



Green Communities Action Plan

Town of Framingham

150 Concord Street
Framingham, MA 01702

Prepared for:

Massachusetts Department of Energy Resources
Green Communities Program
Commonwealth of Massachusetts
100 Cambridge Street, 10th Floor
Boston, MA 02114

Prepared by:

ICF International
33 Hayden Avenue
Lexington, MA 02421

Horsley Witten Group
90 Route 6A
Sandwich, MA 02563

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1. INTRODUCTION

This Action Plan is designed to guide the Town of Framingham in qualifying as a Green Community under the Massachusetts Department of Energy Resources (DOER) Green Communities Program. Qualifying communities will be eligible for the Green Communities Grant and Loan program to promote energy efficiency and alternative energy projects. Funding for this program, estimated at approximately \$10 million annually, originates from the Regional Greenhouse Gas Initiative. DOER has provided Planning Assistance to Massachusetts cities and towns to assist them in qualifying as a Green Community. This Action Plan is the result of Planning Assistance provided to the Town of Framingham.

There are five criteria that a municipality must meet to be designated a Green Community, which were established by Massachusetts General Law Chapter 25A Section 10, effective July 2, 2008:

- 1. Provide for the as-of-right siting of renewable or alternative energy generating facilities, renewable or alternative energy research and development (R&D) facilities, or renewable or alternative energy manufacturing facilities in designated locations.*
- 2. Adopt an expedited application and permitting process under which these energy facilities may be sited within the municipality and which shall not exceed 1 year from the date of initial application to the date of final approval.*
- 3. Establish an energy use baseline inventory for municipal buildings, vehicles, street and traffic lighting, and put in place a comprehensive program designed to reduce this baseline by 20 percent within 5 years of initial participation in the program.*
- 4. Purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable.*
- 5. Require all new residential construction over 3,000 square feet and all new commercial and industrial real estate construction to minimize, to the extent feasible, the life-cycle cost of the facility by utilizing energy efficiency, water conservation and other renewable or alternative energy technologies.*

ICF International and Horsley Witten Group, Inc. (ICF/HW) were jointly contracted by DOER to provide Planning Assistance to more than fifty communities, over two rounds of assistance. ICF/HW provided assistance to each community over an approximate three month period. The assistance varied by community based on needs, but generally included working meetings, public meetings, ongoing communication and research, and model language (zoning language, policy language, etc.) for use in meeting the Green Community criteria. Each community was assigned a primary contact at either ICF or HW who worked closely with the community. Additional technical expertise was provided as needed to assist with specific criteria. Technical expertise from ICF was provided in the areas of energy use baseline inventories, energy use reduction plans, and the Stretch Energy Code (Criteria 3 and 5). Expertise from HW was provided in the areas of as-of-right zoning and expedited permitting (Criteria 1 and 2).

This Action Plan describes the progress prior to assistance, the steps undertaken throughout assistance and the remaining steps to be completed in order for the community to meet all five Green Communities criteria. A timeline of activities and individual(s) or committee to whom the task would be delegated should the Town seek designation has been provided for each criterion.

1.1. APPLICATION

By applying for planning assistance for the Green Communities Act, the Town of Framingham indicated its interest in becoming a Green Community. This Action Plan will assist the Town in its decision to become designated and strive to meet the five Green Communities criteria within a year of adopting the Green Communities Action Plan. In the Town’s planning assistance application, no progress had been demonstrated on the five criteria.

Green Communities Criteria	Status at Time of Application (per DOER)
1. As-of-Right Siting	No Progress Presented in Application
2. Expedited Permitting	
3. Energy Use Baseline Inventory and Reduction Plan	
4. Policy to Purchase Only Fuel Efficient Vehicles	
5. Minimize life-cycle costs in energy construction	

1.2. INITIAL SITE VISIT

Leiran Biton of ICF conducted an initial site visit at a public meeting in Framingham, which was coordinated by the Town’s Director of Community & Economic Development, Alison Steinfeld. The meeting was attended by Town staff, elected and appointed officials, and representatives of the Green Communities Program.

DATE OF SITE VISIT

Wednesday, February 16, 2011

ATTENDEES INCLUDED

Julian Suso	Town Manager	Town of Framingham
David Williams	Assistant Town Manager	Town of Framingham
Alison Steinfeld	Director, Community & Economic Development	Town of Framingham
Eugene Kennedy	Assistant Director, Community & Economic Development	Town of Framingham
Jim Egan	Director of Buildings	Town of Framingham
Michael Foley	Director, Inspectional Services; Building Commissioner	Town of Framingham
Douglas Goddard	Capital Buildings Project Manager	Town of Framingham
Jay Grande	Director, Planning Board	Town of Framingham
Amanda Loomis	Associate Program Planner	Town of Framingham
Matthew Torti	Director, Buildings and Grounds	Framingham Public Schools
Heather Kingsbury	Legal Counsel	Petrini & Associates
Joanne Bissetta	Northeast Regional Coordinator	MA DOER Green Communities Division
Leiran Biton	Program Coordinator	ICF/Green Communities Planning Assistance Program

The meeting began with introductions. Mr. Biton then presented an overview of the DOER Green Communities Division, the Planning Assistance Program, and the Green Communities Grant Program. His presentation also included a detailed overview of each of the five qualification criteria required to become a Green Community. At points during the presentation, the group discussed strategies and obstacles to meeting each criterion. Criterion 5 (Stretch Code) was of particular interest, and will likely be the greatest challenge for the Town as it pursues Green Communities status.

During the meeting, the group discussed ways for the Town to meet the five criteria. There was consensus among the group that the Town's existing Zoning Bylaw should meet the requirements of Criteria 1 and 2 (As-of-Right Siting and Expedited Permitting, respectively). The group also agreed that the Town would be able to meet the 20 percent energy use reduction requirement for Criterion 3, and fuel efficient vehicle policy requirement for Criterion 4. There was much interest and discussion about the possibility of adopting the Stretch Code, and this topic dominated the bulk of the conversation.

In addition to the five criteria, Green Communities grants were discussed. Joanne Bissetta of DOER provided an approximate range of potential initial grant amounts that Framingham should expect if they are designated as a Green Community. The range was between \$200,000 and \$600,000, though this was qualified as a rough estimate based on information from comparable towns that have already been designated, and that the true amount would be contingent on Framingham's application and on the funding formula used by DOER to determine initial grant awards. Grants through this program may be applied toward a broad range of energy efficiency activities.

As of the writing of this Action Plan, the timing for Green Communities grants in FY 2012 and beyond has not been determined. Once the Town has made its decision as to whether it should seek designation and completed all of the necessary requirements, it will apply for the next available grant round. The Town will stay apprised of DOER's grant funding plans, and re-visit the designation timeline as necessary.

It was decided that Alison Steinfeld would serve as a liaison between the ICF/HW Planning Assistance and the Town.

2. GREEN COMMUNITIES CRITERIA

The following section includes a review of each of the five Green Community criteria with a description of the progress made to date, the methodology proposed for meeting the criteria as well as any remaining task(s) to be completed to fulfill the Green Communities requirements. Each of these task(s) identifies steps the community can take to fulfill the requirements, the person(s) and/or municipal boards responsible for tasks, and the timeline for completion. The Action Plan outlined below is also presented in a matrix format in Section 3.1, for easy reference.

2.1. AS-OF-RIGHT SITING

BACKGROUND

The first Green Communities criterion states that a city or town must *provide for the as-of-right siting of renewable or alternative energy generating facilities, renewable or alternative energy research and development (R&D) facilities, or renewable or alternative energy manufacturing facilities in designated locations.*

- As-of-right siting is defined as siting that provides for the allowed use of, and does not reasonably regulate, or require a special permit.
- An applicant can meet this requirement by providing as-of-right siting for one of the three types of facilities described.
- If a community has as-of-right siting in place for R&D and/or manufacturing facilities in general, this can meet the requirement, but the community must demonstrate that the Zoning Bylaw applies to renewable and alternative energy R&D or manufacturing.
- An applicant providing as-of-right siting for R&D and/or manufacturing must show that land is available for the construction of a facility or facilities of 50,000 square feet or larger in the aggregate. Zoning districts with previously developed but vacant or underutilized structures or sites are preferred over those that would site clean energy facilities on land that is currently wooded, actively farmed, otherwise undeveloped.
- An applicant can meet this requirement with as-of-right siting for renewable or alternative energy generation with one of the following project requirements:
 - On-shore wind: a turbine of a minimum 600 kW in size or above
 - Off-shore wind: a turbine of a minimum 2.5 MW or above
 - Solar Photovoltaic: a single ground-mounted system of a minimum of 250kW or above
 - Biomass CHP: a minimum of 5 MW in a stand-alone building
 - Ocean, wave, or tidal: no minimum threshold

Additional details on this requirement are included in three guidance documents developed by DOER to provide details on meeting requirements for Wind, Large-Scale PV, and R&D and Manufacturing.

PROGRESS PRIOR TO ASSISTANCE

Prior to assistance, the Town had made significant progress on meeting this criterion. The current Zoning Bylaw already allows manufacturing and R&D facilities to be sited by-right in designated areas. See **Appendix A** for excerpts from the Zoning Bylaw. However, all uses of 8,000 sq ft or greater that constitute a change in use or major physical alterations to the building and/or lands are subject to a special permitting process.

METHOD FOR MEETING

To meet Criterion 1, the Town of Framingham will submit information to DOER about its existing Zoning Bylaw. The Zoning Bylaw currently allows manufacturing and R&D uses by-right in designated locations. Specifically, the Zoning Bylaw allows manufacturing in any General Manufacturing Districts, where manufacturing is defined as “Manufacturing of any description utilizing processes free from neighborhood disturbing odors and/or agencies” (Z.B. §G.1.c.). Furthermore, the Technology Park District has the same regulations as the underlying zoning of manufacturing (Z.B. §L.2.a.2.) with some additional requirements.

See **Appendix A** for relevant excerpts from the Zoning Bylaw.

According to DOER requirements, at least 50,000 sq ft of facility floor space must be available in aggregate to demonstrate feasibility. The Town requires a special permitting process for all uses of 8,000 sq ft or greater when a use change occurs. Therefore to meet this criterion, the Town could identify at least seven (7) developable sites under 8,000 sq ft in the appropriately zoned area. Alternatively, the Town could identify one or more large vacant site for which the previous primary use was consistent with the new proposed use. According to Town regulations, similar and like purposes without any major physical alterations to the building and lands would not require Special Permit Granting Authority approval.

In order to meet this criterion through as-of-right renewable energy manufacturing and R&D facilities, the Town will need to submit a letter from legal counsel that demonstrates that the uses are allowed by-right, that the uses are clearly allowed, and that development is feasible. Specifically, the letter must include the following documentation (see **Appendix B**):

- The applicable section(s) of the Zoning Bylaw;
- Important zoning definitions;
- Relevant sections related to uses allowed in each zone;
- Any related local regulations applicable to facilities sited under the Zoning Bylaw, such as Site Plan Review regulations, so that DOER can confirm that the related local regulations are non-discretionary;
- Yield calculations, either included in the text of the letter, or attached to it; and
- A copy of the Zoning Map that shows the area zoned.

The Town is interested in exploring options for solar energy generation at its municipal landfill. DOER will work with the community to provide information, resources, and guidance should the Town decide to move forward on any renewable energy generation. Because the Town is able to meet Criterion 1 through manufacturing and/or R&D, this Action Plan focuses exclusively on manufacturing and R&D.

STEPS COMPLETED DURING ASSISTANCE

- ICF/HW provided guidance regarding the requirements for as-of-right siting of alternative/renewable energy generation or R&D/manufacturing facilities during the initial site visit on February 16, 2011.
- ICF/HW conducted regular conference calls to discuss plans for the community to meet this criterion.
- ICF/HW provided technical assistance through the dissemination and discussion of the following guidance documents, materials, and/or information:

- The DOER guidance materials: ***Model As-of-Right Bylaw for Large Scale Photovoltaic Installations, Guidance for As-of-Right Siting of Renewable or Alternative Energy R&D or Manufacturing Facilities***
- Customized guidance document (see **Appendix B**) to support Framingham staff through the process of conducting a yield analysis and documenting compliance.
- ICF/HW reviewed the Town of Framingham’s existing Zoning Bylaw and zoning map to determine compliance with the requirements for Criterion 1. ICF/HW determined that the existing Zoning Bylaw would meet Criterion 1 so long as a yield analysis could demonstrate that development was feasible.
- Jay Grande, Director of the Planning Board, provided a build-out analysis for properties in the Technology Park. An ICF/HW review of the build-out analysis did not identify sufficient floor area to meet the DOER requirement of 50,000 sq ft developable or vacant floor space. ICF/HW advised the Town of its options.
- Mr. Grande met with Alison Steinfeld and Mike Foley to identify other options—either rezoning additional land into the Technology Park District, or identifying vacant buildings with existing primary use as manufacturing, to meet the DOER feasibility requirement.
- The Town identified a single site, the vacant Breyer’s Ice Cream factory, as a potential site that could meet this requirement as it exceeds the necessary 50,000 sq ft. According to Town regulations, reuse of a site with similar and like purposes without any major physical alterations to the building and lands would not require Special Permit Granting Authority approval.
- The Town will continue to explore the reuse of this site and confirm its applicability. ICF/HW recommended that the language of the letter from legal counsel will need to state that the new use would be “consistent” with the factory use (i.e. manufacturing, etc.)
- ICF/HW recommended that the Town draft one combined counsel letter for Criteria 1 and 2, rather than two separate letters.

STEPS TO BE COMPLETED

Task	Date to be Completed
1A: Town staff confirms the feasibility of using the Breyer’s Ice Cream Factory site	Month 1
1B: Town conducts the yield calculation	Month 2-3
1C: Prepare letter from legal counsel, including yield calculations	Month 5
1D: Finalize paperwork for submission to DOER	Prior to designation*

* Once all of the criteria are completed, the Town plans to apply for the next feasible grant round.

PERSON RESPONSIBLE

Jay Grande, Amanda Loomis, Mike Foley, and Heather Kingsbury are the team responsible for completing this criterion.

2.2. EXPEDITED PERMITTING

BACKGROUND

The second Green Communities criterion states that a city or town must ***adopt an expedited application and permitting process under which these energy facilities may be sited within the municipality and which shall not exceed 1 year from the date of initial application to the date of final approval.***

- The expedited application and permitting process applies only to the proposed facilities which are subject to the as-of-right siting provision.
- An applicant can meet this requirement by applying the expedited permitting process of MGL c 43D to these zoning districts.
- Once designated a Green Community, the applicant will be required to report annually on their permitting of clean energy projects within as-of-right zoning districts. Communities not adhering to the 365 day permitting requirement will be at risk of losing their Green Community designation.

Additional details on this requirement are included in the ***Guidance for Expedited Permitting Options*** document developed by DOER.

PROGRESS PRIOR TO ASSISTANCE

The existing Site Plan Review process in the Town, as documented in the Zoning Bylaw (see **Appendix A**), is sufficient to ensure an expedited permitting process that meets the requirements of Criterion 2.

METHOD FOR MEETING

Because the existing Zoning Bylaw allows for an expedited permitting process, the Town intends to meet this criterion through its existing Bylaw.

In order to meet this criterion through a local expedited permitting process, the Town's legal counsel must supply a letter with the following information:

- An affirmation that there are no preclusions for expedited permitting.
- The language included in the Zoning Bylaw that addressing approval procedures (Z.B. §9.80).
- Associated timing from any applicable bylaws.

The Town must submit this letter with a copy of the applicable map demonstrating the extent to which the areas where expedited permitting is available overlap with the as-of-right zoning area (see **Appendix A**).

STEPS COMPLETED DURING ASSISTANCE

- ICF/HW provided guidance regarding the requirements for expedited permitting for as-of-right alternative/renewable energy generation and R&D/manufacturing facilities during the initial site visit on February 16, 2011.
- ICF/HW conducted regular conference calls to discuss plans for the community to meet this criterion.
- ICF/HW provided technical assistance through the dissemination and discussion of the following guidance documents, materials, and/or information:
 - The DOER guidance document on ***Expedited Permitting Options***.
- ICF/HW reviewed the Town of Framingham's existing Zoning Bylaw to determine compliance with the requirements for Criterion 2.
- ICF/HW provided the Town with sample constructive approval language, and suggested insertion of such language into the Zoning Bylaw amendment.
- ICF/HW provided the Town with a sample legal counsel letter from another community (Sutton), to save the legal counsel time when he drafts the letter for Framingham. ICF/HW noted while sending this information that Sutton had not yet been designated, and as such, could not guarantee that the language would satisfy the requirements of the Green Communities program.

- ICF/HW recommended that the Town draft one combined counsel letter for Criteria 1 and 2, rather than two separate letters.

STEPS TO BE COMPLETED

Task	Date to be Completed
2A: Prepare letter from legal counsel	Month 5
2B: Finalize paperwork for submission to DOER	Prior to designation*

* Once all of the criteria are completed, the Town plans to apply for the next feasible grant round.

PERSON RESPONSIBLE

Should the Town seek designation, the team assigned to complete this criterion will include Alison Steinfeld, Jay Grande, and Heather Kingsbury, and they may be assisted by Mike Foley as necessary.

2.3. ENERGY USE BASELINE INVENTORY AND REDUCTION PLAN

BACKGROUND

The third Green Communities criterion states that a city or town must *establish an energy use baseline inventory for municipal buildings, vehicles, street and traffic lighting, and put in place a comprehensive program designed to reduce this baseline by 20 percent within 5 years of initial participation in the program.*

- There are a number of acceptable tools for performing the inventory including:
 - DOER’s MassEnergyInsight (MEI) (www.massenergyinsight.net)
 - ENERGY STAR Portfolio Manager
 - ICLEI software
 - Other tools proposed by the community and deemed acceptable by DOER
- The 20 percent reduction goal should be applied in aggregate across building, street lights and vehicles on an MMBTU (million British thermal units) basis.
- The baseline year should consist of the most recent year of complete data. However, to allow communities to take credit for energy efficiency measures completed in recent years, a community may provide a baseline that goes back 24 months, and provide a reduction plan that begins in the following year. At this time, a community may provide a baseline that goes as far back as calendar year 2008.

Additional details on this requirement are included in the *Energy Reduction Plan Guidance and Outline* document developed by DOER.

PROGRESS PRIOR TO ASSISTANCE

The School Department has an excellent energy tracking system, which is maintained by Matt Torti. The Framingham schools are the top rebate taker from NSTAR in the state over the last 10 years. Because of the incredible energy savings already achieved in the school buildings, it will be difficult for the schools to achieve 20 percent reduction in the next 5 years. Thus, it will be important to maximize energy reductions in the municipal buildings.

INVENTORY TOOL USED OR PLANNED TO BE USED

The Schools will track energy information using their in-house data tracking system, which will be maintained by Matt Torti, Director, Buildings and Grounds at the Framingham School Department. The Town will most likely adopt the School's system. However, if that is not the case, the Town will use MassEnergyInsight, the tool provided for free by DOER. MEI automatically populates with data from the major utilities on a regular basis, significantly reducing the workload on participating communities. If MEI is used, Doug Goddard will track energy use through the tool for the Town.

STEPS COMPLETED DURING ASSISTANCE

- ICF/HW provided guidance regarding the requirements for development of a baseline energy-use inventory during the initial site visit on February 16, 2011, and also during subsequent e-mail exchanges and telephone conversations.
- ICF/HW conducted regular conference calls to discuss plans for the community to meet this criterion.
- ICF/HW provided technical assistance through the dissemination and discussion of the following guidance documents, materials, and/or information:
 - Information on the DOER MEI tool and available training opportunities.
 - Template MEI registration letters and data access letters.
 - The DOER guidance: **Energy Reduction Plan Guidance and Outline**.
 - **Energy Reduction Plan Template** to support the Framingham Energy Committee through the process of completing the Plan.
 - A list of **Sample Energy Efficiency Measures**.
- ICF/HW recommended contacting Mass Save to schedule energy audits through its municipal Whole Building Assessment Program. Building assessments completed through this program will generate reports and specific energy conservation measures with associated cost and projected energy savings.
- ICF/HW contacted Matt Torti to discuss progress on this criterion and answer any outstanding questions.

STEPS TO BE COMPLETED

Task	Date to be Completed
3A: Determine approach to creating a municipal baseline	Months 1-2
3B: Create energy use baseline	Months 3-5
3C: Identify energy efficiency measures to achieve 20% reduction	Months 4-6
3D: Draft Energy Reduction Plan	Months 6-7
3E: Present ERP to the Board of Selectmen and School Board for approval	Month 8
3F: Finalize documentation for submission to DOER	Prior to designation*

* Once all of the criteria are completed, the Town plans to apply for the next feasible grant round.

PERSON RESPONSIBLE

The team assigned to coordinate on this criterion would be Alison Steinfeld, Doug Goddard, and Matthew Torti.

2.4. POLICY TO PURCHASE ONLY FUEL EFFICIENT VEHICLES

BACKGROUND

The fourth Green Communities criterion states that a city or town must *purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable*.

- To meet this criterion, municipalities need to adopt a written, efficient fleet policy (by local official or body with authority to enact policies) that requires their departments and divisions to purchase only fuel efficient vehicles.
- Both general government and school districts are required to enact a fuel efficient vehicle policy for a municipality to meet this requirement, and letters documenting adoption must be provided.
- The municipality is required to develop and maintain a vehicle inventory for non-exempt vehicles and a plan for replacing these vehicles with vehicles that meet the fuel efficiency ratings below. The fuel efficiency ratings are set to ensure that at least 5 or more automatic transmission models of mass production are available for sale in Massachusetts. Based on 2010 EPA data, vehicles are to have a combined city and highway MPG no less than the following:
 - 2 wheel drive car: 29 MPG
 - 4 wheel drive car: 24 MPG
 - 2 wheel drive small pick-up truck: 21 MPG
 - 4 wheel drive small pick-up truck: 19 MPG
 - 2 wheel drive standard pick-up truck: 17 MPG
 - 4 wheel drive standard pick-up truck: 16 MPG
 - 2 wheel drive sport utility vehicle: 21 MPG
 - 4 wheel drive sport utility vehicle: 18 MPG
- Recycling of vehicles is only allowed if the replacement vehicle meets the fuel efficient criteria prescribed above. Please be advised that a recycled Ford Crown Victoria does not meet the MPG rating and therefore would not meet fuel efficient vehicle requirements.
- Heavy duty vehicles, defined as having a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pounds, are exempt from municipal Efficient Fleet Policies. Examples include fire engines, ambulances, and some public works vehicles.
- Police cruisers, passenger vans, and cargo vans are exempt from this criterion. However, municipalities must commit to purchasing fuel efficient cruisers, passenger vans, and cargo vans when they become commercially available. Police and fire department administrative vehicles must meet fuel efficient requirements.
- Emergency response vehicles that are under 8,500 pounds and for which there are fuel efficient models available are NOT exempt.

Additional details on this requirement are included in the *Guidance and Model Policy for Purchasing only Fuel Efficient Vehicles*, developed by DOER.

PROGRESS PRIOR TO ASSISTANCE

Prior to assistance, the community had not yet assembled a vehicle inventory or enacted a fuel efficient vehicle inventory.

STEPS COMPLETED DURING ASSISTANCE

- ICF/HW provided guidance regarding the requirements for development of the vehicle replacement policy during the initial site visit on February 16, 2011.

- ICF/HW conducted regular conference calls to discuss plans for the community to meet this criterion.
- ICF/HW coordinated with the Town (David Williams) and Schools (Matt Torti) to obtain a full town-wide vehicle listing. David Williams will use the listing to generate the vehicle inventory to satisfy the requirement.
- ICF/HW provided technical assistance through the dissemination of the following guidance documents, materials, and/or information:
 - The DOER guidance materials: ***Guidance and Model Policy for Purchasing only Fuel Efficient Vehicles.***
 - Examples of fuel-efficient vehicle policies, including replacement plans from neighboring communities.
 - A cost-benefit analysis regarding police vehicle repurposing that was performed by the Town of Franklin (see **Appendix C**).
- ICF/HW drafted a vehicle replacement plan for the Town based on the plan for Hatfield.
- The Town intern compiled the vehicle inventory throughout the Spring 2011.

STEPS TO BE COMPLETED

Task	Date to be Completed
4A: Finalize vehicle inventory	Month 1
4B: Draft vehicle policy and replacement plan	Month 2
4C: Submit policy, plan, and inventory to Board of Selectmen and School Board for their approval	Month 3
4D: Finalize paperwork for submission to DOER	Prior to designation*

* Once all of the criteria are completed, the Town plans to apply for the next feasible grant round.

PERSON RESPONSIBLE

Alison Steinfeld, David Williams (who serves as Procurement Officer), and Matthew Torti will comprise the team assigned to complete this criterion.

2.5. MINIMIZE LIFE-CYCLE COSTS IN ENERGY CONSTRUCTION

BACKGROUND

The fifth Green Communities criterion states that a city or town must *require all new residential construction over 3,000 square feet and all new commercial and industrial real estate construction to minimize, to the extent feasible, the life-cycle cost of the facility by utilizing energy efficiency, water conservation and other renewable or alternative energy technologies.*

- The recommended way for cities and towns to meet this requirement is by adopting the BBRS Stretch Code, an appendix to the MA State Building Code. Should a community choose not to adopt the Stretch Code and choose another standard, the community must provide evidence that this alternative standard minimizes the life-cycle energy costs for all new construction and is enforceable by the community.
- The Stretch Code is an optional appendix to the Massachusetts building energy code that allows cities and towns to choose a more energy-efficient option. This Stretch Code option increases the energy efficiency code requirements in any municipality that adopts it, for all new residential and many new commercial buildings, as well as for those residential additions and renovations that

would normally trigger building code requirements.

- In a town, the Stretch Code must be adopted as a general bylaw by its Town Meeting. In a city, the Stretch Code must be adopted by the City Council. It is advised in cities that the City Council adopt the Stretch Code by general ordinance.

Additional details on the Stretch Code are available through a number of documents available on the DOER Green Communities web site, and cited in the **References** section of this report.

PROGRESS PRIOR TO ASSISTANCE

The Town had made no specific progress on this criterion prior to assistance.

METHOD FOR MEETING

The Town of Framingham intends to meet Criterion 5 through adoption of the Stretch Energy Code.

STEPS COMPLETED DURING ASSISTANCE

- ICF/HW provided guidance regarding the life cycle costing requirement and the option of meeting the requirement by adopting the Stretch Code, during the initial site visit on February 16, 2011.
- ICF/HW provided technical assistance through the dissemination and discussion of the following guidance documents, materials, and/or information:
 - The DOER guidance materials: *Stretch Code Overview, Frequently Asked Questions, Residential Cash Flow Analysis*
- ICF/HW conducted regular conference calls to discuss plans for the community to meet this criterion.
- ICF/HW coordinated with Alison Steinfeld to plan a Stretch Code Workshop
 - ICF/HW provided lists of builders who have built under the Energy Star program in Framingham and surrounding towns.
 - ICF/HW provided sample Stretch Code invitation flyers from other communities.
 - The Town invited members of all affected Town boards, councils, and staff, particularly the building commissioner Mike Foley.
 - The Town will do solid outreach to the building, real estate, and trades communities.
- ICF/HW presented at the Stretch Code Builders Workshop on June 2, 2011.

STEPS TO BE COMPLETED

Task	Date to be Completed
5A: Town decides whether to pursue the Stretch Code passage	Months 1-3
5B: Town conducts outreach on Stretch Code in anticipation of Town Meeting	Months 4-6
5C: Town passes Stretch Code at Town Meeting	Dependant on timing of Town Meeting
5D: Finalize paperwork for submission to DOER	Prior to designation*

* Once all of the criteria are completed, the Town plans to apply for the next feasible grant round.

PERSON RESPONSIBLE

Alison Steinfeld and Mike Foley will coordinate on the Town side to complete this criterion.

3. CONCLUSIONS

As evidenced by this Action Plan and previous sustainability accomplishments, the Town of Framingham has demonstrated its commitment to a greener energy future. Through the Planning Assistance program, the Town has taken many steps that have positioned it to become designated as a Green Community, if it should decide to seek designation. The first step for the Town of Framingham is to decide whether the community will seek designation. Once that is decided, the Town can utilize the table on the following page that presents a summary of remaining tasks to be completed and a rough timeline.

This Action Plan documents how the Town of Framingham would fulfill the requirement for each of the five Green Communities Criteria. ICF/HW and DOER fully believe that meeting these criteria is a reasonable and worthwhile goal for the Town.

3.1. SUMMARY OF TASKS AND TIMELINE

The following table presents a summary of the outstanding tasks for each criteria and an estimated timeline should Framingham decide to get designated. The timeline represents months starting from the time that the Town makes a decision about designation.

Criteria	Task	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	M-9
1	1A: Town staff confirms the feasibility of using the Breyer's Ice Cream Factory site	█								
	1B: Town conducts the yield calculation		█	█						
	1C: Prepare letter from legal counsel, including yield calculations					█				
	1D: Finalize paperwork for submission to DOER									█
2	2A: Prepare letter from legal counsel					█				
	2B: Finalize paperwork for submission to DOER									█
3	3A: Determine approach to creating a municipal baseline	█	█							
	3B: Create energy use baseline			█	█	█				
	3C: Identify energy efficiency measures to achieve 20% reduction				█	█	█			
	3D: Draft Energy Reduction Plan						█	█		
	3E: Present ERP to the Board of Selectmen and School Board for approval								█	
	3F: Finalize documentation for submission to DOER									█
4	4A: Finalize vehicle inventory	█								
	4B: Draft vehicle policy and replacement plan		█							
	4C: Submit policy, plan, and inventory to Board of Selectmen and School Board for their approval			█						
	4D: Finalize paperwork for submission to DOER									█
5	5A: Town decides whether to pursue the Stretch Code passage	█	█	█						
	5B: Town conducts outreach on Stretch Code in anticipation of Town Meeting				█	█	█			
	5C: Town passes Stretch Code at Town Meeting									
	5D: Finalize paperwork for submission to DOER									█
All	Apply for preliminary consultation with DOER.							█	█	█
	Complete and submit Green Communities designation application to DOER, with all required documentation.									█
	Complete and submit Green Communities grant application to DOER									█

REFERENCES

The reference materials below are available to assist communities in meeting the Green Communities criteria. Many of the materials are available on the Green Communities Web site (www.mass.gov/energy/greencommunities) under the Green Communities Grant Program or the Green Communities Library. Others are available through other Web sites, or upon request from a Green Communities representative.

Designation and Grant Application Process

- FY2011 Designation and Grant Program Guidance
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/GC-Program-Guidance-Mar28-2011.pdf
- FY2011 Designation Application
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/GC-Designation-App-Mar28-2011.pdf

Criteria #1: As-of-Right Siting

- Guidance for As-of-Right Siting of Renewable or Alternative Energy R&D or Manufacturing Facilities
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/11-09_rd_renewables_guidance.pdf
- Model As-of-Right By-law for Use of Wind Facilities
<http://www.mass.gov/Eoeea/docs/doer/gca/gc-model-wind-bylaw-mar-10-2009.pdf>
- Model As-of-Right By-law for Large Scale Photovoltaic Installations
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/Model-Solar-Bylaw-REV-Dec-2010.doc

Criteria #2: Expedited Permitting Process

- Guidance for Expedited Permitting Options
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/criteria_2_guidance_032610.doc
- Chapter 43D Expedited Permitting Web site
<http://www.mass.gov/?pageID=ehedsubtopic&L=4&L0=Home&L1=Start%2C+Grow+%26+Relocate+Your+Business&L2=Licensing+%26+Permitting&L3=Chapter+43D+Expedited+Permitting&sid=Ehed>
- Chapter 43D Fact Sheet -including sample warrant language
http://www.mass.gov/?pageID=ehedterminal&L=5&L0=Home&L1=Start%2c+Grow+%26+Relocate+Your+Business&L2=Licensing+%26+Permitting&L3=Chapter+43D+Expedited+Permitting&L4=Chapter+43D+Information&sid=Ehed&b=terminalcontent&f=permitting_chapter43d_factsheet&csid=Ehed
- Chapter 43D Application
http://www.mass.gov/Ehed/docs/permitting/chapter43d/2009_chapter_43d_application.doc
- A Best Practices Model for Streamlined Local Permitting
http://www.mass.gov/Ehed/docs/permitting/permitting_bestpracticesguide.pdf
- Municipal Self Assessment Checklist
http://www.mass.gov/Ehed/docs/permitting/chapter43d/muni_checklist.doc

Criteria #3: Energy Baseline and Plan for 20% Reduction

- MassEnergyInsight
<http://www.massenergyinsight.net>
- MassEnergyInsight Training Schedule
<http://www.massenergyinsight.net/training.html>
- Energy Reduction Plan Guidance and Outline
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/GUIDANCE%20FOR%20CRITERIA%20THREE.pdf

Criteria #4: Fuel Efficient Vehicles

- Guidance and Model Policy for Purchasing Only Fuel Efficient Vehicles
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/GC-Guide-Criterion4-Feb22-2011.pdf

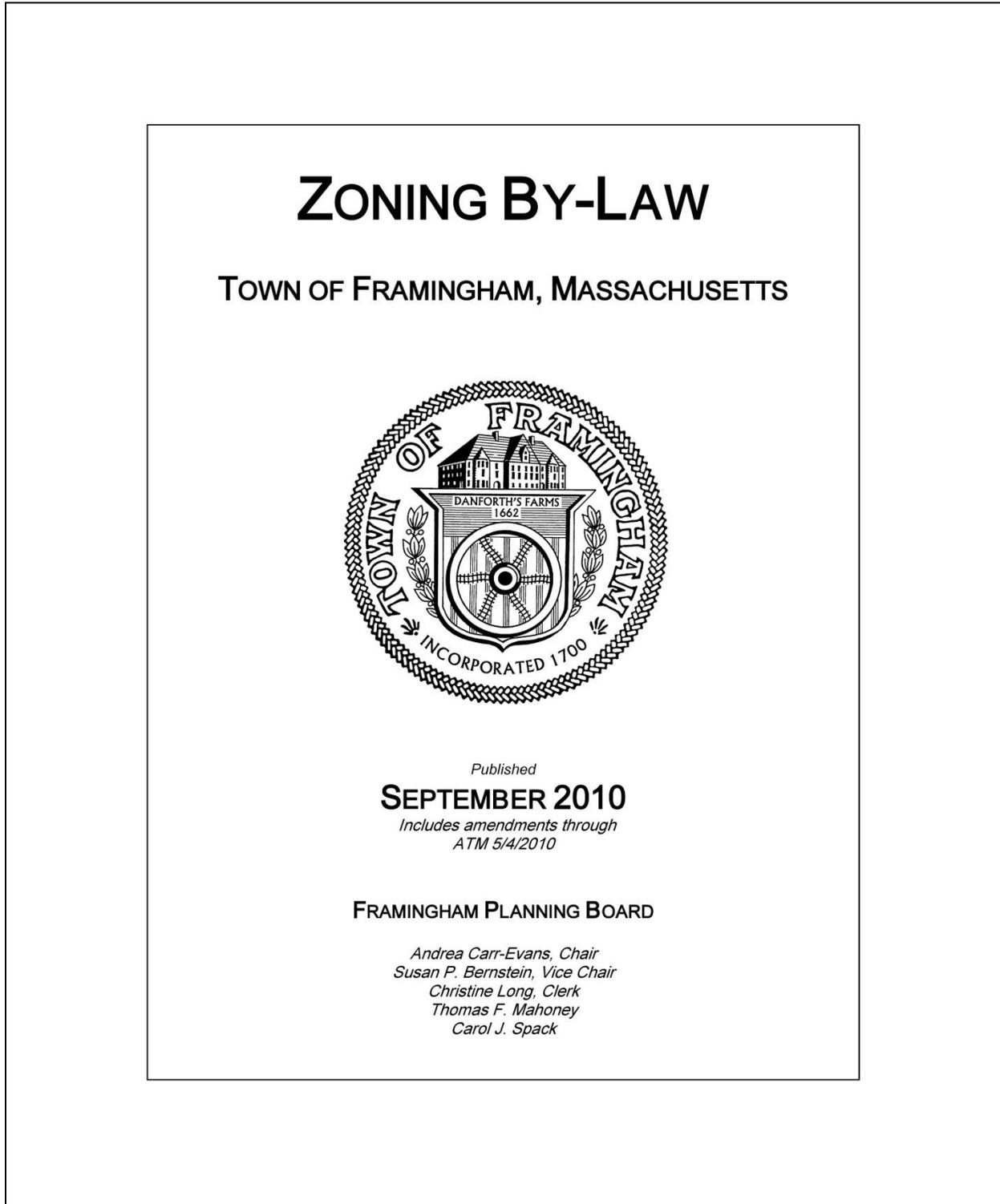
Criteria #5: Minimize Life Cycle Costs (Stretch Code)

- Stretch Code Adoption Process for a Town
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/GC-Guide-Criterion5-Feb10-2011.pdf
- Stretch Code Frequently Asked Questions
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/Stretch-Code-QA-Feb10-2011.pdf
- Stretch Code Overview
http://www.mass.gov/Eeops/docs/dps/inf/summary_of_the_ma_building_code_appendix_120.doc
Appendix 115 AA (August 2010)
http://www.mass.gov/Eeops/docs/dps/8th_edition/115_appendices.pdf

Note that the Stretch Code is Appendix 115 AA to the 8th Edition of the Massachusetts Building Code, and is identical to Appendix 120 AA of the 7th Edition. Communities currently adopting the Stretch Code should reference Appendix 115 AA rather than Appendix 120 AA.

APPENDIX A: Excerpts from the Framingham Zoning Bylaw

This section provides relevant excerpts from the Town of Framingham's Zoning Bylaw.



G. GENERAL MANUFACTURING DISTRICTS

1. No building or structure shall be used or arranged or designed to be used in any part and no change shall be made in the use of land or premises, except for one or more of the following purposes:
 - a. Any non-residential use permissible and as regulated in light manufacturing districts.
 - b. Wholesale lumber, fuel, and oil manufacturing establishments.
 - c. Manufacturing of any description utilizing processes free from neighborhood disturbing odors and/or agencies.
2. Uses which would be offensive because of injurious or obnoxious noise, vibration, smoke, gas, fumes, odors, dust or other objectionable features, or because hazardous to the community on account of fire or explosion or any other cause shall require a special permit from the Zoning Board of Appeals.
3. The following uses shall require a special permit from the Planning Board:
 - a. Uses set forth in subsection 1. herein, with 8,000 or greater than 8,000 square feet of gross floor area.

L. TECHNOLOGY PARK DISTRICT

1. Purpose and Intent

The purpose and intent of these Technology Park District regulations is to promote technological and light industrial development so as to enhance employment and economic vitality by allowing a certain mix of land uses at a higher density, without a corresponding increase in traffic, than is otherwise permitted in other zoning districts. In addition, these provisions are intended to ensure that the technology park is served by a sufficient vehicular circulation network and infrastructure to meet the particular demands of the facilities within the park without a corresponding impact on services in surrounding residential neighborhoods and commercial areas in proximity to the park.

2. Applicability

- a. The zoning classification of an area of land may be changed to a Technology Park District by vote of at least two-thirds of an annual or special town meeting provided said land complies with all of the following requirements:
 - 1) Total land area shall not be less than one-hundred fifty (150) acres.
 - 2) The land shall be located within an existing Light Manufacturing ("M-1") or General Manufacturing ("M") zoning district.
 - 3) The land shall have direct vehicular access onto a divided multi-lane state highway by means of an existing public way or existing curb cut.
- b. These regulations shall apply to all new construction as well as all proposals for development within the Technology Park District which must seek a Special Permit from the Planning Board for Off-Street Parking or Site Plan Review.

3. Permitted Uses

No building or structure shall be used, constructed or designed to be used in any part, and no change shall be made in the use of land or premises, except for one or more of the following purposes:

- a. Research and development, including biotechnology; processing, assembly and manufacturing, provided the use does not involve disturbing or offensive noise, vibration, smoke, gas, fumes, odors, dust or other objectionable or hazardous features;
- b. Printing;
- c. Delivery services;
- d. Storage and distribution facilities;
- e. Business and professional offices;
- f. Educational training facilities and conference centers accessory to a permitted use;
- g. Day care facilities.

4. Special Permit for Uses

The following uses shall require a Special Permit from the Planning Board:

- a. Non-automotive commercial uses and services intended for the primary use and convenience of the employees of the Technology Park District such as restaurants, branch banks, financial services, personal services and dry cleaners, provided the same do not occupy more than two thousand five hundred (2,500) square feet each;
- b. Centers for the performing arts.
- c. Retail outlets, accessory to a use permitted by this section, having a gross floor area no greater than two thousand five hundred (2,500) square feet;

5. Floor Area Ratio Requirements in a Technology Park District

a. Table of Floor Area Ratios

The ratio of the gross floor area of any building or group of buildings on a lot, including accessory buildings but excluding parking garages or structures, to the area of the lot (Floor Area Ratio (FAR)) shall not exceed the Base FAR as specified in the following Table of Floor Area Ratios, except as provided in III.L.5.b. Special Permit for an Increase in FAR.

PRINCIPAL USE	BASE FAR	MAX. FAR
Retail, Commercial	0.25	0.32
Business and professional offices, educational training facilities, conference centers and centers for the performing arts.....	0.4	0.6
Research and development, processing, assembly, manufacturing, printing, laboratory and associated offices	0.8	1.0
Storage and distribution facilities	0.8	1.0

b. Special Permit for an Increase in FAR

1) The Planning Board may grant, by Special Permit, an increase in the “Base FAR” up to the maximum FAR as specified in the Table of Floor Area Ratios, Section III.L.5.a., above, for parcels located in the Technology Park District, if all of the following conditions are met:

- a) The increase in FAR will achieve the goals, intent and objectives of these Technology Park District Regulations.
- b) The increased development complies with the Development Impact Standards set forth in Section IV.I.6. of the Zoning By-Law.
- c) The applicant agrees to develop a transportation demand management plan and actively participate in a transportation demand management program to reduce the number of peak hour vehicle trips. TDM programs shall include, but are not limited to, membership or contribution to a transportation management organization, carpooling program, public transportation voucher program, public transit system, bicycle trail and lane, pedestrian way, or shuttle service.

The Planning Board shall make written findings prior to approving or disapproving any application for Special Permit for an Increase in FAR.

2) Conditions Limitations and Safeguards

In granting approval of a Special Permit for an increase in density, the Planning Board may attach such conditions, limitations and safeguards as are deemed reasonably necessary to promote the purpose and intent of these Technology Park District regulations. Such conditions shall be in writing and shall be part of such approval. Such conditions may include, but not be limited to, the following:

- a) The conditions, limitations and safeguards stated in Section IV.I.8. a. through f.
- b) In lieu of specific traffic mitigation, the applicant may at the request of the Planning Board, deposit with the Town, a sum of money equivalent to the requirements of Section IV.I.6.a. of the Zoning By-Law to be used for construction of roadway or other infrastructure improvements.

6. Special Regulations for Technology Park District

a. Participation in TDM:

All proposals for development within the Technology Park District which must seek a Special Permit from the Planning Board for Off-Street Parking or Site Plan Review, shall, at a minimum, be accompanied by a transportation demand management plan and evidence of active participation in a transportation demand management program.

b. Off-Street Parking Requirements:

The Base Parking Requirement for Research and Development, Processing, Assembly and Manufacturing, Printing, and Laboratory and for Associated Offices that the Planning Board finds are related and ancillary to these uses shall be 1

space per 800 square feet of gross floor area or 1 space per employee, whichever is greater. Additional parking requirements for the square footage above the Base FAR and up to the Maximum FAR shall be additive to the Base Parking Requirement and shall be calculated at 50 percent of the Base Parking Requirement.

7. Landscaped Open Space Requirements in the District

- a. Minimum Landscaped Open Space in the Technology Park District shall be 25 percent (LSR=0.25) for all uses within the district, except Research and Development, Processing, Assembly and Manufacturing, Printing, and Storage and Distribution Facilities which shall have a minimum Landscaped Open Space of 20 percent (LSR = 0.20).
- b. Landscaping within the Technology Park District shall be provided substantially in accordance with the goals and objectives of **Section IV.K.8.** of this By-Law with the following exceptions:
 - 1) Landscaped buffer strips along any public street shall be a minimum of 30' wide. The Board may reduce the buffer to 15' along the public way provided that the Applicant replicates the open space elsewhere on the site in the form of courtyard areas or other types of usable open space, as approved by the Board.
 - 2) Sub-section **h. "Landscaping Within off-Street Parking Areas"** shall not apply. However, the parking areas shall, whenever feasible, be designed with landscaping which breaks up large expanses of asphalt with divider or terminal islands.
 - 3) Sub-section **i. "Landscaping Adjacent to Buildings"** shall only apply to office, education and training facilities, conference centers, centers for performing arts and retail facilities that may be constructed within the Park.

I. SITE PLAN REVIEW

1. Purpose

The purpose of this section is to protect the health, safety, convenience and general welfare of the inhabitants of the Town by providing for a review of plans for uses and structures which may have significant impacts on traffic, municipal and public services and utilities, environmental quality, community economics, and community values in the Town.

2. General Provisions

The Planning Board shall conduct site plan review and approval. Notwithstanding any provision of this By-Law to the contrary, any structure, use, alteration or improvement which meets any of the following criteria shall require site plan review and approval as set forth in this section:

- a. any new structure, or group of structures under the same ownership on the same lot or contiguous lots, or any substantial improvement, substantial alteration, or change in use of an existing structure or group of structures, which results in the development of any off-street parking or loading facilities (except for residences requiring fewer than five stalls) and less than 8,000 square feet of gross floor area, any new construction or expansion, alteration or enlargement of a parking facility and/or off-street loading facility and/or any facility for the storage or sale of any type of new or used vehicle, including construction vehicles, truck trailers and/or any vehicle which would normally require licensing by the Commonwealth of Massachusetts shall be subject to the provisions of the first paragraph of Section IV.I.5, herein with regard to Contents and Scope of Applications;
- b. any new structure, or group of structures under the same ownership on the same lot or contiguous lots, or any substantial improvement, substantial alteration, or change in use of an existing structure or group of structures, which results in the development of, redevelopment of, reuse of, change in use of, or an increase of at least 8,000 square feet of gross floor area, or which requires the provision of 30 or more new or additional parking spaces under this By-Law, or which results in a floor area ratio (FAR) greater than 0.32, shall be subject to this Section IV.I. in its entirety;
- c. any new structure or group of structures which results in the development of 3,000 square feet of gross floor area or requires 5 or more parking spaces or an off-street loading facility, when any portion of any lot or parcel of land on which said structure or use is located in or lies within 200 feet of a residential district, shall be subject to this Section IV.I. in its entirety.
- d. any substantial improvement or substantial alteration or change in use of an existing structure or group of structures which results in the development, redevelopment, reuse, change in use or an increase of 3,000 square feet of gross floor area or requires 5 or more parking spaces or an off-street loading facility, when any portion of any lot or parcel of land on which said structure or use is located in or lies within 200 feet of a residential district, shall be subject to this Section IV.I in its entirety.

For purposes of this Section IV.I, the calculation of increase in floor area shall be based on the aggregate of all new structures, improvements, alterations or enlargements, calculated from the date of enactment of this section.

3. Basic Requirements

- a. Notwithstanding anything contained in this By-Law to the contrary, no building permit shall be issued for, and no person shall undertake, any use, alteration or improvement subject to this section unless an application for site plan review and approval has been prepared for the proposed development in accordance with the requirements of this section, and unless such application has been approved by the Planning Board.
- b. The Planning Board, at its discretion and based on a preliminary assessment of the scale and type of development proposed, may waive or modify the requirements for submission of any of the elements in Subsection 5 and the development impact standards in Subsection 6. Such waiver shall be issued in writing with supporting reasons.
- c. No occupancy permit shall be granted by the Building Commissioner until the Planning Board has given its approval that the development and any associated off-site improvements conform to the approved application for site plan review and approval, including any conditions imposed by the Planning Board.

4. Application and Review Procedure

- a. Prior to the filing of an application pursuant to this section, the applicant, as defined in Section I.E.1 herein, shall submit a preliminary draft of such application to the Building Commissioner, who shall advise the applicant as to the pertinent sections of this Zoning By-law.
- b. The applicant shall submit to the Planning Board the application for site plan approval, conforming to the requirements of this Section IV.I. and as specified on the application. Upon receiving the completed application, the Planning Board shall forthwith transmit one copy each to the Building Commissioner, the Engineering Department, the Planning Department, the Police Department, the Fire Department, the Board of Public Works and such other departments and boards as the Planning Board may determine appropriate.
- c. Such agencies shall, within 35 days of receiving said copy, report to the Planning Board on (1) the adequacy of the data and the methodology used by the applicant to determine impacts of the proposed development and (2) the effects of the projected impacts of the proposed development. Said agencies may recommend conditions or remedial measures to accommodate or mitigate the expected impacts of the proposed development. Failure by any such agency to report within the allotted time shall constitute approval by that agency of the adequacy of the submittal and also that, in the opinion of that agency, the proposed project will cause no adverse impact.
- d. The Planning Board shall not render a decision on said application until it has received and considered all reports requested from Town departments and boards, or until the 35-day period has expired, whichever is earlier. Where circumstances are such that the 35-day period is insufficient to conduct an adequate review, the Planning Board may, at the written request of the applicant, extend such period to 60 days.
- e. The Planning Board shall hold a public hearing on any properly completed application within 65 days after filing, shall properly serve notice of such hearing, and shall render its decision within 90 days of said hearing. The hearing and notice requirements set forth herein shall comply with the requirements of G.L. c.40A section 11, and with the requirements of Section V.L. of this By-Law. All costs of the notice requirements shall be at the expense of the applicant.
- f. In reviewing the impacts of a proposed development, the Planning Board shall consider the information presented in the application for site plan approval, including all items specified in Section IV.I.5.; all reports of Town departments submitted to the Planning Board pursuant to Section IV.I.4.(c); and any additional information available to the Planning Board, submitted to the Planning Board by any person, official or agency, or acquired by the Planning Board on its own initiative or research.

5. Contents and Scope of Applications

An application for site plan review and approval under Section IV.I.2.a shall be prepared by qualified professionals, including a Registered Professional Engineer, a Registered Architect, and/or a Registered Landscape Architect, and shall be limited to a parking plan, pursuant to subsection 5.f. herein, containing items 1-15 as set forth in subsection 5.a, below, an environmental impact assessment, as set forth in subsection 5.g.(2), below, and a parking impact assessment, as set forth in subsection 5.g.(5), below. The Planning Board may require additional information be provided by the applicant, including but not limited to a Traffic Impact Assessment, should traffic and circulation matters or other development related issues be deemed important considerations to a site plan evaluation and decision.

An application for site plan review and approval under Section IV.I.2.b or 2.c or 2.d shall be prepared by qualified professionals, including a Registered Professional Engineer, a Registered Architect, and/or a Registered Landscape Architect, and shall include:

- a. A site plan at a scale of one inch equals twenty feet (1"=20'), or such other scale as may be approved by the Planning Board, containing the following items and information:
 1. Topography of the property, including contours at a 2 foot interval based on the Mean Sea Level Datum of 1927.
 2. Location of all buildings and lot lines on the lot, including ownership of lots, and street lines, including intersections within 300 ft.

3. Dimensions of proposed buildings and structures, including gross floor area, floor area ratio, total lot coverage of building, and breakdown of indoor and outdoor floor area as to proposed use. Area dimensions to include Lot Coverage of Building, Paved Surface Coverage, and Landscaped Open Space and Other Open Space, with percentages of these items to be provided and to total 100 percent of the lot area.
 4. Maximum seating capacity, number of employees, or sleeping units if applicable.
 5. Locations and dimensions, including total ground coverage, of all driveways, maneuvering spaces and aisles, parking stalls and loading facilities, and proposed circulation of traffic.
 6. Location of pedestrian areas, walkways, flow patterns and access points, and provisions for handicapped parking.
 7. Location, size, and type of materials for surface paving, curbing, and wheel stops.
 8. Location, dimension, type and quantity of materials for open space, planting, and buffers where applicable.
 9. Provisions for storm water drainage affecting the site and adjacent parcels, and snow storage areas. Drainage computations and limits of floodways shall be shown where applicable.
 10. A photometric plan showing both the intensity of illumination expressed in footcandles at ground level to the property's boundaries and the location, orientation, height, wattage, type, style and color of outdoor luminaire(s) for all existing and proposed lighting.
 11. Identification of parcel by sheet, block, and lot number of Assessors Maps.
 12. Planning Board Signature Block at approximately the same location on each page of the submitted plans.
 13. Zoning Table to be located on both the front page of the submitted plans and on the Parking Plan/Site Plan page.
 14. Water service, sewer, waste disposal, and other public utilities on and adjacent to the site.
 15. An area designated for the storage of waste and refuse.
 16. Sign submittal showing sign locations and construction details which shall include the following information as may be applicable: a scaled drawing of each proposed sign showing all dimensions, colors, lettering, graphics, materials and type of illumination; scaled drawing showing all dimensions of facades proposed to contain signage and indicating the location and dimensions of the proposed sign and any landscaped or other areas in which a freestanding sign is to be placed clearly showing the locations of the sign.
 17. Any additional information required by the Planning Board to ensure compliance with this section. The Planning Board may waive any of the above requirements.
- For convenience and clarity, this information may be shown on one or more separate drawings.
- b. A landscape plan at the same scale as the site plan, showing the limits of work, existing tree lines, and all proposed landscape features and improvements including planting areas with size and type of stock for each shrub or tree.
 - c. An isometric line drawing (projection) at the same scale as the site plan, showing the entire project and its relation to existing areas, buildings and roads for a distance of 100 feet from the project boundaries.
 - d. A locus plan at a scale of one inch equals 100 feet (1"=100'), or such other distance as may be approved by the Planning Board, showing the entire project and its relation to existing areas, buildings and roads for a distance of 1,000 feet from the project boundaries, or such other distance as may be approved or required by the Planning Board.
 - e. Building elevation plans at a scale of one-quarter inch equals one foot (1/4"=1'-0") or one-half inch equals one foot (1/2"=1'-0") or such other scale as may be approved by the Planning Board, showing all elevations of all proposed buildings and structures and indicating the type and color of materials to be used on all facades.

- f. A parking plan, at the same scale as the site plan.
- g. A Development Impact Statement which shall describe potential impacts of the proposed development, compare them to the impacts of uses which are or can be made of the site without a requirement for site plan review, identify all significant positive or adverse impacts, and propose an acceptable program to prevent or mitigate adverse impacts. The Development Impact Statement shall consist of the following five elements

(1) Traffic Impact Assessment

- (a) **Purpose:** To document existing traffic conditions in the vicinity of the proposed project, to describe the volume and effect of projected traffic generated by the proposed project, and to identify measures proposed to mitigate any adverse impacts on traffic.
- (b) **Format and Scope:**
 - (i) Existing traffic conditions average daily and peak hour volumes, average and peak speeds, sight distances, accident data, and levels of service (LOS) of intersections and streets likely to be affected by the proposed development. Generally, such data shall be presented for all streets and intersections adjacent to or within 1,000 feet of the project boundaries, and shall be no more than 12 months old at the date of application, unless other data are specifically approved by the Planning Board. Where a proposed development will have an impact on a critical intersection or intersections beyond 1,000 feet of the project boundary, particularly intersections of arterial and collector roadways which are integral to the circulation of the proposed development, the Planning Board may require that such intersections beyond 1,000 feet of the project boundary be included in the analysis of traffic conditions.
 - (ii) Projected traffic conditions for design year of occupancy: statement of design year of occupancy, background traffic growth on an annual average basis, impacts of proposed developments which have already been approved in part or in whole by the Town.
 - (iii) Projected impact of proposed development: projected peak hour and daily traffic generated by the development on roads and ways in the vicinity of the development; sight lines at the intersections of the proposed driveways and streets; existing and proposed traffic controls in the vicinity of the proposed development; and projected post-development traffic volumes and levels of service of intersections and streets likely to be affected by the proposed development (as defined in (i) above).

(2) Environmental Impact Assessment

- (a) **Purpose:** To describe the impacts of the proposed development with respect to on-site and off-site environmental quality
- (b) **Format and Scope:**
 - (i) Identification of potential impacts: description and evaluation of potential impacts on the quality of air, surface water, and ground water adjacent to or directly affected by the proposed development; on-site or off-site flooding, erosion, and/or sedimentation resulting from alterations to the project site, including grading changes and increases in impervious area; on-site or off-site hazards from radiological emissions or other hazardous materials; adverse impacts on temperature and wind conditions on the site and adjacent properties; impacts on solar access of adjacent properties; and off-site noise or light impacts.
 - (ii) Systems capacity: evaluation of the adequacy of existing or proposed systems and services for water supply and disposal of liquid and solid wastes.
 - (iii) Proposed mitigation measures: description of proposed measures for mitigation of any potential adverse impacts identified above.
 - (iv) The Stormwater Impact Analysis shall describe the impacts of the proposed development on the quality, volume and rate of on-site and off-site stormwater runoff. The format and scope of the analysis shall identify any potential impacts of stormwater runoff and shall demonstrate compliance with the

Massachusetts Department of Environmental Protection's Stormwater Management Standards, 310 CMR 10.00 using the guidelines and structure set forth in the latest edition of the Massachusetts Stormwater Handbook.

(3) Fiscal Impact Assessment

(a) Purpose: To evaluate the fiscal and economic impacts of the proposed development on the Town.

(b) Format and Scope:

- (i)** Projections of costs arising from increased demands for public services and infrastructure.
- (ii)** Projections of benefits from increased tax revenues, employment (construction and permanent), and value of public infrastructure to be provided.
- (iii)** Projections of the impacts of the proposed development on the values of adjoining properties.
- (iv)** Five-year projection of increased Town revenues and costs resulting from the proposed development.

(4) Community Impact Assessment

(a) Purpose: To evaluate the impacts of the proposed development with respect to the Town's visual and historic character and development goals.

(b) Format and Scope:

- (i)** Site design and neighborhood impact: evaluation of the relationship of proposed new structures or alterations to nearby pre-existing structures in terms of character and intensity of use (e.g., scale, materials, color, door and window size and locations, setbacks, roof and cornice lines, and other major design elements); and of the location and configuration of proposed structures, parking areas, and open space with respect to neighboring properties.
- (ii)** Historic impact: identification of impacts on significant historic properties, districts or areas, or archaeological resources (if any) in the vicinity of the proposed development.
- (iii)** Development goals: evaluation of the proposed project's consistency or compatibility with existing local and regional plans.

(5) Parking Impact Assessment

(a) Purpose: To document existing neighborhood parking conditions, to evaluate the off-site impacts of the proposed parking, and to mitigate any adverse parking impacts on the neighborhood.

(b) Format and Scope:

- (i)** existing off-site neighborhood parking conditions, including identification of streets likely to be affected by the proposed development;
- (ii)** projected impact of proposed development;
- (iii)** proposed mitigation measures for adverse impacts identified above.

The Planning Board, at its discretion and based on a preliminary assessment of the scale and type of development proposed, may waive or modify the requirements for submission of any of the elements of the development impact assessment listed in this paragraph g. Such waiver shall be issued in writing with supporting reasons.

6. Development Impact Standards

The following standards shall be used in evaluating projected impacts of proposed developments; provided, however, that an application for site plan review and approval under Section IV.I.2.a shall be evaluated using only the standards contained in Section IV.I.6.b. and Section IV.I.6.e. below. New building construction or other site alteration shall be

designed, to the extent feasible, and after considering the qualities of the specific location, the proposed land use, the design of building form, grading, egress points, and other aspects of the development, so as to comply with the following standards:

a. Traffic Impact Standards

- (1) The “level of service” (LOS) of all impacted intersections and streets shall be adequate following project development, or the total value of off-site traffic improvements required or approved by the Planning Board as a condition of approval in any location within the Town affected by the proposed project shall be equal to a minimum of three per cent (3%) of the total development cost of the proposed project. For purposes of this standard:
 - (i) “level of service” (LOS) shall be determined according to criteria set forth by the Transportation Research Board of the National Research Council;
 - (ii) “impacted” means intersections projected to receive at least five per cent (5%) of the expected traffic generated by the proposed development, either based upon the total anticipated peak hour traffic generated by the proposed project, or based upon the total anticipated average daily traffic counts generated by the proposed project;
 - (iii) “adequate” shall mean a level of service of “B” or better for rural, scenic and residential streets and for all new streets and intersections to be created in connection with the project; and “D” or better for all other streets and intersections; and
 - (iv) “total development cost” shall mean the total of the cost or value of land and all development-related improvements, and shall be determined on the basis of standard building or construction costs, such as published in the Engineering News Record or other source acceptable to the Planning Board, for the relevant type of structure and use.
- (2) The proposed site plan shall minimize points of traffic conflict, both pedestrian and vehicular. The following guidelines shall be used to achieve this standard:
 - (i) Entrance and exit driveways shall be so located and designed as to achieve maximum practicable distance from existing and proposed access connections from adjacent properties.
 - (ii) Where possible, driveways shall be located opposite similar driveways.
 - (iii) Sharing of access driveways by adjoining properties and uses is encouraged.
 - (iv) Left-hand turns and other turning movements shall be minimized.
 - (v) Driveways shall be so located and designed as to discourage the routing of vehicular traffic to and through residential streets.
 - (vi) Pedestrian and bicycle circulation shall be separated from motor vehicle circulation as far as practicable.

b. Environmental Impact Standards

- (1) The proposed development shall not create any significant emission of noise, dust, fumes, noxious gases, radiation, or water pollutants, or any other similar significant adverse environmental impact.
- (2) The proposed development shall not increase the potential for erosion, flooding or sedimentation, either on-site or on neighboring properties; and shall not increase rates of runoff from the site to the satisfaction of the Town Engineer and Board of Public Works. Provision for attenuation of runoff pollutants and for ground water recharge shall be included in the proposal. The proposed development shall comply with Massachusetts Department of Environmental Protection’s (DEP’s) Stormwater Management Standards, 310 CMR 10.00.
- (3) The design of the proposed development shall minimize the destruction of unique natural features.

- (4) The location and configuration of proposed structures, parking areas and open space shall be designed so as to minimize any adverse impact on temperature levels or wind velocities on the site or adjoining properties.
- (5) Outdoor lighting, including lighting on the exterior of a building or lighting in parking areas, shall be arranged to minimize glare and light spillover to neighboring properties.
- (6) Proposed structures, and existing structures adjoining the project site shall be free from shadows created by the proposed development from 9:00 a.m. to 3:00 p.m. on December 21. Proposed development within the Central Business District shall be exempt from this standard.
- (7) All outdoor lighting shall be designed and located so that a line drawn from the height of the luminaire along the angle of cutoff intersects the ground at a point within the development site; except that this requirement shall not apply to (a) low-level intensity pedestrian lighting with a height of less than ten feet, or (b) security lighting directed off the wall of a principal structure.

c. Fiscal Impact Standards

- (1) Projected positive net fiscal flow for first five years after design year of occupancy.

d. Community Impact Standards

- (1) Design elements shall be compatible with the character and scale of neighboring properties and structures.
- (2) The design of the development shall minimize the visibility of visually degrading elements such as trash collectors, loading docks, etc. If waste or refuse disposal areas are located outside of any existing or proposed building, the waste and refuse shall be placed in a container kept fully closed. Such containers shall be surrounded entirely by solid fencing or other material as approved by the Planning Board and incorporated into the site design and landscaping. Adequate waste and refuse facilities shall be provided for all proposed uses.
- (3) The design of the development shall be consistent or compatible with existing local plans, including plan elements adopted by the Planning Board, Conservation Commission, Parks Commission, and other Town bodies having such jurisdiction.
- (4) The design of the development shall minimize earth removal and volume of cut and fill. Any grade changes shall be in keeping with the general appearance of neighboring developed areas.
- (5) The design of the development shall minimize the area over which existing vegetation is to be removed. Tree removal shall be minimized and, if established trees are to be removed, special attention shall be given to the planting of replacement trees.

e. Parking Standards

- (1) The facility will not create a hazard to abutters, vehicles or pedestrians.
- (2) Appropriate access for emergency vehicles will be provided to the principal structure.
- (3) Adverse impacts on the abutters, residents, or businesses in the area or on the character of the neighborhood will be mitigated satisfactorily.
- (4) The snow storage area(s) shall be located so as not to encroach upon or obstruct any sidewalks or walkways or parking spaces, interior travel lanes or lot ingress/egress, inhibit site visibility, reduce the recommended minimum stopping sight distances or turning radii at any point on the site, or obstruct or encroach upon fire lanes or emergency access points.

7. Decision

a. Specific Findings Required

Prior to granting approval or disapproval, the Planning Board shall make written findings with supporting documentation as specified below. Such findings shall pertain to the entire proposed development including any site plan or design modifications imposed by the Planning Board as a condition of its approval, and any off-site improvements proposed by the applicant or required by the Planning Board as a condition of its approval.

b. Approval

The Planning Board shall approve an application, based on its review of the projected development impacts and the proposed methods of mitigating such impacts, if said Board finds that the proposed development is in conformance with this By-Law, after considering whether the proposed development will comply, to the extent feasible, with the standards set forth in Sections IV.I.6.(a) - (e); provided, however, that an application for site plan review and approval under Section IV.I.2.a shall be evaluated using only the standards contained in Section IV.I.6.b. and Section IV.I.6.e.

c. Disapproval

- (1) The Planning Board may reject a site plan that fails to furnish adequate information required by the by-law;
- (2) The Planning Board may reject a site plan where, although proper in form, the plan depicts a use or structure so intrusive on the needs of the public in one regulated aspect or another that rejection by the board would be tenable.

d. Expiration

A site plan review approval granted under this section shall lapse within two (2) years, not including such time required to pursue or await the determination of an appeal as referred to in MGL, Chapter 40A §17, from the grant thereof, if a substantial use thereof has not sooner commenced except for good cause, or in the case of a permit for construction, if construction was not begun by such date except for good cause.

8. Conditions, Limitations and Safeguards

In granting approval of an application the Planning Board may impose conditions, limitations and safeguards which shall be in writing and shall be a part of such approval. Such conditions may include, among other matters and subjects:

- a. Controls on the location and type of access to the site;
- b. Controls on the number of vehicles that arrive or depart during the morning and/or evening peak hours (including controls on the maximum number of vehicles which may use the off-street parking areas during said periods);
- c. Requirements for off-site improvements up to a maximum value of six per cent (6%) of the total development cost of the proposed project to improve the capacity and safety of roads, intersections, pedestrian ways, water, sewer, drainage and other public facilities which are likely to be affected by the proposed development;
- d. Requirements for donation and/or dedication of land for right-of-way to provide for future roadway and/or intersection widenings or improvements;
- e. Requirements for securing the performance of all proposed work, including proposed off-site improvements, by either or both of the following methods: (1) a performance bond, a deposit of money, negotiable securities, letter of credit, or bank passbook in an amount determined by the Planning Board to be sufficient to cover the cost of all or any part of the improvements required as conditions of approval; (2) a covenant running with the land, executed and duly recorded by the owner of record, whereby the required improvements shall be completed before the property may be conveyed by other than a mortgage deed.
- f. Conditions to minimize off-site impacts on traffic and environmental quality during construction.

- g. Requirements for reductions in the scale of the proposed development, including reductions in height, floor area, or lot coverage, provided, however, that any such reduction be limited to that which is reasonably necessary to reduce the level of impact of the proposed development to a level that will permit the Board to make the written findings required under Section IV.I.7.(a) herein.
- h. Requirements for screening parking facilities from adjoining premises or from the street by walls, fences, plantings, or other devices to mitigate adverse impacts;
- i. Conditions to mitigate adverse impacts to the neighborhood and abutters, including but not limited to adverse impacts caused by noise, dust, fumes, odors, lighting, headlight glare, hours of operation, or snow storage.

The applicant, when other than the owner(s), and the owner(s) of land will be responsible for mitigation measures or conditions which are required as part of a favorable decision for issuance of site plan approval.

9. Administration

- a. The Planning Board shall establish and may periodically amend rules and regulations relating to the administration of this section, including additional regulations relating to the scope and format of reports required hereunder.
- b. The Planning Board shall establish and may periodically amend a schedule of fees for all applications under this section. No application shall be considered complete unless accompanied by the required fees.
- c. The Planning Board shall be responsible for deciding the meaning or intent of any provision of this section which may be unclear or in dispute.
- d. Any person aggrieved by a decision of the Planning Board with regard to Site Plan Review may appeal such decision to a court having jurisdiction, in accordance with Massachusetts General Laws, Chapter 40A, Section 17.

10. Separability

The invalidity of one or more provisions or clauses of this section IV.I. shall not invalidate or impair the section as a whole or any other part hereof.

APPENDIX B: Criterion 1 Guidance

The following memorandum was supplied by ICF/HW to the Town of Framingham for the purposes of properly documenting the progress on Criterion 1.



MEMORANDUM

TO: Green Community Act Applicants
FROM: Horsley Witten Group, Inc.
DATE: January 8, 2010
RE: Guidance for Meeting Green Communities Act Criteria 1

The following memorandum is being provided as guidance for any community that is seeking to meet Green Communities Act Criteria 1 through the as-of-right siting of research & development (R&D) or manufacturing facilities (these facilities are henceforth referred to as the “target uses”).

Documentation Letter to DOER:

In order to meet Criteria 1 through the as-of-right siting of the target uses, the community must provide a letter from municipal counsel certifying that the criteria has been met and summarize the pertinent sections of their zoning bylaw/ordinance. DOER has provided the following sample letter in its guidance materials:

Sample Letter:

The town's light industrial district, section 4.3 of the zoning bylaw, allows the by-right construction of manufacturing facilities that meet the definitions provided. The text of this section, relevant portions of the town's site plan review regulations, and the table of uses are attached. Manufacturing of renewable/alternative energy products is clearly allowed, and in fact such a facility was permitted in 2007 and built last year. ABC Industries assembles solar panels from components produced on-site and in other locations around the globe. Finally, the light industrial district covers an area of 250+ acres near a highway interchange. Over 50% of the land in this district is vacant and developable. The district has no stated FAR limit, the impervious surface limit is 70%, buildings can be of up to 3 stories and only one parking space is required per 1000 square feet. Thus, as indicated in the attached calculation, plenty of space exists for 50,000 square feet of floor area to be built.

This sample letter reaches a level of detail this is appropriate for communities that have ample developable land in which the target uses are allowed. For communities that are closer to their build-out capacity and are looking at development opportunities on a lot-by-lot basis, the letter to DOER may need to cite specific information about parcels or

vacant buildings that are eligible for development of the target uses. The recommended process for documenting the above items to DOER is provided in the guidance below.

Municipal Demonstration and Documentation Process:

In order to meet Criteria 1 through the as-of-right siting of the target uses, the community must demonstrate the following three items:

Item 1: The target uses are permitted **as-of-right** in the designated zoning district;

Item 2: The target uses are clearly **allowed** based on definitions provided within the zoning bylaw/ordinance; and

Item 3: The development of a facility with a minimum 50,000 sq ft. of gross floor area (GFA), or the development of multiple smaller facilities that can cumulatively reach the threshold of 50,000 sq ft. GFA, is **feasible** in the designated zoning district.

Demonstration of Item 1:

In order to demonstrate that the target uses are permitted as-of-right, the letter to DOER must cite and document the following information, as applicable:

- The specific designated district(s) in which the target uses are allowed;
- All relevant sections of the zoning bylaw/ordinance referencing the target uses such as the use table and any key that will help interpret the use table;
- Any special regulations applicable to the target uses that may restrict the dimensions/density of buildings such as restrictions on maximum GFA;
- Any potential overlay districts that overlap with the designated zoning district in which the target uses are allowed and may restrict the development or trigger additional permitting processes such as a water resource protection overlay or a flood plain overlay;
- If restrictive special regulations or overlay districts DO EXIST in the designated zoning district, these restrictions and associated regulations should be clearly identified and the letter must provide appropriate documentation demonstrating that the as-of-right development of the target uses is still achievable; and
- Any local regulations applicable to the as-of-right permitting of the target use, such as site plan review.

Demonstration of Item 2:

In order to demonstrate that the target uses are allowed in the designated zoning district, the letter must provide any relevant definitions from the zoning bylaw/ordinance. It is important to note that the community can meet Criteria 1 by allowing ONLY ONE or BOTH of R&D or manufacturing facilities. The critical point within this demonstration process is to illustrate that the activities needed for renewable or alternative energy R&D or manufacturing facilities are not limited by the definition(s) provided within the zoning bylaw/ordinance. If the municipality allows R&D or manufacturing facilities and DOES

NOT have an applicable zoning definition, this is understood to mean the municipality allows EVERY type of R&D or manufacturing use, including facilities related to renewable or alternative energy. Additionally, the municipality may provide a general definition for R&D or manufacturing, such as the definitions provided by DOER here:

Research and Development Facilities: are those used primarily for research, development and/or testing of innovative information, concepts, methods, processes, materials, or products. This can include the design, development, and testing of biological, chemical, electrical, magnetic, mechanical, and/or optical components in advance of product manufacturing. The accessory development, fabrication, and light manufacturing of prototypes, or specialized machinery and devices integral to research or testing may be associated with these uses.

Manufacturing Facilities: are those used primarily for heavy or light industry or the manufacture or assembly of a product including processing, blending, fabrication, assembly, treatment and packaging

Or, the general definitions found within the Zoning Ordinance for Newburyport, MA here:

Research and Development: Establishment devoted to research and development activities.

Manufacturing: Facilities engaged in the mechanical or chemical transformation of materials or substances into new products including the assembly of component parts, the fabrication of products, or treatment of articles or merchandise and the blending of materials.

All of the above definitions are also understood to mean the municipality allows every type of R&D or manufacturing use, including facilities related to renewable or alternative energy. The risk associated with providing a general definition is that the community may end up allowing undesired types of R&D or manufacturing facilities. When drafting new definitions or revising existing definitions relative to meeting the Green Communities Act, the municipality must be careful that its definitions do not restrict certain activities that may be needed for renewable or alternative energy R&D or manufacturing facilities. If a municipality has an existing definition that is potentially restrictive (i.e.: does not allow for chemical manufacturing or R&D in biotechnology), or if a municipality simply wishes to provide further clarity to its definitions, it may wish to consider adding the following sentence to its use definitions:

This use shall specifically include activities associated with renewable or alternative energy research, services, and products.

Demonstration of Item 3:

In order to demonstrate that the development of 50,000 sq ft. of floor space for the target uses is feasible in the designated districts, the municipality must perform a yield calculation. As discussed earlier, the type of yield calculation performed and the level of

detail it needs to reach will be dependent on the amount of developable land or vacant buildings that are available within the designated districts. While the guidelines for Criteria 1 only request information regarding zoning regulations, the guidance also states that the locations in which the target uses are allowed must be “feasible and practical”. This means that it may be necessary to also review non-zoning restrictions on development such as wetlands and conservation easements to ensure that no other restrictions or local permitting processes can potentially hinder the development of the target uses. The recommended steps for performing a yield calculation are divided into two categories:

- Yield calculations for the redevelopment of vacant or underutilized buildings; and
- Yield calculations for new development on undeveloped or vacant sites.

The use of vacant buildings is preferred by DOER over siting facilities on undeveloped lots so identifying development opportunities in pre-existing buildings should be the municipality’s first step when calculating yield.

Calculating yield for vacant or underutilized buildings:

1. **Identify the development opportunities.** Identify all vacant or underutilized buildings within the designated districts.
2. **Cross-check applicable regulations.** Identify all zoning bylaw/ordinance requirements that may impact or restrict the development potential of vacant structures within the designated districts. Potential sections of zoning to review include:
 - Nonconforming Structures
 - Do any of the vacant buildings identified qualify as nonconforming?
 - What are the permit requirements for changing use?
 - What are the permit requirements for expanding/altering structure?
 - What are the permit requirements for lot improvements?
 - Is there a time limit in which abandoned/unused structures can still be protected under nonconformance regulations?
 - Design Overlay District or Historic District
 - Does the overlay district overlap with any identified buildings/lots?
 - What are the use regulations/restrictions?
 - What are the permit triggers and requirements?
 - Parking Requirements
 - Will new parking spaces be needed?
 - Landscaping Requirements
 - Will landscaping improvements be needed?
 - Stormwater Regulations (may be outside of zoning)
 - Will stormwater improvements be needed?
 - Demolition Regulations (may be outside of zoning bylaw/ordinance)
 - Will demolition be needed for structures on the site?

- What are the permit triggers and requirements?
 - Wetlands Bylaw (outside of zoning bylaw/ordinance)
 - Wetlands/wetland buffers on site?
 - How does this impact the potential permitting process (is it still as-of-right)?
3. **Calculate the developable GFA.** Calculate the total amount of useable floor space that is available within the identified vacant or underutilized buildings that IS NOT restricted by zoning regulations or subject to a special permit or any other discretionary permit.
4. **Documentation to DOER.** List the specific vacant or underutilized buildings that surpass the 50,000 sq ft. GFA threshold and are eligible for the as-of-right siting of the target uses. If no single building is eligible, list all vacant or underutilized buildings and calculate if the cumulative usable floor space will surpass the 50,000 sq ft. GFA threshold. In the letter to DOER, provide a listing of all eligible buildings, document their status as vacant or underutilized, and document all applicable zoning regulations.

Calculating yield for undeveloped or vacant lots:

1. **Identify the development opportunities.** Identify all undeveloped or vacant lots within the designated districts that are available for development.
2. **Cross-check applicable regulations.** Identify all zoning bylaw/ordinance requirements that may impact the development potential of undeveloped or vacant lots within the designated district. Potential sections of zoning to review include:
 - Dimensional Requirements
 - Minimum lot area.
 - Minimum street frontage.
 - Maximum percentage lot coverage.
 - Maximum percentage building coverage.
 - Minimum floor area ratio.
 - Maximum height.
 - Minimum setbacks.
 - Waiver process for dimensional requirements.
 - Parking Requirements
 - Parking ratios/requirements for target uses.
 - Parking stall requirements.
 - Parking landscaping requirements.
 - Is there potential to reduce parking through off-site or shared parking arrangements if necessary?
 - Water Resource Protection Overlay District (also can be Aquifer Protection Overlay District)
 - Does overlay district overlap with any lots designated district?
 - What are the use regulations/restrictions?

- What are the permit triggers and requirements?
- Flood Plain Overlay District
 - Does overlay district overlap with any lots designated district?
 - What are the use regulations/restrictions?
 - What are the permit triggers and requirements?
- Design Overlay District or Historic District
 - Does the overlay district overlap with any lots in designated district?
 - What are the use regulations/restrictions?
 - What are the permit triggers and requirements?
- Landscaping Requirements
 - Minimum landscaping requirements (if applicable)
- Buffer to Residential Districts
 - Proximity of lots in designated district to residential districts.
 - Is there an increased buffer distance?
- Earth Removal Bylaw (may be outside of zoning bylaw/ordinance)
 - What are applicability thresholds?
 - What are permit triggers and requirements?
- Stormwater Regulations (may be outside of zoning)
 - Permit triggers and requirements?
- Wetlands Bylaw (outside of zoning bylaw/ordinance)
 - Wetlands/wetland buffers on site?
 - What are permit triggers and requirements?
- Local Septic System Regulations (outside of zoning)
 - Will septic system be necessary on site?
 - Permit triggers and requirements.
- Regulations regarding conservation/other easements.
 - Are there any easements in the designated district that restrict development potential?

3. **Calculate the developable acreage.** Calculate the total amount of developable acreage that is available in the district that IS NOT restricted by zoning regulations or subject to a special permit or any other discretionary permit.

Documentation to DOER. If the total amount of developable acreage clearly surpasses the threshold that would be needed to construct a 50,000 sq ft. building (after accounting for parking lot, access roads, and infrastructure), then the letter to DOER should simply provide the appropriate documentation of such with reference to all applicable zoning regulations. If there are only a limited number of developable lots, or if there are no individual or contiguous lots in the designated district that are large enough to support a building 50,000 sq ft., then the municipality must provide calculations on a lot-by-lot basis. To do so, the municipality must first identify the specific lots that are eligible and calculate the maximum GFA that is achievable on each lot (after accommodating for parking lot, access roads, and infrastructure). In these cases, the letter to DOER should provide documentation of the specific developable lot(s) that are eligible, show the calculations for the GFA on each lot, demonstrate that the 50,000 sq ft threshold can be met, and document all applicable zoning regulations.

APPENDIX C: Costs and Benefits of Recycling Police Cruisers

The following letters are public documents and are reproduced here with the permission of the Town of Franklin.



TOWN OF FRANKLIN

DEPARTMENT OF PUBLIC WORKS

Franklin Municipal Building
257 Fisher Street
Franklin, MA 02038-3026

Date: February 9, 2006

For: Mr. Jeffery Nutting, Town Administrator, Town of Franklin

Re: Capital Replacement of Service Vehicles

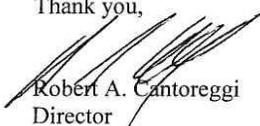
Dear Jeff,

I believe it is essential that we start a replacement program of the "old police cruisers" that have been kept in service as transportation for various Town of Franklin departments. While I agree that for the short term (a year or two) the use of these vehicles is economical, after that they become a burden due to high repair costs and down time. The annual cost to maintain one of these cars far out surpasses the actual value of the car. The attached letter from Mr. Lombardi, Central Motors Foreman verifies this (attachment).

At this time, I recommend that we start a replacement program of new vehicles. The replacement vehicles would either be small pick-ups (Ford Rangers) or compact cars (Ford Focuses). These new vehicles would be minimally equipped with 4 cylinder engines, 2-wheel drive and have few options (no power locks, windows, etc.). These new vehicles would be much more economical to operate. Not only would they have much better fuel economy but also being "new", they would be under warrantee without their wear and tear of the old cruisers. While I would expect these new vehicles to last eight to ten years, the pay-off from the savings of maintaining the old cruisers would four to five years.

Cruiser Replacement Program										
Car #	Type	Year	Department	FY 08 Replacement		FY 09 Replacement		FY 10 Replacement		
				Type	Cost	Type	Cost	Type	Cost	
E-2	Crown Vic	2000	Engineering			Ranger EC	15 K			
E-4	Crown Vic	2000	Engineering			Ranger	13K			
HD-1	Chevy Imp	1995	Health	Ranger	13K					
A-1	Crown Vic	2000	Assessor	Focus	12K					
Bldg-3	GMC Trk	1999	Bldg					Ranger EC	15K	
E-1	Taurus	1999	Engineering					Ranger EC	15K	
A-2	Crown Vic	2001	Assessor	Focus	12K					
CP-1	Crown Vic	2000	Planning					Focus	12K	
					Total: \$41,000.00		Total: \$39,000.00		Total: \$39,000.00	

Thank you,


Robert A. Cantoreggi
Director

Used Police Cruisers verses New Compact Vehicles for a 10 year period.

Date: Feb 2006

Used Police Cruisers, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 1,200.00	\$ 400.00	\$ 2,083.33	\$ 3,683.33
2		\$ 750.00	\$ 2,083.33	\$ 2,833.33
3		\$ 750.00	\$ 2,083.33	\$ 2,833.33
4	\$ 1,200.00	\$ 400.00	\$ 2,083.33	\$ 3,683.33
5		\$ 750.00	\$ 2,083.33	\$ 2,833.33
6		\$ 750.00	\$ 2,083.33	\$ 2,833.33
7	\$ 1,200.00	\$ 400.00	\$ 2,083.33	\$ 3,683.33
8		\$ 750.00	\$ 2,083.33	\$ 2,833.33
9		\$ 750.00	\$ 2,083.33	\$ 2,833.33
10	\$ 1,200.00	\$ 400.00	\$ 2,083.33	\$ 3,683.33
Totals:	\$ 4,800.00	\$ 6,100.00	\$ 20,833.33	\$ 31,733.33

Total Ten Year Cost: \$ 31,733.33
Avg Per Year: \$ 3,173.33

- (1) Biased on costs to make car with 100k road worthy, good for 5 years
 (2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.
 (3) Biased on EPA Data from Ford Motor Company (12 Miles per gallon), 10000K miles per year @ \$2.50 per gallon

New Ford Ranger/Focus, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 13,000.00		\$ 961.54	\$ 13,961.54
2			\$ 961.54	\$ 961.54
3		\$ 100.00	\$ 961.54	\$ 1,061.54
4			\$ 961.54	\$ 961.54
5			\$ 961.54	\$ 961.54
6		\$ 300.00	\$ 961.54	\$ 1,261.54
7		\$ 250.00	\$ 961.54	\$ 1,211.54
8			\$ 961.54	\$ 961.54
9		\$ 100.00	\$ 961.54	\$ 1,061.54
10			\$ 961.54	\$ 961.54
Totals:	\$ 13,000.00	\$ 750.00	\$ 9,615.38	\$ 23,365.38

Total Ten Year Cost: \$ 23,365.38
Avg Per Year: \$ 2,336.54

- (1) Biased on costs of new vehicle off of State Bid List
 (2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.
 (3) Biased on EPA Data from Ford Motor Company (26 Miles per gallon), 10000K miles per year @ \$2.50 per gallon

Total Cost Savings For New:	\$ 836.79 per year
	\$ 8,367.95 10 year Period



TOWN OF FRANKLIN

DEPARTMENT OF PUBLIC WORKS

Franklin Municipal Building
257 Fisher Street
Franklin, MA 02038-3026

Date: July 23, 2008

For: Mr. Jeffery Nutting, Town Administrator
Town of Franklin
Franklin, MA 02054

Re: Capital Replacement of Service Vehicles

Dear Jeff,

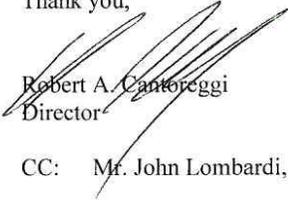
As you remember, I recommended that the Town of Franklin start a replacement program of new vehicles for various departments instead of just recycling old Police Cruisers. (Attachment letter dated February 9th, 2006)

At the time my main reason for replacement of new vehicles was the burden due to high repair costs and down time. The annual cost to maintain one of these cars far out surpasses the actual value of the car. Now it makes even more sense for new vehicles due the high cost of fuel. When I originally did my study, the cost of fuel was only \$2.50, now it is around \$4.00.

Attached I have updated my study to not only include the increased cost of fuel but also the comparisons of the used police cars to not only Ford Ranger Pick-up but to Ford Hybrid Escapes and Toyota Hybrid Priuses. All vehicles looked at would be a significant savings over used police car.

Once Again, I strongly recommend that we start a replacement program of new vehicles. These new vehicles would be much more economical to operate. Not only would they have much better fuel economy but also being "new", they would be under warrantee without their wear and tear of the old cruisers. While I would expect these new vehicles to last eight to ten years, the pay-off from the savings of maintaining the old cruisers would be two to three years.

Thank you,


Robert A. Cantoreggi
Director

CC: Mr. John Lombardi, Head Town Mechanic

Phone: 508-520-4910 • Fax: 508-520-4939 • E-mail: DPW@franklin.ma.us


Printed on Recycled Paper

Used Police Cruisers verses New Compact Vehicles for a 10 year period.

Date: July 2008

Used Police Cruisers, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 1,200.00	\$ 400.00	\$ 3,333.33	\$ 4,933.33
2		\$ 750.00	\$ 3,333.33	\$ 4,083.33
3		\$ 750.00	\$ 3,333.33	\$ 4,083.33
4	\$ 1,200.00	\$ 400.00	\$ 3,333.33	\$ 4,933.33
5		\$ 750.00	\$ 3,333.33	\$ 4,083.33
6		\$ 750.00	\$ 3,333.33	\$ 4,083.33
7	\$ 1,200.00	\$ 400.00	\$ 3,333.33	\$ 4,933.33
8		\$ 750.00	\$ 3,333.33	\$ 4,083.33
9		\$ 750.00	\$ 3,333.33	\$ 4,083.33
10	\$ 1,200.00	\$ 400.00	\$ 3,333.33	\$ 4,933.33
Totals:	\$ 4,800.00	\$ 6,100.00	\$ 33,333.33	\$ 44,233.33

Total Ten Year Cost: \$ 44,233.33

Avg Per Year: \$ 4,423.33

(1) Biased on costs to make car with 100k road worthy, good for 5 years

(2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.

(3) Biased on EPA Data from Ford Motor Company (12 Miles per gallon), 10000K miles per year @ \$4.00 per gallon

New Ford Ranger, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 13,000.00		\$ 1,538.46	\$ 14,538.46
2			\$ 1,538.46	\$ 1,538.46
3		\$ 100.00	\$ 1,538.46	\$ 1,638.46
4			\$ 1,538.46	\$ 1,538.46
5			\$ 1,538.46	\$ 1,538.46
6		\$ 300.00	\$ 1,538.46	\$ 1,838.46
7		\$ 250.00	\$ 1,538.46	\$ 1,788.46
8			\$ 1,538.46	\$ 1,538.46
9		\$ 100.00	\$ 1,538.46	\$ 1,638.46
10			\$ 1,538.46	\$ 1,538.46
Totals:	\$ 13,000.00	\$ 750.00	\$ 15,384.62	\$ 29,134.62

Total Ten Year Cost: \$ 29,134.62

Avg Per Year: \$ 2,913.46

(1) Biased on costs of new vehicle off of State Bid List

(2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.

(3) Biased on EPA Data from Ford Motor Company (26 Miles per gallon), 10000K miles per year @ \$4.00 per gallon

New Ford Escape Hybrid, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 23,000.00		\$ 1,176.47	\$ 24,176.47
2			\$ 1,176.47	\$ 1,176.47
3		\$ 100.00	\$ 1,176.47	\$ 1,276.47
4			\$ 1,176.47	\$ 1,176.47
5			\$ 1,176.47	\$ 1,176.47
6		\$ 300.00	\$ 1,176.47	\$ 1,476.47
7		\$ 250.00	\$ 1,176.47	\$ 1,426.47
8			\$ 1,176.47	\$ 1,176.47
9		\$ 100.00	\$ 1,176.47	\$ 1,276.47
10			\$ 1,176.47	\$ 1,176.47
Totals:	\$ 23,000.00	\$ 750.00	\$ 11,764.71	\$ 35,514.71

Total Ten Year Cost: \$ 35,514.71
Avg Per Year: \$ 3,551.47

- (1) Biased on costs of new vehicle off of Kelly Blue Book Values
(2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.
(3) Biased on EPA Data from Ford Motor Company (26 Miles per gallon), 10000K miles per year @ \$4.00 per gallon

New Toyota Prius Hybrid, Anticipated Costs

Year	Initial Costs (1)	Annual Costs (2)	Fuel Costs (3)	Annual
1	\$ 21,000.00		\$ 888.89	\$ 21,888.89
2			\$ 888.89	\$ 888.89
3		\$ 100.00	\$ 888.89	\$ 988.89
4			\$ 888.89	\$ 888.89
5			\$ 888.89	\$ 888.89
6		\$ 300.00	\$ 888.89	\$ 1,188.89
7		\$ 250.00	\$ 888.89	\$ 1,138.89
8			\$ 888.89	\$ 888.89
9		\$ 100.00	\$ 888.89	\$ 988.89
10			\$ 888.89	\$ 888.89
Totals:	\$ 21,000.00	\$ 750.00	\$ 8,888.89	\$ 30,638.89

Total Ten Year Cost: \$ 30,638.89
Avg Per Year: \$ 3,063.89

- (1) Biased on costs of new vehicle off of State Bid List
(2) Anticipated Costs, ie. Drive train, suspension, brakes, emissions, etc.
(3) Biased on EPA Data from Ford Motor Company (45 Miles per gallon), 10000K miles per year @ \$4.00 per gallon

Overall Comparison:

Vehicle	Cost per Year	Ten Year Cost	Savings
Used Police Car	\$ 4,423.33	\$ 44,233.33	
New Ford Ranger	\$ 2,913.46	\$ 29,134.62	\$ 15,098.72
New Ford Escape Hybrid	\$ 3,551.47	\$ 35,514.71	\$ 8,718.63
New Toyota Prius Hybrid	\$ 3,063.89	\$ 30,638.89	\$ 13,594.44