



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Administration  
DIVISION OF PURCHASES  
One Capitol Hill  
Providence, RI 02908-5855

Tel: (401) 574-8100  
Fax: (401) 574-8387  
Website: [www.purchasing.ri.gov](http://www.purchasing.ri.gov)

January 26, 2012

**ADDENDUM NUMBER TWO**

**RFQ # 7449374**

**TITLE: MARINE SIDE IMPROVEMENTS TO FORT ADAMS  
STATE PARK**

**Closing Date and Time: 2/3/12 at 1:45 PM**

**Per the issuance of this ADDENDUM #22  
(17 pages, including this cover sheet)**

**Specification Change /Addition / Clarification**

**NOTICE OF ADDENDUM NO. 2**

TO

State of Rhode Island  
DEM-Planning and Development Contract No. 16-11  
Bid Number 74489374  
Marine Side Improvements at Fort Adams State Park  
Newport, Rhode Island

**DATE of ADDENDUM:** **January 26, 2012**

**The contract documents are hereby modified to include this document as if fully attached thereto.**

**PART A Division 00 Bidding and Contract Requirements and Division 01 General Requirements**

**ITEM 1) Information for Bidders**

**INSERT** as an appendix to this Section the Minutes of the Pre-Bid Meeting attached hereto as, "Addendum No. 2, Attachment I".

**DELETE** Paragraph 1.4.A Time of Completion, and **REPLACE** with the following:

"A. The Contract Agreement shall include a stipulation that the work be completed by May 1, 2012."

**ITEM 2) Section 02363 Jacketed Steel Pipe Piles**

**DELETE** Paragraph 2.1.D.1, Splices and **REPLACE** with the following:

"1. Factory splices are acceptable. The splice must develop the full strength of the pile. Factory splices shall not be such that they will preclude the installation of the jacket"

**ITEM 3) Section 02920 Timber Floats**

**DELETE** Paragraph 1.2.B.1 and **REPLACE** with the following:

"1. Have a minimum of 10 years of experience in the design, production, and installation of timber floating dock systems."

**ITEM 4) Appendix C – Coastal Resource Management Council**

**INSERT** as Appendix C to the Project Manual, Coastal Resources Management Council Assent (2011-11-054) attached hereto as "Addendum No. 2, Attachment II".

**PART B Drawings**

**ITEM 5) C-13 Proposed Waterside Improvements Sheet 2 of 2 Temporary Event Mooring Field**

**DELETE** Sheet C-13 Proposed Waterside Improvements Sheet 2 of 2 Temporary Event Mooring Field. **REPLACE** with Sheet C-13 Proposed Waterside Improvements Sheet 2 of 2 Temporary Event Mooring Field attached hereto as "Addendum 2, Drawing C-13".

**ITEM 6) C-15 Proposed Waterside Improvements Construction Details Sheet 2 of 2**

**DELETE** Sheet C-15 Proposed Waterside Improvements Construction Details. **REPLACE** with Sheet C-15 Proposed Waterside Improvements Construction Details attached hereto as “Addendum 2, Drawing C-15”.

\*\*\*\*\* **END OF ADDENDUM NO. 2** \*\*\*\*\*

**MARINE SIDE IMPROVEMENTS, FORT ADAMS STATE PARK**

**PRE-BID MEETING  
20 JANUARY, 2012 10:00 AM  
NEWPORT, RI**

To all Contractors Estimating:

Attached is the meeting minutes from the pre-bid meeting held on January 20, 2012 at 10:00 AM at Fort Adams State Park in Newport, Rhode Island.

Please be advised that the subject matter discussed at the meeting, the minutes recorded thereof, and the questions and answers, are provided for information only and shall not be considered as part of the Contract Documents.

## Meeting Minutes

Description of Meeting: Pre-Bid Meeting

Date/Time: January 20, 2012 at 10:00 AM

Location: Fort Adams State Park, Newport, RI

Attendees: See attached attendance sheet

James McGinn from the RIDEM Department of Planning and Development began the meeting by giving a brief introduction to the project and welcoming everyone to the meeting.

Chris Feeney from The Louis Berger Group gave an overview of the project. Mr. Feeney gave an overview of the scope of work needed to support the upcoming Americas Cup World Series Event in June 2012. The significance of the event and critical nature of the May 1, 2012 were stressed.

The scope of work for the project is as follows:

- Install four (4) 80-ft by 6-ft floating docks running south of the South Pier;
- Install one 100-ft by 8-ft floating dock running north of the South Pier;
- Install new aluminum gangways on the North and South Piers, as shown on the drawings;
- Install U-shaped piers with associated gangway (Please see addendum this item has been modified);
- Install jacketed steel pipe piles to support the floating docks affixed to the South Pier; and
- Install timber piles to support U-shaped floating dock and gangway.

It was pointed out that existing borings were available in Appendix B of the Contract Specifications. The need for drilling sockets into rock for the steel pipe piles due to shallow depth to bedrock was discussed.

The proposed work of RIDEM Contract 15-11 Site Infrastructure Improvements was described. It was noted that the two projects would be working during the same time period. Coordination with the two contractors will be required to avoid any impacts.

Provided below is a summary of questions asked during the pre-bid meeting.

### **Questions and Answers**

1. The time of completion is listed as May 1, 2011.

Please see Addendum No. 2. The date has been corrected to May 1, 2012. The deadline is critical to meet the schedule for the upcoming ACWS scheduled in June 2012.

2. The specifications require a WEAP analysis for both pile types. Would it be possible to wave this requirement due to the anticipated shallow depth to bedrock?

The WEAP is required. It will be used to determine actual pile stresses during driving in the field; the intent is to use this information to assist in determining when the use of a hammer must be replaced by drilling to install the piles.

3. The specifications do not allow splices for steel pipe piles. Would factory, flush welds be acceptable?

Please see Addendum No. 2. Factory splices are acceptable. The splice must develop the full strength of the pile.

4. What is the Engineers Estimate for this contract?

This information is not made available to the bidders.

5. What are the work limits for the on-going RIDEM Contract 15-11?

Please see attached Construction Plan for RIDEM Contract 15-11.

6. Section 02920 Timber Floats - 1.2 - B # 1 "Have a minimum of 10 years' experience in the design, production and installation of concrete floating dock systems". The specifications and drawings only show timber frame floating docks with no reference to concrete. Please confirm the dock sections are either concrete floating docks or timber floating docks.

Please see Addendum No. 2. The term "concrete floating dock systems" has been replaced with "timber floating dock systems".

7. Please confirm the dock schedule for bidding purposes.

Please be advised that the dock schedule for bid item no. 2 below has been modified per Addendum No. 2. Please be advised this information is provided for informational purposes to address the specific question. The bidder shall verify the quantities contained in the Contract Drawings.

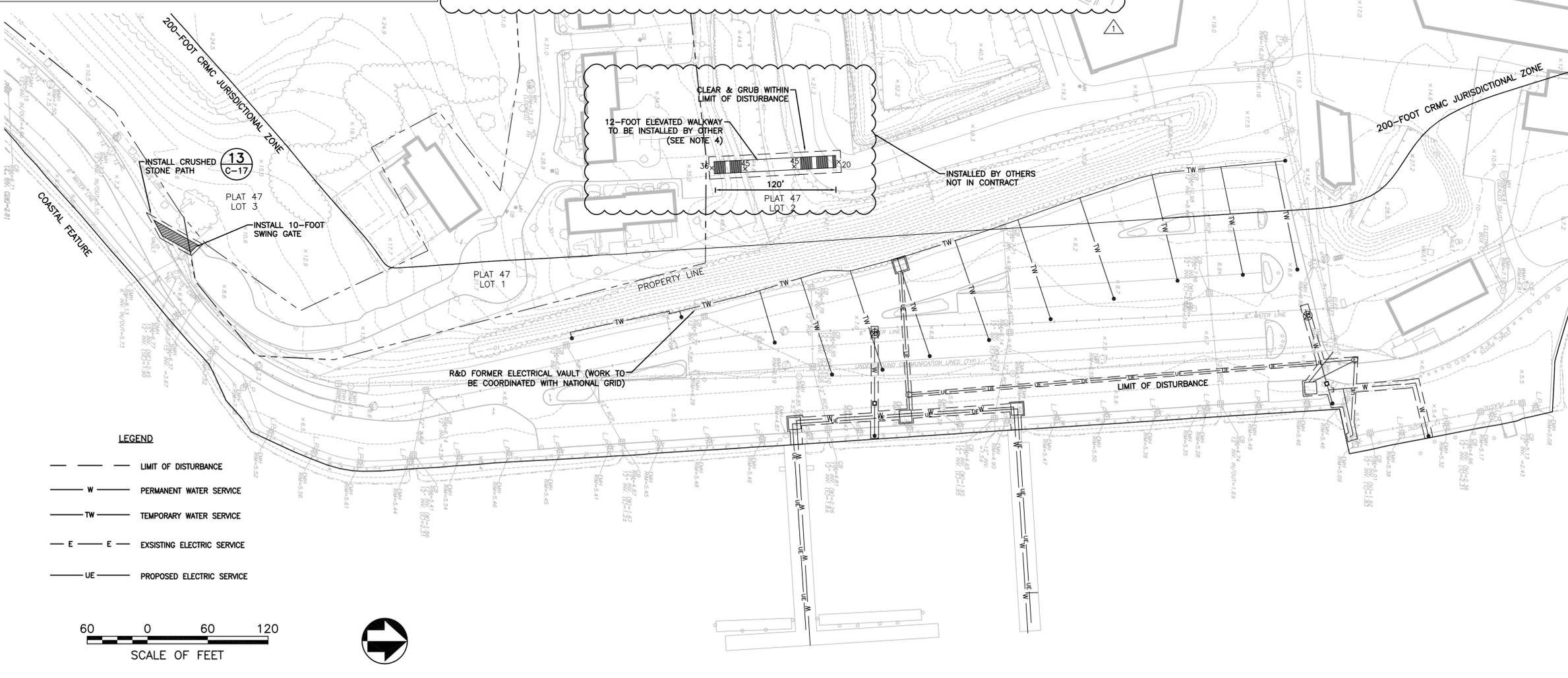
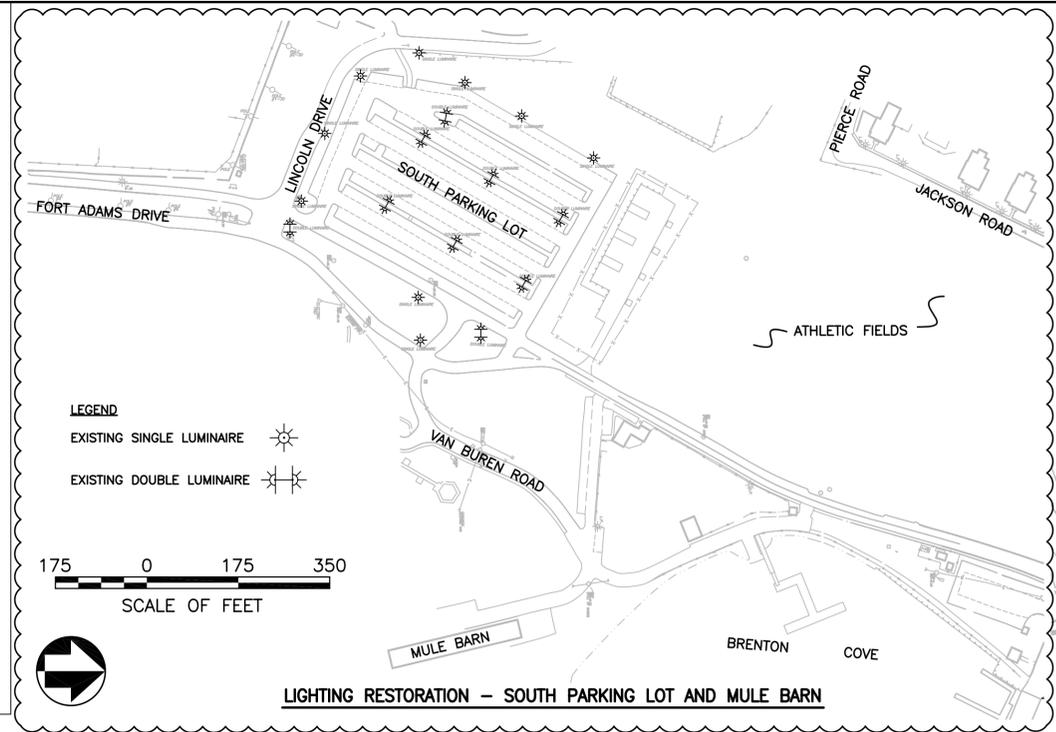
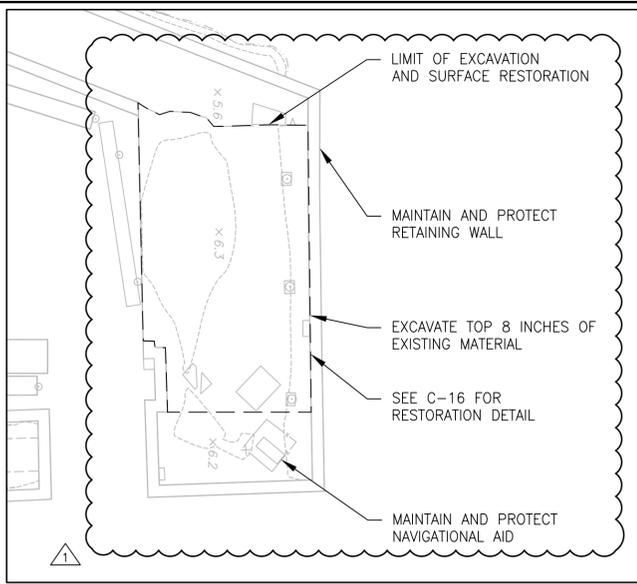
- (19) 6-ft by 20-ft sections;
- (7) 8-ft by 20-ft sections;
- (1) 8-ft by 22-ft section;
- (3) 6-ft by 12-ft sections; and
- (2) 3-ft by 24-ft aluminum gangways

8. Bidders list - please email or fax me a copy of the current bidders list.

This information is not made available to the bidders.

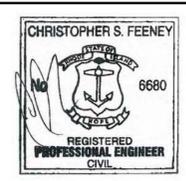


1/6/12 1344 CLIPRING R18 FA PROJECT FT ADAMS AMERICAS'S CUP PROJECT BID PROCUREMENT RIDEM CONTRACT 15-11 CAD C-8 ADDENDUM 1.DWG  
 XREFS: F:\PROJECT\FT ADAMS AMERICAS'S CUP PROJECT\DRAWINGS\BASE\Y-TBLOCK\_STAMPED.DWG; F:\PROJECT\FT ADAMS AMERICAS'S CUP PROJECT\DRAWINGS\BASE\X-WATERMAN\_SURVEY.DWG; \CIVIL\C-PLUS\_C2.DWG;



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION
△	JANUARY 2012	CRL	CSF	ADDENDUM NO. 1

The LOUIS BERGER GROUP, Inc.



CHRISTOPHER S. FEENEY, P.E.  
 REGISTERED PROFESSIONAL ENGINEER  
 JANUARY 5, 2012  
 DATE

DRAWN BY:  
 W. MAHONEY

DEPT CHECK:  
 G. DEBLOIS

PROJECT CHECK:  
 C. FEENEY

SITE INFRASTRUCTURE IMPROVEMENTS

**CONSTRUCTION PLAN**

FORT ADAMS STATE PARK, NEWPORT, RHODE ISLAND

RIDEM PROJ. No. 15-11

**C-8**

SHEET 9 OF 21

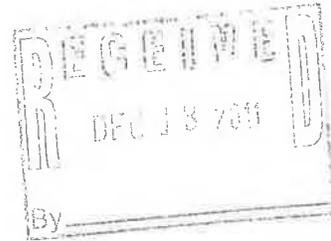
**Appendix C**  
**Coastal Resources Management Council**  
**CRMC Assent (2011-11-054)**



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL

Oliver H. Stedman Government Center  
4808 Tower Hill Road, Suite 3  
Wakefield, R.I. 02879-1900



(401) 783-3370  
FAX: (401) 783-3767

ASSENT

CRMC File No.: 2011-11-054

CRMC Assent No.: A2011-11-054

Whereas,  
of

**RI Department of Environmental Management**  
**Att: Joseph Dias**  
**235 Promenade Street**  
**Providence, RI 02908**

has applied to the Coastal Resources Management Council for assent to: perform site preparations for America's Cup World Series to be held at Fort Adams State Park from June 5, 2012 to July 2, 2012. The work includes: installation of a temporary cart path/pedestrian scaffolding walkway for access to Fort Adams, maintenance of the north seawall, miscellaneous electrical and water service upgrades including temporary installations, up to 12 temporary moorings to be installed in early June and removed in early July, installation of temporary ramps, piers and floating docks and associated support pilings, mobilization of temporary event cranes and team base units and other temporary operational structures as per the submitted plans; and represents that they are the owner(s) of the riparian rights attached to the property involved and submitted plans of the work to be done.

Now, said Council, having fully considered said application in accordance with all the regulations as set forth in the Administrative Procedures Act does hereby authorize said applicant, subject to the provisions of Title 46, Chapter 23 of the General Laws of Rhode Island, 1956, as amended, and all laws which are or may be in force applicable thereto: **perform site preparations for America's Cup World Series to be held at Fort Adams State Park from June 5, 2012 to July 2, 2012. The work includes: installation of a temporary cart path/pedestrian scaffolding walkway for access to Fort Adams, maintenance of the north seawall, miscellaneous electrical and water service upgrades including temporary installations, up to 12 temporary moorings to be installed in early June and removed in early July, installation of temporary ramps, piers and floating docks and associated support pilings, mobilization of temporary event cranes and team base units and other temporary operational structures as per the submitted plans;** located at plat 47, lot 2; Harrison Avenue, Newport, RI, in accordance with said plans submitted to this Council and approved by this Council. In accordance with revisions to RIGL 46-23-6.3 Expiration Tolling Periods (as amended effective June 8, 2011), all work being permitted must be completed on or before **July 1, 2016** after which date this assent is null and void, (unless written application requesting an extension is received by CRMC sixty (60) days prior to expiration date).

Applicant agrees that as a condition to the granting of this assent, members of the Coastal Resources Management Council or its staff shall have access to applicant's property to make on-site inspections to insure compliance with the assent.

Licensee shall be fully and completely liable to State, and shall waive any claims against State for contribution or otherwise, and shall indemnify, defend, and save harmless State and its agencies, employees, officers, directors, and agents with respect to any and all liability, damages (including damages to land, aquatic life, and other natural resources), expenses, causes of action, suits, claims, costs (including testing, auditing, surveying, and investigating costs), fees (including attorneys' fees and costs), penalties (civil and criminal), and response, cleanup, or remediation costs assessed against or imposed upon Licensee, State, or the Property, as a result of Licensee's control of the Property, or Licensee's use, disposal, transportation, generation and/or sale of Hazardous Substances or that of Licensee's employees, agents, assigns, sublicensees, contractors, subcontractors, permittees, or invitees.

Nothing in this assent shall be construed to impair the legal rights of this granting authority or of any person. By this assent the granting authority by no manner, shape, or form assumes any liability or responsibility implied, or in fact, for the stability or permanence of said project; nor by this assent is there any liability implied or in fact assumed or imposed on the granting authority. Further, the granting authority by its representatives or duly authorized agents shall have the right to inspect said project at all times including, but not limited to, the construction, completion, and all times thereafter.

This Assent is granted with the specific proviso that the construction authorized therein will be maintained in good condition by the owner thereof, his heirs, successors, or assigns for a period of fifty (50) years from the date thereof, after which time this permission shall terminate necessitating either complete removal or a new application.

Permits issued by the CRMC are issued for a finite period of time, confer no property rights, and are valid only with the conditions and stipulations under which they are granted. Permits imply no guarantee of renewal, and may be subject to denial, revocation, or modification.

If this matter appeared before the full Council, a copy of the legal decision from this proceeding may be acquired by contacting the CRMC office in writing.

A copy of this Assent shall be kept on site during construction.

Application for future alteration of the shoreline or other construction or alteration within the CRMC jurisdiction shall be submitted to the CRMC for review prior to commencing such activity.

All applicable policies, prohibitions, and standards of the RICRMP shall be upheld.

All local, state or federal ordinances and regulations must be complied with.

Please be advised that as a further conditions of this Assent, it is hereby stipulated that you and/or your agents shall comply at all times with Federal and State Water Quality Standards and other State standards and regulations regarding water quality, and shall exercise such supervision over and control of these facilities to prevent the dumping or discarding or refuse, sanitary wastes and other pollutants in the tidal waters, either from vessels docked at said facilities or from land adjacent thereto.

No work that involves alteration to wetlands or waters of the United States shall be done under this Assent until the required Federal Permit has been obtained.

Non-compliance with this assent shall result in legal action and/or revocation of this permit.

CAUTION:

**The limits of authorized work shall be only for that which was approved by the CRMC. Any activities or alterations in which deviate from the approved plans will require a separate application and review. If the information provided to the CRMC for this review is inaccurate or did not reveal all necessary information or data, then this permit may be found to be null and void. Plans for any future alteration of the shoreline or construction or alteration within the 200' zone of CRMC jurisdiction or in coastal waters must be submitted for review to the CRMC prior to commencing such activity.**

**Permits, licenses or easements issued by the Council are valid only with the conditions and stipulation under which they are granted and imply no guarantee of renewal. The initial application or an application for renewal may be subject to denial or modification. If an application is granted, said permit, license and easement may be subject to revocation and/or modification for failure to comply with the conditions and stipulations under which the same was issued or for other good cause.**

**ATTENTION: ALL STRUCTURES AND FILLED AREAS IN THE TIDAL, COASTAL, OR NAVIGABLE WATERS OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS ARE SUBJECT TO:**

1. The Superior Property Rights of the State of Rhode Island and Providence Plantations in the Submerged and Submersible Lands of the Coastal, Tidal, and Navigable Waters;
2. The Superior Navigation Servitude of the United States;
3. The Police Powers of the State of Rhode Island and the United States to regulate Structures in the Tidal, Coastal, or Navigable Waters.

**THE SUBMERGED AND SUBMERSIBLE LANDS OF THE TIDAL, COASTAL, AND NAVIGABLE WATERS OF THE STATE ARE OWNED BY THE STATE AND HELD IN TRUST FOR THE PUBLIC. CONVEYANCE OF THESE LANDS IS ILLEGAL; TITLES PURPORTING TO TRANSFER SUCH LANDS ARE VOID. ASSENTS THAT INVOLVE THE FILLING OR USE OF THE STATES SUBMERGED LANDS ARE GRANTED WITH THE PROVISIO THAT IT IS SUBJECT TO THE IMPOSITION OF A USAGE FEE TO BE ESTABLISHED BY THE COASTAL RESOURCES MANAGEMENT COUNCIL.**

**SPECIFIC STIPULATIONS OF APPROVAL**

**General Stipulations**

**A. The applicant shall record this assent in its entirety in the land evidence records of the City of Newport within thirty (30) days of the date of assent issuance. Certification by the Town Clerk's office that this stipulation has been complied with**

**shall be furnished to Coastal Resources Management Council in the form of a *copy* of the recorded assent by the applicant within fifteen (15) days thereafter. Failure to comply with provision will render this assent null and void.**

- B. For the purpose of this permit, the coastal feature shall be the manmade shoreline; and the inland edge of the coastal feature shall be the top/inland edge of the manmade shoreline.
- C. The approved plans shall be those entitled "Site Infrastructure Improvement, Fort Adams State Park, Newport, Rhode Island" in 21 sheets, by the Louis Berger Group, Inc., in association with St. Jean Engineering, except sheet 14 of 21 having a revision date of December 2011.. Except as stipulated or modified herein, all details and specifications thereon shall be strictly adhered to. Any and all changes require written approval from this office.
- D. All "temporary structures" (a pier, ramps, floats, and moorings) in tidal waters as specified within the submitted application narrative and approved plans shall not be installed prior to June 1, 2012 and shall be removed from tidal waters by July 15, 2012.
- E. Any and all "temporary structures" which may be later applied for as "permanent structures" in tidal waters must be part of a complete CRMC application submitted by January 31, 2012. A 30 day public notice will be required. The RIDEM must obtain CRMC's approval or these structures by July 15, 2012, or they shall be removed from tidal waters and shall not be reinstated until such time a CRMC authorization is granted.
- F. Temporary upland support facilities shall be removed from Fort Adams State Park by July 15, 2012, unless a prior CRMC approval is granted for structures which are not to be removed by this timeframe.
- G. All temporarily displaced moorings in Newport Harbor shall be restored to their pre-event condition by July 15, 2012.
- H. All race buoys and other markers shall be removed at the end of the event if not removed on a daily race schedule basis.
- I. No changes in stormwater drainage are authorized by this permit.

#### **Earthwork Stipulations**

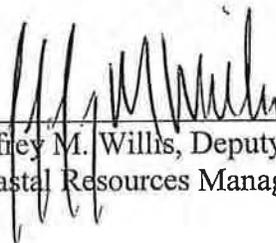
- A. The standards and specifications set forth in the most recent RI Soil Erosion and Sediment Control Handbook (RISESCH) shall be strictly adhered to.

B. All excess excavated materials, excess soils, excess construction materials, and debris shall be removed from the site and disposed of at an inland landfill or a suitable and legal upland location outside of CRMC jurisdiction. No materials shall be deposited on the coastal feature, within 200 feet of the inland edge of the coastal feature, in coastal waters, or in any areas designated as a CRMC setback or coastal buffer zone.

C. All areas of exposed soil which are disturbed by construction and related activities shall be revegetated as immediately as is physically possible so as to minimize erosion and sedimentation. If the season is not conducive to immediate revegetation, all exposed soils shall be temporarily stabilized with hay mulch, jute mat netting or similar erosion control materials. Soil stabilization methods shall be employed during, as well as after, the construction phase to the maximum extent possible.

D. There shall be no discharge or disposal of hazardous wastes or hazardous materials which may be associated with machinery, etc. on the site or in the waterway. All used oil, lubricants, chemicals, etc. shall be disposed of in full compliance with applicable State and Federal regulations.

In Witness Whereof, said Coastal Resources Management Council have hereto set their hands and seal this ninth day of December in the year two-thousand-eleven.



Jeffrey M. Willis, Deputy Director  
Coastal Resources Management Council

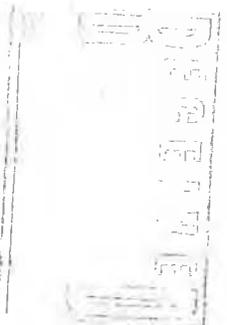
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*State of Rhode Island and Providence Plantations*

**COASTAL RESOURCES MANAGEMENT COUNCIL**

NOTICE OF

**ASSENT**



CRM/C Assent No.: A2011-11-054 Date: December 9, 2011

This certifies that RI Department of Environmental Management has permission to perform site preparations for America's Cup World Series to be held at Fort Adams State Park from June 5, 2012 to July 2, 2012. The work includes: installation of a temporary cart path/pedestrian scaffolding walkway for access to Fort Adams, maintenance of the north seawall, miscellaneous electrical and water service upgrades including temporary installations, up to 12 temporary moorings to be installed in early June and removed in early July, installation of temporary ramps, piers and floating docks and associated support pilings, mobilization of temporary event cranes and team base units and other temporary operational structures as per the submitted plans

situated at	<u>Harrison Avenue</u>	Lot No.	<u>2</u>
Plat No.	<u>47</u>		

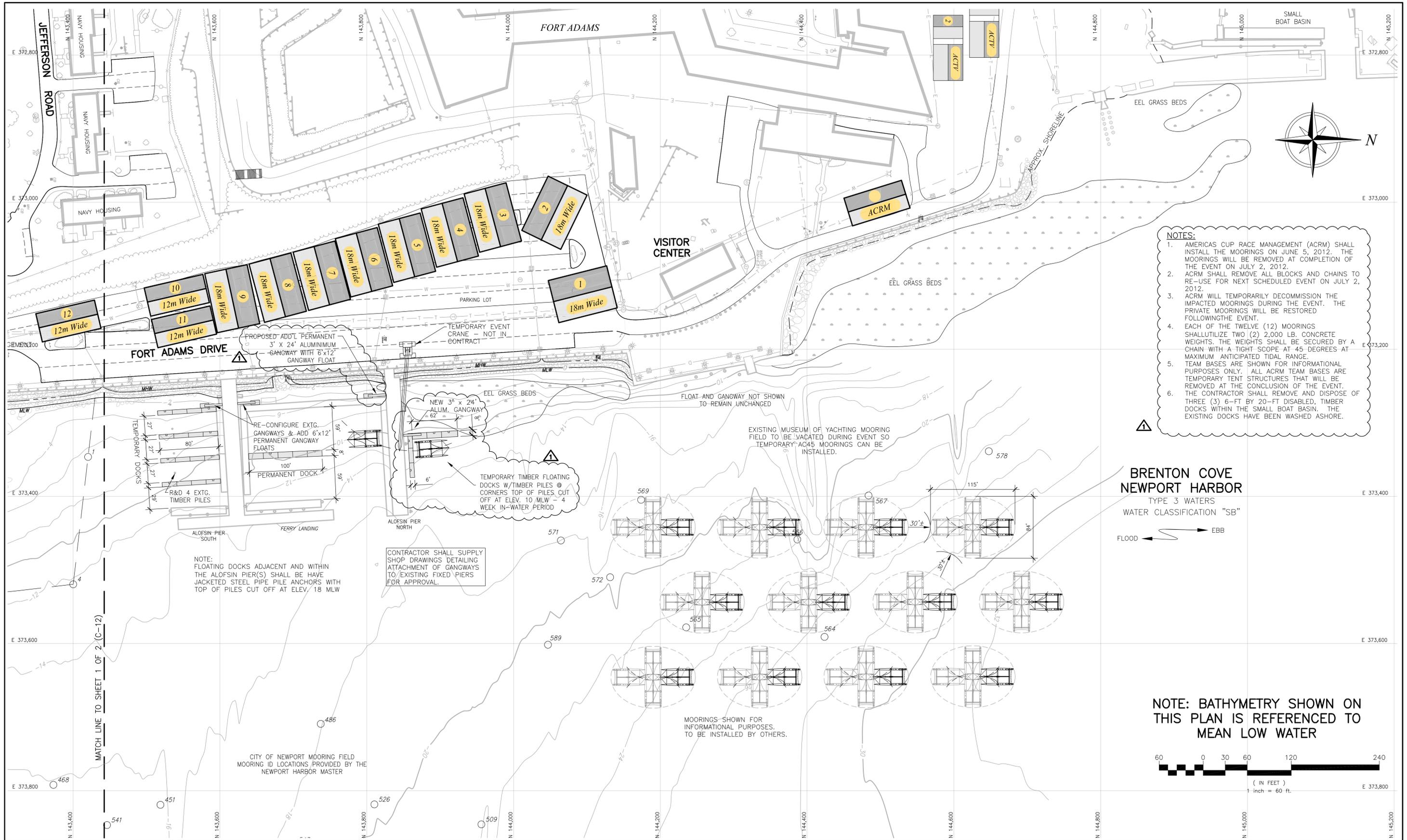
Said construction operations to be done in accordance with an approved assent on file in the Offices of the Coastal Resources Management Council and subject further to all the provisions of the building ordinances of the :

City/Town of Newport

and to all the applicable State, Local and Federal provisions. This assent shall expire July 1, 2016.

Kathleen Calcutt  
Official Designee  
Coastal Resources Management Council

**THIS CARD MUST BE DISPLAYED IN A CONSPICUOUS PLACE ON THE PREMISES.  
FAILURE TO DISPLAY WILL RESULT IN LEGAL ACTION.**



- NOTES:**
1. AMERICAS CUP RACE MANAGEMENT (ACRM) SHALL INSTALL THE MOORINGS ON JUNE 5, 2012. THE MOORINGS WILL BE REMOVED AT COMPLETION OF THE EVENT ON JULY 2, 2012.
  2. ACRM SHALL REMOVE ALL BLOCKS AND CHAINS TO RE-USE FOR NEXT SCHEDULED EVENT ON JULY 2, 2012.
  3. ACRM WILL TEMPORARILY DECOMMISSION THE IMPACTED MOORINGS DURING THE EVENT. THE PRIVATE MOORINGS WILL BE RESTORED FOLLOWING THE EVENT.
  4. EACH OF THE TWELVE (12) MOORINGS SHALL UTILIZE TWO (2) 2,000 LB. CONCRETE WEIGHTS. THE WEIGHTS SHALL BE SECURED BY A CHAIN WITH A TIGHT SCOPE AT 45 DEGREES AT MAXIMUM ANTICIPATED TIDAL RANGE.
  5. TEAM BASES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. ALL ACRM TEAM BASES ARE TEMPORARY TENT STRUCTURES THAT WILL BE REMOVED AT THE CONCLUSION OF THE EVENT. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THREE (3) 6-FT BY 20-FT DISABLED, TIMBER DOCKS WITHIN THE SMALL BOAT BASIN. THE EXISTING DOCKS HAVE BEEN WASHED ASHORE.

**BRENTON COVE  
NEWPORT HARBOR**  
TYPE 3 WATERS  
WATER CLASSIFICATION "SB"  
FLOOD → EBB ←

**NOTE: BATHYMETRY SHOWN ON THIS PLAN IS REFERENCED TO MEAN LOW WATER**

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION
▲	JANUARY 2012	RSTJ	CSF	ADDENDUM NO. 2

The LOUIS BERGER GROUP, Inc.

RICHARD N. ST. JEAN  
REGISTERED PROFESSIONAL ENGINEER  
No. 4997  
REG. EXPIRES 12/31/12  
PROFESSIONAL ENGINEER

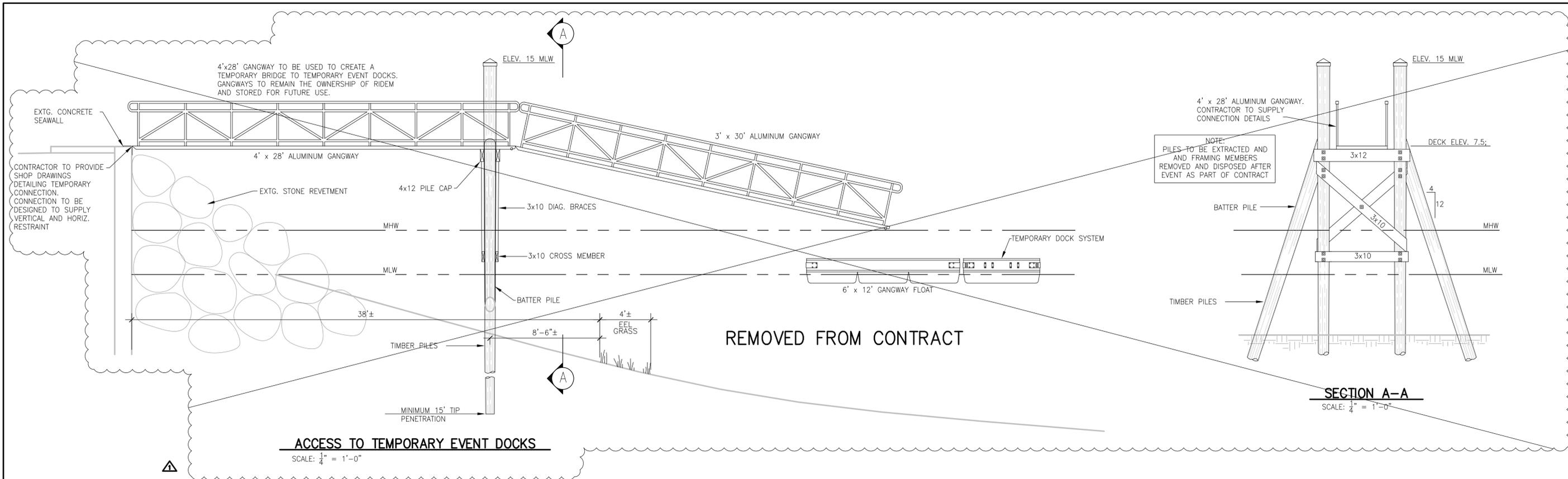
REGISTERED PROFESSIONAL ENGINEER  
DATE  
JANUARY 23, 2012

ST. JEAN ENGINEERING, LLC  
Marine, & Structural Engineering  
1145 Middle Road  
East Greenwich, RI 02818  
401.398.0999 email: st.jean.engineering@verizon.net

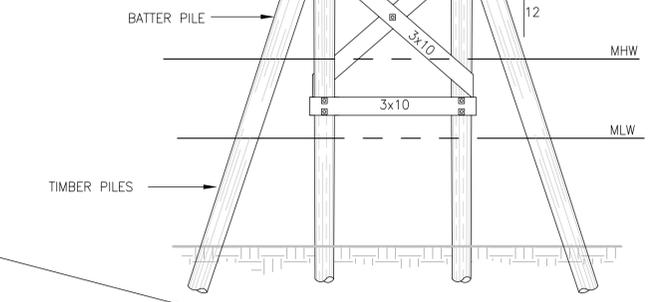
DRAWN BY:  
RSTJ  
DEPT CHECK:  
CSF  
PROJECT CHECK:

SITE INFRASTRUCTURE IMPROVEMENTS  
**PROPOSED WATERSIDE IMPROVEMENTS**  
**SHEET 2 OF 2**  
**TEMPORARY EVENT MOORING FIELD**  
FORT ADAMS STATE PARK, NEWPORT, RHODE ISLAND

RIDEM PROJ. No.  
16-11  
**C-13**  
SHEET  
14 OF 21

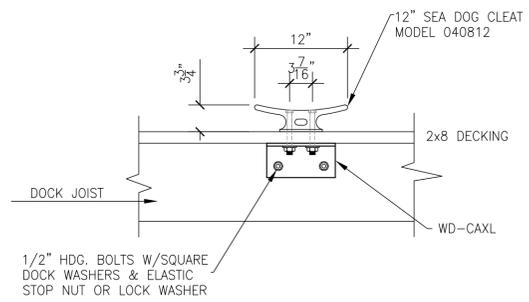


NOTE:  
PILES TO BE EXTRACTED AND  
FRAMING MEMBERS  
REMOVED AND DISPOSED AFTER  
EVENT AS PART OF CONTRACT

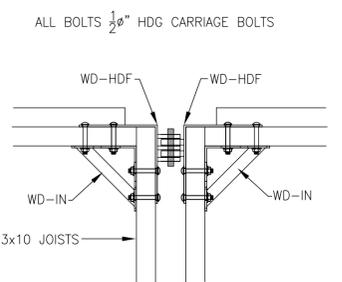


**ACCESS TO TEMPORARY EVENT DOCKS**  
SCALE: 1/4" = 1'-0"

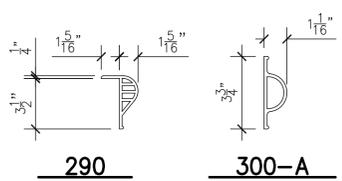
REMOVED FROM CONTRACT



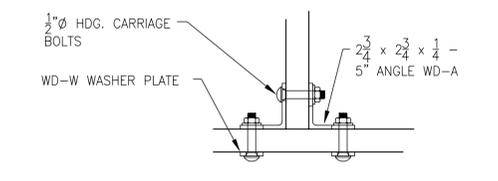
**DOCK CLEAT ELEVATION**  
SCALE: 1" = 1'-0"



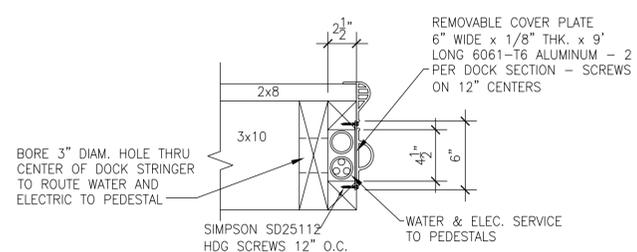
**TYPICAL HINGE ARRANGEMENT**  
SCALE: 1" = 1'-0"



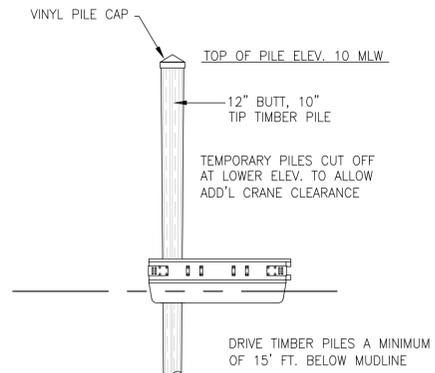
**DOCK BUMPERS**



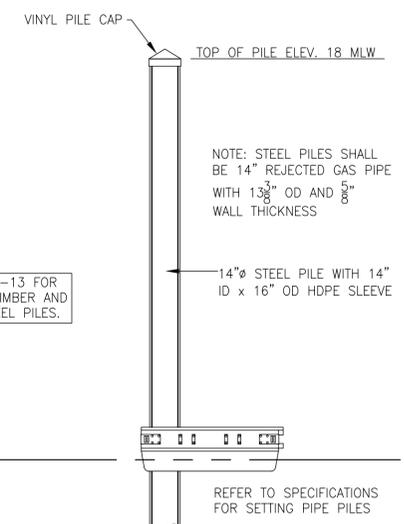
**TYP. REINFORCEMENT AT ENDS OF DOCK JOISTS**



**UTILITY TROUGH**  
SCALE: 1 1/2" = 1'-0"



**TEMPORARY DOCK PILES**  
SCALE: 1/4" = 1'-0"



**DOCK PILES ADJACENT TO THE ALOFSIN PIER**  
SCALE: 1/4" = 1'-0"

**FLOATING DOCK BOUANCY COMPUTATIONS**  
(BASED ON ACE ROTO-MOLD BLACK FOAM FILLED FLOATATION TUBS - NINIGRET MARINE)

**6' x 20' FLOAT**  
ESTIMATED DEAD WT. = 1,200 #s  
4' x 6' x 12" DRUM WEIGHT = 77# X 4 = 308 #s  
LIVE LOAD = 120' X 30 #/sf = 3,600 #s  
DRUM BOUANCY = 1,350#/sf / FLOAT DRUM  
NO. OF DRUMS REQ'D = 5,108/1,350 = 3.8  
USE 4 - 4'x6'x12" DRUMS  
**FREE BOARD COMPUTATIONS:**  
TOTAL DEPTH OF DOCK:  
12" + 9.50 + 1.5" = 23" OVERALL  
DRUM BOUANCY / INCH = (4 x 1350) / 12 = 450#/"  
LIVE LOAD FREEBOARD = 23" - (1508/450) = 19.6"  
DEAD LOAD FREEBOARD = 23" - (5108/450) = 11.6"

**8' x 20' FLOAT**  
ESTIMATED DEAD WT. = 1,920 #s  
4' x 8' x 12" DRUM WEIGHT = 102# X 4 = 408 #s  
LIVE LOAD = 160' X 30 #/sf = 4,800 #s  
DRUM BOUANCY = 1,803#/sf / FLOAT DRUM  
NO. OF DRUMS REQ'D = 7,128/1,803 = 3.95  
USE 4 - 4'x8'x12" DRUMS  
**FREE BOARD COMPUTATIONS:**  
TOTAL DEPTH OF DOCK:  
12" + 9.50 + 1.5" = 23" OVERALL  
DRUM BOUANCY / INCH = (4 x 1,803) / 12 = 601#/"  
LIVE LOAD FREEBOARD = 23" - (2,328/601) = 19.1"  
DEAD LOAD FREEBOARD = 23" - (7,128/601) = 11.1"

**6' x 12' GANGWAY FLOAT**  
ESTIMATED DEAD WT. = 720 #s  
4' x 6' x 12" DRUM WEIGHT = 77# X 3 = 231 #s  
3' x 30' ALUM. GANGWAY = 855/2#s = 428#s  
GW LIVE LOAD = 3' x 15' X 50 #/sf = 2,250 #s  
DRUM BOUANCY = 1350#/sf / FLOAT DRUM  
NO. OF DRUMS REQ'D = 3,629/1,350 = 2.7  
USE 3 - 4'x6'x12" DRUMS  
**FREE BOARD COMPUTATIONS:**  
TOTAL DEPTH OF DOCK:  
12" + 9.50 + 1.5" = 23" OVERALL  
DRUM BOUANCY / INCH = (3 x 1,350) / 12 = 338#/"  
LIVE LOAD FREEBOARD = 23" - (1,379/338) = 18.9"  
DEAD LOAD FREEBOARD = 23" - (3,629/338) = 10.7"

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS DESCRIPTION
△	JANUARY 2012	RSTJ	CSF	ADDENDUM NO. 2

The LOUIS BERGER GROUP, Inc.

RICHARD N. ST. JEAN  
REGISTERED PROFESSIONAL ENGINEER  
4997  
PROFESSIONAL ENGINEER  
JANUARY 23, 2012  
DATE

ST. JEAN ENGINEERING, LLC  
Marine, & Structural Engineering  
1145 Middle Road  
East Greenwich, RI 02818  
401.398.0999 email: st.jean.engineering@verizon.net

SITE INFRASTRUCTURE IMPROVEMENTS  
**PROPOSED WATERSIDE IMPROVEMENTS CONSTRUCTION DETAILS**  
SHEET 2 OF 2  
FORT ADAMS STATE PARK, NEWPORT, RHODE ISLAND

RIDEM PROJ. No. 16-11  
**C-15**  
SHEET 16 OF 21