# Upper Mississippi Inland Waterway Infrastructure

# Mooring Cell Pilot Project

IOWA DOT

Freight Advisory Council

September 10, 2021

# Alternative Financing Evaluation

- 2019 Iowa DOT study
  - Objective: Develop range of viable investment alternatives to enhance Upper Mississippi inland waterway infrastructure
  - Examined three upgrade scenarios of various scales

- Recommendation #1
  - Use State-Federal contributed funds agreement to implement the Micro Efficiency Upgrade scenario of a mooring cell at L&D 14 (LeClaire, IA).

# Micro Efficiency Upgrade

- What is a mooring cell?
  - Facility for tows approaching a L&D to moor (tie off) while waiting for the lock to be available
  - Typically located adjacent to main navigation channel
  - Constructed of sheet-piling driven into a circular cell and filled with earth and/or concrete
  - Without mooring facility, towboats must ground barges, tie off to bankline trees, or maintain engine power

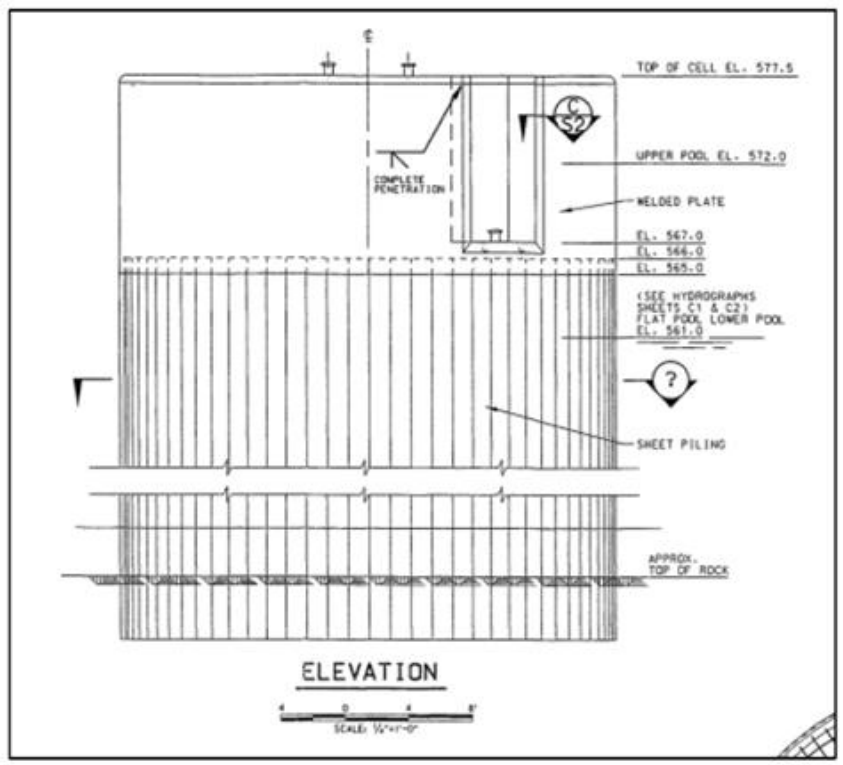
- Benefits
  - Improved lock approach times
  - Reduced environmental impacts
  - Improved operational safety
  - Replicability (i.e., other state DOTs)

# Economic Benefits

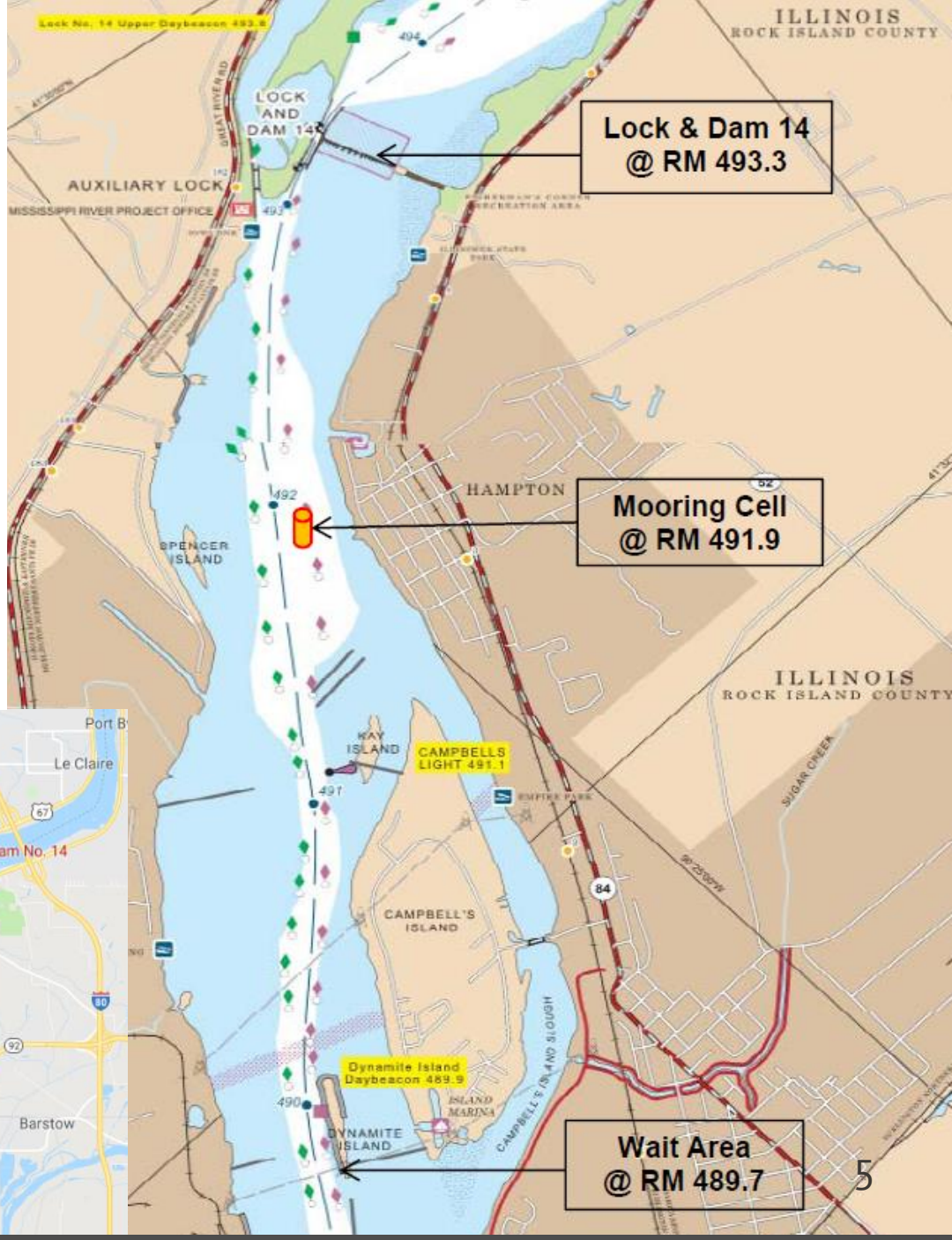
- USACE Mooring Cell Working Group identified top priority locations: L&D 14 lower pool was #1
  - Waiting area currently 3.6 miles downstream
  - Proposed mooring cell location would be only 1.4 miles downstream (2.2 mile difference)

- 2.2 mile difference = estimated 217 hours (9 days) time savings per navigation year

- Micro Upgrade scenario yielded benefit-cost ratio (3.52)




Source: USACE

# Funding

- Cost and funding proposal
  - $2 million for L&D 14 lower pool site
  - Iowa DOT contributed funds agreement with USACE
- Status
  - As of August, agreement language has been reviewed by USACE and Iowa DOT legal staff
- Next steps
  - Confirm payment approach and finalize agreement

# Questions?

IOWA DOT
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