



Town of Webster

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January 24, 2018 Request for Qualifications (RFQ) Clothespin Bridge NHDOT Bridge #121/103

The Town of Webster requests proposals for qualifications and experience for bridge design, contract administration and construction administration. The Town of Webster wishes to replace Clothespin Bridge. Firms are requested to provide company qualifications which should address the following issues regarding the above named project; Firm Qualifications, Project Understanding, Project Approach, Project Schedule, Project Team, Project Qualifications, references and resumes of the team to be assigned to the project.

Firm Qualifications

Each consultant shall provide an overview of their company that shall include a minimum of the following:

- a. Location of the corporate headquarters.
- b. Location where work will be performed.
- c. Number of years in business for corporate and branch offices.
- d. Other names that the firm has conducted business under.
- e. Overview of the company and types of engineering services provided.

Project Understanding

The consultant shall demonstrate their knowledge of the project by documenting design and construction issues associated with Clothespin Bridge.

Project Approach

The consultant shall clearly indicate their approach to the design of the project. The approach shall be in conformance with "Attachment B – Design Procedures for Municipally Managed Projects" (copy attached).

Project Schedule

The consultant shall include a project schedule outlining the anticipated time frame and duration of the various services outlined in the project approach. The Town of Webster anticipates a contract for engineering services to be signed by April 17, 2018.

Project Team

Include a Project Team and Organization Chart of all individuals who will be assigned to work on this project including the designation of the Project Manager. The consultant shall be required to have a minimum of two licensed professional engineers on staff, one of which shall be registered in the branch classification of structural engineer in the State of New Hampshire. Also, list any proposed sub-consultants, their intended scope of work and credentials.

Indicate the current staff that has worked on Municipal bridge projects completed by your firm and the tasks performed. Resumes shall be included for each member of the project team.

Project Qualifications

List similar municipally managed bridge projects for which the consultant has provided engineering services in the last five (5) years. The following information shall be included for each project:

- a. Project location, type and length of bridge, and number of lanes.
- b. Owner contact with address and phone number for at least five (5) projects.
- c. Project was a total replacement or rehabilitation – include brief scope of engineering services provided.
- d. Construction cost.

The consultant shall document bridge design experience with pre-stressed concrete and structural steel girders, and also abutments and piers.

Consultant selection shall be based on possession of the necessary experience, organization, technical and professional qualifications, skills and facilities, ability to comply with proposed or required time of completion or performance, and possession of a satisfactory record of performance.

Upon receipt of proposals, the Town's Select Board or review committee may then interview firms. The Town will enter into negotiations with the top rated firm for a scope and fee for services. If the Town cannot reach agreement on the scope and fee with that firm, the Town will entertain a proposal from the second rated firm, and so on, until an agreement is reached.

Three (3) copies of Qualifications must be delivered to the Town of Webster, Select Board's office, 945 Battle St, Webster, NH 03303 no later than Friday, February 23, 2018. Copies of this proposal are available in the Select Board's office and on the Town's website, www.webster-nh.gov.

ATTACHMENT B

DESIGN PROCEDURES FOR MUNICIPALLY-MANAGED STATE BRIDGE AID PROGRAM PROJECTS

1. Purpose

These administrative procedures are applicable to all bridge projects designed by Licensed Professional Engineers for municipally-managed projects. All studies and plans shall be submitted through the municipality to NHDOT's Municipal Highways Engineer in the Bureau of Planning and Community Assistance for review and approval.

2. Engineering Study

The municipal Engineer or Consultant shall prepare an Engineering Study for the project to include the following:

A. Existing Conditions

This section shall contain a description of the existing bridge and roadway to include bridge width and length; type of bridge superstructure and substructure; and general alignment of the approach roadway, including any significant geometric or topographical conditions.

B. Design Criteria

This section shall contain a listing of the relevant design criteria and manuals to be used, including bridge loading and design speed. At a minimum, the design of roadway elements shall conform to the current standards, specifications, policies and guidelines enumerated in the Department's Highway Design Manual and Bridge Design Manual, except as approved. Further, the contract documents for construction of the project shall require that all items of work shall comply with the material and construction requirements of the current Standard Specification for Road and Bridge Construction of the New Hampshire Department of Transportation, except as approved.

C. Proposed Roadway Alignment

This section shall include a description of the methodology and reasoning used to determine the proposed roadway alignment. The discussion shall include horizontal and vertical curves; travel way and shoulder widths; and impacts of the proposed roadway alignment, to include wetlands, utilities, other existing structures, and private property.

D. Bridge Type Studies and Recommendations

Bridge types studied shall be indicated in narrative and the recommended bridge type shown in plan, elevation and typical section along with the requisite reasoning therefor. The typical section shall portray the components of the substructure and superstructure, materials of construction, beam spacing, and dimensions of pavement, curbs, etc.

E. Boring Layout and Logs

Borings shall be taken if determined necessary by the municipal Engineer or Consultant. The number and content of the boring logs shall be sufficient to present a reasonably accurate picture of subsurface conditions.

F. Hydrologic and Hydraulic Studies

The hydrologic and hydraulic parameters at the bridge sites shall be determined using accepted engineering methods.

G. Cost Estimate

An itemized cost estimate shall be furnished for the proposed bridge type and roadway alignment. Item numbers and names shall conform to the Item Description Master File as furnished by NHDOT.

H. Environmental Considerations

The Engineering Report should identify the natural, cultural, social and economic resources that may be affected by each of the alternatives considered. The final design should comply with applicable environmental laws, rules, regulations, and guidelines regarding, but not necessarily limited to, RSA 482-A (NH Fill and Dredge in Wetlands Act), RSA 227-C:9 (Directive for Cooperation in the Protection of Historic Resources) and Section 404 of the Clean Water Act (Federal Dredge and Fill Permit). Federal involvement in a project (e.g. Section 404 Permit) can trigger other Federal environmental regulations or requirements.

To facilitate compliance with RSA 227-C:9, the municipality/Consultant should schedule an initial meeting with the NH Division of Historical Resources (NHDHR) early in the Engineering Study Phase to identify potential historical or archeological concerns. To assist all participants in the process, that meeting should be scheduled through NHDOT's Bureau of Environment Cultural Resources Manager as part of NHDHR's attended bimonthly meetings conducted at the NHDOT to review cultural resource issues on a multitude of projects.

The Consultant is advised to describe the scope of the project and bring pictures of not only the bridge, but also of the property in the four quadrants that might be affected by the project construction. NHDHR can then advise the municipality/Consultant of concerns it may have regarding potential historical or archeological issues. Results of the meeting may require engagement of one or more cultural resource sub-consultants to research and provide pertinent information in compliance with RSA 227-C:9, leading to additional meeting(s) with NHDHR, or a determination made that no further contact is required as there is no affect on cultural resources.

A list of State and Federal environmental regulations/requirements, which may be applicable, is provided at the end of **Attachment B**.

3. Preliminary Plans

Preliminary plans, which may later be incorporated into the final plans, shall include, but not be limited to:

- a) Location plan (small scale, as 1" per mile) (to be removed from contract drawings).
- b) General plan and elevation of the bridge.
- c) Cross-section of the approach roadway adjacent to the bridge.
- d) Cross-section of the lower roadway or water course through the bridge area.
- e) Cross-section of the bridge.
- f) General notes, including design loading, foundation type, allowable foundation loads, minimum frost cover, superstructure type, and seismic design category.
- g) Hydrologic and hydraulic data, including drainage area and design flood volume, velocity, and elevation.
- h) Profiles of all roadways affected by the project.
- i) Boring locations and logs if available.
- j) Existing ground contours and proposed finished channel contours, including proposed channel and slope protection.
- k) Roadway plan and critical cross-sections.

4. Finalized Plans and Contract Proposal

Following review of the Preliminary Plans by the NHDOT, finalized plans and contract proposal, including specifications, shall be prepared and submitted to the NHDOT for review and approval. This submission shall include an up-dated quantity list and cost estimate.

Before finalized plans and contract proposal are submitted, it shall be independently checked in detail by a structural and highway designer, other than the original designer, and reviewed by the Consultant's supervising engineer in responsible charge of the project.

The municipal Engineer's or Consultant's Licensed Professional Engineer stamp for the State of New Hampshire shall appear on the plans and contract proposal to be advertised. The stamp shall be that of the professional engineer who prepared the plans and contract proposal or under whose direct supervisory control it were prepared.

5. Bridge Load Rating Analysis

The Consultant shall perform a load rating analysis for the bridge using the AASHTO Strength Design Method (Load Factor Design), to be submitted on a form as provided by the NHDOT.

6. Construction Services

The Consultant shall render services to the municipality including, but not restricted to, the following:

A. Consultation

If and when required during the construction of the project, the Consultant shall provide general consulting services and advice and review of all detail construction drawings.

B. Checking Shop Drawings, Interpretation, Etc.

- a) Review, check and approve all working drawings prepared by others to include the construction contractors or their subcontractors. This work shall include, but not be limited to, all structural steel and architectural shop plans; erection plans; and plans for cofferdams, falsework, evaluation of designs of temporary structures, and any other items required to conform to the NHDOT's Standard Specifications.
- b) Render interpretations, as necessary, of the drawings and specifications and submit recommendations for necessary modifications in either or both to meet unanticipated construction conditions and prepare necessary drawings and specifications to cover same.
- c) Prepare such detailed drawings as may be needed to supplement the contract drawings to permit the proper completion of the project.

C. Field Inspection Services - as deemed necessary by the municipality.

7. As-Built Plans

The municipality or Consultant shall submit one (1) set of reproducible as-built plans (sepias not acceptable) to the NHDOT's Municipal Highways Engineer in the Bureau of Planning and Community Assistance. The as-built plans will be due following approval of the completed construction work and prior to reimbursement by the NHDOT of the municipality for their share of construction costs.

State & Federal Environmental Regulations/Requirements

State

1. NH Dredge & Fill Permit (Wetlands) RSA 481-A
2. Water Quality Certificate (Section 401)
3. Coastal Zone Management Consistency
4. NH Rivers Management & Protection Program
5. NH Lakes Management & Protection Program
6. NH Shoreland Protection Act
7. NH Native Plant Protection Action of 1987
8. NH Endangered Species Conservation Act of 1979
9. Directive for Cooperation in the Protection of Historic Resources RSA 227-C:9
10. Public Waters Access Advisory Board

Federal

1. National Environmental Policy Act
2. Federal Highway Administration (FHWA) Env. Regs. 23 CFR 771,772
3. FHWA Technical Advisory T6640.8A
4. Section 4(f), DOT Act
5. Uniform Relocation Assistance and Real Property Acquisition Act of 1970
6. Title VI of Civil Rights Act of 1964/Executive Order 12898
7. Surface Transportation and Uniform Relocation Assistance Act of 1987; Section 123(f) (Historic Bridges); Section 130 (Wildflowers)
8. Safe Drinking Water Act
9. Sections 106/110 of the National Historic Preservation Act
10. Wild & Scenic Rivers Act
11. Land and Water Conservation Fund Act (Section 6f)
12. Executive Order 11990 (Protection of Wetlands)
13. Rivers and Harbors Act of 1899
14. Federal Water Pollution Control Act (1972), as amended by Clean Water Act
15. Executive Order, 11988 (Floodplain Management)
16. National Flood Insurance Act
17. Coastal Zone Management Act
18. Farmland Protection Policy Act of 1981
19. Resource Conservation and Recovery Act of 1976 (Haz. Waste)
20. Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Haz. Mats.)
21. Superfund Amendments and Reauthorization Act (Haz. Waste)
22. Endangered Species Act of 1973
23. Fish and Wildlife Coordination Act
24. Clean Air Act

Other regulations/requirements may also apply, during project development (pre-construction), construction, or post-construction (maintenance).

Bridge Inspection Report

☒ NBI ☒ Element ☐ FC ☐ U/W ☐ Spécial

Webster 121/103

Date of Inspection: 11/18/2016

Date Report Sent: 1/19/2017

☒ Picture taken during inspection

Owner: Municipality

CLOTHESPIN BR ROAD

Over

BLACKWATER RIVER

Recommended Postings:

Weight: E2

Width: Narrow Bridge

"ONE LANE BRIDGE" SIGNS IN PLACE.

Primary Height Sign Recommendation: None

Optional Centerline Height Sign Rec: None

☒ Weight Sign OK☒ Width Sign OK☒ Height Signs OKClearances: Over:
(Feet) Under: 0.00
Route:**Condition:** Municipal Redlist

Deck: 3 Serious

Superstructure: 5 Fair

Substructure: 4 Poor

Culvert: N N/A (NBI)

Structure Type and Materials:

Number of Spans Main Unit: 1

Number of Approach Spans: 0

Main Span Material and Design Type

Steel Multiple Beam

Sufficiency Rating: 21.5%**NBI Status:** Structurally Deficient

Bridge Rail: Substandard

Rail Transition: Substandard

Bridge Approach Rail: Substandard

Approach Rail Ends: Substandard

NH Bridge Type: I Beams w/ Concrete Deck

Deck Type: Concrete, Cast in Place

Wearing Surface: Bituminous

Membrane: None

Deck Protection: None

Pavement thickness: 2.6 in

Curb Reveal: Not Applicable

Plan Location: 2-2-3-5

Bridge Dimensions:

Length Maximum Span: 65.0 ft

Left Curb/Sidewalk Width: 0.0 ft

Width Curb to Curb: 18.0 ft

Approach Roadway Width (W/ Shoulders): 18.0 ft

Total Bridge Length: 73.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Total Bridge Width: 20.6 ft

Median: No median

Bridge Skew: 35.00 °

Bridge Service:

Type of Service on Bridge: Highway

Type of Service under: Waterway

Lanes on bridge: 2

Lanes Under: NA

AADT: 500

Future AADT: 740

Percent Trucks: 4%

Year of AADT: 2013

Year of Future AADT: 2035

Year Built: 1954

Year Rebuilt: Not Rebuilt

Detour Length: 2.0 mi