

# DEVELOPMENT OPTIONS FOR PORTIONS OF THE ROUTE 1A CORRIDOR IN WALPOLE AND NORFOLK

Prepared by the Metropolitan Area Planning Council



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Executive Office of Energy and Environmental Affairs*

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Michael Boynton	Walpole	Town Administrator
Ramesh Advani	Norfolk	Board of Selectmen
Gino Carlucci	Norfolk	Planning Consultant
Ken Fettig	Walpole	Economic Development Committee, Water & Sewer Commission
Kathleen Fitzpatrick	Walpole	Resident
Don Johnson	Walpole	Town Planner
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Gail Nixon	Walpole	Health Department
Roger Turner	Walpole	Water and Sewer Commission
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## EXECUTIVE SUMMARY

### **Project Overview**

The Towns of Walpole and Norfolk worked with the Metropolitan Area Planning Council (MAPC) to undertake an analysis of several parcels on Route 1A near the border of Walpole and Norfolk. The work was funded by a Smart Growth Technical Assistance Grant from the state Executive Office of Environmental Affairs (now the Executive Office of Energy and Environmental Affairs).

Initially, the study area consisted of two parcels: the Department of Correction Land (DOC) in Walpole and the former Pondville State Hospital in Norfolk (now owned by the Caritas Christi Corporation). After the grant was approved, discussions between the two communities led to a revision of the study area to include the Walpole Industrial Park, parcels on the west side of Main Street and the MWRA property on the west side of Main Street. This was done because the DOC land is not currently available for any kind of development and Walpole officials were interested in exploring how the Main Street parcels and Industrial Park could be upgraded to allow higher value uses.

The study area (see Map 1) included five parcels: the Walpole Industrial Park, the Main Street Parcels, the MWRA land, the Department of Correction land and the Caritas property in Norfolk. Project oversight was provided by the Inter-Municipal Committee composed of representatives from both communities. This committee met three times during the course of the project and provided significant input and inter-municipal dialog. Two public forums were also held.

MAPC began by reviewing the zoning and the towns' master plans. MAPC also mapped and researched natural resources (Map 2) and water characteristics (Map 3).

### **Development Concepts**

MAPC developed two illustrative concepts that would help the communities achieve their goals and make progress towards meeting the Smart Growth Principles developed by the funding agency, the Executive Office of Environmental Affairs. The purpose of these concepts was to illustrate the impacts of different types and levels of development. These concepts do not constitute actual development proposals. The focus of these two concepts was to increase the tax base of both communities by providing more, higher quality jobs and to protect as open space the MWRA and DOC parcels. The model for the type of economic development desired is the Siemens facility (formerly Bayer) on Coney Street in Walpole. The mix of uses would be 60% manufacturing, 20% office and 20% research and development.

### **Illustrative Concept #1: Development Consistent with Master Plans (Map 4)**

This concept would require the extension of sewer service to the Industrial Park and the Main Street parcels to overcome the constraints on development currently imposed by the Water Resources Protection Overlay District. The DOC and the MWRA properties would see no change in use. The Caritas property would be developed as currently zoned for offices on 16 acres and age-restricted housing on 70 acres.

Total square feet of development: 2,028,520 square feet  
 Housing development: 240 homes

**Illustrative Concept #2: Jobs with Open Space (Map 5)**

The only difference between this concept and Illustrative Concept #1 is on the Caritas property. Instead of a mix of offices and age-restricted housing, the same mix of manufacturing/offices and R&D is applied to the 86 acres of the hospital site.

Total square feet of development: 2,910,520 square feet  
 Housing development: None

	<b>Concept #1</b>	<b>Concept #2</b>
Walpole Industrial Development	1,826,920 sq. ft.	1,826,920 sq. ft.
Walpole Housing	0	0
Norfolk Industrial Development	201,600 sq. ft.	1,083,600 sq. ft.
Norfolk Housing	210-240 units	0

**Benefits of Economic Development**

- For Walpole, the net annual revenue to the town for both concepts would be approximately \$1.5 million. Both concepts would also involve a one time building permit fee payment to the Town of \$7.3 million if all of the potential square feet of development were constructed.
- For Norfolk, the net annual revenue would be approximately \$0.4 million for Concept 1 and \$0.3 million for Concept 2. There would also be a one time building permit fee payment to the Town of \$1.0 million.
- Job creation in Walpole (both concepts) would range from 2,465 -4,432 jobs.
- Job creation in Norfolk for Concept #1 would be 272-655 and for Concept #2 it would be 1,462-2,629.

**Impacts**

- The level of development in the two illustrative concepts would fit within Walpole's existing projected water demand out to at least 2020.
- Norfolk has a slight projected Water Management Act (WMA) deficit by 2020 under baseline projections.
- The level of development under these two illustrative concepts would increase traffic on Route 1A by about 50% in either direction.

- With these large increases in traffic and few alternatives for getting people out of their cars, there are likely to be increases in peak hour congestion at Route 1A intersections closest to the development sites.

## **Implementation and Mitigation Strategies**

In Walpole, both illustrative concepts envision new development on both the Walpole Industrial Park and the Main Street parcels. This development will occur in one of two ways. In the Walpole Industrial Park, new development was assumed for the currently undeveloped acres. This plan assumes the Town of Walpole wants to ensure that there is no disruption to existing businesses and is not interested in using its power of eminent domain to force redevelopment to occur. However, the provision of sewer will enable a higher level of development and may make it economically feasible for individual property owners to redevelop. This is also the approach for the Main Street parcels whereby existing businesses would remain until the owners decide that they would like to sell or to redevelop to a higher level. This market-driven approach to development and redevelopment can be supplemented by active efforts by the Town of Walpole to market to desired types of businesses.

**1. Rezone the Walpole Industrial Park and Main Street Parcels** - In order to expedite the development of the Walpole Industrial Park and the Main Street parcels, the zoning ideally should allow manufacturing, office and R&D by right.

*Option 1* – Rezone the rear portion of the Main Street parcels from “R” residential to LM. This will enable the entire parcel to be used for commercial development.

*Option 2* – Consider rezoning the Main Street Parcels to IND so that all uses are allowed by right.

*Option 3* – Consider rezoning the Main Street parcels and the Walpole Industrial Park to HB because of the better fit between the type of development envisioned and the uses allowed by right.

The Town is currently undergoing a comprehensive rewrite of the Zoning By-Laws. A first draft of proposed amendments to the text will be completed in the summer of 2007. These amendments may address some of the issues raised above.

**2. Extend Sewers to the Walpole Industrial Park and the Main Street Parcels** - The Town of Walpole Sewer Master Plan did not designate any of the parcels within the study area as a high priority for the extension of sewers. The Walpole Water and Sewer Commissioner estimated that the cost to extend sewer would be approximately \$150 per linear foot, including planning and design, laying pipe, and re-surfacing roads. The sewer extension could be accomplished through developer contributions and state grants.

*Apply for a grant through the MORE Program* – One opportunity for the town to fund the sewer extension would be through the recently created Massachusetts Opportunity Relocation and Expansion (MORE) Jobs Capital Program, which helps cities and towns pay for infrastructure needed to spur economic development. This program would only be available at such time as a specific business has committed to locating in Walpole.

**3. Protect the DOC and MWRA Properties** - The long-term municipal goal is to ensure protection of both these properties as open space. Neither parcel is permanently protected as open space or recreation.

*Step 1: Rezone the DOC and the MWRA properties to the PSRC district*

These parcels are currently zoned R residential. Rezoning them to PSRC would provide some protection against more dense development but would not preclude certain uses which are not commonly thought of as parks and conservation.

*Step 2: Acquire both Parcels* – Acquisition would afford the greatest level of protection but would be more costly. Two potential funding sources would be the Community Preservation Act and developer contributions to an open space fund.

*Adopt the Community Preservation Act (CPA)* - The Community Preservation Act is one tool for communities to fund open space, recreation, affordable housing and historic preservation activities. Norfolk passed the CPA but Walpole has not. The master plan (Page 57) includes a recommendation to consider enacting the Community Preservation Act while acknowledging that current fiscal conditions make it difficult to consider adding new taxes. The plan further states that the Town should study the benefits of the CPA with an eye towards considering a vote in the future.

*Establish a fund for developer contributions* - One innovative program that could be used as a model is found in the Town of Natick. Under this existing Natick bylaw, a developer may seek a special permit to increase the amount of square footage of commercial uses (beyond the by-right limits within the zoning bylaw) on parcels located within specific overlay zones. As a condition of approval of such increase in built square footage, the developer agrees to pay the Town of Natick a fee of \$20.00 per square foot of space beyond the by-right limit; this fund is later used by the municipality to purchase open space elsewhere in town.

**4. Rezone the Caritas Property** (Applies to Concept #2) – The current zoning of this property allows the type of development proposed for Illustrative Concept #1 but does not allow all of the uses envisioned for Illustrative Concept #2 ( a mix of manufacturing, office and R&D). If the town decides to pursue the level of economic development presented in Illustrative Concept #2, the property would need to be rezoned.

A review of the existing zoning districts in Norfolk indicates that the C2/C3 and C5 districts all allow manufacturing as a use permitted by right. Professional and general

offices are also allowed by special permit. However, these districts do not allow research facilities.

## **5. Other Implementation Strategies**

*Form a Transportation Management Association (TMA)* - A local transportation management association (TMA) should be formed among the sites' employers and other nearby businesses to provide other travel options like ride share matching and shuttles to commuter rail stations as a way of minimizing the need for employees to drive alone to work.

*Use the MEPA process to obtain transportation mitigation measures* - Because Route 1A is a state highway it is likely that major new developments would be subject to the MEPA process. The MEPA process is a useful tool for analyzing traffic mitigation measures and for ensuring that traffic mitigation is a condition of project approval.

*Adopt a Low Impact Development bylaw* – A Low Impact Development bylaw would encourage better site design and a more efficient form of development that consumes less open land and protects existing topography, wildlife habitats, and natural features. Low Impact Development (LID) strategies use careful site design and decentralized stormwater management to reduce the environmental footprint of new development.



## **I. PROJECT OVERVIEW**

### **A. Grant Application**

The Towns of Walpole and Norfolk applied for a Smart Growth Technical Assistance Grant to engage MAPC to undertake an analysis of several parcels on Route 1A and to conduct an inter-municipal discussion on the local and regional implications of alternative development on parcels of private and public lands near the border of Walpole and Norfolk. Initially, the study area consisted of two parcels: the Department of Correction Land (DOC) on the east side of Route 1A in Walpole and, over the municipal boundary in Norfolk, the former Pondville State Hospital which in recent years was used as a private medical facility, prior to its closure within the past decade. This property is now owned by the Caritas Christi Corporation (hereafter to be referred to as Caritas). After the grant was approved, discussions between the two communities led to a revision of the study area to include the Walpole Industrial Park, parcels on the west side of Main Street and the MWRA property on the west side of Main Street. This was done because the DOC land is not currently available for any kind of development and Walpole officials were interested in exploring how the Main Street parcels and Industrial Park could be upgraded to allow higher value uses. Together, the five parcels would also serve to illustrate the potential for redevelopment of the entire Route 1A corridor, which includes a number of smaller industrial uses on smaller lots. Amendments to the study area were approved by the Executive Office of Energy and Environmental Affairs.

### **B. Scope of Work**

The following are the key components of the scope of work.

***Public Participation:*** This component of the project consisted of two elements: (1) the formation of an Inter-Municipal Committee to advise MAPC and (2) two public forums. The Inter-Municipal committee was comprised of members of town boards (Selectmen, Planning Board, Economic Development Commission/Officer) as well as the Town Administrators and the towns' planners. The Committee meetings were working sessions to review previous town plans for the study site, to plan for the larger public forums, to review the results of the public input, and to set direction relative to studies to be undertaken (e.g., zoning) based upon input from the public forums.

***Analysis of existing conditions:*** The study began with an analysis of existing natural and man-made conditions of the site and the surrounding properties. This included preparation of a map and analysis of the existing natural resources (water resources, wildlife habitats, etc.) and an examination of the potential for connectivity and protection of these resources within two communities. It also included an analysis of availability of municipal water supply, water permit limits, availability of capacity of existing sewer lines and/or municipal wastewater treatment plants, and other constraints and options for addressing these constraints.

***Buildout analysis:*** MAPC prepared an analysis of the existing zoning to determine the potential uses and likely buildout intensity allowed under the existing regulations

governing the five study area parcels in the two communities. MAPC examined the degree to which the existing zoning for the site enables the towns to reach their goals for housing, economic development, open space, etc., as stated in their Master Plans or other documents.

***Development of alternative scenarios:*** Based upon discussions with the Inter-Municipal Committee, the input received at the public forum, and input received from the economic development consultant, MAPC prepared additional alternative scenarios for review. The purpose of the additional scenarios was to illustrate innovative viable alternatives for consideration by the Towns

***Analysis of two alternative scenarios:*** MAPC prepared an analysis of the two selected alternative development concepts. The analysis included a review of impacts of the alternatives on natural resources, housing, economic development, transportation and water. It also included a comparison of the two scenarios to the buildout scenario.

### **C. Study Area**

The final scope of work for this project allowed MAPC to focus on a broader study area along Route 1A. The final study area for the project consists of five parcels and was agreed upon by the Inter-Municipal Committee at a meeting on February 1, 2007. In addition, two parcels of interest were mapped at the request of the Inter-Municipal Committee. These parcels – the South Street Superfund site (Blackburn and Union Privileges) and Bird Machine, were shown because they are two critical brownfield sites that the Town of Walpole has been working on for redevelopment. No additional study of these parcels was done under this grant. The study area is shown on Map 1: Base Map.

**Walpole Industrial Park** – The Walpole Industrial Park is located on the east side of Route 1A. The total acreage of the Industrial Park within the study area is 149.83 acres. Additional area is included in the Industrial Park to the east of the railroad tracks. These parcels were not included in the study because they do not have access off or Route 1A. The majority of the Walpole Industrial Park study site (143.97 acres) is zoned industrial (IND) and the remainder (5.86 acres) is zoned Limited Manufacturing (LM). There is no public sewer and development in the entire industrial park is constrained by its location within the Water Resources Protection Overlay District. The industrial park consists of acreage that is already developed, acreage that is slated for development and acreage for which plans have not yet been submitted. With the town's guidance, the decision was made to focus only on the approximately 73 acres yet to be developed rather than including redevelopment options on the already occupied portion of the site.

**Main Street Parcels** – The Main Street Parcels are located on the west side of Route 1A south of the Industrial Park. The site consists of several parcels in separate ownership as shown below in Table 1.

**Table 1  
Main Street Parcels**

<b>Map and Lot #</b>	<b>Acres</b>	<b>Owner</b>
45-50	4.94	RECYCLING WALPOLE LLC
45-48	9.96	RECYCLING WALPOLE LLC
45-61	11.18	POTHEAU ROBERT J TR
46-69	1.05	CONNOLLY FAMILY TRUST
45-59	1.64	RECYCLING WALPOLE LLC
45-60	0.54	RECYCLING WALPOLE LLC
46-70	7.53	POTHEAU ROBERT J TR
46-71	7.50	A TOW REALTY TRUST
45-49	28.70	POTHEAU ROBERT J TR

The current uses are junkyards and auto salvage. The area fronting on Route 1A is zoned Limited Manufacturing while the rear of the property is within the R residential zone. The entire site is also within Zones 3 and 4 of the Water Resource Protection Overlay District. Wetlands and Flood zone are near the northern edge of the site.

In 2002, the Town of Walpole Brownfields Committee received a grant from the Environmental Protection Agency Brownfields Assessment Demonstration Pilot Project to study redevelopment options for the Main Street parcels. The area studied was larger than the Main Street parcels as defined in this project. CDM prepared the study and determined that a golf course was a feasible redevelopment option from an economic perspective as well as an environmental perspective. The golf course study was publicly presented as a development concept but it was never adopted by the Board of Selectmen and is not actively under consideration at this time.

**Department of Correction Land (DOC)**

The State of Massachusetts owns acreage on the east side of Route 1A in Walpole which is associated with the State of Massachusetts Correctional Institute (MCI Walpole) on the west side of Route 1A. The possibility exists that the state may decide at some point in the future to declare a portion of the 67-acre site (all but the area necessary for the existing power plant) as “surplus property”. Portions of this site contain wetlands. The site is zoned R residential and essentially the entire parcel is also within Zones 3 and 4 of Water Resource Protection Overlay District. There are no apparent development issues with wetlands, flood zone or river protection zone.

**Massachusetts Water Resources Authority (MWRA)**

This 93.26 acre parcel is owned by the Massachusetts Water Resources Authority. The land was acquired by the MWRA as a back-up landfill site. Under a federal court order of the late Judge A. David Mazzone, that land will remain in the possession of the MWRA as a backup landfill site until the year 2018. Included in the MOU between the parties is a provision whereby the MWRA reevaluates the need for the possession of that land every five years. MWRA has decided to maintain ownership at every five year interval so far. It is unclear whether the court will allow the MWRA to relinquish possession or whether the court will instruct the MWRA to retain ownership. The site had been owned by the DOC but it was transferred by the Legislature to the MWRA in May 1991 after Judge Mazzone had imposed a sewer hookup moratorium in response to the Legislature's opposition to the transfer in December 1990.

The entire site is zoned residential and approximately one-quarter of the parcel is also within Zones 3 and 4 of Water Resource Protection Overlay District. There are no apparent development issues with wetlands, flood zone or river protection zone.

**Caritas Health Care (Southwood Hospital)**

The Caritas property consists of two parcels. One is 70 acres and the other is 16 acres. Both parcels are within the Commercial 6 zoning district.

Allowed uses include:

- Age restricted Dwellings, either as single-family structures or as townhouses in structures containing up to 6 units.
- Retail
- Office (general business or professional)

The site includes the buildings formerly operated as Southwood Hospital and there is reportedly a landfill on the site. The site is in close proximity to the commercial zone at the intersection of Route 1A and Route 115. There are no wetlands on the site.

## II. PUBLIC PARTICIPATION

MAPC met three times with a committee made up of representatives from Walpole and Norfolk. The committee membership is shown in Table 2. These meetings took place on:

- February 1, 2007
- April 2, 2007
- May 23, 2007

The agendas for these meetings are included in Appendix A.

**Table 2**  
**Inter-Municipal Committee**

<b>Name</b>	<b>Community</b>	<b>Representing</b>
Jack Hathaway	Norfolk	Town Administrator
Michael Boynton	Walpole	Town Administrator
Ramesh Advani	Norfolk	Board of Selectmen
Gino Carlucci	Norfolk	Planning Consultant
Ken Fettig	Walpole	Economic Development Committee, Water & Sewer Commission
Kathleen Fitzpatrick	Walpole	Resident
Don Johnson	Walpole	Town Planner
Steven G. McClain	Norfolk	Planning Board
Gail Nixon	Walpole	Health Department
Roger Turner	Walpole	Water and Sewer Commission
Don Walsh	Walpole	Economic Development Officer

In addition, there were two public forums on March 14, 2007 and June 6, 2007. The agendas for these public forums are included in Appendix A. The public forums were advertised in the local newspapers, posted in town halls and on town websites.



### **III. INITIAL ANALYSES**

#### **A. Mapping**

In preparation for the public forum, MAPC prepared and analyzed a series of maps. These maps included the following:

- Study area base map (Map #1)
- Natural resources (Map #2)
- Water resources (Map #3)

The maps were reviewed to determine which mapped resources fell within each parcel. Table 3 shows the results of this analysis for water resources and Table 4 shows the results for natural resources. The results of this analysis is that there appears to be few natural resource development constraints such as vernal pools or endangered species habitats on these parcels, but there are sensitive resources beyond the parcel boundaries that will require careful planning to ensure that there are not negative impacts off-site.

The most important resource in this area is the “Head of the Neponset” aquifer. This aquifer was designated a sole source aquifer in 1988 upon petition by Walpole. A Sole Source Aquifer (SSA) is an aquifer designated by US EPA as the 'sole or principal source' of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should that aquifer become contaminated. This designation covers 30 square miles including most of Walpole and portions of Dover, Foxboro, Medfield, Norwood, Sharon and Westwood.

Portions of this sole source aquifer are protected in Walpole by the Water Resources Protection Overlay District. The WRPOD protects those portions of the aquifer that directly provide water to the Town of Walpole well fields. This overlay district does significantly limit development within the commercial/industrial areas as well as the residentially zoned areas within the study area.



**Table 3  
Water Resource Characteristics of Parcels**

<b>Name of site</b>	<b>Public water supply well</b>	<b>Aquifer **</b>	<b>Sole Source Aquifer</b>	<b>100 year floodplain</b>	<b>Living waters critical supporting</b>	<b>Zone II</b>	<b>100 Foot Rivers Buffer</b>	<b>Watershed</b>
Main Street parcels (3)	No	No	Yes	Small portion	No	No	No	Neponset
Walpole Industrial Park	No	Yes	Yes	No	No	Partially within	No	Neponset
MWRA	No	No	No	No	1/3 Yes	No	No	Charles
Dept. of Correction	No	No	Yes	No	No	No	No	Mostly Neponset, some Charles
Caritas	No	Partially	No	No	2 small sections on Rte. 1A frontage	1/2 Yes	No	Charles

\*\* The Mass GIS aquifer delineation used on this map differs from the four aquifer zones used in the Water Resources Protection Overlay zoning district. See Town Files for the Map of Zones 1-4.

**Table 4  
Natural Resource Characteristics of Parcels**

<b>Name of Parcel</b>	<b>Prot. Open Space</b>	<b>Biomap supporting natural landscape</b>	<b>Certified vernal pool</b>	<b>Potential vernal pool</b>	<b>Estimated habitat of rare species</b>	<b>DEP wetlands</b>	<b>100 foot river protection buffer</b>
Main Street Parcels	No	Small area	No	No	Small area	Yes	No
Walpole Industrial Park	No	Small area	No	Four	Small area	Yes	No
MWRA	No	No	One	One	No	Yes	No
Dept. of Correction	No	No	No	No	No	Yes	No
Caritas	No	No	No	No	No	Yes	No

## **B. Review of previous plans, studies, bylaws and regulations**

MAPC undertook a thorough review of all previous plans and studies in order to understand how the study area parcels fit into the overall scheme of planning in the two communities. A full list of these plans is included in Chapter IX – References. Of particular importance was a review of the relevant goals and objectives from previous plans. These are summarized below.

### **Walpole Goals and Objectives**

#### **Economic Development**

- Attract new higher value businesses to enhance the tax base.
- Make Walpole more business-friendly.
- Focus on existing business zones rather than expand area zoned for business.
- Improve appearance of business areas.
- Improve the type and variety of goods and services available.
- Complete assessment and remediation of brownfield sites for redevelopment.

#### **Environment and Open Space**

- Protect drinking water quality and supply
- Maximize protection of remaining open space and green community character
- Identify private lands near wells and Zone II areas for purchase or management outreach.
- Invest in green infrastructure that helps protect the town's sole source aquifer.

#### **Housing**

- Slow down residential growth
- Create more affordable housing especially for town employees, young families and senior citizens.
- Manage housing development and gain more affordable units eligible for Chapter 40B.
- Put zoning into place so that any future residential development would preserve open space.

#### **Transportation**

- Make local roads safer and less congested.
- Increase alternatives to auto transportation including public transportation
- Improve the walkability of Walpole

### **Norfolk Goals and Objectives**

#### **Open Space and Recreation Goals and Objectives**

- Protect and enhance the quality of Norfolk's surface and ground water as a source for municipal and private drinking water and for wildlife and recreation use.

- Maintain communication with neighboring towns to protect water resources which cross town borders.
- Enhance public access to and use of existing conservation lands where appropriate, and establish continuous greenbelts, especially along waterways.
- Provide all neighborhoods with appropriate recreation, park and/or playgrounds.

### **Housing Goals and Objectives**

- Consider increasing incentive for affordable housing in private developments or adopt an inclusionary zoning bylaw. (Bylaw was passed since completion of Master Plan).
- Increase the number of housing units affordable to those households with less than 50% of median family income.
- Identify areas where residential growth is encouraged and encourage mixed uses where appropriate.
- Develop a program and schedule for increasing the number of affordable housing units to a minimum of 10% of total housing units.
- Protect critical natural resources and restrict these sensitive areas from intensive residential development.
- Use CPA funding to purchase sensitive areas
- Consider “transferring” development rights of such areas to areas and/or projects where greater density is desired.
- Encourage compact development to reduce infrastructure and service needs, and protect the environment, while creating a sense of community.
- Protect commercial areas in order to maximize economic development potential and fiscal stability.
- Oppose housing proposed to be located in strictly commercial areas.
- Ensure that housing in mixed use zoning districts is appropriately balanced with commercial uses or fulfills a major housing need.

### **Economic Development Goals and Objectives**

- Encourage maximum business and commercial development in the C-1 Route 1A/Route 115 area to provide needed services and increase the tax base of the Town.

### **C. Buildout analysis**

A buildout analysis is a tool to help communities understand the potential impacts of future growth that might occur given the amount of developable land remaining and how that land is zoned. The analysis starts with available land in each zoning district and makes projections of future development (residential and commercial) according to each zoning district’s minimum lot size and other regulations.

A buildout analysis was prepared for each of the study area parcels. This buildout was presented at the March 14 public forum. As the study progressed, the acreage for the Walpole Industrial Park and the Main Street parcels was refined. The results of the initial

buildout analysis are shown in Appendix C. The buildout presented in this section corresponds to the updated acreage figures. A comparison between the buildout and the two illustrative concepts detailed in Chapter V can be found on Page 29. The buildout calculations for the analysis presented in this section can also be found in Appendix C.

There are significant limitations on both residential and commercial/industrial development caused by the Water Resources Protection Overlay District. Because of the septic flow limitations, the development that occurs tends to be low water using uses such as warehouses rather than uses that have a higher water demand such as offices. All residential development is by right; there are no provisions for special permits.

Commercial and industrial development is limited by the Floor Area Ratio (FAR) established by the zoning bylaw. This FAR can be exceeded through the Special Permit process if a developer can show that he/she will undertake measures to preserve the quality and quantity of groundwater infiltration. However, the lack of sewers is still a limiting factor.

The maximum FAR of 0.41 in the buildout analysis assumes that sewer is available and that a special permit has been obtained for lot coverage. Since this is not possible under current condition, for the comparison to illustrative concepts #1 and 2, the buildout assumes a special permit but no sewer.

In Norfolk, the number of age-restricted housing units that could be built varies from approximately 101-240 units. This depends on the acreage available and whether the development is done under a special permit or by right. Age-restricted housing could be built by right on separate lots with a minimum lot size of 30,000 square feet, resulting in a lower unit count. If a special permit was applied for, 210 units would be possible on a 70 acre site. For Concept #1 (described later in this report) 240 units were assumed for the analysis. This was done because Concept #1 attempts to follow the master plans and the Norfolk Master Plan used this number of units for the entire 86 acre Caritas site. The lower number of 210 is most representative of the current zoning and the allocation of 70 acres to this use. The impacts analysis is based upon the slightly higher 240 unit number, to provide a likely upper limit of possible impacts.



**Table 5  
Walpole-Norfolk Buildout Analysis of Selected Properties along the Route 1A Corridor**

**Updated by MAPC 6/12/07 based on acreages for comparison to Illustrative Concepts 1&2  
Assumptions to be used in comparison with Illustrative Concepts 1 & 2 are highlighted in the table.**

Site Name	Zone Code	Acres	Assumed uses for Buildout	Minimum Residential Lot size (if applicable)	Estimated # Residential lots	Permit By Right, Special Permit, or based on Septic flow rate	Calculated C/I Floor Area Ratio allowed under Permit requirements	Estimated potential commercial or Industrial space	Constraints on Development
<i>By Right Calculations</i>									
MWRA Parcel	R	93.26	Single Family Residential	40,000 s.f., 80,000 in WRPOD	50	By Right			1/4 of site in WRPOD
DOC Parcel	R	67.32	Single Family Residential	80,000, essentially all in WRPOD	29	By Right			Almost all of site in WRPOD
Main Street Parcels	R	21.44	Single Family Residential	80,000, all in WRPOD	9	By Right			Entire Residential portion in WRPOD
Main Street Parcels	LM	50.6	3-story offices or offices over retail			By Right	.09 FAR	198,372 s.f.	All in WRPOD

**Table 5  
Walpole-Norfolk Buildout Analysis of Selected Properties along the Route 1A Corridor**

**Updated by MAPC 6/12/07 based on acreages for comparison to Illustrative Concepts 1&2  
Assumptions to be used in comparison with Illustrative Concepts 1 & 2 are highlighted in the table.**

Site Name	Zone Code	Acres	Assumed uses for Buildout	Minimum Residential Lot size (if applicable)	Estimated # Residential lots	Permit By Right, Special Permit, or based on Septic flow rate	Calculated C/I Floor Area Ratio allowed under Permit requirements	Estimated potential commercial or Industrial space	Constraints on Development
Industrial Park	IND	73	3 -story offices			By Right	.09 FAR	286,189 S.f.	All in WRPOD
Caritas Southwood Hospital	C-6	70	Age restricted housing	3 units per acre allowed	210	By Special Permit with PMLD.			
Caritas Southwood Hospital	C-6	16	3-story offices			By Right	0.25 FAR	174,240 s.f.	
<b><i>Calculations based upon limits of Special Permits</i></b>									
Main Street Parcels	LM	50.6	3-story offices or offices over retail			Special Permit	.41 FAR	903,695 s.f.	All in WRPOD, would require sewer and special permit

**Table 5  
Walpole-Norfolk Buildout Analysis of Selected Properties along the Route 1A Corridor**

**Updated by MAPC 6/12/07 based on acreages for comparison to Illustrative Concepts 1&2  
Assumptions to be used in comparison with Illustrative Concepts 1 & 2 are highlighted in the table.**

Site Name	Zone Code	Acres	Assumed uses for Buildout	Minimum Residential Lot size (if applicable)	Estimated # Residential lots	Permit By Right, Special Permit, or based on Septic flow rate	Calculated C/I Floor Area Ratio allowed under Permit requirements	Estimated potential commercial or Industrial space	Constraints on Development
Industrial Park	IND	73	3 -story offices			Special Permit	.41 FAR	1,303,750 s.f.	All in WRPOD, would require sewer and special permit
<b><i>Calculations based upon septic flow limitations (would also require Special Permits regarding lot coverage)</i></b>									
Main Street Parcels	LM	50.6	3-story offices			Special Permit and Septic Flow Limitation of 110 gallons per 10,000 s.f. lot area	.15 FAR	330,620 s.f.	All in WRPOD, would require special permit to exceed by-right lot coverage
Industrial Park	IND	73	3-story offices			Special Permit and Septic Flow limitations of 110 gallons per 10,000 s.f. lot area	.15 FAR	476,982 s.f.	All in WRPOD would require special permit to exceed by-right lot coverage.

**Table 5  
Walpole-Norfolk Buildout Analysis of Selected Properties along the Route 1A Corridor**

**Updated by MAPC 6/12/07 based on acreages for comparison to Illustrative Concepts 1&2  
Assumptions to be used in comparison with Illustrative Concepts 1 & 2 are highlighted in the table.**

<b>Site Name</b>	<b>Zone Code</b>	<b>Acres</b>	<b>Assumed uses for Buildout</b>	<b>Minimum Residential Lot size (if applicable)</b>	<b>Estimated # Residential lots</b>	<b>Permit By Right, Special Permit, or based on Septic flow rate</b>	<b>Calculated C/I Floor Area Ratio allowed under Permit requirements</b>	<b>Estimated potential commercial or Industrial space</b>	<b>Constraints on Development</b>
Industrial Park	IND	73	1 story Warehouse (with associated lower septic flow rate)			Special Permit and Septic Flow Limitation of 110 gallons per 10,000 s.f. lot area	.37 FAR	1,176,555 s.f.	All in WRPOD, would require special permit to exceed by-right lot coverage

## IV. THE FIRST PUBLIC FORUM

**Purpose of the first public forum** – The first public forum was held on March 14, 2007 at the Freeman Centennial School in Norfolk. The purpose of the forum was to:

- Familiarize residents of both communities with the scope of the project.
- Review the study area and maps.
- Present the results of the buildout analysis showing what could be built given current zoning, regulations and site constraints.
- Explain the next steps in the process.
- Review goals and objectives from previous local planning efforts.
- Hear residents concerns about the impacts of potential development and what uses would be desired or preferred.

The agenda for this public forum is included in Appendix A. The forum was attended by approximately 24 individuals.

### **Key Points from the March public forum**

The following is a summary of the key points from the public comment portion of the public forum.

- Interest in playing fields on the MWRA land if money were available.
- More jobs that mesh with the Economic Target Area.
- Traffic concern: stadium parking already a problem.
- *Industrial Park*: Acceptable uses would include R&D. No power plant or “dirty industry”.
- *Main Street*: Golf course ok. Do not put uses that have heavy truck traffic.
- *DOC and MWRA*: No development.
- *Caritas*: Acceptable uses include age-restricted housing, limited related retail, offices that are architecturally appropriate, assisted living or a nursing home, call center or back offices.
- Expand efforts to include Walpole Center.
- Future 40B developments and the potential impacts on the school system.
- Focus on Route 1 for refilling existing built space (Note 6 million square feet proposed on/near Route 1).
- Concerns about type of commercial development that has moved in lately.
- More than enough traffic now – especially with Patriot Place Mall. Traffic particularly a concern at Everett and Summer Streets.
- Any new commercial development should not compete with downtown.
- Impacts on abutting residential
- Need to look at fiscal impact and positive potential on budget.
- Potential to hook up Southwood to Walpole Sewer system.
- Improve “looks” of uses on 1A – beautification.

- Educational uses generally look favorable but do not generate tax revenues unless there are payments in lieu of taxes negotiated.
- Both towns acknowledged a need for cemetery space but cemeteries do not generate sufficient tax revenues.
- Municipal uses would be better located on South Street site.
- There is interest in transit: there were a lot of questions about GATRA and the MBTA assessment and how the process works.

## V. DEVELOPMENT OF THE ILLUSTRATIVE CONCEPTS

MAPC developed two illustrative concepts based on the following:

- Input from the committee
- A review of the master plans and other documents from each community
- Input received at the March 14, 2007 public forum
- The Massachusetts Office of Commonwealth Development Sustainable Development Principles (These are included as Appendix C).

These two potential development scenarios were termed “illustrative concepts” to emphasize that these represent only two potential scenarios out of many. In order to conduct an analysis of impacts, it was necessary to come up with several different approaches that met the goals for the project. These two illustrative concepts were used as starting points for the analysis. There are many other potential concepts that could be tested. In addition, it is important to note that this project did not take a site planning approach. Even within the two illustrative concepts, the exact location of buildings was not determined, and was not considered critical to the analysis.

**Initial Review of Concepts** - MAPC presented six development concepts at the April 2, 2007 Inter-municipal Committee meeting. A memo outlining the six concepts is included as Appendix F. The committee chose Concept #3: Development Consistent with Master Plans and Concept #6: Jobs with Transfer of Development Rights for further analysis. Concept #6 was further refined during discussions between Don Walsh and Jack Hathaway as well as discussions with the Norfolk Planning Board at its meeting on April 26. They felt that additional job related development on the Caritas property would be more appropriate than age-restricted housing. The Norfolk Planning Board concurred with the idea of 100% commercial development on the Caritas property. Therefore, this concept was changed to eliminate housing on the Caritas property and to develop the entire site for manufacturing, office and R&D. The name of Concept #6 was changed to “Jobs with Open Space”. This was done to focus on the desired outcomes rather than on any potential means of implementation such as transfer of development rights.

### **Housing Component of Concept #3**

MAPC proceeded with the impacts analysis of the two illustrative concepts. This included work to develop housing options for Concept #3: Development Consistent with Master Plans on the DOC and MWRA properties as well as Caritas. This concept was later revised and renamed Illustrative Concept #1. *However, the housing component was eliminated from the final version of Concept# except for age-restricted housing on the Caritas property.*

The Walpole Master Plan included reference to some housing on both the DOC and the MWRA parcel. On Master Plan Map 16: Proposed Land Use, both the DOC property and the MWRA property are cross-hatched to indicate lands for limited development and conservation subdivision zoning. The DOC property is also noted for affordable housing opportunities. The MAPC housing planner reviewed all available information on housing goals, objectives and needs, and prepared housing options for both parcels.

At the May 23, 2007 meeting of the Inter-Municipal Committee, there was extensive discussion about housing development on the DOC and MWRA parcels under the Master Plan concept. The Master Plan does propose that, in the event the MWRA site was developed, that it be developed using cluster residential design. The Master Plan also noted the dual goals of using the DOC land for open space and possibly also for affordable housing. Although concept #3 (Development as Per Master Plans) does support limited housing development on both parcels, the discussion at the May 23 meeting raised a number of points that led to the decision not to show any development on these parcels.

- The Town of Walpole currently receives prison mitigation funds based on the amount of land under the control of the DOC. Any reduction in the amount of land held by the DOC would negatively impact the town's budget. Because of the importance of these funds and the fact that there are no immediate plans for any of the DOC land to be declared surplus, the Town of Walpole requested that this property not be considered in the Master Plan Scenario as housing.
- There are legal constraints that control the status of the MWRA parcel. A federal court order mandated that the land remain in the possession of the MWRA as a backup landfill site until the year 2018. Included in the MOU between the parties is a provision whereby the MWRA will reevaluate the need for the possession of that land every five years. MWRA has decided to maintain ownership at every five year interval so far. It is difficult to predict what will happen in 2013 or 2018- whether the court will allow the MWRA to relinquish possession or whether the court will instruct MWRA to retain ownership. For these reasons, the Town of Walpole requested that this property not be considered for housing development in the Master Plan Concept. The MWRA agreed to lease the property for a nominal fee for athletic fields. The Town of Walpole has not exercised this option because it currently lacks the funds to develop athletic fields. The Town of Walpole acknowledges the master plan direction on these parcels but feels that the decision as to the location of any future affordable housing is best handled by a more current and detailed Housing Production Plan rather than the more general master plan.

The final decision was to include the two parcels in the study area for the "Development as Per Master Plans" concept but to show no change in the status of these parcels.

The housing work that was done for Concept #3 is included in Appendix D for the following reasons.

- The scope of work included a housing component.
- The guiding principles of this grant (Commonwealth Sustainable Development Principles) address housing needs.
- The Town of Walpole may want to review the housing analysis at a later date if and when conditions in Town warrant re-evaluation of housing needs.

## Discussion of Desired Economic Development

Don Walsh, the Walpole Economic Development Officer, provided input on the types of land uses that Walpole is seeking to attract. The Town would like to see more developments that are similar in nature to the Siemens facility (formerly Bayer) on Coney Street. This is a manufacturing facility within the Diagnostics Division of Bayer Health Care. Table 6 presents a summary of the key features of that facility.

**Table 6**  
**Overview of the Siemens Facility**

Total lot size	63 acres
Developed acreage	30 acres
Building size	378,000 square feet
Uses	60% manufacturing, 20% office, 20% R&D
Number of jobs	510
Average hourly wage	\$28-\$56/hour
Water use	220,000 cubic feet/month
Building value	\$28.5 million
Land value	\$6.8 million

Based on this facility, a development mix of 60% manufacturing, 20% office and 20% R&D was used for the Main Street parcels in both concepts and for the Caritas parcel in Illustrative Concept 2: Jobs with Open Space. Based on the ratio of 378,000 square feet of development on 30 acres, it was assumed that each acre of development would generate 12,600 square feet of commercial uses. Note that this is equivalent to a .29 Floor Area Ratio (FAR), which is higher than the by-right FAR for the Industrial zone but lower than the theoretical maximum FAR for this zone if one assumes both a special permits for lot coverage and access to municipal sewer.

## **Illustrative Concept #1: Development Consistent with Master Plans**

**Overview** – The purpose of this illustrative concept is to show the impacts of development that follows the basic approach of the towns’ master plans. This illustrative concept is illustrated on Map 4. This illustrative concept would require the extension of sewer service to the Industrial Park and the Main Street parcels. The provision of sewers would overcome the constraints on development currently imposed by the Water Resources Protection Overlay District. A higher density of industrial development and jobs that are higher value is consistent with the Economic Target Area designation. In order to reduce the number of daytime auto trips, the zoning would allow up to 5% convenience retail on these two parcels.

This illustrative concept studies the impacts of development on only 73 acres of the Walpole Industrial Park. A portion of the park is already developed and there is additional acreage slated for development. This illustrative concept assumes that the focus of future development will be on the unbuilt portions of the park but does not preclude redevelopment of existing businesses in the future.

The DOC and the MWRA properties would see no change in use under this illustrative concept. The Caritas property would be developed as currently zoned for office on 16 acres and age-restricted housing on 70 acres.

*Walpole Industrial Park* – 73 acres.

Sewer would be extended.

- 551,880 square feet of manufacturing
- 183,960 square feet of office
- 183,960 square feet of R&D
- Convenience retail is included in the total.

*Main Street* – 72 acres.

- Sewer would be extended.
- 544,320 square feet of manufacturing
- 181,400 square feet of office
- 181,400 square feet of R&D
- Convenience retail is included in the total.

*DOC Parcel* – 67 acres.

- The parcel is currently undeveloped open land and also includes land associated with the prison power plant.
- No change in use: Long-term municipal goal is to ensure protection as open space.

*MWRA* – 93 acres.

- The parcel is currently undeveloped open land.

- No change in use unless for recreational facilities under lease. Long-term municipal goal is to ensure protection as open space.

*Caritas* – 86 acres.

- No sewer. Would likely require a small private sewage treatment plant.
- 240 1 and 2 bedroom homes (age-restricted) on 70 acres. (Page 46 of the Affordable Housing Plan for Norfolk, Massachusetts, October 2006). The total number of houses is based on the larger parcel zoned for this type of housing and may yield fewer units depending on the amount of office development.
- 201,600 square feet of office on 16 acres.

**Total water demand:** 300,887 gallons per day  
 Residential water demand: 20,852 gallons per day.  
 Commercial water demand: 280,035 gallons per day.

**Total wastewater flow:** 315,235 gallons per day

**Vehicle Trips:**

	<b>Daily</b>	<b>AM</b>	<b>PM</b>
Low	10,550	1,750	1,795
High	12,210	1,920	1,875

**Potential jobs:** 2,738-5,087

## **Illustrative Concept #2: Jobs with Open Space**

**Overview** – The only difference between this illustrative concept and Illustrative Concept #1 is on the Caritas property. Instead of a mix of offices and age-restricted housing, the same mix of manufacturing/offices and R&D is applied to the 86 acres of the hospital site. This increases the overall amount of development and therefore, increases the impacts. This illustrative concept is illustrated on Map 5.

*Walpole Industrial Park* – 73 acres.

- Sewer would be extended.
- 551,880 square feet of manufacturing
- 183,960 square feet of office
- 183,960 square feet of R&D
- Convenience retail is included in the total.

*Main Street* – 72 acres.

- Sewer would be extended.
- 544,320 square feet of manufacturing
- 181,400 square feet of office
- 181,400 square feet of R&D
- Convenience retail is included in the total.

*DOC*- 67 acres.

- The parcel is currently open space and also includes land associated with the prison power plant.
- No change in use: Long-term municipal goal is to ensure protection as open space.

*MWRA* – 93 acres.

- The parcel is currently undeveloped open land.
- No change in use unless for recreational facilities under lease. Long-term municipal goal is to ensure protection as open space.

*Caritas* – 86 acres.

- Sewer extension or small private sewage treatment plant.
- 650,160 square feet of manufacturing.
- 216,720 square feet of office
- 216,720 square feet of R&D.

**Total water demand:** 422,037 gallons per day.

**Total wastewater flow:** 422,037 gallons per day

***Vehicle trips:***

	<b>Daily</b>	<b>AM</b>	<b>PM</b>
Low	14,255	2,500	2,500
High	16,850	3,220	3,055

***Potential jobs:*** 3,928-7,061

**NOTE:** Chapter VI – Impacts Analysis contains more detail on how the impacts were determined.

## **Comparison of the Illustrative Concepts to the Buildout Analysis**

The full buildout analyzed different types of uses allowed under the existing zoning. Some of these uses are allowed by right and others would require a special permit. Development was also constrained by the septic flow limitations of the Water Resources Overlay Protection District. For the purposes of comparing the buildout to the Illustrative Concepts, we selected the use most similar to the uses envisioned under Illustrative Concepts 1 and 2. The results are shown in Table 7.

For the Walpole Industrial Park, the provision of sewer in both Illustrative Concept 1 and 2 would allow development to double from 476,982 square feet under buildout to 919,800 square feet. For the Main Street parcels, development with sewers under Illustrative Concept 1 and 2 would nearly triple.

For both the DOC and the MWRA parcels, residential development is permitted for the buildout analysis on both parcels but would not be under Concepts 1 and 2.

For the Caritas property, the amount of commercial development under buildout would be 174,240 square feet. This increases modestly in Illustrative Concept 1 but is much increased under Illustrative Concept 2 wherein the entire 86 acres would be used for up to 1,083,600 square feet of mixed manufacturing, office and R&D.

This analysis demonstrates that the Water Resources Protection Overlay District, while necessary to protect the sole source aquifer, is a constraint on development. However, this constraint could be overcome by the provision of municipal sewers.

The impacts of the buildout analysis are compared to the impacts of Illustrative Concept #1 and 2 in Chapter VI – Impacts Analysis.

**Table 7  
Comparison of Buildout to the Illustrative Concepts**

<b>Parcel</b>	<b>Buildout</b>	<b>Illustrative Concept 1</b>	<b>Illustrative Concept 2</b>
Walpole Ind. Park	476,982 sf (office)	919,800 sf (manufacturing/office/R&D)	919,800 sf (manufacturing/office/R&D)
Main Street Parcels	<ul style="list-style-type: none"> <li>• 330,620 sf (office)</li> <li>• 9 houses</li> </ul>	907,120 sf (manufacturing/office/R&D)	907,120 sf (manufacturing/office/R&D)
DOC	29 houses	0	0
MWRA	50 houses	0	0
Caritas	<ul style="list-style-type: none"> <li>• 174,240 sf (offices)</li> <li>• 210 residential units</li> </ul>	<ul style="list-style-type: none"> <li>• 201,600 sf (offices)</li> <li>• 240 residential units</li> </ul>	1,083,600 sf (manufacturing/office/R&D)



## **Relationship to the Sustainable Development Principles**

One of the goals for this grant was to develop and test alternatives that applied smart growth principles (as embodied by the Sustainable Development Principles promulgated by the Office of Commonwealth Development) to the study area. The Sustainable Development Principles are included in Appendix B. These principles were updated slightly under the Patrick Administration. These updated principles are also included at the end of Appendix B. The degree to which any project can meet the Sustainable Development Principles depends on many factors. The two illustrative concepts were developed with an eye towards meeting as many of the principles as possible within the context of the study corridor and the towns' needs. The following is a brief analysis of the degree to which this project achieves the principles.

Redevelop First – Both illustrative concepts include redevelopment of the former hospital site which has been vacant for many years. The focus of development in Walpole is on sites that are currently under-developed and/or potential brownfields and can accommodate additional development if infrastructure is provided.

Concentrate Development – Both illustrative concepts place the majority of new development in locations that are currently under-developed within the corridor. Both illustrative concepts avoid placing any development on greenfields. The provision of infrastructure is critical to the goal of increasing and concentrating development.

Be Fair – During the course of the study, the two communities have discussed ways to cooperate on potential sewer extensions that would benefit both communities. The age-restricted housing that could be developed in Norfolk can be viewed as helping to meet a regional need for such housing. As the towns continue their discussions past the end of the grant, there is a shared awareness of the need to consider traffic on Route 1A as a regional concern.

Restore and Enhance the Environment – Both illustrative concepts call for the permanent protection of two currently open but unprotected parcels. The provision of sewers would serve to protect the sole source aquifer while still allowing development. The Main Street parcels have a history of environmentally degrading uses including municipal solid waste disposal and the disposal of building demolition debris. The eventual redevelopment of the Main Street parcels would remove uses that are detrimental (junkyards and salvage operations) and would create economic incentives to restore those parcels and eliminate the effects of past environmentally degrading activities.

Conserve Natural Resources – Both illustrative concepts seek to protect two important parcels of open land in Walpole. Additionally, the expansion of sewers would allow for additional development while minimizing the impact of development on the sole source aquifer.

Expand Housing Opportunities – While only one of the concepts (Illustrative Concept #1) has any housing, the development of the Caritas property for age-restricted housing

would expand housing opportunities for a segment of the population for which there is a demonstrated need. Discussions related to this study have raised the possibility of changes to zoning to enable housing development in Walpole Center.

Provide Transportation Choice – The illustrative concepts do not meet the threshold for new transit service and none of the study area parcels are within walking distance of commuter rail. The recommendations for transportation do include ideas about exploring less capital intensive transit alternatives such as employer shuttles.

Increase Job Opportunities – Both illustrative concepts are focused on maximizing the creation of new jobs.

Foster Sustainable Development – The two illustrative concepts do not directly address sustainable development in that they are not focused on natural resource-based businesses. The two illustrative concepts do support economic development in industry clusters consistent with regional and local character in that they use as a model the Siemens (formerly Bayer Corporation) facility on Coney Street.

Plan Regionally – This project has been a collaborative effort between two communities and the regional planning agency. There has been a consistent emphasis on looking beyond the immediate study area to take into consideration regional housing needs, to look at the impacts of major developments taking place on Route 1 and to look at the regional transportation system.

## **VI. IMPACTS ANALYSIS**

### **Overview and Key Findings**

- The level of development in the two illustrative concepts would fit within Walpole's existing projected water demand out to at least 2020.
- Norfolk has a slight projected Water Management Act (WMA) deficit by 2020 under baseline projections.
- Both illustrative concepts would require the provision of wastewater treatment infrastructure for the sites in Walpole and Norfolk.
- Walpole is a member of the MWRA wastewater district and could potentially extend sewer lines to the Main Street and Walpole Industrial Park sites, or could consider on-site treatment alternatives. Norfolk is not a member of the MWRA, and the most likely option for the Caritas site would be an on-site treatment plant.
- The level of development under these two illustrative concepts would increase traffic on Route 1A by about 50% in either direction.
- The relatively low density for all the proposed uses makes fixed route transit use unlikely.
- With these large increases in traffic and few alternatives for getting people out of their cars, there are likely to be increases in peak hour congestion at Route 1A intersections closest to the development sites.
- For Walpole, the net annual revenue to the town for both concepts would be approximately \$1.5 million. For Norfolk, net annual revenue would be approximately \$0.3 - \$0.4 million.
- Total job creation (both towns) would range from 2,737 – 5,087 jobs for Concept #1 and 3,927 – 7,061 jobs for Concept #2.

### **A. Water and Wastewater**

#### **A.1 Estimated Water Demand For Concepts #1 and #2**

The potential water demand was estimated by MAPC for both of the Illustrative Concepts, based on water use factors for residential, office, R & D, and manufacturing uses included in each concept. For each of the illustrative concepts, the residential population was calculated, based on the housing stock, and a per capita water use factor of 65 gallons per person per day was applied. This reflects DEP's performance standard for medium and high stress river basins. For standard office space (in concept # 1 only),

a water use factor of 75 gallons per day per 1,000 square feet was applied, based on Title 5 standards. For the mix of manufacturing, office, and R & D in concepts #1 and #2, a water use factor of 145 gallons per day per 1,000 square feet was used. This was based on the measured actual water use of similar development in Walpole, the Siemens site. The resulting estimated water demand for each of the concepts is shown in Table 8 and Table 9 below.

**Table 8  
Estimated Water Demand for Illustrative Concept #1**

<b>Parcel</b>	<b>Manufacturing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Residents</b>	<b>Water Use Factors*</b>	<b>Estimated Water Demand (gpd)</b>
Main Street	544,320					145 gpd/ksf	78,926
Main Street		181,440				145 gpd/ksf	26,309
Main Street			181,440			145 gpd/ksf	26,309
Walpole Industrial Park	551,880					145 gpd/ksf	80,023
Walpole Industrial Park		183,960				145 gpd/ksf	26,674
Walpole Industrial Park			183,960			145 gpd/ksf	26,674
Caritas		201,600				75gpd/ksf	15,120
Caritas				240	321	65 gcpd	20,852
<b>TOTAL</b>	<b>1,096,200</b>	<b>567,000</b>	<b>365,400</b>	<b>240</b>	<b>321</b>		<b>300,887</b>

**Table 9  
Estimated Water Demand for Illustrative Concept #2**

	<b>Manufacturing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Residents</b>	<b>Water Use Factors*</b>	<b>Estimated Water Demand (gpd)</b>
Main Street	544,320					145 gpd/ksf	78,926
Main Street		181,440				145 gpd/ksf	26,309
Main Street			181,440			145 gpd/ksf	26,309
Walpole Industrial Park	551,880					145 gpd/ksf	80,023

**Table 9  
Estimated Water Demand for Illustrative Concept #2**

	<b>Manufac- turing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Residents</b>	<b>Water Use Factors*</b>	<b>Estimated Water Demand (gpd)</b>
Walpole Industrial Park		183,960				145 gpd/ksf	26,674
Walpole Industrial Park			183,960			145 gpd/ksf	26,674
Caritas	650,160	216,720	216,720			145 gpd/ksf	157,122
<b>TOTAL</b>	<b>1,746,360</b>	<b>582,120</b>	<b>582,120</b>	<b>0</b>	<b>0</b>		<b>422,037</b>

The estimated water use for the two development concepts ranges from 300,887 gallons per day (gpd) for Concept 1 to 422,037 gpd for Concept 2. The increased amount for Concept 2 (40% more than Concept 1) is largely due to a significantly larger amount of manufacturing space.

### **A.2 Estimated Water Demand for Buildout Under Current Zoning**

For comparative purposes, the estimated water demand that would result from developing these sites under current zoning, the “buildout” scenario, was calculated and compared to Illustrative Concepts #1 and #2. This calculation assumed standard office development rather than the mix of manufacturing, office, and R&D used in concepts #1 and #2. It also limited the square footage to the amount that could be accommodated with on-site wastewater treatment (i.e., no extension of sewers to the sites was assumed). Finally, the buildout scenario included housing units on several of the sites as per existing zoning.

The resulting total water demand for the buildout scenario is 114,000 gallons per day (see Table 10 below). This is significantly less than the water demand estimated for concepts #1 and #2, which were 300,887 gpd and 422,037 gpd respectively.

**Table 10  
Estimated Water Demand for Buildout Under Current Zoning**

	<b>Manufac- -turing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Residents</b>	<b>Water Use Factors*</b>	<b>Estimated Water Demand (gpd)</b>
Main Street		330,620				75 gpd/ksf	24,797
Main Street				9	35	65 gcpd	2,275

<b>Table 10 Estimated Water Demand for Buildout Under Current Zoning</b>							
	<b>Manufac- -turing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Residents</b>	<b>Water Use Factors*</b>	<b>Estimated Water Demand (gpd)</b>
Walpole Indust. Pk.		476,982				75 gpd/ksf	35,774
MWRA				29	113	65 gcpd	7,345
DOC				50	194	65 gcpd	12,610
Caritas		174,240				75gpd/ksf	13,068
Caritas				210	279	65 gcpd	18,135
<b>TOTAL</b>	<b>0</b>	<b>981,842</b>	<b>0</b>	<b>298</b>	<b>621</b>		<b>114,003</b>

Table 11 below presents an overall comparison of the estimated water demands for Concepts 1 and 2 and for buildout. The buildout demand is significantly lower than either of the illustrative concepts because the amount of development is limited by the lack of sewer service, whereas both concepts assume that sewer service, or on-site wastewater treatment, would be available to support greater development;

<b>Table 11 Comparison of Water Demand for Illustrative Concepts 1 and 2 and Buildout</b>						
<b>Development Scenario</b>	<b>Manufacturing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Housing Units</b>	<b>Population</b>	<b>Estimated Water Demand (gpd)</b>
<b>Illustrative Concept 1</b>	<b>551,880</b>	<b>567,000</b>	<b>365,400</b>	<b>240</b>	<b>321</b>	<b>300,887</b>
<b>Illustrative Concept 2</b>	<b>1,746,360</b>	<b>582,120</b>	<b>582,120</b>	<b>0</b>	<b>0</b>	<b>422,037</b>
<b>Buildout</b>	<b>0</b>	<b>981,842</b>	<b>0</b>	<b>298</b>	<b>621</b>	<b>114,003</b>

### **A.3 Comparison of Estimated Water Demand to Historic Trends, Future Demand Projections, and Water Management Act Withdrawals**

The town of Walpole currently operates 12 wells. The total amount of water currently allowed to be withdrawn by Walpole’s Water Management Act (WMA) registration and permit is 3.34 million gallons per day (mgd). The town’s existing demand has been below that limit in recent years—it averaged 2.74 mgd from 1998 to 2002, leaving the town with a margin of about 600,000 gallons per day under its existing WMA permit.

The town of Norfolk currently operates 3 wells. The total amount of water currently allowed to be withdrawn by Norfolk’s Water Management Act (WMA) registration and permit is 0.65 million gallons per day (mgd). The town’s existing demand has been below that limit in recent years—it averaged 0.57 mgd from 1998 to 2002, leaving the town with a margin of about 80,000 gallons per day under its existing WMA permit.

MAPC has produced projections of future water demand to the year 2030 for all communities in the region, based on current trends in the growth of population and employment. MAPC’s projections for Walpole indicate that the town will have a demand of 2.85 mgd by the year 2010, which will grow to 2.93 mgd in 2020 and 3.00 by 2030, which suggests that the town may not exceed its current WMA permit by the year 2030.

MAPC’s projections for Norfolk indicate that the town will have a demand of 0.65 mgd by the year 2010, which will grow to 0.72 mgd in 2020 and 0.77 by 2030. This projection suggests that the town may reach its current WMA permit by the year 2010, and exceed it by a moderate amount (70,000 gpd) by 2020, and by a greater amount (120,000 gpd) by the year 2030 (under the Water Management Act’s regulations, a water system is not required to file an application for an increased permitted withdrawal until it exceeds its existing registered and permitted withdrawals by more than 100,000 gpd).

Table 12 below summarizes the projected water demand and Water Management Act regulated withdrawals for Norfolk and Walpole

**Table 12**  
**Projected Water Demand 2000 – 2030 By Community**

<b>Water Demand Projections</b>	<b>WMA Withdrawal (Registered and Permitted)</b>	<b>Total Water Demand 2000 (mgd)</b>	<b>Total Water Demand 2010 (mgd)</b>	<b>Total Water Demand 2020 (mgd)</b>	<b>Total Water Demand 2030 (mgd)</b>
<b>NORFOLK</b>	0.65 mgd	0.57	0.65	0.72	0.77
<b>WALPOLE</b>	3.34 mgd	2.74	2.85	2.93	3.00

Tables 13 and 14 below summarize the estimated water demand for Illustrative Concepts #1 and #2 in each of the two towns, and also show the projected surplus or deficit resulting from comparing each town’s Water Management Act regulated withdrawal to its projected future water demands for 2010, 2020, and 2030. The tables indicate that Walpole should be able to accommodate its portion of the water demand, but Norfolk may have more difficulty doing so in future years, especially by the year 2030. Figures 1, 2 and 3 below illustrate the historic water demand trends, 1994 to 2004, along with the future projections for 2010m 2020, and 2030, as well as the estimated water demand for Illustrative Concepts #1 and #2. All of these are compared to the existing Water Management Act regulated withdrawal amount for each town.

**Table 13**  
**Water management Act Withdrawal vs. Water Demand for Illustrative Concept #1**

	Estimated Water Demand for Concept #1	WMA Withdrawal (Registered and Permitted)	WMA Regulatory Surplus/ (Exceedence) 2010	WMA Regulatory Surplus/ (Exceedence) 2020	WMA Regulatory Surplus/ (Exceedence) 2030
NORFOLK	0.036	0.65 mgd	0.00	-0.07	-0.12
WALPOLE	0.265	3.34 mgd	0.49	0.41	0.34

**Table 14**  
**Water management Act Withdrawal vs. Water Demand for Illustrative Concept #2**

	Estimated Water Demand for Concept #2	WMA Withdrawal (Registered and Permitted)	WMA Regulatory Surplus/ (Exceedence) 2010	WMA Regulatory Surplus/ (Exceedence) 2020	WMA Regulatory Surplus/ (Exceedence) 2030
NORFOLK	0.157	0.65 mgd	0.00	-0.07	-0.12
WALPOLE	0.265	3.34 mgd	0.49	0.41	0.34

**Figure 1**

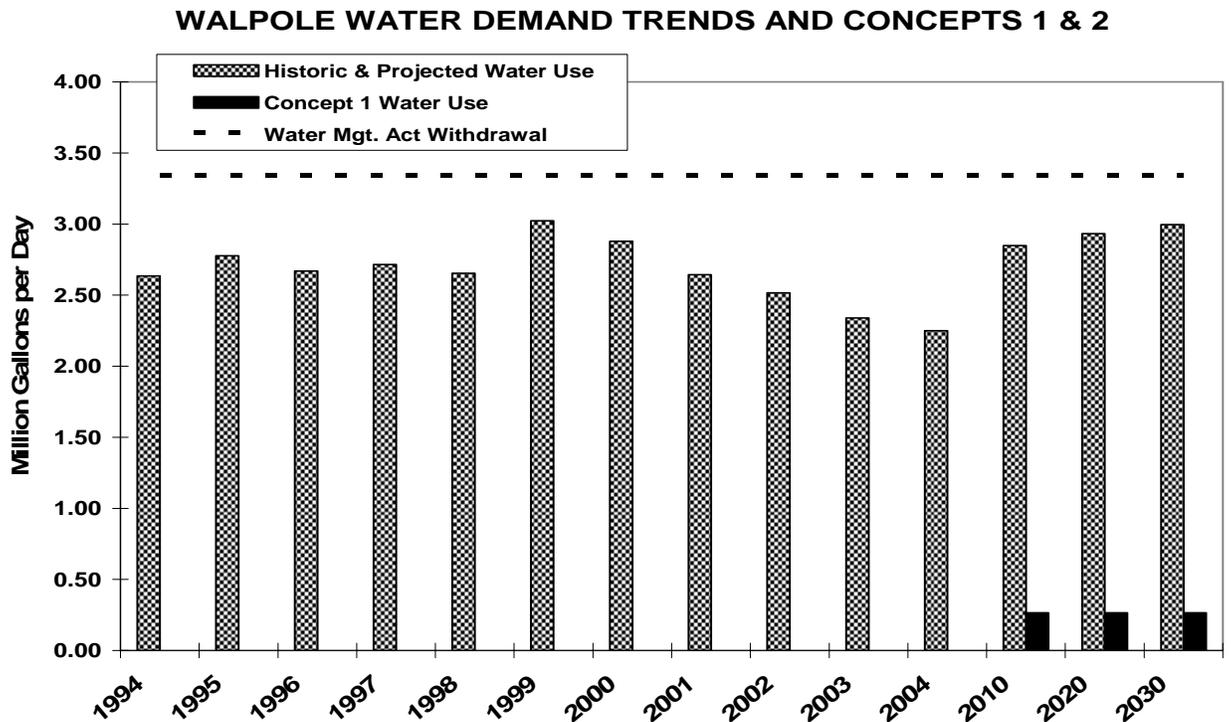


Figure 2

NORFOLK WATER DEMAND TRENDS AND CONCEPT 1

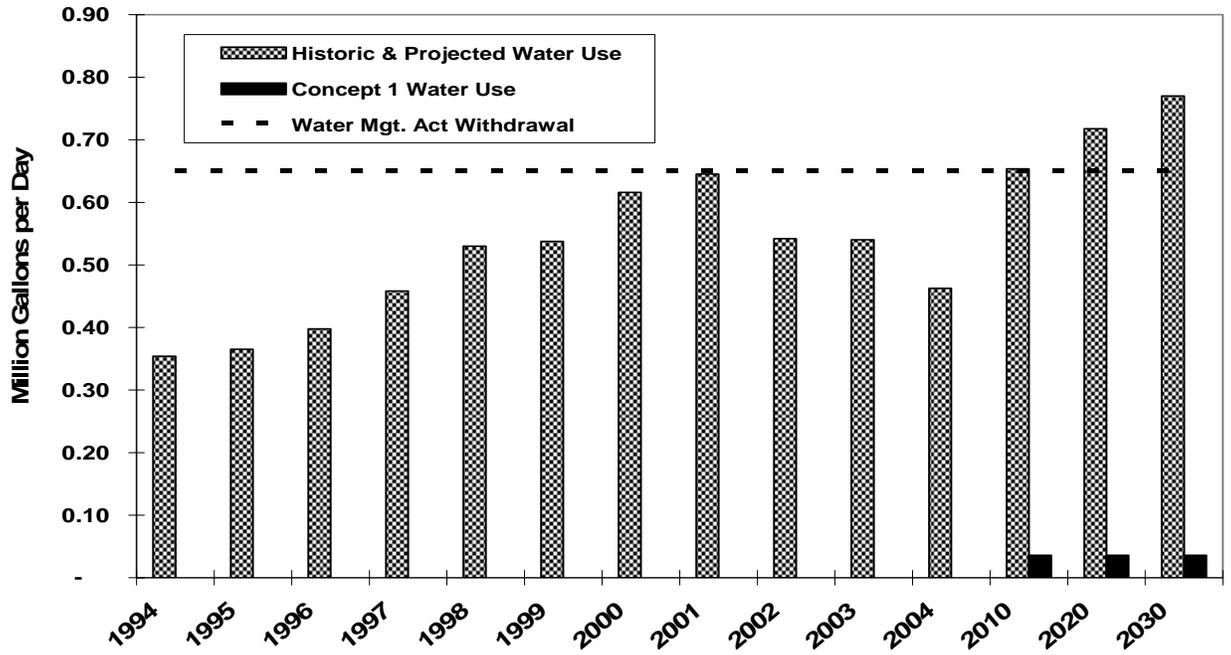
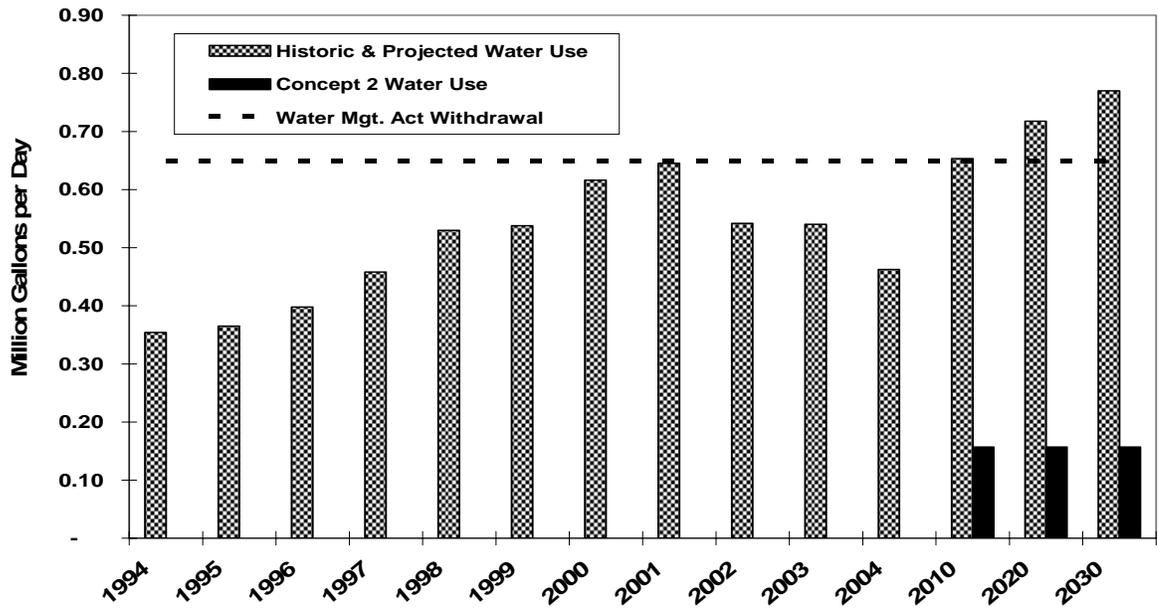


Figure 3

NORFOLK WATER DEMAND TRENDS AND CONCEPT 2



#### A.4 Wastewater

None of the sites under consideration in Norfolk and Walpole currently have municipal wastewater service, which has limited the development options of these sites. Walpole does have public sewers in other parts of town, including the area immediately to the north of the Walpole Industrial Park site. The town is a member of the Massachusetts Water Resources Authority (MWRA) wastewater district, with all of its wastewater being conveyed to the Deer Island treatment plant and discharged in Massachusetts Bay. The town of Norfolk is not a member of the MWRA and does not have any public sewer systems. All wastewater in the town is treated by on-site systems regulated under Title V.

The development contemplated in Illustrative Concepts #1 and #2 would require wastewater infrastructure, either through the extension of existing sewers in Walpole to the sites, or through the construction of on-site “package” treatment plants that would discharge on-site. Since Walpole is already a member of the MWRA, it could potentially extend sewer service to sites within Walpole, but MWRA service is not available to Norfolk and could only be made available through a formal system expansion request.

MAPC has estimated the wastewater flow for the two Illustrative Concepts, using the wastewater generation rates required by the state’s Title 5 regulations for residential and office uses, and the water use estimate for the mix of manufacturing, R&D, and office based on the Siemens site.. The following factors were applied for this calculation:

Residential	110 gallons/day per bedroom
Office	75 gallons/day per 1,000 square feet
Manufacturing/office/R&D	145 gallons/day per 1,000 square feet

These wastewater factors were applied to the two Illustrative Concepts. The flows for Concept 1 are 315,235 gallons per day (gpd) and 422,037 gpd for Concept 2. These flow estimates are shown in Tables 15 and 16 and Figure 4 below.

**Table 15**  
**Estimated Wastewater Flows for Concept #1**

Parcel	Manufacturing (sq. ft.)	Office (sq. ft.)	R&D (sq. ft.)	Bedrooms	Wastewater Generation Factors*	Estimated Wastewater Flow (gpd)
Main Street	544,320				145 gpd/ksf	78,926
Main Street		181,440			145 gpd/ksf	26,309
Main Street			181,440		145 gpd/ksf	26,309
Walpole Industrial Park	551,880				145 gpd/ksf	80,023

**Table 15  
Estimated Wastewater Flows for Concept #1**

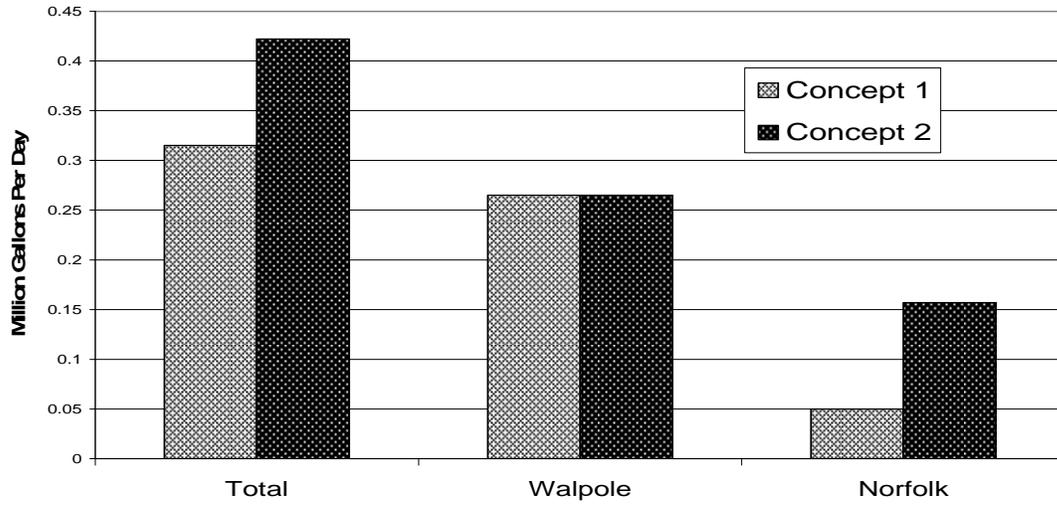
<b>Parcel</b>	<b>Manufacturing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Bedrooms</b>	<b>Wastewater Generation Factors*</b>	<b>Estimated Wastewater Flow (gpd)</b>
Walpole Industrial Park		183,960			145 gpd/ksf	26,674
Walpole Industrial Park			183,960		145 gpd/ksf	26,674
Caritas		201,600			75gpd/ksf	15,120
Caritas				320	110 gpd/br	35,200
<b>TOTAL</b>	<b>1,096,200</b>	<b>567,000</b>	<b>365,400</b>	<b>320</b>		<b>315,235</b>

**Table 16  
Estimated Wastewater Flow for Concept #2**

<b>Parcel</b>	<b>Manufacturing (sq. ft.)</b>	<b>Office (sq. ft.)</b>	<b>R&amp;D (sq. ft.)</b>	<b>Bedrooms</b>	<b>Wastewater Generation Factors*</b>	<b>Estimated Wastewater Flow (gpd)</b>
Main Street	544,320				145 gpd/ksf	78,926
Main Street		181,440			145 gpd/ksf	26,309
Main Street			181,440		145 gpd/ksf	26,309
Walpole Industrial Park	551,880				145 gpd/ksf	80,023
Walpole Industrial Park		183,960			145 gpd/ksf	26,674
Walpole Industrial Park			183,960		145 gpd/ksf	26,674
Caritas	650,160	216,720	216,720		145 gpd/ksf	157,122
<b>TOTAL</b>	<b>1,746,360</b>	<b>582120</b>	<b>582120</b>	<b>0</b>		<b>422,037</b>

**Figure 4**

**Wastewater Flow for Concepts 1 & 2**



## B. Transportation Impacts

Transportation impacts were developed by estimating how many trips each development concept could generate, how many would be made by driving (versus walking, bicycling, and taking transit), and where those vehicles were coming from and going too. These estimates are then compared to current traffic on Route 1A to get a general idea of future traffic impacts in the area.

### B.1. Trip Generation

Estimating the number of trips to and from any new development is typically done using rates published by the Institute of Transportation Engineers in the book Trip Generation. The published rates are based on surveys done around the country, typically at suburban locations with abundant free parking. The 7th edition (2003) was used in this work. Based on the ITE trip generation rates, and using a range of estimates based on acres and square feet of development, gives the total numbers of person trips below.

**Table 17**  
**Number of Person Trips By Concept**

#### Concept #1: Master Plan

	Daily	AM	PM
Low	11,654	1,935	1,988
High	13,481	2,135	2,077

#### Concept #2: Jobs with Open Space

	Daily	AM	PM
Low	15,730	2,761	2,762
High	18,585	3,555	3,375

#### Buildout

	Daily	AM	PM
Low	11,490	1,575	1,533
High	11,700	1,654	1,558

Concept #2, with the largest commercial development and the greatest number of jobs, has the greatest numbers of trips, for either of the peak hours and daily. Of the uses proposed, office typically generates more trips per square foot than either manufacturing or R & D.

## **B.2. Mode Shares**

All these estimates above are for person trips. At these development sites, some will be made by walking and bicycling, and perhaps some will be made using transit if service is available when the buildings open. But most trips will likely be made by auto, with deliveries by truck. In this section the numbers of vehicles potentially using the site will be estimated.

Densities are low for all the proposed uses. Typically density thresholds of 7 dwelling units per acre for residential or 50 employees per acre are used as the minimums necessary to support bus service running at 30 minutes headways. None of the proposed concepts exceed these thresholds, and thus the concepts do not support new bus service along Route 1A. If new service past the sites was instituted for other reasons, a few employees might use the bus if it was convenient and going to a train station or a commercial area, but not enough to significantly reduce the number of new auto trips generated. Similarly, there may be a few walking trips, but mostly for recreation since there are few mixed use destinations nearby.

On average in the region dispersed auto trips have an average occupancy of 1.1 riders per trip. Assuming 50 trips daily will be made by transit, walking, or biking (50% in the peaks), the remainder will be made by autos. Applying the 1.1 occupancy rate to the remaining trips gives the following estimates of vehicle trips for concepts 1 and 2 and Buildout. Transit use or walking and bicycling trips do not seem any more likely under any of the three options.

**Table 18  
Vehicle Trips by Concept**

**Concept #1: Master Plan**

	<b>Daily</b>	<b>AM</b>	<b>PM</b>
<b>Low</b>	10,550	1,750	1,795
<b>High</b>	12,210	1,920	1,875

**Concept #2: Jobs with Open Space**

	<b>Daily</b>	<b>AM</b>	<b>PM</b>
<b>Low</b>	14,255	2,500	2,500
<b>High</b>	16,850	3,220	3,055

**Buildout**

	<b>Daily</b>	<b>AM</b>	<b>PM</b>
<b>Low</b>	10,400	1,420	1,380
<b>High</b>	10,590	1,495	1,405

**B.3. Trip Distribution**

All of these trips will initially use Route 1A to enter and exit the sites. Based on Journey to Work data from the 2000 Census, and the traffic count data cited below, more vehicles are likely to be oriented north than south. The estimates below come from the year 2000 census, based on trips to work. Walpole residents in the year 2000 traveled primarily north to work, while about half (49%) of the persons who worked in Walpole came from the north, but there were many more traveling from all directions. Similarly Norfolk residents workplaces are still oriented towards the north, but much less so than Walpole, and Norfolk workers come fairly equally from all directions.

<b>Table 19 Journey to Work (2000 Census)</b>				
	<b>North</b>	<b>South</b>	<b>East</b>	<b>West</b>
Walpole Residents	<b>83</b>	<b>5</b>	<b>6</b>	<b>6</b>
Walpole Workers	<b>49</b>	<b>22</b>	<b>18</b>	<b>11</b>
Norfolk Residents	<b>59</b>	<b>21</b>	<b>5</b>	<b>15</b>
Norfolk Workers	<b>22</b>	<b>31</b>	<b>21</b>	<b>26</b>

If these patterns hold true in the future, then residents and workers at the new developments can be assumed to be oriented in roughly the same proportions. Destinations east or west of the sites (west slightly more likely than east) will likely cause at least 30 to 40% of all trips to leave Route 1A in Walpole or Norfolk.

**B.4. Existing Traffic Volumes**

Recent traffic counts available from MassHighway on Route 1A show daily volumes of 11,400 vehicles (total, both directions) at the Norfolk-Walpole border, increasing to about 19,200 vehicles near the Norwood border. Traffic may have grown by up to 1% annually in this area between 1996 and 2005 (based on the one annual survey available), but volumes may also have been relatively stable given the level of accuracy in the counts. In either case, almost all of the growth on Route 1A in the future will probably be due to traffic generated by new local developments like the alternatives we are considering.

**B.5. Future Traffic Problems**

Improvements to Route 115 in Norfolk, including geometric improvements and pedestrian accommodations at Route 1A and Route 115, are currently programmed in the TIP to begin in FY 2009. The Level of Service (LOS) calculations done for that project show LOS C or better for all approaches in 2012 based on annual growth rates of 1.5% AM and 1% PM. Based on the trip generation and trip distribution numbers above there does not appear to be any reason to think there should be future problems at this intersection.

**C. Economic Development**

**Tax revenue and expenses**

A fiscal impacts analysis was prepared by Don Walsh, the Walpole Economic Development Officer in order to estimate the potential tax revenues from economic development on the three parcels. A summary of the revenues and expenses (to the town) is provided in Table 20. The assumptions and the calculations are in Appendix E.

**Table 20  
Summary of Revenues and Expenses**

	<b>Illustrative Concept 1</b>	<b>Illustrative Concept 2</b>
<b>Walpole</b>		
Assessed value	\$182.693 million	\$182.693 million
One time revenue (to Town)	\$7.3 million	\$7.3 million
Annual revenue (to Town)	\$2.5 million	\$2.5 million
Construction expenses (to Town)	\$0.2 million	\$0.2 million
Annual expenses (to Town)	\$1.0 million	\$1.0 million

**Table 20**  
**Summary of Revenues and Expenses**

	<b>Illustrative Concept 1</b>	<b>Illustrative Concept 2</b>
Net annual revenue (to Town)	\$1.5 million	\$1.5 million
Norfolk		
Assessed value		
One time revenue (to Town)	\$1.36 million	\$5.6 million
Annual revenue (to Town)	\$1.4 million	\$1.3 million
Construction expenses (to Town)	\$0.2 million	\$0.2 million
Annual expenses (to Town)	\$1.0 million	\$1.0 million
Net annual revenue (to Town)	\$0.4 million	\$0.3 million

Calculating revenues and expenses is dependent on assessed value. Table 20 begins with the assessed value of the sum of development for each option for both Walpole and Norfolk. In the case of Walpole, the total square footage of development is 1,826,920 square feet. Using the Bayer/Siemens rate of \$100 per square foot, the assessed value would be \$182,693,000. Using the Walpole commercial/industrial tax rate of \$13.89 per 1,000 square feet, the total annual taxes would be \$2,537,592 (total annual revenue).

The figure for one time revenue is the amount that the town collects for the building permit for new construction. It is calculated at 1% of the investment in Walpole and 1.3% in Norfolk. Since the assessed value is considered to be roughly 25% of the total investment, the total investment would be \$730.8 million in Walpole and the 1% building permit fee (one time revenue) would be \$7.3 million.

On the side of expenses, Don Walsh provided an approximation of the additional expenses (one time and annual) that would result from the additional development under Illustrative Concepts 1 and 2. This was done in consultation with a number of town departments. The additional costs are \$1million per year for public safety. The one time expense of \$200,000 is for the building department to monitor construction.

### **Jobs Created**

**Calculating Jobs** - The number of potential jobs was calculated in two different ways, producing a range of jobs that might result from the selected land uses. Table 21 shows the square feet of developed space for each use on each parcel.

The third column shows jobs based on the development model of the Siemens facility. That facility is 378,000 square feet and produces 510 jobs. That equals 1.35 jobs per 1,000 square feet or 1 job per 741 square feet. The fourth column labeled “ITE” shows the number of jobs that result when the ITE (Institute of Transportation Engineers) codes are translated into number of employees as follows:

Manufacturing is 2.00 employees per 1,000 square feet.  
Office is 3.25 employees per 1,000 square feet.  
R&D is 2.88 employees per 1,000 square feet.

**Table 21  
Job Creation**

	Sq. Ft.	Siemens	ITE
<b>Illustrative Concept #1</b>			
Walpole Industrial Park			
Manufacturing	551,880	745	1104
Office	183,960	248	598
R&D	183,960	248	530
	<b>919,800</b>	<b>1241</b>	<b>2231</b>
Main Street			
Manufacturing	544,320	735	1089
Office	181,400	245	590
R&D	181,400	245	522
	<b>907,120</b>	<b>1224</b>	<b>2201</b>
Caritas	201,600	272	655
<b>Total</b>	<b>2,028,520</b>	<b>2,737</b>	<b>5,087</b>
<b>Illustrative Concept #2</b>			
Walpole Industrial Park			
Manufacturing	551,880	745	1104
Office	183,960	248	598
R&D	183,960	248	530
	<b>919,800</b>	<b>1241</b>	<b>2231</b>
Main Street			
Manufacturing	544,320	735	1089
Office	181,400	245	590
R&D	181,400	245	522
	<b>907,120</b>	<b>1224</b>	<b>2201</b>
Caritas			
Manufacturing	650,160	877	1300
Office	216,720	292	704
R&D	216,720	292	624
	<b>1,083,600</b>	<b>1462</b>	<b>2629</b>
<b>Total</b>	<b>2,910,520</b>	<b>3,927</b>	<b>7,061</b>

**D. Housing** – Population projections point to increased growth in the senior populations for both Walpole and Norfolk. For an aging population to remain in these communities a range of housing options must be available. The ability to “age in place” or allow individuals to live in a place they have lived for years and wish to continue living in a

non-healthcare environment is a critical quality of life issue for these and many other Massachusetts communities.

The impacts associated with the potential Caritas development in Norfolk would explicitly be that up to 240 new housing units would be created. There is the possibility of up to 10% permanently deed restricted as affordable housing. Norfolk has successfully developed 131 units of senior housing in town and also has zoning rules which would accommodate this type and scale of development in town.

While the proposed senior housing does not appear to have a service element, thereby providing accommodations to elders requiring nursing care and support, it would serve the needs of those age 55 and older who wish to downsize. This housing would also predominantly serve middle to upper-income families and some moderate-income families. This would leave a continued need and therefore impact lower-income elders who would like to remain in the area but cannot find reasonable rental accommodations. Service-enriched housing for this growing age group will become an issue and should be further studied by both communities to determine availability and location of such housing.

Another potential impact is that to successfully offer residential options for seniors to age in place, explicit products, services, and conveniences should be made available. This might best be achieved through in-town and cross-municipal partnerships which would connect service providers and others who can best assist the current and future needs of seniors.

Rental properties with age restrictions have had difficulty finding renters able to pay required rents. Town officials should scrutinize the project's proposed rent schedule. In addition to the challenge of finding renters who are 55 and older with suitable incomes, marketability of the proposed project should also be considered. Multiple communities in Massachusetts are developing owner-occupied and rental housing for this age group. Other rental housing, without age restrictions, is also being developed. The project must have appealing amenities and should be competitive to this specific market.

Lastly, the potential revenue impact of this development is that more families might move into the homes vacated by the aging population. Therefore, while seemingly a neutral or negative fiscal impact to schools, the creation of age-restricted housing can lead to an influx of schoolchildren due to the availability of previously unavailable housing stock more suitable for growing families.

## Comparison of Impacts

<b>Table 22 Comparison of Impacts</b>			
<b>Impacts</b>	<b>Buildout</b>	<b>Illustrative Concept #1</b>	<b>Illustrative Concept #2</b>
<b><i>Walpole Industrial Park</i></b>			
Jobs	1,550	1,241 - 2,231	1,241 - 2,231
Daily vehicle trips	4,028-4,035	4,530-5,364	4,530-5,364
Water demand	27,072 gpd	133,371 gpd	133,371 gpd
Wastewater demand		133,371 gpd	133,371 gpd
<b><i>Main Street Parcels</i></b>			
Jobs	1,074	1,224 – 2,201	1,224 – 2,201
Daily vehicle trips	3,067-3,140	4,474-5,300	4,474-5,300
Water demand	35,774 gpd	131,544 gpd	131,544 gpd
Wastewater demand		131,544 gpd	131,544 gpd
<b><i>DOC</i></b>			
Jobs	0	0	0
Daily vehicle trips	299	0	0
Water demand	12,610 gpd	0	0
Wastewater demand		0	0
<b><i>MWRA</i></b>			
Jobs	0	0	0
Daily vehicle trips	493	0	0
Water demand	7,345 gpd	0	0
Wastewater demand		0	0
<b><i>Caritas</i></b>			
<b>Residential</b>			
Jobs		0	0
Daily vehicle trips	776	871	0
Water demand	18,135 gpd	20,852 gpd	0
Wastewater demand		35,200 gpd	0
<b>Commercial</b>			
Jobs	566	272 - 655	1,462 – 2,629
Daily vehicle trips	1,909-2,046	690	5,252-6,187
Water demand	13,068 gpd	15,120 gpd	157,122 gpd
Wastewater demand		15,120 gpd	157,122 gpd
<b><i>Total jobs</i></b>			
	<i>3,190</i>	<i>2,737 – 5,087</i>	<i>3,927 – 7,061</i>
<b>Total daily vehicle trips</b>			
	10,400-10,591	10,550 – 12,210	14,255 – 16,850
<b>Total water demand</b>			
	114,003 gpd	300,887 gpd	422,037 gpd
<b>Total wastewater demand</b>			
		315,235 gpd	422,037 gpd

## **VII. THE SECOND PUBLIC FORUM**

The second public forum was held on June 6, 2007 at the Eleanor N. Johnson Middle School Auditorium in Walpole. The agenda for this public forum can be found in Appendix A. The meeting was attended by approximately 30 people. The following is a summary of comments and issues raised.

Because of the high number of trips projected for new development, residents expressed concern about how long it would take to get through the lights in Walpole Center. There was also concern that traffic from Patriot Place would not be confined to Route 1 and would also impact Walpole Center.

The importance of sewer to allowing significant additional commercial development in Walpole was acknowledged. Residents wanted to know what the sewer extension was likely to cost and whether or not small wastewater treatment plants could serve the Industrial Park and Main Street parcels.

Residents were concerned that nothing in the two illustrative concepts addressed the issue of the towns' vulnerability to Chapter 40B developments. One resident suggested that the town needs a housing production plan and cited Westwood as a community that has been proactive in the housing arena. A selectman noted that the Board has been working with other communities advocating for a moratorium on Chapter 40B developments. He also noted that the town is taking steps to prepare a planned production plan.

Residents wanted to know how redevelopment would take place. Redevelopment will essentially be market driven based on the increased potential for development enabled by the sewer extension. This would likely create a situation where land would be valuable enough for developers to undertake hazardous waste clean-up.

One resident expressed an opinion that Walpole can no longer be viewed as just a bedroom community but does need economic development. Another resident felt that Walpole has too much open space and not enough economic development.

One resident who was involved in the master plan said that the master plan survey indicated a need for balancing industry and open space. The two illustrative concepts appear to be a good balance between jobs and open space. The Main Street location is viewed as a good site for re-use in the Master Plan. There was also a concern that the town not be held liable for clean-up of the Main Street parcels because of previous dumping activity.



## **VIII. IMPLEMENTATION AND MITIGATION STRATEGIES**

### **A. Overview of Implementation Issues**

If the towns decide to pursue one of the two illustrative concepts, a number of implementation steps would need to occur. This section provides information on the zoning changes, infrastructure improvements and regulatory changes that would be necessary to implement the concept and to mitigate any of the impacts that might occur.

In Walpole, both illustrative concepts envision new development on both the Walpole Industrial Park and the Main Street parcels. This development will occur in one of two ways. In the Walpole Industrial Park, new development was assumed for the currently undeveloped acres. This plan assumes the Town of Walpole wants to ensure that there is no disruption to existing businesses and is not interested in using its power of eminent domain to force redevelopment to occur. However, the provision of sewer will enable a higher level of development and may make it economically feasible for individual property owners to redevelop. This is also the approach for the Main Street parcels whereby existing businesses would remain until the owners decide that they would like to sell or to redevelop to a higher level.

### **Illustrative Concept 1: Development Per Master Plans**

*Implementation Overview* – Zoning change would be necessary to achieve the development component on the Main Street and Walpole Industrial Park parcels. Sewer would need to be extended to the two development parcels in Walpole. There would need to be long-term strategies in place to protect the DOC and MWRA parcels. There are a number of zoning and regulatory measures that could be taken to mitigate the impacts of development such as adopting water conservation measures.

### **Extend Sewer to the Walpole Industrial Park and the Main Street Parcels**

The Town of Walpole Sewer Master Plan did not designate any of the parcels within the study area as a high priority for the extension of sewers. The focus of the master plan was on eliminating current problems with septic systems rather than stimulating new economic development. The Walpole Water and Sewer Commissioner estimated that the cost to extend sewer would be approximately \$150 per linear foot, including planning and design, laying pipe, and re-surfacing roads.

*Investigate the potential of package sewer treatment plants* – If a sewer extension proves to be too costly or difficult to implement, it is possible that a package sewer treatment plant may be able to accommodate the level of development in this concept.

*Apply for a grant through the MORE Program* – One opportunity for the town to fund the sewer extension would be through the recently created Massachusetts Opportunity Relocation and Expansion (MORE) Jobs Capital Program, which helps cities and towns

pay for infrastructure needed to spur economic development. This program would only be available at such time as a specific business has committed to locating in Walpole.

The program provides grant funding to help finance the public infrastructure associated with business expansion and relocation projects. In total, \$100 million has been authorized for grants to qualifying projects. Grants must be used for infrastructure improvements, such as water and sewer connections, roadway enhancements, and utility upgrades. In order to receive a grant, a city or town and a for-profit business entity must jointly submit an application to the Secretary of Economic Development. Applications will be reviewed by an advisory committee, and grants will be awarded on a competitive basis.

In order to be eligible for a grant, the business associated with a project must:

- Generate substantial sales from outside the Commonwealth
- Create at least 100 new permanent full-time jobs in Massachusetts within 24 months
- Maintain the newly created jobs for at least 5-years

### **Rezone the Walpole Industrial Park and Main Street Parcels**

In order to expedite the development of the Walpole Industrial Park and the Main Street parcels, the zoning ideally should allow manufacturing, office and R&D by right rather than by special permit. The Walpole Zoning Bylaws describes the three relevant districts as follows:

HB – Highway Business District: The purpose of this district is to provide for retail, office, research and development, assembly, and manufacturing uses and all accessory uses related to said uses consistent with uses along a major regional highway, and all related accessory uses.

LM – Limited Manufacturing District: The purpose of this district is to provide an area for low density wholesale and unobtrusive manufacturing uses.

IND – Industrial District: the purpose of this district is to provide an area for general manufacturing and wholesale uses.

Both the Highway Business District and the IND district allow all three uses by right. The Siemens facility is zoned LM which allows R&D by special permit so that zoning district could work for the Walpole Industrial Park and the Main Street parcels. From the description it also appears that Highway Business is the district that most easily accommodates all of the uses. While the LM district can accommodate all of the uses, its intent is to provide for lower density uses. While this zoning classification may be most appropriate in the absence of sewers, it may no longer be the best zoning classification.

*Option 1* – Rezone the rear portion of the Main Street parcels from “R” residential to LM. This will enable the entire parcel to be used for commercial development.

*Option 2* – Consider rezoning the Main Street Parcels to IND so that all uses are allowed by right.

*Option 3* – Consider rezoning the Main Street parcels and the Walpole Industrial Park to HB because of the better fit between the type of development envisioned and the uses allowed by right.

The Town is currently undergoing a comprehensive rewrite of the Zoning By-Laws. A first draft of proposed amendments to the text will be completed in the summer of 2007. These amendments may address some of the issues raised above.

### **Protect the DOC and MWRA Properties**

The long-term municipal goal is to ensure protection of both these properties as open space. Neither parcel is permanently protected as open space or recreation. The DOC land has not been declared surplus by the state so it is not currently in danger of any change of use. However, there is no guarantee that it won't be declared surplus in the future. The MWRA parcel is unlikely to have any change in its use until at least 2013 due to the Memorandum Of Understanding but the use could change after that MOU expires. Therefore, this plan includes a number of implementation ideas to ensure the long-term protection of these parcels.

### ***Rezone the DOC and the MWRA properties to the PSRC district***

These parcels are currently zoned R residential. Rezoning them to PSRC would provide some protection against more dense development but would not preclude certain uses which are not commonly thought of as parks and conservation. Based on the table of uses in the zoning bylaw, uses allowed by right includes uses such as education, libraries, museums, charitable institutions and certain commercial recreational uses. Other uses are allowed by special permit.

If these lands are to be permanently protected more or less in the state they are now, fee simple acquisition by the town might be required.

Allowed by right:

- House of worship
- Educational uses
- Library, museum, art gallery, or community building
- Charitable and philanthropic institutions
- Nursery school or other agency for the day care of children
- Public administration building, fire or police station
- Recreational or water supply use of a governmental agency

Any commercial recreational uses that do not go on after dusk or before dawn such as boat or canoe, livery, riding academy or stable, ski grounds, picnic grounds, bathing beach or recreation camp.

Orchard, market garden, nursery or other open use of the land for agricultural production.

Building or structure used or maintained in connection with a permitted agricultural use of the land, or used for any other purpose of agricultural production.

### ***Acquire both Parcels***

The best way to ensure that these two parcels remain as open space is for the town or a non-profit land protection organization to acquire them. There are many options for funding the acquisition and it is likely that more than one funding source would be necessary.

a) Pass the Community Preservation Act – The Community Preservation Act is one tool for communities to fund open space, recreation, affordable housing and historic preservation activities. Norfolk passed the CPA but Walpole has not. The Town has never had the CPA on the ballot for consideration. The master plan (Page 57) includes a recommendation to consider enacting the Community Preservation Act while acknowledging that current fiscal conditions make it difficult to consider adding new taxes. The plan further states that the Town should study the benefits of the CPA with an eye towards considering a vote in the future.

The summary of the CPA below is taken from the website at [www.communitypreservation.org](http://www.communitypreservation.org) :

The Community Preservation Act is statewide enabling legislation to allow cities and towns to exercise control over local planning decisions. This legislation strengthens and empowers Massachusetts communities:

- All decisions are local.
- Local people must vote by ballot to adopt the Act.
- Local legislatures must appoint a committee of local people to draw up plans for use of the funds.
- These plans are subject to local comment and approval.
- If residents don't feel the CPA is working as they expected, they can repeal it.

The Community Preservation Act provides new funding sources which can be used to address three core community concerns:

- Acquisition and preservation of open space
- Creation and support of affordable housing
- Acquisition and preservation of historic buildings and landscapes

A minimum of 10% of the annual revenues of the fund must be used for each of the three core community concerns. The remaining 70% can be allocated for any combination of the allowed uses, or for land for recreational use. This gives each community the opportunity to determine its priorities, plan for its future, and have the funds to make those plans happen.

### ***Establish a fund for developer contributions***

The Town of Walpole should consider other alternative means of establishing a fund to acquire critical pieces of open space, including the Department of Corrections and/or Massachusetts Water Resources Authority parcels if these should ever become available for development. One innovative program that could be used as a model is found in the Town of Natick. Under this existing Natick bylaw, a developer may seek a special permit to increase the amount of square footage of commercial uses (beyond the by-right limits within the zoning bylaw) on parcels located within specific overlay zones. As a condition of approval of such increase in built square footage, the developer agrees to pay the Town of Natick a fee of \$20.00 per square foot of space beyond the by-right limit; this fund is later used by the municipality to purchase open space elsewhere in town. The Town of Walpole would need to determine the area or areas where additional growth would be desirable (e.g., downtown, along Route 1), and determine what fee schedule would be appropriate. The fees should be low enough to not be a disincentive to the desired growth, but high enough to build a significant open space fund. A copy of the pertinent sections of the Natick Zoning Bylaw are found in Appendix G.

### **Illustrative Concept #2: Jobs with Open Space**

*Implementation Overview* – The only difference in the implementation strategies between Illustrative Concept #1 and 2 relates to the Caritas property. The current zoning on the Caritas property would not allow the mixed manufacturing, office and R&D development envisioned in this illustrative concept.

*Rezone the Caritas Property* – The current zoning of this property is C-6. The allowed uses include Age restricted Dwellings, either as single-family structures or as townhouses in structures containing up to 6 units. Other uses included retail and office (general business or professional). This zoning allows the type of development proposed for Illustrative Concept #1 but does not allow all of the uses envisioned for Illustrative Concept #2 ( a mix of manufacturing, office and R&D). If the town decides to pursue the level of economic development presented in Illustrative Concept #2, the property would need to be rezoned.

A review of the existing zoning districts in Norfolk indicates that the C2/C3 and C5 districts all allow manufacturing as a use permitted by right. Professional and general offices are also allowed by special permit. However, these districts do not allow research facilities.

The only reference to research and laboratory facilities is found in the C-1 district. The C-1 District is further divided into two areas: (1) **On Highway**, which consists of that portion of the C-1 District which is located within 300 feet of the FRONTAGE line of Route 1A or 115, and (2) **Off-Highway**, which consists of that portion of the C-1 District which is located greater than 300 feet from the FRONTAGE line of Route 1A and 115. Research and laboratory facilities are permitted by Special Permit granted by the Zoning Board of Appeals within both the on highway and off highway areas.

As the zoning currently stands, no one district allows all of the uses that Illustrative Concept #2 envisions. Therefore, re-zoning would require establishing a new district that specifically allows the mix of uses (manufacturing, office and R&D) in Illustrative Concept #2.

### **Transportation Improvements**

The following transportation implementation issues have been identified:

- The density of development is not sufficient at any of these locations to justify transit service. However, if bus service was instituted along Route 1A to meet other needs, a limited number of employees could be expected to use the service for their work commute. A site design which locates buildings closer to Route 1A and provides for a central bus stop will encourage transit ridership.
- A local transportation management association (TMA) should be formed among the sites' employers and other nearby businesses to provide other travel options like ride share matching and shuttles to commuter rail stations as a way of minimizing the need for employees to drive alone to work.
- Improvements to Route 115 in Norfolk, including the Router 115/Route 1A intersection, are currently scheduled to begin in FY 2009. These improvements are expected to be sufficient to handle the increased traffic from either of these options.
- These traffic figures are based on average trip generation rates from typical land uses nationwide. Of the uses proposed, office generates the greatest number of trips, manufacturing the least. A redevelopment proposal with more manufacturing jobs would generate less auto trips.
- A new traffic signal with other geometric improvements is being installed at Route 1A/Winter St and Jean Rd. Two other Route 1A projects are under design by the town, one north of the town center, the other south. Neither is likely to be funded for construction in the next 5 years. Federal and state funding is very tight and likely to remain so in the near future. The town may want to consider instituting a District Increment Financing plan by which it could reserve some of the increase in property taxes to fund the needed roadway improvements.
- Some of the new trips will likely use local streets to access Route 1 and destinations east and west. Instituting traffic calming measures and pedestrian safety measures along the most used routes, perhaps with priority given to locations near schools, can help to slow down traffic and reduce diversions and allow pedestrians to travel safely.

- Because Route 1A is a state highway it is likely that major new developments would be subject to the MEPA process. The MEPA process is a useful tool for analyzing traffic mitigation measures and for ensuring that traffic mitigation is a condition of project approval.

### **Zoning Strategies for all Concepts**

In addition to the specific recommendations that would facilitate development under Illustrative Concepts 1 and 2, the following tools can be adopted to achieve the overarching goals of the existing master plans and development that may take place in the future, regardless of which concept is implemented. These zoning strategies, if adopted, would be town-wide. In all cases, links are given to model bylaws or examples from other communities. These examples should be considered starting points for discussion but will almost always require modification to meet the specific needs and situations of the community

### **Adopt a Low Impact Development Bylaw**

Adopt a Low Impact Development bylaw to encourage better site design and more efficient form of development that consumes less open land and protects existing topography, wildlife habitats, and natural features

Low Impact Development (LID) strategies use careful site design and decentralized stormwater management to reduce the environmental footprint of new development. This approach improves water quality, minimizes the need for expensive pipe-and-pond stormwater systems, and creates more attractive developments. The Massachusetts Low Impact Development Toolkit (see links below) is a set of materials designed to help citizens, public officials and developers implement LID.

*Links:* [www.metrowestgrowth.org](http://www.metrowestgrowth.org),  
[http://www.mass.gov/envir/smart\\_growth\\_toolkit](http://www.mass.gov/envir/smart_growth_toolkit)),  
<http://www.mapc.org/LID.html>

### **Adopt LEED Standards**

LEED stands for Leadership in Energy and Environmental Design. The LEED Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

LEED was created to:

- define "green building" by establishing a common standard of measurement
- promote integrated, whole-building design practices
- recognize environmental leadership in the building industry
- stimulate green competition

- raise consumer awareness of green building benefits
- transform the building market

LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources.

*Links:* <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>

## **IX. LIST OF REFERENCES**

### **Norfolk**

Town of Norfolk Growth Management Project: Interim Project Report prepared by Taintor & Associates, July, 2002

Open Space Corridor Protection Strategic Plan, Norfolk Planning Board, April 2003

Town of Norfolk Conservation Commission Wetlands Protection Regulations

Town of Norfolk Rules and Regulations for Subdivision of Land and Site Plan Approval

Town of Norfolk Community Development Plan, June 2004

Zoning Bylaws With Amendments Through April 2005 Including Flood Plain/Wetlands Protection Districts and Watershed Protection District – May, 2005.

Feasibility Study for the Proposed Town of Norfolk Golf Course – Final Report, November 2001.

### **Walpole**

Walpole Master Plan and EO 418 Community Development Plan, June 2004

Zoning Bylaws, Town of Walpole Revised through May, 2005

Rules and Regulation Governing the Subdivision of Land and the Issuance of Certain Special Permits

Town of Walpole Wetland Protection Bylaw

Draft Phase II Comprehensive Site Assessment, Walpole Park South, July 2006,

Draft Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives, Walpole Park South, July 2006.

Dept. of Housing and Community Development, Chapter 40B Subsidized Housing Inventory

Executive Order 418 Housing Certification, FY 2003; 20 Proactive steps to encourage housing production.

Town of Walpole Vacant Commercial Sites Survey – Summer 1997

Town of Walpole, Massachusetts Walpole Brownfields Project Main Street Site Redevelopment Analysis, June 2002, CDM.



**APPENDIX A  
PUBLIC FORUM AND INTER-MUNICIPAL COMMITTEE  
MEETING AGENDAS**



**Public Forum on Development Options for Portions of the  
Route 1A Corridor in Norfolk/Walpole**

March 14, 2007

**Agenda**

- 7:00 – 7:10 PM**                      **Welcome** - Jack Hathaway, Norfolk Town Administrator and Don Walsh, Walpole Economic Development Planner
- 7:10 - 7:20 PM**                      **Project Overview and Goals for Tonight** - MAPC
- 7:20 – 7:30 PM**                      **Study Area and Maps** – Joan Blaustein, MAPC
- 7:30 – 7:45 PM**                      **Existing Conditions** – Mark Racicot, MAPC, will present information on the amount and type of development that can be built on the study area parcels under existing zoning.
- 7:45 – 7:55 PM**                      **Overview: Developing Two Concepts**  
Between now and the final public forum, MAPC will develop two potential corridor-wide mixed-use concepts and analyze their impacts. These concepts will be based on: goals and objectives from prior planning efforts and resident input on impacts to be avoided and desired uses gathered tonight.
- 7:55– 8:10 PM**                      **Goals and Objectives** – MAPC will provide an overview of the states’ Sustainable Development Principles. The next step will be to review the goals and objectives from local plans. MAPC will seek input on the local goals and objectives.
- 8:10 – 8:50 PM**                      **Discussion of Uses and Impacts** – MAPC will lead an interactive discussion around the following questions:
- What impacts are of greatest concern?
  - What uses do you envision for this corridor?
  - Which parcels are most appropriate for these uses?
- 8:50 – 9:00 PM**                      **Wrap-up and next steps**

*This public forum is funded by a Smart Growth Technical Assistance Grant from the Executive Office of Energy and Environmental Affairs.*

**Public Forum on Development Options for Portions of the  
Route 1A Corridor in Norfolk/Walpole**

Wednesday, June 6, 2007

7:00 – 9:30 PM

Eleanor N. Johnson Middle School Auditorium  
11 Robbins Road, Walpole, MA

- 7:00 - 7:10 PM**      **Maps Available for Viewing** – All early arrivals are encouraged to view the map series.
- 7:10 – 7:20 PM**      **Welcome and overview of project**
- 7:20 –7:45 PM**      **Overview of Two Development Concepts- MAPC**
- Development Consistent with Master Plans
  - Jobs with Open Space
- 7:45–8:15 PM**      **Impacts of the Development Concepts– MAPC and Don Walsh**
- Water/sewer
  - Transportation
  - Open space
  - Economic Development
  - Housing
- 8:15 – 8:40 PM**      **Implementation Issues**
- 8:40 – 9:15 PM**      **Public Comment**
- Reaction to the concepts.
  - Questions and concerns about the impacts.
  - Implementation issues.
- 9:15– 9:30 PM**      **Next Steps and Wrap-Up– MAPC**

*This public forum is funded by a Smart Growth Technical Assistance Grant from the Executive Office of Environmental Affairs.*

**Walpole/Norfolk Smart Growth Technical Assistance Grant  
Inter-Municipal Committee Meeting**

Thursday, February 1, 2007  
Walpole Town Hall  
135 School Street, Room 112  
4:00 – 5:30 PM

1. *Welcome and introductions* (10 minutes) – Donald Walsh, Economic Development Officer, Town of Walpole.
  - Community representatives to the inter-municipal committee
  - MAPC staff
2. *Review of the Scope of Work/Project Schedule* (10 minutes) –Mark Racicot
  - Project scope funded by EOE A
  - Review proposed amendment to project boundary and scope of work details
  - Review Sustainable Development Principles
3. *Review of Proposed Timetable and Map* – (10 minutes) – Joan Blaustein
  - Review proposed timetable
  - Review base map and define study area
4. *Identify all available reports, studies and plans relevant to the project* (10 minutes) – MAPC staff and community representatives

MAPC will present a list of studies, reports and plans that we know of. Community representatives will be asked to identify other such reports that may be helpful

5. *Set date and discuss first Public Forum* (10 minutes) - MAPC Staff/Community Representatives
  - Purpose of forum
  - Format
  - MAPC responsibilities
  - Town responsibilities
  - Choose date
6. *General discussion of issues raised to date by municipal officials and residents* (15 minutes) - Municipal representatives.
7. *Next steps and adjourn* – (10 minutes) – MAPC staff.

**Walpole/Norfolk Smart Growth Technical Assistance Grant  
Inter-Municipal Committee Meeting**

Monday, April 2, 2007  
Walpole Town Hall  
135 School Street, Room 112  
5:00 – 6:30 PM

**5:00 – 5:15 PM      Reaction and discussion of the March 14 Public Forum**

**5:15 – 6:00 PM      Review the draft illustrative concepts**

- How MAPC developed these concepts and why
- Reaction to the concepts
- Suggestions for alternative concepts
- Choose two illustrative concepts for analysis

**6:00 -6:15 PM      Review what the analysis will involve and the role of the committee**

- MAPC responsibilities for analysis
- Town responsibilities

**6:15 – 6:30 PM      Final public forum**

- Set a date for another inter-municipal meeting if needed.
- Select date for the final public forum

**Walpole/Norfolk Inter-municipal Committee Meeting**

Wednesday, May 23, 2007

Walpole Town Hall

135 School Street, Room 112

5:00 – 6:30 PM

- 5:00 – 5:20 PM      Review the two concepts: (1) Development Consistent with Master Plans and (2) Jobs with Open Space
- Acres and square feet by type of use.
  - Housing scenarios.
- 5:20 – 5:30 PM      Results of the impact analysis
- Water/sewer
  - Traffic
- 5:30 – 5:50 PM      Reaction to impacts and how to present them  
Economic development impacts (Don)
- 5:50 – 6:10 PM      Review agenda and publicity for public forum
- 6:10 – 6:30 PM      Review implementation issues and determine direction/additional work to be done for remainder of the scope of work.



## APPENDIX B

### Massachusetts Office for Commonwealth Development (OCD) Sustainable Development Principles

**1. REDEVELOP FIRST.** Support the revitalization of community centers and neighborhoods. Encourage reuse and rehabilitation of existing infrastructure rather than the construction of new infrastructure in undeveloped areas. Give preference to redevelopment of brownfields, preservation and reuse of historic structures and rehabilitation of existing housing and schools.

**2. CONCENTRATE DEVELOPMENT.** Support development that is compact, conserves land, integrates uses, and fosters a sense of place. Create walkable districts mixing commercial, civic, cultural, educational and recreational activities with open space and housing for diverse communities.

**3. BE FAIR.** Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning to ensure social, economic, and environmental justice. Make regulatory and permitting processes for development clear, transparent, cost-effective, and oriented to encourage smart growth and regional equity.

**4. RESTORE AND ENHANCE THE ENVIRONMENT.** Expand land and water conservation. Protect and restore environmentally sensitive lands, natural resources, wildlife habitats, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open space. Preserve critical habitat and biodiversity. Promote developments that respect and enhance the state's natural resources.

**5. CONSERVE NATURAL RESOURCES.** Increase our supply of renewable energy and reduce waste of water, energy and materials. Lead by example and support conservation strategies, clean power and innovative industries. Construct and promote buildings and infrastructure that use land, energy, water and materials efficiently.

**6. EXPAND HOUSING OPPORTUNITIES.** Support the construction and rehabilitation of housing to meet the needs of people of all abilities, income levels and household types. Coordinate the provision of housing with the location of jobs, transit and services. Foster the development of housing, particularly multifamily, that is compatible with a community's character and vision.

**7. PROVIDE TRANSPORTATION CHOICE.** Increase access to transportation options, in all communities, including land-and water-based public transit, bicycling, and walking. Invest strategically in transportation infrastructure to encourage smart growth. Locate new development where a variety of transportation modes can be made available.

**8. INCREASE JOB OPPORTUNITIES.** Attract businesses with good jobs to locations near housing, infrastructure, water, and transportation options. Expand access to educational and entrepreneurial opportunities. Support the growth of new and existing local businesses.

**9. FOSTER SUSTAINABLE BUSINESSES.** Strengthen sustainable natural resource-based businesses, including agriculture, forestry and fisheries. Strengthen sustainable businesses. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources and reduce dependence on imported fossil fuels.

**10. PLAN REGIONALLY.** Support the development and implementation of local and regional plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the larger Commonwealth.

# Sustainable Development Principles

The Commonwealth of Massachusetts shall care for the built and natural environment by promoting sustainable development through integrated energy and environment, housing and economic development, transportation and other policies, programs, investments, and regulations. The Commonwealth will encourage the coordination and cooperation of all agencies, invest public funds wisely in smart growth and equitable development, give priority to investments that will deliver good jobs and good wages, transit access, housing, and open space, in accordance with the following sustainable development principles. Furthermore, the Commonwealth shall seek to advance these principles in partnership with regional and municipal governments, non-profit organizations, business, and other stakeholders.

## **1. Concentrate Development and Mix Uses.**

Support the revitalization of city and town centers and neighborhoods by promoting development that is compact, conserves land, protects historic resources, and integrates uses. Encourage remediation and reuse of existing sites, structures, and infrastructure rather than new construction in undeveloped areas. Create pedestrian friendly districts and neighborhoods that mix commercial, civic, cultural, educational, and recreational activities with open spaces and homes.

## **2. Advance Equity.**

Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning and decision making to ensure social, economic, and environmental justice. Ensure that the interests of future generations are not compromised by today's decisions.

## **3. Make Efficient Decisions.**

Make regulatory and permitting processes for development clear, predictable, coordinated, and timely in accordance with smart growth and environmental stewardship.

## **4. Protect Land and Ecosystems.**

Protect and restore environmentally sensitive lands, natural resources, agricultural lands, critical habitats, wetlands and water resources, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open spaces and recreational opportunities.

## **5. Use Natural Resources Wisely.**

Construct and promote developments, buildings, and infrastructure that conserve natural resources by reducing waste and pollution through efficient use of land, energy, water, and materials.

## **6. Expand Housing Opportunities.**

Support the construction and rehabilitation of homes to meet the needs of people of all abilities, income levels, and household types. Build homes near jobs, transit, and where services are available. Foster the development of housing, particularly multifamily and smaller single-family homes, in a way that is compatible with a community's character and vision and with providing new housing choices for people of all means.

## **7. Provide Transportation Choice.**

Maintain and expand transportation options that maximize mobility, reduce congestion, conserve fuel and improve air quality. Prioritize rail, bus, boat, rapid and surface transit, shared-vehicle and shared-ride services, bicycling, and walking. Invest strategically in existing and new passenger and freight transportation infrastructure that supports sound economic development consistent with smart growth objectives.

## **8. Increase Job and Business Opportunities.**

Attract businesses and jobs to locations near housing, infrastructure, and transportation options. Promote economic development in industry clusters. Expand access to education, training, and entrepreneurial opportunities. Support the growth of local businesses, including sustainable natural resource-based businesses, such as agriculture, forestry, clean energy technology, and fisheries.

## **9. Promote Clean Energy.**

Maximize energy efficiency and renewable energy opportunities. Support energy conservation strategies, local clean power generation, distributed generation technologies, and innovative industries. Reduce greenhouse gas emissions and consumption of fossil fuels.

## **10. Plan Regionally.**

Support the development and implementation of local and regional, state and interstate plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the Commonwealth.

**APPENDIX C**  
**Walpole-Norfolk Project Buildout Analysis**

March 13, 2007

Prepared by Metropolitan Area Planning Council

**Walpole Sites**

**1) MWRA Land**

Zoning District: R Zone,

Portions of parcel are also within Zones 3 and 4 of Water Resource Protection Overlay District. No apparent development issues with wetlands, flood zone or river protection zone.

Outside of WRPOD, minimum size for lots is 40,000 sq. ft

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (to remove land for roads and a factor for odd-lot shapes) = .80

Size of MWRA Parcel: 93.26 acres = 4,062,406 square feet

Approximately ¼ of total site is within WRPOD, and ¾ is out of WRPOD.

For acreage outside of WRPOD (1,015,602 sq. ft.):

Potential development yield =

$$\frac{1,015,602 \text{ sq. ft.} \times .80}{40,000} = 20 \text{ lots}$$

For acreage within WRPOD (approximately 3,046,804):

Potential development yield =

$$\frac{3,046,804 \text{ sq. ft.} \times .80}{80,000} = 30 \text{ lots}$$

Total number of lots potential for this site is therefore approximately 50 lots.

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning.

**2) Department of Corrections Land**

Zoning District: R Zone,

Essentially the entire parcel is also within Zones 3 and 4 of Water Resource Protection Overlay District. No apparent development issues with wetlands, flood zone or river protection zone.

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (to remove land for roads and a factor for odd-lot shapes) = .80

Size of DOC Parcel: 67.32 acres (2,932,459 sq. ft.)

Potential development yield =

$$\frac{2,932,459 \text{ Sq. ft.} \times .80}{80,000} = 29 \text{ lots}$$

Total number of lots potential for this site is therefore approximately 29.

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning

### 3) Main Street Parcels (West of Route 1A)

Zoning District: Frontage is within the Limited Manufacturing Zone; Rear portion of this area is within the R Zone,

Site is comprised of several parcels in separate ownership. Entire site is also within Zones 3 and 4 of Water Resource Protection Overlay District. Wetlands and Flood zone are near the north edge of the site. However, there is not likely to be any significant development issues with wetlands, flood zone or river protection zone, since the residential lots would need to be so large and since the Limited Manufacturing portions would also a need significant open space component in any development.

*For Residential component of Main Street Parcels:*

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (after removing roads and a factor for odd-lot shapes) = .80

Size of Main Street Parcels within the R Zone is: 21.44 acres (933,926 sq. ft.)

Potential development yield =

$$\frac{933,926 \text{ Sq. ft.} \times .80}{80,000} = 9 \text{ lots}$$

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning

*For Limited Manufacturing portion of Main Street Parcels:*

The LM portion of the site is far more complicated, both because the range of uses allowed is broader and also because of several different regulations which govern the amount of development that can be placed on parcels within the WRPOD.

To calculate the amount of development that can be placed on a site, MAPC undertakes a series of calculations which yields an effective “Floor Area Ratio” or FAR. This FAR indicates the amount of total built space which can be constructed on a parcel of a given size, and is expressed as a function of the total land area of the site. For instance an FAR of .5 indicates that on a 40,000 square foot site, 20,000 square feet of space can be constructed. This could be as a 2-story structure that occupies 25% of the site, a 1-story structure that occupies 50% of the site, or any other combination that does not exceed zoning footprint or height limits. The FAR takes into account all zoning components that may have an impact on the development, such as percent lot coverage for structures, total impervious surfaces, percent open space, parking requirements for the type of development proposed, height limitations, septic flow limitations, etc.

Development within the Limited Manufacturing portion of the Main Street Parcels is limited by the zoning provisions of a 35% building coverage, 40’ height limit, 70% total impervious cover. However, it is also limited by the WRPOD regulations that limit total impervious coverage to 15% by right and up to 70% by special permit. The WRPOD also limits septic flow to 110 gallons per day per 10,000 square feet of lot area.

For a 3-story office (or office over retail), the by-right FAR is calculated:

$$\frac{3000 \text{ square feet total built space}}{(1000 \text{ footprint} + (10 \text{ parking spaces} \times 420 \text{ s.f./space})) \times 6.67 \text{ open space factor}} = .09 \text{ FAR}$$

For the same 3 story structure, the special permit FAR is calculated:

$$\frac{3000}{(1000 + (10 \times 420)) \times 1.42} = .41 \text{ FAR}$$

However, based upon a septic flow of 75 gallons per 1,000 square feet of office space, 110 gallons per day of septic flow is generated by 1,466 square feet of office. This yields and FAR of:

$$\frac{1,466 \text{ office}}{10,000 \text{ sq. ft. land}} = .15 \text{ FAR}$$

Therefore, for the Main Street Parcels, and assuming 3 story offices (or a 3 story office-over-retail structure) the by-right amount of built space on the 56.7 acres in the Limited Manufacturing zone is calculated as:

56.7 acres x 43560 sq. ft./acre x .09 FAR = 222,286 sq. ft. total  
 The footprint of this structure would be approximately 74,095 sq. ft., or about 1.7 acres.

Under the special permit provisions (which would require preservation of groundwater recharge quantity and quality) the built space that could be approved could be:

56.7 acres x 43560 sq. ft./acre x .41 FAR = 1,012,639 sq. ft. total  
The footprint of this structure would be approximately 337,546 sq. ft., or about 7.7 acres.

However, unless municipal sewer was installed to service the Main Street Parcels, the septic flow limit would limit development on the Main Street Parcels. This WRPOD regulation limits flows and has the greatest FAR impacts on those uses that have higher septic flow design rates. For instance office use (with a design flow rate of 75 gallons per 1,000 square feet of space) is impacted more than retail use (with a design flow of 50 gallons per 1,000 sq. ft.) which is impacted more than warehouse or light industrial use (which has a design flow based upon number of employees of approximately 30 gallons per 1,000 sq. ft. of built space). These septic flow rates limit the FAR to .15 for offices, .22 for retail and .37 for warehouse or light industrial uses.

The built space for structures with a septic system is therefore dependent upon the use within the structure, with an upper limit equal to the special permit limit noted above.

For the same 3-story office structure in the examples above, the amount of built space based upon the septic flow limitation would be:

$$56.7 \times 43,560 \times .15 = 370,477 \text{ sq. ft. total}$$

The footprint of this structure would be approximately 123,493 sq. ft. or 2.8 acres

#### 4) Industrial Park (East of Route 1A)

Part of this land, along Route 1A is zoned Limited Manufacturing. The majority of the property is located in the Industrial zone. All of this Industrial Park area is located within the WRPOD and is subject to the constraints described above for the Main Street Parcels West of Route 1A.

For the Limited Manufacturing portion of this Industrial Park (5.86 acres), assuming 3-story offices, the built space is calculated:

By Right:

$$5.86 \times 43560 \times .09 = 22,973 \text{ square feet total (7,657 sq. ft. footprint)}$$

By Special Permit:

$$5.86 \times 43560 \times .41 = 104,657 \text{ square feet total (34,885 sq. ft. footprint)}$$

Based upon septic flow:

$$5.86 \times 43560 \times .15 = 38,289 \text{ square feet total (12,763 sq. ft. footprint)}$$

For the Industrial portion of this Industrial Park (136.97 acres), assuming 3-story offices, the built space is calculated:

By Right:

$$136.97 \times 43560 \times .09 = 536,977 \text{ square feet total (178,992 sq. ft. footprint)}$$

By Special Permit:

$$136.97 \times 43560 \times .41 = 2,446,229 \text{ square feet total (815,409 sq. ft. footprint)}$$

Based upon septic flow:

$$136.97 \times 43560 \times .15 = 894,961 \text{ square feet total (298,320 sq. ft. footprint)}$$

Note however that if the assumed buildout use of the Industrial zone portion of the Industrial Park area were changed to a use such as one-story warehousing or light manufacturing (which require both less parking and less septic flow), then the potential built space would be calculated as:

By Right:

$$136.97 \times 43560 \times .10 \text{ FAR} = 596,641 \text{ square feet total (596,641 sq. ft. footprint)}$$

By Special Permit:

$$136.97 \times 43560 \times .49 \text{ FAR} = 2,923,542 \text{ square feet total (2,923,542 sq. ft. footprint)}$$

Based upon septic flow:

$$136.97 \times 43560 \times .37 \text{ FAR} = 2,207,572 \text{ square feet total (2,207,572 sq. ft. footprint)}$$

Therefore, although the value of warehouse space is less than offices, more space can be built on the Industrial Park in the form of warehouse or light industrial uses, especially given the septic flow limitations imposed due to the site's location within the WRPOD.

## **Norfolk Site**

### **5) Caritas Health Care (Southwood Hospital)**

Zoning District: Commercial 6

Allowed uses include:

- Age restricted Dwellings, either as single-family structures or as townhouses in structures containing up to 6 units.
- Retail
- Office (general business or professional)

For Buildout scenario 1, assume property is divided into a 70+- acre lot that will be used for age-restricted housing, and a 16 +- acre lot that will be used for offices.

*Age restricted housing:*

$$70 \text{ acres} \times 3 \text{ units /acre} = 210 \text{ units potential under buildout}$$

*Offices:*

Assume parking requirement of 1 space/200 sq. ft. office, and 60% maximum impervious cover (or 40% open space):

$$\text{FAR} = \frac{3000}{12000} = \frac{3000}{12000} = .25 \text{ Floor Area Ratio (FAR)}$$

$$(1000 + (15 \times 420)) \times 1.67 = 12191$$

For the 16-acre site:

$16 \times 43560 \times .25 = 174,240$  square feet (with 58,080 sq. ft. footprint, or approximately 1.3 acre footprint)

For buildout scenario 2, assume entire site is built as offices.

$86 \text{ acres} \times 43560 \text{ sq. ft./acre} \times .25 \text{ FAR} = 936,540 \text{ sq. ft.}$  (312,180 footprint, or approximately 7.2 acres of footprint, which would require a special permit unless it were in multiple structures with footprints that met the by-right coverage requirements).

**Table 6  
Summary of the Buildout Analysis**

<b>Site Name</b>	<b>Zone Code</b>	<b>Acres</b>	<b>Assumed uses for Buildout</b>	<b>Estimated # Residential lots</b>	<b>Permit By Right, Special Permit, or based on Septic flow rate</b>	<b>Calculated C/I Floor Area Ratio allowed under Permit requirements</b>	<b>Estimated potential commercial or Industrial space</b>	<b>Constraints on Development</b>
MWRA Parcel	R	93.26	Single Family Residential	50	By Right			1/4 of site in WRPOD
<b>DOC Parcel</b>	R	67.32	Single Family Residential	29	By Right	.08 FAR		Almost all of site in WRPOD
Main Street Parcels	R	21.44	Single Family Residential	9	By Right			Entire Residential portion in WRPOD
Main Street Parcels	LM	56.7	3-story offices or offices over retail		By Right	.09 FAR	222,286 s.f.	All in WRPOD
Industrial Park	LM	5.86	3-story offices or offices over retail		By Right	.09 FAR	22,973 s.f.	All in WRPOD

**Table 6  
Summary of the Buildout Analysis**

<b>Site Name</b>	<b>Zone Code</b>	<b>Acres</b>	<b>Assumed uses for Buildout</b>	<b>Estimated # Residential lots</b>	<b>Permit By Right, Special Permit, or based on Septic flow rate</b>	<b>Calculated C/I Floor Area Ratio allowed under Permit requirements</b>	<b>Estimated potential commercial or Industrial space</b>	<b>Constraints on Development</b>
Industrial Park	IND	136.97	3 -story offices		By Right	.09 FAR	536,977 S.f.	All in WRPOD
<b>Caritas Southwood Hospital</b>	C-6	70	Age restricted housing	210	By Right			
<b>Caritas Southwood Hospital</b>	C-6	16	3-story offices		By Right	0.25 FAR	174,240 s.f.	
Main Street Parcels	LM	56.7	3-story offices or offices over retail		Special Permit	.41 FAR	1,012,639 s.f.	All in WRPOD, would require sewer and special permit

**Table 6  
Summary of the Buildout Analysis**

<b>Site Name</b>	<b>Zone Code</b>	<b>Acres</b>	<b>Assumed uses for Buildout</b>	<b>Estimated # Residential lots</b>	<b>Permit By Right, Special Permit, or based on Septic flow rate</b>	<b>Calculated C/I Floor Area Ratio allowed under Permit requirements</b>	<b>Estimated potential commercial or Industrial space</b>	<b>Constraints on Development</b>
Industrial Park	LM	5.86	3-story offices or offices over retail		Special Permit	.41 FAR	104,657 s.f.	All in WRPOD, would require sewer and special permit
Industrial Park	IND	136.97	3 -story offices		Special Permit	.41 FAR	2,446,229 s.f.	All in WRPOD, would require sewer and special permit
Main Street Parcels	LM	56.7	3-story offices		Septic Flow Limitation of 110 gallons per 10,000 s.f. lot area	.15 FAR	370,477 s.f.	All in WRPOD, would require special permit to exceed by-right lot coverage
Industrial Park	LM	5.86	1 or 2 story retail		Septic Flow Limitation of 110 gallons per 10,000 s.f. lot area	.22 FAR	56,157 s.f.	All in WRPOD, would require special permit to exceed by-right lot coverage

**Table 6  
Summary of the Buildout Analysis**

<b>Site Name</b>	<b>Zone Code</b>	<b>Acres</b>	<b>Assumed uses for Buildout</b>	<b>Estimated # Residential lots</b>	<b>Permit By Right, Special Permit, or based on Septic flow rate</b>	<b>Calculated C/I Floor Area Ratio allowed under Permit requirements</b>	<b>Estimated potential commercial or Industrial space</b>	<b>Constraints on Development</b>
Industrial Park	IND	136.97	1 story Warehouse (with associated lower septic flow rate)		Septic Flow Limitation of 110 gallons per 10,000 s.f. lot area	.37 FAR	2,207,572 s.f.	All in WRPOD, would require special permit to exceed by-right lot coverage

# Walpole-Norfolk Project

## Buildout Analysis

**Updated 6/11/07** - Acreages updated for comparison to Illustrative Concepts 1 & 2  
Prepared by Metropolitan Area Planning Council

### Walpole Sites

#### 1) MWRA Land

Zoning District: R Zone,

Portions of parcel are also within Zones 3 and 4 of Water Resource Protection Overlay District. No apparent development issues with wetlands, flood zone or river protection zone.

Outside of WRPOD, minimum size for lots is 40,000 sq. ft

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (to remove land for roads and a factor for odd-lot shapes) = .80

Size of MWRA Parcel: 93.26 acres = 4,062,406 square feet

Approximately  $\frac{1}{4}$  of total site is within WRPOD, and  $\frac{3}{4}$  is out of WRPOD.

For acreage outside of WRPOD (1,015,602 sq. ft.):

Potential development yield =

$$\frac{1,015,602 \text{ sq. ft.} \times .80}{40,000} = 20 \text{ lots}$$

For acreage within WRPOD (approximately 3,046,804):

Potential development yield =

$$\frac{3,046,804 \text{ sq. ft.} \times .80}{80,000} = 30 \text{ lots}$$

Total number of lots potential for this site is therefore approximately 50 lots.

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning.

#### 2) Department of Corrections Land

Zoning District: R Zone,

Essentially the entire parcel is also within Zones 3 and 4 of Water Resource Protection Overlay District. No apparent development issues with wetlands, flood zone or river protection zone.

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (to remove land for roads and a factor for odd-lot shapes) = .80

Size of DOC Parcel: 67.32 acres (2,932,459 sq. ft.)

Potential development yield =

$$\frac{2,932,459 \text{ Sq. ft.} \times .80}{80,000} = 29 \text{ lots}$$

Total number of lots potential for this site is therefore approximately 29.

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning

### 3) Main Street Parcels (West of Route 1A)

Zoning District: Frontage is within the Limited Manufacturing Zone; Rear portion of this area is within the R Zone,

Site is comprised of several parcels in separate ownership. Entire site is also within Zones 3 and 4 of Water Resource Protection Overlay District. Wetlands and Flood zone are near the north edge of the site. However, there is not likely to be any significant development issues with wetlands, flood zone or river protection zone, since the residential lots would need to be so large and since the Limited Manufacturing portions would also a need significant open space component in any development.

For Residential component of Main Street Parcels:

Within WRPOD, minimum size for lots is 80,000 sq. ft

Build factor for District (after removing roads and a factor for odd-lot shapes) = .80

Size of Main Street Parcels within the R Zone is: 21.44 acres (933,926 sq. ft.)

Potential development yield =

$$\frac{933,926 \text{ Sq. ft.} \times .80}{80,000} = 9 \text{ lots}$$

Note: Because the zoning limit requires 80,000 sq. ft. lots and does not directly limit the number of units to septic flow per land area, if sewer were provided to this area the number of lots would not increase unless there was also a change to the zoning

For Limited Manufacturing portion of Main Street Parcels:

The LM portion of the site is far more complicated, both because the range of uses allowed is broader and also because of several different regulations which govern the amount of development that can be placed on parcels within the WRPOD.

To calculate the amount of development that can be placed on a site, MAPC undertakes a series of calculations which yields an effective “Floor Area Ratio” or FAR. This FAR indicates the amount of total built space which can be constructed on a parcel of a given size, and is expressed as a function of the total land area of the site. For instance an FAR of .5 indicates that on a 40,000 square foot site, 20,000 square feet of space can be constructed. This could be as a 2-story structure that occupies 25% of the site, a 1-story structure that occupies 50% of the site, or any other combination that does not exceed zoning footprint or height limits. The FAR takes into account all zoning components that may have an impact on the development, such as percent lot coverage for structures, total impervious surfaces, percent open space, parking requirements for the type of development proposed, height limitations, septic flow limitations, etc.

Development within the Limited Manufacturing portion of the Main Street Parcels is limited by the zoning provisions of a 35% building coverage, 40’ height limit, 70% total impervious cover. However, it is also limited by the WRPOD regulations that limit total impervious coverage to 15% by right and up to 70% by special permit. The WRPOD also limits septic flow to 110 gallons per day per 10,000 square feet of lot area.

For a 3-story office (or office over retail), the by-right FAR (based on 15% total lot coverage for buildings and parking) is calculated:

$$\frac{3000 \text{ square feet total built space}}{(1000 \text{ footprint} + (10 \text{ parking spaces} \times 420 \text{ s.f./space})) \times 6.67 \text{ open space factor}} = .09 \text{ FAR}$$

For the same 3 story structure, the special permit FAR (based upon 70% total lot coverage) is calculated:

$$\frac{3000}{(1000 + (10 \times 420)) \times 1.42} = .41 \text{ FAR}$$

However, based upon a septic flow of 75 gallons per 1,000 square feet of office space, 110 gallons per day of septic flow is generated by 1,466 square feet of office. This yields an FAR of:

$$\frac{1,466 \text{ office}}{10,000 \text{ sq. ft. land}} = .15 \text{ FAR}$$

Therefore, for the Main Street Parcels, and assuming 3 story offices (or a 3 story office-over-retail structure) the by-right amount of built space on the 56.7 acres in the Limited Manufacturing zone is calculated as:

50.6 acres x 43560 sq. ft./acre x .09 FAR = 198,372 sq. ft. total  
 The footprint of this structure would be approximately 66,124 sq. ft., or about 1.5 acres. (Note that this is less than in the March version of the buildout analysis due to a reduction in the land area proposed to be included in the analysis.)

Under the special permit provisions (which would require preservation of groundwater recharge quantity and quality) the built space that could be approved could be:

50.6 acres x 43560 sq. ft./acre x .41 FAR = 903,695 sq. ft. total  
The footprint of this structure would be approximately 301,231 sq. ft., or about 6.9 acres.

However, unless municipal sewer was installed to service the Main Street Parcels, the septic flow limit would limit development on the Main Street Parcels. This WRPOD regulation limits flows and has the greatest FAR impacts on those uses that have higher septic flow design rates. For instance office use (with a design flow rate of 75 gallons per 1,000 square feet of space) is impacted more than retail use (with a design flow of 50 gallons per 1,000 sq. ft.) which is impacted more than warehouse or light industrial use (which has a design flow based upon number of employees of approximately 30 gallons per 1,000 sq. ft. of built space). These septic flow rates limit the FAR to .15 for offices, .22 for retail and .37 for warehouse or light industrial uses.

The built space for structures with a septic system is therefore dependent upon the use within the structure, with an upper limit equal to the special permit limit noted above.

For the same 3-story office structure in the examples above, the amount of built space based upon the septic flow limitation would be:

50.6 x 43,560 x .15 = 330,620 sq. ft. total  
The footprint of this structure would be approximately 110,206 sq. ft. or 2.5 acres

#### 4) Industrial Park (East of Route 1A)

Part of the total area defined on the map is zoned Limited Manufacturing, although the majority of the land is zoned Industrial. All of this Industrial Park area is located within the WRPOD and is subject to the constraints described above for the Main Street Parcels West of Route 1A.

For the comparison to the Illustrative Concepts 1 & 2, it is assumed that most or all of the future development would occur on currently-vacant land within the Industrial Park (with the assumption that the existing developed lands may convert to more intense uses over a longer time period), and that the area available for development is zoned Industrial. The acreage is therefore assumed to be approximately 73 acres (rather than the approximately 142 in the March edition of the buildout analysis).

For the Industrial portion of this Industrial Park (73 acres), assuming 3-story offices, the built space is calculated:

By Right:

73 x 43560 x .09 = 286,189 square feet total (95,396 sq. ft. footprint)

By Special Permit:

$$73 \times 43560 \times .41 = 1,303,750 \text{ square feet total (434,583 sq. ft. footprint)}$$

Based upon septic flow:

$$73 \times 43560 \times .15 = 476,982 \text{ square feet total (158,994 sq. ft. footprint)}$$

Note however that if the assumed buildout use of the Industrial zone portion of the Industrial Park area were changed to a use such as one-story warehousing or light manufacturing (which require both less parking and less septic flow), then the potential built space would be calculated as:

By Right:

$$73 \times 43560 \times .10 \text{ FAR} = 317,988 \text{ square feet total (317,988 sq. ft. footprint)}$$

By Special Permit:

$$73 \times 43560 \times .49 \text{ FAR} = 1,558,141 \text{ square feet total (1,558,141 sq. ft. footprint)}$$

Based upon septic flow:

$$73 \times 43560 \times .37 \text{ FAR} = 1,176,555 \text{ square feet total (1,176,555 sq. ft. footprint)}$$

Therefore, although the value of warehouse space is less than offices, more space can be built on the Industrial Park in the form of warehouse or light industrial uses, especially given the septic flow limitations imposed due to the site's location within the WRPOD.

### **Norfolk Site**

#### **5) Caritas Health Care (Southwood Hospital)**

Zoning District: Commercial 6

Allowed uses include:

- Age restricted Dwellings, either as single-family structures or as townhouses in structures containing up to 6 units.
- Retail
- Office (general business or professional)

For Buildout scenario 1, assume property is divided into a 70+- acre lot that will be used for age-restricted housing, and a 16 +- acre lot that will be used for offices.

Age restricted housing:

$$70 \text{ acres} \times 3 \text{ units /acre} = 210 \text{ units potential under buildout}$$

Offices:

Assume parking requirement of 1 space/200 sq. ft. office, and 60% maximum impervious cover (or 40% open space):

$$\text{FAR} = \frac{3000}{(1000 + (15 \times 420)) \times 1.67} = \frac{3000}{12191} = .25 \text{ Floor Area Ratio (FAR)}$$

For the 16-acre site:

$16 \times 43560 \times .25 = 174,240$  square feet (with 58,080 sq. ft. footprint, or approximately 1.3 acre footprint)

For buildout scenario 2, assume entire site is built as offices.

$86 \text{ acres} \times 43560 \text{ sq. ft./acre} \times .25 \text{ FAR} = 936,540 \text{ sq. ft.}$  (312,180 footprint, or approximately 7.2 acres of footprint, which would require a special permit unless it were in multiple structures with footprints that met the by-right coverage requirements).

## APPENDIX D - HOUSING ANALYSIS

*The housing component was eliminated from the final version of Concept# 1 except for age-restricted housing on the Caritas property. This analysis was prepared for the Inter-Municipal Committee prior to housing being eliminated from consideration on the DOC and MWRA parcels.*

The housing work that was done for Concept #3 is included here for the following reasons:

- The scope of work included a housing component.
- The guiding principles of this grant (Commonwealth Sustainable Development Principles) address housing needs.
- The Town of Walpole may want to review the housing analysis at a later date if and when conditions in Town warrant re-evaluation of housing needs.

### Summary

With population increases, housing supply growth, and positive gross household income trends in Walpole and Norfolk, data point to challenges in meeting the full spectrum of community housing needs. Housing prices and incomes have increased in both communities, verifying that constraints exist. Two market segments appear underserved: elder housing and entry housing for those just beginning to rent or own a home.

Population projections show that these two market segments will play an important role in the regional housing market and therefore, supply must be addressed through either preservation strategies with existing housing units or production of new housing. While neither community has achieved the State-mandated 10% goal for affordable housing units, both are making strides: Norfolk has a State-approved Affordable Housing Plan with clear production goals and Walpole approved a 300-unit rental apartment complex by Comprehensive Permit which raised its affordable housing stock<sup>1</sup>.

Guiding plans for both communities ambitiously outline goals for new housing creation. These plans coupled with a cursory demographic review directed the residential component for Concept #3. The analysis shows two strategies to achieve this concept through existing zoning and per the Master Plans.

### Population, Housing Supply and Needs<sup>2</sup>

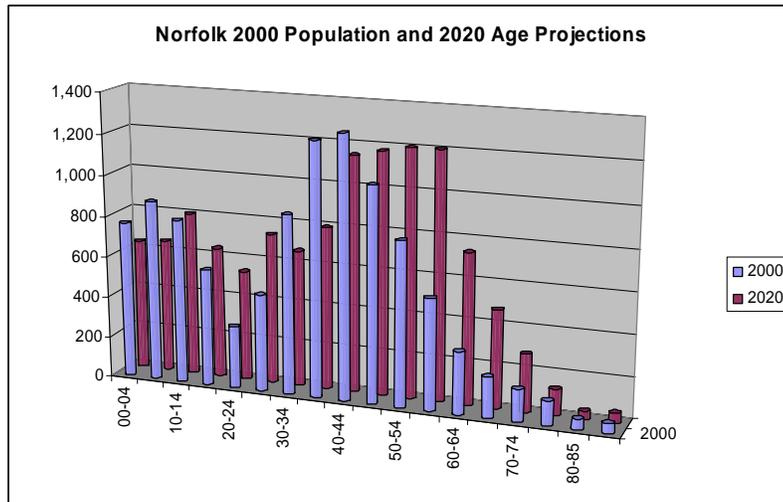
Walpole and Norfolk have a total of 5,447 housing units according to 2000 Census data. Nearly 80% of the housing stock is designated as attached and detached single family housing, approximately 4% are duplexes, approximately 5% are 3-4 family homes, and 11% are multi-family housing units. Nearly 84% of the housing units are owner-occupied and 14% are rental units.

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<sup>1</sup> Because this development was all rental housing, all units are counted on Walpole's inventory. Only 25% of the development or 75 units are affordable to households earning at or below 80% of the area median income.

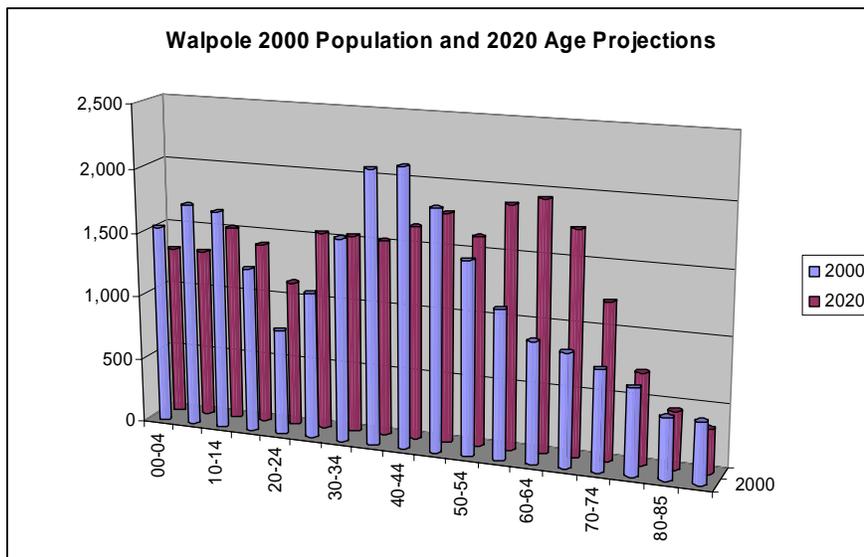
<sup>2</sup> Sources: U.S. Census; DHCD, U.S. HUD - CHAS.

Walpole and Norfolk added 3,805 people between 1990 and 2000. From 2000 to 2020, an additional gain of 3,247 people projected. The two towns will have significant increases senior populations, with Walpole showing greater increases by 2020 in the 55+ age groups. total gain of 3,054



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people from ages 55 to 80 will be in Walpole alone; Norfolk will gain roughly half at 1,504 in that same age range. Multiple housing options for this population will be critical. Overall, both towns show very limited growth in younger age groups. Approximately 1,213 additional 20-29 year-olds are projected in the two towns by 2020, supporting necessary solutions for housing this age group.



Age 55+ Housing	
Walpole/ Norfolk & Select Area Towns	
Community	55+ units existing, under construction, or proposed
Norfolk	131

According to a recent study by Citizens' Housing and Planning Association, *Age Restricted Active Adult Housing in Massachusetts*, the recent increase in age 55+ housing is concentrated between Route 128 and the I-495 corridor, including towns west of I-495, and in central Massachusetts, including Worcester. Given the volume of units in the pipeline, "developments that are not well-located, well-designed and well-priced are unlikely to succeed." The number of units proposed exceeds likely near-term absorption. Large existing homes may be available for young families as local residents downsize and move to age-restricted housing options.

Walpole	0
<b>2-town total</b>	<b>131</b>
Franklin	251
Dover	107
Stoughton	203
Holliston	363
<b>4-town total</b>	<b>924</b>
<b>6-town total</b>	<b>1,055</b>
<b>Source: Age Restricted Active Adult Housing in Massachusetts, CHAPA</b>	
Note: Data for communities with 3 or more developments only.	

### Housing Costs and Affordability

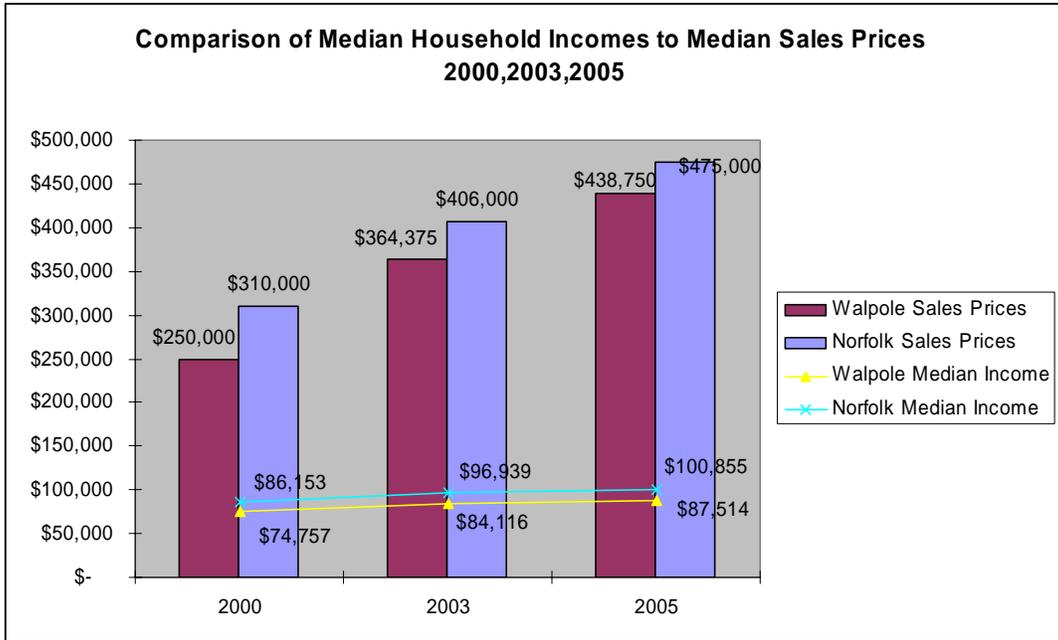
Building permit data shows that 498 single-family housing units were added to the housing stock from 1990 to 2006. Since 2001, data from the Massachusetts Department of Housing and Community Development shows a modest increase in added units to both communities' Subsidized Housing Inventories. The Preserve Apartments added the greatest volume in Walpole with 300 units counting towards their inventory. Norfolk added Town Center Condominiums and counted MA Department of Mental Retardation and Department of Mental Health units to their inventory. Norfolk Landing will increase Norfolk's inventory to 4.14%. 583 of the 11,053 housing units in both communities are listed on the State's Subsidized Housing Inventory<sup>3</sup>.

<b>Subsidized Housing Inventory Data</b>					
<b>Community</b>	<b>2000 Census Year Round Housing Units</b>	<b>Total SHI Units in 2001</b>	<b>Total SHI Units in 2007</b>	<b>Percent SHI Units in 2001</b>	<b>Percent SHI Units in 2007</b>
Norfolk	2,851	84	111	2.95%	3.9%
Walpole	8,202	138	472	1.68%	5.8%

Source: MA Department of Housing and Community Development, 2005 and 2007 Data Tables.

Between 2000 and 2005, the median income between the two communities rose by approximately \$27,000 or 14%. During the same time period, single family home sale prices rose by 163% between the two towns.

<sup>3</sup> Eligibility is contingent upon a Deed Restriction, gross household income, and a Regulatory Agreement which limits rental amount or sales price at closing and transfer of ownership or residency.



While some households experienced income growth, others managed a monthly cost burden that exceeded their gross household income. In Norfolk, 17.5% of owners and 16.3% of renters are cited as having a housing problem or cost burden greater than 30% of income and/or overcrowding and/or are living without complete kitchen or plumbing facilities. 11.5% of renters and 4.4% of owners have a cost burden greater than 50% of their gross monthly household income.<sup>4</sup> More than 44% of renters and 21% of renters with housing problems are elderly<sup>5</sup>.

Similarly in Walpole 33.8% of renters and 25% of owners are cited as having a housing problem. 6.8% of renters and 8% of owners have a cost burden greater than 50% of their gross monthly household income.<sup>6</sup> More than 54.5% of renters and 31% of renters with housing problems are elderly.

### Concept 3 Strategy

The Walpole Master Plan and Norfolk Affordable Housing Plan discuss opportunities and illustrate strategies for each community to produce new housing that better meets the current and future needs of residents. These goals are as follows:

#### Walpole Master Plan

<sup>4</sup> Cost burden is the fraction of a household's total gross income spent on housing costs. For renters, housing costs include rent paid by the tenant plus utilities. For owners, housing costs include mortgage payment, taxes, insurance, and utilities.

<sup>5</sup> A one or two-person household, either person is 62 years of age or older.

<sup>6</sup> Cost burden is the fraction of a household's total gross income spent on housing costs. For renters, housing costs include rent paid by the tenant plus utilities. For owners, housing costs include mortgage payment, taxes, insurance, and utilities.

- Provide housing affordable to seniors, town employees and young people starting out in life and meet the Chapter 40B goal of 10% permanently affordable housing.
  - Establish inclusionary/ incentive zoning for all subdivisions over a specified number of units.
  - Establish a 10% affordable unit requirement in mixed-use apartment projects.
  - Explore the possibility of a Local Initiative Program or “friendly 40B” projects on town-owned land
  - Encourage rental housing for seniors with an affordable component
  - Revive the possibility of creating a nonprofit subsidiary of the Housing Authority.

#### Affordable Housing Plan for Norfolk, MA

- Encourage additional age-restricted housing
- Adoption of inclusionary zoning bylaw (Bylaw has since been adopted).
- Review/ revise affordable housing development provision of zoning bylaw
- Age-Restricted Housing in Zoning Bylaw K.4 b.4 – Mixed-Use Zoning with Age-Restricted Residential Component developed at Village at River’s Edge

Housing is addressed in Concept 3 to be consistent with the guiding Master Plans. The DOC parcel would be developed partially for affordable housing and the remainder would be left as open space. The MWRA parcel would be rezoned for conservation subdivision development which would protect significant open space. The Caritas property would be developed as zoned for office and age-restricted housing.

#### *DOC Site*

Of the 40-acre DOC site, 20 acres will be set-aside for a proposed 162-unit single family housing development. The development would consist of rental and ownership housing in 27 attached six-unit housing structures containing 1, 2 and 3 bedroom units. This scenario assumes a package treatment plant since the development will be sited beyond existing sewer lines. The development could be a “friendly 40B” per the Master Plan, where 25% of the units or 40 units would be set-aside for those earning at or below 70 to 80% of the area median income. A portion of the development should target those with incomes between 30 to 50% of the area median income, given the data outlined earlier with regard to current and future housing constraints and needs. If this site were developed as all rental housing units rather than a portion as ownership housing, then all housing units would be counted on the town’s Subsidized Housing Inventory. The ownership housing is intended as entry-level housing.

This development scenario exceeds what could be developed under existing zoning, but remains true to the goals of the Walpole Master Plan and areas housing needs, per Norfolk’s Housing Plan. Under existing zoning potential development yield shows only 29 lots as available for housing. This parcel is subject to Section 10, Water Resources Protection Overlay District of the Zoning Bylaw, requiring 80,000 square foot lots. With a zoning change and a package treatment plant, a greater number of housing units could be developed.

This approach would address Walpole’s goal for providing affordable housing to municipal employees, young people and potentially seniors who are interested in rental housing per the Master Plan. The Town would also be approaching this development concept as a friendly 40B and establishing a precedent for incentive zoning to net additional affordable housing units.

***MWRA Site***

Utilizing Section 11, Open Space Residential Development of the Walpole Zoning Bylaw, the MWRA parcel would have a total of 34, 3-bedroom detached single family ownership housing units. Per MGL Chapter 40A, Section 9, the Town could mandate that at least 10% of this housing development set-aside housing for those with incomes at or below 80% of the area median income or offer a density bonus as incentive to produce more than 10% affordable housing. This would net 3 to 5 units of affordable housing, depending upon a mandate or bonus.

The MWRA scenario provides for limited development per Section 10, Water Resources Protection Overlay District of the Zoning Bylaw. 12 units would be built on one portion of the MWRA land that allows for 40,000 square foot lots. The remaining 20 units would be built on the other portion of MWRA land requiring 80,000 square feet per unit. This scenario also assumes for individual septic systems.

This scenario actually nets less development than what could be developed under existing zoning. Existing zoning would allow for 50 housing lots: 20 lots with 40,000 square feet and 30 with 80,000 square feet. The Master Plan scenario allows for greater open space protection with limited development and an explicit provision for the inclusion of affordable housing. Similar to the DOC site, the MWRA development scenario would address the starter-home market and establish inclusionary or incentive zoning to net affordable units.

***Caritas Site***

In Norfolk the 70-acre Caritas parcel 240, 1 and 2 bedroom rental housing units would be constructed. In this scenario, the Town would be using K.4 b.4 Age-Restricted Housing in the Zoning Bylaw, plus inclusionary zoning or incentive zoning, if inclusionary is not adopted, to increase the number of housing units allowed under existing zoning. At least 10% could be deemed affordable or 24 housing units. Current zoning allows three units per acre. Age-restricted dwellings, likely townhouses in structures containing up to 6 units, could be developed under this scenario.

The Town explicitly states that additional age-restricted housing should be encouraged and that Inclusionary Zoning should be adopted. This development scenario combines both goals.

**Summary**

The following table shows the breakdown of total housing units, number of bedrooms by development per existing zoning and per the Master Plans:

<b>Current Zoning</b>	<b># of 1-Bedroom</b>	<b># of 2-Bedrooms</b>	<b># of 3-Bedrooms</b>	<b>Total Bedrooms</b>	<b>Total Units</b>
<i>DOC</i>	0	0	87	87	29
<i>MWRA</i>	0	0	150	150	50
<i>Caritas</i>	140	140	0	280	210
<b>TOTALS</b>	<b>140</b>	<b>140</b>	<b>237</b>	<b>517</b>	<b>289</b>
<b>Per Master Plan</b>	<b># of 1-Bedroom</b>	<b># of 2-Bedrooms</b>	<b># of 3-Bedrooms</b>	<b>Total Bedrooms</b>	<b>Total Units</b>
<i>DOC</i>	32	140	180	352	162
<i>MWRA</i>	0	0	102	102	34
<i>Caritas</i>	160	160	0	320	240
<b>TOTALS</b>	<b>192</b>	<b>300</b>	<b>282</b>	<b>774</b>	<b>436</b>

### **Conclusion**

Given housing supply needs and the prospective availability of these parcels for development, it is favorable for both Walpole and Norfolk to actively support their Master Plan and Housing Plan goals. Land availability can hinder development progress, particularly for the production of affordable housing, which both communities clearly need and are striving to produce. Such development opportunities are unusual and should be seen as a solution to local and regional housing issues impacting two major market segments.

This strategy would also raise the Norfolk and Walpole Subsidized Housing Inventories to 5.5% and 6% respectively. If Walpole chose to develop the DOC site as an all-rental friendly 40B, then the community's subsidized housing inventory would rise to 9.7%. It is unlikely that following the current zoning would net such results. Both communities should give full consideration to regional and local housing needs while balancing open space and other community goals in their final development decision.



## APPENDIX E CALCULATIONS FOR THE FISCAL IMPACTS ANALYSIS

Following are the assumptions made to develop fiscal impacts of the two options being considered by MAPC. The basic assumption is that the type of industry desired by both Walpole and Norfolk is similar to the Siemens facility in Walpole. The age qualified units are priced at what a new Age Qualified Village in Walpole (Route 1) is planning. Municipal costs estimates are very rough.

### Assumptions:

#### Walpole: Options 1 and 2

- New commercial/industrial buildings = 1,826,920 square feet.
- Valuation: with Bayer/Siemens at \$100/Square foot valuation as proxy = \$182,693,000.
- At \$13.89 per thousand Walpole commercial/industrial tax rate:  $\$13.89 \times \$182,693,000/\$1,000 = \$2,537,592$  annual taxes.
- Valuation is roughly 25% of actual investment:  $4 \times \$182.693\text{m} = \$730.8 \text{ m} =$  investment.
- Building permit is 1% of investments:  $1\% \times \$730.8\text{m} = \$7.3\text{m}$ , one time payment.
- Incremental municipal costs: \$1m/year in additional public safety staff.
- Additional municipal costs during construction: \$200,000 in building department to monitor construction.

#### Norfolk: Option 1

- New commercial/industrial buildings = \$201,600 square feet.
- New 240 age qualified homes; sales price of \$400,000 and cost of \$350,000; 1,500 square feet per unit.
- Norfolk tax rate is \$12.15 per 1,000 for residential and commercial/industrial.
- Valuation using the Bayer/Siemens proxy rate at \$100/square foot: = 201,600 square feet X \$100/square foot = \$20,160,000.
- At \$12.15 X \$20,160,000/\$1,000 = \$244,944 per year in annual taxes.
- At \$12.15 X 240 units X 400,000 per unit = \$1,166,400 per year in annual taxes.
- Valuation at 25% of investment:  $4 \times \$20,160,000 = \$80,640,000 = \$806,000$ ; plus  $240 \times \$350,000 \times 1\% = \$840,000$  investment.
- Building permit is 1% of investment;  $1\% \times \$80,640,000 = \$806,000$ ; plus  $240 \times \$350,000 \times 1\% = \$840$  = one time payment (\$1.6 million).
- Incremental municipal costs: \$1million/year.
- Additional municipal costs during construction: \$200,000 in building department to monitor construction.

#### Norfolk: option 2

- Valuation: 1,083,600 square feet X \$100/square foot = \$108 million.
- At \$12.15 x \$108 million/\$1,000 = \$1,316,574 per year in annual taxes.
- Valuation is 25% of investment:  $4 \times \$108 \text{ million} = \$432 \text{ million}$ .
- Building permit of 1% x \$432 million = \$4.32 million one time payment.

- Incremental municipal costs: \$1 million/year (Option 2)
- Additional municipal costs during construction: \$200,000 in building department to monitor construction.

Norfolk approaches fees differently than Walpole. For C/I property they charge \$13/\$1000 or 1.3% instead of Walpole's 1%.

For residential, they charge \$80/SF valuation times \$11/\$k versus Walpole's 1%. So, in Norfolk, the taxes in option 1 would be 1,500 SF x \$80 x \$11/\$k = \$1,320 versus 1% x \$350k = \$3,500/house. \$1,320 x 240 houses = \$316,800 (old # was \$840k).

**APPENDIX F**  
**Draft Illustrative Concepts**

Prepared for the Walpole/Norfolk Inter-Municipal Committee Meeting  
Updated April 5, 2007

**Concept #1: Buildout Allowed by Special Permit (Baseline concept)**

This scenario is essentially the same as that presented at the March 14 public forum. The only difference is that it selects the special permit option rather than by right development. This concept is presented as the baseline against which to evaluate all other concepts. This concept assumes no sewer.

**Concept #2: Buildout with Golf Course and Open Space**

This concept includes the buildout for the Walpole Industrial Park, a golf course on the Main Street parcels, rezoning the MWRA and DOC land as PRSC (Parks, Schools, Recreation and Conservation) and the buildout development (office and age-restricted housing) projected for Caritas. This concept assumes no sewer.

The golf course development is essentially the same as presented in the Brownfields Redevelopment study. This study identified a 9-Hole Regulation Length Course with Learning Center as a viable alternative for the site. It includes a 2,500 square foot clubhouse and maintenance building, a 9 hole course and several associated practice areas.

Unlike the buildout which calculated residential units for the MWRA and the DOC parcels, this concept assumes that these parcels are rezoned for open space.

**Concept #3: Development Consistent with Master Plans**

This concept assumes that sewer will be extended as far as the Industrial Park and the Main Street parcels. This will enable a higher density of industrial development and jobs that are higher value, consistent with the Economic Target Area designation. In order to reduce the number of daytime auto trips, the zoning would allow up to 5% convenience retail on these two parcels.

The DOC parcel would be developed partially for affordable housing and the remainder would be left as open space. The MWRA parcel would be rezoned for conservation subdivision development which would protect significant open space. The Caritas property would be developed as zoned for office and age-restricted housing.

**Concept #4: Balanced Jobs and Open Space**

This concept also assumes that sewer would be extended to the Main Street parcels and the Industrial Park. It also assumes that the revised Zone II regulations under the Water Resources Protection Overlay District (WRPOD) would be enacted to allow a higher density of development. Five percent convenience retail would be allowed.

The MWRA parcel and the DOC land would be rezoned to PRSC. Development on the Caritas property would be as zoned for office and age-restricted housing.

**Concept #5: Smart Growth/TDR (Transfer of Development Rights)**

This concept complies with a variety of the Commonwealth's Sustainable Development Principles which govern the Smart Growth Technical Assistance grants. It assumes that sewers are extended all the way to Caritas. With sewer, development on the Walpole Industrial Park and the Main Street parcels could be intensified with more jobs consistent with the Economic Target Area. The residential development that is permitted under the current zoning would be transferred to the Caritas property so that those two parcels would remain open. The entire Caritas property would be developed for denser housing with a range of housing for all income levels and types, rather than just age-restricted housing. Affordable housing units would be shared between Walpole and Norfolk. There would be some concentration of housing as close to the existing retail area at the intersection of Route 115 and 1A. This would also increase density so that more transit options might be feasible, including bus service along 1A and a possible connection to the Norfolk Commuter Rail station. The northern "triangle" of the Caritas property would remain open to allow for an open space corridor.

**Concept #6: Jobs with Transfer of Development Rights**

This concept was derived from discussions at the 4/2/07 Inter-Municipal Committee meeting. The concept is similar to #4 above, in that it includes higher density office/industrial development on the Main Street and Walpole Industrial Park sites (enabled by extension of sewer to the sites), and also includes open space at both the MWRA and DOC parcels. However, Concept #6 establishes the MWRA and DOC properties as TDR "sending zones" on which there can be either no development or a very limited amount of development. The concept includes the transfer of these development rights to a new mixed use "TDR receiving zone" in downtown Walpole. Also included in Concept #6 is an increased Office/R&D component at the Caritas site. Under this concept, Caritas may or may not be served by Sewer extension from Walpole. Concept also includes possible use of a small portion of the DOC site (accessed via Caritas) as an extension of the Caritas development.

<b>Parcel</b>	<b>Buildout</b>	<b>Buildout w/Golf Course and Open Space</b>	<b>Consistent with Master Plans</b>	<b>Balanced jobs and open space</b>	<b>Smart Growth/TDR</b>	<b>Jobs and TDR</b>
Industrial Park	<ul style="list-style-type: none"> <li>• No sewer</li> <li>• Low intensity C/I uses by special permit</li> </ul>	<ul style="list-style-type: none"> <li>• No sewer</li> <li>• Revisions to Zone II in WRPOD</li> <li>• Low intensity C/I uses by special permit</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses (Ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses (Ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>
Main Street	<ul style="list-style-type: none"> <li>• No sewer</li> <li>• Low intensity C/I uses by special permit.</li> </ul>	<ul style="list-style-type: none"> <li>• Golf course/training facility</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses (Ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses (Ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density uses ind./office)</li> <li>• 5% convenience retail/restaurant</li> </ul>
MWRA	<ul style="list-style-type: none"> <li>• No sewer</li> <li>• 50 homes</li> </ul>	<ul style="list-style-type: none"> <li>• Rezone to PSRC (open space)</li> </ul>	<ul style="list-style-type: none"> <li>• Conservation subdivision</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> <li>• Residential transferred to Caritas.</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> <li>• TDR Sending Zone; Transfer to Walpole Center</li> </ul>
DOC	<ul style="list-style-type: none"> <li>• No sewer</li> <li>• 29 homes</li> </ul>	<ul style="list-style-type: none"> <li>• Rezone to PSRC (open space)</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> <li>• Affordable housing</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> <li>• Residential transferred to Caritas.</li> </ul>	<ul style="list-style-type: none"> <li>• Open space</li> <li>• TDR Sending Zone; Transfer to Walpole Center</li> </ul>

Parcel	Buildout	Buildout w/Golf Course and Open Space	Consistent with Master Plans	Balanced jobs and open space	Smart Growth/TDR	Jobs and TDR
Caritas	<ul style="list-style-type: none"> <li>• Office on 16 acres</li> <li>• Age-restricted housing on 70 acres</li> </ul>	<ul style="list-style-type: none"> <li>• Office on 16 ac.</li> <li>• Age-restricted housing on 70 acres</li> </ul>	<ul style="list-style-type: none"> <li>• Office on 16 ac.</li> <li>• Age-restricted housing on 70 acres</li> </ul>	<ul style="list-style-type: none"> <li>• Office on 16 ac.</li> <li>• Age-restricted housing on 70 ac.</li> </ul>	<ul style="list-style-type: none"> <li>• Sewer</li> <li>• Higher density housing on entire parcel.</li> <li>• Density closest to 115/1A retail</li> <li>• % affordable.</li> <li>• Not all age restricted.</li> <li>• Share affordable units</li> <li>• Northern triangle open space corridor.</li> <li>• More transit options.</li> </ul>	<ul style="list-style-type: none"> <li>• Higher density Office/R&amp;D on more of Caritas site. Some housing included on portion of site (age restricted).</li> <li>• Northern triangle open space corridor.</li> <li>• More transit options due to increased density.</li> <li>• Possible Sewer extension, or possible use of package treatment plant</li> </ul>

**APPENDIX G**  
**Section 328: Bonus Density Provisions of the Zoning Bylaw**  
**of the Town of Natick**

328.1 Eligibility for [Bonus](#) Floor Space: If a proposed improvement or facility in the Regional Center district complies with the standards set forth in section 324.2 above, it shall be eligible for [bonus](#) floor area in accordance with the requirements set forth in sections 328.2 through 328.5, inclusive.

328.2 Public Benefit Amenity: To qualify for [bonus](#) floor space, a public benefit amenity must be specifically listed in the Schedule of Benefits below. A public benefit amenity that is a physical space (except for an [affordable housing](#) unit) shall be one to which the public is assured access on a regular basis, or an area that is dedicated to and accepted by the Town for public access purposes. Furthermore, to be considered a public-benefit amenity, a specific improvement or facility must be determined to provide a public benefit and to be appropriate to the goals and character of the area. In addition, the following requirements must be met:

328.21 Parks: To be eligible as a public benefit amenity, a [park](#) must meet all of the following standards:

- be at least 2,500 square feet in area;
- have a minimum width of 50 feet;
- be buffered and/or screened-from nearby roads,
- parking areas and other vehicular circulation facilities; and
- not be located within the landscape buffer strip required under section 327.6.

328.211 For purposes of computing [bonus](#) credits, no more than one-third of the area of the [park](#) shall consist of wetlands, water bodies, steep slopes (over 25%), or other areas not usable for public recreation or leisure activities. On-site [park](#) area which meets the above standards and which is not wetlands may be used to satisfy the minimum landscape surface ratio (LSR) requirement. On- or off-site [park](#) area may be used to qualify the project for [bonus](#) floor area.

328.22 Pedestrian circulation improvement: Such improvements shall be directly accessible to the pedestrian circulation system, and shall where possible connect with existing pedestrian circulation improvements on adjacent parcels and/or provide for connection to such improvements which can reasonably be expected to be developed on adjacent parcels. The following standards shall also be applicable:

328.221 Sidewalk (Off-Site): A sidewalk shall not be on land owned by the applicant or on public or private right-of-way immediately adjacent to [frontage](#) of land owned by the applicant.

328.222 [Pedestrian Bridge](#)/Tunnel: Bridges or tunnels should have clear functional relationships to adjoining commercial properties and/or public [open space](#) amenities. To be eligible as a public benefit amenity, a [pedestrian bridge](#) shall not be located entirely on the applicant's property, nor shall it connect a principal [use](#) with an [accessory use](#) such as a parking [structure](#).

328.23 Service Roads. Driveways and other facilities which principally serve the internal circulation needs of a project, and which provide only a marginal public benefit, shall not qualify as service roads under the provisions of this section 328.

328.3 Schedule of Bonuses:

328.31 FAR Increases above 0.32 up to 0.40 (and in the MC Overlay District up to .60) based on Schedule I of Bonuses. An increase in allowable floor area for new construction resulting in a FAR for the entire development which does not exceed 0.40, as permitted in and subject to the requirements of Section 324.2, shall be available in accordance with Schedule I of Bonuses set forth hereafter, if the Planning [Board](#) deems that the amenity offered by the applicant accomplishes the purpose, intent and objectives of the Highway Overlay Districts regulations. For development within an MC Overlay District for which a special permit is requested under Section 324.10.1, an increase in allowable floor area shall be permitted if the requirements of Schedule I are met through fulfillment of one or more Public Benefit Amenities.

The "[bonus](#) ratio" as used in Schedule I is the ratio of the unit of public benefit amenity provided, to the floor area permitted for [bonus](#) projects in excess of a FAR of 0.32. For example, a [bonus](#) ratio of one to three (1:3) and an amenity unit of "Square Foot" means that for each square foot of the amenity the project shall be eligible for three (3) additional square feet of floor area for permitted uses.

<b>SCHEDULE 1 OF BONUSES</b>		
<b><u>PUBLIC BENEFIT AMENITY</u></b>	<b><u>AMENITY UNIT</u></b>	<b><u>BONUS RATIO</u></b>
<b>OPEN SPACE AMENITIES:</b>		
• Park	Square Foot	1:1
• Excess Pervious Landscaping	Square Foot	1:0.5
• The provision of OPEN SPACE **	Dollar (\$)	20:1
<b>PEDESTRIAN CIRCULATION</b>		

<b>SCHEDULE 1 OF BONUSES</b>		
<b><u>PUBLIC BENEFIT AMENITY</u></b>	<b><u>AMENITY UNIT</u></b>	<b><u>BONUS RATIO</u></b>
<b>IMPROVEMENTS</b>		
• Off-Site Sidewalk	Square Foot	1:1
• Pathway/Bikeway	Square Foot	1:1
• Pedestrian Bridge	Square Foot	1:1
<b>PUBLIC ASSEMBLY SPACE:</b>	Square Foot	1:5
<b>ROAD LINK***</b>	Dollar (\$)	20:1
<b>TRAFFIC IMPROVEMENTS</b>		
• Service Road (24-30 ft. paved width)	Square Foot	1:3
• Curb-cut Closure	Number Closed	1:15,000
<b>TRANSIT AMENITIES:</b>		
• Transit-related lane widening	Square Foot	1:2
• Traffic Management Project****	Dollar (\$)	20:1
<b>OFF-SITE AFFORDABLE HOUSING:</b>		
• Provision by developer	Affordable Unit	1:4,000
• Town's Housing Corporation contribution	Dollar (\$)	20:1

\* [Bonus](#) Ratio = Amenity/ Floor Area

\*\*[Open Space](#) shall be valued in accordance with Section 324.724 or a contribution made to the Town's Conservation [Open Space](#) Fund.

\*\*\*[Road Link](#) shall include the cost of the acquisition of the land (or the rights therein) whether incurred directly or reimbursed to other parties required for the roadway and the design and construction of the elements thereof which form the intersections with public or private way to which it connects. Traffic Management Project shall include the provision of land for, and/or the design and construction of roadway improvements, as well as the support of public transportation, within the Town. (Art. 1., S.T.M.#2,.12/3/02).

328.32- FAR Increases up to 0.55 based on Schedule II of Bonuses in the RC District. The Planning [Board](#) may, by Special Permit, grant an increase in the FAR up to a maximum FAR of 0.50, subject to the requirements of Sections 324.2.1 and 324.2.2, only for parcels located in the RC District: In addition, an increase in the FAR up to a maximum FAR of 0.55 may be granted by the Planning [Board](#) for those certain residential uses defined in Section 323.3, subject to the requirements of

Sections 324.2.1 and 324.2.2, only for parcels located in the RC District.

Notwithstanding any provision in this by-law to the contrary, all parcels located in the RC District, shall be required, as a condition for increasing its FAR above 0.32 up to a maximum of 0.55; to provide [Open Space](#) as a public benefit amenity if it is in the ratios shown in the following "SCHEDULE II OF BONUSES":

<b>SCHEDULE II OF BONUSES</b>		
<b>PUBLIC BENEFIT AMENITY</b>	<b>AMENITY UNIT</b>	<b>BONUS RATIO*</b>
For FAR increases from 0.32 up to 0.55:		
OPEN SPACE Having the value ** of	Dollar(\$)	20:1

\* [Bonus](#) Ratio = Amenity / Floor Area

\*\* [OPEN SPACE](#) shall be valued in accordance with Section 324.724 or a contribution made to the Town's Conservation [Open Space](#) Fund.

The "[bonus](#) ratio" as used in Schedule II of Bonuses is the ratio of the unit of public benefit amenity provided, to the floor area permitted for [bonus](#) projects in excess of a FAR of 0.32. For example, the [bonus](#) ratio of twenty to one (20:1) and an amenity unit of "Dollar (\$)" means that for each Twenty Dollars [Open Space](#) Value as determined in accordance with Section 324.7.2.4, the project shall be eligible for one (1) additional square foot of floor area for permitted uses. (Art. 5, S.T.M. #2, 10/10/00) (Art. 1, S.T.M. #2, 12/3/02)

328.4 State-mandated Amenities: The Planning [Board](#) may grant [bonus](#) floor area for a public benefit amenity that is not specifically listed in paragraph 328.3 above, only when all of the following conditions are met:

- the provision of such amenity has been mandated as part of a State approval process,
- the provision of the alternative improvement furthers the objectives of this section 328, and
- the improvement is at least equivalent in value and effect to a listed public benefit amenity which would qualify the development for the proposed amount of [bonus](#) floor area.

328.5 Prospective [Bonus](#) Agreements: A project in the RC district, which proposes to provide a public benefit amenity but not to utilize the full FAR increase which the amenity makes possible, may enter into a prospective [bonus](#) agreement (PBA) with the

Planning [Board](#) as a condition of the [Board](#)'s granting of a Special Permit and Site Plan Approval. The PBA shall define the specific nature of the public benefit amenity and the amount of FAR and additional floor area for which the [parcel](#) shall become eligible as a result of provision of the improvement. The only effect of a PBA shall be to increase the allowable FAR of the development, subject to all other requirements of this section 328. The approval of a PBA by the Planning [Board](#) shall not be deemed to supersede or waive any of the other provisions of this section 328, nor shall such approval be considered to represent the granting of special permit and site. plan approval for any future development.

#### 328.6 Continuing Obligation for Bonuses.

328.61 Where a [bonus](#) is granted, the applicant shall covenant to ensure the continued [use](#) of the [bonus](#) facility or improvement for the purpose for which the [bonus](#) was granted. Such covenant shall be recorded as a condition of the special permit and shall run with the land:

328.62 An applicant who constructs a pedestrian circulation improvement shall be responsible for the maintenance and upkeep of the improvement, unless it has been dedicated to and accepted by the Town. If the improvement is not maintained, the Town may, at its sole option, place a lien on the property, maintain the improvement, and seek reimbursement from the owner.

328.7 Where an applicant has made payments to governmental agencies (other than to the Town of Natick), and such payments are for the purpose of the acquisition, improvement, or [use](#) of land within the Town for public [use](#), the Planning [Board](#) may provide a credit up to the amount of such payments against any of the requirements for providing [Open Space](#) in these Highway Overlay Districts Regulations, provided that the Planning [Board](#) makes a finding that the payments made or credits given provide similar benefits to the Town as would have resulted from additional [Open Space](#) being provided to the Town (see Sec. 320 et seq.). (Art. 5, S.T.M. #2, 10/10/00)

### **Section 329. ADMINISTRATION**

The review procedures set forth herein are intended to apply in the RC and HC districts, in addition to the requirements of the underlying zoning district. In administering such procedures and requirements, the Planning [Board](#) shall apply the standards of the underlying zoning district if such standards, procedure and requirements are more restrictive than set forth in these Highway Overlay District Regulations. The Planning [Board](#) shall be the Special Permit Granting Authority for all special permits granted under these Highway Overlay District Regulations.

#### 329.1 Special Permit with Site Plan Review

329.11 A special permit with site plan review is required for any proposed

development which meets one or more of the following criteria:

- The proposed development will exceed a FAR of 0.32;
- The proposed development will not comply with an applicable requirement of sections 320 - 329, inclusive;
- The proposed development will require a special permit under the underlying zoning as modified by provisions of the Highway Overlay District Regulations.
- The proposed development will combine residentially zoned [lot\(s\)](#) with non-residentially zoned [lot\(s\)](#), regardless of the resultant FAR.

329.12 For all [bonus](#) projects, and projects requiring a special permit under the underlying zoning, the Planning [Board](#) shall be the Special Permit Granting Authority. The procedures for site plan submission, review and approval shall be as set forth under Section VI-DD of these Bylaws, as specifically modified by other provisions of these Highway Overlay District Regulations.

329.2 Modifications and Waivers: The Planning [Board](#) may modify and/or waive strict compliance with one or more of the standards, regulations and objectives set forth in these Highway Overlay District regulations, provided that it makes a specific finding, in writing, that a waiver and/or modification will not create conditions which are substantially more detrimental to the existing site and the neighborhood in which the site is located, than if the waiver and/or modification were not granted.

The Planning [Board](#) shall not grant a waiver of the FAR regulations set forth in Section 324, except with respect to redevelopment projects which retain all or any part of prior-existing structures. (Art. 5, S.T.M. #2, 10/10/00)

329.3 Mutual Review: It is the intent of this Section to provide an opportunity for regional review of proposed developments in the Regional Center district. Review and comment by the Planning [Board](#) of the Town of Framingham is specifically encouraged. In its review of a site plan, the Natick Planning [Board](#) shall consider any comments submitted by the Planning [Board](#) of the Town of Framingham.

329.31 If the [size](#) of the proposed [structure](#) exceeds 50,000 square feet, the applicant shall submit one complete set of application documents to the Town of Framingham and shall meet with the Planning [Board](#) of Framingham to describe the project, if requested by the Framingham Planning [Board](#).

**APPENDIX H**  
**MAPS**

