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: October 3, 2023

LOCATION OF CONFERENCE: Peterborough Town Offices

ATTENDED BY:

Timothy Dunn	NHDOT – Project Manager
Paul Lovely	NHDOT – Project Engineer
Tyler Ward	Town of Peterborough Selectboard Member (Chair)
William Kennedy	Town of Peterborough Selectboard Member
Bill Taylor	Town of Peterborough Selectboard Member
Nicole MacStay	Town of Peterborough Administrator
Seth MacLean	Town of Peterborough Assistant Administrator & Public Works
	Director
Nate Brown	Town of Peterborough – Utilities Superintendent
Alison Kreutz	Town of Peterborough – Administrative Assistant
Aaron Lachance	Hoyle, Tanner & Associates, Inc. – Project Manager
Ed Weingartner	Hoyle, Tanner & Associates, Inc. – Bridge Engineer

SUBJECT: Public Officials Meeting to present project status, 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. Tim continued the presentation by indicating this is a follow up to the initial Public Officials Meeting held on March 16, 2021 and the purpose of attending and presenting at this meeting was to present findings, 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 alternatives are further developed and evaluated. 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. Tim then turned the meeting presentation over to Aaron Lachance.

Aaron 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. Aaron noted 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.

Aaron continued the presentation by noting the following design considerations:

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

Aaron 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,
- Roadway width is 44'-0" (12' travel lanes, 10' shoulders),
- 5' sidewalk on upstream side,
- 2018 traffic data of 6915 vehicles per day with approximately 7% trucks,
- Overall bridge condition is rated 4, or Poor,
- Added to the State's Red List in 2012 and,
- Currently ranked number 17 on the 2022 list.

Aaron continued the presentation by noting the following bridge alternatives and considerations:

- Bridge Rehabilitation:
 - Bridge will remain on the State Red List since not all substructure deficiencies can be addressed.
 - Bridge is and will remain scour critical.
 - Service life will be less than that of a new 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 location alternatives (upstream alignment shift, downstream alignment shift, and existing location).
 - Traffic control and site impacts are major considerations in evaluating replacement alternatives.
 - Upstream alignment shift:
 - Alternative goals are to maintain traffic on the existing bridge and avoid sewer siphon.
 - Range of impacts to the North Village Dam have been identified.
 - Any impacts to dam trigger upgrades per NHDES Dam Bureau.

- 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.
- Conclusion: Upstream shift alternatives avoiding major impacts to North Village Dam could meet project purpose and need.
- Downstream alignment shift:
 - Alternative goals are to maintain traffic on the existing bridge and avoid the dam and Rotary Park.
 - Impacts to the Town sewer line and siphons, NH Route 136 intersection and adjacent historic eligible parcel(s) likely.
 - The required shift needed for "best" traffic control method is not likely feasible.
 - Conclusion: Some downstream alignment shift alternatives meet the project's purpose and need.
- Replacement in existing location:
 - Alternative goals are to minimize or avoid sewer siphon, North Village Dam and Rotary Park impacts.
 - Closing bridge for project duration and detouring traffic around the site is not considered to be feasible due to long route length.
 - Phased construction would reduce traffic to one lane for multiple seasons.
 - A temporary diversion bridge located downstream of the existing bridge for maintaining traffic has increased cost and environmental impacts.

Aaron then discussed the following benefits and challenges associated with a temporary diversion bridge:

- Benefits:
 - Avoids impacts to the North Village Dam.
 - Minimizes NH Route 136 impacts temporarily and permanently.
 - Reduced construction duration when compared to phased construction.
 - Significantly less driver delays when compared to phased construction utilizing a single lane of alternating traffic.
- Challenges:
 - Increased cost and environmental impacts.
 - Temporary impacts to canoe launch and wetland mitigation parcel.
 - 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.
 - The potential need for closing Old Street Road at its intersection with NH Route 136.

Aaron next presented natural resource considerations and explained that it is anticipated a wetland permit will be needed from the NH Department of Environmental Services 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.

Aaron continued the presentation by providing the following list of known "unknowns" regarding the project that required further input and evaluation:

- Acceptable truck turning movements,
- Scale of dam impacts,
- Accommodation of pedestrians during construction,
- Balancing permanent and temporary recreational and potentially historic property impacts and,
- Sewer siphon avoidance feasibility.

Aaron presented a graphic showing the concept for a new bridge constructed in the existing location and provided the following replacement bridge details:

- 173'-0" long single span,
- 44'-0" roadway width to accommodate 12' travel lanes and 10' shoulders,
- 6'-0" sidewalk width and,
- Substructure alternatives are still under evaluation.

Aaron 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 will be solicited and reviewed, and the project will be transitioned to Preliminary Design.

Aaron turned the presentation over to Tim Dunn for project funding and schedule discussions. Tim indicated the anticipated project cost ranges from \$10 million to \$20 million. He then provided sewer and water line relocation project cost sharing information for the Town noting trenching and backfilling and reimbursement for facility book value (original cost minus depreciation) is paid by NHDOT and engineering and materials would be the responsibility of the Town. Tim presented project timeframes and indicated construction is currently planned for 2027 - 2028.

Tim then indicated Public Official, Stakeholder, and public input regarding the following is needed for completing the project alternatives evaluation:

- 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.

Tim then opened the floor for questions and comments.

Public Official Questions and Comments:

Question: Response:	William Kennedy asked what scour critical meant? Tim Dunn explained that the bridge is vulnerable to undermining issues due to the existing river pier, noting that scour mitigation work had been performed in 2019.
Question:	Nicole MacStay inquired about the closure of the northern limits of Old Street Road at the NH Route 136 intersection, asking whether local traffic would still be able to access their homes from Parmalee Drive?
Response:	Aaron Lachance confirmed that the portion of Old Street Road in question would be closed but would still be accessible to local residents.
Comment:	Seth MacLean indicated the Town is not planning North Village Dam improvements at this time and does not have it included in the Capital Plan; however, it has been evaluated in the past.
Comment:	Nicole MacStay indicated there is a desire to keep and not remove the North Village Dam since it is aesthetically pleasing, used for recreation, and a feature of Rotary Park. She indicated there is anecdotal information noting it aids in providing Town well water recharge in the area.
Comment: Response:	Tyler Ward asked has the bridge priority ranking changed since the last presentation. Tim Dunn indicated he would need to check. He also stated although the bridge is on the Red List it is safe and is inspected twice a year. Note: The March 16, 2021 Public Official Meeting Conference Report indicated the bridge was ranked 18 th on the 2018 list.
Question: Comment:	Tim Dunn asked the Selectboard Members if pedestrian and bicyclists use this bridge? Tyler Ward indicated pedestrians and bicyclists use the bridge as a direct route to Town.
Question:	A meeting attendee asked if the upstream shift was the preferred alternative? He indicated his preference would be the upstream alignment shift alternative if sidewalk could be eliminated during construction.
Response:	Aaron Lachance responded by mentioning that there are plusses and minuses to all alternatives.
Question:	Tyler Ward asked for an order of magnitude cost for utility relocations associated with this project.
Response:	Tim Dunn indicated utility relocation costs have not been developed at this time. He also indicated the water line on the bridge will be impacted by all alternatives and that sewer siphon impacts are questionable and not yet determined.
Question:	A meeting attendee asked about traffic trends and what is available for traffic count information and if it was recent or older?
Response:	Aaron Lachance indicated the project started during COVID, so counts were not obtained. Tim Dunn indicated available information and data from NHDOT, and the regional planning commission was used in the evaluations to date.
Question: Response:	Tyler Ward asked if accident data was available? Tim Dunn indicated he will obtain and provide the Town with available data.
Comment:	A meeting attendee indicated closing at Old Street Road at its intersection with NH Route 136 is acceptable to him and Parmalee Drive will work for alternative access.

Question: Response:	A meeting attendee asked if the North Village Dam could be removed in the future without having an impact on the replacement bridge? Aaron Lachance indicated the new bridge would be constructed independently of the dam, and impacts based on river flow would not be anticipated.
Question:	Ron Macintyre asked who is liable in the event that pedestrians and cyclists cross construction zones?
Response:	Tim Dunn responded by saying that a sidewalk will be provided during construction if the need is demonstrated and that bikes will be in the traveled way along with vehicles.
Question:	Tyler Ward asked if there is any grant funding available for their portion of the project cost?
Comment:	Tim Dunn responded he was not aware of any grant funding and indicated he would need to determine if there is.
Question:	After the meeting concluded, Seth MacLean briefly spoke with the project team. He asked when the Town needs to begin budgeting for town costs.
Response:	Tim Dunn indicated he would determine and let Seth know.

Submitted by:

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