Appendix F

Misc. Data and Project Correspondence
Initial Project Proposal
INITIAL PROJECT PROPOSAL

PROJECT NAME: Route 31/Mohawk River Bridge Replacement

S.H. NO.: __________

R.M. LIMITS/BLNS: BIN 1022500

COUNTY: Albany

MUNICIPALITY: City of Cohoes

FEDERAL-AID SYSTEM: Non-NHS

FUNCTIONAL CLASS: Urban Principal Arterial Other

EXISTING CHARACTERISTICS OF CONCERN (Give relevant geometric, facility condition, operational and travel service elements. List by element and appropriate measures):

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>MEASURE(S)/INDICATOR(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIN 1022500</td>
<td>Condition Rating - 4.0: Sufficiency Rating - 48.6 General Recommendation - 4</td>
</tr>
<tr>
<td>Traffic Volume</td>
<td>AADT: 17481</td>
</tr>
</tbody>
</table>

WHAT IS (ARE) THE PRIMARY PROJECT OBJECTIVES: Eliminate structure's deficiencies using a cost effective treatment to ensure an unposted structural condition for at least 30 years.

OVERALL PROJECT SCOPE(S) TO BE INVESTIGATED:

[ ] Dock/Minor Br. Rehab [ ] Bridge Replace, New Location

[ ] Major Bridge Rehab [X] Bridge Replace, Existing Loc.

[ ] Highway Resurface [ ] Highway Reconstruction

[ ] Appurtenances

[ ] Traffic Control

[ ] Other

GOMTYPE: [ ] Pavement [X] Bridge [ ] Safety [ ] Capacity [ ] Appurtenance [ ] Miscellaneous

RECOMMENDED PROCESSING AND ENVIRONMENTAL CLASSIFICATION (if known):

NOT ENOUGH INFORMATION TO MAKE DETERMINATION [ ]

EAP CLASS RECOM Class I [ ] Class II/CE [X] Class III [ ] N/A [ ]

SEQR CLASS RECOM Type II [X] Subject to Processing [ ] Exempt [ ]

PROJECT CLASSIFICATION NCA [ ] 106(b)(2) [X] N/A [ ]

PHASE II AIR QUALITY CONFORMITY STATUS Exempt [X] Non-Exempt [ ]

FEDERAL PROCESS (if applicable) [ ] >SIM Interstate [ ] <SIM Interstate [ ] >SIM NHS [ ] <SIM NHS [ ] Minor Art., All Collectors, Local Roads

MPO INVOLVEMENT/TIP: CTDC [X] AGFHIC [ ] TIP#A446 INFO ONLY [ ] NONE [ ]

TIP AMENDMENT REQUIRED? Yes [ ] No [X] Needed By: __________

STIP STATUS: ON STIP

DOES THIS PROJECT REQUIRE TSM/TDM ANALYSIS? Yes [ ] No [X]

IF YES, EXPLAIN WHY: __________
1. Agreements Required for Funding?
   [ ] Betterment  [ ] Marchiselli  [ ] Marchiselli Soft Match
   Phases: [ ] Preliminary Engineering  [ ] ROW  [ ] Construction
   Special Agreements: None.

2. Special Local Government Coordination Required For?
   [ ] Detours  [ ] MPT Impacts  [ ] Project Scope/Sensitive Issue(s)
   Primary Contacts: TBD

3. Will the Design Traffic Forecast Year be as in Appendix D of the Scoping Manual?
   [X] Yes  [ ] No - If no, state reason:

4. Will Special Traffic Counts or Forecasts Necessary? [X] Yes  [ ] No
   If yes what counts/forecasts will be needed: TBD

5. Are there Special Mobility Issues? [X] Yes  [ ] No
   If yes: [ ] Pedestrian
   [ ] Bicycle
   [ ] Transit
   [X] TSM/TDM Options

6. List Special Scheduling Qualifiers, Technical Activities, or Planning Activities Required, if any.
   TBD

7. If proposed Letting differs from PSS (GOP) Letting Date, please explain:
   NO

8. Does this project impact other DOT or major private development projects?
   NO
**INITIAL SCHEDULE AND COST:**

**PROPOSED LETTING:** 05/07  
**LETTING DATE FROM CURRENT PSS:** 05/07

**SCHEDULE QUALIFIERS:**  
- Public Hearing [ ]  
- 4(f)/106 Process [ ]  
- EIS [ ]  
- Permits [ ]  
Other ______________________________

**ESTIMATED CONSTRUCTION COST:** $11,100 (Does not include Inspection, Contingencies or Inflation)

**BASIS OF ESTIMATE:**  
- PE [ ]  
- BMS [ ]  
- Comparable Projects [X]  
Other: _______

**DATE OF ESTIMATE:** 05/02

**OBLIGATION SCHEDULES AND RESPONSIBLE PARTIES**

<table>
<thead>
<tr>
<th>PHASE</th>
<th>ACTIVITY</th>
<th>DURATION</th>
<th>EST. COST SM</th>
<th>FUND SOURCE</th>
<th>OBLIG. DATE</th>
<th>REST. PARTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping</td>
<td>11 mes.</td>
<td>0.300</td>
<td>B-17</td>
<td>06/02</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>Design I-IV</td>
<td>23 mes.</td>
<td>0.300</td>
<td>B-17</td>
<td>06/02</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>Design V-VI</td>
<td>21 mes.</td>
<td>0.200</td>
<td>B-17</td>
<td>06/02</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>ROW INCID.</td>
<td>10 mes.</td>
<td>0.100</td>
<td>B-17</td>
<td>08/02</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>ROW ACQ.</td>
<td>11 mes.</td>
<td>0.200</td>
<td>B-17</td>
<td>04/06</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>Const.</td>
<td>24 mes.</td>
<td>10,000</td>
<td>B-17</td>
<td>06/07</td>
<td>R-1</td>
<td></td>
</tr>
<tr>
<td>Const.</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>08/02</td>
<td>08/02</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>n/a</td>
<td>$11,100</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

**PROGRAM DISPOSITION (Check all that apply):**

| [X] A | [ ] CSSQ-Scoping  | [ ] Simplified Scoping Memo  |
| [ ] B | [ ] CSSQ-PHI-IV   | [ ] Full EPP  |
| [ ] C | [X] CSSQ-PHI V-VI & Const  | [X] Scoping Document TBD  |

**ACCEPTED FOR SY 07/08 LETTING**

**STATEWIDE SIGNIFICANCE:**  
- Yes [X]  
- No  
Other: Undetermined

**ASSIGNED PROJECT MANAGER:**

**NAME:** Erica Rousser  
**PHONE:** __________  
**FUNCT. AREA:** Design

**ASSIGNED PIN:** 146742

**RTPM REVIEWER:** __________  
**DATE:** 08/15/02

**ITP PREPARED BY:** Ann Suttlin  
**DATE:** 08/15/02
A. CONDITIONS / NEEDS

This project was developed to address the structurally deficient bridge that carries Route 32 over the Mohawk River (B.I.N. 1-02250-0) in the City of Cohoes and Town of Waterford in Albany and Saratoga Counties. The bridge was built in 1933 and is not on the National Highway System. The structure had received a General Recommendation of 4 in the 2002 Bridge Inspection Report. It has a condition rating of 4 and a sufficiency rating of 48.6. The existing structure is a continuous concrete arch bridge and is 210.3 meters long. The primary members are reinforced concrete arches which show some signs of leakage with a few isolated areas of spalling and some rebar exposure. The superstructure was rated a 4. The wearing surface, curbs, and sidewalks were all rated a 4. Granite curbs on right side are mostly tipped inward and are out of line in areas leaving gap for water infiltration. The guide railings and lighting are currently rated a 5. There are a few areas where the glass lenses are broken on the lights on top of the pylons. Settlement and drainage on the approaches are rated a 4. The majority of length of granite curb on the right side has settled leaving minimal reveal. Due to the general flatness of roadway both on and off the bridge, water tends to pond and appears to seep into filled arches causing problems (tipped wingwalls & curb and leakage / deterioration through vertical walls above arches). Also, the depth of the water is normally equal to or greater than the spring line of the arches which contributes to the problem. Erosion, pavement, and guide rail on the approaches were all rated a 5. Previously eroded areas have had repairs done. The beginning and end wingwalls were rated a 4 & 5 respectively. Erosion at the wingwalls and bank protection were both rated a 5.

Traffic Volumes:

<table>
<thead>
<tr>
<th></th>
<th>YEAR</th>
<th>AADT</th>
<th>DHV SB (AM)</th>
<th>DHV NB (PM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>2001</td>
<td>17800</td>
<td>1141</td>
<td>1246</td>
</tr>
<tr>
<td>ETC</td>
<td>2009</td>
<td>18200</td>
<td>1190</td>
<td>1275</td>
</tr>
<tr>
<td>ETC+20</td>
<td>2029</td>
<td>19300</td>
<td>1255</td>
<td>1325</td>
</tr>
<tr>
<td>ETC+30</td>
<td>2039</td>
<td>19700</td>
<td>1280</td>
<td>1355</td>
</tr>
</tbody>
</table>

Daily Truck = 6%  
Design Hour Trucks = 1% NB; 4% SB  
Peak Hour Factor = 0.90 NB; 0.80 SB

Accident Analysis:

The accident study includes the 3.33 year period from 1/1/98 to 4/30/01. The study was broken down into three segments, NY 787 from Ontario Street (RM 787-1101-5015 to 5017) to Saratoga Street, Saratoga Street (NYS Touring Route 32, TR RM 32-1104-5017 to 6018) in the City of Cohoes, and NY 32 (RM 32-1505-1000 to 1203) in the Town of Waterford. On street parking is prohibited in all 3 segments studied.

There were 47 total accidents on the 0.3 mile section of NY 787 evaluated. The accident rate during the study period was 6.48 acc/mvm, which is greater than the expected rate of 2.01 acc/mvm for four lane divided urban principal arterial highways with partial access control statewide. There were 42 accidents at the signalized intersection of NY 787 and Ontario Street. There were 2 accidents involving pedestrians and two accidents involving bicyclists. Of the 46 accidents with roadway surface condition reported, there were 9 accidents (20%) on wet pavement and 2 accidents (4%) on a snow/ice pavement.
There were 53 total accidents on the 0.3 mile section of Saratoga Street (NYS Touring Route 32) evaluated. The accident rate during the study period was 5.16 acc/mvm which is greater than the expected rate of 5.21 acc/mvm for two lane divided urban principal arterial highways with free access statewide that are maintained by state forces. There were 30 accidents at the signalized intersection of NY 787 with Saratoga Street and New Cortland Street. There was one accident involving a pedestrian and no accidents involving bicyclists. Of the 52 accidents with roadway surface condition reported, there were 14 accidents (27%) on wet pavement and 3 accidents (6%) on snow/ice pavement. There was one accident on the structure. There were 9 accidents at the entrance to the Cohoes Savings Bank.

There were 37 total accidents on NY 32 in the Town of Waterford. The accident rate during the study period was 4.88 acc/mvm, which is less than the expected accident rate of 5.21 acc/mvm for two lane undivided urban principal arterial highways with free access statewide. There were 10 accidents at the signalized intersection of NY 32 with Clifton Street and Museum Lane. There were two accidents involving pedestrians and none involving bicyclists. Of the 36 accidents with roadway surface condition reported there were 11 accidents (30%) on wet pavement and 2 accidents (6%) on snow/ice pavement. There was one accident on the structure.

The area between RM 1001 and RM 1003 has commercial development on both sides and a median paved with white asphalt. Repaving this section and striping it as a two way left turn lane would provide refuge for motorists turning into these businesses, which would improve safety. Providing improved access to the Cohoes Savings Bank on Saratoga Street would also improve safety in the area; however, the design should include appropriate traffic calming measures so that operating speeds approaching the signalized Ontario Street intersection do not increase over current levels due. The Traffic & Safety Unit has no other safety recommendations for the project at this time as a result of this accident history review.

Level of Service:

The Highway Capacity Manual and Software methodologies for Two-Way Two-Lane Highways are not intended for analyses of short highway sections with low speeds, and side streets, such as this one, but rather, were developed for application to segments of a significant length of continuous uninterrupted flow, along roadways with relatively high speeds and consistent characteristics. As this section is only approximately 0.5 km in length, is located in a city with side streets within a short distance, has narrow lanes and shoulders, and an estimated free-flow speed under 70 km/h; these analyses cannot be expected to accurately reflect the actual Level of Service conditions to be encountered.

B. PROJECT OBJECTIVES

The objective of this project is to provide the most cost efficient option to restore the bridge condition rating to 5 or greater for a period of at least 25 years for a bridge rehabilitation or 50 years for a bridge replacement.

C. DESIGN CRITERIA

This project will be designed in accordance with the NYSDOT Highway Design Manual and the NYSDOT Bridge Manual. Route 32 (S.H. 240) is functionally classified as a Urban Principal Arterial and is not on the National Highway System.
### Design Criteria

<table>
<thead>
<tr>
<th>Description</th>
<th>Existing</th>
<th>Standard</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Speed</td>
<td>48 km/h (30 mph posted)</td>
<td>70 km/h</td>
<td>70 km/h</td>
</tr>
<tr>
<td>Min. Travel Lane Width</td>
<td>3.6 m</td>
<td>3.3 m</td>
<td>3.3 m</td>
</tr>
<tr>
<td>Min. Shoulder Width</td>
<td>None</td>
<td>1.5 m (for bicyclists)</td>
<td>1.5 m</td>
</tr>
<tr>
<td>Bridge Roadway Width</td>
<td>12.2 m</td>
<td>10.8 m minimum</td>
<td>&gt; 10.8 m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.0 desirable</td>
<td></td>
</tr>
<tr>
<td>Max. Grade</td>
<td>0.5% (Bridge)</td>
<td>7%</td>
<td>&lt; 4%</td>
</tr>
<tr>
<td></td>
<td>4.2% (Rt 32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Superelevation</td>
<td>7.5%</td>
<td>4% max.</td>
<td>&lt; 4%</td>
</tr>
<tr>
<td>Min. Horizontal Radius</td>
<td>166 m</td>
<td>203 m</td>
<td>&gt; 203 m</td>
</tr>
<tr>
<td>Min. Stopping Sight Distance</td>
<td>110 m Horizontal 81 m Vertical</td>
<td>105 m Horizontal 105 m Vertical</td>
<td>&gt;105 m Horizontal &gt;105 m Vertical</td>
</tr>
<tr>
<td>Pavement Cross Slope</td>
<td>2%</td>
<td>1.5% min.</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2% max.</td>
<td></td>
</tr>
<tr>
<td>Max. Rollover</td>
<td>lane-lane max: 4% lane-shldr max: 8%</td>
<td>lane-lane max: 4% lane-shldr max: 8%</td>
<td>lane-lane max: 4% lane-shldr max: 8%</td>
</tr>
<tr>
<td>Min. Horizontal Clearance</td>
<td>&lt;0.3 m w/o barrier</td>
<td>0 m w/barrier</td>
<td>0 m w/barrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 m w/barrier 1 m intersections</td>
<td>&gt; 0.5 m w/barrier 1 m intersections</td>
</tr>
<tr>
<td>Structural Capacity</td>
<td>M-18 (H-20)</td>
<td>MS-23 (HS-25)</td>
<td>MS-23 (HS-25)</td>
</tr>
<tr>
<td>Pedestrian Accommodations</td>
<td>Sidewalk on both sides on bridge &amp; approaches</td>
<td>1.525 m min. sidewalk width</td>
<td>1.525 m sidewalk on both sides of the bridge &amp; approaches</td>
</tr>
</tbody>
</table>

**Based on the Americans w/ Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities and Ch. 18 of the NYSDOT Highway Design Manual.**

### D. Alternatives Considered

**The No Build or “Null” Alternative**

This alternative will result in the continued deterioration of the structure, resulting in increased maintenance and eventually requiring the structure to be closed to traffic. This alternative will not satisfy the project's objectives and will not be retained for additional consideration.
Bridge Rehabilitation

This alternative may be considered feasible and will continue to be considered due to the Historical Significance of the structure. Deck cores are being obtained so that this alternative can be evaluated further.

Bridge Replacement

This alternative is considered feasible and satisfies the project's objectives. Therefore, this alternative was progressed further by the scoping team.

E. FEASIBLE ALTERNATIVES

Alternative “1” - Bridge Rehabilitation or Replacement, Existing Alignment, Maintaining Traffic on Temporary Structure

Bridge rehabilitation or replacement on the existing alignment while maintaining traffic on a temporary bridge located to the east of the existing bridge is one possible alternative for BIN 1-02250-0. This alternative proposes to either repair the existing multiple span concrete arch structure or replace it in its entirety with a multi-span structure supported on conventional abutments founded on rock. The proposed structure would be located on the same horizontal alignment as the existing bridge. All non-standard features will be evaluated to determine the feasibility of improving them to current standards. The proposed replacement structure would be approximately a 210 meter multiple span bridge on conventional abutments. The new bridge would consist of a minimum of three 3.6 meter shared travel lanes and two 1.525 meter sidewalks. During construction, traffic would be maintained on a temporary structure built adjacent and to the east of the existing structure. There is no feasible detour route to be utilized during the entire construction period due to the high volume of traffic.

This alternative would address the deficiencies of the bridge and provide a service life of approximately 25 years for rehabilitation or 50 years for replacement.

Alternative “2” - Bridge Replacement, Adjacent Alignment, Maintaining Traffic via Staged Construction

Bridge replacement on an adjacent alignment while maintaining traffic utilizing staged construction is the second alternative proposed for BIN 1-02250-0. This alternative proposes to replace the existing multiple span concrete arch structure in its entirety with a multi-span structure. The new structure would be located on a new adjacent horizontal alignment and a new vertical alignment. The new structure would consist of a minimum of three 3.6 meter shared travel lanes and two 1.525 meter sidewalks. Traffic during construction would be maintained on the existing structure while half of the proposed structure was being built adjacent. Traffic would then be shifted onto the new bridge while the existing bridge was demolished and the remainder of the new bridge was completed.

Improvements to the intersection of Route 32 with New Cortland Street / Route 787 would be included under this alternative.

This alternative would address the deficiencies of the bridge and provide a service life of approximately 50 years.
Alternative “3” - Bridge Replacement, Skewed Alignment, Maintaining Traffic on Existing Structure

Bridge replacement on a skewed alignment while maintaining traffic on the existing structure is the third alternative proposed for BIN 1-02250-0. This alternative proposes to replace the existing multiple span concrete arch structure in its entirety with a multiple span structure. The new structure would be located on a new skewed horizontal alignment located east of the existing bridge and a new vertical alignment. The new structure would consist of a minimum of three 3.6 meter shared travel lanes and two 1.525 meter sidewalks. Traffic during construction would be maintained on the existing structure while the proposed structure was being built adjacent. Traffic would be shifted onto the new bridge and the existing bridge would be demolished.

Improvements to the intersection of Route 32 and New Cortland Street along with extending New Cortland Street to a new intersection with Route 787 and the new alignment of Route 32 are included under this alternative.

This alternative would address the deficiencies of the bridge and provide a service life of approximately 50 years.

F. ADDITIONAL INFORMATION

1. Environmental Classification:
   EAP/NEPA Class Recommendation: Class III
   SEQR Class Recommendation: Non-Type II

2. A Cultural Resource Survey has been requested and is pending. The Region One Environmental Unit will take the appropriate actions based on the results of the survey.

3. Historic Property: The Town of Waterford Historical District is located on the north end of the bridge and several other historic districts can be found close to the bridge in Cohoes. An evaluation of the structure as an individual or contributing feature of historic interest is being conducted as part of the Cultural Resource Survey. It is likely that the structure is eligible for listing on the State and National Register of Historic Places.

4. Bicyclists / Pedestrians: This bridge connects two municipalities with residential and commercial development. It has been identified as a significant crossing of the Mohawk River for the Canalway Trail, the Riverspark bike route system, and the Capital District Transportation Committee Pedestrian Bicycle Network. These factors culminate in a highly varied user group of bicyclists. Therefore, a 4.2 m shared travel lane is warranted, although, a 1.5 m designated bicycle lane is recommended.

5. Pavement Needs: The pavement is in fair to poor condition and distress is clearly visible. Alligator cracking is present. The Region One Materials Unit will be consulted for their recommendation for the proposed pavement treatment.
6. Public Involvement Plan:
A meeting was held with the local officials in Cohoes and Waterford to obtain input and to identify stakeholders. A public meeting will be held for local residents, businesses, and stakeholders to gather input and identify concerns. During design Phases I-IV, a second public meeting will be held to present the design alternatives to the public.

6. Utilities:
A natural gas line, electric, telephone, and fiber optic lines are carried on the existing bridge and will need to be accommodated on the new structure.

7. Project Schedule:
- Scoping Meeting 11/02
- Design Approval 6/05
- Advanced Detail Plans 10/07
- Plans, Specifications & Estimate 2/08
- Letting Date 5/08
- Construction Completion 11/10

8. Cost Estimate:
This project is to be federally funded using Federal Funds from the Highway Bridge Reconstruction / Rehabilitation Program. The estimated costs for this project are:

<table>
<thead>
<tr>
<th>PHASE</th>
<th>EST. COST ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping</td>
<td>0.30</td>
</tr>
<tr>
<td>Design I-IV</td>
<td>0.30</td>
</tr>
<tr>
<td>Design V-VI</td>
<td>0.20</td>
</tr>
<tr>
<td>ROW Incid.</td>
<td>0.10</td>
</tr>
<tr>
<td>ROW Acq.</td>
<td>0.20</td>
</tr>
<tr>
<td>Construction</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11.10</strong></td>
</tr>
</tbody>
</table>

All procedural requirements that must be met prior to scoping summary document approval have been investigated and satisfied. Your signature is required at this time:

**APPROVED**

**DATE** 7/29/04

D. Renig, P.E., Region One Planning & Program Manager
Scoping Summary Memorandum
Design Project Review Monitoring Report

Project Manager: Erica Rousseau  Date Review Requested: June 22, 2004
PIN: 1460.42.121  Review Deadline: July 6, 2004

Project Description: Route 32 over the Mohawk River, Town of Waterford & City of Cohoes

Review Type: SSM ______ X ______ DR __________ ADP __________ PS&E's __________

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Review Requested</th>
<th>Review Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Design Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Planning and Program Manager</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Regional Traffic Engineer</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Regional Construction Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Transportation Maintenance Engineer</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Design Associate</td>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td>Regional Structures Engineer</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Regional Bridge Maintenance Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Design Squad Leader Geoff Wood</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Resident Engineer Albany County</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Resident Engineer Saratoga County</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Materials Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Geotechnical Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Land Surveyor</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Regional Real Estate Officer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Utilities Engineer</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Hydraulics Engineer</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Regional Quality Assurance Engineer</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Landscape Architecture/Environmental Manager</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
<tr>
<td>Main Office Structures Division</td>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td>Main Office DQAB</td>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td>FHWA</td>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td>Traffic Management Center</td>
<td><em>X</em></td>
<td>________________</td>
</tr>
<tr>
<td>Regional Bicycle/Pedestrian Coordinator</td>
<td><em>X</em></td>
<td><em>X</em></td>
</tr>
</tbody>
</table>

I certify that the above reviews have been requested and completed, and that all comments have been satisfactorily resolved.

[Signature]
Date  Requestor (Project Manager)
Scope Related Meeting Summaries
SUMMARY OF MEETING  
PIN 1460.42  
HIGHWAY DESIGN PHASES I-VI  
ROUTE 32 OVER THE MOHAWK RIVER  

DATE: March 10, 2004  
PLACE: NYSDOT, Region 1  
CHA File: 12703  
TIME: 1: P.M.  

ATTENDEES:  
Erica Rousseau  
NYSDOT Region 1 Design  
(518) 388-0225  
Tim Conway  
NYSDOT Region 1 Design  
(518) 388-0213  
Tom Hoffman  
NYSDOT Region 1 Design  
(518) 388-0234  
Joe Rutnick  
NYSDOT Region 1 Traffic and Safety  
(518) 388-0373  
Mark Turpin  
NYSDOT Region 1 Traffic and Safety  
(518) 388-0368  
Tom Karis  
Clough, Harbour & Associates LLP (CHA)  
(518) 453-3981  
Jim Rashford  
CHA  
(518) 453-4734  
Scott Kitchner  
CHA  
(518) 453-3979  

PURPOSE:  
The meeting was scheduled to discuss conceptual alternatives developed by CHA.  

SUMMARY:  
Tom Karis introduced the three alternatives CHA developed; a skewed bridge alignment, a curvilinear  
alignment on the existing bridge, and a roundabout alternative with a parallel bridge alignment. Tom explained  
that these alternatives could be combined, i.e. a curvilinear alignment with a parallel bridge or a roundabout  
alternative with a skewed bridge.  
Tim Conway asked to see an alternative showing the curvilinear alignment with a parallel bridge structure.  
The meeting revolved around a general discussion of the advantages and disadvantages for each alternative.  
Some of the topics discussed were, property impacts, traffic impacts, construction staging, and truck  
accessibility for each alternative.  
The Department asked CHA to investigate or develop the following:  

- Investigate the feasibility of constructing a roundabout at this location. Roundabouts generally require  
  level approaches and a level surface. CHA will develop preliminary profiles to determine the  
  approach grades of each adjoining roadway.  
- Develop preliminary cost estimates for both bridge alternatives (parallel and skewed) based upon a  
  square foot shoulder break area. These estimates will be used for comparison.  
- Investigate traffic impacts for each alternative. Verify turn lane lengths, number of lanes, traffic signal  
  needs, and adjoining intersection impacts.  

The Department informed CHA that they will be closing the bridge north of the Mohawk River and detouring  
traffic via Route 4 and the 112th Street Bridge in a few weeks. This detour would be representative of a  
potential detour for this project. The Department will use the northern bridge project’s detour to gauge the
feasibility of detouring traffic for the Route 32 Bridge over the Mohawk River. It is anticipated that the use of this detour would only be allowed for short durations.

Erica Rousseau informed the attendees that the Department is still waiting for the Cultural Resource Survey. Tim Conway said he would investigate the delay.

Tom Karis requested that another meeting be scheduled in a few weeks to further discuss the refinement of the alternatives. For this meeting CHA will investigate the issues discussed and develop the additional alternative for discussion. The time and place will be confirmed at a later date.

Please report any additions or corrections in writing within ten calendar days to the undersigned at Clough, Harbour and Associates LLP.

________________________________________

James Rashford
Project Engineer

JAR/dcc

c: Attendees

U:\12703\MtgS\SOM\SOM3.doc
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-VI
ROUTE 32 OVER THE MOHAWK RIVER

DATE:       June 10, 2004
PLACE:      NYSDOT, Region 1
CHA File:  12703
TIME:       10:00 A.M.

ATTENDEES:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erica Rousseau</td>
<td>NYSDOT Region 1 Design</td>
<td>(518) 388-0225</td>
</tr>
<tr>
<td>Tim Conway</td>
<td>NYSDOT Region 1 Design</td>
<td>(518) 388-0213</td>
</tr>
<tr>
<td>Mike Gray</td>
<td>NYSDOT Region 1 Design</td>
<td>(518) 388-0234</td>
</tr>
<tr>
<td>Joe Rutnick</td>
<td>NYSDOT Region 1 Traffic and Safety</td>
<td>(518) 388-0373</td>
</tr>
<tr>
<td>Mark Turpin</td>
<td>NYSDOT Region 1 Traffic and Safety</td>
<td>(518) 388-0368</td>
</tr>
<tr>
<td>Geoff Wood</td>
<td>NYSDOT Region 1 Consultant Management Bureau</td>
<td>(518) 388-0231</td>
</tr>
<tr>
<td>Jim Rashford</td>
<td>Clough, Harbour &amp; Associates LLP (CHA)</td>
<td>(518) 453-4734</td>
</tr>
<tr>
<td>Scott Kitchner</td>
<td>CHA</td>
<td>(518) 453-3979</td>
</tr>
</tbody>
</table>

PURPOSE:
The meeting was scheduled as a follow up to the March 10, 2004 meeting to discuss the feasible alternatives to be progressed in the Draft Design Report.

SUMMARY:

At the meeting held March 10, 2004 the Department asked for the following additional information to aid in the evaluation of the feasible alternatives:
- Preliminary bridge costs.
- Further investigation of traffic requirements (i.e. queue lengths, signal timing).
- Determine feasibility of constructing a roundabout at this location (i.e. approach grades, staging, etc.).
- Develop parallel bridge alternative for department review.

For this meeting CHA investigated the above issues, and developed models to ascertain the slope impacts of each alternative.

The following paragraphs summarize the discussions of each alternative:

Skewed Bridge Alternative:
Jim Rashford introduced the alternative:
- The proposed bridge for this alternative is a 5-span structure, 325 m in length, with a preliminary bridge cost of approximately $7.9 Million.
- Traffic volumes dictate that dual lefts are required onto Route 32 north. Thus, two northbound lanes are shown on the bridge.
- Traffic models show that at peak travel time’s vehicles will queue over the railroad tracks. CHA will investigate the feasibility of linking the railroad gates to the traffic signals.
- It is feasible to maintain two lanes of traffic over the bridge during construction.
- This alternative maintains truck access to businesses.
- The house on the left, north of the bridge could be retained, but would require a driveway relatively close to the bridge structure.
- Maintains portion of “Cohoes development property”.


The Departments comments:
- CHA should investigate restricting traffic along Saratoga Avenue between Ontario and New Cortland Street. Either by signing the intersection for no left turns onto Saratoga Avenue (Rt. 32 south) or by making this portion of Saratoga Avenue one-way. CHA will look at the traffic impacts at the adjacent intersections (i.e. Ontario Street at I-787 and Saratoga Avenue) and discuss them with the Department.
- The Department explained that the existing two southbound lanes on the bridge were needed to process the volume of traffic turning left onto I-787. It was agreed that the proposed alternative would not need two lanes because there would no longer be a turning movement.
- The Department gave positive feedback for the truck access, “Cohoes development property” impacts, and maintaining of traffic during construction.
- The Department would prefer to appropriate the house on the left, north of the bridge. It was noted that the owner, John K. White was not opposed to the idea.
- Currently, the bridge north of the Mohawk River is under construction. One direction of traffic is being detoured over the Hudson River via Route 4 and the 112th Street Bridge. This detour is working well for one direction of traffic. During the construction of this project it would be feasible to use this detour for short term purposes.
- Due to the number of commercial businesses along Route 32 in Waterford and volume of traffic entering and exiting these businesses the Department would like to retain the existing median turn lane. CHA will investigate relocating the lane drop south of the Clifton Street intersection.

Parallel Bridge Alternative:
Jim Rashford introduced the alternative:
- The proposed bridge for this alternative is a 4-span structure, 260 m in length, with a preliminary bridge cost of approximately $6.4 Million.
- Traffic volumes and models are similar to the Skewed Alternative.
- It is feasible to maintain two lanes of traffic over the bridge during construction.
- Maintains access to businesses.
- The house on the left, north of the bridge could be retained, but would require a driveway relatively close to the bridge structure.
- Significant impacts to the “Cohoes development property”.

The Departments comments:
- Poor traffic flow due to the close proximity between intersections.
- Does provide truck access to adjacent businesses but the access is not as good as the skewed alternative.
- Horizontal alignment is not as desirable as the skewed alternative.

Parallel Bridge with Roundabout Alternative:
Jim Rashford introduced the alternative:
- The proposed bridge for this alternative is a 4-span structure, 260 m in length, with a preliminary bridge cost of approximately $6.4 Million.
- The roundabout is shown as close to the existing intersection as possible to minimize impacts to the “Cohoes development property”.
- Poor to no truck access to adjacent businesses due to roundabout.
- Significant impacts to Cohoes development property.
- Maintaining two lanes of traffic over the Mohawk River is feasible. The intersection will need to be closed to traffic during the construction of the roundabout.
- The roundabout is approximately 1.2 m higher in elevation then the existing intersection. This was done to improve the approach from New Cortland Street.
The Departments comments:
- The intersection would likely be closed for a significant amount of time to construct the roundabout. This could have an impact on the local businesses.
- Attendees discussed locating the roundabout east of the existing intersection (on the skewed alignment). It was noted that this would have a larger impact on the “Cohoes development property”, require Saratoga Street to be dead-ended or made one-way towards Ontario Street, and may still not provide adequate truck access to the adjacent businesses. CHA will evaluate this roundabout location and discuss it with the Department.
- This alternative shows two southbound lanes on the bridge. All attendees agreed that it would be better to provide two northbound lanes on the bridge.

It was determined that the Design Report should include the three alternatives discussed above, a Bridge Rehabilitation Alternative, and a New Bridge on the Existing Alignment Alternative. Everyone at the meeting agreed that the skewed alternative appears to be the preferred alternative, but each needs to be further investigated.

Erica Rousseau informed the attendees that the City of Cohoes recently submitted a Draft EPP for the reconstruction of Cohoes Boulevard (I-787) between Dyke Avenue and Ontario Street. The proposal calls for 3.3 m lanes, raised medians, period street lighting, bicycle lanes, sidewalks, and gateway entrance features for the City of Cohoes. CHA will coordinate with the City of Cohoes and their Consultant, Clark Patterson Associates.

The Department is still waiting for the Cultural Resource Survey to be completed.

CHA will advance the Design Report to include the proposed alternatives.

Please report any additions or corrections in writing within ten calendar days to the undersigned at Clough, Harbour and Associates LLP.

____________________________
James Rashford
Project Engineer

JAR/dcc
c: Attendees
U:\12703\Mtg\SOM\SOM4.doc
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-VI
ROUTE 32 OVER THE MOHAWK RIVER

DATE: January 27, 2005
PLACE: NYSDOT, Region 1
CHA File: 12703
TIME: 10:30 A.M.

ATTENDEES:

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization/Role</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erica Rousseau</td>
<td>NYSDOT Region 1 Consultant Management</td>
<td>(518) 388-0225</td>
</tr>
<tr>
<td>Tim Conway</td>
<td>NYSDOT Region 1 Design</td>
<td>(518) 388-0200</td>
</tr>
<tr>
<td>Tom Hoffman</td>
<td>NYSDOT Region 1 Design</td>
<td>(518) 388-0317</td>
</tr>
<tr>
<td>Mike Gray</td>
<td>NYSDOT Region 1 Construction</td>
<td>(518) 388-0234</td>
</tr>
<tr>
<td>Joe Rutnick</td>
<td>NYSDOT Region 1 Traffic and Safety</td>
<td>(518) 388-0373</td>
</tr>
<tr>
<td>Mark Turpin</td>
<td>NYSDOT Region 1 Traffic and Safety</td>
<td>(518) 388-0380</td>
</tr>
<tr>
<td>Todd Templeton</td>
<td>NYSDOT Region 1 Traffic and Safety</td>
<td>(518) 388-0380</td>
</tr>
<tr>
<td>Geoff Wood</td>
<td>NYSDOT Region 1 Consultant Management</td>
<td>(518) 388-0231</td>
</tr>
<tr>
<td>Preston Halstead</td>
<td>CHA Clough, Harbour &amp; Associates LLP (CHA)</td>
<td>(518) 453-2892</td>
</tr>
<tr>
<td>Tony Papile</td>
<td>CHA</td>
<td>(518) 453-3961</td>
</tr>
<tr>
<td>Jim Rashford</td>
<td>CHA</td>
<td>(518) 453-4734</td>
</tr>
</tbody>
</table>

PURPOSE:

This meeting was held as a follow-up to the December 20th meeting to discuss issues raised concerning the three roundabouts alternative, signalized intersection alternative, and feasible bridge alternatives.

SUMMARY:

Signalized Intersections vs. Roundabouts

Both alternatives provide approximately the same acreage for future development. The Signalized Alternative provides 1.21 acres and the Roundabout Alternative provides 1.24 acres.

It was noted that both areas are bisected by the race/power canal - part of the original hydraulic system of Cohoes consisting of subterranean arches and tunnels, but that the Roundabout Alternative would also be bisected by the one-way exit. It was also noted that even though the parcel size is being significantly reduced, much of the parcel area being impacted is currently undeveloped due to steep slopes that exist along the backside of the properties.

Skewed Alignment with Roundabouts:

Due to Ontario Streets existing 7%+/- grades, the east and west approach grades to the proposed roundabouts is greater than the recommended guidelines of 4%+/- . The FHWA’s publication Roundabouts: An Informational Guide states, “On Approach roadways with grades steeper than -4 percent it is more difficult for drivers to slow or stop on the approach. At roundabouts on crest vertical curves with steep approaches, a drivers sight lines will be compromised and the roundabout may violate drivers expectancy. However, under the same conditions, other types of at-grade intersections often will not provide better solutions. Therefore, roundabouts should not necessarily be eliminated from consideration at
such a location. Rather the intersection should be relocated or the vertical profile modified, if possible.”

Due to the lack of experience with roundabouts the Department suggested that a meeting be held with the Department’s Roundabout Group to ascertain the feasibility of this alternative. Jim Rashford will provide the Department with the RODEL analysis and will attend the meeting. Erica Rousseau will schedule the meeting to take place in the next week and a half.

The Department agreed that a one-way exit from the “frontage road” to the mainline is preferred over a two way exit. Although the two-way exit is feasible from a traffic standpoint it could result in rear-end collisions to vehicles stopped on the mainline waiting to enter.

CHA will develop a cost estimate for the roundabout alternative.

Disadvantages of Roundabout Alternative:
- Construction Sequencing
- Increased costs
- Public perception
- Rerouting of traffic on Route 32 would result in negative impacts to local businesses
- Lack of experience with two-lane, multiple roundabouts
- Unconventional traffic movements along Route 32 and the “frontage road”

Advantages of Roundabout Alternative:
- Better LOS than the Signalized Alternative

Skewed Alignment with Signalized Intersections:

CHA developed potential traffic volumes for the developable properties based upon acreage, anticipated use (commercial/small business), and engineering judgment. The result was 50 trips in the AM and 65 trips in the PM. These additional volumes resulted in minor revisions to the queue lengths but did not result in changing the level of service at the proposed intersections.

CHA investigated the impacts of widening Ontario Street for a left turn lane. Adequate distance exists between the houses to provide for three 3.3m lanes, 0.6m shoulders and 1.5m sidewalks provided new retaining walls with an average height of 1.2m+/− and 1.5m sidewalks in front of the homes are constructed on both sides of the road. Approximately 0.3m of flexibility exists on both sides.

Joe Rutnick asked if pedestrians were included in the traffic analysis. Pedestrians were included as concurrent movements with vehicular traffic. CHA noted that the proposed raised median along Route 787 would provide refuge for pedestrians.

Joe Rutnick noted that Cohoes is in favor of roundabouts because they see them as a way to address their speed issues along Route 787 and that the reduced speeds will result in better pedestrian accommodations. The Department and CHA are unsure whether a two lane roundabout or a large signalized intersection is safer for pedestrians. Joe also noted that the speeds would likely increase along the skewed alignment with signalized intersections alternative due to the removal of the existing curve in 787 that results in slowing traffic. CHA noted that the reduced lane widths and raised medians would help to reduce speeds by eliminating the “freeway” look of 787, but agreed that the potential would still exist for high speed traffic.

Disadvantages of Signalized Intersection Alternative:
- LOS C’s rather than B’s as in the Roundabout Alternative
Advantages of Signalized Intersection Alternative:
- Conventional traffic movements along Route 32 and the “frontage Road”
- Less complicated construction sequencing and M&PT
- Less expensive than the Roundabout Alternative

Parallel Alignment with Signalized Intersections:

CHA presented this alternative as a third feasible alternative. The traffic needs are nearly identical to the Skewed Alignment with Signalized Intersection Alternative. The “frontage road” would be maintained to provide access to the bank and to the Star Textile Mill, but additional land would not be available for future development.

No specific discussion was had pertaining to this alternative.

Bridge Alternatives:

<table>
<thead>
<tr>
<th>Bridge Cost Comparison</th>
<th>EST. COST</th>
<th>REHAB COST</th>
<th>BRIDGE LENGTH</th>
<th># SPANS</th>
<th>BRIDGE WIDTH</th>
<th>UNIT COST</th>
<th>UNIT COST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>%</td>
<td>M</td>
<td></td>
<td>M</td>
<td>$/SM</td>
<td>$/SF</td>
</tr>
<tr>
<td>REHABILITATION ESTIMATE</td>
<td>$6,945,000</td>
<td>220</td>
<td>7</td>
<td>16.4</td>
<td>$1,925</td>
<td>$179</td>
<td></td>
</tr>
<tr>
<td>BEBO ON EXISTING ALIGNMENT</td>
<td>$9,197,000</td>
<td>76%</td>
<td>242</td>
<td>8</td>
<td>16.5</td>
<td>$2,303</td>
<td>$214</td>
</tr>
<tr>
<td>BEBO ON PARALLEL ALIGNMENT</td>
<td>$7,374,000</td>
<td>94%</td>
<td>242</td>
<td>8</td>
<td>16.5</td>
<td>$1,847</td>
<td>$172</td>
</tr>
<tr>
<td>BEBO ON SKEWED ALIGNMENT</td>
<td>$9,913,000</td>
<td>70%</td>
<td>300</td>
<td>10</td>
<td>16.5</td>
<td>$2,003</td>
<td>$186</td>
</tr>
<tr>
<td>STEEL HAUNCHED GIRDER ON PARALLEL ALIGNMENT</td>
<td>$7,876,900</td>
<td>88%</td>
<td>242</td>
<td>4</td>
<td>16.5</td>
<td>$1,973</td>
<td>$183</td>
</tr>
<tr>
<td>STEEL HAUNCHED GIRDER ON SKEWED ALIGNMENT</td>
<td>$9,254,900</td>
<td>75%</td>
<td>300</td>
<td>5</td>
<td>16.5</td>
<td>$1,870</td>
<td>$174</td>
</tr>
<tr>
<td>PRESTRESSED BOX CURVED SOFFIT ON PARALLEL ALIGNMENT</td>
<td>$8,289,900</td>
<td>84%</td>
<td>242</td>
<td>7</td>
<td>16.5</td>
<td>$2,076</td>
<td>$193</td>
</tr>
<tr>
<td>PRESTRESSED BOX CURVED SOFFIT ON SKEWED ALIGNMENT</td>
<td>$9,766,900</td>
<td>71%</td>
<td>300</td>
<td>9</td>
<td>16.5</td>
<td>$1,973</td>
<td>$183</td>
</tr>
<tr>
<td>STEEL HAUNCHED GIRDER ON SKEWED ALIGNMENT (TAPERED)</td>
<td>$8,147,500</td>
<td>85%</td>
<td>300</td>
<td>5</td>
<td>14.2</td>
<td>$1,913</td>
<td>$178</td>
</tr>
</tbody>
</table>

CHA investigated the feasibility of dropping a northbound lane to allow for the construction of a two lane bridge rather than a three lane bridge. At a design speed of 70 km/h (45mph) the appropriate signing and taper rate would require nearly the entire bridge to be tapered. The Department agreed that this was not a cost saving alternative and that it should be dismissed. CHA developed another lane drop alternative that would result in a 66.5m lane taper on the bridge, between piers 1 and 2, and would reduce the steel haunched girder bridge costs approximately 10%, but would require the justification of a 56 km/h (35 mph) design speed. CHA noted that the justification of a reduced design speed is more appropriate for the roundabout alternative than the signalized alternative and that the cost benefits of tapering the bridge are greater for the steel bridge alternative than the concrete and beebo alternatives due to the longer span lengths and less number of piers. CHA also noted that the existing (1246 vph) and design year, ETC+20 (1325 vph) traffic volumes are greater than 1200 vph that a single lane is said to accommodate. No decisions were made regarding dropping a lane on the bridge.
All agreed that a slight skew between the piers and the water flow is not a valid reason to dismiss the Beebo Alternative. The velocity of the water is not known at this time and may be difficult to calculate due to the dam and its intake volume, Mike Gray suggested measuring the water flow in the Spring.

A bridge type was not selected at this time. The Department noted that they have had issues with the cracking of concrete decks on steel girder bridges.

Please report any additions or corrections in writing within ten calendar days to the undersigned at Clough, Harbour and Associates LLP.

______________________________
James Rashford
Project Engineer

JAR/rms

c: Attendees
U:\12703\Mtg\SOM\SOM5.doc
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-VI
ROUTE 32 OVER THE MOHAWK RIVER

DATE: April 13, 2005
PLACE: City of Cohoes
ATTENDEES:

John McDonald  City of Cohoes, Mayor  (518) 233-2119
Ed Tremblay    City of Cohoes, Community and Economic Development  (518) 233-2118
Erica Rousseau NYSDOT Region 1 Consultant Management  (518) 388-0225
Tim Conway     NYSDOT Region 1 Design  (518) 388-0200
Tom Werner     NYSDOT Region 1, Regional Director  (518) 388-0388
Dave Retting   NYSDOT Region 1 Planning  (518) 388-0456
Scott Lewendon Clough Harbour & Associates LLP  (518) 453-3932
Jim Rashford   CHA  (518) 453-4734

TIME: 2:00 P.M.

PURPOSE:
This meeting was held to discuss the feasible alternatives with the City of Cohoes and to update the City on the projects progress.

SUMMARY:

Jim outlined the advantages and disadvantages associated with each of the four alternatives (See attachment).

- During bridge construction, traffic will be maintained on the existing bridge. Each alternative would maintain two way traffic at all times with the exception of short-term detours and lane shifts as necessary.
- The skewed alignment with roundabouts results in the best level of service for the corridor.
- The construction costs vary depending upon the bridge type, but preliminary cost estimates vary between 10.5 and 14.0 million. Roadway construction costs vary between 3.0 and 4.1 million, with the parallel alignment with traffic signals being the least expensive and the Skewed alignment with roundabouts being the most expensive.

The City noted the following:

- The owner of the vacant property along Route 32, adjacent to the Mohawk River, has met with the city and has had offers from restaurants to develop the parcels.
- The Canal Corp owns a portion of the property between 787 and the Mohawk River. CHA will review the property times and update them as necessary. In order to develop the DPW parcel the City was asked by SHPO to expose the canal lock that was buried by the slope from 787.
- The City would like to develop the parcel now occupied by the DPW. The City asked if it would be feasible to give access to this parcel from the proposed intersection or roundabout. It does appear feasible, but will require further investigation due the difference in elevation and traffic volumes.
Mayor McDonald would like to review the alternatives with his staff to determine which alternatives should be presented at the public meeting. It is assumed that two will be chosen.

The DOT explained that this project was not on the recent five-year lip, and that the anticipated construction date is 2014. The Department would like to get design approval now so that right of way could be acquired.

Please report any additions or corrections in writing within ten calendar days to the undersigned at Clough Harbour and Associates LLP:

James Rashford  
Project Engineer

FAR/rms  
c. Attendees  
UA12700M9G9OMMSOMS.00C
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-VI
ROUTE 32 OVER THE MOHAWK RIVER

DATE: May 13, 2009
PLACE: NYSDOT Region 1
CHA File: 12703
TIME: 1:00 P.M.

ATTENDEES:

Wayne Kenyon  NYSDOT MO, Consultant Mgr  WKenyon@dot.state.ny.us  (518) 457-6009
Mike Gray  NYSDOT R1, Construction  MGray@dot.state.ny.us  (518) 388-0170
Jim Bridges  NYSDOT R1, Reg Director  JBridges@dot.state.ny.us  (518) 388-0200
Mark Kennedy  NYSDOT R1, Reg Traffic Eng  MKennedy@dot.state.ny.us  (518) 388-0380
Michele Rhodes  NYSDOT R1, Project Manager  MRhodes@dot.state.ny.us  (518) 388-0225
John Farina  NYSDOT R1, LAES Job Manager  JFarina@dot.state.ny.us  (518) 388-0265
Geoff Wood  NYSDOT R1, Design Supervisor  Gwood@dot.state.ny.us  (518) 388-0231
Tom Hoffman  NYSDOT R1, Reg Structure Eng  THoffman@dot.state.ny.us  (518) 388-0317
Preston Halstead  CHA, Project manager  PHalstead@chacompanies.com  (518) 453-2892
Dave Kahlbaugh  CHA, Transportation Planner  Dkahlbaugh@chacompanies.com  (518) 453-3983
Jim Rashford  CHA, Project engineer  JRashford@chacompanies.com  (518) 453-4734

PURPOSE:

This meeting was held to review the status of the project at the time it was put on hold in 2005, and to discuss the current project needs and schedule to meet a letting date of April 2012.

SUMMARY:

Jim Rashford gave a brief overview of the project evolution, needs and objectives.

Needs:

• Bridge Structural needs – poor drainage system resulting in saturated earthen fill within the structure, causing topline settlement and concrete spalling. Pier 4 in need of replacement.
• Safety Needs – 4 out of 5 roadway segments exceed the average statewide accident rate.
• Capacity Needs – 2 of the 4 intersections operate below LOS D

Objectives:

• Provide most cost efficient bridge to restore the bridge to a rating of 5 or greater.
• Improve vehicular and pedestrian safety.
• Improve serviceability and rideability.

Jim Rashford with input from the attendees reviewed the alternatives and the project history. The key points of the alternatives are as follows:

Rehabilitation Alternative:

• Due to the historic significance of this structure the rehab alternative needs to be carefully evaluated.
• The anticipated construction sequencing was as follows:
  1. Install temporary bridge.
  2. remove deck and earthen fill
3. repair concrete as necessary, both inside and outside the arches.
4. remove and replace pier 4
5. install new drainage
6. backfill and reconstruct deck.
   - Low vertical clearance under bridge will hamper access and rehabilitation. Likely require
dewatering ½ of the river at a time.
   - Dewatering cofferdam would interfere with the temporary bridge.
   - Does not address safety issues at Shelter Enterprises (SEI).
   - Does not provide bicycle lanes.
   - Only provides a 25 year service life.

The proposed build alternatives consisted of two alignment options, parallel and skewed. The parallel
bridge alignments generally impacted more developable property in Cohoes and did not provide adequate
truck access to SEI, while the skewed bridge alignment resulted in a longer bridge structure and more
roadway approach work.

For the parallel and skewed alignments two intersection options were also considered, signalized and
roundabouts. Per the traffic analysis performed in 2004 the signalized options resulted in significant
queues at the Ontario Street/Route 787 intersection and the Route 32/Route 787 intersection. While the
roundabout option required multiple roundabouts due to the close proximity between intersections.

Dave Kahlbaugh explained that the roundabouts were modeled in Rodel during the original traffic
analysis, and that this software tends to produce better LOS results than might occur in the field,
especially with complex, closely-spaced roundabouts. Consequently, the roundabout alternative may not
function as well as originally anticipated.

In preparation for and during the scoping phases of this project, numerous design concepts were
developed and evaluated for the applicability in satisfying the project objectives. From the diverse range
of concepts that were initially developed, three Build Alternatives in addition to the Null Alternatives and
Rehabilitation Alternative were selected to be advanced into Preliminary Design Phases I – IV for
detailed design development and environmental evaluation. The three Build Alternatives were:
   - Alternative 1 - Parallel Bridge Alignment with Signalized Intersections
   - Alternative 2 - Skewed Bridge Alignment with Signalized Intersections
   - Alternative 3 - Skewed Bridge Alignment with Multiple Roundabout Intersections

The Department had the following comments:

- The Bridge design life should be revised to 75 years in light of LRFD.
- Many of the safety issues are a result of truck movements at Shelter Enterprise (SEI). Can their
  facility be modified to relocate their loading docks? Do they need these loading docks? Would it
  be cheaper to buy SEI than pursue the skewed alternative? Could the loading docks be closed
temporarily during construction? CHA will evaluate these options in the future. After the new
alternatives are evaluated and the Mayor of Cohoes is briefed on the project status, CHA will meet
with SEI to ascertain their needs.
- The project began as a bridge replacement project and at the time it made sense to expand the
  objectives to improve the adjacent roadway segments, but due to current economic conditions it
  may be more prudent to scale the project back to a bridge replacement project with the potential for
  future improvements at a later date.
- CHA should retain but not advance the “larger” alternatives with signals and roundabouts and
  evaluate the following alternatives.
1. Replacement on-line with a temporary bridge for construction that does not impact the adjacent intersections.
2. Parallel bridge alignment with signal modifications and/or improvements at the Route 787/New Courtland Street intersection.
3. Parallel bridge alignment with a roundabout at the Route 787/New Courtland Street intersection.

- For comparison, CHA will update the costs for all alternatives.
- The department questioned whether or not the new bridge could be reduced to two lanes. CHA will evaluate the traffic volumes and lane geometry and make a recommendation to the Department.
- CHA will evaluate a building a new south abutment further into the water.
- CHA will update the traffic counts and turning movements. This work will be done after Memorial Day but before school is out.
- The accident data is greater than 5 years old, the Department will provide an updated accident analysis.
- John Farina does not expect SHPO to dictate the rehab alternative instead of a new bridge. Nor does he expect SHPO to dictate the type of new structure that would be required.
- The Design Approval Document will be progressed in metric units (EB-0916). The Department may re-evaluate the units for final design.
- Future evaluation of roundabouts should concentrate on geometry first and traffic second.

**Action Items:**
CHA will submit a COWR for the traffic counts.
The Department will update the Accident data.
CHA will discuss the project schedule with Michele Rhodes.
CHA will meet with Wayne Kenyon to discuss extra work items.

Please report any additions or corrections in writing within ten calendar days to the undersigned at CHA.

__________________________
James Rashford
Project Engineer

JAR/rms
c: Attendees
U:\12703\MtgS\SOM\2009-5-13 SOM7.doc
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-IV
ROUTE 32 OVER THE MOHAWK RIVER

DATE: January 8, 2010
PLACE: CHA
TIME: 1:00 P.M.

CHA File: 12703

ATTENDEES:

Michele Rhodes  NYSDOT R1, Project Manager
Geoff Wood  NYSDOT R1, Design Supervisor
Marion Tompkins  NYSDOT R1, Landscape Arch
Joe Rutnik  NYSDOT R1, Traffic Engineering
Mark Turpin  NYSDOT R1, Traffic Engineering
Andrea Hecker  NYSDOT R1, LAEST
Mark Kennedy  NYSDOT R1, Traffic Engineering
Mike Gray  NYSDOT R1, Construction
Frank Bonalde  NYSDOT R1, Planning Program Mgmt
Tom Huffman  NYSDOT R1, Structures
Wayne Kenyon  NYSDOT M1O, Consultant Mgmt
Joe Cimino  CHA, Project Manager
Tammi Leeney  CHA, Assistant Project Engineer
Dave Kahlbaugh  CHA, Transportation Planner
Jim Rashford  CHA, Lead Project Engineer

Michele Rhodes  mRhodes @ dot.state.ny.us  388-0225
Geoff Wood  gwood @ dot.state.ny.us  388-0231
Marion Tompkins  mtompkins @ dot.state.ny.us  388-0219
Joe Rutnik  jrutnik @ dot.state.ny.us  388-0380
Mark Turpin  mturpin @ dot.state.ny.us  388-0380
Andrea Hecker  ahecker @ dot.state.ny.us  388-0276
Mark Kennedy  mkennedy @ dot.state.ny.us  388-0380
Mike Gray  mgray @ dot.state.ny.us  388-0170
Frank Bonalde  frbonalde @ dot.state.ny.us  386-0440
Tom Huffman  thuffman @ dot.state.ny.us  388-0117
Wayne Kenyon  wkenyon @ dot.state.ny.us  457-6009
Joe Cimino  jcmino @ chacompanies.com  453-4550
Tammi Leeney  tleeney @ chacompanies.com  453-4564
Dave Kahlbaugh  dkahlbaugh @ chacompanies.com  453-3983
Jim Rashford  jraslford @ chacompanies.com  453-4734

PURPOSE:

This meeting was held to provide a status update on the project. The intent was to review the three new alternatives developed by CHA and to develop a strategy to move forward with this project.

SUMMARY:

1. Project Review / Introductions. Introductions were made and a brief project review was presented. Essentially, the project was inactive between 2008 and 2009 due to lack of funding. In 2009, CHA was asked to restart the project and look at new alternatives that focus on the bridge replacement only in an effort to minimize the project cost.

2. "Old" Alternatives Review. CHA reviewed the alternatives previously discussed in the report in 2005. These alternatives included the following (parenthesis indicate how it was treated in the 2005 Pre-Draft Design Report):

   - Null Alternative (Discussed - dismissed)
   - Bridge Rehabilitation (Discussed - dismissed)
   - Alternative 1: Parallel Bridge with Signalized Intersections (Feasible Alt)
   - Alternative 2: Skewed Bridge with Signalized Intersections (Feasible Alt)
   - Alternative 3: Skewed Bridge with Roundabout Intersections (Feasible Alt)

   It was agreed that these alternatives will all be discussed and dismissed in the new report due to the changed project limits and narrowed project objectives. The estimates have been updated for these alternatives so an accurate comparison can be developed between the old and new alternatives. See attached cost estimates.

3. "New" Alternatives Review / Discussion. CHA presented the three new alternatives and related options that have been developed (see also attached cost estimates for each alternative):

   - Option A: Medium Alternative (Discussed - recommended)
   - Option B: High Alternative (Discussed - recommended)
   - Option C: Low Alternative (Discussed - recommended)

   It was recommended that CHA proceed with the Medium Alternative (Option A) due to its balance of cost and benefits. See attached cost estimates for each option.
a. Parallel Alignment with Signalized Intersection  Minimized Approach Work

This alternative includes an off-line 3-lane bridge alignment parallel to the existing bridge. Horizontally, the alignment utilizes curves at either end of the bridge to tie back into the existing roadway. These curves are within design standards, but were minimized in an effort to limit the full depth approach construction required. Considerations of this alternative include the following:

- Acquisitions would be necessary on either end of the bridge to accommodate the new abutments and roadway until it can tie back into the existing alignment. A retaining wall on the north side of the bridge (east side of roadway) will be required to minimize the impact on an adjacent property.
- Maintaining the current access in and out of the Shelter Enterprise property will be problematic. Currently, trucks back into the loading dock spaces by stepping traffic on Route 52 in the vicinity of the bridge. Further discussions with the owner of this property are warranted if this alternative is progressed in the design phase.
- Current traffic operations at both signalized intersections within the limits of work will be essentially unchanged with this alternative.

CHTA recommended retaining this alternative as a feasible alternative in the report. DOT concurred with this recommendation.

b. Parallel Alignment with Roundabout  Minimized Approach Work

This alternative includes an off-line 3-lane bridge alignment essentially identical to the alternative presented in "a." above. The difference between this alternative and the one presented in "a." above is the proposed roundabout at the intersection with 787 and New Courtland Street. Although the roundabout does "fit" from a horizontal alignment perspective, there are several practical issues with a roundabout at this location, including:

- The entrance grade from New Courtland Street is approximately 7%, greater than the recommended maximum of 4% for roundabouts. Due to the active rail line, this grade would not be altered without drastically changing the elevation at the intersection with I-787. This also affects the sight distance available approaching the roundabout at this leg.
- The four legs of the roundabout exhibit significantly different volumes during peak travel; volumes are highly directional and unbalanced. These conditions are generally unfavorable for roundabout applications and could be problematic operationally, especially for the lower-volume approaches.
- The close proximity of other intersections, along with an active rail line to the west, would likely result in traffic issues at the roundabout. The roundabout has not been modeled yet, but bear in mind that this is the point where the project began to expand limit-wise back in 2004-2005.

Due to the issues discussed above, CHTA recommended discussing this alternative in the report, but dismissing it from further evaluation. DOT concurred with this recommendation.
c. On-line Bridge Replacement with a Parallel Temporary Bridge

This alternative includes replacement of the bridge on its existing alignment while providing a temporary 2-lane bridge to the east of existing during construction. Traffic investigations indicate that this alternative would result in some backups onto the temporary bridge during peak hours, primarily the AM peak hour where the southbound left turn movement is heavy at the intersection south of the bridge. However, this is within acceptable limits for a temporary condition, and it is likely that some vehicles will divert during peak periods due to the ongoing construction. Issues discussed associated with this alternative included the following:

- Temporary access to the Shelter Enterprise property may be difficult to maintain during construction of the new abutments.

- Relocation of the existing utilities would be problematic for this alternative, since it would need to occur twice—once to the temporary bridge while the New bridge is being constructed, and again to the new bridge prior to the temporary bridge being demolished.

- Access to the new bridge construction would be more difficult under this alternative, while under the replacements adjacent to the existing bridge would provide some access to the new bridge from the existing bridge. For this alternative, most access would be from the water due to the limited width of the temporary bridge.

- The costs of this alternative are higher than the others and due to the temporary bridge construction and utility relocations mentioned above, would likely involve an extra season of construction.

CHT recommended retaining this alternative as a feasible alternative in the report. DOT concurred with this recommendation, although due to several of the issues discussed above, this alternative may not be preferred.

d. Two Lane vs. Three Lane Bridge

NYSDOT had requested that CHT investigate the possibility of a permanent two lane bridge instead of a three lane bridge at this location. In order to provide an adequate southbound left turn bay at Route 32’s intersection with NY787 - New Courland Street, approximately 800 ft. would be necessary for the design year traffic volumes. This left turn lane length would extend beyond the middle of the proposed bridge. As such, a two lane bridge would not be able to accommodate the left turn lane length required.

CHT recommended that only a three lane bridge be presented in the design report and DOT concurred.
4. **Meetings - Coordination.** DOT stated that the next step in this process would be to meet with the Mayor of Cohoes (Mayor McDonald) to present the new alternatives and obtain his feedback. From there, a meeting with Shelter Enterprises may be arranged. A public meeting will need to be held for this project as well, but that will be scheduled at a later date.

**Action Item - DOT to set up a meeting with Mayor McDonald within the next few weeks.**

5. **Report Issues.** CHA requested direction - confirmation of the following issues with the design approval document:

   a. The old report was in an outdated format. Should CHA update the report to the new format? DOT responded that since a significant portion of the existing report will be changing, the report should be updated to the new format.

   b. Due to the reduced limits of this project, should this be advanced as a Design Report (NEPA Class II), instead of its current status as a Design Report - Environmental Assessment (NEPA Class III)? Yes, progress as a Design Report.

   c. Again due to the reduced construction limits for this project, it appears that noise and air study are no longer necessary - does DOT concur? Yes.

   d. A visual impact assessment was completed for this project, however, renderings were planned but never completed. Should CTA progress with the visual renderings? DOT asked CTA to wait until it is determined whether or not renderings will be required for this project.

**Action Item - CTA to reformat the report to the latest Design Report format.**

6. **Current Work Items.** There are several areas where CTA would like to progress in an effort to keep this project moving while some of the meetings - coordination efforts are underway. They are as follows:

   a. Due to the length of time that has expired, CTA recommends a verification of the previously defined wetland limits. Should not be more than a few hours in the field, plus some survey time if the limits have changed. DOT agreed to this work item.

   b. Supplemental survey. CTA noted that one home has been demolished and some regrading of the site across from SEI has occurred. Supplemental survey may be warranted. DOT requested that CTA walk through the site to determine how significantly the ground has changed in these areas to determine if the supplemental survey will be of value.

   c. CTA previously performed hazardous material and asbestos screening that recommended additional testing - should CTA move forward with the testing? DOT requested a summary of the additional testing required prior to giving approval.

   d. The ARMs and ROW Maps are not a part of the current scope. Is it anticipated that CTA will perform this work? CTA recommends that the ARMs be completed within the next couple of months in order to get the real estate process moving. DOT will discuss with the Real Estate group, but it is assumed that CTA will do this work and that it will be included in the supplemental agreement to be worked out with the Main Office.
In some of the correspondence reviewed from SHPO, it noted that a historic context analysis may be required for this project. Due to the reduced scope of the project, a meeting should be set up with SHPO to discuss requirements for this project. DOT to set up the meeting.

**Action items:**
- CHA to progress with wetland boundary confirmation.
- CHA to walk site and provide recommendation for supplemental survey.
- CHA to send recommendation of hazardous material / asbestos testing to NYSDOT for review / approval.
- DOT to discuss ARM / ROW Mapping with Real Estate.
- DOT to set up meeting with SHPO.

Please report any additions or corrections in writing within ten calendar days to the undersigned at CHA.

(Handwritten Signature)

Tami Leary, P.E.
Project Engineer

FYI:

c: Attendees
<table>
<thead>
<tr>
<th>Units</th>
<th>Unit Cost</th>
<th>QTY</th>
<th>Cost</th>
<th>QTY</th>
<th>Cost</th>
<th>QTY</th>
<th>Cost</th>
<th>QTY</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement</td>
<td>90.00</td>
<td>9400</td>
<td>846,000.00</td>
<td>9750</td>
<td>877,500.00</td>
<td>13050</td>
<td>1,174,500.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excavation</td>
<td>12.00</td>
<td>2000</td>
<td>24,000.00</td>
<td>2500</td>
<td>30,000.00</td>
<td>2800</td>
<td>33,600.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embankment</td>
<td>20.00</td>
<td>23000</td>
<td>460,000.00</td>
<td>8100</td>
<td>162,000.00</td>
<td>20600</td>
<td>412,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sidewalks</td>
<td>60.00</td>
<td>200</td>
<td>120,000.00</td>
<td>250</td>
<td>150,000.00</td>
<td>380</td>
<td>228,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subbase</td>
<td>35.00</td>
<td>3850</td>
<td>134,750.00</td>
<td>4000</td>
<td>140,000.00</td>
<td>5730</td>
<td>200,550.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curb</td>
<td>60.00</td>
<td>1820</td>
<td>109,200.00</td>
<td>2080</td>
<td>124,800.00</td>
<td>3300</td>
<td>198,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Signals</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainage</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>120.00</td>
<td>120000.00</td>
<td>120,000.00</td>
<td>120,000.00</td>
<td>150,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>50.00</td>
<td>50000.00</td>
<td>50,000.00</td>
<td>50,000.00</td>
<td>50,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td>40.00</td>
<td>40000.00</td>
<td>40,000.00</td>
<td>40,000.00</td>
<td>55,000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>25%</td>
<td>612,237.50</td>
<td>559,825.00</td>
<td>25%</td>
<td>731,662.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway Total</td>
<td>-</td>
<td>3,061,187.50</td>
<td>2,799,125.00</td>
<td>3,658,312.50</td>
<td>1,174,375.00</td>
<td>1,765,625.00</td>
<td>898,125.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestressed Box Bridge</td>
<td>14,850,000.00</td>
<td>14,850,000.00</td>
<td>14,850,000.00</td>
<td>11,920,000.00</td>
<td>11,920,000.00</td>
<td>11,920,000.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp Bridge</td>
<td>-</td>
<td>1,500,000.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>17,920,000.00</td>
<td>15,170,000.00</td>
<td>18,510,000.00</td>
<td>13,100,000.00</td>
<td>13,690,000.00</td>
<td>14,320,000.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not Included in Estimate:
Right of way
Inspection
Engineering
SUMMARY OF MEETING
PIN 1460.42
HIGHWAY DESIGN PHASES I-IV
ROUTE 32 OVER THE MOHAWK RIVER

DATE: November 8, 2010
PLACE: NYSDOT Region One
CHA File: 12-101
TIME: 1:30 P.M.

ATTENDEES:

Michele Rhodes  NYSDOT R1, Project Manager  mrohde@dot.state.ny.us  518-422-5
Geoff Wood  NYSDOT R1, Design Supervisor  gwood@dot.state.ny.us  518-422-5
Jim Bridges  NYSDOT R1, Design Director  jbridges@dot.state.ny.us  518-422-5
Patrick Martin  NYSDOT MO, Consultant Mgmt  pmartin@dot.state.ny.us  485-9903
Joe Conner  CHA, Project Manager  jconner@cha.com  485-4550
Tammy Leuwer  CHA, Assistant Project Engineer  tleuwer@cha.com  453-4564

PURPOSE:
This meeting was held to provide a status update on the project. The intent was to review the two feasible design alternatives and to develop a strategy to move forward with this project.

SUMMARY:

1. Project Review:
   Introductions were made and a brief project review was presented. Essentially, the project was inactive for several years due to lack of funding for the larger scale project. CHA was then tasked with developing alternatives with a more limited scope, focused on the bridge, in an effort to minimize the project cost. Since that time, CHA and NYSDOT has narrowed the focus to two feasible design alternatives. These alternatives will both be progressed throughout the Design Report and a preferred alternative identified.

2. Feasible Alternatives:
   Descriptions: The two feasible alternatives are summarized and discussed in detail below. Action items are identified in bold text.

Alternative 6  Parallel Bridge with Signalized Intersections  Minimized Approach Work
The alternative includes the construction of a new 250 m long multiple-span structure located approximately 25m east of and parallel to the existing structure. Discussion items included the following:

2  The new bridge can be constructed while maintaining traffic on existing bridge, although some minor phasing will be required at the northern end. No temporary bridge is necessary.
2  The new bridge can be constructed while maintaining traffic on existing bridge, although some minor phasing will be required at the northern end. No temporary bridge is necessary.
2  This alternative shifts the alignment away from Shelter Enterprises, which will allow trucks to turn onto a larger driveway. 40t and back into the existing loading spaces, instead of stopping traffic on Route 32 as occurs now.
2  Avoids conflict at the sluice gate near the river, although box culvert extension will be required.
2  This alignment introduces a curved alignment where one does not exist now, although all curves exceed design standards. DOT noted that they have had issues with sight distance at driveways near the bridge approach end. CHA to determine if the SEI driveway can be shifted further away from bridge approach. It was noted that most vehicles looking to exit the driveway would be trucks, which would be visible above the railing.
2  The driveway to the small pocket park and to the Mohawk Paper intake valve required realignment/ reconstruction due to the revised roadway location. DOT noted that it would
be best, although not imperative, if this driveway could be located directly across from the SH 1 driveway. **CHA to review and revise if possible.**

Permanent easements and land acquisitions will be necessary.

**Alternative 8: Online Bridge Reconstruction with Temporary Bridge**

This alternative would reconstruct the existing bridge on its existing alignment. The existing bridge would be replaced with a new 210 m. multiple span structure supported on conventional piers. A temporary bridge would be constructed adjacent to the existing bridge in order to maintain traffic through the corridor. Discussion items included the following:

- The construction of a temporary bridge adds approximately $1.6 Million to the overall project cost, with little long-term benefit.
- This alternative maintains the existing alignment at Shelter Enterprises (SH1), which will allow trucks to continue to stop traffic on Route 32 in order to access the existing loading docks.
- Staging at the existing loading dock area will be difficult to coordinate, while maintaining access to the loading docks to ensure continued business operations at SH1.
- Since the new bridge will be constructed at the same location as the existing bridge, all utilities carried on the existing bridge will need to be relocated twice: once from the old bridge to the temporary bridge (during construction) and again from the temporary bridge to the new bridge (after construction). This will increase utility relocation costs accordingly.
- This alignment maintains the existing linear alignment, but could also experience sight distance issues in the vicinity of the bridge approach rail. **CHA to review available sight distance.** It was noted that most vehicles looking to exit the driveway would be trucks, which would be visible above the railing.
- Temporary easements will be required. No permanent easements and or land acquisitions are anticipated.

**CHA to make noted changes to the Alternative 8 plan and send the revised layout to the Region for their use in coordination efforts with Mark Kennedy and other internal DOT staff.**

*Alternative 8 layout plan was left at the Region and will be used as is!*

3. **Next steps.** The following items were discussed as the "next steps" for the project:

- **CHA to continue progressing the Design Report and sending sections of the report for internal review as they become available.**
- **Cultural - Historic resources study is being completed by NYS and is scheduled to be complete by the end of the year. The submission of the Draft Design Report images on this study being completed.**
- **CHA should look at replacing some of the parking capacity lost across the street in the new open lot area in front of the SH1 building. Show the wheel path of truck turning movements for clarity.**
- **NYS DOT will set up a meeting with the Main Office Structures group focused on constructability issues.**

4. **Miscellaneous Items.** The following items were also discussed at the meeting:

a. During meetings with SH1, the owner noted that there was a previous collapse of the existing box culvert in the vicinity of the existing sidewalk along NYS Route 32. The repair was noted to include two HDPE pipes for this small collapsed section. Some
consideration to replacing this section of the box culvert should be included in the final preferred alternative
b. There were some questions regarding who would end up owning the land on the "old" section of NYS Route 32 under All 60 that would be utilized as a parking lot for SH-1. It was discussed that the land would likely be turned over to the City of Cohoes, who could then do whatever they wanted with the land.

c. The lighting on the bridge was discussed. It was noted that in order to place new lighting on the bridge, a maintenance operating agreement would be required between the two municipalities. National Grid is not likely to maintain ownership.

d. CUA to review need for the 0.5m offset between the curb and sidewalk.

e. It was noted that this project does not appear on the latest TIP posted on the CDTEC website. The Region will look into this to determine if there are funding issues.

Please report any additions or corrections in writing within ten calendar days to the undersigned at CUA.

[Signature]

Asst. Project Engineer

1.1. Attendees

[Notes or additional information]
4.16 KV Overhead Transmission Line Clearance Diagram and Photo
City of Cohoes
Resolution to Maintain Lighting on Route 32
Bridge over the Mohawk River
City of Cohoes

CERTIFICATION

RESOLUTION NO. 31 FOR THE YEAR 2013

I, Lori A. Yando, City Clerk of the City of Cohoes and Clerk of the Common Council of the City of Cohoes, do hereby certify that the RESOLUTION attached hereto was duly adopted by the Common Council of the City of Cohoes at a meeting held on the 24th day of September 2013 in accordance with the applicable provisions of law, and is an exact duplicate copy of the original thereof on file in the City Clerk’s office, and I do hereby further certify that said RESOLUTION has not been amended, repealed nor in any way altered and is in full force and effect.

In witness whereof I have hereunto set my hand and affixed the seal of the City of Cohoes this 04th day of November 2013.

[Signature]
Lori A. Yando
Cohoes City Clerk

SEAL.
RESOLUTION NO. 31 FOR THE YEAR 2013

Members of Common Council April A. Kennedy, Alfred J. Turcotte, Dianne R. Nolin, Roger R. Cecelucci and Ralph V. Signoracci IV, ask for unanimous consent for the introduction and passage of the following Resolution:

A RESOLUTION AUTHORIZING AGREEMENT TO MAINTAIN, REPAIR AND ENERGIZE A BRIDGE LIGHTING SYSTEM ON A STATE BRIDGE (IDENTIFIED AS B.I.N. 1-02250-0), WHICH CARRIES NYS ROUTE 32, OVER THE MOHAWK RIVER, BETWEEN THE CITY OF COHOES (COUNTY OF ALBANY), AND THE TOWN OF WATERFORD (COUNTY OF SARATOGA).

WHEREAS, the State of New York Department of Transportation proposes to replace this bridge under Project P.I.N. 1460.42; and

WHEREAS, the municipality of the City of Cohoes approves of such Project and desires to have a bridge lighting system on such bridge; and

WHEREAS, the State of New York has agreed to provide as a part of the Project the following items in connection with the bridge lighting system - all equipment needed for a complete and operational bridge lighting system; and

WHEREAS, the municipality of the City of Cohoes has agreed to provide as a part of the Project the following items in connection with a street lighting system - not applicable; and

WHEREAS, provided that the municipality of the City of Cohoes agrees to maintain, repair and energize such highway lighting system for a period of at least ten years, and after ten years, or until such time as the Commissioner, in his discretion, agrees that such lighting and/or maintenance of such lighting system is no longer desired for such highway,

NOW, THEREFORE, BE IT

RESOLVED, that the municipality of the City of Cohoes approves of the above-subject Project; and be it further

RESOLVED, that the municipality of the City of Cohoes shall maintain, repair and energize such highway lighting system; and be it further

RESOLVED, that the Common Council of the municipality hereby authorizes the Mayor of the municipality of the City of Cohoes to enter into and execute an Agreement with the State of New York (in substantially the same form as the Agreement attached hereto, which form shall be approved by the Corporation Counsel), and through the Commissioner of Transportation to
Resolution No. 31 for the Year 2013
September 24, 2013
Page 2

commit the municipality of the City of Cohoes to maintain, at its own expense, the bridge lighting system on the above-identified Project, such Agreement to provide that the maintenance shall include the repair and replacement of equipment and the furnishing of electric current for the lighting system; and be it further

RESOLVED, that the Clerk of this municipality of the City of Cohoes is hereby directed to transmit five certified copies of the foregoing Resolution to the State Department of Transportation; and be it further

RESOLVED, that this Resolution shall take effect immediately.

Approved as to form this 24th day of September 2013.

[Signature]
Gregory J. Teresi
Corporation Counsel

Engrossed and signed by the Vice President of the Common Council and attested by the Clerk of the Common Council this 24th day of September 2013.

[Signature]
Fran A. Yanda
Clerk

[Signature]
Diane Kaehn
Vice President

I hereby approve the foregoing Resolution of the Common Council.

[Signature]
September 24, 2013
Acting Mayor of City of Cohoes, New York
AGREEMENT FOR MAINTENANCE, REPAIR
AND ENERGIZING OF BRIDGE LIGHTING for
State Bridge Identified as
B.I.N. 1-02250-0
NYS Route 32 Over the Mohawk River
P.I.N. 1460.42

This Agreement made this _____ day of __________, 2013, by and between the People of the State
of New York (hereinafter referred to as “STATE”) acting by and through the Commissioner of Transportation
(hereinafter referred to as “COMMISSIONER”) whose principal office is located at 50 Wolf Road, in the City and
County of Albany, State of New York, and the MUNICIPALITY OF the City of Cohoes (hereinafter referred to
as “MUNICIPALITY”) acting by and through the Mayor whose principal office is at 97 Mohawk Street, in the
City of Cohoes, County of Albany, State of New York.

WITNESSETH:

WHEREAS, the COMMISSIONER proposes to replace the Waterford-Cohoes bridge, BIN 1-02250-0,
pursuant to the New York State Highway Law, such bridge being identified as spanning the Mohawk River between
the Town of Waterford, County of Saratoga, and the City of Cohoes, County of Albany within the geographical
jurisdiction of the MUNICIPALITY, and

WHEREAS, it is recognized by the MUNICIPALITY and the COMMISSIONER that the STATE does not
have the funds available to maintain, repair and energize a lighting system for such bridge, and

WHEREAS, the MUNICIPALITY desires to have lighting on such bridge, and

WHEREAS, it is recognized by the MUNICIPALITY and the COMMISSIONER that if the
MUNICIPALITY desires to have lighting on such bridge, the MUNICIPALITY will have to maintain, repair and
energize such lighting at its own expense, and

WHEREAS, the MUNICIPALITY, by Resolution number _______________ adopted at a meeting held
on _______________ approved the above-identified project and the terms and provisions of the Agreement and
has further authorized the Mayor of the MUNICIPALITY to execute this Agreement on behalf of the
MUNICIPALITY

(Copy of such Resolution is attached and made a part of this Agreement), and
WHEREAS, the MUNICIPALITY and the COMMISSIONER are desirous of identifying the respective responsibilities of the parties with regard to the bridge lighting system,

NOW, THEREFORE, in consideration of the mutual promises and benefits moving to the parties, it is agreed as follows, viz:

1. The COMMISSIONER shall provide for the furnishing and placing of the following items in connection with a lighting system on the above-identified bridge:
   a. All equipment needed for a complete and operational bridge lighting system

2. The MUNICIPALITY shall provide for the furnishing and placing of the following items in connection with a bridge lighting system on the above-identified highway:
   a. Not applicable.

3. Upon completion of the replacement of the above-identified bridge, the MUNICIPALITY shall, at its own expense, maintain the lighting system on such bridge. Such maintenance shall include, but not be limited to:
   a. Repair of equipment which may be damaged from any cause whatsoever.
   b. Replacement of equipment which may be damaged from any cause whatsoever, such replacement material to be of equal character to the replaced equipment.
   c. Furnishing electric current for the lighting system during the customary night hours of each day of the year, at no cost or obligation to the STATE.

The MUNICIPALITY shall continue to maintain the lighting system for period of at least 10 years. Beyond 10 years the MUNICIPALITY shall continue to maintain the lighting system until such time as the COMMISSIONER, in his discretion, agrees that such lighting and/or maintenance of such lighting system is no longer desired for such Bridge.

In the event the MUNICIPALITY, without the prior consent of the COMMISSIONER, discontinues the energizing or discontinues payment for the energizing of the bridge lighting system, which results in the State being required to pay the Federal Government any moneys, as a penalty or otherwise, the MUNICIPALITY, upon notification by the COMMISSIONER of such requirement to pay, shall reimburse the STATE the amount of such required payment.

Further, it is expressly understood that the MUNICIPALITY shall indemnify and save harmless the STATE from claims, suits, actions, damages and costs of every name and description resulting from the discontinuance of the energizing or the discontinuance of payment for energizing of the lighting system by the MUNICIPALITY.
4. The COMMISSIONER or his representative may periodically inspect the bridge lighting system provided and installed under the above identified project number to ascertain that the lighting system is being maintained in accordance with the terms of this Agreement and in condition satisfactory to the COMMISSIONER. The COMMISSIONER shall, in writing, notify the MUNICIPALITY of any observed deficiencies, listing such deficiencies. Within thirty (30) days of receipt of such notification, the COMMISSIONER or his representative shall arrange for a meeting to be held with the authorized representative of the MUNICIPALITY. At such meeting the COMMISSIONER or his representative and the authorized representative of the MUNICIPALITY shall discuss the means required to remedy the noted deficiencies. Based on the discussion, and based on the nature of the required remedial action, a reasonable time limit shall be mutually established by the COMMISSIONER or his representative and the authorized representative of the MUNICIPALITY for the satisfactory completion of remedial action by the MUNICIPALITY.

5. It is recognized by the parties hereto that failure of the MUNICIPALITY to complete the required remedial actions within the agreed upon time limit may subject the MUNICIPALITY to certain penalties. If equipment supplied and installed by the STATE for the above subject lighting system was done pursuant to a Federally-aided and Federally-reimbursable contract, and the MUNICIPALITY fails to make remedial actions within the agreed upon time limit, no further Federally-aided project for which the MUNICIPALITY would have maintenance responsibility shall be approved until such time as the lighting system is restored to the level and condition of maintenance required by this Agreement. In addition, failure of the MUNICIPALITY to make such remedial actions may subject the MUNICIPALITY to loss of STATE aid for other MUNICIPAL projects.

6. The MUNICIPALITY agrees not to assign, transfer, convey, sublet or otherwise dispose of this Agreement or any part thereof, or of its right, title or interest therein, or its power to execute such agreement to any person, company, or corporation without previous consent in writing of the COMMISSIONER, except as herein provided by Resolution attached hereto.

7. At the end of ten years the Municipality shall review the Agreement and determine whether it desires to continue maintaining said lighting system.

If at any time beyond 10 years the MUNICIPALITY, in its discretion, determines that it does not desire to maintain said lighting system it will so notify the COMMISSIONER. Where the MUNICIPALITY has no desire to maintain the lighting system said lighting fixtures will be removed by the STATE at the MUNICIPALITY’s expense, unless the STATE has funds available to maintain, repair and energize said lighting system and the COMMISSIONER, in his discretion, determines that such lighting is necessary for such State Bridge. Upon notification by the COMMISSIONER of the removal cost, the MUNICIPALITY shall reimburse the STATE the amount specified.
IN WITNESS WHEREOF, the MUNICIPALITY has caused this Instrument to be signed by its Mayor.

Approved as to form and content:

MUNICIPALITY: City of Cohoes

By: ____________________________
   Municipal Attorney
   (George E. Primeau Sr.)

STATE OF NEW YORK )
   ) SS:
COUNTY OF ALBANY )

On this 13th day of December, 2013 before me personally came
George E. Primeau Sr. to me known, who, being by me duly sworn did dispose and say that he is the Mayor of the Municipal Corporation described in and which executed the above instrument; that he knows the seal of such Municipality; that the seal affixed to said instrument is such corporate seal, that it was affixed by order of the Legislative Body of said Municipal Corporation pursuant to a Resolution which was duly adopted on and to which a certified copy is attached and made a part hereof; and that he signed his name thereto by like order.

______________________________
Notary Public
Notary Public, State of New York
Qualified in Albany County
No. 02TE6140369
Commission Expires Jan. 30, 2017

IN WITNESS WHEREOF, the STATE has caused this Instrument to be signed by said COMMISSIONER of Transportation.

Approved as to form:

Attorney General
The People of the State of New York

By: ____________________________
   Assistant Attorney General
By: ____________________________
   Commissioner of Transportation

Recommended by:

______________________________
Contracts Bureau

STATE OF NEW YORK )
   ) SS:
COUNTY OF ALBANY )

On this __________ day of __________, 2013, before me, the subscriber personally came to me known and known to me to be the Commissioner of Transportation of the State of New York and the same person described in and who executed the same as Commissioner pursuant to the statute in such case provided.

______________________________
Notary Public
NYS Dam
Coordination Letters
November 22, 2013

Daniel J. McCarty, P.E.
Manager - Hydro Operations
Boralex Hydro Operations Inc.
39 Hudson Falls Road
South Glens Falls, NY 12803

RE: NYS Route 32 Over the Mohawk River Bridge Project; City of Cohoes, Albany County and Town of Waterford, Saratoga County; NYSDOT Project Identification Number 1460-42

Dear Mr. McCarty:

The New York State Department of Transportation (NYSDOT) is in the process of completing the preliminary design for the above referenced federally funded project. This project proposes to replace the bridge carrying NYS Route 32 over the Mohawk River, on parallel alignment located approximately 80 feet downstream. The existing Dam is located approximately 650 feet downstream. Due to the close proximity between the proposed bridge and the hydro-electric dam NYSDOT will continue to coordinate with FERC and Boralex Hydro-Operations, the dam operator, throughout the final design process.

Please note that a hydraulic analysis was conducted and the proposed project is not expected to effect the water elevation at the dam.

I am forwarding you a project location plan and the general plans for your review. If you have any questions or comments please do not hesitate to contact the Project Manager:

Geoffrey W. Wood, P.E.
email: Geoffrey.Wood@dot.ny.gov
telephone: 518-457-8900

Mailing Address:
NYSDOT Region 1 Design
50 Wolf Road, POD 2-3
Albany, New York 12232

Sincerely,

[Signature]

James R. Rushford
Project Engineer

Enclosure
November 22, 2013

Gerald L. Cross, Regional Engineer
Office of Energy Projects
Division of Dam Safety and Inspections
New York Regional Office
Telephone: 212-273-5911

RE: NYS Route 32 Over the Mohawk River Bridge Project; City of Cohoes, Albany County and
Town of Waterford, Saratoga County; NYSDOT Project Identification Number 1460.42

Dear Mr. Cross:

The New York State Department of Transportation (NYSDOT) is in the process of completing the
preliminary design for the above referenced federally funded project. This project proposes to replace the
bridge carrying NYS Route 32 over the Mohawk River, on parallel alignment located approximately 80
feet downstream. The existing Dam is located approximately 650 feet downstream. Due to the close
proximity between the proposed bridge and the hydro-electric dam NYSDOT will continue to coordinate
with FERC and Borax Hydro-operations, the dam operator, throughout the final design process.

Please note that a hydraulic analysis was conducted and the proposed project is not expected to effect the
water elevation at the dam.

As discussed on the phone I am forwarding you a project location plan and the general plans for your
review. If you have any questions or comments please do not hesitate to contact the Project Manager:

Geoffrey W. Wood, P.E.,
email: Geoffrey.Wood@dot.ny.gov
telephone: 518-457-8960

Mailing Address:
NYSDOT Region 1 Design
50 Wolf Road, POD 2-3
Albany, New York 12232

Sincerely,

[Signature]

For James Rashford
Project Engineer

Enclosure