Louisville Jefferson County Riverport Authority

Logistics Facility Site Master Plan

Request for Qualifications RFQ No. LRAQ-002

Pre-Proposal Meeting

Not Required for Award

Monday, September 29 2025 at 1:00 PM, EDT

Virtual via Microsoft Teams Link

https://teams.microsoft.com/l/meetup-join/19%3ameeting_MjIzODExODQtY2E4Zi00NWUwLThkZTktYWQyZjFhOGE2YmY5%40thread.v2/0?context=%7b%22Tid%22%3a%22f07f0daf-639a-4f19-bcee-bebfeb081bd8%22%2c%22Oid%22%3a%226c29f583-8c11-485f-8aba-3216fe6c27c1%22%7d

Milestone Dates:

RFQ Released: September 16, 2025
Pre-Proposal Meeting: September 29, 2025

Site Visit: October 6, 2025
Last Day for Questions: October 14, 2025
Responses Due: November 3, 2025

TABLE OF CONTENTS

SECTION I – INSTRUCTIONS TO RESPONDENTS

1.1 INTRODUCTION

The Louisville and Jefferson County Riverport Authority (LRA) is soliciting formal consulting services, in the form of a Statement of Qualifications (SOQ) to create a Master Plan (Logistics Facility Site Master Plan) for the Riverport's existing Inland Port, Railroad and adjacent properties. The purpose of this solicitation is to identify a firm to engage in master planning efforts for the existing inland port in support of the LRA's 2,000 + acre commercial and industrial development, properties adjacent to the LRA's marine terminal and railroad and regional logistics industry.

The LRA has received a Community Project Fund (CPF) grant for the express purpose of creating the above-described master plan. This grant of up to $1.25million is being administered by US DOT / MARAD as a PIDP program grant.

The LRA reserves the right to reject any and all SOQs received.

The process of accepting SOQs and choosing the successful Respondent shall be by sealed Requests for Qualifications ("RFQs").

The LRA, if it chooses to award a contract based on a SOQ received in response to this RFQ, shall do so on the basis of the SOQ received that is most advantageous to it based upon the Evaluation Criteria set forth herein. (KRS 45A.370(5)).

1.2 SOQ SUBMITTAL REQUIREMENTS

A. All SOQS must be signed by a duly authorized officer, agent, or employee of the Respondent. Respondent must warrant that the individual signing the SOQ document for the Respondent has the authority to bind the Respondent.

   1. ***Respondents must fill out the attached forms and include them with their response. Respondents may include additional information to support their response.***

B. SOQ must be submitted via the LRA's website (www.louisvilleriverport.com/tbd) prior to 4:00 PM, EDT on November 3, 2025. If you have any technical questions related to making your submission, please contact **Louisville Geek Contact** at **LouGeekRFQ@louisvilleriverport.com.**

C. The LRA shall not consider for award SOQs submitted after 4:00 PM, EDT on November 3, 2025.

D. Any inquiries about this Request for Qualifications shall be addressed in writing to the Louisville Riverport Authority either by email to RFQ@louisvilleriverport.com or by postal service to:

   PO Box 58010
   Louisville, KY 40268

E. Changes, Clarifications, Errors, Addenda:

   1. Should a prospective respondent find a discrepancy in or omissions from the Statement of Work (SOW) and Tasks and Deliverables stated in this RFQ, or be unclear as to what is meant by the SOW or Tasks and Deliverables, they may notify

the LRA by email at RFQ@louisvilleriverport.com. The LRA will provide written clarification to all questions submitted to it on its website at www.louisvilleriverport.com/tbd

2. Clarification of Responses: The LRA may seek clarification or additional information from a prospective Respondent.
3. Changes/Alterations: Respondent may change or withdraw their SOQ at any time prior to the deadline for receipt of responses. Respondents wishing to withdraw a submission in favor of an amended one should notify the LRA by email at RFQ@louisvilleriverport.com, in addition to uploading their amended response.
4. The Respondent's SOQ must conform to the requirements outlined in this RFQ; failure to provide any required response or provide required information, or use of forms other than those provided in support of this RFQ may cause rejection of the SOQ as nonresponsive.
5. SOQs may not be altered or withdrawn after the deadline for responses (11/3/2025), except with the written permission of an authorized official of the LRA.
6. Addenda: The LRA may issue an addendum, or addenda, changing one or several aspects of the RFQ, and any such addenda shall be made a part of this RFQ. All addenda, if any, shall be posted on the LRA's website adjacent the original RFQ, by 4:00 PM, EDT on October 21, 2025. Respondents should consider all addenda, if any, in the preparation of their SOQ. Before submitting a SOQ, it is incumbent upon each Respondent to be informed as to whether any addenda have been issued, and the failure to consider any such addenda in their SOQ may result in the disqualification of that SOQ.

F. The LRA shall not be responsible for any cost incurred by the Respondent in the preparation of its SOQ.

SECTION II – PROJECT REQUIREMENTS

2.1 ABOUT THE LOUISVILLE RIVERPORT AUTHORITY (LRA)

One of the primary missions of the LRA is to enhance waterborne and multi-modal trade and commerce along the Ohio River. The LRA is a quasi-governmental organization created in 1967 by Kentucky Revised Statutes and ordinances of the then Jefferson County Government and the City of Louisville. Since its creation, the LRA's mission has been to foster economic development, create jobs and attract businesses to Southwest Jefferson County. The LRA's mission includes serving as a landlord port and railroad at a ~300-acre riverport and railroad terminal. The LRA desires to ensure that the port's assets evolve and are enhanced to continue bringing economic opportunities and jobs to Jefferson County, the Commonwealth of Kentucky, and the region. The LRA is Grantee for US Foreign-Trade Zone 29 and the port and railroad terminal are located within General Purpose Site 001 of FTZ 29.

2.2 PROJECT DESCRIPTION & FUNDING SOURCE

The LRA has received a Federal Planning Grant of up to $1,000,000 to aid in completing a transformative planning effort for its multimodal Logistics Facility. The LRA Logistics Facility, a key hub in a critical intermodal supply-chain and logistics corridor, has antiquated and aging infrastructure with access to marine, rail, and highway modes of freight transportation.

Within the 2,000+ acre Jefferson Riverport International commercial industrial park is a 300-acre marine and rail terminal (Multi-modal Facility), with approximately 120 additional acres of property adjacent to the LRA's railroad. The Multi-modal Facility and railroad adjacent properties (Plan Site) require considerable investment to enhance and modernize the historic property as a means of generating new jobs, move truck traffic to more cost effective and environmentally sound logistics modes, and create new logistics efficiencies that will attract more employment to the city and the region. The LRA's 40-year-old marine terminal is the cornerstone of the facility, connecting businesses to efficient use of the Marine Highway while also providing the opportunity to transload a variety of commodities directly onto two national railroads and one regional railroad. The terminal suffers from frequent seasonal flooding, often leaving it inoperable, and has limitations due to the age and capacity of its crane—issues that restrain the facility from reaching its potential as a job creator and a high-volume alternative to over-the-road trucking.

2.3 PURPOSE OF GRANT FUNDS

Planning grant funds will enable the LRA to complete a Master Plan for the conversion of this originally designed "coal transload terminal" into a modern, environmentally conscious multi-modal marine and rail facility (location shown in **Figure 1**).

The Master Plan will detail recommended physical use of the Plan Site (Multi-modal Facility and railroad adjacent property) and complete planning work already funded by the LRA to build a New Marine Terminal that will not be affected by the flooding issues that put the existing terminal out of service for as much as a quarter each year.

The Respondent will conduct an economic and cost-benefit analysis, environmental analysis, as well as community and stakeholder engagement to determine the best commercial uses for its properties and further the Plan Site's readiness to attract capital funding for capacity increases.

Concurrently, the Respondent will complete construction plans and drawings for the New Marine Terminal outlined in the concept plan. This New Marine Terminal is critical to the LRA's ability to continue to serve its existing customer base and will be leveraged to add additional services and cargo capacity as identified in the overall Site Master Plan.

While the LRA's peers (Owensboro, KY Riverport and Jeffersonville, IN Riverport) annually move between 2 and 4 million tons of cargo each, the LRA's existing marine terminal is not capable of moving more than 350,000 tons of cargo in its present condition.

Figure 1: 300-Acre Project Site

This terminal is currently undergoing a rehabilitation project that will increase its lift capacity by 40% (from 30 tons to 42 tons). Due to its location and the number of days it is closed due to flooding, it is unlikely that the fully rehabilitated terminal will be able to handle more than 750,000 tons of cargo each year. The New Marine Terminal is designed to be a general cargo dock, subject to significantly fewer "high water" days. It will immediately supplement the LRA's current service capabilities for the movement of break bulk cargos and will be scalable to allow for the movement of bulk materials and project cargos. This will enable the LRA's leasehold operator to aggressively pursue and secure new incremental businesses opportunities and provide the Respondent with immediate additional capacity and capability for the business development portion of the Site Master Plan.

Planning efforts will incorporate the New Marine Terminal concept plans and existing marine, rail, roadway and cargo handling infrastructure and existing and adjacent roadways to create a holistic facility design to create a holistic facility design that focuses on maximizing land use to allow efficient logistics solutions that provide savings for local and regional industries, create new jobs, decrease the need for over-the-road truck use, and take advantage of critical environmentally conscious designs that make the Logistics Facility a good neighbor to nearby residents. This design will focus on;

- Optimizing the use of the LRA's land and infrastructure;
- Creating opportunities for new, efficient logistics solutions;
- Attracting new jobs;
- Decreasing regional over-the-road truck use; and,
- Engagement with Local stakeholders in the plan for and design of the LRA's facilities.

2.4 PROJECT DETAILS – SCOPE OF WORK

This project contains two elements that will be conducted concurrently. The first is to advance the concept plan for the **New Marine Terminal Layout,** which will be an anchor to the overall development plan. The proposed scope will use the concept developed (**SECTION VI**) to create a schematic level plan, in order to meet with permitting agencies and stakeholders to confirm the specific permits required for entitlement, update the cost estimate and cost-benefit analysis, and final construction design, specifications and drawings to allow the LRA to pursue grant funding in FY 2026 in hopes that initial construction activities can begin in FY 2027.

The second element will be the **Site Master Plan,** which will provide an opportunity for the LRA and the community at large to make informed decisions about the growth of the site in a way that is collaborative with the community, resilient in addressing both environmental concerns and emerging technology needs, and multimodal by enhancing the connections to modes as well as meeting the intermodal needs of the development. The Master Plan will seek to integrate the known development of the new material handling and dock site with the larger program developed for the overall tract of land and adjacent LRA properties that will consider public and stakeholder input, economic analysis of Jefferson County and the surrounding region with respect to potential marine and rail inputs that could or should leverage the LRA's site, market demand, and physical site constraints.

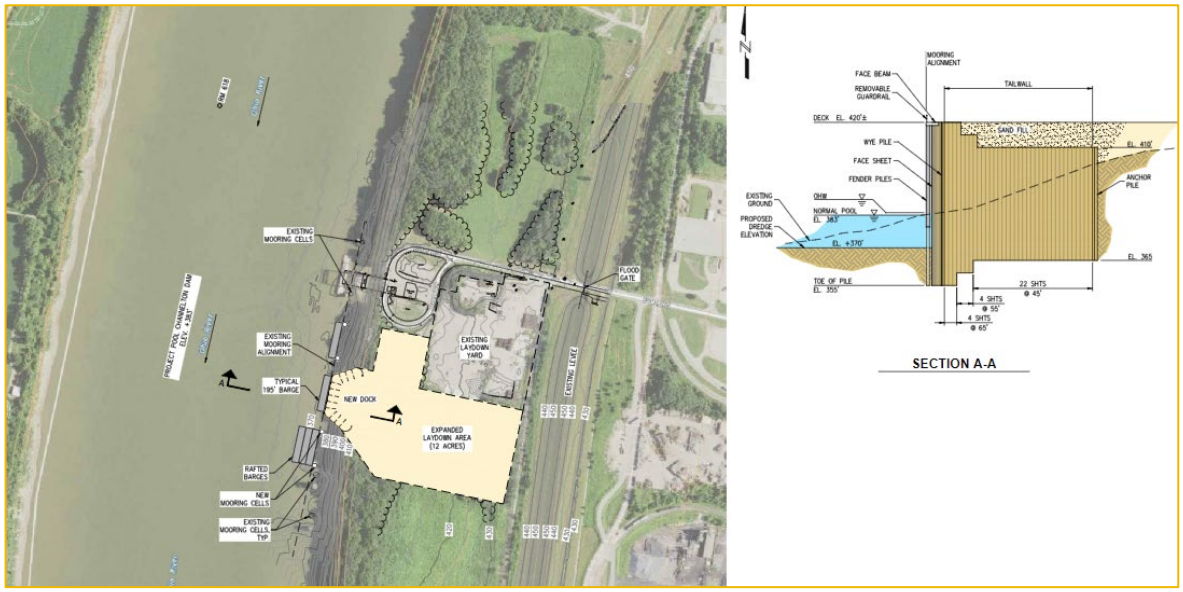
2.4.1 New Marine Terminal Layout Plan

The scope of work associated with the Marine Terminal Layout Plan will be to advance the previously developed schematic plans, specifications, and design report (**SECTION VI**) that outlines the various design elements including but not limited to geotechnical studies and recommendations, environmental investigations and recommendations, grading, drainage, and utility services. This update will provide a construction ready design plan and specifications for the New Marine Terminal with a detailed estimates of costs that the LRA can be use to 1) obtain permits 2) identify funding needs for the first phase of the property development, 3) establish the benefits of the project (benefit-cost analysis) and initiate bids for the construction of the New Marine Terminal when required funds have been secured, subject to completion of the Economic, Market and Commodity Capacity study referenced below. The schematic plan is shown in **Figure 2**.

The concept plan for the layout established the location and limits of disturbance for the permit. Additional geotechnical investigation may require new borings along the face of the wall to provide specific detailed borings where sheet pile will be placed to best determine the driven pile length of the wall shapes to achieve proper embedment of the pile and guide the loads placed on the tie back deadman anchors. If required, these will be completed in coordination with the U.S. Department of Transportation – Maritime Administration (MARAD), who may require additional environmental investigations prior to approval of additional borings. A recently completed flood elevation study will also be used to determine the final dock elevation. In conjunction with the initial investigation, the development area will be surveyed for detailed topography and studied for any environmental impacts.

The development construction plans and specifications will be developed based upon the initial concept and further investigation work to facilitate final permitting, cost estimation, and cost-benefit analysis. This will also allow the LRA to develop a complete bid package for release to the contracting community for bidding.

Figure 2: Concept Marine Terminal Layout Plan



2.4.2 The Site Master Plan

Economic, Market and Capacity Analysis

A study that identifies the current and potential commodities that the LRA's port and railroad can or should be servicing must be conducted prior to the creation of a Site Development Plan.

Site Plan Development

The first task in the Site Plan Development will be an **existing conditions analysis** to consider environmental impacts, geotechnical impacts, and capacity of roadway, railway, drainage, sewer, water, gas, electrical, and telecommunications to serve the new development. Capacity and resiliency issues and any other shortcomings of existing and planned infrastructure conditions and existing equipment will be identified as constraints or external improvements that are required for project development, to include:

1. Dock
2. Railroad
3. New dock
4. Previous bulk materials / slack water harbor site
5. Conveyor infrastructure / coal terminal
6. Coal structures
7. Other CAPEX
8. All available LRA real estate adjacent to the LRA's existing rail infrastructure

The Site Plan process will include recommended development of infrastructure improvements, including but not limited to roadway design; railroad alignments and re-alignments; multimodal enhancements for bike, pedestrian, and transit connections; drainage, flooding, and stormwater management features; and utility infrastructure—e.g.,

sewerage, water, gas, electrical, telecommunications, fiber. Other utility needs on-site will be explored to support future facilities. Finally, energy options such as solar and electric vehicle charging will be part of the plan.

Access to the facility and connection to surrounding transportation network (roads, railway, airport, and river) will be evaluated to ensure safe and efficient access for cargo and employee access that meets the anticipated demand created by the Site Development Plan. It will also evaluate and make recommendations for improvements needed on local roadways adjacent the Site with respect to anticipated increases in cargo traffic generated by implementation of the Master Plan. Other items such as entry points, terminals, warehouses, or other types of logistic hubs or transport facilities for bulk material and liquids will all be considerations within the plan.

The Site Plan will also include a suggested design for a permanent office for the LRA somewhere at the marine / rail terminal.

Environmental Studies

The project will include an Environmental Overview, and if appropriate, a Phase I Environmental Site Assessment to identify any concerns related to future development on the property. The environmental studies will be done in accordance with local, state and federal guidelines and will address the existing conditions and potential improvement of the microclimate, the protection of biodiversity, and the overall health of the community. The scope of work for performing these tasks will include, but is not limited to:

- Records review and interviews
- Limited site reconnaissance/field reviews
- Sampling and testing of soils and groundwater
- Potential wetlands identification and delineation
- Other ecological assessments

Community Relations and Development Plan

The Master Plan's community engagement efforts shall be conducted simultaneously with the existing conditions analysis. Community engagement efforts will be directed towards:

- Existential stakeholders
    1. Main Street New Albany Properties, dba Port of Louisville (POL)
    2. Blue Recycled Materials
    3. Valicor
    4. Universal Minerals
    5. CSX Railroad
    6. Norfolk Southern Railroad
    7. Paducah & Louisville Railroad
- Businesses and residents in or directly adjacent the Jefferson Riverport International commercial and industrial park
- Businesses and residents in the community of Southwest Jefferson County

Parts of Louisville have been historically underrepresented in planning efforts. The Master Plan's community engagement effort will use tools and resources that encourage inclusivity to ensure that the public has fair opportunities to provide input for the planning process.

Neighborhood Analysis

The LRA will work closely with the Respondent to create a community relations and development plan that will:

1. Identify communities that could potentially be affected by the project.
2. Create a profile of the community or communities that may be affected by the project to establish the baseline conditions and establish key demographics for engagement such as language spoken at home, access to transportation, etc.
3. Analyze the potential impacts that the project would have on the community.
4. Identify opportunities to avoid, minimize, and/or mitigate any adverse effects of the action.

Prepare a report documenting the results of the assessment, including public involvement activities and any commitments made. The LRA's consultant will identify key stakeholders of the LRA, which will include the LRA's existential stakeholders identified above.

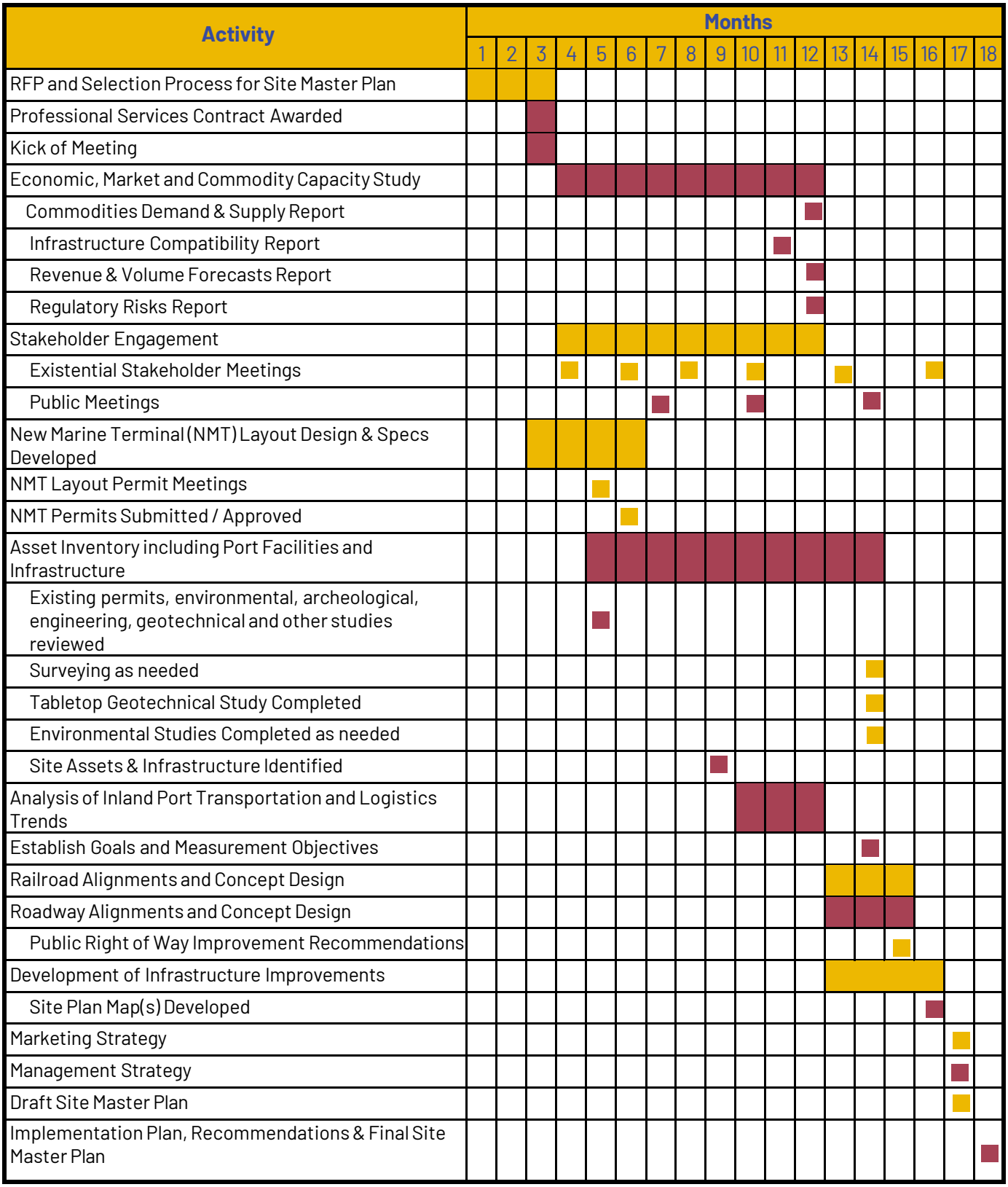
Site Master Plan and Implementation Plan Documents

The Site Master Plan will include an Implementation Plan with recommended development tasks, cost estimates, and benefit-cost analyses for infrastructure improvements and other capital investments. Preliminary engineering and cost estimates for infrastructure improvements may include roads, rail, utilities and other improvements recommended by the Plan. An analysis of the likely buildout of the facility will be prepared, including the development of a schedule and a phased buildout plan.

Schedule – Milestone Plan

Figure 3 includes a schedule showing the anticipated start and completion dates for major tasks. This is for informational purposes and firms are to provide their own proposed schedule – milestone plan.

Figure 3. Project Schedule – Milestone Plan Example



2.5 TASKS - DELIVERABLES

Based on the narrative above, the LRA expects the following deliverables at the conclusion of this project:

2.5.1 Economic, Market and Commodity Capacity Study

An understanding of the commodities that are best suited for movement through the port and the businesses engaged in their use is critical to creating a successful plan for the use and development of LRA's property. This deliverable should include, but is not limited to the following studies or reports:

Commodities Demand & Supply

Analysis that provides a list of the commodities and related businesses that the LRA should focus on moving through the port. The analysis should include a competitive or SWOT analysis of other ports and terminals in the region in comparison to the Site's potential capabilities.

Infrastructure Compatibility

Identify opportunities to utilize existing infrastructure on the Site and recommend additional infrastructure investments to the Site that will enable the LRA to serve the businesses identified in the commodities demand and supply analysis.

Revenue & Volume Forecasts

Using current capabilities and capabilities supported by the Site Plan, provide a comparison of revenue and volume forecasts related to the movement of cargo through the port in support of the businesses identified in the commodities demand and supply analysis.

Regulatory Risk

Provide a risk analysis relative to anticipated or potential government or regulatory agency actions.

2.5.2 New Marine Terminal Layout Plan

Construction Plans, Specifications & Engineering Cost Estimates.

2.5.3 Stakeholder Engagement

Successful engagement with existential and community stakeholders in the development of the Site Master Plan. The Respondent selected will work with the LRA to identify and engage with community stakeholders. The community engagement plan will engage stakeholders in the planning process to determine their collective vision and goals and manage communication with them throughout the project life cycle. Successful and meaningful stakeholder engagement is essential to create and maintain relationships that are key to the success of the project and the future success of the LRA and its existential stakeholders.

2.5.4 Asset Inventory including Port Facilities and Infrastructure

The Respondent selected shall work with the LRA and existential stakeholders to create an inventory of assets, facilities, and infrastructure that currently support the port. Using this information, in conjunction with the vision, goals, and objections of the stakeholders, the consultant shall analyze the asset needs required to achieve the established objectives.

2.5.5 Analysis of Inland Port Transportation and Logistics Trends

With the information obtained from the foregoing tasks, the respondent selected shall complete a formal review of factors that may influence the success of an inland port at the LRA's location. This analysis should focus on key factors for success in transportation, logistics, and warehousing industries. This analysis should include a review of pertinent literature as well as interviews with companies and site selection specialists who may be able to provide beneficial insights into the additional tasks described below.

2.5.6 Establish Goals and Measurement Objectives

Using information and data gathered by the preceding tasks, the selected respondent shall establish goals and measurable objectives for the Plan. Goals are general guidelines that explain what the LRA plans to achieve. Goals should include industry silos that the LRA should endeavor to locate at the LRA's facility. Objectives define specific outcomes such as strategies or implementation steps for achieving the goals. Projected Outcomes to be achieved through implementation of the objectives must be measurable and must have defined completion date.

2.5.7 Marketing Strategy

Using the information and data gathered throughout the planning process, the selected Respondent shall create a comprehensive marketing strategy to guide the LRA in promoting the port to potential customers.

2.5.8 Management Strategy

The selected Respondent shall prepare a management strategy that identifies techniques the LRA can implement to direct and control the overall operations and management of the port to achieve the goals and objectives of the plan. This shall include recommendations for the LRA and LRA/POL

2.5.9 Implementation Plan and Recommendations

The implementation plan, using the established goals and objectives, will create a program of projects or tasks to be achieved. The plan shall identify who is responsible for implementing the projects, assuming funding is available, with an appropriate schedule for completion. Additional recommendations may include financing strategies and a set of priorities for implementation.

The implementation plan should also include visual exhibits (digital and print) of the current and future states of the LRA's properties (Site +RR props) based on the plan, projects and industrial silos identified.

2.6 STANDARD OF DESIGN

The Selected Consultant must demonstrate experience with USDOT (MARAD, FRA, and FHWA), USACE, USCG, and others as applicable.

2.7 STATEMENT OF QUALIFICATIONS – SUBMITTAL REQUIREMENTS AND CONTENTS

Interested firms must submit their statement of qualifications using the enclosed template (**Section VII**) which shall include the following information.

1. Affidavits
    a. Commonwealth of Kentucky Affidavit Required for Bidders, Offerors and Contractors

b. LRA Authority to Do Business Affidavit

2. Section 1: Firm Information

   - Firm Name
   - Business Address
   - Contact Person Name, Telephone Number, and Email Address
   - Location of Branch Offices and Home Office
   - Year Business Established
   - Type of Organization (Individual, Partnership, Corporation)

3. Section 2: Team Organization and Qualifications

   Identify the specific partners, managers, and in-charge staff who will be assigned to this project by task in an organizational chart. Bios or resumes of key participants may be included.

   A list of key subcontractor partners and a description of their relevant experience that the Respondent envisions utilizing to support their work including but not limited to engineering and public relations firms should be included.

4. Section 3: Cost

   Please provide an estimate of costs by Task - Deliverable including labor and expenses to complete the scope of work.

5. Section 4. Similar Experience and Client References

   Include no more than five similar relevant projects that your firm has served within the past five years highlighting your firm's port development, industrial development railroad/track evaluation and rail coordination, and master planning experience.

6. Section 5. Project Approach and Schedule

   Provide your firm's proposed methodologies, approaches, timeline to provide all of the general responsibilities as specified and to a satisfactory quality of service.

7. Section 6: Financial Stability

   Provide a statement of your firm's financial stability and any issues that may materially affect your ability to fulfill the requirements of the project if selected.

8. Section 7: Availability

   Provide the firm's workload, commitments, and ability to meet required timelines.

The SOQ items above should be submitted using the exhibits / forms provided in this RFQ. Respondents may append additional pages to these forms if needed. The font shall be no small than 11 pt. No other materials than those listed above are to be included in the SOQ nor shall the SOQ include links to additional information. SOQ covers, dividers and transmittal letters are allowed. If additional information is needed, the LRA will reach out to applicants.

2.8 SCHEDULE

[RFP Posted/Advertised	**September 16 2025**
Pre-proposal conference	**September 29, 2025**
Site visit	**October 6, 2025**
Deadline to receive written inquiries	**October 14, 2025**
Release of answers to written inquiries	**October 21, 2025**
SOQ Receipt Date	**November 3, 2025**
Identification of Winning SOQ	**November 21, 2025**
Project Completion Date	**January 31, 2027]**

NOTE: The LRA reserves the right to deviate from these dates.

2.9 PRE-PROPOSAL CONFERENCE AND SITE VISITS

A pre-proposal meeting will be held virtually on the Microsoft Teams platform on September 29, 2025, at 1:00 PM EDT. Attendance is encouraged but not mandatory. Prospective respondents may attend the meeting with the following information:

Access online via the Microsoft Teams Application:

Meeting ID: 265 353 436 210 6

Passcode: HF67ME9U

Dial in by phone:

+1 929-346-7201,,300805304# w:

One site visit will be held on October 6, 2025, at 10:00 AM EDT. Prospective Respondents will meet at Louisville and Jefferson County Riverport Authority's offices located at 6900 Riverport Drive, Louisville, Kentucky, 40258. No more than two people per responding firm may attend. Prospective Respondents who are interested in attending this site visit must register confirm their registration by emailing RFQ@louisvilleriverport.com with:

Name(s) of attendees (2 Max);

Email address for each attendee

Phone number for each attendee

SECTION III - EVALUATION CRITERIA & SUBMISSION REQUIREMENTS

3.1 EVALUATION PROCESS

After receiving the SOQs, the LRA shall evaluate and rank all responses based on the criteria described below. Once the SOQs are ranked, the LRA shall determine which responses are reasonably likely to be awarded the work. Respondents whose SOQ has been identified as reasonably likely to be awarded the work will be invited to discuss their SOQ with the RFQ evaluation committee. The date, time and location of the meetings will be negotiated. These Respondents will be re-ranked based on their SOQs and follow up meetings with the RFQ evaluation committee.

Award will be made to the Respondent whose SOQ is determined to be the most advantageous to the LRA based upon the evaluation factors set forth below.

3.2 EVALUATION CRITERIA

The Statement of Qualifications will be reviewed and evaluated by a selection committee according to the firm's and/or team's relevant knowledge and experience in the elements described in the summary of services requested and the ability to undertake and complete the project in a timely manner. Specific evaluation criteria will include the following:

POINTS	EVALUATION CRITERIA
20	Qualifications, experience, and expertise of staff with urban industrial planning
20	Qualifications, experience, and expertise of staff with logistics transportation planning with emphasis on rail, marine, and USDOT (MARAD) funded projects
15	Qualifications, experience, and expertise of staff with community engagement and equity analysis
5	Firm's projects within last five years and references
20	Firm's approach and schedule for developing project
10	Firm's current workload and ability to meet the schedule
10	Proposed budget
100	**Total**

After any follow up meetings with respondents as described above (**Section 3.1**), the LRA shall select the respondent that in its judgement is best qualified and capable of providing the best finished product as described in the Tasks and Deliverables set out in this RFQ's Scope of Work on the basis of the evaluations using the above criteria, one firm that is judged to be the most qualified. Based on the rankings, the LRA shall contact the highest-ranked firm and attempt to negotiate classification schedules/hourly rates and fees for engineering services to be provided. If the LRA is unable to negotiate a satisfactory contract

with the highest-ranked firm, negotiations with that firm shall be terminated. LRA shall then go through the negotiation process with the next firm in the rankings, continuing this procedure until an agreement is reached or the list of ranked firms is exhausted.

3.3 EVALUATION COMMITTEE

A committee of representatives from the LRA will be used to evaluate submittals and select a consultant for these services. This selection committee shall complete the entire selection process within thirty (30) days.

3.4 SUBMITTAL OF DEADLINES

Respondent's SOQs must be submitted via the LRA's website no later than 4:00 PM on October 3, 2025, EDT. SOQs received thereafter will NOT be considered. SOQs will be reviewed by the LRA, with the intention of selecting a successful candidate by Novmer 21, 2025. The LRA may conduct post submittal interviews with highly qualified candidates between October 10 and 14, 2025.

3.5 NOTICES

A. The final agreement for this grant has not been finalized between the LRA and the Maritime Administration. The award of this project is contingent upon the receipt of federal grant funds.

B. The Louisville and Jefferson County Riverport Authority reserves the right to reject, in its sole discretion, any or all SOQs, as it may see fit, without any liability whatsoever to any applicant, including liability for consequential damages.

C. All SOQs are irrevocable upon submission to the authority until thirty days after the SOQs are publicly opened.

D. All SOQs will be opened on October 4, 2024, at 10:00 AM. at the offices of the Riverport.

E. Any questions should be directed to: Miguel A. Zamora II, Louisville and Jefferson County Riverport Authority at 502-935-6024 or dev@louisvilleriverport.com.

3.6 MARAD REQUIREMENTS

The selected consultant, on behalf of LRA, shall ensure that the Project is developed in accordance with all Federal laws, regulations, and policies that are applicable to projects of MARAD. The following requirements are to be included in the LRA's contract with MARAD and must be completed by the selected consultant.

3.6.1 Legacy Infrastructure

The consultant shall address within the plan an approach to address any legacy infrastructure or facilities that are not compliant with ADA standards. Consistent with 49 C.F.R. part 27, the consultant is expected to take action to ensure that no person is excluded from participation in or denied the benefits of the program or activity on the basis of disability.

3.6.2 Physical and Cybersecurity

Consistent with Presidential Policy Directive 21, "Critical Infrastructure Security and Resilience" (Feb. 12, 2013), and the National Security Presidential Memorandum on Improving

Cybersecurity for Critical Infrastructure Control Systems (July 28, 2021), the consultant shall consider physical and cybersecurity and resilience in planning, design, and oversight of the Project.

3.6.3 Minimum Wage Rates

The Consultant shall comply with the United States Secretary of Labor, in accordance with the Davis-Bacon Act, 40 U.S.C. 3141–3148, that contractors shall pay to skilled and unskilled labor, and such minimum rates shall be stated in the invitation for bids and shall be included in SOQSOQs or bids for the work.

3.6.4 Buy America

Iron, steel, manufactured products, and construction materials used in the future construction of the Project are subject to the Buy America preference in that award term and this agreement is not a waiver of that preference. All non-infrastructure spending is subject to the Buy American Act, 41 U.S.C. chapter 83. Under 2 C.F.R. 200.322, as appropriate and to the extent consistent with law, the Consultant should, to the greatest extent practicable under this award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The Consultant shall consider this in any cost estimates and schedules developed for the project.

3.6.5 Environmental Review

The consultant shall comply with the National Environmental Policy Act, 42 U.S.C. 4321 to 4370m-12, Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, Section 7 of the Endangered Species Act, 16 U.S.C. 1531, and any other applicable environmental laws and regulations.

The consultant shall identify any mitigation activities described in the environmental documents and correspondence for the Project, including the terms and conditions contained in the required permits and authorizations for the Project.

SECTION IV – GENERAL PROVISIONS

4.1 SOQ ACCEPTANCE

Based upon the SOQ's received, the LRA will select the respondent or respondents that it perceives will be best able to provide the deliverables described in this RFQ.

4.2 PRICING AND PAYMENT TERMS

Payment terms and conditions will be determined in the final contracts negotiated between the LRA and the successful Respondent(s). The respondent agrees that the LRA shall not pay late fees or finance charges.

4.3 OPEN RECORDS

All materials submitted in response to this RFQ will become the property of the LRA. The Respondent's SOQ will be retained for official files and will become a public record. In general, under the Kentucky Open Records Act (Kentucky Revised Statutes, sections 61.870 – 61.884), public records of the LRA are subject to disclosure to a requesting party. Any material that a Respondent considers as confidential but does not meet the disclosure exemption requirements of the Open Records Act ("ORA"), should not be included in the Respondent's SOQ, as it may be made available to the public. If a Respondent's SOQ contains materials noted or marked as confidential and/or proprietary that, in LRA's sole opinion, meet the disclosure exemption requirements of the ORA, then that information will not be disclosed in response to a written request for public documents. If the LRA does not consider such material to be exempt from disclosure under the ORA, the material may be made available to the public, regardless of the notation or marking. If a Respondent is unsure if its confidential and/or proprietary material meets the disclosure exemption requirements of the ORA, then it should not include such information in its SOQ because such information may be disclosed to the public.

4.4 VIOLATIONS OF AND COMPLIANCE WITH KENTUCKY LAW

Per KRS 45A.485, Respondent shall reveal any final determination of a violation by the Respondent within the previous five (5) year period pursuant to KRS Chapters 136, 139, 141, 337, 338, 341 and 342 that apply to the Respondent. The Respondent shall be in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 that apply to the Respondent for the duration of the contract.

4.5 DEBARMENT AND SUSPENSION

Federal Debarment and Suspension:

To prevent fraud, waste and abuse in federal transactions, persons or entities that, by defined events or behavior, potentially threaten the integrity of federally administered programs are excluded from participation in federally-assisted programs.

The LRA will not enter into any third-party or agreement with any party included in the "US General Services Administration's List of Parties Excluded from Federal Procurement or Non-procurement Programs." Listing of excluded parties can be located at: http://www.sam.gov/portal/public/SAM.

SECTION V – HOLD HARMLESS AGREEMENT AND INDEMNIFICATION CLAUSE AND INSURANCE REQUIREMENTS

5.1 HOLD HARMLESS AND INDEMNIFICATION CLAUSE

The Respondent shall indemnify, hold harmless, and defend the LRA, its elected and appointed officials, employees, agents and successors in interest from all claims, damages, losses and expenses including attorneys' fees, to the extent caused by the Respondent's (or Respondent's Subcontractors, if any) negligent acts, errors or omissions in its performance or breach of the contract provided that such claim, damage, loss, or expense is: (1) attributable to personal injury, bodily injury, sickness, death, or to injury to or destruction of property, or breach of contract, and (2) not caused by the negligent act or omission or willful misconduct of the LRA or its elected and appointed officials and employees acting within the scope of their employment. This Hold Harmless and Indemnification Clause shall in no way be limited by any financial responsibility or insurance requirements and shall survive the termination of this Contract.

5.2 INSURANCE REQUIREMENTS

Prior to commencing any work, the Respondent shall obtain at its own cost and expense the types of insurance listed below through insurance companies licensed in the State of Kentucky. Insurance written by non-admitted carriers will also be considered acceptable, in accordance with Kentucky Insurance Law (KRS 304.10-040). Workers' Compensation written through qualified group self- insurance programs in accordance with Kentucky Revised Statutes (KRS 342.350) will also be acceptable. The Respondent shall not commence work under a Contract awarded by this RFQ process until all insurance required has been obtained and until copies of policies or certificates thereof are submitted to and approved by LRA. The Respondent shall not allow any subcontractor to commence work until the insurance required of such subcontractor has been obtained and copies of Certificates of Insurance retained by the Respondent that provide proof of required coverages, said certificates having also been submitted to LRA.

Without limiting the Respondent's indemnification requirements, it is agreed that the Respondent shall maintain in force at all times during the performance of this agreement the following policy or policies of insurance covering its operations, and require subcontractors, if subcontracting is authorized, to procure and maintain these same policies until final acceptance of the work by the LRA. The LRA may require the Respondent to supply proof of subcontractor's insurance via Certificates of Insurance, or at LRA's option, copies of policies with sensitive information redacted.

A. The following clause shall be added to the Respondent's (and approved subcontractors) Commercial General Liability Policies:

   "The Louisville and Jefferson County Riverport Authority, its elected and appointed officials, employees, agents and successors are added as an "Additional Insured" as respects operations of the Named Insured performed relative to the contract."

B. The insurance to be procured and maintained and minimum Limits of Liability shall be as follows, unless different limits are specified by addendum to the contract (and such minimum limits shall not limit access to the full amount of insurance available (whether

through primary, excess or umbrella policies) on the Respondents or subcontractors policy(ies), if that/those policy(ies) provide for Limits above the minimum):

1. COMMERCIAL GENERAL LIABILITY: via the Occurrence Form, primary and non-contributory, with a $1,000,000 Combined Single Limit for any one Occurrence and $2,000,000 aggregate for Bodily Injury, Personal Injury and Property Damage and Products/Completed Operations, including:
    a. Premises - Operations Coverage
    b. Products and Completed Operations
    c. Contractual Liability
    d. Broad Form Property Damage
    e. Independent Contractors Protective Liability
    f. Personal Injury
2. WORKERS' COMPENSATION (if applicable): insuring the employers' obligations under Kentucky Revised Statutes Chapter 342 at Statutory Limits, and EMPLOYERS' LIABILITY- $100,000 Each Accident/$500,000 Disease - Policy Limit/$100,000 Disease - Each Employee.
3. AUTOMOBILE LIABILITY: insuring all Owned, Non-Owned and Hired Motor Vehicles. The minimum coverage Liability Limit is $1,000,000 Combined Single Limit for any one accident. The Limit of Liability may be subject to increase according to any applicable State or Federal Transportation Regulations.
4. SUBCONTRACTOR PROFESSIONAL SERVICES INSURANCE: if the Respondent is authorized to subcontract portions of the work to be performed under a contract awarded as a result of this RFQ to subcontractors relied upon principally because of the professional services rendered by the firm (such as but not limited to, public relations, surveyors, civil, structured, geotechnical, or other professional and engineering services), the Respondent shall also require that these subcontractors provide proof to the Respondent, via a Certificate of Insurance, that the subcontractor has purchased Professional Liability (Errors and Omissions) insurance, which includes a minimum Limit of Liability of $1,000,000 per claim and $ 2,000,000 aggregate, in addition to the other types of insurance referenced above for subcontractors. The Respondent is responsible for obtaining and maintaining copies of the subcontractor(s) Certificate(s) of Insurance until final acceptance of work by LRA and for making these Certificate(s) of Insurance available to LRA, upon request.
5. PROFESSIONAL LIABILITY (Architects and Engineers [A&E]): coverage insurance policy, which includes a minimum limit of liability of $1,000,000 for each claim and $2,000,000 annual aggregate limit. In the event that the Respondent's policy is written on a "Claims Made" Form, the Respondent shall, after work has been completed, furnish evidence that the liability coverage has been maintained for at least one year after completion of work, either by submitting renewal policies with a Retroactive Date of not later than the date work commenced under this contract, or by evidence that the Respondent has purchased an Extended Reporting Period Endorsement that will apply to any and all claims arising from work performed under this contract.

C. ACCEPTABILITY OF INSURERS

Insurance is to be placed with Insurance Companies with an A. M. Best Rating of no less than "A- VI".

D. MISCELLANEOUS

1. The Respondent shall procure and maintain insurance policies and shall furnish Certificates of Insurance upon the execution of the Contract. The Certificates shall include the name and address of the person executing the Certificate of Insurance as well as the person's signature. If policies expire before the completion of the Contract, renewal Certificates of Insurance shall be furnished to LRA at least ten (10) days prior to the expiration of any policy(ies).
2. Upon execution of the contract, Certificates of Insurance as required above shall be furnished to the LRA by email at Admin@louisvilleriverport.com.
3. Upon Renewal of insurance coverage(s), Certificates of Insurance evidencing renewal shall be furnished to LRA by email at Admin@louisvilleriverport.com.
4. CANCELLATION OR MATERIAL CHANGE OF COVERAGE: The Respondent shall notify the LRA of any cancellation of policy within two business days of its receipt of same. Upon any material change (changes that reduce/restrict limit or terms and conditions to your insurance coverage) in coverage as required above, Respondent shall notify the LRA within two business days. If Respondent fails to notify LRA as required by this Agreement, Respondent agrees that such failure shall be a breach of this Agreement. LRA reserves the right to require the insurance policy(s) required above to be specifically endorsed to provide notice of cancellation and/or material change of coverage in accordance with policy provisions. When requested by the LRA, a copy of the policy endorsement shall be provided to the LRA.
5. Approval of the insurance by LRA shall not in any way relieve or decrease the liability of the Respondent hereunder. It is expressly understood that the LRA does not in any way represent that the specified Limits of Liability or coverage or policy forms are sufficient or adequate to protect the interest or liabilities of the Respondent.
6. All insurance requirements including performance and payment bonds shall be furnished the day a contract issued pursuant to this SOQ is awarded.

SECTION VI – PROPOSED MARINE TERMINAL DESIGN STUDY REPORT

Louisville Riverport Authority
Louisville, Kentucky

Proposed Marine Terminal
Design Study Report

Prepared by:

ENGINEERS, INC.

November 2022
PND No. 214025

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

INTRODUCTION

The Riverport. The Louisville Riverport Authority is located at river mile 618 on the Ohio River, fourteen miles downriver from downtown Louisville, the largest city in Kentucky. The riverport is positioned on the inland river system for year-round freight transport of bulk materials, agricultural products, chemicals, minerals, metals, wood, manufactured goods, and containerized freight.

The riverport contains an industrial park which has over 2,000 acres of industrial and commercial real estate. The services offered at the industrial park ranges from steel processing, plastics molding and fabrication, stamping for the appliance industry, custom fiberglass products, clothing manufacturing, and production of fiber optic cable systems to many distribution companies. The riverport is designated as Foreign Trade Zone #29.

Rail service at the port and industrial park development is provided by three carriers: CSX, Norfolk Southern, and the Paducah & Louisville Railway (P&L). A 23,000 ft. double-loop rail track with the capability to handle 120 car unit trains is designed primarily for coal. Additionally, the port facilities and industrial park are adjacent to national highway system routes enabling truck transportation in all directions to numerous nearby metropolitan areas.

1. RIVERFRONT FACILITIES – EXISTING AND PROPOSED

1.1 Existing Riverfront Facilities

The existing cargo handling terminal on the river includes a 30-ton overhead crane with barge to truck transloading capabilities. The existing crane was constructed in 1985. Current commodities handled by the crane include steel coils, stainless steel scrap, coal, petroleum coke, iron ore, and aggregates. Fleeting capacity is up to 60 barges along the total river frontage is approximately 8,000 ft.

The laydown area near the existing crane is over 8 acres. It is important to note the laydown area is outside the river levee with a floodwall opening on Port Road.

1.2 Proposed Riverfront Facilities

The new marine terminal would feature a new 200-ft long barge dock comprised of an OPEN CELL™ sheet pile bulkhead with the face along the existing mooring alignment and a concrete deck. New mooring cells would allow additional fleeting of barges awaiting loading or unloading. A new laydown area comprising an additional 12 acres is proposed for temporary storage of materials and trucks.

The purpose of the new terminal is to augment the waterborne component of the riverport's transportation network. General cargo and bulk commodity transloading capacity would be increased from barge to truck, rail, and nearby storage. The existing barge terminal with overhead crane will remain in place for the foreseeable future.

The proposed marine terminal is shown in the figures below.

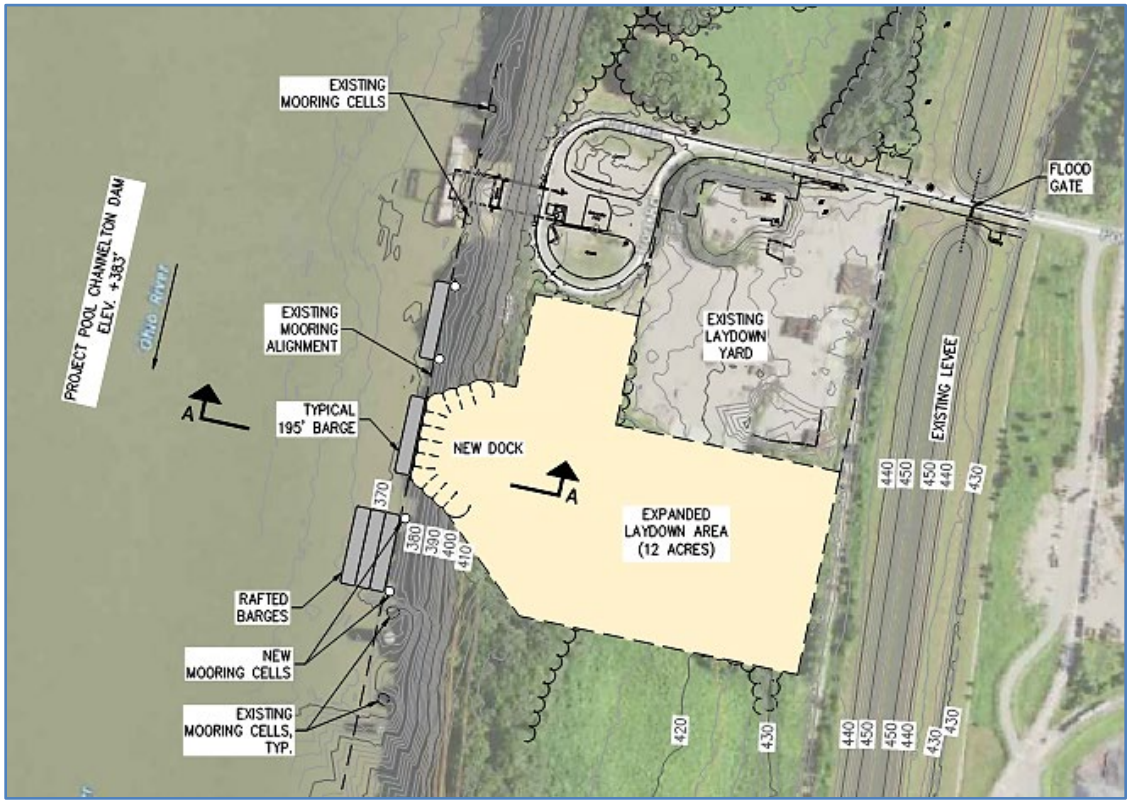


Figure 1-1. New Marine Terminal Layout

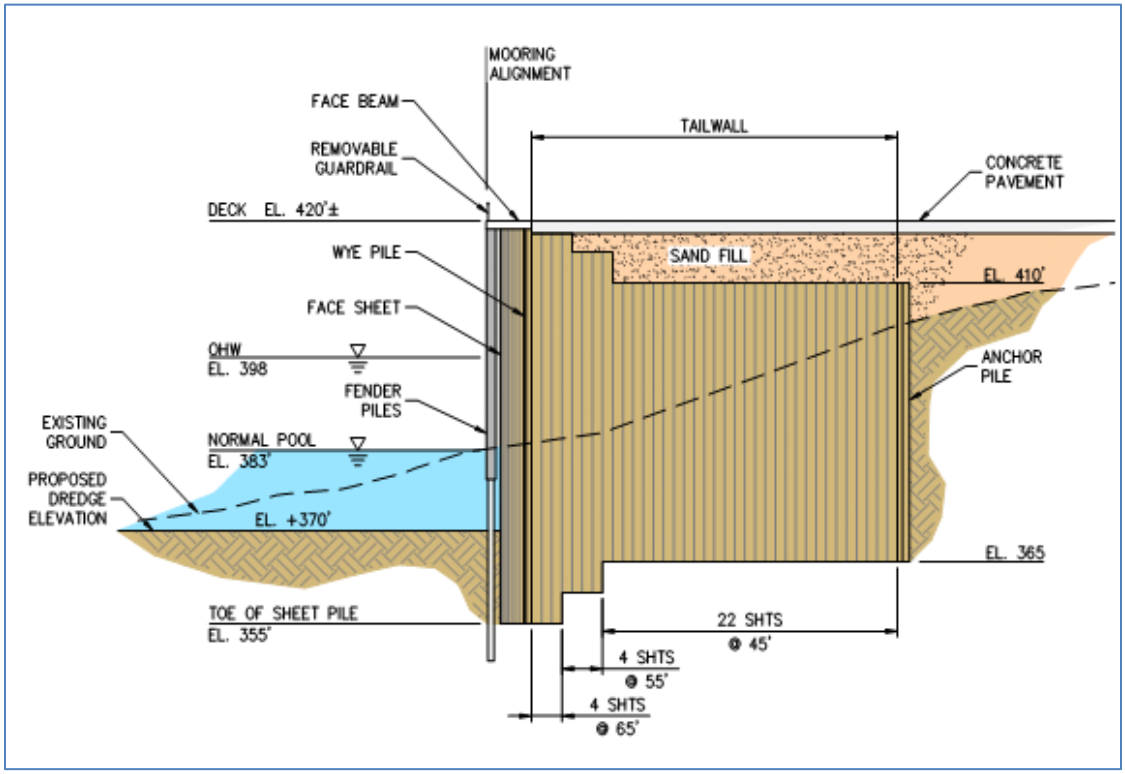


Figure 1-2. Section View of Dock

2. REFERENCES

2.1 Vertical Datum and Elevations

The survey vertical datum for the project is North American Vertical Datum (NAVD88), while the Ohio River Datum is used for permitting purposes for the U.S. Army Corps of Engineers. The correlation between the two is listed below.

Table 2-1. Elevation Data

Description	Elevation	
	NAVD 88	Ohio River Datum
Datum Conversion	-1.29’	0.00’
Top of Bulkhead – Design	+420.00’	+421.29’
100-year Flood Elevation [1]	+445.00’	+446.29’
Ordinary High Water	+398.00’	+399.29’
Normal Pool [2]	+381.71’	+383.00’
Mudline – Dredge elev.	+371.00’	+372.29’

1. The 100-year Flood Elevation is based on the FIRM map at cross section CT-5B at RM618.

2. Normal Pool is based on US Army Corps of Engineers Ohio River Datum for the Cannelton Dam pool.

2.2 Design References

The following references are used for design standards for in-water structures.

- AISC Manual of Steel Construction, 15th Edition
- Naval Engineering Command Foundation and Earth Structures (DM 7.02) (1986)
- U.S. Army Corps of Engineers (USACE) Design Manuals:
    - EM 1110-2-2503 (1989) Design of Sheet Pile Cellular Structure Cofferdams and Retaining Structures
    - EM 1110-2-2502(1989) Retaining and Flood Walls
    - EM 1110-1-1905 – “Bearing Capacity of Soils”, Chapter 2
    - EM 1110-2-2906 (1991) Design of Pile Foundations
    - EM 1110-2-1902 Slope Stability
- ACI 318-19: Building Code Requirements for Structural Concrete and Commentary
- ASCE 7-22 Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- Occupational Safety and Health Standards, (OSHA):
    - 1910.27- Scaffolds and rope descent systems,
    - 1910.28- Duty to have fall protection and falling object protection, and
    - 1910.29- Fall protection systems and falling object protection—criteria and practices.

3. GEOTECHNICAL CONDITIONS

3.1 Geotechnical Reports

A geotechnical investigation for the site was performed by Terracon in July 2022, which oversaw the borings shown in Figure 2-1.

Figure 2-1: Geotechnical Boring Locations shown in red

3.2 Soil Stratigraphy

Based on the Terracon Geotechnical Data Report (Sept 2022), and specifically Boring B-2, the soil stratigraphy generally consists of loose granular alluvial material to a depth of approximately 40 feet. Further below, the granular material increases relative density to a medium-dense to dense sand that extends to a refusal depth of approximately 84 feet. Weathered shale begins in the vicinity of elevation of 329 ft. Indications from the borings are that the weathered shale is relatively flat and not sloping.

Based on all the borings, the geotechnical data report provides a generalized soil stratigraphy as shown in Table 3-1.

Table 3-1. Generalized Soil Stratigraphy

Material	Top Elevation (NAVD88)	Thickness (ft)	Density (pcf)	Friction Angle	Cohesion (psf)
Sand Fill	420	10	120	32	0
Loose Sand	410	50	115	29	0
Very Dense Sand with Gravel	360	34	120	39	0
Weathered Shale	326	--	--	--	--

4. FLOOD ANALYSIS

A flood study was performed by Strand Associates of Louisville KY to estimate the effect of the bulkhead fill structure on the floodway. The program universally used to analyze the scenario is the U.S. Army Corps of Engineers HEC-RAS model. This is a necessary requirement for obtaining a Corps permit.

Using a proposed deck elevation of 420' with a dredge elevation of 370', the modeling found that the new structure would increase the 100-yr flood level by 0.01 ft. If the deck elevation was 425', also with a dredge elevation of 370', the flood level would rise between 0.06 and 0.20 feet.

The 100-year flood is also known as the Base Flood Elevation (BFE), defined as having a 1% annual chance of exceedance, and is shown as 445' on FIRM maps provided by FEMA. The wider range of flood frequencies were also projected and are compiled in Table 4-1 below. The flood stage is estimated to be approximately +55 on the river gauge or approximately 428'.

Table 4-1: Flood Frequencies

Storm Event	High Water Elevation
Flood Stage	428'±
10-Year	434.83'
25-Year	439.52'
50-Year	442.75'
100-Year	445.70'
500-Year	451.93'

In cases where a new structure increases the BFE, even minutely, a Conditional Letter of Map Revision (CLOMR) must be processed through FEMA in order to be reflected on the Flood Insurance Rate Map (FIRM), as part of the Corps permit process.

5. DESCRIPTION OF THE OPEN CELL SYSTEM

The OPEN CELL System is an unbraced cellular sheet pile structure. The face of the OPEN CELL walls consists of a series of vertical, cylindrical arcs constructed with flat sheet piles. Each cell face arc is tied to the adjacent cell face arc along its full height with three-way wye piles which also connect to sheet pile tailwalls extending away from the structure face arcs. An anchor pile terminates the end of each tailwall. The anchor pile is an H-pile section which is a stiffening element to provide alignment for tailwall sheet pile driving. The anchor piles also provide reserve resistance capacity.

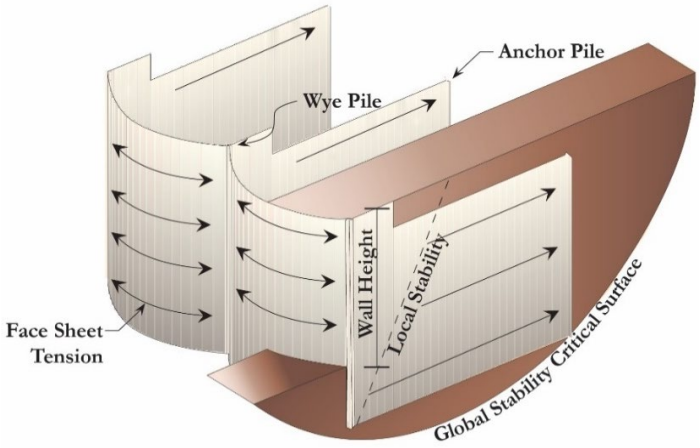


Figure 4-1: A schematic view of the OPEN CELL system.

6. DESIGN LOADS

The new OPEN CELL bulkhead at the Louisville Riverport will be designed for the following loads.

6.1 Live Load

The primary service loads on the proposed dock are anticipated to be large cranes, nominally up to 300 tons. An equivalent uniform live load of 1,000 psf will be applied across the dock surface.

6.2 Hydrostatic Load

Hydrostatic loading due to rapid drawdown will be considered. According to the USACE Slope Stability Engineering Manual (Section 2-5), free draining soils have a permeability greater than 10^{-4} cm/sec and can be assumed to drain during drawdown. A hydrostatic load of 10 feet will be applied to the bulkhead.

6.3 Seismic Load

ASCE/SEI 7-22 Minimum Design Loads and Associated Criteria for Buildings and Other Structures. The following seismic parameters from USGS have been found for the site:

Table 5-1: Seismic Design Parameters

Seismic Design Parameters	
Risk Category	II
Site Class	Default
Short Period Spectral Acceleration, S_s	0.59g
1-Second Spectral Acceleration, S_1	0.18g
Long-period Transition, T_L	12
Peak Ground Acceleration, PGA_M	0.31g
Seismic Design Category	D

6.4 Loads on Fenders

Loads on the fender piles will be as follows:

Table 5-2: Estimated Loading on Fenders

Load Type	Load
Mooring	24 kips
Breasting	3kips/ft
OSHA Ladder Fall Protection	5000 lbs
OSHA Ladder	300 lbs

7. ANALYSIS METHODS AND LOAD CASES

The OPEN CELL structure is a mechanically stabilized earth structure. The stability of this structure results from the composite action of the soil and the interlocking sheet piles. The following design procedures are to be used to establish the stability of the internal components of the structure as well as the overall stability of the structure relative to the surrounding ground. The soils impart a lateral pressure to the wall face arcs and are resisted by the tailwalls. The face arcs act such that the soil pressure acting against the sheet piles put each arc into tension horizontally. The tailwalls develop the shear strength of the soils behind the face of the structure to resist the tension loads imposed by the face arcs through the wye piles. The entire soil mass encompassed by the face arcs and parallel tailwalls tend to act as a single mass, in the same manner as a standard gravity structure, provided sufficient anchorage is developed by the tailwalls to achieve internal stability.

The primary method of analysis for the OPEN CELL sheet pile structures is force-based design. Sliding, Global Stability/Deep Seated Sliding, Overturning, and Interlock Strength are the limit states

utilized in the force-based design. The limit states have been assessed for each failure mode. The table below lists the required factors of safety for the various duration of loading and their sources.

Table 7-1: Minimum Required Factor of Safety (FOS) Summary

Failure Mode	Operational Minimum FOS
Sliding	1.5[1,2]
Global Stability / Deep Seated Sliding	1.3[4]
Overturning	1.5[1]
Interlock Strength	2.0[1]
Tailwall/Anchorage Pull-Out	1.5[3]

1) EM 1110-2-2503 Table 4-4
2) EM 1110-2-2502 Table 4-1
3) EM 1110-1-1905 Section 2-7 (a)
4) Optimized for a non-circular failure plane with hydrostatic loading.

7.1 Sliding

In this analysis, the structure and soils within the structure are assumed to slide as a block along a horizontal failure plane at the elevation of the tip of the face arcs. The failure plane begins at the OPEN CELL bulkhead face and extends to the end of the tailwall. The stability of this structure is reliant on the soil resistance along this plane, and the resistance of the tailwalls extending below this plane. The assumed failure surface is analyzed using Spencer's Method in the same manner as used for Global Stability/Deep Seated Sliding.

7.2 Global Stability/Deep Seated Sliding

In this analysis, the soils extending away from the structure are assumed to slide along a failure surface extending below and to either side of the retaining wall or slope. The imbalanced mass of the soil drives this failure and the soil's shear strength resists it.

The method of analysis used for deep-seated sliding/slope stability shall be Spencer's method for circular and non-circular failure surfaces. The full hydrostatic load will be conservatively applied in this analysis.

7.3 Overturning

In this analysis the imbalanced forces acting at the bulkhead face create an overturning moment which is resisted by internal horizontal and vertical shearing reactions in the OPEN CELL sheet pile tailwalls and the tailwall interface with the soil contained within the structure. The overturning moment is checked by determining an instantaneous center of rotation for the structure where static equilibrium is met for horizontal and vertical forces as well as moment about the found center. This analysis uses allowable capacities equal to the maximum potential capacity divided by a factor of safety equal to or greater than the project criteria.

7.4 Interlock Strength

The mechanical interlock strength between the individual sheets must be sufficient to withstand the tension load imparted by soil pressure. The mechanical interlock strength is a function of the sheet pile material and the interlock geometry, is as identified by the sheet pile manufacturer, and is typically 20 kips per inch.

Stresses within the body of individual sheet piles are not analyzed beyond the interlock tension as the OPEN CELL structure is expected to act as a tension structure and the individual steel sheet pile sections will deflect elastically and plastically as needed to develop tension across the face arcs and tailwalls.

7.5 Tailwall Pull-Out

The resistance to soil pressure loads at the bulkhead face is provided by the tail wall. The portions of the tailwall resisting applied loads are those outside of the active pressure failure wedge. The anchorage developed by the OPEN CELL tailwalls has been determined using the methods developed by PND for the OPEN CELL system which use the bearing capacity developed by the sheet pile knuckles, as standing proud of the sheet pile web, as well as typical frictional soil resistance developed by soil adhesion to the steel material.

8. SCOUR

Since the bulkhead will be in the floodway, there is potential for scour caused by currents. No analysis of scour has been undertaken at the site and should be considered in final design.

9. CORROSION RECOMMENDATIONS

Corrosion protection should be considered for exposed steel structures placed in a waterfront environment. Generally, steel structures in freshwater such as the Ohio River have low rates of corrosion, however, unique site conditions or spilt product may accelerate corrosion.

Literature[1] indicates that corrosion may be on the order of 1-3 mils per year. Since the sheets selected for this structure are PS31, which are 500 mils thick, a significant allowance for corrosion is inherent in the structure. Corrosion along the tailwalls is typically minimal as steel in soil has little free oxygen available to propagate corrosion, and thus are typically left bare.

Fendering systems are an important feature to protect the long-term usability of the facility. Without fendering barges will breast again the structure, abrade the sheet pile, and cause loss of fill. Thus, fendering systems are recommended.

1) The Handbook of Corrosion Protection for Steel Pile Structure in Marine Environments, American Iron and Steel Institute (AISI).

10. OPEN CELL SHEET PILE™ BULKHEAD DEVELOPMENT AND USE COMMENTARY

OPEN CELL SHEET PILE structures are a research and development innovation of PND Engineers, Inc. (PND). The originality of the design resulted in receipt of the 1998 NOVA Award that recognized the innovation as one of the significant civil engineering designs of the century.

PND invested many years in developing, researching, testing, designing, construction, structure observation and measurement related to movement and earthquake performance in order to refine OPEN CELL™ structures. These efforts have resulted in proven analytical approaches not found in published literature and unknown to the geotechnical, civil, structural and engineering community in general.

Three United States patents have currently been issued clearly defining OPEN CELL design methods and features. The terms “OPEN CELL” and “OPEN CELL SHEET PILE” are now a registered trademark and any use of these words must be so noted.

PND’s development, research, testing, design, construction and observation and the resulting analytical procedures, data analysis and conclusions are strictly proprietary and trade secrets of PND. All this information is the property of PND and when applied to a project is for use on that project only. Information contained within required submittals including plans and computations is confidential. Release of any and all information for a specific project without PND’s written authorization is strictly forbidden and will be considered an infringement of PND’s confidential information, proprietary rights, trade secrets and patents.

11. SCHEDULE

A tentative project schedule is as follows:

Table 5-1: Tentative Project Schedule

Task	Period
PREPARATION	
Pre-application meetings with permitting agencies	Jan 2023
Preparation of 30% design plans and permit drawings	March 2023
Permit applications submitted	April 2023
Permits issued	Jan 2024
Final plans issued	Feb 2024
BIDDING	
Bid Package advertised	March 2024
Bidding period concludes	May 2024
Contract award	June 2024
CONSTRUCTION	
Contractor mobilization	June 2024
Sheet pile installation during in-water work window (tbd)	July - Oct 2024
Dredging and backfilling	Oct - Nov 2024
Laydown Yard, regrading and surfacing	Oct 2024 – Feb 2025
Installation of fender piles, face beam, etc	Feb 2025
Project closeout / Facility opening	March 2025

12. COST ESTIMATE

A concept level cost estimate has been developed for the proposed marine terminal based on the conceptual plan and consists of construction elements as well as design costs.

This estimate does not include tasks prior to design and construction such as permit application preparation, grant applications, environmental studies, or other early-stage planning items. No electrical or other utilities are assumed in this cost estimate, nor any taxes associated with the project.

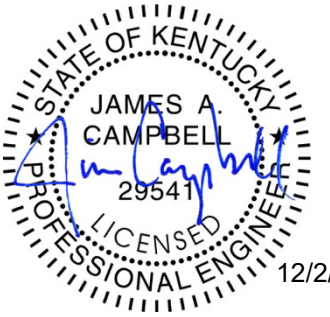
Due to recent increases in construction costs, an annual escalation factor of 8% is recommended.

Table 9-1. Concept Level Project Cost Estimate

Item Description	Units	Quantity	Unit Cost	Amount	Sub-Totals
GENERAL ITEMS					
Mobilization/Demobilization	LS	1	$300,000	$300,000	
Construction Surveying	LS	1	$30,000	$30,000	$330,000
SHEET PILE BULKHEAD DOCK					
Furnish & Install Sheet Piles	TON	1,080	$4,000	$4,320,000	
Dock Fill (import)	CY	21,500	$15	$322,500	
Dredging	CY	20,000	$35	$700,000	
Face Beam, Furnish & Install	LF	280	$1,500	$420,000	
18-Inch Dia. Fender Piles with HDPE Sleeves	EA	16	$22,000	$352,000	
Handrail and Ladders, Furnish & Install	EA	1	$60,000	$60,000	
Mooring Dolphins	EA	4	$300,000	$1,200,000	$7,374,500
UPLAND EARTHWORK					
Clearing and Grubbing	AC	12	$10,000	$120,000	
Laydown Yard (regrading)	CY	52,000	$10	$520,000	
Concrete Surfacing	CY	2,500	$300	$750,000	
Base Course Surfacing	CY	19,000	$25	$475,000	$1,865,000
ESTIMATED CONSTRUCTION COST					**$9,569,500**
ENGINEERING & CONSTRUCTION ADMINISTRATION (10% of construction)					$957,000
CONTINGENCY (15% of construction)					$1,435,000
TOTAL PROJECT BUDGET (rounded)					**$11,960,000**

13. APPROVAL

Prepared by PND Engineers, Inc.



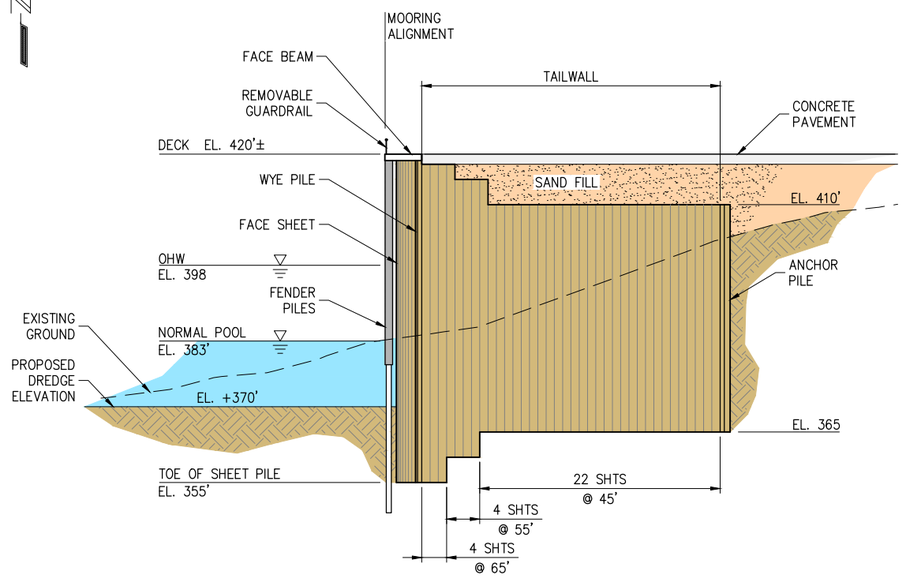
12/2/2022

Jim Campbell, PE
Principal Engineer

Carl McNabb, PE
Project Manager

PLAN

0 100 200 400 600 FT.



SECTION A-A

Survey was conducted by QK4 Survey Inc. on March 17 and May 5, 2022. Elevations are based on NAVD 88. Horizontal control is based on State Plane NAD 83 North Zone, State Plane Coordinates.

PND ENGINEERS, INC.
3240 Eastlake Avenue E
Seattle, Washington 98102
P: 206.624.1387
www.pndengineers.com

LOUISVILLE RIVERPORT AUTHORITY

REVISIONS		
REV	DATE	DESCRIPTION

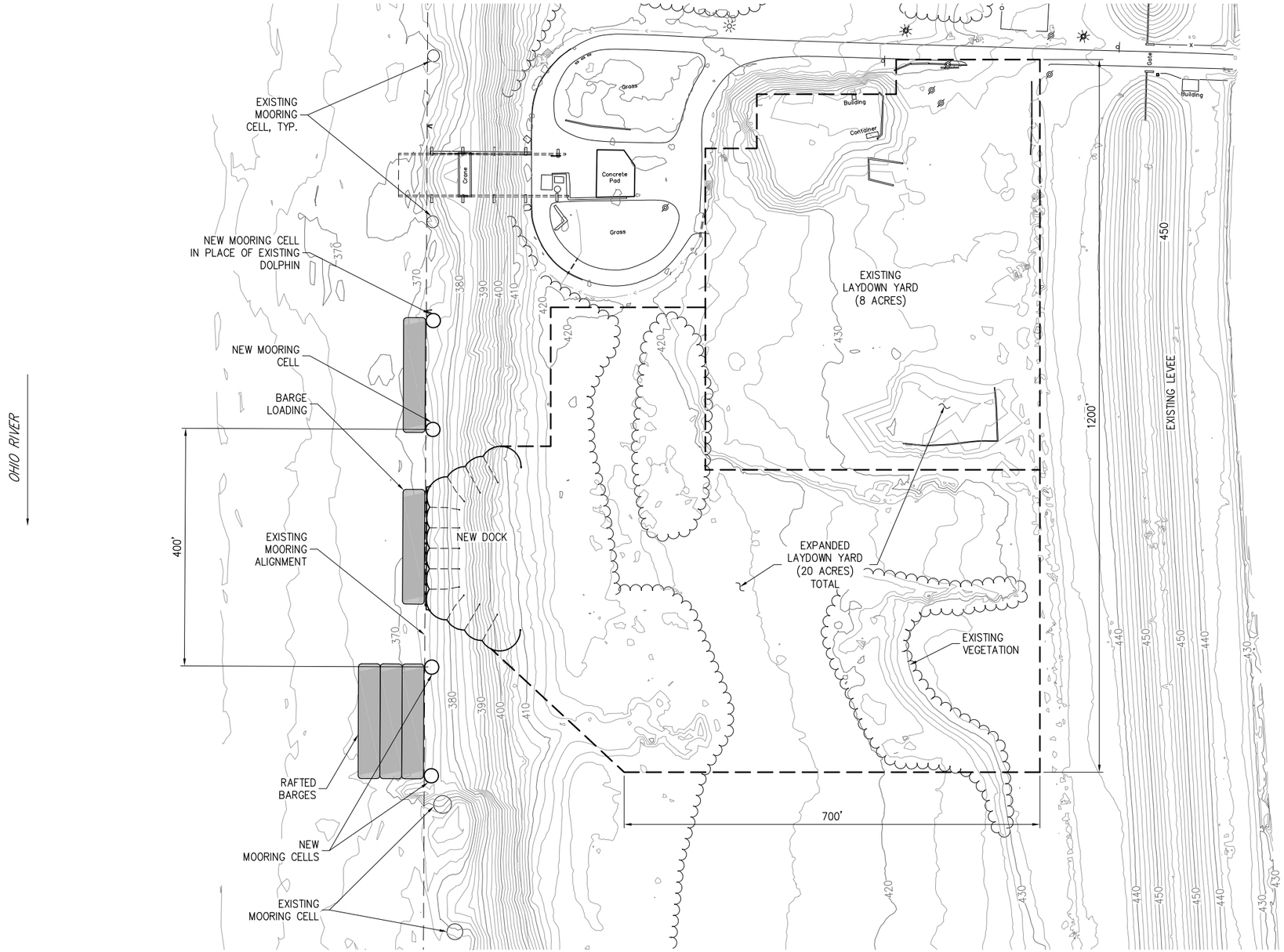
CONCEPTUAL DRAWING V.3

PROJECT: LOUISVILLE RIVERPORT AUTHORITY MARINE TERMINAL

TITLE: SITE PLAN AND SECTION VIEW

DESIGNED BY:	CM	PROJECT NO:	214025	SHEET NO:	1 OF 2
DRAWN BY:	GD	DATE:	NOVEMBER 2022		
CHECKED BY:	JC	SCALE:	NOTED		

11/21/2022 12:36 PM K:\2021\214025 Louisville Riverport Marine Facility\Preliminary V3\214025-01.dwg



PLAN

0 50 100 200 300 FT.

CONCEPTUAL DRAWING V.3

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LOUISVILLE RIVERPORT AUTHORITY

REVISIONS

REV	DATE	DESCRIPTION

PROJECT: **LOUISVILLE RIVERPORT AUTHORITY MARINE TERMINAL**

TITLE: **NEW TERMINAL OVER SITE SURVEY**

DESIGNED BY:	CM	PROJECT NO:	214025	SHEET NO:	2 OF 2
DRAWN BY:	GD	DATE:	NOVEMBER 2022		
CHECKED BY:	JC	SCALE:	NOTED		

11/28/2022 1:16 PM K:\2021\214025 Louisville Riverport Marine Facility\Preliminary V3\214025-02.dwg

SECTION VII - ATTACHMENTS

Rev. 9-16-22

Required Affidavit for Bidders, Offerors and Contractors
(KRS 45A.110 & 45A.115)

Affidavit Effective for One (1) Year from Date of Execution

Instructions: Pursuant to KRS 45A.110 and 45A.115, a bidder, offeror, or contractor ("Contractor") is required to submit a Required Affidavit for Bidders, Offerors, and Contractors to be awarded a contract, or for the renewal of a contract. An authorized representative of the contracting party must complete the attestation below, have the attestation notarized, and return the completed affidavit to the Commonwealth.

Attestation

As a duly authorized representative for the Contractor, I swear and affirm under penalty of perjury, that that the Contractor has not knowingly violated campaign finance laws of the Commonwealth of Kentucky and that the award of a contract will not violate any provision of the campaign finance laws of the Commonwealth. For purposes of this attestation, "Knowingly" means that the bidder or offeror is aware or should have been aware of the existence of a violation. The bidder or offer understands that the Commonwealth retains the right to request an updated affidavit at any time.

_____ _____
Signature Printed Name

_____ _____
Title Date

Bidder or Offeror Name: _____

Address: _____

_____

_____

Commonwealth of Kentucky Vendor Code (If known): _____

Subscribed and sworn to before me this _____ day of _____, _____.

State of: _____ Notary: _____

County of: _____ My Commission Expires: _____

LOUISVILLE RIVERPORT AUTHORITY

LRA AUTHORITY TO DO BUSINESS AFFIDAVIT

ATTESTATION:

I, (NAME)_____,
affirm that, (COMPANY NAME)_____,
is duly organized and authorized to do business under the laws of Kentucky and that,
(COMPANY NAME)_____,
is in good standing with all government agencies and has the full legal capacity to provide the services offered in this SOQ. I further affirm that there are no actions, suits or proceedings of any kind pending against
(COMPANY NAME)_____ or,
to my knowledge, threatened against
(COMPANY NAME)_____ before or by any court, governmental body, agency, or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of
(COMPANY NAME)_____
to perform the services as outlined in the
(COMPANY NAME'S)_____ SOQ.

In response to the RFP, I attest that all of the information contained within this SOQ is correct and that I am the person authorized to make representation for and negotiate on behalf of our firm. _____ Signature _____ Title _____ Date	Subscribed and sworn to before me this _____ day of _____,_____ _____ State of _____ County of _____ Notary _____ My Commission Expires

Section 1: Firm Information

SOQ Name	
Firm Name	
Business Address	
Contact Person Name, Telephone Number, and Email Address	
Location of Branch Office(s) and Home Office	
Year Business Established	
Type of Organization (Individual, Partnership, Corporation)	

In response to the RFP, I attest that all of the information contained within this SOQ is correct and that I am the person authorized to make representation for and negotiate on behalf of our firm.

Signature: _____

Title: _____

Date: _____

LOUISVILLE RIVERPORT AUTHORITY

Section 2: Team Organization and Qualifications (Page 1)

Organizational Chart – Add project organizational chart in the space below.

Section 2: Team Organization and Qualifications (Page 2)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 3)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 4)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 5)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 6)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 7)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 8)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 9)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 10)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 2: Team Organization and Qualifications (Page 11)

Provide resumes for the specific staff who will be assigned to this project including their role, education/training, licenses, office location, and three similar projects. Similar project description should include project name, client name, team member role, description of services provided by the team member, and status of the project. Up to 10 bios may be included.

Name	
Role	
Education and Training	
Professional Licenses and State of Licensure	
Office Location (City/State)	
Project 1	
Project 2	
Project 3	

Section 3: Cost

Please provide an estimate of costs by task including labor and expenses to complete the scope of work. The project will be contracted as a Cost Plus Fee.

Section 4. Similar Experience and Client References (Page 1)

Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

Section 4. Similar Experience and Client References (Page 2)

Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

Section 4. Similar Experience and Client References (Page 3)

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Section 4. Similar Experience and Client References (Page 4)

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Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

Section 4. Similar Experience and Client References (Page 7)

Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

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Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

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Section 4. Similar Experience and Client References (Page 10)

Include up to 10 similar relevant projects that your firm has served within the past five years highlighting your firms port development, industrial development railroad/track evaluation and rail coordination, and master planning experience. Include client name, client contact name, email, and phone number.

Section 5. Project Approach and Schedule (Page 1)

Describe your firm's proposed methodologies, approaches, and timeline to provide all of the general responsibilities as specified and to a satisfactory quality of service.

Section 5. Project Approach and Schedule (Page 2)

Section 5. Project Approach and Schedule (Page 3)

Section 6: Financial Stability

Provide a statement of your firm's financial stability.

Section 7: Availability

Provide a statement regarding the firm's workload, commitments, and ability to meet required timelines. Charts may be included.

Section 8: DBE Participation Plan

Provide a summary of the firm's planned DBE involvement on this project including the name(s) of the firm(s) to be included on the team as well as their role.