Summary of Award for the Waterfront Line Bridge Rehabilitation

Presented to: Operational Planning & Infrastructure Committee

September 13, 2022
Rehabilitation of the GCRTA Waterfront Line Bridge over NS, Port of Cleveland and Front Ave including MSE Retaining Walls
Waterfront Line Bridge Rehabilitation

Project Overview

MSE Walls

Active NS Tracks

GCRTA WFL Bridge

Greater Cleveland Regional Transit Authority
Waterfront Line Bridge Rehabilitation
Project Overview

History of Work/Study

• The Waterfront Line construction complete in 1995
• MSE Wall Repairs implemented 2019
• No significant bridge rehabilitation work to date
• In-depth inspection highlighted need to rehabilitate
• On-going bridge crack monitoring continues to measure changes in condition over time, loads and temperature
Waterfront Line Bridge Rehabilitation
Project Overview

Complex Findings

• Bridge type: Curved Post Tensioned Segmental Box Girder
• Bridge type is unique to GCRTA. ODOT has few in-service.
• Expert studies by independent engineering groups have found similar problems among early pre-2000 bridge designs nationally.
• Various cracks in primary concrete members.
• Tightly curved bridge & rail geometry add to complexity of repair.
• Over an active NS mainline track.
Waterfront Line Bridge Rehabilitation
Project Overview

Project Objectives

Extend service life of bridge and adjoining Mechanically Stabilized Earth walls (MSE) by 25 years minimum. The project will:

- Allow the Authority to restore services along the Waterfront
- Strengthen primary structural members to carry future rail loads
- Provide proper expansion/contraction of bridge & rail
- Deliver solutions which least impact NS operations
Waterfront Line Bridge Rehabilitation

Phase I

Greater Cleveland Regional Transit Authority
Waterfront Line Bridge Rehabilitation
Phase II

STRENGTHEN SPANS 1 AND 5

with New External Tendons with PT Bars

As-Built Condition

New External Tendons in Provisional Anchors

Supplemental PT Bars in New Anchorages

PT = POST TENSIONED

Greater Cleveland Regional Transit Authority
Waterfront Line Bridge Rehabilitation
Procurement Overview

Procurement Summary
• Invitation for Bid issued July 18, 2022.
• Accessed on the GCRTA web site by Sixty-Seven (67) interested parties.
• Two (2) firms submitted a bid.
Waterfront Line Bridge Rehabilitation Procurement Overview

Lowest responsive and responsible bidder:
• The Great Lakes Construction Co.

A 12% DBE participation goal was assigned to this project and will be achieved by utilizing Flatrock LLC, Intelligent Polymer Solutions, LLC, JPCO, Inc., RAR Contracting Co., Inc. and Rockport Ready Mix, Inc.
Waterfront Line Bridge Rehabilitation
Procurement Overview

Firm Experience
• The Great Lakes Construction Co., has completed projects for GCRTA, ODOT, the Akron-Canton Airport, the Port of Cleveland, and Indiana Department of Transportation, among others.
Waterfront Line Bridge Rehabilitation
Procurement Overview

Staff requests that the Operational Planning & Infrastructure Committee recommend award to The Great Lakes Construction Co. for the Waterfront Line Bridge Rehabilitation. The base contract is not to exceed $8,481,900.00.
Waterfront Line Bridge Rehabilitation
Procurement Overview

Questions?