

NORTH HERO-GRAND ISLE BHF 028-1(26)

BR 8 ON US2 BETWEEN NORTH HERO AND GRAND ISLE, OVER LAKE CHAMPLAIN



Project Team Consisting of Industry Experts

Design Firm:

- HDR Inc. – Engineering firm experienced in the design of moveable Bridges

Contractor:

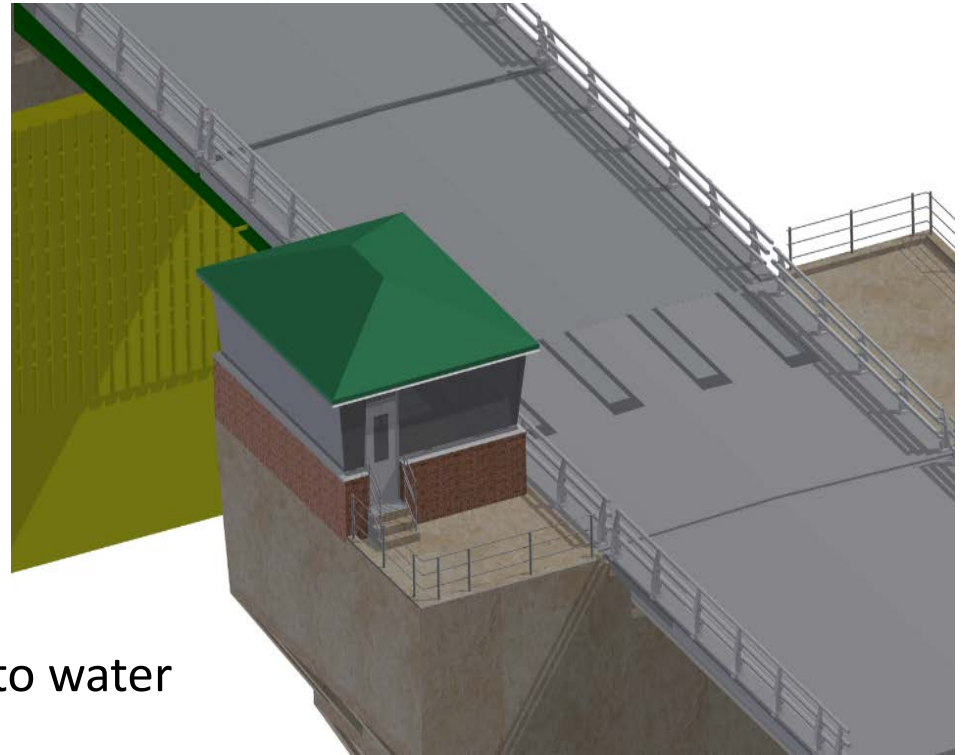
- Cianbro Corporation – Specializes in construction of moveable bridges

Independent Construction Estimator:

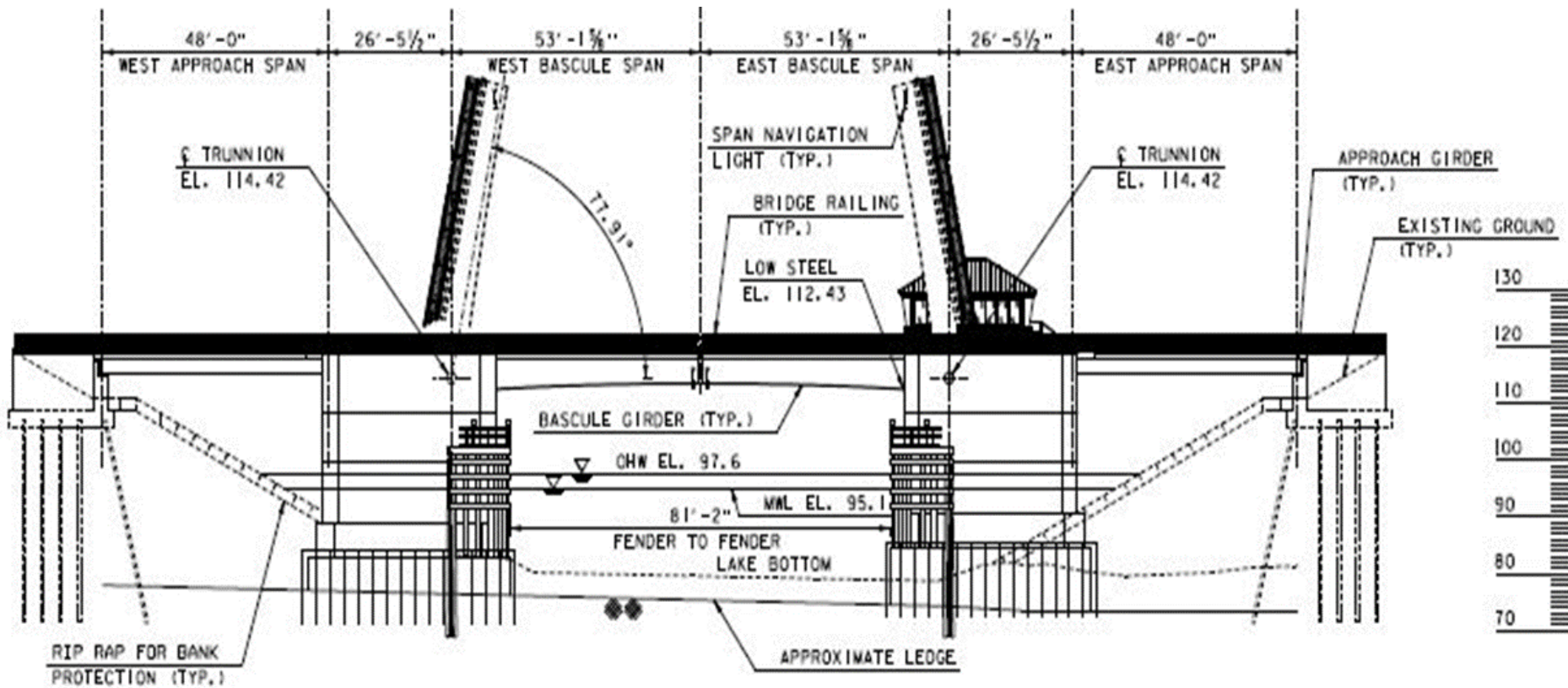
- Keville Enterprises – Construction Management and Services

New Bridge = 100 year Design Life

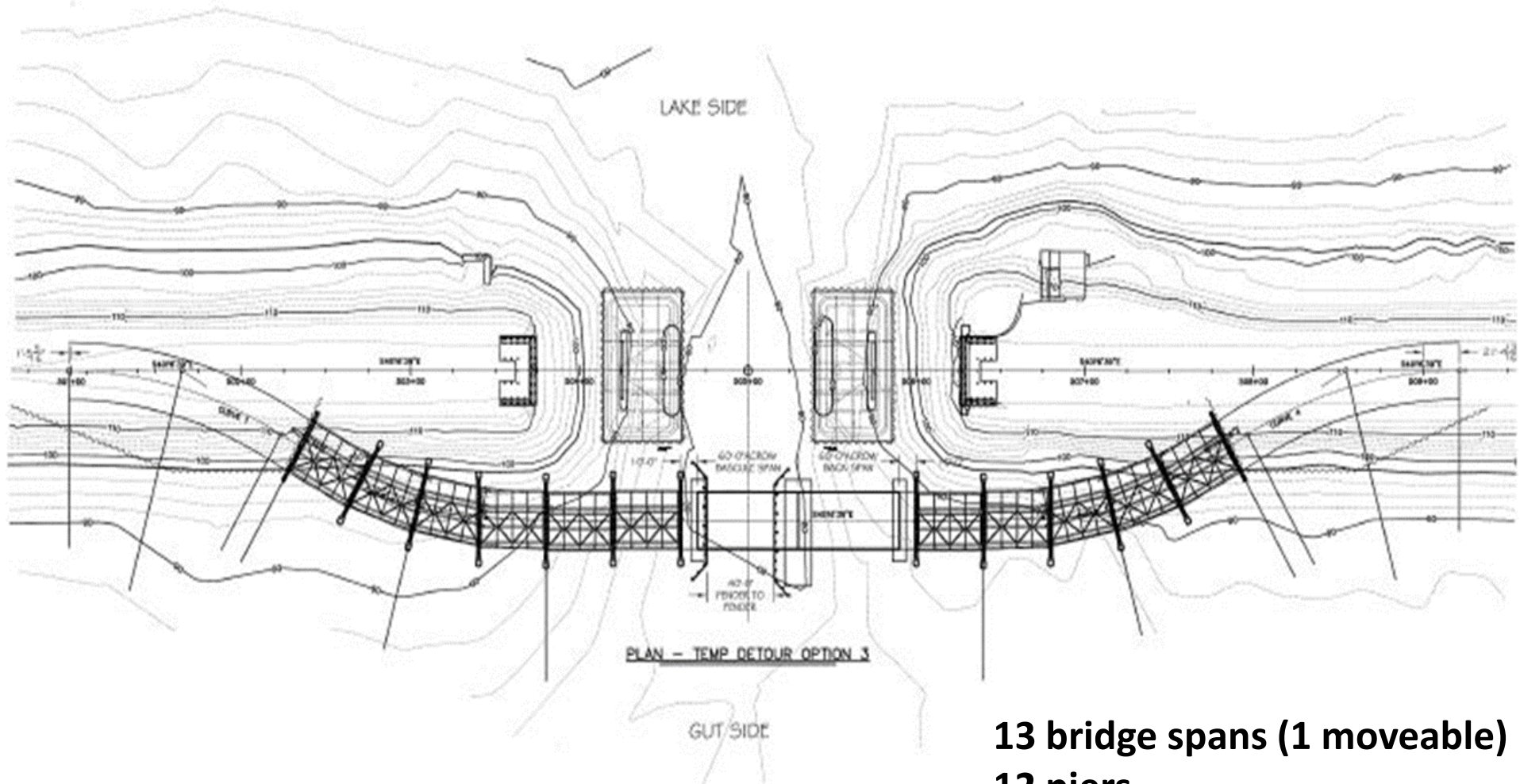
- High Performance material insures 100 year bridge life
 - Stainless Steel reinforcing in bridge deck
 - Galvanized rebar in piers
 - Metalized versus painted steel girders
- Mechanical and electric equipment protected in pier
- Hydraulic equipment
 - Easier to Maintain
 - Redundant Hydraulic Cylinders
 - Fewer components to inspect
- Easier access to bridge components
- Improved safety for operator
 - New Septic System
 - New Well
- Counter weight span does not open into water
- Improved bicycle safety
 - Increased shoulders
 - Concrete deck vs steel grates



New Bridge – Elevation View



Temporary Detour



13 bridge spans (1 moveable)
12 piers
No fill into Lake Champlain

Schedule Update

Project Plans and Specifications complete	Jan/Feb 2018
Contractor Estimate Complete	Jan/Feb 2018
Contract Award	April 2018
Pre-construction Activities	April to June 2018
Contractor Mobilize to Site	June 2018
Construct Temporary Drawbridge	July 2018 – May 2019
Construct New Drawbridge	May 2019 – May 2021
Remove Temporary Bridge	May 2021 – October 2021
Project Completed (Project Closeout)	June 2022

North Hero – Grand Isle Project Costs

\$77.75 million (Includes Preliminary Engineering)

- \$46.5 million – October 2016 (2018 Capital Program)
- \$70.2 million - April 2017 Preliminary Estimate
- \$77.75 million - October 2017 Final Estimate
- 11% increase from Preliminary to Final Plans
 - Refinement of final design details and specifications
 - Quote obtained for Acrow moveable temporary bridge
 - Temporary bridge piers designed for ice and boat loads
 - Escalation = Increase in material and labor costs over 4 year construction duration. Escalation accounts for \$3 million.

Project four year spending profile

- Projected through SFY 2018 = \$3.45 Million
 - Begin construction May 2018 (Mobilization)
- Projected SFY 2019 = \$13.0 Million
 - Moveable Temporary Bridge Construction
- Projected SFY 2020 = \$15.4 Million
 - New Bridge Construction (Piers and Abutments)
- Projected SFY 2021 = \$27.0 Million
 - New Bridge Construction (Draw Bridge and approach spans)
- Projected SFY 2022 = \$11.4 Million
 - Temporary Bridge Removal
- Projected SFY 2023 = \$0.50 Million
 - Project Cleanup

Questions



North Hero – Grand Isle Project Costs

High Cost Items

- Mobilization (Moving Barges and cranes) \$2 million
- Temporary detour (movable bridge) = \$12 million
- Permanent Bridge Elements = \$14 million
- Contractor Management = \$13 million
- Architectural treatments = \$1 million

Last Price Reconciliation

- Process started last week and nearly complete
- Estimate expected to be lower by 2.2 million than what was is reflected in the estimate
- Reasons for reduction
 - Fabricators, suppliers and subs refines quotes for last estimate
 - Structured progress payments to eliminate finance charges
 - Created and structured pay items to mitigate risk.
 - Avoiding costs that Contractor rolls into the estimate that may never be realized
 - Example – Temporary bridge piles, filter curtain
 - Change in Materials - Galvanized rebar instead of stainless steel in the pier, safety glass
 - Change in details – simpler forming