February 5, 2024

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF BRIDGE DESIGN

CONFERENCE REPORT

PROJECT: Peterborough 27712
Rehabilitation or Replacement of the US Route 202/NH Route 123 Bridge over the Contoocook River

DATE OF CONFERENCE: January 25, 2024

LOCATION OF CONFERENCE: Peterborough Town Library

ATTENDED BY:

Timothy Dunn	NHDOT – Project Manager
Ronald Kleiner	NHDOT – Senior Project Engineer
Paul Lovely	NHDOT – Project Engineer
Tyler Ward	Town of Peterborough Selectboard Member (Chair)
Nicole MacStay	Town of Peterborough Administrator
Seth MacLean	Town of Peterborough Assistant Administrator & Public Works Director
Ed Weingartner	Hoyle, Tanner & Associates, Inc. – Bridge Engineer

SUBJECT: Public Informational Meeting to present project status and alternatives, receive project input, and solicit feedback on issues and concerns.

NOTES ON CONFERENCE:

Tim Dunn began the presentation with NHDOT and Hoyle, Tanner staff introductions and indicated this meeting is a follow up to the previous Public Official Meetings held on March 16, 2021, and October 3, 2023. Dunn then stated the purpose of attending and presenting at this meeting was to present project alternatives, provide an update on project status and schedule, and solicit Town Officials, Stakeholder and the Public for input, concerns and issues that should be considered as potential bridge rehabilitation, replacement and traffic control alternatives are further developed and evaluated. Dunn then provided a description of the project location.

He then described the project's purpose and need and provided a description of cultural and historic resource considerations and environmental review requirements. He also explained that Section 106 of the National Historic Preservation Act offers interested parties an opportunity to become more involved in an advisory role during the historic review and development of the project as consulting parties noting interested parties should contact Jamie Sikora the Environmental Program Manager at the FHWA NH Division Office.

Dunn then provided the following details on the existing bridge:

- Constructed in 1942, widened in 1974,
- Scour mitigation, consisting of riprap/stone, was added around the pier for protection in 2019,

- 176’ long curved two span bridge,
- Steel girders,
- Roadway width is 44’-0” (12’ travel lanes, 10’ shoulders),
- 5’ sidewalk on upstream side,
- 2021 traffic data of 6810 vehicles per day with approximately 7% trucks,
- Overall bridge condition is Poor,
- Added to the State’s Red List in 2012 and,
- Currently ranked number 17 on the 2022 list.

Dunn continued the presentation by describing the project site, bridge location and by providing a description of cultural and historic resource considerations and features around the bridge in all four quadrants. He indicated the bridge is in Peterborough’s North Village, which is historic; however, the North Village is not a historic district. He then indicated the bridge is not eligible for listing on the National Register of Historic Places. Dunn noted one property on Hunt Road and two properties on Old Street Road have 19th century structures that meet the criteria for listing on the National Register of Historic Places. He continued by describing that access to the recreational resource in the project’s northeasterly quadrant can be maintained, and that impacts to the canoe launch area during construction can be mitigated with a temporary launch.

Dunn continued the presentation by noting the following design considerations:

- Site features and constraints near the bridge:
  - North Village Dam
  - Wilder Thermometer Factory Site/Rotary Park
  - Cartop boat/canoe launch
  - Utilities
  - NH Route 136 intersection
- Traffic control
- Environmental and cultural resources
- Hydraulics
- Right-of-way
- Construction Access

Dunn continued the presentation by describing the following bridge alternatives and considerations:

- Bridge Rehabilitation:
  - Bridge will remain on the State Red List since not all substructure deficiencies will be addressed.
  - Bridge is and will remain scour critical.
  - Service life will be significantly less than that of a replacement bridge.
  - Lower initial cost compared to replacement, but still a major investment.
  - Higher long-term maintenance costs are expected.
  - Conclusion: Alternative does not meet project purpose and need.
- Bridge Replacement:
  - Three “big picture” alternatives (upstream alignment shift, downstream alignment shift, and replacement in the existing location).
  - Traffic control and site impacts are major considerations in evaluating replacement alternatives.
    - Old Street Road will be closed with all alternatives due to its proximity to the intersection and for safety reasons.
  - Upstream alignment shift:
    - Alternative goals are to maintain traffic on the existing bridge, possibly two lanes, and avoid sewer siphon.
    - Range of impacts to the North Village Dam have been identified.

        - Bridge replacement alternative impacts to the dam require varying levels of modifications and upgrades.
        - Significant dam upgrades are outside the scope of this project.
        - Minor dam upgrades could potentially be incorporated into the project.
        - Potential impacts to Wilder Thermometer Site/Rotary Park site and potential mercury contamination have been identified.
        - There could be impacts to 129 Hunt Road property, which is a historic resource.
        - Right-of-way impacts required since it was not expanded during the 1974 widening project.
        - Conclusion: Major upstream alignment shift does not meet project purpose and need. Minor upstream shift alternatives may meet the project's purpose and need.
    - Downstream alignment shift:
        - Alternative goals are to maintain traffic on the existing bridge, possibly two lanes, and avoid the dam and Rotary Park.
        - There is a large right-of-way area on the downstream side.
        - Impacts/modifications to the NH Route 136/Old Street Road intersection and adjacent historic eligible parcel(s) likely.
        - Impacts to/relocation of the Town sewer line and siphons likely.
        - The required alignment shift would result in a sharper curve for US Route 202.
        - Conclusion: Downstream alignment shift alternatives could meet the project's purpose and need.
    - Replacement in existing location:
        - Minimizes or avoids sewer siphon impacts.
        - Minimizes NH Route 136/Old Street Road intersection impacts.
        - No North Village Dam impacts.
        - Fewer Rotary Park and historic parcel impacts.
        - Fewer right-of-way impacts.

Dunn then discussed traffic control options for the replacement in the existing location alternative.

- Bridge closure and detour traffic:
    - The detour route utilizes NH Route 136 (Greenfield) and NH Route 31 (Bennington).
    - Increases truck traffic in Greenfield and Bennington.
    - Would be a burden to the Hospital and schools.
    - Increases driving times.
    - Separate pedestrian crossing required during construction.
    - Conclusion: Meets the project purpose and need when including a pedestrian crossing.
- Phased Construction:
    - Traffic would be reduced to a single lane, alternating, for multiple construction seasons.
    - Long delay for motorists; up to 4 minutes anticipated.
    - Requires some upstream widening impacting Rotary Park and right-of-way.
    - Would be a burden to the Hospital and schools.
    - Requires access to the river on both sides of the bridge increasing natural resource impacts.
    - Little room for contractor staging and construction.
    - Conclusion: Meets the project purpose and need.
- Temporary Diversion Bridge:
    - Significantly less driver delays when compared to phased construction utilizing a single lane of alternating traffic.
        - Reduces 4-minute phased construction delay to approximately 25 seconds.
    - Challenges:
        - Increased environmental impacts.
        - Temporary impacts to canoe launch and wetland mitigation parcel.
            - Access will be maintained during construction.
        - Turning movements for trucks crossing the temporary bridge.
            - A wider temporary bridge will better accommodate trucks.

        - A truck detour around the project site is feasible, but not preferred.
    - Conclusion: Meets the project purpose and need.

Dunn next presented natural resource considerations and explained that it is anticipated wetland and shoreland permits will be needed from the NH Department of Environmental Services (NHDES) and the US Army Corps of Engineers and that as the project proceeds, the Department will coordinate with the appropriate agencies regarding potential impacts to the Contoocook River and its floodplain as well as any threatened and endangered species of concern that may occur in the project area. Dunn also noted that recent NHDES rule changes regarding stormwater treatment need to be evaluated and considered in the design.

Dunn then discussed additional project design considerations:

- Trucks – Are truck turning movement restrictions acceptable?
- North Village Dam – What is the scale of impacts, if any?
- Sewer siphon – What is the scale of the impacts and is complete avoidance possible?

Dunn continued the presentation by providing a project status update, indicating the draft Alternatives Evaluation Report is being reviewed by the Department, Cultural and Natural Agency coordination and review is ongoing, Town and stakeholder input is being solicited and reviewed. The next project milestone will be selecting the preferred alternative.

Dunn then indicated the anticipated project cost ranges from $10 million to $20 million and it will be refined as the project design progresses. He then provided sewer and water line relocation project cost-sharing information noting trenching and backfilling and reimbursement for facility book value (original cost minus depreciation) is paid for by NHDOT and engineering and materials would be the responsibility of the Town. Dunn presented project timeframes:

- Public Informational Meeting # 2 anticipated in Spring 2024,
- Public Hearing if ROW acquisitions needed, anticipated in Fall 2024,
- NEPA Approval anticipated in Fall 2024,
- Final Design: 2024 – 2026 and
- Construction: 2027 – 2028.

Dunn then indicated Public Official, Stakeholder, and public input regarding the following, is needed for completing the project alternatives evaluation. Examples of public input are:

- Emergency response routes,
- Mutual aid from/to adjacent towns,
- School bus routes,
- Historic concerns,
- Past flooding concerns,
- Bicycle and pedestrian concerns,
- Local events,
- Town utility upgrades (sewer, water, dam) and
- Other concerns.

Dunn then opened the floor for questions and comments.

Questions and Comments:

Question: Resident of 129 Hunt Road asked if he should consider selling his house due the project and the potential impacts?

Response: Tim Dunn responded, mentioning that the upstream shift has complications and has the potential for minor impacts to the resident's property, but that there would be no need to sell due to this project.

Question: Resident of 129 Hunt Road asked how many years it will take to construct this project?

Response: Tim Dunn responded that it would likely take two years to construct.

Question: Resident of 129 Hunt Road asked if this project is more complicated than the Route 101 project?

Response: Tim Dunn indicated yes and noted this project poses many complications, especially in terms of construction access.

Comment: Resident of 129 Hunt Road pointed out that remediation had been done at the thermometer factory. He also indicated the floodplain in that area had been improperly mapped and he had a revision done for his property to remove flood insurance requirements.

Response: Tim Dunn agreed and confirmed that remediation work was performed at the thermometer/Rotary Park site and thanked the resident for the floodplain information.

Question: What factors do you have to consider when evaluating delays and response times? What is the maximum delay you allow?

Response: Tim Dunn responded he did not know of any specific limits and noted that modern signals have preemption which helps, and the NHDOT collaborates with officials to help determine acceptable delays.

Question: Resident of 129 Hunt Road asked if new traffic signals would be installed?

Response: Tim Dunn indicated permanent traffic signals will not be installed, but there will be a need for temporary signals during construction with the in-place alternating one-way traffic or temporary diversion bridge options.

Question: Resident of 129 Hunt Road asked if soundwalls could be installed as part of the project.

Response: Tim Dunn indicated the location would not meet the requirements for constructing soundwalls since the project is not substantially changing the existing roadway such as adding new lanes and soundwall construction would result in impacts to the historic properties.

Question: Resident of 129 Hunt Road asked if a speed limit reduction is being considered since the project is in a school zone?

Response: Tim Dunn indicated speed limits are set by RSA and can only be changed after conducting a speed study, which is outside the scope of this project.

Comment: Tyler Ward mentioned that on another project, the exterior condition of his house was documented prior to the project to monitor for any damage incurred during the project and indicated that this may be an option for the 129 Hunt Rd Resident.

Response: Tim Dunn indicated that vibration monitoring is conducted on some projects, but he was unsure what criteria needed to be met to trigger this monitoring. He also mentioned that driving piles as part of this project was likely.

Question: Resident of 129 Hunt Road asked if bridge replacement is preferred and, if so, would it be replaced in its entirety and how will it affect the river?

Response: Tim Dunn confirmed the project will be a full replacement of the existing bridge. Tim Dunn then explained that work will need to be conducted in the river and that the project team will be working with NHDES to obtain wetland and shoreland permits. He noted that this project includes the removal of the existing river pier which would have hydraulic benefits and emphasized that all impacts will be quantified, and a mitigation payment will be made to NHDES, with the money eventually being used towards environmental protection projects.

Question: Tyler Ward asked if removing the pier will affect the fish?

Response: Tim Dunn noted that perhaps there would be temporary impacts to the fish during construction but was not aware of any specific concerns.

Comment: Seth MacLean noted that the Town's preferred alternative is whichever alternative avoids the sewer siphon as much as possible as the Town is concerned about costs. He also emphasized that they are happy to work with NHDOT, as necessary.

Response: Tim Dunn thanked Seth for his input and indicated that the sewer siphon and any impacts to it will be investigated further. He indicated that the sewer siphon is one of many factors that are driving the decision-making process, noting that there are other factors besides the sewer siphon that need to be considered.

Question: Tyler Ward asked if the temporary bridge would affect the sewer siphon?

Response: Tim Dunn explained that the temporary bridge option has potential for avoiding the sewer siphon especially compared to the other alternatives; however, it is hard to say without knowing the exact location of the siphon.

Question: Resident of 129 Hunt Road asked if the temporary bridge option would have fewer impacts and cost more money?

Response: Tim Dunn explained that it is hard to say. The temporary bridge option alleviates the need for two river access points for construction and provides the contractor with more flexibility. However, this option requires river impacts for the temporary bridge abutments as well as added costs for the temporary bridge structure itself. Ultimately, the costs will likely be similar across all alternatives as less construction access usually means higher costs.

Question: Resident of 129 Hunt Road asked how many pieces the new bridge will come in?

Response: Ed Weingartner explained the general anatomy of bridges (girders, bolted splices, etc.) and gave a basic explanation of how the bridge would be constructed. It was also noted that the new bridge would be a single span and there would not be a pier in the river.

Question: Nicole MacStay asked how much design has been performed on the temporary bridge?

Response: Ed Weingartner explained temporary bridges can be pre-engineered structures or designed by Contractors and that it is up to the contractor to select the type of temporary bridge. He further explained that they have made conservative assumptions regarding the temporary bridge widths, truck turning movements and impacts and have shown the "worst case scenario" in terms of river impacts on the plan.

Question: Nicole MacStay asked how far into the river do the temporary bridge abutments go?

Response: Ed Weingartner pointed to the temporary bridge abutments on the screen, showing their location with respect to the river. The north abutment would have a small impact to the river while the south abutment would extend about halfway across the river. He indicated that further coordination and refinement will be conducted with NHDES. Tim Dunn also emphasized that these impacts will be temporary.

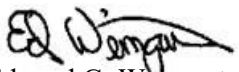
Question: A meeting attendee asked if bikes and pedestrians will be accommodated in all alternatives.

Response: Tim Dunn confirmed that bike and pedestrian access will be accommodated in all alternatives. He elaborated that a sidewalk and/or pedestrian bridge would be provided for access in the alternatives and that the bicycle traffic can use the traffic lane.

Question: A meeting attendee asked if a copy of the presentation would be made available?

Response: Tim Dunn confirmed and asked that anyone interested in obtaining the slides leave him their name and email address. He also indicated that the presentation would be posted online to the NHDOT website in the coming days.

Submitted by:



Edward G. Weingartner, P.E.
Hoyle, Tanner & Associates, Inc.