Public Information Session

ROUTE 25A OVER KINDERHOOK CREEK

BRIDGE REPLACEMENT/REHABILITATION

AUGUST 8, 2024















Public Information Session

ROUTE 25A OVER KINDERHOOK CREEK VILLAGE OF STUYVESANT FALLS BRIDGE REPLACEMENT/REHABILITATION PIN 8761.44

AUGUST 8, 2024









COLUMB	IA COUNTY, NY
A look into the past, while	reaching toward the future!



PRESENTATION OUTLINE

- Welcome and Introduction
- Project Overview
- Purpose and Format of the Meeting
- Project Location and Limits
- Project Objectives
- Federal-Aid Project Development Process
- Project Status & Schedule
- History of Bridge and Current Conditions
- Project Design Considerations
- Question and Answers (*General*)
- Break-out Session (Specific)

Ray Jurkowski, P.E., Columbia County Commissioner of Public Works

Tony Papile, P.E. – (Consultant) Project Manager





PROJECT OVERVIEW

- Locally Administered Federal Aid Project
- Federal, State & County Funding
 - Federal = 80%
 - State = 15%
 - County = 5%
 - Reimbursement program
- Who is Responsible?
 - County = Sponsor
 - NYSDOT & FHWA = Oversight





PURPOSE AND FORMAT OF TODAY'S MEETING

- Present Project
 - Presentation
 - Board
 - Fact Sheet
- Obtain Feedback
 - Sign In
 - Comment Forms Please return in two weeks for inclusion in Design Report





PROJECT LOCATION AND LIMITS







6

PROJECT OBJECTIVES

- Address Bridge Structural Deficiencies
- Provide a Bridge Meeting Current Standards
- Provide a Bridge Without User Restrictions
- Provide a Bridge with Extended Service Life
- Provide a Bridge that Minimizes Future Maintenance
- Provide a Sidewalk Meeting Current Standards
- Provide Adequate Room for Bikes
- Honor Historic Character of Existing Bridge







FEDERAL-AID/NYSDOT PROJECT DEVELOPMENT PROCESS





FEDERAL-AID/NYSDOT PROJECT DEVELOPMENT PROCESS

Four Stages of Project Development

- I. Scoping/Data Collection & Analysis
- II. Preliminary Engineering
- III. Detailed Design
- IV. Construction





PROJECT STATUS – TASKS COMPLETED TO DATE

I. Scoping / Data Collection & Analysis

- Survey / Mapping
- Environmental Screenings
- Traffic Operational / Accident Analysis
- Development of Alternatives
- Begin Historic Resource Coordination (Extensive)
- Public Informational Meeting #1





PROJECT STATUS – WHERE WE'RE GOING

II. Complete Preliminary Engineering

- Summarize Comments
- Complete Historic Resource Coordination
- Finalize Preferred Alternative
- Draft Design Approval Document
- Public Informational Meeting #2
- Final Design Approval Document
- Design Approval





PROJECT STATUS – WHERE WE'RE GOING

III. Detailed Design

- Public Informational Meeting #3
- Develop Detailed Design Plans
- ROW Acquisition (where necessary)
- Advertisement, Letting, Award

IV. Construction





PROJECT SCHEDULE

Project Scoping/Data Collection & Analysis (Complete)







HISTORY OF THE BRIDGE

- 1899- Original Construction
 - Berlin Iron Bridge Company
- 1976 Stuyvesant Falls Historic Mill District status awarded to area.
 - Bridge is one element of this district
- 1980 Several structural elements replaced due to deterioration
- 1990 Bridge <u>closed</u> due to deteriorated elements and several red flags
 - Reopened Dec 1990 with 10T posting after repairs







HISTORY OF THE BRIDGE

- 1991 Bridge <u>closed</u> again due to deteriorated elements
 1992 - Significant County \$\$ spent on:
 - Inspection
 - Analysis
 - Retrofit Design
- 1993 MAJOR retrofit to structure, adding arch within the original truss.
 - Dramatic change in the look and historic accuracy of the bridge.





HISTORY OF THE BRIDGE

- 2014 County commissioned another study
 - Resulted in 12 T posting
- 2015 Major truss repairs
 - More County \$\$ (\$300K +/-)
- 2016 Load posting removed as result of repairs
- 2022 Posted again for 12 T due to continuing deterioration and updated analysis



CURRENT CONDITIONS

New York State Department of Transportation General Bridge Inspection Report

Inspection Date: October 02, 2023

Structure Information	
BIN: 3342250 Feature Carried: COUNTY ROAD 25A Feature Crossed: KINDERHOOK CREEK	Region: 08 - POUGHKEEPSIE County: COLUMBIA Political Unit: Town of STUYVESANT
Primary Owner: 30 - County Primary Owner: 30 - County Primary Maintenance Responsibility: 30 - County General Type Main Span: 3 - Steel, 10 - Truss - Thru This Bridge is not a Ramp Number of Spans: 1	Approximate Year Built: 1899
F	Postings
Posted Load Matches Inventory: Yes Posted Load in field: 12	Posted Vertical Clearances Match Inventory: Yes Inventory On: Not Posted Inventory Under: Not Posted
Number of Flags Issued	New York State Inspection Overview
Red PIA: 0 Red: 0 Yellow: 6 Safety PIA: 0	General Recommendation: 3
Federa	al NBI Ratings
NBI Deck Condition: 6	NBI Channel Condition: 6
NBI Superstructure Condition: 3 NBI Substructure Condition: 5	NBI Culvert Condition: N

General Recommendation = "3"

- Scale is from 1-7
- 7 = New
- 1 = Collapse imminent, close bridge

How is a "3" Rating Defined?

- Considerable deterioration of some or all bridge components.
- The bridge may no longer support original design loads
- Load posting may be needed
- There may be considerable section loss on primary or secondary members.

Source: NYSDOT Bridge Inspection Manual (2017)

• Main structural components are the truss chords and floorbeams.





• This type of bridge is considered structurally non-redundant and is only as strong as its weakest component.





• And there are a variety of weakened components....





• ...throughout the structure.





REPAIRS?

• Some areas are readily accessible





REPAIRS?

• Many are not.

1 ½" diameter rod (for scale reference)





• Minor issues, generally in acceptable condition.





CURRENT CONDITIONS - SUMMARY

• In conclusion, what you see when driving or walking across the bridge is not indicative of the real issues, which are occurring below deck.







DESIGN CONSIDERATIONS







PROJECT PROFILE







BRIDGE SECTION





POTENTIAL HISTORIC TREATMENTS

Refurbish and Relocate Portal Bracing Including Historic Plaques





Retain and Refurbish Historic Architectural Railings







DESIGN CONSIDERATIONS





COLUMBIA COUNTY, NY A look into the past, while reaching toward the future!



DETOUR











