



Kevin McDonnell
Mayor

Brian Barnacle
Janice Cader-Thompson,
Dist. 1
Mike Healy
Karen Nau, Dist. 3
Dennis Pocekay
John Shribbs, Dist. 2
Councilmembers

Public Works & Utilities

City Engineer
11 English Street
Petaluma, CA 94952
Phone (707) 778-4303

Environmental Services
Ellis Creek Water
Recycling Facility
3890 Cypress Drive
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Streets Maintenance
840 Hopper St.
Petaluma, CA 94952
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Transit Division
555 N. McDowell Blvd.
Petaluma, CA 94954
Phone (707) 778-4421

Utilities & Field Operations
202 N. McDowell Blvd.
Petaluma, CA 94954
Phone (707) 778-4546
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E-Mail:
publicworks@
cityofpetaluma.org

CITY OF PETALUMA

POST OFFICE BOX 61
PETALUMA, CA 94953-0061
ADDENDUM NO. 3

PETALUMA TURNING BASIN FLOATING DOCK City Project Number C14402010

March 13, 2023

This Addendum No. 3 modifies the Bidding Documents for the Petaluma Turning Basin Floating Dock City Project Number C14402010. This Addendum shall become part of the Contract and all provisions of the Contract shall apply thereto. Bidders shall acknowledge all Addendums in the Bid Schedule.

NOTICE INVITING BIDDERS CHANGE

1.0 RECEIPT OF BIDS

Sealed Bids will be received at the office of the City Clerk of the City of Petaluma located at 11 English Street, Room 4, Petaluma, California, 94952-2610, until 1:30 PM (enter time) on Thursday, March 23th, 2023, for the Petaluma Turning Basin Floating Dock Design & Fabrication. Any Bids received after the specified time and date will not be considered. Fax and other electronically transmitted Bids will not be accepted.

2.0 OPENING OF BIDS

The Bids will be publicly opened and read at 1:30 PM (enter time) on Thursday, March 23th, 2023 at the above-mentioned office of the CITY. The CITY reserves the right to postpone the date and time for opening of Bids at any time prior to the aforesaid date and time.

SECTION IV TECHNICAL SPECIFICATION CHANGES

SECTION 02392 – CONCRETE FLOATING DOCKS AND GANGWAYS – PART 1 **GENERAL – 1.02.B. MATERIALS – ADD**

3. The Contractor shall comply with the requirements of the following applicable standards:
 - a. American Institute of Steel Construction (AISC)
 - b. American Concrete Institute (ACI)
 - c. American Society for Testing Materials (ASTM)
 - d. American Institute of Steel Construction (AISC)
 - e. Prestressed Concrete Institute (PCI)
 - f. Concrete Reinforcing Steel Institute (CRSI)
 - g. Americans With Disabilities Act 2010 ADA Standards
 - h. 2022 California Fire Code, Title 24, Part 9 with Jan 2023 Errata (CFC)
 - i. National Fire Protection Association (NFPA) Fire Protection Standard for Marinas and Boatyards

SECTION 02392 – CONCRETE FLOATING DOCKS AND GANGWAYS – PART 2 **PRODUCTS – 2.02.B. MATERIALS – REVISE**

3. Precast floats shall be designed to float level under dead load only. Freeboard for the main floating dock under dead load only shall be a maximum of 16". Freeboard for all 16" floating docks under full dead load plus live load shall not be less than 7".

4. Freeboard for Bid Alternative No. 2, kayak floating docks, shall be a maximum of 12”.

**SECTION 02392 – CONCRETE FLOATING DOCKS AND GANGWAYS – PART 2
PRODUCTS – 2.02.F. MATERIALS – ADD**

C. Gangway Landing and Fire Suppression Staging Float

- a. This section shall be subject to CFC Section 3604 and NFPS 303.
- b. The enlarged float area for gangway landing shall be a minimum of 10 feet by 20 feet in order to accommodate the addition of the fire suppression equipment, staging area, and a minimum of one (1) standpipe per float.
- c. Staging area spaces shall be provided on all float systems for the staging of emergency equipment. Emergency operations staging area shall provide a minimum of 4 feet wide by 10 feet long clear area exclusive of walkways and shall be located at each standpipe hose connection.
- d. Emergency operation staging areas shall be provided with a curb or barrier having a minimum height of 4-inches and maximum spacing between the bottom edge and the surface of the staging area of 2-inches on the outboard sides of the staging area curbing in accordance with CFC Section 3604.6.
- e. An approved sign reading “FIRE EQUIPMENT STAGING AREA – KEEP CLEAR” shall be provided at each staging area.
- f. A minimum of one (1) portable fire extinguisher of the ordinary (moderate) hazard type shall be provided at each required standpipe hose connections. Additional portable fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.
- g. Piping equipment shall be able to connect from the nearest landside fire apparatus along the gangway.
- h. Fabricator shall ensure that all walking surfaces remain flush between the gangway landing and fire suppression staging float and the main pathway. Should additional free board be required for this float, the fabricator shall provide ADA compliant ramps to all walking surfaces.
- i. The fabricator shall be responsible for the final gangway landing and fire suppression staging float design and should be submitted to the City’s Engineer for review and approval.

SECTION VI PROJECT PLANS CHANGES

**PETALUMA TURNING BASIN FLOATING DOCK DESIGN & FABRICATION PLANS
– REVISE**

Questions and Answers

Q: *will float modules greater than 20’ (+/-) be acceptable?*

A: Float configuration shall conform with the provided plans and specifications.

Q: *Will an HDPE float systems or “or equal” products be acceptable as part of this bid.*

A: As stated in the specifications and Addendum No. 2, any component of the float is required to be non-ferrous, therefore, “epoxy-coated rebars”; as indicated in the provided HDPE float system; are not accepted. In general, an “or equal” product shall be acceptable as long as all design conditions and design life expectancies per the specifications are satisfied, and all warranties are provided. Supporting calculations shall be provided for review and approval by the City’s Engineer.

Q: Can the City confirm that there is no fire suppression system requirement for the new docks?

A: See project plans and SECTION 02392 –PART 2 PRODUCTS – 2.02.F.

Q: Can clarification be provided between changes in freeboard from dead load to dead load plus live load?

A: Design live loads shall be 50 psf for both 16” and 12” freeboard docks. Bidders shall disregard the minimum freeboard requirements for the kayak docks. Please refer to revision of section

Summary of Changes: Bids will be emailed in to the City Clerk, and original copies of the sealed bids will be mailed in. The “Notice Inviting Bids” has been updated as stated above. Some project questions have been answered above. All other items of the bid documents shall remain unchanged.

City of Petaluma,



**Erica Jacobs
Project Manager
Public Works & Utilities Department**

A signed copy of this Addendum and the attached acknowledgment form shall be attached to the bid proposal. Failure to do so may cause rejection of your bid as being non-responsive.

ADDENDUM NO. 3

**PETALUMA TURNING BASIN FLOATING DOCK
City Project Number C14402010**

March 13, 2023

ACKNOWLEDGEMENT

Receipt of Addendum No. 1 is hereby acknowledged by _____
(Contractor's Name)
on the _____ day of _____, 2023.

By: _____
Signature

Title

Company

**CITY OF PETALUMA
PETALUMA, CALIFORNIA**

**CONTRACT DOCUMENTS FOR
PETALUMA TURNING BASIN FLOATING DOCK
DESIGN & FABRICATION**

CITY PROJECT NO. C14402010

(Notice Inviting Bids, Instructions to Bidders, Bid Forms, General Conditions,
Special Provisions, Technical Specifications, Construction Agreement,
Bond Forms, Project Drawings)

CITY OF PETALUMA - SONOMA COUNTY - CALIFORNIA

Questions concerning interpretation of improvement plans, special provisions,
contract documents and bid items shall be directed to:

*Department of Public Works and Utilities
202 N. McDowell Boulevard
Petaluma, CA. 94954
Phone: (707) 778-4546 Fax: (707) 778-4508*

Attention: Erica Jacobs, MPA

Office Hours: Monday thru Thursday - 8:00 to 5:00 p.m.

Bid Opening: March 23, 2023, at 1:30 p.m.

NOTICE INVITING BIDS

1. **RECEIPT OF BIDS:** Sealed Bids will be received at the office of the City Clerk of the City of Petaluma located at 11 English Street, Room 4, Petaluma, California, 94952-2610, until 1:30 PM (enter time) on Thursday, March 23, 2023, for the Petaluma Turning Basin Floating Dock Design & Fabrication. Any Bids received after the specified time and date will not be considered. Fax and other electronically transmitted Bids will not be accepted.
2. **OPENING OF BIDS:** The Bids will be publicly opened and read at 1:30 PM (enter time) on Thursday, March 23, 2023 at the above-mentioned office of the CITY. The CITY reserves the right to postpone the date and time for opening of Bids at any time prior to the aforesaid date and time.
3. **COMPLETION OF WORK:** The WORK must be completed within 120 working days after the commencement date stated in the Notice to Proceed.
4. **DESCRIPTION OF WORK:** The WORK includes The design and fabrication of approximately 395' of pre-engineered concrete floating dock system to accommodate a 16" freeboard in strict accordance with Section 02392 CONCRETE FLOATING DOCK of the Specifications and Section VI PROJECT PLANS. BID ALTERNATIVE 1: The design and fabrication of approximately 80' of pre-engineered concrete floating dock system to accommodate a 16" freeboard. BID ALTERNATIVE 2: The design and fabrication of approximately 80' of pre-engineered concrete floating dock system to accommodate a 12" freeboard.
5. **SITE OF WORK:** The site of the WORK is located: at the Petaluma River Turning Basin near downtown Petaluma. There are two access gangways to the Turning Basin docks located on adjacent properties to the West and the East of the Turning Basin. On the East side of the Turning Basin the gangway is close to Weller Street Park located at 150 Weller Street and on the West side the gangway is located close to Taps Restaurant located at 54 E. Washington Street, Petaluma CA.
6. **OBTAINING CONTRACT DOCUMENTS:** The Contract Documents are entitled "Petaluma Turning Basin Floating Dock Design & Fabrication."

The Contract Documents may be obtained by 4:00 P.M., Monday through Thursday at the office of Public Work & Utilities, 202 North McDowell Boulevard, Petaluma, California 94954.

If you would like to receive the bid document via the CITY's website, at no cost, please go to:

- <https://cityofpetaluma.org/bid-opportunities-2/>
- Fill out the Plan Holder's form by clicking on the Plan Holder's form link
- Fill in all fields
- Click on the submit button at the end of the form

Submitting the Plan Holder's form on-line automatically puts you on the CITY's Bidders List and you will be notified of any Addendums or information pertaining to the bid by email.

If you would like to purchase bid documents, please call Phone No. (707) 778-4585, Attention: Tiffany Avila, upon payment of \$50.00 (non-refundable) for each set of Contract Documents (including technical specification and accompanying reduced scale drawings). The scale of the reduced drawings is about one-half of the original scale. At the Bidder's request and expense, the Contract Documents may be sent by overnight mail.

- Full-scale drawings are not available.
- If full-scale drawings are available and desired, they may be purchased at reproduction cost from _____ .

7. **BID SECURITY:** Each Bid shall be accompanied by a certified or cashier's check or Bid Bond executed by an admitted surety in the amount of 10% percent of the Total Bid Price payable to the City of Petaluma as a guarantee that the Bidder, if its Bid is accepted, will promptly execute the Agreement. A Bid shall not be considered unless one of the forms of Bidder's security is enclosed with it. Upon acceptance of the Bid, if the Bidder refuses to or fails to promptly execute the Agreement the Bidder's security shall be forfeited to the CITY.
8. **CONTRACTOR'S LICENSE CLASSIFICATION:** In accordance with the provisions of California Public Contract Code Section 3300, the CITY has determined that the CONTRACTOR shall possess a valid Class A license at the time that the Contract is awarded. Failure to possess the specified license shall render the Bid as non-responsive and shall act as a bar to award of the Contract to any bidder not possessing said license at the time of award pursuant to Labor Code Section 1725.5, subject to limited legal exceptions.
9. **PREFERENCE FOR MATERIAL:** Any specification designating a material, product, thing, or service by specific brand or trade name, followed by the words "or equal" or "or equivalent" is intended only to indicate quality and type of item desired. Substitute products will be considered prior to award of the Contract in accordance with Section 3400 of the California Public Contract Code. The Bidder will submit data substantiating its request for a substitution of "an equal" item within 14 days following submission of its Bid. Substantiation date will conform to the requirements of the instructions for Proposed Substitutions of "or equal" items contained in the bid Forms. The ENGINEER will make a determination of approval or rejection of the proposed substitution prior to the award of the Contract. No request for substitution of "an equal" items will be considered by the ENGINEER after award of the Contract. This provision does not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code Section 3400(c).
10. **REJECTION OF PROPOSALS:** The CITY reserves the right to reject all or any part of all bids submitted, waive informalities and irregularities, and will not, to the extent allowed by law, be bound to accept the lowest bid.
11. **BIDS TO REMAIN OPEN:** The Bidder shall guarantee the total bid price for a period of 90 calendar days from the date of bid opening.

12. **RESERVED.**
13. **LABOR COMPLIANCE PURSUANT TO CALIFORNIA LABOR CODE § 1771.1:** A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirement of Section 4104 of the Public Contract Code or engage in the performance of any contract for public work, as defined in Division 2, Part 7, Chapter 1 of the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time contract is awarded.
14. **RETAINAGE FROM PAYMENTS:** The CONTRACTOR may elect to receive 100 percent of payments due under the Contract Documents from time to time, without retention of any portion of the payment by the CITY, by depositing securities of equivalent value with the CITY in accordance with the provisions of Section 22300 of the Public Contract Code. Alternatively, the CONTRACTOR may request, and the CITY shall make payment of retentions earned directly to the escrow agent at the expense of CONTRACTOR. At the expense of the CONTRACTOR, the CONTRACTOR may direct the investments of the payments into securities and the CONTRACTOR shall receive the interest earned on the investments upon the same terms as provided in Section 22300 of the Public Contract Code for securities deposited by the CONTRACTOR. The CONTRACTOR shall be responsible for paying all fees for the expenses incurred by the escrow agent in administering the escrow account and all expenses of the CITY. These expenses and payment terms shall be determined by the CITY's Finance Director or their designee and the escrow agent. Upon satisfactory completion of the WORK, the CONTRACTOR shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the CITY, pursuant to the terms of Section 22300 of the Public Contract Code. Such securities, if deposited by the CONTRACTOR, shall be valued by the CITY, whose decision on valuation of the securities shall be final. Securities eligible for investment under this provision shall be limited to those listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the CONTRACTOR and the CITY.
15. **PAYMENT BOND:** Pursuant to and in accordance with California Civil Code Section 9550, a payment bond must be filed if the expenditure for the WORK is in excess of Twenty-Five Thousand Dollars (\$25,000).
16. **PRE-BID CONFERENCE VISITS:** [At least one box below MUST be checked]
- Check if no pre-bid conference/site is to be held.**
 - Mandatory pre-bid conference/site visit to be held:** Prospective bidders are required to attend a mandatory pre-bid conference/site visit at 1:00 PM (enter time) on February 28, 2023, at the Petaluma Turning Basin, offices at River Plaza near TAPS 54 E. Washington Street, Petaluma, CA, 94952. Prospective bidders that fail to attend the mandatory pre-bid conference/site visit will be ineligible to bid on the project. Following the conference at City offices, City staff and prospective bidders will meet at the project Site. Transportation to the project site will be the responsibility of prospective bidders. The purposes of the

conference/site visit are to discuss the scope of the project and bidding requirements and to acquaint bidders with Site conditions.

No information communicated at the pre-bid conference/site visit may amend the project bidding requirements. Project bidding requirements may only be amended by addenda issued by authorized City officials. Following the pre-bid conference/site visit, prospective bidders may submit detailed technical questions in writing. If warranted, the City may respond to such questions by addenda.

- Non-Mandatory pre-bid conference/site visit to be held:** Prospective bidders are invited to attend a non-mandatory pre-bid conference/site visit at *(enter time)* on _____, at the _____. Following the conference at City offices, City staff and prospective bidders will meet at the project Site. Transportation to the project site will be the responsibility of prospective bidders. The purposes of the conference/site visit are to discuss the scope of the project and bidding requirements, and to acquaint bidders with Site conditions.

No information communicated at the pre-bid conference/site visit may amend the project bidding requirements. Project bidding requirements may only be amended by addenda issued by authorized City officials. Following the pre-bid conference/site visit, prospective bidders may submit detailed technical questions in writing. If warranted, the CITY may respond to such questions by addenda.

17. **PROJECT ADMINISTRATION:** All communications relative to the WORK shall be directed to the ENGINEER prior to opening of the Bids.
18. **FINDING OF SUBSTANTIAL COMPLEXITY:** Pursuant to Public Contract Code section 7201(b)(3) the CITY's Public Work's Director has found that the WORK is substantially complex due to: the amount of technical and scientific knowledge needed to complete the project; The amount of resources needed to complete the project including amount of days, workers, and labor; The urgency for project completion; The amount of tasks needed to complete the project; The number of organizational stakeholders needed to satisfy; The environmental complexity of the conditions; And in particular the external permitting agencies the project needs to satisfy; the size and impact of the project (which will require the operation of the D Street bridge affecting traffic, and fire station response times); over water work (dredging and demolition of existing docks); the specialty contractor work and therefore this is a unique project that is not regularly performed and requires a higher retention amount than 5 percent.

Notwithstanding Public Contract Code Section 7201 or any other law or regulation that purports to provide otherwise, public contracting is a quintessential municipal affair, subject to charter cities' home rule power, and the California Constitution grants charter cities supreme authority over municipal affairs, which include public works, procurement, and the mode of municipal contracting (see, Public Contract Code Section 1100.7 and e.g., *Bishop v. City of San Jose* (1969) 1 C3d 56).; and it is the courts, not the legislature, that determines which matters are municipal affairs (see, e.g., *California Federal Savings and Loan v. City of Los Angeles* (1991) 54 C3d 1); and

Article X, Section 67 of the Petaluma Charter provides in pertinent part:


. . . no progressive payments can be provided for or made at any time which, with prior payments, if there have been such, shall exceed in amount at that time ninety percent of the value of the labor done and the materials used up to that time, and no contract shall provide for or authorize or permit the payment of more than ninety percent of the contract price before the completion of the work done under said contract and the acceptance thereof . . . ; and

City charters are documents of limitation and a restriction on the City Council's powers imposed by the voters (see, e.g., *City of Glendale v. Trondsen* (1957) 48 C2d 93) and, as a result, the City Council's contracting power is limited by the retention requirement in Article X, Section 67, and the City Council and City staff lack the power to provide for public works contract retention other than as specified in the City Charter.

19. **GOVERNMENT CODE SECTION 1090:** The successful Bidder may be precluded from competing for, or participating in, subsequent contracts that result from or relate to the Work performed pursuant to this Bid. The ethics laws that apply to the City and all its consultants, contractors, and vendors include California Government Code Section 1090 and following, which prohibits government officials, employees, and contractors from participating in making government contracts in which the official, employee or contractor has a financial interest. Because City contractors always have a financial interest in their City contracts, the Section 1090 prohibition regarding City contractors focuses on whether a contractor is or would be "making a government contract" in a quasi-governmental capacity for purposes of Section 1090. Section 1090 prohibits City contractors from using their role as a contractor to influence how the City spends the public's funds in a way that benefits the contractor. Penalties for violating Section 1090 are severe, and may include felony criminal penalties, permanent disqualification from holding public office in California, disgorgement of any benefit received by the financially interested contractor, civil and administrative penalties, and voiding of the prohibited contract.

NAME: Erica Jacobs
ADDRESS: 202 N. McDowell Blvd
Petaluma, CA 94954
PHONE: 707-787-0893

20. **CITY'S RIGHTS RESERVED:** The CITY reserves the right to reject any or all bids, to waive any minor irregularity in a bid, and to make awards to the lowest responsive, responsible bidder as it may best serve the interest of the CITY.

CITY: Petaluma
BY: 
DATE: 3/13/2023

END OF NOTICE INVITING
BIDS

SECTION 02392
CONCRETE FLOATING DOCKS AND GANGWAYS

PART 1 - GENERAL

1.01 Description of Work

- A. The Work covered by this Section of these Specifications consists of furnishing all plant, labor, supervision, equipment, appliances, and materials and in performing all operations in connection with the complete pre-engineered concrete floating dock system in strict accordance with this Section of the Specifications and the applicable drawings and subject to the terms and conditions of the Contract.

- B. ADA Gangways: The Work covered by this Section of these Specifications consists of furnishing all plant, labor, supervision, equipment, appliances, and materials and in performing all operations in connection with the complete pre-engineered Americans with Disabilities Act (ADA) compliant gangway in strict accordance with this Section of the Specifications and the applicable drawings and subject to the terms and conditions of the Contract.

1.02 Quality Assurance

- A. The Contractor shall utilize an adequate number of workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work in this Section.

- B. The Owner reserves the right of approval of any Subcontractor pre-qualified and selected for this portion of the Work by the Contractor. Approval will be based, in part, on:
 - 1. Documented successful experience a company duly recognized as specializing in the design and manufacturing of concrete floating structures used for the berthing and boarding of vessels for a minimum of 10 years.
 - 2. Acceptable schedule of unit prices for measurement and payment in event of changes in the Work of this Section.
 - 3. The Contractor shall comply with the requirements of the following applicable standards:
 - a. American Institute of Steel Construction (AISC)
 - b. American Concrete Institute (ACI)
 - c. American Society for Testing Materials (ASTM)
 - d. American Institute of Steel Construction (AISC)
 - e. Prestressed Concrete Institute (PCI)
 - f. Concrete Reinforcing Steel Institute (CRSI)
 - g. Americans With Disabilities Act 2010 ADA Standards
 - h. [2022 California Fire Code, Title 24, Part 9 with Jan 2023 Errata \(CFC\)](#)
 - i. [National Fire Protection Association \(NFPA\) Fire Protection Standard for Marinas and Boatyards](#)

1.03 Submittals

- A. Drawing Information

1. Submit drawings indicating complete information for the design and fabrication of the precast concrete floats. Design drawings of precast floats shall be prepared and sealed by a registered professional engineer and submitted for review and acceptance prior to fabrication. Drawings shall indicate, as a minimum, the following information:
 - a. Floating dock system layout.
 - b. Marking of floats for assembly.
 - c. Connections between floats and connections between floats and gangways.
 - d. Wale size and splice pattern.
 - e. Guide pile size, length, location, and connection to float.
 - f. Reinforcing details.
 - g. Material properties on all materials used.
 - h. Lifting and assembly inserts and embedded items.
 - i. Dimensions and surface finishes.
 - j. Erection sequence and handling requirements.
 - k. All loads used in design.
 - l. Bracing/shoring required.
 - m. Utility routing and connections for work of other trades.

C. Design Calculations

1. Submit calculations prepared and sealed by a registered professional engineer including drafts at floats' various loading scenarios for review and acceptance prior to fabrication.

D. Concrete mix design

E. ADA Gangways

1. Submit drawings indicating complete information for the design and procurement of the ADA compliant gangways. Design drawings of gangways shall be prepared and sealed by a registered professional engineer and submitted for review and acceptance prior to procurement. Drawings shall indicate, as a minimum, the following information:
 - a. Dimensions and surface finishes.
 - b. Gangway connections to existing grade and concrete floats.
 - c. Material properties on all materials used.
 - d. Lifting and assembly inserts and embedded items.
 - e. Erection sequence and handling requirements.
 - f. All loads and ADA considerations used in design.
 - g. Bracing/shoring required.
 - h. Utility routing and connections for work of other trades.
 - i. Design Calculations
2. Design Calculations
 - a. Submit calculations prepared and sealed by a registered professional engineer for review and acceptance prior to procurement.

1.04 Substitutions or Modifications

- A. Any and all design, material, or product modification or substitutions from this specification shall be submitted for review and approval by a Professional Engineer.
- 1.05 Product Delivery and Storage
- A. The Contractor shall notify the Owner twenty-four hours in advance of delivery of materials.
 - B. All materials shall be stored off the ground in a manner to prevent damage and permit easy access for inspection. Protect from weather, marring, damage, and overload.
 - C. The Contractor shall be responsible for communicating with the installer (contracted separately) for all delivery and install of the floats on site.
 - D. Floats are to be stored until ready for installation within the Turning Basin.

PART 2 - PRODUCTS

2.01 General

- A. The floating dock system shall be precast concrete modular floats for the design load conditions and spans indicated, and for additional loads imposed by the work of other trades to comply with ACI 318 and PCI MNL-120.

2.02 Float Design and Load Conditions

- A. The floats are required to provide berthing for generic standard recreational vessels up to 30' LOA and Kayaks.
- B. Vertical Loads
 1. The floats are to be single-cast modular monolithic units, allowing all loads to be carried by the concrete structure.
 2. Dead loads shall consist of the entire weight of the floating structure, including ramps, platform, and other accessories and appurtenances.
 3. Precast floats shall be designed to float level under dead load only. Freeboard for the main floating dock under dead load only shall be a maximum of 16".
Freeboard for all 16" floating docks under full dead load plus live load shall not be less than 7".
 4. Freeboard for Bid Alternative No. 2, kayak floating docks, shall be a maximum of 12".
 5. Maximum out-of-level tolerance for transverse and longitudinal slope is 1 inch per 10 ft.
 6. Freeboard loss will be less than or equal to 1" per 5 PSF of uniformly distributed live load.
 7. Point Load - Design is for a 400 lbs. point moving in any direction without causing the float systems to tilt excessively or losing more than 3" of freeboard.
 8. Concentrated load: 1,000 lbs. over a 10x10 area.
 9. Special precast floats must be designed to support the additional concentrated loads as imposed by gangways, transformers, or other equipment. Modules with special loadings shall have the same freeboard as standard modules without

special loading so that there will be no residual stresses or tilting when modules are interconnected.

C. Horizontal Loads

1. Wind pressure: as indicated on drawings, acting on the projected area of the pier and moored vessels, assuming full occupancy. For the vessel area, assume a generic 30' LOA recreational boat. Full wind load is to be applied to all unshielded dock and boat profiles.
2. A horizontal load due to impact on a dock shall be the result of a generic recreational boat of 30' LOA striking the dock at 10 degrees (10°) off center line. For purposes of calculations, the craft shall be considered moving at a speed of 3 FPS.

D. Waves: Structures and systems shall be designed to withstand storm conditions of up to 3-foot waves on a periodic, but not continual basis and boat wake of up to 1.5 feet on a continual basis. Wave loads are estimated as 200 lbs per linear foot of the float.

E. Currents: is negligible at the project site. The floating dock shall be designed to withstand the loads generated by 0.5-knot current on a continual basis, and currents up to 1 knot, on an extreme basis.

F. Gangway Landing and Fire Suppression Staging Float

- a. This section shall be subject to CFC Section 3604 and NFPS 303.
- b. The enlarged float area for gangway landing shall be a minimum of 10 feet by 20 feet in order to accommodate the addition of the fire suppression equipment, staging area, and a minimum of one (1) standpipe per float.
- c. Staging area spaces shall be provided on all float systems for the staging of emergency equipment. Emergency operations staging area shall provide a minimum of 4 feet wide by 10 feet long clear area exclusive of walkways and shall be located at each standpipe hose connection.
- d. Emergency operation staging areas shall be provided with a curb or barrier having a minimum height of 4-inches and maximum spacing between the bottom edge and the surface of the staging area of 2-inches on the outboard sides of the staging area curbing in accordance with CFC Section 3604.6.
- e. An approved sign reading "FIRE EQUIPMENT STAGING AREA – KEEP CLEAR" shall be provided at each staging area.
- f. A minimum of one (1) portable fire extinguisher of the ordinary (moderate) hazard type shall be provided at each required standpipe hose connections. Additional portable fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.
- g. Piping equipment shall be able to connect from the nearest landside fire apparatus along the gangway.
- h. Fabricator shall ensure that all walking surfaces remain flush between the gangway landing and fire suppression staging float and the main pathway. Should additional free board be required for this float, the fabricator shall provide ADA compliant ramps to all walking surfaces.
- i. The fabricator shall be responsible for the final gangway landing and fire suppression staging float design and should be submitted to the City's Engineer for review and approval.

2.03 Gangway Design and Load Condition

- A. Gangways shall be subject to the same load conditions identified in this section, except for berthing, mooring, current, wave, and pile loading conditions. Gangways shall provide connection to existing grade.
- B. Handrails shall be designed for the following independent load cases:
 - a. A continuous horizontal load of 20 PLF applied along the full length of the top rail.
 - b. A horizontal point load of 250 lbs acting at any point along the top rail.
- C. Gangways shall have a minimum clear walkway width of 3.5 ft, and an overall outside width not to exceed 4.5 ft. At a minimum all gangways shall be approximately 80' in length. Gangways shall have continuous handrails that are a minimum of 3.5 ft above the walking surface, but not to exceed 3.75 ft.
- D. Walking surface shall be skid resistant.
- E. Gangway pier end connections shall allow unrestricted vertical movement through tidal variation. Gangway bearing on floating piers shall be fitted with UHMW polyurethane rollers of adequate bearing area. Gangways shall be fitted with hinged apron plates to assure a safe uniform transition between gangway and deck surfaces. Apron plates will be designed so as to not damage or mar the floating pier surface.
- F. Maximum midspan deflection under live load shall not exceed $L/240$.
- G. Contact between aluminum and dissimilar metals or concrete shall be avoided, except for the use of compatible stainless-steel pins. Where potential for galvanic corrosion exists, the aluminum shall be isolated from direct contact with other metals or concrete by use of suitable non-conducting insulators or bushings.
- H. Maximum gangway slope shall be 1V:12H.

2.04 Materials

- A. Structural Concrete
 - 1. Cement – In compliance with ASTM C150, type II. Blended cement shall consist of a mixture of ASTM C150 Type II cement and one of the following materials: fly ash or ground iron blast furnace slag. The fly ash content shall not be less than 20% nor exceed 40% by total mass of cementitious material. The content of granulated blast furnace slag shall not exceed 50% of the total mass of cementitious material.
 - 2. Fly Ash – Use type N, F, or C, except that the maximum allowable loss on ignition shall be 6% for type N and F.
 - 3. Ground Iron Blast Furnace Slag – Use Grade 100 or 120.
 - 4. Water – Shall be fresh, clean, and potable.
 - 5. Aggregates – Use size 8 (3/8"). Aggregates shall not contain any substance that may be deleteriously reactive with the alkalis in the cement.
- B. Reinforcing
 - 1. Floating docks shall utilize fiber reinforced polymer (FRP) bars for concrete reinforcement and through rods.
- C. Expanded Polystyrene (EPS) Core
 - 1. The closed cell expanded polystyrene core shall conform to ASTM C578. Type 1 C-578-07. The core shall have a density between .95 and 1.10 lbs/ft² and shall be made from virgin material containing no regrind. The EPS core will have a

maximum water absorption of 4% by volume in accordance with ASTM C272. EPS foam billets shall have a maximum dimension tolerance of plus or minus 1/8". Exposed portions of the EPS and leveling billets (if required) shall be coated with a Poly Urea coat with a minimum thickness of 1.5 MM.

D. Pile Guides

1. All pile guide structural steel to conform to ASTM A36, A500, or A768 as applicable. All members to be hot dip galvanized as defined in ASTM A123. All welding to be performed with AWS certified welders in accordance with AWS code section D1.1
2. Low friction blocks for pile contact areas shall be fabricated from UHMW polyethylene.
3. Pile guides shall be removable to allow the floating docks to be disconnected from the anchor piles for future maintenance purposes.

E. Pile Guide and Cleat Fastening Systems

1. All fastening and or anchoring members cast or permanently embedded in the float shall be made from ASTM grade 316 stainless steel. All anchor channels to conform to ASTM A666. All thread rod to conform to ASTM A193.
2. All bolts to conform to ASTM A307, with a minimum yield of 36 ksi and minimum ultimate tensile strength of 60 ksi. All structural washers to be made to ASTM F436 and all structural nuts to meet ASTM A563. All structural fasteners and related hardware to be hot dip galvanized to ASTM A153.

F. Rub Rail and Fender Fasteners

1. All rub rails and or fenders to be attached with fasteners made from 316 stainless steel.

G. Cleats

1. All cleats shall be 12" galvanized/stainless steel cleats with a minimum 3,000 lb. rated loading capacity. Cleats shall be spaced at 12' on-center along the full length of the dock.
2. All cleat connection points, including walers if applicable, shall be designed for the rated capacity of the proposed cleat. Design calculations shall be submitted to the City's Engineer for review and approval.

H. Fender Material

1. Fenders shall be extruded rubber fenders.

I. Float-to-Float Connectors

1. The member will prevent the transmission of concentrated, point, or shock loads to adjoining floats. At a minimum, the complete connection assembly will be capable of maintaining undamaged the structural integrity of the floatation system while withstanding repeated wave-induced movements, permitting connected pairs of floats to have a range of motion of at least 24 degrees when viewed broadside to the float in the elevation plane. The connections system shall be easily assembled and will allow the removal of one or more of the connection fasteners while keeping the remaining fasteners in place. The Connection Assembly must be capable of transmitting float-to-float compressive

and tensile loads equal to 4 times the float design dead weight without damage or degrading wear to the floatation system.

2. Consideration shall be given to accommodate for the connection of the western most float to the adjacent Petaluma Small Craft Center (PSCC) gangway through the use of an existing piano hinge.

J. Walers

1. Walers shall be fiber reinforced polymer (FRP) and be securely fastened to the concrete floats using nylon nuts.
2. Walers may be substituted for timber at a cost reduction to the City, upon review and approval by the engineer.
3. All structural timber walers shall be of Coast Region Douglas Fir, minimum "No. 1" or better per West Coast Lumber Inspection Bureau (WCLB) grading rules no. 16, paragraph 123 or paragraph 124 as applicable.
4. All non-structural timber (i.e., coverboard, fascia) shall be of Coast Region Douglas Fir; "No. 1" or better selected for best appearance.
5. Structural Timber shall be of Coast Region Douglas Fir; laminated timbers S4S appearance, grade 24F-V8, with zero camber and incised.
6. Lumber shall be fabricated accurately to provide uniform gaps and butt joint connections. Lumber splices shall not exceed $\frac{3}{4}$ " inch between adjoining ends.
7. All walers, fascia, spacers, or any other member which is subject to foot traffic, shall be flush with the concrete walking surface and shall have chamfered or bull nosed edges on the top edges.
8. LUMBER TREATMENT
 - a. All lumber shall be pressure preservative treated with ACZA to .6 pound per cubic foot retention.
 - b. All lumber will be cut to length and all holes drilled prior to pressure treatment to the extent practical.
 - c. Tie bands used for delivery must have plates between the bands and the wood to prevent crushing. Bundle identification shall be done so as not to stain lumber surfaces.
 - d. All field cuts and bored holes exposed after pressure treatment shall be brush coated with a preservative solution.

K. Utility Boxes and Utility Ducts

1. Utility Boxes and hand holes will be concrete cast in with the structure. Lids will be embedded in the decks of the concrete module and have a non-skid surface and are designed to withstand a live load of 60 psf.
2. Access Boxes where required, shall be flush with the walking surface and shall have a 1" nominal concrete bottom with a smooth or light brushed, slip-resistant finish. All bolts and lids on access boxes shall be stainless steel.
3. Utility sleeves shall remain above the water surface under dead load conditions and shall be designed to facilitate installation and removal. And servicing the utilities. Access openings shall be provided at convenient locations if required for special access.

L. Thru-Rod Connections

1. Thru-rods shall be fiber reinforced polymer (FRP).
2. The minimum dimension for all thru-rods for structural attachment is 3/4" rolled thread diameter. All thru-rods shall be placed within PVC sleeves cast in the float units. The maximum inside diameter of PVC shall not exceed 7/8" for 3/4" thru rods.
3. If required, after fabrication, all cut ends, holes and abrasions of FRP shapes shall be sealed with a compatible resin coating.
4. FRP products exposed to weather shall contain an ultraviolet inhibitor. Should additional ultraviolet protection be required, a one mil minimum UV coating can be applied.
5. All exposed surfaces shall be smooth and true to form.
6. Thru-rods shall be placed through each float unit within 6" of each end of that unit. and within 6" of each lumber splice.
7. No connecting device shall protrude beyond the fascia into the berth area. Any connecting device protruding above the surface of the deck shall have a low, rounded profile. Any connecting device cast into the concrete modules shall be stainless steel.

M. Gangways

1. Provide gangways of prefabricated aluminum for floating pier access, including connections at the bulkhead and bearing on the floating pier. Gangway shall be designed in accordance with "Specifications for Aluminum Structures", AA, latest edition, using allowable stresses for bridges.
2. All gangways are required to follow Americans with Disabilities Act 2010 ADA Standards.
3. Aluminum
 - i. Aluminum alloy shall be 6061-T6. Extruded in accordance with the applicable requirements of SAE AMS-QQ-A-200/8.
4. Stainless Steel Type 316 L.
 - i. Castings
 1. F-214 Cast aluminum. Castings shall be true to pattern, structurally sound and free from blow holes or other defects.
 - ii. Insulators
 1. Bushings or separation sheets shall be a minimum of 1/16 in thickness.
 - iii. Rollers
 1. UHMW polyurethane, with UV inhibitors added. Color shall be black.

PART 3 - EXECUTION

3.01 Floating Docks

- A. The float modules shall consist of 6 sides of concrete with a minimum deck thickness of 2", minimum side wall, end wall of 1.5", and a minimum bottom thickness of 1.25".
- B. Floats will be fabricated according to methodology promulgated by the American Concrete Institute (ACI). The facility to provide adequate workspace, handling equipment, level casting surface and portable shelters for protection from adverse environmental conditions such as direct sunlight, wind, moisture, and freezing conditions.
- C. Casting Forms to have structural members and shoring systems adequate to ensure floats are cast without distortion or deviations from design exceeding $\pm 1/8"$. Form surfaces to be smooth true and of sufficient load carrying ability to ensure dimensions will not deviate more than $\pm 1/8"$ from design dimensions. Any rough edges, form marks, or defects such as protruding fins shall be cleaned, ground smooth or patched.
- D. Each float will be cast as an individual monolithic unit and made in one continuous pour. No cold joints are permitted. During the casting process the concrete shall be vibrated internally or externally in accordance with ACI -309 to ensure a smooth, dense finish.
- E. Project shall include two distribution pedestals for utilities.
- F. Float decks shall be designed and constructed to drain freely and there shall be no floodable enclosed spaces.
- G. All precast floats are to be clearly identified on one side and one end, between the bottom of the waler and the waterline. Identification shall include name of manufacturer, date of manufacture, specific float type, and job number.
- H. Final fabricated floats shall be made available to the engineer for inspection and approval prior to the close of project. Any precast float that is deemed structurally impaired by the engineer shall be rejected. Structural repairs shall be made at no additional expense to the City. Final payment shall not be made until all float and materials have been approved by the City or its engineer.

3.02 Testing

- A. Concrete testing is to be carried out by certified personnel, conforming to ACI guidelines. Three concrete cylinders will be taken in accordance with ACI-318 for each day's production. Entrained air tests to be taken daily from the same material samples used for the compressive test cylinders in accordance with ASTM C173, or C231. Periodic unit weight test is to be performed as per ASTM C0138. All test results will be forwarded to the owner and design engineer.

3.03 Curing

- A. All floats are cured in accordance with ACI 308, 305R, and 306R as applicable.

3.04 Deck Finish

- A. Float deck surface shall have a light broom finish applied transversely to the walking deck. All top and vertical edges have a 3/4" chamfer. Float decks to have a minimum 1" to 1 1/2" wide smooth hard steel finished shiner strip placed around the entire perimeter.

3.05 Surface Defects

- A. All floats will be free of structural cracks. Chips and cracks that exceed 0.01" wide will be patched with a non-shrink patching compound. Rock pockets and or honeycombing exceeding 1" in diameter and or 3/4" deep will be patched with a non-shrink grout of a color similar to the cured concrete. Any pockets that expose the reinforcing steel will be chipped out, cleaned, and filled with a non-shrink patching compound.

3.06 Handling

- A. All floats will be properly designed for loading, shipping, lifting. Lifting points will be specified in the shop drawings.

PART 4 – Measurement & Payment

4.01 Measurement

- A. Floats will be paid for at the contract LUMP SUM (LS) price in accordance with Section 4.02 Payment. Final payment shall not be made until all float and materials have been approved by the City or its engineer.
- B. Alternative 1/Alternative 2 will be paid for at the contract LUMP SUM (LS) price in accordance with Section 4.02 Payment. Final payment shall not be made until all float and materials have been approved by the City or its engineer.
- C. All design and fabrication shall be completed within one-hundred and twenty (120) working days from the Notice to Proceed (NTP).

4.02 Payment

- A. Payment for Floats shall be paid for by the Contract Lump Sum price as contained in Bid Item No. 1. Float payment shall include all furnishing all plant, labor, supervision, equipment, appliances, and materials and in performing all operations in connection with the complete pre-engineered concrete floating dock system required to perform the work involved as shown on the Plans, as stated in these specifications, and as directed by the Engineer.
- B. Payment will be made in two (2) installments: 60% after Notice to Proceed (NTP) upon receipt of the first payment request, and the remaining 40% upon substantial completion of fabrication.
- C. A ten percent (10%) retention of payment amount shall be held by the City from the amount of each Application for Payment. Payment shall not be made until all float and materials have been approved by the City and the City has approved closure of the contract.

END OF SECTION

City of Petaluma, California

PETALUMA TURNING BASIN FLOATING DOCK DESIGN & FABRICATION

150 WELLER STREET, PETALUMA, CA 94952

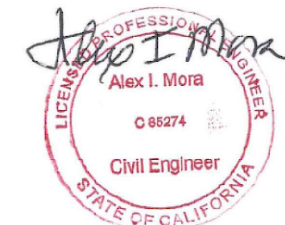
ISSUED FOR BID



LOCATION MAP
SCALE: N.T.S.

SHEET INDEX

- G-101 TITLE
- G-102 NOTES, ABBREVIATIONS, & SYMBOLS
- C-101 EXISTING CONDITIONS
- C-102 PROPOSED FLOATING DOCK CONFIGURATION
- C-103 ADA COMPLIMENT GANGWAY CONFIGURATION
- D-101 FLOATING DOCK DETAILS



DATE EXPIRES: 12/31/2023
DATE SIGNED: 3/13/2023

ALL PROJECT PLANS HAVE BEEN PREPARED AND REVIEWED TO COMPLY WITH CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS AND/OR THE CALIFORNIA BUILDING STANDARDS CODE (CBCS).

THESE PROJECT PLANS CONTAIN ELEMENT(S) THAT ARE NOT "TECHNICALLY FEASIBLE" AND/OR CAN'T MEET THE APPLICABLE CBCS BECAUSE IT WOULD CREATE AN "UNREASONABLE HARDSHIP." PLEASE SEE THE WRITTEN ANALYSIS SUPPORTING THIS DETERMINATION FILED UNDER THE PROJECT FILE.

DESIGNED BY _____

SIGNATURE _____ DATE _____

MAYOR
KEVIN MCDONNELL

COUNCIL MEMBERS
BRIAN BARNACLE
JANICE CADER-THOMPSON, DIST. 1
MIKE HEALY
KAREN NAU, DIST. 3
DENNIS POCEKAY
JOHN SHRIBBS, DIST. 2

CITY MANAGER
PEGGY FLYNN

DIRECTOR OF PUBLIC WORKS & UTILITIES
CHRISTOPHER BOLT

	SIGNATURE	DATE
CITY ENGINEER		
ENGINEERING MANAGER		
FIRE MARSHAL		
PARKS		
PLANNING		
POLICE		
UTILITY MANAGER		

DATE: FEBRUARY 2023
 DESIGNED BY: AM/AK
 DRAWN BY: KEC
 CHECKED BY: WPR

PROJECT NO.
0020P015.00

CITY OF PETALUMA
 PUBLIC WORKS & UTILITIES
 202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954
 PH: 707-778-4546 FAX: 707-778-4508



**PETALUMA TURNING BASIN
FLOAT DESIGN
TITLE**

SHEET
G-101
1 OF 6

GENERAL NOTES:

- POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF FOTH.
- IF, DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR FINDS A CONFLICT, ERROR, OR DISCREPANCY IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SO REPORT TO THE ENGINEER OF RECORD IN WRITING AT ONCE. BEFORE PROCEEDING WITH THE WORK AFFECTED THEREBY, THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION OR CLARIFICATION FROM THE ENGINEER OF RECORD. WORK DONE BEFORE THE ENGINEER OF RECORD RENDERS HIS DECISION IS AT THE CONTRACTOR'S SOLE RISK.
- THE WORK SHALL BE PERFORMED IN A GENERAL SEQUENCE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE SEQUENCES AND PROCEDURES TO BE USED.
- THE CONTRACTOR SHALL NOTE ALL APPROVED CHANGES AND OTHER OCCURRENCES AND SUBMIT A FULL SIZE COMPLETE "RECORD DRAWING" SET NOTED AND DATED ON THE DRAWINGS TO THE PROJECT ENGINEER PRIOR TO ACCEPTANCE OF THE WORK.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL MATERIAL AND WORKMANSHIP FULLY CONFORMS TO THE SPECIFICATIONS, STANDARDS, AND ORDINANCES OF THE CITY OF PETALUMA.
- STRUCTURAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE OF THE STATE OF CALIFORNIA. WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL PERMIT CONDITIONS.
- SECTIONS AND DETAILS APPLY TO THE SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE.

FLOATING DOCKS:

- FLOATS WILL BE FABRICATED ACCORDING METHODOLOGY PROMULGATED BY THE PRECAST/PRESTRESSED CONCRETE INSTITUTE (PCI). THE FACILITY TO PROVIDE ADEQUATE WORKSPACE, HANDLING EQUIPMENT, LEVEL CASTING SURFACE AND PORTABLE SHELTERS FOR PROTECTION FROM ADVERSE ENVIRONMENTAL CONDITIONS SUCH AS DIRECT SUNLIGHT, WIND, MOISTURE, AND FREEZING CONDITIONS.
 - ALL FLOATS WILL BE PROPERLY DESIGNED FOR LOADING, SHIPPING, LIFTING. LIFTING POINTS WILL BE SPECIFIED IN THE SHOP DRAWINGS.
 - FLOATING DOCK SHALL BE DESIGNED TO WITHSTAND THE FOLLOWING SERVICE DESIGN LIVE LOADS AND ENVIRONMENTAL CONDITIONS:
 - LIVE LOADS:
 - CONCRETE DOCK: 50 PSF
 - GANGWAYS: 100 PSF
 - LANDING: 100 PSF
 - WIND LOADS: PER ASCE 7 - 16
 - EXTREME WIND SPEED: 69 MPH - 30-SEC SUSTAINED WIND SPEED
 - WAVE LOAD:
 - H = 1.5 FT, T = 2.2 SECONDS CONTINUAL
 - H = 3.0 FT, T = 3.0 SECONDS EXTREME
 - CURRENT VELOCITY: 0.5 KNOT CONTINUAL, 1.0 KNOT EXTREME
 - VESSEL LOADS:
 - IMPACT LOAD FROM A GENERIC 30' LOA RECREATIONAL BOAT
 - VELOCITY: 3.0 FT/SEC
- © COPYRIGHT 2023, FOTH & VAN DYKE AND ASSOCIATES, INC.

ABBREVIATIONS

APPROX	APPROXIMATE
CONC	CONCRETE
CONT	CONTINUED
Ø	DIAMETER
EX	EXISTING
IN	INCH
L	LENGTH
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT-TO-SCALE
±	PLUS OR MINUS
PROP	PROPOSED
R	RADIUS
TYP	TYPICAL
VAR	VARIES

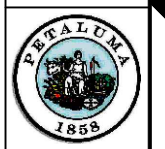
GENERAL SYMBOLS

EXISTING	PROPOSED	
		PROPERTY LINE
		SHORELINE
		BUILDINGS
		PETLAUMA SMALL CRAFT FLOAT
		16" FREEBOARD FLOATING DOCKS
		ALT 1/ALT 2 FLOATING DOCKS
		GANGWAYS
		PSSC GANGWAY & RAMP
		POWER AND WATER PEDESTAL
		16" PILES

DATE: FEBRUARY 2023
 DESIGNED BY: AMIAK
 DRAWN BY: KEC
 CHECKED BY: WPR

PROJECT NO.
 0020P015.00

CITY OF PETALUMA
 PUBLIC WORKS & UTILITIES
 202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954
 PH: 707-778-4546 FAX: 707-778-4508



RECORD DRAWING REFERENCE			
NO.	DATE	DESCRIPTION	BY

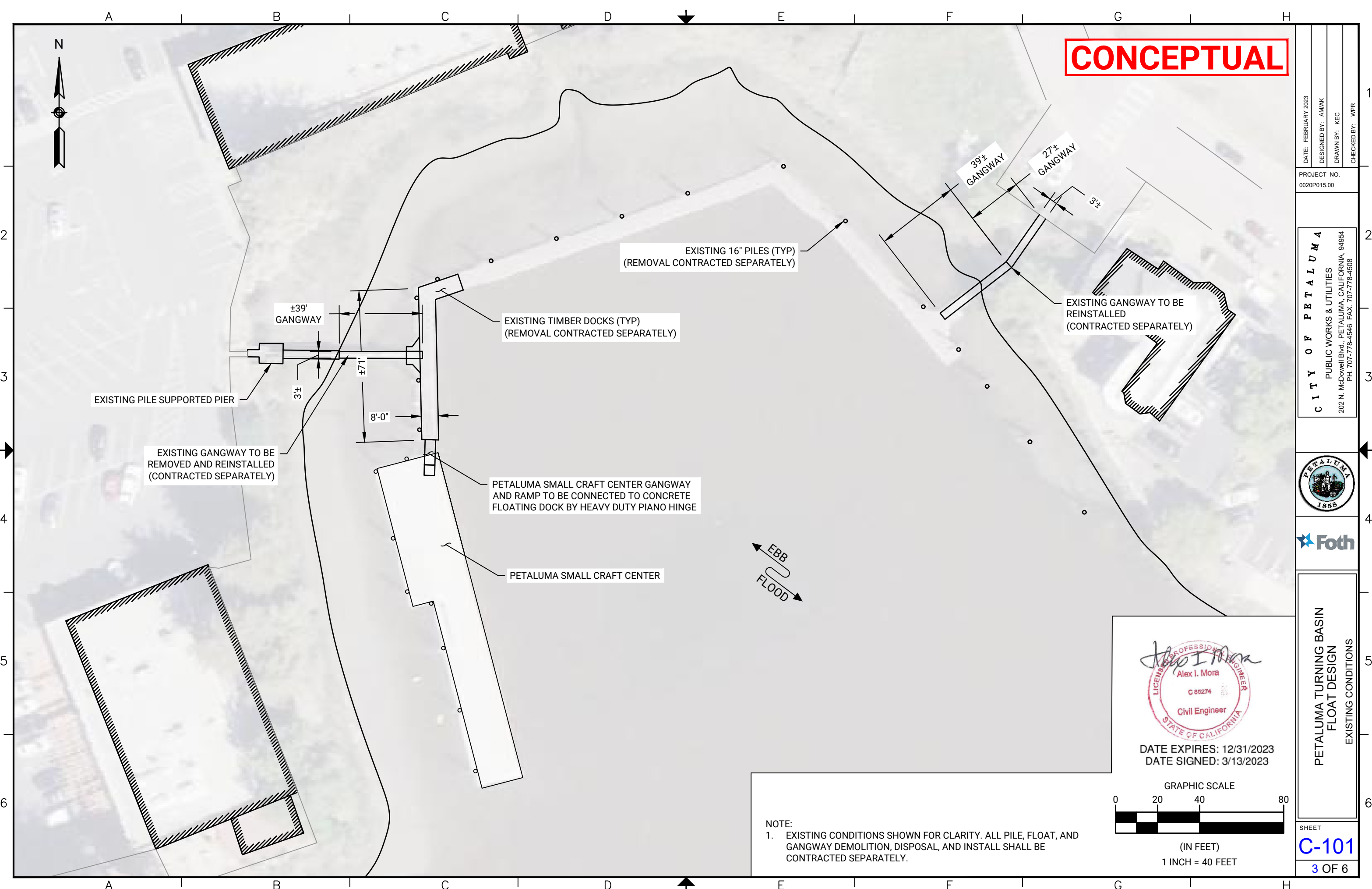
PROJECT RESOURCE DATA (FOR CITY USE)	
PROJECT START	3/27/2023
PROJECT END	11/30/2023
PROJECT CONTRACTOR	TBD
CONTRACTOR'S SUPER.	TBD
REGULATORY PERMITS	NA
PROJECT MANAGER	CITY OF PETALUMA
PROJECT INSPECTOR	FOTH & VAN DYKE AND ASSOCIATES, INC.
OTHER	



DATE EXPIRES: 12/31/2023
 DATE SIGNED: 3/13/2023

PETALUMA TURNING BASIN
 FLOAT DESIGN
 NOTES, ABBREVIATIONS, & SYMBOLS

CONCEPTUAL



DATE: FEBRUARY 2023
DESIGNED BY: AM/AK
DRAWN BY: KEC
CHECKED BY: WPR

PROJECT NO.
0020P015.00

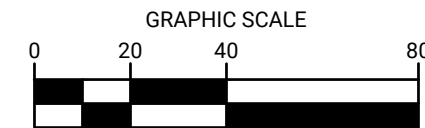
CITY OF PETALUMA
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202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954
PH: 707-778-4546 FAX: 707-778-4508



**PETALUMA TURNING BASIN
FLOAT DESIGN
EXISTING CONDITIONS**



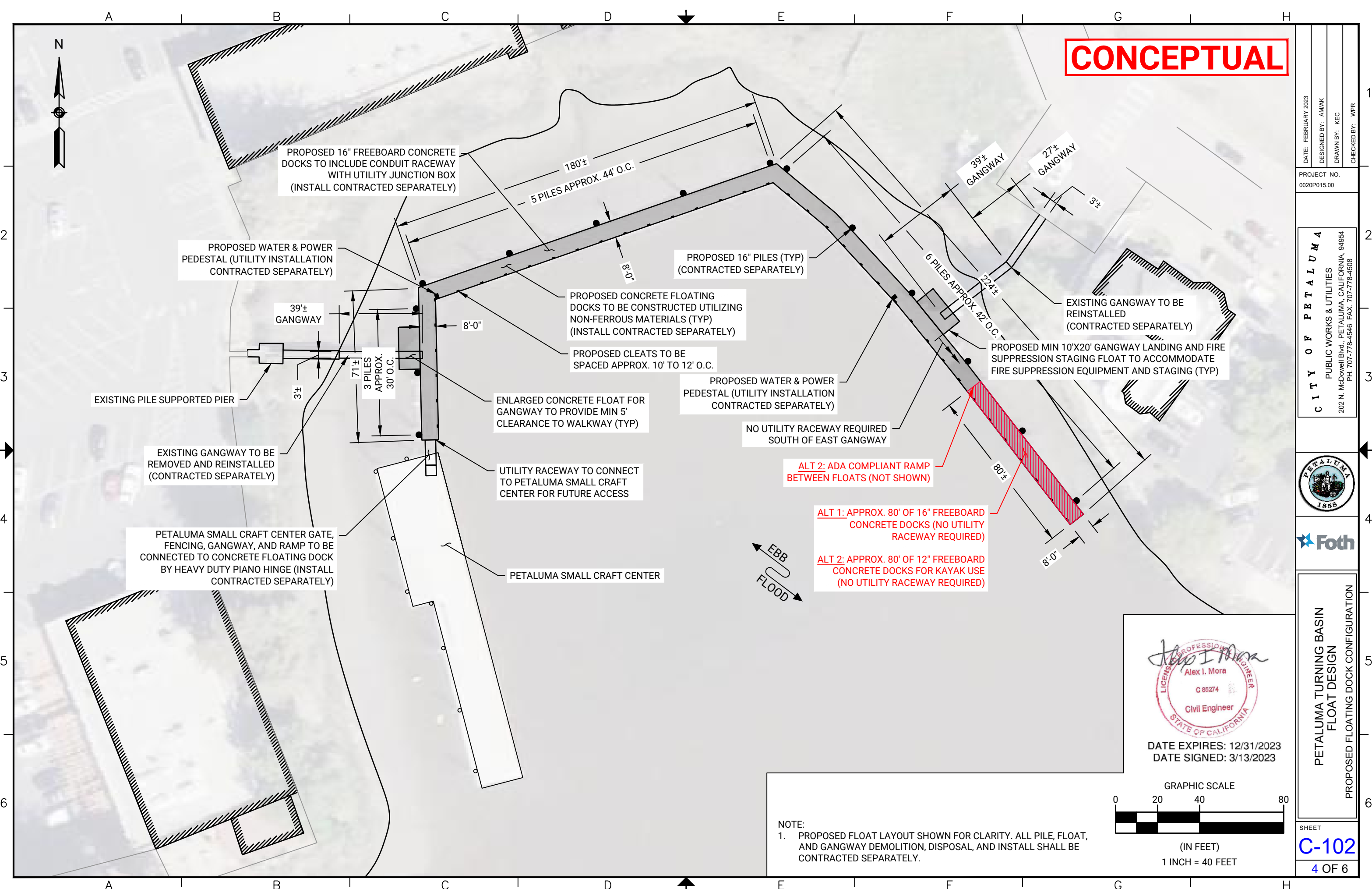
DATE EXPIRES: 12/31/2023
DATE SIGNED: 3/13/2023



(IN FEET)
1 INCH = 40 FEET

NOTE:
1. EXISTING CONDITIONS SHOWN FOR CLARITY. ALL PILE, FLOAT, AND GANGWAY DEMOLITION, DISPOSAL, AND INSTALL SHALL BE CONTRACTED SEPARATELY.

CONCEPTUAL



PROPOSED 16" FREEBOARD CONCRETE DOCKS TO INCLUDE CONDUIT RACEWAY WITH UTILITY JUNCTION BOX (INSTALL CONTRACTED SEPARATELY)

180±
5 PILES APPROX. 44' O.C.

PROPOSED WATER & POWER PEDESTAL (UTILITY INSTALLATION CONTRACTED SEPARATELY)

PROPOSED 16" PILES (TYP) (CONTRACTED SEPARATELY)

PROPOSED CONCRETE FLOATING DOCKS TO BE CONSTRUCTED UTILIZING NON-FERROUS MATERIALS (TYP) (INSTALL CONTRACTED SEPARATELY)

EXISTING GANGWAY TO BE REINSTALLED (CONTRACTED SEPARATELY)

PROPOSED MIN 10'X20' GANGWAY LANDING AND FIRE SUPPRESSION STAGING FLOAT TO ACCOMMODATE FIRE SUPPRESSION EQUIPMENT AND STAGING (TYP)

PROPOSED CLEATS TO BE SPACED APPROX. 10' TO 12' O.C.

PROPOSED WATER & POWER PEDESTAL (UTILITY INSTALLATION CONTRACTED SEPARATELY)

ENLARGED CONCRETE FLOAT FOR GANGWAY TO PROVIDE MIN 5' CLEARANCE TO WALKWAY (TYP)

NO UTILITY RACEWAY REQUIRED SOUTH OF EAST GANGWAY

ALT 2: ADA COMPLIANT RAMP BETWEEN FLOATS (NOT SHOWN)

ALT 1: APPROX. 80' OF 16" FREEBOARD CONCRETE DOCKS (NO UTILITY RACEWAY REQUIRED)

ALT 2: APPROX. 80' OF 12" FREEBOARD CONCRETE DOCKS FOR KAYAK USE (NO UTILITY RACEWAY REQUIRED)

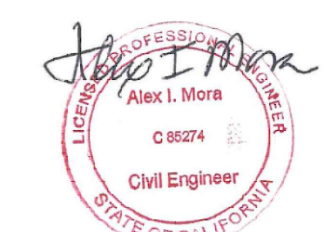
EXISTING PILE SUPPORTED PIER

EXISTING GANGWAY TO BE REMOVED AND REINSTALLED (CONTRACTED SEPARATELY)

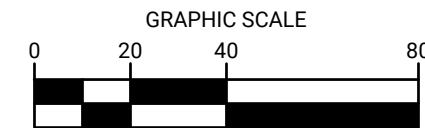
UTILITY RACEWAY TO CONNECT TO PETALUMA SMALL CRAFT CENTER FOR FUTURE ACCESS

PETALUMA SMALL CRAFT CENTER GATE, FENCING, GANGWAY, AND RAMP TO BE CONNECTED TO CONCRETE FLOATING DOCK BY HEAVY DUTY PIANO HINGE (INSTALL CONTRACTED SEPARATELY)

PETALUMA SMALL CRAFT CENTER



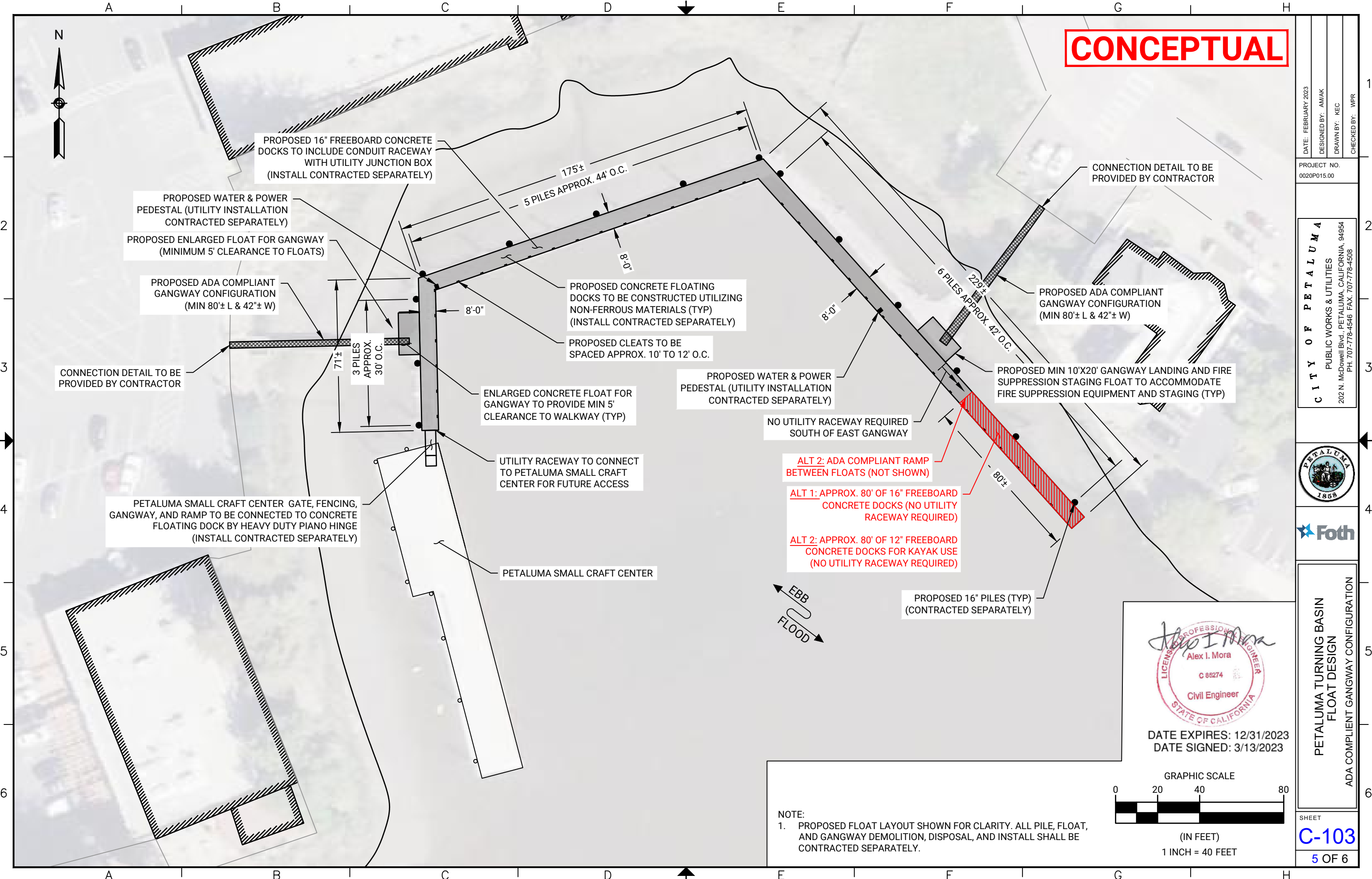
DATE EXPIRES: 12/31/2023
DATE SIGNED: 3/13/2023



NOTE:
1. PROPOSED FLOAT LAYOUT SHOWN FOR CLARITY. ALL PILE, FLOAT, AND GANGWAY DEMOLITION, DISPOSAL, AND INSTALL SHALL BE CONTRACTED SEPARATELY.

DATE: FEBRUARY 2023	DESIGNED BY: AM/AK	DRAWN BY: KEC	CHECKED BY: WPR
PROJECT NO. 0020P015.00			
CITY OF PETALUMA			
PUBLIC WORKS & UTILITIES			
202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954 PH: 707-778-4546 FAX: 707-778-4508			
PETALUMA TURNING BASIN FLOAT DESIGN			
PROPOSED FLOATING DOCK CONFIGURATION			
SHEET			
C-102			
4 OF 6			

CONCEPTUAL



DATE: FEBRUARY 2023
DESIGNED BY: AM/AK
DRAWN BY: KEC
CHECKED BY: WPR

PROJECT NO.
0020P015.00

CITY OF PETALUMA
PUBLIC WORKS & UTILITIES
202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954
PH: 707-778-4546 FAX: 707-778-4508



**PETALUMA TURNING BASIN
FLOAT DESIGN**
ADA COMPLIANT GANGWAY CONFIGURATION

SHEET
C-103
5 OF 6

PROPOSED 16" FREEBOARD CONCRETE DOCKS TO INCLUDE CONDUIT RACEWAY WITH UTILITY JUNCTION BOX (INSTALL CONTRACTED SEPARATELY)

PROPOSED WATER & POWER PEDESTAL (UTILITY INSTALLATION CONTRACTED SEPARATELY)

PROPOSED ENLARGED FLOAT FOR GANGWAY (MINIMUM 5' CLEARANCE TO FLOATS)

PROPOSED ADA COMPLIANT GANGWAY CONFIGURATION (MIN 80'± L & 42"± W)

CONNECTION DETAIL TO BE PROVIDED BY CONTRACTOR

71'±
3 PILES APPROX. 30' O.C.

ENLARGED CONCRETE FLOAT FOR GANGWAY TO PROVIDE MIN 5' CLEARANCE TO WALKWAY (TYP)

PETALUMA SMALL CRAFT CENTER GATE, FENCING, GANGWAY, AND RAMP TO BE CONNECTED TO CONCRETE FLOATING DOCK BY HEAVY DUTY PIANO HINGE (INSTALL CONTRACTED SEPARATELY)

PETALUMA SMALL CRAFT CENTER

UTILITY RACEWAY TO CONNECT TO PETALUMA SMALL CRAFT CENTER FOR FUTURE ACCESS

PROPOSED CONCRETE FLOATING DOCKS TO BE CONSTRUCTED UTILIZING NON-FERROUS MATERIALS (TYP) (INSTALL CONTRACTED SEPARATELY)

PROPOSED CLEATS TO BE SPACED APPROX. 10' TO 12' O.C.

PROPOSED WATER & POWER PEDESTAL (UTILITY INSTALLATION CONTRACTED SEPARATELY)

NO UTILITY RACEWAY REQUIRED SOUTH OF EAST GANGWAY

ALT 2: ADA COMPLIANT RAMP BETWEEN FLOATS (NOT SHOWN)

ALT 1: APPROX. 80' OF 16" FREEBOARD CONCRETE DOCKS (NO UTILITY RACEWAY REQUIRED)

ALT 2: APPROX. 80' OF 12" FREEBOARD CONCRETE DOCKS FOR KAYAK USE (NO UTILITY RACEWAY REQUIRED)

PROPOSED 16" PILES (TYP) (CONTRACTED SEPARATELY)

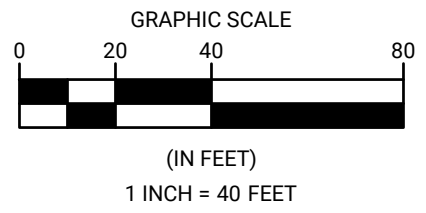
CONNECTION DETAIL TO BE PROVIDED BY CONTRACTOR

PROPOSED ADA COMPLIANT GANGWAY CONFIGURATION (MIN 80'± L & 42"± W)

PROPOSED MIN 10'X20' GANGWAY LANDING AND FIRE SUPPRESSION STAGING FLOAT TO ACCOMMODATE FIRE SUPPRESSION EQUIPMENT AND STAGING (TYP)



NOTE:
1. PROPOSED FLOAT LAYOUT SHOWN FOR CLARITY. ALL PILE, FLOAT, AND GANGWAY DEMOLITION, DISPOSAL, AND INSTALL SHALL BE CONTRACTED SEPARATELY.



DATE EXPIRES: 12/31/2023
DATE SIGNED: 3/13/2023

CONCEPTUAL

DATE: FEBRUARY 2023
DESIGNED BY: AM/AK
DRAWN BY: KEC
CHECKED BY: WPR

PROJECT NO.
0020P015.00

CITY OF PETALUMA
PUBLIC WORKS & UTILITIES
202 N. McDowell Blvd., PETALUMA, CALIFORNIA, 94954
PH: 707-778-4546 FAX: 707-778-4508



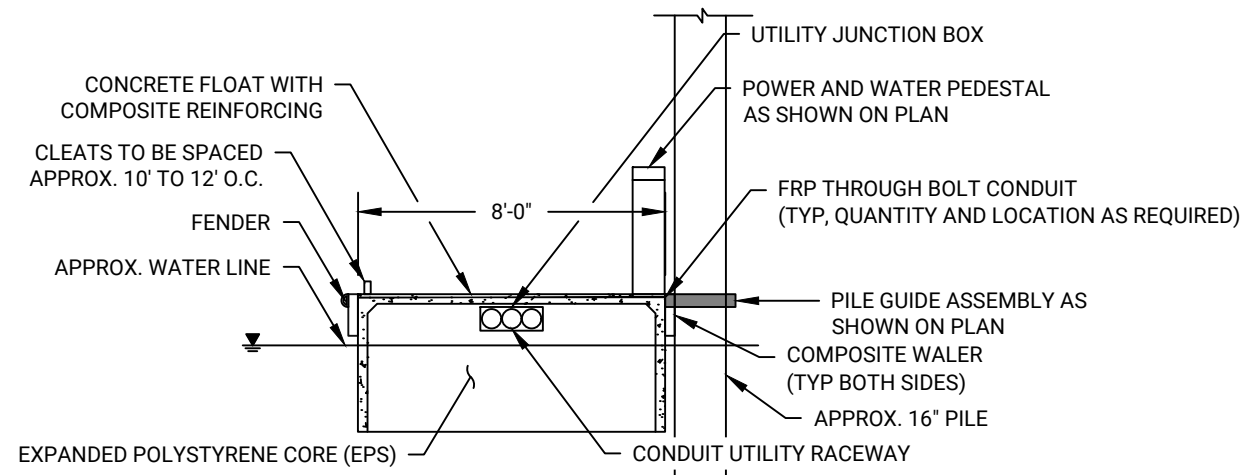
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**PETALUMA TURNING BASIN
FLOAT DESIGN
FLOATING DOCK DETAILS**

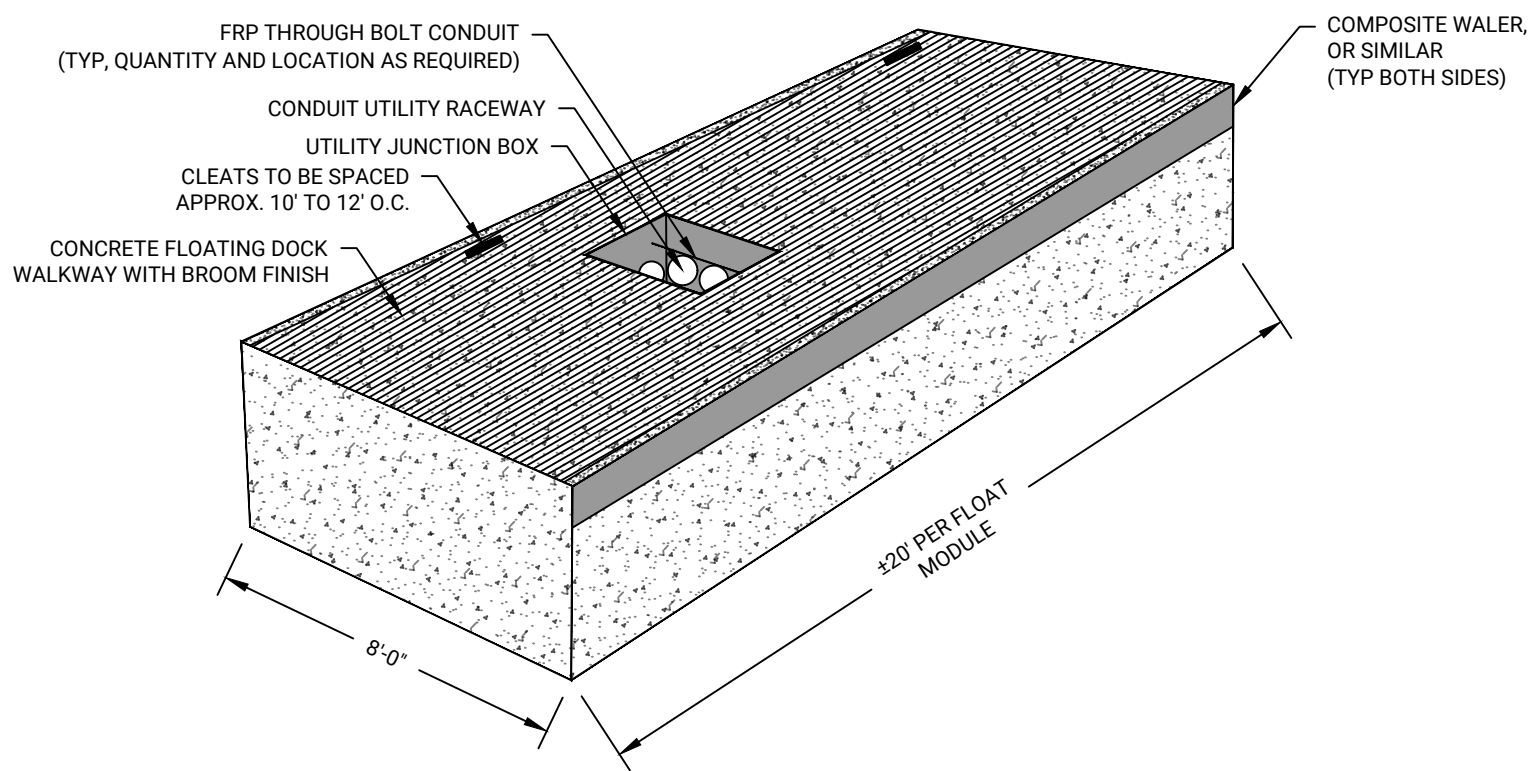
SHEET

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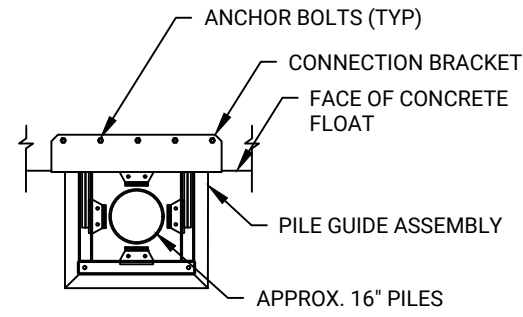
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A
5
TYPICAL FLOAT DETAIL
SCALE: 1" = 60'



B
5
TYPICAL FLOAT DETAIL
SCALE: 1" = 60'



C
5
TYPICAL EXTERIOR PILE GUIDE ASSEMBLY (TO BE DESIGNED BY CONTRACTOR)
SCALE: 1" = 60'



DATE EXPIRES: 12/31/2023
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