PADUCAH-MCCRACKEN COUNTY
Riverport
AUTHORITY

June 5, 2024

Kentucky Public Riverport Construction & Maintenance (KPRCM) Application

Barge Cell Revitalization Project

KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

INSTRUCTIONS: *A guidance document is provided to assist in completing the application packet and may be accessed at* https://transportation.ky.gov/MultimodalFreight/Pages/KPRCM.aspx
See the guidance document for required attachments and acceptable methods of submittal.

SECTION 1: APPLICANT INFORMATION

PUBLIC RIVERPORT NAME	TOTAL PROJECT COST	KPRCM FUND REQUEST
Paducah-McCracken County Riverport Authority	$750,000.00	$750,000.00

STREET ADDRESS	CITY	STATE	ZIP
2000 Wayne Sullivan Drive	Paducah	KY	42003

CONTACT NAME & TITLE	PHONE	EMAIL
Timothy Cahill	270-442-9326	tcahill@paducahriverport.org

SECTION 2: PROJECT DESCRIPTION

PROJECT TITLE	DURATION
Barge Cell Revitalization Project	20 months weeks

FACILITIES AFFECTED BY THE PROPOSED PROJECT

☑ Owned by Riverport Authority ☐ Leased to:

Briefly describe how the project will improve public riverport facilities and infrastructure, to capture the economic and trade potential offered by water transportation.: *(Text limited for accurate printing. Attach additional pages as needed.)*

Located on the Tennessee River, the Paducah -McCracken County Riverport Authority (PMCRA) has two distinct marine cargo operating facilities which utilize barge cells to secure barges in order for the Port to accomplish cargo operations. The barge cells are considered one of the most critical infrastructure items at the Port since without the barge cells the Port could not safely provide marine cargo operations. The General Cargo Berth (GCB) area consists of approximately six hundred feet of riverfront and has six barge cells, one of which was built in 2013 as a pedestal cell to support the Comansa Crane. The Bulk Commodity Berth (BCB) located a half-mile upstream consists of approximately 200 feet of riverfront and utilizes two barge cells to secure barges, one barge cell to support our Sennebogen 870D material handler that is utilized to accomplish cargo discharge activities and one barge cell which supports the receiving hopper that is fed by the Sennebogen and which feeds cargo to a conveyor system which transports the bulk commodities to our 20-acre bulk storage and transshipment yard. Other than the Crane pedestal cell, the other nine barge cells date to the port founding in the 1970's or earlier. The cells are circular with varying dimensions ranging from 16 feet to 30 feet in diameter. Both Phases of the Project will require the Port to go out for Bids to accomplish certain aspects of the Project. There is the potential that Federal and State permits will be required for Phase 2. The project plan for both

Select ONE: ☐ Applicant plans to use their own manpower, equipment, or materials on the project (Force Account).
☑ Applicant plans to competitively bid out all work related to the project.

TRAFFIC	CURRENT	AFTER PROJECT
Trucks per day	85	85
Train cars per week	0	0
Barges per week	7	7

FOR KYTC USE ONLY

Date Received:	WTAB Approval ☐ Yes ☐ No	
Application Complete? ☐ Yes ☐ No	Sec. Approval ☐ Yes ☐ No	Notification of Award:
Eligible Applicant? ☐ Yes ☐ No	Award Amount:	MOA #:
Permits Needed? ☐ Yes ☐ No	Award Date:	Notice to Proceed:

KENTUCKY PUBLIC RIVERPORT CONSTRUCTION AND MAINTENANCE (KPRCM) APPLICATION

SECTION 3: PERMITS AND APPROVALS

	YES	NO
Has the applicant consulted with state and federal agencies (US Army Corps of Engineers, US Coast Guard, US Fish & Wildlife Service, KY Division of Water, KY Heritage Council, etc.)?	☑	☐
Has state and federal agency consultation determined permits are needed? Phase I no permits	☒	☒
Have all required permits (environmental, encroachment, etc.) been obtained? Phase II -Potentially	☑	☑

SECTION 4: SUBMISSION CHECKLIST *(See guidance document for details.)*

- ☒ Kentucky Public Riverport Construction and Maintenance Application
- ☒ Statement of Work
- ☒ Scope of Work
- ☒ Purchase quote or cost estimate for the project
- ☒ Project Schedule/Timeline
- ☒ Maps, aerial photos, drawings, and photographs, as needed
- ☒ Engineering plans, schematics, details, drawings of the proposed project, as needed
- ☒ Copies of all correspondence or evidence of consultation that has occurred with state and federal agencies, if applicab
- ☒ Required Affidavit for Bidders, Offerors and Contractors from applicant

SECTION 5: CERTIFICATION

I have read the Kentucky Public Riverport Construction and Maintenance Project Guidance Document and understand and agree to abide by what is stated therein. I agree that incomplete applications, applications missing any of the above required supporting documents, or applications received after the deadline, will be deemed ineligible by Division staff without consideration for KPRCM funds and returned to applicant. I also hereby certify, subject to the provision of KRS 523.100 (unsworn falsification to authorities), that the above information is true and correct to the best of my knowledge.

PRINTED NAME & TITLE	SIGNATURE	DATE
Timothy Cahill, Executive Director	Timothy Cahill	5/15/2024

Completed applications and all required attachments must be submitted electronically in PDF format. Paper copies will not be accepted. Emailed applications must be received by the Division by date indicated in call for projects. PDF copies shall be sent via email to: KYTC.ModalPrograms@ky.gov

Point of Contact: Timothy Cahill

Applicant: Paducah-McCracken County Riverport Authority

Applicant Address: 2000 Wayne Sullivan Drive

Paducah, KY 42003

Phone: Office (270) 442- 9326 Ext 3610

Cell (941) 400-9737

Email: tcahill@paducahriverport.org

Total Project Cost: **$ 750,000.00**

Grant Funding Application:

Grant funds will be utilized to conduct this large, multi-phase Project relating to critical infrastructure at PMCRA. Phase I of the Project will utilize marine assets, divers, and engineers along with other potential equipment required to access and inspect nine (9) existing barge cells located at PMCRA's General Cargo and Bulk Commodity TN River berths. Phase II of the project will consist of accomplishing the recommended repairs to each barge cell based on the findings of the inspection.

This project will require a separate bidding process for each Phase. It has also been determined through engagement with Federal and State authorities that the Phase I inspection process will not require permits. The resulting repairs from the Inspection could require Federal and State permits including a mussel survey along with potential restitution for identified protected species, depending upon the results of the inspection and recommended repairs.

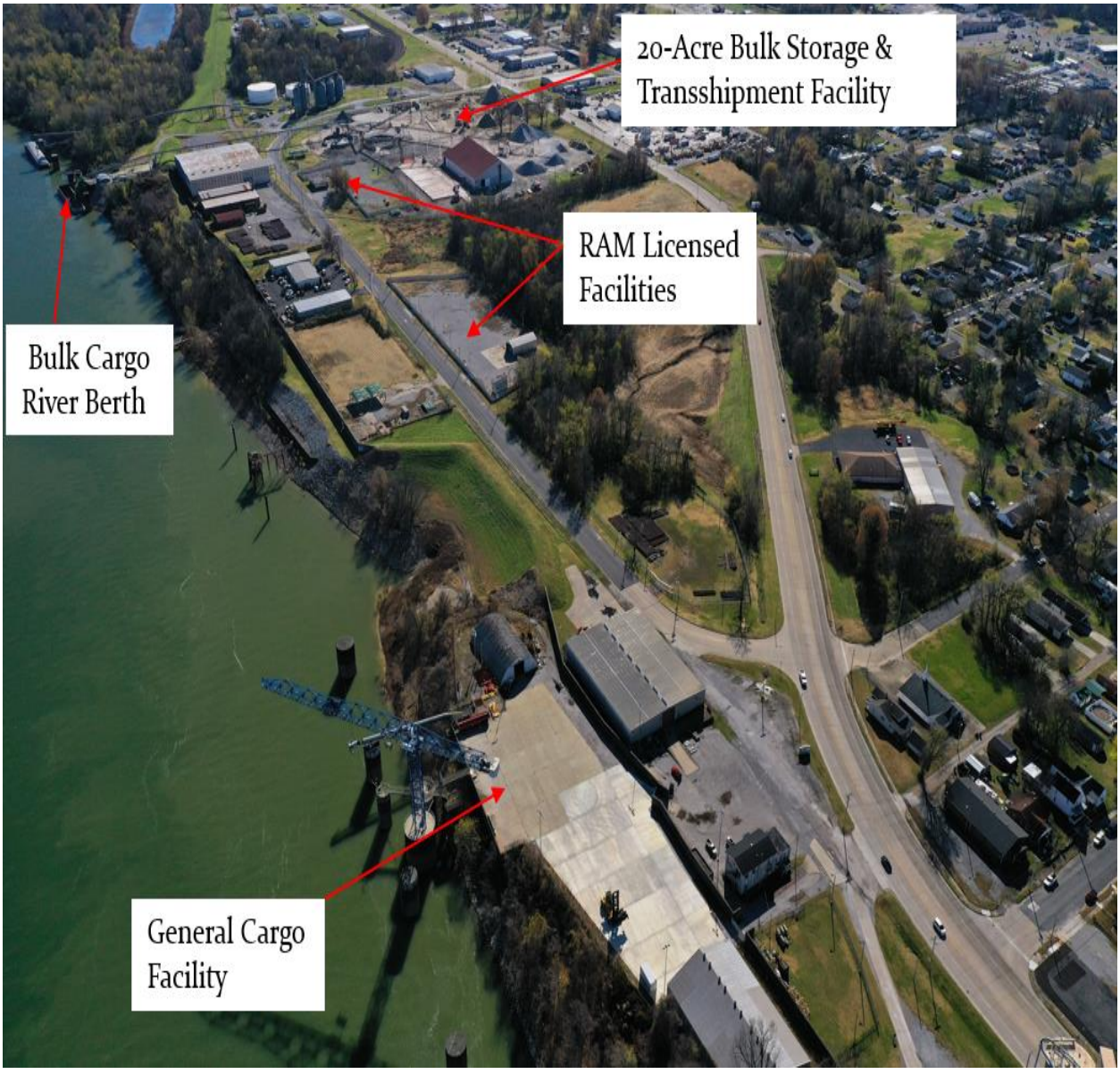
Qualifications and eligibility:

Paducah-McCracken County Riverport Authority (PMCRA) was founded in 1964 by the legislative bodies of McCracken County and the City of Paducah. The operating facility is located on the Tennessee River between river mile marker 1.3 and 2.0 on the left descending bank, near the confluence of the Ohio and Tennessee Rivers.

The following picture provides an aerial view of the PMCRA facilities. These include a General Cargo Berth (GCB) and shoreside laydown cargo area. A separate Bulk Commodity Berth, (BCB) is used to discharge barges that is fed via conveyor to a 20-acre Bulk Commodity storage and transshipment yard. The Port also has over 100,000

square feet of warehousing, office buildings and additional outdoor storage areas. The two current areas associated with the Port's Radioactive Materials License (RAM) that are utilized for UF-6-cylinder storage and transshipments are also identified in the picture.

Paducah-McCracken County Riverport Authority – Aerial View



Statement of Work:

PMCRA is a major transhipper of bulk commodities servicing 14 counties in western Kentucky along with substantial shipments to TN., IL, and MO. Commodities transshipped through the port support State and Federal roadway projects, the

expansion of the Kentucky Lock & Dam being accomplished by the U.S. Army Corp. of Engineers, commercial and residential construction activities, two manufacturing facilities employing over eighty Kentuckians and the agriculture industry in Kentucky and the adjoining states. Our business partners have conveyed that the port directly supports over 600 jobs, not including those associated with the river industry or the four-state agriculture community that the Port services.

Our bulk cargo transshipment services have supported the I-24 road construction project, TVA Shawnee Power Plant, Ash Facility Project and the ongoing expansion of Kentucky Lock and Dam, along with numerous other critical infrastructure, manufacturing, commercial and residential construction projects in our service area.

In 2021 and 2022 the PMCRA General Cargo Facility was utilized to construct the new Smithland Bridge which was dedicated by KYTC in 2023. In late 2022, the Port received its first barge load of supersacks of specialty minerals utilized by a Graves County refractory brick manufacturer and secured a warehousing and distribution agreement with another entity providing supersacks of specialty minerals and commodities across multiple business sectors in Kentucky and other states in the Midwest Region.

In early 2023 utilizing the Port's RAM License and prior experience in providing transshipping services for the Nuclear Energy industry, the Port secured a new tenant and multiple new service agreements with multiple domestic and international nuclear energy 3PL service providers. The new activities support and provide critical services for the storage and transshipment of cylinders containing uranium hexafluoride (UF-6). The Honeywell UF-6 conversion facility located in Metropolis, IL is the only U.S. UF-6 facility in operation. The Port's services allow for the storage of inbound cylinders and the safe transshipment of the critical UF-6 material to the domestic and international Nuclear Power industry. PMCRA is utilizing over 6 acres of Port property to accomplish these services.

PMCRA is the recipient of a U.S. Marine Highway Grant and recently engaged with MARAD to secure the inclusion of supersack cargoes into the U.S. Marine Highway Program. Currently the Port is implementing a PIDP Grant to revitalize approximately $4 million dollars of critical infrastructure within the 20-acres Bulk Commodity Facility. The first two components of the PIDP Grant are to be completed in early June 2024. Once completed, Dome A and B will provide cost effective, expanded storage and transshipment services to our long-term Hopkinsville manufacturing business partner along with increasing transshipment efficiencies and increased revenues for the Port.

In 2023 the Port was awarded a DRA Grant of approximately $460K to revitalize a 20,000 square foot warehouse at our GCF to increase storage and transshipment efficiencies in our expanding supersack business. We have begun the implementation of the DRA Grant, and it should be completed in the fall of 2024.

Scope of Work:

During a dredging project in the spring of FY 2023 within the Bulk Commodity Berth a seam separation was identified on one of the BCB barge cells. A small patch was installed which led to additional discussions with a Marine Construction firm regarding PMCRA's barge cell infrastructure.

Port staff began researching old drawings, correspondence, emails, and other documents within our archives, which identified that many of the barge cells that PMCRA utilizes to secure barges to accomplish cargo discharge operations were built in the 1970's and a few were existing barge cells on property that the Port acquired during the initial property acquisition phase from 1970 to 1977.

The PMCRA staff began contacting other industry experts to obtain their suggestions and input on how best to proceed. From those conversations, PMCRA developed the requirements for the barge cell inspections and potential options to repair the cells, if needed. Our staff also contacted Federal and State agencies to secure their input and identify potential requirements for the Project. The Port has been able to ascertain from those authorities that no permits are required for the inspection process, but Permits may be required depending on the repair requirements, if needed.

Based on the above findings, we determined that PMCRA should complete an inspection of all nine barge cells and develop the requirements needed to implement any recommended repairs identified from that inspection.

As identified in the following pictures, PMCRA barge cells are located at both the General Cargo Berth (GCB) and the Bulk Commodity Berth (BCB). At the GCB there are three 20-foot diameter cells, one 25-foot diameter cell and one 16-foot diameter cell to be inspected. We do not plan to inspect the Pedestal Crane Cell installed in 2013.

PMCRA General Cargo Berth (GCB) Barge Cells (5 barge cells will be inspected)

At the BCB there are two 16-foot diameter cells and two 30-foot diameter cells. We plan to inspect all four cells.

PMCRA Bulk Cargo Berth (BCB) Barge Cells (4 barge cells will be inspected)

Due to the complex requirements and logistics to inspect the cells above and below the water along with the potential for Federal and State permitting for any needed cell repairs, PMCRA plans to accomplish The Barge Cell Revitalization Project in two different Phases utilizing the Kentucky Public Riverport Construction & Maintenance (KPRCM) Program funds to accomplish this critical infrastructure project.

Phase I Requirements for the Inspection of Nine Barge Cells

PMCRA will conduct an RFQ and RFP process to identify and secure a licensed Engineering Company (PE) who in turn can secure the divers and associated marine assets to accomplish the underwater inspection of the cells. The PE will be responsible for the physical inspection of the cells above the waterline and the inspection of the aggregate material within the interior of each barge cell. The PE will be responsible for writing the final report which will include their recommendations for potential repairs. We will utilize the same PE for all requirements associated with Phase II of the project including potential Permit applications with Federal and State authorities as needed. We will address the specific requirements of Phase II later in our application.

A vessel and divers will be utilized to accomplish the underwater inspection of each barge cell. The underwater inspection will consist of a visual and tactile assessment of each structure as well as ultrasonic thickness readings. The UT readings will be taken at four quadrants on each cell with readings above waterline, waterline, mid-waterline, and mudline. An inclinometer will also be used at each quadrant to gauge any lean or tilt to the cell. The divers will inspect each interlock on the cells to ensure there is no

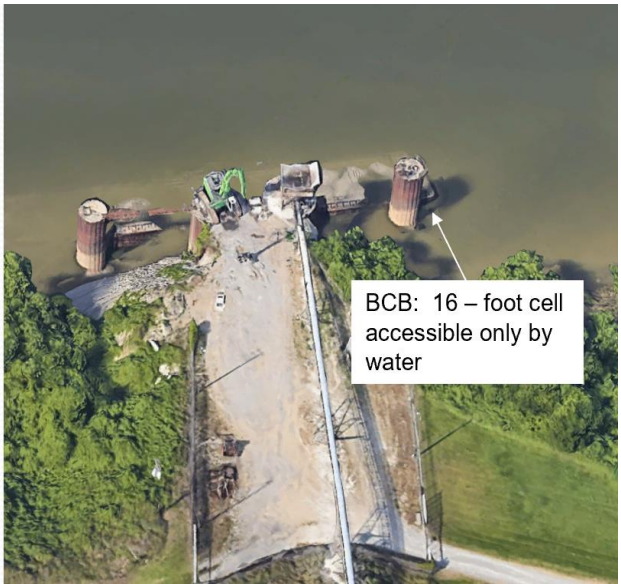
separation between sheets. The diver will also inspect the sheets for impact damage. Depth readings and substrate composition will be recorded at each quadrant. If there is a heavy buildup of timber debris or any other debris at any location, the diver will only inspect down to a safe level to ensure they do not get tangled in debris, unless debris removal is requested. The diver will not inspect below the mudline.

Coordination with the U.S. Coast Guard to limit vessel traffic in the area along with suspension of cargo activities at each berth by the Port will be required while divers are in the water. Our initial quote indicates the dive team will consist of a vessel to accommodate a three-person team consisting of a supervisor, diver, standby diver/tender in accordance with the ADCI Consensus Standards for Commercial Diving and USCG/OSHA regulations.

The PE will be responsible for coordinating and utilizing the diving company as a subcontractor for the underwater inspection. The PE will be responsible for the above waterline inspections along with interior inspection of the cells and the aggregate material in the cells. The PE will be responsible for writing the final report for Phase I which will include recommended repairs required on any of the cells.

We have determined that one cell at the GCD and one cell at the BCD cannot be accessed from shore. The above waterline inspections will need to be accomplished via vessel while access to the top of those cells can be accomplished from the vessel by climbing an exterior ladder on the cell. Once on top of the cell, the PE can access the manhole door to physically inspect the interior of each cell and the aggregate material inside the cell.

Location of Two Cells which are only accessible by water



Upon completion of the inspections and receipt of the PE’s final report, PMCRA will work with the PE to determine the final requirements needed to accomplish Phase II

including the securing of any Permits from Federal and State stakeholders to complete Phase II.

We developed the inspection requirements from the information received from Mainstream Divers which is Registered on the KYTC website.

Page 1 of Quotation for Divers to accomplish the inspection of the barge cells

a moran company

CLIENT		MCDI	
Name	Paducah-McCracken County Riverport Authority	Name	Mainstream Commercial Divers, Inc.
Contact	Timothy Cahill	Contact	Jonathan Hancock
Address	2000 Wayne Sullivan Drive PO Box 2302	Address	322 CC Lowry Drive
City, State, Zip	Paducah, KY 42003	City, State, Zip	Murray, KY 42071
Telephone	270-442-9326	Telephone	270-753-9654
Email	tcahill@paducahriverport.org	Email	Jhancock@mainstreamdivers.com
PROJECT INFORMATION		**QUOTE**	
Name	Paducah River Front Cell Inspection	Number	24KYJX0024
Location	2000 Wayne Sullivan Drive Paducah, KY 42003	Date	February 21, 2024

SUMMARY

Mainstream Commercial Divers ("MCDI") is pleased to provide the following estimate for dive services in Paducah, KY. MCDI will provide a three-person surface supplied dive team consisting of a supervisor, diver, standby diver/tender in accordance with the ADCI Consensus Standards for Commercial Diving and USCG/OSHA regulations and certified PE for inspection and report draft.

This quotation is subject to net-30 payment terms and Customer's acceptance of Mainstream's attached general terms and conditions. Pricing is valid for 60 days.

Thank you for the opportunity and please don't hesitate to contact me with any questions. To authorize the performance of this proposal, please execute the "Proposal Acceptance" below.

Sincerely,

Jonathan Hancock

Jonathan Hancock
Dive Operations Manager

Page 2 of Quotation for Divers to accomplish the inspection of the barge cells

SCOPE OF WORK
MCDI will provide dive crew labor, equipment, and third-party engineer services for a proposed cell inspection on nine cells. The dive crew will be responsible for collecting the data and an onsite engineer will collect the notes and complete the final report. The dive inspection will consist of a visual and tactile assessment of each structure as well as ultrasonic thickness readings. The UT readings will be taken at four quadrants on each cell with readings above waterline, waterline, mid-waterline, and mudline. An inclinometer will also be used at each quadrant to gauge any lean to the cell. The diver will inspect each interlock to ensure there is no separation between sheets. The diver will also inspect the sheets for impact damage. Depth readings and substrate composition will be recorded at each quadrant. If there is a heavy build up of timber debris at any location, the diver will only inspect down to a safe level and not get tangled in debris, unless debris removal is requested. We will require free and unrestricted access to the structures during the inspection process. Any mechanical equipment that could pose a hazard to the crew must be isolated and locked out/tagged out. It is our understanding that this inspection proposal is for the cell structures and does not include assessment on any conveyor, crane, or loading/hauling systems. Underwater video and audio can be used if requested at the additional day rate listed in the price schedule. Quality of the inspection video would be dependent on water clarity at the time of inspection.

PRICE SCHEDULE	
Mobilization/Demobilization (Dive Crew):	$433/Round Trip/Day
8-hr Weekday Rate (Dive Crew):	$2,937/Day
Overtime (Dive Crew):	$499/HR
Third-Party Engineer Services: (Cost +15% estimated rate at the time of this proposal)	$8,625-$10,350 (includes field engineer and report preparation)
Underwater Video System: (if requested)	$351/Day
Dive Plan and Safety Submittals (if required):	$85/HR

INCLUDED LABOR/MATERIALS/EQUIPMENT
Three-Person Dive Crew Crew Vehicle 25’ Work Boat w/Dive Package Ultrasonic Steel Thickness Tester Pit Gauge Inclinometer Handheld Inspection Tools Pneumatic Grinder Tool Air Compressor

ASSUMPTIONS & EXCLUSIONS
• Crew should have unrestricted access to all structures at the time of the inspection. • Pricing is based on an 8-hr minimum starting/ending at the work site or boat ramp. • Any weekdays we are unable to work will be billed at the day rate. • Overtime applies over 8-hrs per day, weekend, or holidays. Christmas and Thanksgiving is Double-Time. • Diving depths are not expected to exceed 30 feet. • Additional services or equipment required will be billed at our current rate sheet. • Additional third-party items required to be billed at cost + 15%. • Customer will comply with all MCDI safety protocols. • Any permits required are to be provided by Customer. • Price does not include tax, bond, or prevailing wages.

Phase I Project Timeline and Cost Estimates

Weather conditions and water clarity will have a direct effect on both the below and above waterline inspections. Transit time to and from the boat launching area for the divers will also add additional time since operational time is based on 8 hours per day. With good water clarity and clear weather, it is projected to take up to four days to accomplish the below the waterline inspection requirements. Depending on the exact time of year we commence the project, it is possible that we will not be able to dive four consecutive days to complete the project. Based on Price Schedule estimates provided, we developed our cost for the below waterline inspection to include up to seven days of availability of the dive crew, vessel and equipment which comes to an estimate of approximately $4,000 per day or $28,000 for underwater inspection. The estimates for an engineer included in the Mainstream estimate did not include the above water inspection requirements for the cells nor inspecting the aggregate material inside the cells. It did include PE oversight of Phase I diving and the issuance of a final report.

For the PE requirements, we have not been able to secure a written estimate for Phase I but utilized prior hourly rates from other projects to develop our estimate. The hourly rate for a licensed PE is $200 per hour. Our estimate utilizes the same time requirements (7 days) for the exterior inspection above the waterline and the inside inspection of each cell as it relates to the aggregate material inside the cell.

PE estimate is for Seven (7) days for the exterior above the waterline and inside inspection of the aggregate material for all nine cells. Three (3) days to develop the requirements needed to repair the cells and two (2) days to write the report. Our estimate for the PE services is $20,000.00.

We secured an estimate from James Marine, Inc., a local fleeting company in Paducah for the utilization of a vessel for the PE to accomplish the waterside inspection of the cells along with accessing the two cells that are not accessible from land. The estimate for the utilization of a marine vessel for both the exterior above waterline inspection of the cells on the waterside of the cells and for accessing two cells via the cell ladders was quoted at $6,000 per day. We utilized four days of vessel utilization for the waterside inspection of the cells and for accessing the two cells from the vessel. Our cost estimate total for the vessel is $24,000

Our cost estimate to complete Phase I of the project is $75,000.00 which includes legal services for the initial PE bid package development and advertising requirements. Our timeline to complete the bid package development, advertising, and final selection of a PE partner for the project is 30 days. We are estimating14 days to complete the diving inspection and above water inspections, report development and repair recommendations for Phase I, weather permitting. The total timeline to complete Phase I of the project is estimated at 45 days after executing an MOA with KYTC.

Phase II Requirements – Permitting & Potential Barge Cell Repair Requirements

Phase II of the project will encompass securing any required Federal or State Permits along with accomplishing the recommended repairs ascertained from the inspection of each cell. We communicated with the USACE Louisville office, which has jurisdiction of our facility to determine the initial USACE Permit requirements for our Project.
As per Mr. Delancey's guidance below, we can accomplish the initial inspection without a permit but could, depending on the Phase II repair requirements, need a permit to accomplish the needed repairs. We are to engage with USACE prior to commencing any Phase II repair activity.

RE: Paducah Riverport

GJ

DeLancey, George J CIV USARMY (

To Tim Cahill

Cc Butch Wood

Reply | Reply All | Forward

Mon 2/26/2024 6:36 AM

You forwarded this message on 3/7/2024 12:47 PM.

Hey Tim

If the inspections are pretty much visual inspections and UT inspections with what I assume are hand held units, there should be no permit requirements for that. Depending on potential risk to the divers from commercial traffic during their work, you might want to request a notice to navigation a couple weeks prior to when safety inspections would be ongoing for around the facility advising mariners exercise caution while traveling through that area. I assume the divers would stay pretty tight with the cells, not near the through travel part of the channel, so a notice would likely not be necessary and that would be more appropriately handled through an internal safety brief for the riverport. I'm sure the divers (company) will have a very specific set of safety procedures to put in place.

As far as permit requirements for any repairs deemed necessary to the cells, that would depend on the nature of to repair work. The demolition of an existing cell and/or the construction of a new, or expansion of an existing cell, may require an full standard permit that would include a full public interest review. If the work is more of the nature of completing repairs to the existing cell(s) that would essentially not change the configuration/footprint or position of the cell(s), we may be able to do that under a general nationwide permit. Essentially what that means for you is time. The standard permit, without controversy, might take about 6 months once we receive a complete application. The nationwide permit, again without controversy, once we have a complete application, I would expect to take about 3 months. Controversy would include issues with the state in issuing, if necessary, 401 WQC, mussel issues, navigation safety issues…

When you get closer to knowing what is needed, let me know and we can better determine what permitting would be required.

Thanks
George

We also contacted The KY Department of Water to secure their input regarding potential Permits and/or other requirements. We received the following email which authorized us to accomplish Phase I, but we are required to also contact them prior to proceeding with any requirements relating to Phase II repairs to the cells.

RE: Paducah Riverport

FC Flora, Conner (EEC) <conner.flora@

Reply | Reply All | Forward

To Tim Cahill

Cc George.J.Delancey@usace.army.mil

Thu 3/7/2024 12:56 PM

You replied to this message on 3/7/2024 2:23 PM.

StreamConstructionApplicationPackage (10).zip
996 KB

Pre-Filing Meeting Request Form 2022 (6).docx
60 KB

Certification Request Form 2022 (5).docx
65 KB

Tim,

I just spoke with my supervisor and **no** Water Quality Certification will be required for an inspection. However, if maintenance is required the following application and pre-filling meeting request will be required. I have attached both to this email. Thanks for the phone call. Looking forward to working with you.

Conner Flora

Environmental Biologist I
Water Quality Certification Section
Kentucky Energy and Environment Cabinet
300 Sower Blvd, Frankfort, KY 40601
Office: (502) 782-3531
Cell: (502) 229-2809
Conner.Flora@ky.gov
Monday – Thursday 7AM to 5PM

Our FEMA dredge project within the BCB area in 2023 required PMCRA to accomplish a Mussel Survey so we do not anticipate that we will need to accomplish another Survey in the BCB. However, the GCB has not had a mussel survey accomplished since 2013, so depending on the repair requirements of those five barge cells, there is a chance we may need to accomplish a Mussel Survey in the GCB. The GCB berth area is three times as long as the BCB, so we have included an estimate of $35,000.00 should we need that requirement for Phase II. Additionally, we accomplished a fleeting study and expansion in 2022 which required a USACE permit so we have some accurate pricing and timeline estimates for the required USACE process if we need to

accomplish major repairs to the cells. Costs associated with securing a new Fleeting Permit totaled approximately $40,000 which included both Federal and State requirements, advertising and responses to public questions regarding that project.

According to research obtained from multiple Marine Contracting Companies, potential repairs to the cells can be accomplished in a few different ways depending on the current structural integrity of the cell and the remaining amount of aggregate fill currently in the cell.

Best case, a patch can be applied to a small seam separation or puncture area utilizing 3/8 inch thick rolled steel that conforms to the curvature of the cell and then is welded in place. Partial banding may be required of a barge cell consists of using 30-foot-tall bands that are installed from the mudline up and would generally cover most of the regular splash zone and heavy wear areas on the cell. They are attached together using bolts to hold them together.

Picture of a partial band on a barge cell

Another example of a partial band on a barge cell

The construction industry associated with repairing and installing barge cells consists of numerous marine construction firms actively engaged on the U.S. inland river system. PMCRA is fortunate that there are three large Marine Construction firms active in our Region. In addition to the cost for the banding repairs, the construction firms also

charge a mobilization fee for the crane, marine assets, and manpower requirements along with a per ton charge for aggregate fill material utilized to refill the inside of the cell for stabilization, if there has been a puncture, leakage, or compaction of the original fill material.

Based on conversations with multiple Marine Construction firms it was recommended that we utilize a worst-case scenario estimate, a full banding process for the cell repairs

Example of a full banding process on a barge cell

We secured the following price estimate for potential full banding repairs from Southern Marine Construction

Cell Banding Cost Estimate

Celebrating 59 Years of Business "1962- 2021"

SOUTHERN MARINE CONSTRUCTION CO.

100 Hamm Road. P.O. Box 4539
Chattanooga, TN 37405-0539
Phone 423.266.1855 . Fax 423.266.1858

EMAIL
peter@serodinoinc.com
steve@serodinoinc.com

Mr. Tim Cahill 1/17/2022
Paducah- McCracken County Riverport Authority updated 5/10/2024
Ref: Cell Repair Estimates

Mr. Cahill,

Southern Marine Construction respectfully submits the following Estimates to repair your river cells.

Using satellite views, it appears you have one 16' diameter cell and one 20' diameter cell that are Damaged. From the information provided to us our recommendation would be to encircle the cells with repair bands.

For this estimate we are using 30' tall bands that should be installed from the mudline up and would generally cover most all of the regular splash zone and heavy wear areas on the face of the cell. These band would be made of 3/8" steel rolled and welded plates and clamp together on the cells.

Estimated Pricing:

Mobilization	$25,000.00
16' Cell 30' tall band	$132,000.00
20' Cell x 30' tall band	$145,000.00
Install Missing Fill materials approx. 500 tons	$30,000.00

We have not included any painting plumbing or electrical work.

Please see the attached sketches and photos typical of these bands, in past repair projects.

Sincerely,

Steve Hawthorne
President
Southern Marine Construction Co.

Phase II – Timeline

It is extremely difficult to estimate the time needed to accomplish the Federal and/or State Permitting process. But based on our new Fleeting Permit which included a Public Comment period, it took us approximately seven months to complete the process. The Mussel Survey accomplished as part of a FEMA project in the BCB required a special waiver being issued so we could accomplish the Survey outside of the normal May through October allowable time frame. We were able to secure that waiver since it was both a FEMA project and due to shoaling. We are not sure if we can secure a similar waiver for this project.

Based on those two potential requirements, we anticipate that the actual Phase II repair requirements would not commence until at least June 2025 and could take up to 2 months to complete. The timeframe does work well considering that depending on the number of cells to be repaired, we should be able to utilize both the $750K of FY-2025 and $750K of FY-2026 should we experience numerous cells needing full banding repairs.

Phase II – Pricing estimate

The timeframe to accomplish the actual repairs work well in that depending on the number of cells actually need to be repaired, we should be able to utilize both the $750K of FY-2025 and $750K of FY-2026 should we it be determined that there are numerous cells needing full banding and/or partial banding repairs.

Until the results are known from the Phase I inspections, we do not have a clear estimate of the total cost of the entire Project. However, based on the ability to utilize both FY-2025 and FY-2026 funds in concert to make the physical repairs, we feel confident that we will be able to complete the required repairs on the most needed barge cells.

Breakdown of Costs:

Phase I inspections	$75,000
Federal & State Permitting	$40,000
GCB Mussel Survey	$35,000
Total	$150,000

After completing the above requirements, we are estimating based on the quotations we have secured, there would be $1,350,000 remaining of KPRCM funds available after paying the above costs. Taking the worst-case scenario of having to utilize the full banding process for all repairs, PMCRA would be able to fully band and replenish aggregate material for 7 of their 9 barge cells. Based on the emergency seam repair made in FY-2023 in the BCB, we are hopeful that we can complete the Barge Cell Revitalization Project and still have KPRCM funds available for either an additional project or to replace some of our equipment.

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 — Timothy Cahill (Printed Name)

Executive Director (Title) — 05/07/2024 (Date)

Bidder or Offeror Name: Paducah-McCracken County Riverport Authority

Address: 2000 Wayne Sullivan Drive
Paducah, KY 42003

Commonwealth of Kentucky Vendor Code (If known): _____

Subscribed and sworn to before me this 7th day of May, 2024.

State of: Kentucky Notary: Jessica McDowell

County of: McCracken My Commission Expires: July 22nd, 2027

OFFICIAL SEAL
Jessica Lynn McDowell
Notary Public ID No. KYNP72637
State at Large, Kentucky
My Commission Expires July 22, 2027

Port Planning:

The PMCRA Capital Improvement and Maintenance Plan identifies this project as one of the Port's ongoing maintenance, betterment, and expansion projects. The initial development of PMCRA began in 1970's to support bulk commodity requirements in the Western Kentucky region. The initial phase of the revitalization of PMCRA bulk commodity facilities conveyors, stackers and hopper system began in FY-2021 with the KRI funded Triple Pantleg Chute project. PMCRA's PIDP Grant project which was awarded in December 2021 is totally focused on the critical infrastructure requirements of our bulk commodity storage and transshipment facility. PMCRA's Capital Improvement and Maintenance Plan is located on the following pages.

Paducah McCracken County Riverport Authority - FY 2025 - 2033

Maintenance and Capital Improvement ANTICIPTED/NEEDED in next 10 years

Project Description, Notes, Scope, Etc.	Facilities/Equipment Impact	Impact on Operations	Status		1
Bulk Commodity Yard revitalization project. Replace three vintage 1960 & 1970 fixed Mast radial stackers with new machines Main Yard Stacker - 30" x 150' - main transfer from inbound riverbelt to two other fixed conveyor systems fixing sand and rock storage yards. Sand Yard Stacker - 30" x 150' with radial hopper & fixed conveyor feeder servicing sand storage yard and truck hopper loadout Rock Yard Stacker - 30" x 100" servicing rock yard storage area	Bulk Yard Operations cargo handling and storage	Ensuring long term operational viability for Port for bulk cargo handling & storage for Regional business customer for the next 15-20 years	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	Replacement of three fixed mast type radial stackers & 1 radial hopper feeder with fixed conveyor $1.725M was winning bid sumbitted. To be approved by PMCRA Board May 2024.
Replacement of bulk dome roofing systems. Two Storage Domes systems utilizing galvanized steel frames and tarp/cloth covers. One existing customer would immediately move from 20K sq. ft. warehouse into Dome A. Second dome customer is being pursued at this time. 20K warehouse would provide new storage opportunity for bulk, breakbulk and project cargo	Two Storage Domes. Existing foundations and walls have been certified as reusable. New roof systems need to be installed.	Increased efficency & cost savings for PMCRA & one customer. Revenue & customer expansion via increase storage capabilities with Dome B and via repurposing 20K feet of warehouse	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	Dome A & Dome B. Awarded with installation completion date of June 9, 2024. Winning bid, $548,107.00
Bulk Yard Storage and Commodity expansion project. Utilize new fixed infrastructure concepts to expand into new storage areas within the current bulk yard footprint for commodity and customer diversification. Utilize three (3) 100' x 30" ground conveyors in association with a new 100 foot radial stacker expand into a currently unused area of the bulk yard	Purchase and utilization of three ground conveyor systems and a 100 foot radial stacker	Customer and product diversification leading to new internal and external Regional job creation. Increase cost effective transshipmentnt capacity in support of Economic Development, Federal and State infrastructure projects	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	3 ground conveyors and stacker awarded for $337,608.00. Due at PMCRA Aug. 2024
Bulk Commodity Yard Revitalization Project. Demolition of an old truck scale foundation which will improve truck safety and sight lines within the bulk yard.	Excavation and refill of old truck scale pit and ramps.	Customer and product diversification. Regional job creation. Increased transshipmentnt capacity in support of Economic Development, Federal and State infrastructure projects	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	Awarded for $20,000. Project completed in April 2024.
Bulk Commodity Yard revitalization project. Install additional 90 foot x 11 foot concrete duck truck scale. Install 240 foot by 30 foot canopy system adjoining the fertilizer transshipment building while covering the existing conveyor loadout system and new truck scale	Purchase of new truck scale and covered canopy system for fertilizer building conveyor and truck scale	Provide increased resiliency for entire bulk operation by adding a second truck scale. Will also increase efficiency and revenue by being able to transship fertilizer products during inclement weather condions	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	Scale awarded for $169,050. To be installed in Aug. 2024 Canopy to be bid and awarded in Sept. 2024 after completetion and testingof truck scale
Bulk Commodity Yard revitalization project. Install additional 30K s.f. of concrete over existing old fertilizer building slab for clean storage. Install hardened concrete	Bulk Commodity Operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	Project is included in December 2021 PIDP Grant Award	PIDP Grant was awarded in December 2021 with implementation ongoing	To be last component of PIDP completed. Current estimate spring 2025. $448,500.00
Rebuild two concrete aprons on 4th Street Rear entrance to bulk yard and entrance into RAM licensed storage yard	Bulk and General Cargo Operations	Improve site lines for trucks, safety for personnel and increase effecencies with reduced dwell times for trucks	Pursuing KRI funding in association with PMCRA funds	FY- 2024 KRI Project and PMCRA matching funds	Project to be completed in May 2024 for $75K
Revitalize 20,000 square foot Warehouse#3. Install new wall panels and reroof existing roof. Existing Foundation and steel frame can be utilized.	General Cargo operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	Through upgrading the building we will increase warehouse storage availability by 20K sq. ft. For expandion of our supersack business.	FY-2024 - DRA Grant awarded. Bid package development commenced in April 2024. Completetion of project in November 2024.	$465,000
Purchase Bobcat Skid Steer Loader	Bulk Cargo Operations	Provide safe and efficient cargo transfer operations and increase resiliency by having a back up machine	Potential U.S. Marine Highway Grant, KRI Grant or KY Maintenance & Equipment Funds Grant	FY- 2025 KRI Project and PMCRA matching funds	Estimate - $60K.
Purchase 48 foot flatbed trailer	General Cargo Operations	Increased efficency & cost savings for PMCRA in association with super sack inter-port transfer process	Pursue KRI funding or Marine Hwy funds in assoication with PMCRA matching	FY- 2025 KRI Project and PMCRA matching funds	Project to be completed in May 2024 for $75K

Purchase of 26-ton forklift	General Cargo and RAM Cargo Operations	Provides safe and efficient cargo transfer operations and increases resiliency by having a back up machine	Potential U.S. Marine Highway Grant, KRI Grant or KY Maintenance & Equipment Funds Grant	FY-2025 or FY-2026	Estimate - $800,000.
General Cargo and Bulk Commodity River Berth Barge Cell inspection and landing repairs on up to 9 barge docking cells. Inspection and potential repairs from mudline up with each bent to cover the normal splash zone and heavy wear areas on the cells.	General Cargo and Bulk Commodity Operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	Planning development would seek Federal and/or State funding	FY-2025 and into FY-2026 depending on findings of the inspection of the cells.	Inspection cost: $60 - $80K Repair cost for each cell from $102K to $108K Plus mobilization fee approx. $25K-$50K Plus approx to fill 500 to 1000 tons @ $30K to $60K. Total project $1M plus depending on actual findings.
Installation of hardened concrete cargo area between admin building and Warehouse #3 leading to Wayne Sullivan Drive.	General Cargo Operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	USMH, KRI Grant, DRA Grant or other Grant funding opportunities	FY-2026	$400-$500K depending on exact square footage accomplished
Purchase of 15-ton forklift	General Cargo and RAM Cargo Operations	Provides safe berthing for barges during bulk commodity transfer operations	Potential U.S. Marine Highway Grant, KRI Grant or KY Maintenance & Equipment Funds Grant	FY-2026	Estimate - $500,000.
Replacement of two (2) wheel loaders utilized for truck loading operations	Bulk Operations	Improved fuel efficiency and environmental	Funded by Riverport with State and Federal Grant Assistance or available	Replace one unit in FY-2026 and one unit in FY-2027.	$325,000 for each unit
Revitalize and/or replace Bulk Commodity fertilizer conveyor systems, transfer hopper and drive system. Approximately 440 feet of Conveyor and multiple hoppers which feeds Southern FS conveyor and building	Bulk Operations	Replacement of critical infrastructure system in order to support continued safe and reliable cargo transshipment of bulk commodities	Exploring Grant State and Federal Grant funds including AG.	FY-2026	Estimate for replacing conveyor is $800 to $1,000 per foot plus multiple conveyors. Project estimate $700,000.
Replacement of Quonset Building Warehouse #1	General Cargo operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	Current building has reached it end of life. Replace existing structure with steel & fabric structure at 5,400 sq. ft. to capture warehouse opportunities	FY-2025 or 26 unless a barge partner is identified. Plan to pursue Grant opportunities	$450K
Replacement of primary 4 - 4.5 ft cubic yard bucket for Sunshaqua	Bulk Operations	Replacement of primary bulk commodity bucket to ensure safe and reliable cargo transshipment of bulk commodities	Federal, KRI Grant or other Grant funding	FY-2026	$50K
New roof coating system for 66,000 sf Warehouse #4	General Cargo Operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and	Federal, State, KRI or other Grant Funding	FY-2026	$250K
Replace existing forklift fleet consisting of 6 machines from 2004 and 2008	General Operations for expanding super sack business	General cargo transshipment expansion opportunity	US Marine Hwy, KRI Grant or other Grant funding including electrification opportunities	Phase in beginning in FY-2024	$400-500K
New roof coating system for 9,6000 sf Warehouse #2	General Cargo Operations	Replacement of critical infrastructure in order to support continued safe and reliable cargo transshipment, storage and logistics	Federal, State, KRI or other Grant Funding	FY-2026	$50K
Development of Riverport West Marine and Intermodal Logistics Hub. Multi-cargo facility incorporating liquid & dry bulk, containerized, general and RoRo cargoes. Marine, rail, warehousing and distribution center. In conjunction with Regional Economic Development Authorities, Class 1 railways, Shortline railroads, manufacturers, distributors, renewable energy developers and 3PL service providers.	New multi-user Port operating facility in support of new Economic Development within McCracken County	Port Expansion - Land Purchase, Equipment Purchase	FY-2023 - Applied for a $3.5 million Planning Development Grant via Build Grant Program	FY-2023 - Purchased 311 acres of property on Ohio River in conjunction with Greater Paducah Economic Development. Pursue PPP, Federal, State & Local funds and Grants	$25M Phase 1 project developing 3 river berths, laydown areas, heavy haul road and rail pursuit which will allow public access facility for servicing the Triple Rail Super Site.
Replacement of bulk material handler purchased in 2010 and fixed conveyor system (built in 1970's). The system will have exceeded it's useful life. We will investigate the benefits of cheaper mount crane and conveyor system. The projected hours on material handler will be approx. 30,000 hours during the time frame.	Bulk Operations	Riverport operations will be reduced due loss of cost effective cargo and logistics management resulting in lost jobs and economic development in the region.	Planning development would seek Federal and State funding	FY-2028 - July 2027 - June 2028	$1.0 million
Replacement of the General Cargo Crane	General Cargo Operations	Riverport operations will be reduced due loss of cost effective cargo and logistics management resulting in lost jobs and economic development in the region.	Planning and development would seek Federal and State funding	July 2028 - July 2029 - August 2030	$10.0 million
Development of 3.1 acre warehouse site on Wayne Sullivan Drive	General Operations	General cargo transshipment expansion opportunity	Federal, KRI Grant or other Grant funding	FY-2026 with shortline partner Plan to pursue Grant opportunities	$4.5 Million
Future projects, improvements and/or substructure are TBA based on economic business requirements and economic development activities					

On behalf of my colleagues at PMCRA, our business partners and the citizens of the City of Paducah, McCracken County, and the adjacent Western Kentucky counties that we service, I would like to thank you for your consideration of this critical infrastructure refurbishment project within our facility. Should you have any questions or require any additional clarification, please do not hesitate to contact me.

Respectfully submitted,

Timothy Cahill
Executive Director
Paducah-McCracken Country Riverport Authority