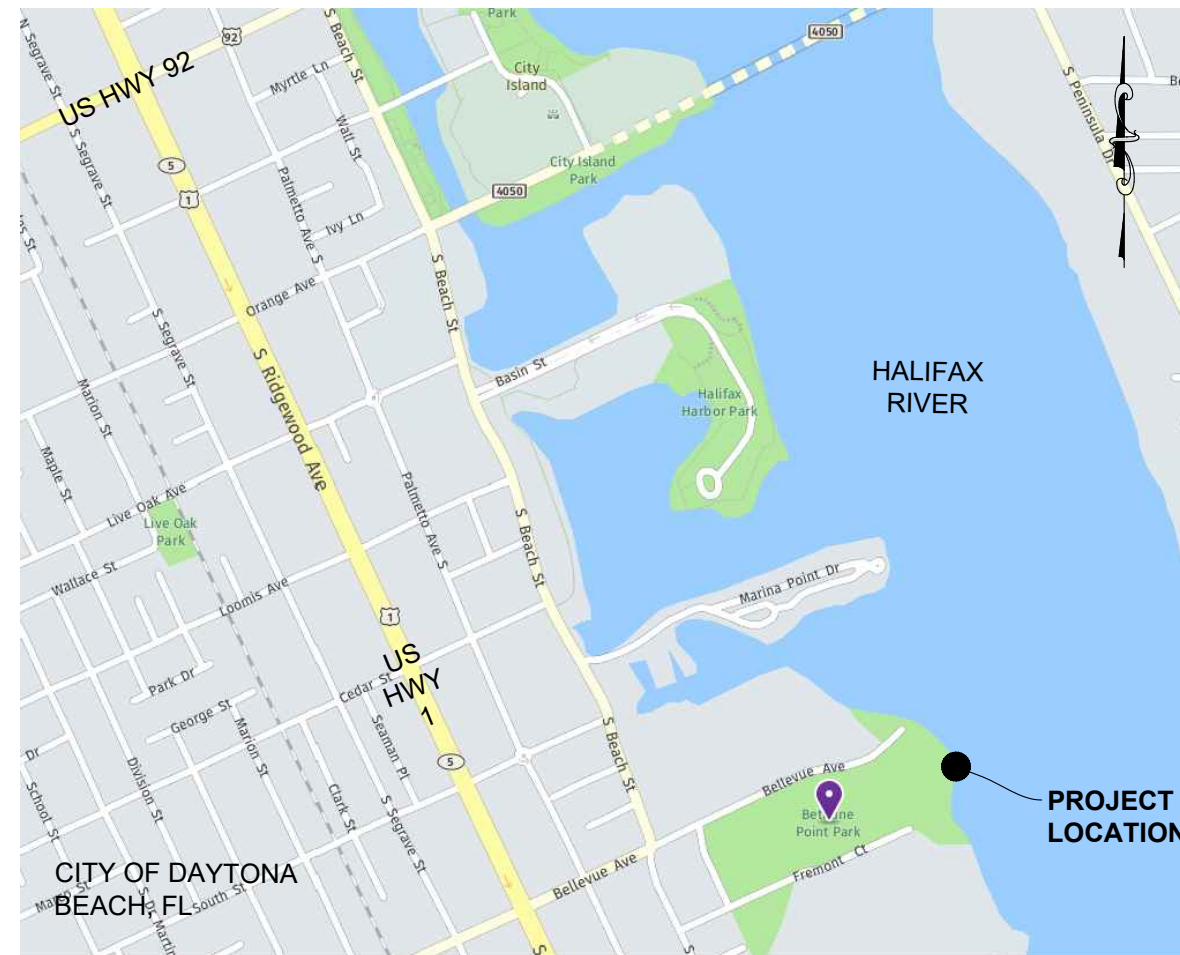


CONSTRUCTION DRAWINGS

CITY OF DAYTONA BEACH BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR APRIL 15, 2019

LOCATION MAP



CITY COUNCIL

DERRICK L. HENRY	MAYOR
RUTH TRAGER	ZONE 1
AARON DELGADO	ZONE 2
QUANITA MAY	ZONE 3
ROBERT A. GILLILAND	ZONE 4
DANNETTE HENRY	ZONE 5
PAULA R. REED	ZONE 6



REPRODUCTION SCALE:
THESE PLANS ARE SCALED TO ACCURATELY BE REPRODUCED ON 11X17 SIZED SHEETS. ALL OTHER SHEET SIZES ARE NOT TO SCALE.

Dredging & Marine Consultants
DMC
 ENGINEERS • SCIENTISTS
 4643 S. Clyde Morris Blvd
 Unit 302
 Port Orange, FL 32129
 Phone:(386) 304-6505
 Fax:(386) 304-6506
 www.dmces.com

STEPHEN J. KUHN, P.E.
 FLORIDA LICENSE No. 67486

ENGINEER CERTIFICATION:

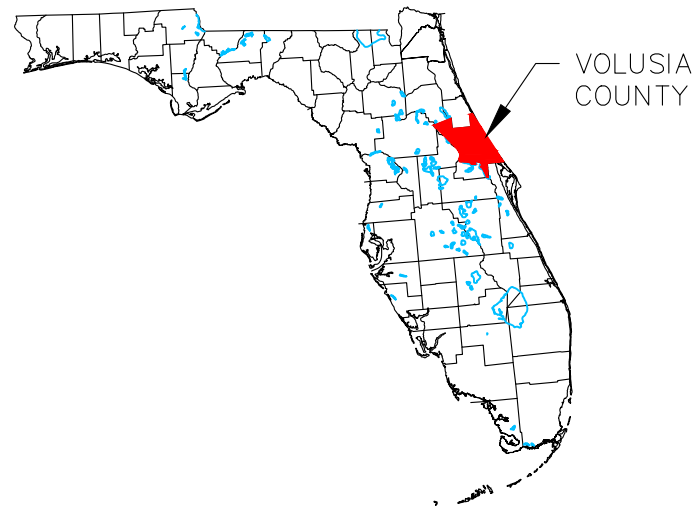
I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA PRACTICING WITH DMC, DREDGING & MARINE CONSULTANTS LLC, A CORPORATION, AUTHORIZED TO OPERATE AS AN ENGINEERING BUSINESS, CERTIFICATE OF AUTHORIZATION # 9410, BY THE STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, AND THAT I, OR OTHERS UNDER MY DIRECT SUPERVISION, HAVE PREPARED OR APPROVED THE EVALUATIONS, FINDINGS, OPINIONS, CALCULATIONS, CONCLUSIONS OR TECHNICAL ADVICE HEREBY REPRESENTED BY THESE DRAWINGS.

NOTE TO CONTRACTOR:

THESE DRAWINGS AND THE PROJECT SPECIFICATIONS ARE COMPLEMENTARY, AND ANY REQUIREMENT OF ONE SHALL BE A REQUIREMENT OF THE OTHER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE DRAWINGS AND SPECIFICATIONS AND TO COMPARE THE REQUIREMENTS OF EACH DIVISION AND ENSURE THAT EACH TRADE OR SUBCONTRACTOR IS MAKING THE ALLOWANCES NECESSARY TO PROVIDE THE OWNER A COMPLETE FACILITY, OPERATIONAL IN ALL RESPECTS, UNLESS OTHERWISE SPECIFICALLY STATED IN THE DRAWINGS OR PROJECT MANUAL.

IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR DISCREPANCIES AMONG THE DIVISIONS OF THE DRAWING AND SPECIFICATIONS PRIOR TO THE BID DATE. NEITHER THE OWNER OR ENGINEER WILL BE RESPONSIBLE FOR ANY DEFICIENCIES OR DISCREPANCIES RAISED AFTER THE BID OPENING. ACCORDINGLY, IN LIGHT OF THESE OBLIGATIONS, THE ENGINEER IS OBLIGATED TO INTERPRET THE DRAWINGS SPECIFICATIONS IN A MANNER THAT WILL PROVIDE THE OWNER WITH A COMPLETE, FUNCTIONING FACILITY FOR THE BID PRICE.

FLORIDA



INDEX

SHEET	DESCRIPTION
CVR	INDEX & LOCATION MAP
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C-02	AERIAL
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C-04	DEMOLITION PLAN
C-05	SITE PLAN
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C-09	TYPICAL GANGWAY DETAILS
C-10	TYPICAL FLOATING DOCK DETAILS
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C-14	ENVIRONMENTAL NOTES

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Ankeet Tab existing 4/16/2019



DMC, 4/13/2018




DMC, 4/13/2018



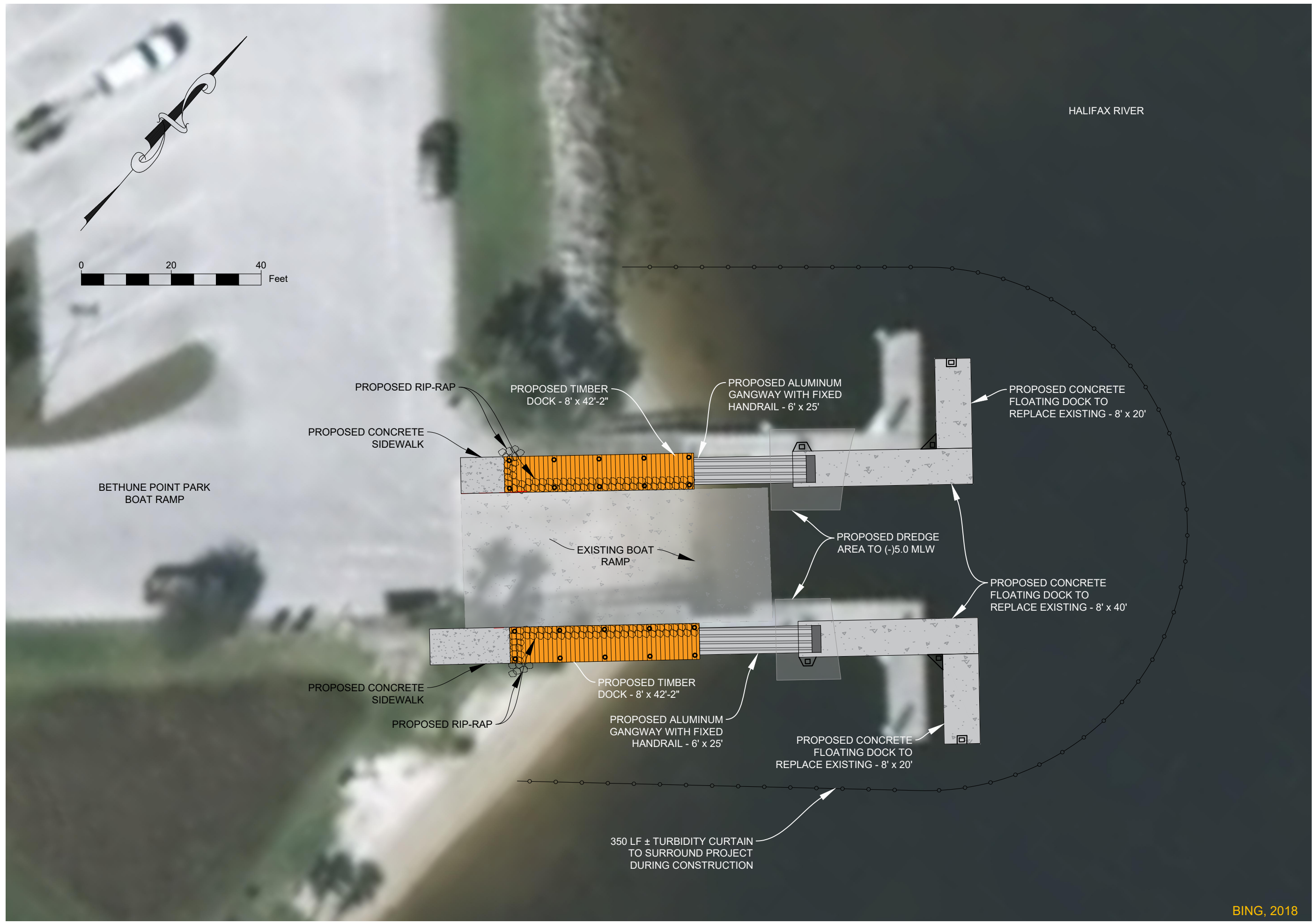
DMC, 4/13/2018



DMC, 4/13/2018

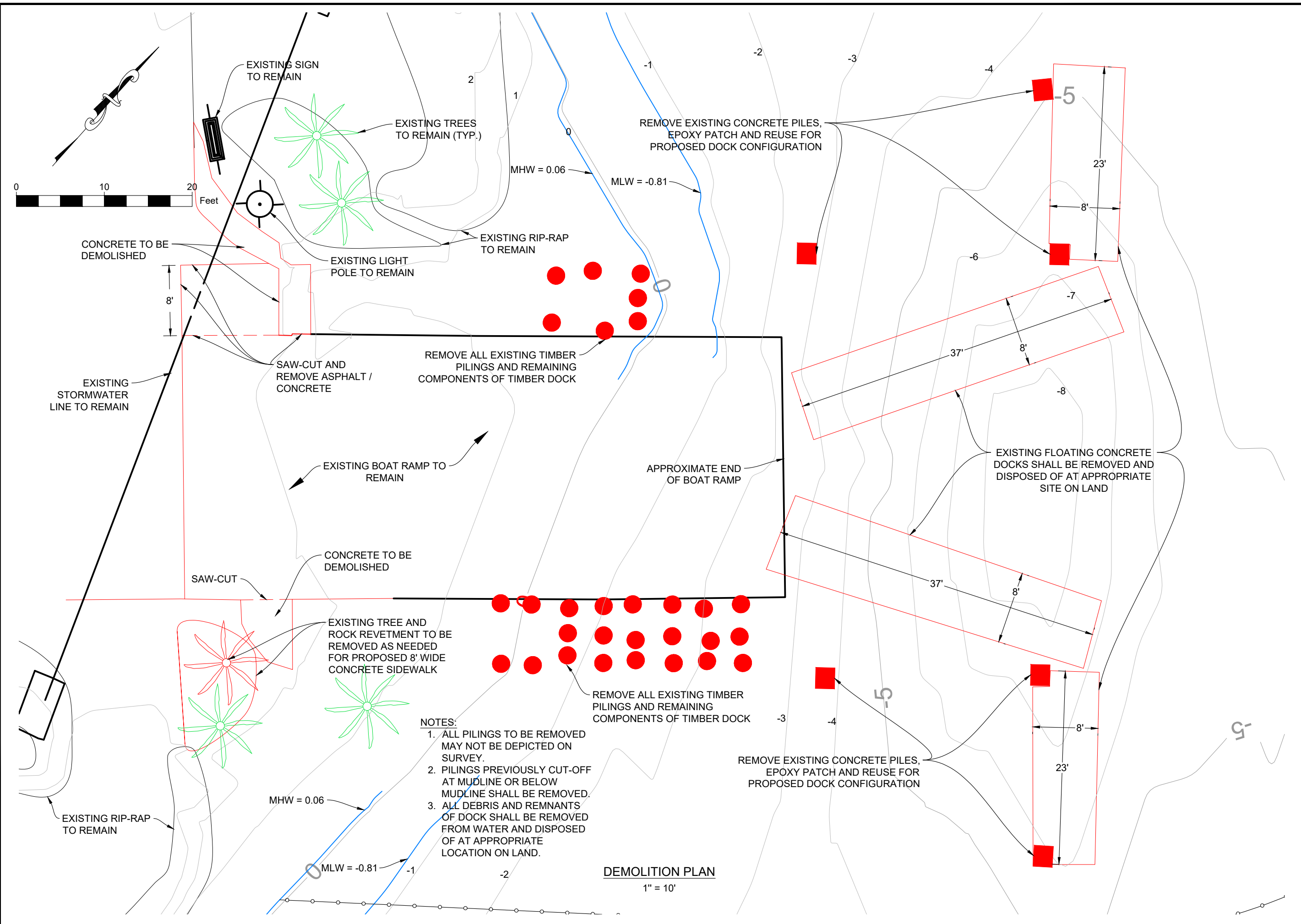
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DMC JOB NO. 18-006-34	SHEET NO. C-01
DRAWN AR CAD	CHECKED SJK SCALE AS SHOWN
APPROVED SKP	DATE 04-15-2019
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	
CLIENT: CITY OF DAYTONA BEACH	
STEVEN J KUHN FLORIDA LICENSE No. 67486	
Dredging & Marine Consultants DMC ENGINEERS • SCIENTISTS 4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com	
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400	
	

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Ankeest Tab. aerial. 4/16/2019



DRAWING: AERIAL		DMC JOB NO. 18-006-34		SHEET NO. C-02	
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR		DRAWN: AR	CAD: CAD 2019	CHECKED: SJK	SCALE AS SHOWN
CLIENT: CITY OF DAYTONA BEACH		APPROVED: SKP		DATE: 04-15-2019	
4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmccees.com		STEVEN J. KUIHN FLORIDA LICENSE NO. 67486			
Dredging & Marine Consultants DMC ENGINEERS • SCIENTISTS		301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400			
THE CITY OF DAYTONA BEACH INCORPORATED		BING, 2018			

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Ankeet Tab. demo. 4/18/2019



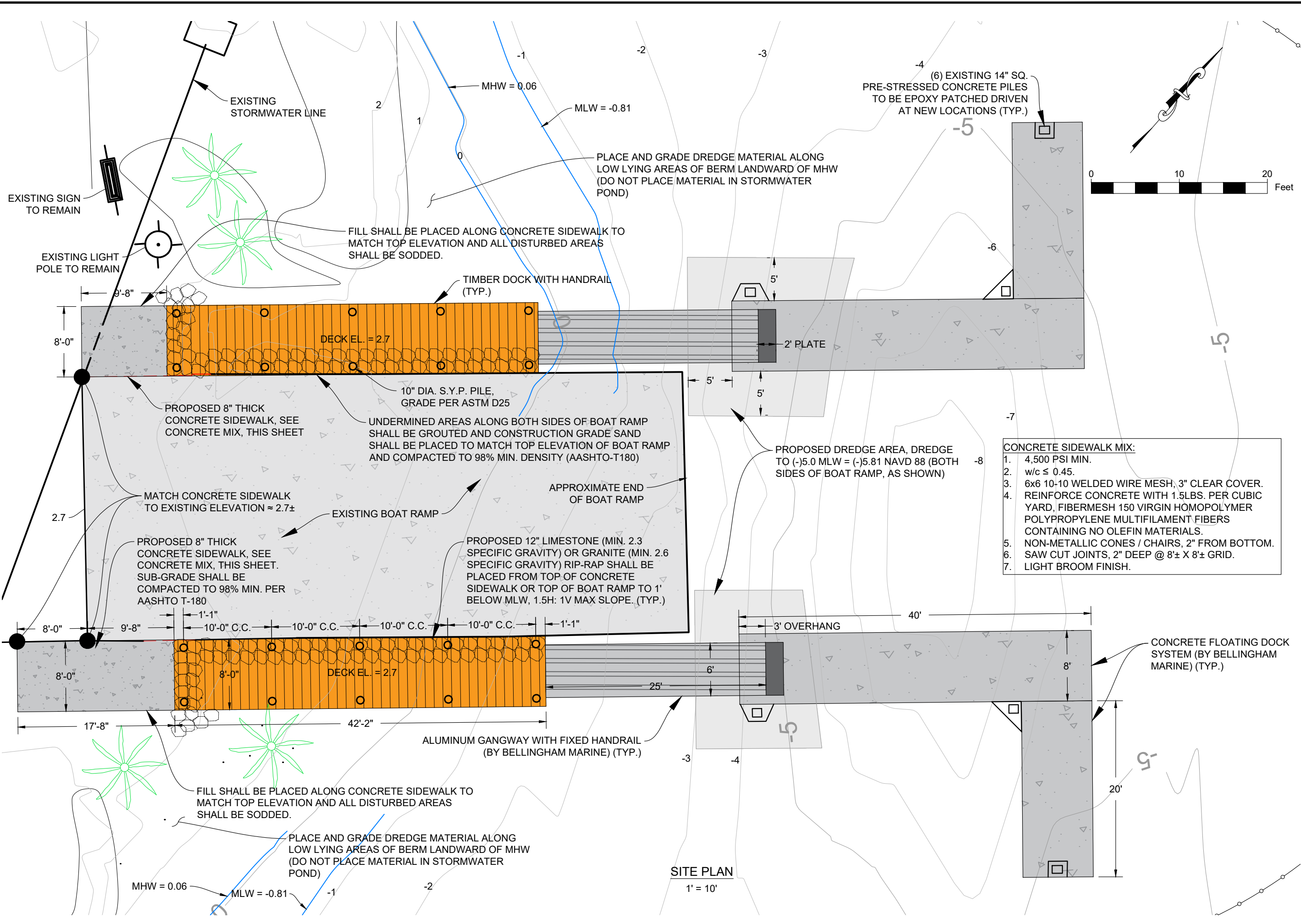
- NOTES:**
1. ALL PILINGS TO BE REMOVED MAY NOT BE DEPICTED ON SURVEY.
 2. PILINGS PREVIOUSLY CUT-OFF AT MUDLINE OR BELOW MUDLINE SHALL BE REMOVED.
 3. ALL DEBRIS AND REMNANTS OF DOCK SHALL BE REMOVED FROM WATER AND DISPOSED OF AT APPROPRIATE LOCATION ON LAND.

DEMOLITION PLAN
1" = 10'

<p>DRAWING: DEMOLITION PLAN</p> <p>DMC JOB NO.: 18-006-34</p> <p>DRAWN: AR CAD</p> <p>CHECKED: SJK CAD</p> <p>APPROVED: SKP DATE: 04-15-2019</p> <p>SHEET NO.: C-04</p>	<p>PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR</p> <p>CLIENT: CITY OF DAYTONA BEACH</p> <p>STEVEN J KUHN FLORIDA LICENSE NO. 67486</p>	<p>Dredging & Marine Consultants</p> <p>DMC</p> <p>ENGINEERS • SCIENTISTS</p> <p>4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com</p>
<p>301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400</p>		



Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Ankeet Tab. site 4/16/2019

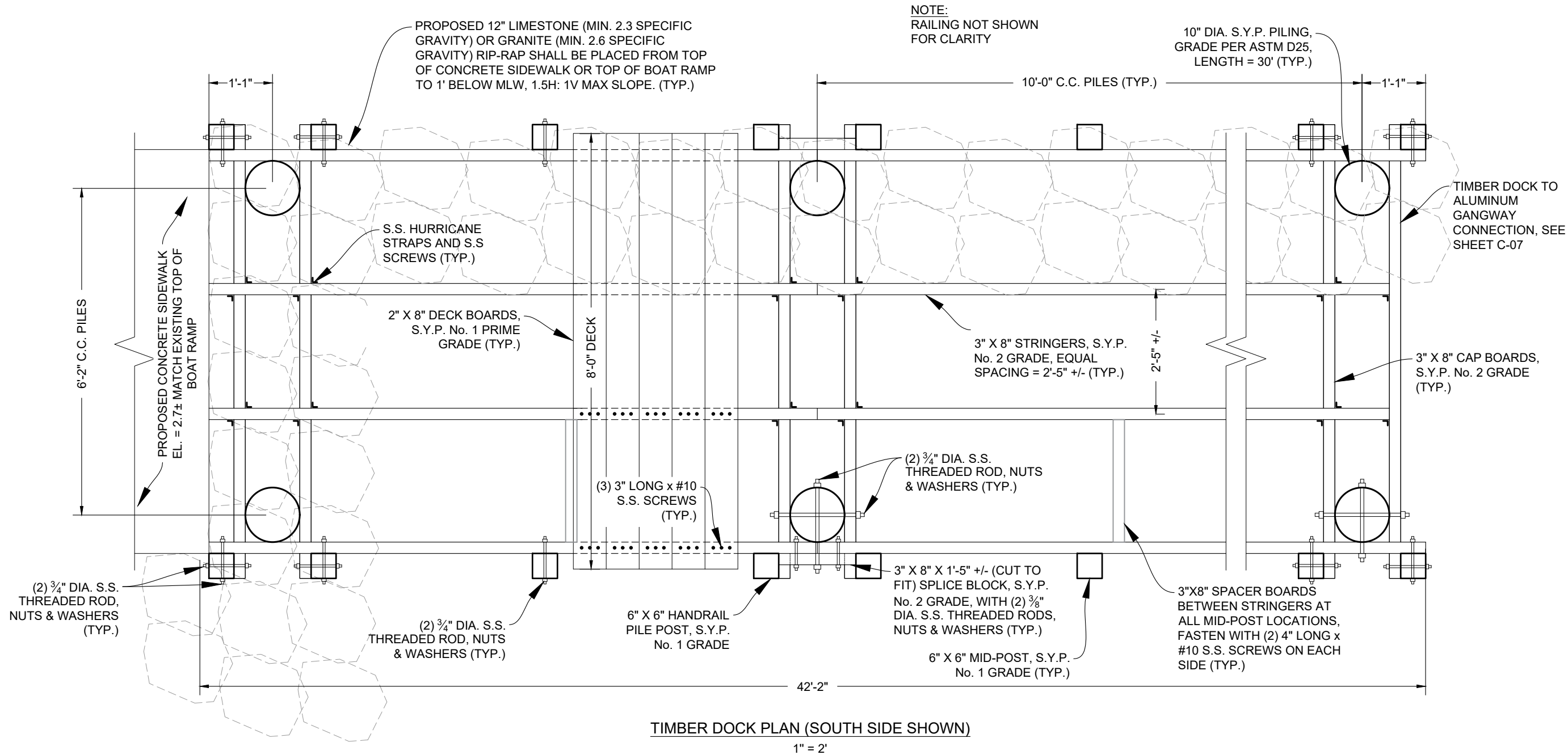


- CONCRETE SIDEWALK MIX:**
1. 4,500 PSI MIN.
 2. w/c ≤ 0.45.
 3. 6x6 10-10 WELDED WIRE MESH, 3" CLEAR COVER.
 4. REINFORCE CONCRETE WITH 1.5LBS. PER CUBIC YARD, FIBERMESH 150 VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS CONTAINING NO OLEFIN MATERIALS.
 5. NON-METALLIC CONES / CHAIRS, 2" FROM BOTTOM.
 6. SAW CUT JOINTS, 2" DEEP @ 8'± X 8'± GRID.
 7. LIGHT BROOM FINISH.

SITE PLAN
1" = 10'

DRAWING: SITE PLAN	DMC JOB NO.: 18-006-34	DRAWN: AR	CHECKED: SJK	APPROVED: SKP
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	DATE: 04-15-2019			
CITY: CITY OF DAYTONA BEACH	CLIENT: CITY OF DAYTONA BEACH			
 DMC ENGINEERS • SCIENTISTS				
Dredging & Marine Consultants 4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcscs.com				
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400				

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Ankeet Tab. PLAN 4/16/2019



TIMBER DOCK PLAN (SOUTH SIDE SHOWN)

1" = 2'

DRAWING: TIMBER DOCK PLAN	
DMC JOB NO. 18-006-34	SHEET NO. C-06
DRAWN BY: AR	CHECKED BY: SJK
DATE: CAD 2019	SCALE AS SHOWN
DATE: 04-15-2019	APPROVED SKP

PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR
CLIENT: CITY OF DAYTONA BEACH

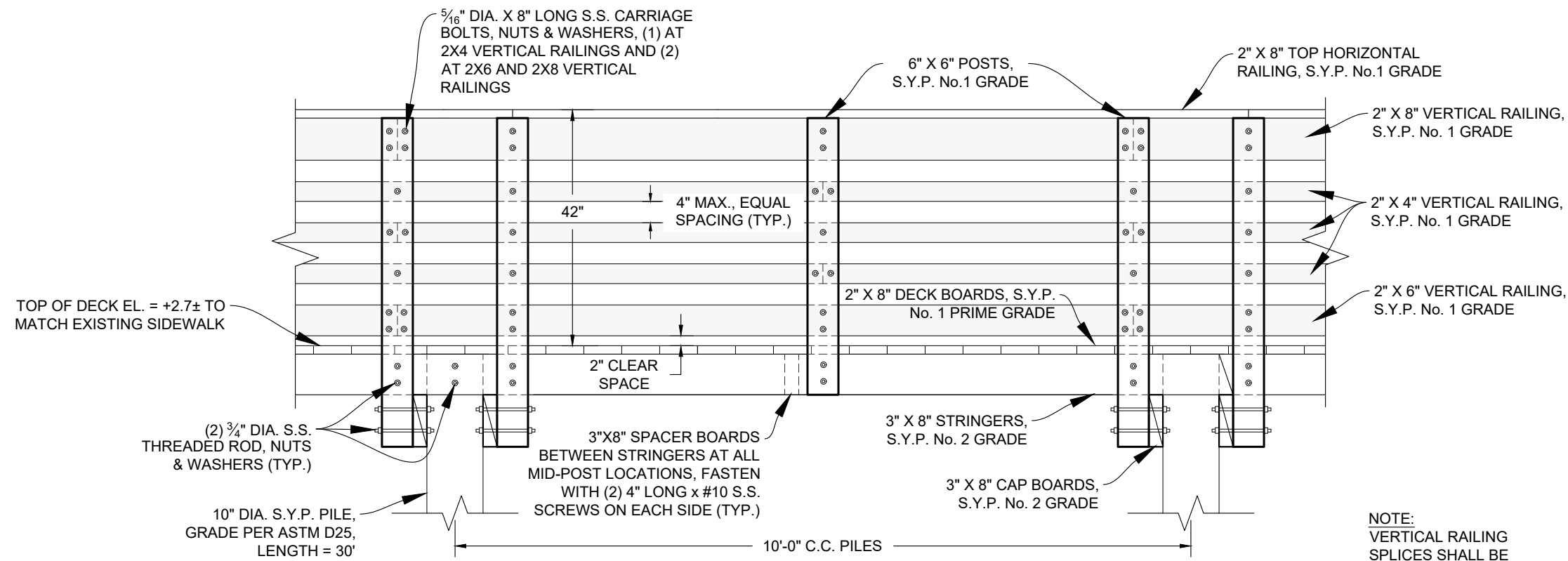
STEVEN J. KUHN FLORIDA LICENSE No. 67486

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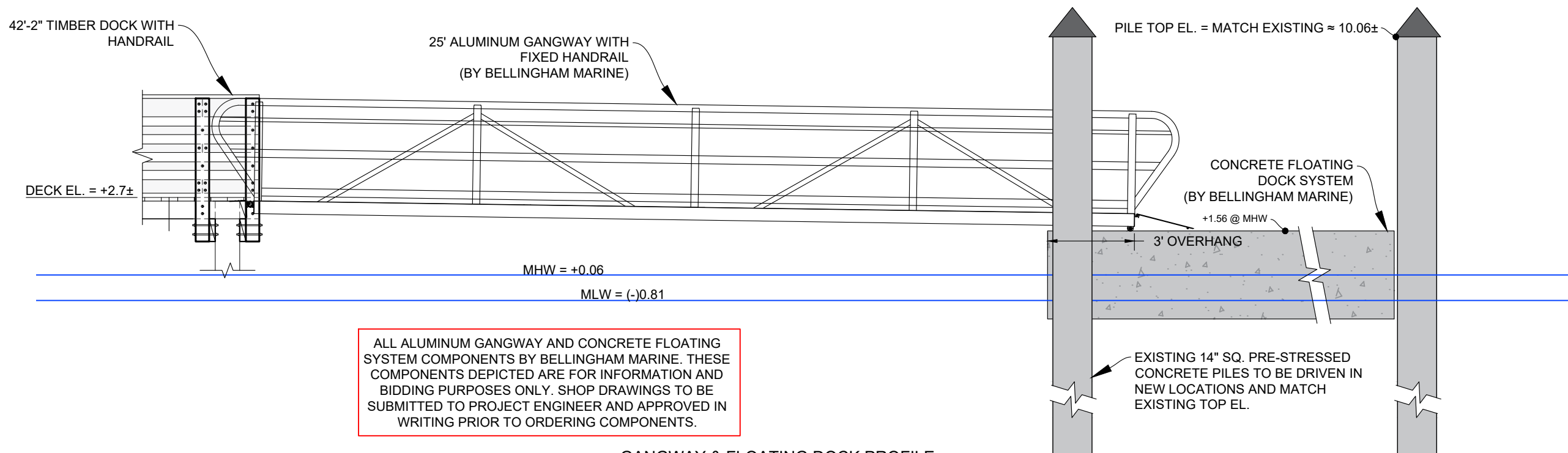
301 S. RIDGEWOOD AVE.,
 DAYTONA BEACH, FL 32114
 (386) 671-8400

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Ankeet Tab, profile 4/16/2019




TIMBER DOCK PROFILE
1" = 2'

NOTE:
VERTICAL RAILING
SPICES SHALL BE
STAGGERED AS SHOWN

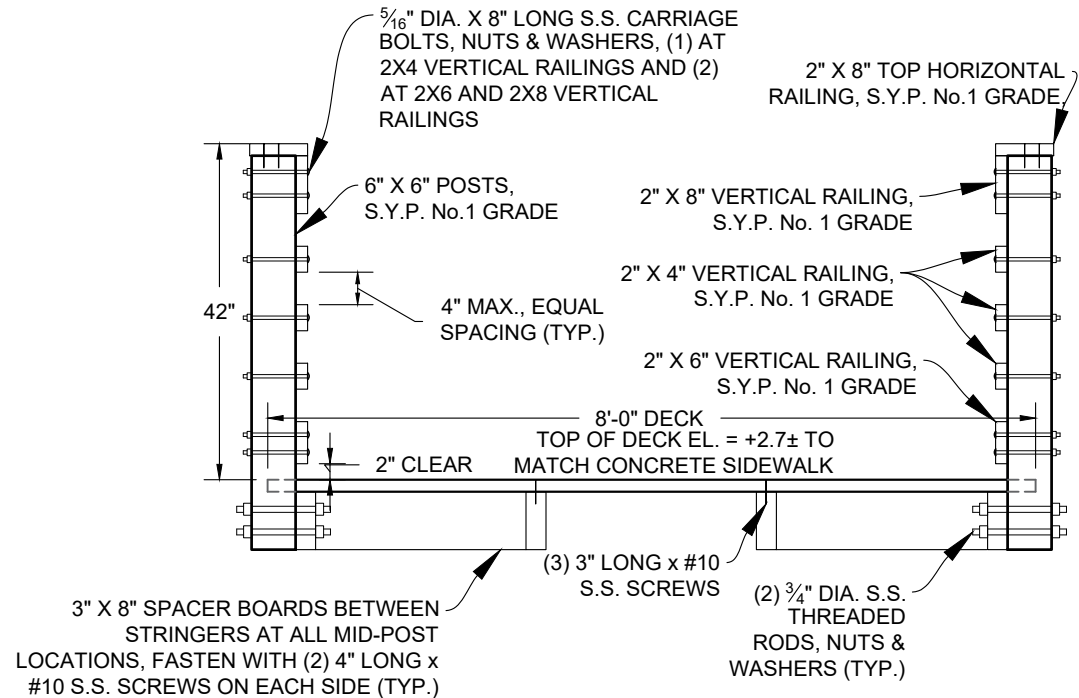


ALL ALUMINUM GANGWAY AND CONCRETE FLOATING SYSTEM COMPONENTS BY BELLINGHAM MARINE. THESE COMPONENTS DEPICTED ARE FOR INFORMATION AND BIDDING PURPOSES ONLY. SHOP DRAWINGS TO BE SUBMITTED TO PROJECT ENGINEER AND APPROVED IN WRITING PRIOR TO ORDERING COMPONENTS.

GANGWAY & FLOATING DOCK PROFILE
N.T.S.

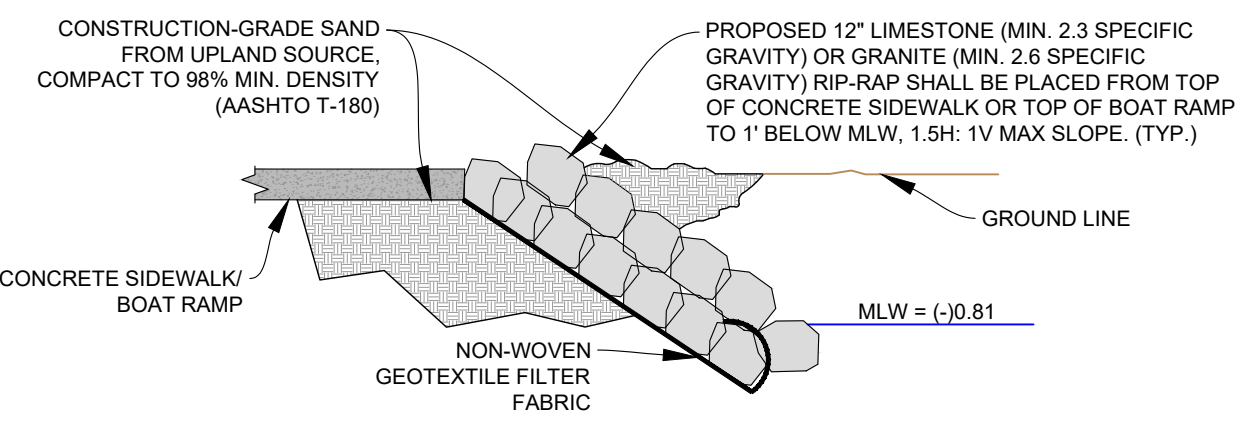
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	DRAWN	AR	CAD	CAD 2019		
PROJECT NAME:	BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR				CLIENT:	CITY OF DAYTONA BEACH
Dredging & Marine Consultants		4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com		ENGINEERS • SCIENTISTS		
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400						

Drawing Name: D:\Daitto\Drive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg, By: Ankeet Tab, CROSS SEC, 4/16/2019



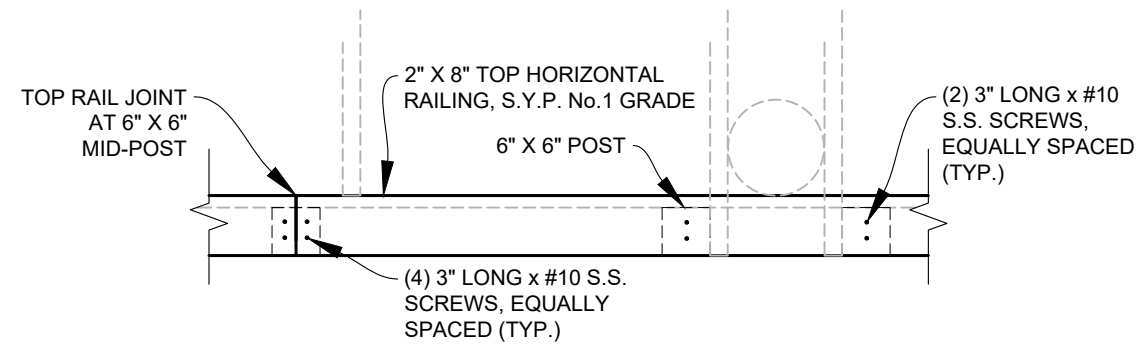
TYPICAL TIMBER DOCK CROSS-SECTION - NO PILING

1"=6"



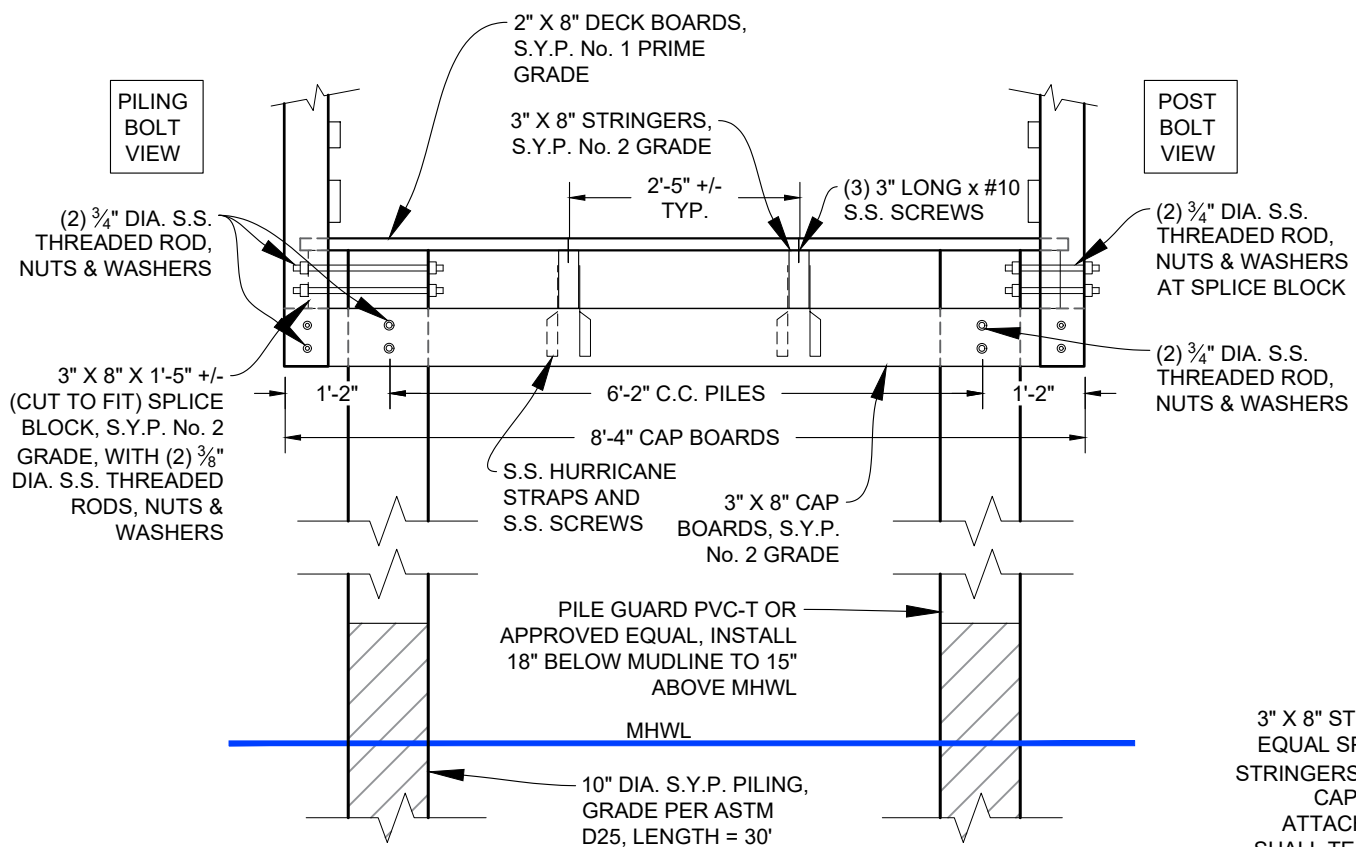
TYPICAL RIP-RAP CROSS-SECTION

1"=5'



TOP RAILING DETAIL

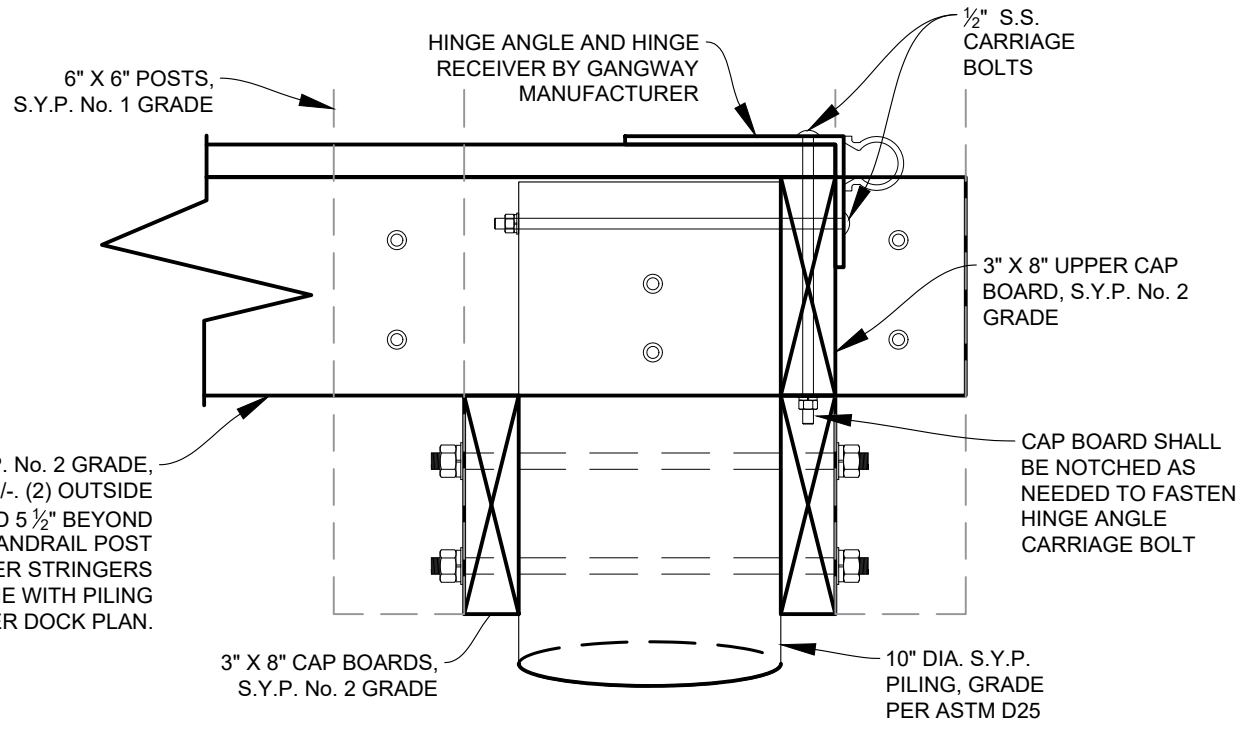
1"=6"



TYPICAL TIMBER DOCK CROSS-SECTION - PILING

1"=6"

3" X 8" STRINGERS, S.Y.P. No. 2 GRADE, EQUAL SPACING = 2'-5" +/- (2) OUTSIDE STRINGERS SHALL EXTEND 5 1/2" BEYOND CAP BOARD FOR HANDRAIL POST ATTACHMENT, (2) INNER STRINGERS SHALL TERMINATE IN-LINE WITH PILING AS SHOWN ON TIMBER DOCK PLAN.



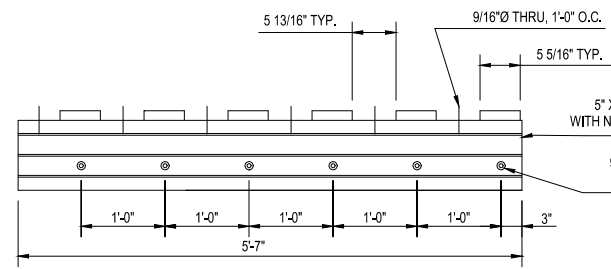
TYPICAL TIMBER DOCK TO GANGWAY CONNECTION

N.T.S.

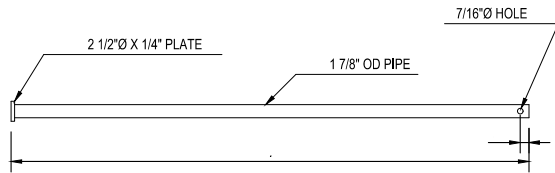
TIMBER PILING:
 10" DIA. S.Y.P. PILES, GRADE PER ASTM D25
 LENGTH = 30' (LATERAL GOVERNED)
 EMBEDMENT LENGTH = MIN. 15.5' OF CLEAN SAND
 TOP EL. = +2.575
 TIP EL. = (-)27.425

DRAWING: TIMBER CROSS-SECTIONS	DMC JOB NO. 18-006-34	SHEET NO. C-08
	DRAWN BY AR	
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR		
CLIENT: CITY OF DAYTONA BEACH		
Dredging & Marine Consultants DMC ENGINEERS • SCIENTISTS 4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com		
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400		

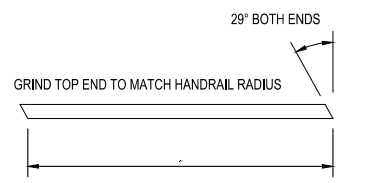
Drawing Name: D:\Datto\Drive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Anleest Tab. GANG 4/16/2019



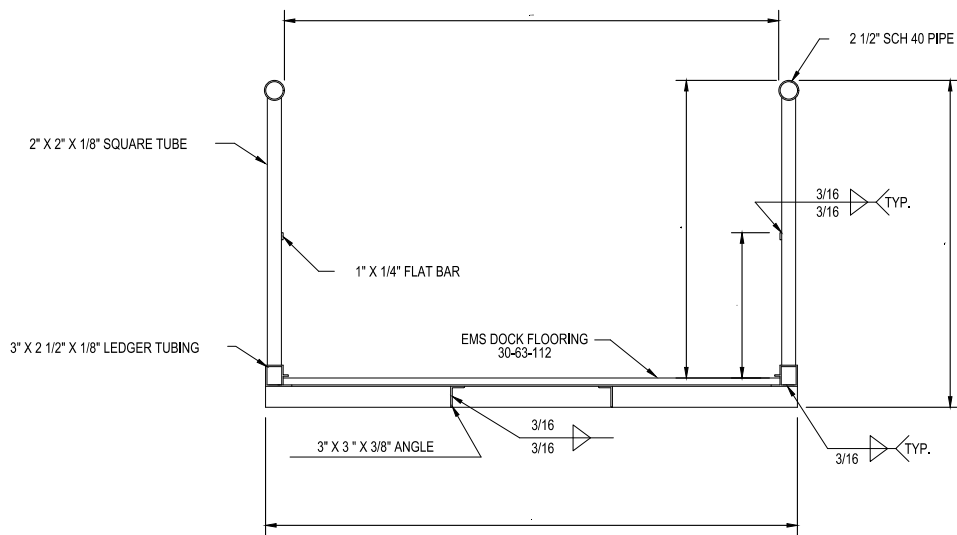
HINGE ANGLE
N.T.S.



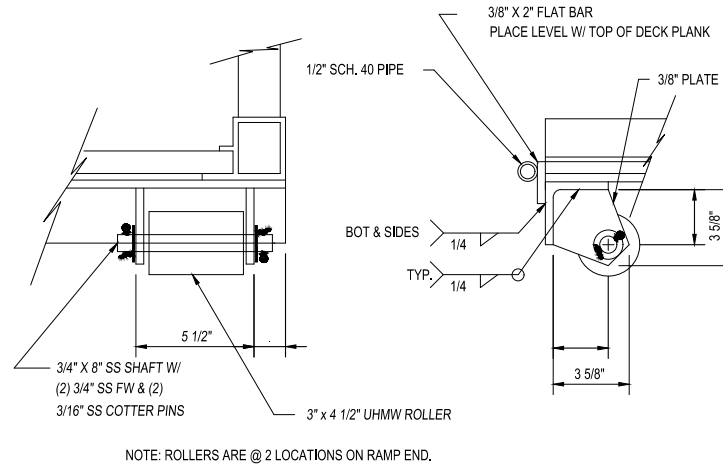
HINGE PIN
N.T.S.



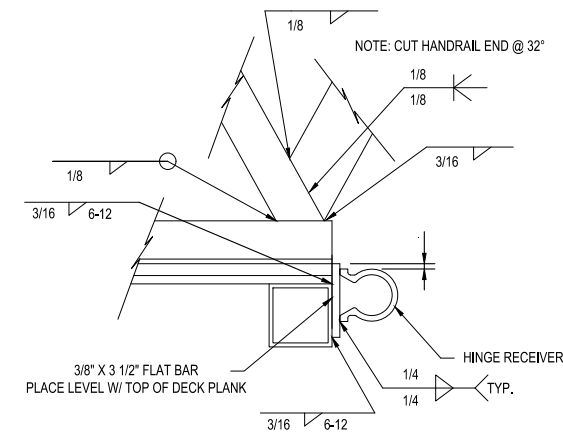
STANCHION FOR 4' TRUSS
N.T.S.



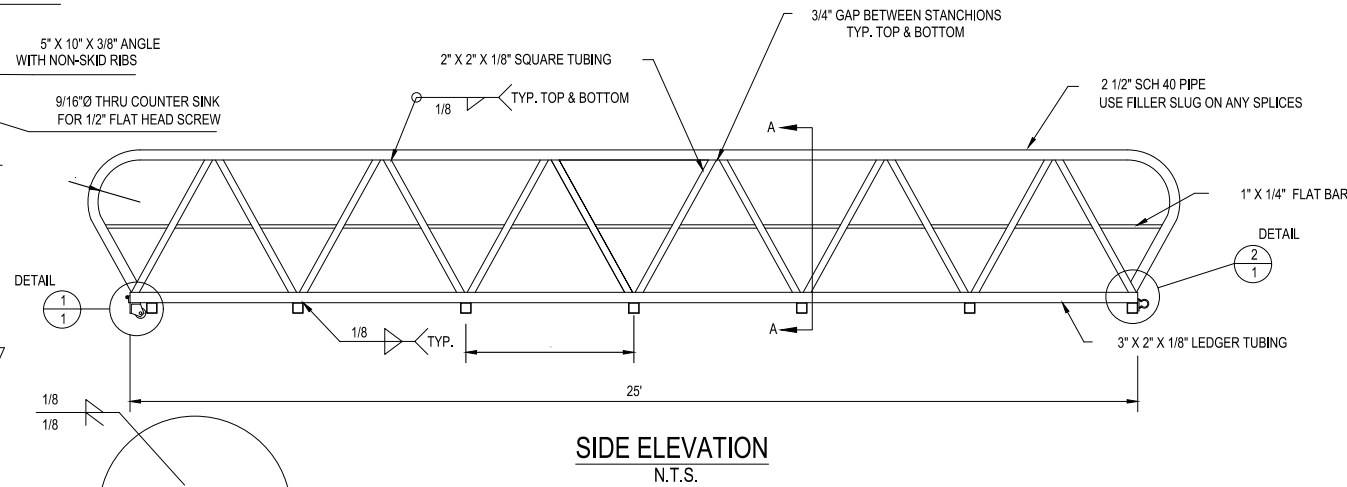
SECTION A-A
N.T.S.



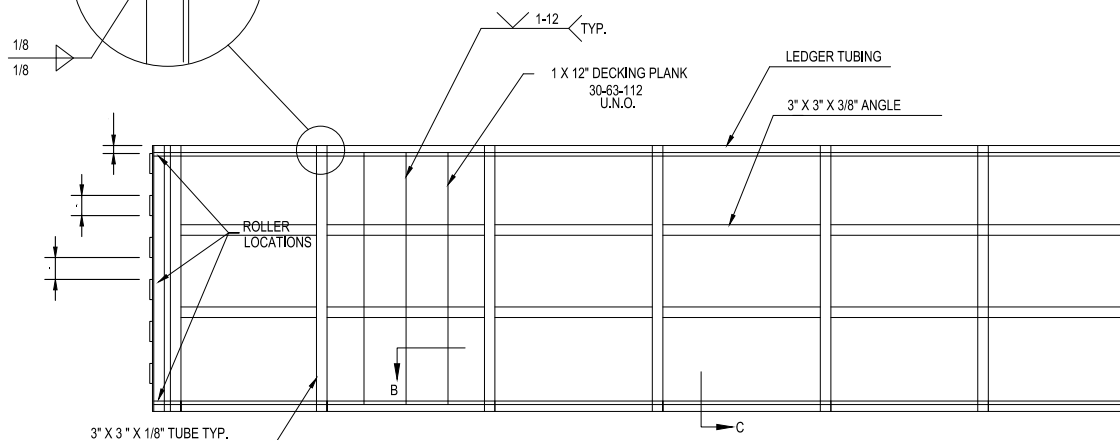
DETAIL 1
N.T.S.



DETAIL 2
N.T.S.

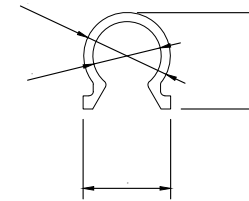


SIDE ELEVATION
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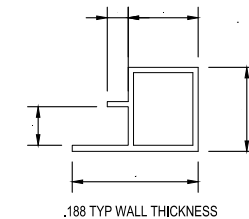


LAYOUT OF RAMP
N.T.S.

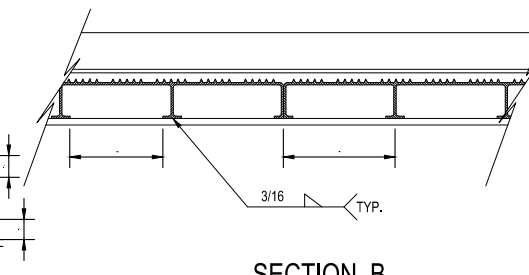
- NOTES:
1. MANUFACTURE FROM 6061-T6 ALUMINUM.
 2. BREAK ALL EDGES ABOVE DECK LEVEL.
 3. BRUSH FINISH PIPE RAIL AFTER ASSEMBLY.



HINGE RECEIVER SECTION
N.T.S.



SECTION C
N.T.S.

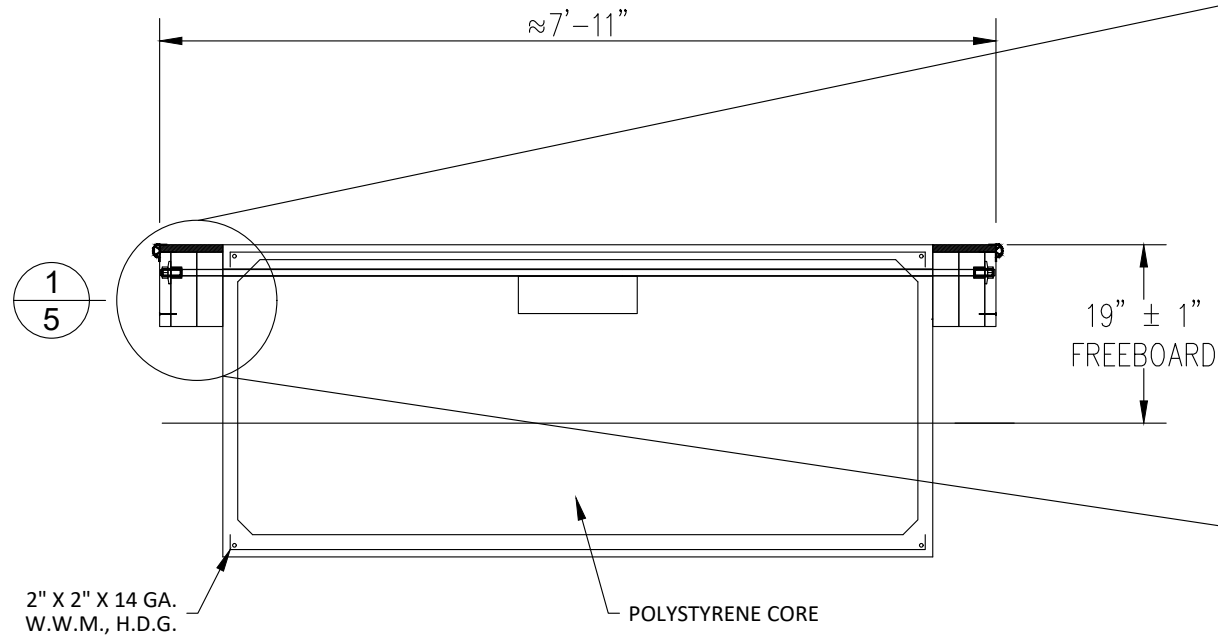


SECTION B
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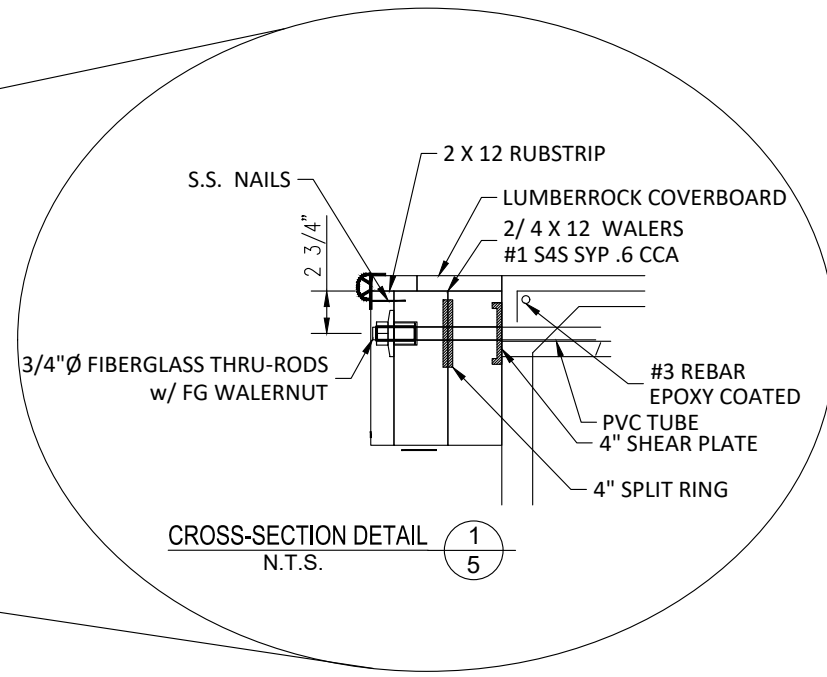
ALL ALUMINUM GANGWAY AND CONCRETE FLOATING SYSTEM COMPONENTS BY BELLINGHAM MARINE. THESE COMPONENTS DEPICTED ARE FOR INFORMATION AND BIDDING PURPOSES ONLY. SHOP DRAWINGS TO BE SUBMITTED TO PROJECT ENGINEER PRIOR TO ORDERING COMPONENTS.

DRAWING: TYPICAL GANGWAY DETAILS	DMC JOB NO. 18-006-34	SHEET NO. C-09
	DRAWN BY: AR	
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	CLIENT: CITY OF DAYTONA BEACH	DATE: 04-15-2019
Dredging & Marine Consultants DMC ENGINEERS • SCIENTISTS		4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400		THE CITY OF DAYTONA BEACH INCORPORATED

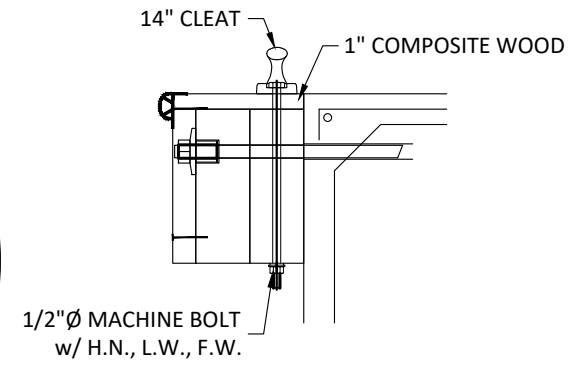
Drawing Name: D:\Daitto\Drive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Ankeet Tab. FLOAT - 4/16/2019



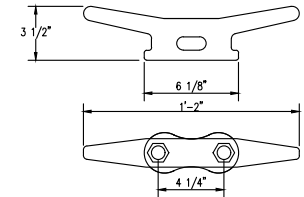
SECTION
N.T.S.



CROSS-SECTION DETAIL
N.T.S.

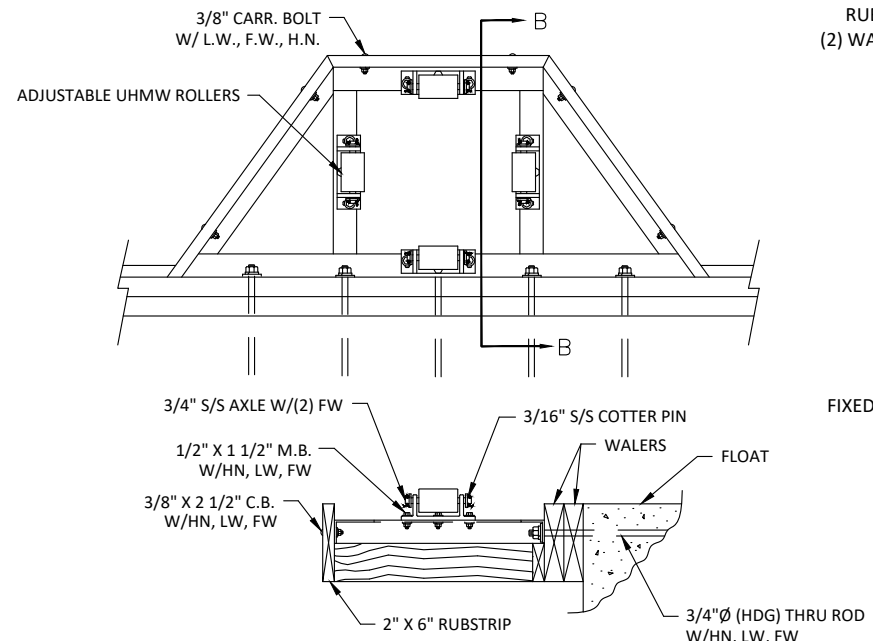


CROSS-SECTION DETAIL
N.T.S.

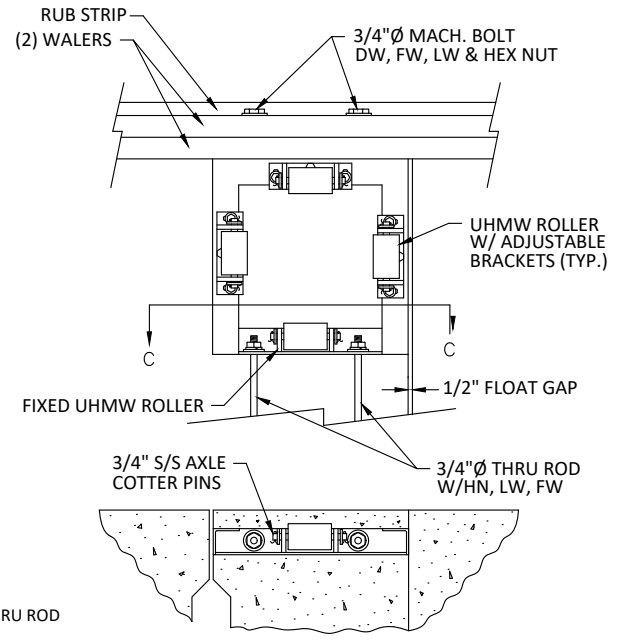


CLEAT ATTACHMENT DETAIL
N.T.S.

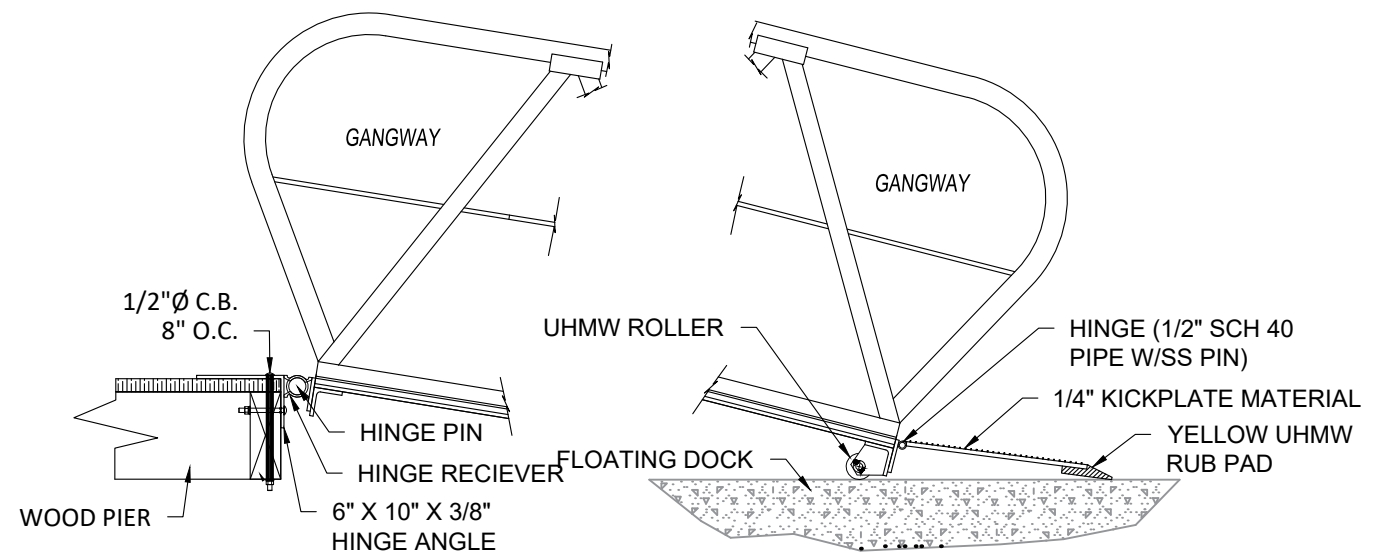
- CLEAT NOTES:**
1. CLEATS ARE INSTALLED ON INSIDE WALER.
 2. CLEATS AT THE END SHALL BE INBOARD OF THE LAST THRU-ROD.
 3. AVOID LOCATING CLEATS AT FLOAT JOINTS.
 4. CLEATS SHALL BE 6" MIN FROM NEAREST WOOD SPLICE.



TYPICAL SIDE PILE GUIDE
N.T.S.



NOTCHED PILE GUIDE
N.T.S.



TYPICAL GANGWAY ATTACHMENT TO TIMBER PIER
N.T.S.

ALL ALUMINUM GANGWAY AND CONCRETE FLOATING SYSTEM COMPONENTS BY BELLINGHAM MARINE. THESE COMPONENTS DEPICTED ARE FOR INFORMATION AND BIDDING PURPOSES ONLY. SHOP DRAWINGS TO BE SUBMITTED TO PROJECT ENGINEER AND APPROVED IN WRITING PRIOR TO ORDERING COMPONENTS.

DRAWING: TYPICAL FLOATING DOCK DETAILS	DMC JOB NO. 18-006-34	SHEET NO. C-10
	DRAWN: AR CAD	
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR		
CLIENT: CITY OF DAYTONA BEACH		
Dredging & Marine Consultants 4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com		
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400		

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Ankeet Tab. notes: 4/16/2019

IMPORTANT NOTES TO BIDDERS:

- The Contractor shall keep a pile driving log as specified in the plans and may not cut off piles until the Engineer has given approval to do so. The Contractor must provide advanced notification of a request to cut off pilings so that the Engineer may make field observations. The Engineer will not make a structure certification if the Contractor does not comply with this requirement. If a vibratory hammer or jetting equipment is used to install pilings, the time needed to hammer and/or jet each piling shall be recorded.
- The Contractor shall retain all material delivery tickets, material testing reports and cut-sheets/shop drawings for manufactured products for the project and provide copies to the Engineer on a weekly basis. The Engineer will not make a structure certification if the Contractor does not comply with this requirement.
- The Engineer must be under contract with the Owner, Developer or Contractor for construction observations in order to provide certification of the constructed project.
- The Engineer must be given advanced notice of any critical stages of construction such as: initial construction stakeout, first pile driving, framing timber, etc. The Engineer will not make a structure certification if the contractor does not comply with this requirement.
- A Pre-Construction meeting must be scheduled before start of construction and all parties are to attend including: Owner or Owner's Representative, Engineer, Prime Contractor, Sub-Contractor(s), Surveyor, Applicable Tradesmen, etc. The Engineer will lead the meeting and provide a list of critical items to discuss.

GENERAL:

- All elevations in the project plans are referenced to feet N.A.V.D. 1988.
- The project shall be straight, plumb, level and elevations shall be correct as shown in the plans.
- Any deviation from these plans, notes or specifications must be approved in writing by the Owner, Owner's Representative or Engineer, or else the deviation will be considered construction non-compliant with the plans and specifications.
- Any discrepancies amongst the plans, notes, specifications and other bid documents must be resolved in writing by the Owner, Owner's Representative or Engineer prior to continuing the work in question.
- These plans, notes and specifications, along with the other components of the project bidding documents, constitute the only instructions to bidders/contractors, unless written addenda are issued.
- All construction, manufacturing, fabrication and testing of materials shall be performed under the guidelines set forth in applicable local, state and federal codes, and/or under recommendations provided in technical publications of respected professional or industry organizations. Material testing programs, where applicable, shall be presented to the Engineer for review and approval prior to construction.
- All products constructed or manufactured/supplied for the project shall be accompanied by industry acceptable warranties or guarantees.
- For the purpose of these specifications, "Project Completion" is defined as completion of an agreed upon list of punchlist items compiled in a planned project walkthrough held at a time the Contractor considers the project to be "Substantially Complete". The Contractor shall notify the Owner and Engineer at least 48 hours in advance of substantial completion and schedule a mutually agreeable walkthrough.
- A portion of the site lies within flood zone "AE" with a base flood elevation of 5.0 as indicated on Federal Emergency Management Agency Flood Insurance Rate Map Community Panel No. 12127C0359J dated September 27, 2017.
- Any materials interfering with construction, and all abandoned utility lines, pipes, structures and other subterranean objects to be removed, shall be disposed of as directed by the Owner. All materials not claimed by the Owner shall be disposed of at the Contractor's expense in areas provided by the Contractor.
- The Contractor shall provide all sheeting, shoring and bracing required to meet the requirements of the "Trench Safety Act" and to protect adjacent structures or to minimize trench width. Where a separate pay item is not provided, the cost for all sheeting, shoring and bracing required shall be included in the contract price for the item of work for which sheeting, shoring and bracing is anticipated to be required.
- The Contractor shall endeavor to protect private property. Any damage caused by the Contractor in the performance of his work shall be corrected to the satisfaction of the Engineer at the Contractor's expense. Payment shall not be made for this work.
- Any damage to state, county, or local roads caused by the Contractor's hauling or excavation equipment shall be repaired by the Contractor to the satisfaction of the Engineer. Payment shall not be made for this work.
- During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing, or to place soil deposits, debris, solvents, construction material, machinery or other equipment of any kind within the dripline of a tree to remain on site unless approved by the Engineer.
- All trimming undertaken on a tree protected by provisions of the land development code shall be pruned in accordance with the National Arborist Association (NAA) Pruning Standards.
- The Owner and the Engineer reserve the right to perform quality assurance testing on all materials delivered to project and to reject all materials not meeting acceptable standards.

- The Contractor shall be responsible for the complete stake-out of the project, i.e., line, grade, slope stake, utility relocations or any other stake-out that may be required to complete the project in accordance with the plans and specifications. Any and all expenses incurred for this work shall be included in the unit price bid for other items. No additional payment shall be made for this work. Contractor shall also be required to provide a certified as-built survey of the grading, drainage and earthwork improvements and meet any minimum requirements of The City of Daytona Beach.
- Overall cleanup shall be accomplished by the Contractor in accordance with city standards or as directed by the Engineer. Any and all expenses incurred for this work shall be included in the unit price bid for other items.
- If, during construction activities, any evidence of historic resources including, but not limited to, aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, or historic building foundations are discovered, work shall come to an immediate stop and the client and the Florida Division of Historical Resources shall be notified within two working days.
- All materials and construction shall be in accordance with the more stringent of the current FDOT Standards and Specifications or City of Daytona Beach Standards and Specifications.
- Contractor shall be responsible for independently calculating all quantities for the project including earthwork. It is the Contractors responsibility to verify the Engineers estimated quantities included on the bid schedule.
- The Contractor shall provide pumping equipment and devices to properly remove and dispose of water during construction, if needed.
- Refer to construction pollution prevention plan for erosion control notes.

SHOP DRAWINGS:

Submit any "Shop Drawing" to the Engineer of Record for review and approval, in writing, prior to ordering and before construction. The "Shop Drawings" also include, but are not limited to; mark-up drawings, sketches, cut-sheets, product literature, additional specifications, photographs and letters.

Shop drawings list: (Note: This list is not inclusive. A complete list of submittal requirements shall be determined at the pre-construction meeting.)

- Schedule for completion of work with tasks and durations defined.
- Shipping, stockpile and site administration plan (SSSAP).
- Maintenance of Traffic Plan (MOTP) for vehicles and pedestrians, including material deliveries, stockpile area(s), worker's parking and construction equipment.
- Site-specific safety plan shall be distributed and reviewed with all site workers prior to said workers commencing work on the project site. See "Site Safety" heading.
- Demolition methods, including existing piles. Strictly prohibit pile cut-offs. Any existing timber structures to be removed shall be disposed of at upland site. No debris or component shall be disposed of in the water.
- Changes, alternates or other methods different from project plans must be approved, in writing, via "Shop Drawings".
- After completing the punchlist in the field, the Contractor must submit an itemized punchlist, as-built survey and record drawings for final changes to the Engineer of Record for written approval.

AS-BUILT SURVEY AND RECORD DRAWINGS

- As-built survey and record drawings shall be submitted at the time of the punchlist review and shall be reviewed by the Engineer for completeness and correctness.
- The record drawings shall be a designated set of drawings maintained on site for the purpose of hand-making all changes and deviations from the original design, no matter how slight. Color markings are preferred.
- The record drawings shall also contain any and all field changed with respect to location, alignment, height, width, length, depth, materials, products, etc.

DESIGN SPECIFICATIONS:

- U.S.C.O.E. Coastal Engineering Manual, EM 1110-2-1100, Latest edition.
- U.S.C.O.E. Engineering Manual, Design of Pile Foundations, EM 110-1-2906, 1991.
- Simplified Design of Structural Wood, Third edition, Harry Parker.
- Florida Building Code: Accessibility, Latest Edition.
- Florida Safety Code, Latest edition.
- Wind calculations per ASCE 7-10, "Other Standards", Section 29.5, Page 308.

MOBILIZATION AND DEMOBILIZATION:

- It is understood that this project will require work in and over water. Access to near water construction areas is required for material storage, hauling, erection and construction. All facilities, public or private, used for such purposes shall be repaired to their original condition following "Completion" of the project, including grading and topping (sod, tree/vegetation cover, established road, etc.).
- The Contractor shall present a Shipping, Stockpile and Site Administration Plan (SSSAP) to the Owner, Owner's Representative or Engineer for approval. The plan shall be specific to the project requirements for the particular materials to be delivered to the site, describing delivery points, stockpile areas, temporary debris/trash storage areas, temporary field office (incl. utilities maintained there), fencing, security and a statement of commitment and details for maintaining safety on the site.

- The Owner, Owner's Representative or Engineer shall have the right to exercise reasonable alterations or additions to the SSSAP.
- It is the contractor's responsibility to coordinate, and pay for, necessary utilities to occupy the site and perform the work.
- The Contractor shall not demobilize until "Project Completion" and all parties have agreed and signed off in writing.

SITE MAINTENANCE:

- The Contractor shall maintain a clean and neat site, void of loose debris, trash, remnant parts or materials.
- Trash receptacles and removal service shall be maintained by the Contractor specifically for this project. Pre-existing trash/debris facilities shall not be used to maintain the project.
- Temporary debris piles shall be limited in number as much as practical and contained in designated areas until removal. Debris and trash shall not be scattered in areas outside the limited designated areas at any time.
- Removal of trash/debris shall be scheduled as appropriate to not allow piles to reach five feet in height or greater than ten feet in diameter. Debris individually larger than these dimensions shall be removed from the site within five working days. Receptacles shall not overflow at any time.
- Where necessary, the Contractor shall employ a Maintenance of Traffic Plan (MOTP) for vehicles and pedestrians, including material deliveries, stockpile area(s), worker parking and construction equipment. The plan must be in writing, including sketches or drawings, and must be submitted to the Owner, Owner's Representative or Engineer for review and approval before commencement of any work.
- The Contractor shall follow all applicable local, state and federal codes regarding site maintenance.

SITE SAFETY:

The Contractor shall prepare and adhere to a Site-Specific Safety Plan. The contents of the plan are:



- Identification of potential hazards and injuries pertaining to the specific site and project.
- Location nearest hospital.
- Assure availability of at least one working cell phone and one vehicle on site at all times.
- Emergency contacts within the subcontractor's organization and at the prime contractor's organization.
- All field personnel shall wear appropriate safety attire and utilize appropriate personal protection equipment for any given task/operation, such as safety glasses/goggles, masks, shields, gloves, harnesses, hard hats, steel-toed boots, etc.
- Safety kit shall be available onsite at all times with materials for potential hazards and injuries.
- The Site-Specific Safety Plan shall be distributed and reviewed with all site workers prior to said workers commencing work on the project site.
- The Contractor shall follow all applicable local, state, and federal codes regarding site safety.

DEMOLITION, CLEARING AND RESTORATION:

- Demolition or clearing may require permits. The contractor shall acquire all necessary building permits from the local municipality prior to commencing work.
- Clearing and removal of vegetation, rocks and debris will be required within the project structure footprint.
- Demolition or removal of objects, debris, or material specified or obstructing construction shall take place only to the extent necessary.
- Any permitted demolition or removal from submerged lands or adjacent uplands shall be fully contained within siltation devices such that permit turbidity requirements and state water quality standards are met.
- The site shall be restored by removing and finishing all evidence of construction including temporary haul roads, vehicle ruts, stockpile areas, shoreline slopes and vegetation, sod and areas subject to project work.

CONSTRUCTION SURVEYING:

- Stake-out survey of the project is the responsibility of the Contractor. Beginning and end points will be provided by the Owner, Owner's Representative or Engineer either by stakes in the field or in the project drawings.
- The staked project must be approved by the Engineer prior to commencing construction. The Engineer reserves the right to make alignment changes based on conditions portrayed by the initial stakeout.
- Methods and frequency of continuing stake-out during construction shall be submitted to the Engineer for approval prior to beginning construction.
- The Contractor must perform an independent construction record survey (as-built survey) as a check for compliance at the end of the project. The record survey must be signed and sealed by a State of Florida licensed Professional Surveyor. The record survey must be referenced to feet N.A.V.D. 1988.
- The Prime Contractor is advised that certification of the project elevations and alignment is required by the Engineer for final acceptance of work.

DRAWING: GENERAL NOTES	DMC JOB NO. 18-006-34	SHEET NO. C-11
	DRAWN BY: AR	CHECKED BY: SJK
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	CAD	SCALE AS SHOWN
	DATE: 04-15-2019	APPROVED S&P
CLIENT: CITY OF DAYTONA BEACH	STEVEN J KUHN FLORIDA LICENSE NO. 67486	
Dredging & Marine Consultants  4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com ENGINEERS • SCIENTISTS		
301 S. RIDGEWOOD AVE., DAYTONA BEACH, FL 32114 (386) 671-8400		
		

Drawing Name: D:\Daito\Drive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Anleest Tab. notes1 4/16/2019

ENVIRONMENTAL AND PERMITS:

- The U.S. Army Corps of Engineers (USACE), Florida Department of Environmental Protection (FDEP), regional Water Management District (WMD) and the local city or county may exert jurisdiction over construction of the project. The contractor shall be responsible to understand and comply with all applicable permit conditions imposed by the jurisdictional agencies, if permits are necessary. If not, the Contractor must at least comply with general state water quality standards for siltation and guidelines for encounters with threatened and endangered species, including, but not limited to, the state manatee guidelines.
- All building and construction-related permits from the local (city or county) or state authorities are the responsibility of the Contractor.
- National Marine Fisheries Services has special conditions for sea turtles, smalltooth sawfish and manatees. See details.

TIMBER:

- Southern Yellow Pine (SYP) Lumber:
Decking - SYP No. 1 Prime Grade
Railing and Post - SYP No. 1 Grade
Stringers, Pavilions, Cap Boards, and Cross Bracing - SYP No. 2 Grade
Southern Pine Treated Round Timber:
Pile grade in accordance with ASTM D25.
- All ramps established within the wooden dock sections should be established to ADA requirements. Slopes must not exceed 1:12 (V:H) and handrails must be established on both sides of the ramp according to the typical section found in plans. Transition of the wooden access ramps should be flush with the deck and a minimum clearance of 36" of space should be between handrails.
- All stringers, pile cap boards or other timber components not within the walkways shall be SYP No. 2 Grade.
- Treatment of timber shall be as follows: Handrails and decking -0.25 PCF CCA (Copper Chromium Arsenate), stringers, pile cap boards and other components except pilings -0.6 CCA, pilings/posts -2.5 CCA. If required by the owner or local agency, treatment shall be equivalent levels of ACQ (Alkaline Copper Quaternary). Refer to timber supplier for equivalent ACQ levels of protection.
- All timber, lumber and pilings shall be marine grade and identified by the grade and treatment mark of a recognized organization or independent agency certified by the American Lumber Standards Committee.
- Timber Pilings:
10" dia. S.Y.P. piles, grade per ASTM D25
Length = 30' (lateral governed)
Embedment length = min. 15.5' of clean sand
Top el. = +2.575
Tip el. = (-)27.425
- All top horizontal railing have eased edge and shall be flush with the vertical handrail.
- Decking shall be placed with 1/4 inch gaps between boards.
- One layer of roofing felt shall be placed between deck (each board) and stringers.
- All boards for decking shall be installed crown down.

CONCRETE SIDEWALK:

- 8" thick concrete with a minimum 28 day compressive strength of 4,500 PSI.
- w/c ≤ 0.45.
- 6x6 10-10 welded wire mesh reinforcement, 3" minimum clear cover on all sides.
- Final concrete surface shall be a light broom finish.
- Reinforce concrete with 1.5lbs. per cubic yard, fibermesh 150 virgin homopolymer polypropylene multifilament fibers containing no olefin materials.
- Non-metallic cones / chairs, 2" from bottom.
- Saw cut joints, 2" deep @ 8'± x 8'± grid.
- Sub-grade shall be compacted to 98% min. density per AASHTO T-180.

HURRICANE STRAP:

- Simpson Strong Tie Twist Straps (stainless steel hurricane straps), HTSQ20SS-SDS.
- Eight (8) total screws, half stringers and half cap boards. Screws shall be Simpson Strong Tie 1/4" x 1 1/2" SDS, Stainless Steel.

TIMBER AND PRE-STRESSED CONCRETE PILINGS:

- The minimum tip elevations are based on the penetration required to establish lateral stability of the foundation and to meet uplift requirements.
- The minimum tip elevations are based on preventing the piles from tipping just above any soft silt or clay layers indicated in the boring logs.
- Jetting of piles is permitted but all piles shall be driven for the final five feet of embedment.
- Due to soil variabilities in borings, blow counts for each piling driven shall be recorded and

verified by the engineer of record.

- The pilings shall be timber of the size and length shown in the plans.
- All pilings shall be set full length with top elevation as shown in plans. Cut-offs are not allowed except for minimal required (max. 6") to remove tops damaged by the pile-driver.
- The pile driving equipment used must be of proper size, set-up and maintained as to not cause excessive damage to pilings. Damaged piles must be removed, discarded and replaced at the contractor's expense. The contractor shall submit information regarding the model and operating specifications of the pile-driving equipment to be used on the job for approval by the engineer prior to commencing pile-driving.
- If solid rock, debris or refusal is encountered prior to achieving the minimum penetration, then the pile shall be tool-punched at least two feet into the strata. A minimum of 2/3 of the total embedment requirement must be achieved. No additional payment will be made for pile driving where this work is required.
- For whatever reason, if piling cut-off is requested, the piling must remain "in place-as is" and the engineer must be given 72 hours advanced notice to make observations and recommendations.
- Contractor shall keep a pile driving log on the site at all times which shall include the following information: date, time, weather conditions, equipment used, weight and energy of hammer, pile location designation, blows per foot over entire driving sequence, total length of pile (after driving and cut-off, if cut-off allowed), amount of jetting or punching (if requested and approved), unusual pile behavior, damage and re-driving. This log shall be available to the Engineer or Owner's Representative at any time during the job. Updated copies of log pages shall be provided to the Engineer at least weekly throughout the project. If a vibratory hammer or jetting equipment is used to install pilings, the time needed to hammer and/or jet each piling shall be recorded.
- Proper care shall be taken for aligning piles. Rail posts are to be centered on piles.

BOLTS & SCREWS:

- All fasteners, including nails, screws, threaded rods, bolts, carriage bolts, nuts, washers, plates, lags, etc. shall be grade 316 stainless steel (SS). Washers used with single-bolted or double bolted connections (for example: stringer to piling connection, cap board connections or cross-bracing) shall be minimum 3-inch diameter "dock washers". Standard Washers for Splice Block and Railings.
- Bolts shall extend fully through the nuts but not extend beyond the nut more than 1/2 inch.
- One bolt centered or two bolts equally spaced.
- Stainless Steel (SS) screws as shown in plans.

STEEL/MISCELLANEOUS:

All Structural steel and miscellaneous metal items (other than aluminum) shall be in accordance with structural steel, Grade 316 Stainless Steel or ASTM A36 Steel.

FLOATING DOCKS & ALUMINUM GANGWAYS:

- The gangways may, or may not be, provided by the floating dock manufacturer, at the manufacturer's and/or contractor's preference. Gangway ramps shall be of length and width shown on the plans. Gangway ramps shall be constructed of Aluminum Alloy 6061-T6 and designed to carry its own dead load plus a live load of 50 pounds per square foot (psf). Gangway handrails shall be 42 inches in height and designed for 50 pounds per linear foot (plf) applied horizontally along the top rail and a point load of 200 pounds applied on the top rail mid-way between posts. The decking shall be a non-skid surface to prevent slippage when wet at maximum angle. The deck material shall be aluminum planking unless otherwise directed by the owner/developer. Gangway hardware shall be aluminum or stainless steel. The fixed hinge shall be at the top of the ramp and shall freely rotate over the entire range of design water level fluctuations.
- The gangway railing shall be a fixed design.
- A flex connection shall be provided for any applicable utility lines.
- Piling design (number, size, length, shape and type) has been performed by the project engineer. Where pilings are shown in plans, the floating dock manufacture shall provide SS four-roller pile guides with UHMW rollers and stainless steel roller pins. Other pile guide hardware and metal sections required shall be stainless steel. The pile guides shall have 3" inches of clearance from the piling to each roller.
- The Floating Dock System shall be comprised of the following basic components:
 - Individual float units with main pier, when attached, forming a continuous walkway surface of the material and finish desired by the City.
 - Aluminum gangway onto the float of the size and at location shown in the plans.
 - Pilings and pile guides, which shall be the primary support of the floating dock system.
 - Industry standard "D" shaped bumpers to surround the entire floating dock.
 - Transition plates as detailed in plans.
- Contractor is responsible for ensuring that the floating dock system properly functions and that no debris hinders its functionality. If debris is located within the footprint of the floating system then the contractor must remove the hindrances in order to allow proper function.

- The method and material type of floatation, deck system, and connection between floatation units shall be clearly described in detailed shop drawings for review by the owner and owner's representatives. For the purposes of this project, the floating dock shall consist of concrete floatation units. System hardware shall be stainless steel, roller pins shall be stainless steel.
The environmental forces and criteria for the floating docks design shall be as follows:
 - Wind Speed - 110 mph (assumed no boats)
 - Wave Height - 2.5 feet
 - Surge - Upper Category 2, 8 feet surge
 - Vessel Impact - 30-foot power boat at 1.5 knots
 - Live Load (LL) - 50 pounds per square foot (psf)
 - Dock freeboard (no load/dead load) - 19" +/- 1"
 - Dock Freeboard (DL+LL) - 9" minimum
- The contractor shall provide and properly install industrial aluminum cleats on the floating concrete system as located on the plans.
- White square vinyl caps shall be properly placed and secured on all newly installed concrete piles. This cost should be incorporated into the cost of the floating dock.


INSPECTION COORDINATION:

- The Engineer will be conducting routine observations and observations at critical stages of construction. A minimum of 72 hours notice shall be given to the Engineer prior to commencing the critical stages of construction. In general, critical stages are the initial work on the major structure components. Examples of critical stages of construction completion of construction stakeout, initial sheet piling/piling installation, framing, concrete forming and rebar placement prior to casting concrete, first section of concrete casting and finishing, first section of backfilling and compaction, etc.
- The local city or county may perform their own construction observations in addition to the Engineer. No observers other than the Engineer or his/her designated representative shall have the authority to determine compliance with plans and specifications.
- Other observers may relay information to the Engineer, but it will be the Contractor's ultimate responsibility to maintain contact and resolve disputes, questions, field changes, payment requests, etc. directly with the Owner, Owner's Representative or Engineer.

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING AND EROSION DESIGN AND CONSTRUCTION NOTES:

The following measures represent minimum standards to be adhered to by the Contractor throughout the construction of this project. The regulatory agencies reserve the right to require additional measures to be employed when warranted by extreme conditions, and/or the failure of the contractor to employ appropriate erosion control best management practices. Failure to comply with these provisions shall result in the issuance of a "stop work order".

- It shall be the responsibility of the Contractor to have all protective vegetation barricades and erosion control structures and measures in place prior to the commencement of any earthwork, including preliminary grubbing. These measures include, but are not limited to; temporary construction fences, hay bales, silt fences, and floating turbidity barriers. Further, it shall be the responsibility of the Contractor to maintain all erosion control devices throughout the duration of the entire project. Maintenance shall include periodic inspection and removal of debris abutting erosion control devices.
- Prior to the installation of any fill materials on subject site, silt fences shall be installed: (1) along subject site boundary and property lines; (2) at the edge of conservation easements and wetlands; (3) adjacent to natural landscape buffers; (4) around the perimeter of existing storm water treatment facilities, and; (5) at any additional areas that the city deems in need of protection from potential erosion impacts during construction. These conditions shall apply in all instances where fill material is being installed within 25 feet of any of the aforementioned locations. While these items represent the minimum requirements, the City, ACOE and FDEP reserve the right to impose additional protective measures, as determined during actual site visits conducted throughout project construction.
- At a minimum, the contractor shall seed and mulch all disturbed areas. Sufficient grass coverage is to be established within thirty days.
- Absolutely no burying of cleared materials is permitted.
- A signed, dated, and sealed letter from a soils engineer or the engineer of record certifying that the areas to be filled have been stripped of organic materials, must be submitted to the city prior to filling.
- Fill material is to be placed in one foot lifts and compacted to the appropriate density (98% for paved areas and 95% for building pads and all other areas as per AASHTO T-180).
- If any muck material is discovered, it shall be required to be removed and replaced with a suitable material that is properly backfilled, compacted and tested using AASHTO T-180 modified proctor method.
- Stockpiling is not generally permitted. When allowed, stockpiles shall not exceed six feet in height measured from the original grade. At a minimum, stock piles that will remain in place in excess of twenty days should be seeded and mulched immediately upon placement of the final lift.

DRAWING: GENERAL NOTES	DMC JOB NO. 18-006-34	SHEET NO. C-12
	DRAWN AR CAD CAD 2019	CHECKED SJK SCALE AS SHOWN
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	CLIENT: CITY OF DAYTONA BEACH	
Dredging & Marine Consultants 4643 S. Clyde Morris Blvd Unit 302 Port Orange, FL 32129 Phone: (386) 304-6505 Fax: (386) 304-6506 www.dmcsc.com		STEVEN J KUHN FLORIDA LICENSE No. 67486
		

Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg By: Ankeet Tab notes1 (2) 4/16/2019

- 9. Soils are to be stabilized by water or other means during construction. This is intended to reduce soil erosion and the impact to neighboring communities. Adequate watering methods should be employed to allow daily coverage of the entire limits of all areas that do not have an established vegetative cover. Methods to be employed include, but are not limited to, water trucks, permanent irrigation systems, temporary sprinkler systems operated by pumping units connected to wet retention ponds, water cannons, temporary irrigation systems mounted atop stockpile areas, and other methods as deemed necessary by the county.
- 10. All fill materials located beneath the berms shall consist of clean granular sand free from organics and similar material that could decompose.

TECHNICAL SPECIFICATIONS FOR SITE PLAN TESTING:

1. MATERIAL

The inspection and testing of materials and finished articles to be incorporated in the work shall be made by bureaus, laboratories, or agencies approved by the Engineer of Record. The Contractor shall submit such samples, or such special or test pieces of materials as the engineer of record may require. The Contractor shall not incorporate any material or finished article into the work until the results of the inspections or tests are known and the Contractor has been notified by the Engineer of Record that the material or finished article is accepted. All materials must be of the specified quality and be equal to the approved sample if a sample has been submitted. Certified copies of all tests made shall be submitted to the engineer of record as well as to the county's designated site inspector. the county's designated site inspector must receive copies of all testing reports and certificates prior to the Engineer of Record requesting a final project inspection from the county.

2. LABORATORY CONTROL AND CERTIFICATES

a. SPECIFICATIONS:

Sampling, testing, and laboratory methods shall be in accordance with the standard specifications of the AASHTO or ASTM. Where AASHTO or ASTM specifications are used, the reference shall be construed to be the most recent standard specifications or tentative specifications of the AASHTO or ASTM in force on the date of the test.

b. TEST AND CERTIFICATES:

The Contractor shall engage an approved testing laboratory to provide the following tests and certifications signed by a registered engineer of the state of Florida. All technicians performing the tests shall be state certified for the testing performed. Additional tests that may be required by either the engineer of record or the county shall also be provided by the Contractor, and the following shall not be taken as a complete and exhaustive list of the Contractor's testing responsibilities.

- Soil analysis for structural fill material prior to installation.
- Proctor densities, moisture content, compacted field densities and Atterberg limits.



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FLORIDA LICENSE No. 67486

PROJECT NAME:
**BETHUNE POINT PARK
BOAT LAUNCH ACCESSORY REPAIR**
CLIENT: **CITY OF DAYTONA BEACH**

DRAWING: **GENERAL NOTES**

DMC JOB NO.	18-006-34
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CHECKED	SJK
APPROVED	SKP
CAD	CAD 2019
SCALE AS SHOWN	
DATE	04-15-2019
SHEET NO.	C-13



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE
 Southeast Regional Office
 263 13th Avenue South
 St. Petersburg, FL 33701

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK
 2011

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:


- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

Revised: March 23, 2006

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Drawing Name: D:\DattoDrive\DMC Projects\006 - City of Daytona Beach\18-006-34 Bethune Point Park Boat Launch Accessory Docks Repair\Drawings\Bethune Point Park Boat Launch.dwg. By: Antkeel Tab. env. 4/16/2019

DRAWING: ENVIRONMENTAL NOTES	DMC JOB NO. 18-006-34	CHECKED: SJK APPROVED: SKP	DATE: 04-15-2019
	DRAWN: AR		
PROJECT NAME: BETHUNE POINT PARK BOAT LAUNCH ACCESSORY REPAIR	CLIENT: CITY OF DAYTONA BEACH		
	STEVEN J. KUHN FLORIDA LICENSE NO. 67486		
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