STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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Phone:

May 13, 2013

The Honorable William W. Fritz
First Selectman
Town of Clinton
54 East Main Street
Clinton, CT 06413

Board of Selectmen

MAY 16 2013

Clinton, CT 06413

Dear First Selectman Fritz:

Subject: Bridge Inspection Reports for Local Structures
Town of Clinton

The Department of Transportation (Department) has completed its biennial bridge inspection activities in the town of Clinton (Town), which maintains nine bridges in the National Bridge Inventory. The structure summary report and copies of the inspection reports are enclosed. All structures are rated Fair or better except:

Bridge No. 04119, Kelseytown Road over Menunketesuck River – Rated: Poor as of 2004
Bridge No. 04609, Pleasant Valley Road over Menunketesuck River – Rated: Poor as of 2010
Bridge No. 04610, Carter Hill Road over Menunketesuck River – Rated: Poor as of 2010

Please, note that Bridge Nos. 04119, 04609 and 04610 are rated Poor. Because the process to rehabilitate or replace a bridge can take five to ten years to complete, the Town is advised to engage the services of a professional engineering firm immediately. This action is required so that any plans necessary for the rehabilitation or replacement of these structures can be prepared prior to the bridges degrading any further and jeopardizing the safety of the traveling public.

For further information concerning possible funding assistance, please contact Mr. Stanley C. Juber at (860) 594-3213.

It is the Department's belief that serious bridge problems can be prevented or minimized by timely corrective action. Please review the reports for all deficiencies which are considered routine maintenance that should be corrected. The State process of inventory and inspection in no way relieves the Town of its responsibility for bridge maintenance in accordance with Section 13a-99 of the Connecticut General Statutes.

If you have any questions, please contact Mr. Robert P. Zaffetti, Manager of Bridge Safety and Evaluation, at (860) 594-3156.

Very truly yours,

Scott A. Hill, P.E.
Manager of Bridges and Facilities
Bureau of Engineering and Construction

Enclosures

cc: Mr. Ted J. Aldieri, FHWA
Ms. Linda Krause, Lower Connecticut River Valley Council of Governments
The Honorable Fillmore McPherson, First Selectman, Town of Madison

1. **Bridge No. 04117, Glenwood Road over Indian River**
   Type: Two Span Continuous Cast-In-Place Reinforced Concrete Box Culvert
   Condition: Good
   Comments: The downstream channel scour condition has exposed outlet cutoff wall, up to approximately 16 inches high, this condition is for the full length of the cutoff wall. The water depth at the downstream scour varies approximately 13 inches to 38 inches. The inlet cutoff wall is exposed up to approximately 6 inches high this condition is for the full length of the cutoff wall. The cutoff wall height is approximately 4 feet 3 inches per bridge plans. There is no riprap in front of the cutoff walls, natural streambed material stones, gravel and sand.

2. **Bridge No. 04118, Beach Park Road over Hammock River**
   Type: Single Span Cast-In-Place Reinforced Concrete Slab
   Condition: Fair
   Comments: The abutment, abutment struts and wingwall footings {supported on timber piles} are exposed up to approximately 2 feet 1 inch vertically. Previously noted undermining of the abutment footing struts has been filled with gravel. The heavy embankment erosion, a combination of roadway runoff and tidal flow, approximately 6 feet long by 2 feet high by 3 feet deep is located at the end and behind the southeast wingwall. The tide gates on the west side {outlet} of the structure show missing members and detached and broken chains. Also, the tide gates are missing timber members at the bottom resulting in a 6 inch vertical gap at the bottom of the gate.

   This structure is currently posted for a weight restriction of 30 tons for all vehicles. A posting sign is in place at the north approach to the structure, only. It is recommended that an additional signs be placed at the south approach to the structure and the preceding intersections to divert overweight vehicles away this structure. Posting of this structure is required under Section 13a-121 of the Connecticut General Statues and should conform to the standards of the Federal Highway Administration's "Manual on Uniform Traffic Control Devices".

3. **Bridge No. 04119, Kelseytown Road over Menunketesuck River**
   Type: Single Span Multiple Reinforced Concrete Tee-Beams
   Condition: Poor
   Comments: The reinforced concrete deck and tee-beam superstructure are in poor condition. A new bituminous concrete wearing surface was added to the concrete deck and approach pavement. However, the bituminous concrete wearing surface is delaminated for the full length of the bridge deck and is approximately 2 feet wide. The concrete deck underside exhibits numerous areas of hairline map cracking with and without efflorescence, spalls with exposed rebar, dampness and discoloration. The tee-beams exhibit spalls with heavy efflorescence, stalactites, active water leakage, severe scale, potential spalls and spalls with and without exposed rebar.

Please, note that Bridge No. 04119 is rated poor. Because the process to rehabilitate or replace a bridge can take 5 to 10 years to complete, the Town is advised to engage the services of a professional engineering firm immediately. This action is necessary so that any plans necessary for the rehabilitate or replacement of these structures can be prepared prior to the bridges degrading any further and jeopardizing the safety of the traveling public.

4. **Bridge No. 04609, Pleasant Valley Road over Menunketesuck River**
   Type: Single Span Reinforced Concrete Deck Slab
   Condition: Poor
   Comments: The masonry abutments and wingwalls are in poor condition. There is an area of extensive mortar loss between the masonry stones located above and below waterline. A ruler can be inserted between the stones up to approximately 18 inches. The filler {chink} stones are missing in numerous random locations; a ruler can be inserted between in the void up to approximately 25 inches. The masonry wingwalls exhibit several masonry stone voids, up to approximately 6 feet long by 2 feet high by 2 feet 6 inches deep, located below the waterline and at the streambed.

   Please, note that Bridge No. 04609 is rated poor. Because the process to rehabilitate or replace a bridge can take 5 to 10 years to complete, the Town is advised to engage the services of a professional engineering firm immediately. This action is necessary so that any plans necessary for the rehabilitate or replacement of these structures can be prepared prior to the bridges degrading any further and jeopardizing the safety of the traveling public.

5. **Bridge No. 04610, Carter Hill Road over Menunketesuck River**
   Type: Single Span Reinforced Concrete Deck Slab
   Condition: Poor
   Comments: The masonry abutments and wingwall are in poor condition. There is an area of extensive mortar loss between the masonry stones located above and below waterline. A ruler can be inserted between the stones up to approximately 24 inches. The filler {chink} stones are missing in numerous random locations; a ruler can be inserted between in the void up to approximately 24 inches. The masonry abutments wingwalls exhibits numerous masonry stone voids, up to approximately 7 feet long by 8 inches high by 2 feet 10 inches deep, located below the waterline and at the streambed. The northeast wingwall exhibits a full height vertical crack, open approximately ¼ inch, located adjacent to the masonry abutment. The stones are loose in random locations in the masonry wingwalls.

   The approach guide rail consists of timber posts. The posts are weathered, broken and leaning.

Please note that Bridge No. 04610 is rated poor. Because the process to rehabilitate or replace a bridge can take 5 to 10 years to complete, the Town is advised to engage the services of a professional engineering firm immediately. This action is necessary so that any plans necessary for the rehabilitate or replacement of these structures can be prepared prior to the bridges degrading any further and jeopardizing the safety of the traveling public.

6. **Bridge No. 04612, Kelseytown Bridge Road over Menunketesuck River**
   Type: Single Span Multiple Reinforced Concrete Tee-Beams
   Condition: Fair
   Comments: The top of the abutment footings is exposed, approximately 5 feet 8 inches long, at inlet west abutment. The abutment and wingwall footings are timber pile supported.

7. **Bridge No. 05662, Brickyard Road over Menunketesuck River**
   Type: Single Span Prestressed Reinforced Concrete Slab
   Condition: Fair

8. **Bridge No. 06203, Silver Birch Lane over Brook**
   Type: Three Simple Spans Precast Reinforced Concrete Pipe Culvert
   Condition: Good
   Comments: No approach guide rail system.

9. **Bridge No. 06296, Waterside Lane over Hammock River**
   Type: Two Simple Spans Timber Slabs
   Condition: Good
   Comments: This structure is currently posted for a weight restriction of 28 tons for the Four-Axle Single Unit Vehicle. Posting of this structure is required under Section 13a-121 of the Connecticut General Statues and should conform to the standards of the Federal Highway Administration's "Manual on Uniform Traffic Control Devices".

   This bridge is scour critical based on an analysis done as part of the Department's Bridge Scour Evaluation Program. A copy of the scour evaluation report was previously sent to the Town on April 5, 2006. The analysis found the structures to be scour critical for a 10-year river flow event. During this event, it is possible that the soil supporting this structure will be eroded, undermining this structure and making them unstable.

   The Department's Bridge Safety and Evaluation Section will check for scour during its routine biennial bridge inspections. However, the City should monitor for scour during and following flood events that equal or exceed the 10-year river flow. The City should be prepared to take whatever actions are necessary to ensure the safety of the public up to and including closure of the structure. It is recommended that the city engage the services of an engineering firm to determine the best course of action at this structure.

Border Bridge:

This structure is on the town-line between the Towns of Clinton and Madison. A copy of the September 2, 2011 inspection in enclosed for your use.

Bridge No. 04855. River Road over Hammonasset River – Condition: Fair

Orphan Bridge:

There is also an orphan in the Town of Clinton. An orphan bridge is a structure over a railroad that supports a municipal road and whose ownership is in dispute. The Town is responsible for maintaining the non-structural elements of this structure in accordance with Section 13b-283-3, "Responsibilities of the Municipality" of the Regulations of the Connecticut State Agencies.

Bridge No. 06195, Liberty Street over Amtrak Railroad – Condition: Good

Prepared by: _____ **Date:** 5/1/13
David Pawlikowski, P.E.

Reviewed by: _____ **Date:** 5/1/13
Theodore D. Lapierre, P.E.