ENGINEERING PLANS FOR:

BALM BOYETTE - STALLION HAMMOCK

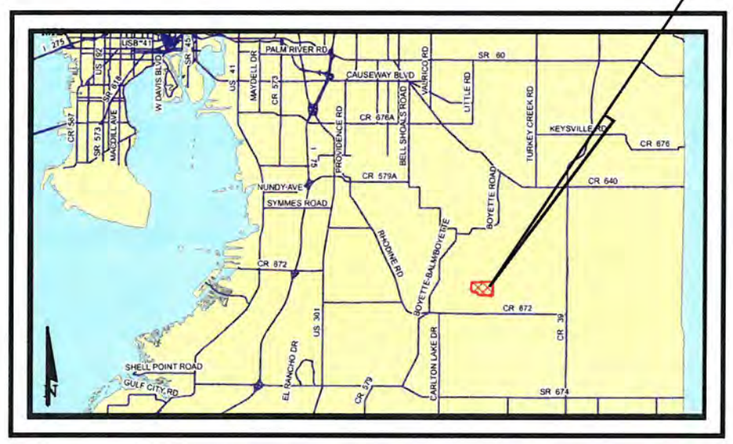
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

HABITAT RESTORATION

HILLSBOROUGH COUNTY, FLORIDA

AMEC FOSTER WHEELER PROJECT NUMBER: 600308.9

PROJECT LOCATION



VICINITY MAP

HILLSBOROUGH COUNTY, FLORIDA
SECTIONS 16, 17 and 21, TOWNSHIP 31 S, RANGE 21 E

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Benchmark data is based upon North American Datum of 1988 (NAVD 88)

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

PROJECT PARTNERS:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION &
HILLSBOROUGH COUNTY

PREPARED FOR:

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
7601 US HIGHWAY 301 NORTH TAMPA, FLORIDA 33637
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DATE:
28 FEBRUARY 2018

PLANS PREPARED BY:

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JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

SIGNATURE:
NAME: JOHN H. KIEFER, P.E.
FLORIDA REG. NUMBER: 51991
DATE: 2/28/18

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-1_Cover_Sheet.dwg LAYOUT: 1 COVER SHEET SAVED: 9/28/2017 9:01 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 2/27/2018 10:11 AM DRAWN BY: VIVES, MARTIN

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-2_Gen_Notes.dwg LAYOUT: 2 SAVED: 2/14/2018 8:37 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 2/14/2018 8:38 AM DRAWN BY: VIVES, MARTIN

GENERAL CONSTRUCTION NOTES

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
5. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.
6. ALL WORK PERFORMED SHALL COMPLY WITH THE LATEST STANDARDS, DETAILS, REGULATIONS, AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK. THESE AGENCIES INCLUDE, BUT ARE NOT LIMITED TO, COUNTY HEALTH DEPARTMENT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT, U.S. ARMY CORPS OF ENGINEERS AND HILLSBOROUGH COUNTY.
7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE OF THE ITEM.
8. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS, UTILITY COMPANIES, AND BALM-BOYETTE PARK MANAGERS. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY WITH OWNER,OTHER CONTRACTOR'S AND UTILITY COMPANIES.
9. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AND COMPACTED TO A FIRMNESS EQUAL TO THAT OF THE SOIL ADJACENT TO THE BACKFILL AREAS IN 6" LAYERS. IN AREAS TO BE CONCRETE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
10. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED, SPECIFIED OR REQUIRED.
11. REINFORCING SHALL BE BILLET STEEL BARS CONFORMING TO ASTM A615 GRADE 40 OR BETTER.
12. 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 CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
13. CONTRACTOR SHALL REVIEW SOIL REPORTS AND BORINGS (AND/OR HAND AUGERS) PRIOR TO BIDDING THE PROJECT AND COMMENCING CONSTRUCTION.
14. OWNER SPECIFIC SPECIFICATIONS TO BE PROVIDED TO CONTRACTOR DURING BIDDING.
15. ALL SITE WORK SHALL CONFORM TO THE LATEST SWFWMD, FDOT, CITY AND COUNTY REGULATIONS, SPECIFICATIONS, AND GUIDELINES.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE ACQUISITION AND PROVISION OF ALL EQUIPMENT, TOOLS, SUPPLIES, MATERIALS, TRANSPORTATION, LABOR, AND SUPERVISION TO BE USED ON THIS PROJECT. SURVEYING SUPPORT SERVICES COSTS WILL BE INCLUDED IN THE CONTRACTOR'S BID.
17. THE ENGINEER RESERVES THE RIGHT TO INSPECT, AT ANY TIME, THE CONTRACTOR'S CERTIFICATIONS, DOCUMENTATIONS, PROCEDURES, EQUIPMENT, AND TECHNIQUES. INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF ANY OBLIGATIONS OR RESPONSIBILITIES NOR DOES IT TRANSFER ANY LIABILITY TO THE ENGINEER.
18. THE CONTRACTOR WILL BE RESPONSIBLE FOR ACTIONS AND MISCALCULATIONS OF HIS OR HER PERSONNEL WHILE ON COUNTY-OWNED LAND. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR DAMAGE OR DESTRUCTION TO COUNTY-OWNED, LEASED, OR MANAGED PROPERTY OR EQUIPMENT CAUSED BY THE CONTRACTOR'S EMPLOYEES OR SUBCONTRACTORS. THIS INCLUDES DAMAGE TO EXISTING ROADWAYS, CULVERTS, LOW WATER CROSSINGS, GATES, TREES, NATIVE VEGETATION, WILDLIFE, AND OTHER NATURAL RESOURCES AND EQUIPMENT.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF THE POLLUTION OF NATURAL AREAS BY FUEL, OILS, CHEMICALS, OR OTHER HARMFUL MATERIALS.
20. THE CONTRACTOR SHALL NOT PROVIDE ACCESS TO PARTIES OTHER THAN THOSE PERFORMING ACTIVITIES ASSOCIATED WITH THIS PROJECT.
21. THE CONTRACTOR SHALL REMOVE FROM THE AREA ALL EXTRANEOUS MATERIALS, EQUIPMENT, AND LITTER ASSOCIATED WITH THEIR CONSTRUCTION ACTIVITIES BEFORE FINAL COMPLETION.
22. THE CONTRACTOR MUST STOP WORK AND NOTIFY THE OWNER IF ANY HISTORICAL ARTIFACT IS DISCOVERED.
23. CONTRACTOR TO SUPPLY DEWATERING PLAN TO THE SWFWMD AND FDEP REPRESENTATIVES.

SAFETY NOTES

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH REGULATIONS. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF LABOR.

2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PROJECT LIMITS.

3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS, AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

5. A CREW SUPERVISOR MUST BE ON-SITE WHENEVER WORK IS PERFORMED. THIS SUPERVISOR IS RESPONSIBLE FOR CREW SAFETY AND ALL ACTIVITIES WHILE ON SITE.

CLEARING AND EROSION CONTROL NOTES

1. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL AS SOON AS GRADING IS COMPLETED AND/OR IS PRACTICABLE. AREAS ANTICIPATED BEING LEFT DISTURBED OR DENUDED FOR LONGER THAN 14 DAYS WILL BE STABILIZED WITH TEMPORARY STABILIZATION WITHIN 7 DAYS OF DISTURBANCE. NO AREAS SHALL BE LEFT DISTURBED OR DENUDED FOR LONGER THAN 14 DAYS.
2. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
3. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (TURBIDITY BARRIER, STAKED SILT FENCE OR APPROVED ALTERNATIVE) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH, OR OTHER SUITABLE MATERIAL ON GROUND 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 VEHICULAR TRAFFIC, THE CONTRACTOR IS TO RECOVER SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
4. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.
5. THERE SHALL BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO AN EXISTING LAKE SYSTEM, WETLAND, OR RIVER, WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING LAKE SYSTEM OR RIVER, A SETTLING POND PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER AND LOCAL REGULATORY AGENCY PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENT CONTROL FEATURES TO BE IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS.

STANDARD UTILITY NOTES

1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA.
2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING FLORIDA SUNSHINE STATE ONE CALL CENTER OF FLORIDA, INC. AT 1-800-432-4770. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR:
   1. GAS
   2. TELEPHONE
   3. CABLE
   4. POWER
   5. CITY/COUNTY WATER AND SEWER
   6. CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNECT)
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION'S OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEM NOTES

1. THE STRUCTURES SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE COMPLETED STORM WATER MANAGEMENT SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE OWNER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.

TOPOGRAPHY NOTES:

1. THE EXISTING TOPOGRAPHIC INFORMATION DEPICTED WITHIN THIS SET OF CONSTRUCTION DRAWINGS IS COMBINED FROM THREE DATA SOURCES AND REPRESENTS THE BEST AVAILABLE INFORMATION FOR THIS PROJECT. A SPECIFIC PURPOSE SURVEY FOR STALLION CREEK, FIELD SURVEY DATED 11/06/2009 WAS PROVIDED BY SURVTECH SOLUTIONS, INC. THIS INFORMATION WAS COMBINED WITH LIDAR DATA, COLLECTED BETWEEN 1/12/2007 AND 1/20/2007, PROVIDED BY EARTHDATA INTERNATIONAL FOR SWFWMD. LIMITED BATHYMETRY DATA WAS ALSO COLLECTED IN SELECTED MINE PITS BY SCHEDA ECOLOGICAL ASSOCIATES, INC. EXISTING GRADE INFORMATION CONTAINED WITHIN THESE DRAWINGS IS APPROXIMATE. CONTRACTORS SHOULD FAMILIARIZE THEMSELVES WITH SITE CONDITIONS PRIOR TO BIDDING.
2. THE VERTICAL DATUM USED FOR THIS PROJECT IS NAVD 1988, U.U. SURVEY FEET. THE BENCHMARK UTILIZED WAS HILLSBOROUGH COUNTY BENCHMARK "ACA 2" WITH AN ELEVATION OF 128.242 FEET.
3. AERIAL IMAGERY SHOWN WITHIN THESE PLANS OBTAINED FROM SWFWMD, DATED 2010.
4. HYDROGRAPHIC CONTOURS ARE BASED ON LIMITED SOUNDING DATA AND ARE SHOWN TO GENERALLY DEPICT BOTTOM CONDITIONS. THIS DATA IS NOT INTENDED FOR DESIGN OR VOLUME CALCULATIONS.
5. PROFESSIONAL FIELD SURVEY WAS LIMITED TO ESTABLISHING EXISTING CULVERT INVERTS AND DIMENSIONS, DRAINAGE OUTLET AND INLET ELEVATIONS AT OFFSITE PROJECT BOUNDARIES, WATER LEVELS AT TIME OF SURVEY, AND MONITORING WELL ELEVATIONS.GROUND CONTOURS WERE DERIVED FROM REMOTE SENSING DATA AND WERE NOT VERIFIED BY FIELD SURVEY.

LEGEND

EXISTING

Item	Symbol
PROPERTY BOUNDARY	
EXISTING CONTOURS	122
EXISTING CONTOURS DEPRESSION	122
EXISTING SHEET FLOW ARROW	
EXISTING CHANNEL FLOW ARROW	
EXISTING SLOPE ARROW (RUN:RISE)	4:1
EXISTING SURVEYED POINTS	124.86
EXISTING SPOT ELEVATION	123.0
EXISTING STORM PIPE	
EXISTING WATER ELEVATION	

PROPOSED

Item	Symbol
PROPOSED CONTOURS	122
PROPOSED SHEET FLOW ARROW	
PROPOSED CHANNEL FLOW ARROW	
PROPOSED SLOPE ARROW (RUN:RISE)	4:1
PROPOSED SPOT ELEVATION	123.0
PROPOSED LIMITS OF GRADING	
PROPOSED STORM PIPE	
PROPOSED SILT FENCE	x x x
PROPOSED TURBIDITY BARRIER	
PROPOSED CROSS SECTION LOCATION	A — DETAIL ID — A'
STANDARD PENETRATION TEST (SPT) LOCATION	SPT-1
AUGER BORING (AB) LOCATION	AB-1

ABBREVIATIONS

THE FOLLOWING LIST CONTAINS ABBREVIATIONS USED IN THIS SET OF DRAWINGS. NOTE THAT NOT ALL ABBREVIATIONS SHOWN HERE MIGHT APPEAR WITHIN THIS SET OF PLANS

Abbreviation	Meaning
AC	ACRE
APPD	APPROVED
APPROX	APPROXIMATE
ASPH	ASPHALT
AWWA	AMERICAN WATER WORKS ASSOCIATION
BL	BASE LINE
BLDG	BUILDING
BLVD	BOULEVARD
BM	BENCHMARK
BOC	BACK OF CURB
BOT	BOTTOM
CF	CUBIC FEET
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT, COMPANY
COMM	COMMUNICATION
CONC.	CONCRETE
COND	CONDUIT (UNDERGROUND), CONDOMINIUM
CONST.	CONSTRUCT, CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR, CONTRACT
CORR	CORRUGATED
CU	CUBIC
CU.FT.	CUBIC FOOT
CU.IN.	CUBIC INCH
CY	CUBIC YARD
DBI	DITCH BOTTOM INLET
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DHW	DESIGN HIGH WATER
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DOM	DOMESTIC WATER
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ENCL	ENCLOSURE
EQ	EQUAL
EQUIP	EQUIPMENT
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
EST	ESTIMATE
EXIST	EXISTING
EXP	EXPANSION CONT.
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FDC	FIRE DEPARTMENT CONNECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FES	FLARED END SECTION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH
FL	FLOOR
FLG	FLANGE
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
FT (')	FEET, FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GR	GRADE
GRND	GROUND
GS	GALVANIZED STEEL, GROUND SHOT
H	HORIZONTAL
HB	HOSE BIB
HC	HANDICAP
HEX	HEXAGON
HORIZ	HORIZONTAL
HP	HIGH POINT, HIGH PRESSURE CONCRETE PIPE
H.PT.	HIGH POINT
HT	HEIGHT
HW	HIGH WATER
HYD	HYDRANT, HYDRAULIC
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN (")	INCH
INC	INCORPORATED
IND	INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION
INV	INVERT
JCT	JUNCTION
JT	JOINT, CONSTRUCTION JOINT
L	LEFT
LAB	LABORATORY
LAT	LATERAL
LF	LINEAR FEET
LG	LONG
LH	LEFT HAND
L.PT.	LOW POINT
LP	LOW POINT,
LT	LEFT
LVL	LEVEL
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MES	MITERED END SECTION
MFD	MANUFACTURED
MFG	MANUFACTURING
MFGR	MANUFACTURER
MH	MANHOLE
MIN.	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MSHA	MINE SAFETY AND HEALTH ADMINISTRATION
N	NORTH
NGS	NATIONAL GEODETIC SURVEY
NO (#)	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OVHD	OVERHEAD
P	PLATE
PAR	PARALLEL
PC	PRECAST CONCRETE, POINT OF CURVATURE
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PROPERTY LINE, PLATE
PM	PREMOLDED MASTIC
POL	POINT ON LINE
PREFAB	PREFABRICATED
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PRV	PRESSURE RELIEF VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT or POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QUAD	QUADRANT
QUAL	QUALITY
R	RISER
R/W	RIGHT OF WAY
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD, ROOF DRAIN
RED	REDUCER
REINF	REINFORCING
REQ'D	REQUIRED
REV	REVISION, REVISE
RH	RIGHT HAND
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
RV	RELIEF VALVE
S	SOUTH
SAN	SANITARY
SCH	SCHEDULE
SECT	SECTION
SEW	SEWER
SF or SQ FT	SQUARE FEET
SH	SHEET
SIM	SIMILAR
SLV	SLEEVE
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMBOL
SYS	SYSTEM
SY	SQUARE YARDS
T	TREAD
TAN	TANGENT
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TERM	TERMINAL, TERMINATE
TOB	TOP OF BERM, TOP OF BANK
TOC	TOP OF CONC, TOP OF CURB
TOP	TOP OF PAVEMENT
TOS	TOP OF STEEL, TOE OF SLOPE
TOW	TOP OF WALL
TV	TELEVISION
TYP	TYPICAL
T&B	TOP AND BOTTOM
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W	WEST, WIDTH, WATT
W/	WITH
W/O	WITHOUT
WD	WOOD
WHSE	WAREHOUSE
WL	WATER LINE
WP	WATER/WEATHER PROOF
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X-SEC	CROSS SECTION
YD	YARD

NOTE:

CONSTRUCTION PLANS ARE AVAILABLE IN AUTODESK CIVIL 3D FORMAT ONLY.
ANY FILE CONVERSIONS WILL BE AT THE CONTRACTOR'S EXPENSE.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

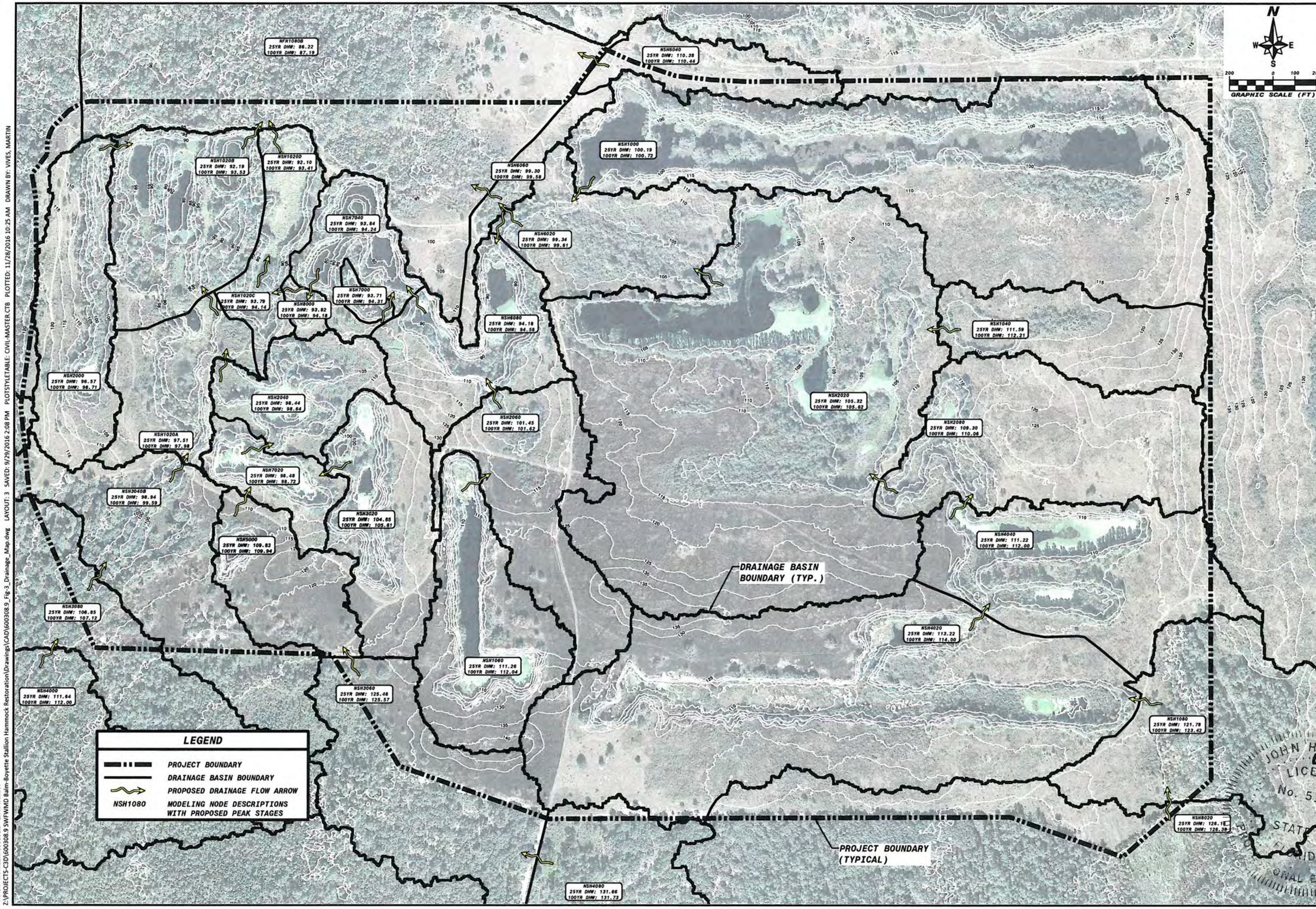
GENERAL NOTES
HILLSBOROUGH COUNTY, FLORIDA

JOHN H. KIEFER LICENSE No. 51991 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 2/14/18
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
2/28/18
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET 2



PROJECT NUMBER: 600308.9 CITY: TAMPA
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NO.	DATE	REVISION

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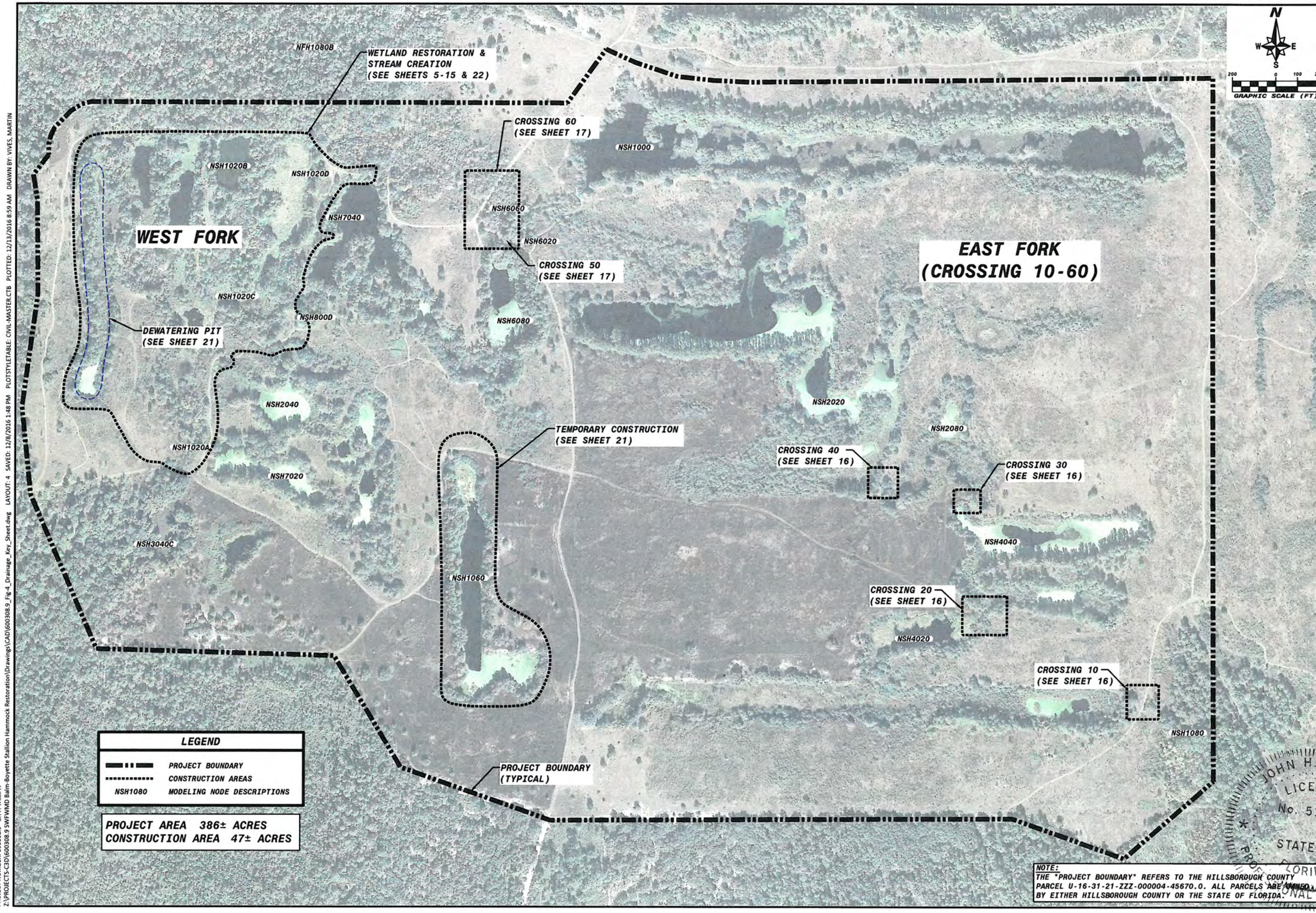
BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

DRAINAGE MAP
HILLSBOROUGH COUNTY, FLORIDA

DATE: 9/29/16
DRAWN BY: -
CHECKED BY: J.H. KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51[illegible]
9/29/16
DATE

SHEET NO. 3 OF 9 SHEETS INCLUDED.
SHEET - 3



NOTE:
THE "PROJECT BOUNDARY" REFERS TO THE HILLSBOROUGH COUNTY PARCEL U-16-31-21-ZZZ-000004-45670.0. ALL PARCELS ARE OWNED BY EITHER HILLSBOROUGH COUNTY OR THE STATE OF FLORIDA.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING AND DRAINAGE PLAN KEY SHEET
HILLSBOROUGH COUNTY, FLORIDA

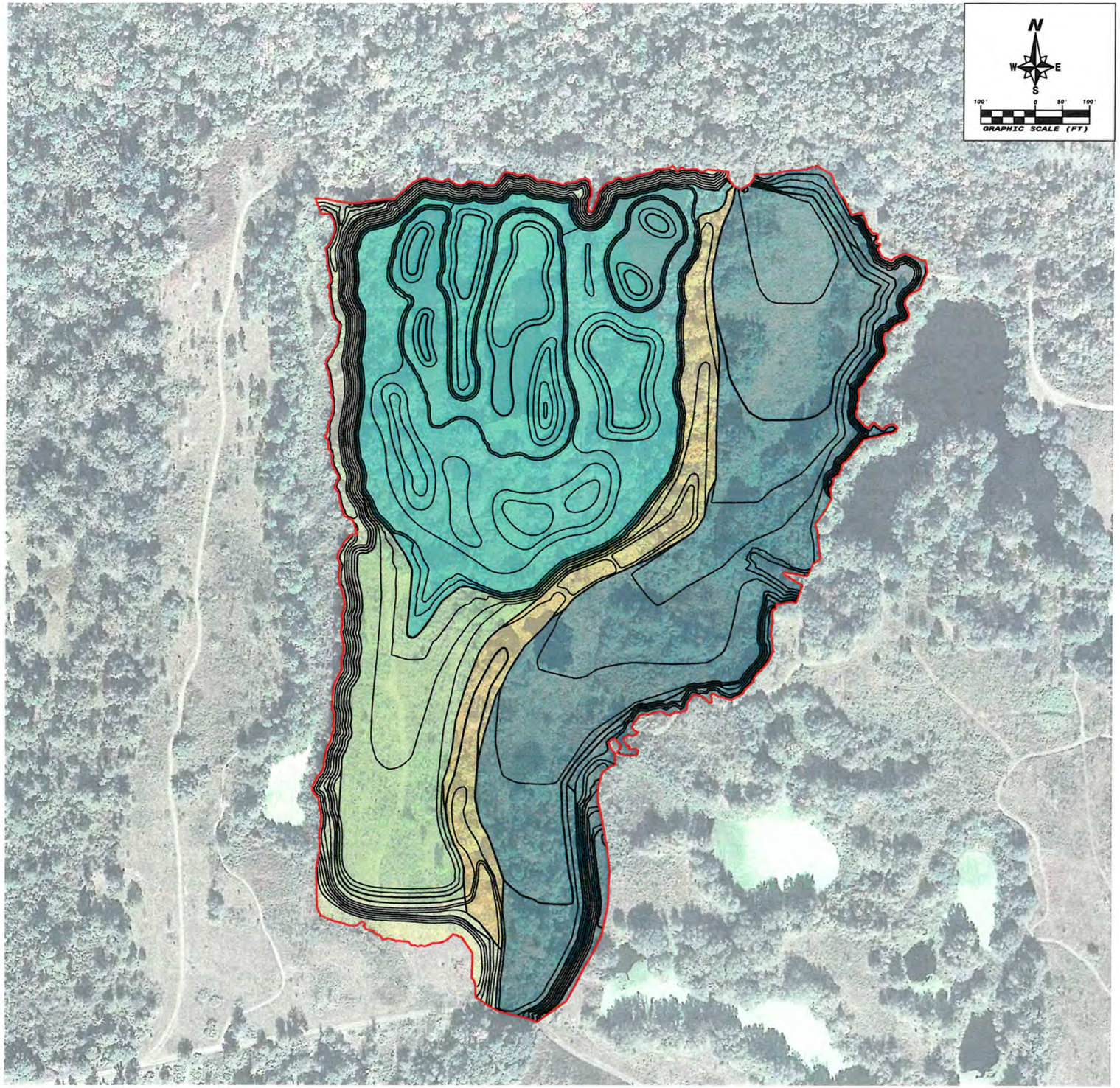
DATE: 12/8/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

ENGINEER NAME
FLA. REG. NO. PE NO
2/28/18
DATE:

SHEET 4

JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-4_Drainage_Key_Sheet.dwg LAYOUT: 4 SAVED: 12/8/2016 1:48 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 12/13/2016 8:59 AM DRAWN BY: VIVES, MARTIN



LEGEND

APPROXIMATE PROJECT AREA

ZONES

- RIDGE (2.13 ac)
- LEVEL POOL WETLAND (9.25 ac)
- RIVERINE (9.83 ac)
- SEEPAGE WETLAND (3.04 ac)
- UPLAND (2.31 ac)

NOTE:
GRADING SURFACES

1. THE CONTRACTOR MUST SUBMIT A GRADING PLAN FOR THE PROJECT FOR OWNER APPROVAL PRIOR TO COMMENCING EARTHWORK. PLAN SHALL PROVIDE THE OVERALL CONSTRUCTION SEQUENCE FOR THE PROJECT, HAUL ROUTES, CUT SEQUENCE , AND FILL SEQUENCE FOR THE ENTIRE PROJECT AREA.
2. RIVERINE VALLEY AND RIDGE ARE PRIORITY AREAS THAT MUST BE GRADED AS DEPICTED IN PLANS (SEE SHEETS 6-8 AND 11-13 FOR DETAILS).
3. SEEPAGE WETLAND IS A VARIABLE BORROW AREA, INTENDED TO PROVIDE FILL MATERIAL TO BALANCE CUT AND FILL FOR THE PROJECT.
4. SEEPAGE WETLAND GRADING TO CEASE WHEN MATERIAL IS RECOVERED TO CREATE THE RIVERINE VALLEY, RIDGE, AND LEVEL POOL WETLAND AREAS, AS DEPICTED IN THE PLANS. ITS TERMINAL SLOPES ARE TO BE 4:1 H:V OR MORE GRADUAL IF THE SEEPAGE AREA IS NOT FULLY CONSTRUCTED TO THE LIMITS SHOWN IN PLANS. TERMINATION OF SEEPAGE WETLAND CONSTRUCTION MUST BE APPROVED BY OWNER.
5. LEVEL POOL WETLAND CAN BE GRADED WITH SELECTED DEEPER AREAS THAN SHOWN IN THE PLAN IF, AND ONLY IF, THE ENTIRE PROJECT AREA DOES NOT OTHERWISE PROVIDE A SUFFICIENT BALANCE OF MATERIAL TO ACHIEVE DESIGN GRADE AS DEPICTED IN THE PLANS.
6. CONTRACTOR MUST OBTAIN OWNER APPROVAL REGARDING FINAL GRADES IF THEY MUST DEVIATE FROM THE DRAWINGS IN THE SEEPAGE WETLAND OR LEVEL POOL AREAS TO ACHIEVE A CUT FILL BALANCE PRIOR TO FINAL CONTOURING.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING SURFACES
HILLSBOROUGH COUNTY, FLORIDA

JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 11/28/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
12/28/18
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 5

PROJECT NUMBER: 600308.9 CITY: TAMPA
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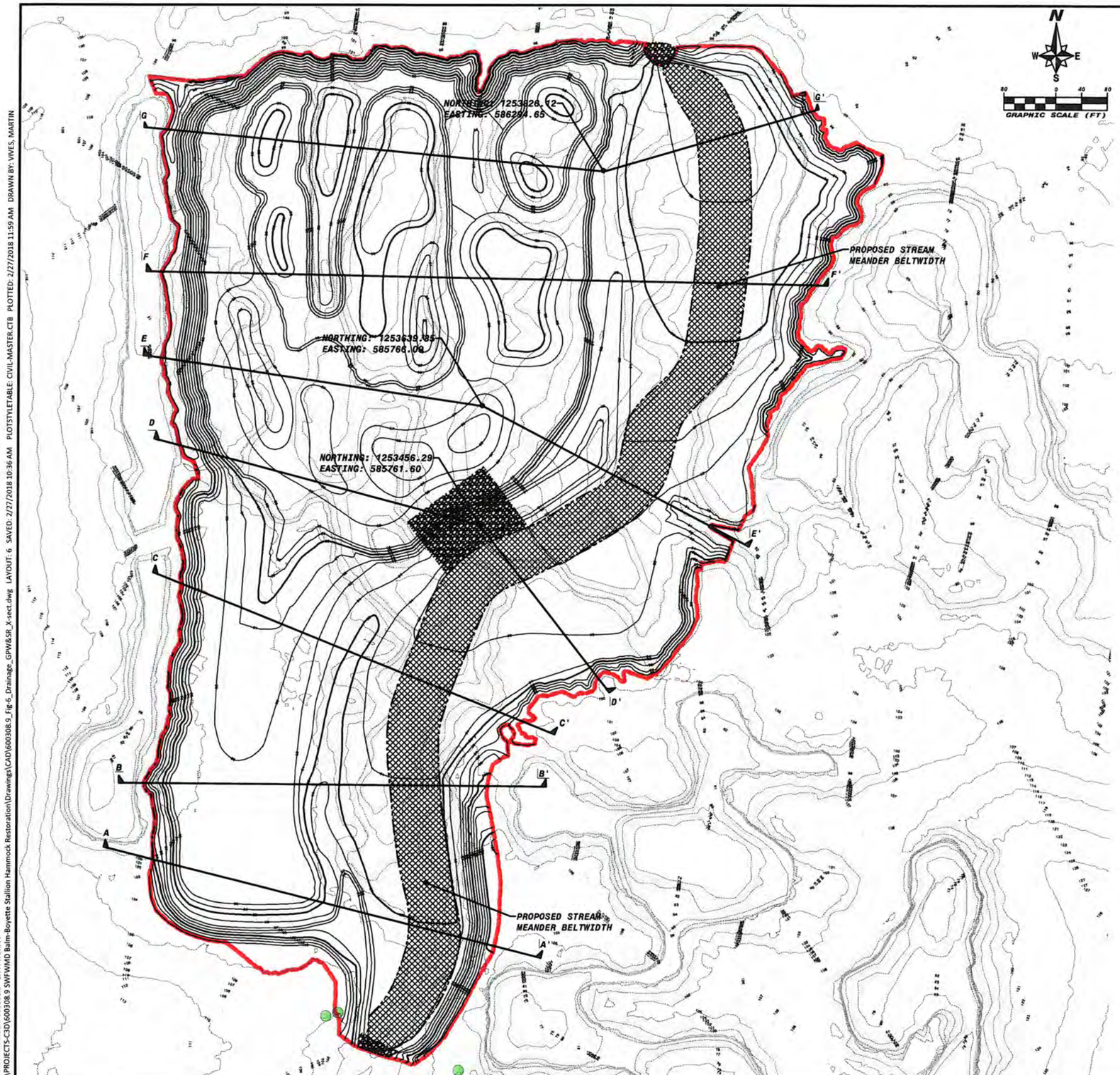

LEGEND

- PRIMARY GRADING LIMITS
- PROPOSED STREAM MEANDER BELTWIDTH
- RIPRAP
- GOPHER TORTOISE BURROW

NOTES:

1. SEE SHEETS 11-13 FOR SECTIONS A-A' THRU G-G'.
2. PROPOSED STREAM FLOWLINE VARIES WITHIN MEANDER BELTWIDTH. SEE SHEET 22.
3. SEE SHEET 5 FOR AREAS WITH DIFFERENT GRADING PRIORITIES.
4. A GOPHER TORTOISE SURVEY WAS CONDUCTED BY SCHEDA STAFF IN 2016 AND LOCATED SEVERAL POTENTIALLY OCCUPIED BURROWS WITHIN THE VICINITY OF THE PROJECT AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE SERVICES OF AN AUTHORIZED GOPHER TORTOISE AGENT AND CONDUCTING A GOPHER TORTOISE SURVEY WITHIN 25 FEET OF THE GRADING LIMITS OF THE PROJECT, AND ADHERE TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) GOPHER TORTOISE PERMITTING GUIDELINES, APRIL 2008, AND ALL SUBSEQUENT REVISIONS. IF POTENTIALLY OCCUPIED GOPHER TORTOISE BURROWS LOCATED WITHIN 25 FEET OF THE GRADING LIMITS CANNOT BE AVOIDED, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A 10 OR FEWER GOPHER TORTOISE PERMIT FROM THE FWC AND PERFORM THE RELOCATION.

CROSS SECTION COORDINATE TABLE

Point #	Description	Northing	Easting
1	A	1252960.01	585186.10
2	A'	1252790.45	585858.13
3	B	1253058.57	585209.43
4	B'	1253054.07	585865.56
5	C	1253383.27	585260.36
6	C'	1253134.51	585877.93
7	D	1253588.72	585261.60
8	D1	1253456.29	585761.60
9	D'	1253198.87	585962.09
10	E	1253717.32	585245.05
11	E1	1253639.35	585766.09
12	E'	1253424.25	586174.78
13	F	1253846.64	585248.29
14	F'	1253826.12	586294.65
15	G	1254068.17	585243.34
16	G1	1254001.34	585950.77
17	G'	1254096.34	586273.94

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING PLAN WETLAND AND STREAM RESTORATION
HILLSBOROUGH COUNTY, FLORIDA

JOHN H. KIEFER
LICENSED
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 2/27/18
DRAWN BY: M. VIVES
CHECKED BY: J. H. KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
2/27/18
DATE

RETURN TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 6

PROJECT NUMBER: 600308.9 CITY: TAMPA
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MATCHLINE - SEE SHEET 8

N
W E
S

GRAPHIC SCALE (FT)
40 0 20 40

STA. 17+65.00 P.I.
BASELINE "A"
N = 1,253,382.58
E = 585,735.73

TBM #10
ELEVATION = 101.80
N = 1,253,247.85
E = 585,399.58
Capped Iron Rod "L.B. #7340"

STA. 15+39.00 P.I.
BASELINE "A"
N = 1,253,146.40
E = 585,657.15

PROPOSED STREAM MEANDER BELTWIDTH

STA. 12+35.00 P.I.
BASELINE "A"
N = 1,252,848.70
E = 585,694.20

TBM #9
ELEVATION = 108.09
N = 1,252,647.66
E = 585,434.03
Capped Iron Rod "L.B. #7340"

STA. 10+00.00
BEGIN BASELINE "A"
N = 1,252,633.28
E = 585,600.27

SEE SHEET 14 FOR UPSTREAM CONNECTION DETAILS

LEGEND

- PRIMARY GRADING LIMITS
- PROPOSED STREAM MEANDER BELTWIDTH
- EXISTING CONTOUR
- PROPOSED CONTOURS
- STAKED SILT FENCE

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING DETAIL WETLAND AND STREAM RESTORATION
HILLSBOROUGH COUNTY, FLORIDA

DATE 2/20/18
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE 2/26/18

JOHN H. KIEFER LICENSE No. 51991 STATE OF FLORIDA PROFESSIONAL ENGINEER

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 7

PROJECT NUMBER: 600308.9 CITY: TAMPA
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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING DETAIL WETLAND AND STREAM RESTORATION
HILLSBOROUGH COUNTY, FLORIDA

DATE: 2/27/18
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 24991
DATE: 2/28/18

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 8

PROJECT NUMBER: 600308.9 CITY: TAMPA
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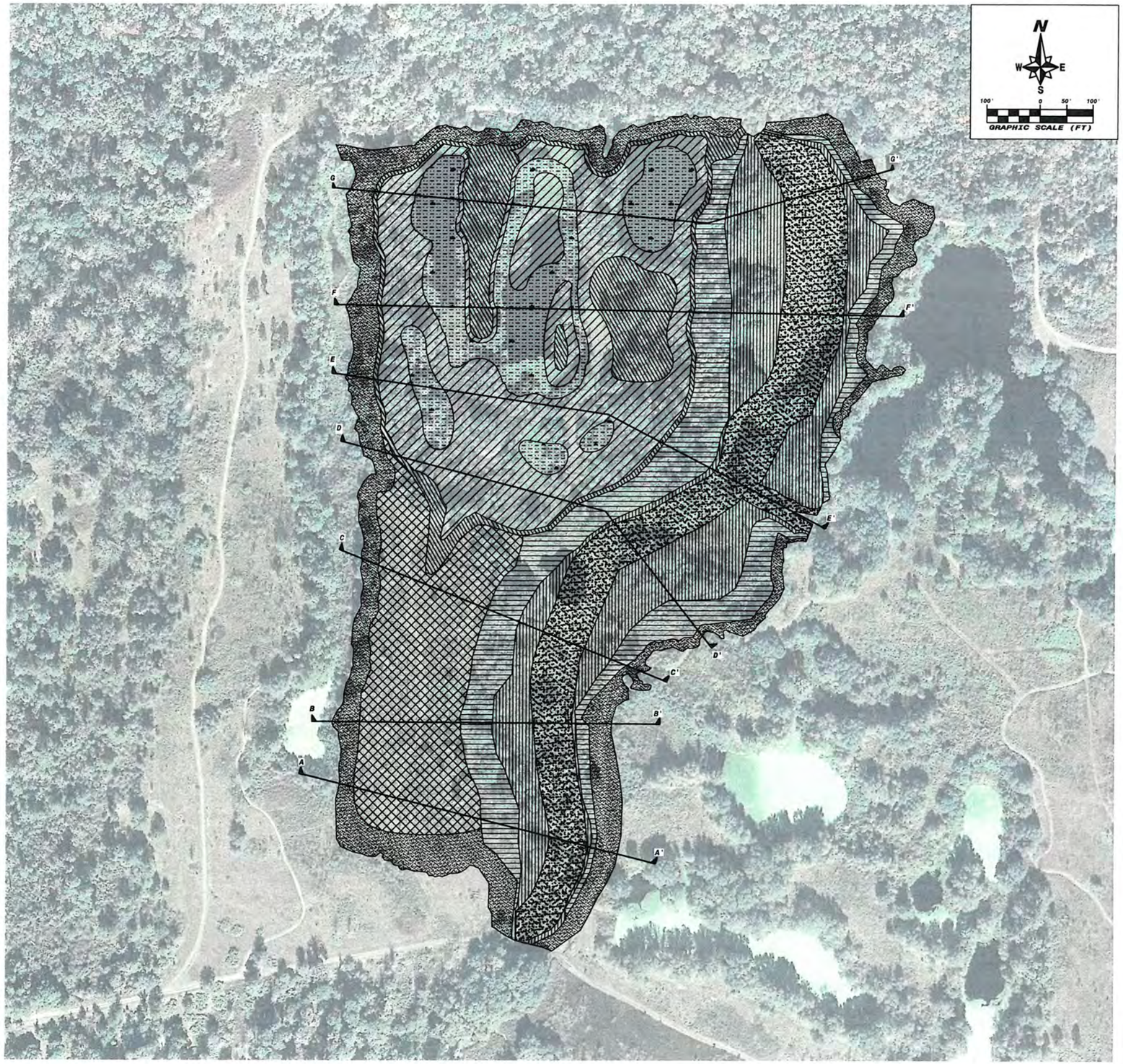

LEGEND

- PALUSTRINE EMERGENT PLANTING
- PALUSTRINE FORESTED PLANTING
- PALUSTRINE TRANSITIONAL PLANTING
- RIPARIAN WETLAND
- RIVERINE HIGH MARSH PLANTING
- RIVERINE TRANSITIONAL PLANTING
- SEEPAGE WETLAND
- UPLAND ENHANCEMENT PLANTING

NOTES:

1. SEE SHEETS 11-13 FOR SECTIONS.
2. SEE SHEET 10 FOR PLANTING SPECIES AND QUANTITIES.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

PLANTING PLAN
HILLSBOROUGH COUNTY, FLORIDA

JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 10/3/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 2/28/18

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 9

PROJECT NUMBER: 600308.9 CITY: TAMPA
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Stallion Hammock Preserve Planting Specifications Table

Zone	Acres	Scientific Name	Common Name	Size	Spacing	Zone %	Quantity
Palustrine Emergent	2.41	Herbaceous					
		Pontederia cordata	pickerelweed	2" cell	3' o.c.	50%	6730
		Scirpus validus	softstem bulrush	2" cell	3' o.c.	50%	6730
Palustrine Forested	4.97	Herbaceous					
		Eleocharis cellulosa	coastal spikerush	2" cell	3' o.c.	20%	5551
		Pontederia cordata	pickerelweed	2" cell	3' o.c.	40%	11103
		Sagittaria lancifolia	arrowhead	2" cell	3' o.c.	40%	11103
		Tree					
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	25%	626
		Taxodium distichum	bald cypress	1 gal.	10' o.c.	75%	1879
Palustrine Transitional	1.87	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	10%	1044
		Panicum hemitomon	maidencane	2" cell	3' o.c.	60%	6266
		Polygonum hydropiperoides	smartweed	2" cell	3' o.c.	30%	3133
		Shrub					
		Cephalanthus occidentalis	buttonbush	1 gal.	10' o.c.	100%	942
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	30%	283
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	30%	283
		Liquidambar styraciflua	sweetgum	1 gal.	10' o.c.	20%	188
		Ulmus americana	American elm	1 gal.	10' o.c.	20%	188
Riparian Wetland	3.68	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	100%	20553
		Shrub					
		Cephalanthus occidentalis	buttonbush	1 gal.	10' o.c.	100%	1855
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	20%	371
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	20%	371
		Ilex cassine	dahoon holly	1 gal.	10' o.c.	20%	371
		Magnolia virginiana	sweetbay	1 gal.	10' o.c.	20%	371
		Quercus laurifolia	laurel oak	1 gal.	10' o.c.	20%	371
Riverine High Marsh	3.6	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	20106
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1814
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	25%	454
		Celtis laevigata	hackberry	1 gal.	10' o.c.	25%	454
		Quercus laurifolia	laurel oak	1 gal.	10' o.c.	25%	454
		Ulmus americana	American elm	1 gal.	10' o.c.	25%	454
Riverine Transitional	3.4	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	18989
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1714
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	25%	428
		Celtis laevigata	hackberry	1 gal.	10' o.c.	25%	428
		Pinus elliotii	slash pine	1 gal.	10' o.c.	25%	428
		Quercus nigra	water oak	1 gal.	10' o.c.	25%	428
Seepage Wetland	2.96	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	50%	8266
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	50%	8266
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	50%	746 *
		Magnolia virginiana	sweetbay	1 gal.	10' o.c.	50%	746 *
Upland Enhancement	3.68	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	20553
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1855
		Tree					
		Pinus elliotii	slash pine	1 gal.	10' o.c.	100%	1855

NOTE:
* PLANT IN CLUSTERS
SEE SHEET 9 FOR VEGETATION ZONES

Stallion Hammock Preserve Optional Planting Specifications Table

Zone	Acres	Scientific Name	Common Name	Size	Spacing
Floating Leaf Emergent	up to 5	Herbaceous			
		Nuphar luteum	cow lily	bare root	10' o.c.
		Nelumbo lutea	American lotus	bare root	10' o.c.

NOTE:
CONTRACTOR TO INSTALL FLOATING LEAF EMERGENT COMMUNITY IN DEEP AREA ONLY IF DIRECTED BY OWNER. INSTALLATION OF THE COMMUNITY WILL ONLY OCCUR IF FILL DEFICITS REQUIRE AREAS OF COMPATIBLE GRADING DEPTHS IN THE LEVEL POOL WETLAND (SEE SHEET 5)

JOHN H. KIEFER
LICENSED
No. 519
STATE OF FLORIDA
PROFESSIONAL ENGINEER

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

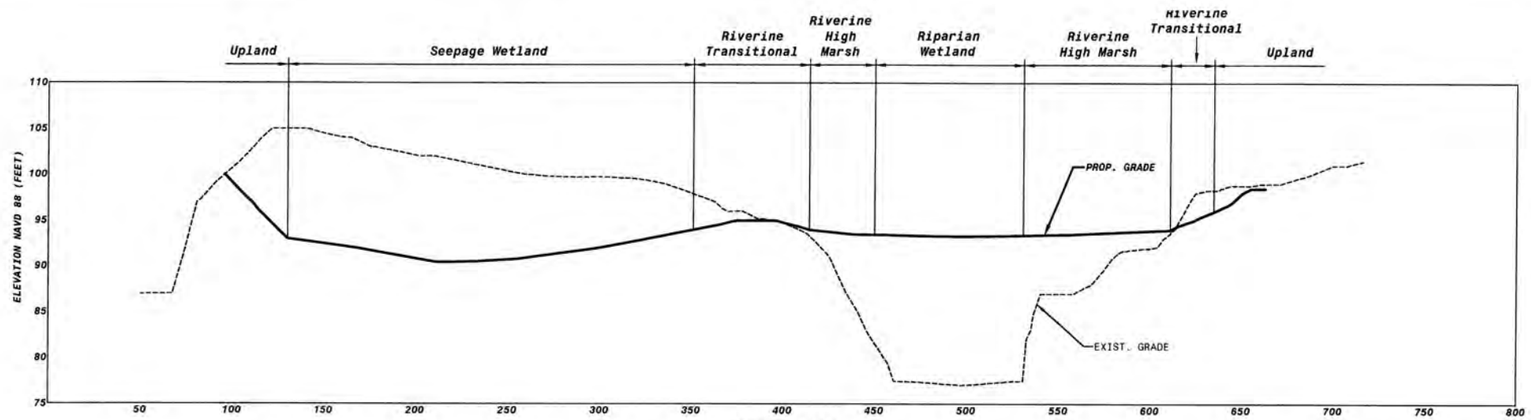
PLANTING QUANTITIES
HILLSBOROUGH COUNTY, FLORIDA

DATE: 9/29/16
DRAWN BY: J. VIVES
CHECKED BY: J. H. KIEFER
PROJECT NO.: 600308.9

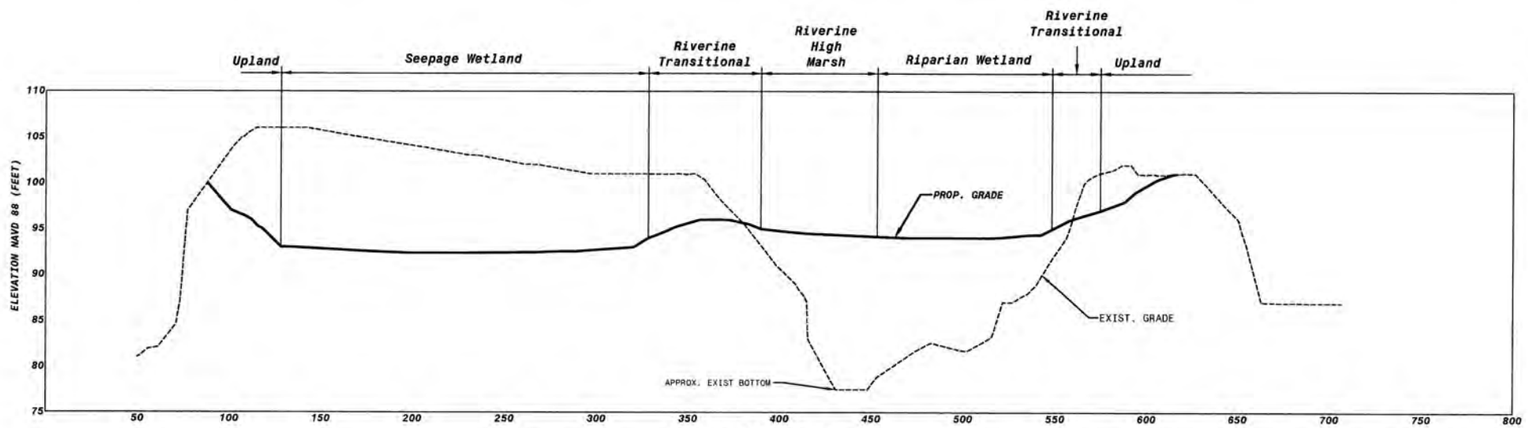
JOHN H. KIEFER
FLA. REG. NO. 51491
DATE: 2/28/18

SHEET 10 OF 10 INCLUSIVE TOTAL SHEETS INCLUSIVE

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-CAD\600308.9 SWFWMD Balm Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig 10_Planting Quantities.dwg LAYOUT: 10 SAVED: 9/29/2016 2:16 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/28/2016 3:57 PM DRAWN BY: VIVES, MARTIN



SECTION C-C'



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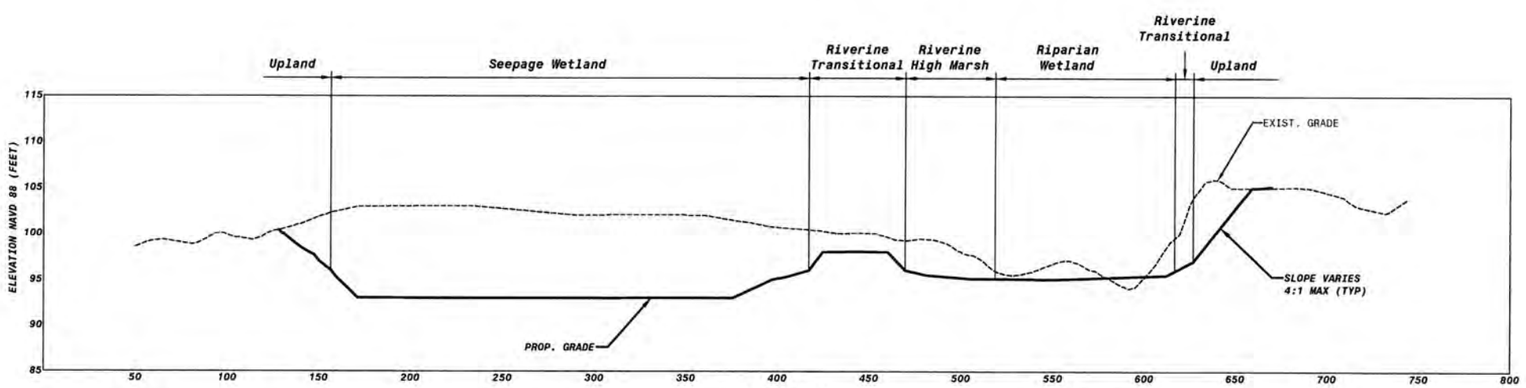


SECTION A-A'

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5202 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
Fax: 813.989.9670

amec foster wheeler
Amec Foster Wheeler
Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL 33602
Phone: +1 813 282-7275 Fax: +1 813 289-5474
www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING AND PLANTING CROSS SECTIONS
HILLSBOROUGH COUNTY, FLORIDA

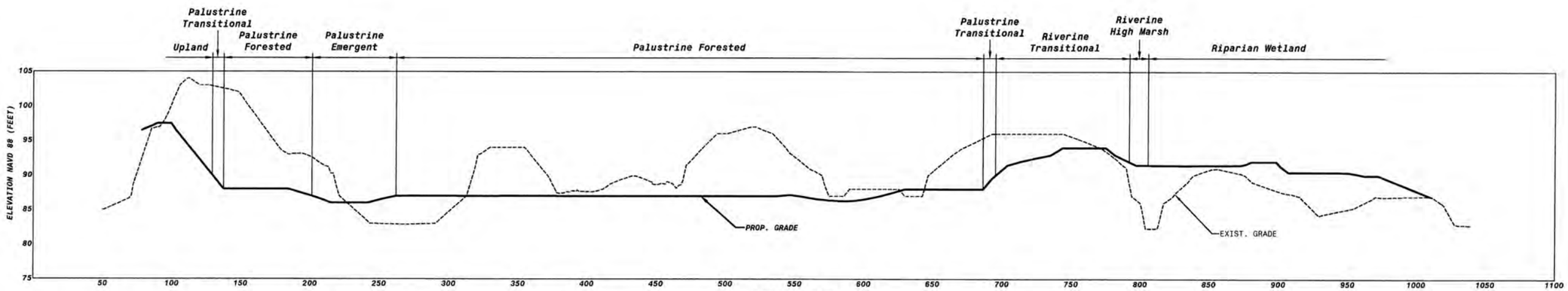
JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO. 600308.9

JOHN H. KIEFER
FLA. REG. No. 51991
DATE: 2/28/18

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 11

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-CD\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-6_Drainage_GPW&SR_X-sect.dwg LAYOUT: 11 SAVED: 11/29/2016 1:39 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/29/2016 1:40 PM DRAWN BY: VIVES, MARTIN



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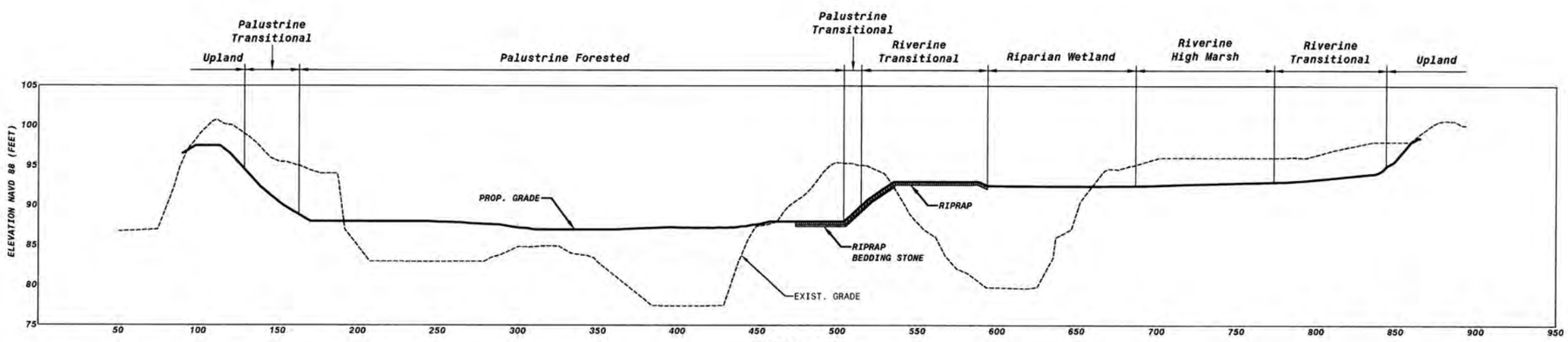


SECTION D-D'

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
Fax: 813.989.9670

amec foster wheeler

Amec Foster Wheeler
Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING AND PLANTING CROSS SECTIONS
HILLSBOROUGH COUNTY, FLORIDA

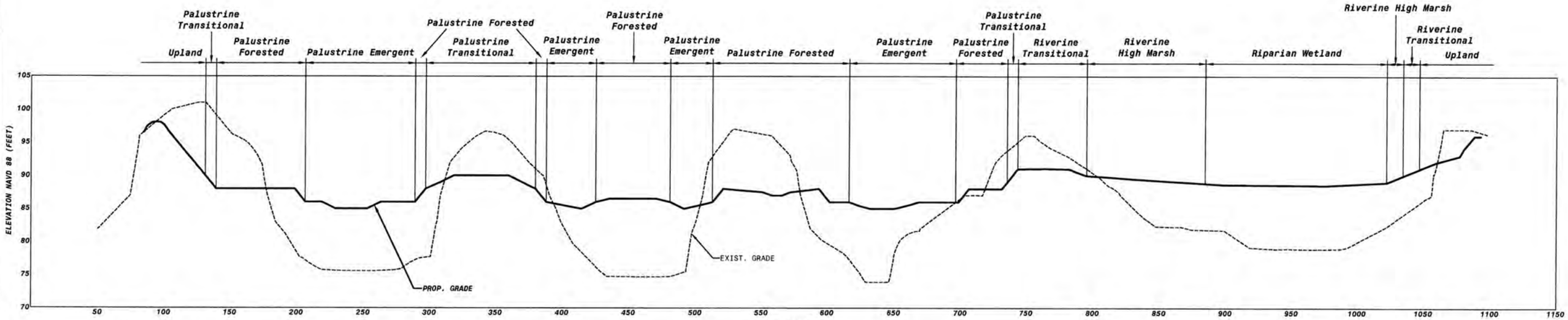
DATE: 12/8/16
DRAWN BY: J.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 2/28/18

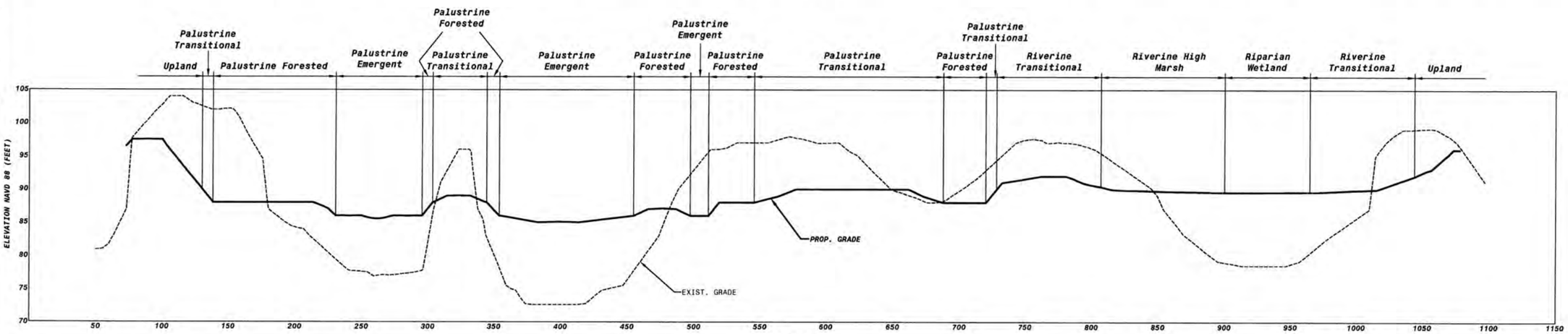
JOHN H. KIEFER
LICENSE
No. 51991
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

SHEET - 12

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-6_Drainage_GPW&SR_X-sect.dwg LAYOUT: 12 SAVED: 12/8/2016 2:58 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 12/13/2016 9:01 AM DRAWN BY: VIVES, MARTIN



SECTION G-G'



SECTION F-F'

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
Fax: 813.989.9670

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Amec Foster Wheeler
Environment & Infrastructure, Inc.
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Phone: 1.813.208.0750 Fax: 1.813.209.5474
www.amecfw.com CA-5302

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

GRADING AND PLANTING CROSS SECTIONS
HILLSBOROUGH COUNTY, FLORIDA

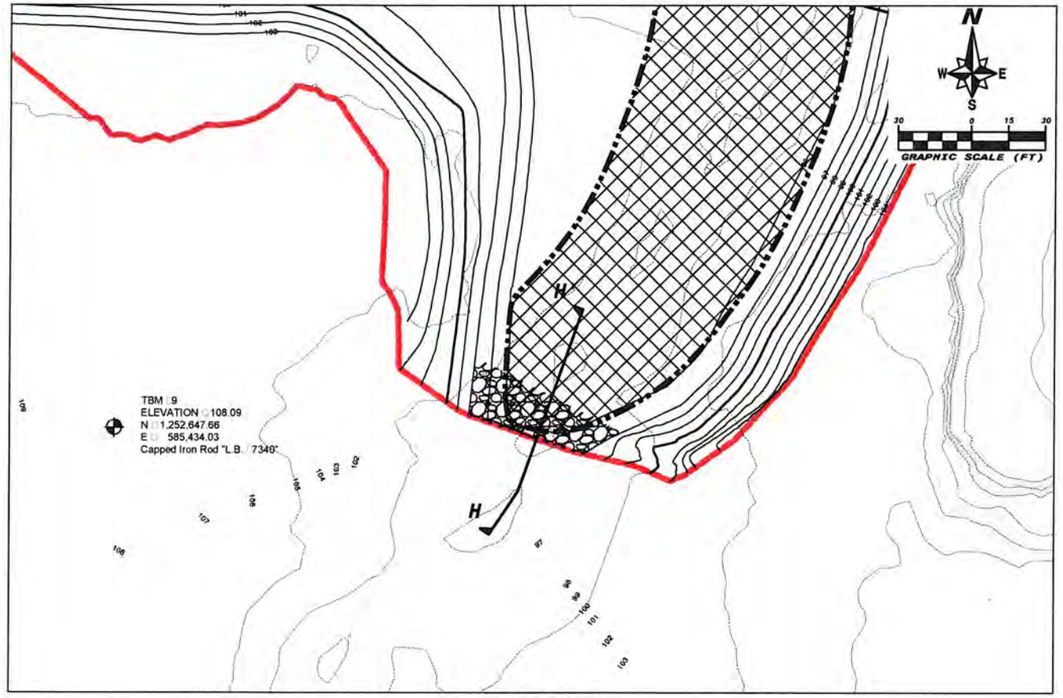
DATE: 11/28/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
LICENSE No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

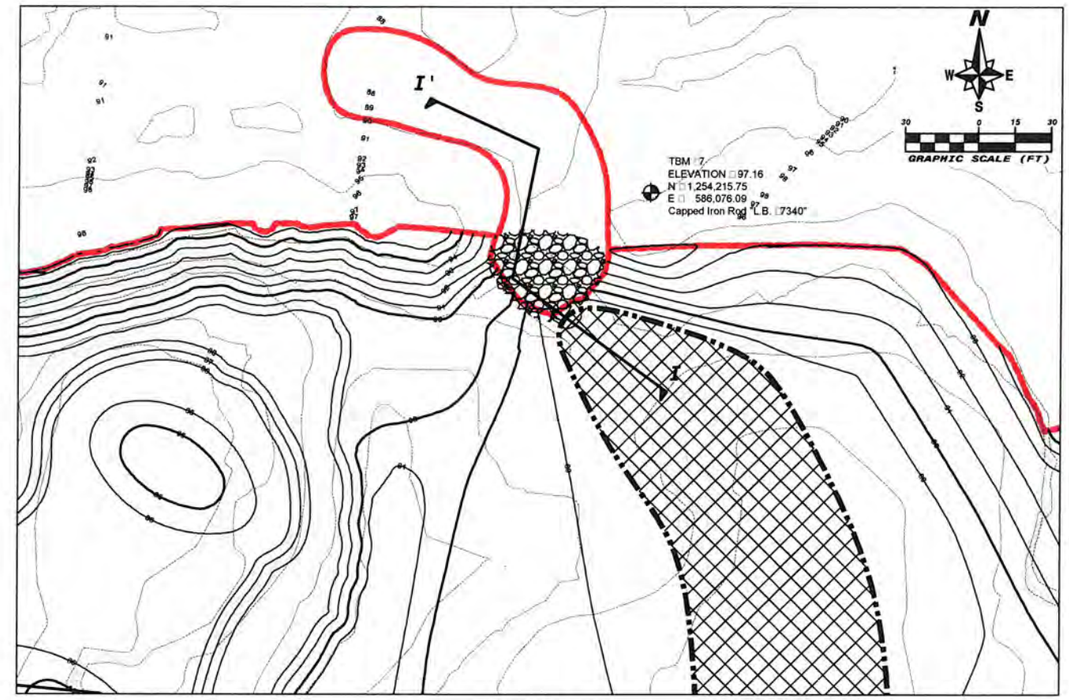
JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 12/28/16

RETURN TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET – 13

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-6_Drainage_GPW&SR_X-sect.dwg LAYOUT: 13 SAVED: 11/28/2016 12:50 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/28/2016 2:27 PM DRAWN BY: VIVES, MARTIN



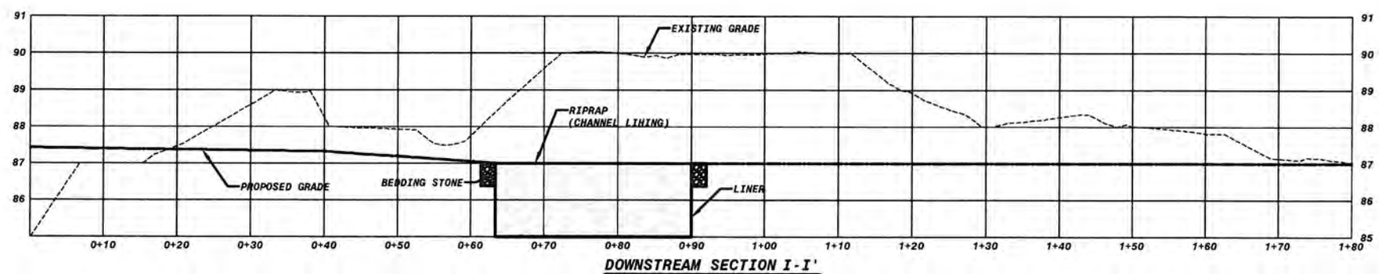
UPSTREAM CONNECTION



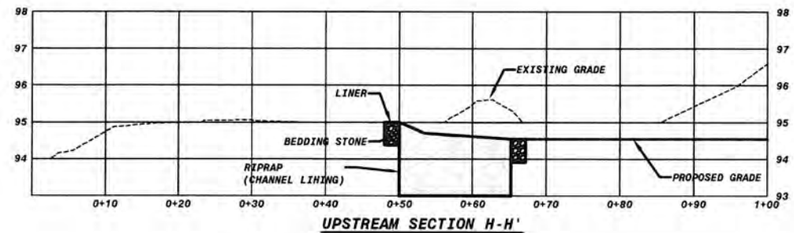
DOWNSTREAM CONNECTION

LEGEND

	PROPOSED STREAM MEANDER BELTWIDTH
96	EXISTING CONTOUR
96	PROPOSED CONTOURS



DOWNSTREAM SECTION I-I'



UPSTREAM SECTION H-H'

NOTE:

1. RIPRAP LOCATIONS APPROXIMATE, TO BE FIELD FIT AFTER HYDRAULIC CARVING.
2. DOWNSTREAM CONNECTION WILL REQUIRE ADDITIONAL GRADING TO MATCH RESTORED AND EXISTING CHANNEL ELEVATIONS AND DIMENSIONS. THIS WORK CONSISTS OF A CHANNEL EXTENSION WITH BASE WIDTH OF 10 TO 15 FEET, TOP WIDTH OF 40 FEET, AND LENGTH OF UP TO 120 FEET DOWNSTREAM FROM THE RIPRAP LIMITS. ALL EXPOSED SOILS ALONG THE CONTOURED CHANNEL EXTENSION TO BE FULLY LINED WITH A 3 YEAR RATED BIODEGRADABLE COIR EROSION CONTROL BLANKET.
3. DOWNSTREAM GRADE MAY VARY FROM THOSE DEPICTED TO EDGE-MATCH GRADES. EXPECTED TO OCCUR BETWEEN 87-88' NAVD.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
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amec foster wheeler
Amec Foster Wheeler Environment & Infrastructure, Inc.
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www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

OFFSITE CONNECTIONS WETLAND AND STREAM RESTORATION
HILLSBOROUGH COUNTY, FLORIDA

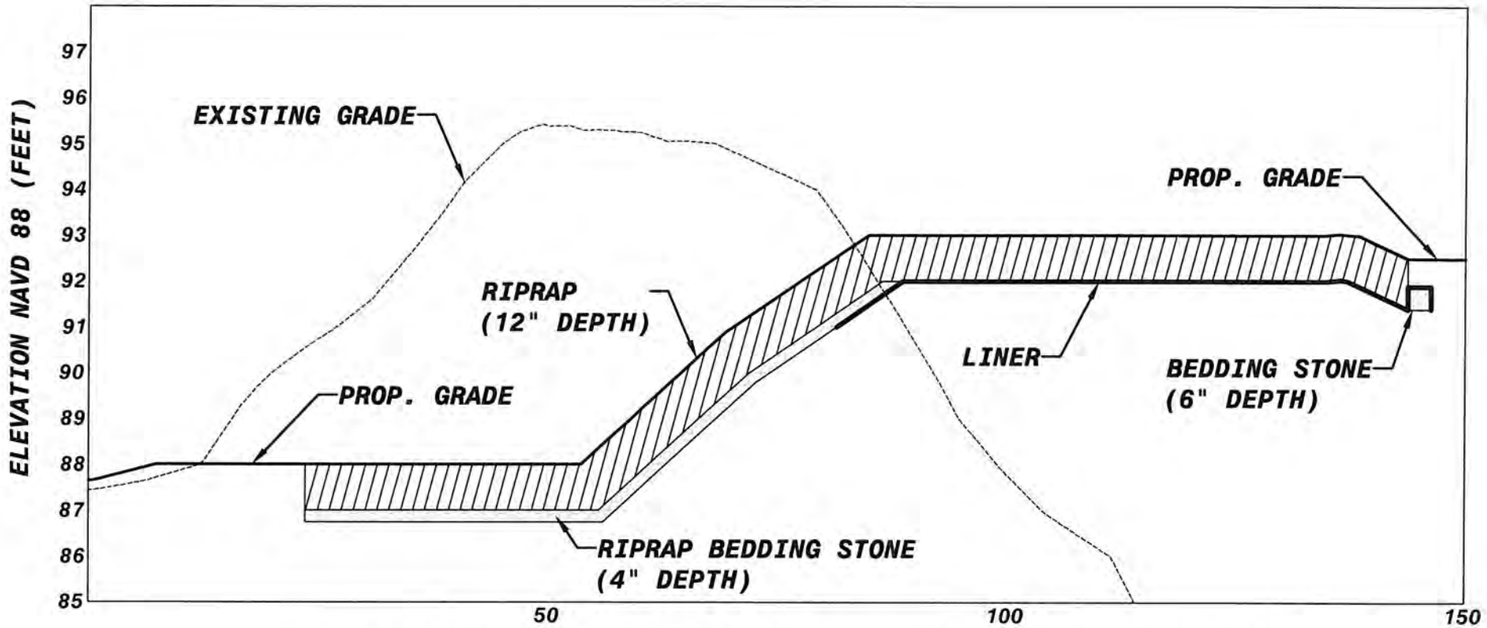
DATE: 2/27/17
DRAWN BY: M. VIVES
CHECKED BY: J.H. KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 2/28/18

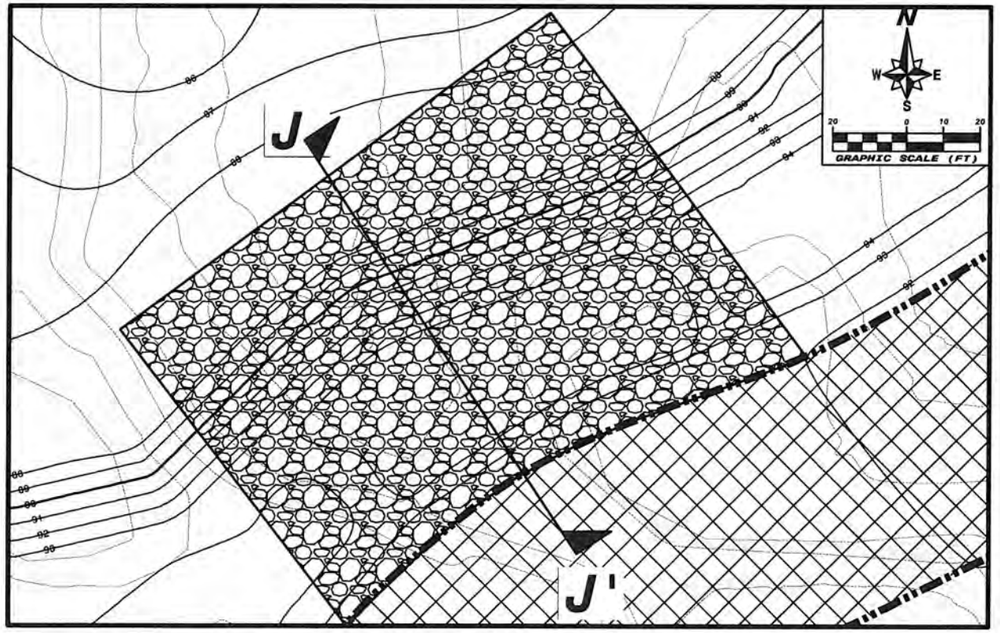
JOHN H. KIEFER LICENSE No. 51991 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHEET - 14

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-14_Drainage_OUTFALL-DET.dwg LAYOUT: 14 SAVED: 9/27/2017 4:33 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 2/14/2018 9:20 AM DRAWN BY: VIVES, MARTIN



POPOFF CONNECTION DETAIL (SECTION J-J)



SECTION J - J' (REFER TO SHEET 8)

LEGEND

	PROPOSED STREAM MEANDER BELTWIDTH
96	EXISTING CONTOUR
96	PROPOSED CONTOURS

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
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www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

POPOFF CONNECTION DETAIL
HILLSBOROUGH COUNTY, FLORIDA

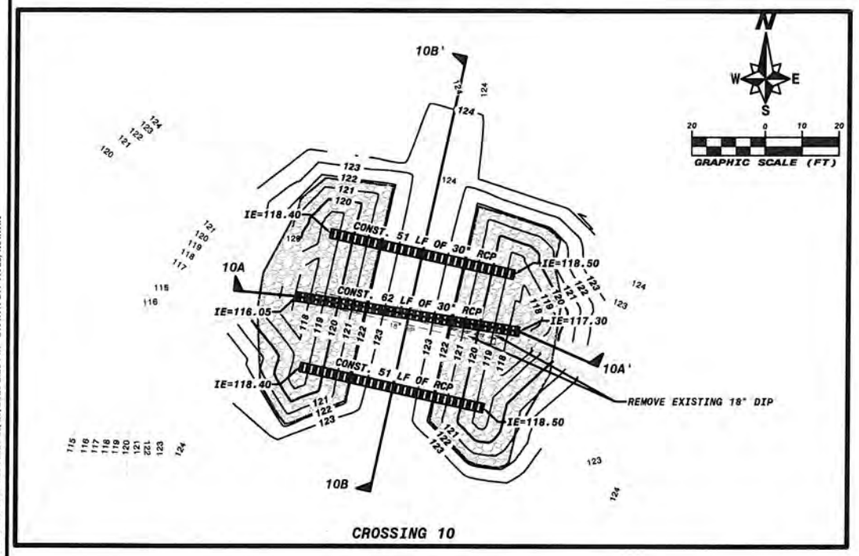
DATE: 2/14/18
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
2/28/18
DATE

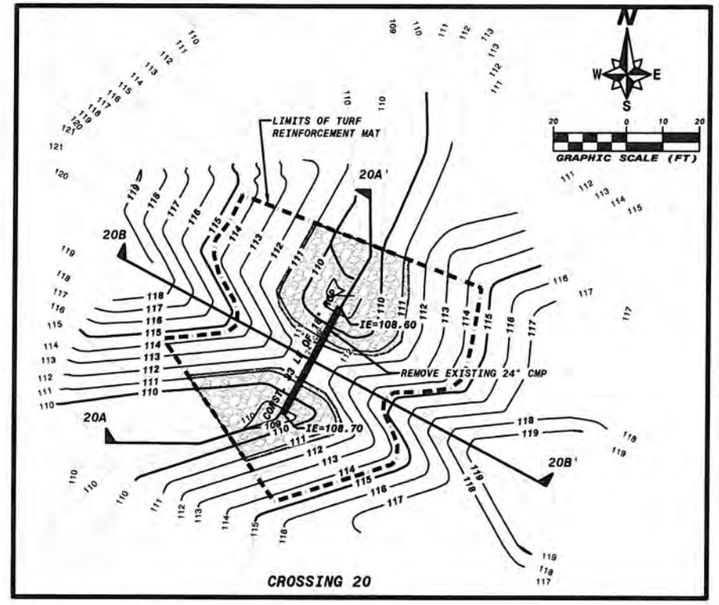
JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REFER TO SHEET FOR TOTAL SHEETS INCLUDED
SHEET - 15

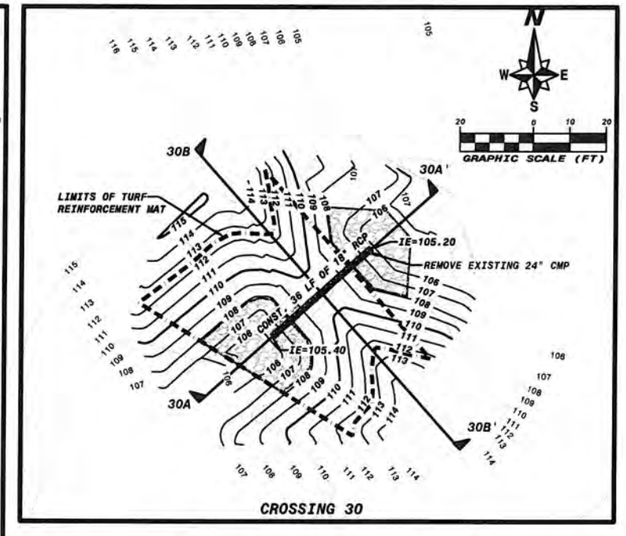
PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-15_Drainage_Popoff Connection.dwg LAYOUT: 15 SAVED: 2/14/2018 10:26 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 2/14/2018 11:13 AM DRAWN BY: VIVES, MARTIN



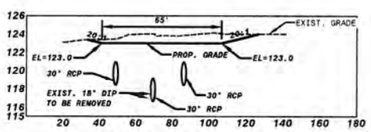
CROSSING 10



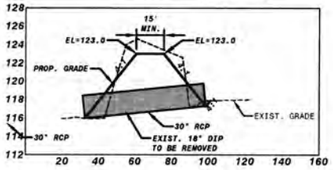
CROSSING 20



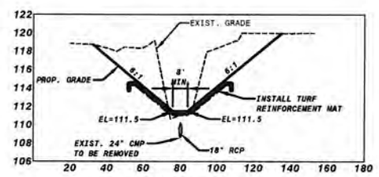
CROSSING 30



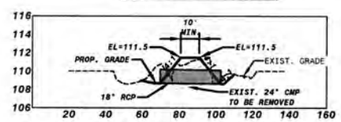
SECTION 10B-10B'



SECTION 10A-10A'



SECTION 20B-20B'



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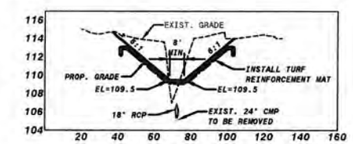

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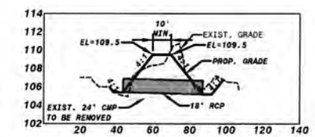
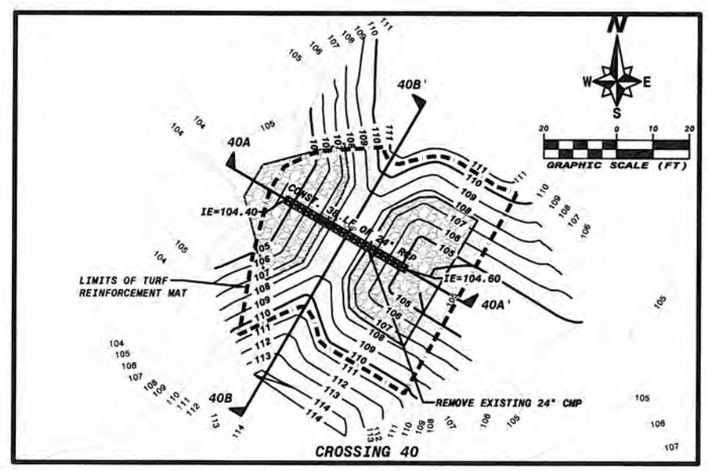
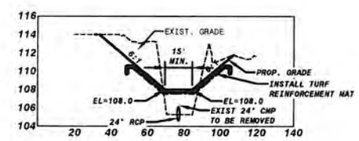


SECTION 30A-30A'



CROSSING 40



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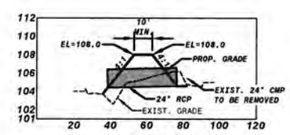


SECTION 40A-40A'

NOTES:

1. TURF REINFORCEMENT MAT SC250 PRODUCED BY NORTH AMERICAN GREEN WITH PINNED SOD OVERLAY, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL RUBBLE RIPRAP (DITCH LINING) AT THE UPSTREAM AND DOWNSTREAM ENDS OF EACH PIPE AT ALL CROSSINGS.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, FLorida 33617
Phone: 813.989.9600
Fax: 813.989.9670

amec foster wheeler
Amec Foster Wheeler Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

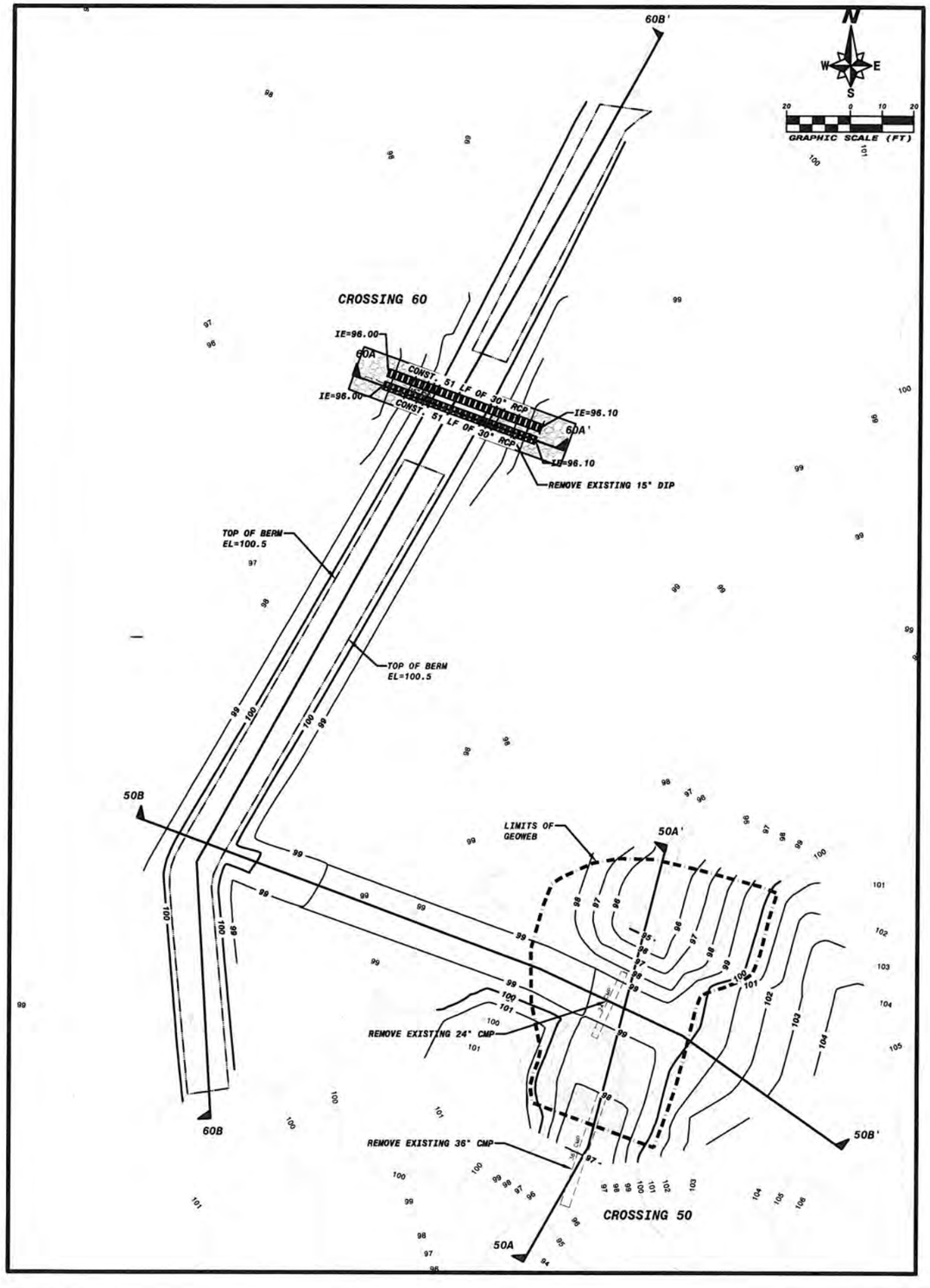
CONNECTION IMPROVEMENTS
HILLSBOROUGH COUNTY, FLORIDA

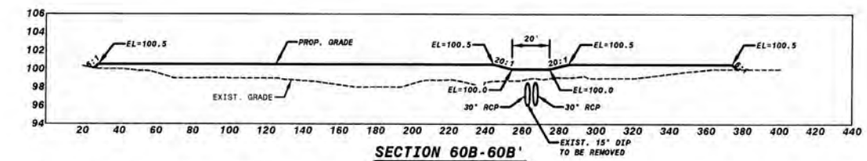
DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. PROF. ENGINEER
DATE: 2/28/18

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 16

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-16_Drainage_XSECT.dwg LAYOUT: 16 SAVED: 11/29/2016 1:04 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/29/2016 1:10 PM DRAWN BY: VIVES, MARTIN





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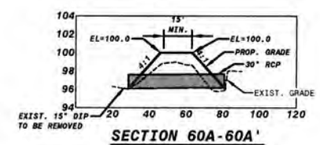
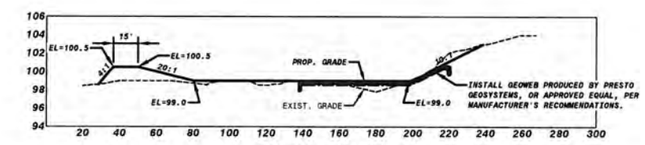
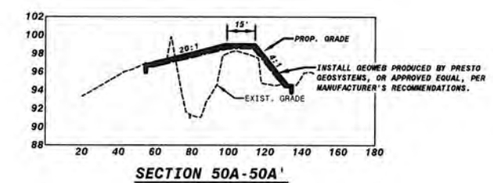


SECTION 60A-60A'



SECTION 50B-50B'



SECTION 50A-50A'

NOTES:

1. TURF REINFORCEMENT MAT SC250 PRODUCED BY NORTH AMERICAN GREEN WITH PINNED SOD OVERLAY, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL RUBBLE RIPRAP (DITCH LINING) AT THE UPSTREAM AND DOWNSTREAM ENDS OF EACH PIPE AT ALL CROSSINGS.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
6092 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
Fax: 813.989.9670

amec foster wheeler
Amec Foster Wheeler Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL 33602
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www.amecfw.com CA-5382

BALM BOYETTE - STALLION HAMMOCK

HABITAT RESTORATION

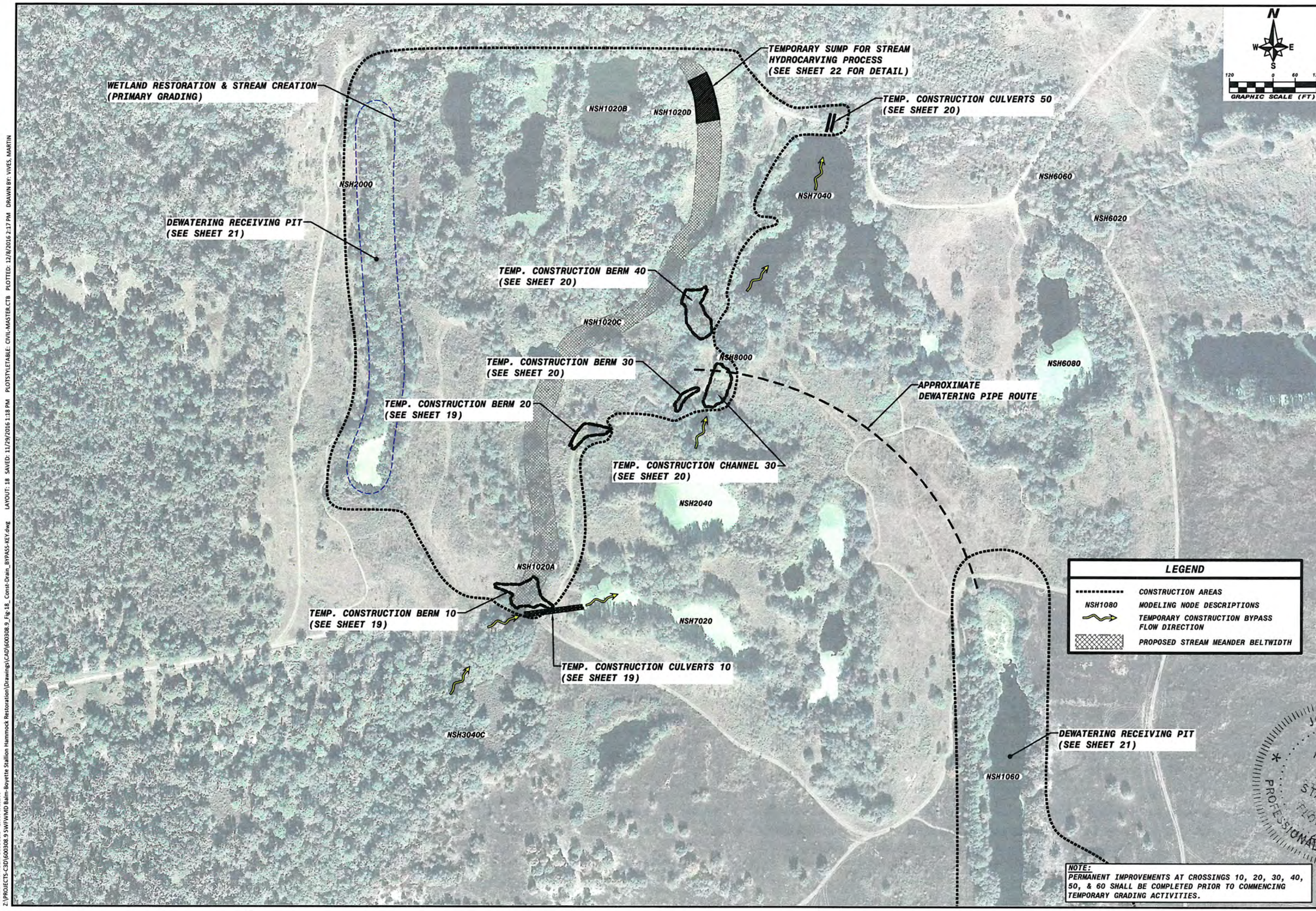
CONNECTION IMPROVEMENTS
HILLSBOROUGH COUNTY, FLORIDA

DATE: 11/29/16
DRAWN BY: J.M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 21991
DATE: 11/29/16

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET – 17

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-16_Drainage_XSECT.dwg LAYOUT: 17 SAVED: 11/29/2016 1:04 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/29/2016 1:07 PM DRAWN BY: VIVES, MARTIN



NOTE:
PERMANENT IMPROVEMENTS AT CROSSINGS 10, 20, 30, 40, 50, & 60 SHALL BE COMPLETED PRIOR TO COMMENCING TEMPORARY GRADING ACTIVITIES.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.989.9600
Fax: 813.989.9670

amec foster wheeler

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Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-5392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

TEMPORARY BYPASS SYSTEM KEY SHEET
HILLSBOROUGH COUNTY, FLORIDA

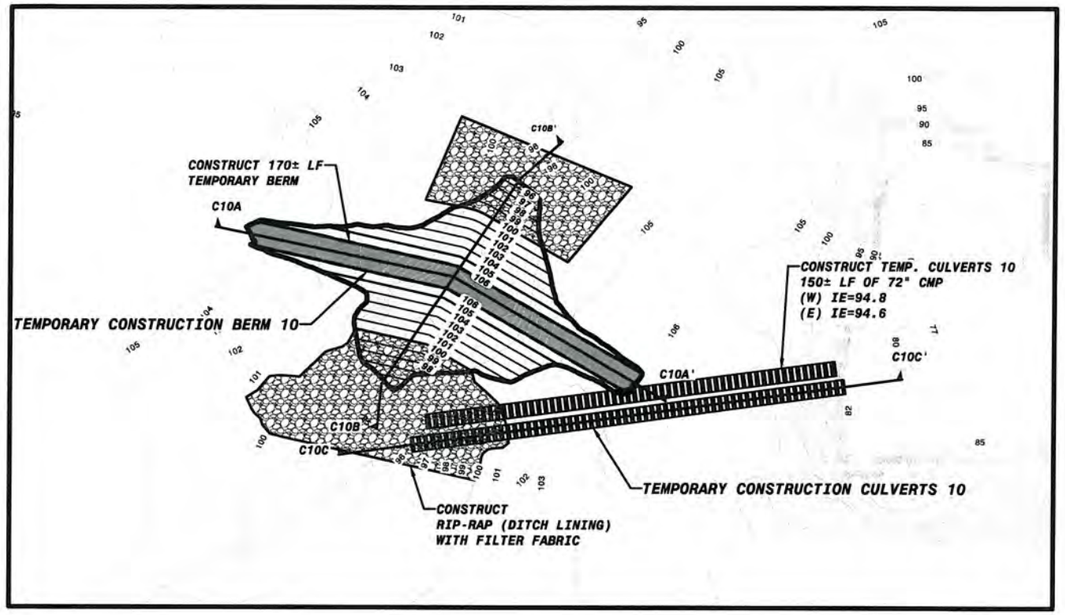
DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

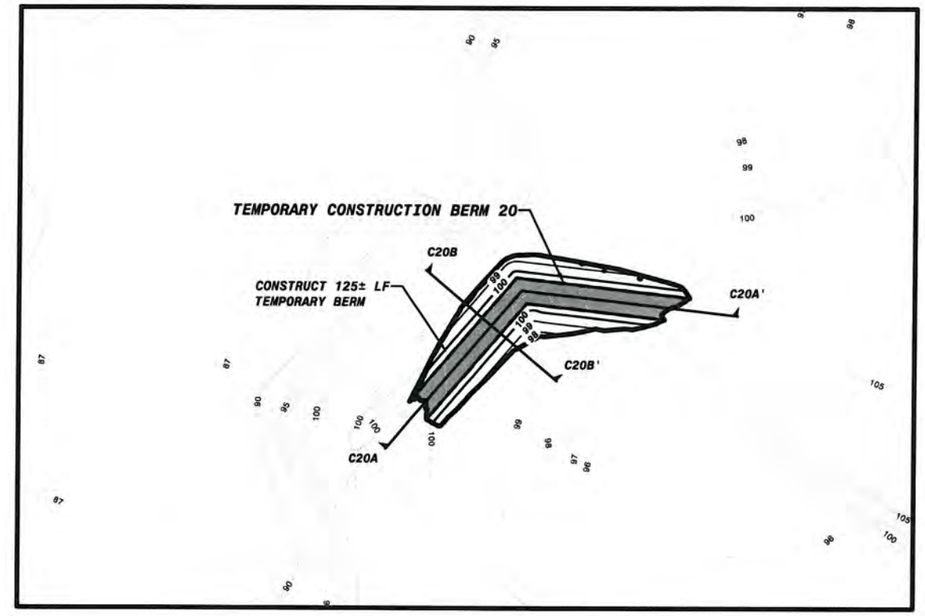
JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

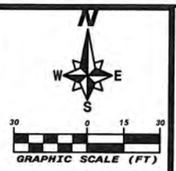
JOHN H. KIEFER
PLAN REG. NO. 51991
2/28/18
DATE:

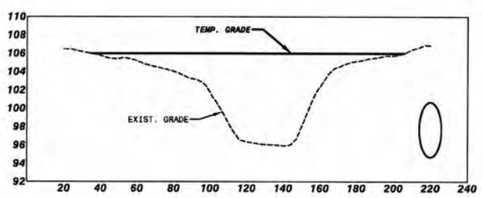
REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 18

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-18_Const-Drain_BYPASS-KEY.dwg LAYOUT: 18 SAVED: 11/29/2016 1:18 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 12/8/2016 2:17 PM DRAWN BY: VIVES, MARTIN

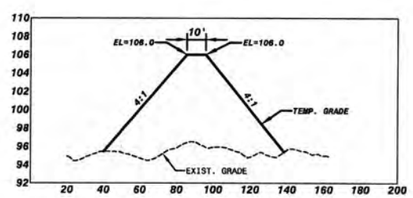








SECTION C10A-C10A'



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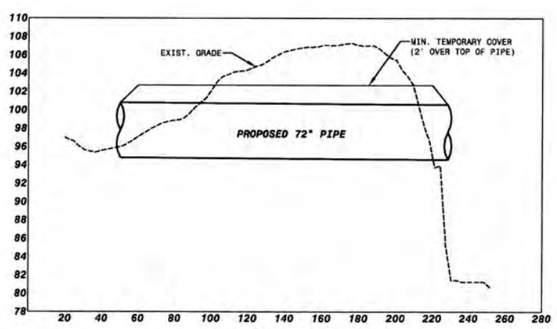

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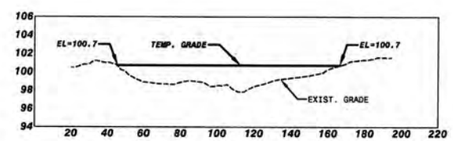

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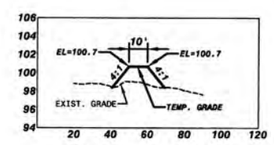

SECTION C20B-C20B'

NOTES:
1. ALL TEMPORARY EARTHWORK TO BE COVERED WITH TEMPORARY ROLLED EROSION CONTROL PRODUCT (RECP) NORTH AMERICAN GREEN SC150BN BIONET, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. INSTALL DITCH LINING RIPRAP AS INDICATED ON PLANS, OVER RECP.
3. ALL TEMPORARY FILL MATERIAL TO BE REMOVED & RETURNED TO ORIGINAL OR PERMANENT DESIGN GRADE AS INDICATED ON PLAN.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
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www.amecfw.com CA-3392

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

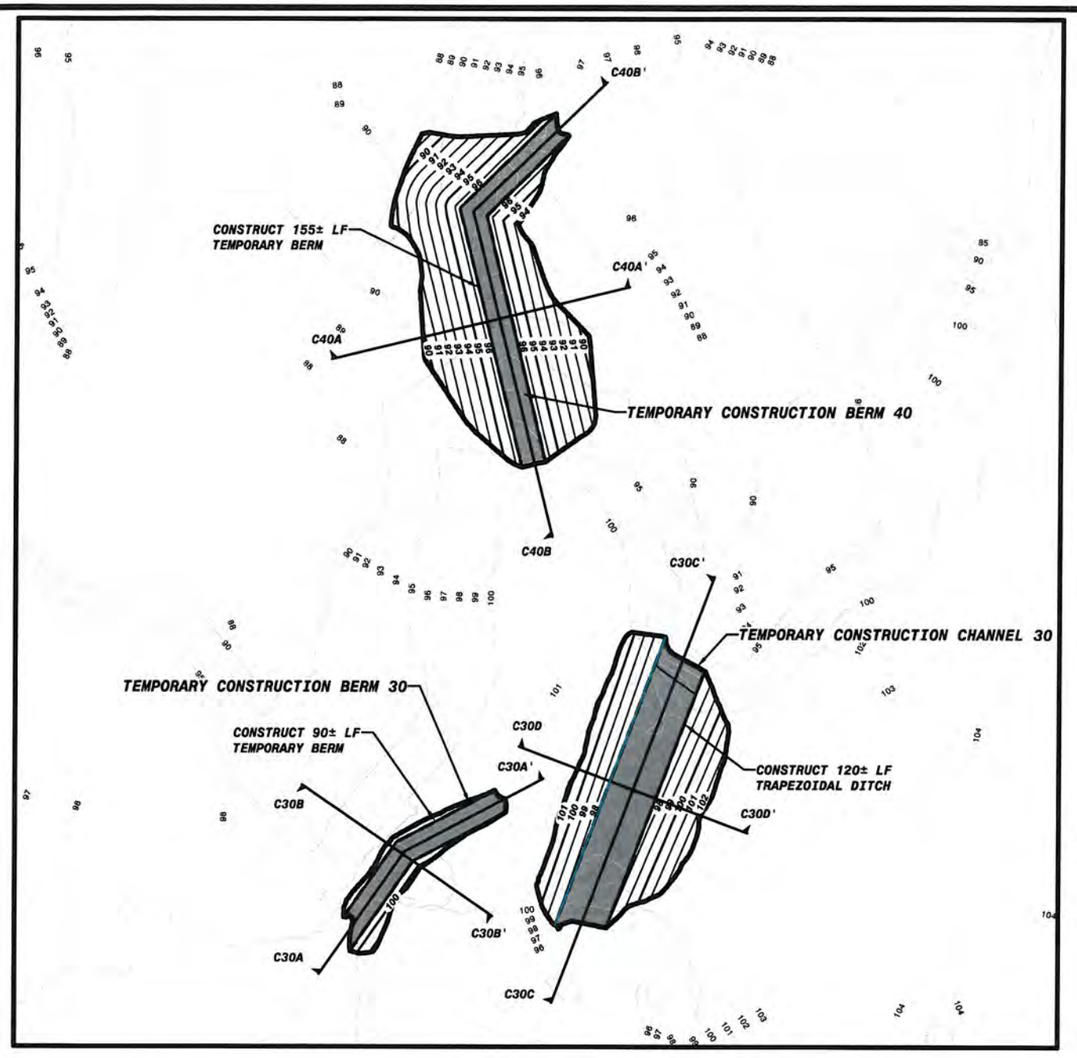
TEMPORARY BYPASS STRUCTURE DETAILS
HILLSBOROUGH COUNTY, FLORIDA

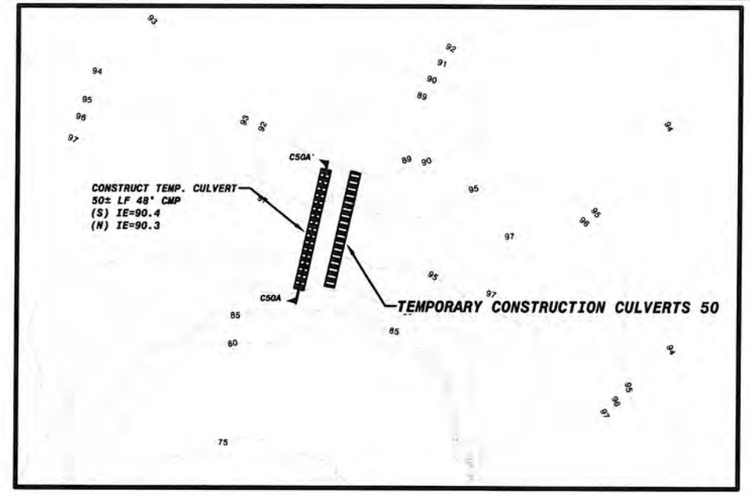
JOHN N. KIEFER
LICENSE
No. 3791
STATE OF FLORIDA
PROFESSIONAL ENGINEER

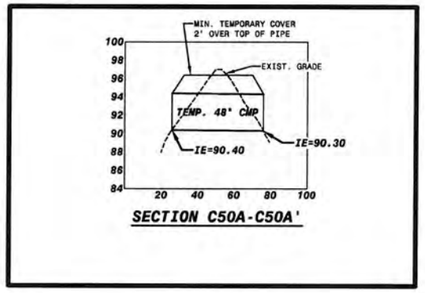
DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9
JOHN N. KIEFER
FLA. REG. NO. 3791
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 19

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig.19_Const-Drain_BYPASS.dwg LAYOUT: 19 SAVED: 11/29/2016 11:45 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/11/2017 9:58 AM DRAWN BY: VIVES, MARTIN







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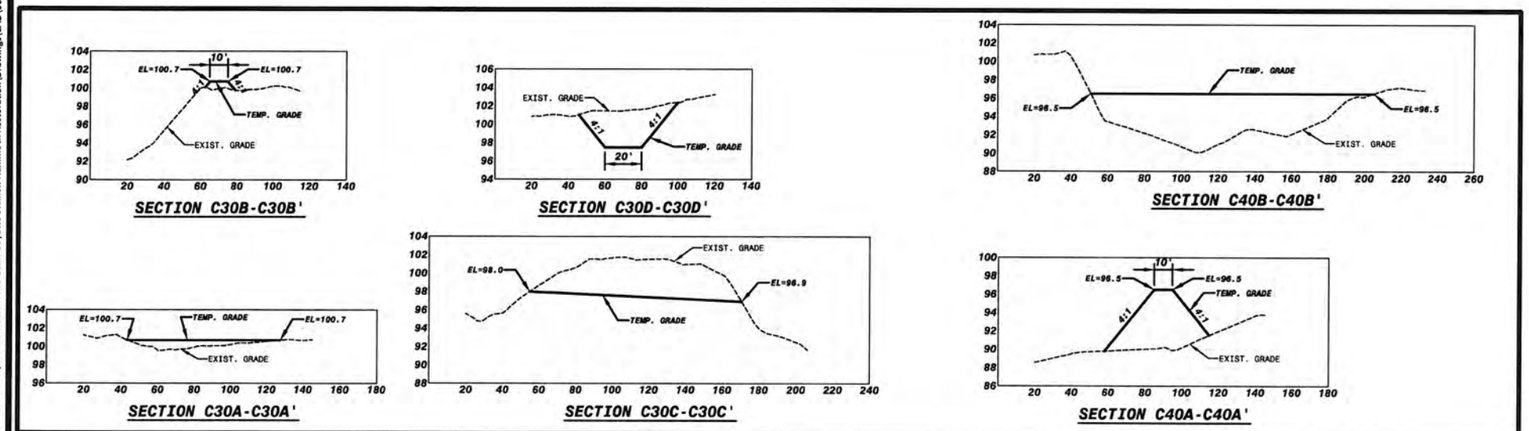

SECTION C30B-C30B'

SECTION C30D-C30D'

SECTION C40B-C40B'

SECTION C30A-C30A'

SECTION C30C-C30C'

SECTION C40A-C40A'

NOTES:
1. ALL TEMPORARY EARTHWORK TO BE COVERED WITH TEMPORARY ROLLED EROSION CONTROL PRODUCT NORTH AMERICAN GREEN SC150BN BIONET, OR APPROVED EQUAL.
2. INSTALL DITCH LINING RIPRAP AS INDICATED ON PLANS, OVER RECP.
3. ALL TEMPORARY FILL MATERIAL TO BE REMOVED & RETURN TO ORIGINAL OR PERMANENT GRADE AS INDICATED ON PLAN.

N
W E
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GRAPHIC SCALE (FT)

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

TEMPORARY BYPASS STRUCTURE DETAILS
HILLSBOROUGH COUNTY, FLORIDA

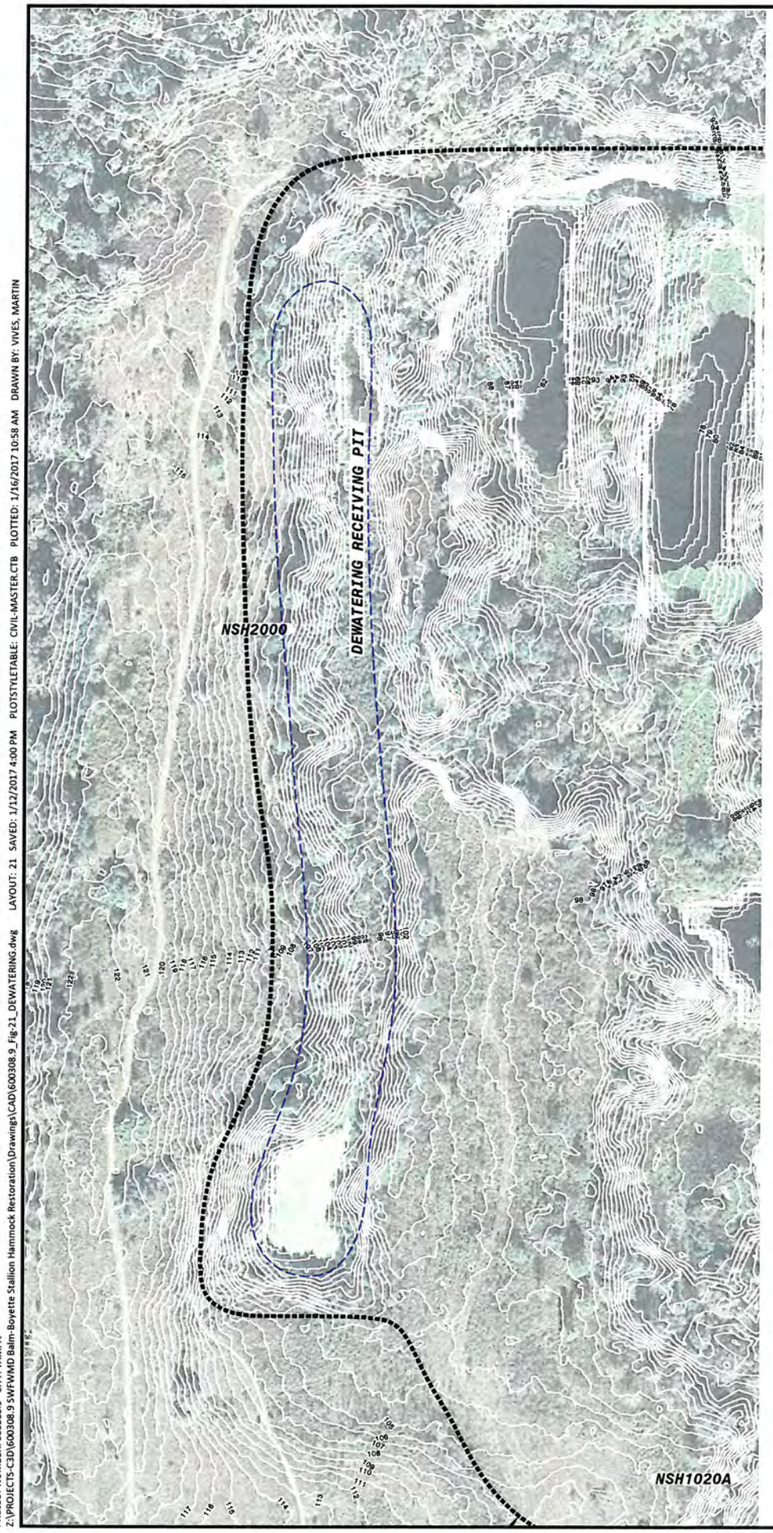
JOHN H. KIEFER
LICENSE
No. 51991
STATE OF FLORIDA
PROFESSIONAL ENGINEER

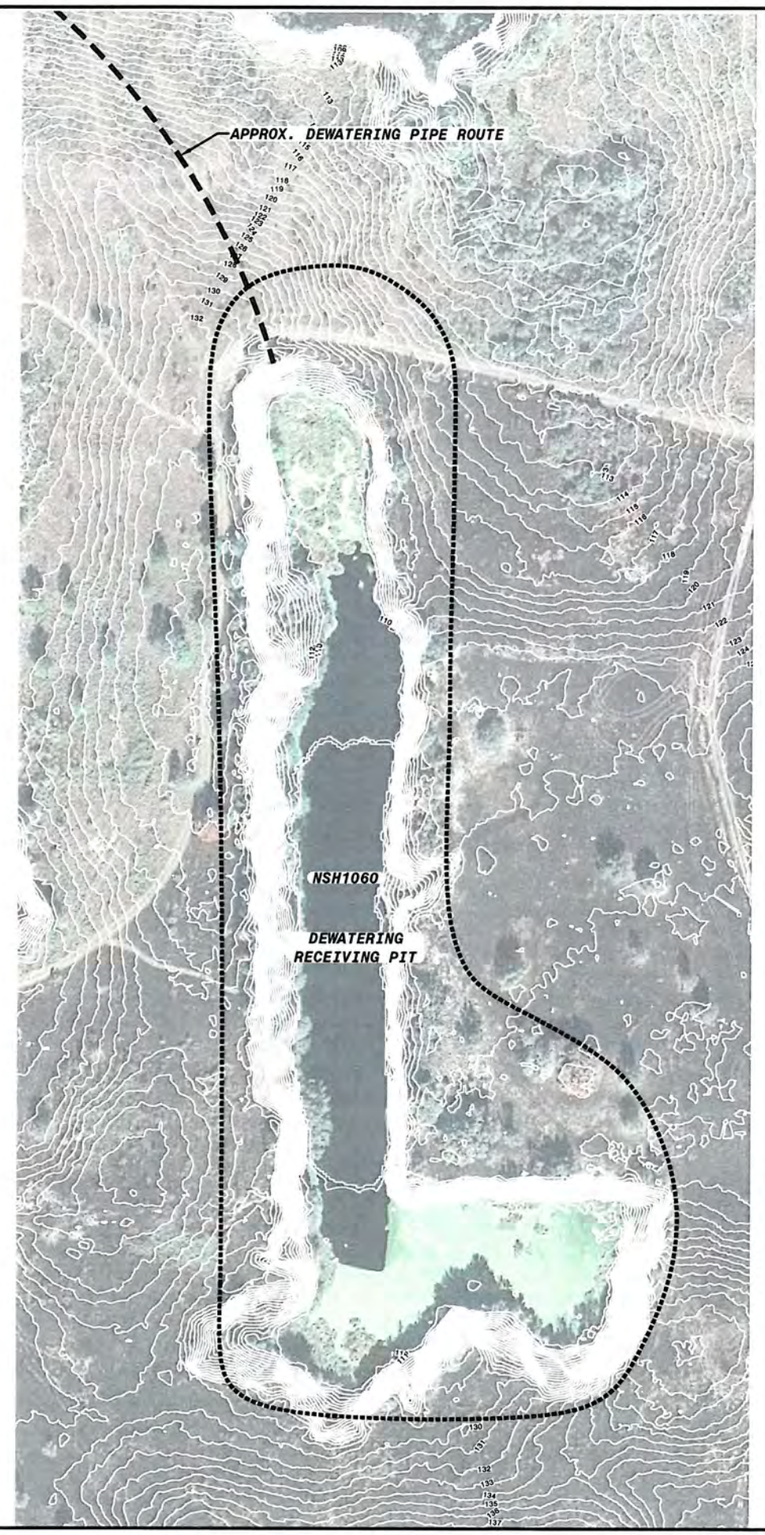
DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 2/28/18

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 20

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-19_Const-Drain_BYPASS.dwg LAYOUT: 20 SAVED: 11/29/2016 11:45 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/11/2017 10:00 AM DRAWN BY: VIVES, MARTIN





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GRAPHIC SCALE (FT)

LEGEND	
----------	CONSTRUCTION AREAS
NSH1080	MODELING NODE DESCRIPTIONS

CONSTRUCTION DEWATERING NOTES

1. CONTRACTOR SHALL ENSURE DISCHARGES FROM DEWATERING RECEIVING PITS SHALL MEET OR EXCEED WATER QUALITY STANDARDS FOR CLASS III WATERS.
2. WATER BODIES IDENTIFIED AS NSH1060 & NSH2000 SHALL BE UTILIZED AS NECESSARY FOR CONSTRUCTION DEWATERING. DEWATERING DISCHARGE TO OTHER WATER BODIES IS PROHIBITED.
3. CONSTRUCTION DEWATERING PIPELINES SHALL BE LOCATED WITHIN THE DEWATERING PIPELINE CORRIDOR, AS INDICATED ON THE CONSTRUCTION PLANS.
4. DEWATERING PIPELINE TO BE LAID ON GRADE WITH THE EXCEPTION OF CROSSINGS UNDER EXISTING ACCESS DRIVES OR TRAILS. FOLLOWING COMPLETION OF DEWATERING ACTIVITIES, DISTURBED AREAS SHALL BE RESTORED TO PRE-DISTURBANCE CONDITIONS.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

CONSTRUCTION PHASE DEWATERING PLAN
HILLSBOROUGH COUNTY, FLORIDA

JOHN H. KIEFER LICENSE No. 51991 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 1/12/17
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. No. 51991
DATE: 2/23/17

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 21

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-21_DEWATERING.dwg LAYOUT: 21 SAVED: 1/12/2017 4:00 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/16/2017 10:58 AM DRAWN BY: VIVES, MARTIN

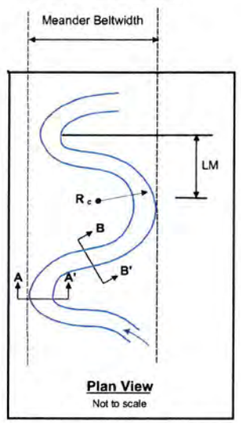
Typical Channel Cross Sections

(Achieved by Hydraulic Carving)

Explanation of Features

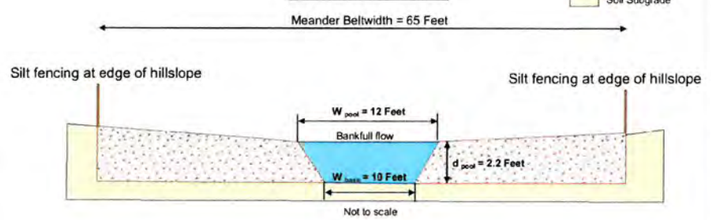
- Top Soil
- Water
- Soil Subgrade

Proposed Stream

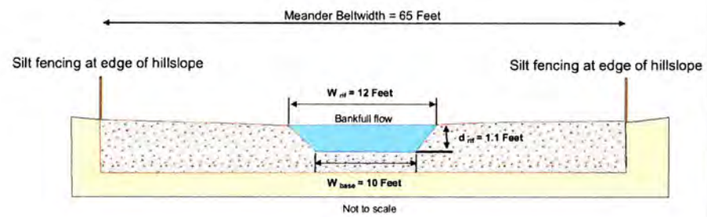


W_{pool} = Width of pool at bankfull flow
d_{pool} = Depth of pool at bankfull flow
W_{base} = Width of channel base
W_{rif} = Width of riffle at bankfull flow
d_{rif} = Depth of riffle at bankfull flow
R_c = Radius of curvature
LM = Length of meander

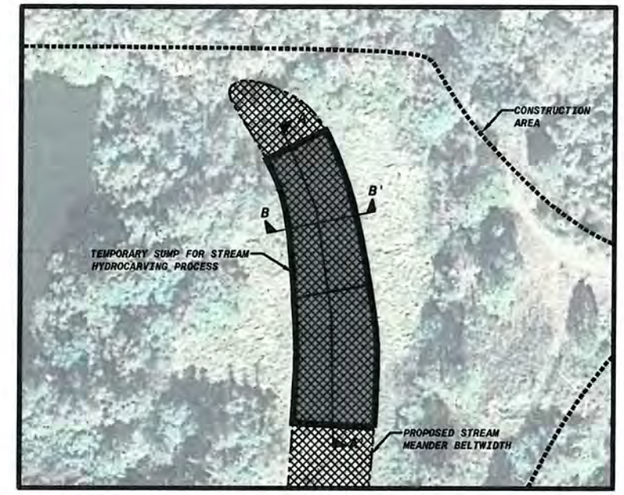
Section A-A' - Pool

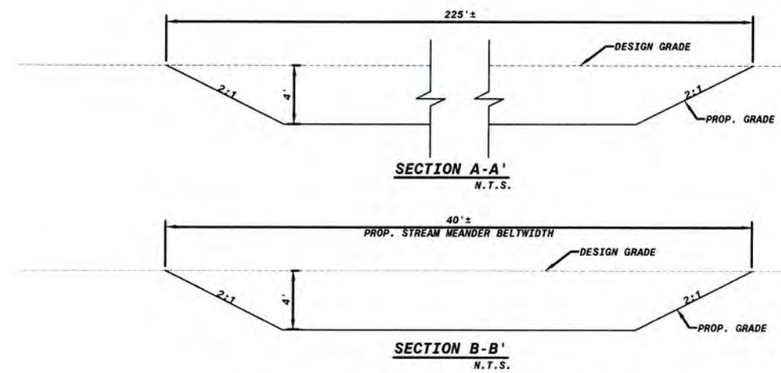


Section B-B' - Riffle

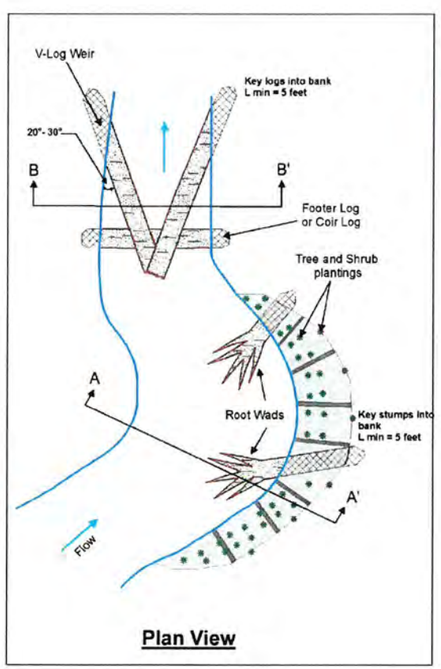


Date: 06/27/2011
Checked By: JHK
Drawn By: KBN





TEMPORARY SEDIMENT SUMP DETAIL



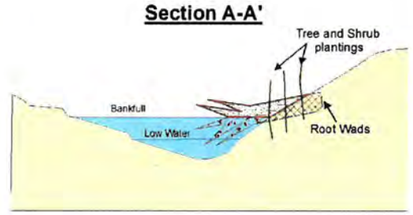
Explanation of Features

- Tree and Shrub Plantings
- Erosion Blanket
- Exposed
- Buried
- Water

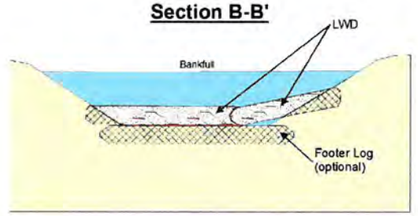
NOTES

1. Root wads to be installed horizontally with majority of root structure between the bed and bankfull elevation.
2. Large logs (LWD) typically arranged as V-weirs and random arrays.

Section A-A'



Section B-B'



Stallion Hammock Preserve Large Woody Debris Specifications Table						
Habitat Amendment Type	Number of Amendments to be Installed	Installation Location	Materials	Diameter (in)	Length (ft)	Quantity
V-log Weir	12	To be installed at determined locations along streambed	Wood log	6-10	16 ± 2	24
			Coir or natural log footer	6-10	18 ± 2	12
			Rebar or duckbill anchor	N/A	N/A	24
Random Large Woody Debris	58	To be installed randomly along stream at approximate density of 3 per 100 LF	Wood log	4-12	4-10	58
			Rebar or duckbill anchor	N/A	N/A	116
Root Wad	10	To be installed on outer bank at determined locations	Root wad	12" minimum	5' minimum trunk for keying into bank	10

NOTES:

1. LOGS MEETING SPECIFICATIONS FOR LARGE WOODY DEBRIS (LWD) TO BE SALVAGED DURING CLEARING ACTIVITIES.
2. SUMP TO BE INSTALLED PRIOR TO COMMENCEMENT OF HYDRAULIC CARVING.
3. LOGS TO BE TEMPORARILY STOCKPILED IN SEVERAL PILES SCATTERED ALONG THE CONTOURED STREAM VALLEY'S MEANDER BELT PRIOR TO HYDRAULIC CARVING. THIS INDUCES LARGE MEANDERS DURING HYDRAULIC CARVING.
4. LOGS TO BE PERMANENTLY INSTALLED DURING HYDRAULIC CARVING, PER SPECIFICATIONS AS V-LOG WEIRS, ROOT WADS, AND RANDOM DEPLOYMENTS AT LOCATIONS TO BE APPROVED BY THE ENGINEER.
5. SUMP TO BE FILLED AND CONTOURED TO MATCH ADJACENT GRADES AND CREATE CHANNEL CONTINUITY FROM THE CARVED CHANNEL TO THE PROJECT BOUNDARY STREAM. AFTER HYDRAULIC IS COMPLETED, SOME MECHANICAL CHANNEL CONSTRUCTION WILL BE NECESSARY TO CREATE CONNECTIONS BETWEEN THE LIMITS OF CARVING AND THE UPSTREAM AND DOWNSTREAM CHANNELS ADJACENT TO THE PROJECT AREA. CONNECTING CHANNELS TO MATCH BOUNDARY GRADES AND TO BE LINED BY TEMPORARY ROLLED EROSION CONTROL PRODUCT NORTH AMERICAN GREEN SC150BN BIONET, OR APPROVED EQUAL.
6. FINAL CONNECTION TO OFFSITE WATERS TO OCCUR AFTER VEGETATION AND STABILIZATION, SUBJECT TO FDEP AND ENGINEER'S APPROVAL.

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

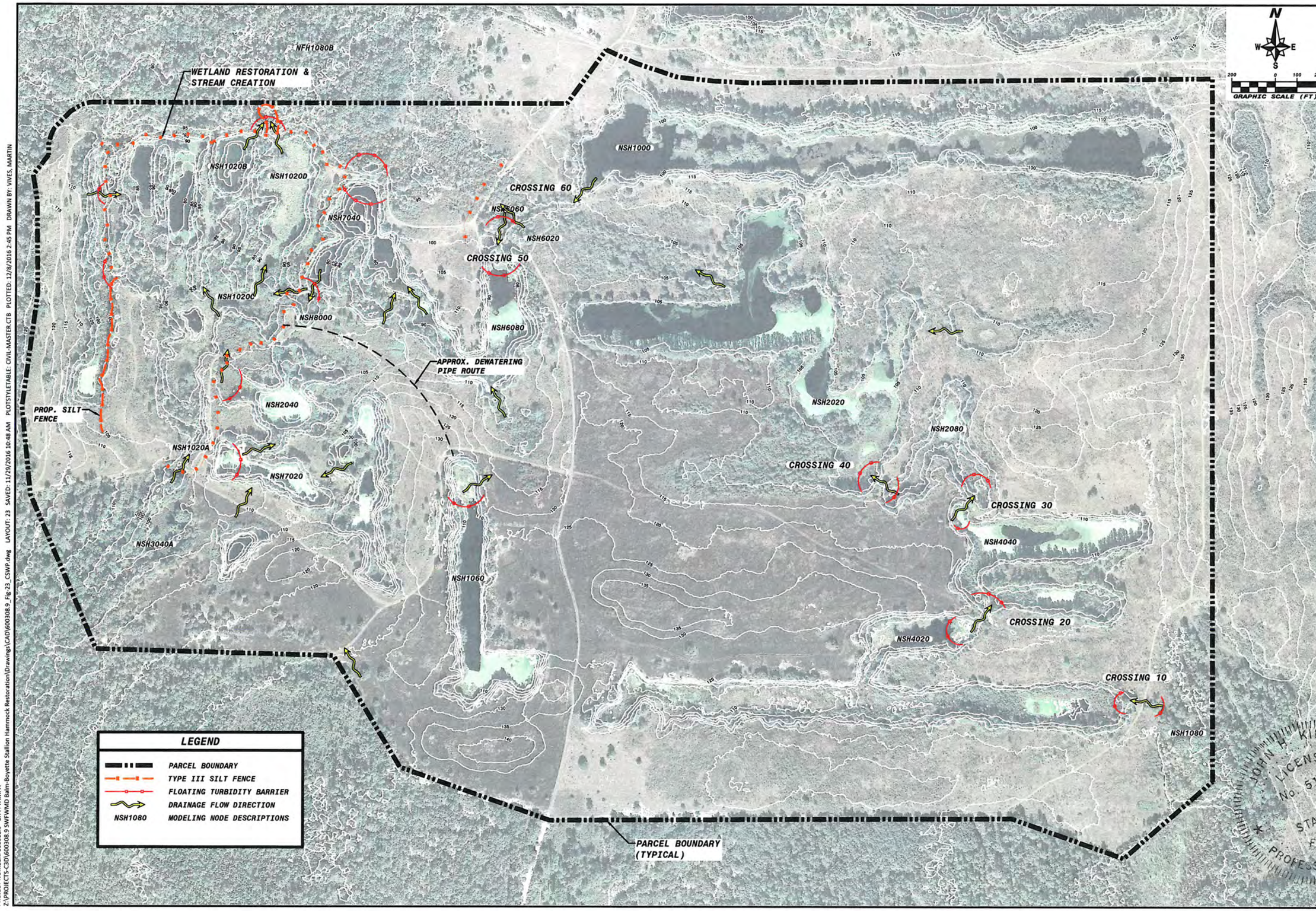
STREAM RESTORATION DETAILS
HILLSBOROUGH COUNTY, FLORIDA

DATE: 9/26/17
DRAWN BY: M. VIVES
CHECKED BY: J.H. KEESER
PROJECT NO.: 600308.9

JOHN H. KEESER
FLA. REG. NO. 51991
12/21/18
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET – 22

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-22_Details.dwg LAYOUT: 22 SAVED: 9/26/2017 8:39 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 2/14/2018 8:41 AM DRAWN BY: VIVES, MARTIN



NO.	DATE	REVISION

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Phone: 813.985.9600
Fax: 813.985.9670

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

CONSTRUCTION SURFACE WATER PLAN
HILLSBOROUGH COUNTY, FLORIDA

DATE: 11/29/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991
DATE: 12/28/16

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET - 23

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-23_CSWP.dwg LAYOUT: 23 SAVED: 11/29/2016 10:48 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 12/8/2016 2:45 PM DRAWN BY: VIVES, MARTIN

STORMWATER POLLUTION PREVENTION PLAN NARRATIVE

1.0 SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:
THE PROJECT CONSISTS OF HYDRAULIC CONNECTION IMPROVEMENTS BETWEEN SEVERAL EXISTING MAN-MADE WATER BODIES, STREAM CREATION, AND WETLAND RESTORATION. THIS INVOLVES EARTHWORK GRADING AND DRAINAGE CULVERT INSTALLATION.

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1. CLEARING AND GRUBBING; EARTHWORK; AND DRAINAGE CULVERT INSTALLATION FOR THE HYDRAULIC CONNECTIONS BETWEEN THE MAN-MADE WATER BODIES.

2. CLEARING AND GRUBBING; EARTHWORK; AND TEMPORARY DRAINAGE CULVERT INSTALLATION FOR TEMPORARY STORMWATER DIVERSION AROUND THE WETLAND RESTORATION WORK AREA.

3. CLEARING AND GRUBBING; EARTHWORK; AND STREAM HYDROCARVING FOR WETLAND RESTORATION AND STREAM CREATION.

4. REMOVAL OF TEMPORARY STORMWATER DIVERSION BERMS, CHANNELS, AND PIPES; AND FINAL GRADING.

1.A. AREA ESTIMATES:
TOTAL SITE AREA: 385.5± AC.
TOTAL AREA TO BE DISTURBED: 30.1± AC.

1.B. RUNOFF DATA:
RATIONAL METHOD RUNOFF COEFFICIENTS:
BEFORE: 0.2
DURING: 0.2
AFTER: 0.2

SOILS DATA:
IN GENERAL, THE PROJECT AREA HAS BEEN DISTURBED DUE TO PREVIOUS MINING ACTIVITIES ON SITE AND CONSISTS OF SANDY SOILS.

OUTFALL INFORMATION:

OUTFALL 1: DOWNSTREAM END OF PROPOSED STREAM SEGMENT

LOCATION: 27°47'00.08"N, 82°12'59.45"W
EST. DRAINAGE AREA SIZE: 944.6± AC.
RECEIVING WATER NAME: FISHHAWK CREEK

OUTFALL 2: CROSSING 60 DISCHARGE PIPES

LOCATION: 27°46'59.43"N, 82°12'49.61"W
EST. DRAINAGE AREA SIZE: 944.6± AC.
RECEIVING WATER NAME: FISHHAWK CREEK

OUTFALL 3: TEMPORARY STORMWATER DIVERSION DISCHARGE PIPES

LOCATION: 27°47'00.08"N, 82°12'55.97"W
EST. DRAINAGE AREA SIZE: 944.6± AC.
RECEIVING WATER NAME: FISHHAWK CREEK

1.C. SITE MAP:
THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS.

DRAINAGE PATTERNS:
THE DRAINAGE BASIN DIVIDES AND FLOW DIRECTIONS ARE SHOWN ON THE DRAINAGE MAPS.

APPROXIMATE SLOPES:
THE SLOPES OF THE SITE CAN BE SEEN ON THE GRADING AND DRAINAGE DETAILS AND CROSS SECTIONS.

AREAS OF SOIL DISTURBANCE:
THE AREAS TO BE DISTURBED ARE INDICATED ON THE GRADING AND DRAINAGE AND TEMPORARY CONSTRUCTION DETAIL SHEETS.

AREAS NOT TO BE DISTURBED:
AREAS LOCATED OUTSIDE OF THE WORK AREAS DEFINED WITHIN THE CONSTRUCTION PLANS SHALL NOT TO BE DISTURBED.

LOCATIONS OF TEMPORARY CONTROLS:
LOCATIONS OF TEMPORARY CONTROLS ARE INDICATED ON THE SWPPP SHEET AND ARE SUBJECT TO CHANGE AS CONSTRUCTION ACTIVITIES PROGRESS IN ORDER TO MAXIMIZE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL.

LOCATIONS OF PERMANENT CONTROLS:
LOCATIONS OF PERMANENT CONTROLS ARE INDICATED ON THE GRADING AND DRAINAGE DETAIL SHEETS AND SHALL BE CONSTRUCTED AS DEPICTED.

AREAS TO BE STABILIZED:
TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE SAME LOCATION AS THE TEMPORARY CONTROLS MENTIONED ABOVE. PERMANENT STABILIZATION IS SHOWN ON THE GRADING AND DRAINAGE DETAIL SHEETS.

SURFACE WATERS:
SEVERAL UNNAMED SURFACE WATERS EXIST WITHIN THE PROJECT AREA.

DISCHARGE POINTS TO SURFACE WATERS:
DISCHARGE POINTS TO SURFACE WATERS CORRESPOND TO THE LOCATIONS OF EXISTING AND PROPOSED DRAINAGE CULVERTS.

1.D. RECEIVING WATERS:
SEE ITEM 1.D. FOR THE OUTFALL LOCATIONS AND RECEIVING WATER NAMES.

2.0 CONTROLS:

THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S PROPOSED PLAN. THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

2.A. EROSION AND SEDIMENT CONTROLS:

1. STABILIZATION PRACTICES:
THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. A RECORD OF THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE AND WHEN STABILIZATION MEASURES ARE INITIATED SHALL BE INCLUDED IN THE CONTRACTOR'S PLAN. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TEMPORARY STABILIZATION PRACTICES MAY INCLUDE:
ARTIFICIAL COVERINGS, TURF, SEEDING, SOD, AND OTHER APPROPRIATE MEASURES.

PERMANENT STABILIZATION PRACTICES MAY INCLUDE:
SEEDING, MULCHING, GEOTEXTILES, VEGETATIVE BUFFER STRIPS, PRESERVATION OF MATURE VEGETATION, SOD, AND OTHER APPROPRIATE MEASURES.

2. STRUCTURAL PRACTICES:
THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. STRUCTURAL BMPs SHALL BE PLACED ON UPLAND SOILS UNLESS A SPECIFICALLY AUTHORIZED THROUGH APPLICABLE DEP OR WMD PERMITS. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TEMPORARY STRUCTURAL PRACTICES MAY INCLUDE:
SILT FENCE, EARTH DIKES, DIVERSIONS, SWALES, SEDIMENT TRAPS, CHECK DAMS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORMDRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, COAGULATING AGENTS, SEDIMENT BASINS, AND OTHER APPROPRIATE MEASURES.

PERMANENT STRUCTURAL PRACTICES MAY INCLUDE:
SWALES, LEVEL SPREADERS, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIONS, SEDIMENT BASINS, AND OTHER APPROPRIATE MEASURES.

3. SEDIMENT BASINS:
A. FOR DRAINAGE BASINS WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN PROVIDING 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED WHERE ATTAINABLE UNTIL FINAL STABILIZATION OF THE SITE.
B. FOR DRAINAGE BASINS OF LESS THAN 10 ACRES, SEDIMENT BASINS AND/OR SEDIMENT TRAPS ARE RECOMMENDED BUT NOT REQUIRED.
C. AREAS THAT WILL BE USED FOR PERMANENT STORMWATER INFILTRATION TREATMENT (STORMWATER RETENTION PONDS) SHOULD NOT BE USED FOR TEMPORARY SEDIMENT BASINS UNLESS APPROPRIATE MEASURES ARE TAKEN TO ASSURE REMOVAL OF ACCUMULATED FINE SEDIMENTS, WHICH MAY CAUSE PREMATURE CLOGGING AND LOSS OF INFILTRATION CAPACITY, AND TO AVOID EXCESSIVE COMPACTION OF SOILS BY CONSTRUCTION MACHINERY OR EQUIPMENT.

2.B. PERMANENT STORMWATER MANAGEMENT CONTROLS:
SEVERAL DRAINAGE CULVERTS WILL BE CONSTRUCTED TO CONVEY RUNOFF THROUGH THE PROJECT AREA. THE DRAINAGE SYSTEM HAS BEEN DESIGNED TO COMPLY WITH APPLICABLE DESIGN STANDARDS OF THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT.

2.C. CONTROLS FOR OTHER POTENTIAL POLLUTANTS:

1. WASTE DISPOSAL:
IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

- PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.
- DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
- DISPOSING OF SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIALS OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS, OR WETLANDS.

2. OFF-SITE VEHICLE TRACKING & DUST CONTROL:
IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

- COVERING LOADED HAUL TRUCKS WITH TARPAULINS.
- REMOVING EXCESS DIRT FROM ROADS DAILY.
- STABILIZING CONSTRUCTION ENTRANCES ACCORDING TO DESIGN STANDARD 106.
- USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.

3. STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:
THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

4. FERTILIZERS AND PESTICIDES:
THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES. THE PROPOSED PROCEDURES SHALL COMPLY WITH APPLICABLE SUBSECTIONS OF SECTION 570 OF THE FDOT STANDARD SPECIFICATIONS.

5. TOXIC SUBSTANCES AND HAZARDOUS MATERIALS:
THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES AND HAZARDOUS MATERIALS(INCLUDING FUEL) THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

3.0 MAINTENANCE:

3.A. THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING:

1. SILT FENCE: MAINTAIN PER SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 12 MONTH INTERVALS.

2. SEDIMENT BARRIERS: REMOVE SEDIMENT AS PER MANUFACTURER'S RECOMMENDATIONS OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS OR AREAS.

3. SEDIMENT BASINS: REMOVE SEDIMENT FROM TEMPORARY SEDIMENT BASINS WHEN THE SEDIMENT BECOMES 1.5' DEEP AT ANY POINT IN THE BASIN. AT A MINIMUM, TEMPORARY SEDIMENT BASINS SHALL BE MAINTAINED UNTIL THE AREAS THAT DRAIN TO THEM ARE STABILIZED.

4.0 INSPECTIONS:

4.A. QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

1. POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.

2. POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM DRAIN SYSTEMS.

3. DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.

4. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.

5. STRUCTURAL CONTROLS.

6. STORMWATER MANAGEMENT SYSTEMS.

7. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

4.A. THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER.

4.B. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION; NAMES(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION; THE DATE(S) OF THE INSPECTION; RAINFALL DATA; AND MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE MADE AND RETAINED BY THE CONTRACTOR.

5.0 NON-STORMWATER DISCHARGES:

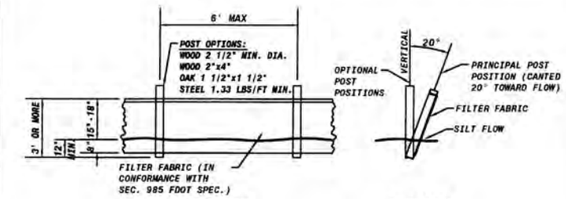
THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES. IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOIL OR GROUNDWATER, CONTACT THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

6.0 CONTRACTOR/SUBCONTRACTOR CERTIFICATION:

6.A. ALL CONTRACTORS AND SUBCONTRACTORS SHALL SIGN A COPY OF THE CERTIFICATION STATEMENT IN PART V.D.6.b. OF THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

7.0 NOTES:

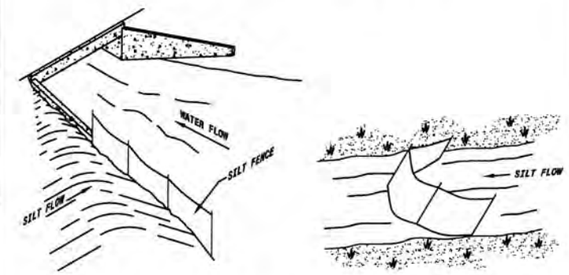
6.A. THIS PLAN SHALL BE AMENDED WHENEVER THE PROJECT IS ALTERED OR MODIFIED IN A MANNER THAT WILL RESULT IN: (1) THE POTENTIAL DISCHARGE OF POLLUTANTS; (2) A CHANGE IN THE AMOUNT OF DISCHARGE; (3) A CHANGE IN THE NUMBER OR LOCATION OF STORMWATER DISCHARGE POINTS, OR (4) ADVERSE IMPACTS TO WETLANDS; AND SUCH CHANGE(S) HAVE NOT OTHERWISE BEEN PREVIOUSLY ADDRESSED IN THE APPROVED PLAN. THIS PLAN SHALL BE AMENDED IF ITS IMPLEMENTATION DOES NOT ELIMINATE OR MINIMIZE EROSION AND SEDIMENT DEPOSITION, OFF-SITE FLOODING, ADVERSE IMPACTS TO WETLANDS, OR VIOLATIONS OF STATE WATER QUALITY STANDARDS. AMENDMENTS TO THE PLAN SHALL BE PREPARED AND KEPT AS SEPARATE DOCUMENTS ALONG WITH THE ORIGINAL PLAN. ALL ALTERATIONS TO THE SYSTEM MUST BE SHOWN ON THE AMENDED PLAN ALONG WITH THE DOCUMENTATION OF THE REQUIRED APPROVAL(S).



ELEVATION SECTION

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED FENCE (L.F.)

TYPE III SILT FENCE

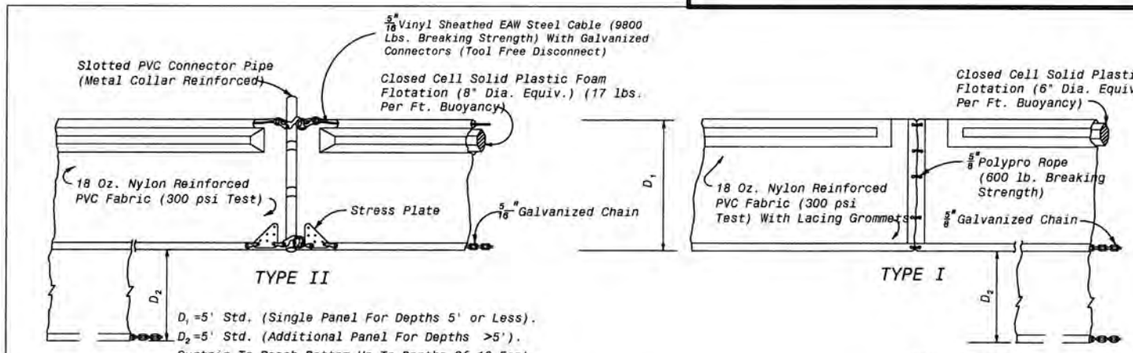


TYPE III SILT FENCE TYPE III SILT FENCE

NOTE: DO NOT DEPLOY IN ANY MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

EROSION & SEDIMENT CONTROL

N.T.S.



D_1 =5' Std. (Single Panel For Depths 5' or Less).
D_2 =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 I AND II 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 I AND II SHALL BE AS APPROVED BY THE ENGINEER.

GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

FLOATING TURBIDITY BARRIERS

N.T.S.

OWNER CERTIFICATION

I HAVE READ THE NOTES AND REVIEWED THE PLANS AND I PROPOSE TO PROPERLY IMPLEMENT EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

SIGNATURE: _____

PRINTED NAME: _____

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.988.0500
Fax: 813.989.9670

amec foster wheeler
Amec Foster Wheeler Environment & Infrastructure, Inc.
11101 Channelside Dr., Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-0382

BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION
CONSTRUCTION SURFACE WATER PLAN DETAILS
HILLSBOROUGH COUNTY, FLORIDA

DATE: 11/22/16
DRAWN BY: Q. TIVES
CHECKED BY: J.H. KIEFER
PROJECT NO.: 600308.9

JOHNNY H. KIEFER
FLA. REG. NO. 51991
2/28/18
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET - 24

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig.24_CSWP_Details.dwg LAYOUT: 24 SAVED: 11/22/2016 1:25 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/22/2016 1:26 PM DRAWN BY: VIVES, MARTIN