

**Westford Board of Selectmen &  
Westford Affordable Housing Committee**

Affordable Housing on the Edwards parcel

28 June 2013

Request for Interest

**Development potential assessment**

## **PURPOSE OF THE REQUEST FOR INTEREST**

The Westford Board of Selectmen and the Westford Affordable Housing Committee are seeking indications of interest in the development of affordable rental housing on 3.2 acre of undeveloped land owned by the Town of Westford and currently under the care and custody of the Westford Board of Selectmen.

The land is part of a 40 acre parcel, known as the “Edwards parcel”, bounded by Tyngsboro Road, Forrest Road, and Kayla Drive, and is identified on the Town’s GIS system as parcel # 045 0099 0000.

In 2006 the Town commissioned an engineering study on the entire Edwards parcel with LandTech Consultants, Inc. LandTech delineated the wetlands and vernal pools, described the types and location of the various foliage growth, and performed soil analysis and percolation tests. A copy of the LandTech Report, dated January 2007, is attached. (See Attachment A)

There are three certified vernal pools on the Edwards parcel, as well as a large central swath of wetlands. Additionally nearly all the Edwards parcel is delineated as “Priority Habitat” for an endangered species. The Town and Natural Heritage for Endangered Species Program (“NHESP”) have reached an agreement to utilize the 3.2 acres for development, provided the town designate the remaining unused portion of the Edwards parcel for conservation and protect it in perpetuity with a conservation restriction. (See Attachment B) The 3.2 acre project area (“footprint”) is at the northeast corner of the parcel. (See Attachment C)

The Westford Board of Selectmen and the Westford Affordable Housing Committee now seek to investigate the possibilities for a limited affordable housing project within the confines of the 3.2 acre footprint. To that end, the Selectmen, and the Affordable Housing Committee have issued this RFI and developed a list of desirable features and characteristics we would like to see in such a project. This list is neither exhaustive or required. The only absolute requirement is that the project include an affordable component. There is no expectation that all items on the list can or will be met by any project, and responses will be evaluated on their individual merits.

NOTE: Land and funding contributions may be available, depending on an assessment of each response. Funding from the Affordable Housing Trust Fund may be available. Funding is negotiable.

NOTE: This RFI is not an offer and no contract, conditional or otherwise, shall be created by any response. The 3.2 acres may be disposed of only pursuant to a Town Meeting vote and in compliance with Mass. G.L. c.30B, & 16. The LandTech report was prepared for the Town and is no to be relied on by respondents.

## **LIST OF DESIREABLE ATTRIBUTES FOR AN AFFORDABLE HOUSING PROJECT**

Buildings whose appearance blends with the single family homes in the neighborhood

Spacing of buildings that is similar to the spacing of homes in the neighborhood

Maximize energy efficiency – *GO GREEN*

Each building housing multiple units with three bedrooms in each unit

A preference for all units being rental units

Four to six buildings (8 to 12 total units) in the project area (2 to 3 units per building)

Keep project within the confines of the 3.2 acre project area

Maximize the affordability component – at least 20-25% being affordable in compliance with the state affordable housing regulations

Projects should be such that so all units count on Westford's Subsidized Housing Inventory ("SHI"), eg. 20% of the units rent at a rate suitable for persons earning 50% of area median income, or 25% of the units rent at a rate suitable for persons earning 80% of area median income, etc.

Access to project as nearly opposite North Hill Road as possible

Locate the well as close to the intersection of Forrest and Tyngsboro roads as possible

Create the smallest path needed to access the well and maintain the path/well area as infrequently as possible

Shift development to as close to the road as possible and limit the amount of clearing within the project

Screen the buildings from view from Tyngsboro Road

Explore low-impact development options

## CONTACTS

For questions regarding responses or for visits to the site, please contact the following individuals:

Paul Cully, Chair  
Westford Affordable Housing Committee  
4 Patriot Lane  
Westford, MA 01886  
Phone: (978) 692-2498  
Email: [pac4patriot@comcast.net](mailto:pac4patriot@comcast.net)

## DUE DATES AND LOCATION

All responses shall be due **by 4:00 PM on August 2, 2013**, in a format that can be disseminated electronically, preferably by email.

Responses must be sent or delivered to:

The Town of Westford  
c/o Jodi Ross, Town Manager  
55 Main Street  
Westford, MA 01886  
[jross@westfordma.gov](mailto:jross@westfordma.gov)

Attn: Westford Board of Selectmen and Westford Affordable Housing Committee

All responses will be reviewed within 30 days following the due date by the Affordable Housing Committee. The Committee will then present the responses to the Board of Selectmen at their next available meeting with recommendations on how to proceed with each respondent. All respondents will be notified with the results of this review within seven days of the meeting with the Selectmen.

If one or more of the responses is of interest, the Affordable Housing Committee will work with the respondent(s) on the next steps, which will likely include a formal Request for Proposals, which will be open for submission of proposals by additional respondents.

## **RESPONSE SUBMISSION AND CONTENT**

Responses may include some or all of the following:

- Unit count, affordability, and mix
- Level of affordability for the affordable units
- Method for ensuring units count of SHI
- A concept plan / drawing showing buildings, access, septic, and well locations
- Estimate of approximate project costs, including cost per unit, cost per building, site work, etc.
- A discussion of possible funding sources and alternatives – depending on the proposal(s), local, state, and other funding may be available.

## **SITE VISITS**

Visits / tours of the site may be arranged as convenient for any interested party by contacting:

Paul Cully  
978-692-2498  
[pac4patriot@comcast.net](mailto:pac4patriot@comcast.net)

## **QUESTIONS AND ANSWERS**

Questions regarding this RFI, the property, or the portion of the property potentially available for an affordable housing project, may be directed to the Chair of the Affordable Housing Committee.

The Affordable Housing Committee and the Board of Select men will also convene a separate meeting to discuss this RFI and any proposed project, if they receive a request to do so from an interested party. Any such meeting would be posted and advertised in accordance with the State's Open Meeting Law.

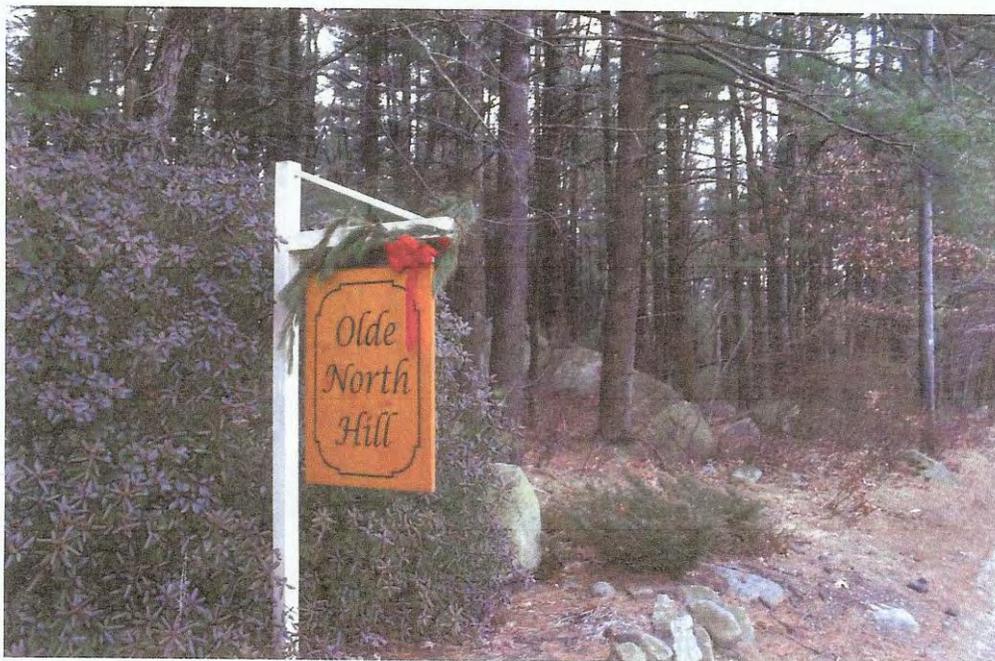
## **ADDITIONAL / SUBSEQUENT TESTING ON THE PROPERTY**

Any interested party who wishes to perform any on-site testing on the property would be required to obtain permission for any such testing from the Westford Board of Selectmen.

## **ATTACHMENT A**

# SUPPLEMENTAL DATA REPORT

Map 45, Parcel 99  
Forrest Road and Tyngsboro Road  
Westford, MA



January 2007  
Prepared For: The Town of Westford

**LANDTECH**

*Consultants, Inc.*

*Civil Engineers • Land Surveyors • Project Management*  
484 Groton Road, Unit #1 • Westford, Massachusetts 01886  
Tel: (978) 692 - 6100 • Fax: (978) 692-6668

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SECTION 1.      **EXISTING CONDITIONS**

## SECTION 1. EXISTING CONDITIONS

### 1.1 Site Description

The subject site consists of approximately 40.4 acres of land, listed as Parcel 99, on Town of Westford Assessor's Map 45. The site is currently zoned Residential A (RA).

The site is bounded to the west by Tyngsboro Road, to the east by Forrest Road, and to the south by residential house lots on Kayla Drive. In addition the rear of the property abuts property owned by the Town of Westford off of Flushing Pond Road.

### 1.2 Topographic Features and Vegetative Cover

The site has rolling terrain with low points at the three wetlands areas located in the eastern and western corners and running roughly north to south through the center of the site. The site's high point has an elevation of approximately two hundred and sixty (260) feet above sea level and is located in the middle of the site near test hole 1206-7. The site's ultimate low point, located along the southwest property line has an elevation of two hundred and ten (210) feet above sea level.

The site is divided into two separate areas by a four (4) acre wetland running roughly north to south through the entire property. The area west of the wetlands along Tyngsboro Road contains thirteen (13) acres of land. This area is wooded with light underbrush and an area of wetlands at the western property corner. The woods are a mix of coniferous and deciduous trees. An area of large boulders (glacial erratics) can be found on this portion of the site roughly across from North Hill Road, one hundred (100) feet into the woods to the south of the "Olde North Hill" sign. No cart paths, maintained trails, or vehicle access points were observed. A small structure is located at the intersection of Tyngsboro Road and Forrest Road. The structure is labeled "Ye Olde Forrest Road Bus Stoppe".

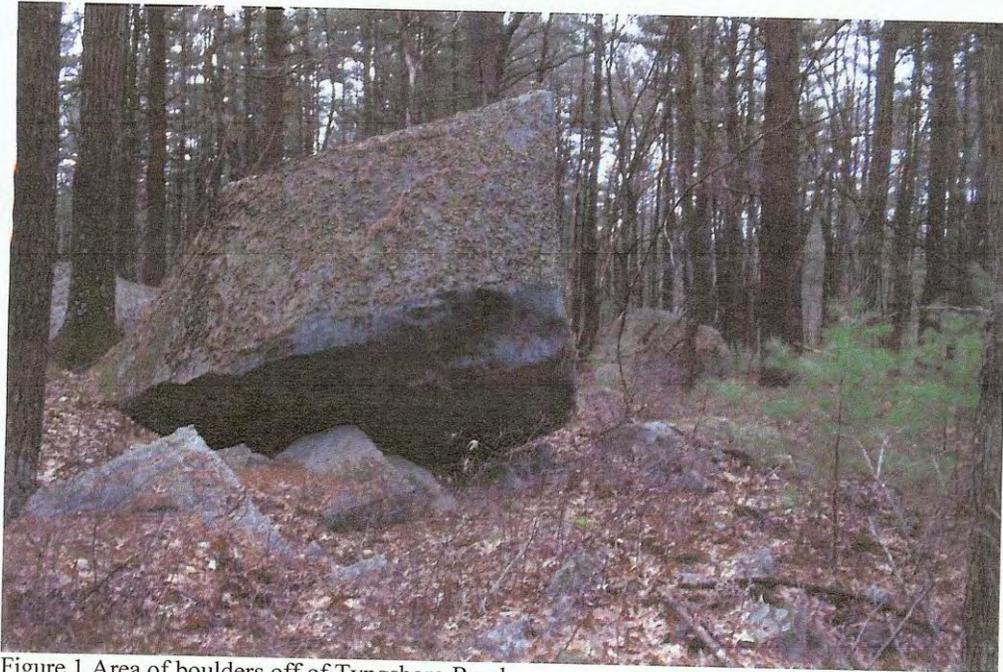


Figure 1 Area of boulders off of Tyngsboro Road.

The area east of the large wetland adjacent to Forrest Road contains twenty-three (23) acres of land. This area is wooded with thick underbrush and an area of wetlands at the eastern property corner. The woods are a mix of coniferous and deciduous trees. No cart paths, maintained trails, or vehicle access points were observed. This portion of the site is traversed by a power company easement and one set of overhead wires. The easement is free of trees and crosses through both areas of wetlands adjacent to Forrest Road.



Figure 2 Power lines adjacent to Forrest Road at wetland flag D24.

### **1.3 Resource Areas**

The majority of the site is located within an Estimated Habitat of Rare Wildlife as shown on Natural Heritage and Endangered Species Program 2006 Priority Habitat and Estimated Habitat Maps, maintained in the MassGIS system. Depending on the type of endangered species and their possible migration routes, large areas of the site could be deemed unusable for development by the Natural Heritage and Endangered Species Program. In addition three certified vernal pools are shown on the site. See the attached plans for locations. The Vernal Pool Certification Forms submitted in 1990 also appear to label the large central wetland area as a vernal pool, although it is not certified at this time. The forms have been included in Appendix D.

The presence of the vernal pools and endangered species is a significant concern in terms of the possible development of this property. It is strongly recommended that a Wetland and Wildlife Consultant be retained to review the property and possibly perform a wildlife study in late February or early March when many amphibians breed and are easily observed. In addition a written request can be made to the Natural Heritage and Endangered Species Program to determine the actual endangered species onsite.

Three distinct wetlands have been flagged according to their vegetation, groundwater indicators and soil indicators in accordance with the Wetland Protection Act and the Town of Westford Non-Zoning Bylaw. The wetlands were flagged by Basbanes Wetland Consulting and field located by LANDTech Consultants, Inc. in November 2006. The wetlands flags are shown on the attached plans. Any activity within one hundred feet of the wetlands is subject to the Wetlands Protection Act and the Westford Non-Zoning Wetland Bylaw.

The site is located in a Zone C, areas of minimal flooding outside the 500-year flood plain as shown on the Federal Emergency Management Agency FEMA Flood Insurance Rate Map for community panel number 250225 0005 B, effective June 15, 1983.



Figure 3 Vernal Pool #143 at southeast corner of the property (Wetland Flag series "D").



Figure 4 Vernal Pool # 142 off Forrest Road north of Briarwood Road. (Wetland Flag series "C").

SECTION 2.      **SOILS ANALYSIS**

## SECTION 2. SOILS ANALYSIS

### 2.1 Subsurface Conditions

According to the Middlesex County Soil Survey Report Middlesex County the majority of the site contains soil group *115, Canton fine sandy loam*. This agrees with the Natural Resource Conservation Service (N.R.C.S.) Soil Maps (see appendix C). A small area at the rear of the site contains soil group *35 Hinckley loamy sand* and soil group *35 Swansea muck* is associated with the large wetland at the center of the site. The following description was obtained from the *Middlesex County Massachusetts Interim Soil Survey Report*, fourth edition, by the United States Department of Agriculture Natural Resource Conservation Service, Published by the Middlesex Conservation Service, July 1995.

#### CANTON

Canton series consists of nearly level to very steep, deep (5+ft.) well drained soils on uplands. They form in glacial till, ground moraine, and ice-contact stratified drift. Canton soils have friable fine sand loam surface soil and subsoil with moderately rapid permeability, over a loamy coarse sand to loamy fine sand substratum at 18 to 36 inches with rapid permeability. Canton soils have a very stoney or extremely stoney surface, except where the stones have been removed and have stones below the surface. Major limitations are related to slope and stoniness.

#### HINCKLEY

Hinckley series consists of nearly level to very steep, deep (5+ ft.), excessively drained soils on glacial outwash plains, terraces, kames, and eskers. They formed in gravelly and cobbly coarse textured glacial outwash. Hinckley soils have friable or loose, gravelly and very gravelly sandy loam to loamy coarse sand surface soil and subsoil with rapid permeability, with loose stratified sands and gravels in the substratum at 12 to 30 inches which have very rapid permeability. Major limitations are related to slope and droughtiness.

#### SWANSEA MUCK

Swansea series consist of nearly level, deep (5+ ft.), very poorly drained organic soils in depressions and low flat areas of uplands and glacial outwash plains and terraces. They formed in 16 to 51 inches of black, highly decomposed organic material (muck) with moderate or moderately rapid permeability, over sandy mineral material with rapid permeability. They have a water table that is at or near the surface most of the year. Major limitations are related to wetness and low strength.

Subsurface testing was performed on the site under the supervision of the Westford Board of Health. Test hole locations are shown on the attached site plans, and results of the testing are shown in Appendix B of this report. Test holes **1206-1** to **1206-4** were conducted in the area adjacent to Tyngsboro Road and found soils consistent with the description of *Canton fine sandy loam*. These four holes varied in depth from eight (8) feet to nine and one half (9 1/2) feet. Groundwater was observed in these holes at eight (8) feet in depth or below. The estimated seasonal high groundwater for these holes was at five (5) feet, and represents where water would be observed during spring time high groundwater conditions. A percolation test was conducted adjacent to test hole **1206-1** to determine the permeability of the soils. The result was a percolation rate of two (2) minutes per inch.

Test holes **1206-5** to **1206-8** were conducted in the area east of the main wetlands, off of Forrest Road. These test holes also found soils matching the description of *Canton fine sandy loam*. These four holes varied in depth from eight (8) feet to ten (10) feet. Groundwater was observed in the holes at six (6) feet in depth or below. The estimated seasonal high groundwater for holes **1206-5**, **1206-7**, and **1206-8** was at five (5) feet in depth. The estimated seasonal high groundwater for **1206-6** was fifty (50) inches. A percolation test was conducted adjacent to test hole **1206-5** to determine the permeability of the soils. The result was a percolation rate of thirteen (13) minutes per inch.

## **2.2 SITE POTENTIAL AND CONSTRAINTS**

In general *Canton fine sandy loam* has a reasonable permeability, suitable for the installation of an on-site sewage disposal system. In addition the permeability of the soils would allow for infiltration of storm water as part of a storm water management system. The soils do not appear to be a significant limiting factor for this property.

SECTION 3. DRAINAGE ANALYSIS

## SECTION 3. DRAINAGE ANALYSIS

### 3.1 EXISTING DRAINAGE PATTERNS

The majority of the site drains towards the large central wetland area. Smaller areas drain towards Kayla Drive, Tyngsboro Road, and to each of the three vernal pools onsite. The vernal pool (#144) at the southwest property corner has an existing 18" concrete outlet culvert under Tyngsboro Road. One pair of existing catchbasins is located in Forrest Road approximately one hundred (100) feet from Tyngsboro Road. These catch basins discharge via a twelve (12) inch concrete pipe to the east, across private property.

### 3.2 SITE POTENTIAL AND CONSTRAINTS

The development of any property creates increases in runoff through the addition of impervious surfaces including building, roads, and parking areas. This increase must be mitigated through the use of storm water management systems that detain and infiltrate runoff to maintain the amount of runoff leaving the site at predevelopment conditions. Common techniques include collecting runoff via catch basins and routing through detention basins or subsurface infiltration systems. Runoff from the majority of the site will likely be discharged within the buffer zone to one of the onsite wetlands. This triggers the requirements set forth in the Department of Environmental Protection *Stormwater Management Policy*. This policy has specific requirements that control the quantity and quality of any storm water discharge. There can be no increase in runoff rates compared to the existing conditions. This will require that the increase due to impervious areas be detained in storm water basins and/or infiltrated in the ground. In addition a series of Best Management Practices will be needed to treat the storm water to ensure that a minimum of 80% of the total suspended solids has been removed. A typical treatment train might involve street sweeping, deep sump catch basins with gas traps, sediment forebays and extended detention basins. *Standard 6* of the *Stormwater Management Policy* makes additional restrictions on the types of Best Management Practices which can be utilized where discharges occur to *Critical Areas*, such as vernal pools, along with a requirement for emergency shut-down or containment capabilities. The requirements of the *Stormwater Management Policy* are administered by the Conservation Commission during the review of a Notice of Intent Filing.

**SECTION 4. SITE UTILITIES**

## SECTION 4. SITE UTILITIES

### 4.1 EXISTING UTILITIES

The following utilities are available to the site:

- Electric:** Overhead electric service currently exists along Tyngsboro Road and Forrest Road.
- Cable Television:** Overhead cable service currently exists along Tyngsboro Road and Forrest Road.
- Telephone:** Overhead telephone service currently exists along Tyngsboro Road and Forrest Road.
- Natural Gas:** A 6" natural gas main is currently available within Tyngsboro Road. A 4" natural gas main is available within Forrest Road.
- Water:** Municipal water service is not available. The nearest water main (12") is 2,300'± away at the intersection of Forrest Road and Groton Road (Route 40)
- Sewer:** Municipal sanitary sewer service is not available.

### 4.2 SITE POTENTIAL AND CONSTRAINTS

The lack of municipal sewer will require an on-site sewage disposal system. Any system with a design capacity over 2,000 gallons per day, nineteen (19) bedrooms, is required by Title 5 to utilize a pressure distribution leaching facility and would require a hydrogeologic study to determine the effect of groundwater mounding. A septic system designed by the standards of 310 CMR 15.000 Title 5, is limited to a maximum of 10,000 gallons per day. Based on Title 5 loading rates of 110 gallons per bedroom, the site is limited to 90 bedrooms. Any project over 10,000 gallons per day would require a Waste Water Treatment Plant.

The site is not served by municipal water and has two options for water service. The first would be a 2,300'± waterline extension up Forrest Road from Groton Road. This option would be very costly and involve a time consuming permitting process.

The second option would be an onsite well. Any well servicing over twenty-five (25) people (i.e. 12 bedrooms) would be considered a public water supply. A public water supply well would require a protective well radius completely contained within the site that is free of buildings, parking or any other development. This radius is based on the wells flow rate and could be up to four hundred (400') effectively removing up to eleven (11) acres from the usable area of the site. An onsite well would also create a nitrogen loading limitation of no more than 440 gallons per day of sewage disposal per 40,000 square feet of property. This would limit the site to 175 bedrooms. A public water supply well is also a costly and time consuming option.

The ability to obtain a cost effective water supply is a significant concern for this site.

**LANDTECH** Consultants, Inc.

SECTION 5.      **SITE ACCESS**

## SECTION 5. SITE ACCESS

### 5.1 EXISTING ACCESS

The site has approximately one thousand one hundred and fourteen (1,114) feet of frontage on Tyngsboro Road plus one thousand five hundred and thirty-nine (1,539) feet of frontage on Forrest Road. There are no existing vehicle access points for the entire property.

### 5.2 TYNGSBORO ROAD

Tyngsboro Road provides potential for access to the western portion of the project. Tyngsboro Road itself is fairly flat and straight in front of the main portion of the site and begins to curve at each end of the property. This provides sufficient site distances for safe vehicle access from the middle portion of the site, while site distances are reduced at the southwestern corner and near the intersection of Forrest road. The ideal access point or points would take into consideration several factors. The first goal would be to maintain at least a one hundred (100) foot offset to the vernal pool at the southwest corner of the property. In addition an access should be sufficiently offset from the end of Forrest Road to limit vehicle conflicts. This leaves the area roughly across from North Hill Road as a possible access point. If only one access were to be provided it would typically be designed either directly across from North Hill Road, creating a four way intersection, or offset to either side by a minimum of one hundred and twenty-five (125) feet. If two access road were utilized they should be offset a minimum of twenty-five (125) feet to either side of North Hill Road.

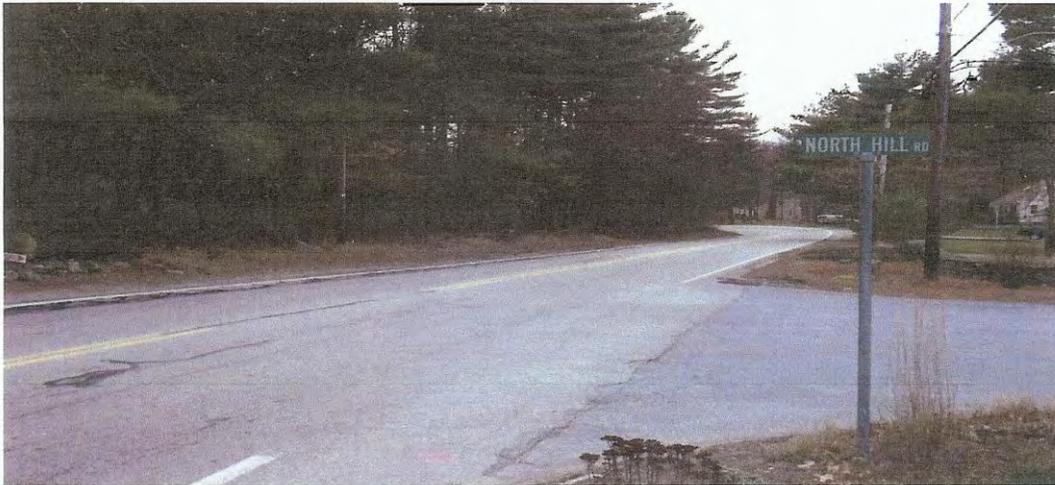


Figure 5 Tyngsboro Road viewed from the end of North Hill Road.

### 5.3 FORREST ROAD

Forrest Road could provide an additional access if needed to the western portion of the property. The first five hundred (500) feet of Forrest Road off of Tyngsboro Road is straight and has reasonable site distances for safe vehicle access. A convenient access point would be approximately two hundred (200) feet southeast of Tyngsboro road, midway between the intersection of Tyngsboro and Forrest Roads and vernal pool #142.

The eastern portion of the site only has access off of Forrest Road due to the large wetland area bisecting the property. Access would need to be located between vernal pool #142 and vernal pool #143, preferably maximizing the offsets to these environmentally sensitive areas. This places the access point across from Briarwood Drive, creating a four way intersection. Site distances at this location are adequate looking towards the south, however to the north a curve in Forrest Road and an area of pine trees significantly reduces the site distance (see figure 6 below). If this area of the site were cleared and graded it may be possible to obtain the required three hundred and fifty (350) feet of site distance towards the north. Construction of a stormwater management facility in this area might accomplish two purposes at once by taking advantage of the clearing and grading required to meet the site distance requirement.

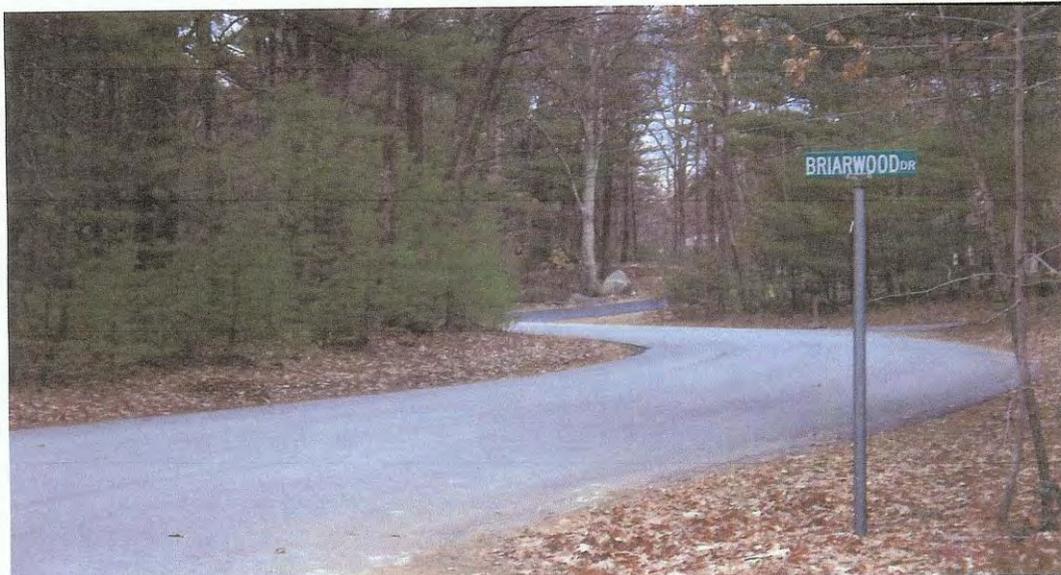


Figure 6 Forrest Road viewed from the end of Briarwood Drive, showing limited site distance.

**LANDTECH** Consultants, Inc.

**Appendix A U.S.G.S. LOCUS MAP**



**Appendix B      TESTHOLE LOGS**

**LANDTech Consultants, Inc.**  
**SOIL EVALUATION REPORT**

<b>APPLICANT:</b>		<b>JOB NUMBER:</b> 06-141
Name	Town of Westford	
Address		
<b>PROJECT LOCATION:</b>		
Lot No. / Street & No.	Forrest Road and Tyngsboro Road	
Town/City, State, Zip	Map 45, Parcel 99, Westford, ma	
<b>ATTENDEES:</b>		
Soil Evaluator:	John Boardman P.E.	
Approval Authority	Darren MacCaughey	
Owner Representative:		

**OBSERVATION HOLE SOIL LOG**

Hole Number and Date	Depth from Surface (inches)	Soil Horizon	Munsell Soil Color	Soil Classification	Other Descriptions and Comments
1206-1 12/15/2006	0-6"	Ap	10yr 3/1	sandy loam	PERC A
	6-18"	Bw	10yr 5/6	sandy loam	
	18-108"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) 96"	ESHWT (inches) 60"	
1206-2 12/15/2006	0-6"	Ap	10yr 3/1	sandy loam	
	6-18"	Bw	10yr 5/6	sandy loam	
	18-108"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) 108"	ESHWT (inches) 60"	
1206-3 12/15/2006	0-3"	Ap	10yr 3/1	sandy loam	
	3-20"	Bw	10yr 5/6	sandy loam	
	20-96"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) 96"	ESHWT (inches) 60"	
1206-4 12/15/2006	0-6"	Ap	10yr 3/1	sandy loam	
	6-24"	Bw	10yr 5/6	sandy loam	
	24-60"	C1	2.5y6/4	fine sand	
	60-114"	C2	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) N/A	ESHWT (inches) 60"	

## SOIL EVALUATION REPORT

<b>APPLICANT:</b>		<b>JOB NUMBER:</b> 06-141
Name	Town of Westford	
Address		
<b>PROJECT LOCATION:</b>		
Lot No. / Street & No.	Forrest Road and Tyngsboro Road	
Town/City, State, Zip	Map 45, Parcel 99, Westford, ma	
<b>ATTENDEES:</b>		
Soil Evaluator:	John Boardman P.E.	
Approval Authority	Darren MacCaughey	
Owner Representative:		

### OBSERVATION HOLE SOIL LOG

Hole Number and Date	Depth from Surface (inches)	Soil Horizon	Munsell Soil Color	Soil Classification	Other Descriptions and Comments
1206-5 12/15/2006	0-6"	Ap	10yr 3/1	sandy loam	PERC B
	6-24"	Bw	10yr 5/6	sandy loam	
	24-120"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) 112"	ESHWT (inches) 60"	
1206-6 12/15/2006	0-12"	Ap	10yr 3/1	sandy loam	weeping at 72"
	12-24"	Bw	10yr 5/6	sandy loam	
	24-120"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 50"	Depth to Water (inches) 72"	ESHWT (inches) 50"	
1206-7 12/15/2006	0-4"	Ap	10yr 3/1	sandy loam	refusal due to boulders?
	4-20"	Bw	10yr 5/6	sandy loam	
	20-96"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) 96"	Depth to Mottles (Inches) 60"	Depth to Water (inches) N/A	ESHWT (inches) 60"	
1206-8 12/15/2006	0-10"	Ap	10yr 3/1	sandy loam	
	10-24"	Bw	10yr 5/6	sandy loam	
	24-120"	C1	10yr 6/3	loamy sand	
	Depth to Refusal (Inches) N/A	Depth to Mottles (Inches) 60"	Depth to Water (inches) N/A	ESHWT (inches) 60"	

**LANDTech Consultants, Inc.**  
**SOIL EVALUATION REPORT**

<b>APPLICANT:</b>		06-141
Name	Town of Westford	
Address		
<b>PROJECT LOCATION:</b>		
Lot No. / Street & No.	Forrest Road and Tyngsboro Road	
Town/City, State, Zip	Map 45, Parcel 99, Westford, ma	
<b>ATTENDEES:</b>		
Soil Evaluator:	John Boardman P.E.	
Approval Authority	Darren MacCaughey	
Owner Representative:		

**PERCOLATION TEST RESULTS**

Hole Number	Date	Depth to Bottom (inches)	Soil Classification	Percolation Rate (minutes per inch)	Other Descriptions and Comments
PERC B	12/15/06	55"	LOAMY SAND	13	AT 1206-5
PERC A	12/15/06	58"	LOAMY SAND	2	AT 1206-1

## **ATTACHMENT B**

**From:** Bill Turner [<mailto:bturner@westfordma.gov>]  
**Sent:** Wednesday, November 28, 2012 7:22 AM  
**To:** [david.paulson@state.ma.us](mailto:david.paulson@state.ma.us)  
**Cc:** [lauren.glorioso@state.ma.us](mailto:lauren.glorioso@state.ma.us); [pac4patriot@comcast.net](mailto:pac4patriot@comcast.net); Angus Jennings  
**Subject:** Re: 07-21527: 07-21527: Forrest Road/Tyngsboro Road

Thank you very much. We very much appreciate your taking the time to meet with us and for the helpful information provided.

Bill Turner  
Westford Conservation/Resource Planner

Westford Conservation Commission  
55 Main St., Westford MA 01886  
Phone: 978-692-5524  
Fax: 978-399-2732

"Paulson, David (FWE)" <[david.paulson@state.ma.us](mailto:david.paulson@state.ma.us)> writes:  
Bill,

07-21527: 07-21527: Forrest Road/Tyngsboro Road

It was good meeting with you and the Westford Affordable Housing Committee last week. I thought we had a productive meeting. I wanted to follow-up with some of the points we discussed. The "Concept A" design is something that can be fully permitted pursuant to MESA. We understand that a 24 unit development maybe to "dense" for the community, however, we are looking at the level of total disturbance to habitat. In short, we are comfortable with a development project located within the proposed limits of the "Concept A plan". We are also willing to consider the placement of 1-2 small units located between Forrest Road and the power lines. As previously mentioned the proposed project will require a Conservation and Management Permit (CMP) and require an Environmental Notification Form with MEPA. The "Net Benefit" portion of the CMP can be achieved through onsite land protection.

Below are some additional design recommendations that can reduce the overall impacts.

- 1) Locate development along Tyngsboro Road with the "Concept A" area
- 2) Place septic under proposed parking areas or connect to sewer (if available)
- 3) To the greatest extent possible, locate the well as close to the intersection of Forrest and Tyngsboro (shifting it NE).
- 4) Create the smallest path needed to access the well and maintain the path/ well area as infrequently as possible.

5) Shift development to as close to the road as possible and limit the amount of clearing on the lots.

6) Cluster development

7) Explore low-impact development options

Please let me know if you have any questions or comments. I look forward to working with you and your team on this project. I am also happy to review any draft designs that you may have.

All the best,

Dave

David Paulson, M.S.

Endangered Species Review Biologist  
Natural Heritage and Endangered Species Program  
Massachusetts Division of Fisheries and Wildlife  
100 Hartwell Street, Suite 230  
West Boylston MA 01583  
Office: 508-389-6366  
Fax: 508-389-7890

## **ATTACHMENT C**

