



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8915

February 5, 2019

Regulatory Division
West Branch
Tampa Permits Section

PUBLIC NOTICE

Permit Application Number SAJ-2019-00104 (SP-CSH)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403) as described below:

APPLICANT: City of Clermont
Attn: Stoney Bruson
400 12th Street
Clermont, Florida 34711

WATERWAY AND LOCATION: The project would affect waters of the United States associated with Lake Minneola. The project site is located northeast of the City of Clermont Waterfront Park, on the south side of Lake Minneola at 5 2nd Street, in Section 23, Township 22 South, Range 25 East, Lake County, Florida.

Directions to the site are as follows: From I-4E, take exit 38 for FL-33, turn left onto FL-33N / Commonwealth Ave; turn right onto County Road 561; turn left onto 12th Street; turn right onto FL-50E; turn left onto East Ave; turn left onto Palm Street; turn right onto 2nd Street; project site is on the right

APPROXIMATE CENTRAL COORDINATES: Latitude 28.563049°N
Longitude 81.757322°W

PROJECT PURPOSE:

Basic: Recreation

Overall: Construct a public boat ramp to provide regional access to Lake Minneola and surrounding lakes for the residents of the City of Clermont and Lake County

EXISTING CONDITIONS: The impact area is to the shoreline of Lake Minneola. The littoral zone is dominated by herbaceous plant species. The dominant species is the non-native torpedo grass (*Panicum repens*). Other minor species observed included duck potato (*Sagittaria lancifolia*), marsh pennywort (*Hydrocotyle umbellata*) and

alligator weed (*Alternanthera philoxeroides*). Primrose willow (*Ludwigia peruviana*) is scattered along the shoreline.

PROPOSED WORK: The applicant seeks authorization to construct a four-lane concrete boat ramp and floating dock on the south side of Lake Mineola. The proposed ramp is 78 feet wide and 114 feet long.

The floating dock will be located on the northeast side of the boat ramp. The floating dock will be 96 feet long, 46 feet wide and consist of a 25 foot gangway and six docking structures.

The proposed concrete boat ramp will impact the littoral zone of Lake Minneola. The total size of the boat ramp will be 8,892 square feet. The ramp will result in 0.155 acres (6,764 square feet) of permanent wetland impacts.

AVOIDANCE AND MINIMIZATION INFORMATION: The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

Four swales are proposed between the parking area and the lake edge. The swales will be located in the uplands, landward of the wetland line. The applicant will install floating turbidity curtains around the work area, which will remain in place until construction is completed, soils are stabilized and vegetation has been established.

COMPENSATORY MITIGATION: The applicant has offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

The project site is within the Palatlahaha River Nested basin. The combined functional loss for the project includes direct impacts (0.093) and secondary impacts (0.18), for a total of 0.273. The applicant is proposing to purchase 0.27 credits at Hammock Lake Mitigation Bank.

CULTURAL RESOURCES: The Corps is not aware of any known historic properties within the permit area. By copy of this public notice, the Corps is providing information for review. Our final determination relative to historic resource impacts is subject to review by and coordination with the State Historic Preservation Officer and those federally recognized tribes with concerns in Florida and the Permit Area.

ENDANGERED SPECIES: The Corps has determined the proposed project may affect, but is not likely to adversely affect the Florida scrub jay (*Aphelocoma c. coerulescens*), Wood stork (*Mycteria Americana*), Sand Skinks (*Neoseps reynoldsi*), or Eastern Indigo Snake (*Drymarchon corais couperi*). The Corps will request U.S. Fish and Wildlife Service concurrence with this determination pursuant to Section 7 of the Endangered Species Act.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery Conservation and Management Act 1996. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or Federally managed fisheries. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has not been verified by Corps personnel.

AUTHORIZATION FROM OTHER AGENCIES: Water Quality Certification may be required from the Florida Department of Environmental Protection and/or one of the state Water Management Districts.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Tampa Permits Section within 21 days from the date of this notice. For electronic mail (preferred) submit comments to Caitlin.S.Hoch@usace.army.mil. For standard mail submit comments to 10117 Princess Palm Avenue, Suite 120, Tampa, Florida 33610-8302. Please reference this permit number, SAJ- 2019-00104 (SP-CSH), on all submittals.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Caitlin Hoch-Nussbaum, in writing at the Tampa Permits Section, 10117 Princess Palm Avenue, Suite 120, Tampa, Florida 33610; by electronic mail at Caitlin.S.Hoch@usace.army.mil; or, by telephone at (813) 355-0789.

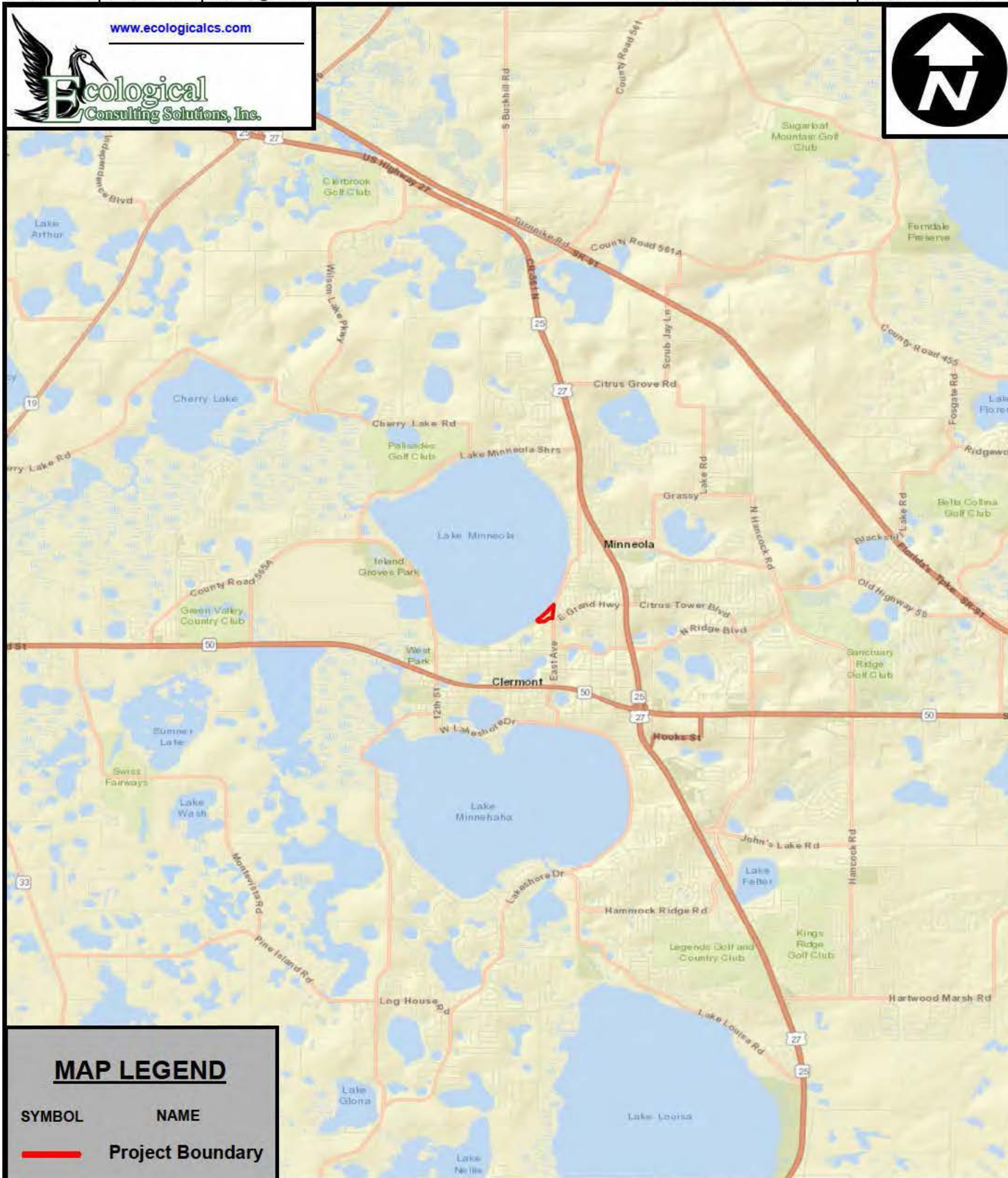
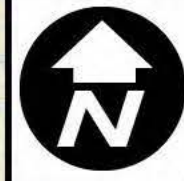
IMPACT ON NATURAL RESOURCES: Preliminary review of this application indicates that an Environmental Impact Statement will not be required. Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area. By means of this notice, we are soliciting comments on the potential effects of the project on threatened or endangered species or their habitat

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act of the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972. A permit will be granted unless its issuance is found to be contrary to the public interest.

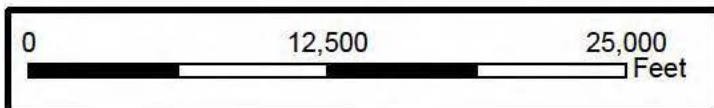
The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board, in the Virgin Islands, the Department of Planning and Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.



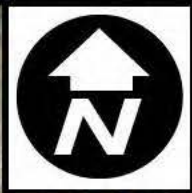
PROJECT #: 504.12.18	DATE: 05/23/18	FIGURE #: 1
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

**BELL CERAMICS PROPERTY
LAKE COUNTY, FLORIDA
PROJECT SITE LOCATION MAP**

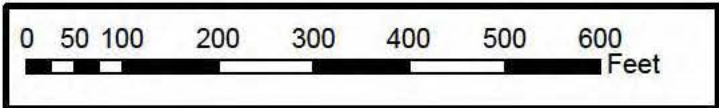


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MAP LEGEND

SYMBOL	NAME
	Project Boundary
	Wetland Boundary

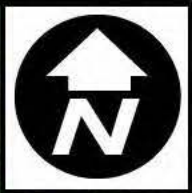


PROJECT #: 504.12.18 | DATE: 05/23/18 | FIGURE #: 4




**BELL CERAMICS PROPERTY
LAKE COUNTY, FLORIDA
WETLAND MAP**

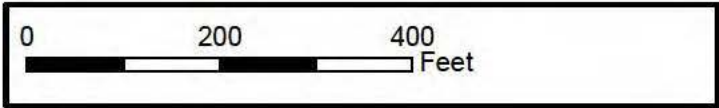


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MAP LEGEND

SYMBOL	NAME
	Project Boundary
	Direct Impact (0.158 Acres)
	Secondary Impact (2.587 Acres)



PROJECT #: 504.12.18 | DATE: 12/12/18 | FIGURE #: 5

**BELL CERAMICS PROPERTY
LAKE COUNTY, FLORIDA
SECONDARY IMPACT MAP**

CONSTRUCTION PLANS

FOR

NEW CLERMONT PUBLIC BOAT RAMP



SECTION 23, TOWNSHIP 22 S, RANGE 25 E
CLERMONT, FLORIDA



Owner:
CITY OF CLERMONT
685 West Montrose Street
Clermont, FL 34711
Phone: (352) 241-7335 Fax: (352) 394-2379

Engineer/Planner:
BOOTH, ERN, STRAUGHAN, & HIOTT, INC.
902 North Sinclair Avenue
Tavares, FL 32778
Phone: (352) 343-8481 Fax: (352) 343-8495
DUANE K. BOOTH, P.E.

City of Clermont City Council

Council Member Timothy Bates Seat 1
Council Member Ray Goodgame Seat 2
Mayor Gail L. Ash Seat 3
Council Member Heidi Brishke Seat 4
Mayor Pro Tem Diane Travis Seat 5

Sheet List Table

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5	SITE GEOMETRY PLAN
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7	UTILITY PLAN
8	BOAT RAMP DETAILS
9	BOAT RAMP DETAILS
10	BOAT RAMP NOTES

NEW CLERMONT PUBLIC BOAT RAMP
CITY OF CLERMONT, FLORIDA

COVER SHEET



DATE: 11/19/2018
DESIGNED BY: RES
DRAWN BY: RES
CHECKED BY: DKB
JOB NO.:
FILE NAME:
SHEET NO: 1

DUANE K. BOOTH
P.E. NO. 54013

FILENAME: S:\00\City of Clermont\031004-0120 Clermont Public Boat Ramp Concepts\ConstructionPlans\031004-0120 GK.dwg PLOT DATE: Friday, November 18, 2016 PLOTTED BY: Robert Schwarz

GENERAL PROJECT DATA

FOR IDENTIFICATION OF CONTRACTUAL AGREEMENTS, THIS SET OF DRAWINGS IS DATED 01/08/2018. ANY REVISIONS THEREAFTER WILL BE NOTED AND DATED ON THE AFFECTED DRAWING(S).

PRIOR TO THE COMMENCEMENT OF ANY WORK, A PRECONSTRUCTION MEETING WITH THE CITY OF CLERMONT IS REQUIRED. THE CITY OF CLERMONT SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF MAJOR PHASES OF CONSTRUCTION.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEMS

THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF W.R.A. PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS. THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS IN THE DRAINAGE COSTS OF THE CONTRACT TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.

THE UTILITIES ARE THE PROPERTY OF THE FOLLOWING:

WATER CITY OF CLERMONT UTILITIES DEPARTMENT 685 WEST MONTROSE STREET CLERMONT, FL 34711 (352) 241-7355	POWER DUKE ENERGY P.O. BOX 120069 CLERMONT, FL 34712 (800) 432-4770	POWER SUMTER ELECTRIC 293 S. US HIGHWAY 301 SUMTERVILLE, FL 33585 (352) 357-9600
SEWER CITY OF CLERMONT UTILITIES DEPARTMENT 685 WEST MONTROSE STREET CLERMONT, FL 34711 (352) 241-7355	CABLE BRIGHT HOUSE NETWORKS 1617 E HIGHWAY 50 CLERMONT, FL 34711 (352) 394-5541	GAS LAKE APOPKA NATURAL GAS DISTRICT 676 W. MONTROSE STREET CLERMONT, FL 34711 (352) 394-3480 (800) 432-4770
TELEPHONE CENTURYLINK 280 CITRUS TOWER BLVD. CLERMONT, FL 34711 (800) 672-6242	TELEPHONE AT&T 1-800-222-3000	

ASBUILTS

THE ENGINEER SHALL DELIVER ASBUILT DRAWING PLANS IN DWG FORMAT IN AUTOCAD FILES VERSION 2000 TO 2016. STANDARD TRANSFER MEDIA WILL BE ACCEPTED. THIS MEDIA INCLUDES CD OR DVD. ALL ASBUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED AND DATED BY THE RESPONSIBLE PARTY. SEE INDIVIDUAL SECTIONS (STORM, WATER SYSTEM, ETC.) FOR ADDITIONAL ASBUILT REQUIREMENTS.

THE ENGINEER SHALL DELIVER ONE SCANNED SET OF APPROVED ASBUILT DRAWING PLANS. THE SCANNED SETS SHALL BE COMPLETE AND INCLUDE THE TITLE SHEET, PLAN/PROFILE SHEETS, CROSS-SECTIONS AND DETAILS. EACH INDIVIDUAL SHEET CONTAINED IN THE PRINTED SET OF THE DRAWINGS SHALL BE INCLUDED IN THE ELECTRONIC SUBMITTAL, WITH EACH SHEET BEING CONVERTED INTO AN INDIVIDUAL TIFF FORMAT. THE PLAN SHEETS SHALL BE SCANNED IN TIFF FORMAT AT 400 DPI RESOLUTION TO MAINTAIN LEGIBILITY OF EACH DRAWING. THEN, THE TIFF IMAGES SHALL BE EMBEDDED INTO A SINGLE PDF (ADOBE ACR0BAT) FILE REPRESENTING THE COMPLETE PLAN SET. THESE DRAWINGS WILL ASSIST IN THE PROCESS OF PERFORMING QUALITY CONTROL AND QUALITY ASSURANCE ON THE ELECTRONIC SUBMITTAL SPECIFIED IN THIS DOCUMENT. THE DRAWINGS WILL BE REVIEWED FOR FORMAT AND COMPLETENESS. SPECIFICALLY, THE FOLLOWING REQUIREMENTS SHALL BE MET.

- 1.INCLUDE A LABEL ON THE MEDIA INDICATING PROJECT NAME AND NUMBER, CONSULTANT NAME, PROJECT MANAGER AND TELEPHONE NUMBER, TYPE OF SUBMITTAL (APPROVED CONSTRUCTION PLANS OR ASBUILT DRAWINGS), ONLY DRAWINGS RELEVANT TO THE PROJECT'S PHASE OF SUBMITTAL SHALL BE INCLUDED. FOR EXAMPLE, DO NOT INCLUDE "BID SET" DRAWINGS IN A "ASBUILT DRAWING" SUBMITTAL. ALSO, DO NOT INCLUDE DRAWINGS OR DOCUMENTS THAT WOULD NOT NORMALLY BE INCLUDED IN THE SET OF PRINTED DRAWINGS, EXCEPT FOR BASE DRAWINGS OR DRAWINGS TO BE EXTERNALLY REFERENCED.
- 2.RECORD DRAWING DATA TO BE UPLOADED WILL INCLUDE ONLY NEW CONSTRUCTION AND CARE WILL BE TAKEN TO EXCLUDE ANY "EXISTING" FACILITIES FROM THIS DATASET SO AS TO NOT DUPLICATE INFORMATION IN THE GIS SYSTEM. EXISTING DATA CAN BE INCLUDED IN THE DRAWING BUT SHOULD RESIDE ON SEPARATE LAYERS. IT IS RECOMMENDED THAT THE PREFIX "EX-" BE ADDED TO THE LAYERS OF ALL EXISTING DATA
- 3.THE FOLLOWING ARE FILE FORMAT AND LAYER NAME STANDARDS:
 - a) A FOLDER SHALL BE CREATED WITH THE NAMED PROJECT AND PHASE NUMBER
 - b) A FILE NAMED COVERSHEET.DWG
 - c) A FILE NAMED SITE_PLAN.DWG SHOWING ONLY THE FOLLOWING 5 LAYERS VISIBLE:
 - LAYER NAMED LOTS
 - LAYER NAMED LOT NUMBERS
 - LAYER NAMED ADDRESSES
 - LAYER NAMED ROW SHOWING ALL RIGHTS-OF-WAYS
 - LAYER NAMED EOP SHOWING ALL EDGE OF PAVEMENTS
 - d) A FILE NAMED MASTERUTILITYPLAN.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 3 LAYERS VISIBLE:
 - LAYER NAMED WATERLINE SHOWING DIFFERENT PIPE SIZES, WATER METERS, AND HYDRANTS
 - LAYER NAMED REUSEWATER AND ALL APPROPRIATE FEATURES
 - LAYER NAMED SEWER AND ALL APPROPRIATE FEATURES
 - e) FILE NAMED GRADING_DRAINAGE.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 2 LAYERS VISIBLE:
 - LAYER NAMED STORMWATER AND ALL APPROPRIATE FEATURES
 - LAYER NAMED SPOTLEVEL SHOWING ALL SPOT ELEVATIONS
 - ANY OTHER LAYERS PERTINENT TO THE GRADING AND DRAINAGE OF THE SITE
 - f) IF APPLICABLE, A FILE NAMED OFF_SITE_UTILITIES.DWG INCLUDE ANY OTHER FILES PERTINENT TO THE PROJECT (SURVEY, DETAILS, X-REFS ETC.)

PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPENCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

QUALITY CONTROL TESTING REQUIREMENTS

ALITESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, CITY OF CLERMONT, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND THE ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

EARTHWORK

EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.

EROSION CONTROL

EROSION AND SILTRATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITH SOD WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION. OTHER MATERIALS SHALL BE REVIEW AND APPROVED BY CITY.

WETLAND PROTECTION

THE LIMITS OF THE ON-SITE WETLANDS HAVE BEEN PROVIDED TO THE CONTRACTOR ON THE CONSTRUCTION PLANS OR ON PERMIT MATERIALS. THE WETLANDS ARE TO BE PROTECTED FROM DISTURBANCE AT ALL TIMES. CONTRACTOR SHALL PROVIDE EROSION, SILTATION, AND DIVERSION MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN A COPY OF EACH PERMIT RELATING TO WETLANDS AND WATER MANAGEMENT AND ADHERE TO ALL PROVISIONS AND CONDITIONS THERETO.

LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED. GRADING AND/OR CLEARING ON PROPERTIES OTHER THAN SHOWN ON THE APPROVED PLANS IS PROHIBITED.

TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER, ENGINEER AND THE CITY OF CLERMONT.

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

NO BURN PERMITS (INCLUDING THOSE FOR LAND CLEARING) WILL BE ISSUED IN THE CITY OF CLERMONT WITHOUT PRIOR AUTHORIZATION FROM THE CITY MANAGER.

MATERIAL STORAGE/DEBRIS REMOVAL

1) NO COMBUSTIBLE BUILDING MATERIALS MAY BE ACCUMULATED ON THE SITE AND NO CONSTRUCTION WORK INVOLVING COMBUSTIBLE MATERIALS MAY BEGIN UNTIL INSTALLATION OF ALL REQUIRED WATER MAINS AND FIRE HYDRANTS HAVE BEEN COMPLETED, DEP APPROVAL RECEIVED FOR THE WATER MAINS, AND THE HYDRANTS ARE IN OPERATION. CONSTRUCTION WORK INVOLVING NON-COMBUSTIBLE MATERIALS, SUCH AS CONCRETE, MASONARY AND STEEL MAY BEGIN PRIOR TO THE FIRE HYDRANTS BEING OPERATIONAL.

2) ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NONORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.

FILL MATERIAL

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGATATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

PAVEMENT AND/OR ROAD AND RIGHT-OF-WAY WORK

ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS CITY OF CLERMONT. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS INGRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE STAKED IN THE FIELD AT DIFFERENT GRADES THAN THE CENTERLINE GRADES TO ACCOMPLISH THE PURPOSES OUTLINED. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTION TO ACCOMPLISH THE INTENT OF THE PLANS.

MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2016, OR LATEST EDITION.

PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAYS SHALL BE 12" OF STABILIZED SUBBASE WITH A LIMEROCK BEARING PATIO OF (LBR) 40 COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180, 6" OF LIMEROCK BASE COURSE, (LBR) 100, COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180 AND 2" TYPE 5-111 OF RECYCLED ASPHALTIC CONCRETE SURFACE COURSE WITH A MINIMUM STABILITY OF 1500 LBS. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS.

SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. THE 5' SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.

TRAFFIC CONTROL

AN MOT PLAN SHALL BE SUBMITTED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK. A MINIMUM OF 2-WAY, ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

CURBING

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "1" CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2016) SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.

R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAYS SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED WITH LIKE SOD (BAHIA, ST. AUGUSTINE, ZOYSIA, ETC.) AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS, OR BY THE CONSTRUCTION EASEMENT AS APPROVED BY THE CITY OF CLERMONT.

POTABLE WATER/FIRE SYSTEMS

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE WATER SYSTEM SHOWN ON THESE PLANS IS CITY OF CLERMONT. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY, UNLESS OTHERWISE INDICATED ON PLANS.

LANDSCAPING

PROVIDE MINIMUM 5' SEPARATION FROM UTILITIES AND TREES WITH INVASIVE ROOT SYSTEMS.

PIPE MATERIALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL CITY INFRASTRUCTURE TO BE CONSTRUCTED. WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL MEET CITY SPECIFICATIONS.

POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE NSF LOGO FOR POTABLE WATER. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE.

DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).

ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

3" METALLIC LOCATOR TAPE WITH LOCATOR WIRE SHALL BE INSTALLED ON ALL WATER MAINS PER DETAIL.

PIPE MATERIALS CONT.

PIPE SIZES GREATER THAN 12" BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS. FITTINGS FOR DUCTILE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.10 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION).

POLYETHYLENE WRAP USED FOR CORROSION PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM D1248. THE MINIMUM NOMINAL THICKNESS SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA C105. TRANSMISSION MAIN SHALL BE DIP RATED FOR 250 PSI.

VALVES

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509.87 WITH HANDWHEEL OR WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED (OPERATION NUT TO BE WITHIN 3 FEET OF FINISH GRADE). MANUFACTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. SEE CITY OF CLERMONT APPROVED PRODUCT LIST.

POTABLE WATER AND REUSE VALVES

ANY VALVE USED IN A POTABLE WATER OR REUSE WATER APPLICATION THAT IS 4" OR LARGER MUST BE A RESILIANT SEAT AND CONFORM TO ALL AWWA SPECIFICATIONS.

AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. SEE CITY OF CLERMONT APPROVED PRODUCTS LIST.

VALVE BOXES

VALVE BOXES ON BURIED POTABLE WATER MAINS SHALL BE ADJUSTABLE, CAST IRON CONSTRUCTION, WITH MINIMUM INTERIOR DIAMETER OF 5" WITH COVERS CAST WITH THE INSCRIPTION IN LEGIBLE LETTERING ON TOP: WATER. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE, AND SHALL BE MANUFACTURED BY MUELLER COMPANY, MODEL 10364, OR APPROVED EQUAL. VALVE BOX PADS SHALL BE 24"x24"x4" THICK CONCRETE WITH #4 REINFORCING BARS. PAD TO BE SET AT FINISHED GRADE WITH RECESSED DETECTOR WIRE CONDUIT PORT PER DETAIL. REUSE MAINS TO HAVE SQUARE TOP VALVE BOXES.

WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI, CTS 5100 (DR-9) ASTM D-2737, 200 PSI. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE RECLAIM SERVICE IS NOT PROVIDED, CONTRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. SEE CITY OF CLERMONT APPROVED PRODUCT LIST.

WATER SERVICES 2.5" AND LARGER

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING A NEPTUNE R450 METER WITH E-CODER REGISTER, 12795-22051227 NEPTUNE R450 WALL MIU (CLERMONT SPECIAL) AND 12596-002 NEPTUNE WALL MIU ADAPTOR F/PIT STYLE REGISTER. THE ASSEMBLY SHALL BE ABOVE GROUND STYLE WITH BYPASS SET UP FOR METER TESTING. A STRAINER SHALL BE INSTALLED PRIOR TO THE METER AND SHALL BE FROM THE SAME MANUFACTURER AS THE WATER METER. INCLUDE SPOOL PIECES 5X THE DIAMETER UPSTREAM AND 10X THE DIAMETER DOWNSTREAM MINIMUM LENGTH. ISOLATION VALVES SHALL BE INSTALLED PRIOR TO THE METER AND ANOTHER ONE PAST THE METER TEST PORT AND BEFORE THE THE DOWNSTREAM BYPASS CONNECTION. BYPASS PIPING SHALL HAVE A LOCKABLE ISOLATION VALVE UNLESS IT IS UNDERGROUND.

MATERIALS AS REQUIRED BY THE CITY OF CLERMONT

THE CONTRACTOR SHALL CUT A "W" IN THE CURB TOP AT EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND V'S SHALL BE HIGHLIGHTED WITH BLUE PAINT. SEE WATER SYSTEM DETAILS FOR OTHER SERVICE LOCATION AND MARKING REQUIREMENTS.

PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87.

COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS.

MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE; SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3), (4) AND (5) FAC.

ALL WATER MAINS SHALL BE INSTALLED WITH RESTRAINED JOINT FITTINGS. NO CONCRETE THRUST BLOCKS TO BE USED.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE PROVIDED WITH MEGALUG PIPE RESTRAINTS. FOR RESTRAINT CONSTRUCTION SPECIFICATIONS, REFER TO THE WATER SYSTEM DETAILS.

ALL VALVES TO BE RESTRAINED AS DEAD ENDS IN BOTH DIRECTIONS.

NOTE:
THE DETAILS AND SPECIFICATIONS SHOWN ON THIS SHEET WERE SUPPLIED BY THE CITY OF CLERMONT AND NOT BY BOOTH, ERN, STRAUGHAN, & HIOTT, INC. BOOTH, ERN, STRAUGHAN & HIOTT, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF THE DETAILS, DESIGNS, AND SPECIFICATIONS SHOWN ON THIS SHEET.

NEW CLERMONT PUBLIC BOAT RAMP
CITY OF CLERMONT, FLORIDA

GENERAL NOTES



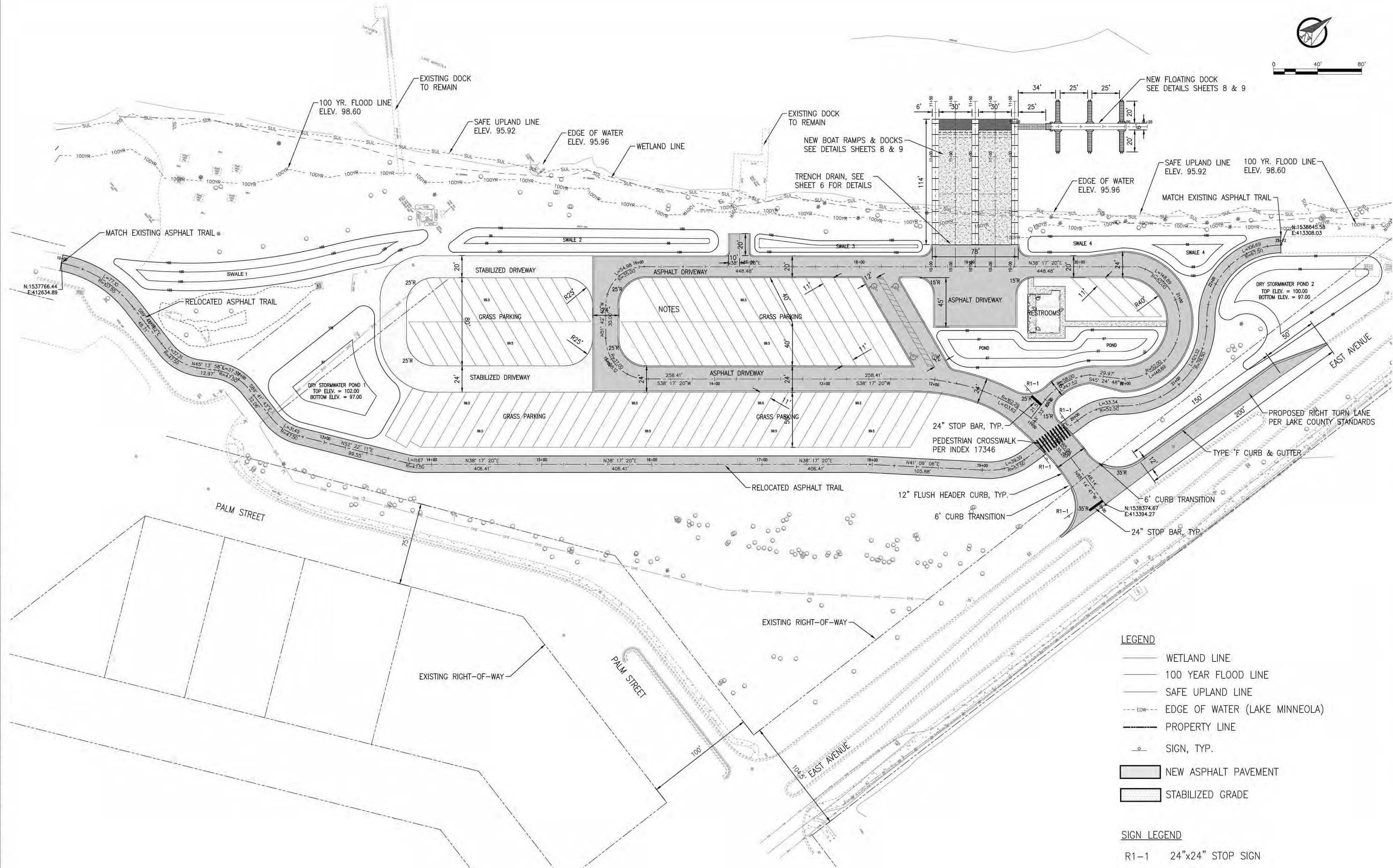
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DUANE K BOOTH
P.E. NO. 54013

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CITY OF CLERMONT, FLORIDA

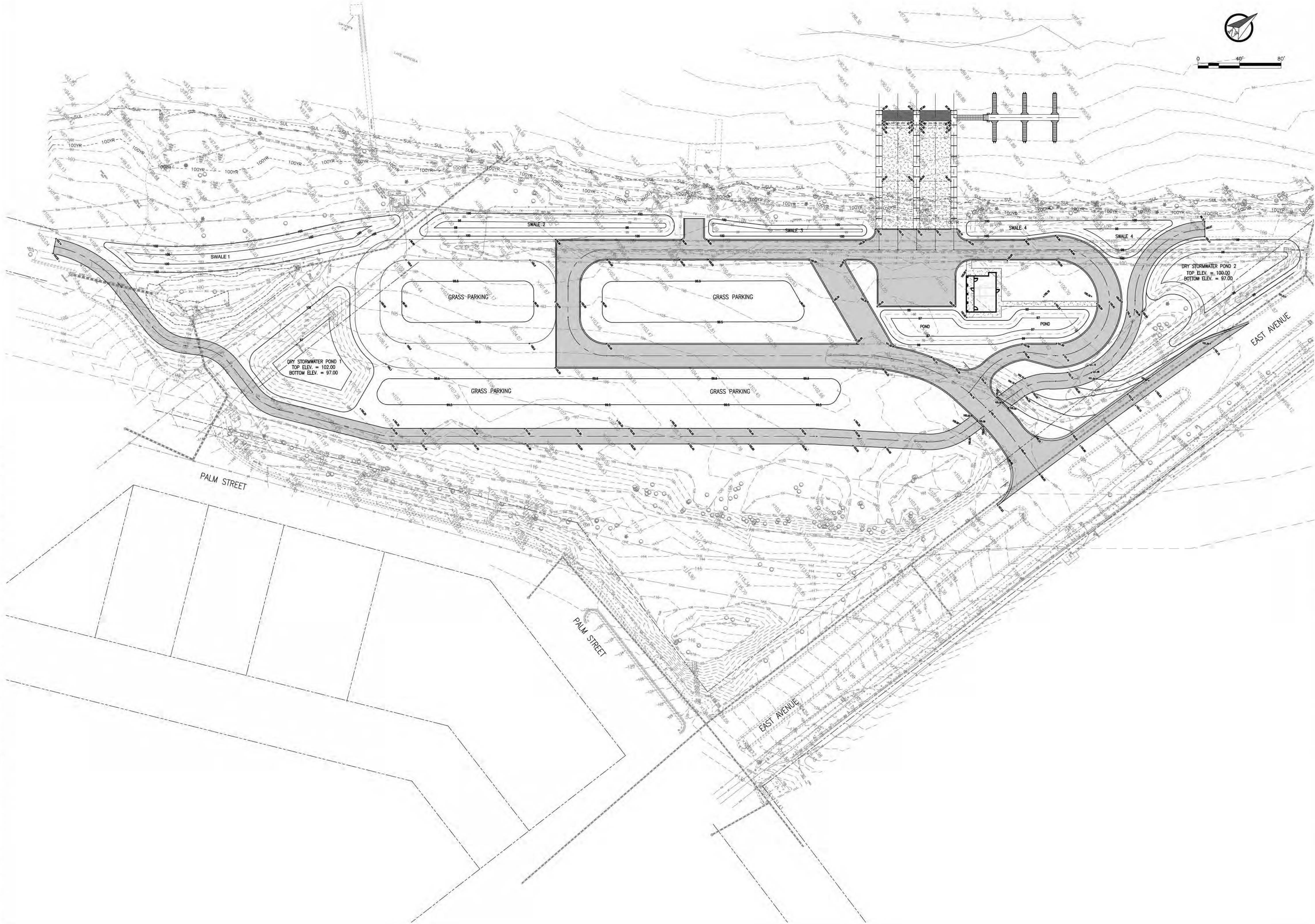
SITE GEOMETRY PLAN



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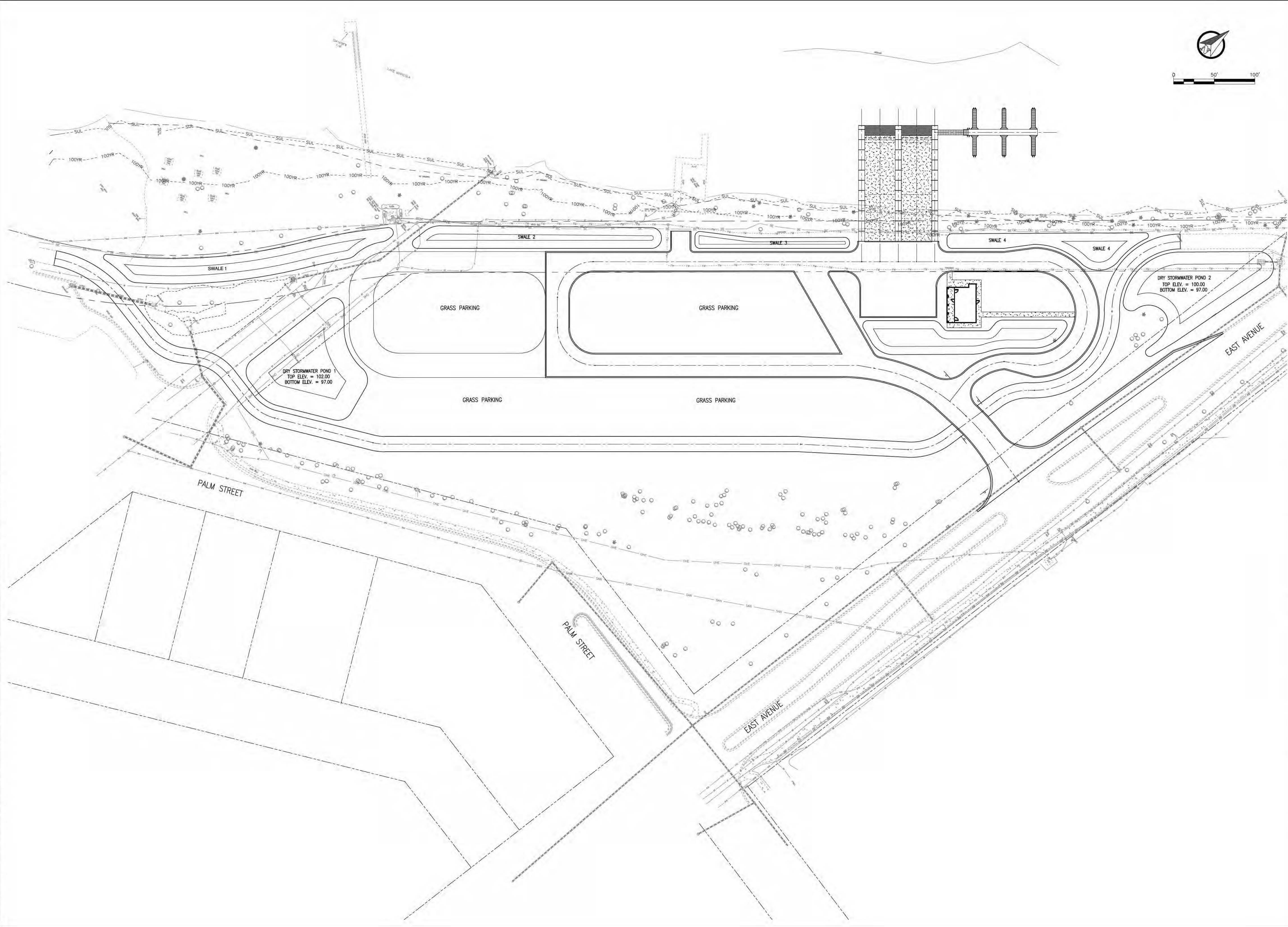
GRADING AND DRAINAGE PLAN

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DUANE K. BOOTH
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FILENAME: S:\003\City of Clermont\031004.0120 Clermont Public Boat Ramp Concepts\Construction\Plans\031004.0120 UTIL.dwg PLOT DATE: Friday, November 16, 2018 PLOTTED BY: Robert Schwartz



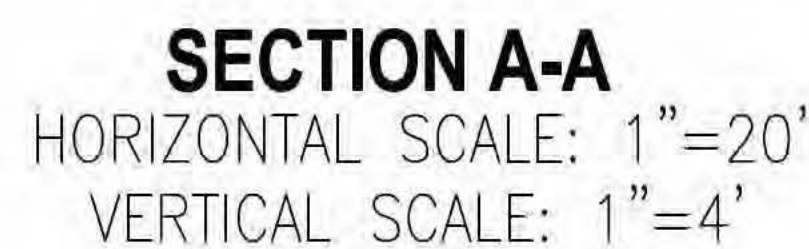
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CITY OF CLERMONT, FLORIDA

UTILITY PLAN

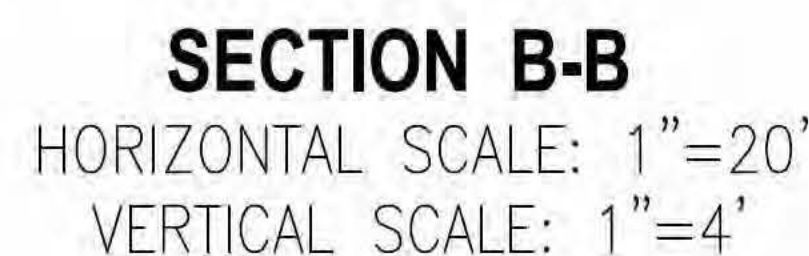
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ALL PILINGS SHALL BE PRESSURE JETTED TO 8' MIN DEPTH , VIBRATION DRIVE PILING TO 4,200# REFUSAL ON 10' WIDE BRIDGE & 3,360# ON 8' WIDE BRIDGE WITH APE VIBRATORY DRIVER, 8 TON DRIVE FORCE, 3,000 VPM. 720 LB HAMMER WEIGHT

TREATED TO AWPAS STDS C2 AND C18
W/ .40 #/CF ACQ OR .25 #/CF CA-B.
FRAMING SUBMERGED OR IN CONTACT WITH EARTH SHALL
BE TREATED TO AWPAS STDS C2 AND C18
W/ 2.5 CCA #/CF.

DECKING , "TREX" COMPOSITE

ALL FASTENERS, UNLESS NOTED OTHERWISE SHALL
BE 304 OR 316 STAINLESS STEEL.

RAILING CABLES, SHALL BE 3/16" S.S. 1X19 CABLE
INSTALLED AT 4" OC AND TENSIONED TO 1,000 LBS.

DESIGN NOTES

MINIMUM DESIGN LOAD;
2010 FBC 1607.1 #39, 60 PSF UNIFORM LL
2010 FBC 1604.3 DEFLECTION L/360
GUARDRAIL AND HANDRAIL DESIGN LOAD;
2010 FBC 1607.1
50 PLF / 200# CONCENTRATED
LOAD AT ANY POINT.

PILING LOAD; 4,200# EACH ,CALCULATED AT 12'-0"SPACING
AND 10'-0" WIDE WALKWAY, 60PSF LL+10 PSF DL
(PILING LOAD CAPACITY AT 48" HEIGHT 8" DIA 4,290#
DEFLECTION L/200)

PROPOSED JOIST DESIGN LOAD; 150 PSF LL, 10 PSF DL
DEFLECTION L/360 PER AFPA SPAN TABLES
(MAX SPAN 14'-6" W/ 12"OC SPACING)

SPECIAL CONCENTRATED VEHICLE LOAD;
1000# AT EACH OF 4 WHEEL LOCATIONS. 2,000#
LOAD ON DOUBLE JOIST AT WHEEL TRACK. LOAD CAPACITY
OF DOUBLE JOIST AT WHEEL TRACK,@ 300 PLF= 3,600#.

CROSS BEAM 2) 2X12 AT 10' WALK; CAPACITY
976 PLF DEFLECTION L/360 PER WOOD
STRUCTURAL DESIGN DATA BEAM TABLES.



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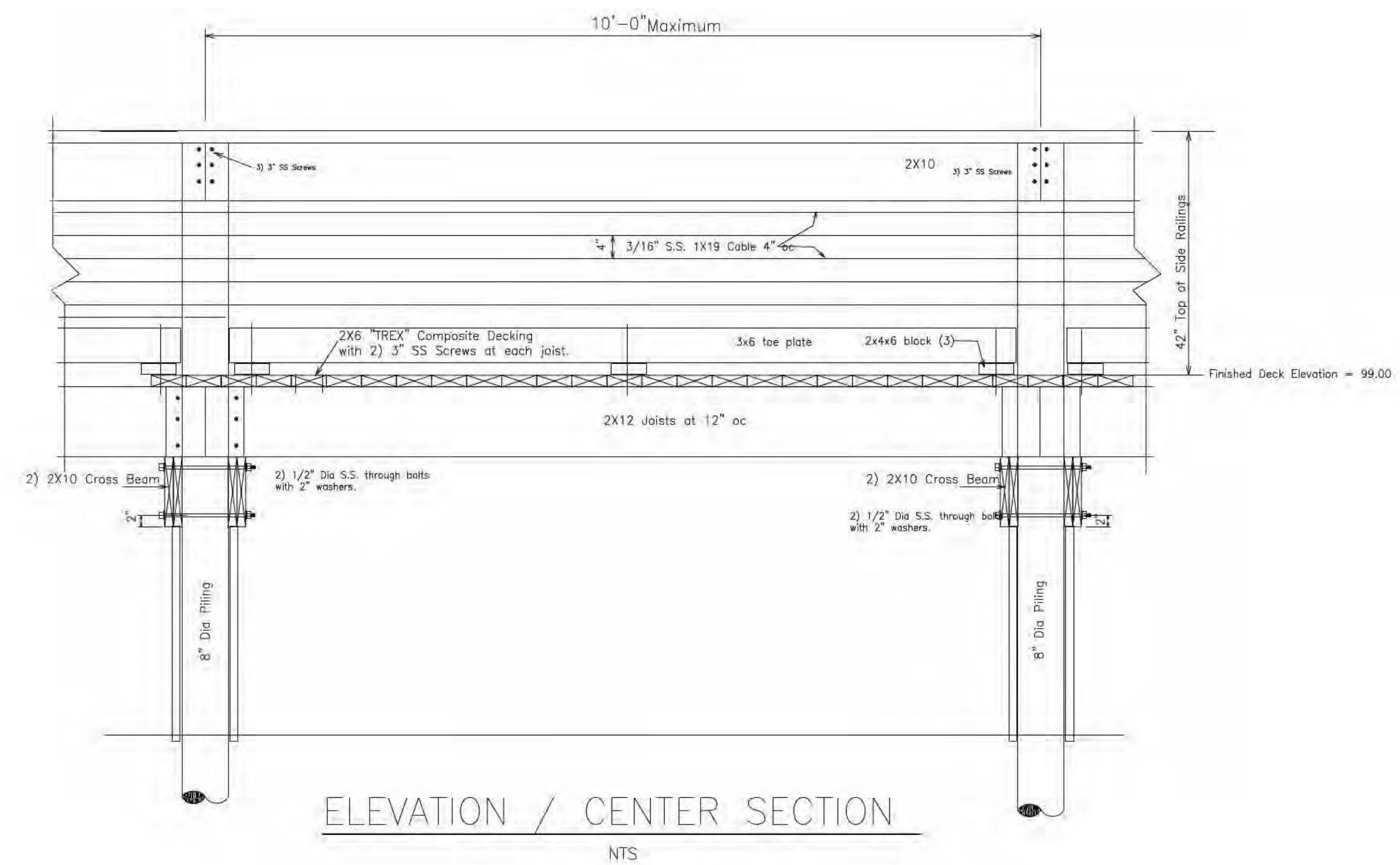
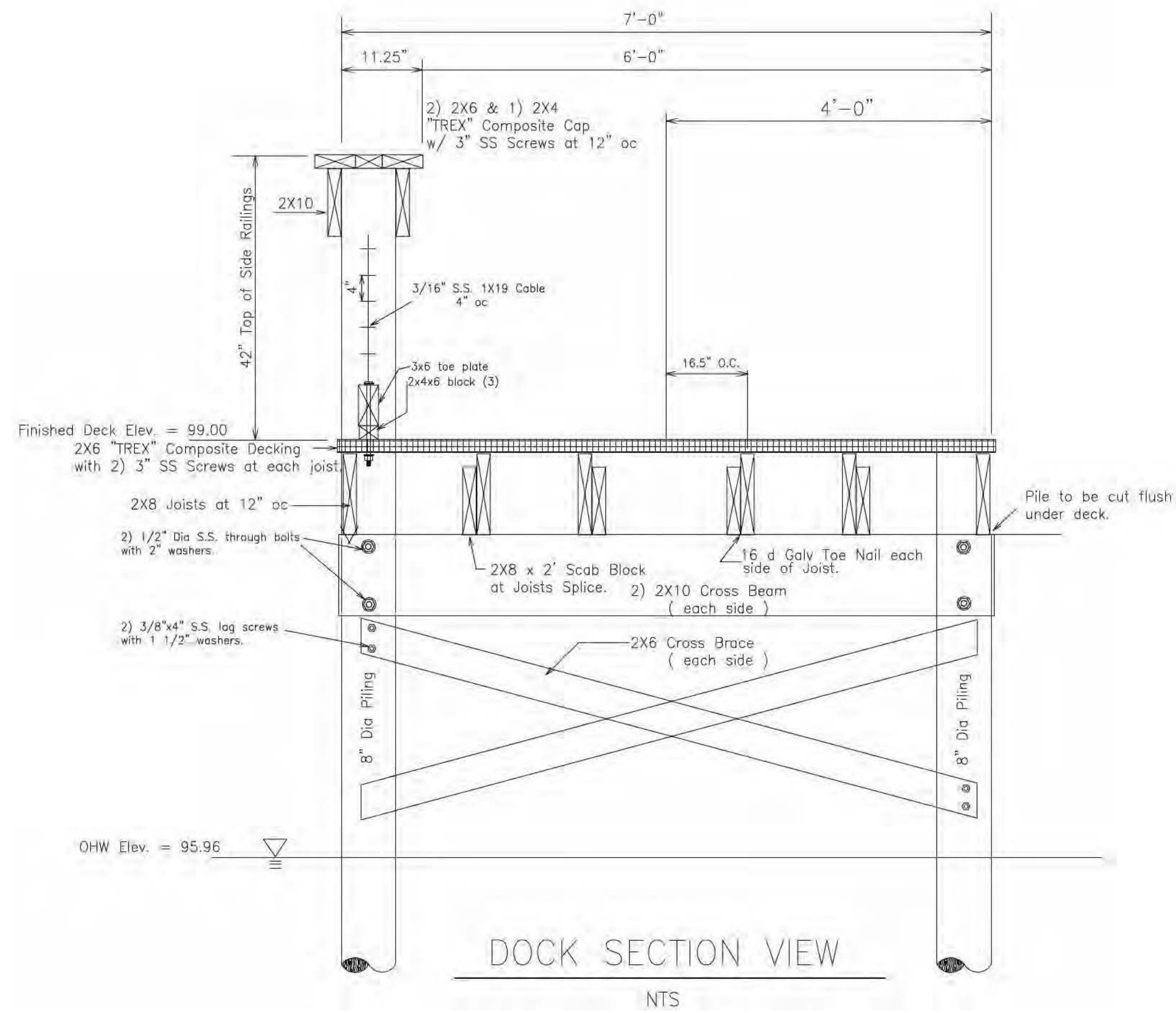
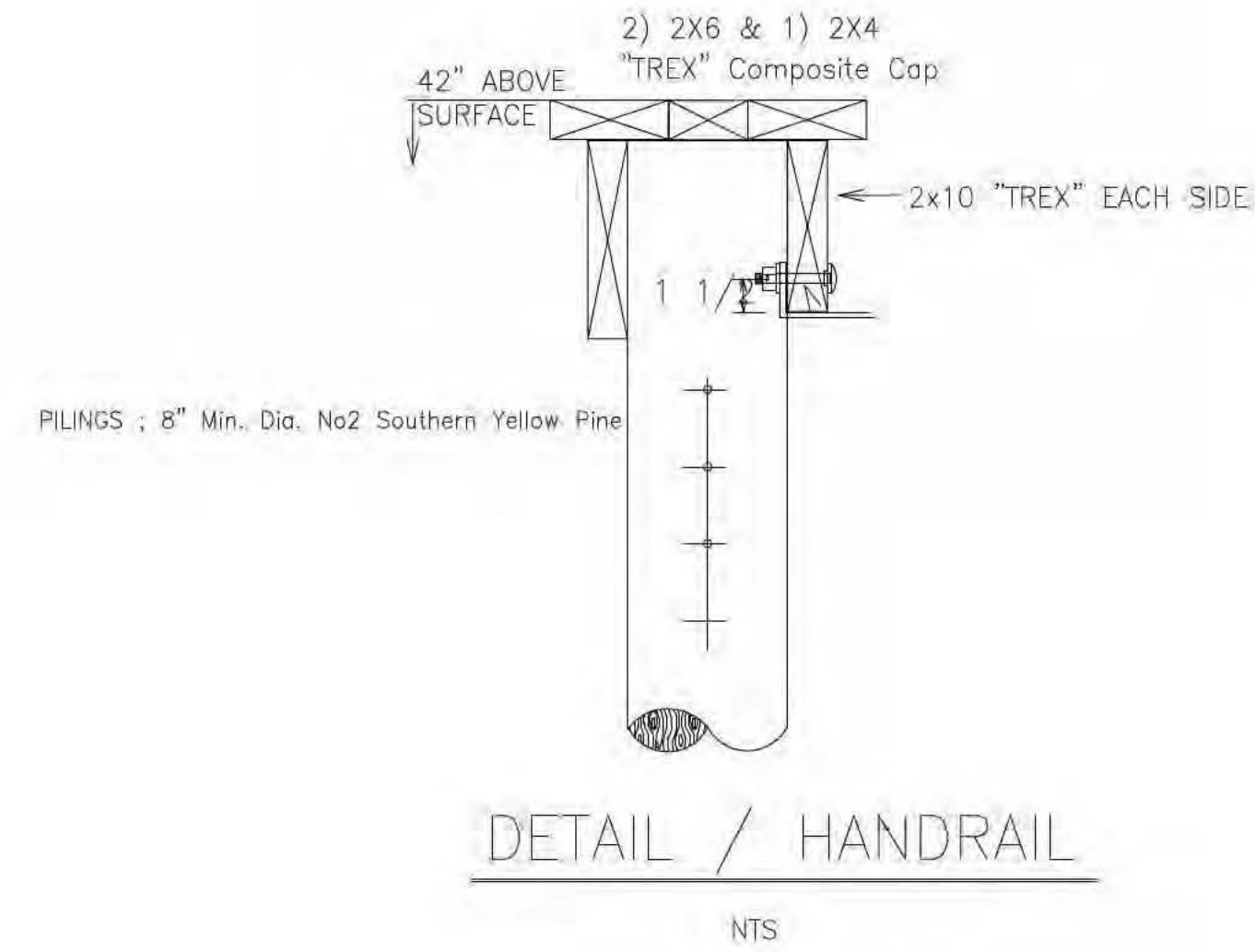
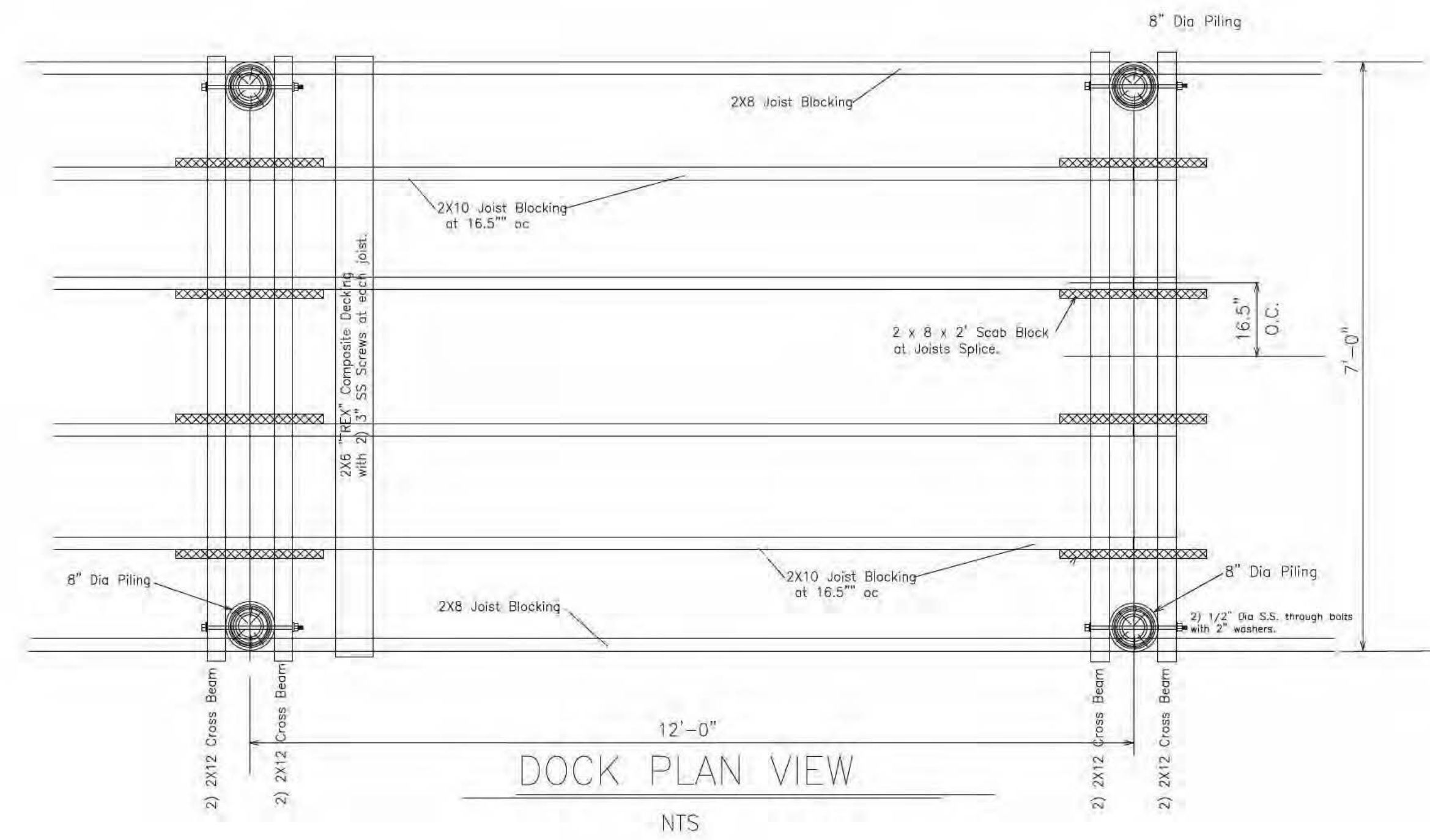
NEW CLERMONT PUBLIC BOAT RAMP
CITY OF CLERMONT, FLORIDA

BOAT RAMP DETAILS



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DUANE K. BOOTH
P.E. NO. 54013



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NEW CLERMONT PUBLIC BOAT RAIMP
CITY OF CLERMONT, FLORIDA

BOAT NAME & DETAILS



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FILENAME: S:\001\City of Clermont\051004-0120 Clermont Public Boat Ramp Concepts\Construction Plans\051004-0120 GK.dwg PLOT DATE: Friday, November 18, 2016 PLOTTED BY: Robert Schwartz

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND CITY OF CLERMONT STANDARD, SPECIFICATIONS, AND REQUIREMENTS, INCLUDING CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS AND INSURANCE REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT.
3. THE LOCATION OF ALL STRUCTURES, FEATURES, AND UTILITIES SHOWN ON THE DRAWINGS ARE FROM INFORMATION MADE AVAILABLE TO THE ENGINEER BY THE OWNER AND FIELD OBSERVATIONS. IF CONDITIONS DIFFER FROM THOSE REPRESENTED HEREIN, THE CONTRACTOR SHALL CONTACT THE OWNER AND THE ENGINEER OF RECORD IMMEDIATELY BEFORE PROCEEDING WITH CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CALL SUNSHINE STATE ONE-CALL OF FLORIDA, INC. AT 1-800-432-4770 TO CONFIRM ALL UTILITY LOCATIONS.
5. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO PERFORMING ANY PILE INSTALLATION OR EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. IN THE INSTANCE OF ANY DAMAGE TO EXISTING UTILITY OR REQUIRED RELOCATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY, THE OWNER, AND THE ENGINEER OF RECORD.
6. THE CONTRACTOR SHALL PROTECT EXISTING FEATURES, STRUCTURES, UTILITIES, MONUMENTS, SURVEY MARKERS, ETC. DURING CONSTRUCTION THE CONTRACTOR SHALL RESTORE/REPLACE TO THE OWNER'S SATISFACTION ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
7. THE CONTRACTOR SHALL PROVIDE NOTIFICATION OF IMPEDING CONSTRUCTION IN ACCORDANCE WITH CONTRACT REQUIREMENTS. WHERE NOT SPECIFIED THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE TO THE OWNER AND ENGINEER OF RECORD PRIOR TO COMMENCING ACTIVITIES.
8. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING THE AREA OF CONSTRUCTION AND FOR SAFELY ROUTING ALL PEDESTRIAN AND TRAIL TRAFFIC AROUND THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARLY MARKED AT ALL TIMES. PEDESTRIAN AND TRAIL DETOURS SHALL BE PROPERLY SIGNED (MUTCD LATEST EDITION) AND ADA COMPLIANT.
9. ALL CONSTRUCTION LINES AND GRADES SHALL BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL BE AWARE THAT THE SITE IS A RECREATIONAL FACILITY AND MUST COORDINATE ACCESS WITH THE CITY OF CLERMONT. THE CONTRACTORS MEANS OF ACCESS TO JOB SITE AREAS SHALL NOT CONTACT WETLANDS NOR DAMAGE THE EXISTING VEGETATION, AND THERE WILL BE NO ADDITIONAL PAYMENT FOR OFFSITE STORAGE. THERE ARE NO MOORING FACILITIES AT THE SITE, AND THERE WILL BE NO ADDITIONAL PAYMENT FOR MULTIPLE MOBILIZATIONS. CONTRACTOR SHALL SUBMIT FOR APPROVAL, PRIOR TO CONSTRUCTION, THE FOLLOWING:
 - A. PLAN OF PROPOSED CONTRACTOR WORK AREA AND CONTRACTOR STAGING AND LAYDOWN.
 - B. SEQUENCE OF CONSTRUCTION AND CONSTRUCTION SCHEDULE.
 - C. SITE SAFETY PLAN.
 - D. STORMWATER POLLUTION PREVENTION AND EROSION CONTROL PLAN.
11. WETLAND AND WATERWAY AREAS: THE CONTRACTOR SHALL RIGOROUSLY COMPLY WITH ALL GENERAL AND SPECIFIC PROVISIONS OF PERMITS ISSUED BY FDEP AND THE U.S. ARMY CORPS OF ENGINEERS COPIES OF WHICH SHALL BE KEPT ON SITE. THE CONTRACTOR SHALL CLEARLY DESIGNATE ON SITE THE SPECIFIC LIMITS OF CONSTRUCTION. THE ENGINEER'S APPROVAL OF THIS DESIGNATION IS REQUIRED PRIOR TO COMMENCEMENT OF ANY CLEARING, CONSTRUCTION STAGING, AND CONSTRUCTION WORK. NEITHER CLEARING OR CONSTRUCTION WORK ARE AUTHORIZED OUTSIDE OF THE SPECIFIC LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL PROVISIONS OF THESE AND OTHER PERMITS ISSUED TO THIS PROJECT.
12. UPON COMPLETION OF THE WORK AND BEFORE FINAL INSPECTION, THE CONTRACTOR SHALL CLEAN THE WORK SITE AND ALL GROUNDS OCCUPIED BY HIM IN CONNECTION WITH THE WORK OF ALL RUBBISH, SURPLUS AND DISCARDED MATERIAL, EQUIPMENT AND DEBRIS.
13. UPON SUBSTANTIAL COMPLETION OF THIS WORK AN INSPECTION SHALL BE CONDUCTED BY THE OWNER. THIS INSPECTION SHALL IDENTIFY ANY REMAINING WORK, MISSING PARTS AND DEFECTS. THE CONTRACTOR'S INSPECTOR IS TO ACCOMPANY THE OWNER DURING THIS INSPECTION. A PUNCH LIST WILL COMPILED BY THE OWNER INDICATING ITEMS IDENTIFIED DURING THE INSPECTION, FINAL ACCEPTANCE AND PAYMENT WILL BE DETERMINED BY THE OWNER FOLLOWING COMPLETION WORK TO REMEDY PUNCH LIST ITEMS.

CONCRETE SPECIFICATIONS

CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF $f'_c=5,500$ PSI AND SHALL COMPLY WITH THE REQUIREMENTS OF CLASS IV CONCRETE IN THE FDOT STANDARD SPECIFICATIONS.

GROUT SPECIFICATIONS

GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF $f'_c=6,000$ PSI. A NON-SHRINK GROUT SHALL BE USED THAT IS APPROPRIATE TO THE CONSTRUCTION METHOD THE CONTRACTOR CHOOSES. THE PROJECT SHALL BE LISTED ON THE FDOT APPROVED PRODUCT LIST.

REINFORCING STEEL SPECIFICATIONS

STEEL FOR ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. ALL DIMENSIONS ASSOCIATED WITH THE REINFORCEMENT LOCATION ARE TO CENTERLINE OF BARS EXCEPT WHERE THE CLEAR DIMENSION IS SHOWN TO FACE OF CONCRETE OR OTHER SURFACES. REINFORCING BARS MAY BE FIELD ADJUSTED FOR CONSTRUCTION PURPOSES.

REINFORCEMENT CLEARANCE

CONCRETE COVER FOR CAST IN PLACE SLAB SHALL BE 4 $\frac{1}{2}$ " AND FOR PRECAST SLAB SHALL BE 4", UNLESS OTHERWISE NOTED.

SHOP DRAWINGS

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS THAT INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

- A. FLOATING DOCK SYSTEM WITH GANGWAY.
- B. PRECAST SLAB PANELS

SUPPLEMENTAL INFORMATION

THE FOLLOWING INFORMATION WILL BE MADE AVAILABLE TO THE CONTRACTOR, IN HARD COPY, AT THE CONTRACTORS REQUEST:

- A. BORING LOGS AND SOIL INVESTIGATION REPORT.

CLEARING AND GRUBBING

1. ALL CLEARING AND GRUBBING SHALL CONFORM TO THE FDOT 2018 STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION – SECTION 110, EXCEPT AS NOTED HEREIN.
2. ALL TREES ARE TO BE PRESERVED AND PROTECTED, UNLESS MARKED FOR REMOVAL IN THE CONTRACT DOCUMENTS.

3. THE CONTRACTOR SHALL TRIM TREE BRANCHES EXTENDING OVER THE AREA OF PATHWAYS AND STRUCTURES TO PROVIDE A CLEAR HEIGHT OF 10 FEET.

FLOATING DOCK SYSTEM

1. CONTRACTOR SHALL PROVIDE AN ALUMINUM FLOATING DOCK SYSTEM BY GATOR DOCK AND MARINE, OR APPROVED EQUAL. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR OWNER APPROVAL PRIOR TO PURCHASE OF DOCK.
2. THE FLOTATION SYSTEM SHALL CONSIST OF MODULAR SECTIONS DESIGNED IN SUCH A MANNER THAT MODULES MAY BE REPLACED WITH STANDARD MODULES IN CASE OF REPAIRS
3. SUFFICIENT FLOTATION SHALL BE PROVIDED TO SUPPORT A LIVE LOAD OF 100 PSF OF DECK AREA WITH A MINIMUM FREEBOARD OF 8 INCHES.
4. FREEBOARD UNDER DEAD LOAD ONLY SHALL NOT EXCEED 18 INCHES.
5. CONTRACTOR SHALL EXERCISE CAUTION TO INSURE THAT ALL DEAD LOADS ARE ACCURATELY DETERMINED AND INCLUDED IN BUOYANCY CALCULATIONS. THESE LOADS SHOULD INCLUDE APPROPRIATE SAFETY FACTORS AND ANY SPECIFIC MANUFACTURING CONSIDERATIONS THAT WILL AFFECT THE FINAL FREEBOARD.
6. SPECIAL FLOATS MUST BE DESIGNED TO SUPPORT ADDITIONAL CONCENTRATED LOADS AS IMPOSED BY GANGWAYS. FLOATS WITH SPECIAL LOADINGS SHALL HAVE THE SAME FREEBOARD AS FLOATS WITH NO SUCH LOADING, SO THAT THERE WILL BE NO RESIDUAL STRESSES OR TILTING WHEN SUCH FLOATS ARE INTERCONNECTED.
7. WALKING SURFACE OF FLOATS SHALL BE LEVEL AND FLUSH WITH RESPECT TO THE ADJACENT FLOATS.
8. FLOATS SHALL BE DESIGNED TO FLOAT LEVEL UNDER DEAD LOAD ONLY. THE DECKS OF THE FLOATS SHALL BE WITHIN THE FOLLOWING TOLERANCES OF BEING LEVEL:
 - A. MAXIMUM TRANSVERSE SLOPE FOR MAIN FLOATS: 1 INCH PER 10 FEET OF WIDTH.
 - B. MAXIMUM LONGITUDINAL SLOPE: 1 INCH PER 10 FEET.
9. FLOTATION UNITS SHALL BE LOCATED WITHIN THE STRUCTURE SO AS TO BE CAPABLE OF SUPPORTING A 300-POUND POINT LOAD MOVING IN ANY AREA ON A FLOAT WITHOUT EXCESSIVE ROLLING OR TILTING ON THE DOCK. THIS SHOULD BE DONE ONCE THE SYSTEM IS TOTALLY CONNECTED AND IN ITS FINAL INTENDED CONDITION.
10. FLOATS, FRAMING, CONNECTIONS AND ANCHORAGE SYSTEMS, SHALL BE DESIGNED FOR THE FOLLOWING LOAD CASES AS A MINIMUM:
 - A. WIND PRESSURE OF 15 PSF (77 MPH FASTEST MILE WIND AT 33 FEET STANDARD ELEVATION, EXPOSURE C, PER ASCE 7-10) ACTING ON THE PROJECTED AREA OF ALL DOCKS AND MOORED VESSELS ASSUMING FULL OCCUPANCY OF THE DOCK.
 - B. WIND PRESSURE OF 20 PSF (110 MPH FASTEST MILE WIND AT 33 FEET STANDARD ELEVATION, EXPOSURE C, PER ASCE 7-10) ACTING ON THE PROJECTED AREA OF ALL DOCKS AND NO MOORED VESSELS.
 - C. MINIMUM CURRENT PRESSURE DUE TO A 3.9 FEET PER SECOND CURRENT VELOCITY ACTING ON THE PROJECTED AREA OF ALL DOCKS AND MOORED VESSELS ASSUMING FULL OCCUPANCY.
 - D. MINIMUM CURRENT PRESSURE DUE TO A 6.7 FEET PER SECOND CURRENT VELOCITY ACTING ON THE PROJECTED AREA OF ALL DOCKS AND NO MOORED VESSELS.
 - E. LATERAL WAVE LOADS FOR WAVES HAVING A 2-FOOT WAVE HEIGHT.
 - F. LOAD CASES SHOULD BE COMBINED BASED UPON THE PROBABILITY OF SIMULTANEOUS OCCURRENCE OF THE EVENTS.
 - G. DESIGN PARAMETERS:
 - i. DESIGN VESSEL TO BE A MOTORIZED PLEASURE CRAFT OR FISHING VESSEL OF LENGTH NOT TO EXCEED 30 FEET, WHICHEVER RESULTS IN HIGHER LOADING.
 - ii. WIND LOAD CALCULATIONS SHALL BE BASED ON AN AVERAGE VESSEL PROFILE HEIGHT EQUAL TO 15% OF THE SLIP LENGTH.
 - iii. CURRENT DESIGN LOAD CALCULATIONS SHALL BE BASED ON THE AVERAGE VESSEL DRAFT.
 - iv. CALCULATIONS ARE TO BE PERFORMED FOR WIND AND CURRENT LOADS BOTH PARALLEL TO AND PERPENDICULAR TO THE SLIPS.
 - v. FULL WIND AND CURRENT LOADS SHALL BE APPLIED TO ALL EXPOSED VESSELS. TO ACCOUNT FOR SHELTERING EFFECTS, 15% OF THE FULL LOAD SHALL BE APPLIED TO ALL VESSELS SHELTERED BY THE EXPOSED VESSEL.
 - vi. CALCULATIONS SHALL ASSUME THAT ANY GIVEN SLIP MAY BE EXPOSED TO THE LOADS CREATED BY A DESIGN EVENT.
 - vii. ALLOWABLE MATERIAL STRESSES SHALL BE BASED ON THE LATEST EDITION OF THE FLORIDA BUILDING CODE (AISC, ACI, ETC.).
 - viii. MINIMUM ELEVATION OF THE DESIGN WAVE ENVIRONMENT SHALL INCLUDE IDENTIFYING THE SIGNIFICANT WAVE HEIGHT, PEAK SPECTRAL WAVE LENGTH, WAVE PERIOD AND WAVE APPROACH ANGLE.
11. PILES SHALL BE CAPPED WITH A MINIMUM 1/8 INCH THICKNESS POLYETHYLENE OR FIBERGLASS WHITE CONICAL SQUARE PILE CAP (BIRD CAP). THE PILE CAP SHALL BE HEAVY DUTY CONSTRUCTION AND PERMANENTLY SECURED TO THE PILE.

DOCK SYSTEM SHOP DRAWINGS AND CALCULATIONS

1. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR OWNER APPROVAL PRIOR TO PURCHASING DOCK SYSTEM.
2. ALL DESIGN CALCULATIONS SHALL ASSUME THAT ALL SLIPS ARE OCCUPIED. THAT ANY INDIVIDUAL SLIP MAY BE EXPOSED DURING A DESIGN EVENT AND THAT ALL REASONABLE DEAD LOADS HAVE BEEN INCORPORATED INTO THE SYSTEM.
3. ONCE THE LOADS ARE DETERMINED BY THE APPLICABLE CODES LISTED ABOVE, THE DESIGN AND CALCULATIONS SHALL BE PREPARED IN ACCORDANCE WITH AISI AND AISC SPECIFICATIONS AND GUIDELINES. IN ADDITION TO SIZING ALL MEMBERS FOR THESE CODES AND SPECIFICATIONS, THE FOLLOWING CALCULATIONS SHALL BE SUBMITTED AS A MINIMUM FOR THE DOCK SYSTEM:
 - A. ANCHORAGE ATTACHMENT POINTS TO INSURE REACTIONS SHALL BE APPROPRIATELY AND RATIONALLY DISTRIBUTED THROUGHOUT THE SYSTEM.
 - B. ANCHORAGE ATTACHMENT POINTS SYSTEM CAPACITY FOR INDIVIDUAL AND OVERALL LOAD CONSIDERATIONS.
4. ALL ENGINEERING AND CALCULATIONS SHALL BE DONE IN ACCORDANCE WITH THESE GUIDELINES USING THE APPROPRIATE ALLOWABLE CAPACITIES AND SAFETY FACTORS. CALCULATIONS AND DRAWINGS ARE TO BE STAMPED BY A FLORID REGISTERED PROFESSIONAL ENGINEER, MAINTAINING PROFESSIONAL LIABILITY INSURANCE WITH A MINIMUM POLICY LIMIT OF \$2,000,000. THE ENGINEER OF RECORD SHALL SEAL ALL CALCULATIONS AND DRAWINGS. THE ENGINEER SHALL HAVE DESIGNED AT LEAST FIVE PREVIOUS MARINA PROJECTS OF A SIZE AND FUNCTION SIMILAR TO THIS PROJECT THAT HAVE BEEN IN USE FOR A MINIMUM OF FIVE YEARS.
5. SHOP DRAWINGS SHALL SHOW THE LAYOUT OF THE DOCK SYSTEM, LAYOUT OF COMPLETE MOORING/ANCHORING SYSTEM, DETAILS OF ALL CONNECTIONS, WALER SIZING AND SPLICE PATTERN, ANCHORAGE CONNECTIONS, AND ALL OTHER DETAILS NECESSARY AND PERTINENT TO THE CONSTRUCTION OF THE FLOATING DOCK SYSTEM.

DOCK SYSTEM QUALITY ASSURANCE

1. THE MANUFACTURER MUST HAVE AN ONGOING QUALITY MANAGEMENT SYSTEM. AT THE OPTION OF THE OWNER, THE MANUFACTURER SHALL SUBMIT A COPY OF THEIR OPERATIONAL QUALITY ASSURANCE PROGRAM AND SHALL NOT MANUFACTURE FLOATS UNTIL THE OWNER HAS APPROVED THIS QUALITY ASSURANCE PROGRAM.
2. THIS QUALITY SYSTEM MUST BE REGULARLY ASSESSED AND CURRENTLY CERTIFIED AS MEETING THE ISO 9001 STANDARD. THE SCOPE OF THIS CERTIFICATION MUST BE FOR THE DESIGN AND MANUFACTURE OF FLOATING DOCKS AND PERTAIN TO THE COMPANY OR PORTION OF THE COMPANY PROVIDING THE PRODUCTS AND SERVICES FOR THE PROJECT.

3. ALL ALUMINUM WELDING SHALL BE COMPLETED IN ACCORDANCE WITH REQUIREMENTS OF ANSI/AWS D1.2 STRUCTURAL WELDING-ALUMINUM, UTILIZING 3/64" ER4043 WELDING WIRE, ASI/AWS A5.10.

DOCK SYSTEM CONSTRUCTION

1. GENERAL
 - A. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE OWNER, ALL ITEMS HE INTENDS ON USING FOR THE CONSTRUCTION OF THIS PROJECT, AS WELL AS ANY ALTERNATE MATERIALS.
 - B. THE OWNER WILL BE ALLOWED ACCESS TO ALL SITES WHERE MATERIALS PERTAINING TO THIS CONTRACT ARE MANUFACTURED OR CONSTRUCTED FOR PURPOSES OF INSPECTION.
 - C. MATERIALS DELIVERED AND STORED AT EITHER THE MANUFACTURING FACILITY, STAGING AREA, OR JOBSITE SHALL BE PROPERLY STORED ON DUNNAGE OR BY OTHER APPROPRIATE MEANS TO PREVENT DIRECT CONTACT WITH THE GROUND AND UNNECESSARY DAMAGE.
2. MANUFACTURING
 - A. THE DOCK MANUFACTURER HAS A MINIMUM OF 10 CONSECUTIVE YEARS EXPERIENCE IN THE DESIGN AND MANUFACTURING OF ALUM. FLOATING DOCKS AS THEIR PRIMARY BUSINESS.
 - B. THE FACILITY SHALL BE DESIGNED TO PROVIDE THE PROPER ENVIRONMENT AND PHYSICAL CONDITIONS NECESSARY FOR FLOAT MANUFACTURING. THE FACILITY SHALL PROVIDE ADEQUATE WORK SPACE, EQUIPMENT AND PROTECTION FROM DIRECT SUNLIGHT, WIND, MOISTURE, AND FREEZING.
 - C. FLOAT MODULES SHALL BE SEALED POLYETHYLENE TUBS MIN. 12 INCHES DEEP.
3. DECK FINISH
 - A. DECKING MATERIAL SHALL BE TREX OR APPROVED EQUAL.
 - B. CONTRACTOR SHALL ESTABLISH MANUFACTURING METHODS AND PROCEDURES TO INSURE (EVEN AND CONSISTENT) FINISH ON ALL DECK SURFACES.
 - C. ALL WORK SHALL BE PERFORMED BY PERSONS EXPERIENCED AND SKILLED IN THEIR TRADE.
4. HANDLING AND STORAGE
 - A. CONTRACTOR SHALL TAKE CARE IN ESTABLISHING HANDLING METHODS TO AVOID DAMAGE TO DOCKS DURING TRANSPORT, STORAGE, ASSEMBLY, AND INSTALLATION. STORAGE OF FLOTATION UNITS SHALL BE ON LEVEL SURFACES, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE HOW HIGH TO STACK UNITS TO AVOID DAMAGE. CARE SHALL BE TAKEN TO AVOID DAMAGE CAUSED BY OVER-STACKING.
 - B. DOCKS SHALL BE PROTECTED AGAINST DAMAGE FROM ANY CAUSE.
 - C. ANY DAMAGE UNITS SHALL BE REJECTED AND REMOVED FROM THE ASSIGNED JOB.
5. FLOAT WEIGHT
 - A. THE WEIGHT OF THE COMPLETE FLOTATION UNITS SHALL NOT VARY FROM THE THEORETICAL WEIGHT OR MEAN WEIGHT OF ALL SIMILAR UNITS BY MORE THAN 6 PERCENT.
 - B. SUBMIT PROGRAM TO VERIFY ACTUAL FLOAT WEIGHTS, QUANTITY TO BE WEIGHED, AND METHOD OF RECORD KEEPING.
6. FLOAT IDENTIFICATION
 - A. ALL FLOATS ARE TO BE CLEARLY IDENTIFIED ON ONE SIDE AND ONE END BETWEEN THE BOTTOM OF THE WALER AND THE WATERLINE WITH THE DATE OF MANUFACTURE, SPECIFIC FLOAT TYPE, AND JOB NUMBER.
7. STEEL
 - A. ALL STRUCTURAL STEEL CHANNELS, ANGLES, AND PLATES SHALL BE FABRICATED FROM MILD STEEL CONFORMING TO ASTM A-36, AND SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
8. GALVANIZED COATING
 - A. A HOT DIPPED GALVANIZED COATING SHALL BE REQUIRED ON ALL MISCELLANEOUS HARDWARE, CLEATS, STEEL PLATES, ANGLES, AND SHAPES IN ACCORDANCE WITH EITHER ASTM A-123 OR ASTM A-153 AS THE PROCESS APPLIES TO THE SPECIFIC MATERIAL.
 - B. ZINC COATING THICKNESS TO BE A MINIMUM OF THREE (3) MILS.
9. HARDWARE
 - A. BOLTS, NUTS, WASHERS, AND THRU-RODS SHALL BE ALLOY 316 STAINLESS STEEL, AND HAVE A MINIMUM OF 1-1/2 INCH OF THREAD.
 - B. ALL HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A-123.
 - C. WASHERS SHALL BE USED WITH ALL NUTS AND BOLTS, WHICH BEAR ON WOOD OR STEEL. ROUND PLATE WASHERS SHALL BE USED ON ALL THRU-RODS BEARING ON WOOD SURFACES. CUT WASHERS SHALL BE USED ON ALL SURFACES BEARING ON STEEL SURFACES.
10. GUIDE PILES
 - A. ALL PILING SHALL CONFORM TO 2014 FDOT DESIGN STANDARDS INDEX NO. 20600.
 - B. PAYMENT FOR PILING SHALL BE LUMP SUM BASED ON THE ORDER LENGTH SHOWN AND THE PER-FOOT CONTRACT UNIT RATE FOR PRESTRESSED CONCRETE PILES. THE PAYMENT WILL COMPENSATE THE CONTRACTOR FOR ALL COSTS ASSOCIATED WITH DRIVING PILING, INCLUDING BUT NOT LIMITED TO, ORDERING, DELIVERY, STORAGE, INSTALLATION, CUTOFF, AND SURVEY COSTS; ORDER LENGTHS TO BE APPROVED BY ENGINEER.
 - C. PRIOR TO DRIVING PILES, HORIZONTAL LINES SHALL BE MARKED ON THE FACE SUFFICIENT FOR INDICATING DRIVEN TIP ELEVATION. MARKINGS SHALL BE REMOVED AFTER SUBSTANTIAL COMPLETION.
 - D. PILES SHALL BE INSTALLED WITHIN SPECIFIED TOLERANCES, MAINTAIN AND CHECK AXIAL ALIGNMENT OF PILE AND DRIVING EQUIPMENT AT ALL TIMES. BUTTS SHALL BE WITHIN 1-1/2 INCHES OF LOCATION INDICATED ON THE DRAWINGS, AS MEASURED AT THE PILE CUT-OFF ELEVATION AFTER DRIVING. PILES SHALL BE DRIVEN TO WITHIN 2% OF PLUMB. IF ANY PILE IS DRIVEN OUTSIDE TOLERANCE THE CONTRACTOR SHALL REMOVE THE PILE BY PULLING. THE PILE SHALL BE INSPECTED FOR DAMAGE BY THE OWNER'S ENGINEER. IF DEEMED UNACCEPTABLY DAMAGED, THE CONTRACTOR SHALL REPLACE THE PILE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PULLING, DRIVING AND POSSIBLY REPLACING THE OUT OF TOLERANCE PILE(S). IF DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL COSTS RELATED TO REDESIGN AND CONSTRUCTION AFFECTED DOCKS, INCLUDING REPLACEMENT OR RECONFIGURING DOCK ELEMENTS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE NO CLAIM OF DELAY AGAINST THE OWNER DUE TO OUT TOLERANCE INSTALLATION.
 - E. NO PAYMENT WILL BE MADE FOR PILE EXTRACTION FOR NEW PILES DAMAGED OR MISLOCATED BY THE CONTRACTOR THAT ARE ORDERED TO BE EXTRACTED

ALUMINUM GANGWAY RAMP SYSTEM

1. THE CONTRACTOR SHALL PROVIDE AN ALUMINUM GANGWAY RAMP. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR OWNER APPROVAL PRIOR TO PURCHASE OF GANGWAY RAMP.
2. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MINIMUM PROVISIONS OF THE ASCE 7-2010. WHERE THESE SPECIFICATIONS DO NOT STATE OTHERWISE THE PROVISIONS OF THE ASCE 7 SHALL APPLY.
3. DESIGN OF THE ALUMINUM GANGWAY SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE ALUMINUM DESIGN MANUAL PUBLISHED BY THE ALUMINUM ASSOCIATION. ANALYSIS OF TRUSS TYPE GANGWAYS SHALL UTILIZE HOLT'S METHOD FOR DETERMINING TOP CHORD BUCKLING AS OUTLINED IN "GUIDE TO STABILITY DESIGN CRITERIA FOR METAL STRUCTURES", 4TH EDITION, BY THEODORE B. GALAMBOS, OR SIMILAR ANALYSIS METHOD.

4. THE GANGWAY SHALL BE DESIGNED FOR THE FOLLOWING LOAD CASES AS A MINIMUM:
 - A. GANGWAY DECK AND STRUCTURAL COMPONENTS SHALL BE DESIGNED TO SUPPORT THE DEAD WEIGHT OF THE GANGWAY PLUS A DISTRIBUTED LIVE LOAD OF 100 POUNDS PER SQUARE FOOT OF DECK AREA. MAXIMUM DEFLECTION UNDER THIS LOAD SHALL NOT EXCEED $L/360$.
 - B. THE DECK AND STRUCTURAL COMPONENTS SHALL BE DESIGNED TO SUPPORT A CONCENTRATED LOAD OF 400 POUNDS APPLIED TO A SIX INCH BY SIX INCH AREA ANYWHERE ON THE DECK SURFACE.
 - C. LATERAL DESIGN WIND LOAD USED IN COMBINATION WITH LIVE LOAD AND DEAD LOAD SHALL BE 77 MPH, EXPOSURE 'C' PER ASCE 7-2010.
 - D. LATERAL DESIGN WIND LOAD USED IN COMBINATION WITH DEAD LOAD SHALL BE 110 MPH, EXPOSURE 'C' PER ASCE 7-2010.
5. HANDRAILS.
 - A. THE GANGWAY SHALL HAVE CONTINUOUS HANDRAILS ALONG BOTH SIDES OF THE WALKING SURFACE AND SHALL EXTEND A MINIMUM OF ONE FOOT BEYOND THE PRIMARY WALKING SURFACE AT EACH END. THE TOP OF THE HANDRAILS SHALL BE NOT LESS THAN 34 INCHES OR MORE THAN 38 INCHES ABOVE THE WALKING SURFACE. ENDS SHALL BE RETURNED OR SHALL TERMINATE IN SAFETY TERMINALS.
 - B. THE HANDRIP PORTION OF THE HANDRAILS SHALL BE NOT LESS THAN 1-1/4 INCHES NOR MORE THAN 2 INCHES IN CROSS-SECTIONAL DIMENSION, OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. THE HANDRIP PORTION OF THE HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS. A MINIMUM OF 1-1/2 INCHES CLEARANCE SHALL BE PROVIDED BETWEEN THE GANGWAY STRUCTURE AND THE HANDRAIL.
 - C. THE MOUNTING OF HANDRAILS SHALL BE SUCH THAT THE COMPLETED HANDRAIL AND SUPPORTING STRUCTURE ARE CAPABLE OF WITHSTANDING A LOAD OF AT LEAST 200 POUNDS APPLIED IN ANY DIRECTION AT ANY POINT ON THE RAIL. THIS LOAD SHALL NOT BE ASSUMED TO ACT CONCURRENTLY WITH THE GUARDRAIL LOADS.
6. GUARDRAILS
 - A. CONTINUOUS GUARDRAILS MEETING THE FOLLOWING REQUIREMENTS SHALL BE PROVIDED ALONG BOTH SIDES OF THE GANGWAY. THE TOP CHORDS OF TRUSS TYPE GANGWAYS MAY BE CONSIDERED TO ACT AS GUARDRAILS PROVIDED THEY MEET THE SAME REQUIREMENTS.
 - B. THE TOP OF THE GUARDRAILS SHALL NOT BE LESS THAN 42 INCHES ABOVE THE WALKING SURFACE OF THE GANGWAY.
 - C. GUARDRAILS SHALL BE CAPABLE OF SUPPORTING A HORIZONTAL LOAD OF 20 POUNDS PER LINEAL FOOT APPLIED TRANSVERSE TO THE RAIL.
 - D. INTERMEDIATE RAILS SHALL BE PROVIDED SUCH THAT A SPHERE 4 INCHES IN DIAMETER MAY NOT PASS THROUGH ANY POINT BELOW THE GUARDRAILS. INTERMEDIATE RAILS AND THEIR CONNECTIONS SHALL BE CAPABLE OF WITHSTANDING A LOAD OF 25 POUNDS PER SQUARE FOOT APPLIED HORIZONTALLY AT RIGHT ANGLES OVER THE ENTIRE TRIBUTARY AREA, INCLUDING OPENINGS AND SPACES BETWEEN RAILS.
7. RUN-OFF PLATE (TOE RAMP)
 - A. THE TOE RAMP SHALL PROVIDE A SMOOTH TRANSITION BETWEEN THE GANGWAY DECK AND THE DOCK WALKING SURFACE. THE TOE RAMP SHALL BE THE FULL WIDTH OF THE GANGWAY DECK AND BE LONG ENOUGH TO PROVIDE A MAXIMUM SLOPE OF 5%.
8. WHEEL/ROLLER GUIDES
 - A. THE GANGWAY MANUFACTURER SHALL PROVIDE WHEELS OR SKIDS AT THE GANGWAY LANDING THAT WILL ALLOW QUIET LONGITUDINAL MOVEMENT ALONG THE FLOATING DOCK FOR THE FULL RANGE OF WATER ELEVATIONS INCLUDING GUIDES TO RESTRICT THE LATERAL MOVEMENT OF THE GANGWAY AT THE LANDING.
9. SHOREMOUNT
 - A. THE HINGED CONNECTION AT THE DOCK END OF THE GANGWAY SHALL ACCOMMODATE THE FULL RANGE OF VERTICAL AND LATERAL GANGWAY MOTION DUE TO WATER ELEVATION CHANGES AND WIND, WAVE AND IMPACT LOADING. ANY GAPS BETWEEN THE PLATFORM AND GANGWAY WALKING SURFACE SHALL BE COVERED BY A HINGED TRANSITION PLATE. THE TRANSITION PLATE SHALL BE CONSTRUCTED OF MATERIALS SIMILAR TO THE GANGWAY, AND SHALL HAVE A NON-SKID SURFACE.
10. SUBMITTALS
 - A. SHOP DRAWINGS, SEALED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA, EXPERIENCED IN THE DESIGN OF ALUMINUM STRUCTURES, AND SHALL BE SUBMITTED FOR WRITTEN APPROVAL PRIOR TO FABRICATION.
 - B. SEALED CALCULATIONS SHOWING ANALYSIS AND DESIGN SHALL BE PROVIDED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA, EXPERIENCED IN THE DESIGN OF ALUMINUM STRUCTURES, AND SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
 - C. CERTIFICATES OF COMPLIANCE SHALL BE PROVIDED FOR ALL STRUCTURAL METALS.
11. MATERIALS
 - A. ALL STRUCTURAL ALUMINUM INCLUDING TUBES, PLATES, ANGLES AND PIPE SHALL BE ALLOY 6061-T6 PER ASTM B308. ALL BOLTS SHALL BE STAINLESS STEEL APPROPRIATE FOR USE WITH ALUMINUM IN MARINE ENVIRONMENTS. ISOLATORS SHALL BE USED WHEN CONNECTING DISSIMILAR MATERIALS.
 - B. DECKING – GANGWAY DECKING SHALL BE AGGRESSIVELY SLIP AND SKID RESISTANT AND MADE FROM ALUMINUM OR OTHER MARINE GRADE MATERIAL APPROPRIATE FOR THIS USE. SAMPLES AND/OR CUT SHEETS OF THE DECKING MATERIAL SHALL BE PROVIDED FOR APPROVAL PRIOR TO FABRICATION. OPEN GRATES OR 'GRIP STRUT' TYPE MATERIALS SHALL NOT BE ACCEPTABLE UNLESS SPECIFICALLY APPROVED IN ADVANCE.
 - C. STRUCTURAL STEEL – ALL STRUCTURAL STEEL (IF USED) SHALL BE ASTM A36, HOT DIPPED GALVANIZED PER ASTM A123 OR A153 AFTER FABRICATION.
 - D. PROVIDE NEOPRENE BEARING PAD BETWEEN ANY POINTS OF CONTACT BETWEEN ALUMINUM AND ACO-TREATED LUMBER.
 - E. RUB STRIP AROUND PERIMETER OF FLOATING DOCK SHALL BE 1-1/2" THICK (MIN) X 3-1/2" WIDE UHMW-PE, UV STABILIZED COLOR SHALL BE BLACK.
12. FABRICATION AND WORKMANSHIP
 - A. FABRICATION, DELIVERY AND INSTALLATION OF THE ALUMINUM GANGWAY SHALL CONFORM TO THE LATEST REVISIONS OF THE ALUMINUM CONSTRUCTION MANUAL AND ALL APPLICABLE STANDARDS AND DATA AS SET FORTH BY THE ALUMINUM ASSOCIATION. EDGES SHALL BE CUT TRUE, SMOOTH AND FREE FROM BURRS. CORNER FLASH SHALL BE REMOVED FROM ALL EXPOSED SURFACES. MFG STAMPS SHALL BE REMOVED.
 - B. MATERIALS DELIVERED AND STORED AT EITHER THE MANUFACTURING FACILITY, STAGING AREA, OR JOBSITE SHALL BE PROPERLY STORED ON DUNNAGE OR BY OTHER APPROPRIATE MEANS TO PREVENT DIRECT CONTACT WITH THE GROUND AND UNNECESSARY DAMAGE.
 - C. WELDING – PARTS TO BE WELDED SHALL BE FREE OF DIRT, GREASE, AND OTHER CONTAMINANTS, AND SHALL FIT PROPERLY FOR SOUND WELDING. ALL WELDING SHALL BE PERFORMED BY A.W.S OR W.A.B.O. CERTIFIED STRUCTURAL WELDERS. WELDS WILL BE SPOT TESTED BY VT OR UT AND ANY FAILING WELDS WILL BE REPAIRED AND RETESTED AT THE FABRICATORS EXPENSE.
 - D. INSTALLATION – THE ALUMINUM GANGWAY SHALL BE INSTALLED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER. THE GANGWAY SHALL BE INSTALLED ON THE FLOATING DOCK AND POSITIONED AS TO ALLOW THE DOCK SYSTEM TO TRAVEL THE FULL RANGE OF WATER LEVELS WITHOUT BINDING OR STRESSING THE GANGWAY OR DOCK SYSTEM.

REVISION

DATE	BY	NO.	DESCRIPTION

NEW CLERMONT PUBLIC BOAT RAMP
CITY OF CLERMONT, FLORIDA

BOAT RAMP NOTES



DATE: 11/16/2018

DESIGNED BY: RES

DRAWN BY: RES

CHECKED BY: DKB

JOB NO.:

FILE NAME:

SHEET NO: 10

DUANE K BOOTH
P.E. NO. 54013