

## **Borough of Fenwick Roads Committee**

### **Minutes of the meeting held March 25, 2019**

The Road Committee met at 112 Sequassen Avenue on Monday, March 25, 2019.

The meeting was called to order at 4:38 PM ET.

In attendance were C. Chadwick, J. McCann and W. Webster (Chairman)

Also attending was Marilyn Ozols, Land Use Administrator and Frank Keeney, Board of Warden & Burgesses liaison.

C. Chadwick acted as recording secretary.

#### Agenda Item #1

J. McCann moved to accept the minutes of November 17, 2018. Seconded by C. Chadwick. Approved unanimously.

#### Agenda Item #2

Geoffrey Jacobson of Nathen L. Jacobson Associates, Chester CT presented the "Proposal for Survey and Engineering Services – Sequassen Avenue Improvements" dated March 21, 2019 and attached to these minutes.

Mr. Jacobson began by reviewing the survey and plan which had been used to raise and reconstruct sections of Nibang and Sequassen Avenues west of the "crab creek bridge" several years ago. He also presented a survey of the southern extent of Sequassen Avenue which had been used to relocate the southerly portion of that roadway several years ago.

Both plans depicted similar pre-renovation elevations of approximately 3.3 feet above mean high water ("still high water"). The Nibang/Sequassen project resulted in a finished elevation of the roadway of approximately 5.4 feet above MHW – a 2.1 foot increase.

The March 21, 2019 proposal outlines \$4,930 for a survey which would be required to know how to proceed with engineering a design for \$6,430. The total is \$11,360.

The committee members discussed the now regular flooding of the portion of Sequassen Avenue south of the bridge. The consensus was that elevated tides deliver sea water through a low section of berm just south of the bridge and that storm events also wash over the dune at the south end of the roadway. The exit path for water accumulated on 500 to 1100 feet of the roadway appears to be the low berm after the tide or storm has abated but that drainage can take days. W. Webster asserted that as much as 24" of standing water has made the roadway impassible.

Ms. Ozols pointed out that a Sequassen Avenue South reconstruction would require DEEP permits if the roadway or any of the grading impinges on the CJL (Coastal Jurisdiction Line). It would also require local review. This suggests that the Borough cannot just have a responsible road contractor do a simple elevation.

Because of the likely permit requirements the committee discussed the possible elevation or re-grading of the berm on the west side of the roadway and reconstruction of the dune on the east side of the roadway at the same time as the reconstruction of the roadway itself. It was thought that this “integrated approach” might be attractive to the DEEP as a means of protecting the valuable Lynde Point marsh restoration.

#### Agenda Item #3

Mr. Jacobson helped the Committee review the status of the proposed Nibang Avenue entrance reconstruction. This project is not “shovel ready” as there has been no formal proposal/application made to the State DOT and there may also have to be permits obtained from the DEEP. Mr. Jacobson estimated the cost of this project to be more than \$100,000 owing to his experience with the typical municipal bidding process. He agreed that there may be a way to lessen the cost by being selective in the bidding process.

#### Agenda Item #4

W. Webster asked the Committee’s consent for him to make the Board of Warden & Burgesses aware of the Sequassen Avenue – South proposal. Unanimous agreement.

There being no other business, the meeting was adjourned at 6:06 PM ET

Respectfully submitted,

C. Chadwick – acting secretary



Jacobson

March 21, 2019

Mr. William O. Webster, Jr.  
Borough of Fenwick  
580 Maple Avenue  
Old Saybrook, Connecticut 06475

Re: Proposal for Survey and Engineering Services  
Concept Design Alternatives Phase  
Sequassen Avenue Improvements  
Borough of Fenwick

Dear Mr. Webster:

In accordance with your request, we are pleased to submit herewith our proposal for Field Survey and preparation of Concept Design Alternatives for elevating an approximate 1,350-foot long section of Sequassen Avenue beginning at the Crab Creek Bridge and extending southerly approximately 1,350 feet to the point where private driveways split off. The purpose of this proposal is to evaluate alternative concept designs to reduce the frequency of roadway flooding and to select a preferred alternative for discussion with state regulatory staff.

This proposal is based on the following assumptions:

- A. The Borough will advise us of the desired roadway width, and shoulder width, to be used for development of the Concept Design Alternatives (note that the recently reconstructed portions of Nibang Avenue and Sequassen Avenue were designed with roadway widths of 16-feet and 12-feet respectively).
- B. The elevated roadway will be constructed at a constant (0%) grade with a uniform cross-slope to direct surface runoff towards the marsh.
- C. A total of three Concept Design Alternatives will be developed.
- D. No subsurface explorations are proposed to be conducted.
- E. No environmental investigations or hazardous waste assessments will be performed.
- F. Preparation of a State Historic Preservation Office Project Notification Form, and a Request for Natural Diversity Database (NDDB) State Listed Species Review, are not included in this proposal.
- F. Final design and permitting services are not included in this proposal.

Based on the foregoing, our Scope of Services is defined as follows:

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**Nathan L. Jacobson & Associates, Inc.**  
Nathan L. Jacobson & Associates, P.C. (NY)  
86 Main Street P.O. Box 337 Chester, Connecticut 06412-0337  
Tel 860.526.9591 Fax 860.526.5416  
Consulting Civil and Environmental Engineers Since 1972



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#### Task 1 – Survey

- 1.1. Obtain the services of a certified professional wetland/soil scientist to flag the wetland boundary in accordance with State and Federal criteria. Flags to be sequentially numbered in the field and shown accordingly on the drawings. We propose to utilize the services of New England Environmental Services, R. Richard Snarski, CPSS, unless you have an objection.
- 1.2. Research the Old Saybrook land records for available and pertinent data relating to the street lines of Sequassen Avenue in the vicinity of the project site. We propose to utilize the services of our affiliate company, Land Survey & Technical Services, Inc. for all land survey work.
- 1.3. Conduct a vertical control survey conforming to Vertical Accuracy Class V-2 and establish a minimum of two (2) benchmarks for construction referenced to the North American Vertical Datum of 1988 in the vicinity of the project site.
- 1.4. Perform a field survey conforming to Horizontal Accuracy Class A-2 and Topographic Accuracy Class T-2 to obtain appropriate right of way, topographic information and the location of the existing roadway, fire hydrants, utility poles and wetland vegetation flagged by others. Horizontal datum will be local assumed North or will be related to existing mapping.
- 1.5. Prepare a survey worksheet at an appropriate scale depicting the street lines, planimetric features and topography of Sequassen Avenue in the vicinity of the project site. Contours will be depicted at a one (1) foot interval.

#### Task 2 – Concept Design Alternatives

- 2.1. Prepare a digital project base map from information provided by the project land surveyor.
- 2.2. The first Concept Design Alternative to be developed will follow the existing horizontal alignment of Sequassen Avenue at an elevation of 5.4 NAVD88 (this is the 10-year Stillwater elevation used for design of the recently reconstructed portions of Nibang Avenue and Sequassen Avenue). The width of the roadway and shoulders will be as selected by the Borough of Fenwick, with 2H:1V side slopes.
- 2.3. Send an electronic copy of the first Concept Design Alternative to designated Borough of Fenwick representatives with suggestions as to modifications to consider for development of subsequent Concept Design Alternatives (i.e. – elevate road higher, flatten side slopes, shift roadway



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alignment to minimize or avoid encroachment into wetland areas or below the Coastal Jurisdiction elevation). Communications regarding direction for development of subsequent Concept Design Alternatives to be via e-mail (no meeting).

- 2.4 Based on input received in 2.3 above, develop two additional Concept Design Alternatives, send via e-mail to designated Borough of Fenwick representatives, and attend one meeting to discuss and select a preferred alternative for discussion with state regulatory staff.
- 2.5 Contact state regulatory officials, send electronic copy of preferred alternative, and coordinate an on-site meeting to discuss potential permitting concerns. Prepare summary meeting minutes for distribution and concurrence by attendees.

It is our understanding that you will cooperate with us in providing those items or services specifically listed herein as being necessary to the performance of our services, and to the extent feasible, furnish or loan to us reference material and all other information pertinent to the subject project that would be useful to us in performing our services. Specifically, you will provide and/or pay as Additional Services for the following:

Item A: Arrange for and provide access for us to enter upon the property for us to perform our services.

We propose to provide our services for the following lump sum fees:

Professional Service or Expense	NLJA	Consultant/ Expenses	Task Total
<b><u>Task 1 - Survey</u></b>			<b>\$4,930</b>
Engineering	\$170		
Land Survey & Technical Services		\$4,100	
Richard Snarski		\$660	
<b><u>Task 2 - Concept Design Alternatives</u></b>			<b>\$6,430</b>
Engineering	\$6,430		
Subtotal	\$6,600	\$4,760	
Total Fee			<b>\$11,360</b>



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We propose to provide our services for any additional services authorized by you, on an hourly rate basis plus reimbursement for out-of-pocket expenses (with no mark-up). The fee for any additional authorized services shall be based on the hourly rates listed below for the type of personnel involved in performing the service multiplied by the total hours devoted to performing said services by each type of personnel.

2019 Hourly Rates for Services Rendered

<u>Personnel Category</u>	<u>Hourly Rate</u>
Technical Assistant	\$60/hr
CADD Technician	\$92-\$97/hr
Engr. Technician & Inspector	\$76-\$101/hr
Geologist/Envr. Analyst	\$115-\$125/hr
Project Engineer (P.E.)	\$105-\$121/hr
Principal Engineer (P.E.)	\$139-\$148/hr
Principal Land Surveyor	\$137.65
Survey Technician	\$74-\$91

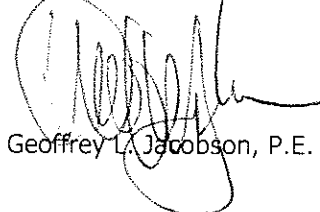
The hourly rates listed above shall remain in effect through the end of 2019. These rates shall be reviewed at the end of this and subsequent calendar years and, effective January 1 of every year thereafter, they will be adjusted to reflect current operating costs.

If this proposal is acceptable to you, please sign both copies of this proposal. Keep one copy for your file and return one copy to our office. This proposal is valid for 90 days from its date.

We look forward to being of continued service to the Borough of Fenwick. If you have any questions, please feel free to contact me.

Very truly yours,

NATHAN L. JACOBSON & ASSOCIATES, INC.



Geoffrey L. Jacobson, P.E.



Jacobson

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Accepted: Borough of Fenwick

By:

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(Authorized signature)

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(Please print)

Date:

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