

Environmental Notification Form  
The Residences at Johnson Farm  
189 Landham Road  
Sudbury, Massachusetts 01776

Submitted to:  
Executive Office of Energy and Environmental Affairs  
MEPA Office  
October 31, 2011

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Secretary Richard K. Sullivan, Jr.  
Executive Office of Energy and Environmental Affairs  
MEPA Office  
100 Cambridge Street, Suite 900  
Boston, MA 02114

**Re: Environmental Notification Form  
The Residences at Johnson Farm  
189 Landham Road  
Sudbury, Massachusetts**

Dear Secretary Sullivan:

On behalf of Madison Place Sudbury LLC, Tetra Tech is filing this Environmental Notification Form ("ENF") for "The Residences at Johnson Farm" located in Sudbury, Massachusetts (the "Project"). The Project site is comprised of approximately 35.4 acres of which 8.7 acres will be developed for a 120 unit mixed-income rental apartment complex pursuant to M.G.L. c. 40B. The Project will include a cluster of ten 3-story multi-family apartment buildings, a small property management office building, seven garages, and 180 parking spaces. Project amenities include a waste/recycle enclosure area, sidewalks, site lighting, landscaping and utility infrastructure.

The Project warrants an ENF filing because certain state permits are required including a MA DEP BRP WP 81 - General Permit Coverage for Small Wastewater Treatment Facilities and the Project also exceeds certain thresholds for wetlands alterations including 301 CMR 11.03(3)(b)1.d: alteration of 5,000 or more square feet of bordering or isolated vegetated wetlands (limited project) and 301 CMR 11.03(3)(b)1.f: alteration of ½ or more acres of any other wetlands (Riverfront Area). However, the Project does not meet or exceed any mandatory EIR thresholds. Accordingly, we are confident that any issues which arise in the context of the Project under the jurisdiction of MassDEP can be resolved in the course of the permitting process. Although not mandated, this ENF includes full reports and supporting documentation on the wetlands, stormwater, wastewater disposal, greenhouse gas reduction measures and traffic aspects of the Project.

Engineering and Architecture Services  
One Grant Street  
Framingham, MA 01701  
Tel 508.903.2000 Fax 508.903.2001

It is noteworthy that the completion of the Project will significantly advance many of Sudbury's established affordable housing goals and will provide for a variety of local and regional benefits that include:

- Introducing a much-needed housing type by the addition of *rental* units in Sudbury, the most urgent housing need for Sudbury residents identified in the Town's 2005 Community Housing Plan, which documents the critical shortage of affordable rental options in Sudbury.
- Adding 120 units to the Town's affordable housing inventory (100% of the units), resulting in a substantial advancement toward the 10% target identified in the Town's Housing Production Plan.
- Meeting or exceeding the Town's Guidelines for Comprehensive Permit (40B) Developments. In particular the Project will result in:
  - a low net density of approximately 5.5 units per buildable acre;
  - the preservation of the existing fields and barn along Landham Road with a setback of over 650 feet from the road;
  - the maintenance of ample additional buffers and screening between adjoining uses that generally achieve at least three times the applicable zoning setback requirements;
  - the implementation of "Green Construction" elements and sustainable design measures throughout the development. For instance:
    - porous pavement is proposed throughout the site; and
    - high-efficiency systems and appliances are proposed within buildings.
- The achievement of a high level of local preference, subject to the extent allowable under law and DHCD, in order to provide housing options to those directly affiliated with Sudbury.

Please publish this ENF in the Environmental Monitor on November 9, 2011, the next publication date. Enclosed are two copies of the bound ENF, including appendices. Also enclosed are one additional copy of the ENF form and a loose copy of the USGS map

showing the project site. The ENF distribution list and Public Notice of Environmental Review are included in Appendix F.

If you have any questions or require any additional information, please contact me at (508) 903-2050. Thank you for your consideration of this Project.

Very truly yours,

A handwritten signature in black ink, appearing to read "Joseph Freeman", with a long horizontal flourish extending to the right.

Joseph Freeman  
Senior Project Manager

PA14331\127-14331-11001\DELIVERABLES\DELIV-04-9-30-11 ENF\ENF COVER LETTER 103111.DOC

## **Table of Contents**

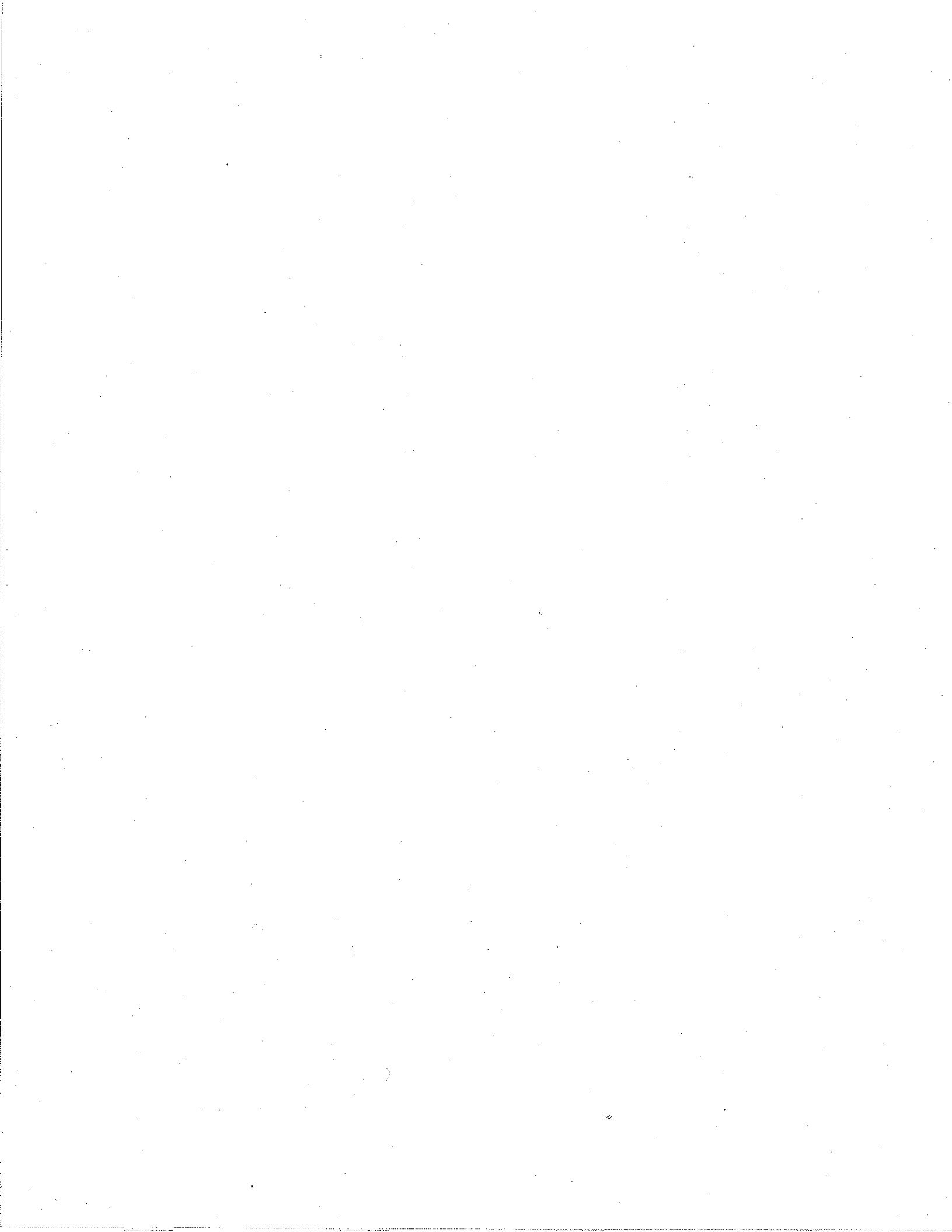
Environmental Notification Form

### **List of Figures**

Figure 1	USGS Locus Map
Figure 2	2 Lot ANR Plan-Alternative Concept Sketch #2
Figure 3	7 Lot Subdivision Plan-Alternative Concept Sketch #3
Figure 4	13 Lot Subdivision Plan-Alternative Concept Sketch #4
Figure 5	2 Buildings/24 Units-Alternative Concept Sketch #5
Figure 6	10 Buildings/120 Units-Alternative Concept Sketch #6
Figure 7	10 Buildings/120 Units-Alternative Concept Sketch #7

### **List of Appendices**

Appendix A	Site Development Plans
Appendix B	Notice of Intent
Appendix C	Stormwater Management Plan
Appendix D	Traffic Study
Appendix E	Greenhouse Gas Information
Appendix F	Distribution List and Public Notice of Environmental Review



**Commonwealth of Massachusetts**  
**Executive Office of Energy and Environmental Affairs**  
**Massachusetts Environmental Policy Act (MEPA) Office**

**Environmental Notification Form**

*For Office Use Only*

EEA#: \_\_\_\_\_

MEPA Analyst: \_\_\_\_\_

*The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.*

Project Name: <b>The Residences at Johnson Farm</b>		
Street Address: <b>189 Landham Road</b>		
Municipality: <b>Sudbury</b>	Watershed: <b>Sudbury-Assabet-Concord (SuAsCo)</b>	
Universal Transverse Mercator Coordinates: Zone: <b>19: Easting: 301799, Northing: 4692004</b>	Latitude: <b>42.355056</b> Longitude: <b>-71.406586</b>	
Estimated commencement date: <b>2012</b>	Estimated completion date: <b>2014</b>	
Project Type: <b>Residential</b>	Status of project design: <b>50 % complete</b>	
Proponent: <b>Madison Place Sudbury LLC</b>		
Street Address: <b>15 Brickyard Lane</b>		
Municipality: <b>Westborough</b>	State: <b>MA</b>	Zip Code: <b>01581</b>
Name of Contact Person: <b>Joseph Freeman</b>		
Firm/Agency: <b>Tetra Tech</b>	Street Address: <b>1 Grant Street</b>	
Municipality: <b>Framingham</b>	State: <b>MA</b>	Zip Code: <b>01701</b>
Phone: <b>508-903-2000</b>	Fax: <b>508-903-2001</b>	E-mail: <b>joe.freeman@tetrattech.com</b>

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

Yes  No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))  Yes  No

a Special Review Procedure? (see 301 CMR 11.09)  Yes  No

a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No

a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

*(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)*

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

**301 CMR 11.03(3)(b)1.d: Alteration of 5,000 or more sf of bordering or isolated vegetated wetlands. (Allowable under 310 CMR 10.53(3)(e), Limited Project Provisions.)**

**301 CMR 11.03(3)(b)1.f: Alteration of ½ or more acres of any other wetlands (Riverfront Area).**

Which State Agency Permits will the project require?

**MA DEP BRP WP 81 - General Permit Coverage for Small Wastewater Treatment Facilities**

**MA DEP – Section 401 Water Quality Certification**

**MA DEP – Superseding Order of Conditions (if required)**

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

**None** (The Project will be undertaken pursuant to M.G.L. c. 40B but there will be no financial assistance from any agency of the Commonwealth; the Project will be privately financed through the Federal Home Loan Bank of Boston's New England Fund program, overseen by the Massachusetts Housing Finance Agency.)

<b>Summary of Project Size &amp; Environmental Impacts</b>	<b>Existing</b>	<b>Change</b>	<b>Total</b>
<b>LAND</b>			
Total site acreage	<b>35.44</b>		
New acres of land altered		<b>8.7</b>	
Acres of impervious area	<b>0.16</b>	<b>3.73</b>	<b>3.89</b>
Square feet of new bordering vegetated wetlands alteration		<b>10,485</b>	
Square feet of new other wetland alteration		<b>IVW* 4,740</b> <b>RFA** 49,920</b>	
Acres of new non-water dependent use of tidelands or waterways		<b>0</b>	
<b>STRUCTURES</b>			
Gross square footage	<b>2183</b>	<b>143,923</b>	<b>146,106</b>
Number of housing units	<b>1</b>	<b>119</b>	<b>120</b>
Maximum height (feet)	<b>24</b>	<b>21</b>	<b>45</b>
<b>TRANSPORTATION</b>			
Vehicle trips per day	<b>10</b>	<b>840</b>	<b>850</b>
Parking spaces	<b>2</b>	<b>178</b>	<b>180</b>
<b>WASTEWATER</b>			
Water Use (Gallons per day)	<b>440</b>	<b>19,360</b>	<b>19,800</b>
Water withdrawal (GPD)			
Wastewater generation/treatment (GPD)	<b>440</b>	<b>19,360</b>	<b>19,800</b>
Length of water mains (miles)			
Length of sewer mains (miles)			
Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			

\* IVW – Isolated Vegetated Wetland

\*\* RFA – Riverfront Area



## **GENERAL PROJECT INFORMATION – all proponents must fill out this section**

### **PROJECT DESCRIPTION:**

Describe the existing conditions and land uses on the project site:

The majority of the 35.44-acre Site is undeveloped. It is relatively level in topography, consisting of former agricultural fields, young stands of upland forest and wetland areas, which make up 39% of the property. Dominant tree species are red maple (*Acer rubrum*) located primarily in wetlands, and eastern white pine (*Pinus strobus*) located primarily in non-wetlands. The front (eastern) portion near Landham Road contains early successional abandoned agricultural fields and a farmhouse, garage, shed, stable and barn. The house is serviced by municipal water, on-site septic system, fuel oil tank and overhead electric, telephone and cable. A paved driveway provides access from Landham Road. An existing disturbed cart path crosses over wetland areas and the perennial stream on site. The existing filled cart path, which apparently dates back many years, includes significant side slope fill and consists of non-native soil stratigraphy. A natural gas transmission line easement crosses the front portion of the Site through the field area. A USGS Locus Map is included as Figure 1. Existing Conditions are shown on the Site Development Plans in Appendix A.

Describe the proposed project and its programmatic and physical elements:

**NOTE:** *The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.*

The project site at 189 Landham Road is identified on Assessors Map L10, Lot 0500 within the Single Residence A (A-Res) Zoning District. The project is a mixed-income, rental housing development created under MGL Chapter 40B (75% market rate units and 25% affordable units available to households earning not more than 80% of the applicable area median income). In accordance with the regulations promulgated by the Department of Housing and Community Development all 120 units will count towards the Town of Sudbury's targeted 10% affordable housing requirements. The Project's 120 apartment units (60 1-bedroom and 60 2-bedroom units) will be distributed within ten 3-story multi-family apartment buildings and the Project will also include: a small property management office building, seven garages, 180 parking spaces (22 garage bays and 158 surface spaces), waste/recycle enclosure area, sidewalks, site lighting, landscaping and utility infrastructure.

The proposed site development limit of work area, including perimeter grading, is 8.7 acres, which is 24.5% of the overall 35.44 acre property area. Because the proposed 250-foot wetlands crossing (designed upon the existing cart path crossing and culverts) is necessary to provide access to the otherwise unreachable upland area, this project falls under the provisions of 310 CMR 10.53(3)(e), Limited Project. The Limited Project wetlands alteration area is 10,500+/- SF. The upland area west of the crossing where buildings and parking areas are proposed is a distance of more than 650 feet from Landham Road.

All paved areas associated with this project, i.e., site access drives, parking areas and walkways are proposed as porous bituminous pavement (with aesthetic pervious paver sidewalks immediately in front of the buildings). Porous pavement is a Low Impact Development technique that allows rainfall to permeate through the pavement and infiltrate into the ground, essentially eliminating runoff from the paved surface areas. The result is a decentralized stormwater management system; there is no need for a conventional closed drainage system (i.e., catch basins, manholes and drain pipe) collecting and conveying runoff from traditional impervious asphalt paved areas to large detention basins. This reduces the environmental impact and footprint of the proposed site development by minimizing clearing and grading that would otherwise be necessary without the site-wide use of porous pavement. Tetra Tech designed, permitted and monitored the construction of the largest porous pavement installation in New England at Lowe's Home Improvement Store/Target Store located at the Greenland Meadows Shopping Plaza in Greenland, New Hampshire. The University of New Hampshire's

Stormwater Center uses that project location in their Porous Pavement Training Workshops and Seminars. There are other porous asphalt, pervious concrete and interlocking permeable paver installations located on the campus of UNH and nearby, including a porous asphalt parking lot installation at the Great Bay Discovery Center in Greenland and a porous asphalt road in the town of Pelham, NH. Porous asphalt is used by the Maine DOT on a portion of State Highway in South Portland, Maine. Tetra Tech also designed, permitted and inspected the porous asphalt parking lot construction at the Porter and Chester Institute in Canton, Massachusetts; and we have designed and successfully permitted another porous asphalt installation for the South Shore YMCA in Quincy that will be installed in 2012.

The proposed development will be serviced by a solid waste disposal and recycling area with bins; underground electric, telephone, cable, internet and fire alarm; natural gas; water main; fire hydrants in five locations; energy-saving LED Area Lights; and a Wastewater Treatment Facility. The proposed project is shown on the Site Development Plans in Appendix A.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

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**NOTE:** *The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

**Project Alternatives:**

Alternative Site:

There are no alternative sites in Sudbury that are comparable and which would materially advance the project's affordable housing goals with lesser impacts on resource areas. In fact, the project site appears to be uniquely suited to accommodate the project, due to its relatively large 35.5 acre size, which includes approximately 18 acres of upland area on the westerly side of the site. The lack of comparable sites is confirmed by the proponent's own exhaustive efforts to find such a site and evaluation by EcoTec on September 20, 2011 of the MLS listings for Sudbury, which confirm that, at that time, there existed no properties for sale in excess of 6 acres in size. Accordingly, the lack of any large sites indicates that the proposed project wetland crossing, necessary to provide access to substantial upland portions of the project site may be permitted, where the alteration results in a small order of magnitude impact relative to the overall resource areas on the site and considering the measures and mitigation provided to minimize impacts.

No Build:

The No-build Alternative assumes that that the proposed development does not occur. This alternative fails as a way to provide access to otherwise unreachable uplands on the westerly portion of the site and fails to address the pressing local and regional need for affordable rental housing (currently lacking in Sudbury) that will be advanced by completion of the project. Under this alternative, the site would remain available for development as allowed under its residential zoning, however, the substantial buffers provided in the preferred alternative would not be permanently protected as open space.

ANR Lot Alternative:

The ANR Lot Alternative (Figure 2) would utilize the existing road frontage along Landham Road and current zoning creating two single-family house lots. This alternative allows 32.75 +/- acres of undeveloped upland to remain which could be developed in the future, provided a crossing is approved. However, this alternative fails to provide a reasonable alternative to provide access to the otherwise unreachable substantial western upland portion of the site controlled by the proponent and furthermore, this alternative fails to meet the project purpose of providing affordable housing within the Town of Sudbury.

#### Cul-de-sac with Seven (7) Residential Lots Alternative:

The seven lot cul-de-sac alternative (Figure 3) consists of the construction of a roadway with seven frontage lots. This conceptual alternative roadway would have a similar roadway configuration as the preferred alternative and similar wetland impacts to Bordering Vegetated Wetland (BVW) and Riverfront Area at the same location as the preferred alternative. This alternative would protect 11± acres of open space (includes uplands, vegetated wetland, and Riverfront Area). However, this alternative fails to meet the project purpose of providing affordable housing within the Town of Sudbury and does not provide a reasonable alternative with lesser resource area impacts.

#### Cul-de-sac with Thirteen (13) Residential Lots (full buildout under current zoning):

The thirteen lot cul-de-sac alternative (Figure 4) consists of the construction of a roadway with thirteen frontage lots. This conceptual alternative roadway would have a similar roadway configuration as the preferred alternative and identical wetland impacts including approximately 10,500 square feet of Bordering Vegetated Wetland (BVW) and Riverfront Area at the same location as the preferred alternative. However, to complete the house construction on four (4) of the lots would require additional driveway crossings. Not all lots would be buildable. This alternative would not protect any open space of the project site. Given the substantial increase of wetland impacts that would be required, and the fact that this alternative fails to meet the project purpose of providing affordable housing within the Town of Sudbury, this is not a reasonable alternative with lesser impacts.

#### Multi-Unit with No Wetland Impacts Alternative:

This alternative (Figure 5) clusters the development in the eastern portion of the site and provides two multi-family buildings totaling twenty four (24) units, parking, a stormwater management system and a wastewater treatment system. This alternative keeps all work outside of areas subject to protection under the Wetlands Protection Act. However, leaving the substantial westerly upland areas comprising approximately 18 acres of the site undeveloped is not a reasonable alternative to provide access to this area controlled by the applicant, nor does this alternative address the local need for affordable housing in a material way.

#### Site Plan Option 7 Alternative:

This alternative (Figure 6) was previously proposed by another developer with the goal to maximize site development. It includes 198 units in thirteen (13) buildings and a community center. This alternative would include three additional wetland crossings and little or no protected open space upland. Because the preferred alternative was determined to reasonably meet the project purpose and was determined to be economically viable with less environmental impact and more open space preservation than this alternative, the Site Plan Option 7 alternative was dismissed.

#### Preferred Alternative:

The preferred alternative (Figure 7) consists of constructing 120 apartment units within 10 multi-family buildings, roadway, parking, and a wastewater treatment system. This alternative proposes to impact 10,485 square feet of Bordering Vegetated Wetland (BVW) and stream, and 49,920 square feet of Riverfront Area (9.4% of the total site Riverfront Area) for the crossing and clustered buildings on the 35.5 acre site, allowing for a substantial amount of open space to be maintained. This open space is adjacent to the Sudbury Valley Trustees property and will expand the amount of protected open space in the area and allow for passive recreation on the existing trails and possible future trails on the site. It should be noted that the vast majority of the Riverfront Area impacts for access consists of the existing disturbed cart path and non-natural BVW. This alternative includes removal of the existing small diameter culverts beneath the cart path and replacement with a large diameter box culvert to meet the current Stream Crossing Standards and ensure that there will be no restriction on the flow of water. The proponent has committed to meeting Stream Crossing Standards, rather than simply extending the existing culverts, because site conditions allow the project to meet this standard. This alternative meets the project purpose and is the only alternative that contributes materially to the goal of providing needed affordable housing in Sudbury while also being an economically viable alternative. The crossings proposed have been designed to make use of the existing cart path/crossing, thereby minimizing impacts. The preferred alternative will also provide for replication/restoration measures that further the interests protected under the Act. The proposed crossing is designed to gain access to a significant upland area located to the west of the perennial stream. This includes approximately 12 acres of contiguous upland that includes the area of the proposed buildings and loop road. An additional approximately 6 acres of upland in the

northwest corner of the property that is not proposed for development is separated from the 12 acre upland area by narrow areas of wetland. As such, this alternative has been chosen as the proposed alternative.

### **Alternatives to Access Project Site:**

The following access alternatives were evaluated to demonstrate that the preferred access wetlands crossing to afford access to the substantial westerly upland area, where the Project is to be clustered, satisfies the requirements of the Wetland Protection Act Regulations and DEP Policy 88-2 for consideration as a limited project:

#### Coolidge Lane:

The possible alternative access via Coolidge Lane was evaluated to determine the impacts and effects that this would have on the project. Coolidge Lane is a private 24.75 foot wide right-of-way located to the north of the site that provides access to a home located to the north of the site. This road is currently an unpaved minimal width gravel driveway to access 30 Coolidge Lane. This roadway would require substantial improvements as well as an easement or land transfer by multiple abutters including the Sudbury Conservation Commission to reach the site. Upgrading the road would include widening the roadway and expansion of an existing crossing over a mapped perennial stream, which would result in the fill of Bordering Vegetated Wetland (BVW). Coolidge Lane is located within Estimated and Priority Habitat mapped by the Natural Heritage and Endangered Species Program (NHESP). As such, based upon the fact that impacts to Bank, BVW, Riverfront Area and possible Bordering Land Subject to Flooding (BLSF) within rare species habitat would be required just to reach the site, this is not a reasonable alternative and has been dismissed.

#### Wright Road:

The possible alternative access via Wright Road was evaluated to determine the impacts and effects that this would have on the project. Wright Road is a dead end cul-de-sac located to the southeast of the proposed project site. This cul-de-sac is approximately 1,000 feet in length and would require an extension of approximately 1,000 feet to reach the project site. Based upon visual inspections from roadways and review of the Town of Sudbury GIS mapping, this alternative would require a minimum of two stream crossings, substantial BVW fill, and access across two properties owned by private landowners and the Sudbury Valley Trustees. As such, the wetland related impacts from this alternative do not make this a reasonable alternative for accessing the substantial westerly upland area of the site.

#### Cutler Farm Road:

The possible alternative access via connection from Cutler Farm Road to the site was evaluated to determine the impacts and effects that this would have on the project. Homes # 42, 50, 56 (Assessors Map L10, Parcels 424, 411, 410, & 409) abut the southern portion of the subject site. Based upon visual inspections from roadway and review of the Town of Sudbury GIS mapping, this alternative would require wetland impacts for access through properties at 50 or 56 Cutler Farm Road and would likely require private acquisition and demolition of homes on these lots to construct an access road. As such, access from these lots has been dismissed as possible alternatives. Access via #42 was therefore also considered as a possible alternative. Access via #42 Cutler Farm Road would require the driveway to be upgraded as an access roadway, which would require a purchase of the property (if possible). The combined lots (Assessors Map L10, Parcels 411 & 424) are assessed at over 1.2 million dollars. This alternative assumes that this site could be purchased at the assessed value. Given (i) the cost of this alternative, (ii) the impacts of an access drive on #42, (iii) the fact that additional wetlands may be impacted by this alternative, and (iv) the fact that Cutler Farm Road was not designed for the additional traffic from the project, this alternative is highly unrealistic and is unlikely to result in lesser impacts. Therefore, this alternative has been dismissed.

#### Preferred Access:

This preferred crossing utilizes a previously altered wetland consisting of an existing cart path crossing over the perennial stream to access the significant westerly buildable upland on the site. Considering the large size of the site, the fact that there exists an existing cart path, and the otherwise inaccessible 12 acre contiguous westerly upland area (and 6 additional upland acres in the northwest corner of the site not proposed to be developed), the order of magnitude of the alteration is reasonable. This crossing has been reduced from a divided boulevard type roadway at the entrance off Landham Road to a 26 foot wide roadway at the crossing with retaining walls in an effort to reduce wetland impacts. The proponent evaluated the possibility of a

narrower roadway at the crossing, but has determined that this is the minimum width roadway that allows for safe emergency access and fire safety. This alternative, including "limited project" access and site building development, proposes to impact 10,485 square feet of BVW and stream and 49,920 square feet of Riverfront Area (9.4% of the Riverfront Area on the site) to gain access to and develop the significant westerly upland area. It should be noted that the vast majority of the Riverfront Area impacts consist of the disturbed cart path and BVW noted above. The access drive design minimizes impacts by locating the crossing in the location of the existing cart path and mitigation is provided for these impacts, including the removal of the existing small diameter culverts beneath the cart path and replacement with a large diameter box culvert to meet the current stream crossing standards and ensure that there is no restriction to the flow of water. Furthermore, this alternative provides the safest access to the site from Landham Road and is designed to the minimum legal and practical width to provide safe access. Other off site alternatives (if available) would require additional wetland impacts or access via existing subdivision roadways that were not designed to handle the additional traffic from the proposed project, and, for these reasons, it is unrealistic to assume the proponent can obtain legal rights of access over those adjoining private properties.

### **Wetland Crossing Design Alternatives:**

In-Kind Culvert Replacement and Extension: At the larger proposed crossing, the existing filled cart path crosses the perennial stream, and flows pass through a 32" by 52" single bolted plate arch culvert. In-kind replacement of this culvert was considered. However, because upgrading of the stream crossing through the replacement of this culvert with an oversized box culvert was found to be feasible from an engineering perspective, not cost prohibitive, and in compliance with Massachusetts Stream Crossing Standards, the in-kind culvert replacement design alternative was rejected and upgrading of the culvert with an oversized box culvert is proposed.

Bridging of Wetlands: The project proponent has considered the possibility of bridging all or part of the wetlands at the proposed access road. The smaller crossing consists of intermittent stream Bank, without any Bordering Vegetated Wetland. The stream Bank is proposed to be replicated within a large box culvert in accordance with Massachusetts Stream Crossing Standards. The larger proposed crossing consists of vegetated wetland and a small perennial stream. The stream Bank and Land Under Water resource of the stream are proposed to be replicated within a large box culvert, in accordance with Stream Crossing Standards. The possibility of bridging all or part of the crossing beyond the limits of the proposed box culvert was also considered. The Massachusetts Department of Transportation ("MassDOT") uses a "rule of thumb" for determining rough estimates of bridge costs:

- Bridge cost:
  - up to 5,000 SF Area of Bridge: \$450/SF
  - 5,000 to 10,000 SF Area of Bridge: \$650/SF
- approach work = 10% of cost
- contingency = 35% of cost

Bridge Option 1: Total BVW & Inner Riparian span: 250-ft span x 40-ft width= 10,000 sf

Cost = \$650 x 10,000 SF = \$6.5M  
+ \$650,000 approach work  
+ \$2.3M contingency  
\$9.5M = TOTAL BRIDGE COST

Bridge Option 2: 100-foot span: 100-foot span x 40-foot width = 4,000 SF

Cost = \$450 x 4,000 SF = \$1.8M  
+ \$180,000 approach work  
+ \$630,000 contingency  
\$2.6M = TOTAL BRIDGE COST

Based upon this analysis, the applicant has concluded that spanning the wetland, more than as proposed through the use of the box culverts with restoration, is not feasible for this proposed project. Furthermore, spanning the wetland has been dismissed since, while it does provide for an alternative means of access, it

does not provide an alternative point of access as contemplated by the Wetlands Protection Act Regulations and Wetlands Program Policy 88-2 to afford access to the substantial westerly upland area on the site. See e.g. Final Decision, Docket No. 880039 of January 30, 1991 ("Suggesting a bridge instead of a roadway does not defeat the applicant's assertion that his project meets the criteria for a limited project exception").

**Preferred Crossings:** The preferred project alternative includes two proposed crossings with oversized box culverts at the perennial stream and intermittent stream. More than one crossing may be permitted in cases such as this one, in order to provide safe permittable access to otherwise unreachable significant upland areas under the control of the proponent, as contemplated by the Wetlands Protection Act Regulations and MassDEP Wetlands Policy 88-2. These proposed crossings have been designed to minimize the impacts to resource areas by following the existing disturbed cart path, complying with Massachusetts Stream Crossing Standards and in providing adequate replication. In addition, the proposed access road makes use of vertical retaining walls to minimize the footprint of the proposed roadway. The majority of the proposed wetland fill is proposed at the main site access driveway from Landham Road into the site. As noted, this proposed crossing makes use of an existing filled roadway that apparently dates back many years. The majority of this filled roadway, which includes significant side slope fill, was delineated by EcoTec as wetland, but consists of non-native soil stratigraphy. The plant community at the proposed crossing consists of a mix of upland and wetland indicator species and is dominated by non-native invasive species. Considering the presence of the existing cart path and the design of the proposed crossing with improved culvert that does not restrict the flow of water, the magnitude of the wetlands impacts proposed is commensurate with the project scope, and wetland impacts would be replicated at a 2:1 ratio, to gain access to a relatively large area of westerly uplands at the site, all of which would otherwise be inaccessible. Furthermore, the wetland area impacts are not within an Area of Critical Environmental Concern, nor do they contain rare species habitat or have other special environmental attributes for which full replication at a 2:1 ratio does not address the interests protected under the Act.

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

**Mitigation:**

The proposed project proposes to utilize access to buildable upland through areas that have been historically altered/disturbed. The small diameter culvert at the existing perennial stream crossing will be removed and replaced with a large diameter box culvert that complies with the stream crossing standards. This will allow for increased wildlife passage. Additionally, the proposed intermittent stream crossing will also include a large diameter concrete box culvert that meets the stream crossing standards. A third large diameter box culvert will be installed in the western portion of the site to further allow wildlife movement through the wetland system. This third culvert does not impact a wetland resource area, but has been proposed as mitigation to allow increased continuity of wetlands and wildlife habitat on the site. A 21,000 +/- square foot wetland replication area is proposed to be constructed to the north of the existing crossing at a ratio of 2 to 1 to comply with the more stringent requirements of the Bylaw regulations. A detailed wetland replication protocol has been included in this report to ensure that the impacted wetland's functions and values are mitigated in the wetland replication area. It is also worth noting that because the project clusters development, a significant amount of the site, including wetlands, Buffer Zone, Riverfront Area, and forested upland outside local and State jurisdiction adjacent to the Sudbury Valley Trustees property will be protected as open space.

Additional mitigation for proposed work within Riverfront Area is proposed including the demolition and removal of a portion of the house, garage, driveway and several out buildings from the southeastern corner of the site. These structures will be removed, areas regraded with topsoil, and seeded. These areas, along with a large section of existing lawn, will be allowed to grow and be maintained as an open meadow, which is an important habitat. This will provide some mitigation for proposed impacts to Riverfront Area.

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If the project is proposed to be constructed in phases, please describe each phase: **N/A**

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:**

Is the project within or adjacent to an Area of Critical Environmental Concern?

- Yes (Specify \_\_\_\_\_)  
 No

If yes, does the ACEC have an approved Resource Management Plan? \_\_\_ Yes \_\_\_ No;  
If yes, describe how the project complies with this plan.

Will there be stormwater runoff or discharge to the designated ACEC? \_\_\_ Yes \_\_\_ No;  
If yes, describe and assess the potential impacts of such stormwater runoff/dischARGE to the designated ACEC.

**RARE SPECIES:**

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see [http://www.mass.gov/dfwele/dfw/nhesp/regulatory\\_review/priority\\_habitat/priority\\_habitat\\_home.htm](http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm))  
 Yes (Specify \_\_\_\_\_)  No

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:**

Does the project site include any structure, site or district listed in the State Register of Historic Places or the inventory of Historic and Archaeological Assets of the Commonwealth?  
 Yes (Albert Larkin House, 189 Landham Road, Sudbury, MHC Form No. SUD.240)  No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (The building at 189 Landham Road in Sudbury is on the inventory (not the State Register) and due to its neglected/compromised condition, will be demolished as part of the project.)  No

**WATER RESOURCES:**

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? \_\_\_ Yes X No;  
if yes, identify the ORW and its location. \_\_\_\_\_

*(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)*

Are there any impaired water bodies on or within a half-mile radius of the project site? X Yes \_\_\_ No; if yes, identify the water body and pollutant(s) causing the impairment: Hop Brook (MA82A-06), (Nutrients, Pathogens, Noxious Aquatic Plants, and Dissolved Oxygen).

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? X Yes \_\_\_ No

The project is located within a medium stress basin (Concord River a.k.a. Sudbury-Assabet-Concord). The proposed stormwater management system complies with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards and therefore, there will be no impact to the Concord River Basin or water supply wells in the project area.

**STORMWATER MANAGEMENT:**

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

Low Impact Development (LID) practices, such as porous bituminous pavement and "rain garden"-type vegetated basins, are highlights of the proposed stormwater management system design. Porous pavement is proposed for all paved areas—that is, all access drives, all parking areas and all walks. Pervious paver sidewalks are proposed along the front of the buildings; porous pavement walks elsewhere adjacent to site access drives and throughout the site. The site-wide use of porous pavement provides direct recharge to groundwater and significantly reduces stormwater runoff volume, peak discharge rates and pollutant transport. Several small shallow depressions are proposed throughout the site to capture building roof drain discharge and overflow pipe discharge from the porous pavement subdrains to reduce peak discharge rates and runoff volume.

The proposed stormwater management system complies with the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards. This project results in an increase in the site's impervious area (including the porous pavement areas); therefore, it is defined as a new development according to the Massachusetts Stormwater Management Standards and must meet the ten (10) standards. The project as designed will meet or exceed all of the ten (10) standards, as described below.

### Standard No. 1 - Untreated Stormwater

No direct point discharges of untreated stormwater to resource areas are proposed. Clean roof and yard drains discharge directly to the vegetated basins; however, all other surface runoff receives treatment through stormwater quality controls, consisting of the porous pavement stone choker and filter courses.

### Standard No. 2 - Post-development Peak Discharge Rates

Stormwater management controls were developed for the 2-, 10-, 25-, and 100-year 24-hour storm events. Under existing and proposed conditions, hydrologic/hydraulic analyses were performed utilizing the computer program, HydroCAD®. In order to determine the peak rate of discharge for existing and proposed conditions, runoff hydrographs were generated for the storm events using the SCS TR-20 Method (refer to Appendix B of the Stormwater Management Plan for HydroCAD® Input/Output). Under the proposed conditions, the post-development runoff hydrographs were routed through the proposed drainage system and into the proposed stormwater management system.

The following table summarizes the pre- and post-development peak runoff discharge rates determined in the hydrologic/hydraulic analyses performed for the project site.

**Comparison of Peak Runoff Rates (cfs)**

Point of Analysis	2-Year Storm			10-Year Storm			25-Year Storm			100-Year Storm		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ	Pr	Post	Δ
1 (D)	9.92	91	-0.21	27.56	25.67	-1.89	43.12	40.32	-2.80	80.43	74.80	-5.63
2 (DP2)	3.27	3.08	-0.1	938	9.04	-0.4	14.84	14.05	-0.79	27.91	26.37	-5.4

\*cfs = cubic feet per second

As shown in the table, proposed peak runoff rates for the project are less than existing conditions for each storm event. The proposed site development will not increase the runoff to the two existing brooks located on-site which ultimately discharge into Hop Brook.

### Standard No. 3 - Recharge to Groundwater

The site development project proposes 2.05 acres of porous bituminous pavement in proposed parking areas, site access drives and walks. The porous pavement has been designed in accordance with MA DEP Stormwater Management Standards and the University of New Hampshire guidelines. It has been designed with pea stone choker and gravel filter courses to remove sediment and a crushed stone reservoir course to store and infiltrate stormwater. The large voids and open-graded stone layers provide significant groundwater recharge, exceeding the minimum requirement for Standard No. 3.

Based on the on-site soil testing, Hydrologic Soil Group C was chosen for infiltration/recharge design purposes. Based on the applicable MA DEP recommendations for groundwater recharge rate for Hydrologic Soil Type C soils and using Rawls Rates Table, 0.25 inch of runoff was used as the target depth factor and 0.27 inches/hour for the infiltration rate.

The total impervious area (buildings, plus porous paved parking areas, site drives and walks) proposed on site is 3.89 acres. Therefore, the required groundwater recharge volume is  $[3.89(0.25/12)] = 0.07$  acre-feet. The reservoir section of stone beneath the porous pavement areas provides approximately 0.55 acre-feet of static stormwater storage volume. A design calculation is provided that shows the porous pavement system will drain in less than 72 hours.

### Standard No. 4 - TSS Removal

Best Management Practices (BMPs) will be used to provide water quality. The following BMPs will be provided on-site: porous pavement and riprap aprons. These BMPs will provide for greater than 80% TSS removal.

#### Porous Pavement

Porous pavement includes choker and filter courses as previously described to provide water quality treatment by filtering out suspended solids prior to infiltration. The porous pavement bed has been designed to treat one (1) inch of water quality volume and drain within 72 hours. A TSS removal rate of 80% is recommended for porous pavement.

#### Riprap Aprons

All flared end outlets discharging into the vegetated depressed basins have been equipped with riprap aprons. This BMP will allow for additional cleaning of the runoff while dissipating the velocity in order to prevent erosion. A 10% TSS removal rate is anticipated for this BMP though not utilized in the TSS removal rate calculation.

In summary, the incorporation of these BMPs will achieve a cumulative TSS removal rate of greater than 80% for each treatment train.



**Standard No. 5 - Higher Potential Pollutant Loads**

The project development will not include land uses with higher potential pollutant loads. We have reviewed the *Massachusetts Stormwater Handbook*, Volume 1, Chapter 1, pages 12-13 and have determined that no land uses described in said *Handbook* will occur in the proposed development.

**Standard No. 6 - Protection of Critical Areas**

The western portion of the proposed property falls within a Zone II Wellhead Protection Area; however the entire proposed development area is located outside of this critical area.

**Standard No. 7 - Redevelopment Projects**

This project is considered a new-development according to the Massachusetts Stormwater Management Standards and the project must meet the ten (10) standards. The project as designed will meet or exceed all of the ten (10) standards.

**Standard No. 8 - Erosion/Sediment Control**

The project will result in the disturbance of greater than one acre of land and therefore requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities. The Construction General Permit (CGP) authorizes the discharge of storm water from construction activities.

The SWPPP Plan includes site specific temporary and permanent erosion and sedimentation control practices, including the following:

- Establish stabilized crushed stone construction entrances to prevent sediment tracking on the public ways.
- Temporary and permanent stabilization of all slopes by hydro-seed, loam and seed, or erosion control blankets within 14 days of when construction activity in that portion of the site has temporarily or permanently ceased.
- Site specific construction sequencing plans in order to minimize the extent of the disturbance at any given time.
- Construction of temporary diversion swales prior to disturbance to ensure all sediment laden runoff is captured on-site.
- Stormwater basin inlets will include a rip-rap apron in order to dissipate stormwater velocity and minimize erosion potential.

The above serves as only the general framework for the SWPPP Plan. As stated in the Introduction section of this narrative, the SWPPP Plan, prepared by EcoTec, Inc. Environmental Consultants is submitted as part of their Notice of Intent filing to the Sudbury Conservation Commission.

**Standard No. 9 - Operation/Maintenance Plan**

The Stormwater Management System will be the overall responsibility of the Owner. An Operations and Maintenance Plan is included in Appendix F of the Stormwater Report (Appendix C).

The schedule for inspection and maintenance during and after construction has been outlined in of the *Stormwater Report* (Appendix C).

**Standard No. 10 - Illicit Discharge**

Illicit discharges to the stormwater management system are prohibited. This project does not include any new off-site drainage connections.

**MASSACHUSETTS CONTINGENCY PLAN:**

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes \_\_\_ No X ; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification): \_\_\_\_\_

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes \_\_\_ No X ; if yes, describe which portion of the site and how the project will be consistent with the AUL: \_\_\_\_\_

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN? Yes \_\_\_ No X ; if yes, please describe: \_\_\_\_\_

**SOLID AND HAZARDOUS WASTE:**

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

**An existing barn on-site will be renovated and reused as the wastewater treatment building. The demolition materials from the farmhouse and other outbuildings on-site will be recycled and otherwise disposed of in accordance with state and local solid waste regulations.**

*(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)*

Will your project disturb asbestos containing materials? Yes X No \_\_\_ ;  
if yes, please consult state asbestos requirements at <http://mass.gov/MassDEP/air/asbhom01.htm>

**The farmhouse was constructed in the 1800s and may contain asbestos containing building materials. Any asbestos containing materials disturbed during demolition will be disposed of in accordance with state and local regulations.**

Describe anti-idling and other measures to limit emissions from construction equipment:

**All construction equipment will be required to comply with MGL Chapter 90, Section 16A and 310 CMR 7.11 (1) (b) which require that engines idle for no more than five minutes.**

**DESIGNATED WILD AND SCENIC RIVER:**

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes \_\_\_ No X ;

If yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River? Yes \_\_\_ No \_\_\_ ; if yes, specify name of river and designation: \_\_\_\_\_;

If yes, will the project result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River. Yes \_\_\_ No \_\_\_ ;

If yes, describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

Source: *Sudbury, Assabet and Concord Wild and Scenic River Study, River Conservation Plan* (March 16, 1995)

## **ATTACHMENTS:**

1. List of all attachments to this document.  
Appendix A Site Development Plans  
Appendix B Notice of Intent  
Appendix C Stormwater Management Plan  
Appendix D Traffic Study  
Appendix E Greenhouse Gas Information  
Appendix F ENF Distribution List and Public Notice of Environmental Review
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.  
Figure 1
3. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.  
Appendix A
4. Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts.  
Appendix A
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).  
Appendix A
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).  
Appendix F
7. List of municipal and federal permits and reviews required by the project, as applicable.

### **Section 404 Permit under the Clean Water Act from the U.S. Army Corps of Engineers**

### **NPDES Construction General Permit for Stormwater Discharges from Construction Activities from the U.S. Environmental Protection Agency**

### **MGL Chapter 40B Comprehensive Permit from Town of Sudbury Zoning Board of Appeals**

### **Order of Conditions from Town of Sudbury Conservation Commission (Superseding Order from MassDEP, if necessary)**

**LAND SECTION – all proponents must fill out this section**

**I. Thresholds / Permits**

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1))  
 Yes  No; if yes, specify each threshold:

**II. Impacts and Permits**

A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings	<u>0.09</u>	<u>+1.32</u>	<u>1.41</u>
Internal roadways	<u>          </u>	<u>          </u>	<u>          </u>
Parking and other paved areas	<u>0.07</u>	<u>+2.41</u>	<u>2.48</u>
Other altered areas	<u>          </u>	<u>          </u>	<u>          </u>
Undeveloped areas	<u>35.28</u>	<u>-3.73</u>	<u>31.55</u>
<b>Total: Project Site Acreage</b>	<u>35.44</u>	<u>0</u>	<u>35.44</u>

B. Has any part of the project site been in active agricultural use in the last five years?  
 Yes  No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?

**Approximately 0.68 acres of privately-owned land in minimal agricultural use will be converted to non-agricultural use.**

C. Is any part of the project site currently or proposed to be in active forestry use?  
 Yes  No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97?  Yes  No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction?  Yes  No; if yes, does the project involve the release or modification of such restriction?  
 Yes  No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A?  Yes  No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes  No ; if yes, describe:

**III. Consistency**

A. Identify the current municipal comprehensive land use plan  
Title: Sustainable Sudbury Master Plan Date 2001

**The Housing Objectives of the Sustainable Sudbury Master Plan are to:  
Increase the diversity of Sudbury's housing stock;  
Provide housing for the full range of income levels of Sudbury citizens; and to  
Encourage affordable housing units through the State's local initiative program,  
including comprehensive permits.**

**This project will provide critically-needed affordable rental housing options in Sudbury, which are currently lacking and are the highest priority housing need under Sudbury's Housing Plan. State housing policy requires affordable housing to**

be 10% of the housing stock in each municipality. Sudbury's affordable housing rate as of June 30, 2011 is 4.7%. As rental units, all 120 Project units will count towards Sudbury's targeted 10% requirement.

B. Describe the project's consistency with that plan with regard to:

- 1) economic development The proposed project will bring construction jobs to the project area, which will increase the economic development of the area.
- 2) adequacy of infrastructure There is adequate infrastructure in the Town of Sudbury to support the project. The project includes an on-site wastewater treatment plant.
- 3) open space impacts The subject site was recently listed among 35 other sites in the Town of Sudbury Open Space and Recreation Plan (June 2009) as a private parcel that could be acquired for permanent protection. The Project will preserve 26 acres of open space of the 35 acre site, including substantial wooded buffers to the west and the eastern agricultural fields along Landham Road.
- 4) compatibility with adjacent land uses Adjacent land uses consist of residential areas and areas of open space. Significant portions of the project site will remain as open space.

C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)  
RPA: Metropolitan Area Planning Council (MAPC)

Title: MetroFuture Date June 2009

**MetroFuture's housing vision is that with a general broadening of housing types and costs, the region will focus on efforts to increase equitable access to housing, and decrease regional segregation. All municipalities will recognize their obligation to provide lower cost housing; and will work toward providing their fair share of the region's diverse housing needs. An increasing share of the housing in each municipality will be affordable to working class families and fixed income seniors. Municipalities will be evaluated not solely by the total percentage of affordable housing, but also by progress toward meeting agreed upon housing targets that take into account both local conditions and regional needs.**

D. Describe the project's consistency with that plan with regard to:

- 1) economic development \_\_\_\_\_
- 2) adequacy of infrastructure \_\_\_\_\_
- 3) open space impacts \_\_\_\_\_

**As described for the Sudbury Master Plan, the project is consistent with MetroFuture in that it will provide for critically-needed mixed-income rental housing in the region, thereby increasing equitable access to housing, as well as bringing construction jobs to the project area, thereby increasing economic development. There is adequate infrastructure in the Town of Sudbury to support the project. Significant western portions of the project area as well as the easterly agricultural fields will remain as open space, consistent with open space goals.**

## **RARE SPECIES SECTION**

### **I. Thresholds / Permits**

- A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

*(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)*

- B. Does the project require any state permits related to **rare species or habitat**? \_\_\_ Yes X No
- C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? \_\_\_ Yes X No.
- D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

### **II. Impacts and Permits**

- A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? \_\_\_ Yes \_\_\_ No. If yes,
1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? \_\_\_ Yes \_\_\_ No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? \_\_\_ Yes \_\_\_ No; if yes, attach the letter of determination to this submission.
  2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? \_\_\_ Yes \_\_\_ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts
  3. Which rare species are known to occur within the Priority or Estimated Habitat?
  4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? \_\_\_ Yes \_\_\_ No
  4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? \_\_\_ Yes \_\_\_ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? \_\_\_ Yes \_\_\_ No
- B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? \_\_\_ Yes \_\_\_ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

**WETLANDS, WATERWAYS, AND TIDELANDS SECTION**

**I. Thresholds / Permits**

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? X Yes \_\_\_ No; if yes, specify, in quantitative terms:

**The project will alter 10,485 square feet (sf) of Bordering Vegetated Wetlands (310 CMR 11.03 (3) (b) 1 d) and 49,920 sf of Riverfront Area (301 CMR 11.03 (3) (b) 1 f).**

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? X Yes \_\_\_ No; if yes, specify which permit:

**The project requires an Order of Conditions from the Sudbury Conservation Commission (and MassDEP, if necessary) and a 401 Water Quality Certificate from MassDEP.**

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

**II. Wetlands Impacts and Permits**

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? X Yes \_\_\_ No; if yes, has a Notice of Intent been filed? X Yes \_\_\_ No; if yes, list the date and MassDEP file number: 10/5/2011, DEP File No. 301-1068; if yes, has a local Order of Conditions been issued? \_\_\_ Yes X No; Was the Order of Conditions appealed? \_\_\_ Yes \_\_\_ No. Will the project require a Variance from the Wetlands regulations? \_\_\_ Yes X No.

**A copy of the Notice of Intent submitted to the Sudbury Conservation Commission for this project is included in Appendix B.**

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

**The project will alter 10,485 square feet (sf) of Bordering Vegetated Wetlands and 49,920 sf of Riverfront Area. In addition, the project will alter 4,740 sf of Isolated Vegetated Wetlands and 130 linear feet of Bank.**

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

<u>Coastal Wetlands</u>	<u>Area (square feet) or Length (linear feet)</u>	<u>Temporary or Permanent Impact?</u>
Land Under the Ocean	_____	_____
Designated Port Areas	_____	_____
Coastal Beaches	_____	_____
Coastal Dunes	_____	_____
Barrier Beaches	_____	_____
Coastal Banks	_____	_____
Rocky Intertidal Shores	_____	_____
Salt Marshes	_____	_____
Land Under Salt Ponds	_____	_____
Land Containing Shellfish	_____	_____
Fish Runs	_____	_____
Land Subject to Coastal Storm Flowage	_____	_____

Inland Wetlands

Bank (lf)	<u>130</u>	<u>Permanent</u>
Bordering Vegetated Wetlands	<u>10,485</u>	<u>Permanent</u>
Isolated Vegetated Wetlands	<u>4,740</u>	<u>Permanent</u>
Land under Water	_____	_____
Isolated Land Subject to Flooding	_____	_____
Bordering Land Subject to Flooding	_____	_____
Riverfront Area	<u>49,920</u>	<u>Permanent</u>

D. Is any part of the project:

1. proposed as a **limited project**?  Yes  No; if yes, what is the area (in sf)? **10,485 sf of Bordering Vegetated Wetland**
2. the construction or alteration of a **dam**?  Yes  No; if yes, describe:
3. fill or structure in a **velocity zone** or **regulatory floodway**?  Yes  No
4. dredging or disposal of dredged material?  Yes  No; if yes, describe the volume of dredged material and the proposed disposal site:
5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**?  Yes  No
6. subject to a wetlands restriction order?  Yes  No; if yes, identify the area (in sf):
7. located in buffer zones?  Yes  No; if yes, how much (in sf) Approximately 320,000 sf

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw?  Yes  No
2. alter any federally-protected wetlands not regulated under state law?  Yes  No; if yes, what is the area (sf)? **4,740 sf of Isolated Vegetated Wetland**

**III. Waterways and Tidelands Impacts and Permits**

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91?  Yes  No; if yes, is there a current Chapter 91 License or Permit affecting the project site?  Yes  No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

B. Does the project require a new or modified license or permit under M.G.L.c.91?  Yes  No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current  Change  Total   
If yes, how many square feet of solid fill or pile-supported structures (in sf)?

C. For non-water-dependent use projects, indicate the following: N/A

Area of filled tidelands on the site: \_\_\_\_\_

Area of filled tidelands covered by buildings: \_\_\_\_\_

For portions of site on filled tidelands, list ground floor uses and area of each use:

Does the project include new non-water-dependent uses located over flowed tidelands?

Yes  No

Height of building on filled tidelands \_\_\_\_\_

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

D. Is the project located on landlocked tidelands?  Yes  No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:



E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? \_\_\_ Yes X No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? \_\_\_ Yes X No

(NOTE: If yes, then the project will be subject to Public Benefit Review and Determination.)

G. Does the project include dredging? \_\_\_ Yes X No; if yes, answer the following questions:

What type of dredging? Improvement \_\_\_ Maintenance \_\_\_ Both \_\_\_

What is the proposed dredge volume, in cubic yards (cys) \_\_\_\_\_

What is the proposed dredge footprint \_\_\_\_\_ length (ft) \_\_\_ width (ft) \_\_\_ depth (ft);

Will dredging impact the following resource areas?

Intertidal Yes \_\_\_ No \_\_\_; if yes, \_\_\_ sq ft

Outstanding Resource Waters Yes \_\_\_ No \_\_\_; if yes, \_\_\_ sq ft

Other resource area (i.e. shellfish beds, eel grass beds) Yes \_\_\_ No \_\_\_; if yes \_\_\_ sq ft

If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?

If no to any of the above, what information or documentation was used to support this determination?

Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.

Sediment Characterization

Existing gradation analysis results? \_\_\_ Yes \_\_\_ No; if yes, provide results.

Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? \_\_\_ Yes \_\_\_ No; if yes, provide results.

Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment \_\_\_

Unconfined Ocean Disposal \_\_\_

Confined Disposal:

Confined Aquatic Disposal (CAD) \_\_\_

Confined Disposal Facility (CDF) \_\_\_

Landfill Reuse in accordance with COMM-97-001 \_\_\_

Shoreline Placement \_\_\_

Upland Material Reuse \_\_\_

In-State landfill disposal \_\_\_

Out-of-state landfill disposal \_\_\_

(NOTE: This information is required for a 401 Water Quality Certification.)

#### IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? \_\_\_ Yes X No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? \_\_\_ Yes X No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

**WATER SUPPLY SECTION**

**I. Thresholds / Permits**

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

**II. Impacts and Permits**

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? \_\_\_ Yes \_\_\_ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? \_\_\_ Yes \_\_\_ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results.  
\_\_\_\_\_

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? \_\_\_\_\_ Will the project require an increase in that withdrawal? \_\_\_ Yes \_\_\_ No; if yes, then how much of an increase (gpd)? \_\_\_\_\_

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? \_\_\_ Yes \_\_\_ No. If yes, describe existing and proposed water supply facilities at the project site:

	<u>Permitted Flow</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? \_\_\_ Yes \_\_\_ No
2. a Watershed Protection Act variance? \_\_\_ Yes \_\_\_ No; if yes, how many acres of alteration?

3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? \_\_\_ Yes \_\_\_ No

**III. Consistency**

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

## WASTEWATER SECTION

### I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? X Yes \_\_\_ No; if yes, specify which permit:

#### **MA DEP BRP WP 81 – General Permit Coverage for Small Wastewater Treatment Facilities**

C. If you answered "No" to both questions A and B, proceed to the **Transportation – Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

### II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge of sanitary wastewater	<u>440</u>	<u>19360</u>	<u>19800</u>
Discharge of industrial wastewater	<u>          </u>	<u>          </u>	<u>          </u>
<b>TOTAL</b>	<b><u>440</u></b>	<b><u>19360</u></b>	<b><u>19800</u></b>

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge to groundwater	<u>440</u>	<u>19360</u>	<u>19800</u>
Discharge to outstanding resource water	<u>          </u>	<u>          </u>	<u>          </u>
Discharge to surface water	<u>          </u>	<u>          </u>	<u>          </u>
Discharge to municipal or regional wastewater facility	<u>          </u>	<u>          </u>	<u>          </u>
<b>TOTAL</b>	<b><u>440</u></b>	<b><u>19360</u></b>	<b><u>19800</u></b>

B. Is the existing collection system at or near its capacity? \_\_\_ Yes X No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? \_\_\_ Yes X No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility \_\_\_ Yes \_\_\_ No, or will the project involve construction of a new facility? X Yes \_\_\_ No; if yes, describe as follows:

**The project site currently contains an on-site septic system which will be properly discontinued/filled. The project will involve construction of a new wastewater treatment facility. The project is in the process of filing a permit application for a wastewater treatment plant with MA DEP.**

	<u>Permitted</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Wastewater treatment plant capacity (in gallons per day)	<u>In Process</u>	<u>0</u>	<u>19800</u>	<u>19800</u>

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

**The project does not require an interbasin transfer of wastewater.**

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? \_\_\_ Yes X No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? \_\_\_ Yes X No; if yes, what is the capacity (tons per day):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment	_____	_____	_____
Processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

**The residential units will be equipped with low flow toilets as a water conservation measure.**

### III. Consistency

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

**The project includes an on-site wastewater treatment plant that will comply with MA DEP regulations and the conditions of the groundwater discharge permit.**

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? \_\_\_ Yes \_\_\_ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

**The project does not require a sewer extension permit.**

**TRANSPORTATION SECTION (TRAFFIC GENERATION)**

**I. Thresholds / Permit**

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **state-controlled roadways**? \_\_\_ Yes X No; if yes, specify which permit:

**The Traffic Study for the project is included in Appendix D.**

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

**II. Traffic Impacts and Permits**

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Number of parking spaces	_____	_____	_____
Number of vehicle trips per day	_____	_____	_____
ITE Land Use Code(s):	_____	_____	_____

B. What is the estimated average daily traffic on roadways serving the site?

<u>Roadway</u>	<u>Existing</u>	<u>Change</u>	<u>Total</u>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

E. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? \_\_\_ Yes \_\_\_ No; if yes, describe if and how will the project will participate in the TMA:

F. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? \_\_\_ Yes \_\_\_ No; if yes, generally describe:

G. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)?

**III. Consistency**

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

**TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)**

**I. Thresholds**

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

**II. Transportation Facility Impacts**

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

B. Will the project involve any

1. Alteration of bank or terrain (in linear feet)? \_\_\_\_\_
2. Cutting of living public shade trees (number)? \_\_\_\_\_
3. Elimination of stone wall (in linear feet)? \_\_\_\_\_

**III. Consistency** -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

**ENERGY SECTION**

**I. Thresholds / Permits**

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))?  
 Yes  No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**?  Yes  No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

**Greenhouse Gas Information is included in Appendix E.**

**II. Impacts and Permits**

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way?  Yes  No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

**III. Consistency**

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:



**AIR QUALITY SECTION**

**I. Thresholds**

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

**Greenhouse Gas Information is included in Appendix E.**

**II. Impacts and Permits**

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? \_\_\_ Yes \_\_\_ No; if yes, describe existing and proposed emissions (in tons per day) of:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

**III. Consistency**

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

## SOLID AND HAZARDOUS WASTE SECTION

### I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? \_\_\_ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? \_\_\_ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

### II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? \_\_\_ Yes \_\_\_ No; if yes, what is the volume (in tons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? \_\_\_ Yes \_\_\_ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos?  
\_\_\_ Yes \_\_\_ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

### III. Consistency

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

## **HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION**

### **I. Thresholds / Impacts**

A. Have you consulted with the Massachusetts Historical Commission?  Yes  No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources?  Yes  No; if yes, attach correspondence. **File Review conducted at Massachusetts Historical Commission (MHC).**

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth?  Yes  No; if yes, does the project involve the demolition of all or any exterior part of such historic structure?  Yes  No; if yes, please describe:

**The subject site is not listed in the State Register of Historic Places or the National Register of Historic Places.**

**The farmhouse on the site was listed in 1995 in the Inventory of Historic and Archaeological Assets of the Commonwealth as the Albert Larkin House, 189 Landham Road, Sudbury, Massachusetts. The site's inventory number is SUD.240. Significantly, the Inventory Form B declines to recommend the property for National Register listing status. The farmhouse is in a state of disrepair and has been altered/compromised by various additions/alterations including vinyl siding and by years of neglect. Because of its current condition, it will be demolished and the area landscaped, which along with the barn (to be restored/reused to house the WWTP) and the easterly agricultural field along Landham Road that are proposed to be preserved, will help to maintain an agricultural aesthetic along this side of Landham Road.**

**MHC's Inventory of the Historic and Archaeological Assets of the Commonwealth (as opposed to the State Register) is a much larger data base of sites, structures, buildings, districts, and other properties that have been identified in the Commonwealth and brought to the attention of the MHC. It includes the properties listed in the State Register as well as thousands of others that may or may not be eligible for listing in the State Register. Listing in the Inventory does not have any bearing over a property's eligibility for listing in the State or National Registers of Historic Places.**

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth?  Yes  No; if yes, does the project involve the destruction of all or any part of such archaeological site?  Yes  No; if yes, please describe:

**No part of the project site is an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth.**

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

### **II. Impacts**

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

**The farmhouse on the site is listed in the Inventory of Historic and Archaeological Assets of the Commonwealth as the Albert Larkin House, 189 Landham Road, Sudbury, Massachusetts. The site's inventory number is SUD.240. The farmhouse will be demolished as part of the proposed project.**

### **III. Consistency**

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

**As required, a copy of this Environmental Notification Form (ENF) will be sent to the Massachusetts Historical Commission (MHC) for their review.**

**CERTIFICATIONS:**

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

Sudbury Town Crier On or before November 9, 2011  
(Name) (Date)

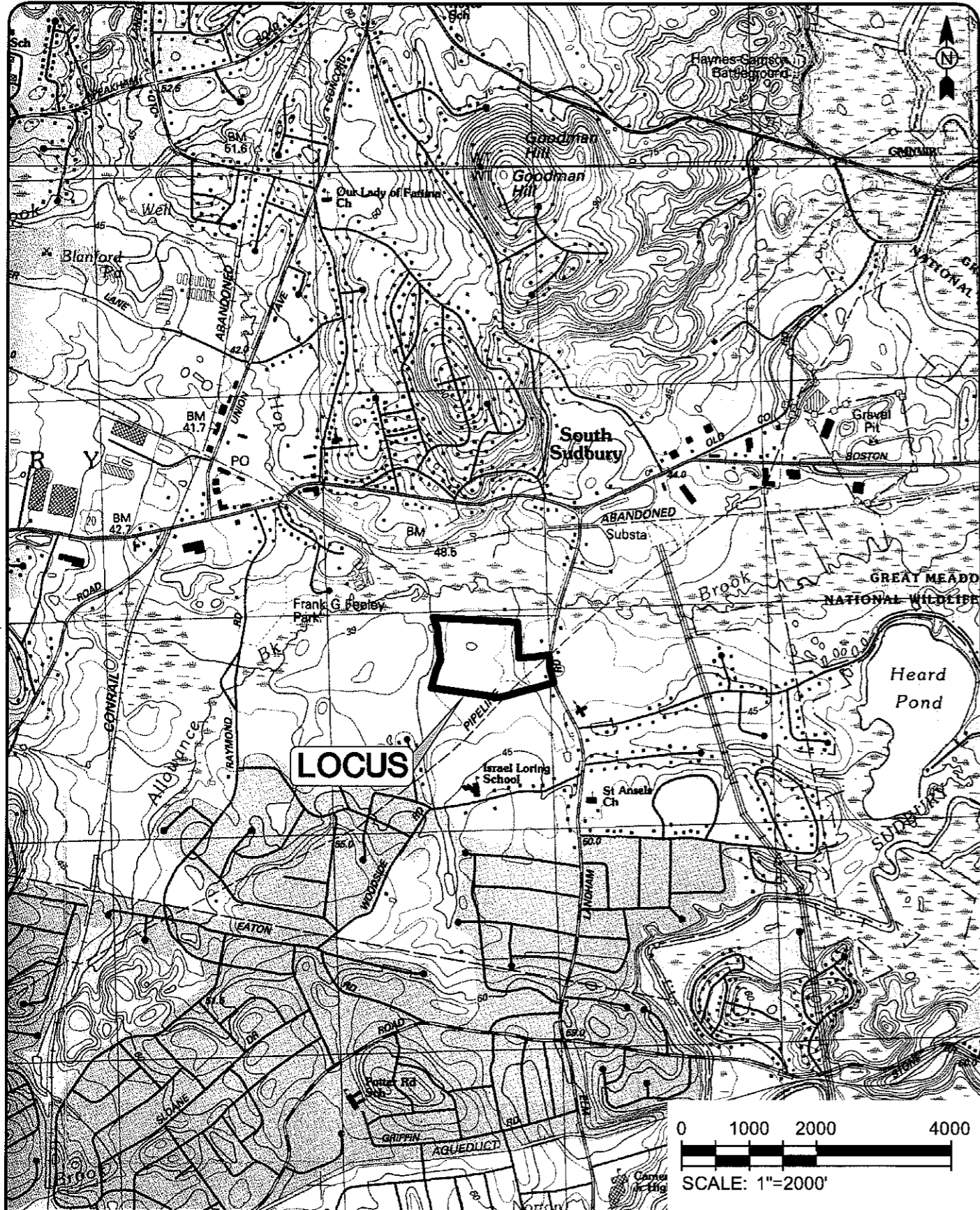
2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

10/17/11 [Signature] 10/27/11 [Signature]  
Date Signature of Responsible Officer Date Signature of person preparing ENF  
or Proponent Robert E. Moss (if different than above)

Name (print or type) Robert E. Moss Name (print or type) Joseph Freeman  
Firm/Agency Madison Place Sudbury LLC Firm/Agency Tetra Tech  
Street 15 Brickyard Lane Street 1 Grant Street  
Municipality/State/Zip Westborough, MA 01581 Municipality/State/Zip Framingham, MA 01701  
Phone (508) 366-1966 Phone (508) 903-2000

**Figures**

8/26/2011 9:27:27 AM - P:\14331\127-14331-1\1001\CAD\SUPPORTFILES\127-14331-11001\G-USGS-MAP.DWG - WHITE, SARA



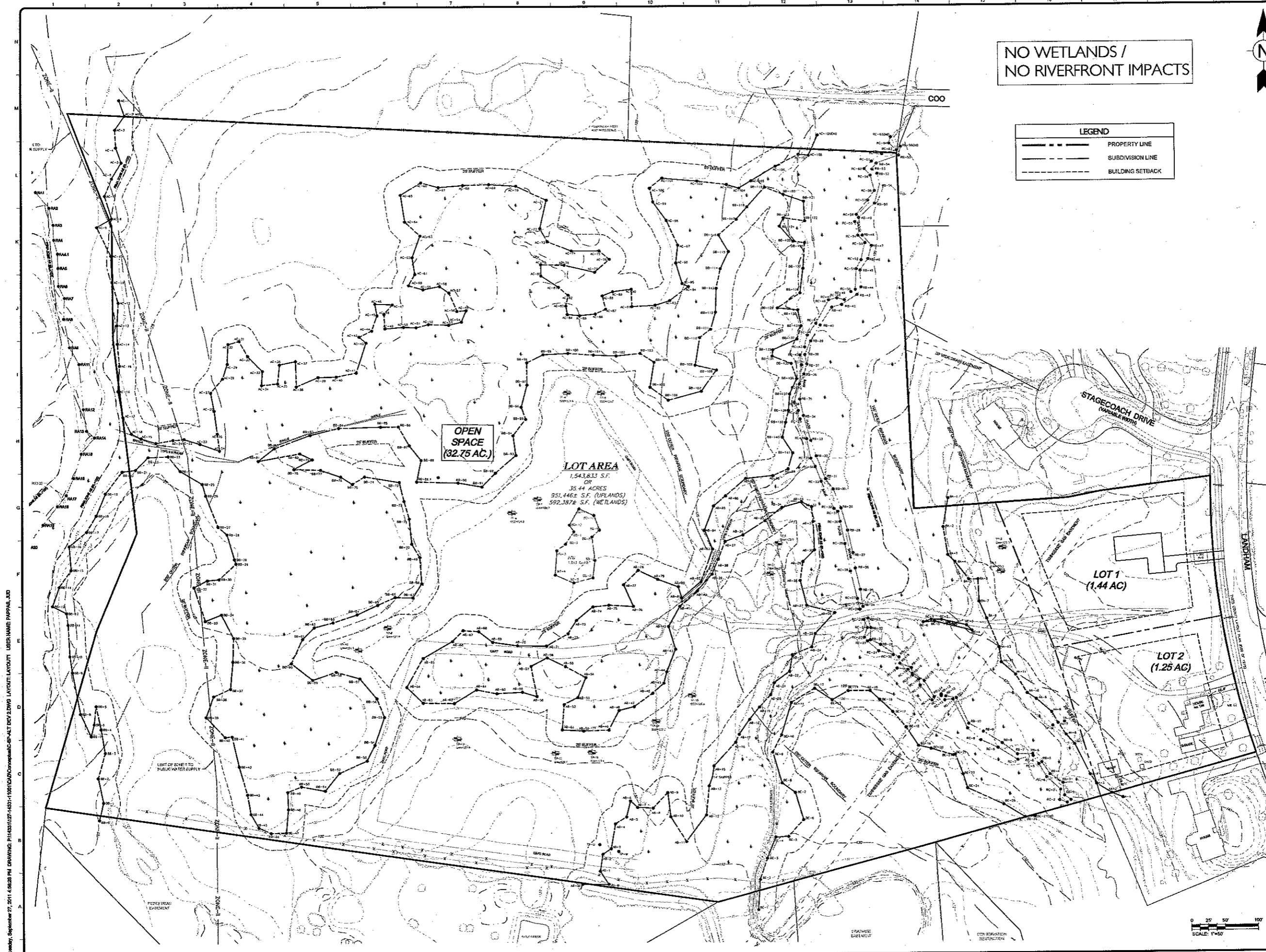
**TETRA TECH**  
 www.tetrattech.com  
 One Grant Street  
 Framingham, MA 01701  
 PHONE: 508-903-2000 FAX: 508-903-2001

Madison Place Sudbury LLC  
 The Residences at Johnson Farm  
 Landham Road Sudbury, MA  
 USGS Locus Map

Project No.: 127-14331-11001  
 Date: September 2, 2011  
 Designed By: SJW  
**Figure 1**

Copyright: Tetra Tech

Bar Measures 1 inch



NO WETLANDS /  
NO RIVERFRONT IMPACTS

**LEGEND**

- — — — — PROPERTY LINE
- - - - - SUBDIVISION LINE
- - - - - BUILDING SETBACK



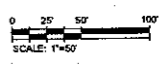
**TETRA TECH**  
www.tetra-tech.com  
One Grant Street  
Lanham, MD 21053  
PHONE: 410-403-2000 FAX: 410-403-2001

Tuesday, September 27, 2011 4:56:28 PM DRAWING: P:\14581127\14581-11001\DWG\Conceptual-C-B-ALT DEV 2.DWG LAYOUT: LAYOUT USER: NAME PAPPAS, JTD

DATE	DESCRIPTION	BY
10-11-11	REV	

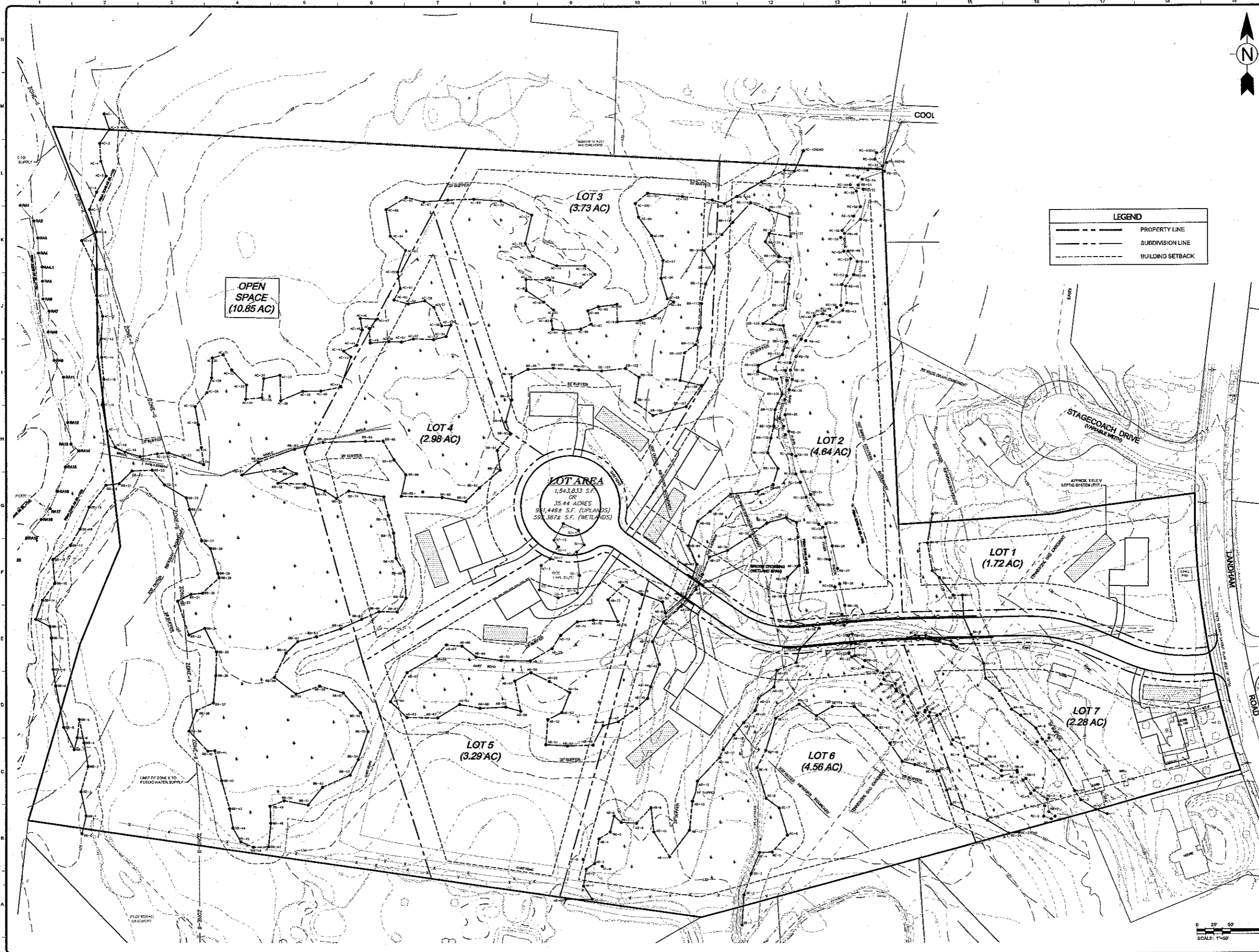
Client: Steve DeWitt  
Project: The Residence at Johnson Farm  
Address: Lanham Road, Suburb  
**2 LOT ANR PLAN**  
**ALTERNATIVE CONCEPT SKETCH #2**

Project No.: 127-14581-11001  
Designed By: G.K.D.  
Drawn By: J.L.P.  
Checked By:





Tuesday, September 27, 2011 4:56:35 PM DRAWING: P:\14331\14331-11001\CAD\Conceptual-SP-ALT.DWG LAYOUT: LAYOUT: USER NAME: PAPPAS, J.M.D



**LEGEND**

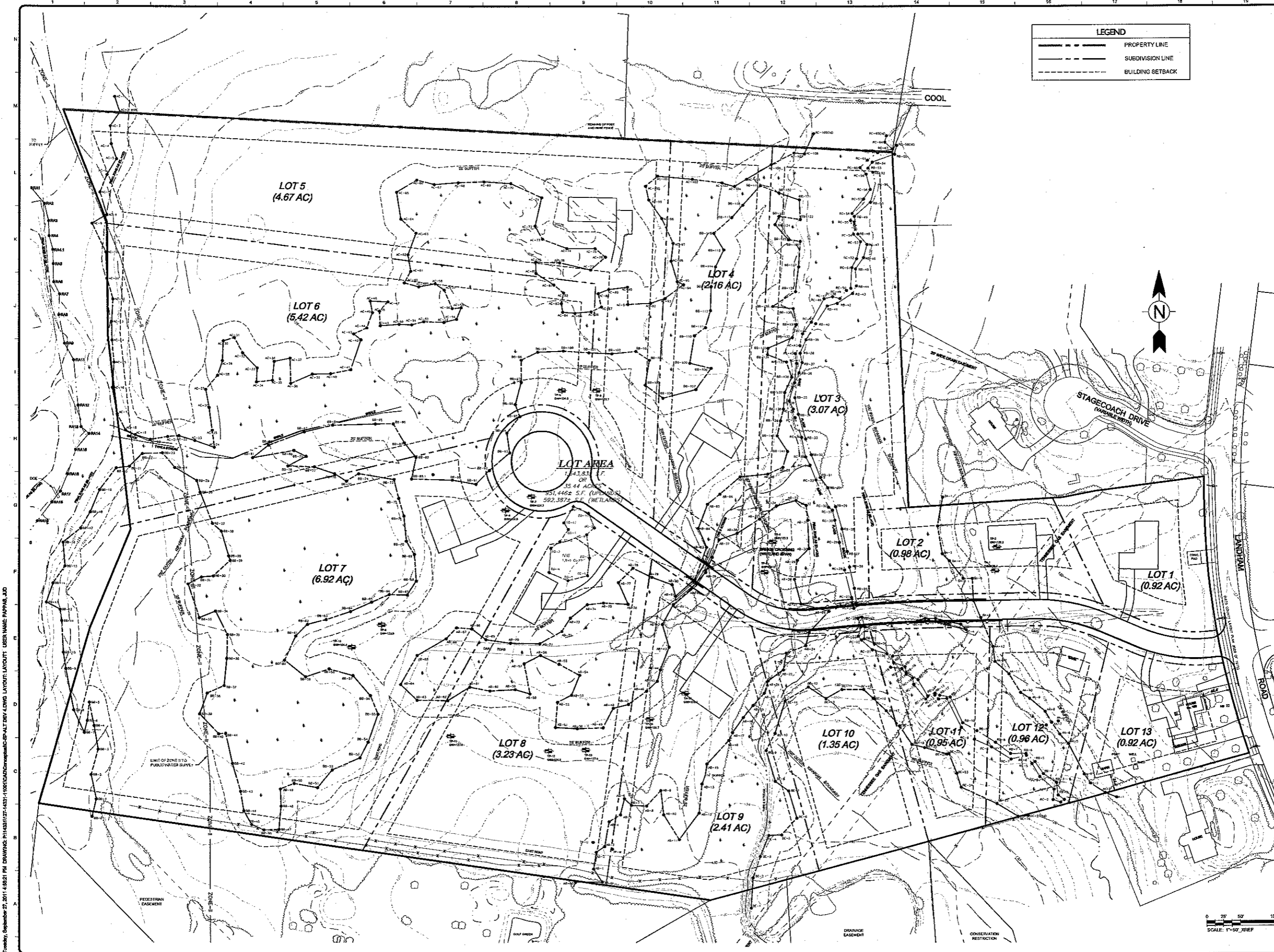
———	PROPERTY LINE
-----	SUBDIVISION LINE
- - - - -	BUILDING SETBACK

DATE	DESCRIPTION
10-11-11	REV

Project No: 127-14331-11001  
 Designed By: G.K.D.  
 Drawn By: J.L.P.  
 Checked By:

**7 LOT SUBDIVISION PLAN  
 ALTERNATIVE CONCEPT SKETCH #3**

**3**



**LEGEND**

	PROPERTY LINE
	SUBDIVISION LINE
	BUILDING SETBACK

**TETRA TECH**  
  
 One Chart Street  
 Phone: 508-993-2000 FAX: 508-993-2001

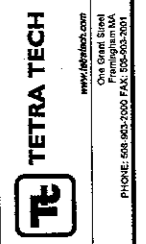
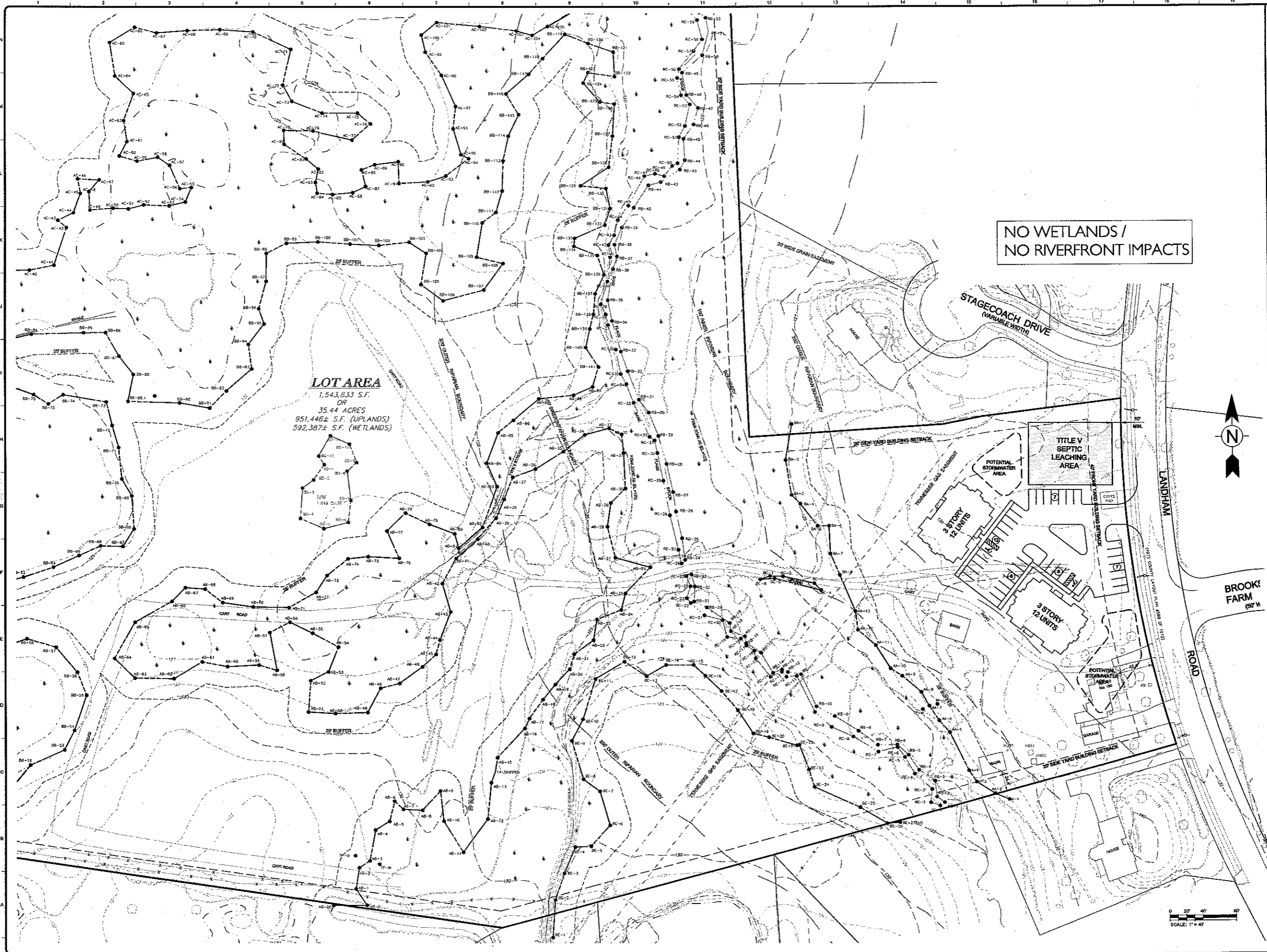
MARK	DATE	DESCRIPTION
1	10-4-11	REV

13 LOT SUBDIVISION PLAN  
 ALTERNATIVE CONCEPT SKETCH #4

Project No.: 127-14531-1001  
 Designed By: G.K.D.  
 Drawn By: J.L.P.  
 Checked By:

Tuesday, September 27, 2011 4:58:21 PM DRAWING: P:\1301\1301-14531-1001\CAD\DWG\ALTS\1301-14531-1001-13 LOT SUBDIVISION PLAN.dwg USER: NAME: PAPPAS, J.D.

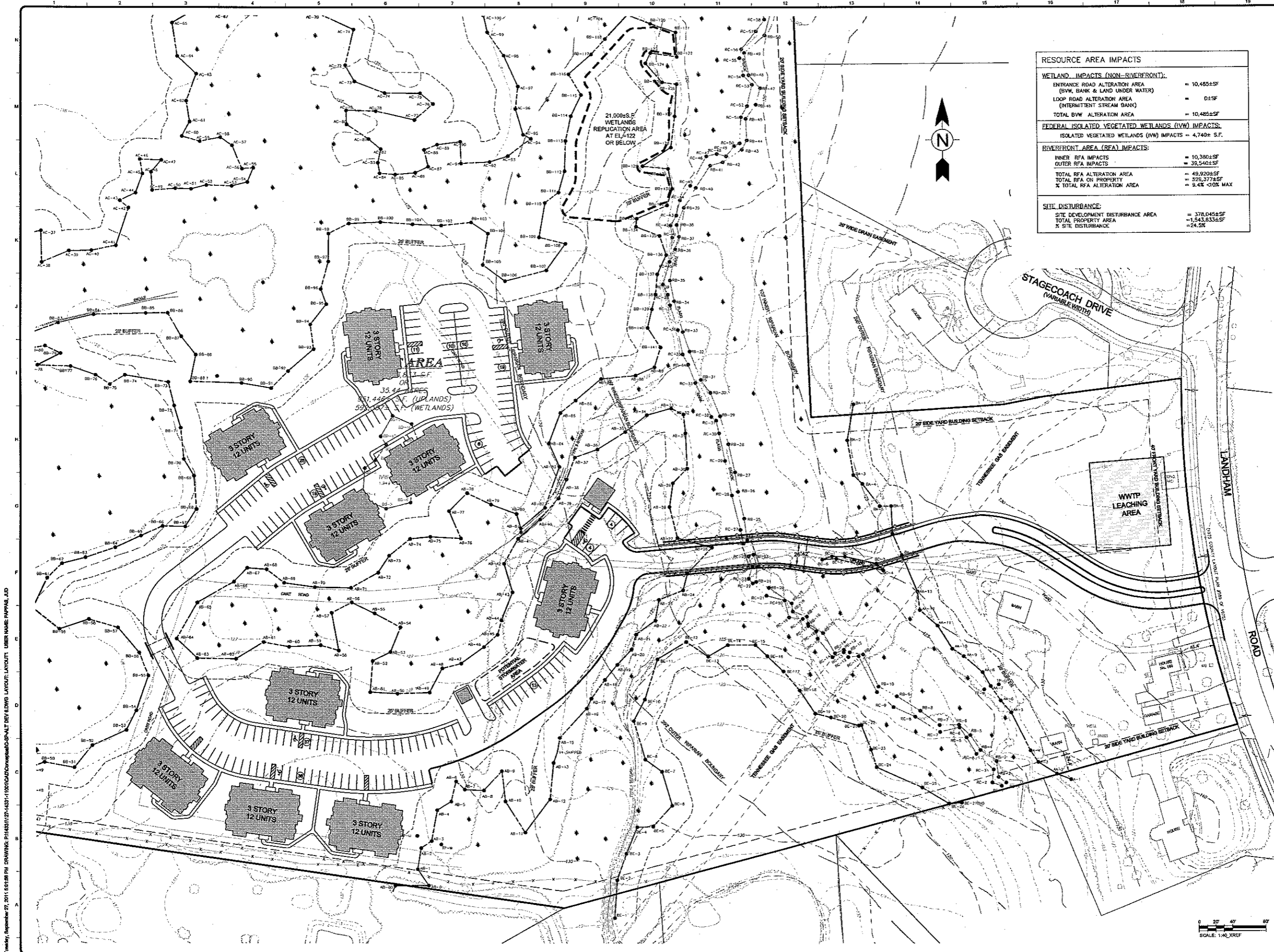
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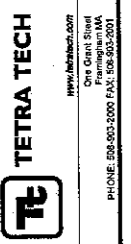
MARK	DATE	DESCRIPTION
1	10-11-11	NOI

Client: John DeWitt  
 Project: The Residences at Johnson Farm  
 Location: Landham Road, Sudbury  
**2 BUILDINGS / 24 UNITS**  
**ALTERNATIVE CONCEPT SKETCH #5**

Project No.: 127-14891-11001  
 Designed By: G.K.O.  
 Drawn By: J.L.P.  
 Checked By:



RESOURCE AREA IMPACTS	
<b>WETLAND IMPACTS (NON-RIVERFRONT):</b>	
ENTRANCE ROAD ALTERATION AREA (BYM, BANK & LAND UNDER WATER)	= 10,485±SF
LOOP ROAD ALTERATION AREA (INTERMITTENT STREAM BANK)	= 0±SF
TOTAL BYM ALTERATION AREA	= 10,485±SF
<b>FEDERAL ISOLATED VEGETATED WETLANDS (IIVW) IMPACTS:</b>	
ISOLATED VEGETATED WETLANDS (IIVW) IMPACTS	= 4,740± S.F.
<b>RIVERFRONT AREA (RFA) IMPACTS:</b>	
INNER RFA IMPACTS	= 10,390±SF
OUTER RFA IMPACTS	= 39,540±SF
TOTAL RFA ALTERATION AREA	= 49,920±SF
TOTAL RFA ON PROPERTY	= 526,377±SF
% TOTAL RFA ALTERATION AREA	= 3.4% <10% MAX
<b>SITE DISTURBANCE:</b>	
SITE DEVELOPMENT DISTURBANCE AREA	= 378,045±SF
TOTAL PROPERTY AREA	= 1,543,833±SF
% SITE DISTURBANCE	= 24.5%



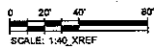
www.tetrattech.com  
One Grand Street  
Framingham MA  
PHONE: 508-545-2000 FAX: 508-545-2001

Tuesday, September 27, 2011 8:01:58 PM DRAWING: P:\14381\17-14381-110010\DWG\CONCEPT\ALT REV 6\DWG LAYOUT.LAYOUT USER NAME: PAPPALAJI, J.D.

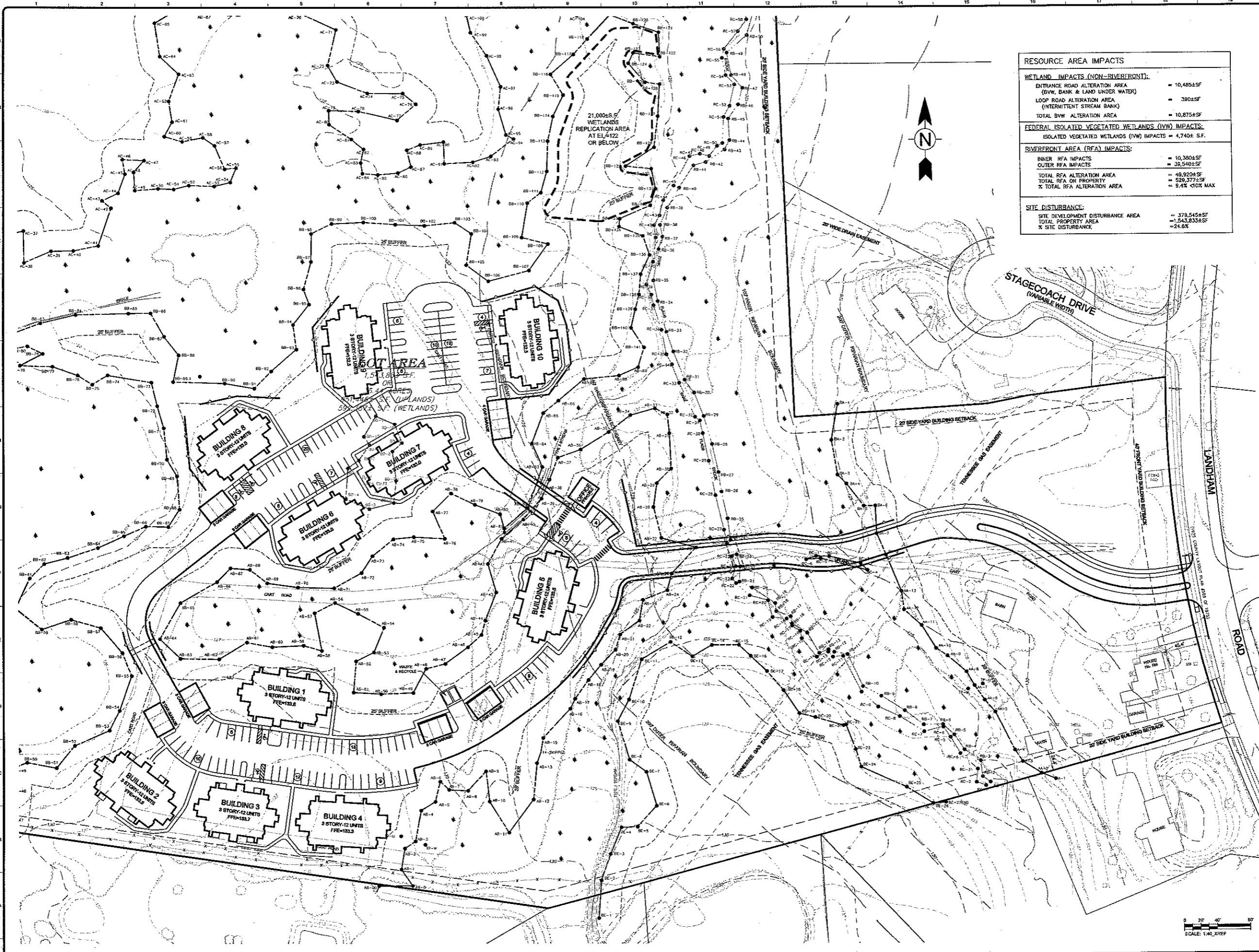
MARK	DATE	DESCRIPTION
1	10-11-11	AK

Client Name: [Redacted]  
The Residences at Johnson Farm  
Lanham Road, Sudbury  
10 BUILDINGS / 120 UNITS  
ALTERNATIVE CONCEPT SKETCH #6

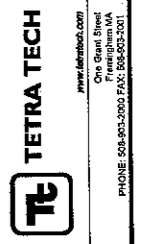
Project No.: 127-14381-11001  
Designed By: G.K.D.  
Drawn By: J.L.P.  
Checked By:



Tuesday, September 27, 2011 8:52:46 PM DRAWING: P:\14891\127-14891-11001\CAD\Conceptual\SO-ALT DEV 7 DWG LAYOUT LAYOUT USER NAME: PMPAS, JLD



RESOURCE AREA IMPACTS	
<b>WETLAND IMPACTS (NON-RIVERFRONT):</b>	
ENTRANCE ROAD ALTERATION AREA (BVM, BANK & LAND UNDER WATER)	= 10,485±S.F.
LOOP ROAD ALTERATION AREA (INTERMITTENT STREAM BANK)	= 390±S.F.
TOTAL BVM ALTERATION AREA	= 10,875±S.F.
<b>FEDERAL ISOLATED VEGETATED WETLANDS (I.V.W.) IMPACTS:</b>	
ISOLATED VEGETATED WETLANDS (I.V.W.) IMPACTS	= 4,740± S.F.
<b>RIVERFRONT AREA (RFA) IMPACTS:</b>	
INNER RFA IMPACTS	= 10,380±S.F.
OUTER RFA IMPACTS	= 39,540±S.F.
TOTAL RFA ALTERATION AREA	= 49,920±S.F.
TOTAL RFA ON PROPERTY	= 529,377±S.F.
% TOTAL RFA ALTERATION AREA	= 9.4% <10% MAX
<b>SITE DISTURBANCE:</b>	
SITE DEVELOPMENT DISTURBANCE AREA	= 378,545±S.F.
TOTAL PROPERTY AREA	= 1,243,833±S.F.
% SITE DISTURBANCE	= 24.0%



MARK	DATE	DESCRIPTION
1	10-11-11	NOI

Client: Sun Development  
 The Realness at Johnson Farm  
 Landham Road, Sudbury  
 Proj. Loc.: Sudbury, MA

10 BUILDINGS / 120 UNITS  
 ALTERNATIVE CONCEPT SKETCH #7

Project No.: 127-14891-11001  
 Designed By: G.K.D.  
 Drawn By: J.L.P.  
 Checked By:

7

