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May 21, 2021

Regional Transit Authority

Attn: Stephen Mitchell

2817 Canal Street

New Orleans Louisiana 70119

Sent Via Email: Stephen.Mitchell@transdev.com

**Subject: RTA Canal Street Ferry Terminal
Change Order Request #026
Recommendation for Approval**

Dear Stephen:

Royal Engineers & Consultants LLC (Royal) in conjunction with Dupont LeCorne Construction Consultants (DLCC) have reviewed the above referenced Change Order Request from Woodward APC and recommend acceptance of this Change Order Request for \$224,976.69.

Summary:

This Change Order Request is for additional rehabilitation work for of the Temporary Boarding Barge based on additional work requested by the RTA during the 05/03/21 meeting at the shipyard and based on the Ultrasonic Thickness Inspection (UTI) test to determine if the barge had sustained any significant losses in thickness. The UTI test yielded that large sections of the hull beneath the waterline had sustained losses of over 25% to 30% of its original thickness.

The scope of work for the change order includes the following:

- Item No. 1: Crop & renew (C/R) lower half of formed side and bilge knuckle for barge length (shoreside)
- Item No. 2: C/R lower half of formed transom and bilge knuckle for barge width (downriver end)
- Item No. 3: C/R slope sheet and 3'-00" of #1 bottom for barge width (upriver end)
- Item No. 4: C/R (1) 3/8" x 6'-0" x 10'-0" section of flat bottom (on C/L, forward of midship)
- Item No. 5: Gouge and weld 725'-0" of longitudinal and transverse bottom weld seams
- Item No. 6: Blast and paint sides and ends below water line and flat bottom
- Item No. 7: Seal-off all penetrations and skip-welds in beams in way of ramp recess

- Item No. 8: Remove, furnish, and install steel door and frame at entrance to machinery space
- Item No. 9: Eliminate all trip hazards along main deck
- Item No. 10: Crop (2) areas of spill containment and above deck piping – cap piping below deck, insert deck penetrations
- Item No. 11: Straighten and re-weld all above-deck vent piping
- Item No. 12: Furnish and install 13 additional anodes.

Engineer's Review:

Infinity and MiNo, marine engineer subcontracted to Infinity, reviewed the scope included in the COR and confirmed that all these items are all changes to the original scope of work for the Temporary Barge Repair outlined in RFP 002. MiNo, marine engineer subcontracted to Infinity, reviewed the UTI results and stated since these losses were over allowable industry standard thresholds, that it is recommended that sections of hull that are greater than 25% diminished be removed and replaced. If repairs are not completed, the barge is at risk for capsizing and/or sinking due to hull failure. A meeting was held on 5/7/2021 with RTA's Project Manager, RTA's Marine division, Labmar, Royal, and MiNo to discuss the scope further in detail and jointly agreed the work was necessary to protect the general public and ensure a safe and secure temporary boarding barge.

The breakdown of quantities included in this change order have been provided by C&C and reviewed and approved by Mino and Royal. The quantities provided match the replacement sheet steel and the 40% of supporting steel estimated was confirmed by Mino as industry standard and demonstrated in photos and further explanation.

Cost Review:

Royal and DLCC have reviewed the costs and recommend approval based on the estimate provided. We have verified that this change order meets the minimum criteria for approval set by the RTA including:

1. That the Change Order does not include any apparent errors
2. That all back-up is included where appropriate
3. That insurances, overhead, and profit are reasonable

Mino, RTA, Royal, and DLCC performed reviews of the quantities provided and requested the quantities and unit pricing to be broken down clearly to see exactly how it was priced. Mino performed their own quantity takeoff which was sent to the contractor to explain the discrepancies. A meeting held on 5/20/2021 including the contractor, C&C, MiNo, Royal and the RTA reviewed the additional breakdown provided and concluded that the quantities were in fact justified based on the 40% miscellaneous steel being industry standard and confirmed by MiNo for this work.

DLCC performed a review of the unit price of \$4.00 per pound of steel for removing and replacing the steel including the reinstallation of miscellaneous support steel was reasonable. DLCC contacted two steel suppliers and determined that the base cost of the steel material only was in line with current market conditions, and that a recent \$100/ton price increase for plate steel was just issued and that new escalations were imminent for the supporting structural. DLCC also contacted a steel erector to review the grooving

and rewelding unit rate and determined that the production rate was reasonable as well as the labor hour rate for the welder. C&C provided a schedule of the additional work within the overall schedule of the barge repairs.

Outcome of Review:

From these comments the contractor provided reasonable backup for items requesting additional backup. The COR was deemed to be reasonable, the quantities confirmed as accurate, and the pricing in accordance with industry standards.

If you have any questions regarding this matter, please feel free to contact me.

Sincerely,

ROYAL ENGINEERS & CONSULTANTS, LLC

A handwritten signature in blue ink, appearing to read "Imbrie Packard". The signature is fluid and cursive, with a large initial "I" and "P".

Imbrie Packard
Lead Architect and Project Manager