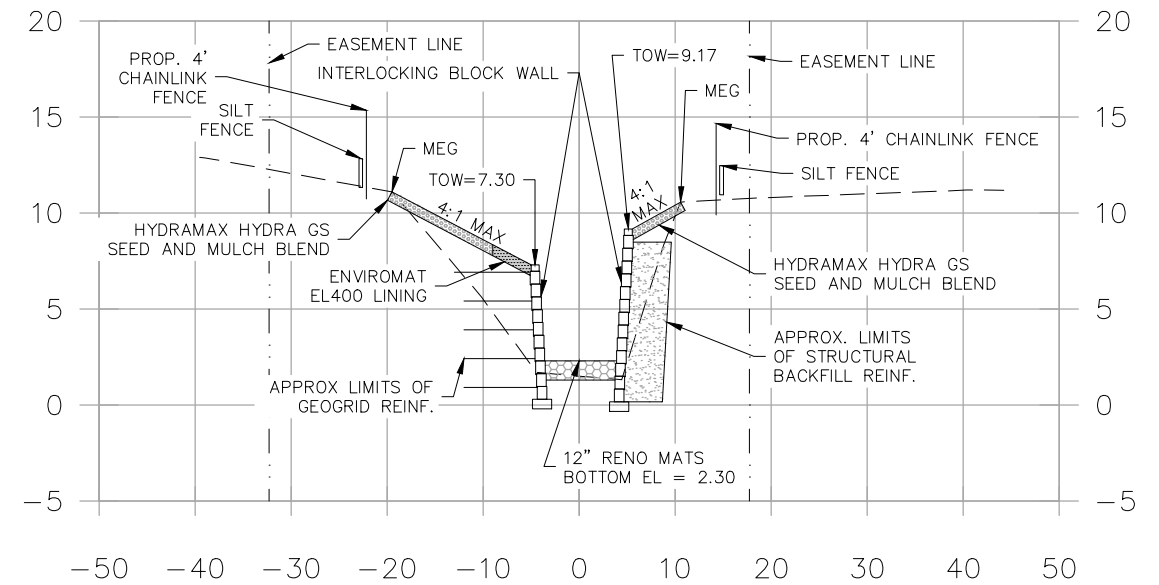
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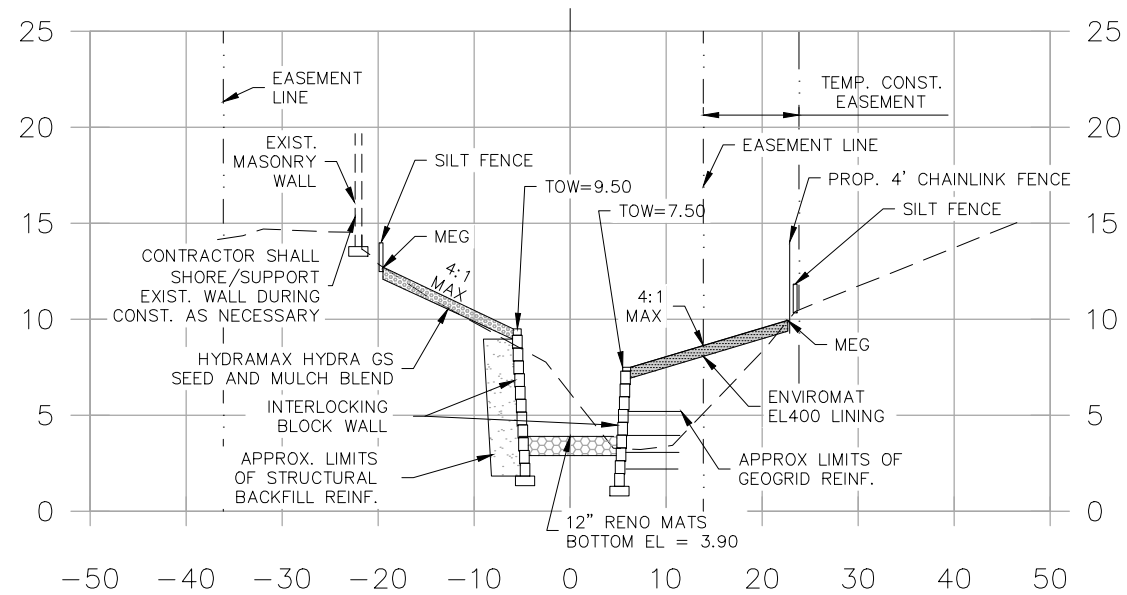
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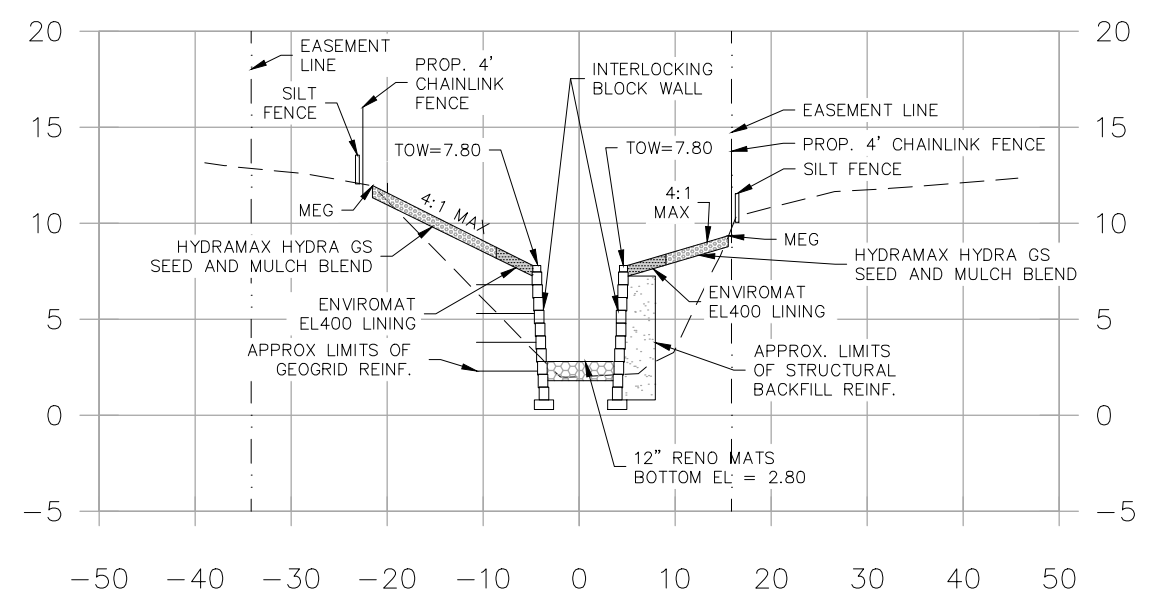
SECTION 8+00

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL



SECTION 6+50

SCALE: 1"=20' HORIZONTAL
1"=10' VERTICAL



SECTION 7+50

SCALE: 1"=20' HORIZONTAL
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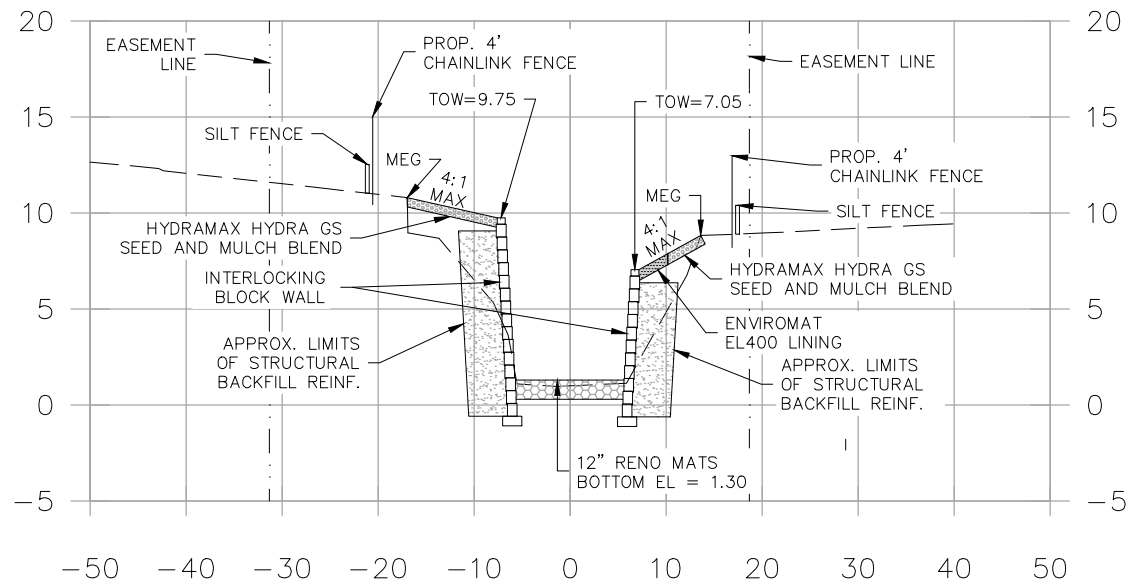
CITY of TAMPA
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WHATLEY DITCH
STORMWATER IMPROVEMENTS
CROSS SECTIONS

ST 0095
SHEET
13
OF 22

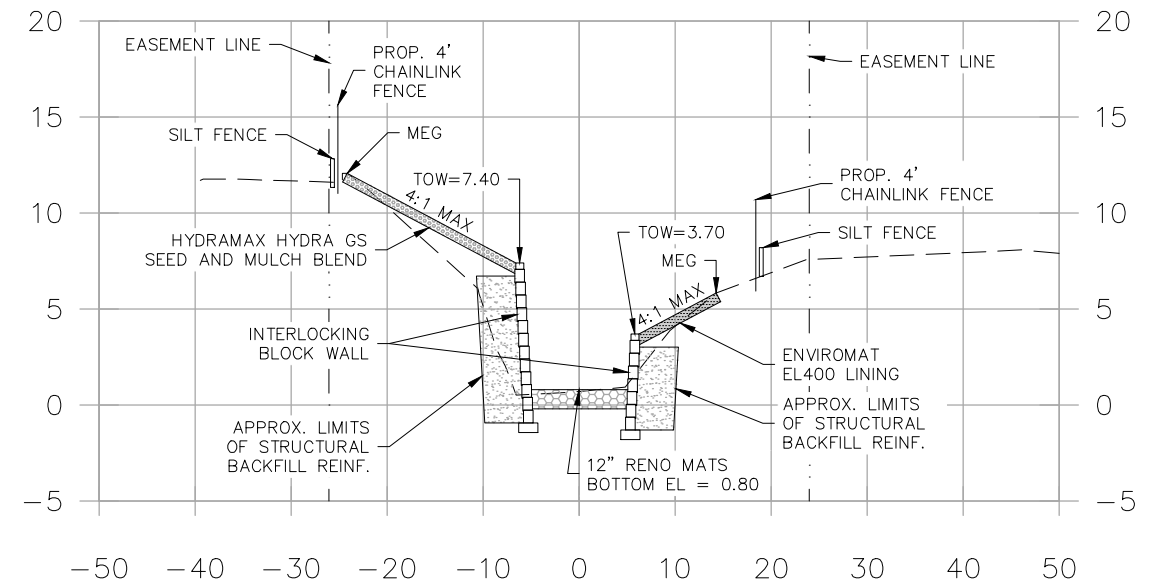
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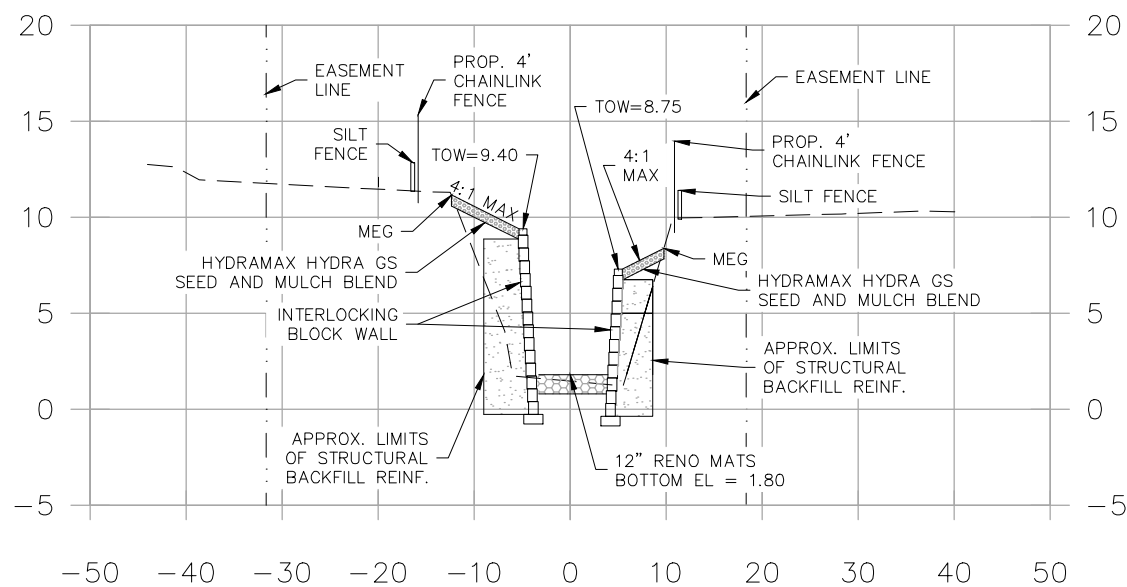
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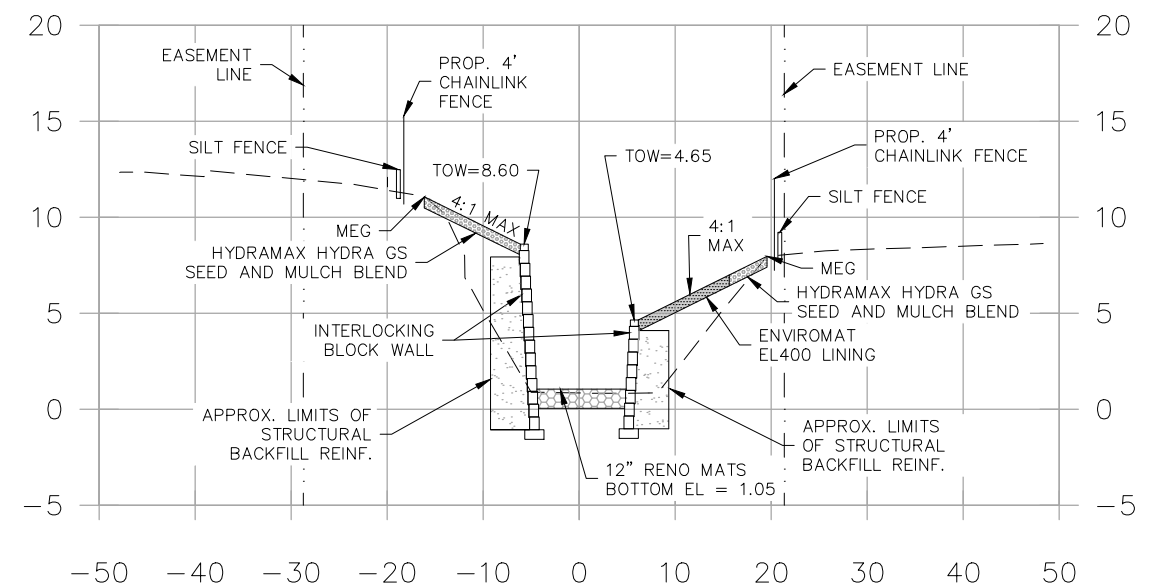
SECTION 10+00

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1"=10' VERTICAL



SECTION 8+50

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1"=10' VERTICAL



SECTION 9+50

SCALE: 1"=20' HORIZONTAL
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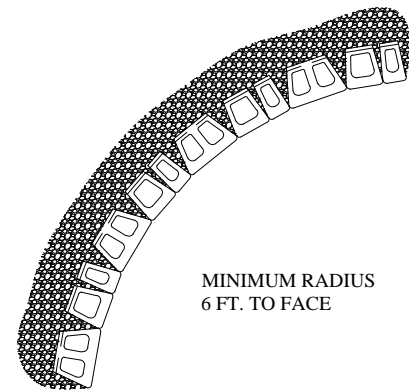
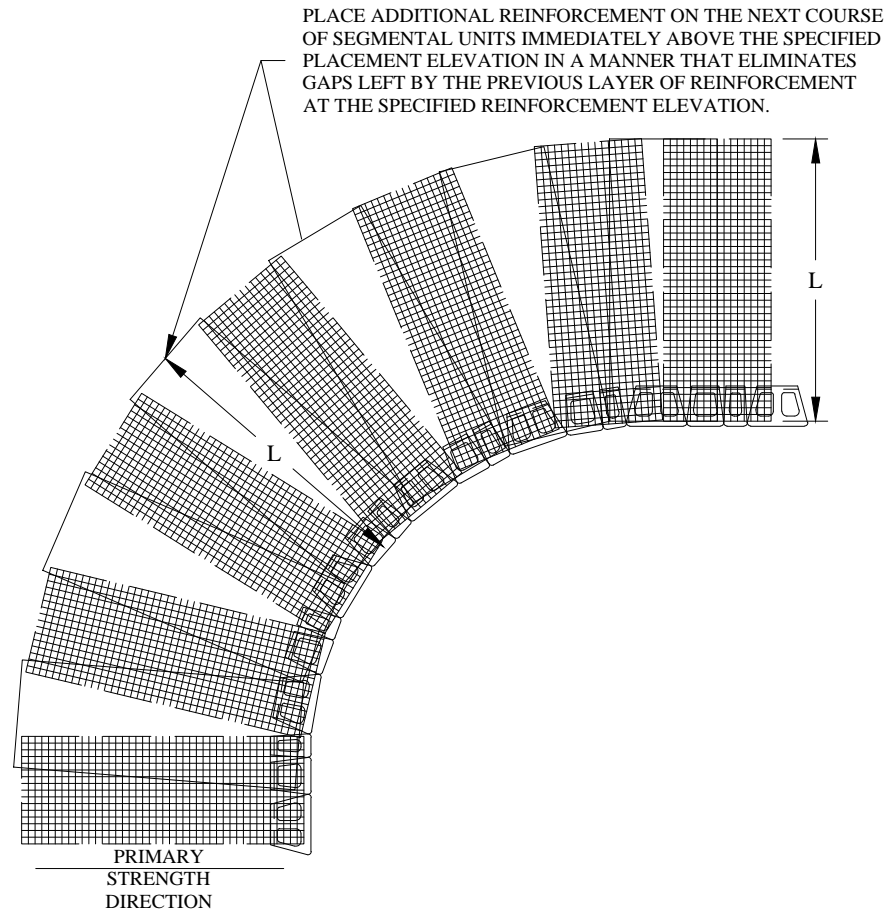
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Department of Public Works
Stormwater Division

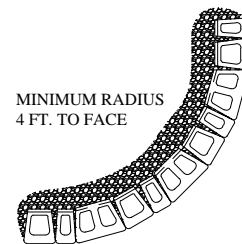
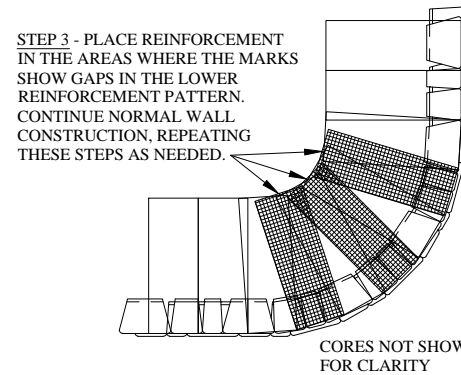
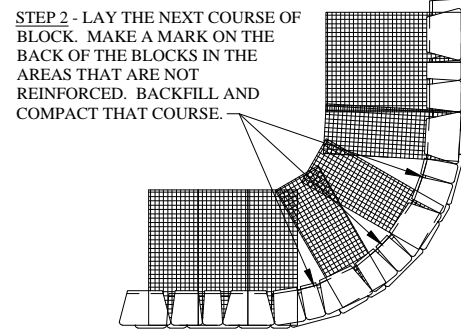
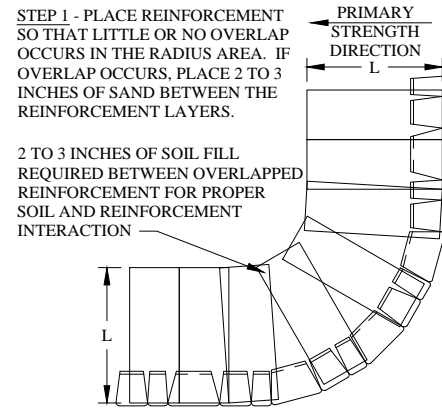
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STORMWATER IMPROVEMENTS
CROSS SECTIONS

ST 0095
SHEET
14
OF 22

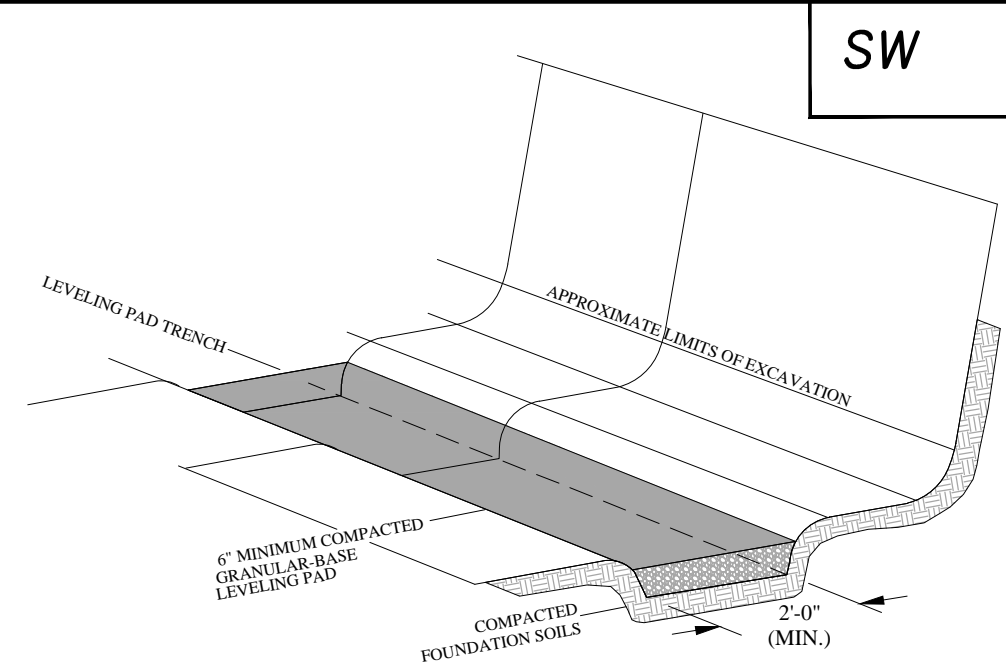
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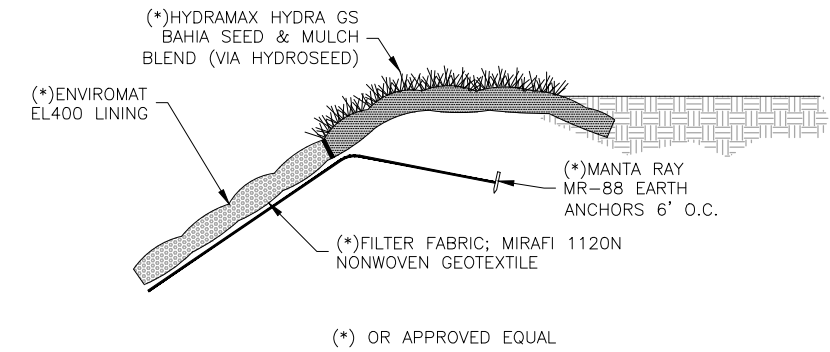
Anchor™ Diamond Pro Stone Cut™ Retaining Wall
INSIDE CURVE DETAILS



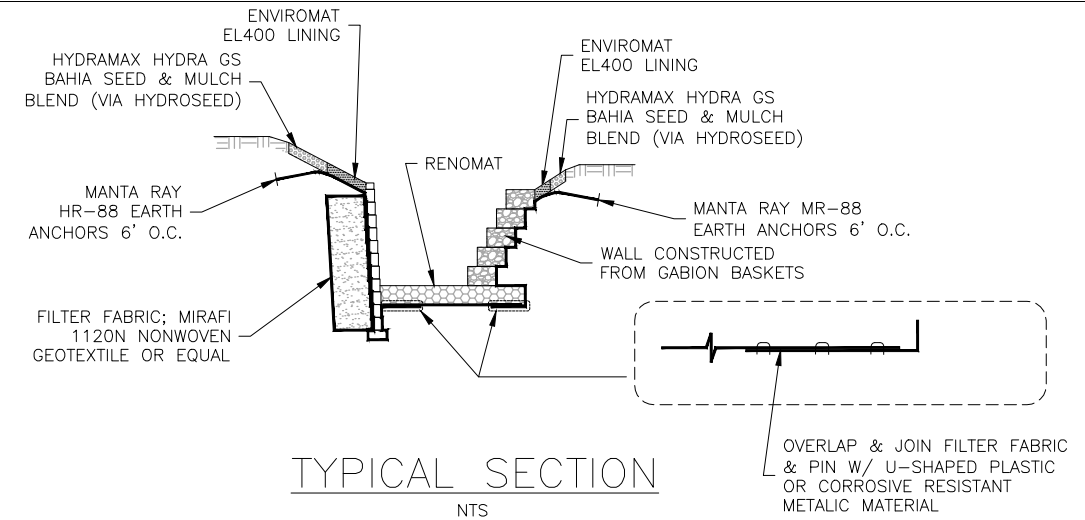
Anchor™ Diamond Pro Stone Cut™ Retaining Wall
OUTSIDE CURVE DETAILS



Anchor™ Diamond Pro Stone Cut™ Retaining Wall
TYPICAL BASE PREPARATION
(SCALE: NONE)



SLOPE STABILIZATION DETAIL (ENVIROMAT LINING)
NTS



TYPICAL SECTION
NTS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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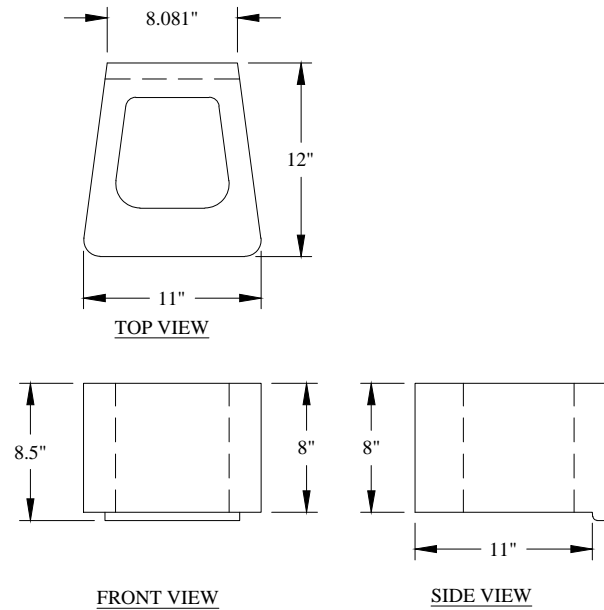
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Stormwater Division

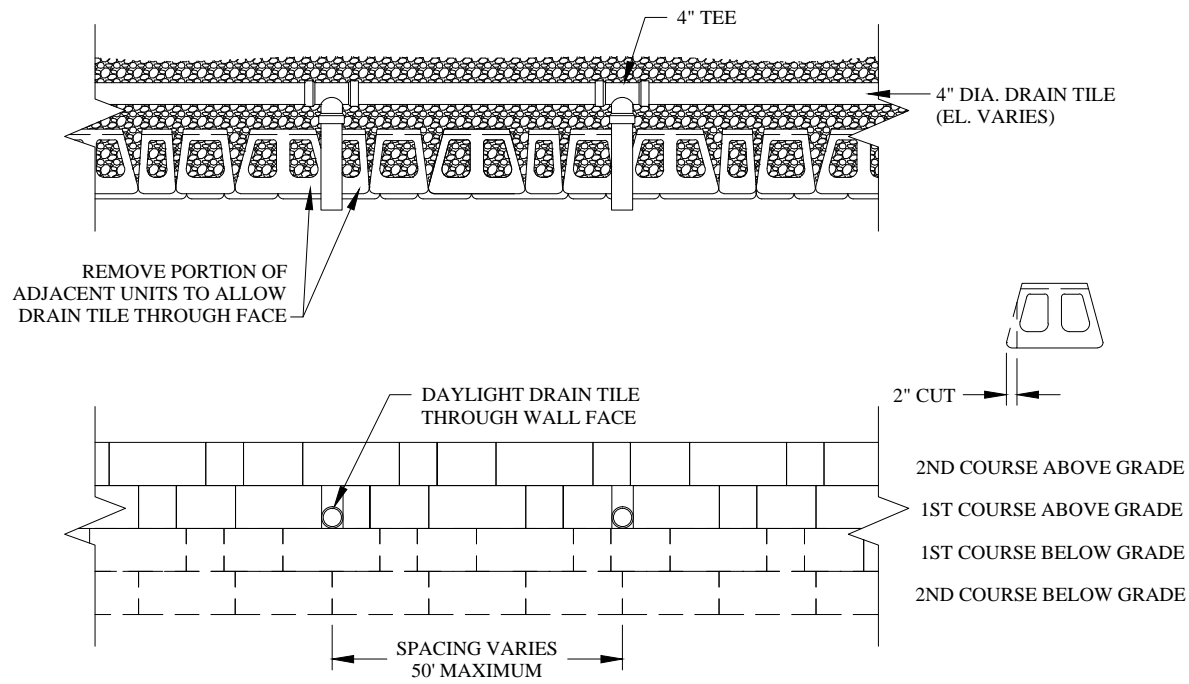
WHATLEY DITCH
STORMWATER IMPROVEMENTS
MISCELLANEOUS DETAILS

ST 0095
SHEET
15
OF 22

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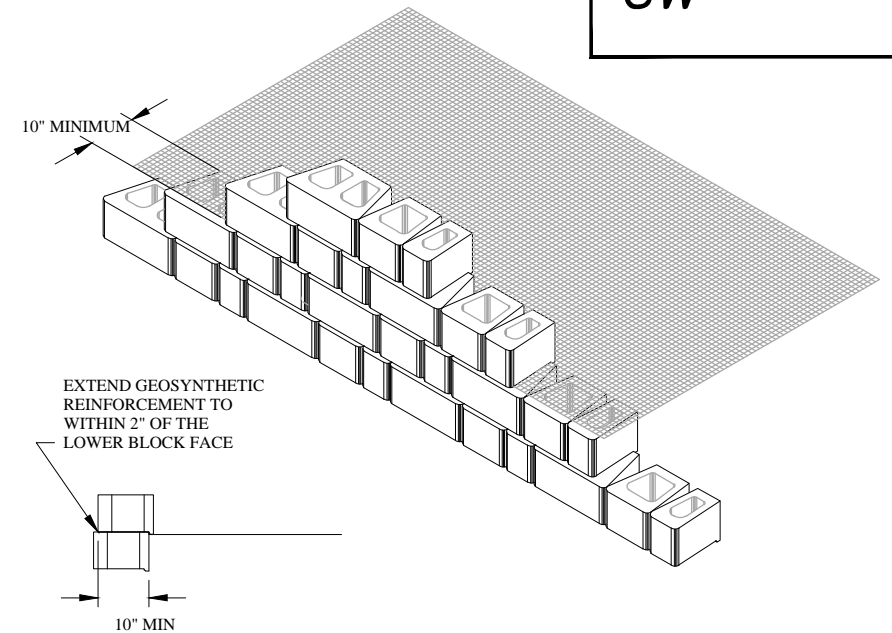


MEDIUM UNIT



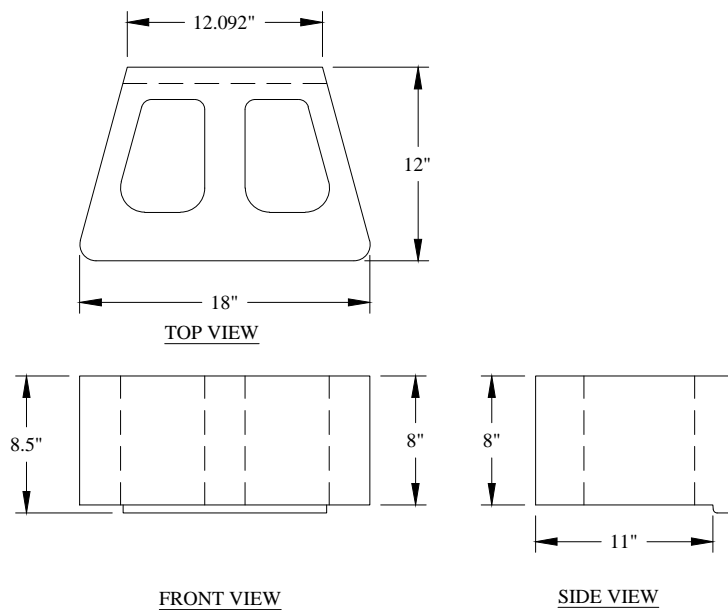
**Anchor™ Diamond Pro Stone Cut™ Retaining Wall
DAYLIGHTING DRAINTILE THROUGH WALL FACE**

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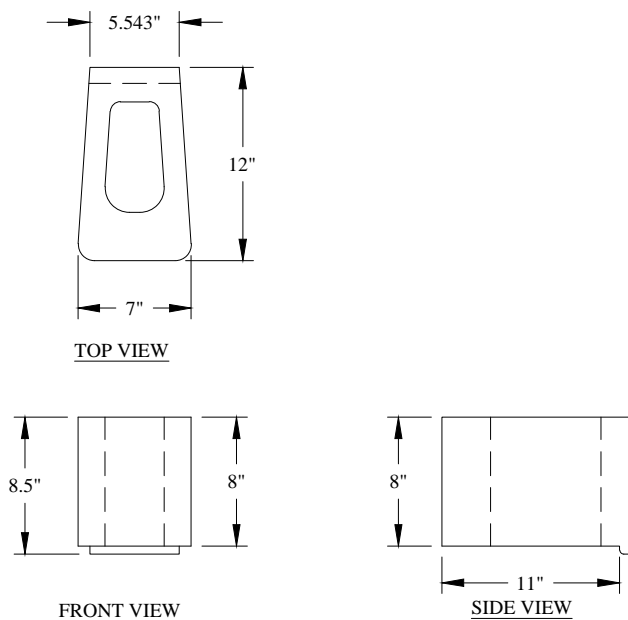


**Anchor™ Diamond Pro Stone Cut™ Retaining Wall
REINFORCEMENT CONNECTION DETAILS**

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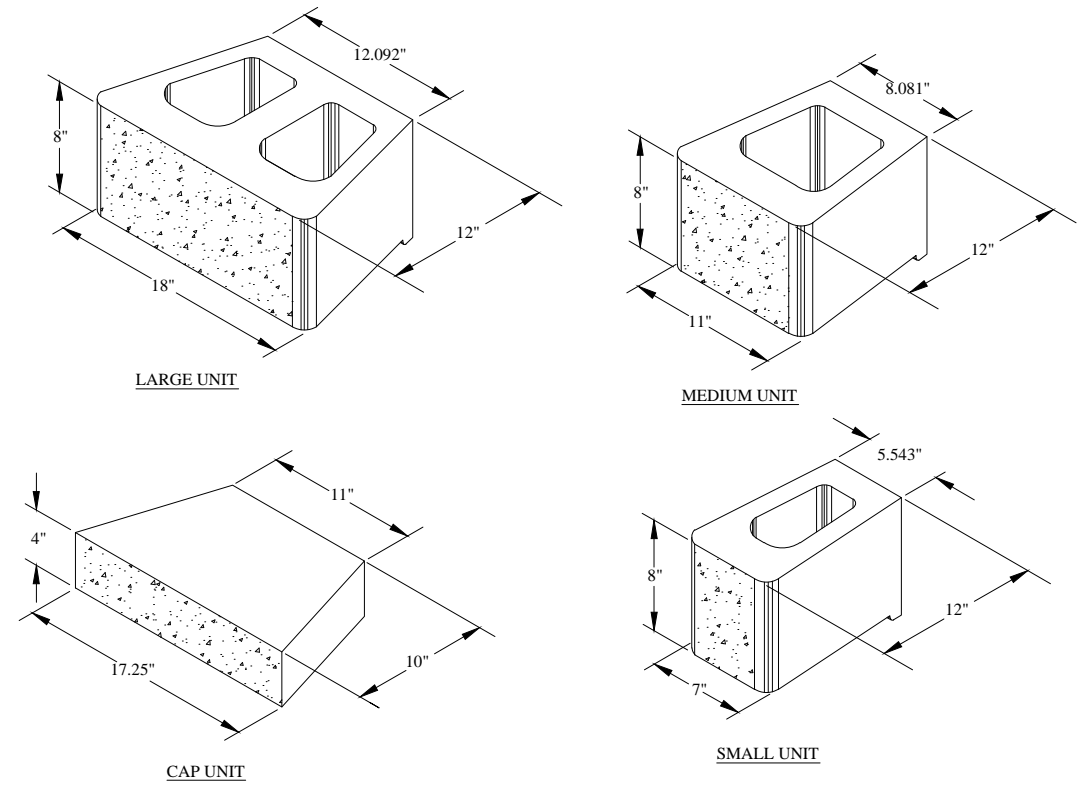
LARGE UNIT



SMALL UNIT

**Anchor™ Diamond Pro Stone Cut™ Retaining Wall
INDIVIDUAL BLOCK VIEWS**

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**Anchor™ Diamond Pro Stone Cut™ Retaining Wall
ISOMETRIC BLOCK VIEWS**

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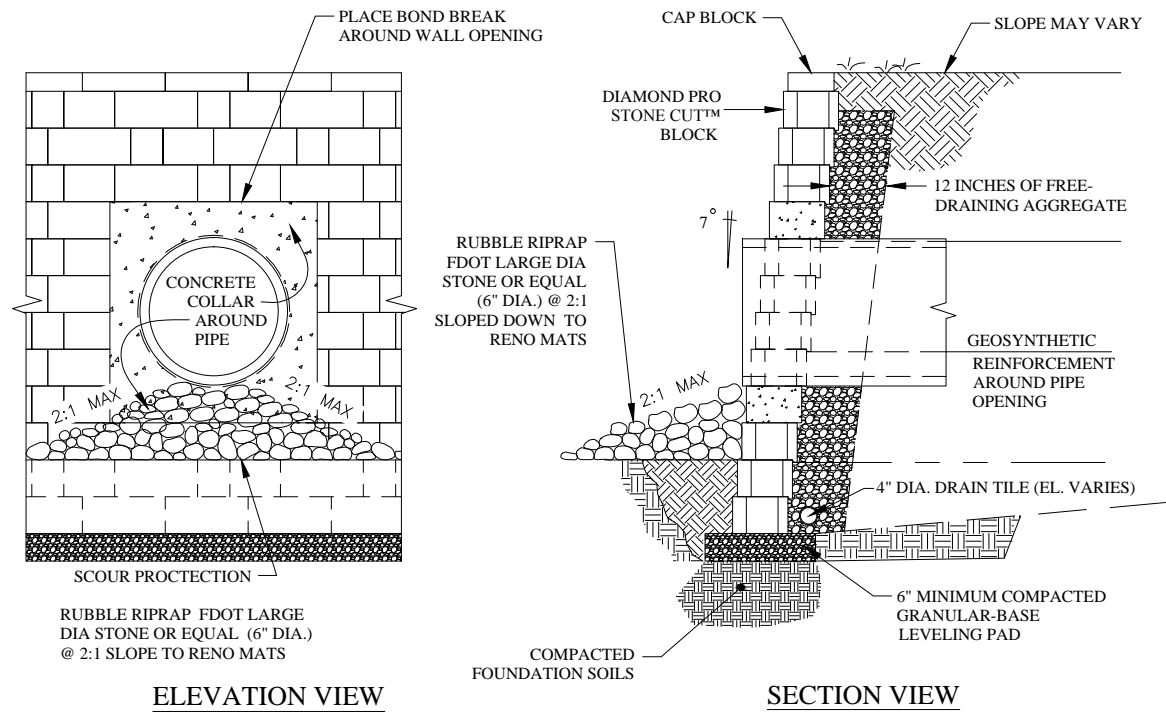
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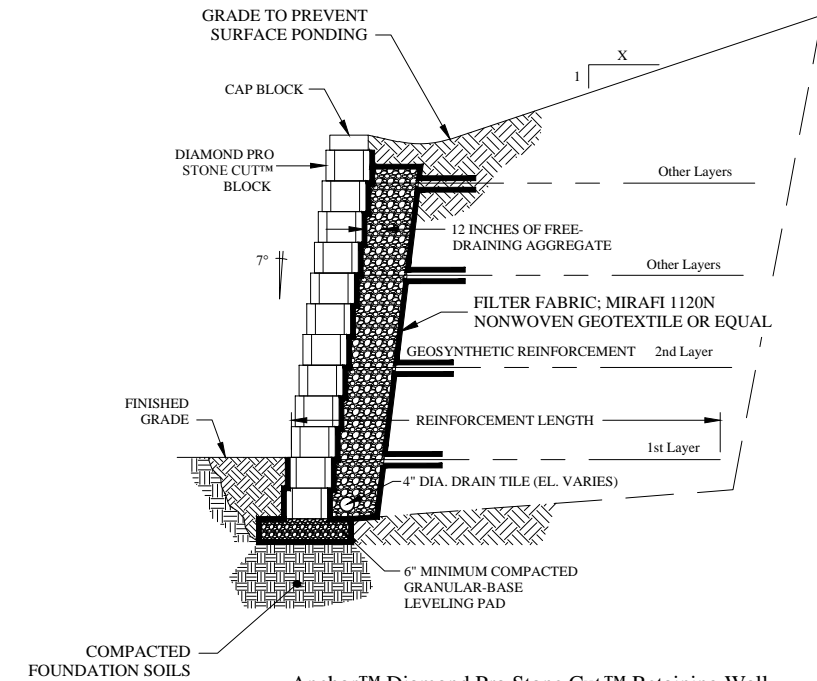
WHATLEY DITCH
STORMWATER IMPROVEMENTS
MISCELLANEOUS DETAILS

ST 0095
SHEET
16
OF 22



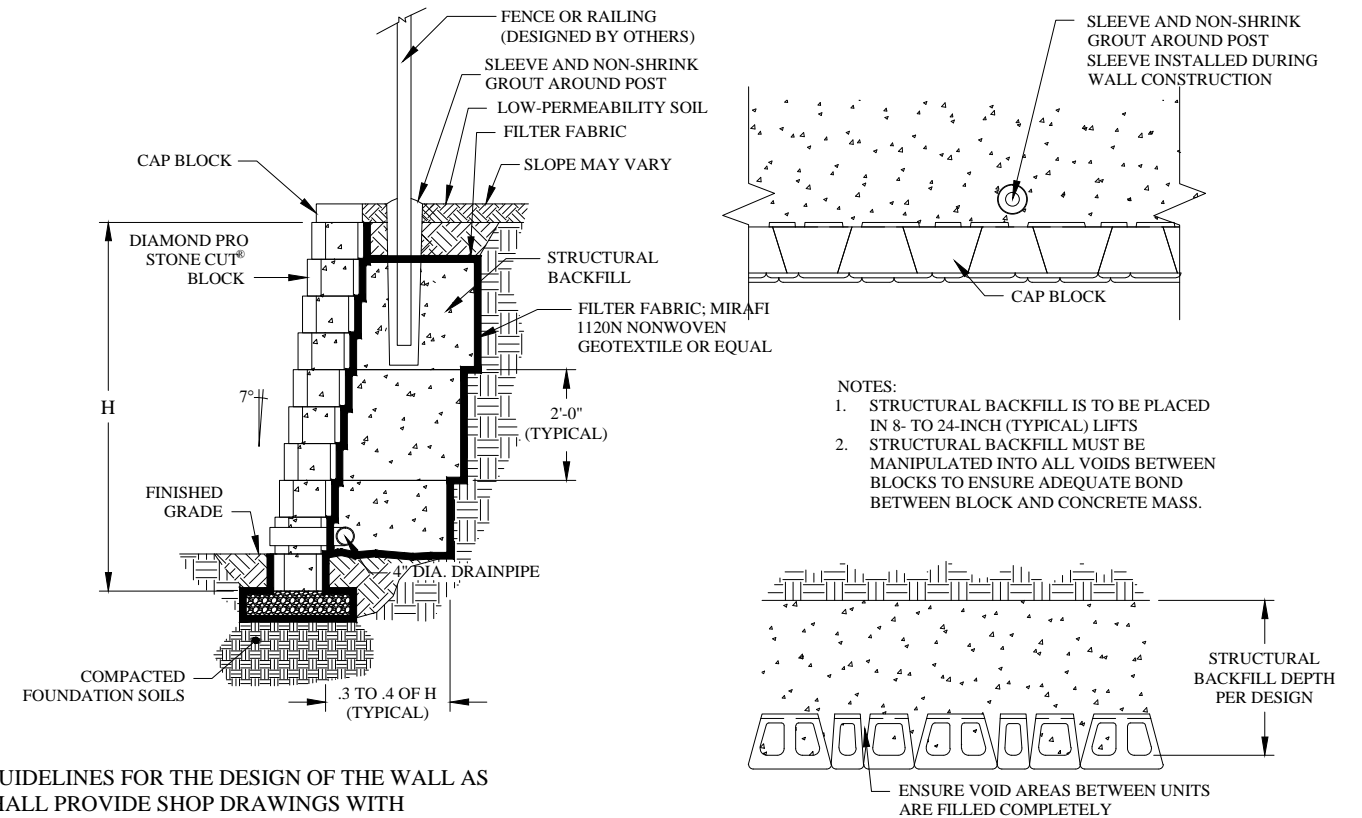
Anchor™ Diamond Pro Stone Cut™ Retaining Wall
PIPE THROUGH WALL -- HIGH FLOW

© and ™ ANCHOR WALL SYSTEMS, INC.



Anchor™ Diamond Pro Stone Cut™ Retaining Wall
TYPICAL CREST SLOPE DETAIL

© and ™ ANCHOR WALL SYSTEMS, INC.



WALL NOTES:

THE WALL SECTION DETAILS ARE TO SERVE AS THE GUIDELINES FOR THE DESIGN OF THE WALL AS PROVIDED BY THE MANUFACTURER. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITH CALCULATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THESE SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

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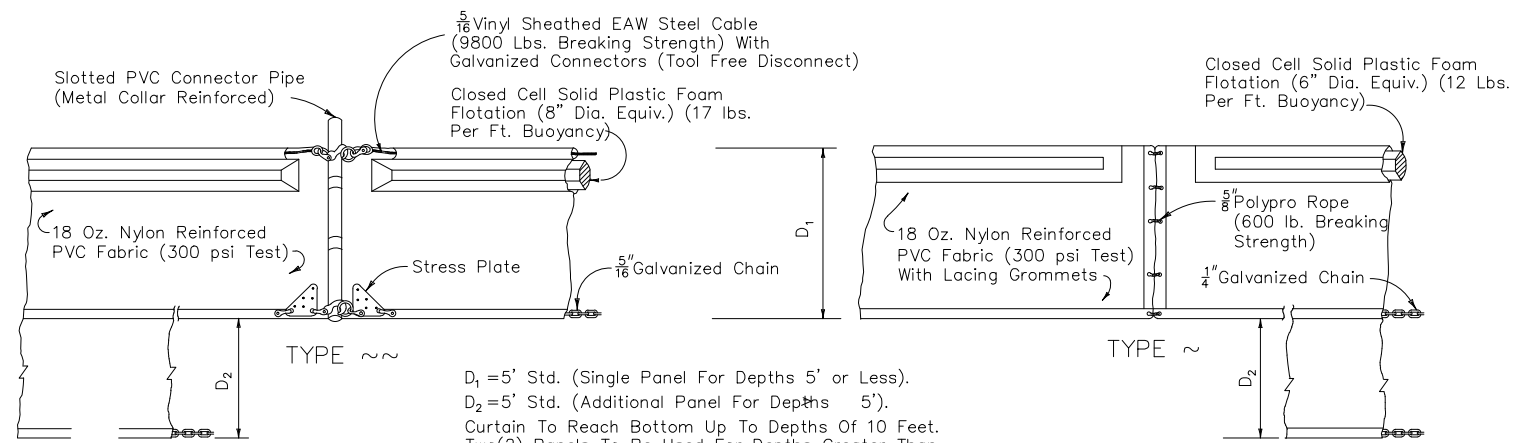
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Department of Public Works
Stormwater Division

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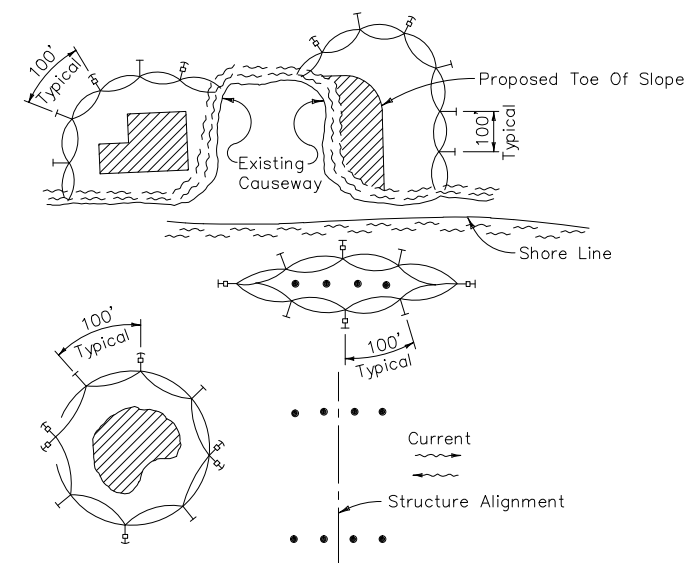
ST 0095
SHEET
17
OF 22



D₁ = 5' Std. (Single Panel For Depths 5' or Less).
 D₂ = 5' Std. (Additional Panel For Depths 5').
 Curtain To Reach Bottom Up To Depths Of 10 Feet.
 Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

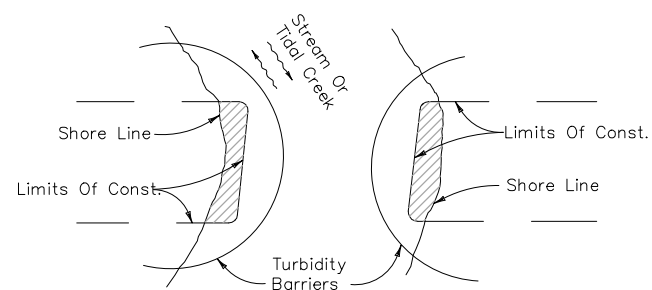
NOTICE: COMPONENTS OF TYPES ~ AND ~ MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES ~ AND ~ SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



LEGEND

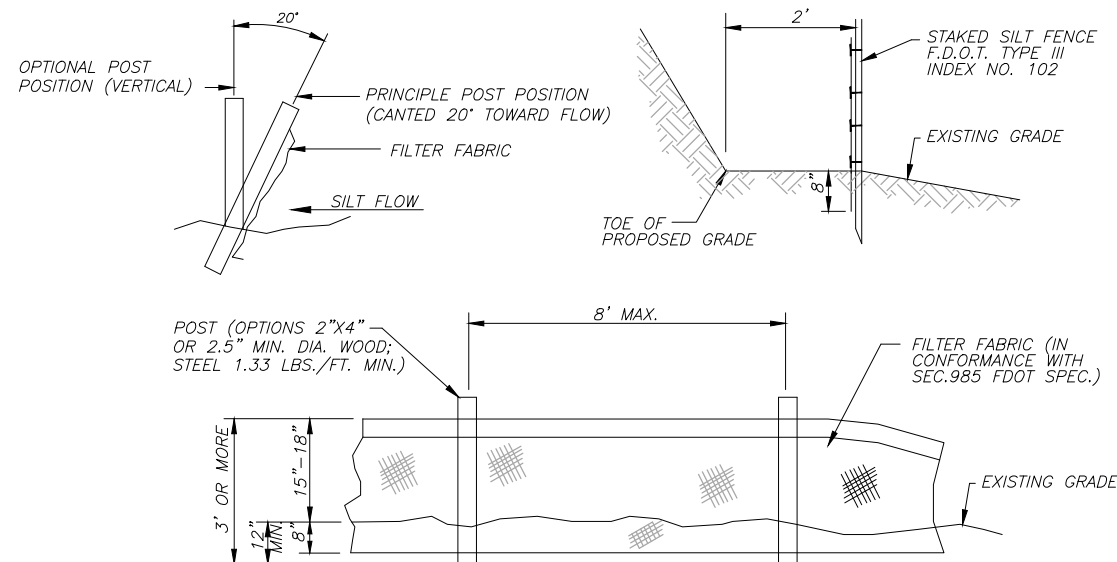
- Pile Locations
- ▨ Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action



- 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.

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.

TURBIDITY BARRIER APPLICATIONS



STAKED TURBIDITY BARRIER

GENERAL NOTES

1. Floating and staked turbidity barriers are to be paid for under the contract lump sum price for Erosion Control and Tree Protection.

TURBIDITY BARRIERS

NOT TO SCALE

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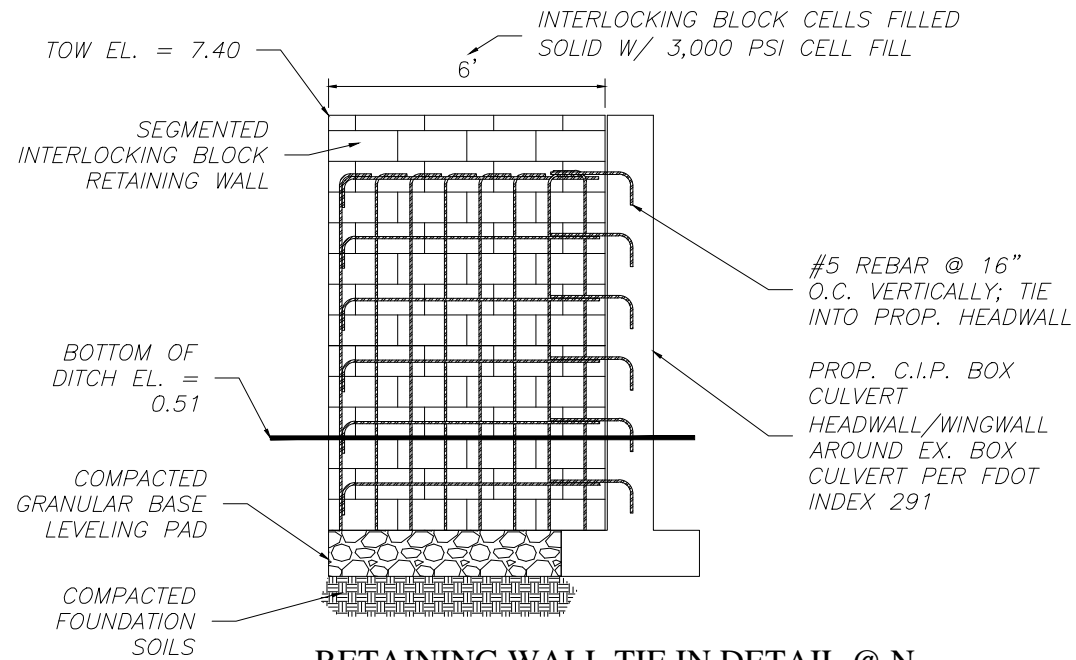
CITY of TAMPA
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 Stormwater Division

WHATLEY DITCH
 STORMWATER IMPROVEMENTS
 MISCELLANEOUS DETAILS

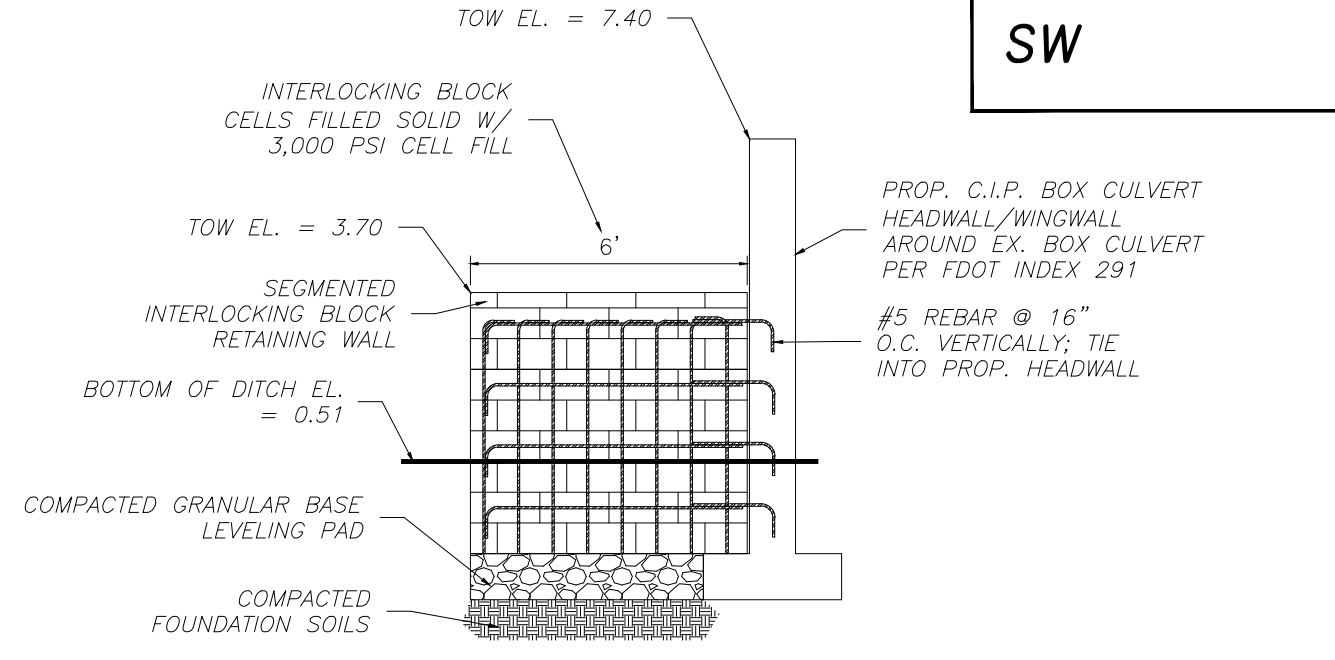
ST 0095
 SHEET
18
 OF 22

G:\Projects\13-003 - Whatley Ditch\Drawings\Design Construction\13-003_Stormwater-Details.dwg - Printed Jul 10, 2014-9:42am by: AnthonyC

NOTE:
INTERLOCKING BLOCK WALL TIE IN DETAIL TO HEADWALL PROVIDED FOR BID PURPOSES ONLY. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITH CALCULATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THE SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

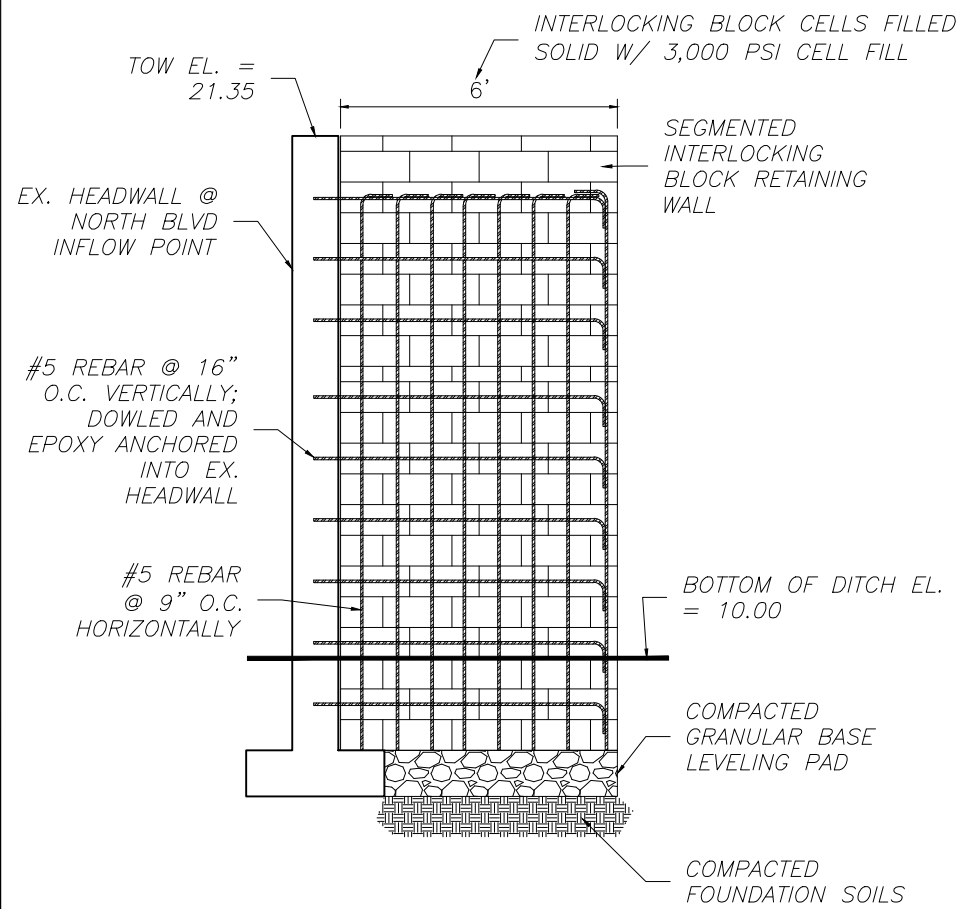


RETAINING WALL TIE IN DETAIL @ N. RIVERSHORE RD. (NORTH SIDE OF DITCH)
(NTS)

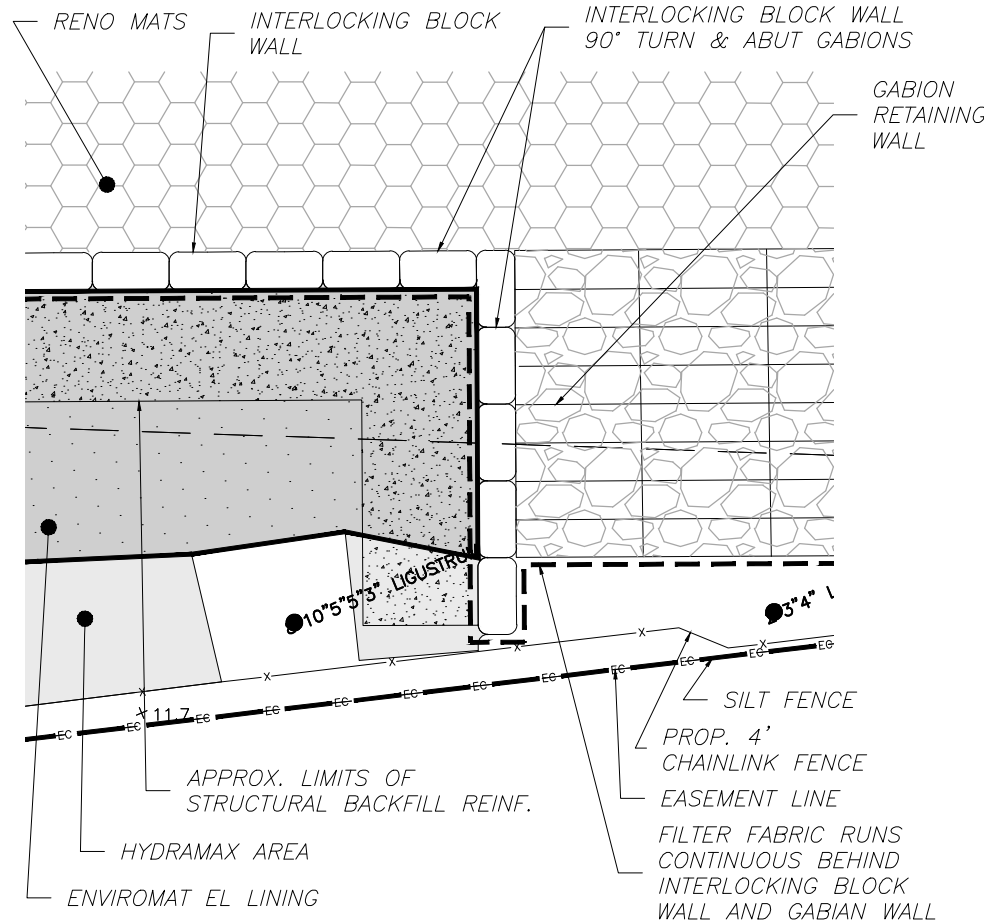


RETAINING WALL TIE IN DETAIL @ N. RIVERSHORE RD. (SOUTH SIDE OF DITCH)
(NTS)

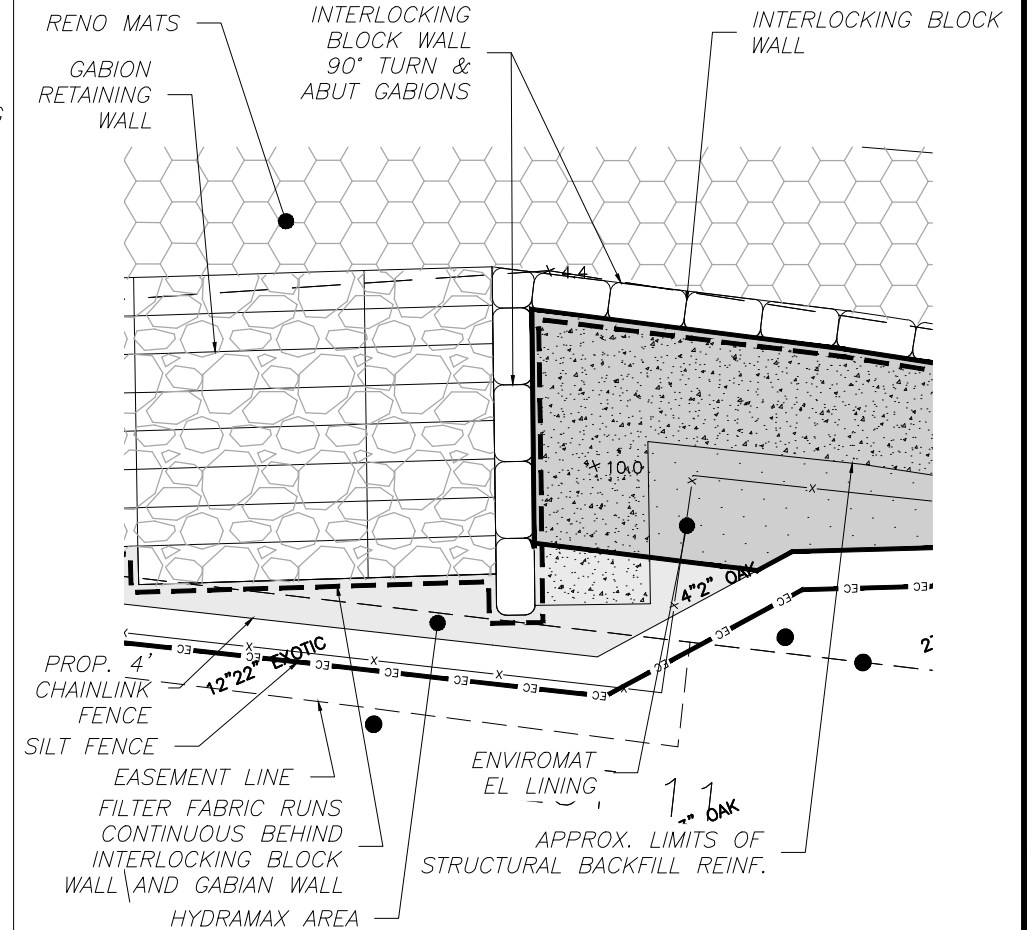
SW



RETAINING WALL TIE IN DETAIL @ NORTH BLVD
(NTS)



RETAINING WALL TYPE TRANSITION DETAIL (WEST END)
SCALE: 1"=5'



RETAINING WALL TYPE TRANSITION DETAIL (EAST END)
SCALE: 1"=5'

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4			1		

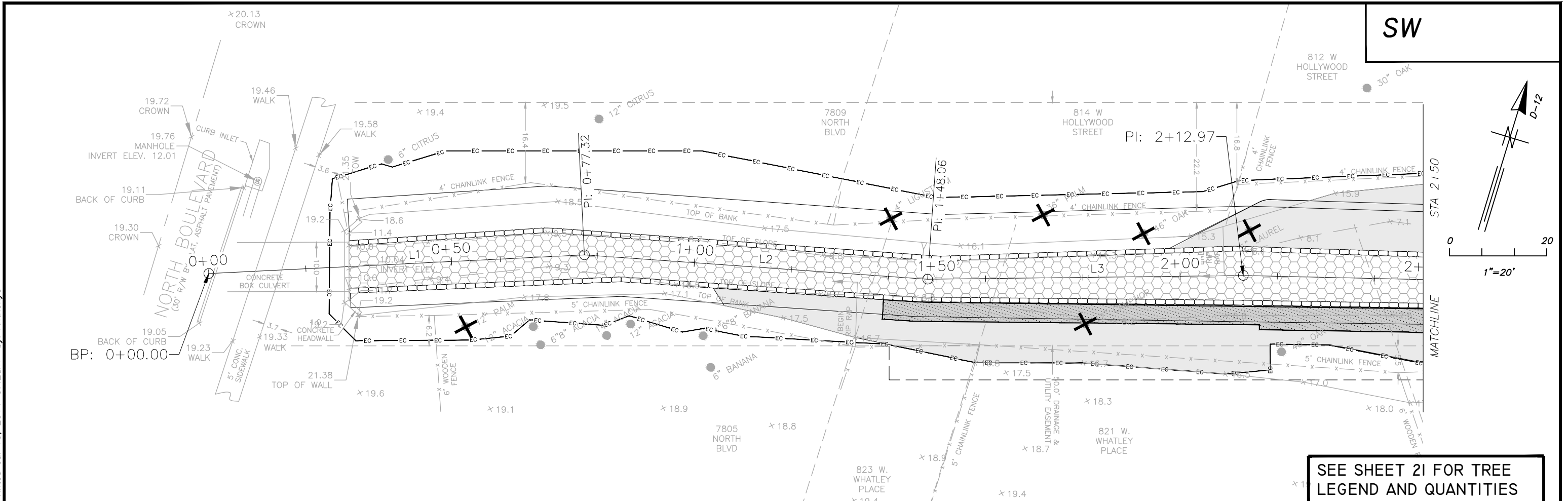
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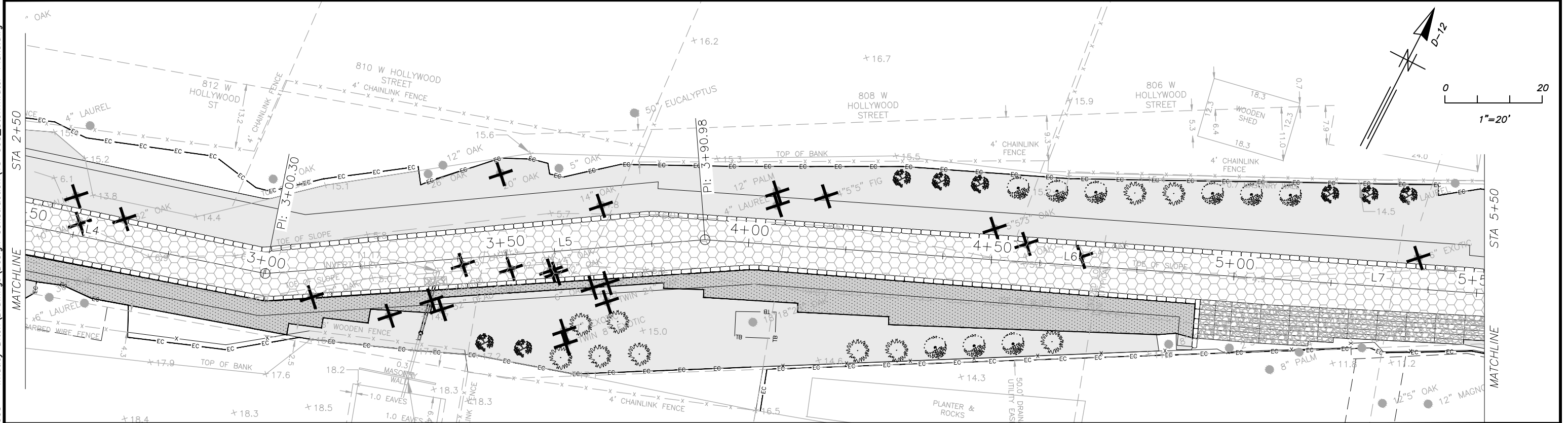
WHATLEY DITCH
STORMWATER IMPROVEMENTS
MISCELLANEOUS DETAILS

ST 0095
SHEET
19
OF 22

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SEE SHEET 21 FOR TREE LEGEND AND QUANTITIES



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4			1		

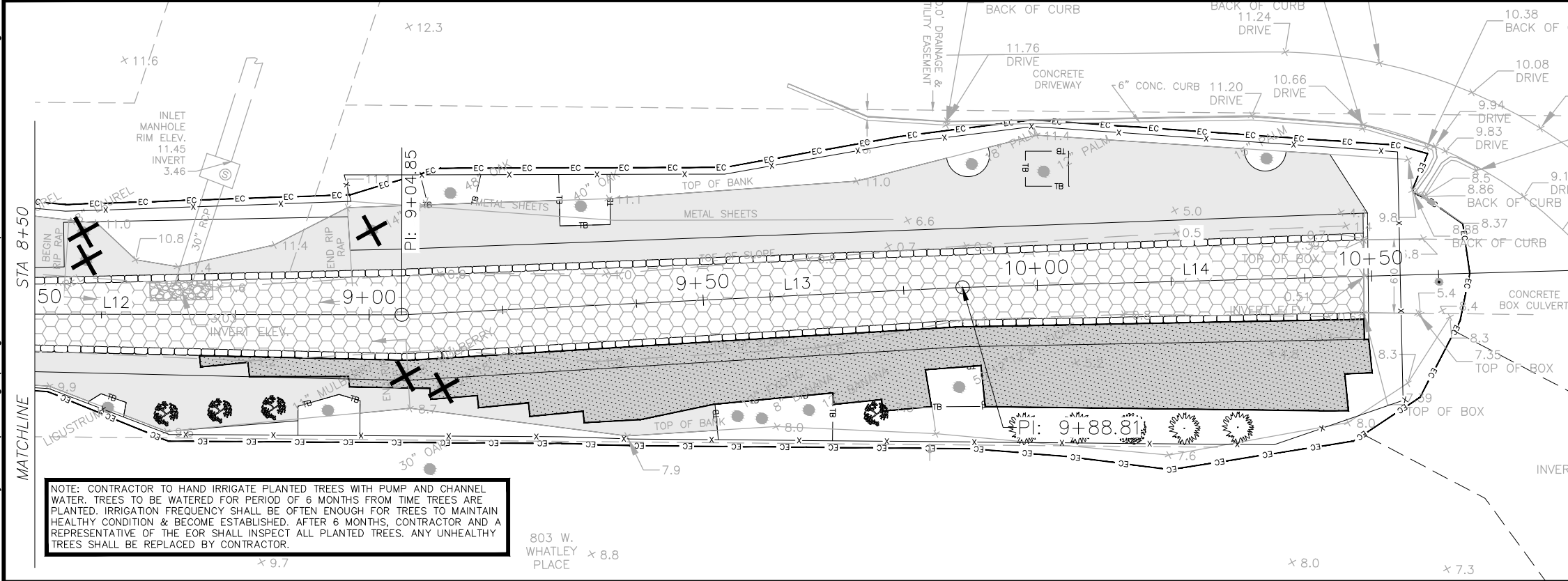
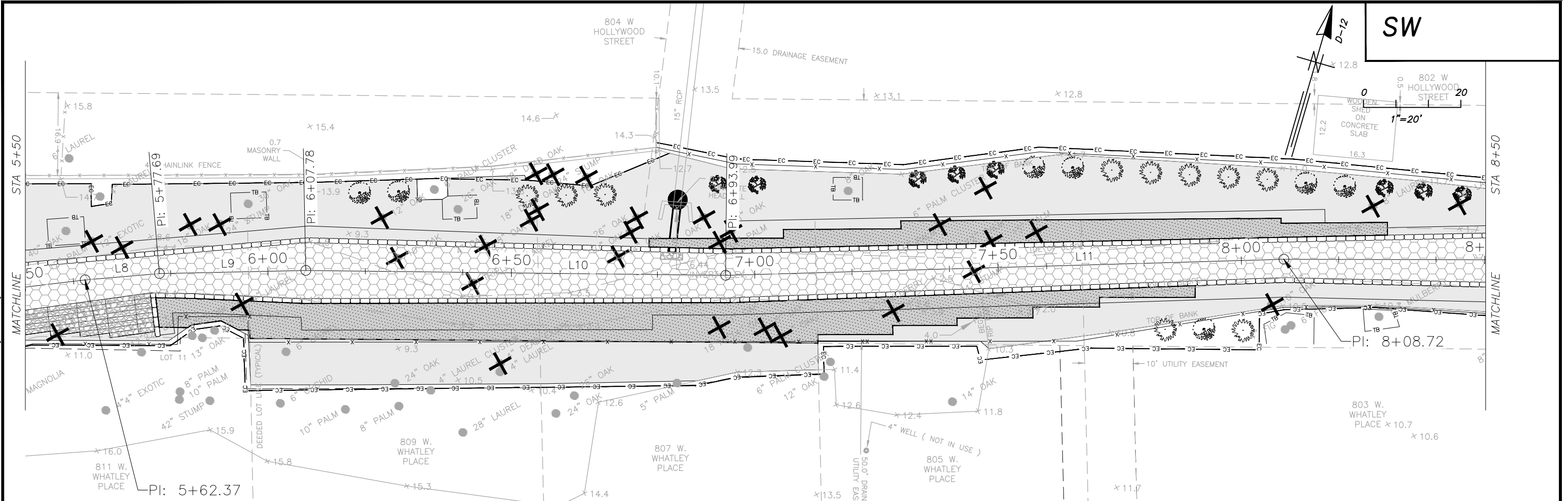
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WHATLEY DITCH
 STORMWATER IMPROVEMENTS
 HABITAT RESTORATION PLAN

ST 0095
 SHEET
20
 OF 22

G:\Projects\13-003 - Whatley Ditch Drawings\Design Construction\13-003_Stormwater-Plans.dwg - Printed Jul 10, 2014-9:42am by: Anthony



EXISTING TREES TO BE REMOVED

PROTECTED	
TREES TO BE REMOVED:	
OAKS	36
PALMS	9
LAUREL	11
EXOTIC	5
FIG	3
MULBERRY	2
CAMPHOR	1
LUGUSTRUM	1
TOTAL	68
EXOTIC	(-5)
MULBERRY	(-2)
TOTAL	61

TREE LEGEND

SYMBOL	QUANT.	COMMON NAME	BOTANICAL NAME	MINIMUM SIZE / NOTES
	17	EASTERN REDBUD	CERCIS CANADENSIS	2" CALIPER, 5'-6' MIN. SPREAD, 8'-10' HEIGHT MIN., 30 GALLON MIN.
	20	YAUPON HOLLY	ILEX VOMITORIA	2" CALIPER, 5'-6' MIN. SPREAD, 8'-10' HEIGHT MIN., 30 GALLON MIN.
	24	WAX MYRTLE	MYRICA CERIFERA	2" CALIPER, 5'-6' MIN. SPREAD, 8'-10' HEIGHT MIN., 30 GALLON MIN.

NOTES:
 1. TREES SHALL BE FLORIDA GRADE #1.
 2. DBH, CONTAINER SIZE, SPREAD & HEIGHT OF PROPOSED TREES ARE MINIMUMS. CONTRACTOR MUST PLANT MATERIAL THAT MEETS OR EXCEEDS ALL MINIMUMS SHOWN. IF MATERIAL CANNOT BE FOUND THAT MEETS THESE MINIMUMS, CONTRACTOR IS TO CONTACT ENGINEER FOR SUBSTITUTIONS. PLANTS/SIZES MUST CONFORM TO FL DACS "GRADES AND STANDARDS FOR NURSERY PLANTS."

NOTE: CONTRACTOR TO HAND IRRIGATE PLANTED TREES WITH PUMP AND CHANNEL WATER. TREES TO BE WATERED FOR PERIOD OF 6 MONTHS FROM TIME TREES ARE PLANTED. IRRIGATION FREQUENCY SHALL BE OFTEN ENOUGH FOR TREES TO MAINTAIN HEALTHY CONDITION & BECOME ESTABLISHED. AFTER 6 MONTHS, CONTRACTOR AND A REPRESENTATIVE OF THE EOR SHALL INSPECT ALL PLANTED TREES. ANY UNHEALTHY TREES SHALL BE REPLACED BY CONTRACTOR.

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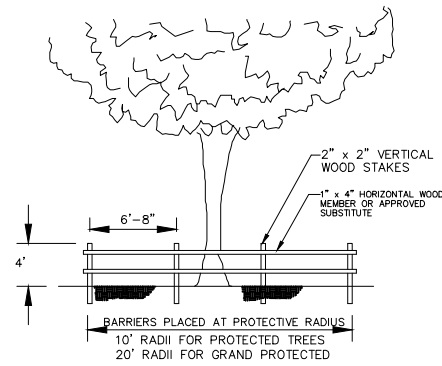
WHATLEY DITCH
STORMWATER IMPROVEMENTS
HABITAT RESTORATION PLAN

ST 0095
 SHEET
21
 OF 22

GENERAL LANDSCAPE NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES, BEFORE PERFORMING ANY WORK. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION.
2. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATER FOR THE ESTABLISHMENT TO ALL NEWLY INSTALLED TREES FOR 90 DAYS, COMMENCING IMMEDIATELY AFTER INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST WATERING AMOUNTS AND FREQUENCY TO ENSURE PROPER ESTABLISHMENT OF ALL PLANT MATERIAL.
3. PLANTING AREAS SHALL BE FREE OF EXTRANEOUS MATERIALS AND CAPABLE OF PERCOLATION PRIOR TO PLANTING AND PREPARED SOIL BACKFILL.
4. ALL LANDSCAPE CONSTRUCTION SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE CITY OF TAMPA LANDSCAPE CODE.
5. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. THE OWNER RESERVES THE RIGHT TO DIRECT THE REMOVAL AND REPLACEMENT OF ANY ITEMS WHICH, IN HIS OPINION, DO NOT MEET INDUSTRY STANDARDS OR PRESENT AN ORDERLY AND WORKMANLIKE APPEARANCE, PROVIDED THAT SUCH ITEMS CAN BE INSTALLED PROPERLY USING STANDARD INDUSTRY PRACTICES.
6. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN HIS FINISHED WORK FROM THE TIME OF INSTALLATION IS COMPLETE TO THE TIME OF FINAL ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A 1-YEAR WARRANTY ON THE INSTALLED PLANT MATERIAL AND A 90-DAY WARRANTY ON SOD.
7. PLANTING SOIL SHALL BE FERTILE, NATURAL TOPSOIL, TYPICAL TO THE LOCALITY, OBTAINED FROM WELL DRAINED AREAS. IT SHALL BE WITHOUT ADMIXTURE OF SUBSOIL OR CLAYS AND SHALL BE FREE OF STONES, LUMPS, STICKS, PLANTS, ROOTS, TOXIC SUBSTANCES OR OTHER EXTRANEOUS MATTER THAT MAY BE HARMFUL TO PLANT GROWTH OR INTERFERE WITH FUTURE MAINTENANCE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF SOILS AND MAKE THE NECESSARY ADJUSTMENTS OR AMENDMENTS FOR LONG TERM PLANT HEALTH AND VITALITY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL STAKING OF TREES AND PALMS BASED ON SITE CONDITIONS, TO PROVIDE FOR THE STABILITY OF THE TREE AND PALM MATERIALS AND TO PROTECT THE HEALTH AND SAFETY OF THE PUBLIC/PROPERTY.
10. PLANT MATERIAL SHALL BE INSTALLED NO LATER THAN 24 HOURS AFTER DELIVERY TO THE SITE. IF NECESSARY FOR TEMPORARY STORAGE PURPOSES, PLANTS SHOULD BE KEPT MOIST AND IN A SHADED AREA WHILE ON SITE.

TREE PROTECTION NOTES



PROTECTIVE BARRIERS are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

PROTECTIVE BARRIERS must be erected around TREES to be retained within an area where land alteration and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration or construction activities. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area.

BARRIER SPECIFICATIONS FOR TREES:
Four corner upright stakes of no less than 2" x 2" lumber connected by horizontal members of no less than 1" x 4" lumber.

NATURAL AREAS - To restrict access into areas where land alteration and construction activities are not authorized, a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

CITY OF TAMPA - Section 13-164. Tree protection standards:

Development on parcels shall comply with the following tree protection requirement:

- 1) Protective barricades shall be placed around all protected trees and grand trees during site clearing to create a protective radius and shall remain in place until land alteration, site clearing and construction activities are complete. Barricades for the protective radius shall be erected at a minimum distance of ten (10) feet from the edge of trunk of protected trees and twenty (20) feet from the edge of trunk of grand trees.
- 2) A minimum distance of ten (10) feet from all protected trees and twenty (20) feet from all grand trees shall be maintained when installing underground utilities. If this results in unreasonable hardship, a soil auger shall be used to tunnel under the root systems.
- 3) Installation of artificial barriers such as protective barricades, fences, posts or walls shall not destroy or irreversibly harm the root system of protected trees and grand trees. Footers for walls shall end at the point where larger roots are encountered, and the roots shall be bridged. Post holes and trenches located close to protected trees or grand trees shall be adjusted to avoid damage to major roots.
- 4) All roots to be removed during the site clearing phase shall be severed clean at the perimeter of the designated protective radius.
- 5) A two-inch layer of mulch shall be applied over the surface of exposed roots of protected trees and grand trees during the site clearing phase.
- 6) A protective dry well and drainage/aeration system shall be provided where protected trees or grand trees will be adversely affected by raising the grade.
- 7) A protective retaining wall shall be constructed at the perimeter of the protective radius around a protected tree or grand tree where the protected tree or grand tree will be adversely affected by lowering the grade.
- 8) All trimming of protected trees and grand trees during development shall be done by a qualified, licensed tree service.

TREE TABLE & LANDSCAPE CALCULATIONS

CREDIT TABLE:

Diameter in Inches	*Retained on Site	Multiplier for Credit	Credit
5" TO 7"	10	0	0
8" TO 12"	14	1	14
13" TO 19"	5	2	10
20" TO 29"	4	4	16
30" OR MORE	7	10	70
ALL PALMS	3	1	3
Total	43	~	113

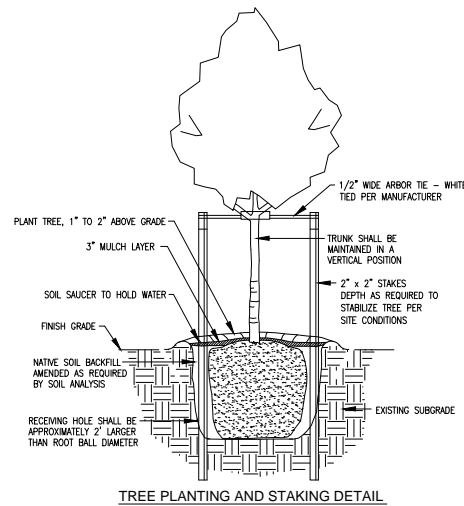
DEBIT TABLE:

Diameter in Inches	*Removed on Site	Multiplier for Debit	Debit
5" TO 7"	13	0	0
8" TO 12"	17	1	17
13" TO 19"	11	2	22
20" TO 29"	4	4	16
30" OR MORE	6*	Inch per Inch	271
ALL PALMS	9	1	9
Total	60	~	335

* = 32", 36", 41", 46", 54" & 62" (OAKS)

DEBIT FOR TREES TO BE REMOVED	+335
CREDIT FOR TREES TO REMAIN	- 113
TOTAL REQUIRED 2" TREES TO BE PLANTED	= 222
TOTAL PROPOSED 4" TREES TO BE PLANTED	= 61

REMAINING BALANCE = 222 - 61 = 161 2" TREES MITIGATE VIA PAID INTO TREE FUND



TREE PLANTING AND STAKING DETAIL

TREE REMOVAL TABLE

TREE/SIZE	3"	4"	5"	6"	7"	8"	9"	10"	12"	14"	15"	16"	18"	20"	24"	26"	32"	36"	41"	46"	54"	62"	TOTAL
OAKS	1	3	2	1		2	1	5	3	3		1	4	1	2	1	1	1	1	1	1	1	36
PALMS				2				1	3	1	1							1					9
LAUREL		3	3	2		1							1										11
EXOTIC				1	1	2			1														5
FIG	1	2																					3
CAMPHOR									1														1
LIGUSTRUM										1													1
MULBERRY				1		1																	2
GRAND TOTAL																							68

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HABITAT RESTORATION DETAILS