GPI

Engineering | Design | Planning | Construction Inspection

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

P.I.N. 8763.53

NEW YORK STATE | Department of Transportation

Federal Highway Administration

Towns of Clermont & Livingston
Columbia County, NY

Date: May 4, 2026

gpinet.com

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

COLUMBIA COUNTY : Raymond Jurkowski, P.E., Commissioner of Public Works

CONSULTANT: Greenman-Pedersen, Inc.:
Caroline Tarini, P.E.
Joseph Adamczak, P.E.

GPI Greenman-Pedersen, Inc.
Engineering and Construction Services
www.gpinet.com

REVIEW AGENCIES:

NYSDOT – New York State Department of Transportation
FHWA – Federal Highway Administration
NYSDEC – New York State Department of Environmental Conservation
USACOE – United States Army Corps of Engineers

Special thanks to the Town of Clermont
for use of Town Hall for this meeting.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

OVERVIEW

- Presentation of the Project
- Representatives from the County/Consultant will remain to answer individual questions or comments
- All written comments will be included in the public record
- Written comments to be submitted on comment form and transmitted to the County:

Mr. Raymond Jurkowski
Columbia County DPW
P.O. Box 324, 178 NYS Rte 23B
Hudson, New York 12534

Comments must be received by May 29, 2026

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

AGENDA

- Project Objectives
- Bridge History and Existing Conditions
- Design Consideration & Preliminary Design Alternatives
- Temporary Detour Route & Permanent Signage
- Environmental Coordination
- Project Funding
- Future Project Action & Schedule
- Obtain Public Input

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

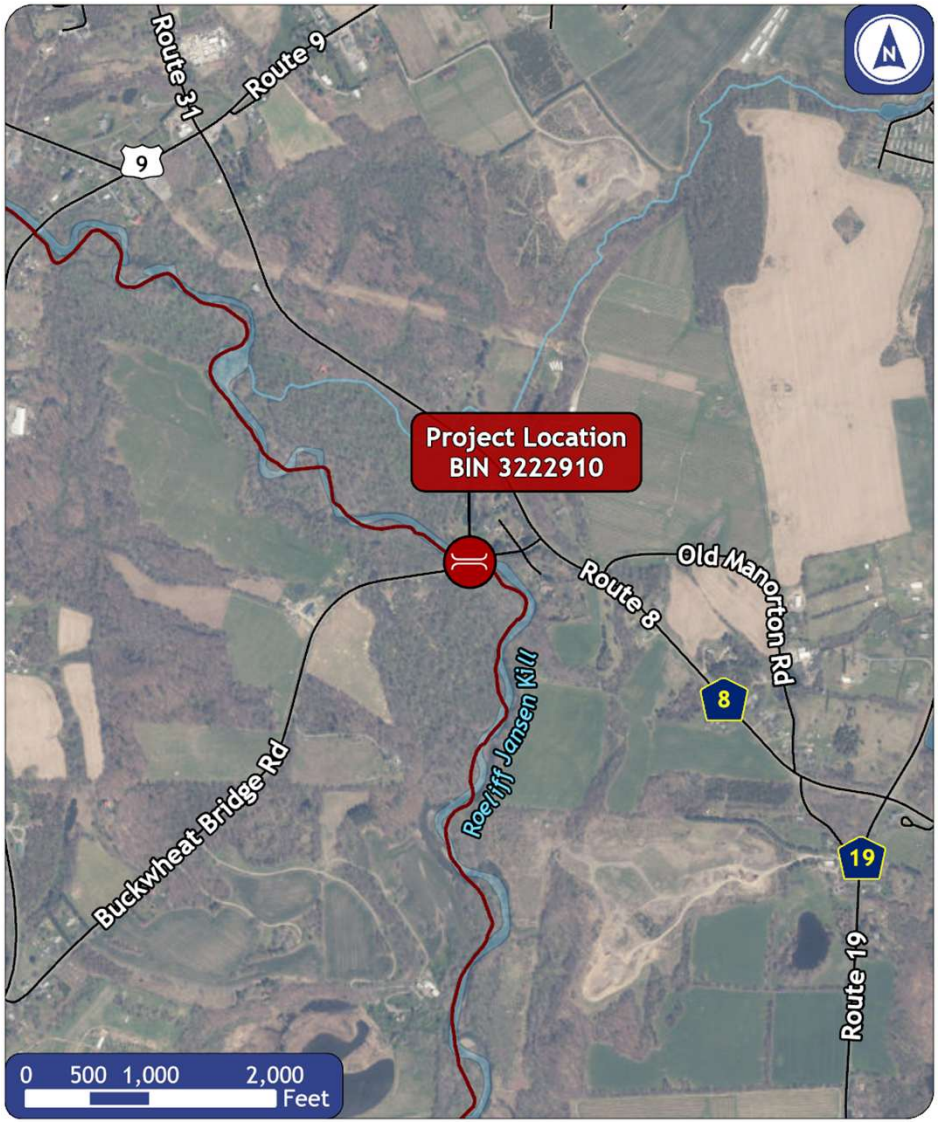
PRIMARY PROJECT OBJECTIVES

- Replacement of the structurally deficient bridge with a new structure that will provide a minimum service life of 75 years.
- Improve hydraulic opening to attempt to meet regulatory guidelines for the stream classification and reduce scour potential.
- Provide improved pedestrian accommodation across the bridge.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

PROJECT LOCATION



Bridge Project
PIN 8763.53
Buckwheat Road Bridge
Towns of
Clermont & Livingston
Columbia County, NY

Enlarged Aerial View

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

BRIDGE HISTORY

Existing Downstream Elevation (Looking East)

Existing Upstream Elevation (looking Northwest)

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EXISTING BRIDGE OVERVIEW

- Ballards installed about four years ago to restrict traffic on fascia beam. Existing bridge in its current state has a travel way width of about 18 feet.
- NYSDOT defines a one-lane bridge as having a travel way width of 16 feet or less. Therefore, existing bridge is still a two-lane bridge in its current state.

GPI

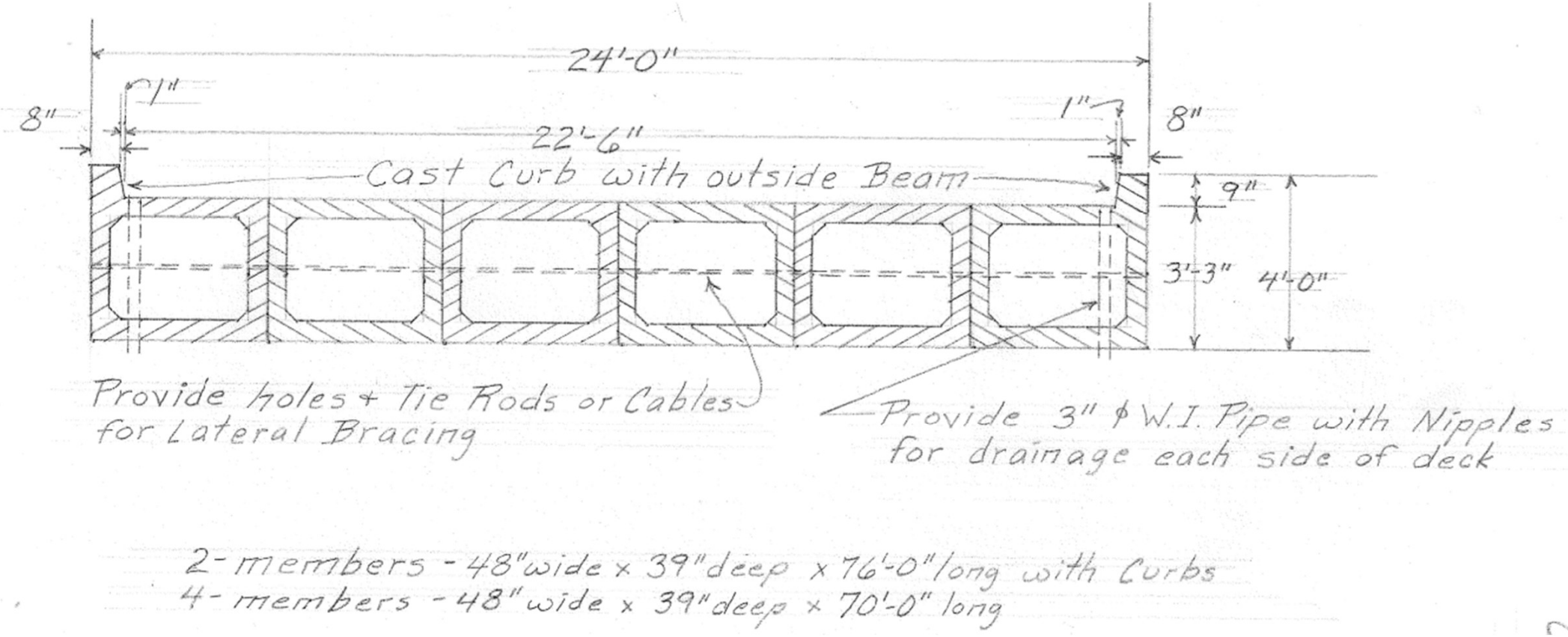
Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EXISTING BRIDGE OVERVIEW

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EXISTING BRIDGE SECTION



Existing bridge is a two-lane bridge with 10-foot lanes and approximately 1-foot shoulders.

1979 Record Drawings

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EXISTING CONDITIONS

- 2025 general recommendation is a 4 (out of 7)
- Severe deterioration of bridge superstructure
  - Holes in top of downstream fascia concrete box beam
  - Impediment to traffic
- Poor condition of substructures
  - Missing mortar and stones; scour & undermining
  - Cracking & spalling of concrete
- Existing Bridge Guide Rail does not meet current NYSDOT standards
- Existing AADT = 600 vpd (2025 Traffic Count)

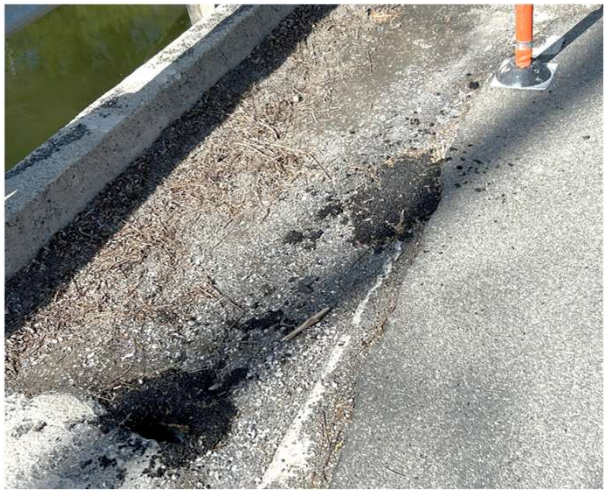
GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EXISTING BRIDGE DECK

Downstream Fascia

Upstream Fascia

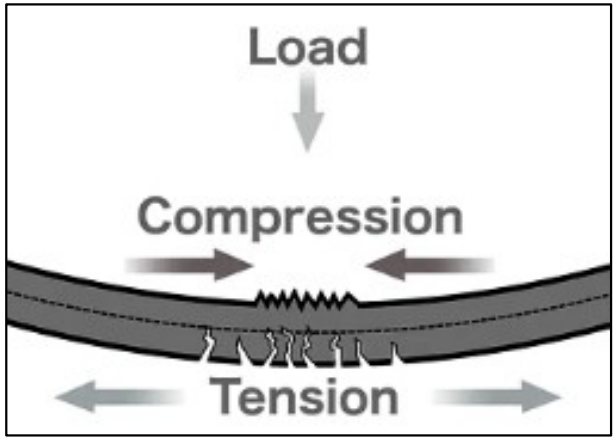


Holes in Box Beams
Patched with Asphalt

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

UNDERSIDE OF PRESTRESSED BOX BEAMS

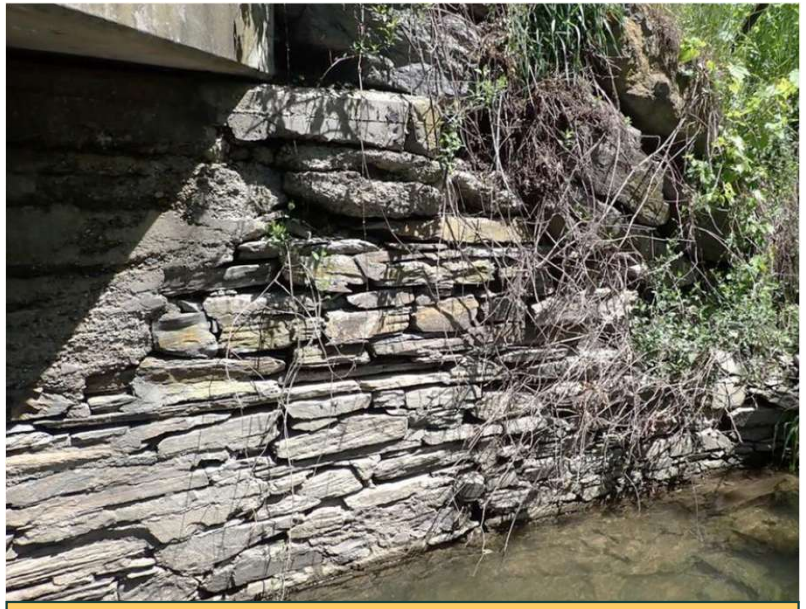


GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

SUBSTRUCTURE CONDITION

Cracks and Spalling of Concrete

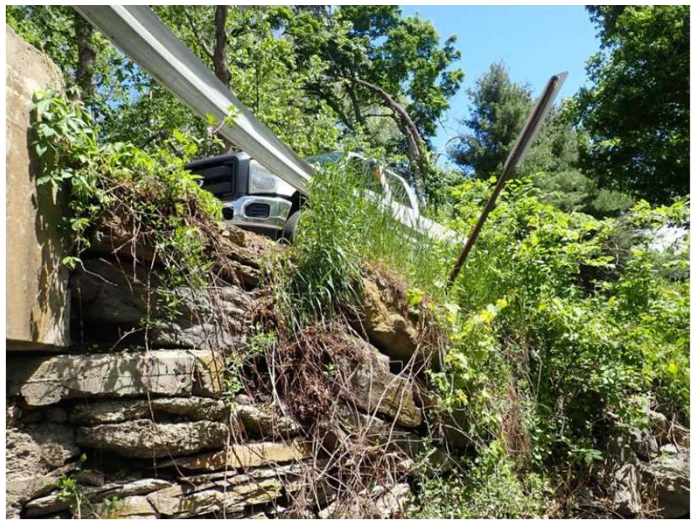


Missing Mortar and Stones

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

SETTLEMENT & EROSION AT SOUTHEAST BANK



GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

EROSION & SCOUR

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

DESIGN CONSIDERATIONS

A. Design Standards

NYSDOT Bridge Design Manual
NYSDOT Highway Design Manual
NYSDOT LRFD Bridge Design Specifications
NYSDOT Bridge Detail Sheets

B. Design Criteria

1. Based on 85th percentile speed (2026 speed study)
2. Curves at bridge will be signed for 15 mph
3. 4% max. superelevation to be provided (non-stnd.)
4. Increased SSD improves safety for pedestrians

Approximately 600 vpd (2025 traffic count)

	Design Standard	Existing	Proposed
Design Speed	40 mph min. 55 mph max.	40 mph posted	40 mph[1] posted
Lane Width	10 feet	10 feet	10 feet
Shoulder Width	4 feet	±1 foot	4 feet
Horizontal Curve Radius	314 feet @ e=8%	88 feet	530 feet[2]
Superelevation (e)	8%	2%	4%[3]
Stopping Sight Distance	280 feet	110 feet	400 feet[4]

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

DESIGN ALTERNATIVES CONSIDERED

A. Alternative 1 – No Build (Null Option)

B. Alternative 2 – Bridge Rehabilitation

C. Alternative 3 – Bridge Replacement with Full Alignment Correction

D. Alternative 4 – Bridge Replacement with Partial Alignment Correction

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ALTERNATIVE 1 – NO BUILD (NULL OPTION)

- Existing structural deficiencies of the bridge will not be corrected.
- Deterioration will continue at the same or accelerated rate.
- Reduced user safety of the bridge over time.
- Continued deterioration will require extensive costs to repair.
- Existing scour and undermining will continue.
- This could lead to the closure of the structure.

This option does not meet project objectives and therefore has been eliminated from further evaluation.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ALTERNATIVE 2 – Bridge Rehabilitation

- Original 1922 substructures are over 100 years old and beyond their useful life.
- Substructures have shallow foundations and are scour critical.
- Limited repair options for prestressed concrete box beams.
- Rehabilitation would be costly and it delays an inevitable replacement.

This option does not meet project objectives and therefore has been eliminated from further evaluation.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ALTERNATIVE 3 – Bridge Replacement with Full Alignment Correction

- Complete replacement of the bridge with steel girders and a concrete deck.
- Elimination of S-curve at the bridge.
- 10-foot lanes, 4-foot shoulders.
- Inclusion of a sidewalk on the downstream fascia for pedestrians.
- Installation of stone scour protection.

Advantages	Disadvantages
Stone scour protection prevents erosion and undermining of the walls.	Straightened alignment has perceived addition of more traffic and faster travel speeds.
Reduced maintenance efforts for the County.	Requires a long span due to skew of roadway over the stream, which would require more materials and cost.

Based on anticipated additional costs and public comment received to date, this option does not meet project objectives and therefore has been eliminated from further evaluation.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ALTERNATIVE 4 – Bridge Replacement with Partial Alignment Correction

- Complete replacement of the bridge with steel girders and a concrete deck.
- Reduction of S-curve at the bridge.
- 10-foot lanes, 4-foot shoulders.
- Inclusion of a sidewalk on the downstream fascia for pedestrians.
- Installation of stone scour protection

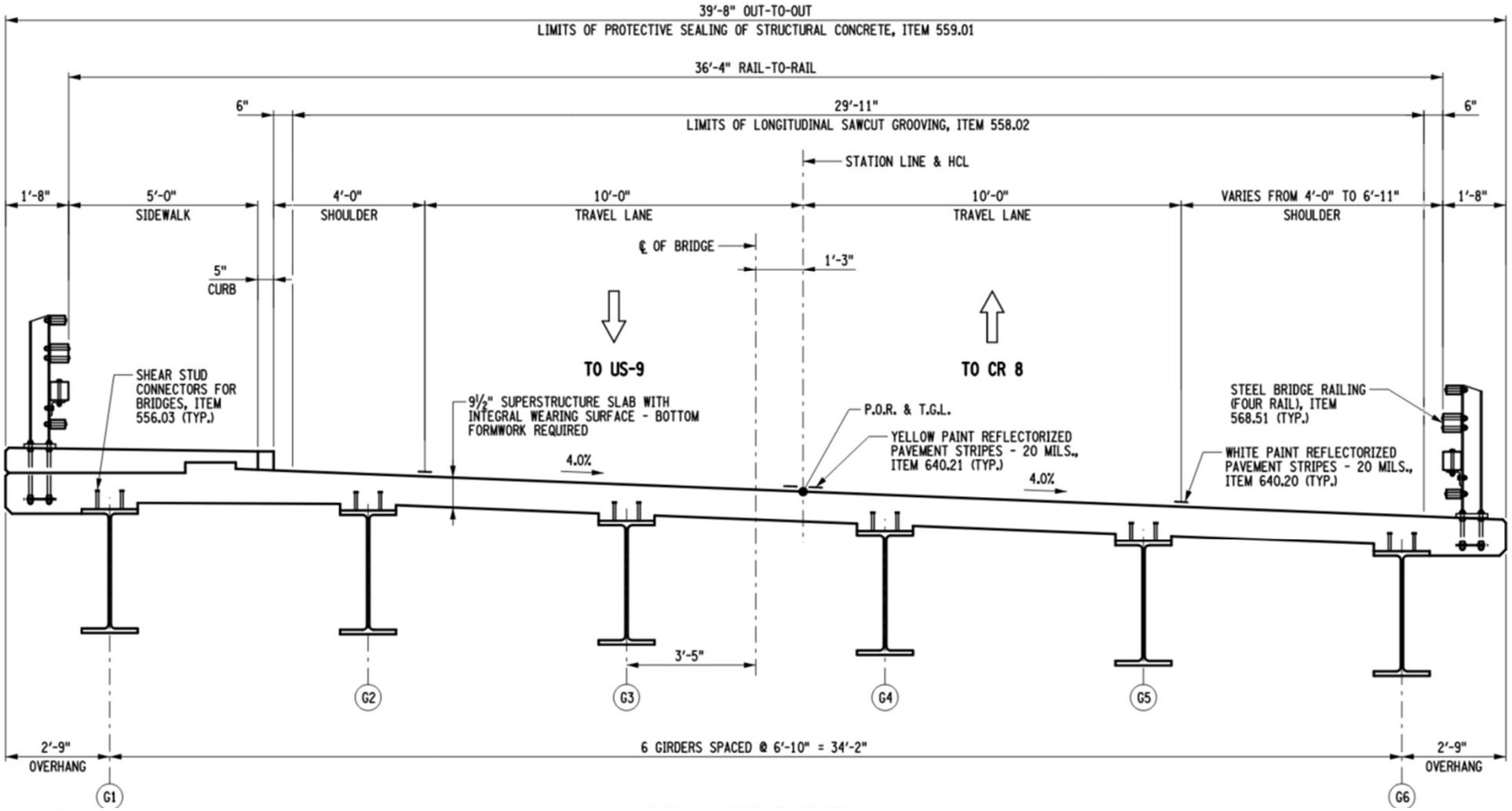
Advantages	Disadvantages
Stone scour protection prevents erosion and undermining of the walls.	Non-standard horizontal curve.
Reduced maintenance efforts for the County.	
Requires a shorter span length than Alternative 3.	

Preferred option based upon cost and maintenance considerations

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

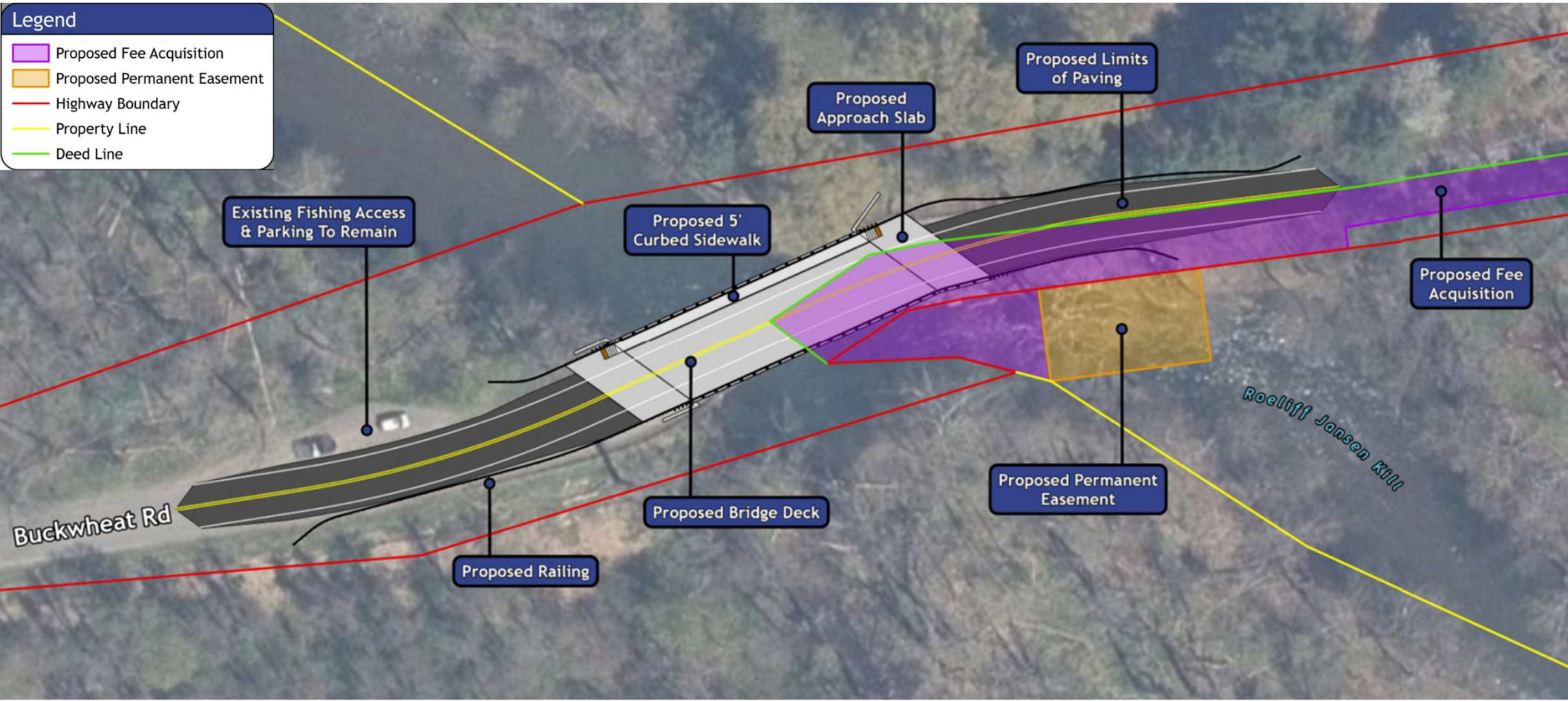
ALTERNATIVE 4 – BRIDGE REPLACEMENT WITH PARTIAL ALIGNMENT CORRECTION



PROPOSED BRIDGE TYPICAL SECTION

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ALTERNATIVE 4 – BRIDGE REPLACEMENT WITH PARTIAL ALIGNMENT CORRECTION



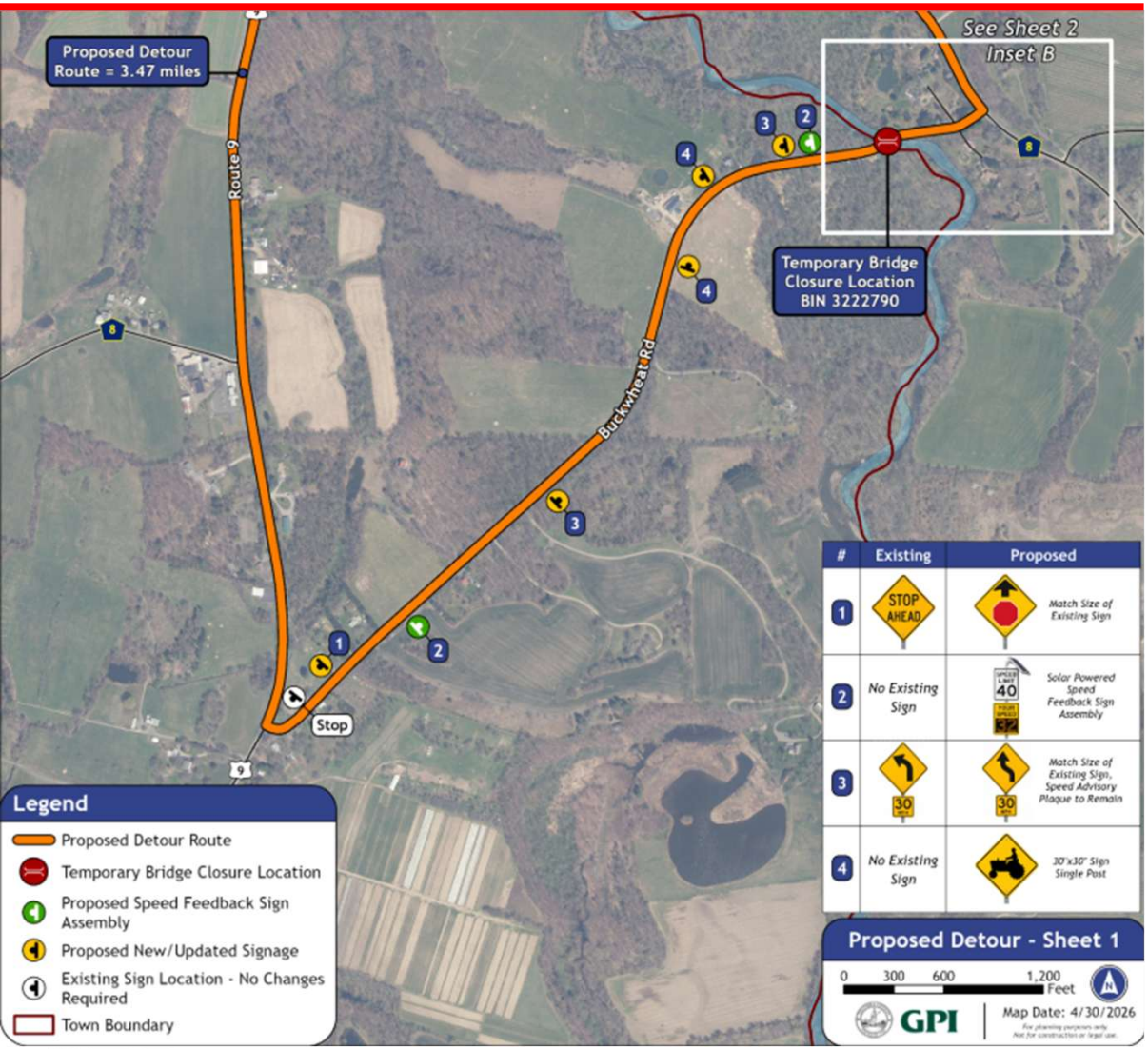
GPI

PROPOSED BRIDGE PLAN

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

TEMPORARY DETOUR & PERMANENT SIGNAGE

MATCH LINE A

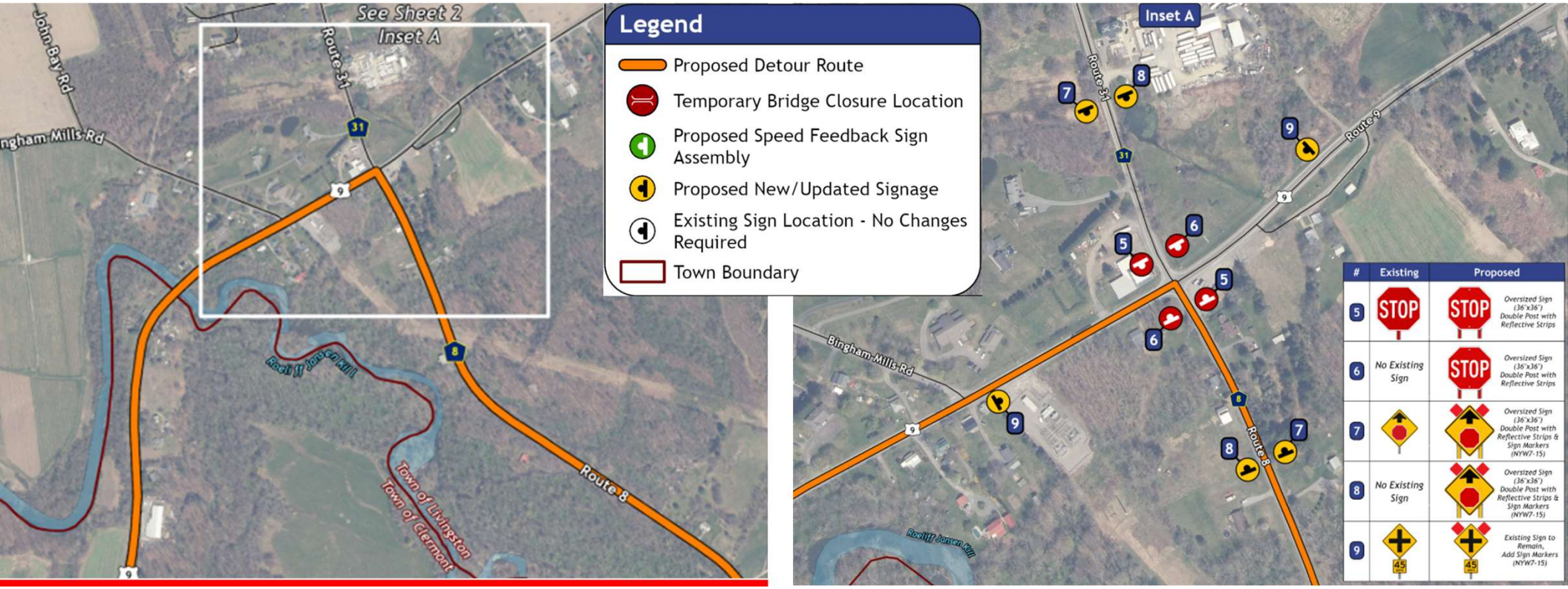


Bridge will be closed to ALL traffic for entire duration of construction. County will coordinate with emergency services and school buses on route changes.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

TEMPORARY DETOUR & PERMANENT SIGNAGE



MATCH LINE A

GPI

Bridge will be closed to ALL traffic for entire duration of construction. County will coordinate with emergency services and school buses on route changes.

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

ENVIRONMENTAL COORDINATION

- NYS Historic Preservation Office (SHPO)
- NYSDEC
- SEQRA
  - Progressing as Type II Action:

    "Replacement, rehabilitation or reconstruction of a structure or facility, in kind, on the same site…"
- Federal listed endangered species
- Federal Highway Administration (FHWA)
- Army Corps of Engineers (ACOE)

In-water work must comply with dates listed in the permit.

All the above require coordination and approval from respective permitting agencies prior to construction authorization.

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

PROJECT FUNDING

- Anticipated project cost = $4,760,000
  - Design = $600,000
  - Right-of-Way = $40,000
  - Construction Inspection = $320,000
  - Construction = $3,800,000
- Federal funding through the BridgeNY Program = $1,887,000
- County funding = $2,873,000

GPI

Buckwheat Road Bridge Replacement over Roeliff Jansen Kill

FUTURE PROJECT ACTION & SCHEDULE

- Draft Design Report — July 2026
  - Incorporates public input
  - Anticipates min. 8 weeks for NYSDOT review
- Final Design Report — September 2026
  - Finalize environmental review
  - Finalize preliminary design plans
  - Anticipates min. 8 weeks for NYSDOT review
- Design Approval — November 2026
- Finalize R.O.W., as necessary — Nov. 2026-Feb. 2027
- Final Plans — March 2027
- Bidding — May 2027
- Construction — July 2027-Spring 2028 OR Early Spring 2028-Fall 2028

GPI

Questions

Written comments shall be transmitted to:

Mr. Raymond Jurkowski, P.E.
Columbia County D.P.W.
P.O. BOX 324
178 Route 23B
Hudson, NY 12534

OR

raymond.jurkowski@columbiacountyny.gov

Engineering Contact:

Caroline Tarini, P.E.
Project Manager
Greenman-Pedersen, Inc.
80 Wolf Road, Suite 600
Albany, NY 12205

Comments due:
May 29, 2026

GPI

Many Talents One Firm