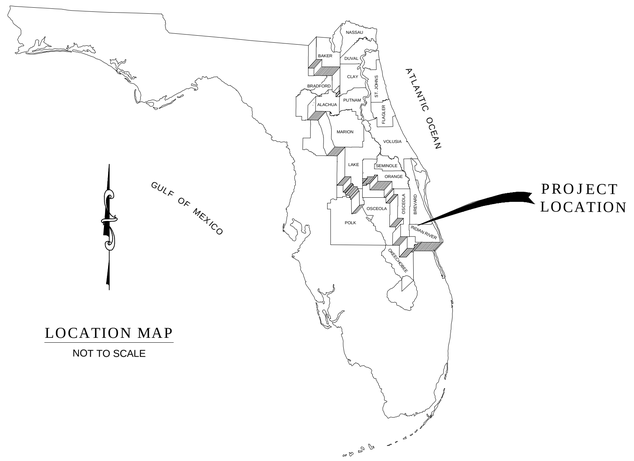
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP

INDIAN RIVER COUNTY, FLORIDA

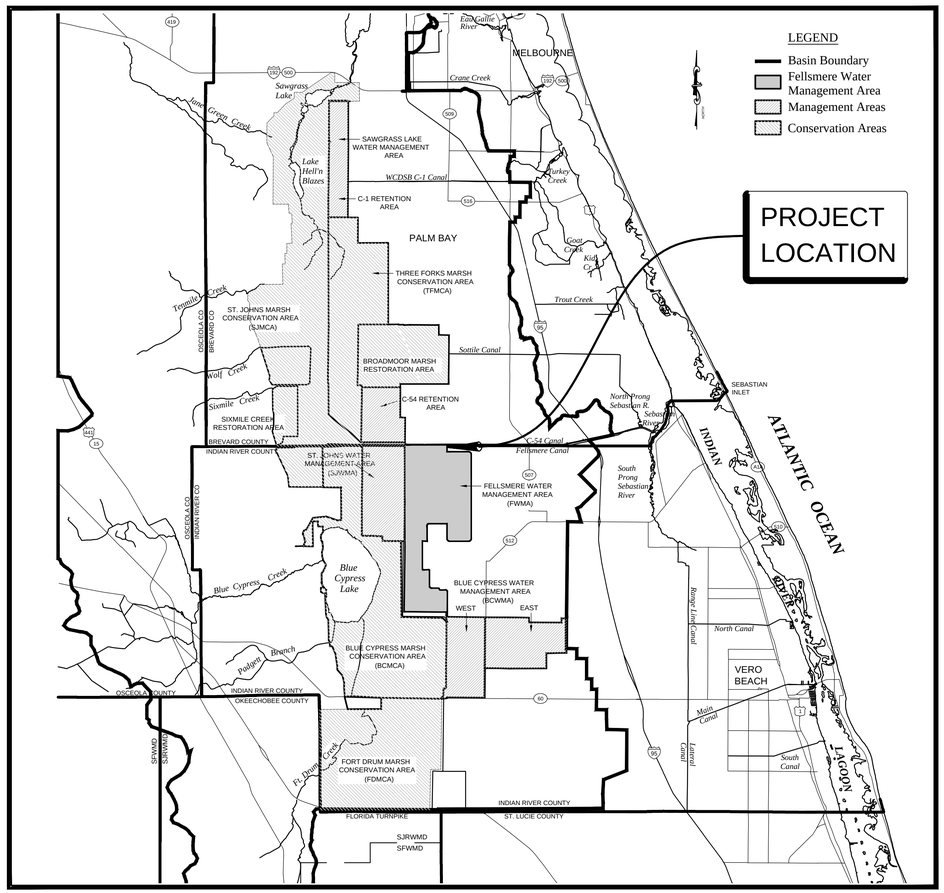
NAVD 1988

ALL ELEVATIONS DEPICTED HEREIN REFERENCE NAVD 1988 UNLESS OTHERWISE NOTED. THE CONVERSION FACTOR TO NGVD 1929 IS +1.47.



LOCATION MAP

NOT TO SCALE



VICINITY MAP

NOT TO SCALE

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ENGINEER'S NOTES:

1. These drawings are prepared for the sole and exclusive use of the St. Johns River Water Management District and shall not be relied upon by any other entity or individual.

2. Reproductions of these drawings are "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED ENGINEER."

NO.	REVISION	BY	DATE	APPROVED	DATE
2	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	04/23/19	APW	04/23/19
1	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	10/19/18	APW	10/19/18

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CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

DRAWING FILENAME: G0HLCVSH.dwg

SHEET: G0

U:\Projects\CADD\JSJRB\Fellsmere WMA 2018\HEADWATERS LAKE BOAT RAMP\CONSTRUCTION\G0HLCVSH.dwg

ABBREVIATION	MEANING
AC or Ac.	ACRE
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT.	ALTERNATE
ALUM. or AL.	ALUMINUM
APPROX.	APPROXIMATE
ASPH.	ASPHALT
---B---	
B/C or B.C.	BACK OF CURB
BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE
BE	BURIED ELECTRIC
BL	BASELINE
BLDG.	BUILDING
BM	BENCH MARK
BOT.	BOTTOM
BP	BORROW PIT
BRG.	BEARING
BT	BURIED TELEPHONE CABLE or DUCT
BW	BARBED WIRE
---C---	
C & G	CURB & GUTTER
CAP	CORRUGATED ALUMINUM PIPE
CATV	CABLE TELEVISION
CB	CATCH BASIN
CBC	CONCRETE BOX CULVERT
CBS	CONCRETE BOX STRUCTURE
CF or C.F.	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIP	CAST IRON PIPE
CL, C/L or ℄	CENTER LINE
CLF	CHAIN LINK FENCE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
CONC.	CONCRETE
CPE	CORRUGATED POLYETHYLENE PIPE
CY or C.Y.	CUBIC YARDS
---D---	
(D)	DEED
(DB)	DEED BOOK
D, DIA. or Ø	DIAMETER
DBI	DITCH BOTTOM INLET
DCBP	DOUBLE CHECK BACKFLOW PREVENTER
DEG.	DEGREES
DHW	DESIGN HIGH WATER
DHWE	DESIGN HIGH WATER ELEVATION
DI	DUCTILE IRON
DIM.	DIMENSION
DIP	DUCTILE IRON PIPE
DIST.	DISTANCE
DT	DITCH
DWG.	DRAWING
---E---	
E	EAST
EP. or EOP	EDGE OF PAVEMENT
EA or EA.	EACH
EJ	EXPANSION JOINT
EL. or ELEV.	ELEVATION
ELEC.	ELECTRIC
ELLIP.	ELLIPTICAL
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT.	EASEMENT
EWR	EDGE OF WATER
EW	ENDWALL
EXIST.	EXISTING
---F---	
F.L. FL or Ƒ̲	FLOW LINE
FBC	FLORIDA BUILDING CODE
FD	FRENCH DRAIN
FDEP	FLORIDA DEPARTMENT ON ENVIRONMENTAL PROTECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FES	FLARED END SECTION
FH	FIRE HYDRANT
FIN FLR	FINISHED FLOOR
FIN GR	FINISHED GRADE
FL, FL. or FLA.	FLORIDA
FM	FORCE MAIN
FND	FOUND
FOC	FIBER OPTIC CABLE

ABBREVIATION	MEANING
FP	FLOOD PLAIN
FT.	FOOT OR FEET
FTB	FLOATING TURBIDITY BARRIER
FUT	FUTURE
---G---	
GA.	GAUGE or GAGE
GALV.	GALVANIZED
GM	GAS MAIN
GRD.	GROUND
GS	GALVANIZED STEEL
GV	GATE VALVE
---H---	
HB	HAY BALES
HC	HANDICAP
HDD	HORIZONTAL DIRECTIONAL DRILLING
HDPE	HIGH DENSITY POLYETHYLENE
HDWL.	HEADWALL
HNDRL.	HANDRAIL
HORZ. or HOR.	HORIZONTAL
HT.	HEIGHT
HWY.	HIGHWAY
---I---	
ID or I.D.	INSIDE DIAMETER or IDENTIFICATION
IN.	INCH(ES)
INV.	INVERT
IP	IRON PIPE
IR	IRON ROD
---J---	
JB	JUNCTION BOX
JCT.	JUNCTION
JT.	JOINT
---L---	
LAT.	LATERAL or LATITUDE
LF	LINEAR FOOT (FEET)
LMRK.	LIME ROCK
LONG.	LONGITUDE
LP	LOW POINT
LS	LUMP SUM
LT.	LEFT
---M---	
MAINT.	MAINTENANCE
MAX.	MAXIMUM
MES	MITERED END SECTION
MFR.	MANUFACTURED or MANUFACTURER
MH or M.H.	MANHOLE or MOUNTING HEIGHT
MHW	MEAN HIGH WATER
MIN.	MINIMUM or MINUTE
MISC.	MISCELLANEOUS
MLW	MEAN LOW WATER
MON.	MONUMENT
MOT	MAINTENANCE OF TRAFFIC
MSL	MEAN SEA LEVEL
---N---	
N	NORTH
N & C	NAIL AND CAP
N & D	NAIL AND DISK
NA or N/A	NOT AVAILABLE or NOT APPLICABLE
NAVD	NATIONAL VERTICAL DATUM
NE	NORTH EAST
NG	NATURAL GRADE
NGS	NATIONAL GEODETIC SURVEY
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NHW	NORMAL HIGH WATER
NIC	NOT IN CONTRACT
NO.	NUMBER
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NTS	NOT TO SCALE
NW	NORTH WEST
---O---	
OC or O.C	ON CENTER
OD or O.D.	OUTSIDE DIAMETER
OE	OVERHEAD ELECTRIC
OR	OFFICIAL RECORD
OT	OVERHEAD TELEPHONE
---P---	
P.E. or PE	PROFESSIONAL ENGINEER
P.S.I. or P.S.I.	POUNDS PER SQUARE INCH
PAVT.	PAVEMENT
PC	POINT OF CURVATURE
PCBC	PRECAST CONCRETE BOX CULVERT
PCC	POINT OF COMPOUND CURVE
PCE	PERMANENT CONSTRUCTION EASEMENT
PCPE	PERFORATED CORRUGATED POLYETHYLENE PIPE

ABBREVIATION	MEANING
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PL or ⅊	PROPERTY LINE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PP	POWER POLE
PRC	POINT OF REVERSE CURVE
PRCST.	PRECAST
PRM	PERMANENT REFERENCE MONUMENT
PROP.	PROPOSED
PT	POINT OF TANGENCY or PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
---Q---	
QTY.	QUANTITY
---R---	
R or RAD.	RADIUS
R or RNG.	RANGE
R or RT.	RIGHT
R/W or ROW	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RD.	ROAD or ROUND
RM	REFERENCE MONUMENT
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	RAISED REFLECTIVE PAVEMENT MARKERS
RR	RAILROAD
---S---	
S	SOUTH
SE	SOUTHEAST
SECT.	SECTION
SF	SILT FENCE
SG or SUBGR.	SUBGRADE
SJRWMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
SPA., SPCG. or SP.	SPACE(ING)(S)
Sq. Ft., SF or S.F.	SQUARE FEET
Sq. Yd., SY or S.Y.	SQUARE YARDS
SS	SANITARY SEWER or STAINLESS STEEL
ST	STORM SEWER
STA.	STATION
STB	STACKED TURBIDITY BARRIER
STD.	STANDARD
STL.	STEEL
STR.	STRUCTURE
SUB. or SUBS.	SUBSOIL
SW	SOUTHWEST
SW or SWK.	SIDEWALK
---T---	
T, TWP or Twp.	TOWNSHIP
TBM	TEMPORARY BENCH MARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TCZ	TRAFFIC CONTROL ZONE
TEL.	TELEPHONE
TFMR	TRANSFORMER
TOB	TOP OF BANK
TOG	TOP OF GRADE
TOS	TOP OF SLOPE
TRANS.	TRANSITION, TRANSVERSE or TRANSPORTATION
TTC	TEMPORARY TRAFFIC CONTROL
TW	TOP OF WALL
TYP.	TYPICAL
---U---	
UG	UNDERGROUND
UNDDR.	UNDERDRAIN(S)
USC & GS	US COAST and GEODETIC SURVEY (now NATIONAL GEODETIC SURVEY)
USGS	US GEOLOGICAL SURVEY
UTIL.	UTILITIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT.	VERTICAL
VOL.	VOLUME
VV	VERIFIED VERTICAL ELEVATION
VVH	VERIFIED VERTICAL ELEVATION & HORIZONTAL LOCATION
---W---	
W	WIDTH, WIDE, WEST or WATT
WM	WATER MAIN or WATER METER
WT	WATER TABLE or WEIGHT
WTR	WATER
WW	WASTEWATER
WWF	WELDED WIRE FABRIC
WWR	WELDED WIRE REINFORCING
---X---	
X-SEC.	CROSS SECTION
---Y---	
YD.	YARD

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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG | DATE: MAY 15, 2019 | REVIEWER: WRC
SCALE: NONE | DESIGNER: APW | SECTION CHIEF: WRC

STANDARD ABBREVIATIONS

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: G01HLBSA.dwg
PROJECT NO.:
SHEET: G1

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO FAMILIARIZE HIMSELF WITH THE NATURE AND EXTENT OF THE CONTRACT DOCUMENTS, SCOPE OF WORK, LOCAL CONDITIONS, ALL FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS THAT MAY AFFECT THE WORK.

2. THE EXISTING CONDITIONS REPRESENTED IN THESE DRAWINGS AND THE PROJECT TOPOGRAPHIC SURVEY ARE BELIEVED TO BE ACCURATE ACCORDING TO THE INFORMATION AVAILABLE TO THE DISTRICT. HOWEVER, IT IS THE SOLE RESPONSIBILITY OF THE BIDDER (CONTRACTOR) TO VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE DISTRICT PRIOR TO SUBMITTAL OF THE BID.

3. ALL LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION AND THE PLANS AND CONSTRUCTION SPECIFICATIONS. WHERE CONFLICTS OR OMISSIONS EXIST, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS SHALL DICTATE. SUBSTITUTIONS AND DEVIATIONS FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE DISTRICT PROJECT MANAGER.

4. PERMITS: THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS CONTAINED IN ALL PERMITS WHICH HAVE BEEN OBTAINED FOR THE PROJECT.
   a. DISTRICT OBTAINED PERMITS INCLUDE:
      (1) US ARMY CORPS OF ENGINEERS 404 CLEAN WATER ACT PERMIT;
      (2) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION INDIVIDUAL PERMIT .

   b. THE CONTRACTOR SHALL OBTAIN ANY AND ALL REMAINING PERMITS AS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT PRIOR TO BEGINNING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO:
      (1) SUBMITTAL OF THE NOTICE OF INTENT (NOI) TO USE THE US EPA NPDES CONSTRUCTION GENERAL PERMIT AND COMPLETION OF ANY SUPPORTING DOCUMENTS REQUIRED FOR THE PERMIT.
      (2) SUBMITTAL OF REQUIRED BUILDING CONSTRUCTION PERMITS FROM THE CITY OF FELLSMERE

5. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, LEVEES, ROADS, UTILITIES, AND OTHER IMPROVEMENTS FROM DAMAGE WHETHER OR NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR PROTECTION METHODS, COORDINATION WITH OWNERS AND REPAIRS TO UTILITIES AND OTHER SITE IMPROVEMENTS DAMAGED DURING CONSTRUCTION.

6. THE CONTRACTOR SHALL NOTIFY THE DISTRICT PROJECT MANAGER A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

7. CONSTRUCTION INSPECTION WILL BE PERFORMED BY THE DISTRICT. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AT LEAST 48 HOURS PRIOR TO THE REQUIRED TIME OF INSPECTION FOR EACH AND EVERY PHASE OF WORK.

8. THE CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF CONTRACT DOCUMENTS INCLUDING DRAWINGS, PERMITS, AND SPECIFICATIONS AT THE JOB SITE CLEARLY MARKED TO REFLECT ALL AS-BUILT CONDITIONS. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT THESE ANNOTATED DRAWINGS AND SPECIFICATIONS TO THE DISTRICT.

SPECIFICATIONS:

MOBILIZATION / DEMOBILIZATION

1. TASKS RELATED TO MOBILIZATION SHALL ADHERE TO THE CURRENT REQUIREMENTS OF SECTION 101 (MOBILIZATION) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2. AREA IS AVAILABLE ADJACENT TO THE PROJECT AREA FOR EQUIPMENT STAGING AND MATERIALS STORAGE. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH DISTRICT PROJECT MANAGER PRIOR TO BEGINNING MOBILIZATION.

3. WORK WILL BE CONSIDERED COMPLETE ONLY AFTER ALL RUBBISH AND UNUSED MATERIAL DUE TO OR CONNECTED WITH THE WORK HAS BEEN REMOVED AND THE PREMISES LEFT IN A CONDITION SATISFACTORY TO THE DISTRICT.

4. ALL PROPERTY DISTURBED OR DAMAGED DURING PROSECUTION OF THE WORK SHALL BE RESTORED TO ITS FORMER CONDITION OR BETTER AT NO ADDITIONAL EXPENSE TO THE DISTRICT. FINAL PAYMENT WILL BE WITHHELD UNTIL SUCH CLEANUP IS COMPLETED AND APPROVED BY THE DISTRICT.

EROSION AND SEDIMENTATION CONTROL

1. THE CONTRACTOR SHALL CARRY OUT ALL CONSTRUCTION OPERATIONS IN A MANNER WHICH DOES NOT CAUSE VIOLATIONS OF STATE WATER QUALITY STANDARDS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIER, ETC.) AS REQUIRED FOR COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.

2. SHEET C7 PROVIDES THE EROSION CONTROL PLAN AND NOTES FOR THE PROJECT SITE. LOCATION OF SILT FENCE IS DEPICTED ON SHEETS C2 GRADING PLAN. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING THE STORMWATER POLLUTION PREVENTION PLAN WHICH WILL BE REQUIRED AS PART OF THE US EPA NPDES CONSTRUCTION GENERAL PERMIT.

3. ALL ERODIBLE GROUND AREAS AND SLOPES DISTURBED DURING CONSTRUCTION SHALL BE REVEGETATED WITH SOD, MULCH, SEED, WETLAND SPECIES, DISTRICT APPROVED ALTERNATE METHODS OR OTHERWISE APPROPRIATELY STABILIZED WITHIN 72 HOURS AFTER COMPLETION OF THE CONSTRUCTION ACTIVITY AND AT ANY OTHER TIME AS NECESSARY TO PREVENT VIOLATIONS OF STATE WATER QUALITY STANDARDS.

4. EROSION CONTROL SHALL FURTHER COMPLY WITH THE REQUIREMENTS OF SECTION 104 (PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2018).

EARTHWORK - EXCAVATION AND EMBANKMENT (FILL)

1. SURFACE WATER RUNOFF CONTROL: SURFACE WATER RUNOFF CONTROL WILL BE REQUIRED DURING SITE PREPARATION, FILL PLACEMENT AND COMPACTION, ETC. PONDING WATER SHALL BE CONTROLLED BY PROPER GRADING OF THE AREA AND THE USE OF TEMPORARY DRAINAGE DITCHES, DIVERSION BERMS AND/OR PUMPING FROM DRAINAGE CONTROLLED COLLECTION POINTS, AS NECESSARY, TO PREVENT INSTABILITY, PUMPING OR DISTURBED SUBGRADE CONDITIONS, OR GENERALLY UNACCEPTABLE SUBGRADE CONDITIONS.

2. GROUNDWATER CONTROL: SELECTION OF EQUIPMENT, MATERIALS AND METHODS SHALL BE CONTRACTOR'S RESPONSIBILITY. ALL DEWATERING OPERATIONS AND DISPOSAL SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE GOVERNMENT, AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.

   CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY OF DESIGN, INSTALLATION, OPERATIONS, AND MAINTENANCE OF DEWATERING SYSTEMS USED FOR THE CONTROL OF WATER LEVELS IN THE PROTECTED WORK AREA. CONTRACTOR SHALL MODIFY HIS METHOD OF DEWATERING OR AUGMENT HIS DEWATERING FACILITIES AS NECESSARY TO ASSURE STABILITY FOR CUT SLOPES, ALLOW COMPACTION OF SUBGRADE AND TO EFFECTIVELY MAINTAIN THE AREA IN THE DRY. WATER FROM PUMPING OPERATIONS SHALL BE CONTROLLED TO PREVENT ANY INTERFERENCE WITH OTHER WORK OR DAMAGE TO SURROUNDING AREAS.

   GROUNDWATER DRAWDOWN AND SEEPAGE CONTROL COULD BE ACCOMPLISHED IN SHALLOW DEMUCKING OPERATIONS OR EXCAVATIONS USING GRADING, SUMP AREAS, AND PUMPING. EXCAVATIONS INTO CLEAN FINE SANDS BELOW THE GROUNDWATER LEVEL MAY BE DIFFICULT TO CONTROL WITH SUMPS AND PUMPS. GROUNDWATER LEVELS SHALL BE MAINTAINED 2 FEET BELOW PREVAILING GRADE IN AREAS RECEIVING GENERAL FILL.

3. SITE PREPARATION: FOLLOWING ANY NECESSARY STRIPPING AND DEWATERING, AREAS TO RECEIVE FILL SHALL BE PROOF-ROLLED TO IMPROVE THE OVERALL UNIFORMITY AND BEARING CONDITIONS OF THE NEAR-SURFACE SOILS. INITIAL COMPACTION OPERATIONS SHALL CONSIST OF AT LEAST 4 OVERLAPPING PASSES IN EACH DIRECTION WITH A SELF-PROPELLED ROLLER. PROOFROLLING SHALL CONTINUE UNTIL ALL SOFT, WET, OR YIELDING AREAS HAVE BEEN IDENTIFIED, OVER-EXCAVATED, AND BACKFILLED WITH APPROVED FILL. THE PREPARED SURFACE SHALL BE KEPT DRAINED AND NOT SCARIFIED UNTIL JUST PRIOR TO FILL PLACEMENT TO MINIMIZE SATURATION FROM RAINFALL EVENTS. PROOF-ROLLING SHALL OCCUR AFTER CUTTING AND BEFORE FILLING.

4. EARTHWORK IMPROVEMENTS SHALL CONSIST OF EXCAVATION AND FILL TO ACHIEVE DESIRED GRADES AND ELEVATIONS. SEE STABILIZED SUBGRADE SECTION FOR CONSTRUCTION AND TESTING OF THE STABILIZED SUBGRADE BENEATH THE CONCRETE AND ASPHALT PAVEMENT SECTIONS.

   FILL SHALL CONSIST OF SOILS CLASSIFIED AS SLIGHTLY SILTY SAND (SP-SM), SLIGHTLY CLAYEY SAND (SP-SC), SILTY SAND (SM), AND CLAYEY SAND (SC). SOILS WITH FINES CONTENT GREATER THAN 20 PERCENT WILL BE MORE MOISTURE SENSITIVE AND DIFFICULT TO PLACE AND COMPACT. SEE ADDITIONAL COMMENTS UNDER BORROW SOILS BELOW.

5. FILL SHALL BE FREE OF ROOTS, LOGS, REFUSE, BRUSH, SOD, OR ORGANIC AND/OR PERISHABLE MATERIALS, MUCK OR OTHER HIGHLY ORGANIC MATERIAL, ROCKS, COBBLES, BOULDERS, OR CEMENTED FRAGMENTS HAVING A DIMENSION LARGER THAN 2 INCHES.

   FILL PLACEMENT AND COMPACTION: THE LIFT THICKNESS AND COMPACTOR EQUIPMENT UTILIZED WILL VARY WITH SOILS USED. THE CONTRACTOR SHALL BE PREPARED WITH A KNEADING-TYPE COMPACTOR, A VARIABLE VIBRATION SMOOTH-DRUM ROLLER, OR A RUBBER-TIRED ROLLER TO COMPACT COHESIVE AND COHESIONLESS SOIL AND SHALL USE THE APPROPRIATE EQUIPMENT COMPATIBLE WITH THE TYPE OF SOIL BEING COMPACTED. WALK-BEHIND, SELF-PROPELLED COMPACTION EQUIPMENT MAY BE NECESSARY.

   FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 12 INCHES IN LOOSE THICKNESS. EACH LIFT SHALL BE COMPACTED TO ACHIEVE AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR (AASHTO T-180 / ASTM D1557) MAXIMUM DRY DENSITY. MOISTURE CONTENT OF THE SOILS SHALL BE MANIPULATED AS NECESSARY TO MEET THE PERCENT COMPACTION REQUIREMENT. IN ADDITION TO THE PERCENT COMPACTION REQUIREMENT, THE COMPACTED SOIL SHALL BE FIRM AND UNYIELDING WHEN TRAVERSED WITH CONSTRUCTION EQUIPMENT. FILL PLACEMENT AND COMPACTION SHALL CONTINUE IN LIFTS UNTIL THE DESIGN GRADES ARE ACHIEVED.

   PRIOR TO INITIATING COMPACTION OPERATIONS, REPRESENTATIVE SAMPLES OF THE FILL MATERIAL SHALL BE COLLECTED AND TESTED TO DETERMINE THEIR CLASSIFICATION AND COMPACTION CHARACTERISTICS. THE MAXIMUM DRY DENSITY, OPTIMUM MOISTURE CONTENT, GRADATION AND PLASTICITY CHARACTERISTICS SHALL BE TESTED TO DETERMINE COMPLIANCE WITH THE SOIL CLASSIFICATIONS.

   INUNDATED OR DISTURBED SOIL CONDITIONS: SHOULD THE SUBGRADE EXPERIENCE "PUMPING" AND SUBSEQUENT SOIL STRENGTH LOSS DURING EXCAVATION AND COMPACTION OPERATIONS, COMPACTION WORK SHALL BE TERMINATED. EITHER THE DISTURBED SOILS SHALL BE REMOVED AND BACKFILLED WITH "DRY" FINE SAND (SP) TO SLIGHTLY SILTY FINE SAND (SP-SM) AND COMPACTED, OR THE EXCESS MOISTURE CONTENT WITHIN THE DISTURBED SOILS BE ALLOWED TO DISSIPATE BEFORE RE-COMPACTION. THE GROUNDWATER LEVEL SHALL BE CHECKED AND CONTROLLED AS PRACTICAL TO ENSURE PROPER DRAWDOWN OF ANY HIGH GROUNDWATER CONDITIONS THAT MAY BE CAUSING THE "PUMPING" CONDITIONS DURING COMPACTION OR CONSTRUCTION ACTIVITY UPON THESE SOILS.

   AT THE DIRECTION OF THE DISTRICT PROJECT MANAGER, LIFT THICKNESS AND COMPACTION OPERATIONS CAN BE SUSPENDED UNTIL SUFFICIENT FILL HAS BEEN PLACED TO BRIDGE THE DISTURBED SUBGRADE. AFTER SUFFICIENT FILL HAS BEEN PLACED, COMPACTION OPERATIONS SHALL BE RESUMED TO COMPACT THE INCREASED LIFT THICKNESS.

   BORROW SOILS: SOILS MAY HAVE EXCESS MOISTURE AND REQUIRE DRYING PRIOR TO PLACEMENT. THE DIFFICULTY OF DRYING HIGH MOISTURE CONTENT SOILS TO BE REUSED AS ENGINEERED FILL DEPENDS ON THE AMOUNT OF FINES PRESENT. THE MEANS AND METHODS OF DRYING AND COMPACTING SATURATED SOILS SHALL BE IMPLEMENTED BEFORE ANY FINAL PLACEMENT AND COMPACTION OF THESE SOILS IS ATTEMPTED. UNTIL THE SOIL MOISTURE IS REDUCED AT OR BELOW THE PLASTIC LIMIT OBTAINED FROM LABORATORY COMPACTION TESTS, THE REQUIRED COMPACTION OF FILL MATERIAL WILL NOT BE ACHIEVED, AND THE FILL WILL BECOME "DISTURBED OR PUMPING".

   ORGANIC SOILS (PT) AND ANY SANDY CLAYS (CL OR CH) FOUND WITHIN THE BORROW/SPOIL PILE SHALL BE CONSIDERED UNSUITABLE AS GENERAL FILL. THESE SOILS SHOULD BE DISPOSED AS DIRECTED BY THE DISTRICT PROJECT MANAGER.

   OVER-EXCAVATION AND BACKFILL: MUCK/PEAT (PT) AND/OR SOFT SEDIMENTS PRESENT AT SUBGRADE LEVELS SHALL BE COMPLETELY REMOVED AS DIRECTED BY THE DISTRICT PROJECT MANAGER. ADDITIONAL OVER-EXCAVATION SHALL BE PERFORMED TO IMPROVE BEARING CONDITIONS AS DIRECTED BY THE DISTRICT PROJECT MANAGER TO ACHIEVE THE COMPACTION REQUIREMENTS. IT MAY BE NECESSARY TO OVER-EXCAVATE LOOSE, DISTURBED, OR PUMPING SANDS AND BACKFILL WITH MOISTURE CONDITIONED SOILS MEETING THE CLASSIFICATION REQUIREMENTS. REFER TO INUNDATED OR DISTURBED CONDITIONS ABOVE.

   PROTECTION OF EARTHWORK: PRIOR TO RAIN EVENTS, THE CONTRACTOR SHALL PROTECT THE SOIL THAT HAS BEEN PLACED DURING CONSTRUCTION FROM TRAPPING RAINWATER AND BECOMING OVERLY UNSTABLE BY GRADING AND SMOOTH-ROLLING THE SURFACE TO POSITIVELY DRAIN AWAY WATER, AND TO PROMOTE RUNOFF. ALL SMOOTH-ROLLED SURFACES SHALL BE SCARIFIED PRIOR TO PLACING THE NEXT LIFT OF SOIL.

6. UNSUITABLE MATERIAL: ORGANIC SOILS, MUCK/PEAT (PT), AND CLAY (CL OR CH) SHALL NOT BE USED AS FILL. UNSUITABLE MATERIAL CAN BE PLACED IN UPLAND DISPOSAL AREAS AS DESIGNATED BY SJRWMD AND SPREAD TO A UNIFORM DEPTH. THE DISPOSAL AREAS SHALL BE LEFT IN A SATISFACTORY CONDITION, SMOOTHLY AND EVENLY DRESSED AND SLOPED TO DRAIN FREELY WITHOUT ANY TRENCHES OR DEPRESSIONS. DRAINAGE OF AREAS ADJACENT TO DISPOSAL AREAS SHALL NOT BE BLOCKED OR IMPAIRED BY CONTRACTOR'S OPERATION.

7. QUALITY CONTROL (QC) TESTING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR QC TESTING IN ACCORDANCE WITH THE CURRENT SECTION 120-10 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM REQUIRED TESTING INCLUDING (BUT NOT LIMITED TO) MODIFIED PROCTOR MAXIMUM DENSITY DETERMINATION (SECTION 120-10.1.4.1), FIELD DENSITY TESTING (120-10.1.4.2), AND SOIL CLASSIFICATION (120-10.1.4.3) USING METHODOLOGIES SPECIFIED WITHIN EACH PERTINENT SECTION OF THE FDOT SPECIFICATION.

   FOR THE PURPOSES OF TESTING, A STANDARD LOT SHALL BE DEFINED AS A SINGLE LIFT OF FINISHED EMBANKMENT (FILL) NOT TO EXCEED 500 FEET. THE MODIFIED PROCTOR MAXIMUM DENSITY TEST AND SOIL CLASSIFICATION SHALL BE PERFORMED WHENEVER CHANGES IN SOIL COMPOSITION ARE OBSERVED, OR ON NEW MATERIAL FROM A DIFFERENT SOURCE. MOISTURE CONTENT AND PERCENT FINES (-200) TESTS SHALL BE PERFORMED ON EACH BAG SAMPLE RECOVERED FOR PROCTER TESTING. LIQUID AND PLASTIC LIMITS SHALL BE PERFORMED AS NECESSARY WHEN PLASTIC FINES ARE PRESENT. THE NECESSITY AND FREQUENCY OF THE SOIL TESTS OUTLINED HEREIN MAY BE ADJUSTED BY THE DISTRICT PROJECT MANAGER. FURTHERMORE, FIELD DENSITY QC TESTS SHALL BE PERFORMED AT A FREQUENCY OF AT LEAST ONE PER LOT, WITH VERIFICATION AT ONE PER FOUR LOTS AND FOR WET CONDITIONS, THE FIRST LIFT NOT AFFECTED BY WATER. WHEN QUESTIONS REGARDING QC TESTING ARISE, THE DISTRICT PROJECT MANAGER SHALL PROVIDE FINAL DIRECTION ON ACCEPTABLE TESTS AND/OR RESULTS.

   ENGINEER SHALL VERBALLY REPORT FIELD DENSITY TEST RESULTS TO DISTRICT PROJECT MANAGER ON THE JOB SITE AS SOON AS PRACTICAL, FOLLOWED BY A WRITTEN TEST REPORT. WRITTEN TEST REPORTS SHALL BE SUBMITTED BY THE ENGINEER TO DISTRICT'S PROJECT MANAGERS OFFICE AND A COPY TO THE DISTRICT'S ENGINEER WITHIN ONE (1) WEEK FOLLOWING THE FIELD TEST. ANY FAILING TEST RESULTS SHALL BE ACCOMPANIED BY RETESTS SHOWING PASSING RESULTS.

   CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE TESTING BY GIVING ADVANCE NOTICE (MINIMUM 24 HOURS) TO THE DESIGNATED CONTACT OF THE QC TESTING ENGINEER AND THE DISTRICT PROJECT MANAGER WHEN SERVICES ARE REQUIRED. ALL FIELD AND LABORATORY TESTING SHALL BE PERFORMED UNDER THE DIRECTION OF THE QC TESTING ENGINEER. THE RESPONSIBILITY OF THE QC TESTING ENGINEER SHALL BE TO ASSIST THE DISTRICT IN QUALITY ASSURANCE OF ALL SITE WORK.

8. ALL CLEARING MATERIAL (I.E.: TREES, SHRUBS, ROOTS, STRIPPINGS, ETC) SHALL BE DISPOSED OF BY BURNING OR BURYING ON-SITE (AS DESIGNATED BY THE DISTRICT.)

9. ALL EARTHWORK SHALL COMPLY WITH THE REQUIREMENTS OF FLORIDA STATUTES CHAPTER 553, PART III, TRENCH SAFETY ACT. ALL TRENCH EXCAVATIONS, SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT (SECTIONS 553.60-553.64, FLORIDA STATUTES) AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) TRENCH EXCAVATION SAFETY STANDARDS, 29 C.F.R S. 1926.650, SUBPART P, INCLUDING ALL SUBSEQUENT PROVISIONS OR UPDATES TO STANDARDS AS ADOPTED BY THE FLORIDA DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DOLES).

ASPHALT PAVEMENT

1. PLANT AND EQUIPMENT SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 320 (HOT MIX ASPHALTS - PLANT, METHODS, AND EQUIPMENT) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2. GENERAL CONSTRUCTION REQUIREMENTS SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 330 (HOT MIX ASPHALTS -GENERAL CONSTRUCTION REQUIREMENTS) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

3. ASPHALT MIX SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 334 (SUPERPAVE ASPHALTIC CONCRETE) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENT EDITION).

4. APPLY TACK COAT BETWEEN HOT MIX ASPHALT LAYERS PER THE CURRENT REQUIREMENTS OF SECTION 300 (PRIME AND TACK COATS) OF THE FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

5. PRIME COAT IS NOT REQUIRED FOR THIS CONTRACT UNLESS THE PREPARED BASE COURSE IS EXPOSED AND INCLEMENT WEATHER IS EXPECTED BEFORE PAVING WILL OCCUR.

6. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE QUALITY AND ACCEPTANCE OF THE ASPHALT MIXTURE INCLUDING FIELD TESTING OF ASPHALT PAVEMENT TO ENSURE COMPLIANCE WITH CONSTRUCTION DRAWINGS AND SPECIFICATIONS. CONTRACTOR WILL COORDINATE WITH THE DISTRICT REGARDING TIMING AND LOCATION OF TESTING. THE ASPHALT MIXTURE WILL BE ACCEPTED AT THE PLANT WITH RESPECT TO GRADATION, ASPHALT CONTENT, AND VOLUMETRICS. THE MIXTURE WILL BE ACCEPTED ON THE ROADWAY WITH RESPECT TO DENSITY OF ROADWAY CORES. FOR THIS PROJECT, THERE ARE TWO DISTINCT SECTIONS OF ASPHALT PAVEMENT AT THE EAST END AND WEST END OF THE PROJECT. FOR EACH SECTION OF ASPHALT PAVEMENT, CONTRACTOR SHALL OBTAIN FIVE (5) 6-INCH DIAMETER ROADWAY CORES WITHIN 24 HOURS OF PLACEMENT AT RANDOM LOCATIONS AS DIRECTED BY THE DISTRICT PROJECT MANAGER. CONTRACTOR SHALL TEST THESE QC SAMPLES IN ACCORDANCE WITH CURRENT SECTION 334-5.1.1 (SAMPLING AND TESTING REQUIREMENTS) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

7. ROADWAY TYPICAL PAVEMENT SECTION IS PRESENTED ON SHEET C5 - MISCELLANEOUS DETAILS.

ROADWAY BASE

1. ROADWAY BASE COURSE SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 200 (ROCK BASE) AND SECTION 285 (OPTIONAL BASE COURSE) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ROADWAY TYPICAL PAVEMENT SECTION IS PRESENTED ON SHEET C5 - MISCELLANEOUS DETAILS.

2. APPLY PRIME COAT TO PREPARED BASE PER THE REQUIREMENTS OF SECTION 200 (ROCK BASE) AND SECTION 300 (PRIME AND TACK COATS).

3. CONTRACTOR IS RESPONSIBLE FOR THE ENSURING THE QUALITY OF THE ROADWAY BASE MATERIAL, INCLUDING FIELD TESTING OF ROADWAY BASE COURSE TO ENSURE COMPLIANCE WITH CONSTRUCTION DRAWINGS AND SPECIFICATIONS PER THE CURRENT REQUIREMENTS OF SECTION 200-7 (ACCEPTANCE PROGRAM) OF THE FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE DISTRICT PROJECT MANAGER WITHIN 24-HOURS OF TESTING. FINAL ACCEPTANCE OF THE ROADWAY BASE FOLLOWING QC TESTING SHALL BE MADE BY THE DISTRICT PROJECT MANAGER OR HIS DESIGNATED REPRESENTATIVE.

STABILIZED SUBGRADE

1. STABILIZED ROADWAY AND SHOULDER SUBGRADE SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 160 (STABILIZING) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ROADWAY TYPICAL PAVEMENT SECTION IS PRESENTED ON SHEET C5 - MISCELLANEOUS DETAILS.

2. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STABILIZED SUBGRADE MEETS THE REQUIREMENTS OF THIS SPECIFICATION AND SECTION 160, INCLUDING FIELD TESTING THE STABILIZED AREAS IN ACCORDANCE WITH THE PROCEDURES IN SECTION 160-3.2.1 (FOR SAMPLING AND TESTING OF THE LOCAL MATERIAL) AND SECTION 160-4 (ACCEPTANCE PROGRAM) FOR THE FINAL REQUIREMENTS FOR THE STABILIZED AREAS. FINAL ACCEPTANCE OF STABILIZED SUBGRADE SHALL BE MADE BY THE DISTRICT PROJECT MANAGER OR HIS DESIGNATED REPRESENTATIVE.

PAVEMENT MARKING

1. ALL PAVEMENT MARKING ON THE PROJECT SHALL BE PAINT AND SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 710 (PAINTED PAVEMENT MARKINGS) AND SECTION 971 (TRAFFIC MARKING MATERIALS) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2. ADDITIONALLY, PAVING MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND STANDARD HIGHWAY SIGNS, LATEST EDITIONS.

3. PAVEMENT STRIPING SHALL BE 6-INCHES IN WIDTH AND IN ACCORDANCE WITH THE NOTES AND DETAILS PRESENTED ON SHEET C5 - MISCELLANEOUS DETAILS.

SIGNS

1. ALL SIGNING ON THE PROJECT SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 700 (HIGHWAY SIGNING) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

2. ADDITIONALLY, SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND STANDARD HIGHWAY SIGNS, LATEST EDITIONS.

3. DESIGN DETAILS FOR SIGNS TO BE USED ON THE PROJECT ARE PRESENTED ON SHEET C6 - SIGN DETAILS.

GRASSING

1. GRASSING SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 570 (PERFORMANCE TURF) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. PER FDOT BASIS OF ESTIMATES MANUAL (CURRENT EDITION), GRASSING CONSISTS OF ESTABLISHING A STAND OF GRASS BY SEEDING (WHICH INCLUDES SEEDING, SEEDING & MULCHING, HYDROSEEDING, BONDED FIBER MATRIX, OR ANY COMBINATION). CONTRACTOR MAY SELECT ANY OF THE ABOVE METHODS, PROVIDING THAT THE REQUIREMENTS OF SECTION 570 AND THE EROSION AND SEDIMENTATION PLAN ARE MET.

2. PERFORM ALL WORK NECESSARY, INCLUDING WATERING AND FERTILIZING, TO SUSTAIN AN ESTABLISHED TURF UNTIL FINAL ACCEPTANCE, AT NO ADDITIONAL EXPENSE TO THE DISTRICT. PROVIDE THE FILLING, LEVELING, AND REPAIRING OF ANY WASHED OR ERODED AREAS, AS MAY BE NECESSARY. ESTABLISHED TURF IS DEFINED AS FOLLOWS:

   a. AN ESTABLISHED ROOT SYSTEM (LEAF BLADES BREAK BEFORE SEEDLINGS OR SOD CAN BE PULLED FROM THE SOIL BY HAND).
   b. NO BARE SPOTS LARGER THAN ONE SQUARE FOOT.
   c. NO CONTINUOUS STREAKS RUNNING PERPENDICULAR TO THE FACE OF THE SLOPE.
   d. NO BARE AREAS COMPRISING MORE THAN 1% OF ANY GIVEN 1,000 SQUARE FOOT AREA.
   e. NO DEFORMATION OF THE TURF AREAS CAUSED BY MOWING OR OTHER CONTRACTOR EQUIPMENT.
   f. NO EXPOSED SOD NETTING.
   g. NO PESTS OR NOXIOUS WEEDS.

3. IF AT THE TIME THAT ALL OTHER WORK ON THE PROJECT IS COMPLETED, BUT ALL TURF AREAS HAVE NOT MET THE REQUIREMENTS FOR ESTABLISHED TURF SET FORTH IN ITEM 2 (ABOVE), CONTINUOUSLY MAINTAIN ALL TURF AREAS UNTIL THE REQUIREMENTS HAVE BEEN MET.

   DURING THE ENTIRE ESTABLISHMENT PERIOD AND UNTIL TURF IS ESTABLISHED IN ACCORDANCE WITH THIS SPECIFICATION, CONTINUE INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL ITEMS.

   NOTIFY THE ENGINEER, WITH A MINIMUM OF SEVEN CALENDAR DAYS ADVANCE NOTICE, TO CONDUCT INSPECTIONS OF THE TURF AT APPROXIMATE 90-DAY INTERVALS DURING THE ESTABLISHMENT PERIOD TO DETERMINE ESTABLISHMENT. DETERMINATION OF AN ESTABLISHED TURF WILL BE BASED ON THE ENTIRE PROJECT AND NOT IN SECTIONS.

4. ALL MATERIALS USED FOR GRASSING SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF SECTION 981 (TURF MATERIALS) OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

5. GRASSING MATERIALS SHALL ALSO MEET THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES AND ALL STATE LAWS. ALL LANDSCAPING SHALL CONSIST OF NATIVE FLORIDA VEGETATION.

AS-BUILT DRAWINGS

1. THROUGHOUT THE CONSTRUCTION PHASE, CONTRACTOR SHALL MAINTAIN ONE (1) COMPLETE SET OF THE SIGNED AND SEALED CONTRACT PLANS ON FULL-SIZED PLAN SHEETS AS THE AS-BUILT DRAWINGS FOR THE PROJECT. THE AS-BUILT DRAWINGS SHALL INCLUDE ALL CHANGES, BOTH DESIGN AND CONSTRUCTION, WITH ALL SHOP DRAWINGS, INCLUDING ADEQUATE SKETCHES, DIMENSIONS, AND NOTES. ALL REVISIONS, INCLUDING THOSE OCCURRING DURING CONSTRUCTION, WILL BE INCLUDED IN THE AS-BUILT DRAWINGS SET.

2. UPON CONSTRUCTION COMPLETION, CONTRACTOR WILL INCORPORATE ALL CHANGES AND REVISIONS MADE TO THE PROJECT AND RECORDED ON THE ON-SITE AS-BUILT PLANS INTO A FINAL AS-BUILT PLAN. SEE CONTRACT DOCUMENTS FOR SPECIFIC AS-BUILT DRAWING SUBMITTAL REQUIREMENTS.

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: NONE	DESIGNER: APW	SECTION CHIEF: WRC

NOTES AND SPECIFICATIONS

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: G2HLBRNS.dwg
PROJECT NO.:
SHEET: G2

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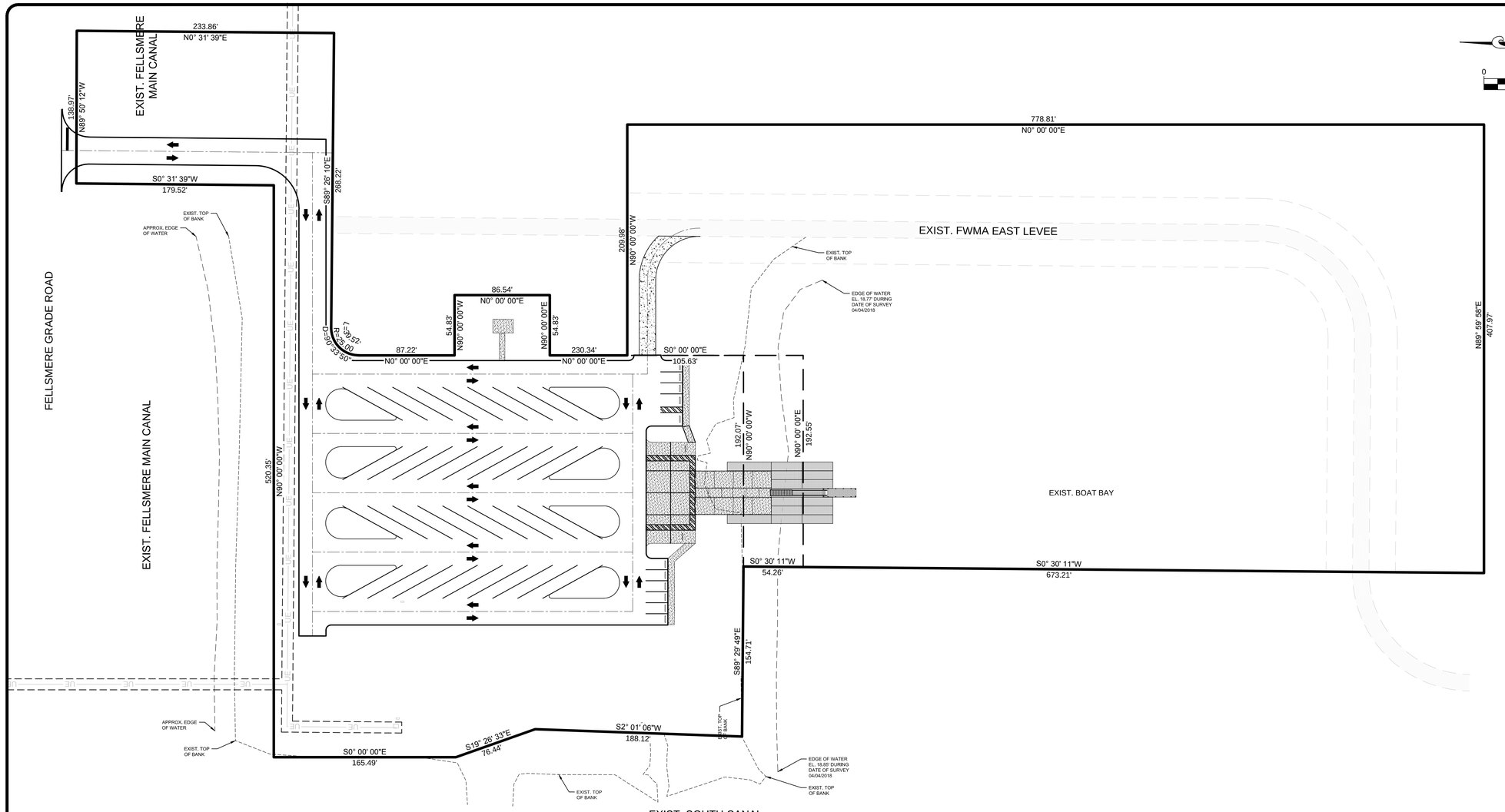

GRAPHIC SCALE

0 50 100

SCALE: 1" = 50'

LEGEND

- APPROXIMATE LOCATION OF EXIST. UNDERGROUND ELECTRIC LINE & 10' UTILITY EASEMENT
- EASEMENT PROPERTY
- PROJECT BOUNDARY
- PROPOSED 6" CLOSED CELL ARTICULATING CONCRETE BLOCK
- PROPOSED CONCRETE
- PROPOSED 6" LIMEROCK CAP

A PARCEL OF LAND CONTAINED WITHIN THE PLATS OF (1) "PLAT OF FELLSMERE FARMS COMPANY'S SUBDIVISION OF UNSURVEYED TOWNSHIP 31 SOUTH, OF RANGE 36 EAST IN INDIAN RIVER COUNTY, STATE OF FLORIDA", RECORDED IN PLAT BOOK 2, PAGE 9, PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA", AND (2) "PLAT OF FELLSMERE FARMS COMPANY'S SUBDIVISION OF UNSURVEYED TOWNSHIP 31 SOUTH, OF RANGE 37 EAST IN INDIAN RIVER COUNTY, STATE OF FLORIDA", RECORDED IN PLAT BOOK 2, PAGES 1 AND 2, PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA" BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TRACT 100 AND TRACT 101

COMMENCE AT THE NORTHWEST CORNER OF TRACT 101, AS SHOWN ON ABOVE SAID PLAT BOOK 2, PAGE 9; THENCE RUN SOUTH 89°26'10" EAST, A DISTANCE OF 377.98 FEET TO THE **POINT OF BEGINNING**; THENCE RUN NORTH 00°31'39" EAST, A DISTANCE OF 233.86 FEET; THENCE RUN NORTH 89°50'12" WEST, A DISTANCE OF 138.97 FEET; THENCE RUN SOUTH 00°31'39" WEST, A DISTANCE OF 179.52 FEET; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 520.35 FEET; THENCE RUN SOUTH 00°00'00" EAST, A DISTANCE OF 165.49 FEET; SOUTH 19°26'33" EAST, A DISTANCE OF 76.44 FEET; THENCE RUN SOUTH 02°01'06" WEST, A DISTANCE OF 188.12 FEET; THENCE RUN SOUTH 89°29'49" EAST, A DISTANCE OF 154.71 FEET; THENCE RUN SOUTH 00°30'11" WEST, A DISTANCE OF 54.26 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 192.55 FEET; NORTH 00°00'00" EAST, A DISTANCE OF 230.34 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 54.83 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 86.54 FEET THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 54.83 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 87.22 FEET TO A TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF NORTH 45°16'55" EAST AND A CHORD DISTANCE OF 35.53 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°33'50", A DISTANCE OF 39.52 FEET; THENCE RUN SOUTH 89°26'10" EAST, A DISTANCE OF 268.22 FEET RETURNING TO THE **POINT OF BEGINNING**.

CONTAINING 4.75 ACRES, MORE OR LESS.

TRACT 100, TRACT 101, TRACT 200, AND TRACT 201

COMMENCE AT THE NORTHEAST CORNER OF TRACT 122, AS SHOWN ON ABOVE SAID PLAT BOOK 2, PAGE 9, BEING THE INTERSECTION OF THE WEST RIGHT OF WAY OF LATERAL "S" CANAL WITH THE SOUTH RIGHT OF WAY OF THE MAIN CANAL AS SHOWN ON SAID PLAT; THENCE RUN NORTH 89°49'41" WEST, A DISTANCE OF 49.24 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 143.39 FEET TO THE **POINT OF BEGINNING**; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 243.91 FEET; THENCE RUN SOUTH 00°00'00" EAST, A DISTANCE OF 165.49 FEET; THENCE RUN SOUTH 19°26'33" EAST, A DISTANCE OF 76.44 FEET; THENCE RUN SOUTH 02°01'06" WEST, A DISTANCE OF 188.12 FEET; THENCE RUN SOUTH 89°29'49" EAST, A DISTANCE OF 154.71 FEET; THENCE RUN SOUTH 00°30'11" WEST, A DISTANCE OF 673.21 FEET; THENCE RUN NORTH 89°29'51" EAST, A DISTANCE OF 371.25 FEET; THENCE RUN NORTH 00°20'21" EAST, A DISTANCE OF 338.81 FEET; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 118.81 FEET; THENCE RUN NORTH 00°30'41" EAST, A DISTANCE OF 228.51 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 74.47 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 529.55 FEET RETURNING TO THE **POINT OF BEGINNING**.

CONTAINING 8.97 ACRES, MORE OR LESS.

NOTES:

1. ALL ELEVATIONS SHOWN HEREON ARE REFERENCE TO NAVD(88).
2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE
2	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	04/23/19	APW	04/23/19
1	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	10/19/18	APW	10/19/18

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: 1" = 40'	DESIGNER: APW	SECTION CHIEF: WRC

OVERALL SITE PLAN

CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: G3OLSEPN.dwg
PROJECT NO.:
SHEET: G3

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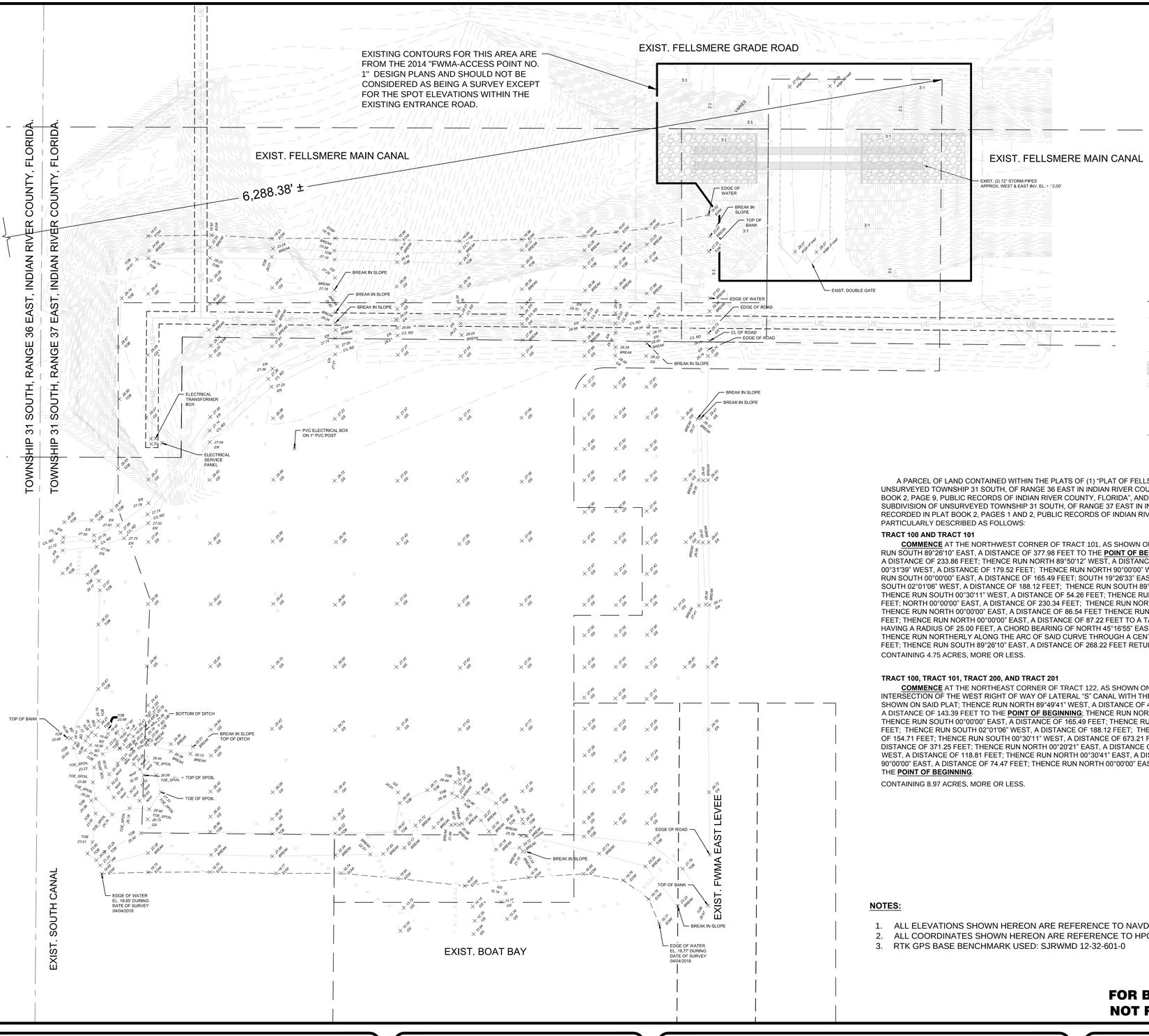

BENCH MARK: SJRWMD 12-32-601-0
N 1267385.2950
E 756197.5500
EL. 28.792'

TYPE OF MARK: SET SJRWMD. ALUM. DISK IN CONC. COLLAR
STAMPED BM 12-32-601-0 ATOP OF 35' OF 5/8" COPPER ROD

LOCATION OF MARK: FROM THE INTERSECTION OF BABCOCK ST (CR 507) AND TIM GOODWIN ROAD (FELLSMERE GRADE) GO WEST 6.1 MILES TO L-75 LEVEE @ GATE ON LEFT HAND SIDE PARKING AREA GO SOUTH 300'± TO A GATE ON LEFT HAND SIDE GO WEST 1.2 MILES ON OLD LEVEE ROAD TO BENCH MARKS @ A OLD PUMPSTATION SITE @ MILE CANAL.

LEGEND

- APPROXIMATE LOCATION OF E: ELECTRIC LINE & 10' UTILITY EA
- BENCH MARK
- EASEMENT PROPERTY
- EXISTING CONTOURS
- EXISTING ELECTRICAL BOX
- EXISTING GUARD RAIL
- EXISTING RIP RAP
- EXISTING SLOPE DIRECTION
- EXISTING SPOT ELEVATION
- EXISTING TRANSFORMER BOX
- TOWNSHIP & RANGE

A PARCEL OF LAND CONTAINED WITHIN THE PLATS OF (1) "PLAT OF FELLSMERE FARMS COMPANY'S SUBDIVISION OF UNSURVEYED TOWNSHIP 31 SOUTH, OF RANGE 36 EAST IN INDIAN RIVER COUNTY, STATE OF FLORIDA", RECORDED IN PLAT BOOK 2, PAGE 9, PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA", AND (2) "PLAT OF FELLSMERE FARMS COMPANY'S SUBDIVISION OF UNSURVEYED TOWNSHIP 31 SOUTH, OF RANGE 37 EAST IN INDIAN RIVER COUNTY, STATE OF FLORIDA", RECORDED IN PLAT BOOK 2, PAGES 1 AND 2, PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA" BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TRACT 100 AND TRACT 101

COMMENCE AT THE NORTHWEST CORNER OF TRACT 101, AS SHOWN ON ABOVE SAID PLAT BOOK 2, PAGE 9; THENCE RUN SOUTH 89°26'10" EAST, A DISTANCE OF 377.98 FEET TO THE **POINT OF BEGINNING**; THENCE RUN NORTH 00°31'39" EAST, A DISTANCE OF 233.86 FEET; THENCE RUN NORTH 89°50'12" WEST, A DISTANCE OF 138.97 FEET; THENCE RUN SOUTH 00°31'39" WEST, A DISTANCE OF 179.52 FEET; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 520.35 FEET; THENCE RUN SOUTH 00°00'00" EAST, A DISTANCE OF 165.49 FEET; SOUTH 19°26'33" EAST, A DISTANCE OF 76.44 FEET; THENCE RUN SOUTH 02°01'06" WEST, A DISTANCE OF 188.12 FEET; THENCE RUN SOUTH 89°29'49" EAST, A DISTANCE OF 154.71 FEET; THENCE RUN SOUTH 00°30'11" WEST, A DISTANCE OF 54.26 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 192.55 FEET; NORTH 00°00'00" EAST, A DISTANCE OF 230.34 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 54.83 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 86.54 FEET THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 54.83 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 87.22 FEET TO A TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF NORTH 45°16'55" EAST AND A CHORD DISTANCE OF 35.53 FEET; THENCE RUN NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°33'50", A DISTANCE OF 39.52 FEET; THENCE RUN SOUTH 89°26'10" EAST, A DISTANCE OF 268.22 FEET RETURNING TO THE **POINT OF BEGINNING**.

CONTAINING 4.75 ACRES, MORE OR LESS.

TRACT 100, TRACT 101, TRACT 200, AND TRACT 201

COMMENCE AT THE NORTHEAST CORNER OF TRACT 122, AS SHOWN ON ABOVE SAID PLAT BOOK 2, PAGE 9, BEING THE INTERSECTION OF THE WEST RIGHT OF WAY OF LATERAL "S" CANAL WITH THE SOUTH RIGHT OF WAY OF THE MAIN CANAL AS SHOWN ON SAID PLAT; THENCE RUN NORTH 89°49'41" WEST, A DISTANCE OF 49.24 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 143.39 FEET TO THE **POINT OF BEGINNING**; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 243.91 FEET; THENCE RUN SOUTH 00°00'00" EAST, A DISTANCE OF 165.49 FEET; THENCE RUN SOUTH 19°26'33" EAST, A DISTANCE OF 76.44 FEET; THENCE RUN SOUTH 02°01'06" WEST, A DISTANCE OF 188.12 FEET; THENCE RUN SOUTH 89°29'49" EAST, A DISTANCE OF 154.71 FEET; THENCE RUN SOUTH 00°30'11" WEST, A DISTANCE OF 673.21 FEET; THENCE RUN NORTH 89°29'51" EAST, A DISTANCE OF 371.25 FEET; THENCE RUN NORTH 00°20'21" EAST, A DISTANCE OF 338.81 FEET; THENCE RUN NORTH 90°00'00" WEST, A DISTANCE OF 118.81 FEET; THENCE RUN NORTH 00°30'41" EAST, A DISTANCE OF 228.51 FEET; THENCE RUN NORTH 90°00'00" EAST, A DISTANCE OF 74.47 FEET; THENCE RUN NORTH 00°00'00" EAST, A DISTANCE OF 529.55 FEET RETURNING TO THE **POINT OF BEGINNING**.

CONTAINING 8.97 ACRES, MORE OR LESS.

NOTES:

1. ALL ELEVATIONS SHOWN HEREON ARE REFERENCE TO NAVD(88).
2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE
1	ISSUED FOR CONSTRUCTION	N.J.G.	03/07/16	A.P.W.	03/07/16

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: 1" = 40'	DESIGNER: APW	SECTION CHIEF: WRC

EXISTING CONDITIONS SURVEY

CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: C1HLBREC.dwg
PROJECT NO.:
SHEET: C1

L:\Projects\CADD\LSRBF\fellsmere WMA 2018\HEADWATERS LAKE BOAT RAMP\CONSTRUCTION\C1HLBREC.dwg

TOWNSHIP 31 SOUTH, RANGE 36 EAST, INDIAN RIVER COUNTY, FLORIDA.

TOWNSHIP 31 SOUTH, RANGE 37 EAST, INDIAN RIVER COUNTY, FLORIDA.

EXISTING CONTOURS FOR THIS AREA ARE FROM THE 2014 "FWMA-ACCESS POINT NO. 1" DESIGN PLANS AND SHOULD NOT BE CONSIDERED AS BEING A SURVEY EXCEPT FOR THE SPOT ELEVATIONS WITHIN THE EXISTING ENTRANCE ROAD.

EXIST. FELLSMERE GRADE ROAD

TIE INTO EXIST. ROADWAY ELEVS.

EXIST. FELLSMERE MAIN CANAL

EXIST. FELLSMERE MAIN CANAL

EXIST. (2) 72" STORM PIPES APPROX. WEST & EAST INV. EL. = 12.00'

EDGE OF WATER

BREAK IN SLOPE

TOP OF BANK

EXIST. DOUBLE GATE

EDGE OF ROAD

CL OF ROAD

GRADE BREAK

TIE INTO EXIST. GRADE

ELECTRICAL TRANSFORMER BOX

ELECTRICAL SERVICE PANEL

PVC ELECTRICAL BOX ON 1" PVC POST

PROPOSED ASPHALT PARKING AREA (SEE C5/3 FOR TYPICAL PAVEMENT SECTION)

TEMPORARY SILT FENCE (SEE C7 FOR DETAILS)

TIE PAVEMENT TO EXIST. GRADE

CONNECT TO EXIST. LEVEE @ CURRENT GRADE. CAP W/ 6" ROCK

EXIST. FWMA EAST LEVEE

EXIST. SOUTH CANAL

EXIST. BOAT BAY

BOTTOM OF DITCH

TOP OF BANK

BREAK IN SLOPE TOP OF DITCH

TOP OF SPOIL

TOE OF SPOIL

EDGE OF WATER EL. 18.85' DURING DATE OF SURVEY 04/04/2018

TEMPORARY TURBIDITY BARRIER

PROPOSED DOUBLE CONCRETE BOAT RAMP 126' LONG x 16' WIDE (SEE S1 FOR DETAILS)

EDGE OF WATER EL. 18.77 DURING DATE OF SURVEY 04/04/2018

BREAK IN SLOPE

TOP OF BANK

GRAPHIC SCALE

0 40 80

SCALE: 1" = 40'

LEGEND

- APPROXIMATE LOCATION OF EXIST. UNDERGROUND ELECTRIC LINE & 10' UTILITY EASEMENT
- EASEMENT PROPERTY
- EXISTING ELECTRICAL BOX
- EXISTING GUARD RAIL
- EXISTING RIP RAP
- EXISTING TRANSFORMER BOX
- PROPOSED ASPHALT
- 26 — PROPOSED CONTOURS
- EXISTING CONTOURS
- PROPOSED 6" LIMEROCK CAP
- 2% PROPOSED SLOPE
- PROPOSED SLOPE DIRECTION
- EXISTING SLOPE DIRECTION
- 28.00 PROPOSED SPOT ELEVATION
- 27.00 EXISTING SPOT ELEVATION
- SILT FENCE
- TOWNSHIP & RANGE
- TURBIDITY BARRIER

NOTE: OUTSIDE NEW CONSTRUCTION AREA, TIE DOWN TO EXISTING GRADE AT 3:1 SLOPE.

NOTES:

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2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE
2	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	04/23/19	APW	04/23/19
1	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	10/19/18	APW	10/19/18

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: 1" = 40'	DESIGNER: APW	SECTION CHIEF: WRC

GRADING PLAN

CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: C2DSGNPG.dwg
PROJECT NO.:
SHEET: C2

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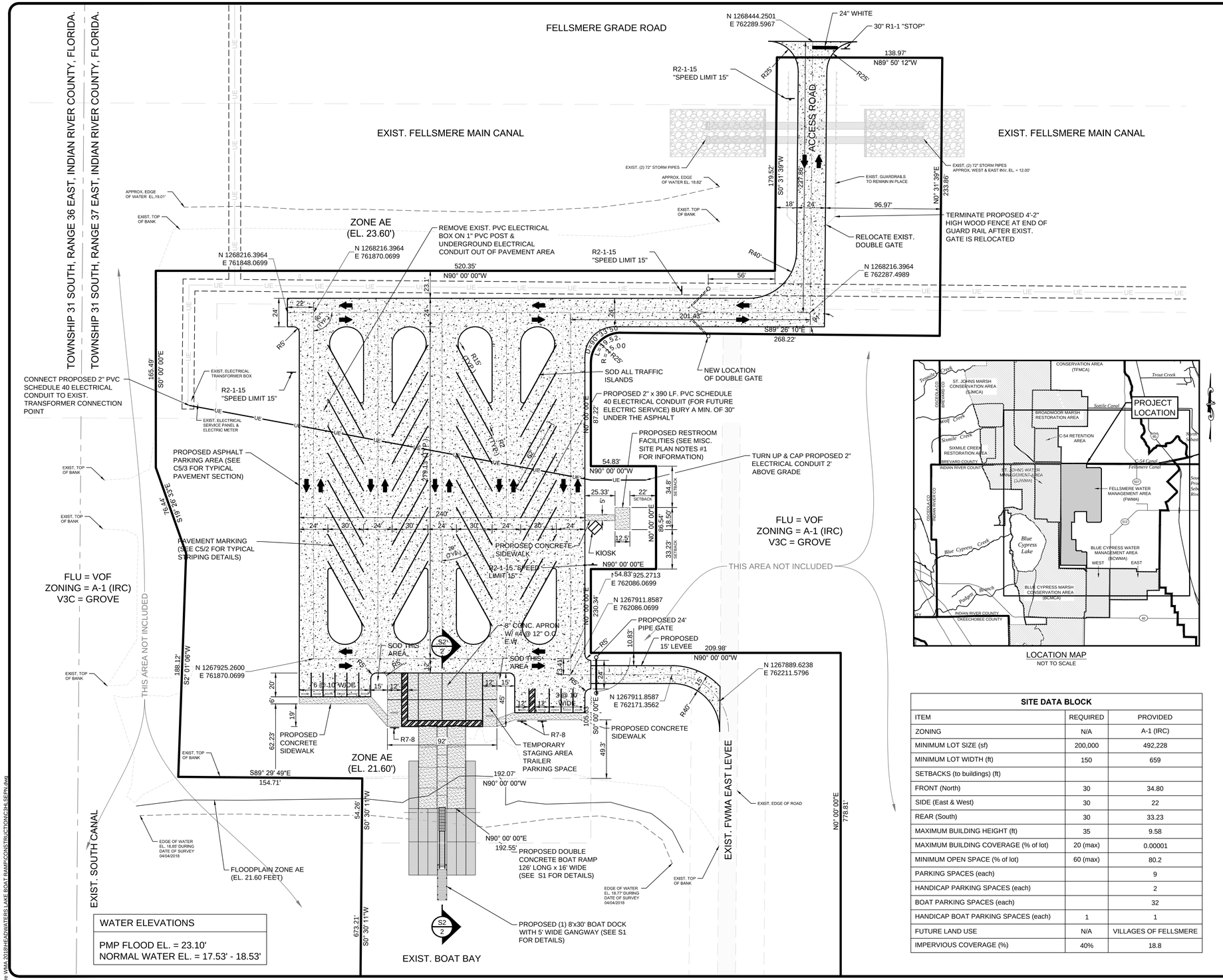

LOCATION MAP
NOT TO SCALE

MISCELLANEOUS SITE PLAN NOTES

1. PRECAST RESTROOM BUILDING TO BE EASI-SET DRY (WATERLESS) RESTROOM, MODEL SIERRA (OUTBACK ROOF STYLE), OR APPROVED EQUAL. BUILDING SHALL MEASURE APPROXIMATELY 9'-10" X 16'-6" AND SHALL BE ADA COMPLIANT.
2. ALL DIMENSIONS AND RADII SHOWN ARE DIMENSIONED FROM EDGE OF PAVEMENT UNLESS INDICATED OTHERWISE.
3. ALL STRUCTURAL DIMENSIONS TO BE PROVIDED BY THE CONTRACTOR AS SUBMITTALS FOLLOWING CONTRACT AWARD PER THE CONDITIONS OF THE SCOPE OF WORK.
4. REFER TO DETAILS S3/3, S3/4 AND THE CONCRETE PAVEMENT SPECIFICATIONS FOR THE 8" CONCRETE APRON PLACEMENT ABOVE THE BOAT RAMP AREA.
5. SHEET C6 - SIGN DETAILS CONTAINS ADDITIONAL INFORMATION REGARDING SIGN CONSTRUCTION.
6. REFER TO C5/2 FOR CONCRETE SIDEWALK DETAILS.
7. PROPOSED POLE GATES TO BE CONSTRUCTED BY THE DISTRICT.
8. ADA PARKING SPACES (SEE C5/4 FOR TYPICAL STRIPING DETAILS).

UTILITY NOTES

1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN IN THESE DRAWINGS ARE APPROXIMATE AND BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER, INCLUDING THE TOPOGRAPHIC SURVEY DEVELOPED BY SJRWMD. SJRWMD ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATIONS SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES WITHIN THE WORK LIMITS OF ALL IMPROVEMENTS.
2. THE CONTRACTOR SHALL VERIFY ALL UTILITIES FOR TYPE, SIZE, MATERIAL, ELEVATIONS, LOCATIONS, ETC. AND IMMEDIATELY NOTIFY SJRWMD OF ANY VARIANCE PRIOR TO BEGINNING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES WITHIN THE WORK LIMITS, PROTECTING EXISTING UTILITIES DURING CONSTRUCTION AND MAKING ARRANGEMENTS FOR ANY REQUIRED RELOCATION WITH THE APPROPRIATE UTILITY OWNER A MINIMUM OF 72 HOURS PRIOR TO BEGINNING RELOCATION. IN THE EVENT THAT AN UNANTICIPATED UTILITY CONFLICT OCCURS, CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE UTILITY PROVIDER TO COORDINATE REMEDIAL ACTION.
4. MATERIAL DELIVERED TO THE JOB SITE SHALL BE INSPECTED. ANY MATERIAL FOUND TO HAVE CRACKS, FLAWS, SURFACE ABRASIONS, CRACKED LININGS OR OTHER DEFECTS SHALL BE REJECTED

NOTES:

1. ALL ELEVATIONS SHOWN HEREON ARE REFERENCE TO NAVD(88).
2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0
4. SUBMITTAL OF INCORRECT OR ERRONEOUS INFORMATION MAY RESULT IN A CHANGE OF RECOMMENDATION OR REQUIREMENTS TO BE APPROVED.

SITE DATA BLOCK		
ITEM	REQUIRED	PROVIDED
ZONING	N/A	A-1 (IRC)
MINIMUM LOT SIZE (sf)	200,000	492,228
MINIMUM LOT WIDTH (ft)	150	659
SETBACKS (to buildings) (ft)		
FRONT (North)	30	34.80
SIDE (East & West)	30	22
REAR (South)	30	33.23
MAXIMUM BUILDING HEIGHT (ft)	35	9.58
MAXIMUM BUILDING COVERAGE (% of lot)	20 (max)	0.00001
MINIMUM OPEN SPACE (% of lot)	60 (max)	80.2
PARKING SPACES (each)		9
HANDICAP PARKING SPACES (each)		2
BOAT PARKING SPACES (each)		32
HANDICAP BOAT PARKING SPACES (each)	1	1
FUTURE LAND USE	N/A	VILLAGES OF FELLSMERE
IMPERVIOUS COVERAGE (%)	40%	18.8

REQUIRED PERMITS:
U.S. ARMY CORPS OF ENGINEERS
FDEP
IRC DEPARTMENT OF HEALTH

PROFESSIONAL ENGINEER:
AMY P. WRIGHT, P.E.
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429, PALATKA, FLORIDA

PROFESSIONAL SURVEYOR & MAPPER:
RICHARD GUILFOYLE, P.S. & M.
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429, PALATKA, FLORIDA

TRAFFIC PROFESSIONAL:
BRAIN GOOD, P.E.
KIMLEY HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, FLORIDA 3341

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE
2	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	04/23/19	APW	04/23/19
1	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	10/19/18	APW	10/19/18

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG | DATE: MAY 15, 2019 | REVIEWER: WRC
SCALE: 1" = 40' | DESIGNER: APW | SECTION CHIEF: WRC

FINAL SITE PLAN

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: C3HLSEPN.dwg
PROJECT NO.:
SHEET: C3

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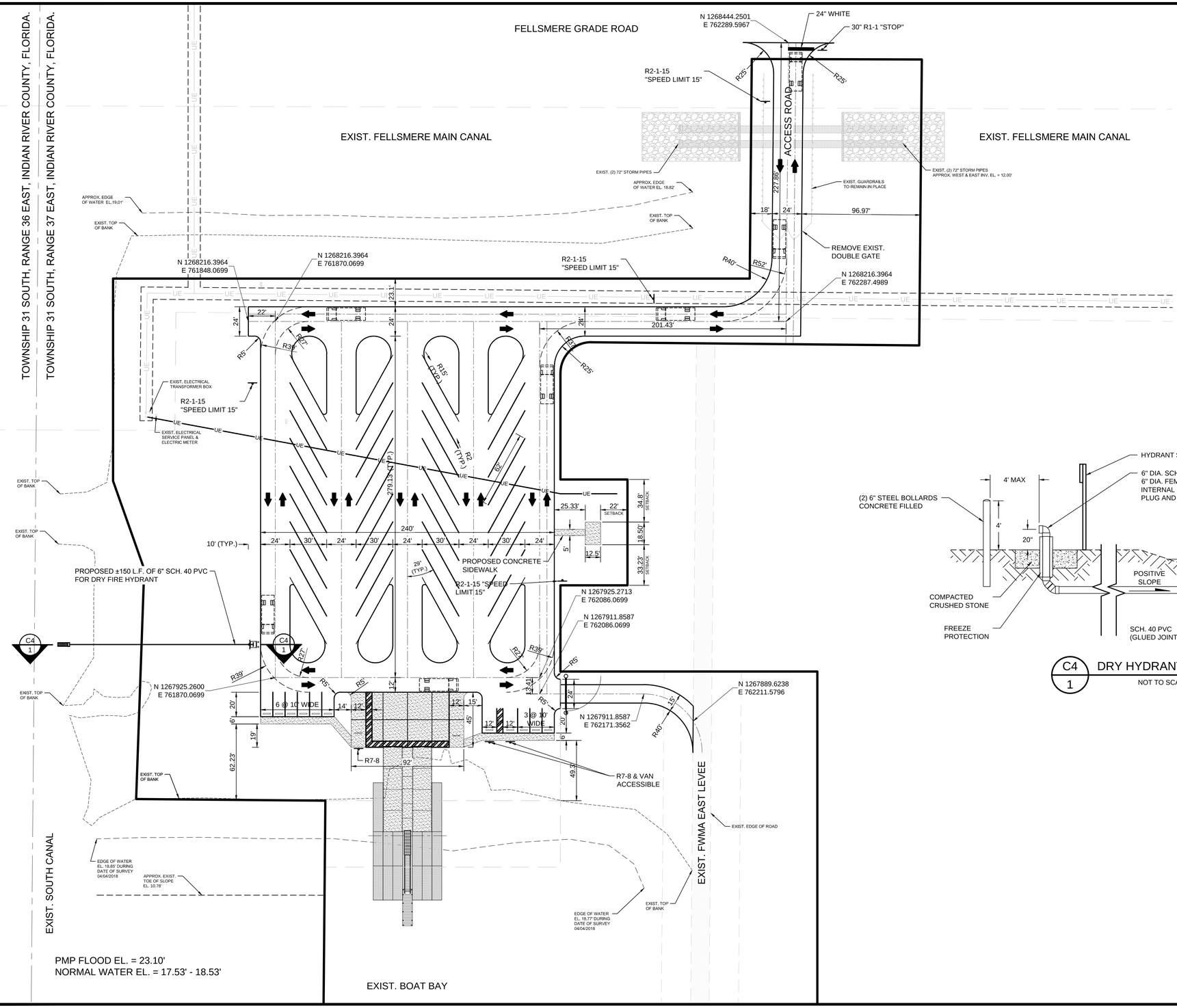
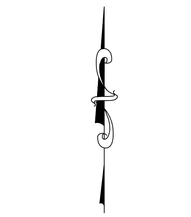
TOWNSHIP 31 SOUTH, RANGE 36 EAST, INDIAN RIVER COUNTY, FLORIDA.
TOWNSHIP 31 SOUTH, RANGE 37 EAST, INDIAN RIVER COUNTY, FLORIDA.



C4 / 1 DRY HYDRANT DETAIL
NOT TO SCALE



LEGEND

- APPROXIMATE LOCATION OF EXIST. UNDERGROUND ELECTRIC LINE & 10' UTILITY EASEMENT
- EASEMENT PROPERTY
- EXISTING ELECTRICAL BOX
- EXISTING GUARD RAIL
- EXISTING RIP RAP
- EXISTING TRANSFORMER BOX
- PROPOSED 6" CLOSED CELL ARTICULATING CONCRETE BLOCK
- PROPOSED CONCRETE
- TOWNSHIP & RANGE
- FIRE TRUCK

NOTES:

1. ALL ELEVATIONS SHOWN HEREON ARE REFERENCE TO NAVD(88).
2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0

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UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: APW	SECTION CHIEF: WRC

FIRE PROTECTION DETAILS

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: C4HLFPDS.dwg
PROJECT NO.:
SHEET: C4

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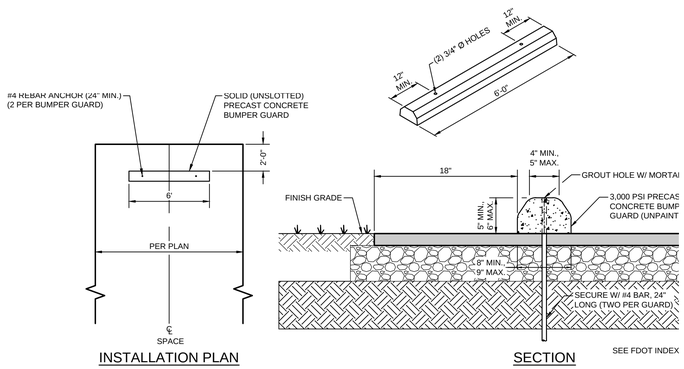


INSTALLATION PLAN

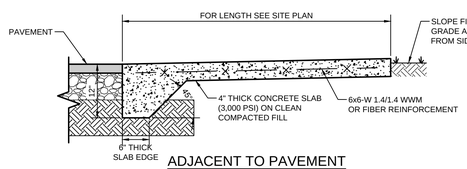
SECTION

C5 / 1 — CONCRETE BUMPER GUARD DETAILS

NOT TO SCALE

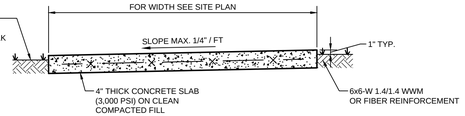
NOTES:

1. 3/16" SAWCUT CONTROL JOINTS 1-1/2" DEEP, SHALL BE CONSTRUCTED AT 5' O.C.
2. 1/2" EXPANSION JOISTS WITH PREFORMED JOINT FILLER SHALL BE CONSTRUCTED BETWEEN ALL FIXED OBJECTS AND WALK AT CONSTRUCTION JOINTS.
3. CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SECTION 522, FDOT STAND SPECIFICATIONS, LATEST EDITION, INDEX NO. 310 AND THESE SPECIFICATIONS.



ADJACENT TO PAVEMENT

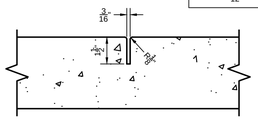
SCALE: 3/4" = 1'-0"



NOT ADJACENT TO PAVEMENT

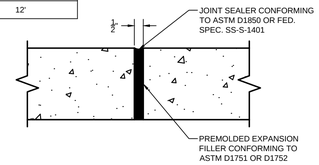
SCALE: 3/4" = 1'-0"

WIDTH OF WALK = X	SPACE BETWEEN JOINTS OR VERTICAL WALL
5'	5'
8'	8'
12'	12'



CONTRACTION JOINT

SCALE: 3" = 1'-0"



EXPANSION JOINT

SCALE: 3" = 1'-0"

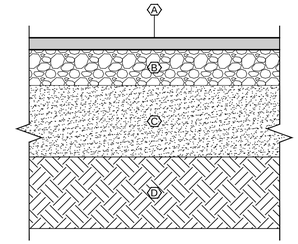
C5 / 2 — CONCRETE SIDEWALK DETAILS

Ⓐ 2" THICK ASPHALTIC CONCRETE SURFACE (SP-12.5). APPLY TACK COAT BETWEEN ASPHALT LAYERS.

Ⓑ 6" BASE COURSE, OPTIONAL BASE GROUP 4 (FDOT STD. INDEX 514) - LIMEROCK, COQUINA, SHELL ROCK, OR BANK RUN SHELL - COMPACTED TO 98% MODIFIED PROCTOR DENSITY. APPLY PRIME COAT TO PREPARED BASE PRIOR TO LAYING ASPHALT.

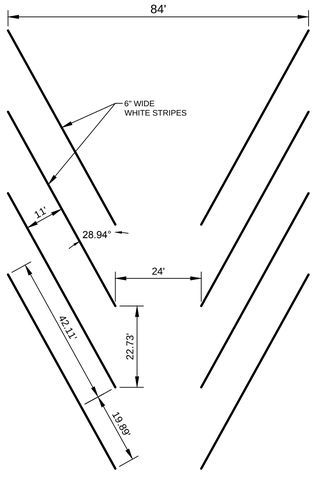
Ⓒ 12" STABILIZED SUBGRADE, COMPACTED TO 98% MODIFIED PROCTOR DENSITY (AASHTO T-180), LBR 40.

Ⓓ EXISTING GROUND STRIP AND FILL AS NECESSARY THEN PROOF ROLL PRIOR TO FILLING TO ACHIEVE 95% MODIFIED PROCTOR DENSITY (ASSHTO T-180).



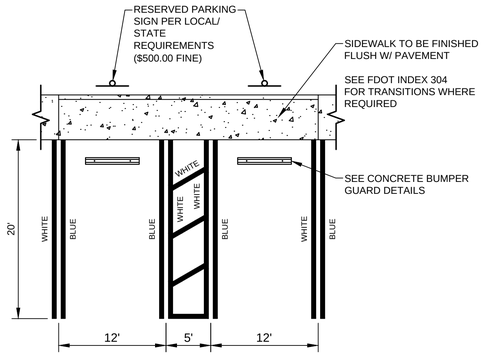
C5 / 3 — TYPICAL PAVEMENT SECTION

SCALE: 1" = 1'



PARKING STALLS

SCALE: 1" = 20'



STRIPPING PLAN FOR ADA PARKING & RAMP DETAIL

SCALE: 1" = 8'

C5 / 4 — TYPICAL STRIPING DETAILS

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

U:\Projects\CAD\HJSRB\Settlement WMA 2018\HEADWATERS LAKE BOAT RAMP\CONSTRUCTION\C6GGBSDT.dwg

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

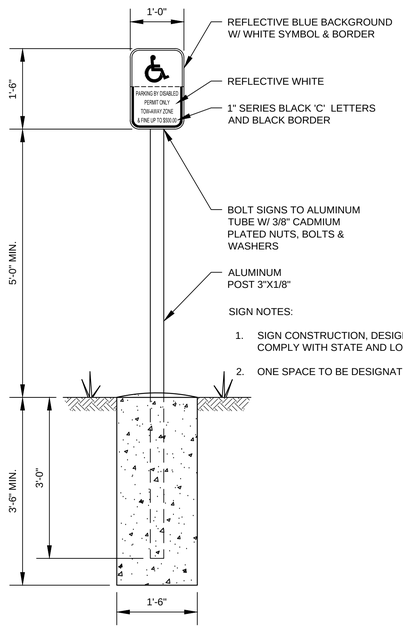
DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: APW	SECTION CHIEF: WRC

MISCELLANEOUS DETAILS

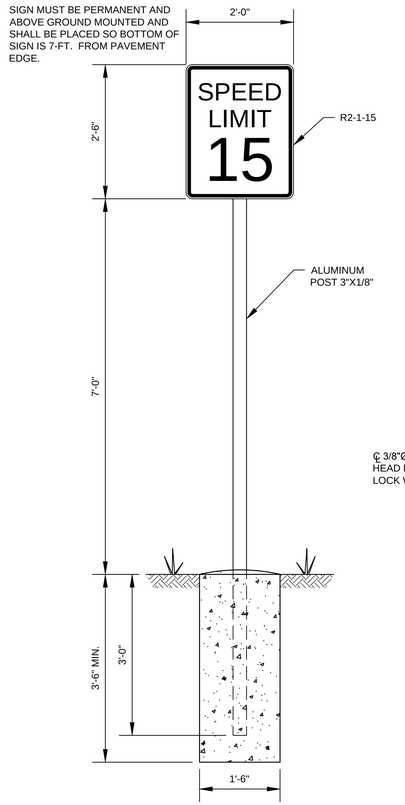
CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

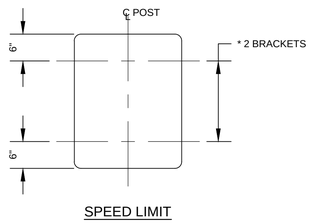
FILE NAME: C6GGBSDT.dwg
PROJECT NO.:
SHEET: C5



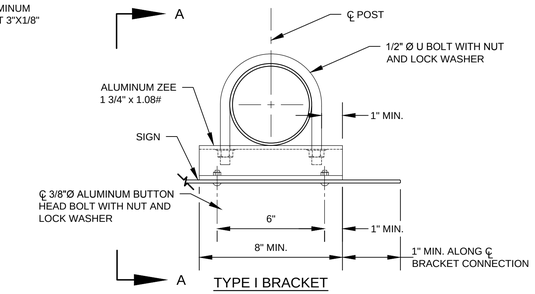
ADA SIGN DETAIL



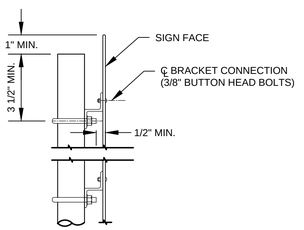
TYPICAL MOUNTING DETAIL



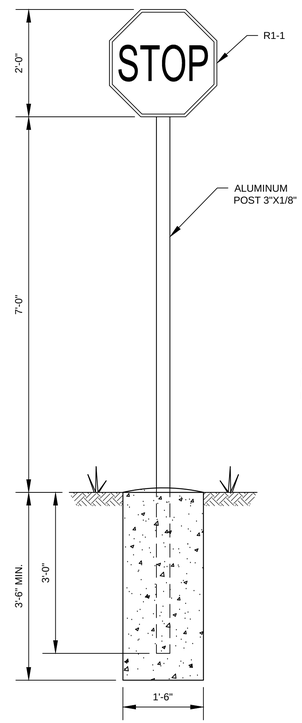
SPEED LIMIT



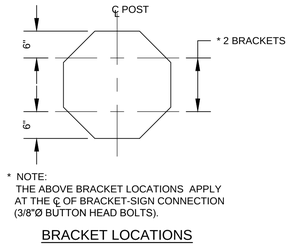
TYPE I BRACKET



VIEW A-A

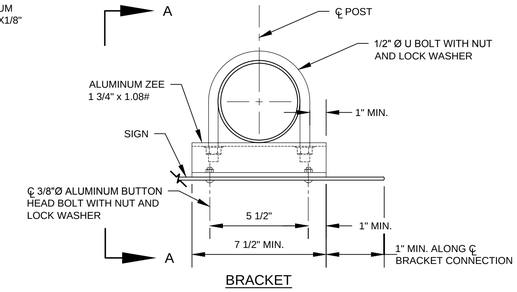


STOP SIGN DETAIL

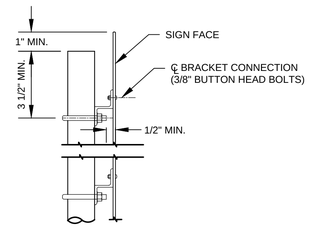


* NOTE:
THE ABOVE BRACKET LOCATIONS APPLY AT THE ℄ OF BRACKET-SIGN CONNECTION (3/8"Ø BUTTON HEAD BOLTS).

BRACKET LOCATIONS



BRACKET



VIEW A-A

C6 / 1 SIGN DETAILS

NOT TO SCALE

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

U:\Projects\CAD\USJRR\Fellsmere WMA 2018\HEADWATERS LAKE BOAT RAMP\CONSTRUCTION\C7SIGNDT.dwg

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

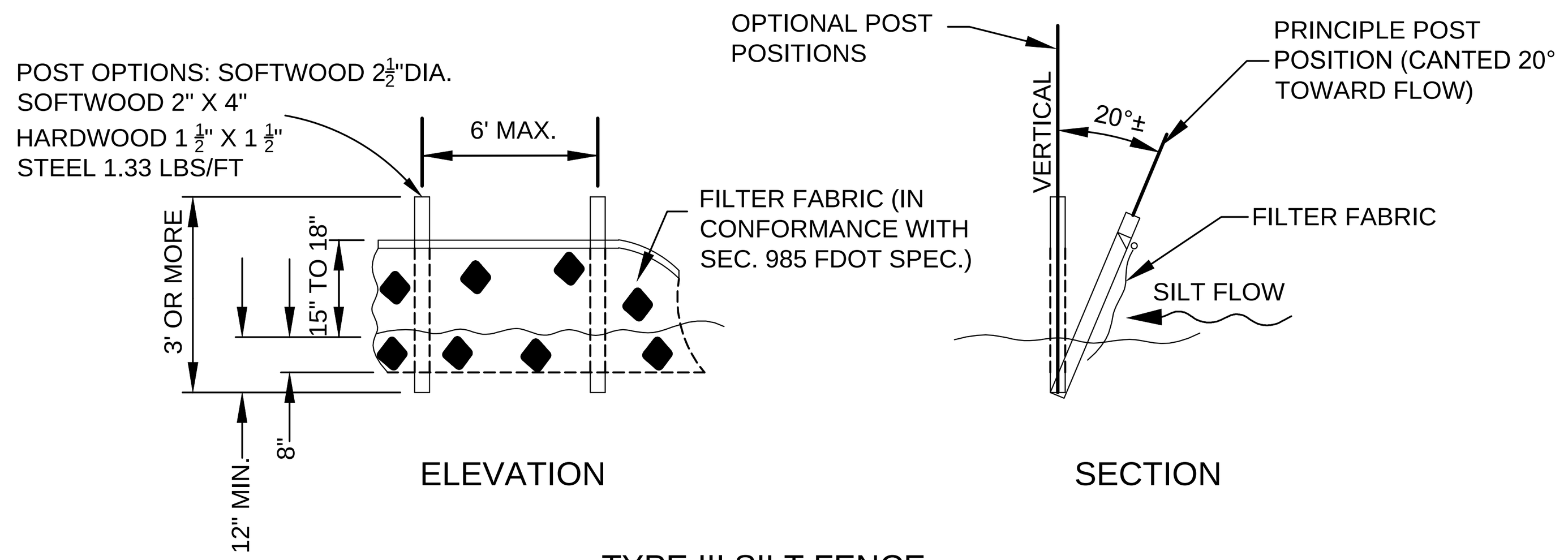
DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: APW	SECTION CHIEF: WRC

SIGN DETAILS

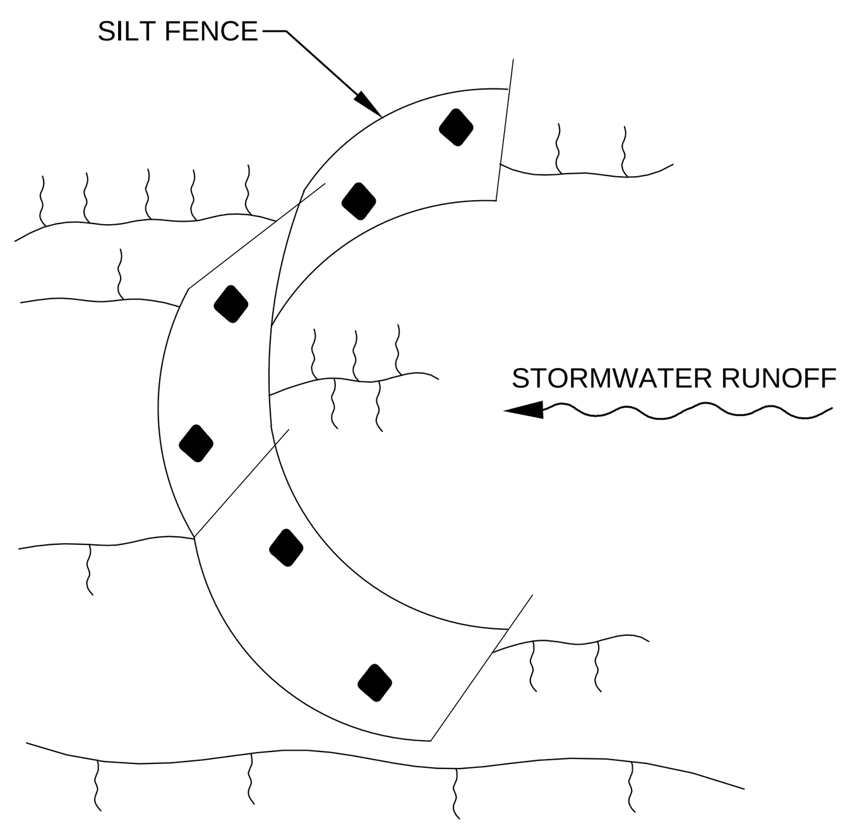
CERTIFICATION:

AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

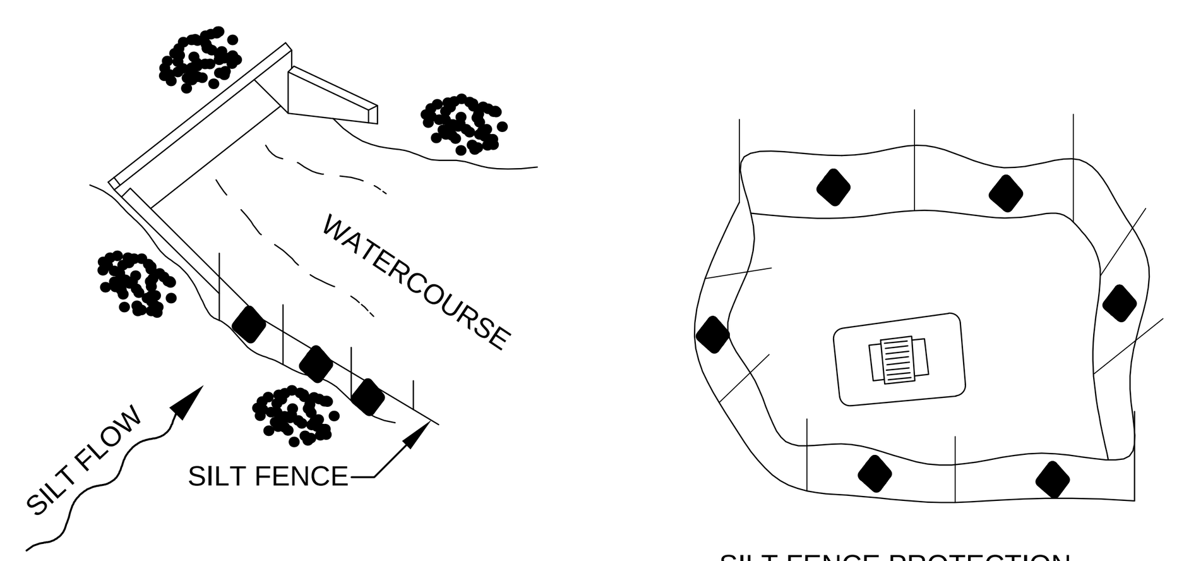
FILE NAME: C7SIGNDT.dwg
PROJECT NO.:
SHEET: C6



TYPE III SILT FENCE



SILT FENCE PROTECTION IN
DITCHES WITH INTERMITTENT FLOW



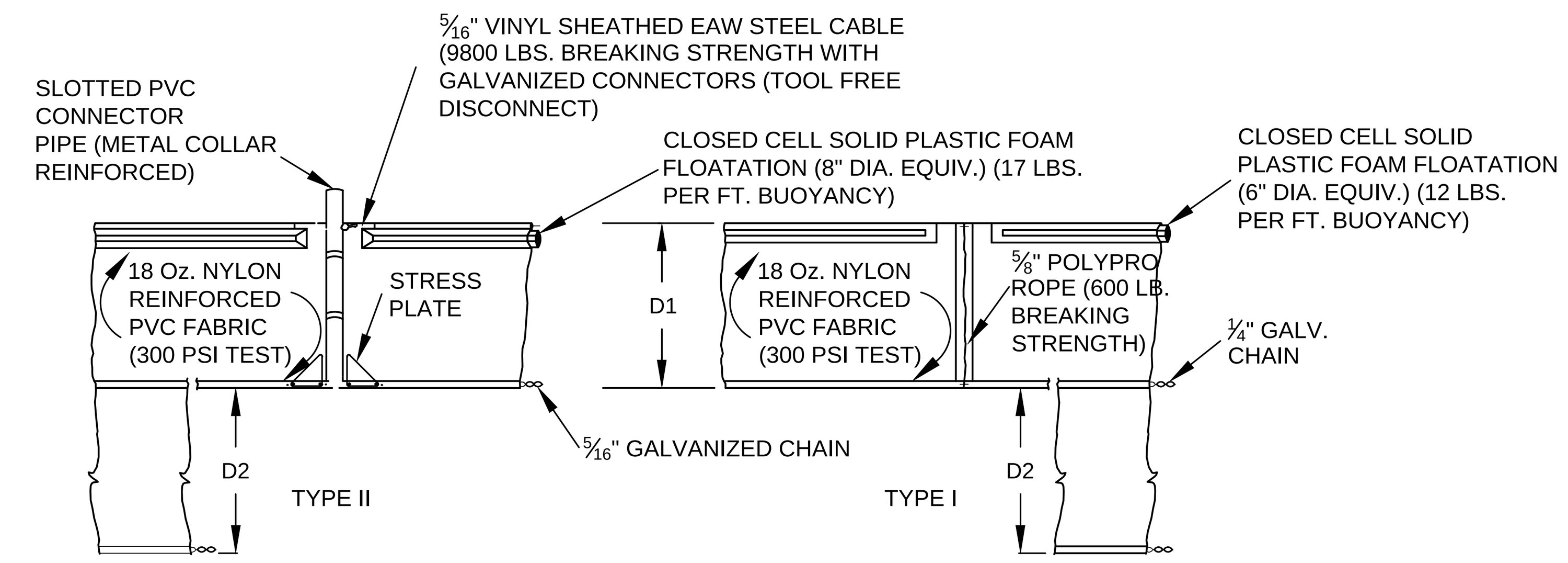
SILT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS

SILT FENCE APPLICATIONS

NOTES FOR SILT FENCES

1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH SECTION V OF THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (JULY 2013).
2. TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.
3. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
4. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.
5. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, (LF).

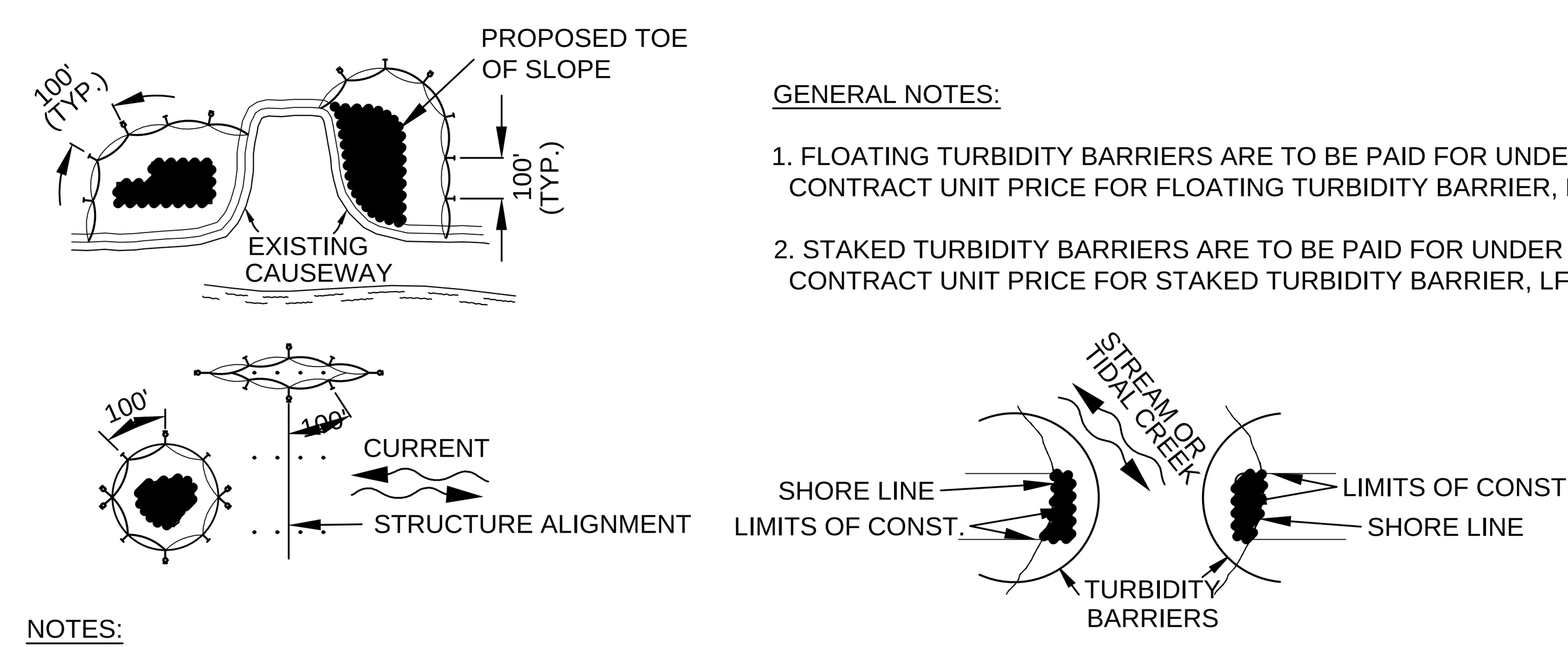
TEMPORARY SILT FENCE DETAIL
NOT TO SCALE



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 TYPE I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGN. 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.

FLOATING TURBIDITY BARRIERS
NOT TO SCALE



GENERAL NOTES:

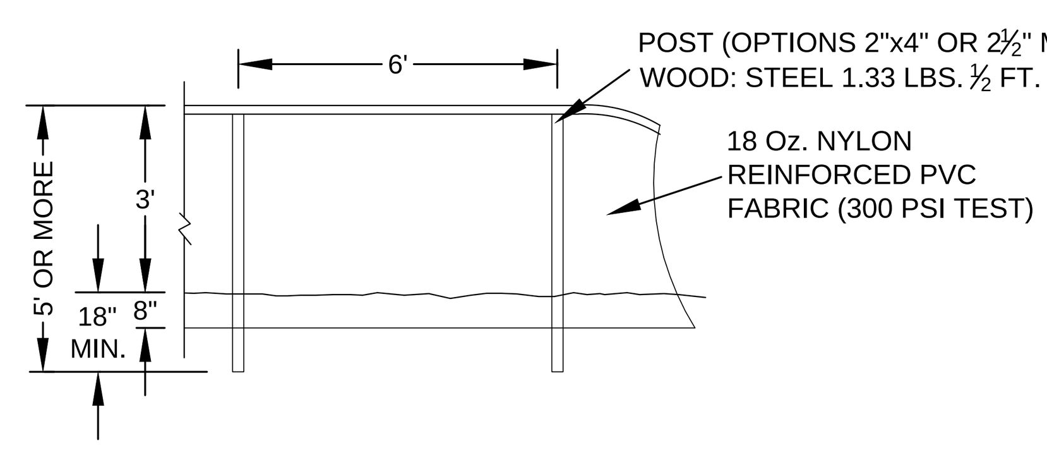
1. FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, LF.
2. STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, LF.

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. TURBIDITY BARRIERS SHALL CONFORM TO SECTION 104 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

LEGEND
- PILE LOCATIONS
- DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

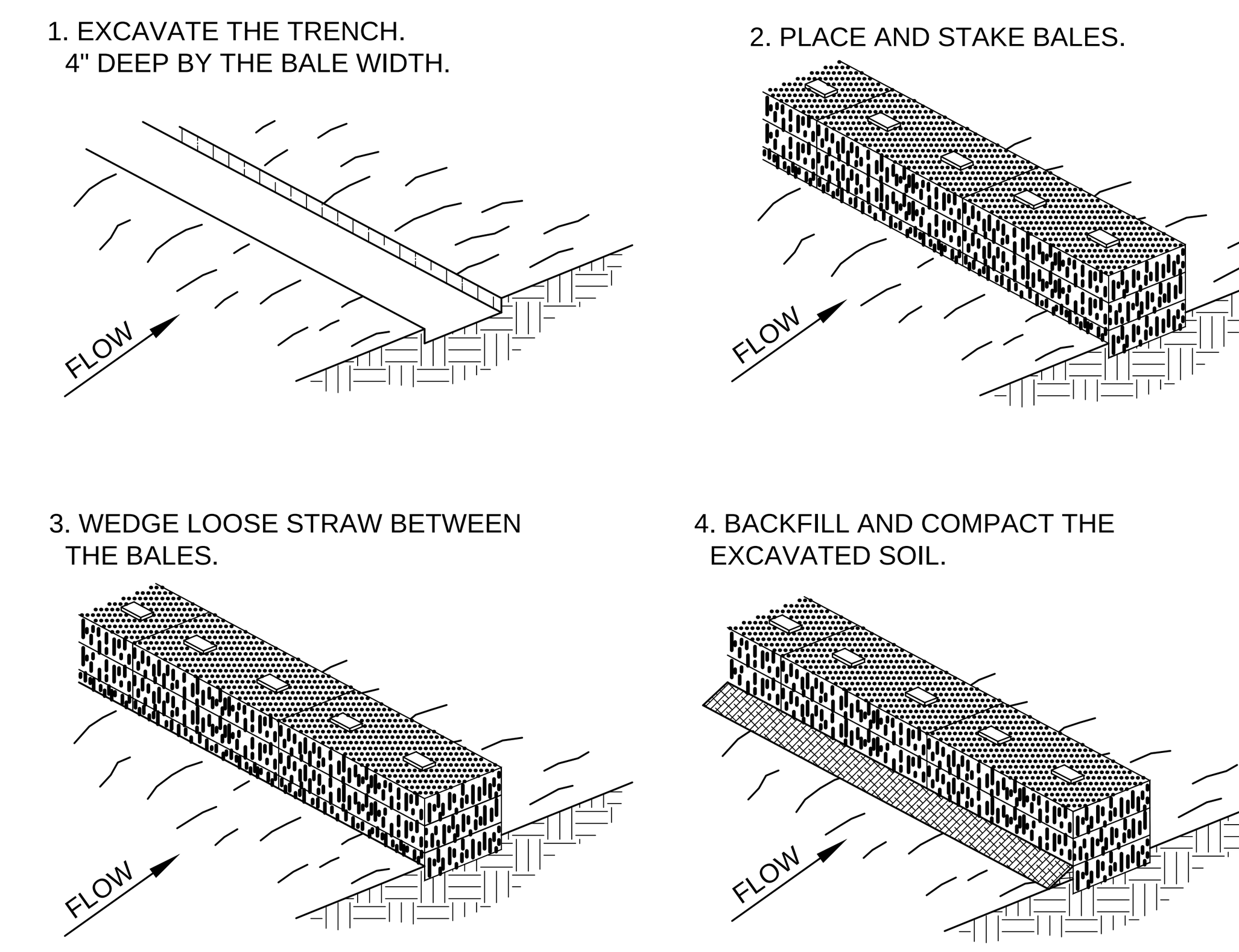
TURBIDITY BARRIER APPLICATIONS
NOT TO SCALE



STAKED TURBIDITY BARRIER
NOT TO SCALE

NOTES:

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 OPTIONS UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE DISTRICT.



NOTES:

1. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
2. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE BARRIER
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL WORK AT COMPLETION OF CONSTRUCTION.

2. ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.

3. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.

4. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

5. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.

6. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND GRASSED.

7. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS, PERMITS, AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT CRITERIA.

8. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6, LATEST EDITION.

9. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, WATERED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. GRASSING SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 570 AND 981 THRU 983 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITIONS. NOTE THAT OTHER GRASSING ALTERNATIVES MAY BE USED WITH PRIOR DISTRICT APPROVAL.

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

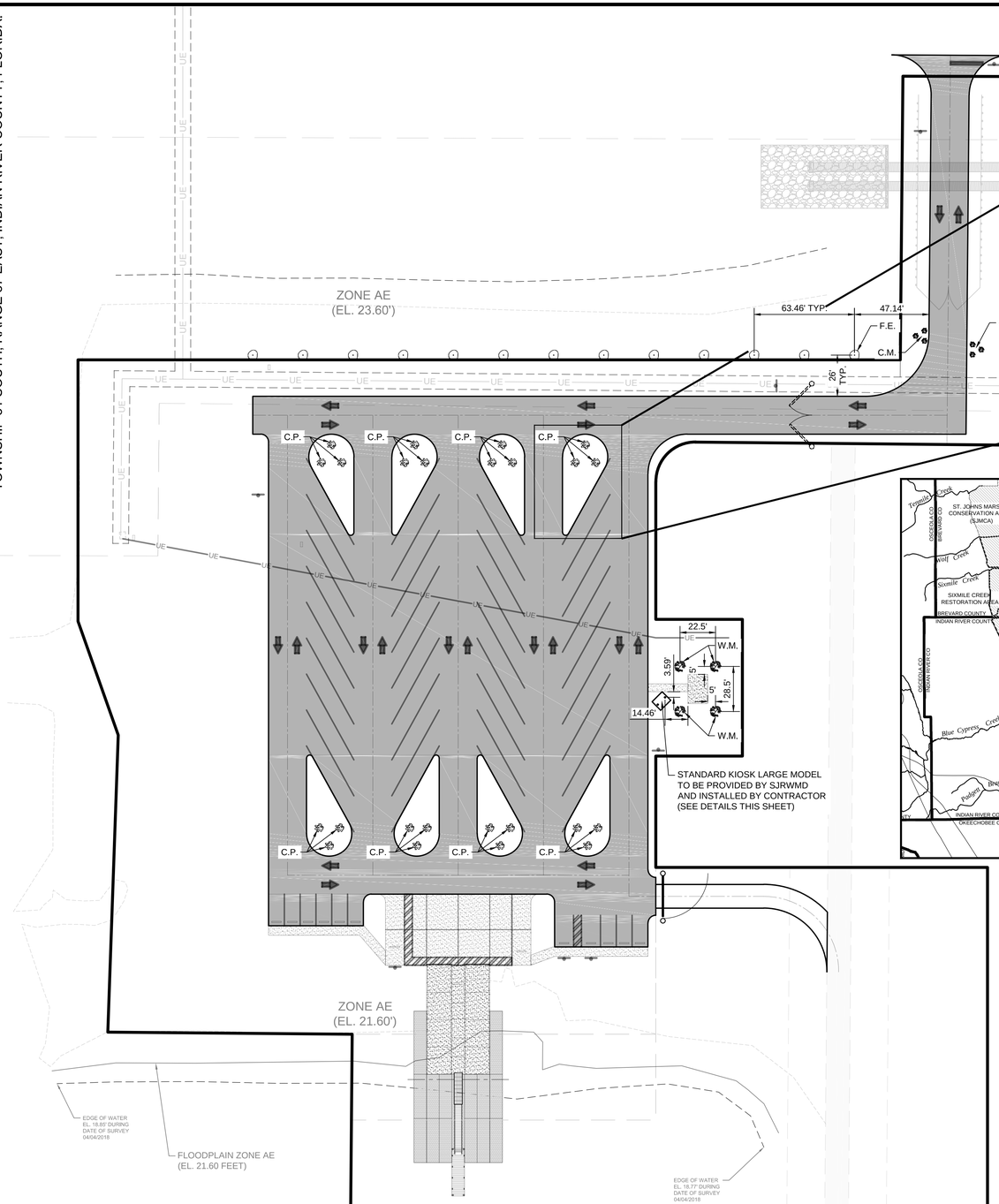
DRAWN: NJG | DATE: MAY 15, 2019 | REVIEWER: WRC
SCALE: AS NOTED | DESIGNER: APW | SECTION CHIEF: WRC

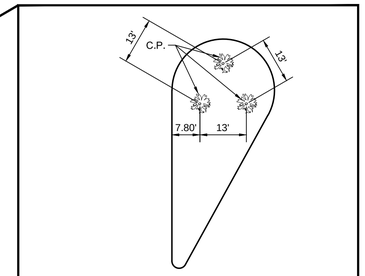
EROSION AND SEDIMENT CONTROL

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

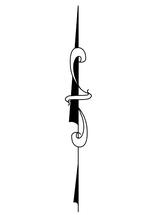
FILE NAME: C9HLBRES.dwg
PROJECT NO.:
SHEET: C7

TOWNSHIP 31 SOUTH, RANGE 36 EAST, INDIAN RIVER COUNTY, FLORIDA.
TOWNSHIP 31 SOUTH, RANGE 37 EAST, INDIAN RIVER COUNTY, FLORIDA.





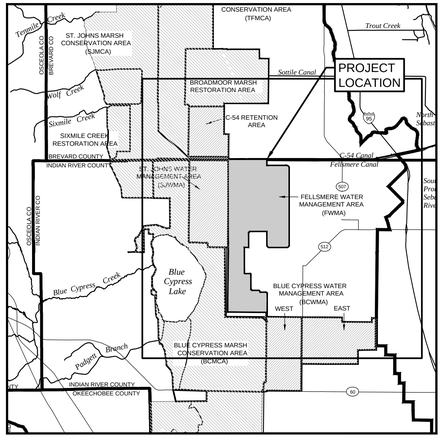
C8
1
ISLAND PLANTING DETAIL
SCALE: 1" = 20'



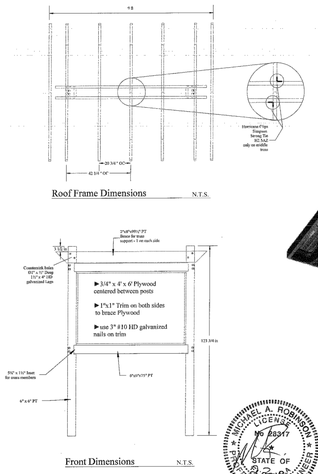
GRAPHIC SCALE
0 40 80
SCALE: 1" = 40'

LEGEND

- APPROXIMATE LOCATION OF EXIST. UNDERGROUND ELECTRIC LINE & 10' UTILITY EASEMENT
- EASEMENT PROPERTY
- EXISTING ELECTRICAL BOX
- EXISTING GUARD RAIL
- EXISTING RIP RAP
- EXISTING TRANSFORMER BOX
- PROPOSED ASPHALT
- EXISTING CONTOURS
- TOWNSHIP & RANGE
- CABBAGE PALM
- CRAPE MYRTLE
- FLORIDA ELM
- WAX MYRTLE



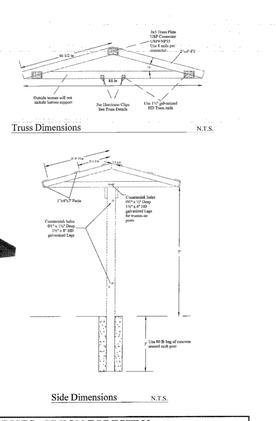
LOCATION MAP
NOT TO SCALE



GENERAL NOTES

►All wood is to be planed #2 or better Southern Yellow Pine, treated non arsenic

►Roof will be 36" Wide Master Rib 29 Ga., Mill Finish Galvalume Finish Galvalume roofing with metal crown and drip cap



PLANT SCHEDULE			
QUANTITY	SYMBOL	COMMON NAME	NOTES:
24	C.P.	CABBAGE PALM	
6	C.M.	CRAPE MYRTLE	
13	F.E.	FLORIDA ELM	
4	W.M.	WAX MYRTLE	

NOTES:

1. ALL ELEVATIONS SHOWN HEREON ARE REFERENCE TO NAVD(88).
2. ALL COORDINATES SHOWN HEREON ARE REFERENCE TO HPGN AND, PROJECTED TO FLORIDA EAST.
3. RTK GPS BASE BENCHMARK USED: SJRWMD 12-32-601-0
4. SUBMITTAL OF INCORRECT OR ERRONEOUS INFORMATION MAY RESULT IN A CHANGE OF RECOMMENDATION OR REQUIREMENTS TO BE APPROVED.

PROFESSIONAL ENGINEER:
AMY P. WRIGHT, P.E.
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429, PALATKA, FLORIDA

PROFESSIONAL SURVEYOR & MAPPER:
RICHARD GUILFOYLE, P.S. & M.
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429, PALATKA, FLORIDA

TRAFFIC PROFESSIONAL:
BRAIN GOOD, P.E.
KIMLEY HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, FLORIDA 3341

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE
2	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	04/23/19	APW	04/23/19
1	REVISED PER THE CITY OF FELLSMERE REVIEW COMMENTS.	NJG	10/19/18	APW	10/19/18

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

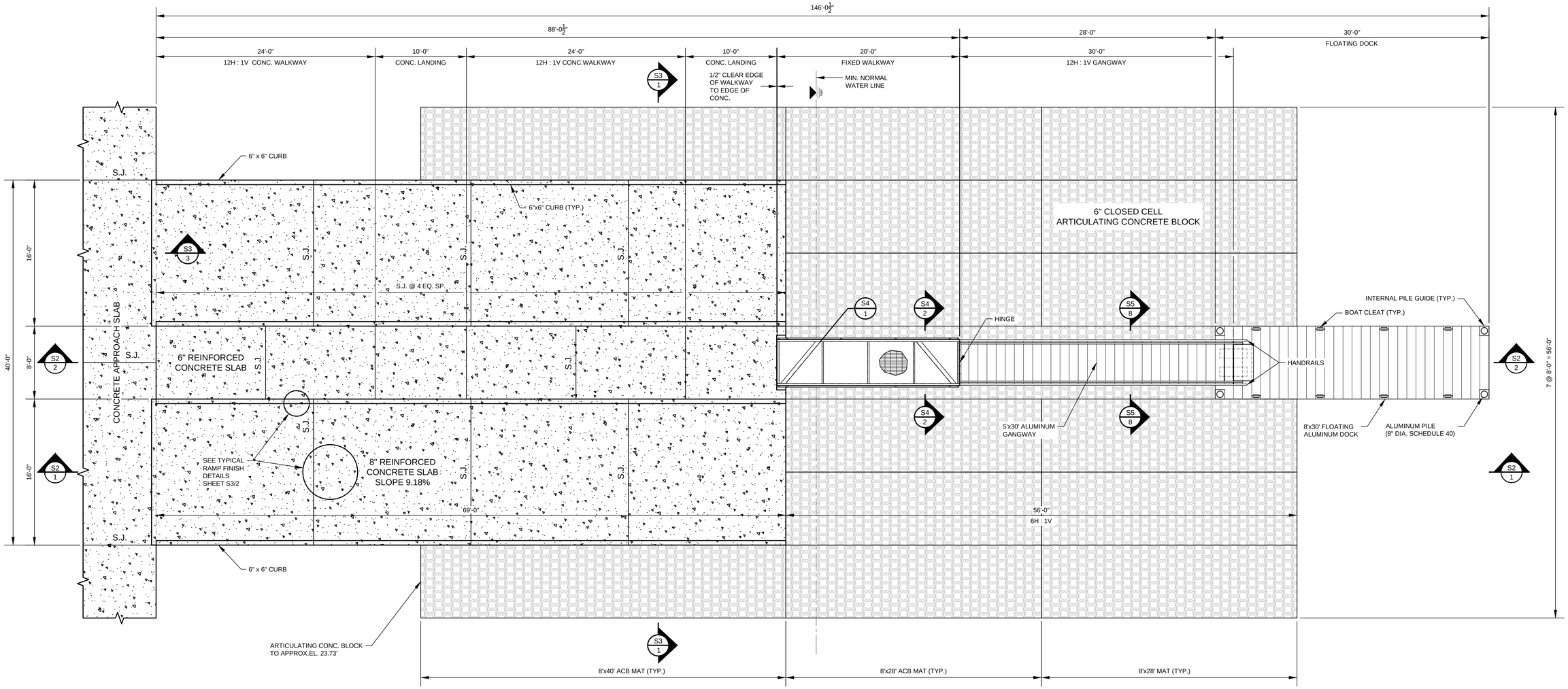
DRAWN: NJG | DATE: MAY 15, 2019 | REVIEWER: WRC
SCALE: 1" = 40' | DESIGNER: APW | SECTION CHIEF: WRC

LANDSCAPE PLAN

CERTIFICATION:
AMY POGUE WRIGHT
P.E. NUMBER: 54851
DATE: MAY 15, 2019

FILE NAME: C3HLSEPN.dwg
PROJECT NO.:
SHEET: C8

U:\Projects\CADD\JSRB\Fellsmere WMA 2018\HEADWATERS LAKE BOAT RAMP\CONSTRUCTION\C3HLSEPN.dwg



S1/1 BOAT RAMP PLAN

SCALE: 3/16" = 1'-0"

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NOT FOR CONSTRUCTION

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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
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INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: 3/16" = 1'-0"	DESIGNER: WRC	SECTION CHIEF: WRC

BOAT RAMP PLAN

CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: MAY 15, 2019

FILE NAME: S02HBRPL.dwg
PROJECT NO.:
SHEET: S1

S2
1
BOAT RAMP SECTION
SCALE: 3/16" = 1'-0"

S2
2
WALKWAY & FLOATING DOCK SECTION
SCALE: 3/16" = 1'-0"

FOR BID PURPOSES ONLY
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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
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ST. JOHNS RIVER
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P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: 3/16" = 1'-0"	DESIGNER: WRC	SECTION CHIEF: WRC

BOAT RAMP SECTIONS

CERTIFICATION:
WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: MAY 15, 2019

FILE NAME: S02HBRPL.dwg
PROJECT NO.:
SHEET: S2

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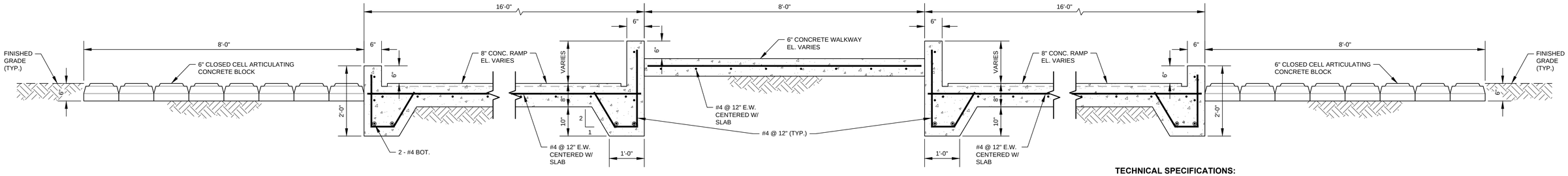
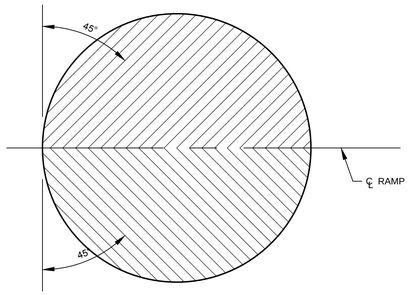
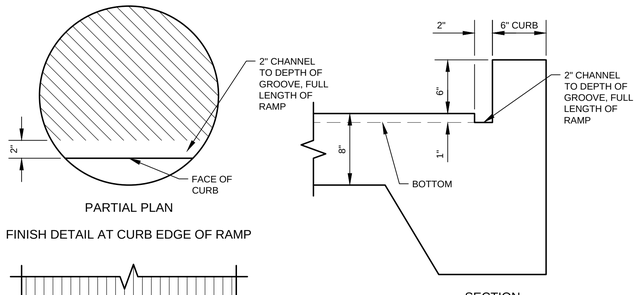


S3 / 1 RAMP/ WALKWAY SECTION

SCALE: 3/4" = 1'-0"



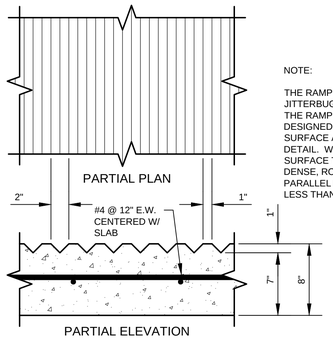
FINISH DETAIL AT CENTER OF RAMP
PARTIAL PLAN



PARTIAL PLAN

FINISH DETAIL AT CURB EDGE OF RAMP

SECTION



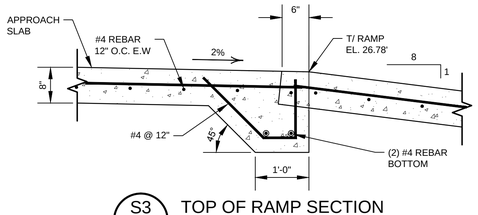
PARTIAL ELEVATION

NOTE:

THE RAMP SURFACE SHALL BE FINISHED BY JITTERBUGGING (VIBRATING A STEEL MESH INTO THE RAMP SURFACE). THE TOOL SHALL BE DESIGNED TO LEAVE A PATTERN IN THE RAMP SURFACE AS INDICATED IN SURFACE FINISH DETAIL. WHEN THE TOOL IS REMOVED FROM THE SURFACE THE RESULTING FINISH SHALL BE A DENSE, ROUGH SURFACE. THE SPACE BETWEEN PARALLEL ROUGH SURFACE FINISH SHALL BE NOT LESS THAN 2" NOR MORE THAN 3".

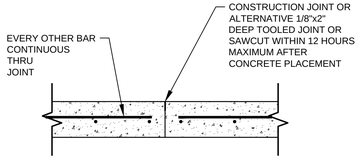
S3 / 2 TYPICAL RAMP FINISH DETAILS

SCALE: 1-1/2" = 1'-0"



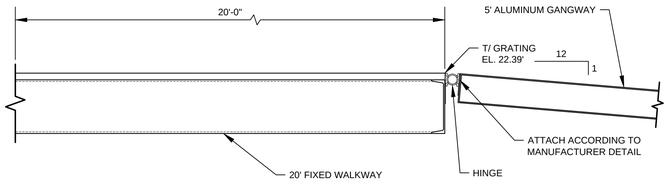
S3 / 3 TOP OF RAMP SECTION

SCALE: 3/4" = 1'-0"



S3 / 4 TYPICAL CONTROL JOINT (S.J.) DETAIL

SCALE: 3/4" = 1'-0"



S3 / 5 GANGWAY ATTACHMENT DETAIL

SCALE: 3/4" = 1'-0"

TECHNICAL SPECIFICATIONS:

SUBGRADE PREPARATION:

1. THE LIMITS OF SUBGRADE PREPARATION SHALL EXTEND A MINIMUM OF 10 FEET BEYOND THE EDGE OF THE CONCRETE RAMP.
2. THE EXPOSED SUBGRADE MATERIAL SHALL BE FREE OF ROOTS, LOGS, STUMPS, REFUSE, BRUSH, SOD, ORGANICS, ROCKS, DELETERIOUS MATERIAL, OR OTHER FRAGMENTS GREATER THAN 2 INCHES IN DIAMETER. THE SUBGRADE AND ANY AREAS TO RECEIVE FILL SHALL BE PROOF-ROLLED. PROOF-ROLLING SHALL CONTINUE UNTIL THE SUBGRADE IS FIRM AND NON-YIELDING. SOFT, WET, OR YIELDING AREAS OBSERVED DURING PROOF-ROLLING SHALL BE OVER-EXCAVATED AND BACKFILLED WITH APPROVED FILL. THE PREPARED SURFACE SHALL BE KEPT DRAINED PRIOR TO CONCRETE PLACEMENT TO MINIMIZE SATURATION FROM RAINFALL EVENTS. PROOF-ROLLING SHOULD OCCUR AFTER EXCAVATING TO DESIGN GRADES AND PRIOR TO ANY CONCRETE PLACEMENT.
3. THE PREPARED SUBGRADE SHALL BE COMPACTED WITH SELF-PROPELLED EQUIPMENT TO ACHIEVE AT LEAST 98 PERCENT OF THE MODIFIED PROCTOR (AASHTO T 180) MAXIMUM DRY DENSITY TO A MINIMUM DEPTH OF 1 FOOT BELOW THE BASE OF THE RAMP.

CONCRETE PAVEMENT SPECIFICATIONS:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, UNLESS OTHERWISE NOTED HEREIN. PERTINENT FDOT MATERIAL SPECIFICATION SECTIONS INCLUDE THE FOLLOWING:

   SECTION 346 - PORTLAND CEMENT CONCRETE
   SECTION 415 - REINFORCING STEEL
   SECTION 925 - CURING MATERIALS FOR CONCRETE
2. ALL CONCRETE SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. PORTLAND CEMENT SHALL BE TYPE II IN ACCORDANCE WITH ASTM C-150. CONCRETE SHALL BE AIR ENTRAINED WITH TOTAL AIR AS PERCENT BY VOLUME OF CONCRETE EQUAL TO 4%. THE AIR ENTRAINING ADMIXTURE SHALL BE MICRO AIR, AS MANUFACTURED BY MASTER BUILDERS, OR EQUAL, CONFORMING TO ASTM C-260. THE AGGREGATES SHALL CONFORM TO ASTM C-33 AND SHALL HAVE A 3/4-INCH MAXIMUM SIZE.
3. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A-615.
4. THE MINIMUM CLEAR CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES EXCEPT WHERE CAST AGAINST EARTH THE MINIMUM CLEAR COVER SHALL BE 3.5 INCHES.
5. REINFORCEMENT SPLICES WHERE THE LENGTHS ARE NOT INDICATED SHALL BE AS FOLLOWS:

BAR SIZE	SPLICE LENGTH (IN)
#4	24
6. THE CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN UNLESS OTHERWISE APPROVED BY THE DISTRICT.
7. TESTING:

   TESTING LABORATORY: CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING LABORATORY TO ACT AS ITS REPRESENTATIVE IN THE SAMPLING AND TESTING OF CONCRETE FURNISHED. THE LABORATORY'S INSPECTORS SHALL HAVE FREE ACCESS TO ALL POINTS WHERE CONCRETE MATERIALS ARE STORED, PROPORTIONED, MIXED OR PLACED.

   TESTING FREQUENCY: FOR EACH FIFTY (50) CUBIC YARDS OR PORTION THEREOF OF EACH CLASS OF CONCRETE PLACED EACH DAY, THE LABORATORY SHALL TAKE A SAMPLE FROM A BATCH OF ITS SELECTION AS THE CONCRETE IS BEING PLACED. NO WATER SHALL BE ADDED OR OTHER CHANGE MADE IN ANY BATCH AFTER IT HAS BEEN SAMPLED. IN ADDITION TO OTHER TESTS, THE LABORATORY WILL MAKE A SET OF THREE (3) STANDARD COMPRESSION CYLINDERS FROM EACH SAMPLE, ONE (1) OF WHICH WILL BE TESTED AT SEVEN (7) DAYS AND TWO (2) TESTS AT TWENTY-EIGHT (28) DAYS. CONTRACTOR WILL BE FURNISHED WITH A REPORT OF EACH TEST MADE. TESTING OF CONCRETE AT OTHER TIMES AS NEEDED BY CONTRACTOR WILL BE AT HIS EXPENSE, AND DISTRICT SHALL BE FURNISHED WITH A REPORT OF ALL SUCH TESTS MADE.

   TEST SCHEDULING: CONTRACTOR SHALL ADVISE THE LABORATORY WITH TWENTY-FOUR (24) HOURS ADVANCE NOTICE OF THE TIME AND LOCATION OF ALL CONCRETE PLACEMENT OR OTHERWISE MAKE ARRANGEMENTS WITH THE LABORATORY SO THAT SAMPLES MAY BE OBTAINED.

   COMPRESSION STRENGTH OF A SAMPLE SHALL BE DETERMINED BY THE AVERAGE OF THE TWO (2) CYLINDERS TESTED AT TWENTY-EIGHT (28) DAYS. COMPLIANCE WITH THE STRENGTH REQUIREMENTS OF THESE SPECIFICATIONS SHALL BE VERIFIED IF THE AVERAGE COMPRESSIVE STRENGTH OF THREE (3) CONSECUTIVE SAMPLES IS NOT LESS THAN THE SPECIFIED STRENGTH FOR THE CLASS OF CONCRETE, PROVIDED NO INDIVIDUAL SAMPLE SHALL HAVE A STRENGTH TEST RESULT THAT FALLS BELOW THE SPECIFIED STRENGTH BY MORE THAN FIVE HUNDRED (500) PSI. CONCRETE WHICH FAILS TO MEET STRENGTH REQUIREMENTS MAY BE FURTHER TESTED AS PROVIDED IN ACI 318 AT THE EXPENSE OF CONTRACTOR OR SHALL BE REMOVED AS DETERMINED BY DISTRICT'S PROJECT MANAGER.

ARTICULATING CONCRETE BLOCK:

1. THE ARTICULATING CONCRETE BLOCK MATS SHALL CONSIST OF 6-INCH CLOSED CELL BLOCK, ARMORFLEX CLASS 55-S AS MANUFACTURED BY CONTECH ENGINEERED SOLUTIONS, OR APPROVED EQUAL. ANY SUBSTITUTION SHALL SATISFY THE REQUIREMENTS OF SECTION 530 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL DRAWINGS DEPICTING DESIGN AND INSTALLATION DETAILS SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER.

FOR BID PURPOSES ONLY
NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: WRC	SECTION CHIEF: WRC

BOAT RAMP CONCRETE DETAILS

CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: MAY 15, 2019

FILE NAME: S02HBRPL.dwg
PROJECT NO.:
SHEET: S3

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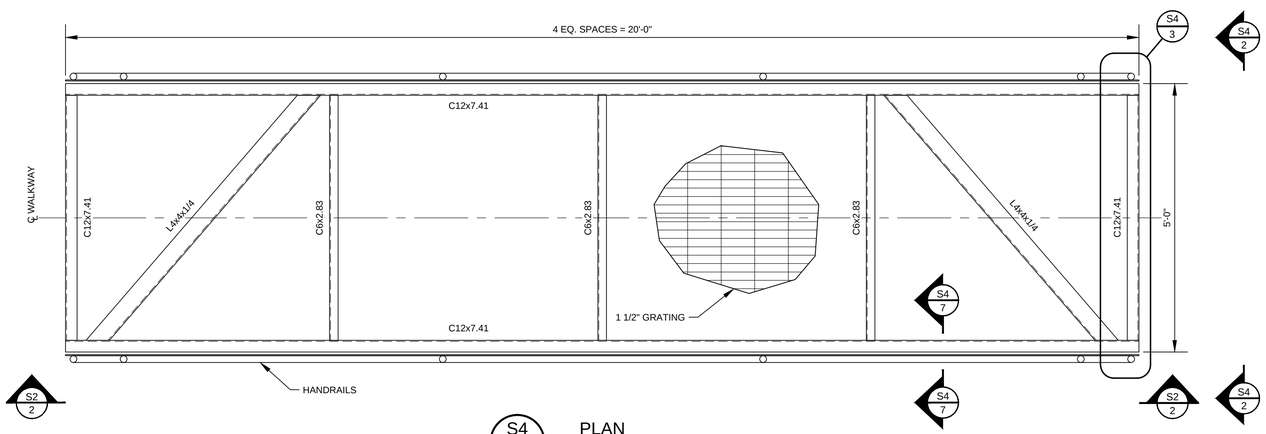
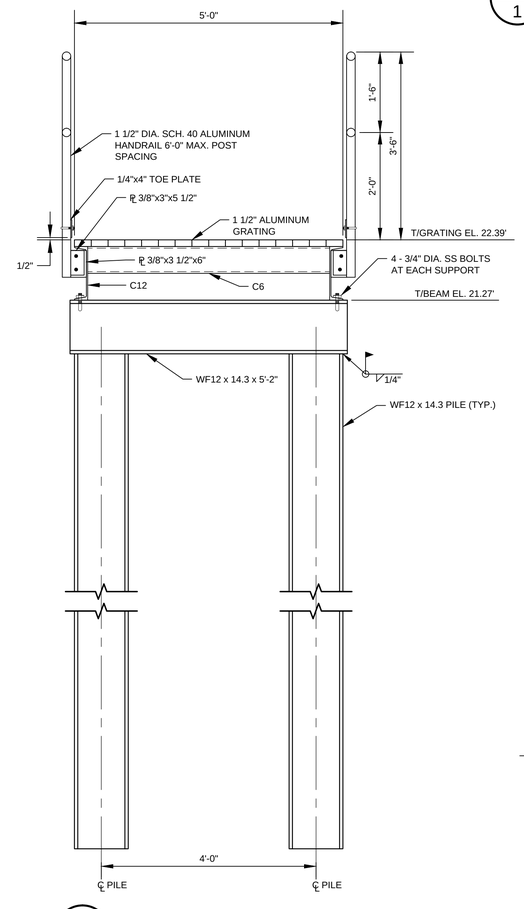


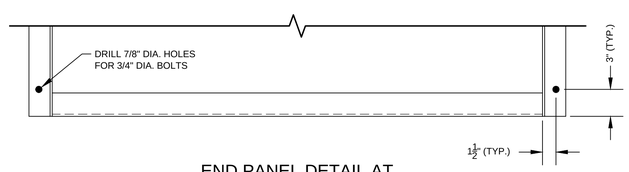
S4 / 1 PLAN

SCALE: 3/4" = 1'-0"



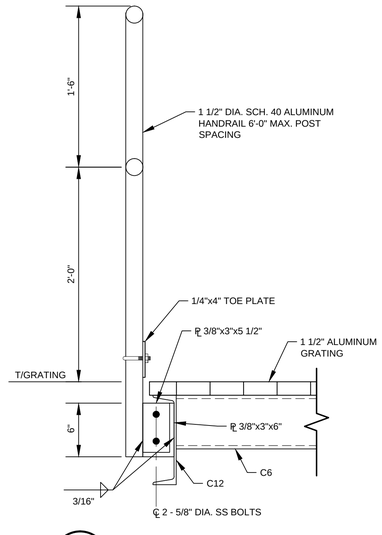
S4 / 2 TYPICAL SECTION

SCALE: 3/4" = 1'-0"



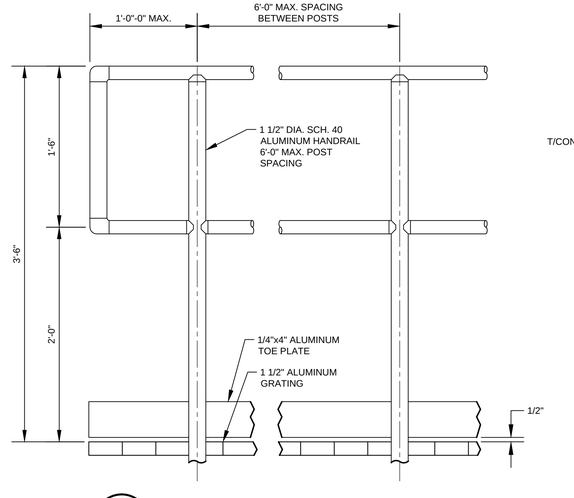
S4 / 3 END PANEL DETAIL AT CONCRETE FOOTING ONLY

SCALE: 1 1/2" = 1'-0"



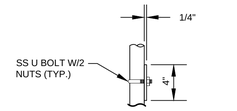
S4 / 6 HANDRAIL DETAIL

SCALE: 1 1/2" = 1'-0"



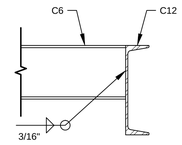
S4 / 7 TYPICAL HANDRAIL END DETAIL

SCALE: 1 1/2" = 1'-0"



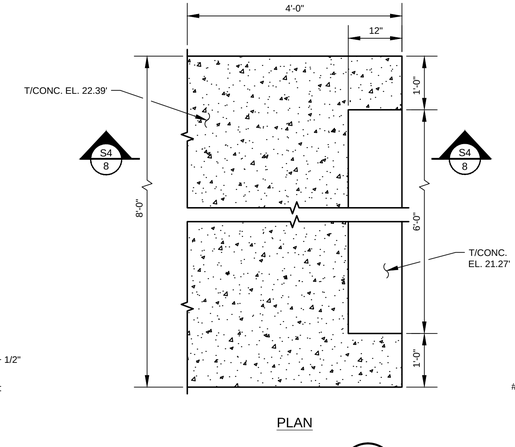
S4 / 4 TOE PLATE DETAIL

SCALE: 1 1/2" = 1'-0"



S4 / 5 TYPICAL C6 BEAM CONNECTION

SCALE: 1 1/2" = 1'-0"



S4 / 8 WALKWAY FOOTING DETAIL

SCALE: 3/4" = 1'-0"

NOTE SPECIFICATIONS:

CONCRETE:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 400 WITH SUPPLEMENTS AND ALL PERTINENT SPECIFICATIONS CONTAINED THEREIN.
2. ALL CONCRETE SHALL ATTAIN WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. PORTLAND CEMENT SHALL BE TYPE II IN ACCORDANCE WITH ASTM C-150. THE AGGREGATES SHALL CONFORM TO ASTM C-33 AND SHALL HAVE A 3/4-INCH MAXIMUM SIZE.
3. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A-615.
4. THE MINIMUM CLEAR CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES FOR CONCRETE CAST AGAINST EARTH AND 2 INCHES ELSEWHERE, UNLESS OTHERWISE NOTED.
5. CONCRETE ANCHORS SHALL UTILIZE THE HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM, OR EQUAL. THREADED ANCHOR RODS, SHALL BE ¾" DIA. X 8-1/2" LONG HAS-R 316 STAINLESS STEEL WITH A MINIMUM EMBEDMENT DEPTH OF 6-3/4". NUTS AND WASHERS SHALL ALSO BE SS-316.

STRUCTURAL ALUMINUM NOTE SPECIFICATIONS:

1. STRUCTURAL ALUMINUM DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION, INC. "SPECIFICATIONS FOR ALUMINUM STRUCTURES", LATEST EDITION.
2. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE - ALUMINUM" AWS D1.2.
3. ALUMINUM STRUCTURAL SHAPES SHALL BE NEW AND CONSIST OF ALLOY 6061-T6 CONFORMING TO THE REQUIREMENTS OF THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) STANDARD B308.
4. ALUMINUM BARS, RODS, AND WIRE SHALL BE NEW AND CONSIST OF ALLOY 6061-T6 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B211.
5. ALUMINUM PLATE SHALL BE NEW AND CONSIST OF ALLOY 5052-H32 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B209.
6. ALL BOLTS, NUTS, AND WASHERS SHALL CONSIST OF SS316 STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM STANDARDS F593 AND F594.
7. ALL WELDING SHALL UTILIZE ER4043 FILLER ALLOY AND SHALL BE SHOP WELDED TO THE GREATEST EXTENT POSSIBLE.
8. THE MINIMUM THICKNESS OF ALL CONNECTION ANGLES AND GUSSET PLATES SHALL BE ¼-INCH UNLESS NOTED OTHERWISE.
9. FIELD CORRECTING OF FABRICATED COMPONENTS SHALL NOT BE PERMITTED ON STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.

FOR BID PURPOSES ONLY
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NO.	REVISION	BY	DATE	APPROVED	DATE

UPPER ST. JOHNS RIVER BASIN
HEADWATERS LAKE BOAT RAMP
INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: WRC	SECTION CHIEF: WRC

FIXED WALKWAY DETAILS

CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: MAY 15, 2019

FILE NAME: S02HBRPL.dwg
PROJECT NO.:
SHEET: S4

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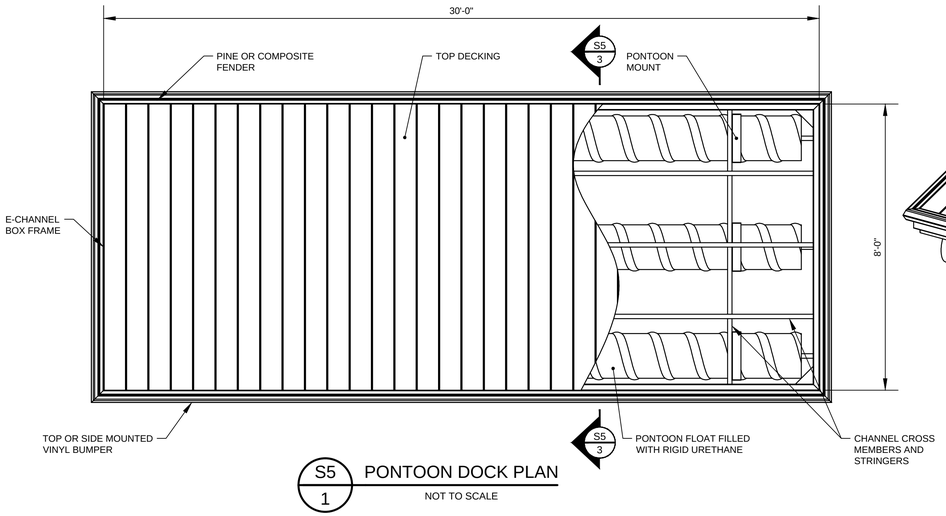
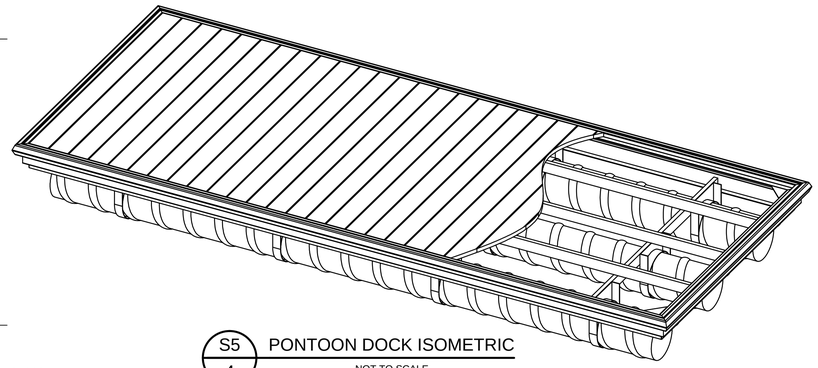


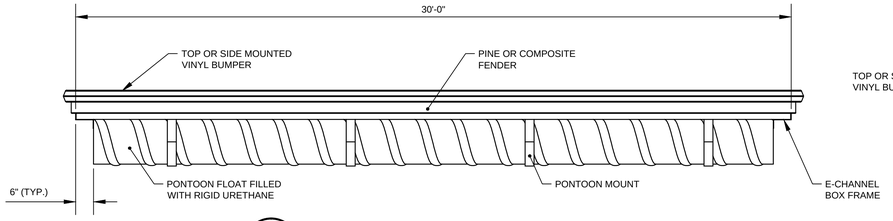
S5 1 PONTOON DOCK PLAN

NOT TO SCALE



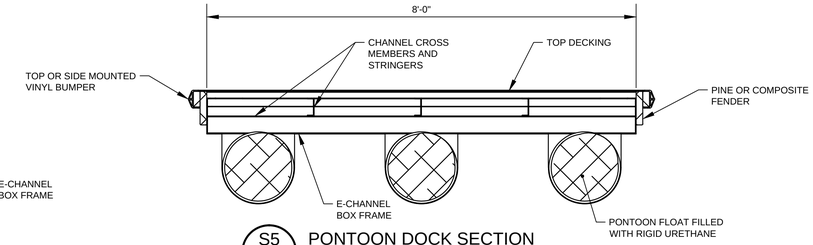
S5 4 PONTOON DOCK ISOMETRIC

NOT TO SCALE



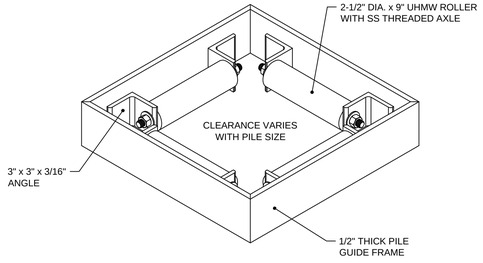
S5 2 PONTOON DOCK ELEVATION

NOT TO SCALE



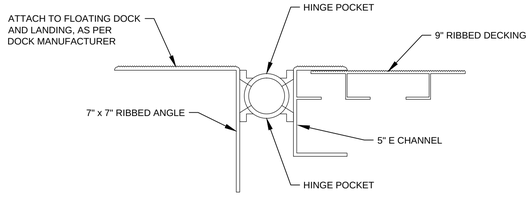
S5 3 PONTOON DOCK SECTION

NOT TO SCALE



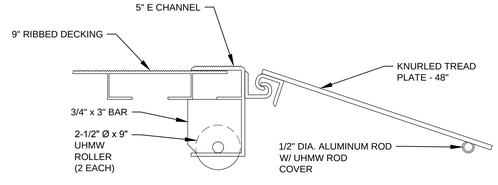
S5 5 4-ROLLER INTERNAL PILE GUIDE

NOT TO SCALE



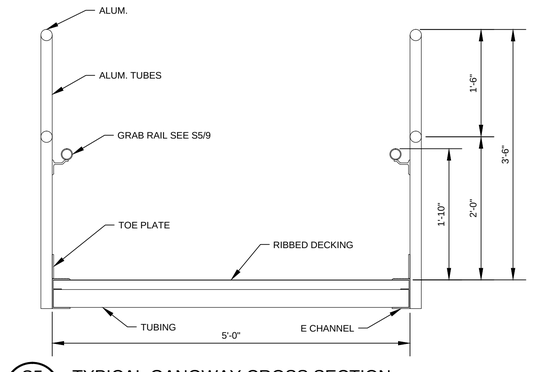
S5 6 DOCK SIDE HINGE DETAIL

SCALE: 3" = 1'-0"



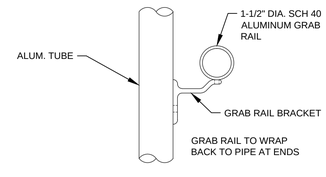
S5 7 TREAD PLATE END DETAIL

SCALE: 3" = 1'-0"



S5 8 TYPICAL GANGWAY CROSS SECTION

SCALE: 1" = 1'-0"



S5 9 GRAB RAIL DETAIL

SCALE: 3" = 1'-0"

GENERAL DESIGN NOTES:

1. THE DESIGN LIVE LOAD FOR THE GANGWAY, LANDINGS, AND FLOATING DOCK SHALL BE 50 PSF.
2. THE FLOATING DOCK SHALL BE THE PONTOON TYPE WITH FLOATATION UNITS CONSISTING OF MARINE GRADE ALUMINUM CULVERTS WITH A POLYURETHANE CORE.
3. DOCK FLOATATION SHALL BE SUFFICIENT TO MAINTAIN A STABLE DECK SURFACE 18 INCHES ABOVE THE WATER SURFACE.
4. THE LAYOUT SHOWN ON THE DRAWINGS ARE THE MINIMUM REQUIREMENTS. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR FINAL APPROVAL, SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL DEPICT ALL DETAILS AND MATERIALS REQUIRED FOR THE COMPLETE INSTALLATION OF THE GANGWAY, LANDINGS, AND FLOATING DOCK INCLUDING ALL MISCELLANEOUS ITEMS SUCH AS FENDERS, BUMPERS, CLEATS, RAILINGS, PILES, AND PILE GUIDES.

STRUCTURAL ALUMINUM NOTE SPECIFICATIONS:

1. STRUCTURAL ALUMINUM DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION, INC. "SPECIFICATIONS FOR ALUMINUM STRUCTURES", LATEST EDITION.
2. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE - ALUMINUM" AWS D1.2.
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5. ALUMINUM PLATE SHALL BE NEW AND CONSIST OF ALLOY 5052-H32 CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD B209.
6. ALL BOLTS, NUTS, AND WASHERS SHALL CONSIST OF SS316 STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM STANDARDS F593 AND F594.
7. ALL WELDING SHALL UTILIZE ER4043 FILLER ALLOY AND SHALL BE SHOP WELDED TO THE GREATEST EXTENT POSSIBLE.
8. THE MINIMUM THICKNESS OF ALL CONNECTION ANGLES AND GUSSET PLATES SHALL BE ¼-INCH UNLESS NOTED OTHERWISE.
9. FIELD CORRECTING OF FABRICATED COMPONENTS SHALL NOT BE PERMITTED ON STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
10. ALUMINUM NON-SLIP DECKING SHALL CONSIST OF ALUMINUM ALLOY 6061--T6
11. THE HANDRAIL POSTS AND RAILS SHALL BE MINIMUM 1-1/2 INCH DIAMETER SCHEDULE 40 PIPE (UNLESS OTHERWISE NOTED) FORMED FROM EXTRUDED 6063-T6 ALUMINUM EXCEPT THAT FORMED ELBOWS SHALL BE 6063-T4 ALUMINUM. THE MAXIMUM POST SPACING SHALL BE 6'-0" CENTER TO CENTER.

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UPPER ST. JOHNS RIVER BASIN
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INDIAN RIVER COUNTY, FLORIDA

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT
P.O. BOX 1429 PALATKA, FLORIDA

DRAWN: NJG	DATE: MAY 15, 2019	REVIEWER: WRC
SCALE: AS NOTED	DESIGNER: WRC	SECTION CHIEF: WRC

FLOATING DOCK AND GANGWAY DETAILS

CERTIFICATION:

WILLIAM R. COTE
P.E. NUMBER: 53746
DATE: MAY 15, 2019

FILE NAME: S02HBRPL.dwg
PROJECT NO.:
SHEET: S5