MELVILLE EMPLOYMENT CENTER PLAN

Town of Huntington, NY

May 2016

BFJ Planning

Prepared for:
Town of Huntington
100 Main Street
Huntington, NY 11743

Prepared by:
BFJ Planning
115 Fifth Avenue
New York, NY 10003

Melville Employment Center Plan

Prepared for:
Town of Huntington
100 Main Street
Huntington, NY 11743

Prepared by:
BFJ Planning
In association with
WSP | Parsons Brinckerhoff
Urbanomics

Draft - May 2016

Acknowledgements

Town of Huntington

Frank P. Petrone, Town Supervisor
Mark Cuthbertson, Councilman
Susan A. Berland, Councilwoman
Eugene Cook, Councilman
Tracey A. Edwards, Councilwoman

Melville Employment Center Advisory Committee (current and former)

David Pennetta, Chairman
Steven Belkin
James Coschignano
Michael DeLuise
Mark Hamer
Craig Levy
Seymour Liebman
Joanne Minieri
Glenn Murrell
Amy Newman
Mitchell Pally
Alissa Taff
Paul Tonna

Town of Huntington
Department of Planning & Environment

Tony Aloisio, AICP, Director
Sasha Abraham, Planning Aide
Craig Turner, Principal Planner
Aidan Mallamo, GIS Manager

BFJ Planning

Frank Fish, FAICP
Susan Favate, AICP, PP
Noah Levine, AICP
Jonathan Martin, Ph.D., AICP
John Douglas

WSP | Parsons Brinckerhoff

Daniel Baer, AICP
Maxwell Sokol, AICP
Nicole Bucich
John Kovar, PE, PTOE
Thomas Velleca, PE
Alexander Wright, PE, LEED AP
James Rigert
Gabriela Kappes

Urbanomics

Regina Armstrong
Tina Lund, AICP

We wish to acknowledge the following entities for their assistance in the planning process: *Suffolk County Department of Public Works, Town of Babylon, Town of Huntington Fire Department, Melville Employment Center property owners group, and the Half Hollow Hills School District*

Contents

Figures

Tables

Charts

1.0 INTRODUCTION

1.1 STUDY AREA AND BACKGROUND OF MEC PLAN

The Melville Employment Center (MEC) is the industrial and commercial area in Melville along New York State Route 110, within the Town of Huntington (see Figure 1). Route 110 is 16 miles in length and runs north-south through the MEC, providing connections to Huntington Village, Walt Whitman Shops and the Village of Farmingdale. One of several major north-south arterials in Nassau and Suffolk Counties that feed from the Long Island Expressway (I-495), Long Island's only interstate route, Route 110 is by far the most developed and is one of the region's most important business corridors.

The MEC study area is generally bounded by Pinelawn Road to the East, Walt Whitman Road to the west and the Huntington Town boundary to the south. The study area also includes parcels accessed from Spagnoli Road as well as the strip of commercial parcels along Route 110 south of Old Country Road (see Figure 2).

Most of the commercial and industrial development along Route 110 is concentrated between the Northern State Parkway and the Southern State Parkway. This includes lands in Melville (Town of Huntington) and East Farmingdale (Town of Babylon). The MEC includes the core area of commercial, industrial and retail uses found along the corridor's 2.5-mile stretch in Huntington. This area is home to many national and multinational business headquarters, including Nikon, Canon, Henry Schein, Honeywell and Estee Lauder.

While the MEC experienced massive growth in the 1970s and 1980s, in the last few decades, development has leveled off considerably. Throughout Long Island, manufacturing industries have steadily shrunk as businesses have relocated to other areas. Long Island's stagnant growth has been attributed to a number of factors, including the slower population growth, loss of young people and families, high housing costs and a lack of employment options. Additionally, the Class A office market has shifted from the 1980s-era suburban office campus model to one that prioritizes walkable, mixed-use office space with a range of amenities and access to transit. In this regard, many of the buildings in the MEC are considered obsolete, and the area as a whole is losing its ability to compete in the current regional office market.

The MEC Plan aims to advance the goals and objectives of Huntington's Comprehensive Plan, *Horizons 2020*, and other planning efforts to support the MEC and help it remain competitive as a major employment hub in the region. The vision of this Plan is to provide for future growth that creates a mixed-use center, improves the streetscape and enhances the quality-of-life for both residents and employees in Melville. In order to achieve these desired shifts in the development pattern of the MEC, a number of changes would need to be implemented, including zoning; multi-modal transportation improvements; streetscape improvements such as landscaping, signage, greater access to open space, and areawide sewer and stormwater management strategies to address future growth.

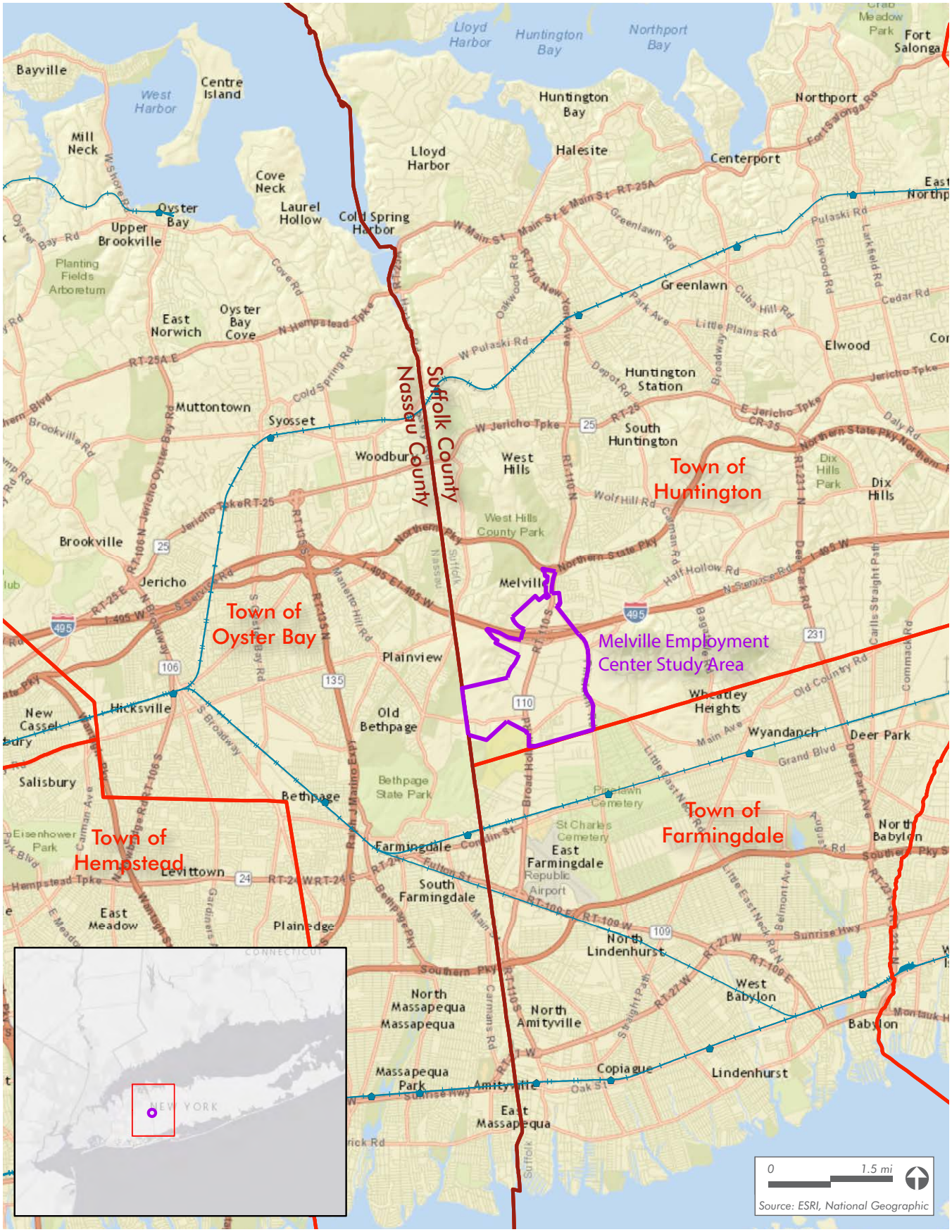


Figure 1: Regional Location

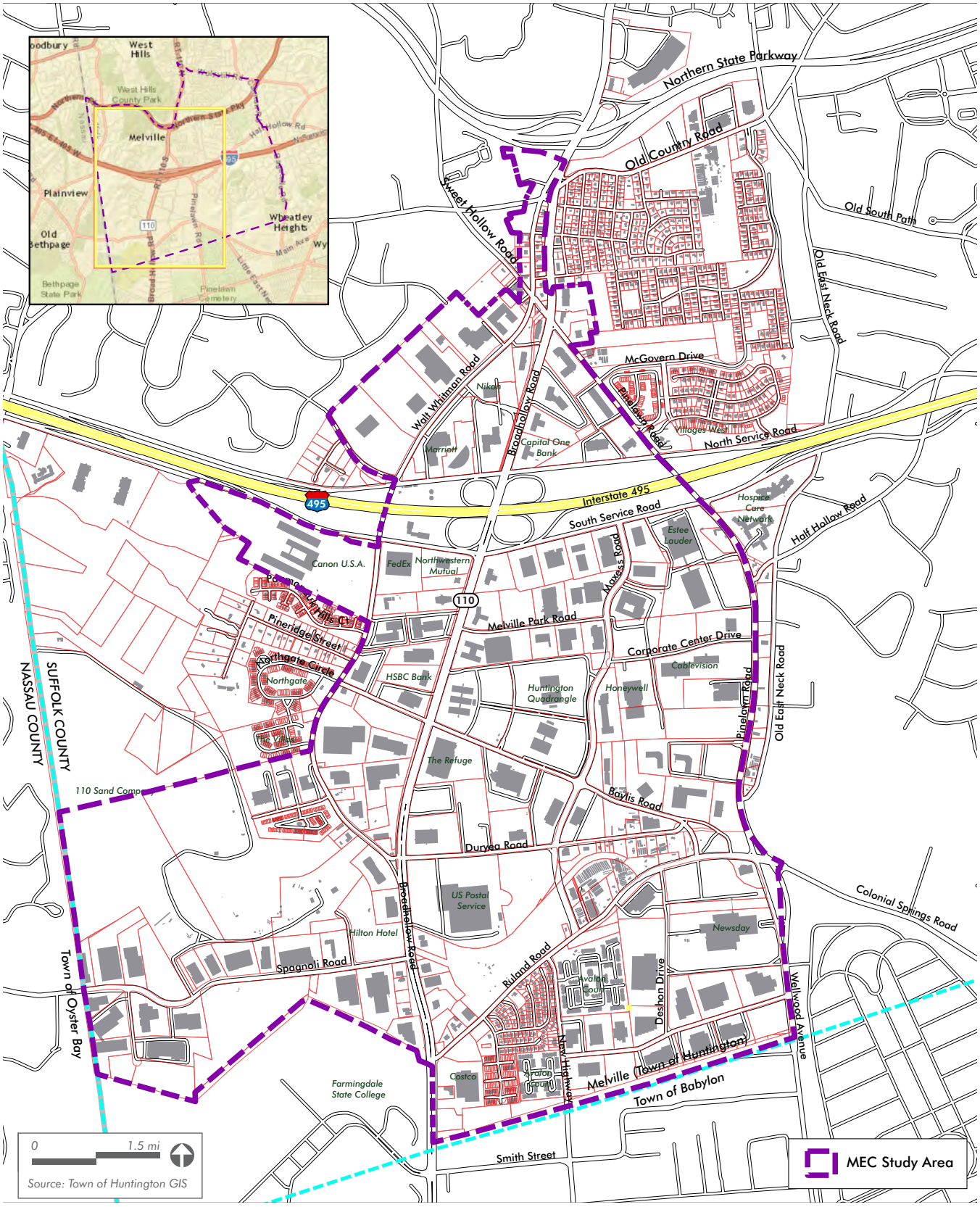


Figure 2: Study Area

Figure 3: Study Area - Aerial

1.2 SUMMARY OF MEC PLAN SECTIONS

This Plan takes a comprehensive look at the range of factors that will affect future growth in the study area, which are grouped into the following topic areas:

- Land Use and Zoning
- Community Design
- Sewerage (Wastewater) and Stormwater Management
- Circulation
- Implementation

For each of these topic areas, the MEC Plan provides a complete picture of current conditions, issues and opportunities in the area, and identifies specific implementation strategies to accomplish the desired changes articulated in *Horizons 2020*. The outcomes incorporate best practices for land-use planning, environmental constraints, fiscal realities and the limitations of the Town's existing and anticipated future infrastructure system.

Land Use and Zoning

The recommended future land use pattern for the MEC study is guided by two overarching principles: 1) Keep the MEC competitive to attract and retain jobs and enhance the Town's tax base, and 2) Preserve quality-of-life for residents and employees in and around the MEC. With these primary goals in mind, the Future Land Use Plan – and the proposed zoning to implement the Plan – seeks to remain largely within the existing area and bulk controls (e.g. height and lot coverage) so there is no greater building density than is currently allowed by the industrial zones. The key change, as shown in the Future Land Use Plan, is to promote infill development and redevelopment of the industrially zoned areas with a mix of uses; however, office is still envisioned as the primary use.

The primary mechanism for introducing a mixed-use land pattern into the MEC is the proposed creation of an MEC Overlay District. This area generally includes the I-1 and I-2 industrial-zoned parcels in the study between Walt Whitman/Broadhollow Roads and Pinelawn/Sweet Hollow Roads and north of Ruland Road. Within the overlay district, all uses permitted by the underlying zoning district would continue to be permitted. However, residential uses and limited small-scale retail and restaurant uses would also be allowed. Smaller-scale buildings of 2-3 stories maximum would be encouraged along Pinelawn and Walt Whitman Roads, where the industrial areas buffer the surrounding residential zones.

It is important to recognize that creation of the MEC Overlay District would not preclude the ability of any property owner to develop as currently permitted under existing zoning. It would simply provide the opportunity to develop a broader range of uses if certain criteria are met.

A "soft-site" build-out analysis was conducted to estimate the amount of development that could reasonably occur under existing zoning as well as a range of development scenarios. This analysis found that the proposed zoning changes would not have a negative impact on traffic generation

compared with potential development under the existing zoning. The additional development would not cause a strain on the Half Hollow Hills School District, as enrollment has been declining for the last 10 years. The trend in the number of school-aged children is likely to continue to decrease in the near future, and the additional new tax base and the gradual increase in the number of schoolchildren from any new residential development in the MEC will help to maintain the excellent quality of public schools in the school district.

Community Design

The land use and zoning recommendations provide the foundation upon which the MEC can adapt to promote a mix of uses that would work together to develop a functional "center." In addition to the mix of uses, the design of office, commercial and residential buildings, and the appearance of streetscapes and the public realm, together contribute to the quality of the MEC's overall image and character. The recommendations within this section provide design guidelines for buildings and the streetscape to help achieve the goal of making the MEC a better place to live and work.

The guidelines are intended to ensure that future site planning and architectural designs respect the suburban scale and character of the existing office parks and the surrounding residential neighborhoods. Specific recommendations are provided for architecture, streetscape and public space to give the MEC a clearly defined identity and sense of place. The section outlines strategies to enhance the pedestrian environment with improved streetscape design, an attractive and safe pedestrian network and amenities such as outdoor seating in appropriate areas.

The architectural guidelines were incorporated into conceptual designs for mixed-use infill development at the Huntington Quadrangle site. The example shows how a new mixed-use "town center" can be stitched into the existing neighborhood fabric. This approach has been used successfully to reposition former office parks (and even abandoned malls) elsewhere in the country. It also reflects a new market reality, in which places gain a competitive edge when they provide more than just the typical drive, park and work environment.

Sewerage (Wastewater) and Stormwater Management

To maintain and enhance the status of the MEC as a major employment hub in the region, it is necessary to ensure that the study area is well positioned to accommodate future growth. Wastewater and stormwater management are two critical infrastructure elements of the MEC Plan. *Horizons 2020* identified two main priorities for the MEC area with respect to sewers: (1) address sewage capacity needs for new development; and (2) promote sustainable practices for stormwater management. As such, recommendations from this element of the MEC Plan provide a framework for the Town of Huntington to advance these two priorities.

Wastewater Management

Nearly half of the parcels within the MEC study area are unsewered, and these gaps in the sewer system can degrade the environment and impede economic development potential. The current ad hoc method of individual sewer contracts imposes a challenge on long-term planning for future

development in the study area. Although the MEC has thrived as an economic hub under this approach, it makes it difficult to plan for land use and infrastructure in an integrated manner, as called for in *Horizons 2020*. Additionally, several portions of the existing sewer system may also be operating above their design capacities, and new developments can create and/or exacerbate capacity problems for existing infrastructure.

Building on the preliminary assessment of future sewer infrastructure needs in the MEC Plan (based on the "soft-site" build-out analysis), it is recommended that the Town of Huntington and/or Suffolk County initiate a detailed study of wastewater management as an update to the 1984 *Melville Industrial Sewer District Feasibility Study*. The dual purpose of a detailed sewer study would be to further explore opportunities to (1) close the gaps in the sewer system (including identification of specific partnerships among study area properties if it is decided not to pursue either creation of a new sewer district or extension of the Southwest Sewer District) and (2) more accurately determine the need to expand sewer capacity to accommodate existing and future development. As the Town considers options for addressing wastewater management in the MEC, including potential partnerships and funding sources, it will be important to continue close coordination with Suffolk County.

Stormwater Management

Due to the many roads, paved parking lots and large building footprints in the MEC, there is a significant amount of impervious surface in the study area. One problem this creates is the potential for pollution of stormwater, which can subsequently pollute either surface waters that are used for food production/recreation or the groundwater that recharges the aquifers that are the source of Long Island's drinking water. Stormwater in the MEC is currently managed using a range of soft and hard drainage infrastructure owned by the Town of Huntington, Suffolk County and New York State. The Town is beginning to explore ways to incentivize green infrastructure projects to support stormwater best management practices (BMPs). As such, the stormwater recommendations in the MEC Plan aim to advance the goals of *Horizons 2020* by encouraging the use of BMPs that are most appropriate for the study area.

Growth and new development within the MEC provides an opportunity for integration of BMPs as part of new design or renovation of existing buildings and infrastructure. For example, existing surface parking lots can be replaced with permeable paving such as pervious pavers, porous concrete asphalt or grass pavers, or can incorporate other green infrastructure such as bioswales. Building rooftops can be retrofitted with either green or blue roofs for stormwater retention/detention, and bioswales and rain gardens can be employed strategically as landscape in order to remove silt and pollutants and increase infiltration capacity. Overall, the future use of stormwater BMPs within the MEC – potentially including permeable pavement, rooftop detention/retention and bio retention systems – can result in a multitude of environmental, community, and economic benefits.

Circulation

Existing traffic congestion, which is projected to get worse in the future, is a major issue that restricts the MEC's competitiveness and adversely affects quality-of-life for employees, residents and visitors. Travel choices are constrained within the study area due to a lack of multi-modal connectivity and the auto-oriented development pattern. One of the recommendations in *Horizons 2020*, which is closely aligned with Suffolk County's *Connect Long Island* plan, is to "Integrate transportation and land use planning at the local level, including context-sensitive solutions and planning initiatives that promote balanced development patterns and transit-friendly development." Accordingly, the Circulation component of the MEC Plan aims to complement other elements of the overall MEC Plan by promoting the development of "an accessible, multi-modal transportation system," as called for in *Horizons 2020*.

The MEC Plan includes three categories of recommended transportation improvements: (1) traffic/roadway improvements; (2) pedestrian/bicycle improvements; and (3) transit improvements. These improvements seek to build on other recently completed, ongoing and planned future capital projects in the study area, including the New York State Department of Transportation (NYSDOT) Route 110 Reconstruction and Bridge Projects, the Suffolk County Department of Public Works (SCDPW) Reconstruction of Pinelawn Road/Wellwood Avenue, the proposed implementation of a Route 110 Bus Rapid Transit (BRT) system complemented by off-corridor shuttle bus feeder routes, and the planned construction of the Long Island Rail Road (LIRR) Republic Station.

The recommended improvements comprise a wide range of physical, regulatory and programmatic changes. To assist the Town of Huntington and key stakeholders in prioritizing potential circulation-related improvements, the MEC Plan includes an implementation matrix that outlines the estimated cost range, timeframe for implementation, lead entity, potential constraint(s) and recommended next step(s) for each potential improvement.

A key recommendation in the MEC Plan is the proposed widening of the Walt Whitman Road Bridge, which garnered support during the public outreach meetings for this planning process. The MEC Plan, as well as past studies, has identified issues and opportunities that could inform development of a project purpose and need for the bridge widening, thereby providing the framework to advance the design and environmental review of the project. It is recommended that this important project be included in any future updates to the Town's Comprehensive Plan, and that the Town initiate discussions with Suffolk County to submit the proposed project for inclusion in the New York Metropolitan Transportation Council (NYMTC) Transportation Improvement Program (TIP).

Implementation

Section 6 identifies specific measures to achieve the recommendations made in this plan. These include creation of an overlay zone to allow mixed-use within the area, implementation steps to widen the Walt Whitman Bridge and undertake other transportation improvements, the exploration of a Business Improvement District (BID) and the advancement of a sewer study.

Recommendations recognize the need for intergovernmental cooperation, as infrastructure and services in the MEC are owned and maintained by a variety of municipalities and agencies, including the Town of Huntington, Suffolk County and New York State. Therefore, regional coordination is imperative, and the MEC Plan offers an effective framework for the Town to identify and advance priority improvements that cross-jurisdictional boundaries.

1.3 OTHER PLANNING EFFORTS

Because the MEC has a significant concentration of commercial development, it is considered a key asset to the region as a whole. As a result, many planning studies have been undertaken to address issues and opportunities along the corridor, both in Huntington and in Babylon. The MEC Plan does not exist in a vacuum, and recognizes other planning efforts, including those below.

Town of Huntington:

- Horizons 2020 Comprehensive Plan Update (2008)
- Melville Industrial Sewer District – Feasibility Study (1984)
- Melville Route 110 Area Plan (1987)
- All-Hazard Mitigation Plan (AHMP) (2014)
- Environmental Impact Statement (EIS) for Canon, Inc. Headquarters facility (2008, 2012)

Suffolk County:

- Suffolk County Comprehensive Plan 2035 (2011)
- A Review of Selected Growth and Development Areas (2006)
- Suffolk County Transfer of Development Rights (TDR) Study (2014)

Other Municipalities, Agencies and Civic Organizations:

- Route 110 BRT Study (Town of Babylon, 2010)
- Connect Long Island (Town of Babylon, 2011)
- Long Island 2035 Visioning Initiative (Long Island Regional Planning Council, 2009)
- Access to Transportation on Long Island (NYMTC, 2007)
- Long Island Sustainability Plan (Cleaner Greener Long Island, 2013)
- Growing Greener Communities (Regional Plan Association, 2007)
- A New Vision for Long Island's Economy (Regional Economic Development Councils, 2011)
- Plan 2040: Regional Transportation Plan (NYMTC, 2013)
- Long Island's Future: Economic Implications of Today's Choices (Long Island Index, 2015)

1.4 PUBLIC OUTREACH

This planning effort was led by the Town of Huntington's Department of Planning and Environment, with the assistance of a Steering Committee that included representatives from the Town, County and State agencies, civic representatives and other key stakeholders. The consultant team, led by BFJ Planning, met regularly with the Town and the Steering Committee to gather feedback and ensure that the developed recommendations are supported to the maximum extent possible by residents, property owners and the Town.

This effort was also coordinated with key stakeholders to solicit feedback and gather information on existing conditions, planned projects and recommendations, including the Suffolk County Department of Public Works, the Town of Huntington Fire Department and an organized group of MEC property owners.

Citizen participation was an important part of this Plan. In order to solicit feedback from the public, four public workshops were held for the community, to gain input on issues and opportunities related to the plan's various components. Summaries of these public workshops can be found in the appendix to this Plan. A project page was published on the Town's website, with updates on the plan's progress along with relevant documents. A business and employee stakeholder online survey was also developed to reach a group of stakeholders that are less likely to attend the public meetings because they do not live in the area, and a similar online survey was also developed for residents, to supplement the input received at public workshops.

Opening Workshop: June 8, 2015

Land Use and Zoning Workshop: September 29, 2015

Transportation/Circulation Workshop: November 9, 2015

Community Design and Architecture Workshop: December 1, 2015

2.0 LAND USE AND ZONING

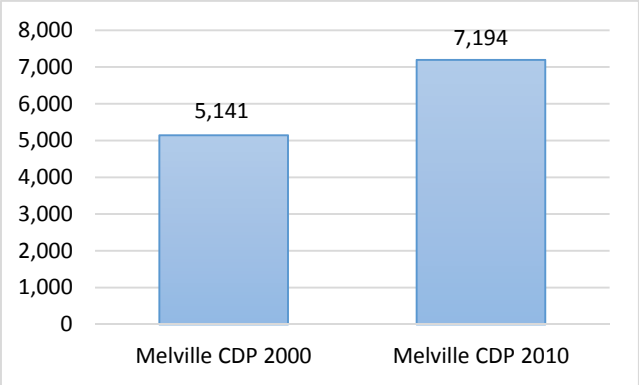
2.1 LAND USE HISTORY

Much of Melville's early history is defined by agriculture. Broadhollow Road (Route 110) was once a major route to transport goods from the South Shore to Huntington, while Old Country Road was a key east-west trading route in Long Island. As seen in the historical aerials, Melville saw a period of rapid transformation from agricultural to office and industrial uses between the 1950s and 1980s. This growth was concurrent with the post-WWII suburban boom in Long Island and the development of the regional road network. Route 110 was widened in the early 1950s, and I-495 was extended to Melville in 1962. This period saw the rise of the areas surrounding Route 110 as a regional economic hub in an emerging post-industrial American society. The suburban office park land use pattern remains to this day, and is characterized by large, low buildings set behind expansive parking lots.

Melville in 1947 (left) and 1978 (right) *Source: Suffolk County*

In the past 10 years, the surrounding area has also experienced a sizeable growth in housing development. The Greens at Half Hollow, a 1,400-unit housing development of mostly townhomes for seniors, opened in 2004 on land previously used by the State for the Long Island Developmental Center. In all of Melville, there was a 40% increase in housing units between 2000 and 2010, primarily the result of zoning changes that led to the development of several large multi-unit housing complexes.

Chart 1: Housing Units in Melville (2000-2010)



2.2 EXISTING LAND USE

Office and Light Industrial Uses

Figure 4 shows the existing land uses in the MEC and surrounding areas. The study area is dominated by office (33%) and light industrial uses (34%), which are mostly built in the suburban office park style. This land use pattern is characterized by large low-rise office buildings surrounded by surface parking lots with large, landscaped setbacks along road frontages. Properties are generally disconnected from one another, with dedicated entries and parking lots.

Table 1: MEC Land Uses

Land Use	Parcels	Acres	%
Single Family Residence	136	39.5	2.2%
Two-Family Residence	0	0	0.0%
Townhome/Apartments	266	64.0	3.6%
Commercial	33	65.4	3.7%
Office	74	594.0	33.4%
Industrial	71	606.6	34.1%
Institutional	12	77.9	4.4%
Agriculture	1	1.0	0.1%
Parks and Open Space	1	5.0	0.3%
Vacant	44	63.0	3.5%
Utilities	25	118.8	6.7%
Transportation ROW	-	145	8.1%
Total	663	1780.4	100.0%

Most industrial uses in the MEC are for warehousing, shipping or research facilities. Some of these uses are along Spagnoli Road and other smaller roadways. There is a sand and gravel plant on Spagnoli Road, which is permitted by the New York State Department of Environmental Conservation (NYSDEC) to accept clean fill and construction and demolition material. This site is not visible from Route 110 or from the LIE.

Residential

Although the MEC has a reputation as a concentrated area for office and industrial buildings, there are significant pockets of residential development. Residential areas in the MEC are mainly accessed from Ruland Road, including Avalon Court (apartments) and Country Pointe (townhomes). Highland Green, an affordable rental multifamily complex, is being built east of Maxess Drive. Areas north of Ruland Road in the study area are primarily single-family interspersed with agricultural and vacant land. Although not within the study area, residential uses are found along the perimeter, including The Coves at Melville (senior housing), Northgate and The Villas on Walt Whitman Road, and Villages West at Melville on Pinelawn Road.

Retail

Retail uses in the MEC represent nearly 4% of the study area and are primarily found in two nodes of activity. There is a strip of retail uses between Walt Whitman Road and Route 110 in the northern portion of the study area. These businesses are sited on narrow lots, which creates parking and loading difficulties for many businesses, as described in greater detail later in this report. The retail node along Route 110 near Ruland Road includes a Costco, a 7-11 store, restaurants and several other retail establishments. The Melville Mall is on Route 110 just north of the MEC study area.

Route 110/Walt Whitman Road

Route 110/Ruland Road

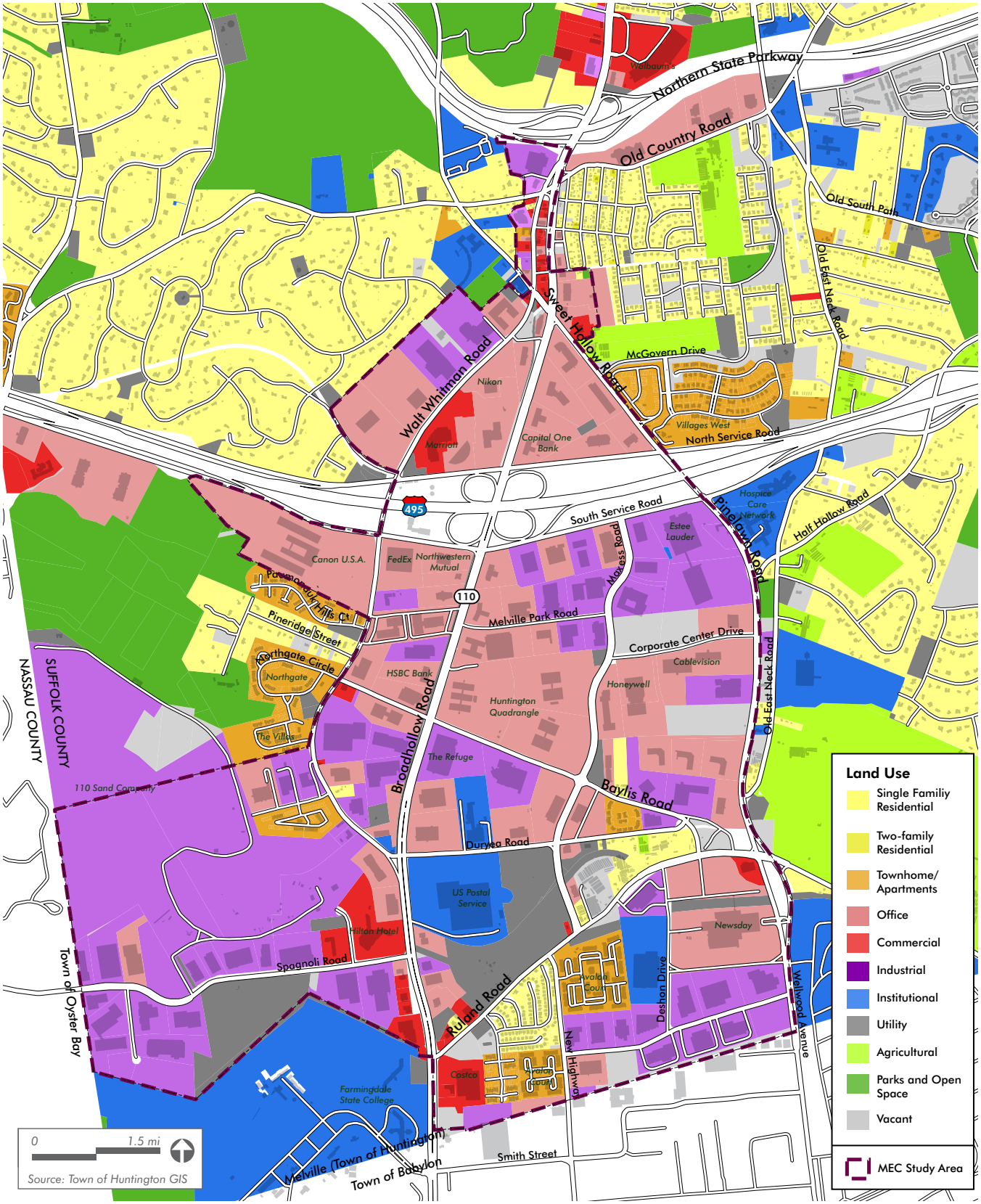


Figure 4: Generalized Land Use Map

Institutional and Other Uses

Approximately 4% of the MEC is dedicated to institutional uses. The U.S. Postal Service operates a large distribution facility in the southern portion of the MEC study area along Route 110. The Bochasawasi Akshar Purshottam Swami (BAPS) Hindu temple is under construction on the west side of Deshon Drive, south of Ruland Road. When complete, the two-story, 48,000-square-foot complex will include a sanctuary and classrooms offering educational programs, cultural activities, free health clinics and youth activities. Two significant educational uses that border the MEC are Farmingdale State College (SUNY Farmingdale) and the West Hollow Middle School. Other nearby institutional uses, including the Melville Fire Department, a local post office, Sunquam Elementary School and the Half Hollow Hills Community Library, are concentrated around the intersection of Walt Whitman Road and Route 110.

Less than 1% of land in the MEC study area is reserved for recreation or open space. The Newsday property off Pinelawn Road includes a private softball field. The Pineridge Conservation Area lies to the west of the study area, and West Hills County Park is to the north. Three adjoining cemeteries, Long Island National, Pinelawn and Saint Charles, are located southeast of the study area.

Approximately 16% of land in the MEC study area is reserved for utilities and transportation right-of-ways, which includes a significant buffer for the LIE. The Long Island Power Authority (LIPA) owns a large area north of Ruland Road that includes electrical transmission infrastructure and some undeveloped lands. There is also an undeveloped property on Spagnoli Road owned by KeySpan, which has approval to develop a 250-megawatt dual-cycle electric generating plant there; however, plans have not moved forward. There are a small number of isolated undeveloped parcels in the MEC owned by the Town, some of which are maintained for stormwater management purposes. In addition, there are several undeveloped parcels along Corporate Center Drive and Pinelawn Road that are required set-asides for the septic sewage fields associated with adjacent office buildings.

Land Uses in Adjacent Municipalities

Properties next to the MEC in the Town of Babylon have a comparable mix of industrial and office uses along the Route 110 corridor, with adjacent residential districts surrounding the core. Republic Airport, a 530-acre State-owned general aviation facility, lies to the south and primarily provides space for corporate jets. The State is considering plans for an underutilized area adjacent to the facility lands, such as commercial development and other compatible uses. The Republic Airport LIRR station, which was closed in 1986, is planned to be reopened as an inter-modal hub to link to bus service enhancements along Route 110.

The Town of Oyster Bay in Nassau County is to the west of the MEC. This area is predominantly residential, with some industrial and office uses along Bethpage-Sweet Hollow Road (the western extension of Spagnoli Road). Commercial and industrial uses are also found next to the LIE.

2.3 LAND USE ISSUES AND OPPORTUNITIES

Long Island Demographic Trends

While Long Island generally experienced massive growth in the 1950s and 1960s, in the last few decades, this growth has leveled off considerably. Manufacturing industries such as aerospace and defense have steadily shrunk, and the Island lost the competitive edge in employment growth it once enjoyed to other regions. Many businesses have relocated from the traditional economic regions of the Northeast and Midwest toward cheaper, more business-friendly environments in the South and Southwest. As noted in *Long Island's Future: Economic Implications of Today's Choices*, the Island's stagnant growth reflects socioeconomic challenges such as the declining population growth, loss of young people and families, high housing costs and a lack of employment options. Long Island's population growth is projected to decline slightly in the coming decades, in part due to the difficulty of retaining young workers.[1]

While the economic forecast seems limited, there are a number of economic development opportunities to help mitigate these trends. NYMTC forecasts almost 500,000 new residents in Long Island from 2007 to 2035, with employment also projected to grow over the same time period.[2] According to analysis by Urbanomics, Long Island is projected to add approximately 108,500 jobs by 2035, of which 40,500 is Nassau County and 68,000 is Suffolk County. Stable industries in the Long Island economy, such as retail trade, education and health services and government, are predicted to remain major sources of employment and drivers of the economy.

Long Island's Future identifies the biomedical sector as an industry where the region maintains a competitive advantage. The MEC already has a cluster of businesses in this sector, including Henry Schein, Arrow Electronics, H2M Labs and Canon BioMedical. In addition, the Broad Hollow Bioscience Park at Farmingdale State College has been developed in conjunction with Cold Spring Harbor Laboratory and The Research Foundation for the State University of New York.

The MEC generally has a more stable real estate market than surrounding areas in Long Island. The vacancy rate on the Route 110 Corridor (in Melville and Farmingdale) was approximately 11% at the end of 2014, which was better than the 17% vacancy rate for Western Suffolk County in the first quarter of 2015.[3] Both the Long Island Index Study and Suffolk County's Review of Selected Growth and Development Areas found that the Route 110 office/industrial corridor has tremendous development potential. Policies that encourage a vibrant mixed-use district with multifamily housing would attract a significant amount of new jobs, increase tax revenues for the Town and would drive demand for space in the area.[4]

---

[1] Study prepared for the Long Island Index by HR&A Associates, 2015.
[2] *Long Island 2035 Regional Comprehensive Sustainability Plan*, Long Island Regional Planning Council.
[3] Route 110 vacancy rate: *Long Island's Future*, HR&A Associates, 2015. Western Suffolk vacancy rate: *Long Island Office Q1 2015: Declining availability rate leads to positive absorption*, CBRE Research, 2015.
[4] Long Island's Future, HR&A Associates, 2015

Obsolete Buildings

Because of the relative age of the MEC's development, many buildings need modernization to meet the needs of today's companies. A significant portion of the MEC building stock was built in the 1970s, and many of these older buildings are considered to be obsolete and in need of either demolition or adaptive reuse. The term "obsolete" means that the advantage of rebuilding a new facility outweighs the cost of doing so. The most common reason for obsolescence is that, as buildings get older, maintenance costs increase. At the same time, rental value decreases because there are newer facilities that are more equipped and modern.

Underutilized Parking Lots/Shared Parking

A large portion of the land area in the MEC is covered by parking, and many of these parking lots have large areas that are perpetually unused (see Figure 8).This is due both to the Town's parking requirements, which have tended to provide more parking than what is needed, and to the 11% vacancy rate. The zoning code requires 3.3 spaces to 5 spaces per 1,000 feet, depending on the building's floor area. However, the Institute of Transportation Engineers (ITE) finds that actual demand for office buildings is 2.84 spaces per 1,000 square feet.[5]

Currently, underutilized parking areas present an opportunity for infill development with a mix of uses including offices, shopping, housing and entertainment. If land values increase, it would be more economical for developers to provide parking garages. In 2012, excluding land costs, parking construction costs in suburban areas were estimated at:[6]

- $6,000/space for a surface lot,
- $25,000/space for an above-ground structure, and
- $35,000/space for an underground structure.

A common concern about infill development is that it will lead to more traffic and less parking. However, mixed uses allow for the concept of shared parking. Residential parking demand peaks in the evening hours, whereas office parking peaks during the day. Additionally, residential development typically generates fewer vehicle trips, on a square footage basis, during traffic peak hours than office development.

New developments can also include space for shared cars such as ZipCars, which provides people with access to a car without having to own it. This helps to ensure that cars and parking spaces are used much more efficiently

---

[5] *Parking Generation, 4th Edition*. Institute of Transportation Engineers. Land use: 701 (Suburban Office Building)

[6] *Parking Structure Technical Report: Challenges, Opportunities, and Best Practices*. Metropolitan Transportation Commission, June 2012. http://www.mtc.ca.gov/planning/smart_growth/parking/6-12/MTC_Parking_Structure.pdf

Pedestrian-Oriented Streetscape

Suburban office parks like the MEC do not have environments that are considered walkable. Despite the fact that there are sidewalks on most streets, office buildings are separated from one another by large asphalt parking lots and landscaped greens, and there are few destinations for retail, dining and entertainment. However, the desired form of the suburban workplace has changed, and many of today's most innovative companies are choosing to invest in or expand in mixed-use, walkable suburban areas or even in highly urban areas. This is now beginning to happen in the I-287 corridor in Westchester County, for example, or with General Electric's recent move from Fairfield, Connecticut to Boston.

A survey of 500 companies that have built or expanded in walkable urban neighborhoods found that companies see a competitive advantage to locating in areas with a mix of offices, restaurants and shops, with a variety of nearby housing options and accessible by a range of transportation choices.[7] Regionally, according to a 2014 poll conducted by HR&A Associates, young people in Long Island value transit accessibility and entertainment convenience more than older residents. Of residents aged 18-34, 59% value living within walking distance of public transportation, and 71% consider proximity to shops and entertainment very or somewhat important.[8]

The MEC is not an urban downtown, nor is it anticipated or desired to become one in the future. Nonetheless, these real estate trends point to the competitive advantage that can be gained by transitioning toward a more walkable environment with diversified land uses, while still maintaining a generally suburban context.

Mixed-Use Town Centers

The MEC has the potential to be an attractive place for multifamily development for people who wish to live near where they work. In fact, condominium communities near the study area, such as Northgate, were in high demand by middle- and upper-management executives when they went on the market.[9] New multifamily residential development within the MEC could be attractive to young college graduates and new hires who seek proximity to their jobs and are not ready to purchase or maintain a single-family home. Living near work is particularly appealing to a younger generation of educated workers that is seeking a less car-dependent lifestyle. Mixed-use development can also help reduce traffic impacts by making it easier for people to access goods and services without having to get into an automobile.

Currently, workers in the MEC study area have minimal access to retail or restaurants within walking distance, limiting opportunities for dining or shopping outside their office building or for meeting informally with co-workers and clients. The addition of retail and dining opportunities

---

[7] *Core Values: Why American Companies are Moving Downtown*. Smart Growth America, in partnership with Cushman & Wakefield and the Center for Real Estate and Urban Analysis at the George Washington University (GWU) School of Business.

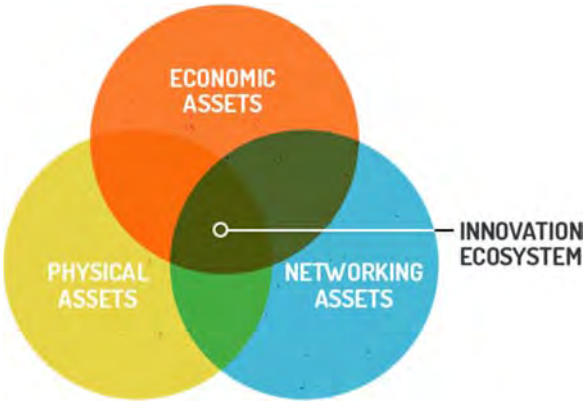
[8] *Long Island's Future*, HR&A Associates. 2015

[9] Melville – Route 110 Area Draft Generic Environmental Impact Statement, Town of Huntington. 1988.

within the MEC would reduce the need for workers to drive during lunch hours, which could in turn lessen congestion during peak periods.

Comments from the public meetings during this study revealed a desire by Melville residents for additional food and beverage options. The Town's Comprehensive Plan also encourages the development of small, pedestrian-oriented, mixed-use "town centers" at strategic locations in the MEC. These centers could contain neighborhood-scaled retail and restaurants, business services and entertainment opportunities. Retail development could also be supported by the introduction of residential use in the centers.

Innovation Districts



The Long Island Regional Economic Development Council's 2015 update to its Five-Year Strategic Plan supports the growth of innovation clusters, especially those in the biotechnology sector, to spur growth and generate jobs on the Island. The innovation districts would encourage the development of multi-faceted, interdisciplinary facilities that link scientists, engineers and health and medical professionals to entrepreneurs and small businesses. The plan suggests that facilitating this collaboration will help to "accelerate the commercialization of technical and scientific discovery and generate jobs at every rung of the employment ladder."[10]

The Route 110 corridor already has the beginnings of an innovation district at the Broad Hollow Bioscience Park (BHBP) on the campus of SUNY Farmingdale. BHBP is a 38-acre corporate research campus containing more than 100,000 square feet of lab/research buildings with state-of-the-art facilities, and an additional 18 acres of shovel-ready land suitable for a large pharma or biotech company.

While major companies in the area are already working on several initiatives with SUNY Farmingdale, including scholarship and internship programs, greater collaboration on research and innovation could be fostered at the BHBP. Partnerships among companies and new entrepreneurial firms could create opportunities to research and develop new products and efficiencies across the area's siloed businesses. BHBP has developed the infrastructure to support this type of collaboration, and MEC companies should maximize its potential.

[10] http://regionalcouncils.ny.gov/sites/default/files/regions/longisland/LIREDC-2015-Progress-Report.pdf

2.4 EXISTING ZONING

Existing zoning in the study area is shown in Figure 5. As shown on the map and in Table 4, the MEC is primarily zoned for light industrial uses. The I-1, I-2 and I-3 Light Industry districts, combined, cover 86% of the study area. The I-1 Light Industry District (I-1) is the predominant zoning category, covering more than 62% of the study area. The MEC contains almost all of the land zoned I-1 in Huntington.

Industrial Districts

The I-1, I-2 and I-3 Light Industry districts allow for uses such as offices, banking, research laboratories, cold storage, warehousing and other light manufacturing uses (i.e., food storage and distribution, textile manufacturing and furniture assembly). Farming, which was the predominant use prior to the area's development in the 1960s, is also allowed. Permitted uses for the three districts are the same, with none allowing residential uses, but the districts have small differences in conditional uses. For example, in I-1 zones, if specified criteria are met, concert halls, commercial athletic recreation facilities, restaurants and food shops (accessory only, and not including drive-thru windows), personal service shops and convenience stores are allowed by conditional use permit. Self-service storage facilities are allowed in I-3 as a conditional use. There is only one 1.5-acre parcel in the MEC with the I-3 designation, and it is built out.

Table 2: Industrial Zoned Parcels in the MEC

Zoning District			Acres	%
Industrial (80.9%)	Districts	I1	1,112.8	62.5%
		I2	325.9	18.3%
		I3	1.7	0.1%
Commercial (8.5%)	Districts	C2	43.5	2.4%
		C4	8.3	0.5%
		C6	59.6	3.3%
		C8	8.1	0.5%
		C10	31.1	1.7%
Residential (10.6%)	Districts	R40	90.0	5.1%
		R5	36.8	2.1%
		R3M	50.3	2.8%
		RRM	12.3	0.7%
Total			1,780.4	100%

Table 4 summarizes the area and bulk requirements for the MEC's industrial districts. Buildings in the I-1 and I-2 district are permitted to be four stories, or 58 feet, whichever is less. Building footprints are limited to 30% and 33.5% in I-1 and I-2, respectively. For lots of 10 acres or more in both I-1 and I-2 districts that have direct access to the LIE or its service roads, buildings of six stories or 90 feet are allowed. Additional provisions apply to ensure these buildings are sufficiently set back from the street and that they are silver-rated by the U.S. Green Buildings Council's Leadership in Energy and Environmental Design (LEED) certification program. The LEED provision helps to ensure the buildings are environmentally responsible in their design, construction and maintenance.

Table 3: Industrial District Bulk, Height and Setback Regulations

	I-1 District	I-2 District	I-1/ I-2 Next to I-495	I-3 District
Max. Building Height (Stories)	4	4	6[1]	-
Max. Building Height (Feet)	58	58	90[2]	45
Min Depth of Front Yard (Feet)	100	75	100	50
Min Depth of Rear Yard (Feet)	50	25	50	20
Min. Lot Area (acres)	6	3	10	1
Min. Lot Width (feet)	400	250	400	125
Min. Lot Frontage (feet)	200	250	200	50
Max. Lot Coverage (Building)	30%	33%	25%[3]	40%
Min. Distance of Bldg from Residential Zone	100	100	250[4]	50

[1] The building may be increased 1 story beyond the 4-story requirement up to 6 stories, for every 30 feet the building exceeds the front yard setback.

[2] The building may be increased 1 foot in height for every 2 feet the building exceeds the front yard setback up to 90 feet above such finished grade.

[3] Lot coverage for all buildings and structures (including parking structures) cannot exceed 50%.

[4] Applies to buildings higher than 58 feet.

Commercial Districts

Commercial districts account for 6% of the land in the MEC study area. There are two main commercial areas in the study area, which are primarily zoned C-6. One is along Route 110 and Walt Whitman Road north of Sweet Hollow Road, and another is along Route 110 at Ruland Road. There are isolated C-6 areas at Baylis and Walt Whitman Roads and on a vacant area on Ruland Road east of Maxess Road. The C-6 district (General Business) allows for a wide range of retail establishments, restaurants, convenience markets and a variety of other professional services. Maximum building height in this district is three stories or 45 feet. The C-6 zone also allows mixed-use buildings with residential uses on upper floors, subject to special bulk and parking provisions.

The commercial area along Route 110 south of Spagnoli Road contain areas zoned C-4 (Neighborhood Business) and C-8 (General Business A). These districts allow single-family dwellings, retail stores, personal-service shops, restaurants and offices. The C-4 district is intended for retail and service outlets designed principally for residential neighborhood service.

North of the LIE, a number of properties are zoned C-2 (Office), which provides for moderate intensity office/research and development and is intended to buffer higher-intensity office uses and residential zones. The C-2 districts are built out, with office uses comparable to those found in the I-1 District. There are hotels located at the two C-10 (Planned Motel) districts mapped in the study area.

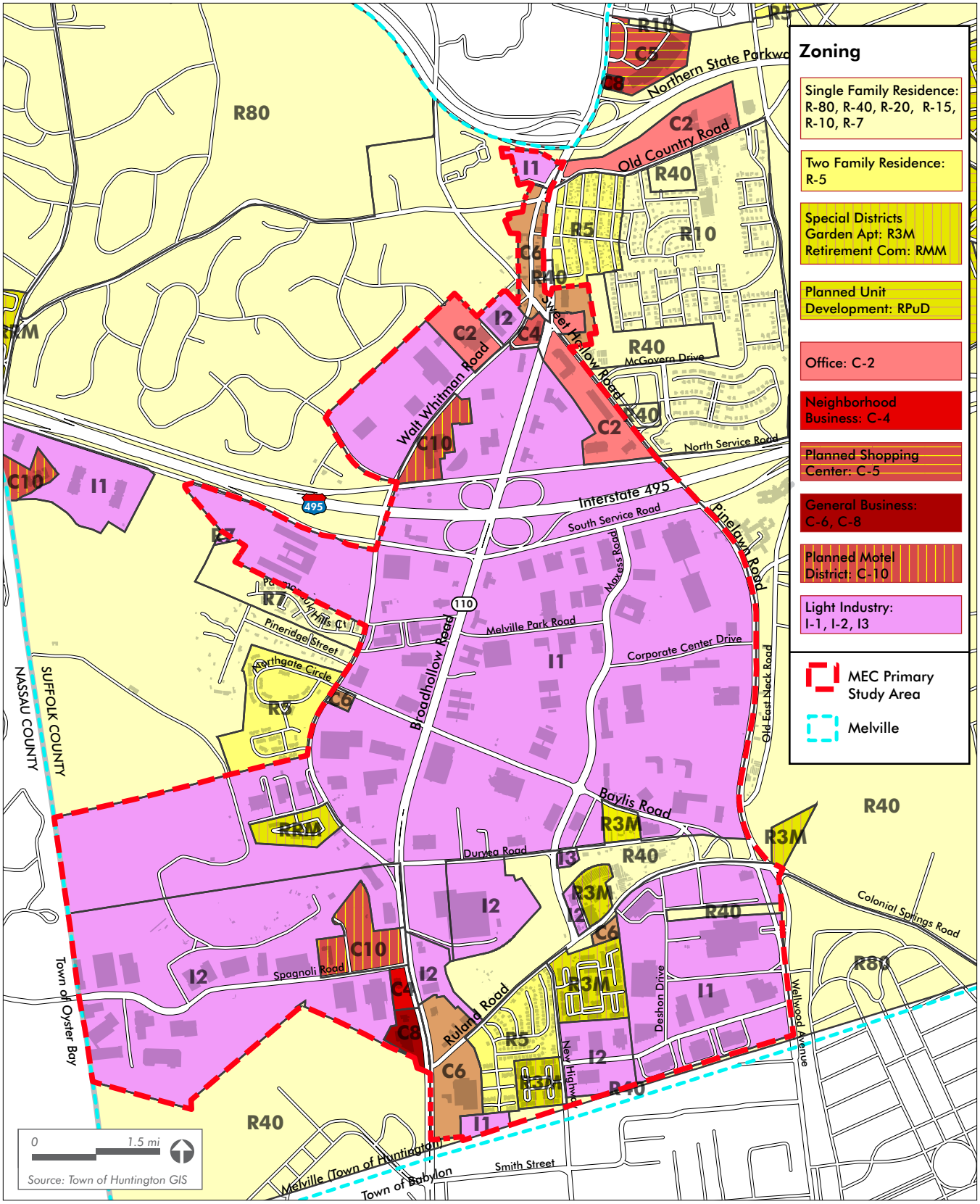


Figure 5: Zoning Map

Table 4: Commercial District Bulk, Height and Setback Regulations

	C-2 Office Building District	C-4 Neighborhood Business	C-6 General Business	C-8 General Business A*
Max. Building Height (Stories)	2	2	3	2
Max. Building Height (Feet)	30	35	45	35
Min Depth of Front Yard (Feet)	75	50[2]	See § 198-27	35
Min Depth of Rear Yard (Feet)	75	35	-	15
Min. Lot Area (acres)	3	-	-	-
Min. Lot Width (feet)	50	-	-	-
Min. Lot Frontage (feet)	40	-	-	-
Max. Lot Coverage (Building)	25	40	-	50
Residential Uses Allowed	No	Yes[1]	Yes, upper floors	Yes[1]

[1] Separate provisions for residential dwellings, see zoning code.

[2] Setbacks shall conform to established setbacks on neighboring properties (see § 198-25). No parking allowed within front yard

Residential Districts

Residential-zoned areas are primarily accessed via Ruland Road. The R-40 district, which is found north of Ruland Road, allows for single-family dwellings; this area also has a mix of agricultural uses, vacant land and LIPA-owned land. The R-5 and R-3M (Garden Apartment Special District) zones south of Ruland Road allow for housing at slightly higher densities, and the R-3M zone allows for building heights of up to 3 stories. The parcels zoned R-5 and R-3M have already been built out with two-family homes and multifamily dwellings. The R-RM (Retirement Community) district mapped on Park Drive allows for senior housing and has also been built out. Properties surrounding the MEC study area are largely zoned for single-family homes at varying densities. Two-family districts are found at Northgate Circle and Walt Whitman Road (Northgate at Melville Condominiums) and along Route 110 near Old Country Road.

Parking

Off-street parking requirements vary depending on use. Offices require 1 space per 200-300 square feet of floor area depending on the building size. Retail uses generally require 1 space per 200 square feet of floor area, but this requirement may vary with the type of retail use. Although restaurants generally require 1 space per 50 square feet of floor area, no additional parking is required for restaurants accessory to an office use (which represents the only way restaurants are permitted in industrial zones). Restaurants are found in commercial zones within the study area, including along Route 110 between Ruland Road and Spagnoli Road and along Route 110 north of I-495.

2.5 ZONING ISSUES AND OPPORTUNITIES

Some of the zoning requirements, especially for minimum lot size, minimum lot frontage, setbacks and parking, are problematic for properties in the study area. These regulations reflect the Town's vision when the zoning was first adopted, to create an automobile-centered suburban industrial park. However, some of the regulations are now too restrictive and prevent property owners from repositioning their properties to reflect current trends in the office market, generate higher tax ratables and create a more vibrant and walkable neighborhood with improved amenities for people who live and work in the MEC.

As shown in Table 5, approximately 36% of the industrially zoned parcels have areas below the minimum lot size. In addition, many properties fall below the minimum lot width and frontage. These nonconforming properties met zoning and development requirements when they were built; however, because of subsequent changes to zoning, they no longer comply. Nonconforming uses and structures are not illegal; they are generally allowed to continue as-is, subject to local restrictions. However, redevelopment for these properties can be more difficult, as property owners need to apply for a zoning variance in order to build.

Table 5: Industrial District Non-conforming Parcels

Zone	Total Parcels	Minimum Lot Size	Parcels below Min Lot Size	
			#	%
I-1	112	6 acres	43	38%
I-2	45	3 acres	14	31%
I-3	1	1 acre	0	0%
Total	158	----	57	36%

The Town's yard and coverage requirements are the most significant factors that control the form of development. The I-1 district has large setback requirements from the roads and from side and rear property boundaries, which reinforce the suburban office park model with buildings separated by landscaped buffers. Although the 100-foot front yard setback provides a certain degree of open space, the buffer is not usable for recreation and reinforces the vehicle-dominated context by discouraging walking. Current trends in office development are shifting to promote more walkable areas, but the current zoning regulations do not support such an environment. Zoning changes will be needed to enable and encourage more walkable development, which would mean buildings oriented toward the street as opposed to the parking lot. Code modifications should also consider the potential to cluster facilities to encourage the development of open areas and amenities that are more publicly accessible.

100 foot setbacks along Route 110

Residential uses are not allowed in any of the industrial districts. Permitting a modest amount of residential development could help create a more dynamic environment that many young workers increasingly prefer, while providing an important amenity for MEC's companies. In addition, today's successful office parks often integrate amenities such as restaurants and neighborhood stores. To maintain a vibrant and competitive office park, zoning in the MEC needs to support a more robust mix of smaller-scale complimentary uses such as dining, convenience shopping, recreation and community gathering space.

The Town's off-street parking requirement for multifamily residential is 2.5 spaces per unit (on roads greater than 34-feet feet wide); this is for all units, regardless of size. The requirement appears excessive, and the Town may wish to adjust the zoning to better reflect the parking needs of each individual development. Ratios from 1-2 spaces per unit may be more appropriate, depending on unit size, tenure and access to transit. If multiple uses are in close proximity, parking requirements should also be reduced through shared parking arrangements, which allows more efficient use of land versus providing dedicated parking for each use.

2.6 MEC AREA FUTURE LAND USE PLAN

The recommended future land use pattern for the MEC study area is guided by two overarching principles that were supported by the public outreach effort and consultation with the Steering Committee and Town staff: 1) Keep the MEC competitive to retain jobs and enhance the Town's tax base, and 2) Preserve quality-of-life for residents and employees in and around the MEC. With these primary goals in mind, the Future Land Use Plan – and the proposed zoning to implement the Plan – seeks to remain largely within the existing area and bulk controls (e.g. height and lot coverage) so there is no greater building density than is currently allowed by the industrial zones. The key change contemplated by the Future Land Use Plan is to promote infill development and redevelopment with a mix of uses; however, office is still envisioned as the primary use.

The Future Land Use Plan (see Figure 6) is also based on the concept of two main Town Centers for the MEC study area that was expressed in *Horizons 2020*. The first is the existing commercial node at the intersection of Broadhollow and Sweet Hollow Roads between I-495 and the Northern State Parkway. This northern area was recommended by the Town's Comprehensive Plan as a Town Center, and in many ways already serves that function, as it contains a range of retail, restaurant, entertainment and other commercial options and is near established residential neighborhoods. Minimal land-use changes are recommended for this northern area; its primary needs are aesthetic improvements and enhancements to parking and overall circulation. This area has the potential for the use of design guidelines as discussed in Section 3.0.

The other Town Center area is generally bounded by Walt Whitman Road to the west, Pinelawn/Sweet Hollow Roads to the east and Ruland Road to the south, with Route 110 and Maxess Road serving as interior north-south connectors. For this larger area, it is recommended that residential uses be introduced, generally at a similar scale to what is currently allowed under the industrial zones. Overall, maximum height would be maintained at four stories (58 feet), or up

to six stories along I-495 or its service roads. However, the Future Land Use Plan contemplates that, for the perimeter area of the MEC fronting Walt Whitman and Pinelawn Roads, buildings should be lower-scale (up to 3 stories). This will help to create a transition buffer area along the edges of the study area that are adjacent to residential neighborhoods.

It is recognized that, within the large southern Town Center are two smaller opportunity nodes that, while both recommended for the same broad land-use approach, will likely develop with a differing mix of uses. The first node is at the existing Huntington Quadrangle area, which – because of the large parcel under common ownership and the current development – lends itself to infill redevelopment with fairly large footprint buildings. Future development here will likely incorporate both residential and large office uses, and will capitalize on the planned location nearby on Route 110 of a bus rapid transit (BRT) stop. The second node is around the intersection of Maxess and Ruland Roads, which was identified in the Town's Comprehensive Plan as a potential Town Center. Here, new development will likely be at a smaller scale, with a mix of fairly low-density residential uses and neighborhood retail that serve both new residents and existing housing south of Ruland Road. The zoning proposed in this Plan is consistent with the anticipated development patterns of both these nodes; the intent is to set a flexible Future Land Use Plan that accommodates both patterns but lets the market determine the precise locations and configurations of particular uses.

Another element of the Future Land Use Plan is the creation of a linear open space amenity using the former Vanderbilt Parkway (Long Island Motor Parkway) right-of-way, running from the intersection of Route 110 and Spagnoli east-northeasterly across Maxess Road before turning south to intersect with Ruland Road near Deshon Drive. This right-of-way is owned by LIPA. It is ideal for use as a recreational trail, as it would connect to proposed bicycle routes along Spagnoli and Ruland Roads. Input gathered at the public workshops indicated community support for more open space and recreational amenities in the MEC area, particularly if they could link to existing resources.

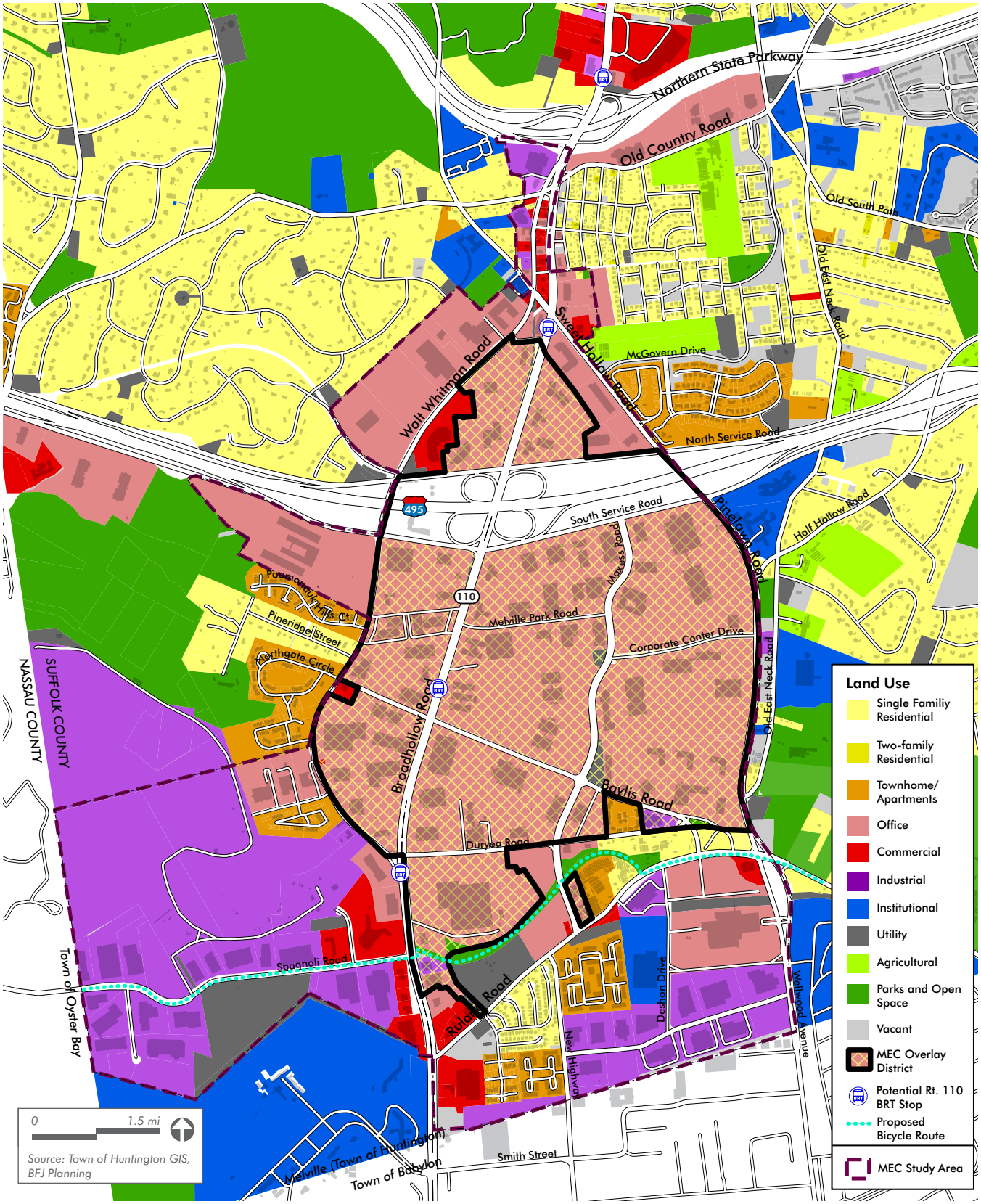


Figure 6: Future Land Use Map

2.7 PROPOSED ZONING CHANGES

The primary mechanism for introducing a mixed-use land pattern into the MEC is the proposed creation of an MEC Overlay District. This area would encompass all I-1 or I-2 zoned parcels in a portion of the study area bounded by Walt Whitman/Broadhollow Roads to the west, Pinelawn Road to the east and Ruland Road to the south. Within the overlay district, all uses permitted by the underlying zoning district would continue to be permitted. However, residential uses could also be allowed if part of a mixed-use development, or by conditional use permit if they are the only use, subject to provisions described below. In terms of residential density, historically, density factors in Huntington have been used in primarily residential zones to determine the number of units per acre. In the Town's most-utilized commercial mixed-use zone, C-6, units per acre have been determined based on project design considerations such as bulk and height limitations, sewer availability, parking, traffic, visual impact on neighboring properties and the quality of the project. It is suggested that a similar methodology be used in the proposed MEC mixed-use overlay.

It is important to recognize that creation of the MEC Overlay District would not preclude the ability of any property owner to develop as currently permitted under existing zoning. It would simply provide the opportunity to develop a broader range of uses if certain criteria are met. The provisions of mixed-use development in the MEC Overlay District would be as follows:

A. Permitted Uses

- All uses permitted by the underlying zoning.
- Townhomes or multifamily residential uses, if provided as a substantial part of a mixed-use development.
- Subject to conditional use permit, townhomes and multifamily residential uses as the sole use, subject to certain provisions.
- Small-scale (up to 25% of the total floor area or 20,000 square feet per individual tenant, whichever is less) retail, restaurant and personal-service establishments as accessory uses to a primary office or residential use.

B. Area and Bulk Requirements

- Minimum lot size: 4 acres or the minimum allowed by the underlying zoning, whichever is less.
- More than one principal building shall be allowed on a lot, so long as all other area and bulk requirements are met.
- Maximum height: As allowed by the underlying zoning (4 stories, or 58 feet).
- Setbacks: As required by the underlying zoning, except that required front yards shall be 40 feet along Route 110 and 25 feet along all other roads.
- All other area and bulk provisions shall be as required by underlying zoning.

C. Parking Requirements

- Required parking for multifamily development shall be according to the following ratios:
  - Studio: 1.25 spaces
  - 1-bedroom: 1.50 spaces
  - 2-bedroom: 1.75 spaces
  - 3-bedroom: 2 spaces
- For mixed-use development, the total required parking may be reduced by up to 25% if the Zoning Board of Appeals finds, based on a submitted shared parking study, that the mix of uses would generate the ability to share parking.

D. Required Amenities and Site Design

- Mixed-use development in the MEC Overlay District shall provide usable civic, recreational and/or open space that is open to the general public. Such space may include trails, paths, sidewalks, public art or gathering space, and may be provided within zoning setbacks.
- Mixed-use buildings shall include space for bicycle parking and storage at least partially protected from the outside elements.
- Mixed-use buildings shall meet the requirements of Section 197 of the Town Code, pertaining to green building for commercial buildings.
- Buildings shall be constructed to ensure maximum fire safety and access for the Melville Fire Department and emergency-services providers, including the following provisions:
  - All buildings shall be constructed of either New York State Type I (fireproof construction) or New York State Type II (fire-resistive construction).
  - Wood framing, lightweight wood truss or engineered lightweight wooden I-beams shall not be permitted.
  - Buildings must conform to State Code, Local Code and National Fire Protection Act (NFPA) requirements.
  - The size of any elevators must be adequate to fit the largest stretcher used by the Melville Fire Department.

E. Development Incentives

- The Planning Board may grant an additional one story of building height beyond that permitted in the underlying zoning, to a maximum of five stories or 68 feet, if all of the following elements are satisfactorily provided:
  - At least 20% of the total lot area is devoted to usable civic, recreational and/or opern space that is open and available to the general public, including trails, paths, sidewalks, public art or gathering space. Such space may be provided within required yard setbacks.
  - One or more buildings has a green roof.
  - The development provides at least one vehicular and pedestrian connection to an adjacent property or street, in addition to the street on which it has primary frontage.
  - The development achieves substantial mixed use.

- The Planning Board may grant an additional two stories of building height beyond that permitted in the underlying zoning, to a maximum of six stories or 78 feet, if all of the above elements, as well as all of the following element, are satisfactorily provided:
  - A municipal use such as a fire department substation or emergency medical services facility, either on the subject property or on another property within the MEC Overlay District that is satisfactory to the Town Board. In lieu of building such a facility, the applicant may provide to the Town the financial amount equivalent to building the municipal use, based on consultation with applicable Town agencies.
- Any height bonus provided based on the above will not be allowed within 100 feet of Pinelawn or Walt Whitman Roads.

2.8 SOFT SITE BUILD-OUT ANALYSIS

The MEC study area has a few undeveloped areas; however, the majority of tracts have been developed. Therefore, most anticipated development would likely be in the form of infill development or redevelopment of obsolete buildings. "Soft sites" in the study area were identified in order to estimate the amount of development that could reasonably occur under existing zoning as well as a range of development scenarios. The "Level 1" soft sites shown in Figure 7 are those tracts that are undeveloped, contain obsolete buildings that have been continually vacant or have owners with an expressed desire to redevelop their properties. Level 1 soft sites account for approximately 107 acres, or approximately 6.5% of the MEC study area. The major areas of land which could eventually be developed include:

- The Huntington Quadrangle office park (infill development on underutilized portion of site),
- Two vacant office buildings on Baylis Road between Route 110 and Walt Whitman Road,
- An undeveloped area partially owned by LIPA in the vicinity of Ruland and Maxess Roads, and
- A vacant C-6 parcel on Route 110 near Ruland Road.

It is important to note that if the zoning changed on these or any other properties, the number of sites expected to be developed could change. The "Level 2" soft sites identified in Figure 7 are those areas that are less likely to undergo redevelopment; however, changes to the zoning code or infrastructure improvements may spur development in the future. The Level 2 sites were selected for parcels that are Town-owned; have obsolete buildings; are underutilized properties owned by utility companies; are septic field set-asides for office buildings; or are isolated residential or agricultural uses within a predominantly industrial-zoned area. Selection of the soft site areas shown in Figure 7 was refined based on consultation with the MEC Plan Steering Committee and Town staff.

A soft site analysis of five different scenarios was conducted to assess the build-out potential of the Level 1 sites combined, as follows:

- **Scenario 1:** 100% office build-out under existing zoning (4 floors), 25% of parking is structured. Assumes limited infill development of the Huntington Quadrangle site.
- **Scenario 2:** Same overall footprint (same gross floor area) as Scenario 1, but with 50% office, 50% residential, no retail. 25% of parking is structured.
- **Scenario 3:** Maximum build-out under proposed zoning with 50% office, 40% residential, 10% retail. 25% of parking is structured.
- **Scenario 4:** Maximum build-out under proposed zoning with 50% office, 50% residential, no retail. No parking is structured.
- **Scenario 5:** Maximum build-out under proposed zoning with 50% office, 45% residential, and 5% retail. 25% of parking is structured.

Scenario 1, or the "Base Scenario" includes an estimate of the maximum build-out under the existing zoning with no changes to use or density. This scenario results in approximately 1.11 million square feet of new office space. Scenario 2 shows how much residential space could result if the same built area was a mix of 50% residential and 50% office uses. This would result in just over 500 residential units and a reduction in the number of daily vehicle trips compared with the office-only scenario.[11] Residential uses generate fewer trips than office uses, and their peaks are at different times, which can help to reduce the peak demand on the circulation system during the morning, lunchtime and evening rush hours.

The maximum build-out of a site is primarily controlled by the amount of parking that is needed rather than lot coverage requirements. Because residential uses require less parking per square foot than office uses, developing a site with a mix of office and residential uses allows for more built area on-site than building office uses alone. Conversely, retail uses generally require more parking per square foot than office uses. Incorporating structured parking into a site also allows for more built area.

Scenarios 3, 4 and 5 show how the maximum build-out for the site would vary, respectively, if there were retail uses, if all of the parking were at-grade and if some of the parking were structured. Each of these scenarios assumes the zoning changes discussed in the previous section are in place. These examples show how the total build-out is limited primarily by parking requirements rather than bulk and height limits. None of the three scenarios achieves the maximum allowable coverage of 30%. The soft site analysis assumes all development would be four stories, parking garages would be two-floor structures and 30% of the site would be reserved for setback provisions and open space. All new residential construction assumes an average dwelling unit size of 1,100 square feet. The composition of residential units is 20% studio apartments, 45% one-bedroom apartments and 35% two-bedroom apartments.

[11] Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition*

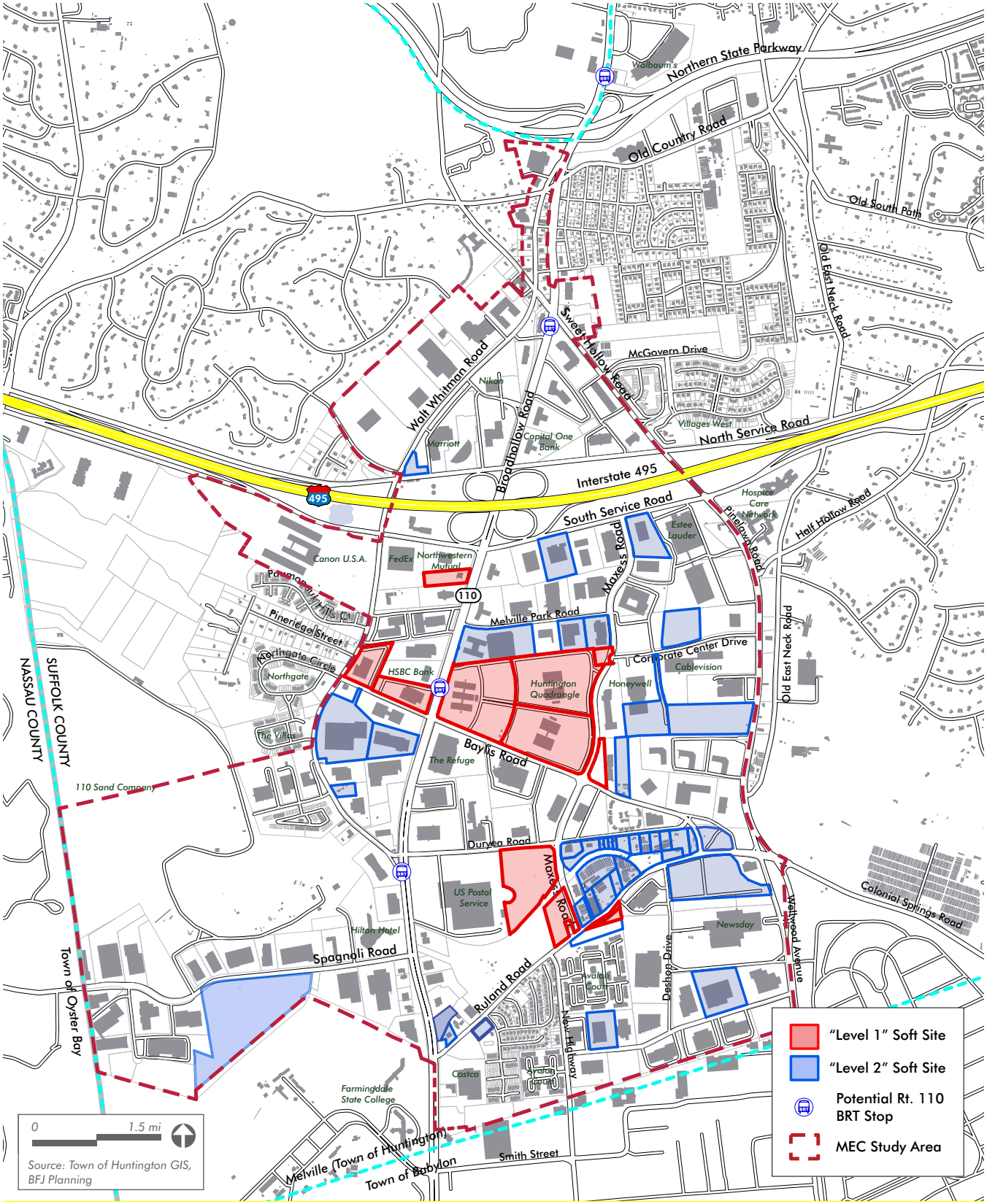


Figure 7: Soft Sites

Table 6: "Level 1" Soft Site Build-out Analysis

Scenario:	Scenario 1: Build-out under existing zoning	Scenario 2: Same GSF as base scenario	Scenario 3: Max build-out	Scenario 4: Max build-out	Scenario 5: Max build-out
Land Use Mix	100% Office	50% Office 50% Res.	50% Office 40% Res 10% Retail	50% Office 50% Res.	50% Office 45% Res. 5% Retail
Parking	25% Structured	25% Structured	25% Structured	100% at Grade	25% Structured
Square Feet by Use					
Office Space	1,110,140 (100%)	555,070 (50%)	680,746 (50%)	677,121 (50%)	712,971 (50%)
Residential Space)	0	555,070 (50%)	544,597 (40%)	677,121 (50%)	641,674 (45%)
Retail Space	0	0	136,149 (10%)	0	71,297 (5%)
Gross Square Feet	1,110,140	1,110,140	1,361,492	1,354,242	1,425,942
Residential Units	0	505	495	616	483
Coverage					
Building Coverage	13.8%	13.8%	16.9%	16.8%	17.7%
Setbacks/ Open Space %	30%	52%	30%	30%	30%
Impacts Schoolchildren Generation	0	44	43	54	51
Traffic Generation (Total Trips Per Day)	11,633	6,024	9,546	7,349	8,868

A complete build-out of the Level 1 soft sites with a mix of residential, office and retail uses in Scenario 3 would result in the addition of approximately 495 residential units to the study area. Given that these units are not expected to be age-restricted, this scenario would be anticipated to result in a moderate increase of 40 to 45 public school children.[12] It appears that the Half Hollow Hills School District can accommodate new students, as enrollment has been declining for the last 10 years. Enrollment declined by 1,934 students, or 19%, between the 2006-2007 and 2015-2016 school years (see Chart 2).[13] Looking at individual schools, elementary-age enrollment generally decreased during the same time period, except for the 2014-2015 school year (see discussion below on school closures), while middle-school enrollment has been generally on the decline for the past five school years. Enrollment at Half Hollow Hills High School East rose steadily for much of the period, saw a jump in 2014-2015, and declined again in the last year. High school

[12] Rutgers University Center for Urban Policy Research: Residential Demographic Multipliers
[13] 2015-2016 enrollment is estimated as of June 2015.

enrollment can be expected to continue falling in the coming years based on the reduced enrollments in the lower grades.

The declining enrollment has required the school district to close two elementary schools (Chestnut Hill and Forest Park) and consolidate students and administrative staff. The trend in the number of school-aged children is likely to continue to decrease in the near future, and the additional new tax base and the gradual increase in the number of schoolchildren from any new residential development in the MEC will help maintain the excellent quality of public schools in the Half Hollow Hills School District.

As of the 2011-2012 school year (the most recent year data are available), Chestnut Hill and Forest Park elementary schools had a combined enrollment of approximately 1,000 students, meaning that about that same number moved to Paumanok, Sunquam or one of the three other elementary schools in the district after Chestnut Hill and Forest Park closed at the end of the 2013-2014 school year. This shift is reflected in Chart 3, in which both Paumanok and Sunquam saw growth (particularly Sunquam), although both schools saw lower enrollments again in the next year. However, even assuming that both Paumanok and Sunquam are at full capacity following the recent school closures, the addition of 45 students would represent growth of about 4% above the estimated 1,081 total enrollment of the two schools for 2013-2014. This increase assumes that all development contemplated in Scenario 3 occurs immediately; in reality, build-out would take a period of 10 to 20 years, depending on market conditions. The Half Hollow Hills School District has retained ownership of both the Chestnut Hill and Forest Park schools, although Chestnut Hill is under a long-term lease. Though not expected, if enrollment trends should change dramatically and any elementary schools face capacity issues due to growth, the district could reopen either of the two closed schools, as it did with Sunquam in the late 1990s. Given that the addition of students from the potential development would be expected to occur gradually, over a period of years, the district would be able to monitor the year-to-year enrollment trends to make decisions about issues such as district boundaries and busing. Any such decisions would be under the authority of the school district.

Chart 2: Half Hollow Hills School District Enrollment, 2006-2007 to 2015-2016

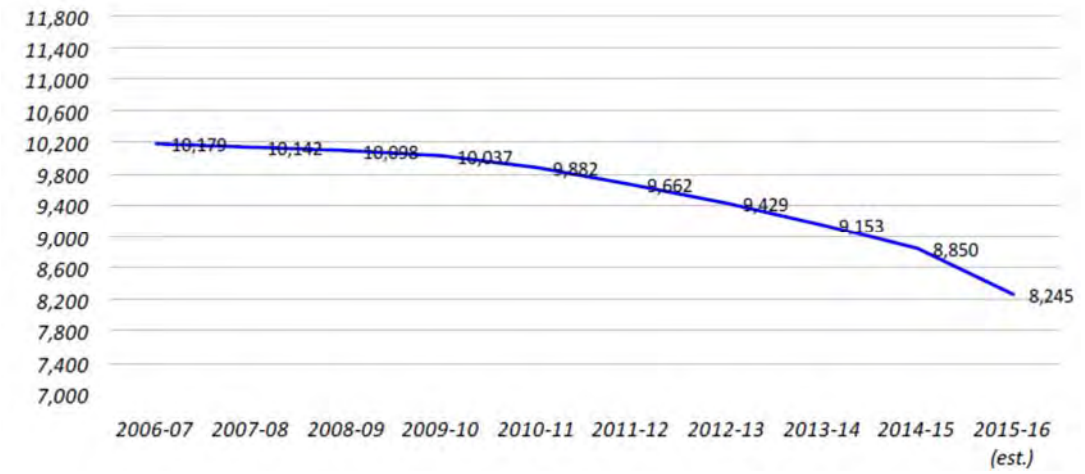
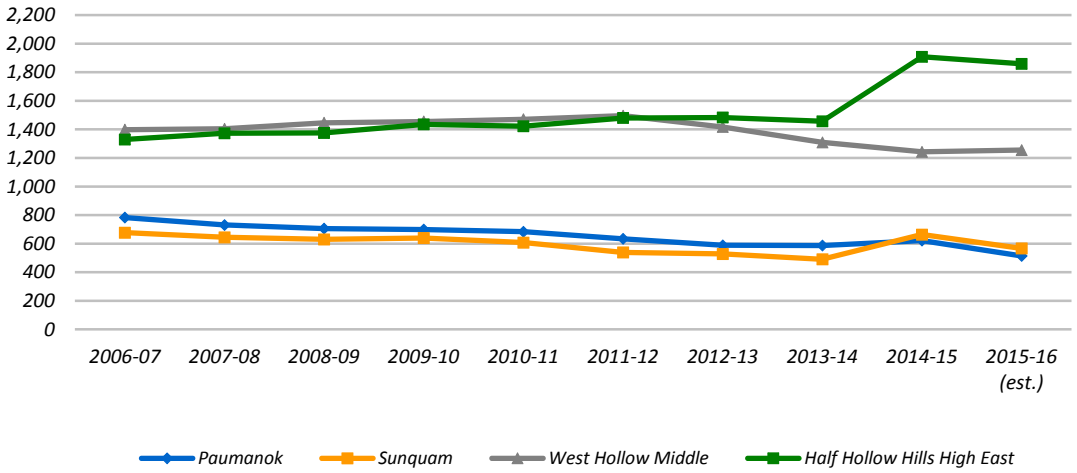


Chart 3: Half Hollow Hills School District Enrollment by School, 2006-2007 to 2015-2016



Source: New York State Education Department, Half Hollow Hills School District for 2015-16 estimate.

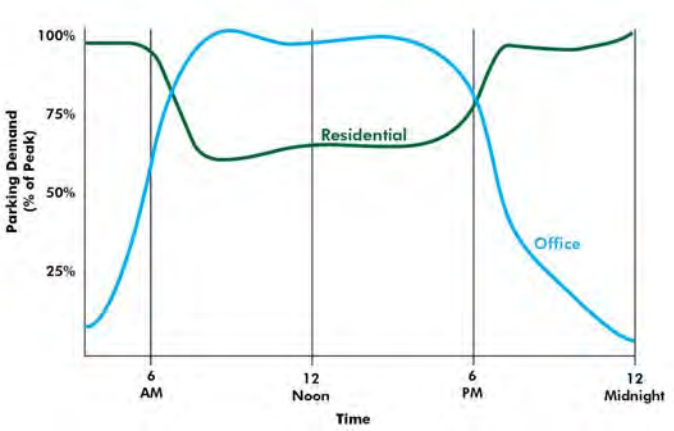
A. Infill Development

There are relatively few tracts of undeveloped land identified as soft sites. The largest undeveloped area is at the LIPA-owned tracts along Maxess Road. However, LIPA has not expressed any interest in redeveloping those properties, so it is unclear whether the site presents a real opportunity for development. Since most soft sites are built out, it is likely that new development may come in the form of infill, which focuses on the reuse and reposition of obsolete or underutilized buildings and sites. As stated in Deloitte's *Commercial Real Estate Outlook for*

2015, new construction of commercial property will likely focus on retrofitting existing buildings, which may include introducing new design features to meet tenants' needs for flexibility, sustainability features and space maximization.[14]

Infill development can also occur on lots with an oversupply of parking, such as the Huntington Quadrangle site (see Figure 8). The ITE finds that parking demand for office buildings is 2.84 spaces per 1,000 square feet; however, the Town's zoning code requires 3.3 spaces per 1,000 feet. Thus, parking supply could be reduced by about 15% and still meet existing parking demand. Also, clustering office uses with residential uses can allow for greater efficiency in parking because uses can share parking. Shared parking recognizes that office and residential uses have complementary peak operating hours. Offices are heavily used by employees and visitors in the daytime, while residential uses have the highest parking demand in the evenings and overnight.

Chart 4: Parking Demand for Office and Residential Uses



Source: BFJ Planning

Section 3.3 illustrates how infill redevelopment can be accomplished at the Huntington Quadrangle site through use of underutilized/excess parking areas. The example shows how a mixed-use center with retail/restaurant uses can be integrated into the site with a walkable center and public open spaces.

2.9 FISCAL IMPACT ANALYSIS

A. Methodology

Fiscal Impact Analysis is a technique for estimating the likely cost-revenue implications of a land use development proposal based upon the recent historical expenditure experience of a given municipality or comparable locality.

[14] 2015 Commercial Real Estate Outlook: Enhance technology and enable innovation, Deloitte, 2015.

For purposes of estimating the fiscal impact of a commercial or mixed-use residential development, the Per Capita Multiplier method was chosen. This method requires development-related demographic information and municipal/school district information on operating expenses to project an annual operating cost assignable to a particular population and commercial change. Tentative FY 2016 expenditures and budget outlays were obtained from the Town of Huntington, relevant to the MEC. The Half Hollow Hills School District provided 2015-16 school enrollment. In addition to municipal information, data was acquired from the U.S. Bureau of the Census, *American Community Survey*, including 2014 household and enrollment characteristics for Huntington and the 5-year 2009-13 Melville PUMA of the *American Community Survey*, as well as demographic multipliers from the Rutgers University Center for Urban Policy Research and the Long Island developments of Avalon Bay Communities, Inc. For the commercial portion of the development, the municipal expenditures that can be attributed to commercial property per dollar of assessed value was applied to the proposed commercial components of the development based on the proportional assessed value.

This methodology evaluated the existing development (in 2015 dollars) of the Huntington Quadrangle and related soft sites under current conditions, and a similar methodology was applied to the proposed development under two of the development scenarios discussed in section 2.8. The methodology uses Scenario 1, development under existing zoning, and Scenario 5, a maximum build-out under the proposed zoning with 50% office, 45% residential, and 5% retail.

The result of this analysis ascertained the Town revenues received as well as Town expenditures expected on a full build-out year basis if either scenario of the potential development were completed, compared to existing conditions. Estimates of construction costs was and market values were prepared by Urbanomics, based upon its knowledge of construction economics and the real estate market.

B. Fiscal Impact Findings

Demographic Characteristics

The potential development, which is comprised of three parcels with existing office buildings and eight parcels that are soft sites suitable for demolition, would be either office or mixed-use office/residential/retail development, with studio, 1-BR and 2-BR apartments. All units are assumed to be market-rate. For purposes of the fiscal analysis, the units are assumed to be rental, given the current market. The actual mix of rental vs. ownership units will be determined by prospective developers based on market conditions. No information on phasing or proposed pricing of the new buildings for rental was developed.

In an effort to get the most appropriate demographic multipliers, cross-tabulations were run using the American Community Survey 2009-2013 Public Use Microdata Sample (PUMS) for the Melville Public Use Microdata Area (PUMA), limiting the queries to households living in rental units of multifamily buildings by bedroom mix in the PUMA area over the five-year period. The sample size

was sufficient to supply data on public school children in such households by size of unit, yielding a schoolchild multiplier as well as an average household size by bedroom mix. The PUMA-based schoolchild multiplier was compared with the residential demographic multipliers produced by Rutgers University, Center for Urban Policy Research in 2006 and nine roughly comparable buildings of Avalon Bay Communities, Inc. on Long Island.

Table 7 presents the proposed development scenarios by use and bedroom mix, while Table 8 portrays the results of applying PUMA, Rutgers and Avalon schoolchild multipliers to the residential use of Scenario 5. An average of the PUMA multipliers and the Avalon experience, or 80 public school students, was adopted for purposes of this analysis because they were more site-specific and proved the most conservative.

Table 7: Alternative Scenario Development by Use

Option	Office GSF	Residential GSF	Residential Units by Bedroom Mix				Retail GSF
			Studio	1-BR	2-BR	Total	
Scenario 1 - Existing Zoning	1,110,000	0	0	0	0	0	0
Scenario 5 - Proposed Zoning	713,000	641,000	117	262	204	583	71,000

Source: BFJ Planning and Urbanomics

Table 8: Household Population & Public School Students for Scenario 5

Apartments by Scenario	# of Units	Result of Demographic Multipliers			
		PUMA Household Population Persons	PUMA	Rutgers	Avalon
			Public School Students	School Age Students	Public School Students
#5 Proposed Zoning Total	583	963	89	51	72
Studio	117	117	0		
1-BR	262	346	19		
2-BR	204	500	70		

Source: Urbanomics based on US Census Bureau ACS 2009-2013 5 Year Estimate for Melville PUMA, the Rutgers Center for Urban Policy Research Residential Demographic Multipliers (2006), and the Avalon Bay Communities, Inc. multipliers for Long Island residential developments.

Impact on Selected Town Expenditures

Based on the Town of Huntington Municipal Budget for FY 2016, the Town anticipates spending $188.7 million on public services, down from $194.2 million in FY2015 and on par with $187.4 million in FY2014. The Half Hollow Hills School District budget, which is separately funded by school taxes, is targeted at $238.7 million for 2015-16, of which $29 million is expected to be covered by Intergovernmental Funds. The aggregate Town and School District outlay of $427.3 million is comparable to the revised budgeted amounts of $428.5 million for FY 2015. For purposes of this analysis, the projected outlays of FY 2016 Town and the municipal burden of the 2015-16 School District budgets were utilized.

In FY 2016, the Town budget will provide public services for an estimated 205,050 total residents and 8,491 enrolled students in public schools. Educational expenditures for enrolled students (K-12), which are entirely attributed to residential service needs and computed on a per pupil basis, will represent an average annual outlay of $24,692 per public school student when computed on a municipal burden basis net of intergovernmental funding.

For purposes of a Fiscal Impact Analysis of the proposed site development, selected Town expenditures attributable to public school students and residential property are as follows:

- Half Hollow Hills School District @ $209.7 million municipal burden or $24,692 per enrolled student
- Public Safety @ $12.3 million or $60.13 per resident
- Health Services @ $3.6 million or $17.57 per resident
- Transportation @ $37.8 million or $184.52 per resident.
- Economic Assistance and Opportunity @ $3.2 million or $15.41 per resident
- Culture and Recreation @ $17.0 million or $82.91 per resident
- Home and Community Services @ $57.6 million or $280.71 per resident
- General Government, Debt Service and Interfund Transfers @ $57.2 million or $278.84 per resident

The fiscal impact of commercial space in the potential Huntington Quadrangle development was estimated on an assessed value basis, by assuming the share of taxable commercial assessed value in the Town's taxable property base is proportional to the share of municipal services consumed by all commercial uses. This assumption, however, does not hold for Half Hollow Hills Public School District expenditures, since commercial uses do not generate K-12 enrollment. Therefore, the share of all public service expenses attributable to commercial development in mixed use Scenario 5 averages only 45% of total, while commercial assessed value accounts for 65% of total.

By applying FY2016 per capita/student and per commercial assessed value expenditure ratios to predicted demographic characteristics and commercial space use of the potential development, this approach yields a current estimate of the additional public expenditures warranted by new

development upon full build-out of the potential Huntington Quadrangle development. As noted, this estimate was prepared for the three scenarios of potential development, based upon their unique set of uses. Table 9 presents the annual expenditure requirements by public service for existing uses and the alternative development scenarios in current dollars, based upon full occupancy. It should be noted that future options include the service costs of retained office development in the Huntington Quadrangle parcels.

Table 9: Full Occupancy Public Service Expenditure Requirements per Annum by Existing Uses versus Development Scenarios

Existing Use vs. Scenarios #1 & #5	Full Occupancy Expenditure Requirements per Annum ($000s)							
	Schools	Public Safety	Health & Transp	Econ Assist & Opport	Culture & Recre'n	Home & Comm Service	General Gov't & Other	Total
Existing	**$0**	**$58**	**$197**	**$15**	**$81**	**$273**	**$271**	**$895**
Residential	$0	$0	$0	$0	$0	$0	$0	$0
Commercial	$0	$58	$197	$15	$81	$273	$271	$895
Scenario 1	**$0**	**$200**	**$673**	**$51**	**$276**	**$935**	**$929**	**$3,064**
Residential	$0	$0	$0	$0	$0	$0	$0	$0
Commercial	$0	$200	$673	$51	$276	$935	$929	$3,064
Scenario 5	**$1,975**	**$208**	**$700**	**$53**	**$287**	**$971**	**$965**	**$5,159**
Residential	$1,975	$58	$195	$15	$80	$270	$269	$2,862
Commercial	$0	$150	$505	$38	$207	$701	$696	$2,297

Source: Urbanomics based on Huntington budget information scaled for residential and non-residential property services.

Impact on Town Revenues.

In FY2016, Huntington expects to collect revenues of $188.7 million for all municipal expenditures, while the Half Hollow Hills School District expects to receive revenues of $238.7 million including $29 million in Intergovernmental Funds. Other elements of the Town's

operations, like the County Police, are covered by Suffolk County tax levies on Huntington property. Whereas the municipal budget is financed by $115 million in property taxes, the School District expects $199 million from the property tax levy and PILOTS (payments in lieu of taxes). Collectively, some $314 million, or over 73% of all revenues, is generated by property taxes. In FY2016, the Town will levy property taxes on an equalization rate of 0.86% of market value as assessed value and a mill rate of $2.616 per dollar of taxable assessed value. The County tax rate on Huntington property, which is not included in this analysis, amounts to $0.4729 per dollar of taxable assessed value. All units in this analysis are assumed to be fully taxable. The Suffolk County Industrial Development Agency (IDA) will determine on a case-by-case basis where tax incentives may be appropriate; such decisions are not under the Town's authority.

In addition to property taxes, new development generates additional revenue in the form of building permit fees. One-time real estate transfer fees and mortgage recording taxes are imposed at the county level and not included in this analysis. The impact of potential new development on revenue generation in the Town is assessed from the perspective of annual yields in FY2016 rates and, separately, from the perspective of one-time construction related impacts. However, this determination rests upon an accurate evaluation of the market value of the potential development.

Table 10 below presents an estimate of the market and taxable assessed value of the development by scenario, based upon current construction costs.

New construction costs, consisting of hard and soft costs, are assumed to average $500 per square foot for office space, and $425 per square foot for residential and retail space in mixed-use developments. The existing land value of soft site parcels was added to the market value of new development. Each scenario includes the existing land and improvement value of the retained office space in the total estimate of market and assessed valuation.

The municipal tax rate of $2.6160 per $1 of assessed value consists of Half Hollow Hills School District taxes of $2.0816 and Town taxes of $0.5344 for non-residential uses and $0.4645 for residential uses, calculated on each dollar of assessed value. The annual tax liability is supplemented on a one-time basis by development related charges, as follows:

A Huntington Planning, Building & Zoning Department permit base fee of $100 per residential or $500 per nonresidential application plus $7 per one thousand ($1,000) dollars of estimated construction costs for residential or nonresidential development by scenario. Additional public fees may apply for zoning determination.

In addition, Suffolk County will collect County police and sewer taxes based upon taxable assessed value, as well as one-time fees for property conveyance and mortgage recording.

Table 10: The Computation of Market Value, Assessed Value and Municipal Tax Revenue in Current Dollars ($000)

Scenario	Existing Improvement or New Construction Cost	Market Value		Assessed Value @ 0.86%	Tax Rate per $1AV	Property Taxes	
		Land	Total			Town	School District
Scenario 1							
Existing	$78,256	$49,651	$127,907		$2		
New Commercial	$555,000	$15,066	$570,066				
Total	$633,256	$64,717	$697,973	$6,003	$2.6160	$3,208	$12,495
Scenario 5							
Existing	$78,256	$49,651	$127,907		$2.6160		
New Commercial	$386,675	$8,839	$395,514		$2.6160		
New Residential	$272,425	$6,227	$278,652		$2.5461		
Total	$737.356	$64,717	$802,073	$6,898	$2.5895	$3,519	$14,359

Source: Urbanomics

Revenue-Cost Relationship.

The following table summarizes the revenue-cost relationship for the selected revenues and expenditures at full build-out by development scenario.

Table 11: The Revenue-Cost Relationship by Proposed Development Scenario

Scenarios	# of Units & Commercial Space	Revenue-Cost Relationship		
		Revenue Benefit ($000s)	Expected Cost ($000s)	Difference ($000s)
For Selected Items in FY2016 Budget				
Existing Conditions		$4,590	$896	$3,694
Scenario 1	+1,110.000 Office	$15,703	$3,064	$12,639
Scenario 5	+1,425,000 Mixed Use	$17,877	$5,159	$12,718

Source: Urbanomics.

3.0 COMMUNITY DESIGN

3.1 PURPOSE

The land use strategy and zoning recommendations outlined in the Land Use and Zoning section provide the foundation upon which the MEC can adapt to promote pedestrian accessibility and reduce the need for employees to drive during the workday and facilitate development with complementary traffic patterns, potentially reducing congestion. As stated in the Town's Comprehensive Plan, encouraging a mix of land uses and establishing stronger design guidelines for buildings and the streetscape will help to achieve this goal. That plan promotes the maintenance and improvement of the existing road system and development of small, pedestrian-oriented, mixed-use areas that would contain residential, retail, restaurant and business services.

This section addresses the need for an improved network for pedestrian mobility, and the need to create strong areas of focus, or nodes where land use policies, community design strategies and transportation systems work together to develop attractive and functional "neighborhood centers." This would include improving connections between the existing internal pedestrian networks on private properties and the public sidewalk network in the area.

The strategy here would be to create enough interest and activity to encourage nearby workers and residents to walk, bike or take public transit to the area, and encourage visitors to "park once and walk." These "neighborhood centers" would in turn be supported by other improvements in the area, including better linkages to and from existing buildings and improved signage, lighting and landscaping. Walkable communities can offer many benefits, including reduced transportation costs, a stronger sense of community, economic stability and a decrease in greenhouse gas emissions from the reduction in traffic.[15]

Typical office building in the MEC

A. Existing Conditions

A community design review of the MEC reveals several important and notable existing conditions and opportunities. Currently, the area is organized as a traditional suburban office park with site layouts that are geared toward drivers. This includes buildings that are separated from adjacent

[15] Simon Barnett "Creating Walkable Urban Environments." *Engineering Sustainability*, 2006.

uses by large surface parking lots. There is also a lack of attention to the pedestrian network, which discourages ground-level activity. While the area is predominantly accessed by the automobile, concerns about pedestrian safety, primarily related to Route 110 and Walt Whitman Road, were raised in the Town's Comprehensive Plan and were echoed by participants in public meetings for this Plan.

Vacant office building on Walt Whitman Road

The MEC area has a variety of building types. While some are relatively new with attractive and distinctive design, many are one- to two-story buildings generally built in the 1970s and 1980s, that are vacant or underutilized and are considered obsolete in today's office marketplace.

Although some vacancies in the MEC may appear relatively short-term and are in certain cases reflective of properties that are for sale or lease, others are more longstanding. Enduring vacancies can be harmful to neighborhoods over time, because they can create a feeling of abandonment and reduce the sense of security that results from having many "eyes on the ground."

Many of the older office buildings have large areas dedicated to surface parking. Some of this parking is perpetually underutilized because the buildings were built under prior zoning requirements that provided for more parking than what is needed. Another design issue in the MEC is that there is no consistent "look" to signage, lighting, landscaping, etc.

As discussed in the Land Use and Zoning section, many properties in the MEC are now ripe for reinvestment. Around the country, redevelopment in suburban style office parks has taken the form of infill or retrofitted mixed-use development. This type of development typically accommodates automobiles but also encourages walkable streetscapes where workers, shoppers and residents can more easily access and move from one use to another.

B. Community Design Goals

The design of office, commercial and residential buildings, as well as the appearance of streetscapes and the public realm, together contribute to the quality of the MEC's overall image and character. The guidelines in this section address these key areas with the following goals in mind:

- Maintain the existing suburban character of the MEC, which is primarily composed of office and light manufacturing uses;
- Encourage new mixed-use development (including residential uses to attract seniors, empty nesters and young adults) to help sustain existing businesses and revitalize under-utilized properties. Mixed uses could include residential and some small-scale daily convenience and specialty shops, restaurants and civic amenities;
- Ensure that future site planning and architectural designs respect the suburban scale and character of the existing office uses and the surrounding residential neighborhoods;
- Enhance the pedestrian environment with improved streetscape design, an attractive and safe pedestrian network and amenities such as outdoor seating in appropriate areas; and
- Provide design guidance for architecture, streetscape and public space to give the MEC a clearly defined identity and sense of place.

C. Community Design Workshop

An interactive public workshop was held on December 1, 2015, to discuss issues and opportunities with regard to Community and Architectural Design. There were approximately 60 participants, some of whom had attended prior workshops in the planning process, and some who were new to the process. Several Town officials were on hand to lend support to and observe the workshop.

As part of the presentation, the consultant team led a visual preference survey to gauge the public's perspective of different images of built environments. The process involved asking participants to view and rate a variety of images depicting differing streetscapes, land uses, site designs, building types, aesthetics and amenities. The exercise allowed participants to express which design considerations are most important for potential development projects in the MEC, including those that would help create a stronger sense of place and be contextually sensitive.

While many participants supported a wider mix of uses in the MEC, others opposed any new residential development. With regard to design, participants seemed to prefer building types with varied rooftop heights, potentially with pitched roofs and dormers, compared with buildings with flat roofs. While building height was an important issue, many participants reacted favorably to several images presented that showed pedestrian-friendly, active streetscapes. A summary of this workshop can be found in the Appendix.

3.2 COMMUNITY CHARACTER AND DESIGN GUIDELINES

The following recommended design guidelines establish a basic framework for new development within the MEC Overlay District. The guidelines will allow the Town to promote buildings with siting, massing, scale, materials and street rhythm that are compatible with the neighborhood context. The design guidelines also consider elements such as public open space, transportation access and how buildings relate to each other. The architectural guidelines outlined apply only to developments that opt into the MEC overlay district's zoning provisions. The intent of the guidelines is to promote development that:

- Is of high quality and visually appealing from adjacent streets and the surrounding neighborhood, with an emphasis on building placement and orientation as well as site landscape;
- Has an appropriate mix of the uses defined in the overlay district;
- Has open spaces, parking areas, pedestrian walks, signs, lighting, landscaping and utilities that are well related to the site and arranged to achieve a safe, efficient and contextually sensitive development;
- Shows high inter-connectivity between proposed uses and adjacent areas;
- Incorporates safety infrastructure including pedestrian scale lighting, appropriate landscaping, ground floor activity that provides eyes on the street, etc.; and
- Promotes buildings are sustainable in their design, construction, operation and maintenance (e.g., LEED equivalent certification).

As discussed in the Land Use and Zoning Section, the MEC Overlay District would allow for mixed-use buildings with office uses, and limited residential and retail/commercial uses, but would maintain height and coverage to what is allowed under existing zoning.

The guidelines below will be the principles by which proposed development within the MEC Overlay District would be reviewed. Many options will be available to the owner in following the intent of the guidelines. Due to the design diversity of the existing structures, it is inappropriate to select a single architectural style for these guidelines. New buildings may be contemporary or traditional in approach, but all should seek to create attractive, pedestrian-oriented, mixed-use environments whenever practicable. An Architectural Review Board is not recommended, as the review process can be more burdensome and restrictive for the owner.

The design guidelines recommend different considerations for the "edge areas" of the MEC (see Figure 8), specifically those areas along Walt Whitman and Pinelawn Roads that abut single-family residential neighborhoods. Buildings in this area should be lower-scale residential (up to three stories), while the buildings in the "core area" can be up to four stories (or six where allowed under existing zoning) with a mix of commercial, residential and office uses.

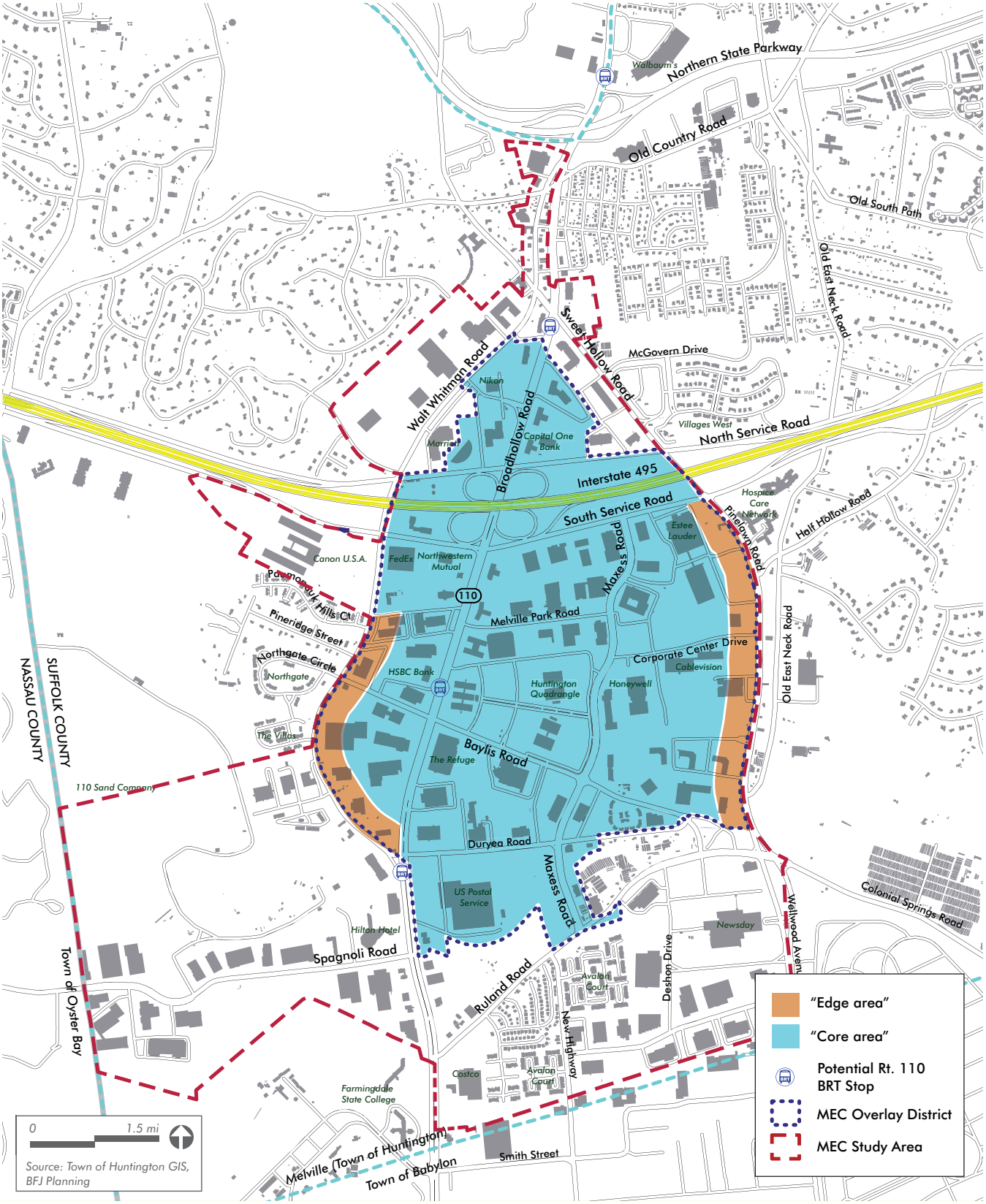


Figure 8: Edge Areas and Core Area

A. Edge Areas (Pinelawn and Walt Whitman Roads)

- 2-3 stories maximum residential preferred to create transition buffer from surrounding single family neighborhoods
- Trees and landscaping along Walt Whitman and Pinelawn Roads to visually buffer uses from neighboring areas.

3-story residential (Toronto, Canada)

2-3 story residential (Ashburn, VA)

Avalon Court (Melville, NY)

Avalon (Oak Creek, CA)

B. Core Area

- Encourage mix of uses including:
  - Office, research and development space
  - Market-rate townhome or multifamily housing
  - Neighborhood-scale retail, restaurant, business services and entertainment
- Building height of four stories.
- Encourage structured parking and opportunities for shared parking.
- Encourage landscaping to promote pedestrian-friendly campus-like environment.

King Farm Village Center (Rockville, MD)

Somerset Square (Glastonbury, CT)

C. Residential Buildings

- Varied roof forms involving use of gables, dormers and decorative cornices are encouraged.
- Building materials are to be compatible with nearby structures.
- Facade articulation using bay windows, setbacks, pilasters and other features are encouraged to create architectural interest and to maintain a human scale along the street.
- Landscaped buffers, including trees, hedges and bushes, should be provided to buffer residential properties from parking lots and adjacent commercial uses. Buffers should be high enough to visually screen and reduce audible impacts of commercial and service activities.

Mason Estates (Alexandria, LA)

Ronkonkoma Hub rendering (Town of Brookhaven, NY)

D. Mixed-Use Buildings:

- Should be of high quality and visually appealing from adjacent streets and surrounding neighborhood with an emphasis on building placement and orientation as well as site landscape.
- Should keep with the intent of the MEC Design Guidelines.
- Should have an appropriate mix of uses defined in the overlay district.
- Proposed open spaces, parking areas, pedestrian walks, signs, lighting, landscaping and utilities should be adequately related to the site and arranged to achieve a safe, efficient and harmonious development.
- Should show high interconnectivity between all proposed uses and adjacent areas

E. Ground-Floor Retail Storefronts

- Designs should emphasize the role of the storefront as the focus of the building facade.
- Main entrances should be recessed and inviting, allowing for views into commercial areas.
- Front facades should maximize window exposure,
- The storefront should act as the unifying element within the block by creating strong horizontal elements such as continuous display windows, a consistent design and use of colorful awnings.
- Architectural features and details such as projecting storefront cornices, decorative below-window panels, prominent display windows, etc. are encouraged.

Attractive and inviting storefront: Crescent Village (Eugene, OR)

Plaza at Petaluma Promenade (Petaluma, CA)

Outdoor seating: Kentlands (Gaithersburg, MD)

Consistent architectural features: Somerset Square (Glastonbury, CT)

F. Green Buildings

- All buildings developed under the overlay district regulations should be consistent with the Town's building code and should be LEED-certified equivalent.
- Buildings should use green infrastructure where necessary to minimize runoff from impervious surfaces, including contaminated water from vehicular use areas. The goal is to reduce runoff and provide landscape opportunities to return rainwater to the water table through natural filtration.

G. Open Space

- Encourage use of open space for pocket parks/playgrounds and streetscape amenities such as benches and tables.
- Open spaces should consider natural surveillance, which is the design of features that maximize visibility and foster positive social interaction.
- Usable open space areas shall be focal points of the community and key public assets. These areas must be visible and accessible from a public walkway or sidewalk, and shall not be in utility areas, stormwater management areas or behind buildings.
- Open spaces shall consider accessibility for all users.

- Where applicable, open space areas should connect building entrances to retail and residential uses. Shade shall be provided by trees, canopies, trellises, building walls or tables with umbrellas.
- Trails, paths and sidewalks shall be clearly marked and separated from vehicular travel ways and shall connect to the sidewalk system.
- Open spaces must have a maintenance plan describing how improvements will be managed and maintained. Maintenance responsibility shall rest with the property owner.

Restaurant and residential open spaces (Burlington, MA)

Orenco Station Park (Portland, OR)

H. Landscaping

Landscaped areas should be used to frame and soften structures, define site functions, enhance the quality of the environment and screen undesirable views. Landscaping should work with buildings and surroundings to contribute positively to the aesthetics and function of both the specific site and the area.

- Include open spaces with special amenities that encourage use, such as benches and sitting areas
- Service and trash areas should be screened from view on all sides.
- Service areas should not impede access to amenities.
- Lighting should contribute to the overall safety of the development.
- Landscaping and lighting should be used to identify entrances, pathways, public spaces and bus stops.

I. Parking

- Parking lots should be defined, have visually reinforced edges and include landscaped areas
- Parking should be located to the rear and side of buildings, where possible
- Opportunities for sharing parking between different uses should be explored to improve efficiency of parking areas
- Plant areas at the end of rows of parking spaces to soften the visual expanse of the lot and provide shade and/or wind breaks.
- Require one tree per 10 spaces and landscaped separation of every other parking bay.
- Screen parking areas from the road with shrubs and other landscape features.
- Lighting for all parking areas shall be appropriate in function and scale for both the pedestrian and vehicular traffic.

Huntington Quadrangle Parking Lot

Attractive use of landscaping in parking lot

- Parking lot lighting should not exceed 20 feet in height and should not emit more light than is necessary to ensure the security of the property and the safety and welfare of the public.
- Lighting style shall be ornamental and/or consistent with the surrounding architecture and character of the corridor ("box" or "cobra" style lighting is strongly discouraged).
- All illumination should be shielded from adjacent properties.
- Whenever practical, the use of stormwater from parking areas and rooftops to water plants within the parking islands and perimeter planting areas should be encouraged.

J. Service, Refuse and Utility Areas

- Locate service, refuse and utility areas to the rear of buildings, to screen from view from corridor vehicular and pedestrian travel.
- Screen refuse and utility areas with vegetation and/or screening (e.g. solid walls) that complements the building's architecture. Chain link fencing screens (including those with slats) are strongly discouraged.
- All mechanical equipment such as heating and air conditioning units should be placed in areas that have minimum visual and noise impacts on the street and adjacent properties, and should be adequately screened from direct public view with landscaping and/or screen walls.
- As much as possible, solid walls or other elements such as gates and fencing designed to screen mechanical equipment should be made to appear as extensions to the existing building.

3.3 ARCHITECTURAL DESIGN CONCEPT: HUNTINGTON QUADRANGLE

The architectural guidelines above were incorporated into conceptual designs for mixed-use infill development at the Huntington Quadrangle site. The figures below illustrate how a potential build-out could occur under the "Build-out Scenario C," as explained in the Zoning and Land Use Section. This scenario assumes a land-use mix of 50% office, 40% residential and 10% retail. This scenario also assumes that 25% of the parking is structured and 30% of the site is reserved for setbacks and open space. There is a 15% parking discount for shared parking among the on-site uses.

The figures below illustrate how the excess parking areas at the center of the site could integrate mixed-use infill development with approximately 70,000 square feet of retail or restaurant uses and approximately 100 market-rate residential units. The buildings that form a neo-traditional town center are shown to have three stories of residential over one story of ground-level retail. Figure 9 shows how a new mixed-use "town center" can also be walkable with generous sidewalks and open spaces for public use and outdoor dining. This approach has been used successfully to reposition former office parks (and even abandoned malls) elsewhere in the country. It also reflects a new market reality that places gain a competitive edge when they provide more than just the typical (and outdated) drive, park and work environment. One such effort mentioned in the Community Design Workshop is Somerset Square in Glastonbury, Connecticut, where a similar

Huntington Quadrangle: Excess/underutilized parking areas

design to that suggested for the Huntington Quadrangle has become a successful destination in itself for local area residents (not only on-site workers) wishing to shop and dine. It is also important to note that mixed-use development will produce fewer vehicle trips and require less parking (due to sharing opportunities) as compared with commercial office development alone. Figure 10 shows how a mixed-use-center with retail/restaurant uses can be integrated into the site with a walkable center and public open spaces, while allowing property owners to be more competitive in today's marketplace.

Along Maxess Road, new residential infill development could be stitched into the underutilized parking area along the eastern portion of the site. A conceptual design of the residential area is shown in Figure 10. This design suggests that any new development along Maxess Road would be clearly residential in character and scale, with lower buildings fronting along the road and slightly taller buildings to the rear (i.e. the interior of the site). The concept promotes a walkable environment along the roadway, with buildings set slightly back from a generous sidewalk. The frontage would have a well-appointed landscaped apron along Maxess Road, in keeping with the same across the road, on the east side of the street. In short, the design seeks to reinforce the suburban character of the area, while allowing for sensitive design and appropriately placed infill development. The infill concept shows approximately 260 market-rate residential units and assumes that 25% of the parking would be provided in structured garages and that there would be a 15% discount for shared parking. The rear of the residential area should be buffered with greenery and trees where it abuts the existing commercial parking (to remain) to reduce visual and audible impacts from the existing commercial uses.

Mixed-use Infill Concept

Precedent

Shops at Somerset Square (Glastonbury, CT)
(see: http://theshopsatsomersetsquare.com/directory/)

Huntington Quadrangle Mixed-Use Infill Concept

PROGRAM

Commercial Office	*Existing as Built*
Retail/Restaurant	*+/- 37,000 sf*
Residential Units	*+/- 260 units*

0' +/-100' +/-200

Melville Employment Center
September, 2015 (Concept) BFJ Planning

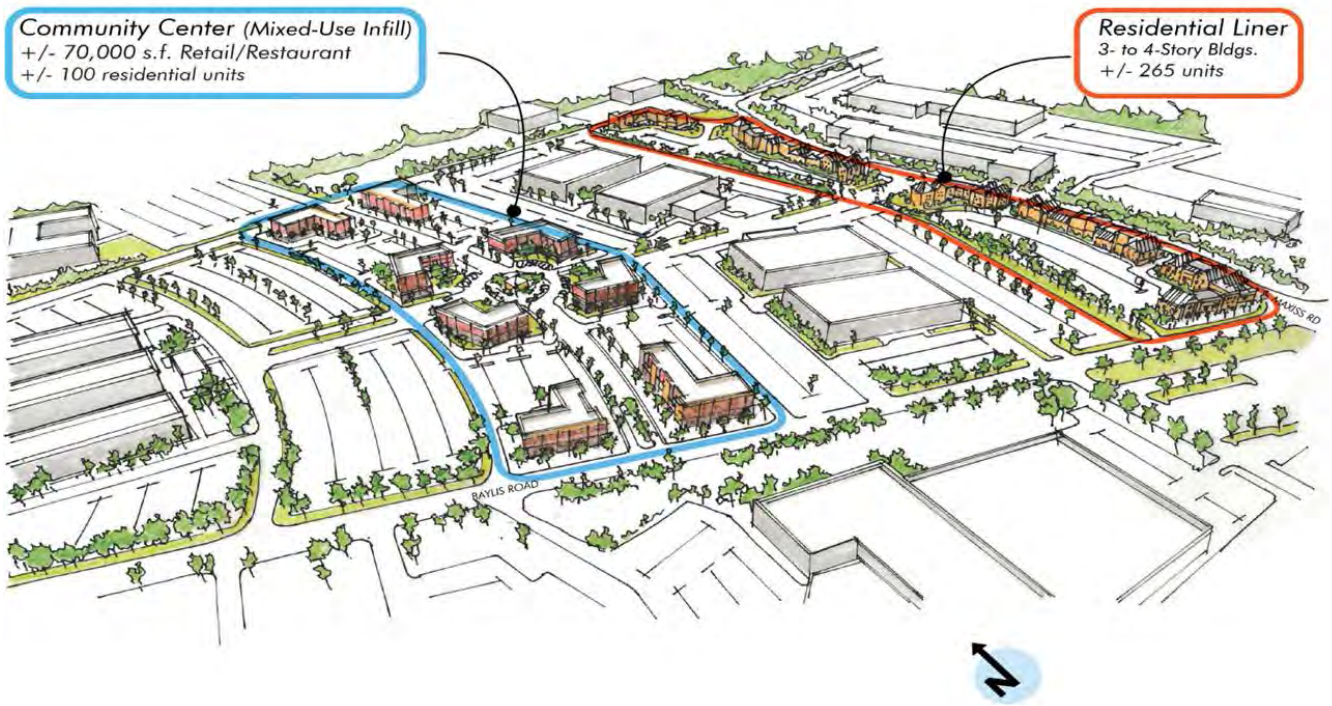


Figure 9: Huntington Quadrangle Infill Development Concept (1)

Mixed-use “neighborhood center” incorporated into center of site

Residential homes stitched in along Maxess Road

Figure 10: Huntington Quadrangle Mixed-use Infill Concept (2)

3.4 STREETSCAPE AND PEDESTRIAN ENVIRONMENT GUIDELINES

Some residents at public workshops for this plan expressed the need to improve the general appearance and image of the MEC streetscape. Streetscape refers to the elements in or near the street right-of-way, including buildings, buildings setbacks, lawns, sidewalks, street furniture, street trees, signs, streetlights and public art. These elements can be designed to improve the relationship of the built environment in relation to the human scale and improve the quality-of-life of residents in a community. An articulated and attractive streetscape can also benefit local business by attracting a diversity of users. The MEC Plan has identified a number of community design and streetscape elements that could be improved.

A. Sidewalks

Recommended improvements to the pedestrian network are discussed in the Transportation Section. Most of the roads in the district have sidewalks on both sides, but there are a few locations where sidewalks are on one side of the street or are not present at all. Some sidewalks in the MEC are either not well maintained or are actively deteriorating. Participants at the public meeting stated that the sidewalks and pavement along Pinelawn Road, near Old East Neck Road, are in disrepair and need improvement.

Sidewalks should be part of all new and renovated development, and, where feasible, should be provided on both sides of the street. A sidewalk on only one side forces pedestrians to either walk in the street or cross the street twice to get to the side with a sidewalk and back again.

The preferred minimum sidewalk width is 5 feet. Where there is space, a sidewalk should have a buffer with a landscaped strip or grass, which provides for a more pleasant place to walk. On side streets, the sidewalk buffer can be 4 feet wide, but on arterials such as Route 110, it should be 6 feet to 10 feet to accommodate shade trees and buffer pedestrians from automobile traffic.

Sidewalks should connect the street frontage to all front building entrances, parking areas, plazas, other usable open space areas and any other destination that generates pedestrian traffic. Sidewalks should connect to existing sidewalks on abutting tracts and other nearby pedestrian destinations and/or transit facilities (i.e. bus stops). All sidewalks shall have accessibility ramps and comply with the regulations of the Americans with Disabilities Act.

B. Streetscape Amenities

Currently, there are few seating and resting areas for pedestrians on Route 110. The streetscape could be improved with added lamps, benches, trashcans and street furniture. These fixtures contribute to a sense of community by creating an inviting atmosphere that encourages public use and relaxation. Walkability should be a primary consideration for all improvements. A well-designed streetscape can help mitigate noise from cars, protect pedestrians, reduce glare and soften the suburban environment.

Attractive streetscape amenities

In the MEC area, improving walkability is not a priority for all areas, as some streets are used more than others. Streetscape amenities that encourage walking and sitting are more suitable for core areas with commercial uses, pockets of open space or near bus stops.

C. Lighting

Lighting is another community design element that could be improved in the MEC. Sidewalks, walkways and roadways must be well lit for pedestrian and vehicular safety. Presently, there is intermittent cobra head lighting (arms mounted on wood utility poles) on Walt Whitman, Pinelawn, Duryea and Baylis Roads. There is no lighting on Route 110; improving lighting on Route 110 would improve safety conditions for cars and pedestrians alike. Lighting would also enhance the aesthetic appearance of the corridor.

Pedestrian scaled lighting adjacent to Canon

Attractive, pedestrian-scaled lighting could be used to enhance streetscape character. There are pedestrian-scaled light fixtures along the sidewalk on Walt Whitman Road next to Canon's corporate headquarters. Fixtures such as these should be considered in areas with higher pedestrian volumes, such as the commercial areas (i.e. the retail strip on Route 110 north of the LIE), institutional uses, near bus stops and at intersections with crossing areas. Pedestrian-scaled lighting should also be used near building entryways and parking lots.

D. Street Trees and Landscaping

Individual property owners in the MEC have generally provided for attractive landscaping along street frontages. However, the current approach has created a visually disjointed effect, especially

along Route 110. While street trees on many of the sites are planted at regular intervals, some sites have gaps in the front yard where there are no trees. The trees along Route 110 at the Huntington Quadrangle are a good example of an attractive linear planting pattern.

Linear street trees at Huntington Quadrangle

A more unified approach to tree planting along Route 110 could better connect the area and provide safety amenities for pedestrians and drivers. Street trees enhance street quality by providing shade, texture and seasonal color. They can also improve air quality and dampen noise. Plantings also help to soften the often hard-edged developed landscape, dominated by buildings and streets. Trees also intercept stormwater runoff and lower heat-related energy consumption.

The size of the Route 110 corridor effectively produces a yearly drought for plant life; because of pollution, heat and deicing salt, street trees need to be heartier than those found elsewhere. Fortunately, several species like the honey locust, pin oak, silver lindon and zelkova are built to weather these challenges, and should be considered in street tree planting.

Street Pole Banner (Beaumont, TX)

E. Signage

Signage in the MEC should be used primarily to identify a business or residential complex rather than serving as advertising. Signage should be complementary and well integrated to the surrounding area while also being readable to vehicular traffic. A more uniform and aesthetically pleasing look to signs should be considered for the commercial strip in the northern area of the study area.

F. Bus Stops

Bus stops, while often viewed simply as utilitarian infrastructure, can play an important role in improving the built environment when they are recognized as design elements in their own right. Bus stops that provide shelter and seats and are well lit are more comfortable and safe. Bus shelters also enhance the user experience. Garbage receptacles, strategically located by the bus shelter, help keep areas clean and attractive.

Bus stop at Melville Mall

G. Gateways

More could be done to denote arrival in (and departure from) the MEC through the creation of gateways. Creating a stronger sense of arrival could also improve the MEC's identity, especially along the fast-moving Route 110. Gateways play an important role in creating a sense of place within a neighborhood and provide residents and visitors with a first impression of an area. For the MEC, improved signage, landscaping and street installations at the entrance to the community along Route 110 will help visitors understand that this is a place where people work and live. Streetlights, landscaping and street signs that use the same font or logo can also convey the MEC's identity and connectivity.

Gateway signage (South San Francisco, CA)

Primary arrival locations to the MEC from the north and south along Route 110 would make the most sense as potential locations for gateway treatments. Formal gateways could be created with attractive signage or standalone design elements that evoke an important aspect of Melville's history or identity. Community members should be included in deciding what these elements might be, and such an effort could serve as a community building purpose. These efforts should be professionally assisted to ensure high-quality results. Landscaping and lighting could be used to complement the designs and make them more attractive and visible to visitors.

H. Open Spaces

Publicly accessible open spaces contribute positively to the quality-of-life in a neighborhood because they provide important opportunities for recreation, neighborhood events and casual interactions among residents. The Town should explore opportunities to create an off-road greenway along the LIPA-owned path that follows the former Vanderbilt Motor Parkway (also known as the Long Island Motor Parkway). Additionally, the Town should pursue opportunities to create connections to the Pineridge Conservation Area. This open space area is relatively inaccessible from the MEC without a car, and the Town should investigate the creation of new off-road paths to the conservation area, potentially in partnership with Canon or another property owner along the eastern side of Walt Whitman Road.

The Town should also explore the creation of new and improved existing open space within the MEC. While undeveloped land suitable for open space is scarce, small parks and public spaces may be created as part of the development and site plan review process. There are also a number of stormwater detention facilities in the MEC that help to control the peak rate of runoff during a stormwater event. These facilities are generally small lots with a mud pit surrounded by landscaping and fencing.

There are also a small number of isolated undeveloped parcels in the MEC owned by the Town, some of which are maintained for stormwater management purposes. In addition, there are several undeveloped parcels along Corporate Center Drive and Pinelawn Road that are required set-asides for the septic sewage fields associated with adjacent office buildings.

Potential connections to Pine Ridge Conservation Area

Public open space (The Village Green in Prospect New Town in Longmont, CO)

Off-road pathway examples (Arlington, VA)

(Barcelona, Spain)

Since land is scarce, there is an opportunity for the Town to consider using these spaces as community assets that can serve multiple uses. A stormwater detention facility can fulfill its hydrological role while also serving a dual purpose as a publicly accessible space. The stormwater detention facilities in Melville are sited on sand deposits and drain very well. Therefore, generally speaking, they only hold standing water during a rain event.

There are many different kinds of recreational amenities can be incorporated in these facilities. Issues to consider when planning for a multi-use stormwater detention area or septic field include recreation, aesthetics, maintenance, safety, water quality and wildlife habitat. The facility's recreational function cannot interfere with its hydrological function, and vice versa. The undeveloped parcels reserved for septic fields can support recreational uses without impairing the function of the subsurface fields. Any public use of the privately owned areas designated as septic fields would require cooperation between the Town and the property owners of the site.

Conceptual design for multi-use stormwater facility (Kansas State University)

3.5 STREETSCAPE FOCUS AREAS

A. Route 110 (Broadhollow Road) South of LIE

Community outreach as part of this plan revealed concerns about pedestrian safety, primarily along Route 110 and Walt Whitman Road. The tendency for vehicles to travel at high speeds, combined with high traffic volume and wide crossing distances at intersections, limits the pedestrian-friendliness of these corridors. Route 110, as the MEC's central spine, should improve its streetscape to create a stronger sense of place and promote a cohesive, active and attractive corridor. Safety along Route 110 is a critical element if it is to become a more active place. Streetscape improvements, applied strategically and with active community participation, have a role in improving safety.

Existing Route 110 Median

The median along Route 110 is generally unattractive, with concrete and weeds. Improving the median through landscaping and design improvements will help to enhance the street environment and safety by visually separating opposite directions of traffic flow; improving traffic discipline; and screening distractions from oncoming traffic, in particular the glare of headlights. A continuous thread of ornamental trees would contribute to pedestrian safety and traffic flow as drivers naturally reduce speeds.[16] NYSDOT discourages the planting of large trees in the center median because of the potential for falling limbs in the adjacent travel lanes. However, the planting of low vegetation is acceptable and can be a substantial improvement to both the appearance and the safety of the corridor. Functional medians with grass and shrubbery can be used to collect stormwater and designed to be low maintenance. Signage and public art are other ways to create a more attractive ribbon down the corridor. The Town would most likely be responsible for maintenance of the median; however, a Special Improvement District could be created in the MEC to help finance these upgrades to the roadway. Special Improvement Districts are discussed further in the Implementation Section.

NYSDOT "Greenway" on Route 347 (Suffolk County, NY)

Another way to improve safety for pedestrians is to enhance intersections with pedestrian refuge areas, which are sheltered areas between opposing lanes of traffic. These features improve safety to both pedestrians and vehicles by providing pedestrians with a safe place to stop and enhancing the visibility of pedestrian crossings. Pedestrian refuges in the median should be extended and clearly marked. These features should be at least 4 feet wide (preferably 8 feet wide to accommodate pedestrian comfort and safety).

College Area Business District (San Diego, CA)

Pedestrian refuge area (Richfield, MN)

[16] Andres Duany, Elizabeth Plater-Zyberk and Jeff Speck. *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. (New York: North Point Press, 2000).

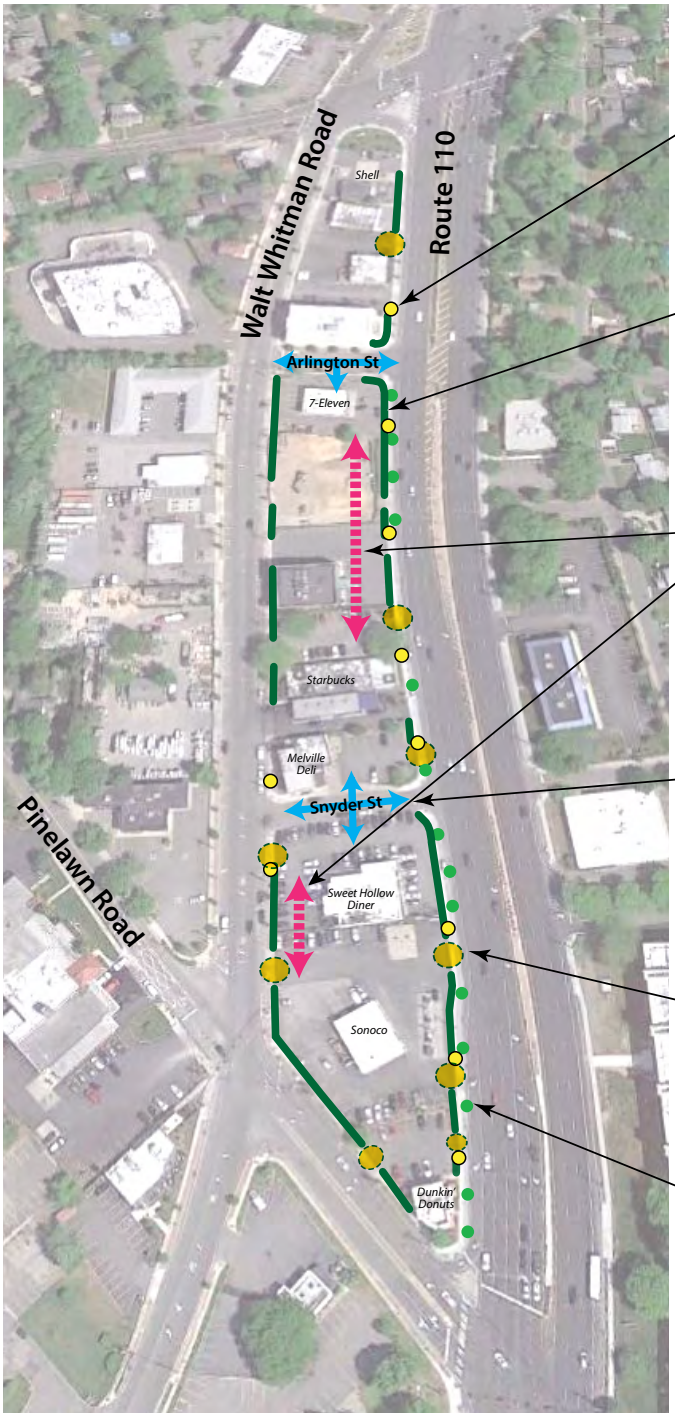
3.6 ROUTE 110 (BROADHOLLOW ROAD) NORTH OF LIE

The commercial area between Route 110 and Walt Whitman Road in the northern portion of the study area has a mix of small retail establishments, restaurants, convenience markets and a variety of other professional services. The retail strip is generally considered the main small-scale commercial area that serves Melville. However, due to its location along two arterials, it is dominated by automobile use and not accommodating to pedestrians. These businesses are sited on narrow lots, often with entrances on more than one side, which create parking and loading difficulties for many sites. These transportation issues are described in greater detail later in the Transportation section.

There are a number of streetscape improvements that will help enhance the aesthetics of this portion of the study area and make it a safer place to walk and drive. Since this area is not within the MEC Overlay District, the design guidelines outlined in this section would not apply. However, the Town should consider encouraging the recommendations shown in Figure 12 as part of its site plan review and future planning efforts:

A. Access Management

This area can promote a more efficient movement of vehicles in a well-defined manner that minimizes conflicts with pedestrians and bicycles. While off-street parking is provided for shoppers, most of the lots do not share parking with neighboring uses. One effective parking management strategy would be to encourage shared parking lots among different buildings and facilities in the area to take advantage of different peak periods. Shared parking can allow parking lots to be used more efficiently. Where possible, parking areas should be integrated with and/or linked to parking areas on neighboring properties. With better access management, having fewer lots minimizes the number of ingress and egress points to Route 110 and Walt Whitman Road.



- Pedestrian lighting along sidewalks on arterials
- Landscape screening, such as shrubs to separate and screen parking lots from roads, sidewalks and other facilities
- Shared parking (cut through between parking lots to reduce vehicular traffic on adjacent roadways)
- Encourage ingress and egress on side roads rather than on Route 110 (Arlington and Snyder Streets)
- Landscaping and lighting to identify entrances
- Ornamental tree plantings in the landscaped buffer between the sidewalk and the road

Figure 11: Streetscape Recommendations for Northern Commercial Area

4.0 CIRCULATION

4.1 EXISTING CONDITIONS

A. Travel Trends

Because Melville is primarily an employment center, travel by employees who work within the area is of particular interest in the MEC Plan. The Census Transportation Planning Package (CTPP), which is based on the 2006–2010 5-Year American Community Survey (ACS), offers insight into these travel trends, as does the MEC Plan Business and Employee Stakeholder Survey ("Stakeholder Survey") that was administered as part of this planning process. The Stakeholder Survey was distributed by the MEC Plan Steering Committee, as well as several property and business owners in the area, and there were a total of 72 respondents, 63 of whom identified themselves as employees.

Table 12 and Table 13 summarize CTPP data for two key travel trends – means of transportation to work and travel time to work – for employees who work in Melville compared with the Town of Huntington overall and Suffolk County. The results of the Stakeholder Survey, while based on a limited sample size, are comparable to the CTPP data.

Table 12: Means of Transportation to Work by Place of Employment

	Melville[1]		Town of Huntington		Suffolk County	
	Number of People	Percent of Total	Number of People	Percent of Total	Number of People	Percent of Total
Workers 16 Years and Over	42,710	100%	114,915	100.0%	613,850	100%
Car, truck, or van	41,255	96.6%	104,220	90.7%	559,650	91.2%
Drove alone	37,860	88.6%	95,390	83.0%	507,065	82.6%
Carpooled	3,395	7.9%	8,830	7.7%	52,585	8.6%
In 2-person carpool	2,565	6%	6,805	5.9%	41,210	6.7%
In 3-person carpool	505	1.2%	1125	1.0%	6680	1.1%
In 4-or-more person carpool	325	0.8%	900	0.8%	4695	0.8%
Public transportation (excluding taxicab)	775	1.8%	2,570	2.2%	11,405	1.9%
Walked	170	0.4%	1,645	1.4%	9,845	1.6%
Bicycle	10	0.0%	60	0.1%	1,725	0.3%

Source: CTPP; 2006–2010 5-Year ACS

[1] Corresponds to Census Tract 1122.06

As shown in Table 12, nearly nine out of every 10 employees who work in Melville (88.6%) drive alone to work based on the CTPP data, which is slightly higher than the respective percentages for the Town of Huntington (83%) and Suffolk County overall (82.6%). An additional 8% of employees who work in Melville carpool to work based on the CTPP data, which is comparable to the figures for the Town and Suffolk County. The results of the Stakeholder Survey similarly indicate that the vast majority of employees drive alone to work, with a small number of employees using a carpool.

Based on the CTPP data, less than 2% of employees who work in Melville commute using public transportation, and less than 0.5% walk or bike to work. While the Town overall and Suffolk County also have small mode shares for transit (2.2% and 1.9%, respectively) and walking/biking (1.5% and 1.9%, respectively), the figures are even lower for Melville. This underscores the dominance of the automobile as the primary means of transportation to work for employees in Melville.

As shown in Table 13, based on the CTPP data, over half of the employees who work in Melville have more than a 30-minute commute (51.3%), and approximately one out of every 10 has more than a 60-minute commute (10.1%). These figures are more pronounced than the respective percentages for employees who work in the Town overall and Suffolk County. Approximately 41% of employees who work in the Town travel more than 30 minutes to get to work (with approximately 8.2% traveling more than 60 minutes), and approximately 33% of employees who work in Suffolk County travel more than 30 minutes (with approximately 6.4% traveling more than 60 minutes).

Table 13: Travel Time to Work by Place of Employment

	Melville[17]		Town of Huntington		Suffolk County	
	Number of People	Percent of Total	Number of People	Percent of Total	Number of People	Percent of Total
Did not work at home	42,555	100.0%	109,375	100.0%	589,020	100.0%
Less than 5 minutes	250	0.6%	2,320	2.1%	16,840	2.9%
5-14 minutes	4,320	10.2%	22,425	20.5%	157,685	26.8%
15 to 19 minutes	5,910	13.9%	15,980	14.6%	95,350	16.2%
20 to 29 minutes	10,245	24.1%	23,425	21.4%	124,715	21.2%
30 to 44 minutes	12,540	29.5%	26,720	24.4%	118,410	20.1%
45 to 59 minutes	4,995	11.7%	9,515	8.7%	38,510	6.5%
60+ Minutes	4,295	10.1%	8,990	8.2%	37,500	6.4%

Source: CTPP; 2006–2010 5-Year ACS

Moreover, a smaller percentage of employees who work in Melville have shorter commutes than employees who work in the Town overall and Suffolk County. Whereas approximately one of every four employees who work in Melville (24.7%) have less than a 20-minute commute, more than

[17] Corresponds to Census Tract 1122.06

one in three employees who work in the Town overall (37.2%) have less than a 20-minute commute, and nearly half of the employees in Suffolk County (45.9%) have less than a 20-minute commute.

Therefore, based on the CTPP data, a greater percentage of employees who work in Melville have longer commutes than employees who work in the Town and Suffolk County overall. This may reflect farther commuting distances compared with the Town and County overall, particularly given the regional attraction of jobs in the MEC, as well as localized travel delays for employees who work in Melville. Based on the results of the Stakeholder Survey, approximately 17% of employees in Melville commute from Huntington, about 45% commute from elsewhere in Suffolk County and approximately 28% commute from Nassau County. The remaining 10% of employees commute from New York City (primarily Queens), thereby demonstrating that the MEC has a regional draw for its employment base.

B. Roadway Characteristics

As shown in Figure 12, the roadways within the MEC comprise a variety of functional classifications, including Principal Arterial (Interstate, Expressway, and Other), Minor Arterial, Collector, and Local Street. As discussed in the Federal Highway Administration (FHWA) Functional Classification Concepts, Criteria, and Procedures, the concept of functional classification refers to a "hierarchy" of roadway types that collectively promote mobility and accessibility.

The Long Island Expressway (LIE) and Northern State Parkway – as a Principal Arterial Interstate and Expressway, respectively – offer the highest level of mobility, each providing a regional east-west travel option to and from the MEC with one point of access (Exit 49 on the LIE, and Exit 40 on the Northern State Parkway). The LIE runs through the MEC, while the Northern State Parkway is located just north of the study area boundary.

Route 110 offers regional north-south mobility between Halesite (north of the study area) and Amityville (south of the study area). The MEC is strategically located around Route 110, also known as Long Island's "High Tech Main Street," as it employs approximately 10% of the Island's workforce. As a Principal Arterial (Other), the primary function of Route 110 is to provide mobility. However, due to the significant number of curb cuts along Route 110 (Figure 12), that provide access to properties along the roadway, there is greater likelihood for travel friction from vehicle access/egress as compared with the LIE and Northern State Parkway. Other Principal Arterials within the study area include the LIE North and South Service Roads.

Minor Arterials interconnect with Principal Arterials to serve trips at a somewhat lower level of travel mobility and a somewhat greater level of accessibility. Minor Arterials within the study area include a combination of north-south roadways (Walt Whitman Road, Pinelawn Road/Wellwood Avenue, Republic Road/New Highway) and east-west roadways (Ruland Road and Old Country Road). Collectors — such as Spagnoli Road, Maxess Road, Duryea Road, Baylis Road and Marcus Drive in the study area — distribute trips between Principal/Minor Arterials and Local Streets, which provide the highest level of accessibility.

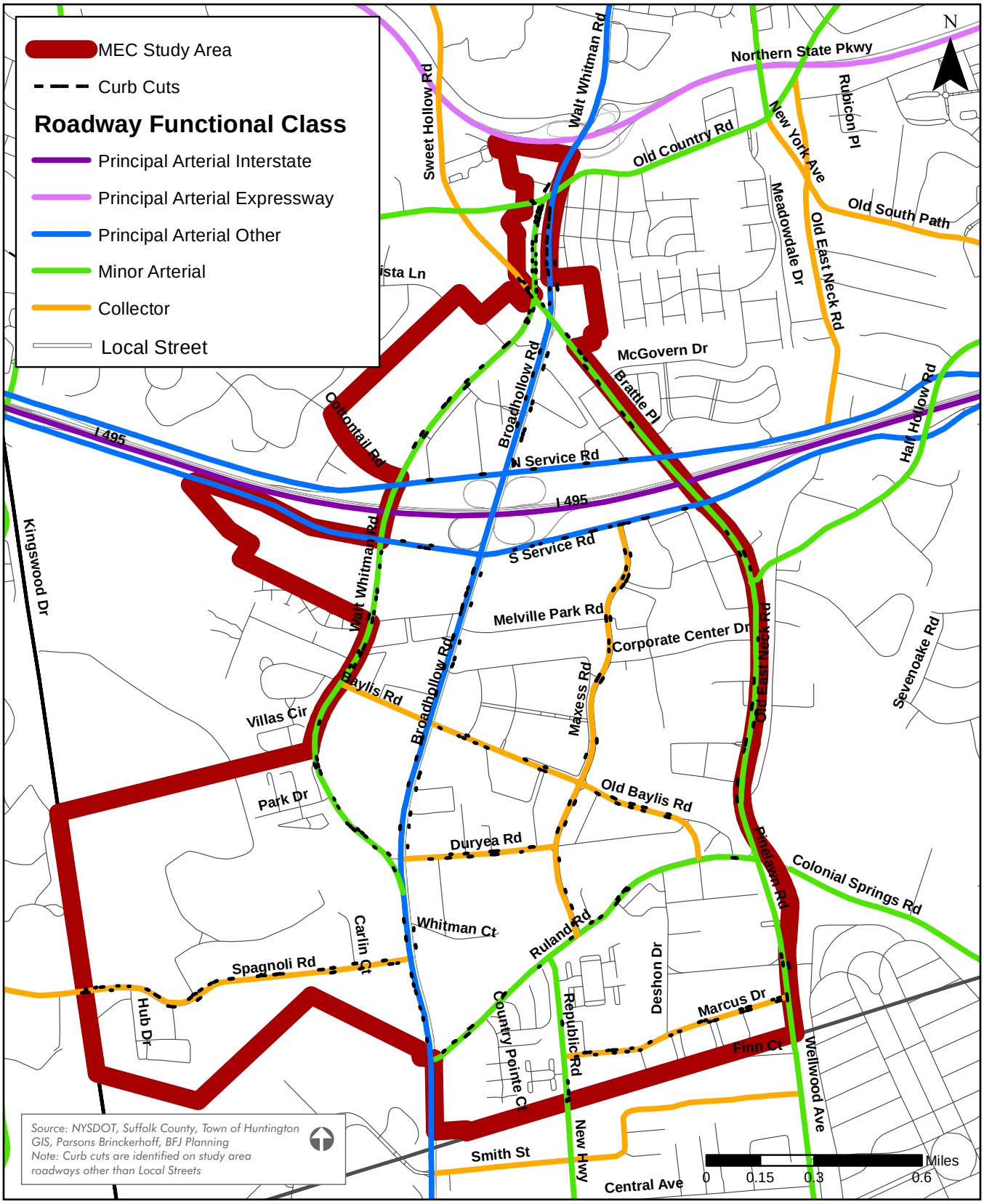


Figure 12: MEC Roadway Network Functional Classifications

In addition to functional classification, ownership is another defining feature of roadways in the MEC. For instance, Route 110, the LIE (including the Service Roads) and the Northern State Parkway are State-owned roads; Pinelawn Road/Wellwood Avenue and Ruland Road are County-owned roads; and most other roads in the study area are owned by the Town of Huntington (Figure 13). Roadway ownership is an important factor in the MEC Plan because it identifies the lead entity who will ultimately be responsible for implementing potential improvements.

C. Traffic Conditions

Existing traffic conditions in the MEC study area were evaluated based on an assessment of Level of Service (LOS) data for intersections, supplemented by Annual Average Daily Traffic (AADT) data for roadway segments. The data were compiled from a variety of sources, including the *Evaluation of Traffic Conditions Related to Canon, U.S.A., Melville, NY* ("Canon Traffic Study"), the *Route 110 Alternatives Analysis*, the New York State Department of Transportation (NYSDOT) Traffic Data Viewer and the Suffolk County Traffic Count Information online portal. No traffic modeling was performed as part of this study.

The *Highway Capacity Manual 2010* (HCM) defines LOS and AADT as follows:

> *LOS: A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A–F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst.*
> *AADT: The total volume of traffic passing a point or segment of a highway facility in both directions for 1 year divided by the number of days in the year.*

Figure 14 shows the LOS and AADT for those intersections and segments in the study area where data were available. As indicated in the legend, LOS is related to average delay per vehicle at a given intersection, with LOS A corresponding to the shortest delay (less than or equal to 10 seconds), and LOS F corresponding to the longest delay (greater than 80 seconds). The data indicate that six intersections operate under constrained traffic conditions during the evening peak period, corresponding to LOS E or F (i.e., average vehicle delay of greater than 55 seconds):[18]

- Route 110 at Old Country Road
- Route 110 at Pinelawn Road/Sweet Hollow Road
- Route 110 at the LIE South Service Road
- Route 110 at Baylis Road
- Walt Whitman Road at the LIE North Service Road
- Walt Whitman Road at Canon Park Drive South

[18] Note: Based on analysis (as documented in the 2014 Canon Traffic Study) that preceded completion of the recent NYSDOT capital improvements along Route 110 between the LIE South Service Road and Arrowwood Lane.

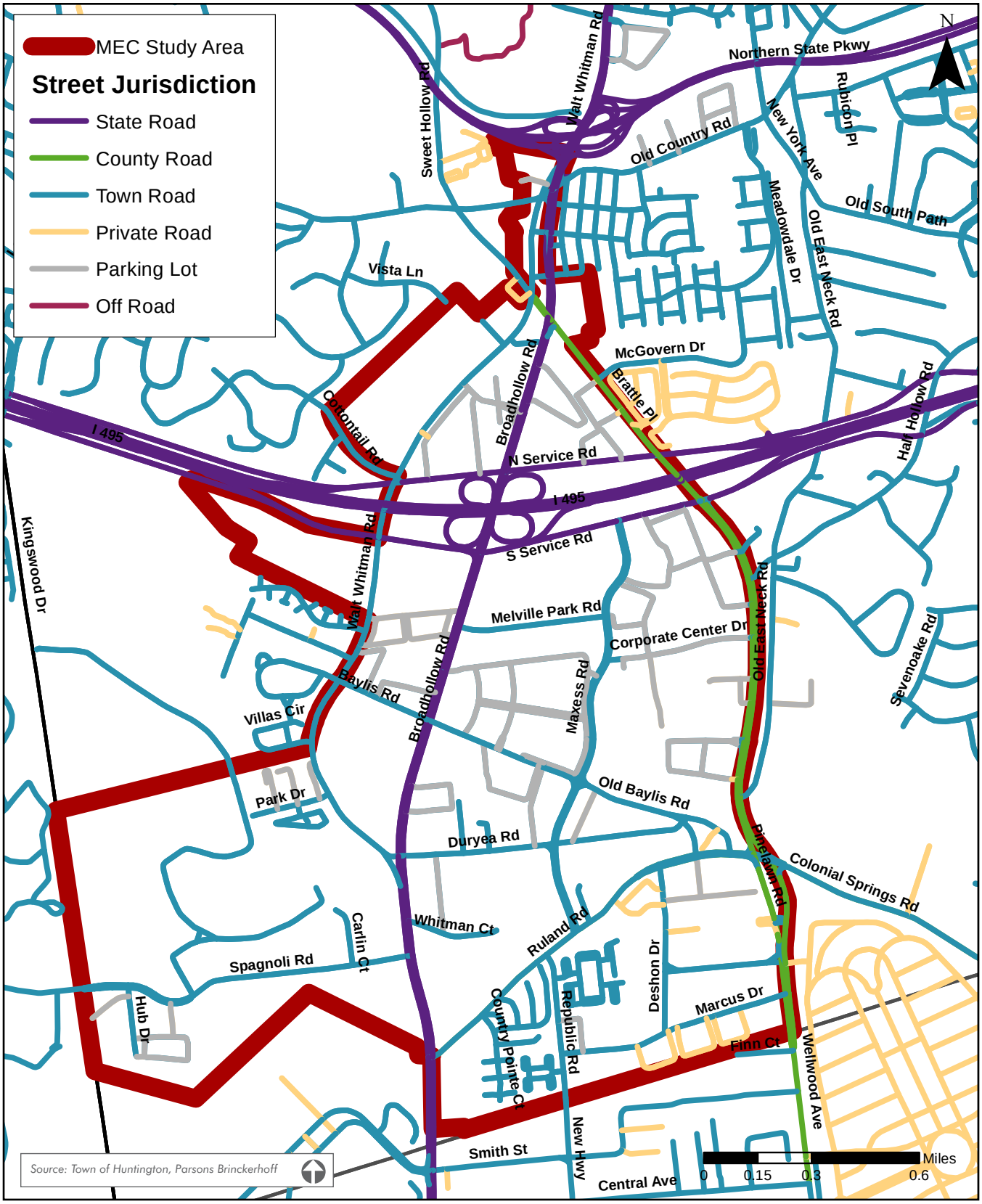


Figure 13: MEC Roadway Network Ownership

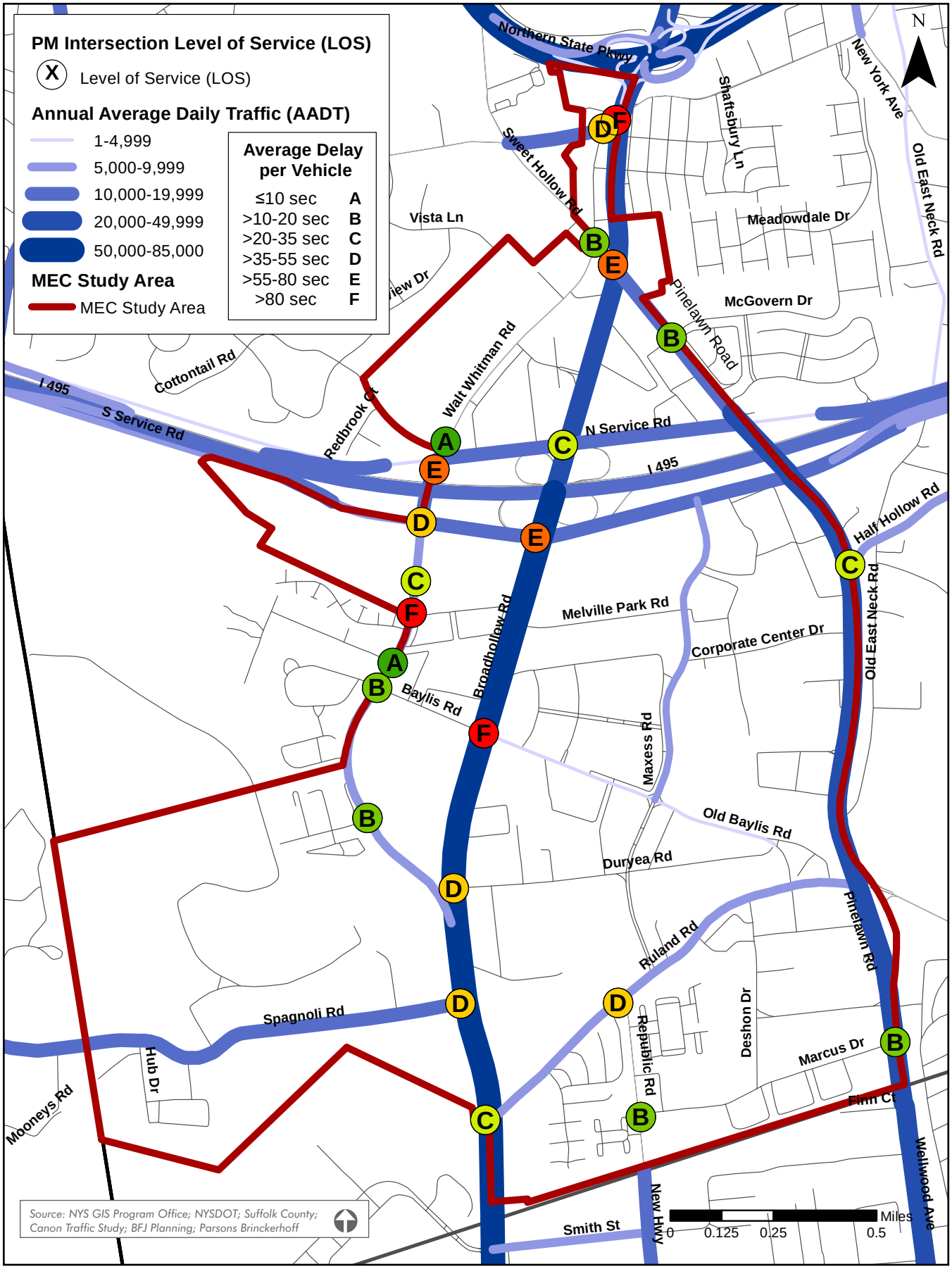


Figure 14: MEC Traffic Conditions

The LOS data also exposed individual intersection approaches that operate under constrained traffic conditions. For instance, although the intersection of Walt Whitman Road and the LIE South Service Road operates at overall LOS D, the northbound lane group movement operates at LOS E. And, as discussed later in this section, traffic congestion is projected to worsen in the future.

D. Roadway Safety

Roadway safety for all users is an important consideration throughout the study area, but the issue is most acute along Route 110.

Roadway safety for motorists was analyzed as part of the NYSDOT Northern State Parkway and LIE Interchange Improvements Project. Cluster areas of accidents were identified in the project's *Final Design Report/Environmental Assessment*, including the LIE North and South Service Roads in the vicinity of Route 110. Prior to construction of the NYSDOT project, the reported accident rate was four times higher than the state average near the Route 110/LIE interchange. High traffic volumes, turning vehicles and signal timing issues were identified as probable causes for crashes. As indicated by NYSDOT in their involvement in the MEC Plan, the improvements implemented as part of this capital project resulted in a reduction in accidents.

Roadway safety for pedestrians was evaluated by the Tri-State Transportation Campaign through an analysis of the National Highway Traffic Safety Administration's Fatality Analysis Reporting System. The analysis identified the most dangerous roads in the Tri-state region – excluding interstates, highways and other roads where pedestrians are prohibited – based on the number of pedestrian fatalities between 2011 and 2013. According to the analysis (*The Region's Most Dangerous Roads for Walking*), Route 110 ranked as the second most dangerous road in Suffolk County (behind Jericho Turnpike, Route 25), with a total of nine pedestrian fatalities between 2011 and 2013. It is important to note that none of the pedestrian fatalities occurred within the study area.

4.2 PEDESTRIAN AND BICYCLE ACCOMMODATIONS

Walking and biking are not significant modes of commutation for employees in Melville. However, some attendees at the public workshops for this plan expressed the need to improve the general appearance and image of the MEC streetscape, to enhance the safety of residents and employees who choose to walk or bike within the study area, as well as to improve aesthetics.

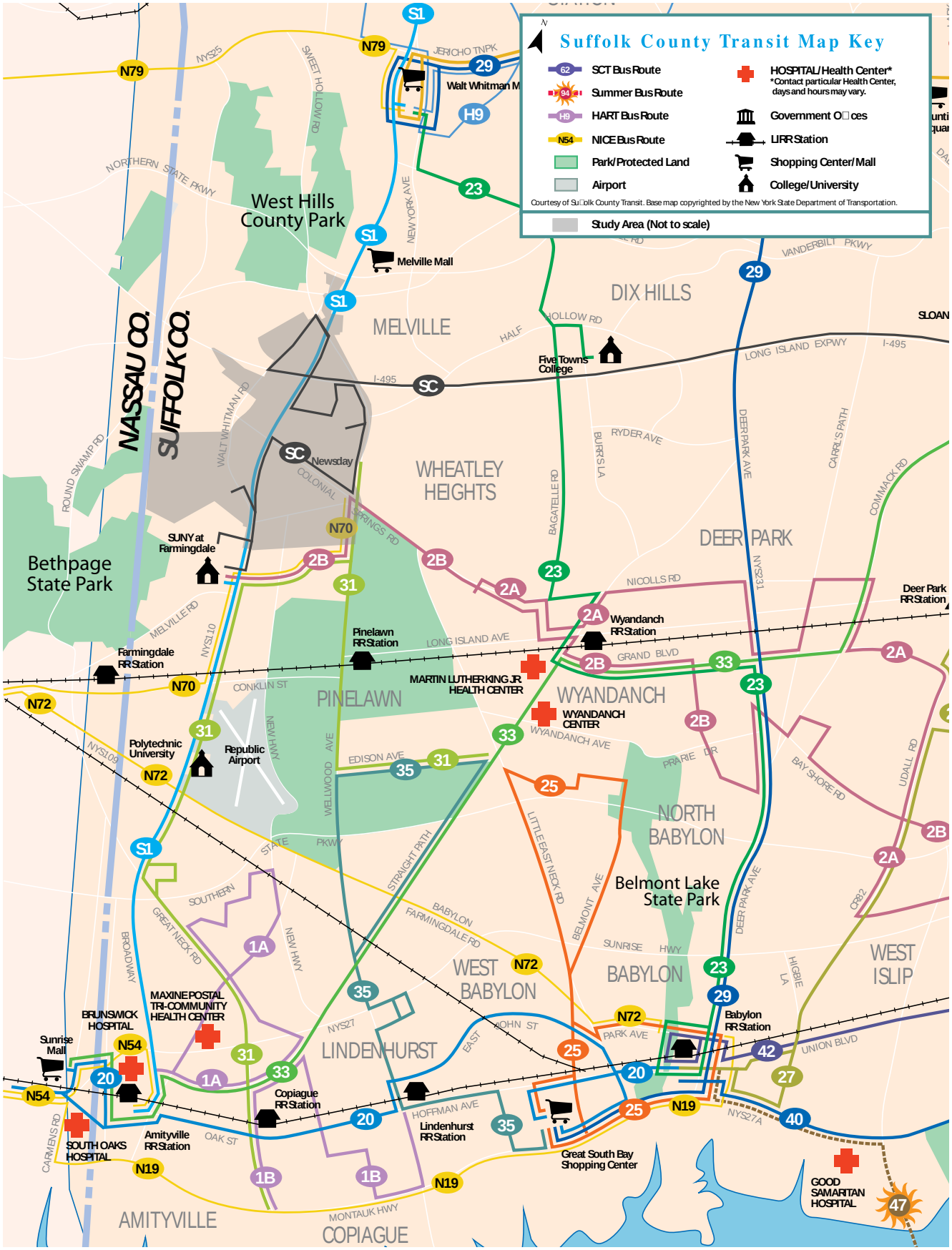
The Community and Architectural Design Section contains a range of recommendations to enhance the relationship of the built environment and improve quality-of-life in the Melville community. These include provision of sidewalks, installation of streetscape amenities and improved lighting, better landscaping along street frontages, signage and wayfinding, enhancements to bus stops, demarcation of gateway entrances and introduction and linkages of public open space.

4.3 TRANSIT SERVICE

As shown in Figure 15, Suffolk County Transit and Nassau Inter County Express (NICE) both offer local bus service within the study area. The Suffolk County Transit S1 route offers the most frequent service, with the longest span of service among the routes that serve the study area. The other routes serving the study area offer less frequent service for shorter spans throughout the day. Additionally, the S1 has the highest weekday ridership of all Suffolk County Transit bus routes, as well as the second-highest Saturday ridership, based on data collected in 2013. The bus routes serving the study area are:

- **Suffolk County Transit S1**: This route serves the length of the Route 110 corridor, from the Long Island Rail Road (LIRR) Amityville Station in the south to Halesite in Huntington in the north. Within the study area, the route makes 11 stops in the southbound direction and 10 stops in the northbound direction, all located on Route 110.
- **Suffolk County Transit S31**: This route provides service between Copiague and Northwest Babylon, including North Amityville, East Farmingdale, Farmingdale and Melville. Within the study area, the route serves Newsday at its main entrance along Pinelawn Road, and provides a connection to the Suffolk County Transit 2B and NICE N70 routes at this location.
- **Suffolk County Transit 2B**: This route provides service between East Farmingdale/Wyandanch and Bay Shore, including Farmingdale State College, Wheatley Heights, Deer Park, North Babylon, Gardiner Manor Plaza, South Shore Mall and Touro College. Within the study area, the route serves Newsday at its main entrance along Pinelawn Road, and provides a connection to the Suffolk County Transit S31 and NICE N70 routes at this location.
- **Suffolk County Transit Clipper**: This route provides service to Route 110, Farmingdale State College, the Hauppauge Industrial Park, and the LIE Exits 63 (Farmingville) and 58 (Islandia). Within the study area, the route makes 11 scheduled stops, including along Route 110 and Corporate Center Drive, as well as off Spagnoli Road and Walt Whitman Road.
- **NICE N70**: This route provides service between Hempstead and Melville, including East Meadow, Levittown, Plainedge and Farmingdale. Within the study area, the route serves Newsday at its main entrance along Pinelawn Road, and provides a connection to the Suffolk County Transit S31 and 2B routes at this location.

In addition to offering transfer opportunities to/from many other Suffolk County Transit and NICE bus routes, the bus routes serving the study area provide transfer opportunities to/from other local and regional transit services, including the Huntington Area Rapid Transit (HART) local bus system and the LIRR. While HART does not serve the study area, it is possible to transfer between the Suffolk County Transit S1 route and three of the four HART routes (H20, H30 and H40) at the Walt Whitman Shops, which is located about 2 miles north of the study area on Route 110. It is also possible to transfer between the S1 route and the H10 HART route at the LIRR Huntington Station, located about 2 miles north of the Walt Whitman Shops, just east of Route 110.



Source: Suffolk County Transit

Figure 15: Transit Service within the MEC

Although there are no LIRR stations within the study area, the MEC is strategically located along Route 110, which crosses the Main Line/Ronkonkoma Branch, Port Jefferson Branch and Babylon Branch of the LIRR. The LIRR Farmingdale Station (along the Main Line/Ronkonkoma Branch) is the closest station to the study area, located approximately 2.5 miles to the southwest. Existing transit service between the study area and the LIRR Farmingdale Station is provided by the Suffolk County Transit S1 route, plus a connection with the NICE N72 route. The S1 route also connects the MEC with the LIRR Huntington Station on the Port Jefferson Branch (about 4 miles north of the study area) and the LIRR Amityville Station on the Babylon Branch (about 5.5 miles south of the study area) along Route 110.

The combination of existing Suffolk County Transit and NICE bus routes within the study area, which offer multiple connections to HART and the LIRR, provide a framework to enhance the local and regional multi-modal transportation system that serves the MEC. As discussed below, there are ongoing and planned transit improvements that will benefit the MEC in the future.

A. Issues and Opportunities

Several prior plans and studies helped to identify transportation issues and opportunities, most notably the *Route 110 Alternatives Analysis* and the Canon Traffic Study. Additionally, key issues and opportunities were informed by input from attendees at the June 2, 2015, MEC Plan Opening Public Workshop and November 9, 2015, Transportation/Circulation Public Workshop, as well as discussion with NYSDOT during a coordination call on October 5, 2015.

Furthermore, the results of the Stakeholder Survey highlighted those priorities that are most pertinent to property owners, managers and employees who work in the MEC. The survey was helpful to reach this group of stakeholders, especially because those who do not live in the MEC may be less likely to attend public meetings after work hours.

The following sections summarize the key issues and opportunities that informed the Area Circulation Plan, which is presented in Section 4.4.

Issue: Existing and Projected Future Traffic Congestion

Six intersections within the study area operate with LOS E or F in the evening peak period, and additional intersections have individual approaches that operate under constrained traffic conditions. This existing traffic congestion contributes to travel delays and travel time unreliability, which were underscored as critical issues by the vast majority of respondents to the Stakeholder Survey as well as attendees at the public workshops.

In addition to the general public, emergency service providers also commented during the public workshops that traffic congestion is problematic in the study area, especially near Canon along Walt Whitman Road. Accordingly, constrained traffic conditions in the MEC not only affect workers' commutes and other discretionary travel by residents and visitors in the area, but also potentially affect emergency response time.

Moreover, future traffic congestion will likely be exacerbated by projected increases in population and employment, thereby putting additional strain on the roadway network. In addition to future development projects that may be proposed in or near the study area, it is anticipated that the full employment build-out at Canon will occur within the next five years. As discussed in the Canon Traffic Study, Canon's full employment build-out will result in more than 800 additional employees (i.e., an increase from 1,879 to 2,700 employees), which is projected to generate additional vehicular trips along the already-congested Walt Whitman Road. Therefore, existing traffic congestion, which is projected to get worse in the future, is a major issue that can restrict the MEC's competitiveness and adversely affect quality of life for employees, residents, and visitors.

Issue: Limited Travel Choices

Travel choices are constrained within the study area for a number of reasons. For many trips, transit is not a viable option because major trip generators and attractors are located off the main spine of Route 110 and lack direct, convenient and/or frequent transit access. Multi-modal connectivity is also lacking because existing bus routes offer limited service between the LIRR and destinations in the study area, and where there are multi-modal connections, they are neither timed nor guaranteed. Moreover, existing bus travel times are not competitive with automobile travel times in the study area, especially during peak periods, which is a disincentive for automobile owners to use transit.

Walkability and bicycling are also constrained in the study area due to safety issues, inconsistent availability and width of sidewalks and lack of bicycle lanes. This is further exacerbated by the auto-oriented development pattern, which is discussed below.

From a vehicular standpoint, there is limited east-west connectivity between Route 110 and Pinelawn Road/Wellwood Avenue within the study area. Other than the LIE North and South Service Roads, Ruland Road offers the only direct connection, as Baylis Road merges with Ruland Road instead of connecting with Pinelawn Road. Additionally, Corporate Center Drive only connects Pinelawn Road to Maxess Road, and Melville Park Road only connects Route 110 to Maxess Road. South of the study area, Smith Street and Conklin Street provide additional east-west connectivity between Route 110 and Pinelawn Road/Wellwood Avenue.

Overall, all transportation modes have certain shortcomings that limit travel choices within the study area.

Issue: Auto-Oriented Development Pattern

Existing development patterns within the study area not only reflect, but can also induce, the use of automobiles as the primary mode of transportation. For instance, office complexes that are set back far from the street and provide expansive surface parking lots can impede convenient pedestrian accessibility. Additionally, as all transit customers begin and end their trips as pedestrians, this development pattern further discourages transit use.

One of the recommendations in *Horizons 2020*, which is closely aligned with the Suffolk County *Connect Long Island Plan*, is to "Integrate transportation and land use planning at the local level, including context-sensitive solutions and planning initiatives that promote balanced development patterns and transit-friendly development." Accordingly, the MEC Plan can provide the framework to plan transit-supportive and pedestrian-friendly development that still conforms to the scale and character of the built form within the study area.

Opportunity: Recent, Ongoing and Future Roadway Capital Projects

There are several ongoing capital projects that can improve traffic conditions and roadway safety within the MEC:

- **NYSDOT Route 110 Reconstruction and Bridge Projects:** Three separate NYSDOT projects are reconstructing an approximately 1.7-mile segment of Route 110 between the LIE South Service Road and Arrowwood Lane, located north of the Northern State Parkway (Figure 16). In addition to reconstructing the bridges along Route 110 at the LIE (PIN 0112.53) and Northern State Parkway (PIN 0516.41), the work includes adding a third travel lane in each direction and providing continuous sidewalks on both sides of Route 110 (PIN 0112.56), thereby increasing roadway capacity and improving walkability. The two bridge projects are completed. PIN 0012.56 is ongoing and nearing construction completion.
- **NYSDOT PIN 0229.38:** In Federal Fiscal Year 2012, NYSDOT completed a capital project to add a third lane along the LIE North and South Service Roads from Walt Whitman Road to Route 110. The purpose of this project was to improve the roadway's functional operation.
- **NYSDOT Route 110 Pedestrian Safety & Operational Improvements Project**: A forthcoming NYSDOT project will include crosswalks, signal work, fencing and intelligent transportation systems (ITS) equipment to improve pedestrian crossings on Route 110 between Route 27A in Amityville and Young Hill Road in Huntington. Although most of the locations are outside the study area, pedestrian improvements can help to improve roadway safety along this corridor that traverses the MEC.
- **Suffolk County Department of Public Works (SCDPW) Reconstruction of Pinelawn Road/Wellwood Avenue:** As indicated in the Suffolk County 2015-2017 Capital Program, this two-phased project (Capital Project (CP) 5510) will "[improve] traffic flow, safety, drainage, and overall roadway condition in the area," including at the intersection of Pinelawn and Ruland/Colonial Springs Roads within the study area, as well as the intersection of Wellwood Avenue and Conklin Street/Long Island Avenue south of the study area.

Beyond these programmed NYSDOT and SCDPW capital projects, there is a need to address other areas of future traffic congestion within the study area. The Area Circulation Plan discussed in Section 4.4 offers an opportunity to identify additional traffic/roadway improvements in the MEC.

Opportunity: New and Enhanced Transit Services

To supplement ongoing and future traffic/roadway improvements, there is an opportunity to improve transit service within, to and from the MEC. These improvements include a combination of introducing new transit services as well as enhancing the existing transit system.

The Town of Babylon recently completed the *Route 110 Alternatives Analysis*, which identified the preferred alignment and routing for a bus rapid transit (BRT) trunk route along Route 110 and also proposed two options for shuttle bus feeder routes to serve off-corridor activity centers. The BRT trunk route and the shuttle bus feeder routes, as an overlay to the existing local bus system, would directly benefit the MEC by expanding travel options, helping to mitigate increases in traffic congestion associated with future development and improving environmental conditions and quality of life. The new transit services could also effectively support and stimulate smart growth, sustainable economic development and Complete Streets within the traditionally auto-oriented Route 110 corridor.

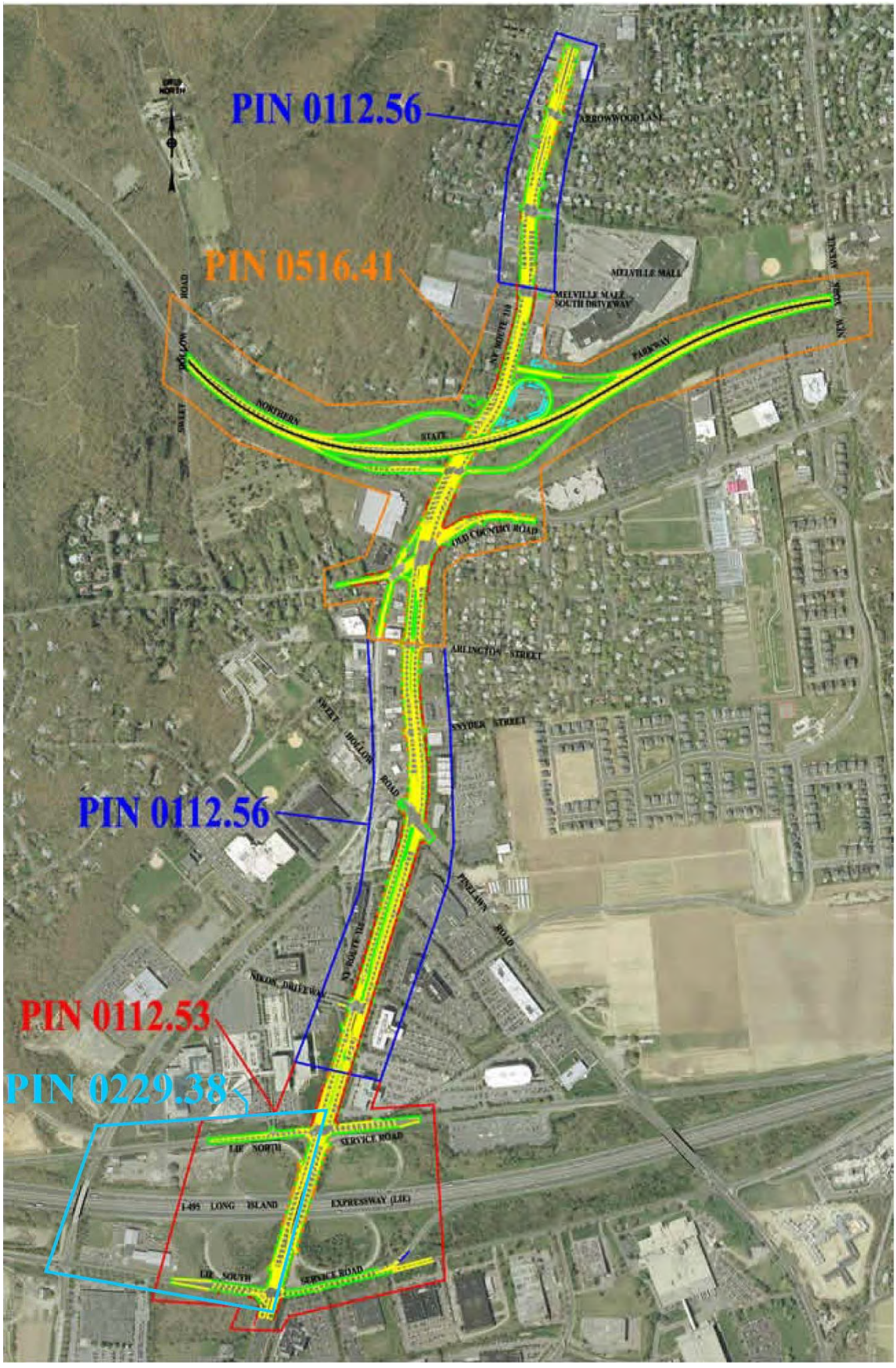
There is also an opportunity to integrate the BRT and feeder route service with a new (reopened) LIRR Republic Station planned near the intersection of Route 110 and Conklin Street. The future construction of the LIRR Republic Station will substantially enhance multi-modal connectivity along Route 110 and leverage other ongoing and potential future LIRR capital projects, including East Side Access, Double Track and Third Track.

Collectively, the introduction of BRT along Route 110, the addition of shuttle bus feeder routes to serve areas east and west of Route 110 and the implementation of several ongoing and potential future LIRR capital projects can help the MEC to achieve "an accessible, multi-modal transportation system," consistent with the Vision Statement in *Horizons 2020*.

Opportunity: Mixed-Use, Transit-Supportive Development

To fully realize the benefits of new and enhanced transit services, proactive land use planning must provide the regulatory framework to encourage transit-supportive development. An overarching theme of the *Connect Long Island Plan* is the need to integrate land use policy and transportation improvements to drive economic sustainability and growth in the region, and Route 110 is identified as one of three priority corridors in Suffolk County.

The Land Use, Zoning, and Community Design components of the MEC Plan effectively serve as tools to facilitate transit-supportive development. As discussed in the Land Use and Zoning Section, the key change contemplated for the future of the MEC is to promote infill development and redevelopment with a mix of uses. Office buildings are and are envisioned to remain the primary land use within the MEC, but there are opportunities to introduce a mix of uses in certain locations. The proposed creation of an MEC Overlay District as part of the MEC Plan will provide the mechanism to enable and encourage mixed-use development. The introduction of mixed-use development also creates an opportunity to enable shared parking, which is discussed as a potential improvement in the Area Circulation Plan below.



Source: NYSDOT

Figure 16: NYSDOT Route 110 Reconstruction and Bridge Projects

4.4 AREA CIRCULATION PLAN

The following sections present three categories of transportation improvements in the MEC Area Circulation Plan: (1) traffic/roadway improvements; (2) pedestrian/bicycle improvements; and (3) transit improvements. The purpose of categorizing the improvements is to provide a framework for discussion, but the categories are not necessarily mutually exclusive, and in fact, the identified transportation improvements are complementary. Additionally, the improvements comprise a wide range of physical, regulatory, and programmatic changes. Implementation of some or all of the potential improvements could address the transportation issues and leverage the opportunities facing the MEC.

A. Traffic/Roadway Improvements

The future success of Melville as a regional employment center is dependent in large part upon the ability to address traffic congestion in the area. Although the Route 110 Reconstruction and Bridge Projects are adding carrying capacity to the spine of the MEC, there are other unresolved traffic congestion issues that must be addressed to ensure the area's long-term prosperity.

Walt Whitman Road Bridge over the LIE

As noted, the anticipated full employment build-out at Canon is a noteworthy example of a development that will exacerbate already congested traffic conditions. The Canon Traffic Study demonstrated that one of the primary "choke points" in the area – the Walt Whitman Road Bridge over the LIE – experiences significant vehicle queues, and that the additional trips generated by the full employment build-out at Canon will further degrade traffic operations. In conjunction with proposed signal timing modifications at the adjacent intersections (discussed below), the Canon Traffic Study concluded that widening of the Walt Whitman Road Bridge would be necessary to mitigate capacity constraints.

As proposed, the bridge structure would be widened to five travel lanes with standard shoulders, including three lanes northbound (two left turn lanes and one through lane) and two lanes southbound (plus a left turn bay). The proposal also calls for adding a southbound through lane and northbound left turn bay at the intersection of Walt Whitman Road and the LIE North Service Road, and adding a northbound right turn bay at the intersection of Walt Whitman Road and the LIE South Service Road. The proposed bridge widening and associated roadway improvements are shown in Figure 17, and the purpose of the proposed infrastructure investment is to "ensure that adequate storage length is available on the bridge to accommodate Existing (2014) and the anticipated Full Employment Condition (2020) traffic operational needs at this location."[19]

[19] As underscored in the Canon Traffic Study, it is important to stress that the analysis was "limited to only the immediate capacity needs. When a project is progressed to replace or widen the existing structure a detailed analysis of future capacity needs will be required."

Source: Canon Traffic Study

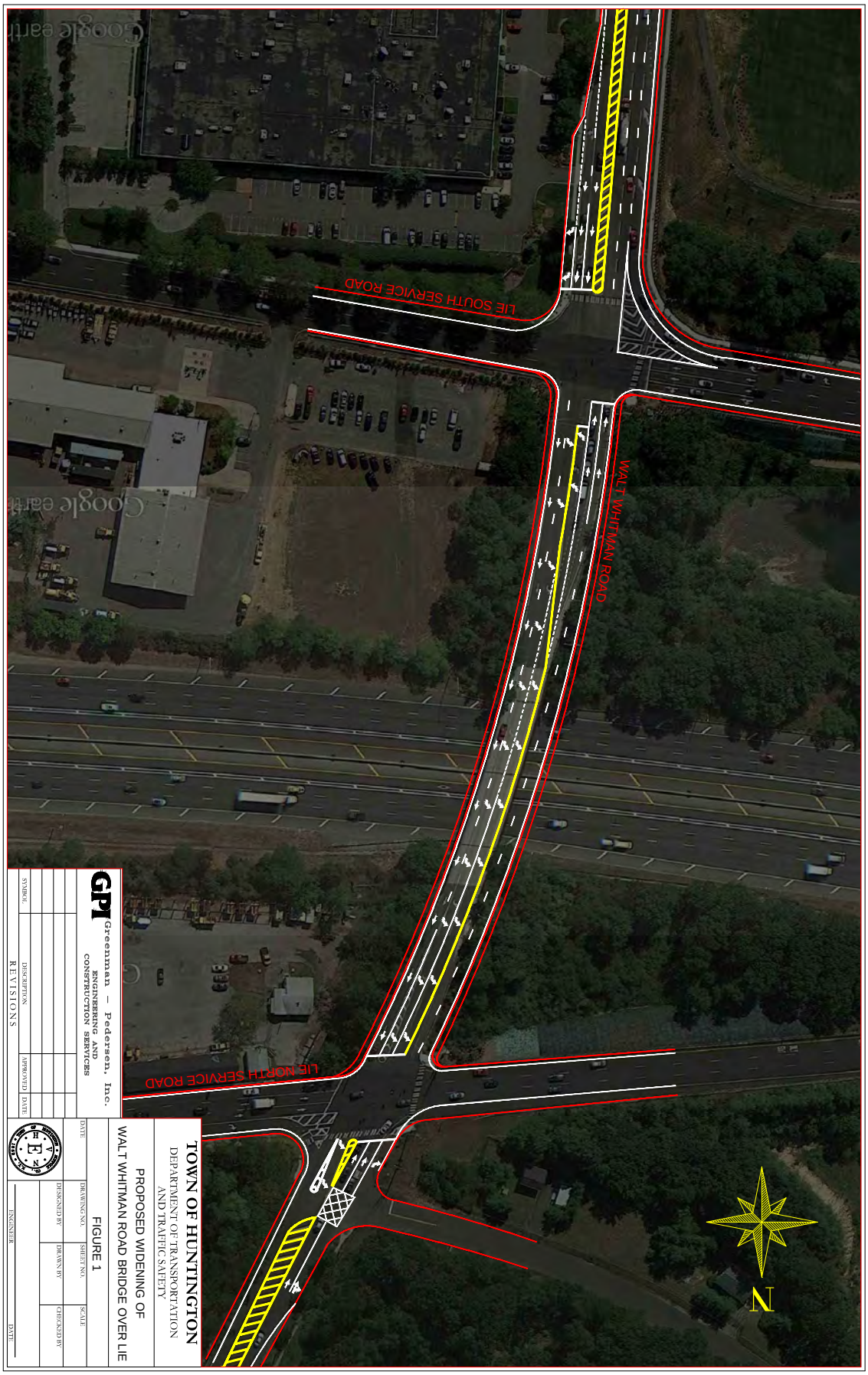
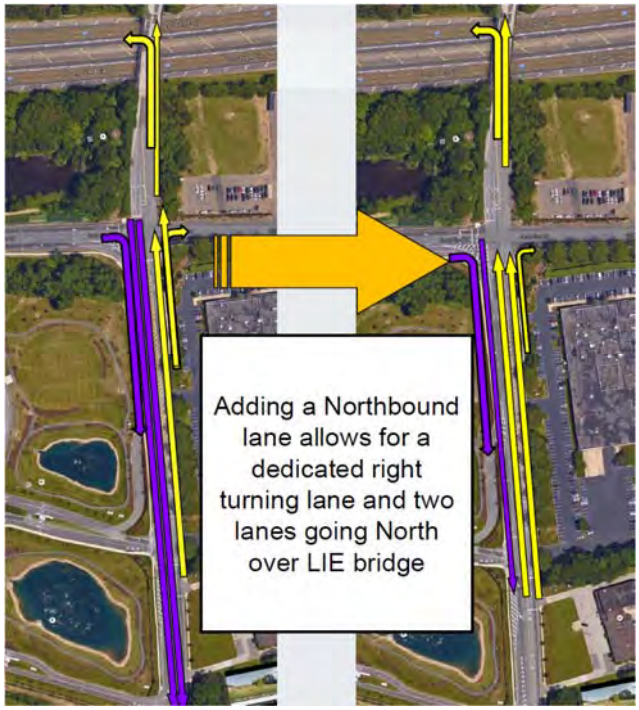


Figure 17: Proposed Widening of Walt Whitman Road Bridge over the LIE

Following completion of the Canon Traffic Study by Greenman-Pedersen, Inc. on behalf of the Town of Huntington, Canon proposed an alternative to the widening of the Walt Whitman Road Bridge. As shown in to the right, Canon proposed adding a northbound turn bay at the intersection of Walt Whitman Road and the LIE South Service Road by re-striping the existing pavement lines and eliminating one of the two existing southbound travel lanes south of the LIE South Service Road. Canon's proposal indicated that this lane re-striping would eliminate the need to widen the Walt Whitman Road Bridge, but this may be more of a short-term solution to the traffic issues in the northbound direction in the immediate vicinity of Canon. In the long-term, the widening of the Walt Whitman Road Bridge would still be necessary to mitigate traffic congestion associated with the existing development and projected full employment build-out at Canon.



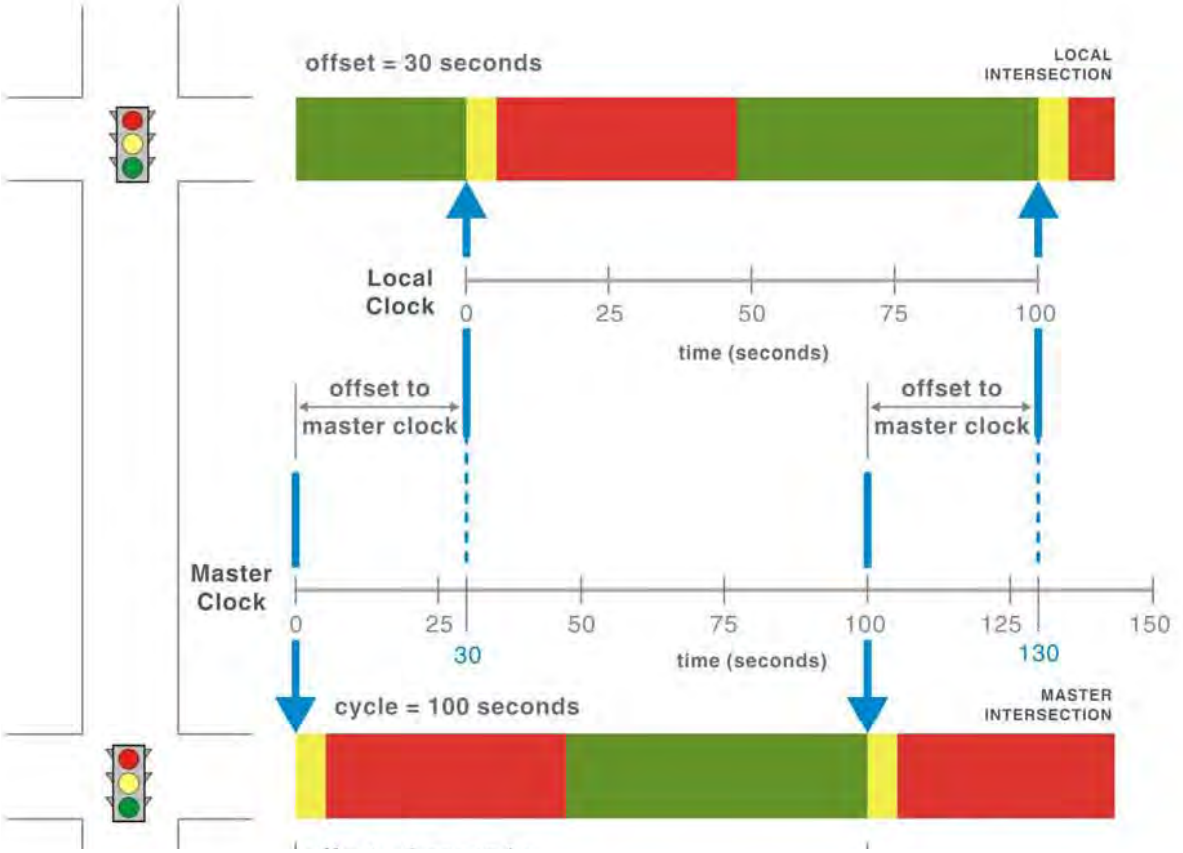
Alternative to Walt Whitman Road Bridge Widening as Proposed by Canon
Source: Canon

B. Intersection Improvements

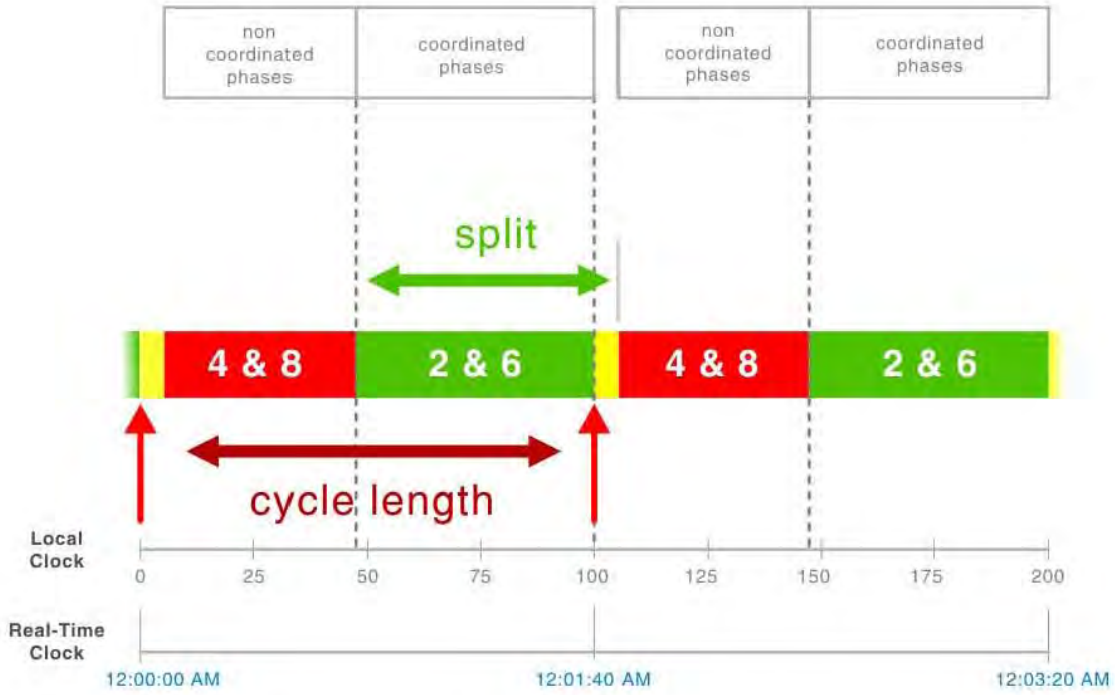
In addition to the widening of the Walt Whitman Road Bridge, the Canon Traffic Study proposed other traffic mitigation measures at a number of intersections in the MEC, including signal timing modifications and capital improvements. The proposed signal timing modifications encompassed a range of changes to existing cycle lengths, splits, and offsets. The *FHWA Traffic Signal Timing Manual* identifies cycle length, split, and offset as "three fundamental parameters…[that] are necessary inputs for [signal] coordination," and one of the mobility strategies identified in *Horizons 2020* for the MEC was to address traffic congestion through signal coordination. The FHWA Manual explains the relationship between cycle length, split, and offset as follows, and a schematic representation is depicted in Figure 18:

> *Cycle length defines the time required for a complete sequence of indications [i.e., phases]…Within a cycle, splits are the portion of time allocated to each phase at an intersection…For implementation in a signal controller, the sum of the phase splits must be equal to (or less than) the cycle length, if measured in seconds, or 100 percent, if measured as a percent…The term offset defines the time relationship, expressed in either seconds or as a percent of the cycle length, between coordinated phases at subsequent traffic signals.*

Relationship between the Master Clock, Local Clock, and Offset



Cycle Length and Split



Source: FHWA Traffic Signal Timing Manual

Figure 18: Schematic Representation of Signal Timing

Table 14 identifies signal modifications and/or capital improvements that could potentially address traffic operational constraints at specific intersections within the MEC. In addition to the signal modifications outlined above, the potential capital improvements include:

- **Changes to the roadway geometry at the following intersections:**
    - Route 110 at Walt Whitman Road: The potential change at this intersection comprises the addition of an acceleration lane in the southbound direction.[20] This could address the concern raised during the November 9, 2015, MEC Plan public workshop about the dangerous merge from southbound Walt Whitman Road to southbound Route 110.
    - Pinelawn Road at Ruland Road/Colonial Springs Road: The ongoing Suffolk County CP 5510 includes reconstruction of this intersection to a single intersection by means of a realignment of Pinelawn Road. The project also includes the widening of Colonial Springs Road to add a second travel lane in each direction between Pinelawn Road and Little East Neck Road.
- **Changes to the lane configuration within the existing roadway geometry at the following intersections:**
    - Walt Whitman Road at the LIE South Service Road: The potential change includes re-striping the existing pavement lines and eliminating one of the two existing southbound travel lanes south of the LIE South Service Road. As noted previously, Canon proposed this potential change as an alternative to the widening of the Walt Whitman Road Bridge.
    - Route 110 at Baylis Road: One potential change, as recommended in the Canon Traffic Study, is to modify the lane striping to convert the eastbound exclusive right turn lane to a through-right shared lane. Another potential change is to extend the striping in the eastbound direction to provide additional storage for two lanes. This could address the concern raised during the November 9, 2015, MEC Plan public workshop about traffic congestion along Baylis Road between Walt Whitman Road and Route 110.
    - Route 110 at Ruland Road: The potential change comprises the extension of the left turn lane on Ruland Road. In addition to (or instead of) potential signal modifications at the intersection, this potential change to the lane configuration could address the concern raised during the November 9, 2015, MEC Plan public workshop about the lack of lane capacity along westbound Ruland Road by Costco.
- **The addition of a traffic signal at the following intersections that are currently unsignalized:**
    - Walt Whitman Road at Canon Park Drive South: The Canon Traffic Study recommended this potential change as a means of addressing the traffic constraint on the driveway

[20] While it may be possible to create an acceleration lane within the existing roadway geometry by converting the existing shoulder, that option is not recommended because the existing shoulder is proposed to be converted into a dedicated BRT lane to accommodate the Route 110 BRT trunk route.

approaches of this intersection, but also noted that this "may not be desirable since a traffic signal may degrade operations on Walt Whitman Road."

- Ruland Road at Country Point Court: This potential change could address the concern raised during the June 2, 2015, MEC Plan public workshop about difficult access to and egress from the Country Pointe at Melville residential development.

Collectively, implementation of signal modifications and capital improvements at a number of intersections could help to address traffic congestion issues within the MEC as identified by traffic analysis and reinforced by public input received during the MEC Plan public workshops. These intersections are listed in Table 14 and shown in Figure 19.

Table 14: MEC Intersections for Potential Traffic/Roadway Improvements

ID (Figure 19)	Intersection (north to south)	Signal Timing Modifications			Capital Improvements		
		New Signal Timing Cycle Length	New Signal Timing Offsets	New Signal Timing Splits	New Roadway Geometry	New Lane Configuration (within Existing Geometry)	New Traffic Signal
1	Route 110 at Old Country Road	X	X	X			
2	Walt Whitman Road at Old Country Road	X	X	X			
3	Walt Whitman Road at Sweet Hollow Road			X			
4	Route 110 at Pinelawn Road / Sweet Hollow Road	X	X	X			
5	Route 110 at LIE North Service Road		X				
6	Walt Whitman Road at LIE North Service Road[1]		X	X			
7	Walt Whitman Road at LIE South Service Road[1]		X	X		X[2]	
8	Route 110 at LIE South Service Road		X				
9	Walt Whitman Road at Canon Park Drive North			X			
10	Walt Whitman Road at Canon Park Drive South						X[3]
11	Route 110 at Baylis Road	X	X	X		X	
12	Route 110 at Walt Whitman Road	X	X	X	X		
13	Pinelawn Road at Ruland Road / Colonial Springs Road				X		
14	Ruland Road at Republic Road[4]	X	X	X			
15	Ruland Road at Country Point Court						X[3]
16	Route 110 at Ruland Road[4]	X	X	X		X	

Source: Canon Traffic Study; Parsons Brinckerhoff

[1] In addition to the potential improvements identified herein, the proposed widening of the Walt Whitman Road Bridge also calls for new roadway geometry at these intersections

[2] Proposed by Canon as an alternative to widening the Walt Whitman Road Bridge

[3] Pending further investigation (warrant analysis), the addition of a traffic signal at these unsignalized intersections may be feasible and justified

[4] Pending further investigation (detailed traffic analysis), one or more of the identified potential improvements may be feasible and justified

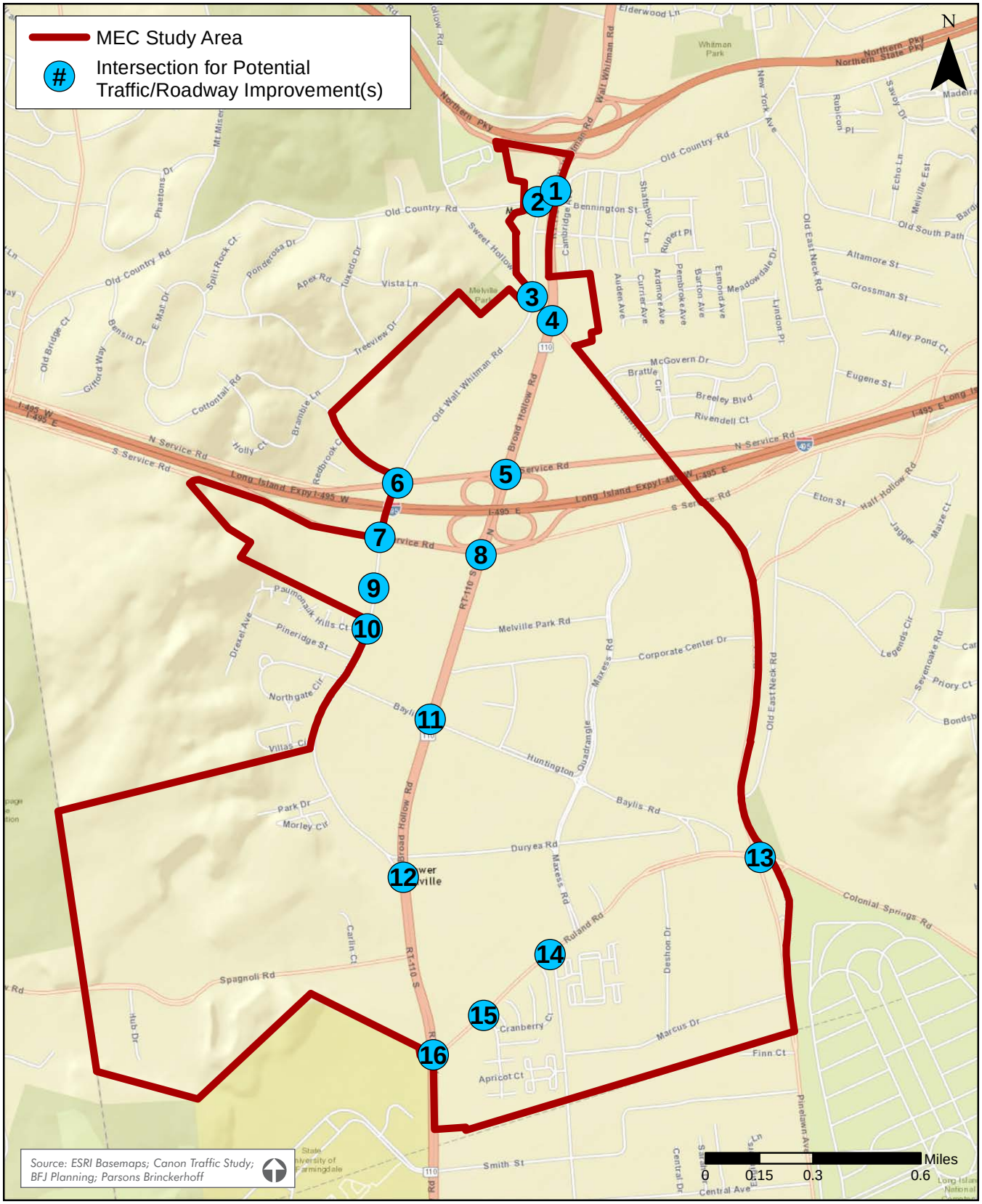


Figure 19: MEC Intersections for Potential Traffic/Roadway Improvements

C. Other Potential Traffic/Roadway Improvements

In addition to the proposed widening of the Walt Whitman Road Bridge and the proposed implementation of signal timing modifications and intersection capital improvements, a number of other potential traffic/roadway improvements can enhance circulation within the MEC. These include:

Implement capital improvements and regulatory modifications along Walt Whitman Road between Route 110 and Sweet Hollow Road

The Town could consider the possibility of constructing full-width shoulders where currently lacking along this roadway segment. This could address the concern raised during the November 9, 2015, MEC Plan public workshop about the traffic problems that result from buses stopping along the southern portion of Walt Whitman Road,[21] where the roadway has only one lane in each direction and no shoulder, causing traffic to go into the oncoming lane to get around the buses.

In addition to considering this physical improvement, the Town could consider modifying the regulations and signage along this portion of Walt Whitman Road to restrict commercial truck traffic. One option, as suggested by the Town during this planning process, could be to negotiate an agreement with industrial trucking businesses along/near the southern portion of Walt Whitman Road (i.e., Cremosa Foods and Grainger on Park Drive) to ban trucks on the northern portion of Walt Whitman Road and remove the current 7 p.m. – 6 a.m. restriction (allowing 24-hour access), but only if they access Walt Whitman Road from Route 110. This could address the complaint shared during the November 9, 2015, MEC Plan public workshop about commercial truck traffic using Walt Whitman Road as a cut-through, particularly heading south from the LIE.

Add left turn arrows at any side streets approaching Route 110 that currently lack left turn arrows

This could address the concern raised during the November 9, 2015, MEC Plan public workshop about the vehicle queues that arise for left turn approaches at intersections that currently lack left turn arrows from the side street to Route 110. Specifically, opposing traffic was noted to be very heavy at such intersections, and only two-three vehicles can make the turn per signal.

Consolidate curb curbs along Route 110

Closely spaced curb cuts create mobility and site access issues along the Route 110 corridor. Frequent site access points along property frontage provides a high level of convenience for motorists; however, curb cuts and driveways that are spaced too closely ultimately interrupt vehicular and pedestrian throughput. By allowing frequent curb cuts along corridor property frontage, vehicular movement is encumbered by vehicles slowing frequently to make 90-degree

[21] Additionally, one or more of the potential future shuttle bus feeder routes (complementing the proposed Route 110 BRT) would run along Walt Whitman Road between Route 110 and Sweet Hollow Road.

turns into adjacent properties. In addition to creating issues for motorists, pedestrian movement along the corridor is substantially compromised. Spacing curb cuts close together creates long pedestrian crossing distances along the driveways, increases the number of vehicle-pedestrian conflict points and limits the degree to which pedestrians are able to walk along a designated sidewalk. This decreases pedestrian safety and may discourage walking along the corridor.

Curb cut consolidation is an effective site access management strategy to address these pedestrian and vehicular safety issues. Consolidating curb cuts and encouraging what are known as "cross-access easements" (legally established under the municipal zoning ordinance and property owner agreements) can reduce the number of driveway access points, and, if planned and coordinated among property owners and the municipality, can substantially improve site access, circulation and safety.

Add traffic cameras to the existing INFORM (Information For Motorists) system

The INFORM system is a transportation management and information system that covers Long Island's major east-west highways and their busiest north-south connecting routes. According to the online NYSDOT INFORM Traffic Map, there are two cameras located within the MEC: (1) Route 110 at Walt Whitman Road/Duryea Road; and (2) Route 110 at the LIE. There are two additional cameras just outside the study area: one to the north (Route 110 at the Northern State Parkway), and one to the south (Route 110 at Smith Street). To improve incident detection and the associated traffic management within the MEC, it could be beneficial to add cameras to additional locations within the study area.[22]

Extend Corporate Center Drive to Route 110

This could address the limited east-west connectivity between Route 110 and Pinelawn Road/Wellwood Avenue within the MEC. As noted previously, Corporate Center Drive only connects Pinelawn Road to Maxess Road. It could be possible to complete the roadway connection to Route 110 as part of any future redevelopment or infill development within the Huntington Quadrangle.

[22] A more wide-ranging improvement that could potentially benefit the MEC in the future is the prospect of autonomous vehicles. A 2015 *NY Times* article ("The Dream Life of Driverless Cars") effectively summarized the current and anticipated future state of affairs as follows: "Cars are already learning to drive themselves, by way of scanner-assisted braking, pedestrian-detection sensors, parallel-parking support, lane-departure warnings and other complex driver-assistance systems, and full autonomy is on the horizon." In addition to individual automobile manufacturers, the United States Department of Transportation (USDOT) is researching vehicle automation and the opportunities surrounding connected vehicle technologies, including issues related to safety, mobility and environmental benefits. Based on the USDOT *Connected Vehicle Research in the United States*, connected vehicle technologies can simplify the process of "[managing] transportation systems for maximum efficiency and minimum congestion."

Create standards in zoning regulations to enable shared parking for mixed-use developments

In addition to providing community and quality of life benefits, the introduction of mixed-use development in the MEC would unlock the potential to implement shared parking. The concept of shared parking is based on the premise that different land uses have different peak periods for parking demand, thereby enabling a sharing of parking spaces among different users. As such, shared parking allows for a reduction in parking requirements for individual land uses. According to the proposed zoning for the MEC Overlay District, the total required parking may be reduced by up to 25% for mixed-use developments if it is determined, based on a submitted shared parking study, that the mix of uses would generate the ability to share parking.

The success of a shared parking program depends on a number of factors, including cooperation among interested property owners, proper siting of the parking lot/facility and "dovetailing" peak period parking demand. As discussed in the Land Use and Zoning Section, a shared parking arrangement between office and residential users could have substantial merit because they have opposite peak periods for parking demand. Peak demand for office parking generally occurs between 9 a.m. and 5 p.m., whereas peak demand for residential uses generally occurs before 9 a.m. and after 5 p.m. As a parking management tool that is designed to integrate a greater degree of efficiency in how parking is distributed and used, shared parking is an essential ingredient for promoting walkable communities and transit-supportive development.

Develop a long-range planning tool to assess cumulative traffic impacts for new developments in the MEC

This could address the concern raised during the June 2, 2015, MEC Plan workshop that additional developments in the MEC could collectively degrade traffic conditions to an unacceptable level, even if the incremental effects of individual developments are not significant. For the purposes of regional transportation planning, the New York Metropolitan Transportation Council (NYMTC) – the metropolitan planning organization (MPO) for Long Island, New York City and the Lower Hudson Valley – uses the Best Practice Model (BPM), which covers 28 counties. The analysis in the BPM uses transportation analysis zones (TAZs), which are based on census tracts. It may be worthwhile for the Town to consider options for a localized long-range planning tool that uses more granular data. This could facilitate a detailed assessment of cumulative traffic impacts in the context of future development possibilities in the MEC. Therefore, as individual developments are proposed within the MEC, traffic analysis could clearly demonstrate the extent of both direct impacts and anticipated cumulative impacts. The requirements for such a traffic analysis could be documented in the zoning regulations for the MEC Overlay District, and the *State Environmental Quality Review (SEQR) Handbook* could be used as guidance.[23]

[23] According to the *SEQR Handbook*, "Cumulative impacts must be assessed when actions are proposed, or can be foreseen as likely, to take place simultaneously or sequentially in a way that the combined impacts may be significant."

Promote Transportation Demand Management (TDM) and create a Transportation Management Association (TMA)

As defined in *Best Practices in Transportation Demand Management* (an element of the Seattle Urban Mobility Plan), TDM encompasses a wide variety of strategies that collectively aim to "increase overall system efficiency by encouraging a shift from single-occupant vehicle (SOV) trips to non-SOV modes, or shifting auto trips out of peak periods." One TDM strategy is parking management, which includes shared parking as previously discussed. Another TDM strategy is car sharing, and it is noteworthy that Zipcar recently launched its service on Long Island in Farmingdale, Melville's neighbor to the west.

Individual employers can also play a large role in promoting TDM. In fact, the Canon Traffic Study recommended that Canon offer staggered work hours, enable telecommuting, encourage carpooling and/or sponsor vanpools for their employees, all of which are TDM strategies that could be applicable for many employers in the MEC. If there is sufficient interest in promoting TDM among employers within the MEC, it could be worthwhile to create a TMA.

As discussed in the *TDM Encyclopedia* compiled by the independent research organization Victoria Transport Policy Institute, TMAs "are generally public-private partnerships, consisting primarily of area businesses with local government support…[and they] provide an institutional structure to deliver various TDM strategies." There was previously a Route 110 TMA, which could potentially provide the framework for a future MEC TMA.

Prepare for and take advantage of regional roadway improvements and emerging technologies

In early January 2016, Governor Andrew Cuomo announced his 2016 legislative agenda, which included some transportation proposals that could affect Melville. One of these, the addition of a third Long Island Rail Road track, is discussed in more detail below. Another roadway-related project is a feasibility study of a tunnel crossing Long Island Sound and connecting the North Shore of Long Island with one of three potential destination points: the Bronx, Westchester County or Connecticut. Any tunnel project that may arise from the study is an extremely long-term project, and it would not directly affect the MEC study area. However, it could alter commutation patterns throughout Long Island and the region, which could certainly affect how employees may reach the MEC. The Town should closely follow this study, and similar roadway initiatives, and advocate for its interests, including the potential to improve regional connectivity.

In addition to potential transportation improvement projects, there are some emerging technological trends that, while uncertain in their impacts, could affect travel patterns and quality of life for employees and residents in Melville. While fully autonomous (self-driving) vehicles are projected to be at least 10 years from fruition, several automakers are developing driver-assistance features that can handle some aspects such as braking. Cars with such features should be on the market within the next five years, and have potential to improve the efficiency of auto travel, enhance safety and improve quality-of-life. In addition, car-sharing services such as Uber and Lyft have significantly increased the availability of vehicles for people who do not have

access to a car or are unable to drive, such as seniors and the disabled. Although the impact of car sharing on traffic is not yet clear, these services are likely to alter travel patterns, including commutation. The Town should investigate how other communities are preparing for and adapting to car sharing technology, to address potential concerns and take advantage of the potential benefits.

Overall, there are a number of potential physical, regulatory, and programmatic improvements that could address traffic congestion and roadway circulation within the MEC.

D. Transit Improvements

Route 110 BRT and Off-Corridor Shuttle Bus Feeder Routes

In coordination with the Town of Huntington, the Town of Babylon and Suffolk County have collectively led multiple initiatives to plan a BRT system on Route 110. Most recently, in 2015, the Town of Babylon completed the *Route 110 Alternatives Analysis*, which built on the analysis of BRT feasibility put forth in the 2010 *Route 110 BRT Study* and the 2014 *Suffolk County BRT Feasibility Study*. The *Alternatives Analysis* consisted of a multi-tiered screening process to evaluate a wide range of route and modal alternatives that had the potential to achieve the project goals and objectives, which were tied to the project Purpose and Need. The four goals of the project were to:

(1) Improve mobility and connectivity;
(2) Enhance economic competitiveness and promote economic growth;
(3) Maximize cost and operational effectiveness; and
(4) Minimize adverse environmental impacts.

The outcome of the *Alternatives Analysis* was the selection of a Locally Preferred Alternative (LPA) to advance to Project Development and National Environmental Policy Act (NEPA) review with the Federal Transit Administration (FTA). As shown in Figure 20, the LPA comprises a 10.5-mile BRT trunk route between the LIRR Amityville Station and the Walt Whitman Shops, complemented by off-corridor shuttle bus feeder routes that will be finalized in Project Development.

The proposed BRT trunk route would offer limited-stop service as an overlay to the existing Suffolk County Transit S1 local route. Whereas the existing Suffolk County Transit S1 route makes 40 stops from the LIRR Amityville Station to the Walt Whitman Shops (with an average distance of approximately 0.25-mile between stops), the proposed BRT service would only make 11 stops (with an average distance of 0.9-mile between stops). Limited-stop service is just one of several BRT elements currently proposed for Route 110 that would differentiate BRT from local bus service (Figure 21).

Three of the 11 proposed BRT stations (Walt Whitman Road/Duryea Road, Huntington Quadrangle and Pinelawn Road) would be located in the MEC, and another two stations (Smith Street/Farmingdale State College and Melville Mall) would be less than a half-mile to the south and north of the MEC, respectively. Two of the key factors that informed the identification of

proposed BRT station locations were the objectives to (1) serve major activity centers (such as the office buildings in the MEC) to maximize ridership potential, and (2) maximize transfer opportunities between existing as well as potential future transit services.

Although multi-modal connectivity within the MEC is currently limited, there are opportunities to provide a last-mile transit connection between Route 110 and activity centers located beyond a reasonable walking distance from the corridor. The *Alternatives Analysis* considered two different alternatives for off-corridor shuttle bus feeder routes to complement the proposed BRT trunk route and thereby address gaps in the existing transit system. For both alternatives, the feeder routes would cover a service area from Conklin Street in the south to Pinelawn Road/Route 110 in the north, encompassing much of the MEC. This service area was defined to comprise the area with the largest concentration of activity centers off the main spine of the Route 110 corridor that would likely derive the greatest benefit from improved transit service.

As shown in Figure 22, one alternative includes circular feeder routes (Alternative D from the *Alternatives Analysis*), and a second alternative includes transit center nodes and connecting feeder routes (Alternative E from the *Alternatives Analysis*). The results of the *Alternatives Analysis* demonstrated that both alternatives would achieve the project goals and objectives, and neither alternative emerged as the unequivocal best option. For instance, implementation of either alternative is projected to result in an additional 2,300 weekday transit boardings (corresponding to an increase of nearly 50%) compared with total transit ridership without the BRT trunk route and feeder route services in the year 2040. The source of BRT and feeder route ridership would be a combination of existing Suffolk County Transit riders shifting to the new service, as well as new transit users who previously used another mode of transportation.

Moving forward, the LPA will include the BRT trunk route and feeder routes that will be finalized during Project Development. Additional details about the BRT trunk route and feeder route alternatives, including costs estimates, are included in the *Alternatives Analysis* Final Report.

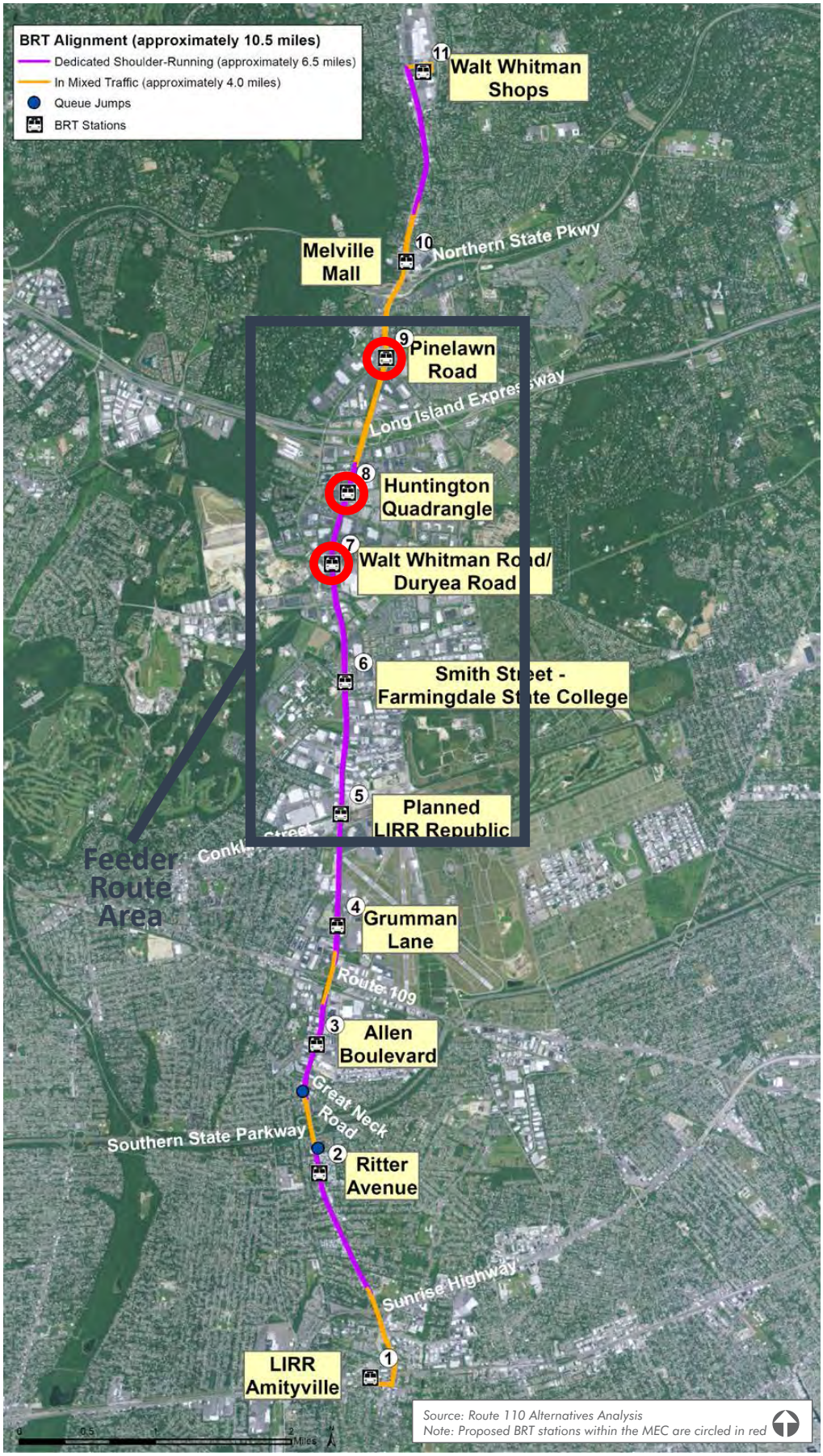


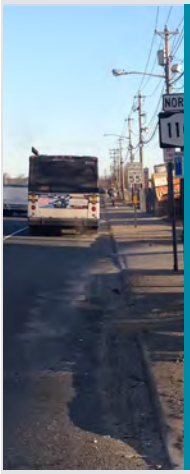
Figure 20: Proposed Route 110 BRT Trunk Route and Feeder Route Area

LIMITED-STOP SERVICE

One of the ways to improve travel time for transit users is to limit the number of stops. Whereas the existing Suffolk County Transit S1 route makes 40 stops (with an average distance of approximately 0.25 miles between each stop) from the LIRR Amityville Station to the Walt Whitman Shops, the proposed BRT service would only make 11 stops (with an average distance of 0.9 miles between each stop). It is anticipated that the Suffolk County Transit S1 route would continue to provide local service, and that BRT would provide more frequent service with fewer stops.

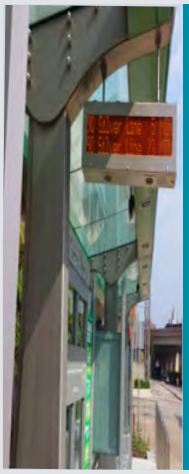
ENHANCED VEHICLES

The proposed BRT service would operate using low-floor, 35-foot-long, hybrid diesel-electric vehicles with aesthetic enhancements to brand and differentiate BRT as a premium service. The vehicle enhancements may include paint schemes, styling options, and interior amenities. The use of low-floor vehicles would reduce the time for passenger boarding and alighting, and the vehicles would be equipped with emitters to activate TSP at signalized intersections.



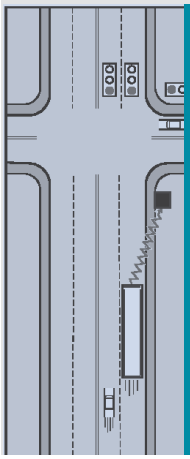
DEDICATED LANE (SHOULDER-RUNNING)

Dedicated BRT shoulder-running would enable BRT vehicles to bypass traffic congestion along Route 110, resulting in travel time savings for passengers. About 6.5 miles of the 10.5-mile trunk route can accommodate BRT shoulder-running (with two queue jumps where the proposed transition from shoulder-running to mixed traffic occurs at signalized intersections). Along other roadway segments, BRT would operate in mixed traffic with other vehicles.



ATTRACTIVE STATIONS WITH REAL-TIME INFORMATION

Stations function as the gateway for service. Each BRT station is proposed to include the following elements: an enhanced shelter; comfortable seating; way finding signage; bicycle racks; tinted concrete to highlight the waiting area; and trees and landscaping. Additionally, each station is proposed to include variable message signage, consisting of an electronic message board offering real-time information to alert riders of arriving BRT vehicles.



TRAFFIC SIGNAL PRIORITY (TSP)

Another way in which BRT results in travel time savings and faster service is through the use of TSP, which limits the waiting time at red lights. TSP can be achieved at signalized intersections through an extension of green time to allow the BRT vehicles to pass the intersection before the signal turns red, or through an earlier start of green time to allow the BRT vehicles to avoid the red light. The BRT trunk route currently includes 44 signalized intersections, and TSP is proposed at each intersection.

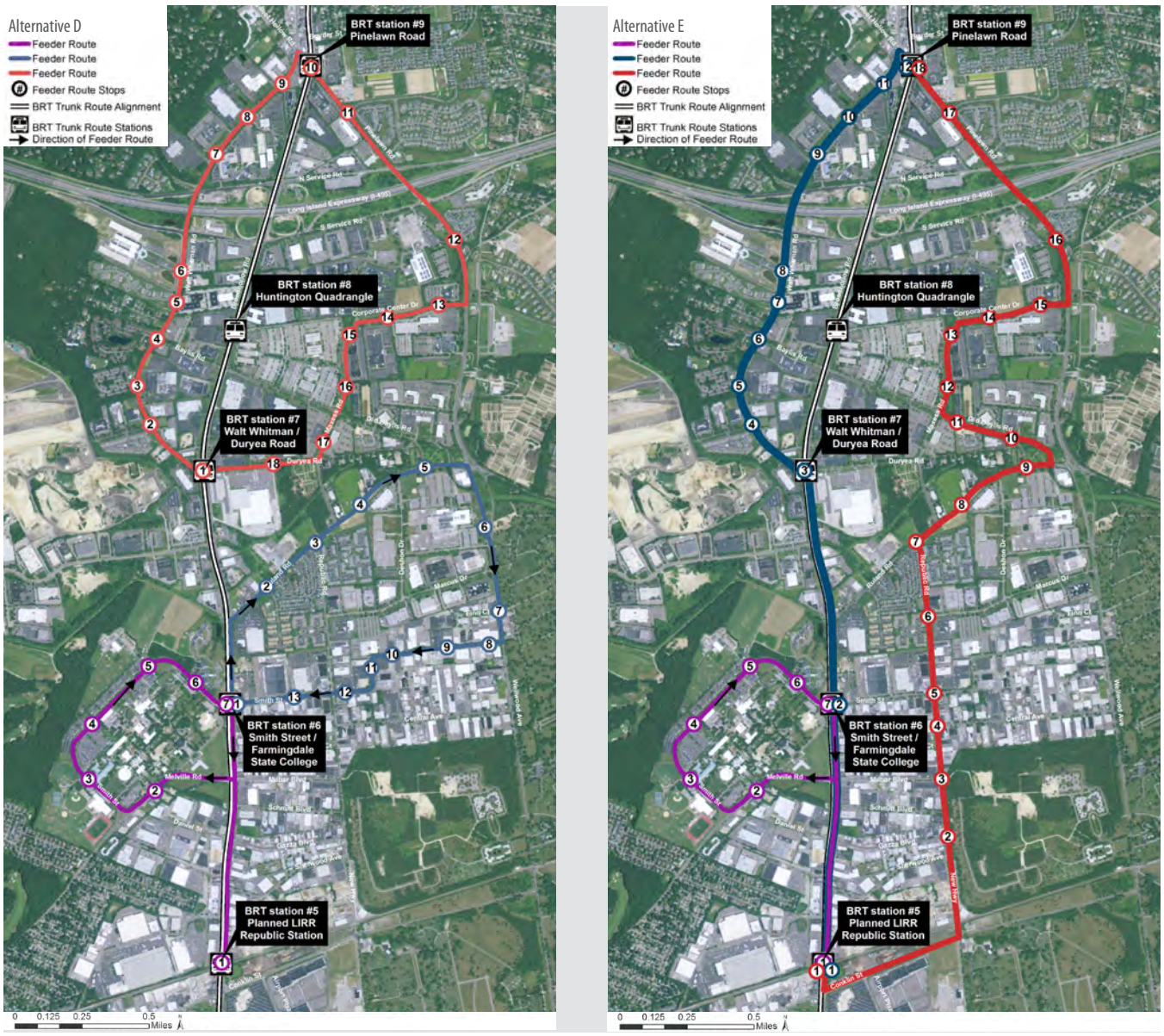
STRONG BRAND IDENTITY

All of the individual elements contribute to the brand identity of BRT as a premium service. In addition to serving the needs of passengers without access to an automobile, a key objective is to attract choice riders to BRT who would otherwise drive. It is anticipated that the Route 110 BRT branding identity will be coordinated with Suffolk County's system-wide BRT branding and strategic marketing campaign.

Source: Route 110 Alternatives Analysis

It should be noted that the NYSDOT Traffic & Safety Group is opposed to a dedicated shoulder lane for BRT on Route 110 due to conflicts with driveways. It is anticipated that Suffolk County and the Town of Babylon, as co-sponsors, will coordinate closely with NYSDOT and other stakeholders (including but not limited to the Town of Huntington) in advancing the proposed Route 110 BRT system through the FTA Project Development Process. This coordination may include refinement of the proposed BRT alignment, as discussed in the Route 110 Alternative Analysis Final Report.

Figure 21: BRT Elements Proposed for Route 110



Source: Route 110 Alternatives Analysis

Figure 22: Comparison of Off-Corridor Feeder Route Alternatives

LIRR Republic Station and Other Ongoing and Potential Future LIRR Capital Projects

As depicted in Figure 20 and Figure 22, the proposed BRT trunk route along Route 110, and the two alternative sets of off-corridor feeder routes, would complement and leverage a new (reopened) LIRR Republic Station on Conklin Street just east of Route 110. The former Republic Station was closed in 1986 due to low ridership, partly as a result of the closure of the nearby Fairchild Engine & Manufacturing Co. The proposed 2015-2019 Metropolitan Transportation Authority (MTA) Capital Program includes the environmental review and design of Republic Station, with construction anticipated to be included in a future capital program. Republic Station will serve as a multi-modal transportation center located just 1.5 miles south of the MEC.

In addition to advancing the environmental review and design of Republic Station, the MTA and LIRR are undertaking two significant capital projects that will enhance the commuter rail network:

- The **LIRR Double Track project**, with a scheduled completion date of 2018, will allow the LIRR to increase off-peak train frequency from hourly to half-hourly service. The improved service and reliability along the LIRR Main Line/Ronkonkoma Branch will support enhanced connectivity and intra-Island travel, which can benefit Melville as a regional employment hub.
- The **LIRR East Side Access project**, with a scheduled completion date of 2022, will connect the LIRR to Grand Central Terminal. This will increase capacity and provide faster access for many LIRR passengers to their destinations, thereby promoting economic development across the region and supporting existing employment centers, including the MEC.

However, it will not be possible to fully realize the benefits of Double Track and East Side Access without implementing the LIRR Third Track project, which would add a track to an approximately 9.8-mile segment of the LIRR Main Line between Floral Park and Hicksville. In addition to improving reliability system-wide along the LIRR, the project would increase capacity for reverse peak and intra-Island service. One of the signature proposals of Governor Andrew Cuomo's 2016 agenda is to advance the Third Track project, which had not been proceeding due to a number of obstacles, including community opposition. Furthermore, the *Suffolk County Comprehensive Master Plan 2035* includes additional priority action items regarding the LIRR Port Jefferson Branch that could benefit the MEC, including:

- Promoting electrification of the LIRR to Port Jefferson, as well as evaluating alternatives to electrification (i.e., double tracking) that can achieve the goal to improve service frequency.
- Exploring the feasibility of scoot service between locations such as Cold Spring Harbor, Stony Brook University and Port Jefferson Village.
- Continuing exploration of rail yard locations and turnabouts to increase frequency.

In conjunction with a shift in land use patterns from auto-oriented to transit-supportive development, the implementation of the proposed transit improvements can effectively position the MEC for a sustainable future.

4.5 IMPLEMENTATION STRATEGY

An implementation strategy is an essential component of the Area Circulation Plan. To assist the Town of Huntington and key stakeholders in prioritizing the potential improvements, Table 15 includes an implementation matrix that outlines the following information for each potential improvement:

- Cost: low (<$250,000); medium ($250,000 – $1 million); high (>$1million)
- Timeframe: short-term (<1 year); mid-term (1 year – 3 years); long-term (>3 years)
- Lead entity
- Potential constraint(s)
- Recommended next step(s)

The improvements listed in Table 15 are organized by category and timeframe (i.e., from short-term to long-term). In coordination with other lead entities as identified in Table 15, it is anticipated that the Town of Huntington will play an active role in implementing the prioritized improvements. For instance, *Horizons 2020* suggested the possibility of establishing a Special Improvement District within the MEC to "help manage and fund implementation actions." Overall, The Town of Huntington can provide vital leadership and guidance to the various public and private sector entities in advancing the MEC Area Circulation Plan.

The primary recommendation in the MEC Area Circulation Plan is the proposed widening of the Walt Whitman Road Bridge, which garnered support during the public outreach meetings for this planning process. The MEC Plan, as well as past studies, have identified issues and opportunities that could inform development of a project purpose and need for the bridge widening, thereby providing the framework to advance the design and environmental review of the project. It is recommended that this important project be pursued as soon as possible by the Town.

For the project to be viable, the Town will need to consider a wide range of funding options for implementation, including federal, state, and local funding sources. Such sources include the New York State Regional Economic Development Council (REDC) Consolidated Funding Application (CFA) process, which could potentially supplement funding from federal grant programs.

Transportation projects that are eligible for federal funding must be documented in the Transportation Improvement Program (TIP) and corresponding Transportation Conformity Determination for the 10-County NYMTC region. The Town should initiate discussions with Suffolk County – which, in turn, would coordinate with NYMTC staff and members through the Nassau-Suffolk Transportation Coordinating Committee (TCC) and Program, Finance and Administration Committee (PFAC) – to submit the proposed widening of the Walt Whitman Road Bridge as either an amendment to the current TIP (covering Federal Fiscal Years (FFY) 2014 – 2018) or as a project to be included in the subsequent TIP, depending on the timeline for funding availability. The TIP would address all project phases, including Preliminary Engineering through Final Design and construction, and would document all funding sources for implementation.

4.6 CONCLUSION

The Area Circulation Plan and implementation strategy provides a framework for the Town of Huntington to address transportation issues and opportunities in the MEC, as called for in *Horizons 2020*. These recommendations complement the land use, zoning, community design and wastewater/stormwater recommendations included in the other sections. Collectively, the recommendations will inform the development of an integrated MEC Plan that aims to maintain and enhance the status of the MEC as major employment hub in the region and improve quality of life for residents, workers and visitors.

Table 15: MEC Area Circulation Plan Implementation Matrix

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Route 110 at Old Country Road	Implement new signal timing cycle length, offsets, and splits*	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Walt Whitman Road at Old Country Road	Implement new signal timing cycle length, offsets, and splits*	Low	Short-Term	Town of Huntington	Coordination with adjacent signals and Town of Huntington traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Walt Whitman Road at Sweet Hollow Road	Implement new signal timing splits*	Low	Short-Term	SCDPW	Coordination with adjacent signals and Suffolk County traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Route 110 at Pinelawn Road / Sweet Hollow Road	Implement new signal timing cycle length, offsets, and splits*	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Route 110 at LIE North Service Road	Implement new signal timing offsets*	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Walt Whitman Road at LIE North Service Road	Implement new signal timing offsets and splits*	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Walt Whitman Road at LIE South Service Road	1. Re-stripe the existing pavement to add a northbound right turn bay and eliminate a southbound lane[1] 2. Implement new signal timing offsets and splits*	Low	Short-Term	Town of Huntington (for roadway improvement) in coordination with NYSDOT (for signal improvement)	1. Potential additional delay in the southbound direction 2. Coordination with adjacent signals and NYS traffic signal system	Develop a concept-level plan supported by traffic analysis for discussion with NYSDOT
Traffic / Roadway	Route 110 at LIE South Service Road	Implement new signal timing offsets*	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Walt Whitman Road at Canon Park Drive North	Implement new signal timing splits*	Low	Short-Term	Town of Huntington	Coordination with adjacent signals and Town of Huntington traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Pinelawn Road at Ruland Road / Colonial Springs Road	Reconstruct intersection (Suffolk County CP 5510)	High	Short-Term	SCDPW	N/A	Complete construction

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Ruland Road at Republic Road	Potential options: modify signal timing cycle length, offsets, and/or splits	Low	Short-Term	SCDPW	Coordination with adjacent signals and Suffolk County traffic signal system	Conduct detailed traffic analysis
Traffic / Roadway	Route 110 at Baylis Road	1. Modify lane striping to convert eastbound exclusive right turn lane to through-right shared lane* 2. Extend striping to provide additional storage for two lanes in eastbound direction 3. Implement new signal timing cycle length, offsets, splits*	Low	Short-Term	Town of Huntington (for roadway improvement) in coordination with NYSDOT (for signal improvement)	Coordination with adjacent signals and NYS traffic signal system	Implement after addressing potential constraints
Traffic / Roadway	Route 110 at Ruland Road	Potential options: extend left turn lane on Ruland Road; modify signal timing cycle length, offsets, and/or splits	Low	Short-Term	NYSDOT	Coordination with adjacent signals and NYS traffic signal system	Conduct detailed traffic analysis
Traffic / Roadway	Areawide and south/north of study area along Route 110[2]	Add left turn arrows at any side streets approaching Route 110 that currently lack left turn arrows	Low	Short-Term	NYSDOT	Potential additional delay due to separation of movements	Conduct detailed traffic analysis at individual intersections as appropriate

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Areawide[2]	Add traffic cameras (INFORM system)	Low	Short-Term	NYSDOT	INFORM system capacity	Implement after addressing potential constraints
Traffic / Roadway	Areawide	Create standards in zoning regulations to enable shared parking for mixed-use developments	Low	Short-Term	Town of Huntington	Potential community opposition	Propose standards for MEC Overlay District
Traffic / Roadway	Areawide[2]	Promote TDM strategies*	Low	Short-Term	Individual employers	Potential lack of interest among MEC employers and/or employees	Discuss with MEC employers
Traffic / Roadway	Route 110 at Walt Whitman Road	1. Implement new signal timing cycle length, offsets, and splits* 2. Add acceleration lane in southbound direction	1. Low 2. Medium / High	1. Short-Term 2. Mid-Term	NYSDOT	1. Coordination with adjacent signals and NYS traffic signal system 2. ROW acquisition; potential environmental constraints; potential community opposition	1. Implement after addressing potential constraints 2. Complete Preliminary Engineering, including determination of length of the acceleration lane
Traffic / Roadway	Walt Whitman Road between Route 110 and Sweet Hollow Road	1. Modify regulations and signage to restrict commercial truck traffic 2. Construct full-width shoulders where currently lacking	1. Low 2. High	1. Short-Term 2. Long-Term	Town of Huntington in coordination with NYSDOT (for signage on State roads)	1. Potential opposition and/or legal challenge from trucking industry 2. ROW acquisition; potential environmental constraints; potential community opposition	1. Propose ordinance 2. Conduct feasibility assessment

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Walt Whitman Road at Canon Park Drive South	Install a traffic signal*	Low	Mid-Term	Town of Huntington	Potential increase in delays on certain approaches	Conduct a warrant analysis (traffic control signal needs study)
Traffic / Roadway	Ruland Road at Country Point Court	Install a traffic signal	Low	Mid-Term	SCDPW	Potential increase in delays on certain approaches	Conduct a warrant analysis (traffic control signal needs study)
Traffic / Roadway	Areawide and south/north of study area along Route 110[2]	Consolidate curb cuts	Low	Mid-Term	Individual property owners in coordination with the Town of Huntington, NYSDOT, and SCDPW	Potential increase in side street traffic; need for buy-in / acceptance by individual property owners; potential public opposition	Develop concept plan (and detailed traffic analysis) that complies with the NYSDOT *Policy and Standards for the Design of Entrances to State Highways*
Traffic / Roadway	Areawide	Develop long-range planning tool to assess cumulative traffic impacts for new developments in the study area	Medium	Mid-Term	Town of Huntington	N/A	Investigate potential planning tools for implementation
Traffic / Roadway	Areawide[2]	Create a TMA	Medium	Mid-Term	To be determined	Potential lack of interest among MEC employers	Discuss with MEC employers

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Traffic / Roadway	Corporate Center Drive	Extend Corporate Center Drive from Maxess Road to Route 110	Medium/High	Mid-/Long-Term	Town of Huntington	Potential environmental constraints	Evaluate feasibility as part of potential future redevelopment or infill development within Huntington Quadrangle
Traffic / Roadway	Walt Whitman Road Bridge over the LIE (between the LIE North and South Service Roads)	1. Widen the bridge structure to five travel lanes with standard shoulders: three lanes northbound (two left turn lanes and one through lane) and two lanes southbound (plus a left turn bay)* 2. Add a southbound through lane and northbound left turn bay at the LIE North Service Road intersection* 3. Add a northbound right turn bay at the LIE South Service Road intersection*	High	Long-Term	Town of Huntington and NYSDOT	Funding; right-of-way (ROW) acquisition; potential environmental constraints; potential community opposition	Include this project in any future updates to the Town of Huntington's Comprehensive Plan; coordinate with Suffolk County for inclusion in Transportation Improvement Program (TIP); complete environmental review and Preliminary Engineering
Transit	Regional (Farmingdale to Ronkonkoma)[2]	Complete LIRR Double Track	High	Mid-Term	LIRR	Potential schedule delay and/or cost increase	Complete construction

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Transit	Route 110 between the LIRR Amityville Station and the Walt Whitman Shops; feeder route area between Conklin Street and Sweet Hollow Road[2]	Implement Route 110 BRT trunk route and shuttle bus feeder routes	High	Long-Term	Suffolk County in coordination with NYSDOT, Town of Babylon, Town of Huntington, Village of Amityville, NYMTC, LIRR, Nassau County	Funding; potential community opposition; potential environmental constraints	Complete the FTA Project Development process, including Preliminary Engineering and environmental review
Transit	Route 110 at Conklin Street[2]	Construct LIRR Republic Station	High	Long-Term	LIRR	Funding; potential community opposition; potential environmental constraints	Complete the environmental review and design (2015-2019 MTA Capital Program)
Transit	Regional (Long Island to Manhattan)[2]	Complete LIRR East Side Access	High	Long-Term	LIRR	Potential schedule delay and/or cost increase	Complete construction

Improvement Category	Location	Potential Improvement(s)	Cost (low, medium, high)	Timeframe (short-, mid-, long-term)	Lead Entity	Potential Constraint(s)	Recommended Next Step(s)
Transit	Regional (Floral Park to Hicksville)[2]	Implement LIRR Third Track	High	Long-Term	LIRR	Documented community opposition to previous proposals; ROW acquisition (although less than that required under previous proposals); funding	Per Governor Cuomo's January 5, 2016 press release: property owner protections; environmental reviews; grade crossing safety reviews; and robust community engagement
Transit	Regional (LIRR Port Jefferson Branch)[2]	Implement improvements along the LIRR Port Jefferson Branch identified as priority action items in the *Suffolk County Comprehensive Master Plan 2035* (electrification, rail yard locations/ turnabouts, etc.)	High	Long-Term	LIRR	Funding; potential community opposition; potential environmental constraints	Evaluate feasibility and need

Note: Other traffic/roadway improvements may be warranted in the future to address anticipated increases in congestion due to new developments and projected regional population and employment growth.

** Proposed (or identified as a potential improvement for consideration) in the Canon Traffic Study*

[1] Proposed by Canon as an alternative to widening the Walt Whitman Road Bridge

[2] Located either partially or entirely outside the MEC

5.0 SEWERAGE AND STORMWATER MANAGEMENT

5.1 SEWERAGE (WASTEWATER MANAGEMENT)

To maintain and enhance the status of the MEC as a major employment hub in the region, it is necessary to ensure that the study area is well positioned to accommodate future growth. This section addresses a critical infrastructure element of the MEC Plan, namely wastewater and stormwater management.

The MEC Plan aims to advance the goals and objectives of *Horizons 2020*, one of which was to develop "sustainable water, sewer, and stormwater infrastructure systems [that] meet community needs while safeguarding environmental quality and the quality of our drinking water supply." *Horizons 2020* identified two priorities for the MEC area with respect to sewers: (1) address sewage capacity needs for new development; and (2) promote sustainable practices for stormwater management. As such, recommendations from this section provide a framework for the Town of Huntington to advance these two priorities.

The recommendations for wastewater and stormwater management outlined in this section provide a framework for the Town of Huntington to address sewage capacity needs for new development and promote sustainable practices for stormwater management in the MEC, as called for in *Horizons 2020*. These recommendations complement the land use, zoning, transportation and community design recommendations included in other sections.

A. Existing Conditions

Wastewater is defined in the Town of Huntington Code §170-3 as any water that is not stormwater, is contaminated with pollutants and is or will be discarded. There are multiple approaches to wastewater management within the MEC study area, as some — but not all — parcels are connected to the public sewer system. According to the Suffolk County Division of Planning and Environment, there are 36 sewer districts within the County (each comprising a network of sewer pipes, pumps and related facilities and appurtenances for carrying wastewater, as defined in the Town of Huntington Code §740-1), but the study area is not located within any such district.

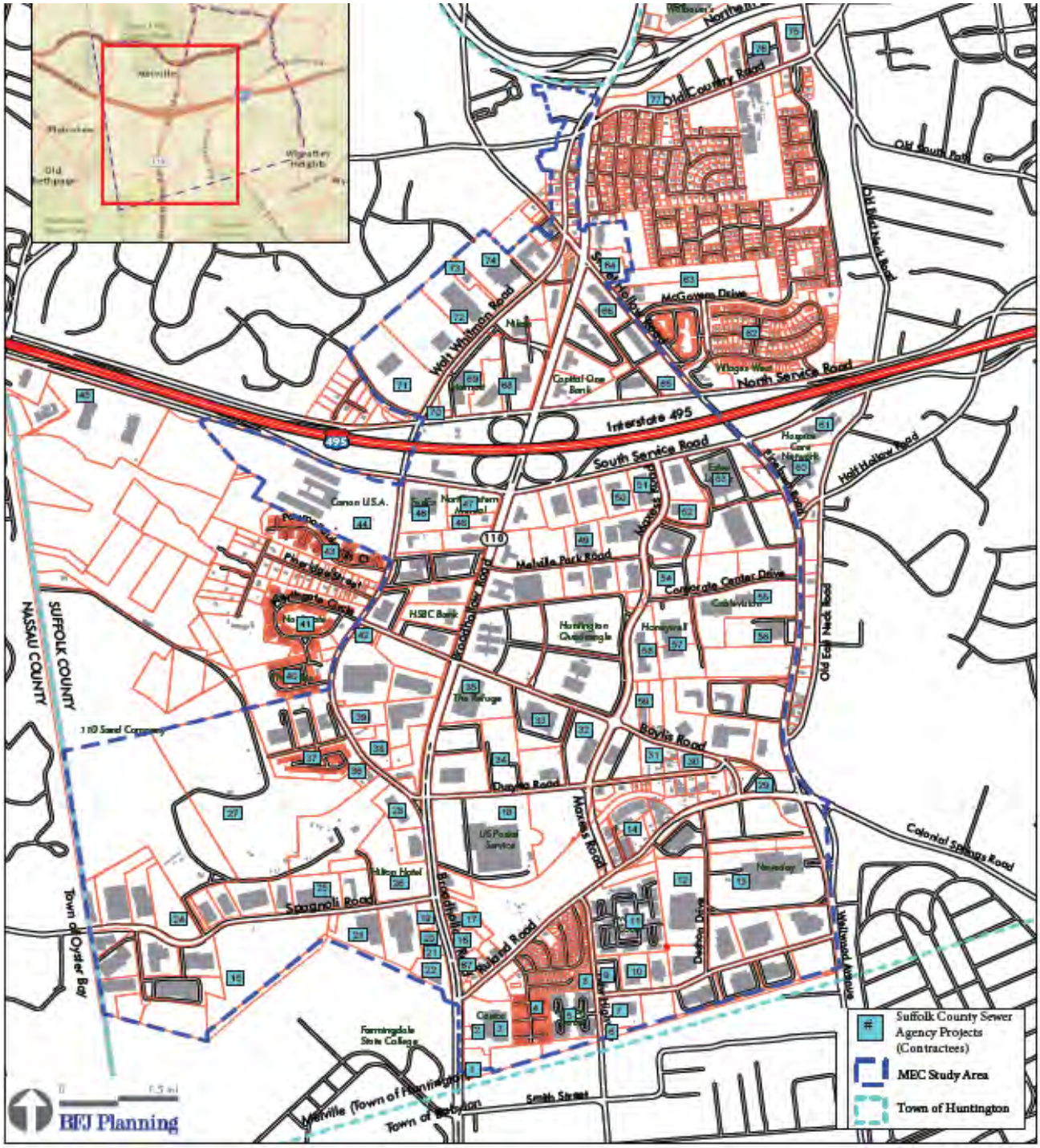
Although the study area is not in a sewer district, many individual properties within the study area have elected to contract with Suffolk County to connect to Sewer District No. 3 (also known as the Suffolk County Southwest Sewer District (SWSD)), which covers an area of approximately 57 square miles. As shown in Figure 23 and listed in

Appendix B, there are 67 Suffolk County SWSD contractees located within the study area (plus an additional 11 contractees outside the study area but connected to a trunk sewer that serves the study area), with an average sewage flow[24] of 1.26 million gallons per day (MGD). Contractee connection approval types within the study area range from conceptual certification to formal approval and actual connection. For several contractees within the study area, including office parks and residential developments, a single contract presides over multiple parcels. Overall, approximately 55% of the parcels within the study area are either presently sewered or formally approved/conceptually certified to be sewered.

Sewered properties within the study area are regulated by Suffolk County Code §740-45 ("Connection by Premises Outside District"). Registration for connection to the SWSD includes a one-page form filled out by the prospective contractee with basic ownership information; the Suffolk County Sewer Agency reviews applications during monthly meetings. The fees for contractees to connect to the SWSD include (1) paying the capital costs for the sewers to connect to the existing infrastructure, (2) paying a connection fee of $30/gallon/day based on the estimate of flow, and (3) paying an annual administrative and operations and maintenance fee, with a 5% surcharge on top of properties within the SWSD. As noted in Section A of Suffolk County Code §740-38, the connection fee represents a "purchase of capacity." In order for construction to begin on a sewer connection, the contract has to be executed and the connection fee has to be paid. For new construction, Health Department approval is also required.

Sewered properties within the study area are part of a regional system of wastewater collection, treatment, and disposal. As shown in Figure 23 and Figure 24, sewered properties within the study area are connected with a hierarchy of sewer lines, conveying sewage to the Bergen Point Wastewater Treatment Plant (WWTP) along the Great South Bay in West Babylon. The pipes within the study area include a combination of lateral (also known as branch) sewer lines and trunk sewer lines. Lateral/branch sewer lines within the study area are a minimum of four inches in diameter and collect sewage from individual contractees. The lateral/branch sewer lines convey sewage into a network of trunk sewer lines, which ultimately convey the sewage via a 30-inch-diameter pipe to Bergen Point for treatment.

[24] The SWSD reports only the average daily quantity of flow through district pipes over the course of one year.



Source: Town of Huntington GIS; BFJ Planning; Suffolk County Department of Public Works

Figure 23: Sewer District Contractees

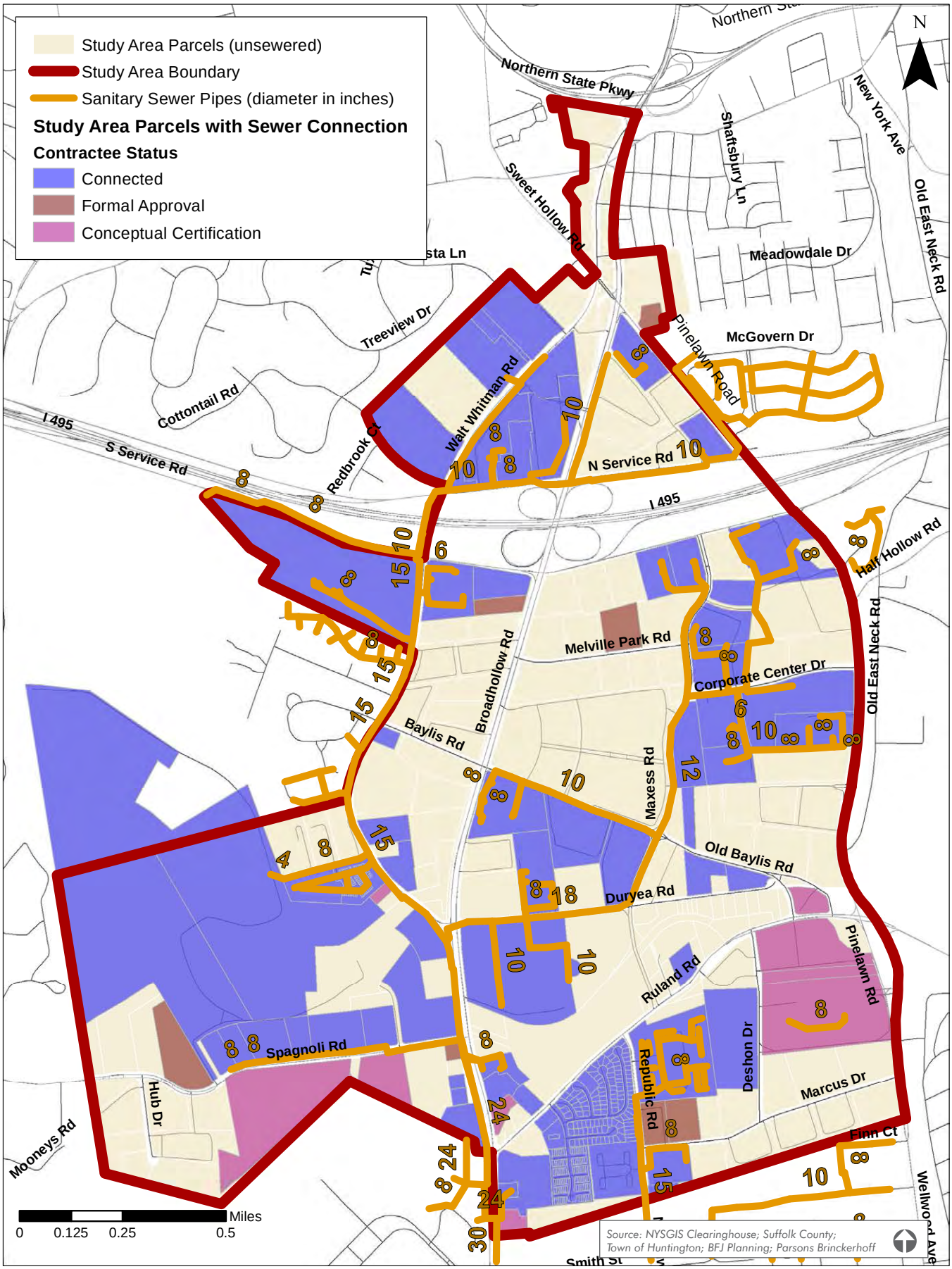
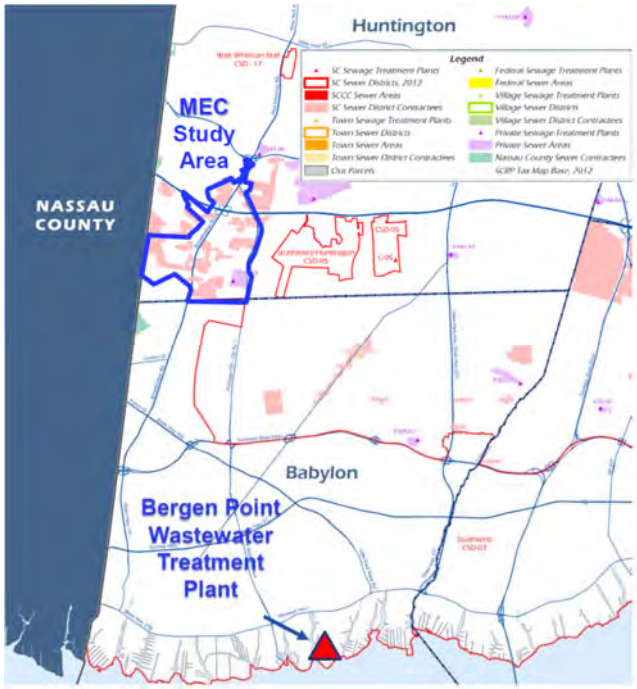


Figure 24: Sanitary Sewer Pipes and Sewered Parcels within the MEC

The Bergen Point Wastewater Treatment Plant (WWTP) was constructed in 1981 and is Suffolk County's largest WWTP, serving 120,000 households and processing an average of 30.5 MGD.[25] The Bergen Point facility treats sewage using two phases within four buildings on a 50-acre site. The first phase, primary treatment, separates the solid waste from the liquid using a series of holding tanks with screens. The solid waste is conveyed to the sludge processing building for incineration. Secondary treatment includes removing the organic materials and nutrients using ultraviolet (UV) disinfection and large aerated beds. The facility was designed with three pumping units to convey treated water underneath the Great South Bay and Fire Island, and from the barrier island to discharge in the Atlantic Ocean.[26]

Regional Context for MEC Wastewater Management



Source: Suffolk County; BFJ Planning; Parsons Brinckerhoff

Properties in the study area that are not sewered use different techniques for sewage disposal. The types of and requirements for sewage disposal systems are regulated by Article 6 of the Suffolk County Sanitary Code and informed by the Suffolk County Department of Health Services *Standards for Approval of Plans and Construction for Sewage Disposal Systems* ("the Standards"), with separate standards for single-family residences and all other land uses. For a given development, the required type of sewage disposal is determined by comparing the density load (i.e., the expected quantity of sewage to be discharged) with the population density equivalent, which is based on adjusted gross lot area. If the calculated density load for a project is less than or equivalent to the population density equivalent, then a conventional subsurface sewage disposal system may be acceptable to serve the project (if all other applicable requirements can be met). The vast majority of unsewered properties in the study area fall into this category.

Conventional subsurface sewage disposal systems have two primary components: a watertight septic tank and a leaching field or pool. The septic tank can be separated into multiple distribution boxes, allowing sewage to settle over time. This creates layers of scum, water and sludge, which are decomposed through anaerobic digestion within the watertight tank. An inlet pipe conveys

[25] New York State Department of Environmental Conservation, *Coastal Resiliency and Water Quality in Nassau and Suffolk Counties, Recommended Actions and Proposed Path Forward*.

[26] New York State Governor's Office of Storm Recovery, *Bergen Point Wastewater Treatment Plant Final Effluent Pump Station Upgrade Environmental Assessment*.

sewage from buildings on the property into the septic tank and an outlet pipe carries liquid effluent to the leaching pool for disposal. Grease traps can be used at the inception of the tank for separating grease and oils, especially when systems are designed for kitchen waste. Depending on soil composition and land available, upright leaching fields (also known as leaching pits) can be used instead of horizontal leaching fields (also known as leaching ponds).[27] The Standards include requirements for each component of conventional subsurface sewage disposal systems, including location, design capacity, configuration and construction details.

According to the Standards, if the calculated density load for a project exceeds the population density equivalent, then the installation of a sewage treatment system is required. For properties outside the boundaries of a sewer district, the required system would be either an on-site sewage treatment system (for projects on a single lot) or a community sewage treatment system (for projects that include two or more separate tax parcels). Both types of systems include processes capable of meeting applicable discharge standards. There is one private sewage treatment plant within the study area at Newsday, although Newsday has received conceptual certification to connect to the SWSD.

The applicable regulations for unsewered properties include Article 6 of the Suffolk County Sanitary Code and the Town of Huntington Code §164-5 ("Private Sewage Disposal Systems"), which states that all buildings that are unable to connect to the public sewer must be connected to a permitted private sewage disposal system that cannot discharge to a natural water body. The private system must also contain a distribution box that enables future connection to a public sewer district shall one become available.

B. Issues and Opportunities

Issues and opportunities for wastewater management in the study area were identified through review of previous studies, input from attendees at the June 2, 2015, opening public workshop and September 29, 2015, Land Use & Community Facilities public workshop, and discussion with the Suffolk County Department of Public Works (SCDPW) during a coordination meeting on July 24, 2015.

Issue: Gaps in the Sewer System

Although approximately 55% of the parcels within the MEC study area are connected or are formally approved/conceptually certified to be connected with the SWSD, the remaining parcels in the study area are unsewered. These gaps in the sewer system can degrade the environment and impede economic development potential.

[27] National Environmental Services Center, University of West Virginia, *What is a Septic System and How Do I Maintain One?*

As noted in the Suffolk County 2016-2018 Proposed Capital Program, "The alarming increase of nitrogen pollution from septics and cesspools in Suffolk County's surface and ground waters is leading toward an ecological collapse." This is a major concern throughout Suffolk County, particularly because approximately three out of every four residences are unsewered.[28] The unsewered properties in the MEC also contribute to the problem because of the use of on-site wastewater disposal systems.

The 2015 *Suffolk County Comprehensive Water Resources Management Plan* (CWRMP) stresses that nitrogen is one of the "principal culprits that spur hypoxia, harmful algal blooms, diminution of sea and shellfisheries and degradation of our protective natural infrastructure — wetlands and sea grass beds that act as wave and storm surge buffers." While nitrate contamination from unsewered properties is most problematic in coastal areas, it is a countywide problem. Furthermore, projected sea level rise will increase the risk associated with nitrate contamination, as submerged septic systems may be compromised by saltwater infiltration that could reduce the treatment of potential pollutants.

In addition to the environmental consequences of on-site wastewater disposal systems, the gaps in the sewer system limit the ability to promote economic development within the study area. The Long Island Regional Economic Development Council (LIREDC) *Strategic Plan* identified sewer infrastructure as a critical issue and a "key roadblock to successful economic growth" on Long Island, and cited a U.S. Conference of Mayors Report that described sewer infrastructure as "the foundation of economic development." Not only does investment in sewer infrastructure create job growth, but it also unlocks development potential that is not feasible and/or permissible on properties with on-site wastewater disposal systems.

Issue: Capacity Constraints in the Sewer System

Compounding the issue of gaps in the sewer system, there is an existing sewer bottleneck that could inhibit future growth potential. Preliminary discussions with SCDPW indicated that while the 30-inch pipes leading south out of the MEC study area have capacity, the existing 15-inch pipe in Walt Whitman Road near Duryea Road is above capacity. Further analysis indicates that the 18-inch and 24-inch pipes downstream of this pipe may also be above capacity; the issue likely has not been a problem to date because the smaller upstream pipe is serving to control the flow into the downstream system. In addition, several other portions of the existing sewer system may also be operating above their design capacities.

It should be noted that the analysis of the existing system is based upon several broad assumptions. The most critical of these assumptions is that the existing sewer laterals and trunk mains were constructed at the minimum allowable slope. This in turn results in the lowest possible capacity for each pipe. A more detailed analysis, using actual pipe slopes, might indicate that portions of the system actually have a greater capacity.

[28] *Suffolk County Comprehensive Water Resources Management Plan*

In addition to capacity limitations of the sewer lines within the study area, there are capacity constraints at the Bergen Point WWTP (although there is an ongoing capacity expansion project). The WWTP currently can accommodate an average daily design flow of 30.5 MGD and a peak design flow of 90 MGD. Although the current average daily flow is approximately 25.6 MGD,[29] excess capacity is limited because of commitments to existing capital projects. According to SCDPW, there have also been moratoria/delays in the past for approving new contractees to the SWSD because of capacity limitations at the Bergen Point WWTP. Furthermore, as noted in the Bergen Point WWTP *Final Effluent Pump Station Upgrade Environmental Assessment*, the peak design flow has been exceeded in the past, and the extreme flow during Superstorm Sandy nearly resulted in the flooding of the facility and potential sewage backup in the sewer system.

Overall, one of the challenges for future growth in the MEC is that new developments can create and/or exacerbate capacity problems for existing infrastructure.

Opportunity: Closing the Gaps in the Sewer System

To address the ecological problems and economic development constraints associated with unsewered areas, Suffolk County is advancing an ambitious program to sewer targeted areas as part of the *Reclaim Our Water* initiative.[30] While the MEC is not currently targeted for sewer expansion by the County, there are opportunities to close the gaps in the sewer system within the study area, which could improve environmental conditions and promote economic growth. There are three options for closing the gaps in the sewer system within the MEC: (1) continue the existing contractee approach; (2) incorporate the study area into the SWSD; or (3) create a new sewer district for the study area.

The first option would follow the status quo of individual property owners contracting with the Suffolk County Sewer Agency on an as-needed basis, but there are two approaches that could be used for constructing the sewer lines to connect to the public sewer system. The current approach depends on individual property owners bearing the infrastructure cost. A modified approach could include partnerships among study area properties to enable cost sharing for constructing the infrastructure. By adopting this approach, adjacent property owners could organize a consortium of potential contractees to share responsibility for the cost of the infrastructure. Under this arrangement, each property owner would still have a separate contract with the County, but

[29] New York State Governor's Office of Storm Recovery, *Bergen Point Wastewater Treatment Plant Final Effluent Pump Station Upgrade Environmental Assessment*.

[30] Another element of the *Reclaim Our Water* initiative is to advance the use of innovative alternative on-site wastewater treatment systems through a Septic Demonstration Program for Single Family Homeowners. The background to the demonstration program stresses that "nitrogen pollution from failing septic systems has clearly emerged as the most widespread and least effectively addressed of the region's growing cocktail of water pollutants." Although the MEC is not part of the demonstration program, it could be an option moving forward if these innovative nitrogen-reducing technologies are more broadly adopted in the future.

resources would be pooled to pay for the infrastructure, thus helping to overcome funding shortfalls that could prevent an individual property owner from contracting into the SWSD.

The second option for closing the gaps in the sewer system within the MEC entails expanding the boundary of the SWSD to include the study area. There are precedents for both studying and implementing expansion of the boundaries of existing sewer districts in Suffolk County, including the SWSD. In 2012, SCDPW issued the *Sewer District No. 3—Southwest Sewer District Service Area Expansion Project (CP-8139) Final Feasibility Report*, which evaluated the costs and benefits of sewering a number of communities in Suffolk County. Furthermore, the Suffolk County 2016-2018 Proposed Capital Program includes two capital projects to extend the SWSD into new areas: CP-8139 (Carlls River Nitrogen Reduction Project), which will extend the SWSD into North and West Babylon and Wyandanch, and CP-8157 (Connetquot River Nitrogen Reduction Project), which will extend the SWSD into the Great River Area.

The third option represents an alternative to expanding the SWSD into the MEC. This option would entail creating a separate sewer district for the MEC and connecting it to the SWSD. A similar approach was used for the Walt Whitman Shops (located less than 2 miles north of the study area, also in Huntington), which previously had its own treatment plant, but decided to build a pumping station and create a new sewer district to connect to the SWSD. In fact, the 1984 *Melville Industrial Sewer District Feasibility Study* recommended creation of a Melville Industrial Sewer District with conveyance and connection to the SWSD for treatment at the Bergen Point WWTP. A new sewer district for the MEC study area would have one contract with Suffolk County instead of individual lot-specific contracts.

The second and third options would follow a similar administrative process, which is summarized in the *CP-8139 Final Feasibility Report*. Both options would require a permissive referendum whereby the residents in the area of either the proposed extension (for the second option) or the proposed new district (for the third option) would vote on the proposal, pursuant to New York State County Law, Article 5-A ("County Water, Sewer, Drainage and Refuse Districts").

Based on preliminary discussions with SCDPW, the second option is the least likely scenario, and the County does not have any current plans to extend the SWSD into the MEC. In discussing the possibility of creating a new sewer district, SCDPW pointed to Suffolk County Sewer District 18 (for the Hauppauge Industrial Park) as a potential model for the MEC.

Opportunity: Expanding Capacity in the Sewer System

In conjunction with closing the gaps in the sewer system, there is also an opportunity to expand sewer capacity. If future development is proposed within the study area and seeks to be sewered, there will be both a need and an opportunity to address the existing sewer capacity issues throughout the study area. An expansion of sewer capacity along Route 110, Walt Whitman Road and Duryea Road would enable future development to connect to the main sewer line. One potential approach to expanding sewer capacity at this location — which would require additional analysis in a subsequent study — would be to extend the existing 30-inch pipe along Route 110

north to Duryea Road/Walt Whitman Road by upsizing the existing pipes, as well as increasing the size of the sewer lines in Walt Whitman and Duryea Roads.

In addition to the opportunity to expand capacity of the conveyance infrastructure within the study area, there is an opportunity to expand wastewater treatment capacity. Suffolk County is advancing a capacity expansion project at the Bergen Point WWTP, funded primarily by the New York State Storm Mitigation Loan Program and supplemented by County bonds and municipal contributions. The expansion project — scheduled to be completed in 2017 — will increase capacity at Bergen Point from 30.5 MGD to 40.5 MGD for the average daily design flow, and from 90 MGD to 120 MGD for the peak flow, by replacing three pumping units and adding a fourth pumping unit. As discussed in the *Final Effluent Pump Station Upgrade Environmental Assessment*, the upgrades to the Bergen Point WWTP will create additional capacity, improve operational efficiency and provide infrastructure redundancy to prevent future flooding and sewage backups during severe storm events.

However, as discussed with SCDPW, much of the additional capacity will accommodate future flows resulting from the Heartland Town Square project (estimated 2.5 MGD) and Ronkonkoma Hub project (estimated 400,000 gallons per day (GPD)).[31] Additionally, the Carlls River and Connetquot River sewer projects will be connecting to Bergen Point. Some of the additional capacity may also accommodate projects that are in earlier stages of planning (e.g., downtown Holbrook and Central Islip). Excess capacity after accommodating these projects is not yet known, and the County uses a "first-come, first-served" approach for reserving capacity at Bergen Point.

C. Sewage Capacity for New Developments

Overview and Methodology

The sewer infrastructure needs for future developments within the study area would depend on the specific development proposition. As outlined in the Suffolk County Department of Health Services "Project Density Loading Rates & Design Sewage Flow Rates" in the Standards, different land uses generate different hydraulic loads, which are used to determine the size of the sewage disposal system. Most of the design sewage flow rates are based on gross floor area in square feet (SF), with certain exceptions, such as for residential land uses, which are based on number of housing units (in addition to gross floor area).

As part of the MEC Plan, the methodology for determining the sewer infrastructure needs for future developments within the study area was based on the Soft Site Build-Out Analysis from the Land Use and Zoning Section. It is important to underscore the fact that this analysis was conceptual

[31] Town of Islip, *Final Generic Environmental Impact Statement: Proposed Heartland Town Square*; Town of Brookhaven, *Draft Supplemental Generic Environmental Impact Statement: Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)*

and based on readily available information about existing sewer infrastructure as well as preliminary future land use scenarios that are subject to revision.

The purpose of this exercise was to demonstrate the extent of sewer infrastructure needs for potential future developments on the "Level 1" soft sites, corresponding to those sites that were deemed most likely to undergo redevelopment. The methodology included the following steps:

- Calculate the total design sewage flow for each of the five scenarios for the Level 1 soft sites, using the following assumptions and based on the Standards:
    - Office space corresponds to "non-medical office space" and has a hydraulic load of 0.06 GPD/SF
    - Retail space corresponds to "dry store" and has a hydraulic load of 0.03 GDP/SF
    - Residential units correspond to "housing unit between 601 – 1200 [SF] gross floor area" and have a hydraulic load of 225 GPD/unit
- Based on the above calculations, determine which two scenarios correspond to the low and high values for total design sewage flow.
- For both the low and high design sewage flow scenarios, assign a percentage of the total sewage flow to each of the Level 1 soft sites based on lot area available for redevelopment.
    - With the exception of the Huntington Quadrangle, all other Level 1 sites assume total redevelopment. For the Huntington Quadrangle, the sewage flow was calculated as the sum of the existing sewage flow (based on the existing office buildings) and the estimated sewage flow for the infill redevelopment.
- Review existing lateral/branch sewer lines and main sewer lines to determine (1) if the Level 1 soft sites could be physically connected to the existing infrastructure, and (2) if the existing infrastructure could accommodate the estimated design sewage flow (for both the low and high design sewage flow scenarios), based on estimated available capacity.[32]
    - If the Level 1 soft sites could not be physically connected to the existing infrastructure, or if the existing infrastructure could not accommodate the estimated design sewage flow, the next step was to estimate preliminary sizing of the required sanitary conveyance systems (either as new infrastructure or upsizing of existing infrastructure) by applying Manning's equation.

The outcome of this exercise was a preliminary understanding of potential future sewer infrastructure needs to accommodate new development within the study area.

Results

Based on this methodology, it was determined that Scenario 1 (100% office built-out under existing zoning) corresponded to the low design sewage flow scenario (67,253 GPD), and Scenario 5 (maximum build-out under proposed zoning with 50% office and 50% residential) corresponded

[32] SCDPW provided sewer plans for the study area that showed the size of the pipes, but not the slope, which is needed to understand the capacity of the system. Based on guidance from SCDPW, this exercise for the MEC Plan used the minimum allowable slope as per Ten State standards.

to the high design sewage flow scenario (217,367 GPD). As such, these two scenarios were used to estimate sewer infrastructure needs for new development in the study area.

Based on the analysis of the existing system, the additional sewage flows from both Scenario 1 and Scenario 5 would not require any additional upgrades to the existing sewer system beyond those required to address the existing capacity issues (as previously discussed). The additional wastewater flows under both scenarios could be adequately conveyed by a system that is properly sized for the existing flows. Additionally, the majority of the Level 1 soft sites — including the Huntington Quadrangle — front an existing sewer line, and thus it is anticipated that these sites could connect to the existing sewer system. The only two Level 1 soft sites that would likely require a new connection are at the intersections of Maxess Road/Ruland Road and Route 110/Baylis Road. These new connections would likely need to be 6-inch laterals. However, no laterals are proposed at this time because of the conceptual and scenario-based nature of this analysis. It would also be necessary to consider future connections when sizing the laterals, as this analysis was strictly based on the Level 1 soft sites.

A number of considerations would inform the ability to implement the sewer infrastructure improvements to address the existing capacity issues and accommodate future development. Based on the current contractee approach for connections to the SWSD, the Level 1 soft sites would be regulated by Suffolk County Code §740-45 ("Connection by Premises Outside District"), the details of which are discussed in Section 2.8. Additionally, a detailed sewer study would be required to determine if there are any site-specific design constraints or topographic conditions that would complicate implementation, and to accurately determine the capacity of the pipes in the existing system. Another consideration would be the opportunity to pursue phased implementation of the improvements, which could also be explored as part of a detailed sewer study. The ability to phase implementation would be associated with the implementation schedule, any future planned upgrades to the receiving system and the layout of land uses.

It is also important to note that this preliminary assessment of sewer infrastructure needs assumed that there would be available capacity at the Bergen Point WWTP. As noted previously, although there is an ongoing expansion project that will increase capacity at Bergen Point, excess capacity after accommodating a number of developments (Heartland Town Square and Ronkonkoma Hub) and sewer projects (Carlls River and Connetquot River) is not yet known. This potential capacity constraint could further complicate implementation, especially because of the "first-come, first-served" approach for reserving capacity at Bergen Point.

D. Wastewater Management Recommendation

The current ad hoc method of individual sewer contracts imposes a challenge on long-term planning for future development in the MEC. Although the MEC has thrived as an economic hub under this approach, it makes it difficult to plan for land use and infrastructure in an integrated manner, as called for in *Horizons 2020* and the MEC Plan. To advance the preliminary assessment of future sewer infrastructure needs in the study area, it is recommended that the Town of

Huntington and/or Suffolk County initiate a detailed study of wastewater management as an update to the 1984 *Melville Industrial Sewer District Feasibility Study*.

The dual purpose of a detailed sewer study would be to further explore opportunities to (1) close the gaps in the sewer system (including identification of specific partnerships among study area properties if it is decided not to pursue either creation of a new sewer district or extension of the SWSD) and (2) more accurately determine the need to expand sewer capacity to accommodate existing and future development. The 2016-2018 Proposed Suffolk County Capital Program includes a sewer feasibility study for downtown Central Islip, which could provide the framework for a similar study for the MEC.

One important factor to be considered in such a study for the MEC is the funding and financing of sewer infrastructure, building upon ongoing work by Suffolk County. As discussed in the Suffolk County CWRMP, the County is exploring a variety of funding options to advance the objectives of the *Reclaim Our Water* initiative, namely to fortify existing wastewater infrastructure, sewer targeted areas and pilot innovative alternative on-site wastewater treatment systems. The CWRMP identifies the following funding options that are currently under consideration by Suffolk County:

- Benefit charges
- Taxes or Fees
  - Property transfer tax
  - Aquifer protection fee
  - User fees -- flush tax/runoff tax/toilet paper tax
  - Tax credits
  - Insurance surcharges
  - Tax increment financing
- Conventional Financing
  - Infrastructure Bank - Clean Water State Revolving Fund
  - Federal grants
  - Municipal bonds
- Public–Private Partnerships (P3)
- Increased rates for potable supply (consistent with average market rate)

The specific issue of funding wastewater infrastructure was also addressed in the Suffolk County *IBM Smarter Cities Challenge Report*. The County was named as one of 16 IBM Smarter Cities Challenge grant recipients in 2014, which offered a team of experts to help address the problem of excessive contaminants (particularly nitrogen) in the County's water bodies, caused in large part by the use of septic systems in unsewered areas. The Report, which is included in the CWRMP, notes that the lack of funding is one of the key challenges that stands in the way of solving the nitrogen problem. One of the 11 recommendations in the Report is for the County to continue to develop a funding mechanism. This recommendation is summarized in Appendix C.

As the Town of Huntington considers the options for addressing wastewater management in the MEC, including potential partnerships and funding sources, it will be important to continue close coordination with Suffolk County.

5.2 STORMWATER MANAGEMENT

A. Existing Conditions

Stormwater is the portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soil or the retentive capacity of surface features.[33] This water flows off the land as surface runoff into rivers, lakes, and oceanic water bodies. Due to the many roads, paved parking lots, and large building footprints in the MEC, there is a significant amount of impervious surface in the study area. Impervious surfaces prevent immediate infiltration of stormwater into the ground, and the resulting increased stormwater runoff must be managed in a way that is environmentally sound and meets community needs.

Stormwater management in the MEC is governed by the Town of Huntington Code §170 ("Stormwater Management"). This policy was adopted by the Town of Huntington in 2007, and amendments are permitted upon ratification by the Town Board. The intent of the legislation is to protect the health and safety of residents through regulation of non-stormwater discharge into the storm sewer system, and to minimize erosion and control sediment from stormwater runoff. Article I of §170 outlines responsibility of code administration, suggests the use of Best Management Practices (BMPs) to reduce pollutants in stormwater,[34] and specifies monitoring requirements and penalties associated with illegal discharge. Article II requires all development activities meet performance and design criteria of the following technical standards:

- The New York State Stormwater Management Design Manual
- The Empire State Chapter of the Soil and Water Conservation Society, 2004 or most current version
- The Town of Huntington, Huntington Town Planning Board Erosion and Sediment Control Handbook

The Town of Huntington Code §170 is designed to comply with the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Municipal Separate Storm Water Sewer System (MS4). The Town owns and operates an MS4 that is designated for collecting and conveying stormwater. The introduction of pollutants into the MS4 system is regulated in order to comply with requirements of the SPDES

[33] Town of Huntington Stormwater Management Program Plan

[34] The use of BMPs is suggested under §170-8 of the Town Code ("Prevention, Control and Reduction of Stormwater Pollutants"), but no specific BMPs are recommended or described.

General Permit. The Code incorporates certain components of the Town's Stormwater Management Program (SWMPP) Plan, the purpose of which is to reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable."

Stormwater management is also important because of the MEC study area's location with respect to the Magothy Aquifer, which serves as a primary source of the public water supply. According to the 1978 Long Island Comprehensive Waste Treatment Management Plan (also known as the 208 Study), the MEC study area is located in hydrogeologic (groundwater recharge) Zones I and II, which are deep flow zones that primarily recharge the Magothy Aquifer. Therefore, stormwater management is necessary to preserve water quality.

Suffolk County Hydrogeologic Zone Map

Source: Suffolk County; BFJ Planning; Parsons Brinckerhoff (based on the 208 Study)

Stormwater in the MEC is managed using a range of soft and hard drainage infrastructure owned by the Town, the County and the State. As a method of pollutant mitigation, precast leaching basins and catch basins are used within the MS4 system in the MEC area. These concrete basins capture pollutants in stormwater runoff while allowing water to infiltrate back into the ground. Other drainage structures used in the MEC area include headwalls, inlets, manholes, and recharge basins. These types of infrastructure are shown and described in Figure 25.

Catch basin

Recharge basin

Inlet

Leaching basin

Sources: Sources: Vactor Manufacturing, Inc.; Wiggin Means Precast Company, CPM Off-Site Solutions; Precise Forms; City of Charlotte Storm Water Services, Photo Book of Stormwater Features; City of Charlotte Storm Water Services; Minnesota Stormwater Manual; United States Environmental Protection Agency, BASINS Technical Note 11

Figure 25: Existing Stormwater Infrastructure in the MEC

B. Issues and Opportunities

Similar to wastewater management, the issues and opportunities pertaining to stormwater management in the study area were identified through review of previous studies and input from attendees at the June 2, 2015, opening public workshop and September 29, 2015 Land Use & Community Facilities public workshop. Additionally, the issues and opportunities were informed by discussion with the Town of Huntington during a coordination call on October 21, 2015. The following sections summarize the key issues and opportunities that guided the subsequent recommendations.

Issue: Impervious Surfaces

The MEC is characterized by large building footprints, large surface level asphalt parking lots and wide roadways, and many of these features were constructed without sensitivity toward stormwater infiltration, evaporation or retention. The *Horizons 2020 Comprehensive Plan* acknowledges these issues, summarizing how existing development patterns in the MEC affects not only neighborhood character, but also stormwater management:

> The [MEC] displays many of the characteristics of older suburban office centers, including large, low buildings set behind expansive parking lots. The effect of this development pattern is that most of the available land area has been consumed by buildings and parking lots, leaving little room for landscaping and open space. In addition to negative visual impacts, the impervious parking lot surfaces contribute to stormwater management problems.

One problem with large impervious surface area is the potential for pollution of stormwater. Impervious surfaces collect biological and chemical sediment, such as oil and fluids dripping from cars; soaps and cleaning chemicals from building, street, and sidewalk maintenance; branches, leaves, and other organic plant matter that drops from trees or is blown in by storms; and trash dropped by humans. This non-point source pollution is collected by stormwater runoff, which can subsequently pollute either surface waters that are used for food production/recreation or the groundwater that recharges the aquifers that provide a source of drinking water. This is relevant in the MEC due to the study area's location in hydrogeologic Zones I and II, and specifically its role in recharging the Magothy Aquifer. In fact, the 1993 Town of Huntington Comprehensive Plan, which predated *Horizons 2020*, noted that Zone II in Melville "has been severely contaminated by industrial discharges stemming from the considerable development activity in this area."

High volumes of surface water runoff from impervious surfaces can also exacerbate the erosion of areas that are not paved with concrete or asphalt, degrading important landscape elements within the community. At a regional scale, and as discussed in the Suffolk County CWRMP, shoreline erosion — caused in part by stormwater runoff — can result in loss of vegetation and degradation of wetlands, which "serve as our last line of natural defense against storm surge."

These factors, combined with projections of increases in storm intensity and sea level rise, can lead to additional environmental and physical damage both within the study area and more broadly in Suffolk County.

Issue: Limited Incentives for use of Stormwater Best Management Practices (BMPs)

As discussed with the Town of Huntington during this planning process, the Town is beginning to explore ways to incentivize green infrastructure projects to support stormwater BMPs. The Town supports the use of green infrastructure, and proactively tries to install green infrastructure on Town projects. The biggest hurdle is how to incentivize private developers to use green infrastructure in their projects, as there is no regulatory impetus outside of the SPDES permit or a desire on the part of developers to obtain Leadership in Energy and Environmental Design (LEED) project certification.

One way in which the Town currently incentivizes the use of BMPs is by authorizing a real property tax exemption for improvements to real property that meet LEED certification standards, as outlined in the Town Code Chapter 178, Article XIV ("Green Building LEED Improvement Exemption"). There are also financial incentives offered through New York State, such as through the Green Building Tax Credit Program.

The Town is interested in exploring additional ways to encourage the use of green infrastructure in private developments, such as through zoning.

Opportunity: Incorporating Stormwater BMPs into Future Development within the MEC

Growth and new development within the MEC provides an opportunity for integration of stormwater BMPs as part of new design or renovation of existing buildings and infrastructure. For example, existing surface parking lots can be replaced with permeable paving such as pervious pavers, porous concrete asphalt or grass pavers. Rooftops can be retrofit with either green or blue roofs for stormwater retention/detention, and bioswales and rain gardens can be used strategically as landscape in order to remove silt and pollutants and increase infiltration capacity.

These BMPs are just some of the green infrastructure interventions supported within the 2011 Suffolk County Planning Commission resource guide, *Managing Stormwater – Natural Vegetation and Green Methodologies*. The *Suffolk County Comprehensive Plan 2035* calls for an update of this resource guide, and it is clear that advocacy for low-impact development, green infrastructure solutions and natural stormwater management solutions (that also serve as community landscape elements) will remain a core tenet of future planning throughout Suffolk County.

Specific to the Town of Huntington, the *Horizons 2020 Comprehensive Plan* points to the potential benefits of BMPs for the MEC area, noting that BMPs would "slow, diminish, and improve the quality of stormwater runoff." As such, the MEC Plan seeks to identify BMPs that can be incorporated into future development within the study area.

Opportunity: Proposed Zoning Changes and Incentivizing the Use of BMPs

Zoning changes can be aligned to incentivize implementation of stormwater BMPs. The 2011 Suffolk County *Managing Stormwater* guidance includes a checklist of measures to protect groundwater and surface water. These measures include creating zoning overlay districts and providing targeted incentives to promote effective stormwater management.

The MEC Plan incorporates both of these measures through the proposed zoning changes. As summarized in the Land Use and Zoning Section, the proposed zoning changes — which call for the creation of an MEC Overlay District — include a provision whereby mixed-use buildings shall be capable of LEED certification. The capability to achieve LEED certification would be a prerequisite for property owners and developers to introduce a mix of uses within the proposed MEC Overlay District. Therefore, LEED certification would be incentivized through the proposed zoning changes.

C. Stormwater Recommendations

The stormwater management component of the MEC Plan is aligned with one of the main purposes of the *New York State Stormwater Management Design Manual*, to "improve the quality of green infrastructure and [stormwater management practices] constructed in the State, specifically in regard to their performance, longevity, safety, ease of maintenance, community acceptance and environmental benefit." Furthermore, one of the recommendations of the Suffolk County CWRMP is to "develop a robust stormwater management program in coordination with local municipalities and New York State," and the MEC Plan helps advance this important cause.

The Huntington already has a Town-wide stormwater management plan in place through the SWMPP, and the MEC Plan offers an opportunity to further explore BMPs for "post-construction stormwater management," which is one of the six program elements of the SWMPP. Additionally, while the Town SWMPP was developed to comply with NYSDEC requirements for MS4 permitting (which addresses surface water discharge of stormwater), the MEC Plan also serves as an avenue to address groundwater infiltration of stormwater.

As discussed in the *Horizons 2020 Comprehensive Plan*, a key strategy to protect Huntington's water resources is to "require/encourage stormwater management practices that minimize impacts on surface water, groundwater, and other natural resources." The *Comprehensive Plan* suggests specific approaches to implement this strategy: (1) "filtering and recharge designs for stormwater management facilities that blend into the existing landscape," and (2) "use of pervious surfacing to reduce runoff." These two approaches are complementary, as they highlight the mutually supportive objective of using context-sensitive design to reduce impervious surface area.

The stormwater recommendations in the MEC Plan aim to advance the goals of *Horizons 2020* by encouraging the use of BMPs that are most appropriate for the study area. Considerations that inform the appropriateness of different BMPs include existing conditions, anticipated future development, and soil types. The MEC is mostly built up with large impervious surface area, and there are opportunities for targeted redevelopment and infill development, as outlined in the Soft

Site Build-Out Analysis from the Land Use and Zoning Section. The future use of BMPs in the MEC area is further supported by the soil type within the study area. Specifically, according to a Custom Soil Resource Report that was prepared using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the majority of the MEC study area (approximately 70% of the acreage) has a hydrologic soil type that corresponds to either a high (Group A) or moderate (Group B) infiltration rate.

As discussed in the following sections, specific BMPs are recommended for consideration within the MEC based on these factors. These BMPs consist of a range of engineering solutions to the challenges of stormwater management in the study area. The governing design criteria, site-driven design constraints, and standard details are included in the *New York State Stormwater Management Design Manual*.[35] The guidance included in the Design Manual offers details about how to locate, size, and design BMPs to comply with State stormwater management performance standards. Permitting and the approval process is regulated by the U.S. Environmental Protection Agency (USEPA) as part of the National Pollutant Discharge Elimination System (NPDES), and as administered by the NYSDEC as part of the SPDES.[36] Additionally, stormwater management practices within the MEC should be consistent with the elements of the Town of Huntington's SWMPP, and must comply with the Town of Huntington Code §170.

The following BMPs are recommended for consideration within the MEC:

Permeable Pavement

Permeable pavement allows direct infiltration of stormwater into the ground, reducing erosion and pressure on the municipal storm sewer system. There are many varieties of permeable pavement, and a range of materials and patterns can be used as a landscape element or as surface area for parking, recreation, or pedestrian/bicycle right-of-way.[37] One of the strategies identified in *Horizons 2020* is to "establish standards to reduce the environmental impacts of parking lots," and "sustainable stormwater solutions such as permeable pavement" are highlighted as an example of such a strategy.

As discussed in the Suffolk County *Managing Stormwater* guidelines, the Lindenhurst Library is a notable case study because it was the first permeable pavement parking lot on Long Island, designed with permeable paving stones set in between gravel. There are four layers of gravel underneath the paving stones that filter stormwater, thereby removing pollutants. The parking lot was also designed with drought resistant plants that help to capture stormwater runoff.

---

[35] Available at http://www.dec.ny.gov/chemical/29072.html.

[36] USEPA and NYSDEC regulatory requirements are available at http://water.epa.gov/polwaste/npdes/ and http://www.dec.ny.gov/chemical/8468.html, respectively.

[37] New Jersey Stormwater Best Management Practices Manual, "Standards for Pervious Paving Systems". State of New Jersey, Department of Environmental Protection, February 2004. http://www.njstormwater.org/bmp_manual/NJ_SWBMP_9.7.pdf

Lindenhurst Library – Long Island's First Permeable Pavement Parking Lot

Source: Suffolk County CWRMP

Other types of permeable pavement include stone cut or manufactured brick pavers, porous concrete asphalt, and pervious pavers that can be laid naturally into grass or set with casing to create gaps for stormwater drainage. It is important to stress that the effectiveness of permeable pavement is dependent upon routine inspection and maintenance by the owner, as enforced by the municipality, to ensure ongoing compliance with the minimum design standards. In fact, some governments (such as San Diego County in California) publish an operations and maintenance protocol for permeable pavement, the objectives of which are to disseminate information about how to best prevent the pavement and/or infiltration bed from getting clogged and also prolong the lifespan of the infrastructure.[38]

[38] San Diego County Facilities, *Porous Pavement Operation and Maintenance Protocol*


grass pavers


porous concrete asphalt


manufactured brick pavers


stone cut pavers


interlocking pavers

Types of Permeable Pavement
Sources: Square Stone Pavers/Pinterest/Rashid Valitov; National Ready Mixed Concrete Association; Belgard Products; AZEK Building Products

Rooftop Detention/Retention

Rooftop detention is another stormwater BMP with relevance to the MEC. One type of rooftop detention is a blue roof, which is a controlled flow system that temporarily stores and gradually drains rainwater off a building rooftop. It helps to reduce runoff during peak storm hours, thereby curtailing the risk of street and driveway flooding and storm sewer backups in low-lying areas.[39]

Green roofs — which would be a form of rooftop retention, as the water absorbed by the roof stays on the roof — require more financial investment (and occasionally structural investment) than blue roofs. A green roof is composed of "a vegetative layer that grows in a specially-designed soil, which sits on top of a drainage layer" on the roof of a building. Green roofs absorb and retain larger amounts of stormwater than blue roofs and they provide sustainability benefits such as carbon dioxide sequestration, reduction of the heat island phenomenon (through evaporation and

[39] New York City Department of Environmental Protection, *Using Green Infrastructure to Manage Stormwater, Types of Green Infrastructure, Blue Roof and Green Roof*.

evapotranspiration by plants), mitigation of noise pollution, creation of ecosystems for habitat such as birds and insects, aesthetic improvements, and in some cases recreational space.

Green Roof and Blue Roof
Sources: Sustainable Long Island, Reduce Rain Runoff Commercial Brochure; Roofing Magazine

Bio Retention Systems

Bio retention systems are composed are "a soil bed planted with suitable non-invasive (preferably native) vegetation." The system filters stormwater runoff through the soil planting bed before recharging the water into the ground.[40] The total suspended solids (TSS) removal rate is between 80% and 90% depending on the depth of the soil bed and type of vegetation planted. Additionally, bio retention systems can be used for quantity control, reducing the flow rate and velocity of water entering the storm sewer system.[41] However, the systems require regular maintenance to ensure functionality.

Bioswales and rain gardens are two types of surface-level bio retention interventions that both retain stormwater and allow for increased absorption of clean stormwater into the ground.[42] Bioswales, also referred to as grass swales, vegetated swales or filter strips, are landscape elements designed to remove silt and pollution from surface water runoff. Bioswales are often located parallel to roadways at the back of curb to capture runoff from the surface of the road.

---

[40] New Jersey Stormwater Best Management Practices Manual.

[41] F.X. Browne Watershed Management Consultants, Ten Towns Great Swamp Watershed Management Committee, New Jersey, *Bioretention Systems for Stormwater Management Fact Sheet: What are Bioretention Systems?*

[42] An alternative to bioswales and rain gardens is the use of manufactured treatment devices (MTDs), which are pre-fabricated devices used to reduce TSS in stormwater runoff. MTDs have small underground footprints compared to bioswales and rain gardens, but they primarily address water quality and not the quantity of runoff. The NYSDEC listing of stormwater treatment technologies, including MTDs, is available at http://www.dec.ny.gov/chemical/29089.html.

The primary benefit of a bioswale is for stormwater management and improved quality of stormwater runoff, but there are also potential aesthetic, air quality, and ecosystem benefits (from potential creation of additional wetland habitat).[43]

A rain garden is defined as "a garden which takes advantage of rainfall and stormwater runoff in its design and plant selection…to withstand the extremes of moisture and concentrations of nutrients, particularly Nitrogen and Phosphorus, that are found in stormwater runoff."[44] Rain gardens are usually located near large roof surfaces or ground level impervious surfaces, with culverts installed to convey stormwater from the impervious roof or ground surface into the garden. The garden retains stormwater, slowing the rate of runoff and allowing an opportunity for water infiltration into the ground. Rain gardens can be under-drained or self-contained, depending on if the rain garden is meant to convey filtered stormwater into a storm sewer system or solely infiltrate stormwater back into the ground.

Bioswale and Rain Garden
Sources: NYC Green Infrastructure 2014 Annual Report; Sustainable Long Island, Reduce Rain Runoff Commercial Brochure

[43] State University of New York College of Environmental Science and Forestry, *Stormwater Management, Infiltration Trenches and Bioswales*
[44] Low Impact Development Center, *Rain Garden Design Templates: What is a Rain Garden?*

Overall, the future use of stormwater BMPs within the MEC — potentially including permeable pavement, rooftop detention/retention, and bio retention systems — can result in a multitude of environmental, community, and economic benefits. As summarized in *Horizons 2020*, these benefits include:

- Preserving natural resources, such as wetlands, steep slopes and natural vegetation;
- Recharging and protecting the quality of surface and ground waters;
- Providing natural stormwater management services, including floodplain protection, erosion control, and pollution reduction;
- Reducing energy use and capturing carbon dioxide, ultimately helping to counteract global climate change;
- Conserving native communities and providing habitat for rare and endangered species;
- Cleaning the air and water;
- Promoting outdoor recreation and exercise through activities such as walking and biking;
- Bringing people into contact with nature;
- Strengthening the economy through improved quality of life and increased property values;
- Conserving resources that support economic activity; and
- Reducing costs associated with engineered stormwater and wastewater systems.

6.0 IMPLEMENTATION

This section discusses implementation measures the Town should consider to implement recommendations made throughout this Plan. Having an adopted MEC Plan is a key public policy tool, but is not sufficient alone to make change happen – the Plan must be realized. There are several ways that Huntington can ensure that this Plan's recommendations are implemented. It is recognized that, given financial constraints that may affect the Town and other agencies or stakeholders, implementation is dependent on funding availability and other economic factors.

6.1 LEGISLATION

Zoning and subdivision regulations are the two most familiar tools used to implement planning recommendations. This Plan recommends creation of a Melville Employment Center (MEC) Overlay District to establish a mixed-use business environment, supporting the existing office, commercial and light industrial uses in the study area while creating opportunities for a broader range of uses to locate in the MEC. The proposed zoning text, which is summarized in Section 2.7, is provided below. The Huntington Town Board is the body with jurisdiction over the adoption of zoning changes, and consideration of the proposed zoning will be subject to a separate approval process, including environmental review.

Chapter 198. Zoning

Article V. Industrial Districts

§ 198-36.1 MEC Melville Employment Center Overlay District.

The purpose of adopting this overlay zone is to create a mixed-use business district that will maintain the primary office/light industrial nature of the Melville Employment Center that is an important element of the Town's fiscal health, while enhancing the area's competitiveness through the introduction of a broader range of uses, in a manner that preserves quality-of-life for the residential neighborhoods located adjacent to the overlay zone.

A. Location of the MEC Melville Employment Center Overlay District. The area comprising the Melville Employment Center Overlay District consists of all land zoned either I-1 or I-2 Light Industry, in the area bounded by Walt Whitman and Broadhollow Roads to the west, Ruland Road to the south and Pinelawn and Sweet Hollow Roads to the east.

B. Use regulations.

(1) Principal permitted uses.

(a) Any principal use permitted in the underlying zoning district, subject to any restrictions and limitations contained in this section. In the event the provisions of §198-34 or §198-35, as applicable, conflict with the provisions of this section, this section shall be controlling.

(b) Townhomes or multifamily residential uses, if provided as a substantial part of a mixed-use development with office, retail, personal services and/or similar uses.

(2) Conditional uses.

(a) Any conditional use permitted in the underlying zoning district, subject to any restrictions or limitations contained in this section. In the event the provisions of §198-34 or §198-35, as applicable, conflict with the provisions of this section, this section shall be controlling. In no event shall a special use permit be issued or approved if any one of the conditions for the stated use is not met.

(b) Townhomes or multifamily residential uses, subject to approval by the Town Board, where such uses are the only use and are not a substantial part of a mixed-use development. Any such stand-alone townhome or multifamily residential use shall not abut any arterial road.

(3) Accessory uses.

(a) Any accessory use permitted in the underlying zoning district, subject to any restrictions or limitations contained in this section. In the event the provisions of §198-34 or §198-35, as applicable, conflict with the provisions of this section, this section shall be controlling.

(b) Retail stores, but not including wholesale establishments nor uses such as automotive sales or service establishments, sales or service of trucks, tractors, trailers, farm machinery or contractors' equipment, nor lumberyards, building material yards, plumbing supply or similar establishments.

(c) Personal service shops, including barber- and beauty shops, photographic studios, stationery and newspapers, confectionary, gift shop, decorator or upholstery shop.

(d) Custom dressmaking and tailoring, shoe repair, watchmaking and repairing.

(e) Retail florist and garden shop accessory thereto.

(f) Laundry or dry-cleaning pickup stations, excluding on-premises cleaning or laundering.

(g) Convenience markets.

(h) Food shops and restaurants, but not including drive-in-restaurants or similar establishments, subject to §198-34 F (4) (b), §198-34 F (4) (c) and §198-34 F (4) (d).

(i) Fitness clubs, dance and martial arts studios or similar uses.

(j) Outdoor dining on private property, including on rooftops, except that rooftop dining shall not be allowed on any property abutting a residentially zoned property.

(4) Permitted accessory uses provided in this section shall be subject to the following conditions:

(a) The total floor area of the accessory use shall constitute no more than twenty-five percent (25%) of the total floor area on the lot, and shall be no more than twenty-thousand (20,000) square feet per individual tenant, whichever is less.

(b) The accessory use shall be limited to the first floor of the building, but only if the upper floors of the building contain multiple-family residential and/or office uses.

(c) Accessory retail, personal service and similar uses shall focus on serving local residents and employees, in order to limit individual vehicular trips and reduce traffic congestion.

C. Height, area, and bulk regulations. Development in the MEC Melville Employment Center Overlay District shall meet all provisions as required by the underlying zoning district, except as follows:

(1) Minimum lot area: four (4) acres.

(2) More than one (1) principal building shall be permitted on a lot, so long as all other area and bulk provisions are satisfied.

(3) Front yard: forty (40) feet for properties fronting Route 110, and twenty-five (25) feet for properties fronting any other road contained within the MEC Melville Employment Center Overlay District.

(4) Height: The height provisions of the underlying zoning shall prevail. Development of up to four (4) stories or fifty-eight (58) feet shall be encouraged along Route 110, while lower-rise buildings of two (2) to three (3) stories are encouraged along Pinelawn and Walt Whitman Roads.

(5) Residential density: The permitted number of units per acre shall be determined based on project design considerations such as bulk and height limitations, sewer availability, parking, traffic, visual impact on neighboring properties and the quality of the project.

D. Off-street parking and loading regulations for permitted and conditionally permitted uses shall be in accordance with Articles VIII and VIII of this chapter, except for the following:

(1) Required parking for multiple-family development shall be according to the following ratios:

(a) Studio apartment: 1.25 spaces

(b) One-bedroom (1-bedroom) unit: 1.5 spaces

(c) Two-bedroom (2-bedroom) unit: 1.75 spaces

(d) Three-bedroom (3-bedroom) unit: 2 spaces

(2) For a mixed-use development (residential in combination with office, retail, personal service, and/or similar uses), the total required parking may be reduced by up to 25% by the Zoning Board of Appeals upon a finding, based on a submitted parking analysis, that the mix of uses would generate the ability to share parking. Such parking for mixed uses must be shared

among the uses on the site and not assigned to any one user, as acceptable to the Zoning Board of Appeals in its consideration of the special use permit.

E. Design criteria and required amenities.

(1) Mixed-use development in the MEC Melville Employment Center Overlay District shall provide usable civic, recreational, and/or open space that is open and available to the general public, including but not limited to: trails, paths, sidewalks, public art or gathering space. Such space may be provided within required yard setbacks.

(2) Mixed-use buildings shall include space for bicycle parking and storage at least partially protected from outside elements.

(3) Mixed-use buildings shall meet the requirements of §197 pertaining to green building for commercial buildings.

(4) All buildings shall be constructed to ensure maximum fire safety and access for the Melville Fire Department and emergency-services providers, including the following provisions:

(a) All buildings shall be constructed of either New York State Type I (fireproof construction) or New York State Type II (fire-resistive construction).
(b) Wood framing, lightweight wood truss or engineered lightweight wooden I-beams shall not be permitted.
(c) Buildings must conform to State Code, Local Code and National Fire Protection Act (NFPA) requirements.
(d) The size of any elevators must be adequate to fit the largest stretcher used by the Melville Fire Department.

F. Development incentives.

(1) If all of the following elements are provided in a manner satisfactory to the Planning Board, the Planning Board may grant an additional one (1) story of building height beyond that permitted by § 198-36.1(C) (3) above, to a maximum of five (5) stories, or sixty-eight (68) feet. Any additional story shall not be allowed within 100 feet of Pinelawn or Walt Whitman Roads.

(a) At least twenty percent (20%) of the total lot area shall be devoted to usable civic, recreational, and/or open space that is open and available to the general public, including but not limited to: trails, paths, sidewalks, public art or gathering space. Such space may be provided within required yard setbacks.

(b) One or more buildings has a green roof, defined as a roof that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane.

(c) The development provides at least one vehicular and pedestrian connection to an adjacent property or street, in addition to the street on which the development has primary frontage.

(d) The development achieves a substantially mixed-use project with residential and office, retail, personal service and/or similar components.

(2) If the following is provided in a manner satisfactory to the Planning Board, the Planning Board may grant an additional two (2) stories of building height beyond that permitted by § 198-36.1(C) (3) above, to a maximum of six (6) stories, or seventy-eight (78) feet. Any additional story or stories shall not be allowed within 100 feet of Pinelawn or Walt Whitman Roads.

(a) The development shall provide, either on the subject property or on another property within the MEC Melville Employment Center Overlay District that is satisfactory to the Town Board, a municipal use such as a fire department substation or emergency medical services (ambulance) facility. In lieu of building such a facility, the applicant may provide to the Town the financial amount equivalent to building the municipal use, based on consultation with applicable Town agencies. Such financial equivalent shall be designated by the Town for the sole purpose of constructing the municipal use at a location within the MEC Melville Employment Center Overlay District that is satisfactory to the Town Board.

(b) The incentive requirements of § 198-36.1(F) (1) (a) through (d) above are met.

6.2 CAPITAL PROJECTS

The second key tool is incorporation of the MEC Plan objectives into the Town's capital improvement program (CIP). The ways that Huntington spends public revenue for public improvements – on water and sewer utilities, road construction, major equipment purchase and new or renovated parks and recreation facilities – and the standards to which they are built have a major impact on the Town's image and function. Once the MEC Plan is adopted, Huntington should evaluate and choose capital projects based on Plan recommendations.

Huntington's CIP is a management and fiscal planning tool. The capital budget systematically assigns priorities to the Town's capital needs and schedules their accomplishment through the expenditures of public funds from Town revenues and bonding capacity. Projects are scheduled on a multi-year basis, with each succeeding year seeing the completion of a project, or a phase of a long-term project, and a future year is added. New projects come on line as others earlier in the cycle reach completion. The rolling approach enables municipal government to plan for and remain current with necessary infrastructure improvements and other large, non-operational needs. Capital needs remain in balance with available financing; the Town achieves aspects of its long-range plan with steady, predictable steps over time.

The process of preparing the capital budget, the resulting document (capital program) and, of course, the improvements themselves, are important tools in implementing the MEC Plan. Such a program is indispensable for a sustained capital improvement effort. It allows for a continuous update of municipal needs without allowing the revision process to stall the planning and scheduling, and without being sidetracked into unnecessary and poorly planned projects. The

Town knows its capital commitments for at least five years into the future. Thus, it can plan financing in an orderly way stabilize the tax rate structure by spreading improvement costs systematically over a period of years. In this way, the CIP provides the infrastructure and improvements required by the MEC's goals. Further, public input into the planning process continues, long past the Plan's adoption, as capital budgets are heard publicly. The orderly public expenditures on needed improvements send a positive signal to private businesses and property owners: the CIP enables them to plan their investment knowing that the Town is also responsibly planning.

Items that might fall into the Town's CIP include improvements to Town roads, installation of sidewalks and streetscaping measures. In addition, capital improvements are recommended in this Plan that require implementation by other agencies. The most significant of these is the widening of the Walt Whitman Bridge, which will require outside funding from federal and state agencies. This project needs to be included in the Transportation Improvement Program (TIP) and corresponding Transportation Conformity Determination for the 10-county NYTMC region. The Town should initiate discussions as soon as practicable with Suffolk County – which in turn would coordinate with NYMTC staff and members through the Nassau-Suffolk Transportation Coordinating Committee (TCC) and Program, Finance and Administration Committee (PFAC) – to submit the proposed Walt Whitman Bridge widening project as either an amendment to the current TIP (covering Federal Fiscal Years 2014-2018) or as a project to be included in the subsequent TIP, depending on the timeline for funding availability. The TIP would address all project phases, including preliminary engineering through final design and construction, and would document all funding sources for implementation.

There are a number of other capital projects that would require funding by local, state or federal sources, as summarized in Table 15.

6.3 FUTURE STUDIES

Certain MEC Plan recommendations will require more analysis. Detailed implementation measures can only be crafted through this additional study. For example, the Plan recommends that the Town and/or Suffolk County initiate a detailed study of wastewater management as an update to the 1984 *Melville Industrial Sewer District Feasibility Study*.

6.4 ONGOING PLANNING

There are two key aspects to continuing planning. The first is the Town government's sustained work with regional agencies, authorities, institutions and other munipalities on issues that extend across borders. These include (and are not limited to) Suffolk County, the Town of Babylon, the New York State Department of Transportation (NYS DOT), the Long Island Rail Road and Farmingdale State College. As these entities plan, Huntington makes clear its concerns and

preferences. With the adopted MEC Plan, the Town's position is in effect on record, and must be taken into consideration.

The second aspect concerns development applications before the Planning Board, the Zoning Board of Appeals and/or the Town Board. With the revised zoning as proposed in this Plan, together with the guidelines on streetscape and the pedestrian environment and best practices for stormwater management, these boards have the tools they need to make informed and effective decisions about applications. This will help to ensure that future development and redevelopment of existing properties is consistent with the objectives of this MEC Plan.

6.5 BUSINESS IMPROVEMENT DISTRICT (BID)

Some areas like to the MEC have explored the creation of a Business Improvement District (BID), a model of public-private partnership that provides services, as supplement to those provided by the municipality, to a defined area. BIDs provide consistent and stable funding through annual assessments to property owners within the defined BID area, which services ranging from public safety and marketing campaigns and improvements such as infrastructure, streetscape, landscaping and signage. Research suggests that BIDs increase a neighborhood's attractiveness and comparative advantage compared to other neighborhoods.[45] BIDs have also been shown to increase the real price per square foot of commercial properties.[46]

Most properties in the MEC are privately managed, and their owners may be hesitant to pay an assessment to cover services for which they already contract. However, what the area lacks is a comprehensive approach that would establish the MEC as a defined and attractive place. There already exist formal organizations such as the Melville Chamber of Commerce, as well as more informal networks of property owners, that are looking at the common interests of MEC stakeholders. These could be formalized and strengthened through creation of a BID or similar Special Improvement District in the MEC, to improve its vibrancy, sustainability and economic health. The BID could support the MEC by working with Town officials to voice collective concerns, advocate for enhanced public improvement projects, and collaborate on other civic engagement projects. The BID would also be able to draw on other public and private funding streams such as donations and grants. It could provide one or more of the following:

- Implement streetscape improvements such as landscaping, signage and gateway treatments to create a cohesive sense of place
- Develop marketing campaigns
- Support special events and programming of public spaces

[45] Ingrid Ellen, Amy Schwartz, and Ioan Voicu. *The Impact of Business Improvement Districts on Property Values: Evidence from New York City*. Brookings-Wharton Papers on Urban Affairs (2007).

[46] *Ibid*.

- Support networking between businesses in the district
- Attract new businesses to the community
- Improve relationship between businesses and surrounding residential areas.
- Link local businesses with institutional partners such as Farmingdale State College
- Provide support networks for displaced and relocating businesses

During the planning process for this MEC Plan, a number of property owners coalesced to advocate for changes based on their shared goals and objectives. While there was not a groundswell of support among these owners for a BID creation, the Town should keep working with them to seek ways for the Plan's recommendations to be implemented via private partners.

7.0 APPENDIX

Appendix A: Huntington Quadrangle Build-Out Analysis

	EXISTING SITE	SCENARIO 1:		SCENARIO 2:		SCENARIO 3:	
	Existing Office Buildings 100% Surface Parking	Build-out under Existing Zoning (100% Office) 25% Structured Parking		Existing Office + Infill Residential Development 25% Structured Parking		Existing Office + Infill Residential and Retail Development 25% Structured Parking	
	Total	Total	Change from Existing	Total	Change from Existing	Total	Change from Existing
Land Use							
Office Space (SF)	1,224,663	1,500,000	275,337	1,224,663	0	1,224,663	0
Residential Area (SF)	0	0	0	575,000	575,000	400,000	400,000
Retail Space (SF)	0	0	0	0	0	70,000	70,000
Total Gross Floor Area (SF)	1,224,663	1,500,000	275,337	1,799,663	575,000	1,694,663	470,000
Residential Units	0	0	0	523	523	364	364
Required Parking Spaces*	4,082	5,000	918	4,765	683	4,855	773
Lot Coverage							
Building Coverage	10.4%	12.7%	2.3%	15.3%	4.9%	14.4%	4.0%
Building and All Parking	59%	65%	5.8%	65%	5.9%	65%	6.0%
Setbacks/Open Space (%)	41.1%	35.2%	-5.8%	35.1%	-5.9%	35.1%	-6.0%
Impacts							
Schoolchildren Generation	0	0	0	46	46	32	32
Traffic Generation (Trips Per Day)	1,825	2,235	410	2,149	324	2,638	813

Scenario Assumptions:				
Lot Area (SF)	2,943,901	2,943,901	2,943,901	2,943,901
Office Use %	100%	100%	68%	72%
Residential Use %	0%	0%	32%	24%
Retail Use %	0%	0%	0%	4%
Residential Parking Discount	-	0%	15%	15%
Retail Parking Discount	-	0%	15%	15%
Floors	4	4	4	4
Structured Parking %	*0%*	*25%*	*25%*	*25%*
Number of Parking Garage Floors	2	2	2	2

Assumptions for All Scenarios

Assumes 11% of Huntington Quadrangle site is available for infill redevelopment (329,365 SF). All other Level 1 sites assume total redevelopment.
1,100 SF average dwelling unit size
Residential Mix: 20% studios, 45% 1-BR, 35% 2-BR
Office Parking Requirement = 300 SF/Space (TOH Zoning Requirement for offices 250,000+ SF)
Residential Parking Requirement = 1.4 spaces/1000 SF (ITE Trip Generation, 9th Edition)
Retail Parking Requirement: 200 SF/Space (TOH Zoning Requirement for personal service store and food shop)
350 SF per parking spot
Sewage generation (GPD/1000 SF): Office - 60, Housing 600-1,200 SF - 205, Retail: 50 (Suffolk County Dept of Health Services Division of Envir. Quality)
Traffic Generation (Trips/1000 SF): Office - 1.49, Apartment - 0.56, Retail - 8.4 (ITE Trip Generation, 9th Edition)
Public School Children Generation: Multifamily - 0.09 public school children/unit (Rutgers University, Center for Urban Policy: NY Residential Demographic Multipliers)
Approx. 30% of site reserved for setbacks and open space
15% Shared parking discount for mixed-use

Appendix B: List of Sewer Contractees

Map ID	Contractee Name	Sewage Flow (GPD)	Approval Type
1	FMP Holding	2,130	Conceptual Certification
2	Nadine Plaza	336	Connected
3	RM Resources - Costco	7,940	Connected
4	Country Pointe	59,300	Connected
5	Melville Knolls	42,000	Connected
6	Ferrante Industrial Building	566	Connected
7	50 Republic Road	5,186	Connected
8	Tracy Plat	1,500	Connected
9	55 Marcus Drive	2,264	Formal Approval
10	65 Marcus Drive	3,000	Formal Approval
11	Avalon Court North a/k/a Avalon Court II	33,000	Connected
12	The Club at Melville	47,360	Connected
13	Newsday, Inc.	45,000	Conceptual Certification
14	The Sanctuary at Ruland Rd.	27,561	Connected
15	KeySpan Energy-Spagnoli Road Melville Center	25,000	Conceptual Certification
16	585 Broadhollow Rd.	1,264	Connected
17	Ruland Associates Plat	3,020	Connected
18	U.S. Postal Service Melville Bulk Mail	14,492	Connected
19	Sitar Restaurant - Huntington	3,000	Formal Approval
20	KFC/LJS restaurants & Take-out	1,800	Connected
21	Tutor Time	570	Connected
22	610 Broadhollow Road	20,738	Connected
23	135 Spagnoli Road	7,163	Conceptual Certification
24	Karp Associates	8,074	Formal Approval
25	Banfi Vinters Industrial/Commercial Sub.- Banfi Office Park	42,000	Connected
26	Royce Carlin Hotel	60,000	Connected
27	110 Sand Company	180,000	Connected
28	Melville Medical Arts Building	5,500	Connected
29	Autumn Harvest	13,500	Conceptual Certification
30	Comax Ind. Building	3,000	Connected
31	Duryea Residential Develop.	5,463	Connected
32	Building CQ2 - WE'RE Assoc.	12,500	Connected
33	60 Baylis Road / Altana	20,000	Connected
34	Melville Biologics/ Vitex / NY Blood	52,200	Connected
35	515 Restaurant Corp.	13,693	Connected
36	1835 Old Walt Whitman Road	192	Conceptual Certification
37	Cove at Melville	26,100	Connected
38	1860 Walt Whitman Rd	2,500	Connected
39	Glaser-Melville	2,290	Connected

40	Villas @ West Hills	21,000	Connected
41	Leaves of Grass a/k/a Walt Whitman Rd.	36,000	Connected
42	News Stand Deli (1730 Old Walt Whitman)	2,040	Connected
43	Paumanauk Hills - Millennium Hills	26,200	Connected
44	Canon Corporate Center	45,381	Connected
45	Reckson Executive Park f/k/a MECC II	36,000	Connected
46	270 So. Service Rd.	6,210	Connected
47	Rubies Office Building	12,000	Connected
48	Melville Hotel	24,190	Formal Approval
49	35 Melville Park Rd	4,309	Formal Approval
50	324 South Service Rd. / Superior Packaging	8,600	Connected
51	330 South Service Road Melville	5,120	Connected
52	65 Maxess Road	7,000	Connected
53	Estee Lauder, Inc. Manufacturing	67,840	Connected
54	Sid Tools	16,720	Connected
55	WE'RE Associates	14,000	Connected
56	Estee Lauder, Inc. R & D Facility	14,535	Connected
57	HUB Properties	20,000	Connected
58	Melville Corporate Center	8,810	Connected
59	Comtech, Inc.	2,500	Connected
60	Melville Gardens/ Huntington Terrace	30,150	Connected
61	Huntington Nursing Home	48,000	Connected
62	Villages @ Huntington The (All Sections incl. HU-1066)	152,500	Connected
63	Schmidt Farm	54,000	Conceptual Certification
64	115 Broadhollow Rd. Plat / BDG Steakhouse	13,686	Formal Approval
65	Swiss Air	4,200	Connected
66	Olsten Corp.	8,400	Connected
67	H2M Group	7,350	Connected
68	Omni 110	12,000	Connected
69	Radisson Hotel	72,000	Connected
70	Norstar Bank	12,000	Connected
71	Melville Square II	11,160	Conceptual Certification
72	Underwriters Lab	14,038	Connected
73	Whitman Corporate Park	12,500	Connected
74	Underwriters Lab Extension	682	Connected
75	Axinn Office Building	3,750	Connected
76	245 Old Country Rd.	7,730	Connected
77	201 Old Country Road	12,540	Connected
78	Walt Whitman Mall	101,134	SCSD No. 17
Total (all contractees)	1,757,477		
Total (within study area)	1,264,473		

Source: Suffolk County Department of Public Works

Outside Study Area

Within Study Area

Appendix C: Wastewater Infrastructure Funding Recommendation from the Suffolk County IBM Smarter Cities Challenge Report

Recommendation 8: Continue to develop a funding mechanism

Suffolk County's estimated cost of additional sewers and septic system upgrades is US $8 billion and requires an extensive, long-term approach to finance the entire plan. To get started, the County should construct a complete financial picture of spending along with a timeline and funding options.

Scope and expected outcomes

Scope

To achieve desired results, the County should take the following actions:

- Explore existing and applicable grants at the state and federal level
- Evaluate existing taxes/funding that can be redirected toward water quality issues
- Consider the following options for revenue generation:
  - County loans (including the option to place the repayment responsibility with the homeowners)
  - Adjustments to sales, tourist, property, toll road and vice taxes
  - Wastewater management fee, potentially determined by water consumption for waste services
  - Water consumption—based fee
  - Fees from citizens for their wastewater services managed by the County following the integration of privately operated STPs
  - Leverage efficiencies in the overall water management processes, including testing, invoicing and chemical purchase
- Align the priority and timing of septic system upgrades or sewer extension deployments with the availability of confirmed funding and the priorities defined in the Water Resource Plan
- Define a set of affordable incentives, based on priority, to help ensure earlier upgrades

Expected outcomes

Developing an approach to managing the funding mechanism should result in the following advantages:

- A clear understanding of funding availability within a five-year timeframe, enabling execution and implementation in the very near term
- Generating new revenue sources
- Establishing a regional funding model
- Effective reduction of nitrogen pollution

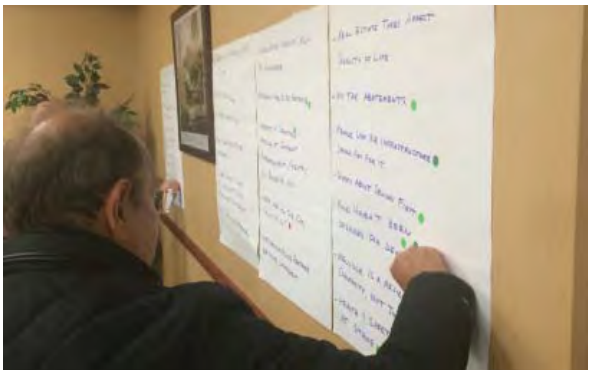
Costs of inaction

Without a funding mechanism and an approach to managing it, integrated water management efforts will fail and communities will lack the awareness they need to make investments in improving water quality.

Source: Suffolk County Smarter Cities Challenge Report

Appendix D: Public Workshop Summaries

Melville Employment Center Plan



Opening Public Workshop Summary Report

Workshop Date: June 2, 2015

Prepared on behalf of:

The Town of Huntington
Department of Planning and the Environment
100 Main Street
Huntington, NY 11743

Prepared by:

BFJ Planning
115 Fifth Avenue
New York, NY 10003
(212) 353-7474

BFJ Planning

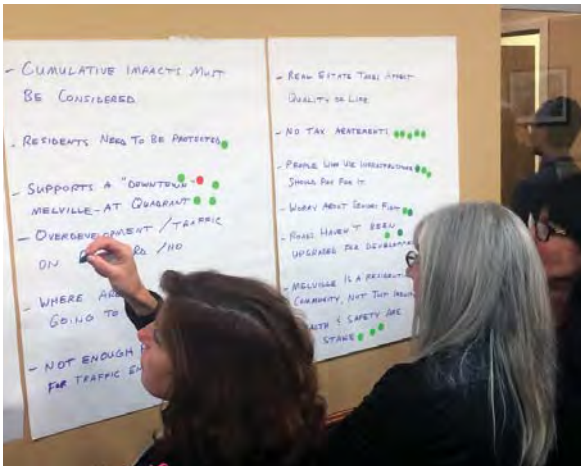
June 8, 2015

TABLE OF CONTENTS

I. Introduction and Public Workshop Summary

The Melville Employment Center (MEC) Plan is a study undertaken by the Town of Huntington to improve conditions in this key commercial hub in a way that will make it a more attractive place to live and work. The area is the Town's largest source of employment and tax revenue. Yet there are a number of issues which have affected the quality of life such as: traffic congestion, lack of pedestrian amenities, and limited retail. The MEC was identified in the Town's 2009 Comprehensive Plan update as an area where opportunities should be investigated to retain employment, improve infrastructure, and provide amenities to the existing neighborhood.

The first public workshop for the MEC Plan was held to introduce the project to the public, and to get initial feedback on issues and opportunities in the area. Approximately 100 residents, stakeholders and Town staff came to share their ideas and experiences to inform the Plan. The workshop was held on Tuesday, June 2nd at the TD Bank Corporate Offices.



David Pannetta, Chair of the MEC Plan Advisory Committee, opened the meeting with a brief description of the Plan's history and purpose. He then introduced BFJ Planning, consultants working on the Plan. The BFJ Planning team also includes Parsons Brinckerhoff and Urbanomics. Frank Fish from BFJ Planning began with a summary of the Plan's goals, objectives and timeline, which will last one year. In addition to this meeting, there will be three public workshops held in September through November which will each focus on a different topic area covered in the plan. Max Sokol, Susan Favate, and Noah Levine then summarized the team's initial understanding of issues and opportunities with regard to transportation (including vehicular, pedestrian and bicycle connectivity), community facilities (including water and sewer), land use, zoning, and urban design. Successful mixed-use redevelopment projects from Long Island and around the country were presented. A copy of the presentation can be found in the appendix of this report.

After the presentation, there was a town hall style session where residents were invited to provide ideas regarding issues and opportunities within the MEC which would ultimately help guide the plan moving forward. Ideas shared with the

group were recorded on large notepads. The conversation lasted over an hour.

At the end of the discussion, participants were asked to identify those issues that were the most meaningful to them with stickers. In this "dot exercise," each participant was given two green stickers to put on the issues or statements they support and two red stickers to put on issues or statements they do not support. A summary of the discussion is presented in Section II.

II. Summary of Public Comments

The first public workshop was successful in attracting an engaged group of residents and stakeholders who were eager to discuss a range of issues confronting this area. Within the wide array of issues discussed at the workshop, several key themes emerged as areas of focus for the MEC Plan.

Transportation

There was overall agreement that traffic is a major issue, if not the biggest issue in the MEC area. Walt Whitman Road and Bridge were mentioned multiple times as a serious traffic problem area. Walt Whitman is often utilized as a shortcut to and from Route 110, and the bridge over I-495 has become a significant bottleneck. The bottleneck was also addressed as a safety concern, as it delays the prompt delivery of emergency services when needed. Ruland Road, Broad Hollow Road, the I-495 Service Roads, Pinelawn Road, and several others were mentioned to have been overdeveloped and have serious congestion issues. Some residents raised concern that promoting additional development would exacerbate the congestion issues. There were questions about the implementation of the Bus Rapid Transit system, and how it can be integrated into any future development in Melville. The

need for more traffic law enforcement was also mentioned as an issue.

Infrastructure and Community Facilities

There was strong interest by all attendees to ensure that proper forethought be given to understand the current capacity for more development in the area. There was widespread agreement that the roads and sewer infrastructure are in need of important upgrades to ensure future development does not exacerbate existing issues. Some residents stressed the need for infrastructure to be built before planned improvements. An equitable distribution of financing of public expenditures was expressed as a need by participants. There was consensus of the need to include more open space that serves not only the needs of businesses, but also the surrounding community. Sweet Hollow Park was mentioned as an amenity the community needs.

Retaining Local Workforce

Town officials, local property owners, and residents alike spoke about the importance of retaining the businesses currently operating in the MEC. Several participants were concerned about the threat of businesses moving closer to New York City or elsewhere. The current land use reflects a typical office park and may not be suitable for what attracts employees in today's market. Participants stressed the need to evaluate where there are opportunities to develop common public and commercial spaces that encourage more pedestrian and biking opportunities. Integrating the MEC with the surrounding residential community was an important issues for many participants.

Identity of the Melville Employment Center

As one participant phrased it - "There's no 'there' there." She, and others felt that the area lacked a sense of cohesion or "place." Many participants felt that any future changes need to reflect the town feel that surrounds the MEC, and that it should better integrate with the surrounding community. The property owner of the Huntington Quadrangle shared his interest in working with the Town on implementing some of the ideas shared at the meeting on his site.

III. Issues and Opportunities Discussion and Dot Exercise Summary

The following section is a record of the issues and opportunities identified during the workshop. The points raised were grouped by topic area and were then ordered by the number of dots received, regardless of whether they were green (positive) or red (negative). Although the dot exercise is not a scientific measure of consensus within the community, it was helpful in getting a general idea of which issues are most important, where there is agreement (or non-agreement) and which areas need to be investigated further. A lack of a dot does not mean an issue is not important or that it will not be addressed in the Plan, but simply that it was not an issue of the greatest significance for those that attended the charrette.

Infrastructure Issues

Infrastructure and Traffic must be addressed before new development

Walt Whitman Bridge expansion is a top priority

Police and Fire services are unable to respond with current transportation infrastructure

Better transit is needed (e.g. - opening of Republic Station)

What market is the BRT serving?

What are the impacts on school district with future development?

Need another lane at Canon entrance to help alleviate traffic issues.

Cumulative impacts must be considered

Pedestrian Bridge Across Route 110 at Farmingdale State College

Residential Concerns

Keep us a town, not a city

Loss of aesthetics due to corporate land uses

Melville is a residential community, not just industrial base

No added density

The needs of local residents and seniors should be incorporated into MEC plan

Vacant buildings could be re-developed

Why is Melville trying to change what worked?

Need regional cohesion

Planning for an inter-generational community is a priority

Open Space

Need planned parks to be implemented

West Hills Park - People don't use

Traffic Congestion

Not enough police presence for traffic enforcement

Where are all the cars going to go?

Privatization of Republic Airport will add traffic

Over development /traffic on Ruland Road and Route 110

Walt Whitman Road is short-cut. Also cut-through traffic on service road

Taxes/ Financing

No tax abatements for developers

Real Estate Taxes Affect Quality of Life

People who use infrastructure should pay for it

Companies look to bottom line, not to amenities

Companies contribute to tax base, Melville economy

Future Development

Need to address affordable housing (workforce)

Build walkable neighborhoods to promote pedestrian activity and reduce traffic

Future Development

Support a "Downtown Melville" at Huntington Quadrangle

Need to provide an attractive place for 20s-30s (live/work/play)

Market trend favors mixed-use for millennials, and empty nesters

Create environment to attract innovation industries

Look at Farmingdale as example for future development

More government regulation is not needed

What are the possible development strategies north of North State Parkway

Melville needs to form a marketable identity

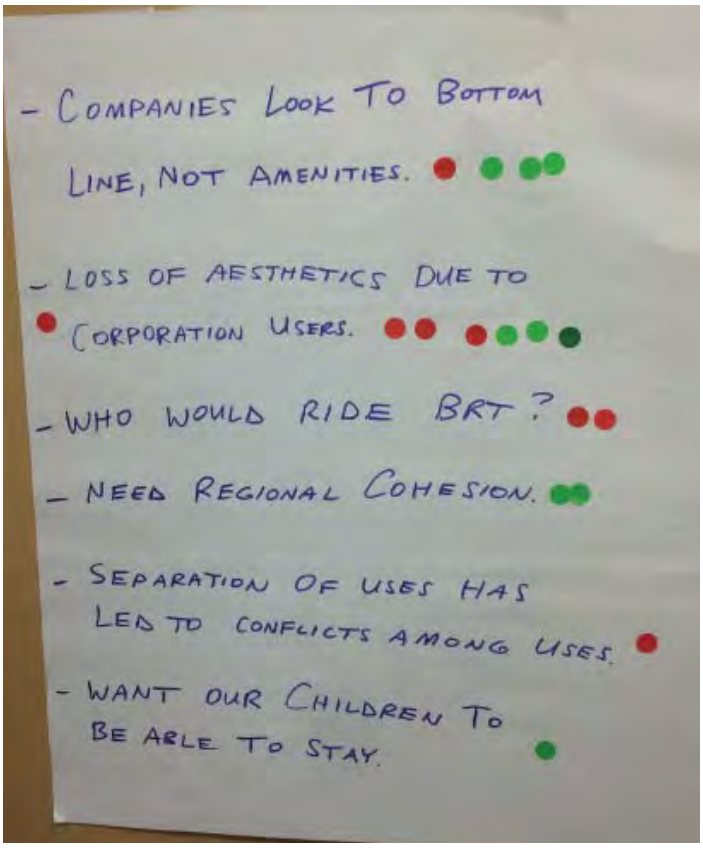
Important to embrace changes in workforce needs and quality of life standards

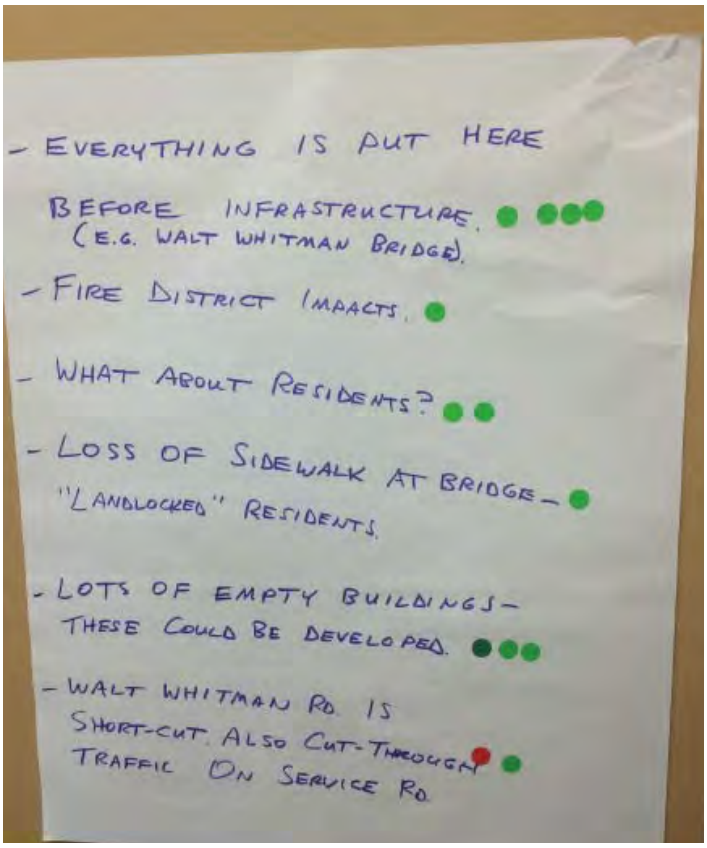
Young people have disposable income to shop locally

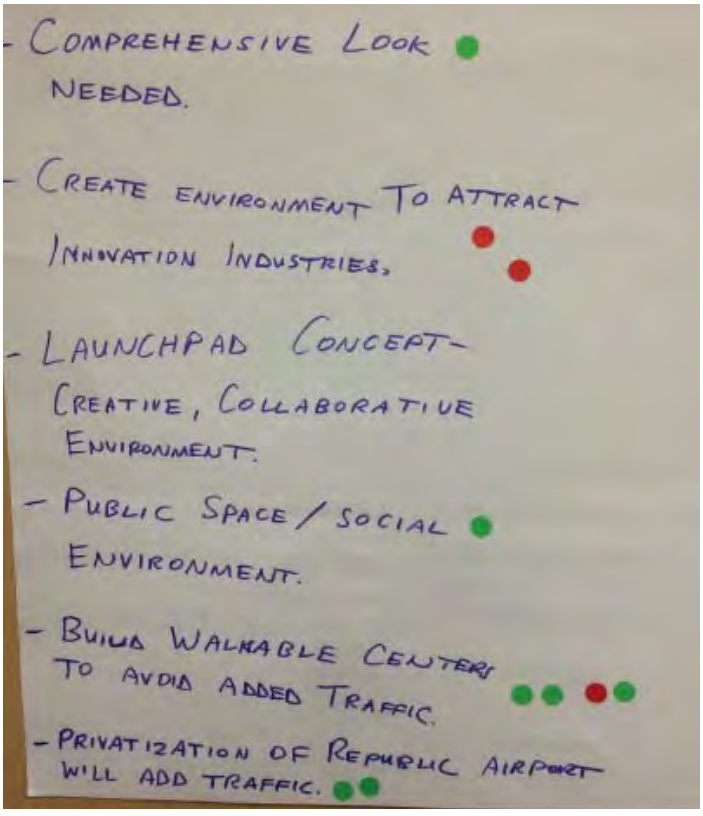
Coordinate with Farmingdale State College in future development plans

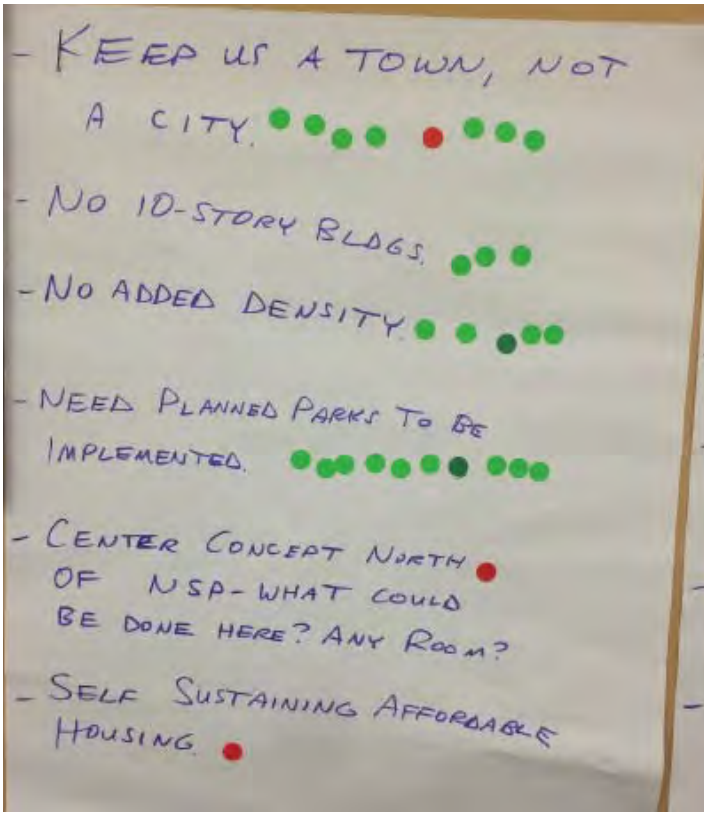
Launchpad concept - creative and collaborative work environments should be fostered

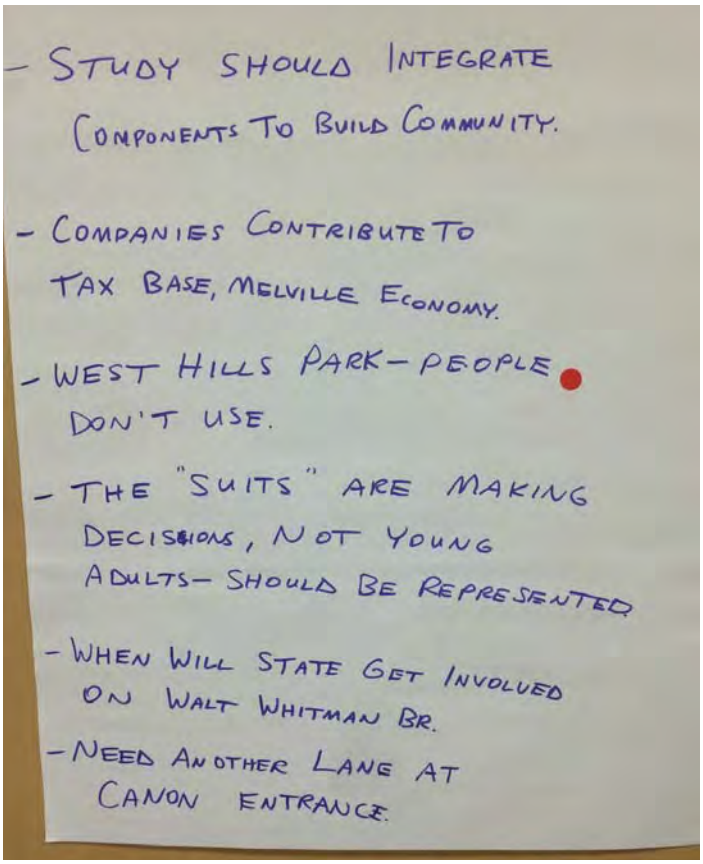
II. Issues and Opportunities Comments and Dot Exercise

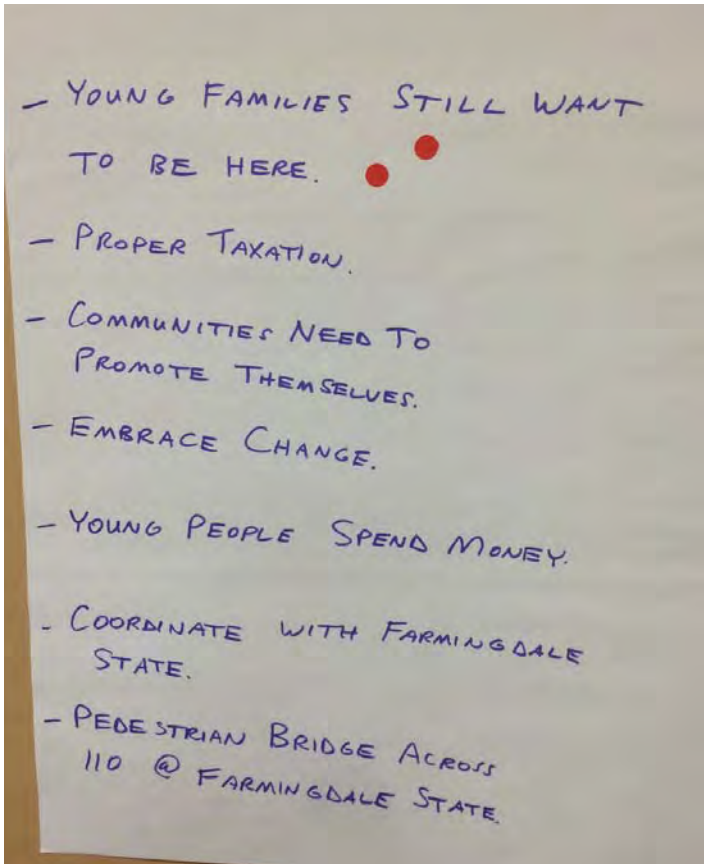


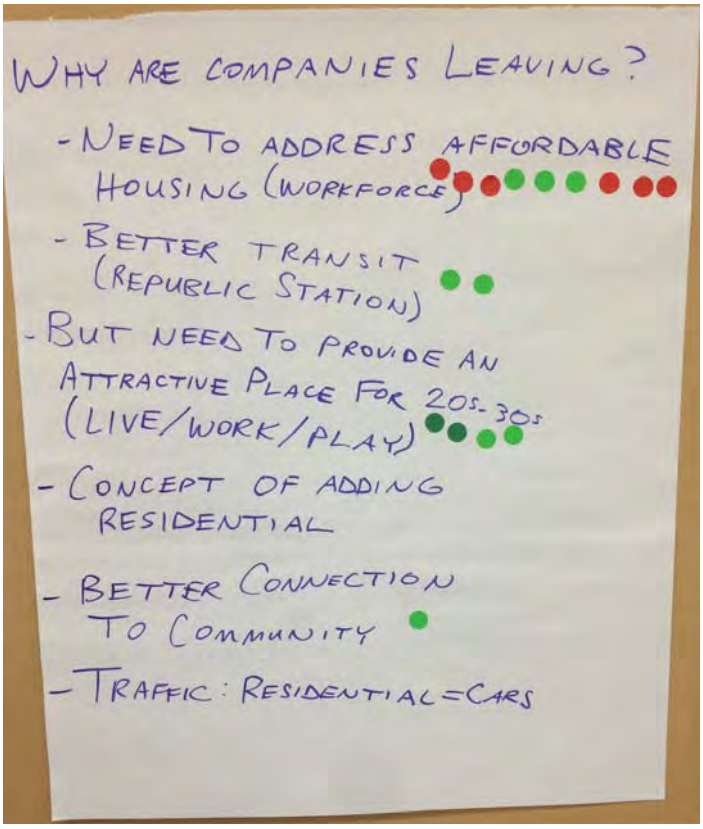


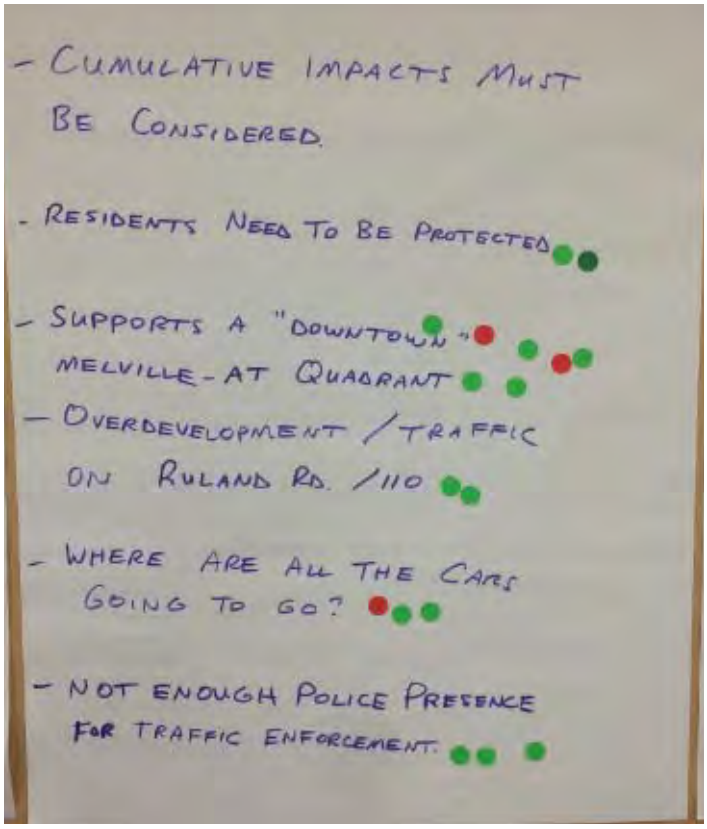


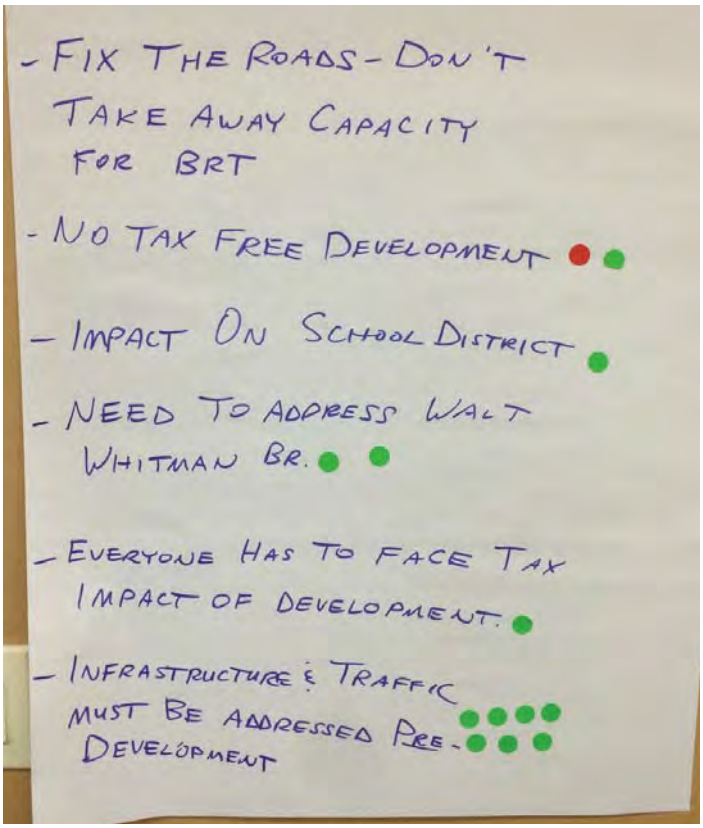


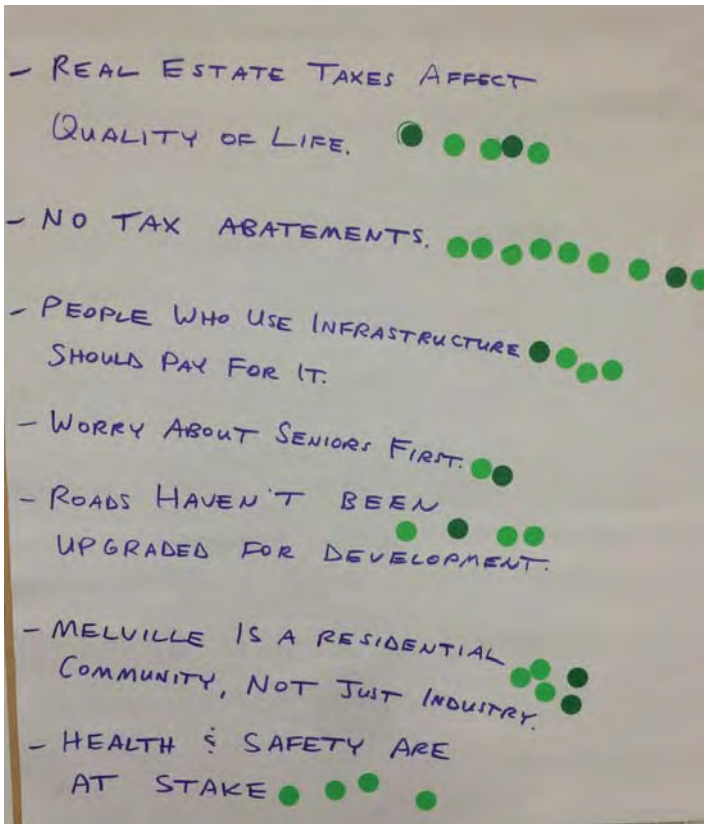

- STUDY SHOULD INTEGRATE COMPONENTS TO BUILD COMMUNITY.
- COMPANIES CONTRIBUTE TO TAX BASE, MELVILLE ECONOMY.
- WEST HILLS PARK - PEOPLE DON'T USE.
- THE "SUITS" ARE MAKING DECISIONS, NOT YOUNG ADULTS - SHOULD BE REPRESENTED.
- WHEN WILL STATE GET INVOLVED ON WALT WHITMAN BR.
- NEED ANOTHER LANE AT CANON ENTRANCE.

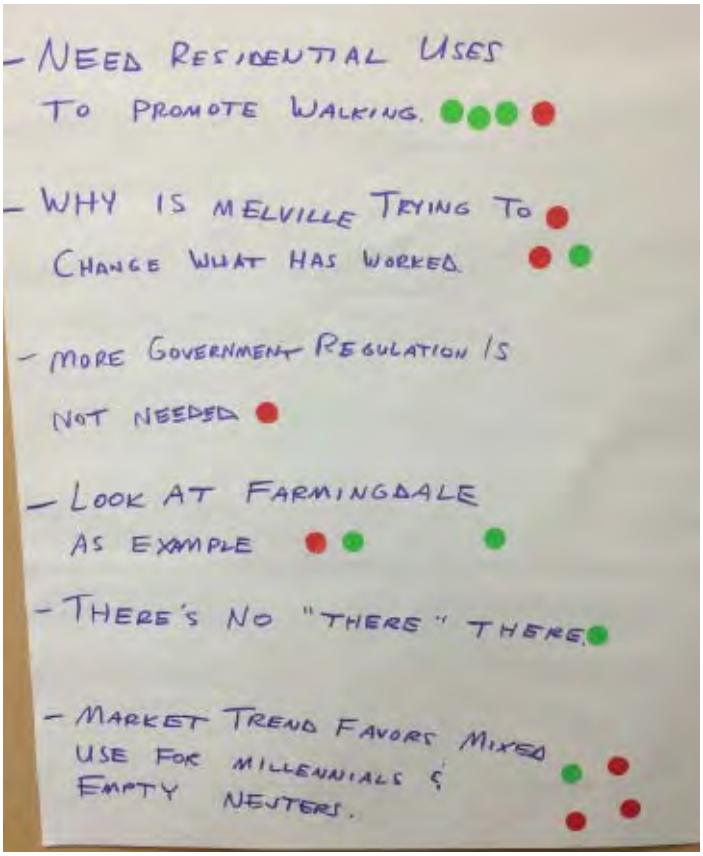

- YOUNG FAMILIES STILL WANT TO BE HERE.
- PROPER TAXATION.
- COMMUNITIES NEED TO PROMOTE THEMSELVES.
- EMBRACE CHANGE.
- YOUNG PEOPLE SPEND MONEY.
- COORDINATE WITH FARMINGDALE STATE.
- PEDESTRIAN BRIDGE ACROSS 110 @ FARMINGDALE STATE.


WHY ARE COMPANIES LEAVING?
- NEED TO ADDRESS AFFORDABLE HOUSING (WORKFORCE)
- BETTER TRANSIT (REPUBLIC STATION)
- BUT NEED TO PROVIDE AN ATTRACTIVE PLACE FOR 20s-30s (LIVE/WORK/PLAY)
- CONCEPT OF ADDING RESIDENTIAL
- BETTER CONNECTION TO COMMUNITY
- TRAFFIC: RESIDENTIAL=CARS


- CUMULATIVE IMPACTS MUST BE CONSIDERED.
- RESIDENTS NEED TO BE PROTECTED
- SUPPORTS A "DOWNTOWN" MELVILLE - AT QUADRANT
- OVERDEVELOPMENT / TRAFFIC ON RULAND RD. / 110
- WHERE ARE ALL THE CARS GOING TO GO?
- NOT ENOUGH POLICE PRESENCE FOR TRAFFIC ENFORCEMENT.


- FIX THE ROADS - DON'T TAKE AWAY CAPACITY FOR BRT
- NO TAX FREE DEVELOPMENT
- IMPACT ON SCHOOL DISTRICT
- NEED TO ADDRESS WALT WHITMAN BR.
- EVERYONE HAS TO FACE TAX IMPACT OF DEVELOPMENT.
- INFRASTRUCTURE & TRAFFIC MUST BE ADDRESSED PRE-DEVELOPMENT


- REAL ESTATE TAXES AFFECT QUALITY OF LIFE.
- NO TAX ABATEMENTS.
- PEOPLE WHO USE INFRASTRUCTURE SHOULD PAY FOR IT.
- WORRY ABOUT SENIORS FIRST.
- ROADS HAVEN'T BEEN UPGRADED FOR DEVELOPMENT.
- MELVILLE IS A RESIDENTIAL COMMUNITY, NOT JUST INDUSTRY.
- HEALTH & SAFETY ARE AT STAKE


- NEED RESIDENTIAL USES TO PROMOTE WALKING.
- WHY IS MELVILLE TRYING TO CHANGE WHAT HAS WORKED.
- MORE GOVERNMENT REGULATION IS NOT NEEDED
- LOOK AT FARMINGDALE AS EXAMPLE
- THERE'S NO "THERE" THERE.
- MARKET TREND FAVORS MIXED USE FOR MILLENNIALS & EMPTY NESTERS.


Melville
Employment
Center Plan
Opening Public Workshop
June 2, 2015

Agenda

Melville Employment Center Plan

1. Presentation

- Introductions
- Overview and Process
- Existing Conditions
- Examples of Mixed-Use Redevelopment Elsewhere
- Initial Issues and Opportunities for MEC
- Next Steps

2. Refreshment Break

3. Issues and Opportunities Group Discussion

4. Dot Point Exercise

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Introductions

Melville Employment Center Plan

MEC Plan Advisory Committee

Margaret Conklin
James Coshignano
Michael DeLuise
Mark Hamer
Mark Hissey
Seymour Liebman
Joanne Minieri
Kelly Morris
Kevin Murphy
Glenn Murrell
Amy Newman
Mitchell Pally
David Pennetta
Alissa Sue Taff
Tiffany Taylor
Paul Tonna

Huntington
BFJ Planning
PARSONS BRINCKERHOFF
Urbanomics

Introductions

Melville Employment Center Plan

Town Staff

Tony Aloisio, Planning & Environment Director

Sasha Abraham, Planning Aide

Craig Turner, Planner

Aidan Mallamo, GIS Supervisor

Consultant Team

BFJ Planning

Parsons Brinckerhoff

Urbanomics

Huntington

BFJ Planning

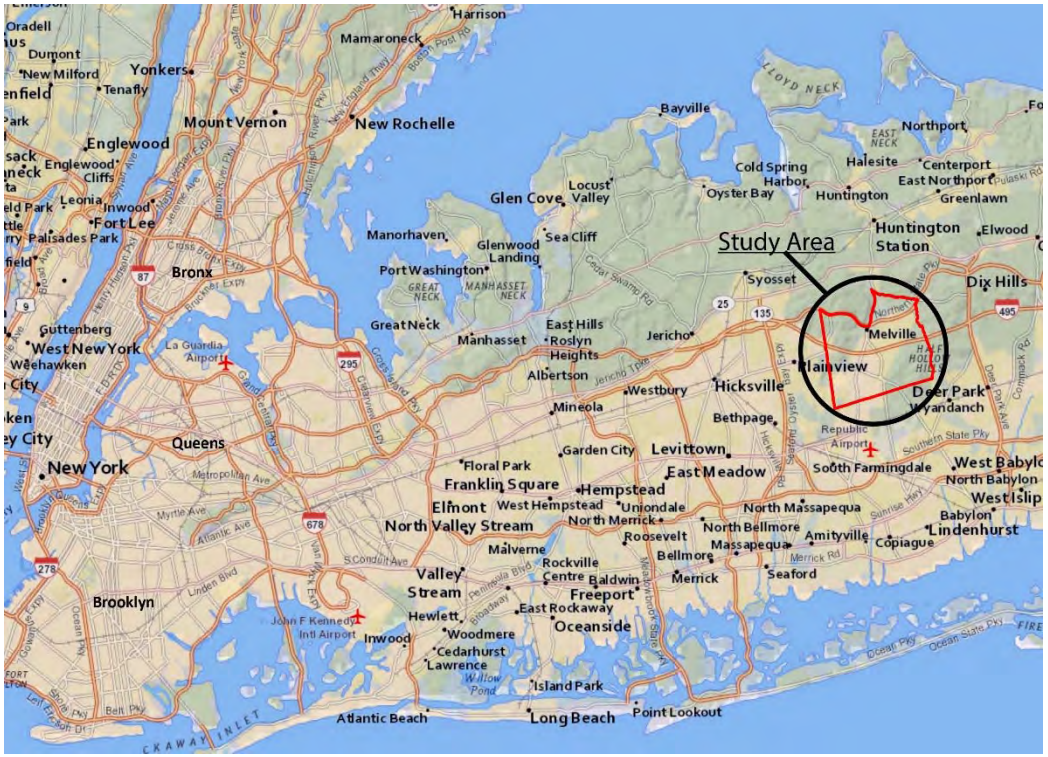
PARSONS BRINCKERHOFF

Urbanomics

Overview and Process

What is the Melville Employment Center?

- Key commercial concentration on Long Island
- Headquarters of major corporations, e.g. Nikon, Newsday, Canon USA
- Town's largest source of employment and tax revenue
- Contains some of the largest remaining undeveloped tracts in Huntington



Overview and Process

Melville Employment Center Plan

Why is Huntington doing the MEC Plan?

- Traditional suburban office development has led to traffic congestion, lack of pedestrian amenities, limited retail activity, affecting quality-of-life.
- Large building footprints and parking lots create negative visual impacts, stormwater problems.
- Town's 2009 Comprehensive Plan Update suggested mixed-use "town centers" in strategic locations in MEC.

Huntington | BFJ Planning | PARSONS BRINCKERHOFF | Urbanomics

Overview and Process

Melville Employment Center Plan

Goals and Objectives of the MEC Plan

- Enhance MEC's competitiveness in providing an attractive work environment.
- Expand mix of uses to increase activity and provide amenities to existing neighborhoods.
- Improve bicycle and pedestrian network.
- Create strong areas of focus to establish a sense of place.

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Overview and Process: Timeline

Melville Employment Center Plan

Task	Description	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	Project Startup and Data Collection												
2	Land Use												
3	Circulation												
4	Community Facilities and Services												
5	Urban Design												
6	Ongoing Management and Funding												
7	Final MEC Plan												
Public Workshops													
MEC Advisory Committee Meetings													

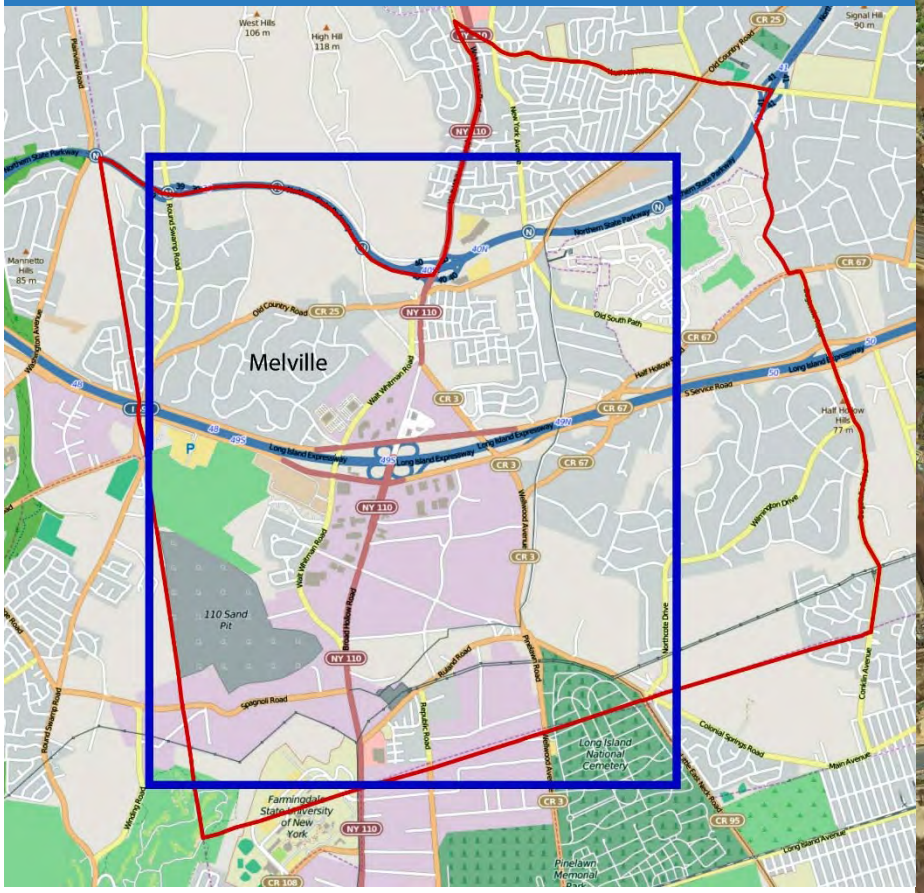
MEC Plan Elements

Melville Employment Center Plan

- **Land Use and Zoning**
- **Circulation**
- **Community Facilities and Services**
- **Urban Design**
- **Implementation: Ongoing Management and Funding**

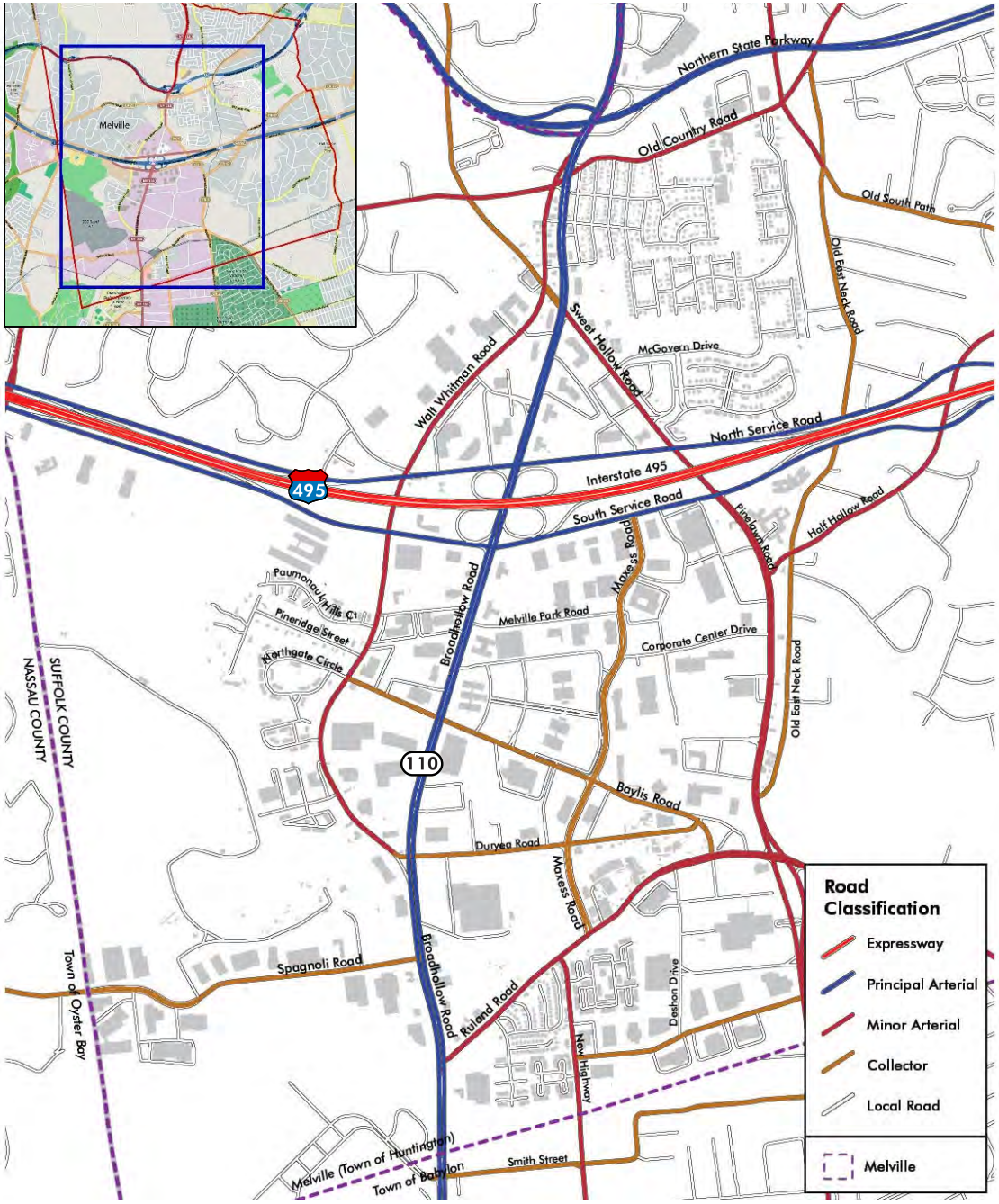
Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Existing Conditions:
MEC Study Area



Existing Conditions: Transportation & Circulation

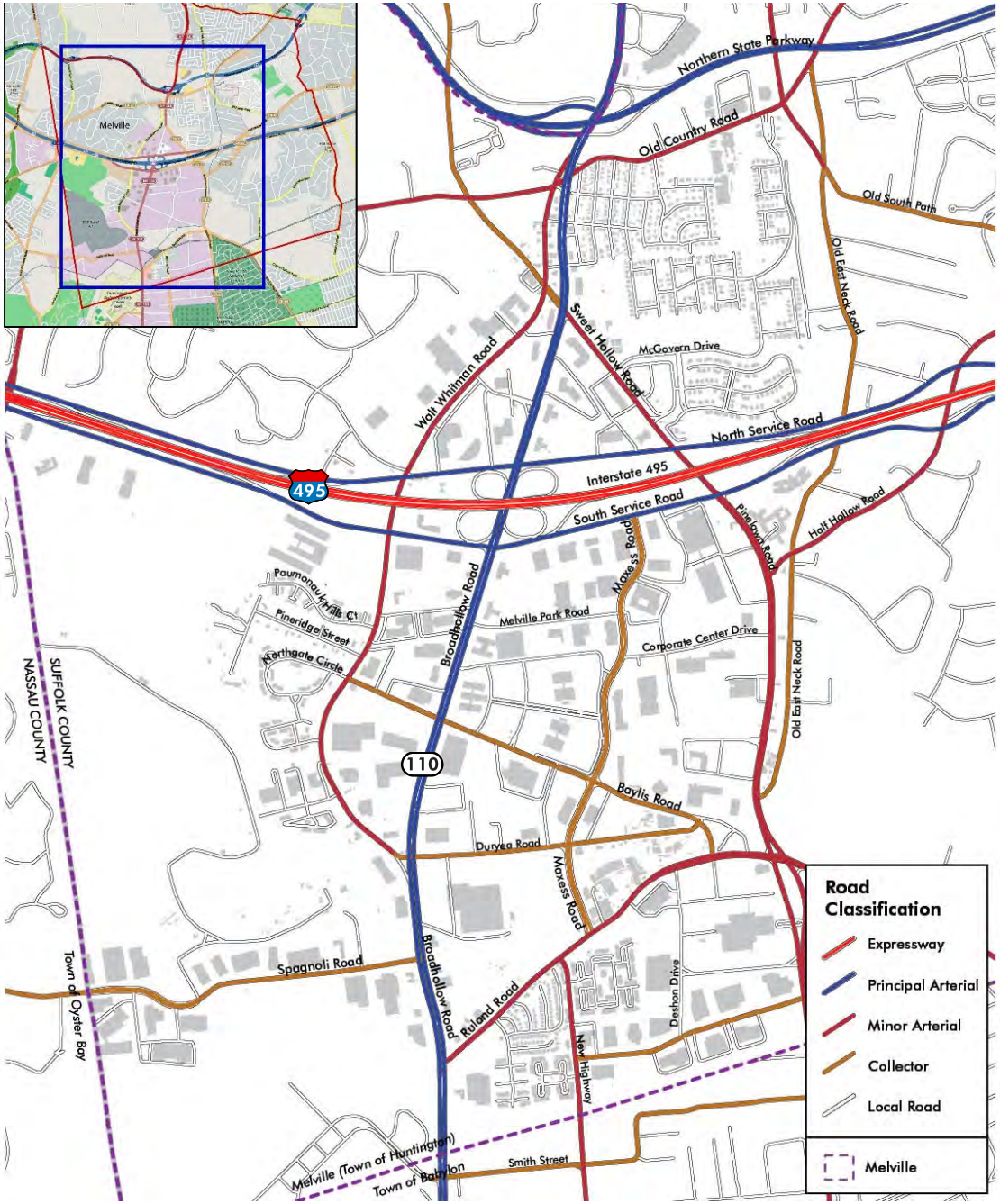
- North-south access on Route 110: Long Island's "High Tech Main Street."
- Long Island Expressway, Northern State Parkway offer regional east-west access.
- Public transportation: Suffolk County Transit and NICE Bus, connections to HART and LIRR.
- Primarily auto-oriented.



Existing Conditions: Transportation & Circulation

Key Issues

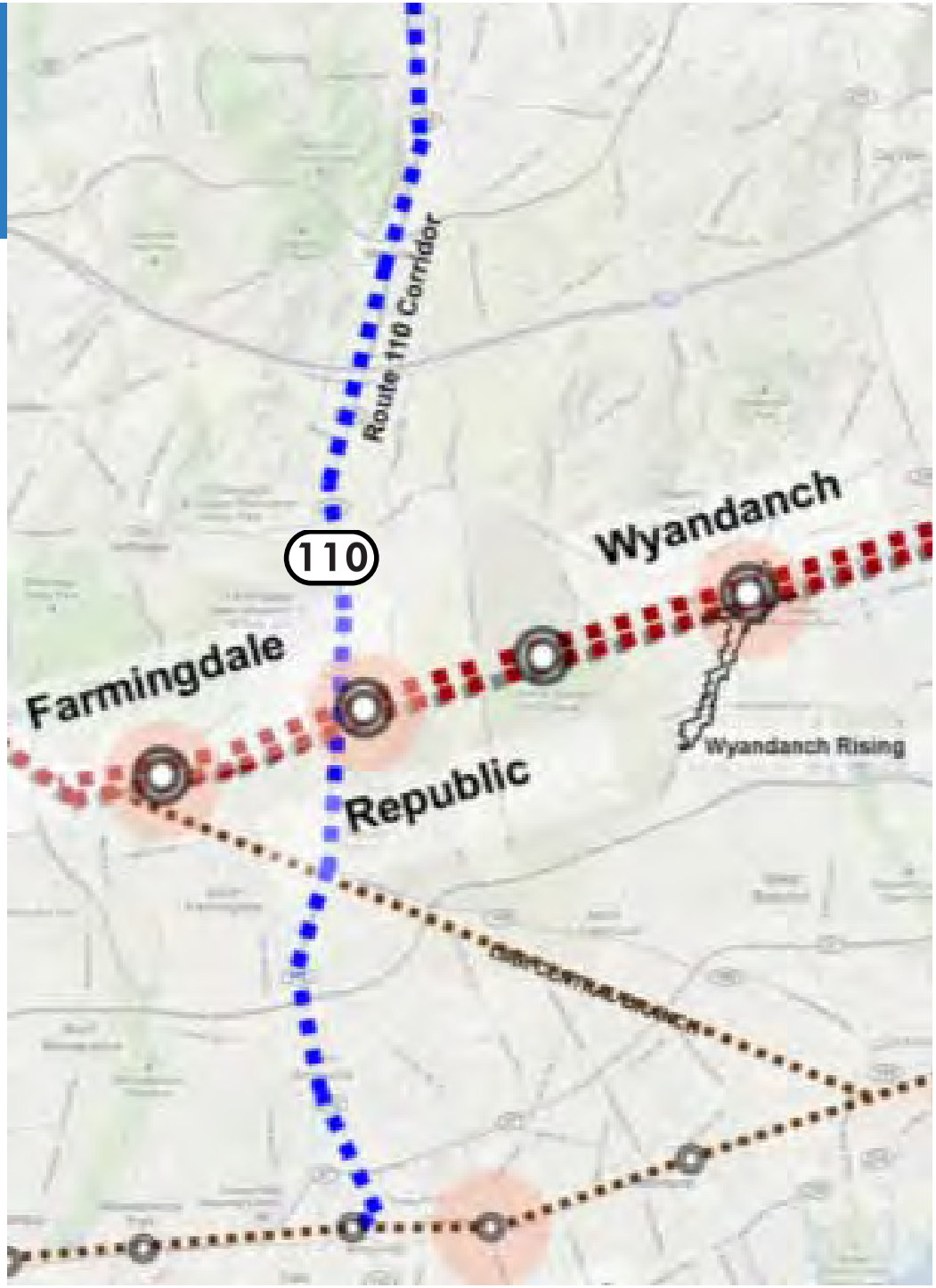
- Constrained travel choices
- Inadequate multi-modal connectivity
- Existing and projected traffic congestion
- Bus travel times not competitive
- Auto-centric land use
- Limited walking/biking options



Existing Conditions: Transportation & Circulation

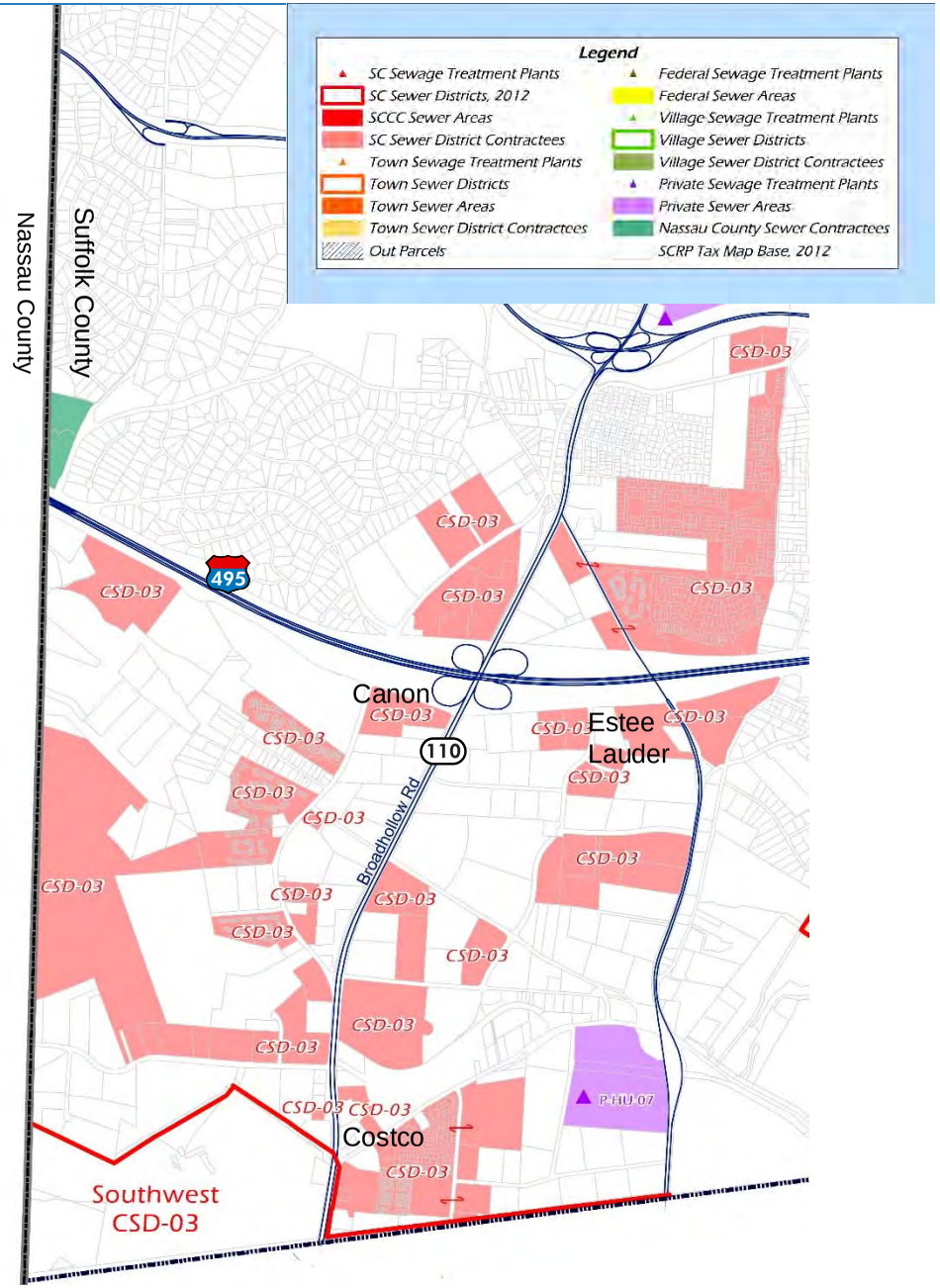
Key Opportunities

- Ongoing Route 110 roadway improvement project.
- Large employers as a source of existing/future transit ridership.
- Relatively high existing bus ridership on Route 110.
- Multiple travel markets.
- Proposed transit improvements:
  - Route 110 Bus Rapid Transit
  - Reopening of LIRR Republic Station



Existing Conditions:
Community Facilities

- MEC not in a sewer district; new sewer lines/connections are considered on case-by-case basis.
- Sewer district expanding Bergen Point treatment plant, but MEC not included in feasibility report.
- Melville Industrial Sewer District Feasibility Study now over 20 years old.
- Comprehensive stormwater management approach needed for MEC area.



Source: Suffolk County Department of Economic Development and Planning, 2012

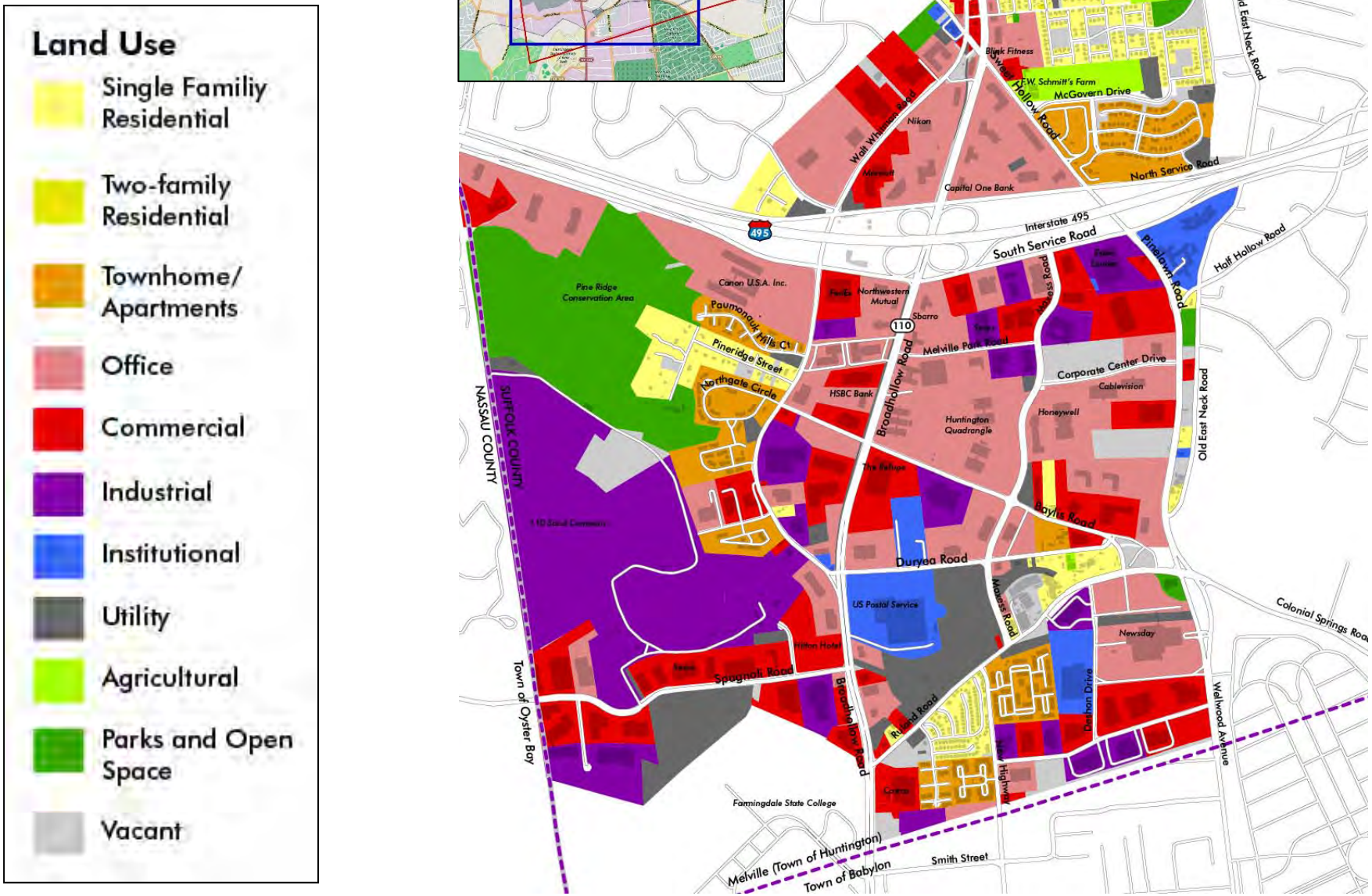
Existing Conditions:
Community Facilities

First Steps

- Obtain plans for existing sewers in study area.
- Coordinate with land use plan to determine future sanitary flows.
- Meet with Suffolk County DPW on possible inclusion of MEC into an existing sewer district.
- Develop preliminary concepts for "green infrastructure" to manage stormwater flows.

Source: BFJ Planning

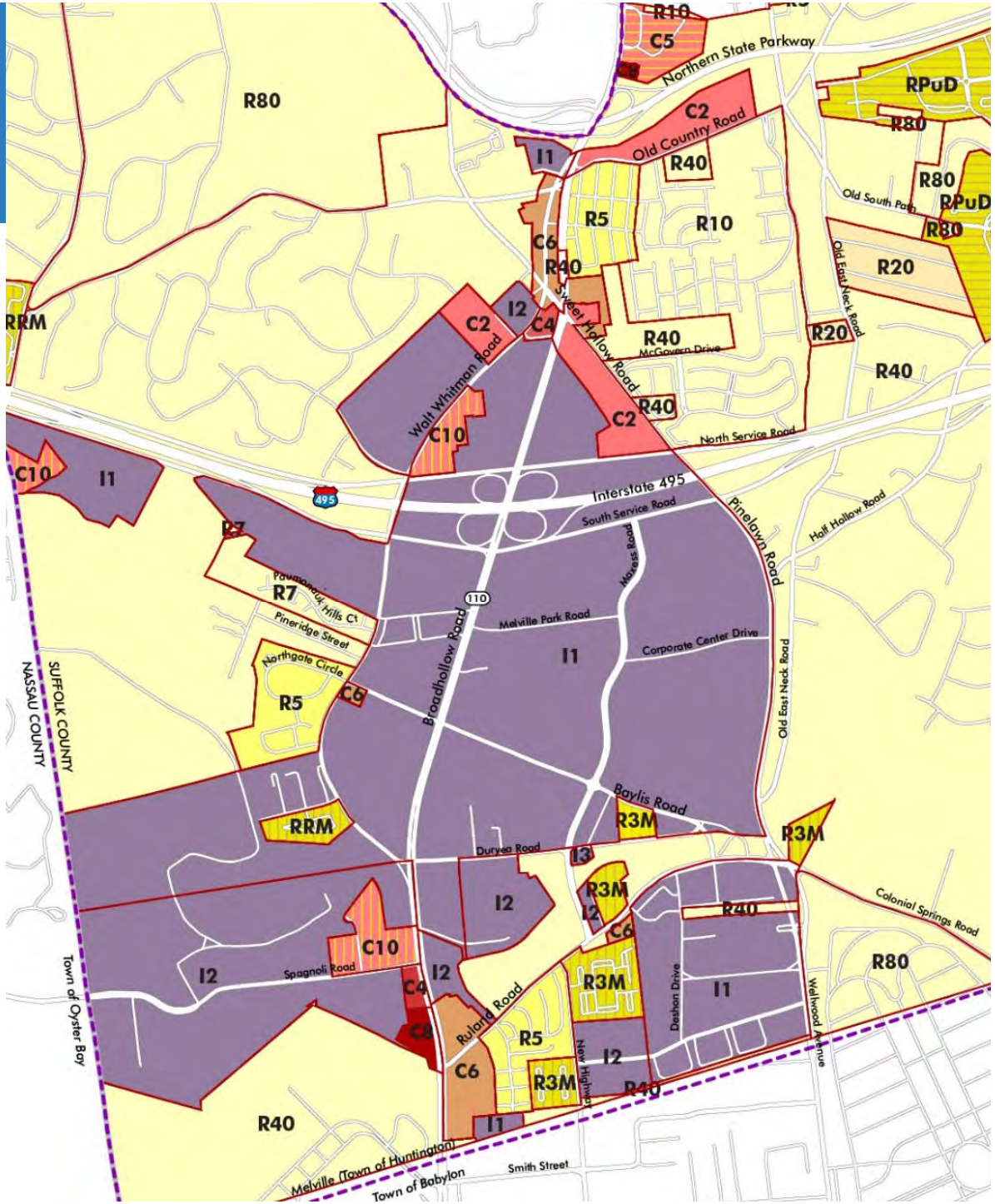
Existing Conditions:
Land Use



Existing Conditions:
Zoning

Zoning

- Single Family Residence: R-80, R-40, R-20, R-15, R-10, R-7
- Two Family Residence: R-5
- Special Districts Garden Apt: R3M Retirement Com: RMM
- Planned Unit Development: RPuD
- Office: C-2
- Neighborhood Business: C-4
- Planned Shopping Center: C-5
- General Business: C-6, C-8
- Planned Motel District: C-10
- Light Industry: I-1, I-2, I3



Existing Conditions:
Zoning

I-1 District

Permitted Uses

Light industrial uses
e.g. office, farming, research, cold storage & warehousing.

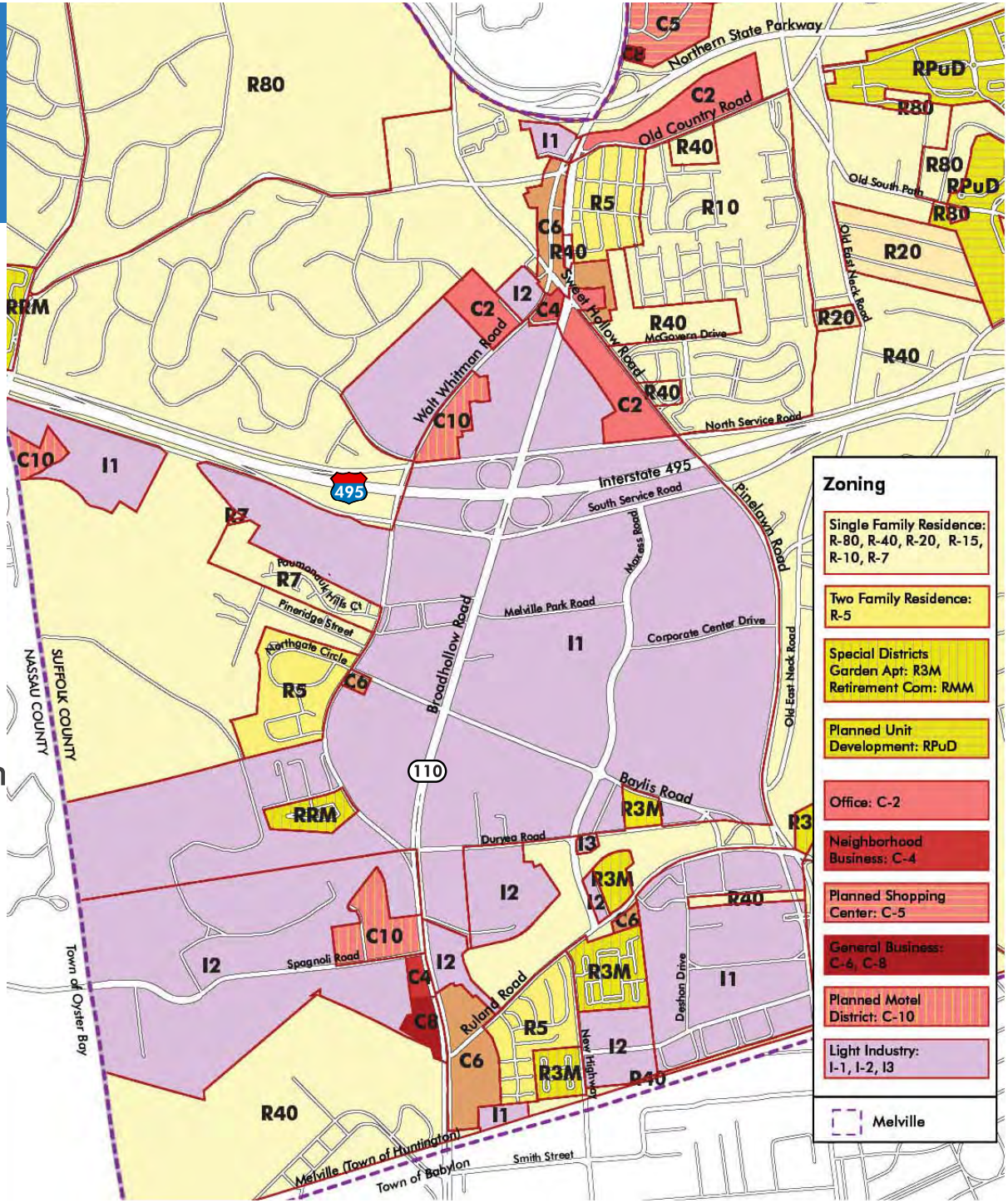
Conditional Uses

Restaurants, concert halls, commercial athletic recreation

Max height:

58 feet, 4 stories*

* 6 stories/90 feet for 10+ acre lots with direct access to LIE/ service roads.



Existing Conditions:
Urban Design

- Traditional suburban office park design; site layouts tend to be geared to drivers.
- Well-landscaped green spaces along edges of commercial sites.
- Some relatively new buildings with attractive and distinctive design.

Source: BFJ Planning

Existing Conditions:
Urban Design

Key Issues

- Separation of sites by large surface parking lots.
- Lack of pedestrian/bike network limits ground-level activity.
- Some obsolete/poorly designed buildings.
- No consistent "look" to signage, lighting, landscaping, etc.
- No sense of arrival, "gateway."
- Relationship of commercial uses to residential neighborhoods.

Source: BFJ Planning

Existing Conditions:
Urban Design

Key Opportunities

- Underutilization of some parking lots creates potential for infill.
- Existing sidewalk network.
- Potential to improve internal circulation.
- Existing open spaces can function in a larger green network.
- Creation of design standards for new development.

Source: BFJ Planning

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Ronkonkoma Hub Plan (Long Island)

Source: Town of Brookhaven

Huntington

BFJ Planning

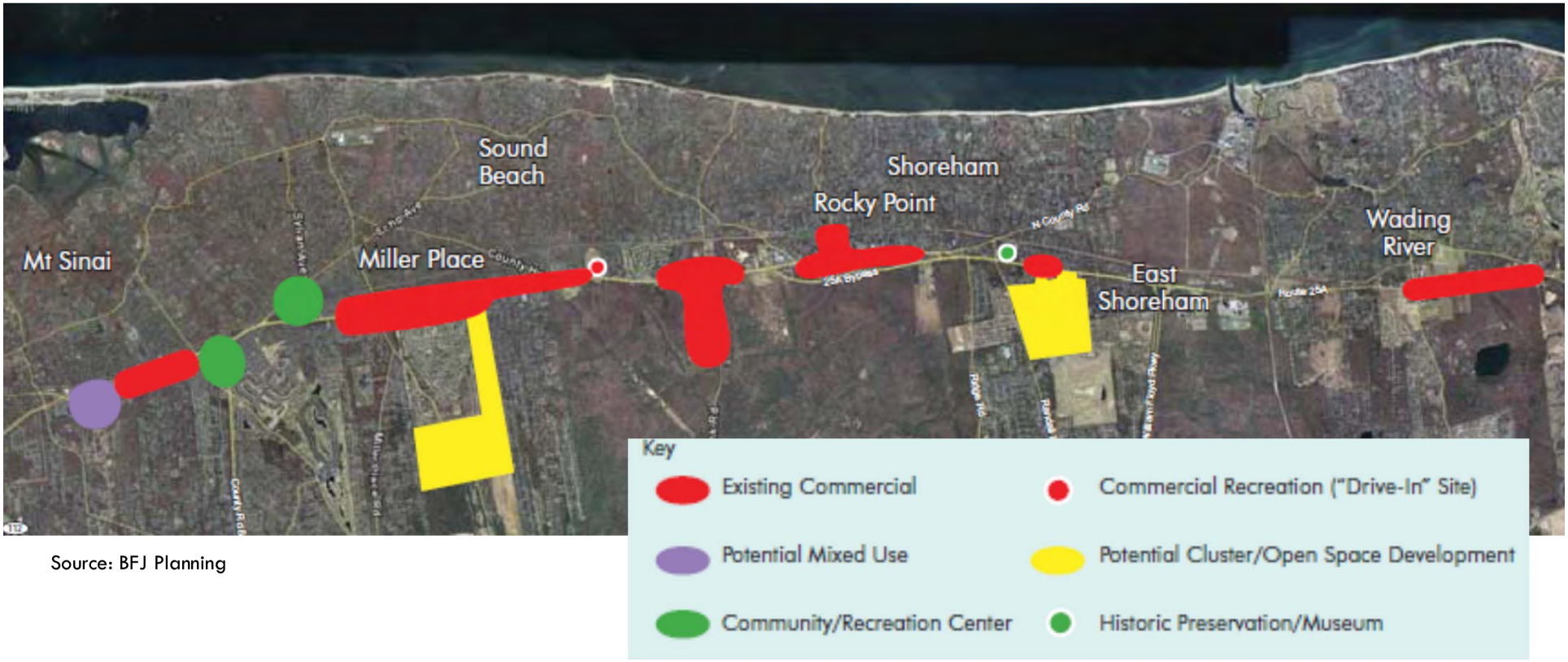
PARSONS BRINCKERHOFF

Urbanomics

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Brookhaven: Route 25A (Long Island)



Source: BFJ Planning

Huntington

BFJ Planning

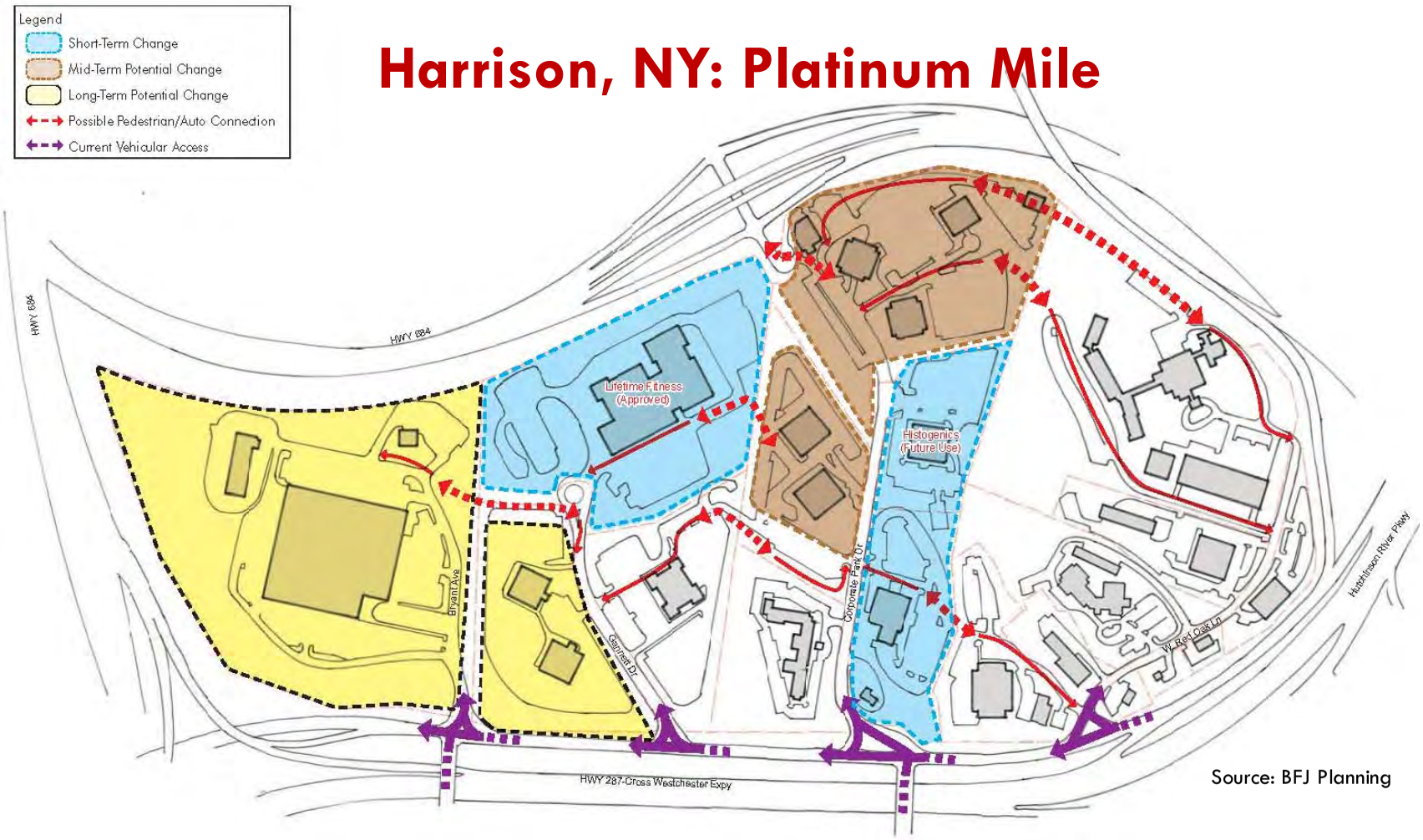
PARSONS BRINCKERHOFF

Urbanomics

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Harrison, NY: Platinum Mile



Source: BFJ Planning

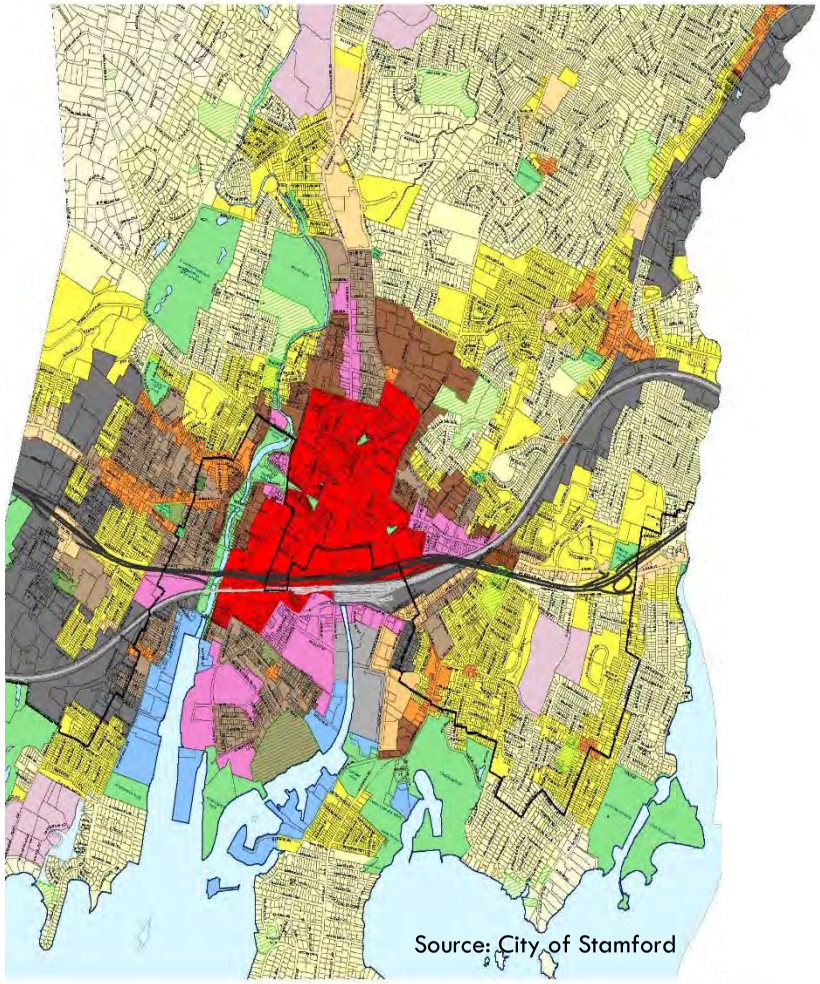
Huntington | BFJ Planning | Parsons Brinckerhoff | Urbanomics

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Stamford, CT

- 1. Residential - Very Low Density Single - Family
- 2. Residential - Low Density Single-Family
- 3. Residential - Low Density Multifamily
- 4. Residential - Medium Density Multifamily
- 5. Residential - High Density Family
- 6. Commercial - Neighborhood Business
- 7. Commercial-Arterial
- 8. Mixed Use - Campus
- 9. Urban Mixed-Use
- 10. Shorefront Mixed-Use
- 11. Downtown
- 12. Industrial-Water-Dependant
- 13. Industrial-General
- 14. Open Space-Public Parks
- 15. Open Space/Conservation
- Coastal Boundary



Source: City of Stamford

Huntington

BFJ Planning

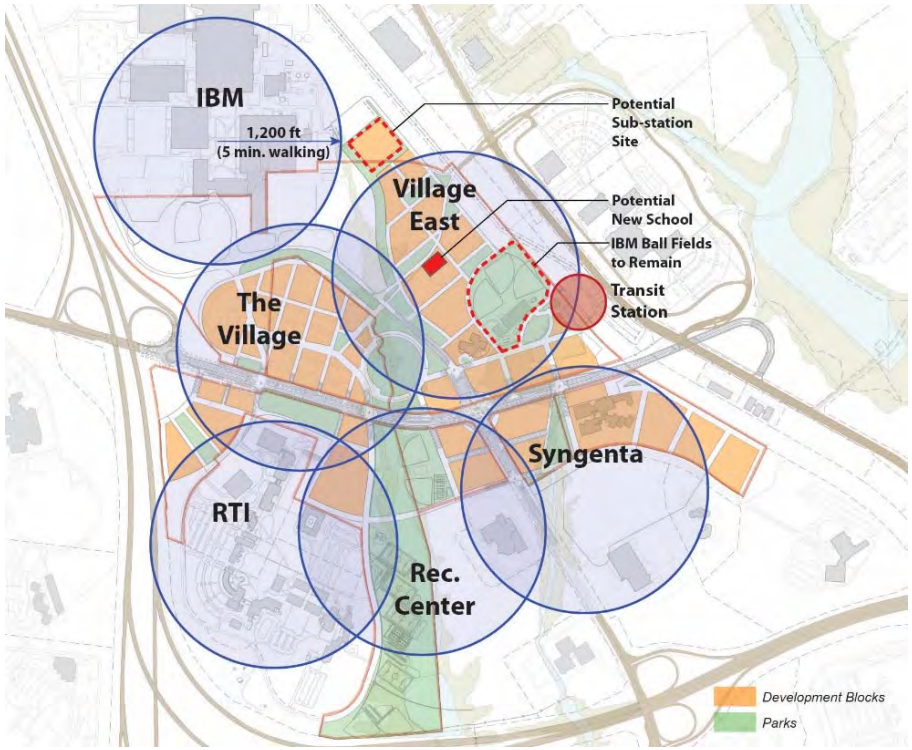
PARSONS BRINCKERHOFF

Urbanomics

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Research Triangle Park, Raleigh/Durham, NC



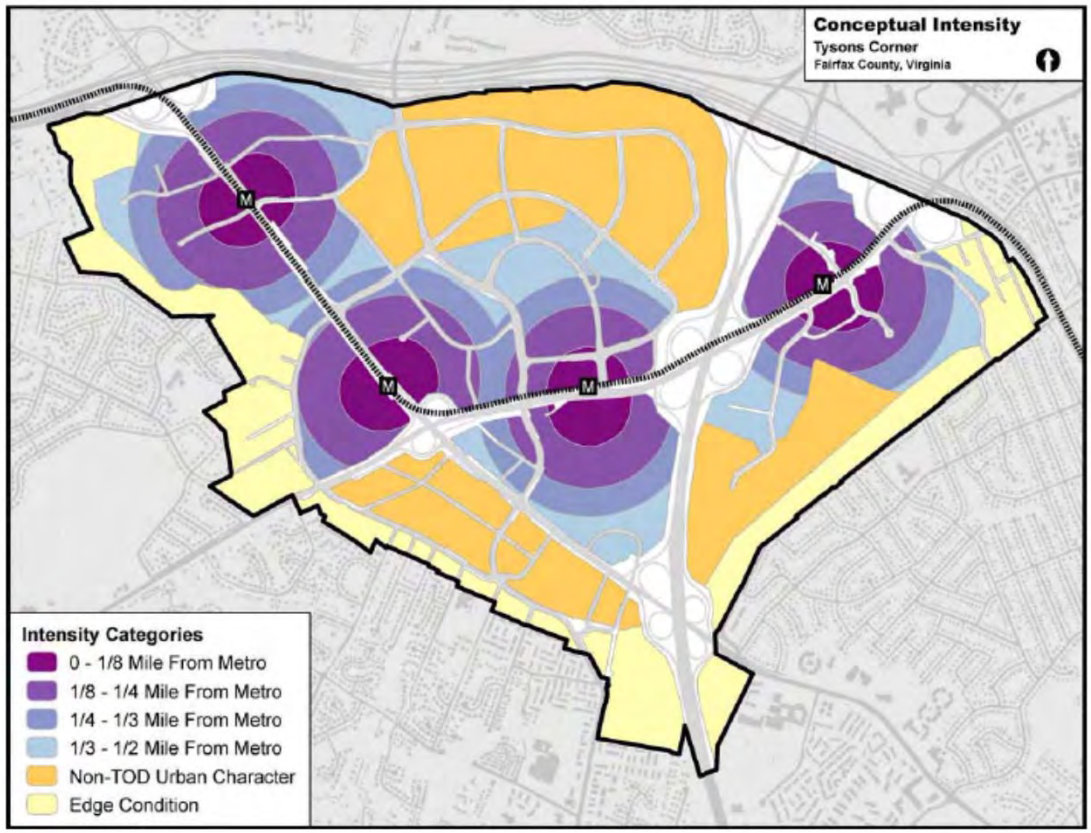
Source: Perkins Eastman Architects

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Examples of Mixed-Use Redevelopment

Melville Employment Center Plan

Tysons Corner, VA



Source: Fairfax County

Huntington | BFJ Planning | Parsons Brinckerhoff | Urbanomics

MEC Issues and Opportunities

Development of Town Centers vs. Corridor Pattern

MEC Issues and Opportunities:

Bus Rapid Transit

- New premium transit service to advance *Connect Long Island Plan*
- 11 potential BRT stations from Amityville LIRR station to Walt Whitman Shops
  - Four potential BRT stations in Melville
- Limited stop service as an overlay to Suffolk County Transit local S1 service

MEC Issues and Opportunities:

Bus Rapid Transit

- How were BRT station locations identified?
  - Serve existing and future activity centers
  - Maximize transfer options to other transit (LIRR, Suffolk County Transit, HART, NICE)

Implementation of MEC Plan Recommendations

Melville Employment Center Plan

- Zoning
  - Uses
  - Height and Density
  - Parking
  - Design Guidelines
- Infrastructure Improvements
  - Transportation (roads)
  - Utilities (water and sewer)
- Capital Budget
  - e. g. Walt Whitman Bridge

North Carolina Research Campus/Community, Kannapolis

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

What Happens Next?

Melville Employment Center Plan

- **Refreshment Break**
- **Issues and Opportunities Group Discussion**
- **Dot Point Exercise**

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Dot Point Exercise

Melville Employment Center Plan

Place 1 dot on issues/ opportunities you feel strongly about

● = Ideas you support or agree with

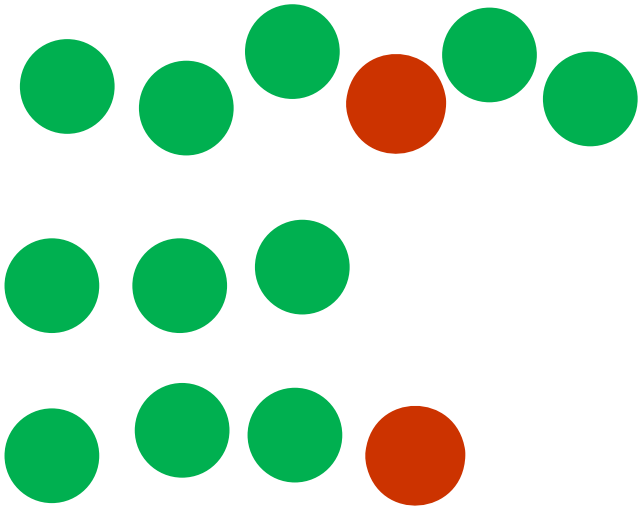
● = Ideas you do not support or agree with

Examples of Issues:

Improve bike network

Add residential uses

More stores/restaurants



Huntington | BFJ Planning | PARSONS BRINCKERHOFF | Urbanomics

MELVILLE EMPLOYMENT CENTER PLAN
Melville, NY

Public Workshop #2 - Land Use and Zoning
September 29, 2015

Prepared on behalf of the:

Town of Huntington
Department of Planning and the Environment
100 Main Street
Huntington, NY 11743

Prepared by:

BFJ Planning
115 Fifth Avenue
New York, NY 10003
(212) 353-7474

October 7, 2015

TABLE OF CONTENTS

I. Introduction and Public Workshop

The second public workshop for the Melville Employment Center (MEC) Plan took place on September 29, 2015, at 7PM at the Melville Fire House, located at 531 Sweet Hollow Road. There were approximately 60 participants, some of whom attended the prior public workshop on June 2. Three elected officials and several Town officials were on hand to support the planning process.

Tony Aloisio, the Town of Huntington's Planning & Environment Director, began the meeting with a brief overview of the plan's goals. He then introduced Frank Fish, Principal Planner of BFJ Planning. Mr. Fish explained the MEC Plan process and schedule, including upcoming public meetings, deliverables, and the timetable for adoption of the Plan. He also provided a recap of feedback received from the community during the first public meeting as well as from subsequent meetings with stakeholders.
Noah Levine and John Douglas from BFJ Planning then presented the MEC area's existing conditions, and issues and trends related to land use and zoning. Max Sokol, Senior Planner at Parsons Brinckerhoff, outlined the existing wastewater treatment infrastructure and stormwater management issues. Susan Favate, Principal at BFJ, spoke to the land use opportunities in the area and comparable developments that reflect the type and scale of development being considered for the MEC area. Scenarios for mixed-use infill and redevelopment in the MEC Study Area were discussed, along with the anticipated impacts to traffic and to the public schools for each scenario.

II. Roundtable Discussions

After a short coffee break, participants were invited to sit at one of five roundtables, to discuss issues and opportunities for the MEC area. Each table focused on a particular topic area. There were two tables for land use and zoning, one for sewer and stormwater management; and another for cultural uses, open space, and community character. Moderators from the consultant team were available to guide the discussion when needed. A note taker and a speaker were identified by the group to summarize the feedback from residents.

Residents were generally enthusiastic about providing local insight to planning issues in the area. After 40 minutes of discussion, each group was asked to report back on their findings. While there were a mix of interests and concerns, there were many issues where most residents agreed. There was a consensus that residents value their community and want to protect the assets that drew them to the area. Future development will need to reflect the characteristics that represent the best in Melville, and improve the access to amenities and open space in the area.

Transportation

Recent enhancements along Route 110 have improved southbound traffic flow, but traffic remains a major concern for almost everyone present at the meeting. Some participants questioned the introduction of mixed-use to help alleviate traffic issues. While some residents felt that recent upgrades were not effective enough, others felt that recent roadway improvements along Route 110 have significantly improved circulation issues.

Major traffic issues were attributed to commuter traffic and school bus routes. The traffic intersections of most concern were the Walt Whitman Bridge and the eastbound traffic on Old Country Road at the intersection of Route 110. Residents expressed the difficulty of biking and walking across the study area. The Old Vanderbilt Highway was identified as a potential opportunity for an off-road path that could connect open spaces and shopping areas to the surrounding residential and office uses in the MEC area.

II. Roundtable Discussions

Land Use and Zoning

While most felt that introducing residential uses should be considered in the MEC, there was not a consensus with regard to the scale of new development, and most of the discussion centered around the that topic. Some nearby residents felt that residential development within the MEC should be restricted to two stories, as four-story residential development would set a new precedent for development elsewhere in the Town. Others felt that residential should be limited to four stories, which would help support an increase in retail options in the MEC study area. There was discussion of a four story limit of height in the MEC regardless the use on site. Almost all participants felt that the surrounding suburban character of the Melville area should be maintained. Questions were raised about what "light industrial" uses are, and whether residential is appropriate next to these land uses.

There was consensus that providing publicly accessible retail and shopping opportunities should be encouraged. These amenities would help to retain the younger population by creating "live, work, play" environments. Mixed-use development would be suitable for "early career" workers who need a transitional living space before finding a home in which to settle their family. Adding more residential that is affordable and neighborhood-scale shopping amenities will improve the tax base and the quality of life in Melville. Affordable housing was discussed; however, there was no consensus whether provisions should be included as part of the Plan.

Participants were interested in new business growth to increase the tax base and provide new opportunities for local residents. Existing restaurants are doing very well in the area, and the Refuge, an accessory restaurant within an office building should be looked at as a successful model for other future restaurants in the area. Participants were adamant about excluding any new "big box" stores from setting up in the MEC. People were interested in more entertainment opportunities besides restaurants in the area.

There was some confusion about whether zoning changes would need to be implemented to add residential land uses in the MEC Study Area. It was confirmed that zoning changes would need to be made; however, the consultant team was not anticipating allowing building densities larger than what is currently allowed for light industrial uses. Logistical questions about density, and the process from changing existing office space to residential uses, were raised. These details would need to be addressed if the Town considers any potential zoning change.

In terms of taxes, participants believed that Industrial Development Agency (IDA) tax breaks should not be utilized in the future. It is important to recognize; however, that the Town does not have jurisdiction over the Suffolk County IDA. Another concern raised was that any new development should not reduce the tax rate compared to other homeowners in the area.

Some residents were concerned with regard to the school impacts discussed in presentation. The consultant team was asked to include information for 2015 enrollment, especially considering the recent school closings in the area.

Sewer/Stormwater/Utilities

Residents were interested to know that several large developments, including the Huntington Quadrangle were not currently sewered. Noteworthy unsewered areas also include portions of Route 110, Pinelawn Road, and Walt Whitman Road. Residential development is mostly sewered in the area, and this was seen as a major asset for residents compared to other areas in Long Island. The use of underground utilities was also identified a major asset of the area because it is reliable and it aesthetically more pleasing than the above ground utility poles and overhead power lines.

Cultural Uses, Open Space and Community Character

There was consensus among participants about the need for biking, running and walking trails, recreation areas for children, and developing networks of connected open spaces. The West Hills Park was identified as an important open

space that should be protected. The Pine Ridge Conservation area was also identified as a valuable publicly owned open space, but there are issues related to access. There are limited entrances to the conservation area – one in the rear of an office building parking lot. There might be an opportunity to provide pedestrian or biking connection to Pine Ridge Conservation area from the Canon site and other adjacent buildings. Possible future development in the Huntington Quadrangle could provide open space that encourages passive recreation.

A strong school system in Melville is also an important asset. Better connection between Farmingdale State College and the community was raised as an opportunity for the area. Developing more cultural events was seen as an important need for the MEC study; whether it is music, visual arts, or other community events. Residents suggested that local companies should be approached to help sponsor events. Event spaces geared towards teenagers was seen as lacking in the community.

III. Conclusion

Residents provided essential feedback to help the planning team develop initial land use and zoning recommendations for the MEC study area. Residents voiced their deep concerns about traffic issues, scale of future development, and provision of open space. They also expressed their desire to maintain the quality of life in the area and to maintain the quality of life in the surrounding suburban community. The MEC study area brings much-needed employment to the area. It has a lot of activity during the day, but it also provides for a more tranquil neighborhood for residents in the evenings and on weekends. Future development in the area should build on these assets, and improve the quality of life for residents who live, and employees who work, in the MEC study area. Introduction of pockets of retail and residential development can help to provide a more community-oriented feel in the study area, and reduce dependence on using a car for every trip for residents and employees near the study area. Developing better connected open spaces that are accessible on foot and bike will also help to alleviate traffic issues while providing better opportunities for passive and active recreation.


Melville
Employment
Center Plan
Public Workshop: Land Use & Community Facilities
September 29, 2015

Agenda

Melville Employment Center Plan

1. Presentation

- Introductions
- Overview and Process
- Existing Conditions and Issues
- Opportunities

2. Refreshment Break

3. Roundtable Discussion

4. Small Groups Report Back

Huntington

BFJ Planning

PARSONS BRINCKERHOFF

Urbanomics

Introductions

Melville Employment Center Plan

MEC Plan Advisory Committee

David Pennetta, Chairman
Steven Belkin
James Coschignano
Mark Hamer
Craig Levy
Seymour Liebman
Joanne Minieri
Glenn Murrell
Amy Newman
Mitchell Pally
Alissa Taff
Paul Tonna

Huntington
BFJ Planning
PARSONS BRINCKERHOFF
Urbanomics

Introductions

Town Staff

Tony Aloisio, Planning & Environment Director

Sasha Abraham, Planning Aide

Craig Turner, Principal Planner

Aidan Mallamo, GIS Supervisor

Consultant Team

BFJ Planning

Parsons Brinckerhoff

Urbanomics

Overview and Process

Melville Employment Center Plan

Why is Huntington doing the MEC Plan?

- Traditional suburban office development has led to traffic congestion, lack of pedestrian amenities, limited retail activity, affecting quality-of-life.
- Large building footprints and parking lots create negative visual impacts, stormwater problems.
- Town's 2009 Comprehensive Plan Update suggested mixed-use "town centers" in strategic locations in MEC.

Huntington | BFJ Planning | PARSONS BRINCKERHOFF | Urbanomics

Overview and Process

Melville Employment Center Plan

Goals and Objectives of the MEC Plan

- Enhance MEC's competitiveness.
- Preserve quality of life for residents and employees.
- Expand mix of uses.
- Establish a sense of place.
- Improve bicycle and pedestrian network.

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Overview and Process: Timeline

Melville Employment Center Plan

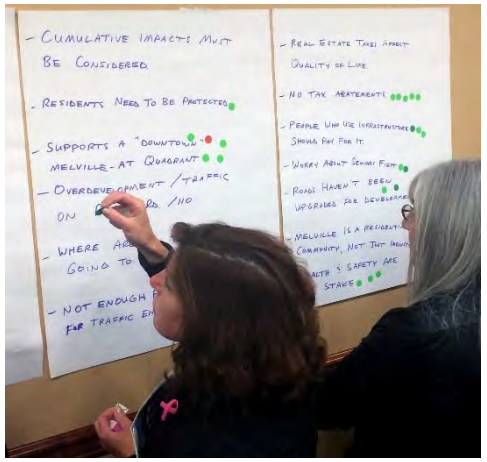
Task	Description	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	Project Startup and Data Collection												
2	Land Use												
3	Transportation												
4	Community Facilities and Services												
5	Urban Design												
6	Ongoing Management and Funding												
7	Final MEC Plan												
Public Workshops													
MEC Advisory Committee Meetings													

Overview and Process: Public Outreach

Melville Employment Center Plan

What have we heard so far?

- Major concerns by nearby residents about potential development impacts on traffic, infrastructure and community facilities.
- Support for retaining existing businesses and increasing the competitiveness of the MEC.
- Concept of enhancing the MEC's sense of place.



Overview and Process: Public Outreach

Melville Employment Center Plan

FALL PUBLIC WORKSHOPS

Huntington

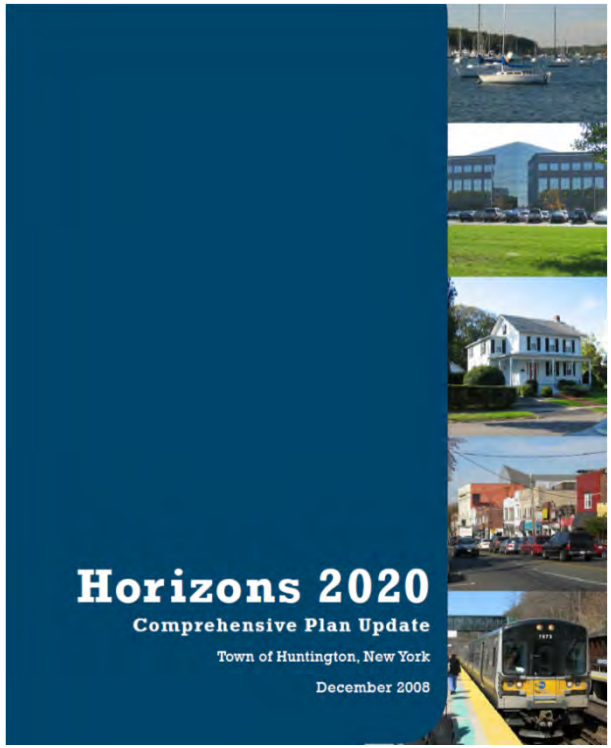
BFJ Planning

PARSONS BRINCKERHOFF

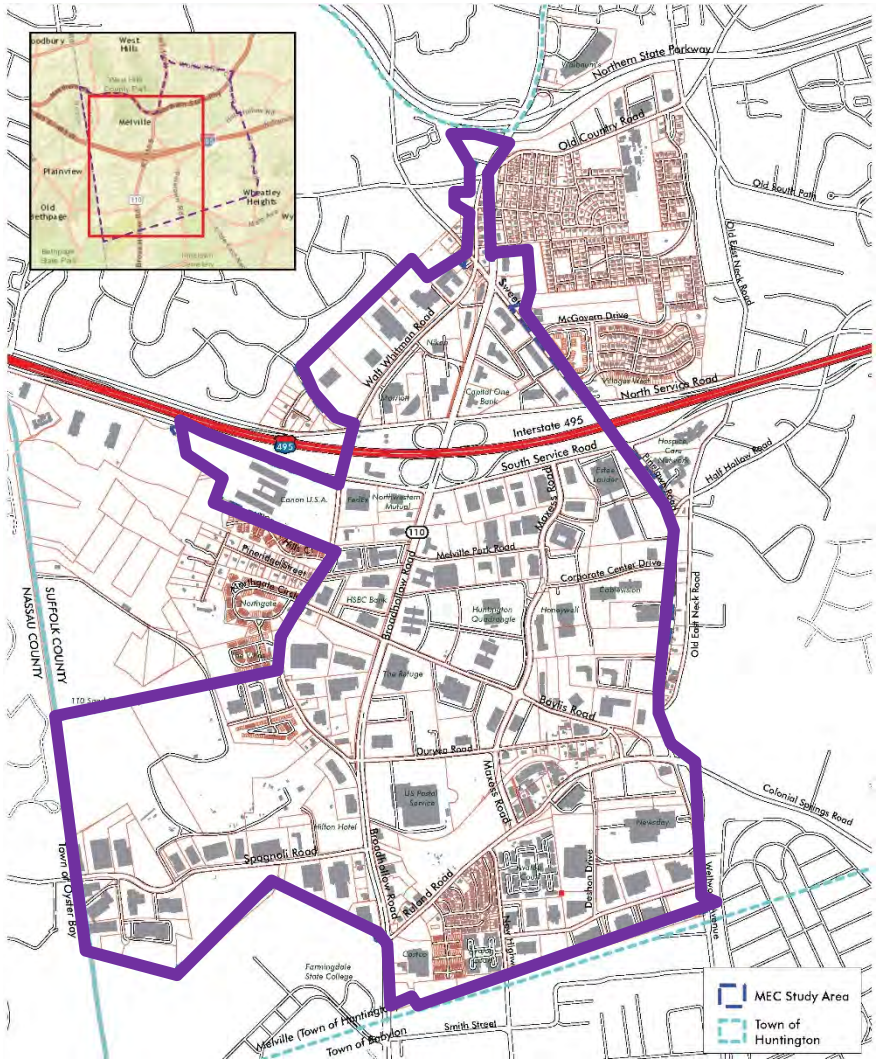
Urbanomics

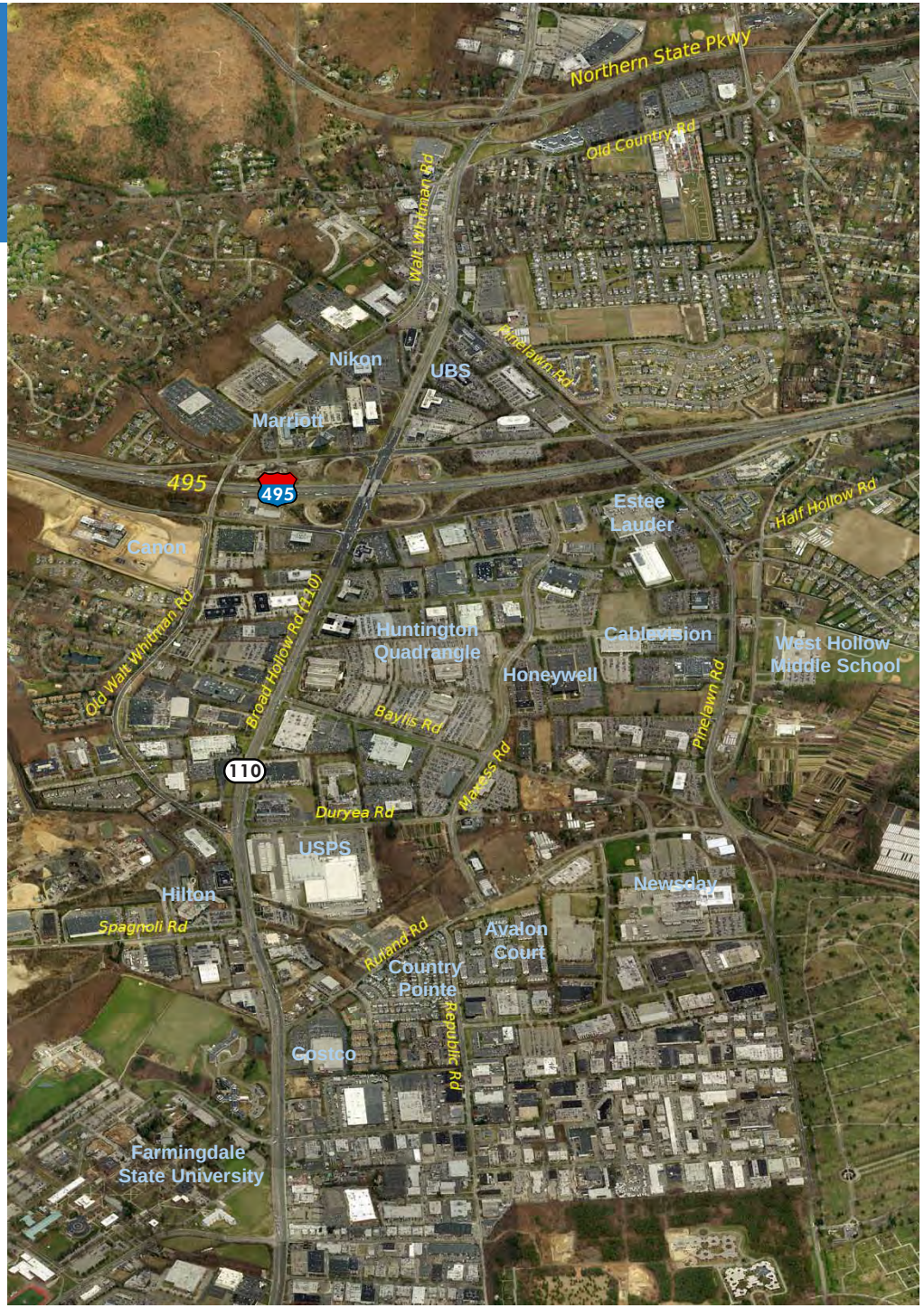
Regional Planning Context

Melville Employment Center Plan



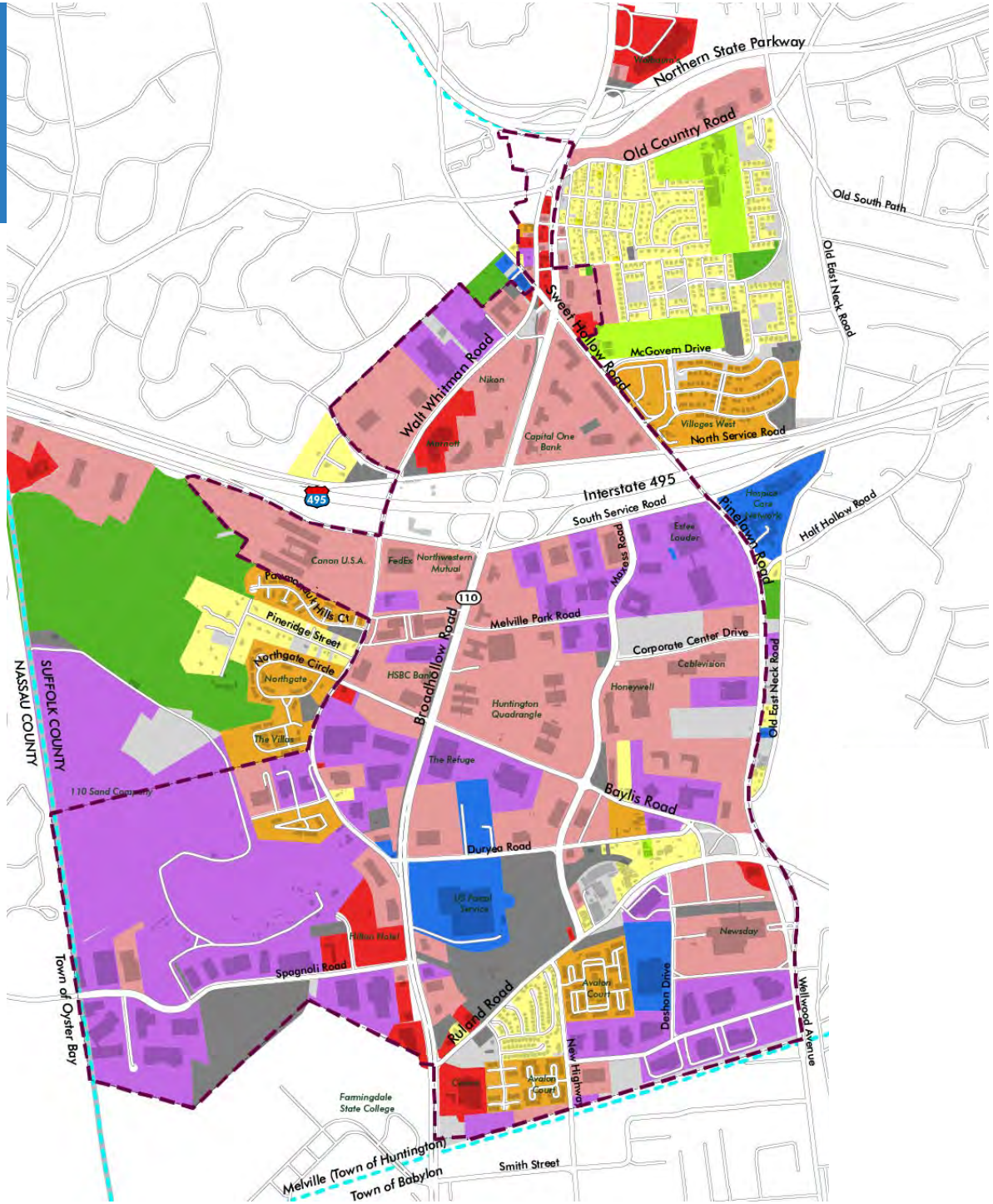
MEC Study Area





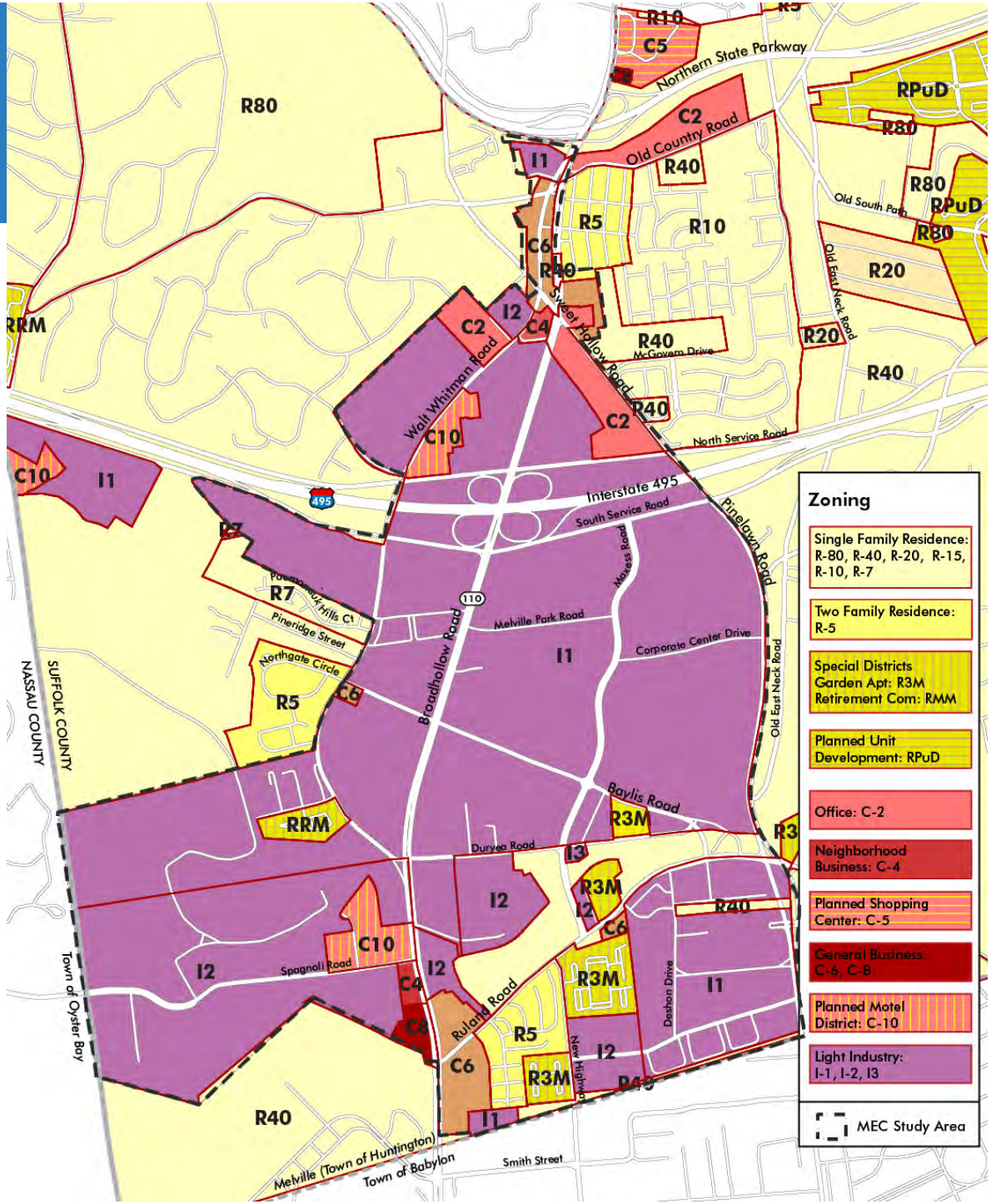
Existing Land Use

Land Use	Acres	%
Single Family	39.5	2.2%
Two-Family	0	0.0%
Multi-Family	64.0	3.6%
Commercial	65.4	3.7%
Office	**594.0**	**33.4%**
Industrial	**606.6**	**34.1%**
Institutional	77.9	4.4%
Agriculture	1.0	0.1%
Parks/Open Space	5.0	0.3%
Vacant	63.0	3.5%
Utilities	118.8	6.7%
Transportation	145	8.1%
Grand Total	**1780.4**	**100.0%**



Existing Zoning

Zoning District		%
Industrial Districts (80.9%)	I1	62.5%
	I2	18.3%
	I3	0.1%
Commercial Districts (8.5%)	C2	2.4%
	C4	0.5%
	C6	3.3%
	C8	0.5%
	C10	1.7%
Residential Districts (10.6%)	R40	5.1%
	R5	2.1%
	R3M	2.8%
	RRM	0.7%



Existing Zoning:
I-1 Light Industrial District

Melville Employment Center Plan

	I-1 District	I-1 Next to LIE	I-2 District
Max. Building Stories	**4 stories**	**6 stories**	**4 stories**
Max. Building Height	**58 feet**	**90 feet**	**58 feet**
Min. Front Yard	100 feet	100 feet	75 feet
Min. Rear Yard	50 feet	50 feet	25 feet
Min. Lot Area	6 acres	10 acres	3 acres
Min. Lot Width	400 feet	400 feet	250 feet
Min. Lot Frontage	200 feet	200 feet	250 feet
Max. Lot Coverage	30%	25%	33%
Minimum Distance of Building from Residential Zone	100 feet	250 feet	100 feet

Typical I-1 build out

Existing Zoning:
Commercial Districts

Melville Employment Center Plan

	C-2 Office Building District	C-4 Neighborhood Business	C-6 General Business	C-8 General Business A
Max. Stories	2	2	3	2
Max. Building Height	30’	35’	45’	35’
Min. Front Yard	75’	50’	-	35’
Min. Rear Yard	75’	35’	-	15’
Max. Lot Coverage	25%	40%	-	50%
Residential Uses Allowed	No	Yes	Upper Floors	Yes

Route 110/Walt Whitman Rd

Route 110/Duryea Road

Zoning Issues

Melville Employment Center Plan

- Non-conformity: 36% of industrial lots are below mininum lot size
- Large setbacks
- Parking requirements
- Allowable uses

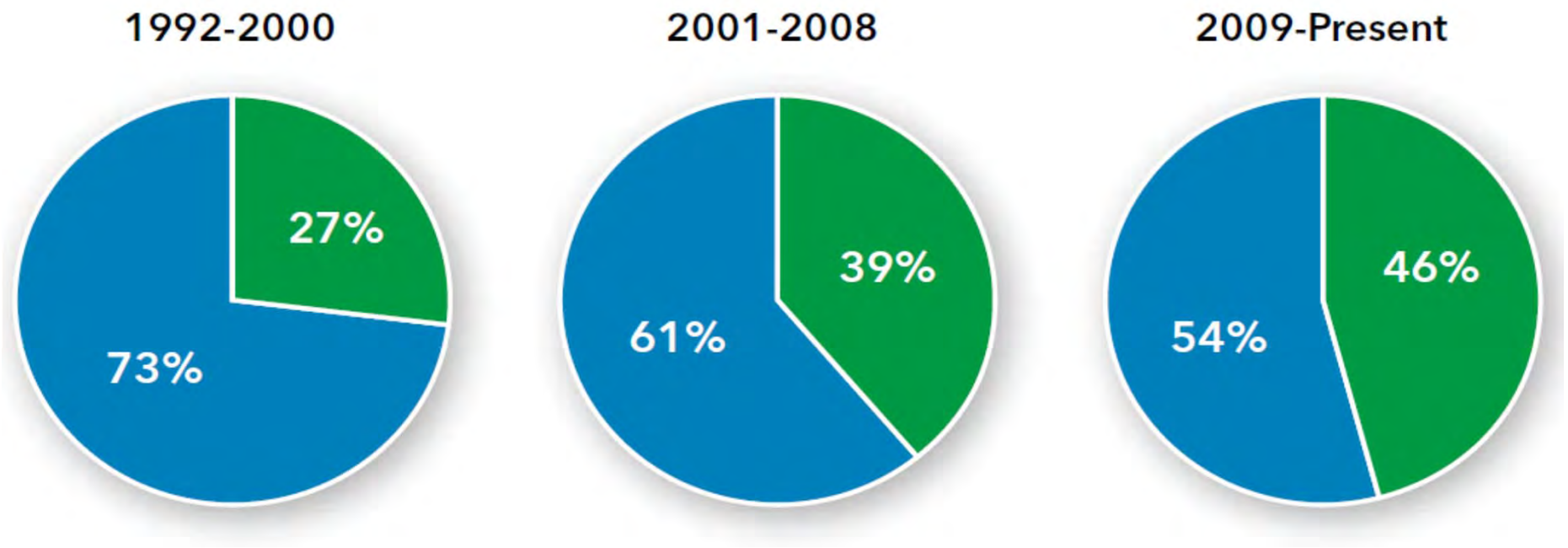
Setbacks along Route 110

National Land Use and Development Trends

Melville Employment Center Plan

Driveable Suburban vs. Walkable Urbanism

Share of Income Property in Metro Boston During the Last Three Real Estate Cycles (Income Property = Office, Retail, Hotel and Multifamily)

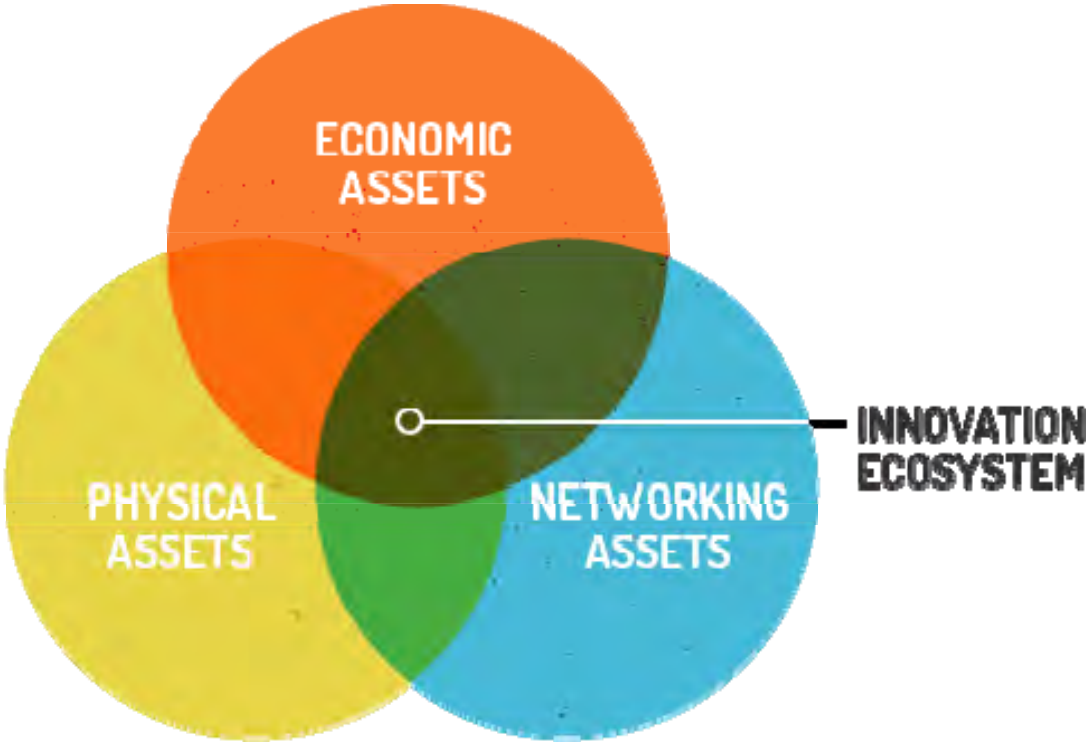


George Washington University School of Business, Center for Real Estate and Urban Analysis, 2015

Innovation Districts

Melville Employment Center Plan

Innovation Districts: Areas where anchor institutions and companies cluster and take advantage of shared economic, physical and networking assets.



Examples:

- Research Triangle Park
  Durham, NC
- Kendall Square
  Cambridge, MA
- Mission Bay
  San Francisco, CA

Innovation Districts

Melville Employment Center Plan

Local Opportunities:

Start Up New York State Program

- Tax benefits for companies and employees for 10 years.
- Farmingdale State College approved in 2014, via Broad Hollow Bioscience Park (BHBP).
- Member organizations: SUNY Research Foundation, Cold Spring Harbor Laboratory.

Newsday

Business Improvement Districts (BIDs)

Melville Employment Center Plan

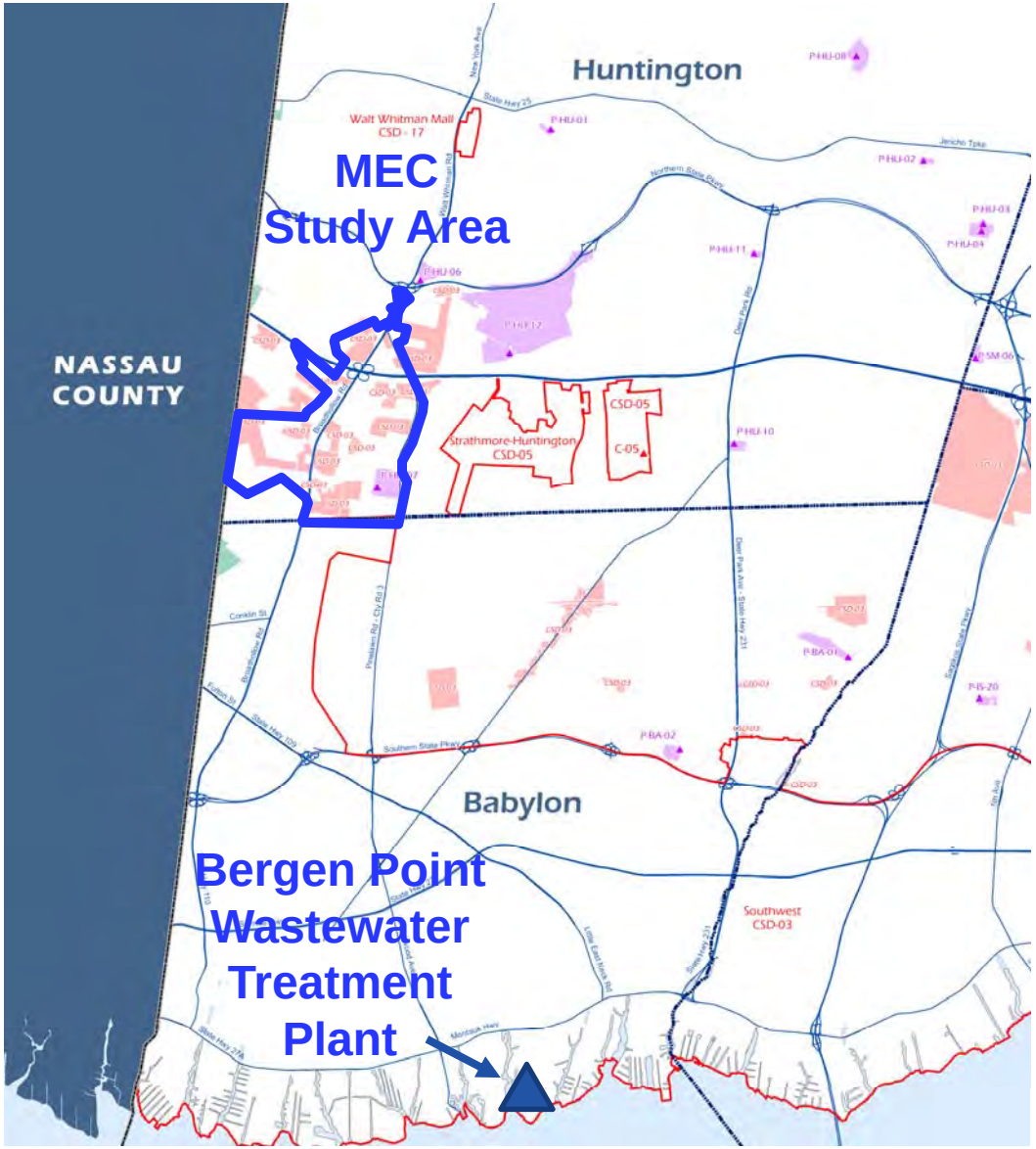
Successful Public/Private Model

- Provides stable funding source generated from annual assessments
- Funding can be used for area maintenance and improvements, marketing, advocacy

Proposed Greater JFK Industrial Business Improvement District

Existing Community Facilities, Wastewater Treatment

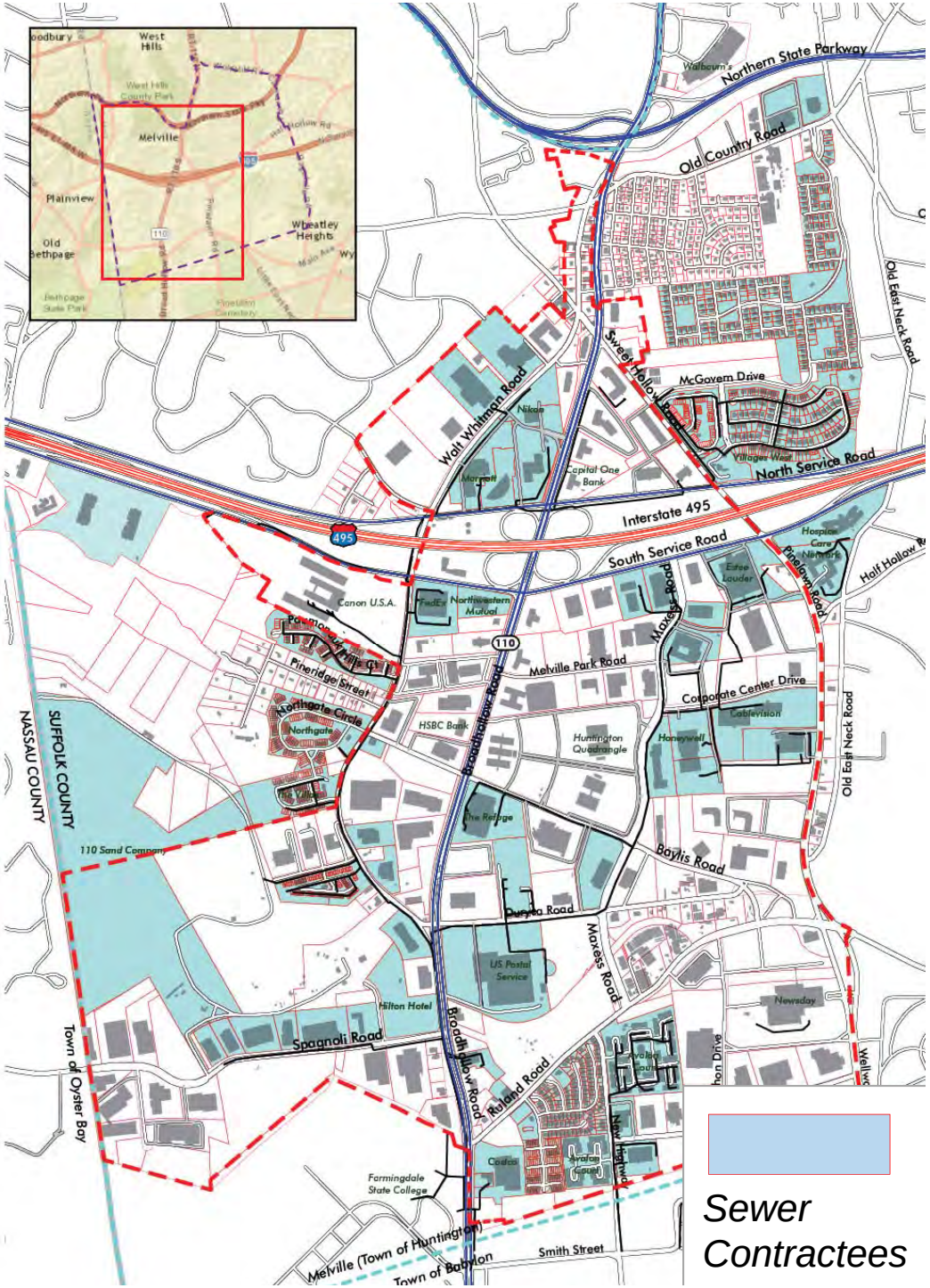
Melville Employment Center Plan



- MEC not in a sewer district.
- Properties contract with County to link to Southwest Sewer District (SWSD).
- Sewered properties flow to Bergen Point for treatment.
- Bergen Point capacity expansion to accommodate major regional development (Ronkonoma Hub, Heartland Town Square).

Existing Community Facilities, Wastewater Treatment

- Nearly 80 sewer contractees in MEC study area.
- Case-by-case approval to connect to SWSD by County Sewer Agency (and Health Department for new construction).
- Contractees pay infrastructure (sewer) costs, connection fee, administrative/ maintenance fee.



Existing Community Facilities, Wastewater Treatment

Melville Employment Center Plan

- Met with Suffolk County Department of Public Works (SCDPW).
- Potential options for accommodating future development (together with Land Use element of the MEC Plan):

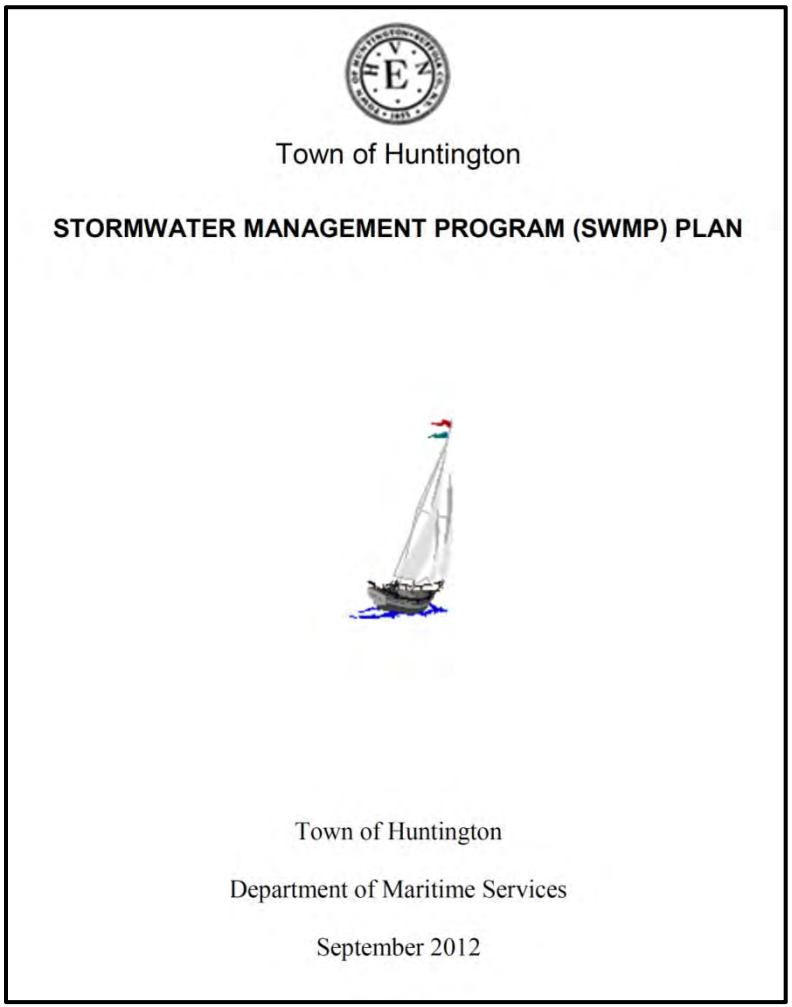
1. Continue current case-by-case approach
2. Incorporate MEC into SWSD
3. Create new sewer district for MEC, contract with Suffolk County

Existing Community Facilities, Stormwater Management

Melville Employment Center Plan

- Town completed stormwater management plan in 2012 to meet NYSDEC permit requirements.
- Six program elements to reduce discharge of pollutants:

1. Public education and outreach
2. Public involvement/participation
3. Illicit discharge detection/elimination
4. Construction site runoff control
5. **Post-construction stormwater management**
6. Pollution prevention/good housekeeping for municipal operations


Town of Huntington

STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

Town of Huntington

Department of Maritime Services

September 2012

Next Steps:
Community Facilities, Stormwater Management

Melville Employment Center Plan

- Consider options for MEC area-wide stormwater management:
  - Recommend Best Management Practices (BMPs)
  - Develop preliminary concepts for "green infrastructure" to manage stormwater flows (bioswales, etc.)

Source: BFJ Planning

Land Use Opportunities:
Town Centers

Melville Employment Center Plan

Route 110/Walt Whitman Road

Duryea Road/Maxess Road

Route 110 near Huntington Quad

Land Use Opportunities:
Potential Land Use and Zoning Strategy

Melville Employment Center Plan

- Stay within boundaries of existing overall bulk allowed by current zoning (i.e., 4 stories with up to 6 stories allowed in some locations by bonus).
- Introduce mixed use to enhance sense of place, generate favorable impacts vs. all office.
- Focus of residential likely market-rate, "brownstone" in scale with strong architectural character.
- Mixed use should include limited retail (convenience retail, i.e. not "big box").

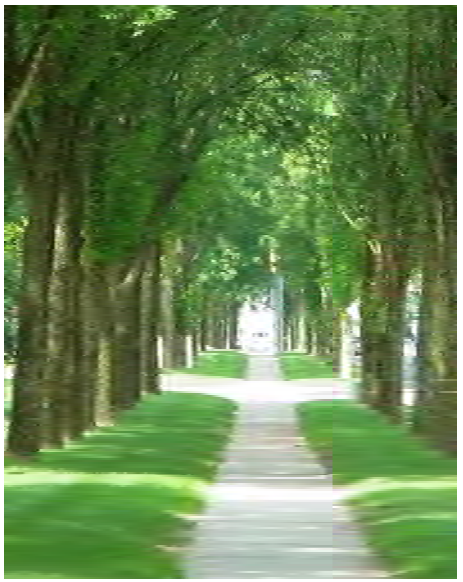
Land Use Opportunities:
Comparables

Melville Employment Center Plan

Glastonbury, CT

Shops at Somerset Square

115,000 sf lifestyle center on 80 acres



Land Use Opportunities:
Comparables

Melville Employment Center Plan

Mashpee, MA (Cape Cod)

Mashpee Commons

Redevelopment of strip mall as shops, restaurants, lofts, live/work units on 140 acres

DPZ and Cornish Associates

Land Use Opportunities:
Comparables

Melville Employment Center Plan

Harrison, NY

Residences at Corporate Park Drive

421 apartments, 5,000 sf restaurant on 10 acres

VHB

Google Maps

Minno Wasko Architects & Planners

Land Use Opportunities:

Huntington Quadrangle Case Study

Melville Employment Center Plan

Land Use Opportunities:
Huntington Quadrangle

Melville Employment Center Plan

Impact	Office	Multi-Family Residential
Build-out	350,000 GSF Office	300 Units
Trip generation (per 1,000 SF)	522 trips (1.49 trips/1,000 SF)[1]	185 trips (0.56 trips/1,000 SF) [1]
Public School Children	-	46 students (0.155 students/unit) [2]

1 *ITE Trip Generation Manual, 9th Edition*

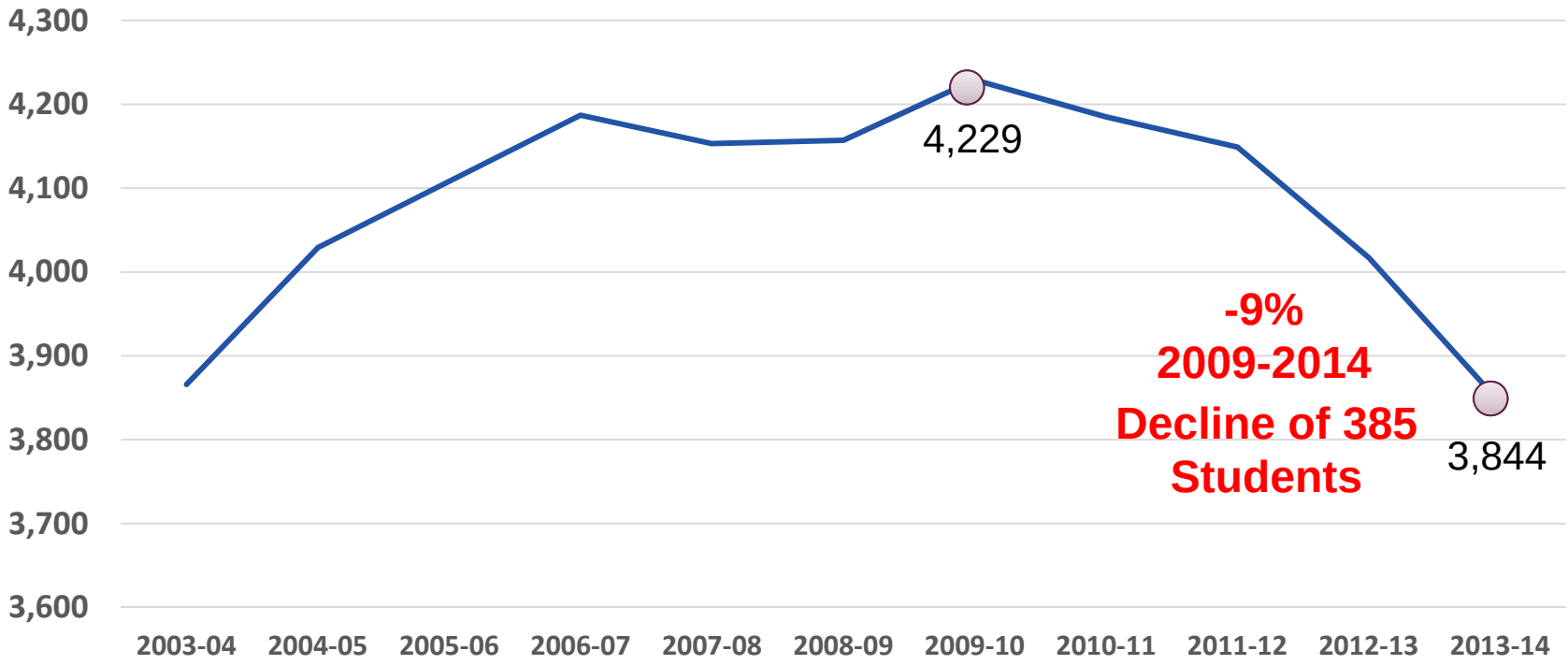
2 *Rutgers University Center for Urban Policy Research: Residential Demographic Multipliers*

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

Community Facilities, Public Schools

Melville Employment Center Plan

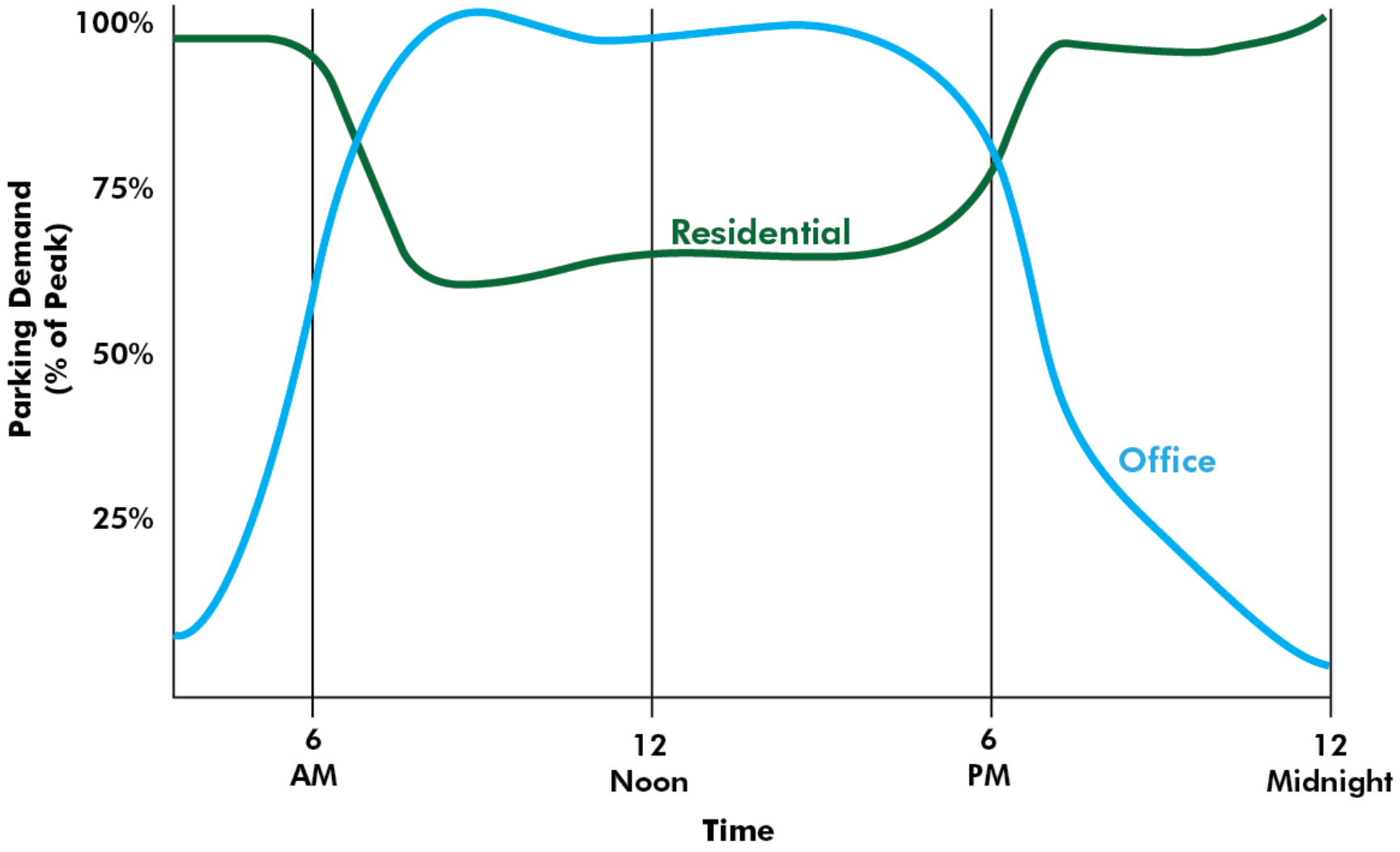
Public School Enrollment: Half Hollow Hills SD



Change in Enrollment 2003-2014:	**-0.6%**
Paumanok Elementary:	-15.1%
Sunquam Elementary:	-25.9%
Middle School:	2%
High School:	18.2%

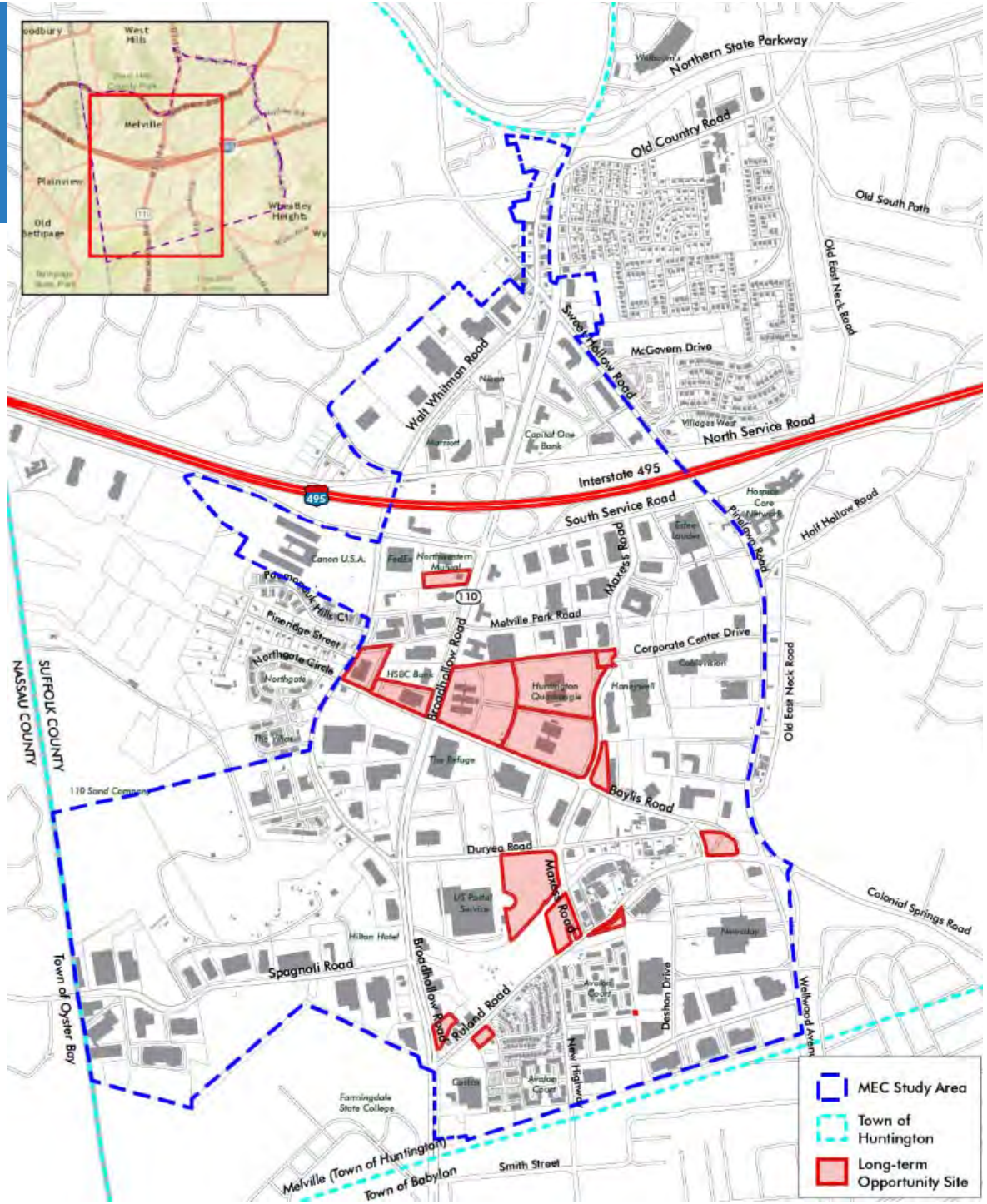
Land Use Opportunities:
Potential Impacts, Parking Demand

Melville Employment Center Plan



Long-Term Opportunities

- Undeveloped
- Vacant/underutilized
- Obsolete buildings
- Expressed interest from owner



Long Term Opportunity Site

Project Next Steps

Melville Employment Center Plan

- **Develop Future Land Use Plan for MEC**
  - Potential addition of mixed-use development (including residential)

- **Draft Zoning**
  - Potential adjustments to allowable uses, setbacks
  - Potential MEC overlay district to facilitate mixed-use development

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

What Happens Now?

Melville Employment Center Plan

- **Refreshment Break**
- **Roundtable Discussions**
  - Land Use and Zoning (2)
  - Sewer/Stormwater/Utilities
  - Cultural Uses/Open Space/Community Character
  - Economic Development and Competitiveness
- **Small Groups Report Back**

Huntington BFJ Planning PARSONS BRINCKERHOFF Urbanomics

How Can You Get Involved?

Melville Employment Center Plan

- Additional public workshops
  - **Transportation: October 21, West Hollow Middle School**
  - **Urban Design: November 17, location TBA**
- Check Town website (MEC page)
  www.huntingtonny.gov/mec
- Spread the word!

Huntington | BFJ Planning | PARSONS BRINCKERHOFF | Urbanomics

Melville Employment Center Plan

Transportation/Circulation Workshop Summary Report

Prepared for:
Town of Huntington
100 Main Street
Huntington, NY 11743

Prepared by:
BFJ Planning
115 Fifth Avenue
New York, NY 10003

Introduction

The third public workshop for the Melville Employment Center Plan took place on November 9, 2015 at 7PM. The meeting took place at the Melville Fire House, located at 531 Sweet Hollow Road. There were approximately 60 participants. Some participants had attended the prior workshops, and some participants were new to the process. Several town officials were on hand to support the planning process.

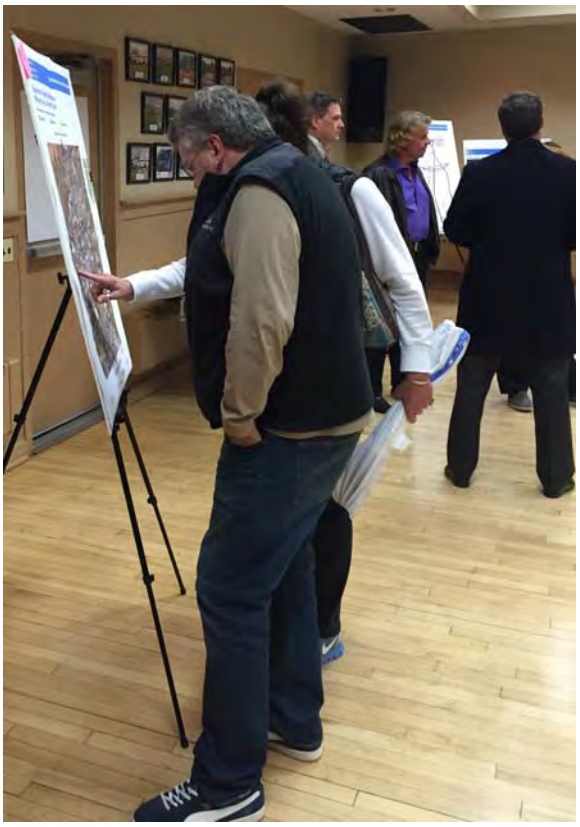
David Pannetta, Chair of the Melville Employment Center Plan Advisory Committee, opened the meeting with a brief description of the Plan's history and purpose. He then introduced BFJ Planning and Parsons Brinckerhoff, consultants working on the Plan. Frank Fish, BFJ's Principal Planner, gave a brief introduction to the project's timetable including upcoming community meetings, deliverables, and schedule for adoption of the plan. Max Sokol, Senior Planner at Parsons Brinckerhoff, identified issues and opportunities with existing transportation/circulation in Melville. He also outlined various planning transportation planning initiatives such as the proposed Bus Rapid Transit (BRT) along Route 110 and the planned reopening of the Long Island Rail Road (LIRR) Republic Station. Noah Levine, Associate at BFJ spoke to the conditions for pedestrians and bicyclists in the area. The presentation given by the consultant team is provided at the end of this summary report.

After the presentation, participants were invited to attend each of the four (4) open house stations organized around the following transportation topics below. This format was successful in letting interested parties familiarize themselves with the information provided and to communicate their viewpoints directly with the consultant team and with Town staff.

Open House Stations:

- Study area / origins & destinations,
- Traffic issues and opportunities,
- Pedestrian/bicycle issues and opportunities, and
- Transit issues and opportunities.

Station 1 Summary: Study Area / Origins & Destinations



Those participants who indicated their place of residence live primarily along the western and northern periphery of the study area, including the Millennium Hills and Northgate communities, the Village development north of the Long Island Expressway and the Sweet Hollow single-family neighborhood off Old Country Road. No one indicated their residence within the study area. Likewise, few people indicated that they work within or near the study area. However, a number of participants indicated that they shop near the study area, including the former Waldbaums and Walt Whitman Shops just north of the Northern State Parkway, and Costco at the southern edge of the study area.

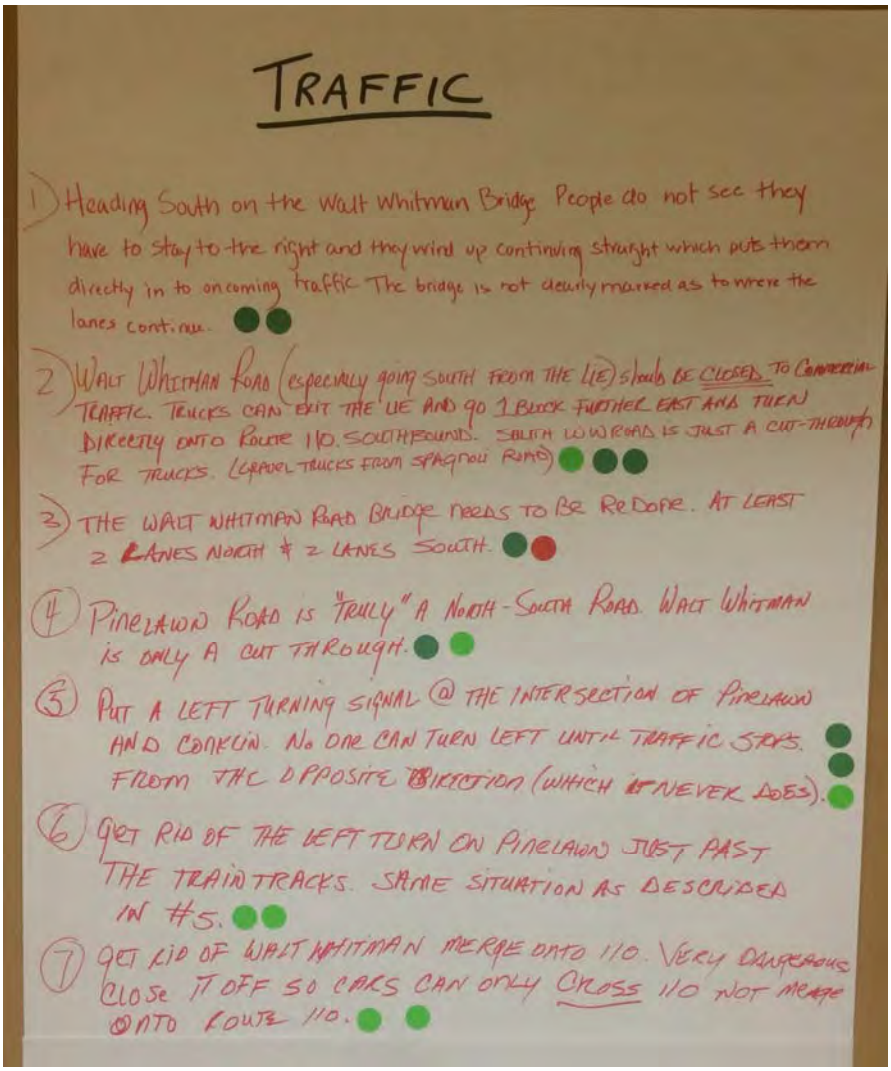
Several participants at this station voiced concerns expressed in greater detail at other open house stations, including opposition to sidewalk and bicycle transportation and bus lanes. These people felt that the current road network in and around the study area is too dangerous to walk or bike. They were also concerned that the implementation of sidewalks, bike lanes or bus lanes could eliminate road shoulders, which they did not support.

Other participants focused their concerns on Walt Whitman Road, which is viewed as a major cut-through for drivers looking to avoid congestion on Route 110. There was support expressed for greater enforcement of speeding and prohibition of large trucks. Some participants also suggested that Walt Whitman Road should be widened to increase its capacity.

There was also some discussion at this station regarding appropriate land uses in the study area. Some participants did not support the introduction of residential uses, indicating that they felt the area is already overdeveloped, and that such a change would not benefit them through property tax relief. Others supported the idea of mixed-use development, pointing out that it would create the only true opportunity for a walkable live/work environment. There was mixed opinion on retail in the study area, with some support for more boutiques and convenience stores, but also opposition to that concept.

Station 2 Summary: Traffic Issues and Opportunities

Existing traffic congestion within the study area emerged as an overarching issue that transcended participants' comments during the open house. Traffic contributes to travel delays and travel time unreliability. One of the boards presented in the open house showed the existing level of service (LOS) during the evening peak hour at a number of intersections in the study area. This board offered information about average delay per vehicle at the identified intersections and also sparked comments about traffic conditions among the participants.



Another board showed the proposed widening of the Walt Whitman Road bridge over the Long Island Expressway. As part of the recent *Evaluation of Traffic Conditions Related to Canon* study, the Walt Whitman Road bridge was highlighted as a key bottleneck in the transportation system. That study proposed widening the bridge to expand roadway capacity, and this suggestion has continued to gain traction among the public during the MEC Plan public meetings, including this open house. While many participants expressed support for bridge improvements, there was fear expressed that if the intersection of the Long Island Expressway North Service Road and Walt Whitman Road is improved, that will promote more development along the North Service Road and will affect the residential community in the area.

In addition to the Walt Whitman Road bridge, participants raised other location-specific traffic issues, including:

- Commercial truck traffic using Walt Whitman Road as a cut-through, particularly heading south from the Long Island Expressway;

- The dangerous merge from Walt Whitman Road to Route 110 southbound;
- The traffic problems that result from buses stopping along the southern portion of Walt Whitman Road, where the roadway has only one lane in each direction and no shoulder, thereby causing traffic to go into the oncoming lane to get around the buses;
- Traffic congestion along Walt Whitman Road in the northbound direction and along Baylis Road (between Walt Whitman Road and Route 110) in the evening;
- Traffic congestion along Walt Whitman Road throughout the day, as traffic is not just generated by the Canon development;
- The challenge of making left turns off Pinelawn Road/Wellwood Avenue at Conklin Street and Long Island Avenue (Note: an ongoing Suffolk County capital project [5510] will realign the existing offset intersection at this location);
- The lack of left turn arrows at some side streets approaching Route 110;
- The poor geometry for northbound Route 110 traffic turning left onto Old Country Road
- The poor signal offsets at the intersection of Walt Whitman Road/Old County Road/Route 110, which result in traffic getting caught in the small section of Old Country Road between Route 110 and Walt Whitman Road, thereby forming queues and blocking traffic; and
- The lack of lane capacity (particularly on the weekends) along westbound Ruland Road by Costco.

Station 3 Summary: Pedestrian/Bicycle Issues and Opportunities

Some participants did not support the improvement of pedestrian and bicycle infrastructure to schools around the study area. The Half Hollow Hills School District has a policy to ensure all children arrive/leave school by bus or car due to safety concerns.

There is a need for improved access to green spaces. Because mid-day traffic is so bad, many employees stay in the area and walk to other offices to shop at their cafeterias. People go to the few green areas to eat lunch including the small green area at Maxess Road and Baylis Road. One potential idea was for the Town to encourage the redevelopment of the vacant properties on Baylis Road between Walt Whitman Road and Route 110 as park areas.

There was not a consensus about whether bicycling and walking should be encouraged in the MEC. Some felt the area was too dangerous for cycling, while others felt that there were opportunities to improve conditions and make the area safer. Participants saw the need for improved access to parks with walking/biking trails.

Participants identified problem areas for pedestrians and bicyclists in the study area including:

- The intersection of Walt Whitman Road and Route 110 South is very dangerous for pedestrians and motorists. Trucks use Walt Whitman Road as Route 110 bypass and speed. Merge lane is very short and accidents are frequent. Respondents say there is space to widen the road in this location;
- Some felt that bike lane or widened shoulder on Walt Whitman could provide a north-south bicycle route. Others felt this road was too dangerous for cyclists due to the heavy truck traffic and high speeds;
- Traffic does not move smoothly along Route 110; there is a need for traffic cops to move vehicles and enforce traffic rules;
- Half Hollow Road between Old East Neck Road and Pinelawn Road is a problem area for pedestrians and bicyclists. The road narrows leaving no space for a sidewalk or a shoulder. Pavement in the surrounding area on Pinelawn Road is in disrepair; and

- The four intersections where the LIE Service roads intersect with Pinelawn Road and Walt Whitman Road are dangerous for bicyclists because the lane narrows and the double-turn lanes are tricky to maneuver in.

Station 4 Summary: Transit Issues and Opportunities

The transit issues and opportunities station at the open house focused on the planned reopening of the LIRR Republic Station, the proposed BRT along Route 110, and options for off-corridor shuttle bus feeder routes to complement the BRT. The proposed 2015-2019 Metropolitan Transportation Authority (MTA) Capital Program includes the environmental review and design of the LIRR Republic Station, with construction anticipated to be included in a future capital program. In coordination with the Town of Huntington, Suffolk County, and others, the Town of Babylon recently completed the Route 110 Alternatives Analysis, which recommended implementation of BRT as a new premium transit option with limited-stop service and other features to improve travel time and complement the Suffolk County Transit local S1 route. Two options for off-corridor feeder routes were considered in the Alternatives Analysis (and were on display during the open house), one with circular feeder routes and another with transit center nodes and connecting feeder routes.

There were various perspectives shared by the participants during the open house. While some participants questioned who uses buses, and some others expressed a desire for no additional buses, other participants supported the ongoing efforts to improve transit service. Specifically, several participants commented about the benefits of reopening LIRR Republic Station and introducing BRT service along Route 110 with increased frequency to make transit a more attractive and viable travel option.

Participants shared a number of comments about the potential future transit improvements:

- There appear to be benefits of both feeder route options. The transit center node option may be preferable because it eliminates the need for an additional transfer at LIRR Republic Station. However, the circular feeder route option may be better at serving origins and destinations along Ruland Road;

- The concern about buses stopping along Walt Whitman Road (refer to the Station 2 summary above) may be exacerbated by the feeder routes;
- The shoulder on Route 110 may not effectively function as both a dedicated BRT lane and an emergency breakdown lane. Additionally, there are segments along Route 110 with a narrow shoulder that perhaps could not accommodate a dedicated BRT lane;
- Parking would be needed at the LIRR Republic Station, and park-and-ride lots should be considered at the northern and southern termini of the BRT route along Route 110; and
- There should be a bus route that connects the residential communities (particularly those located off Walt Whitman Road and Ruland Road) to the Walt Whitman Shops, especially during the holidays.

Melville Employment Center Plan

Community Design and Architecture Summary Report

Prepared for:
Town of Huntington
100 Main Street
Huntington, NY 11743

Prepared by:
BFJ Planning
115 Fifth Avenue
New York, NY 10003

Introduction

The fourth public workshop for the Melville Employment Center (MEC) Plan took place on December 1, 2015, at 7PM, at the West Hollow Middle School, located at 250 Old East Neck Road. There were approximately 60 participants, some of whom had attended the prior workshops, and some who were new to the process. Several Town officials were on hand to support the planning process. This meeting marks the last public workshop scheduled before the draft plan is presented to the Town Board. The plan will be published on the Town of Huntington website for public comments, and will undergo environmental review, before the Town Board votes on adopting the recommendations in the MEC Plan.

Workshop Summary

David Pannetta, Chair of the MEC Plan Advisory Committee, opened the meeting with a brief description of the Plan's history and purpose. He then introduced BFJ Planning, the consultants working on the Plan. Frank Fish, BFJ Principal, gave a brief introduction to the project's timetable, deliverables, and schedule for adoption of the plan. Susan Favate, BFJ Principal, discussed land use recommendations, including potential zoning changes the Town could take to improve competitiveness for businesses and improve the quality of life in the MEC. Noah Levine, BFJ Associate, then discussed potential build-out scenarios for the next 10 years, should those changes be adopted by the Town. Three scenarios were discussed for identified "soft sites": (1) a build-out under existing zoning, (2) a build-out with 50% office and 50% residential uses, and (3) a build-out with 50% office, 45% residential, and 5% small-scale retail/restaurant uses. Jonathan Martin, BFJ Senior Associate, then followed with conceptual designs of how these scenarios might play out if infill development were to occur on the Huntington Quadrangle site.

After the first part of the presentation, Mr. Martin led a visual preference survey to gauge the public's perspective of different images of built environments. The process involved asking participants to view and rate a variety of images depicting differing streetscapes, land uses, site designs, building types, aesthetics and amenities. The intent of the survey was to gauge general opinions of respondents and to inform the planning process. The survey consisted of a series of pictures; each picture was rated using three options: More Preferred, Neutral, and Less Preferred. The rating for each picture indicates which types of developments and treatments participants felt would be more appropriate for the MEC area.

After the presentation, there was a brief refreshment break followed by a Town Hall style forum where participants were invited to ask questions about the plan. After the question and answer session, Mr. Martin presented the tallied results from the visual preference survey. The following section summarizes comments from the Town Hall session and results from the visual preference survey.

Visual Preference Exercise

The visual preference exercise is a tool to help participants consider which design considerations are most important for potential development projects. Photos of streetscapes in other places show how community design details could help to create a stronger sense of place that is contextually sensitive.

Participants had the opportunity to vote on each of the 20 images shown, to share which were appropriate or not for the Melville Employment Center. The voting was not meant to be a scientific measure of consensus within the Melville community; it was intended to stimulate dialogue and gain a rough understanding of the perceptions of those in attendance. The results of this exercise are illustrative, and representative of the participants who attended the meeting and took the survey. The main findings are listed below and the appendix with the full results are listed in the appendix.

A total of 47 participants handed in surveys (some chose not to fill one out). The results, which are provided in the appendix, suggest that there was a diversity in opinion among attendees. Many of the images had both favorable and unfavorable responses. The images with the most support were:

- Image 17 - featuring a restaurant and 4-story multi-family building,
- Image 5 – a three story residential
- Image 18 - garden apartments, and
- Image 14 - a mixed-use town center.

The types of development that were the least preferred included:

- Image 7 - a 4-story residential,
- Image 10 – a 4-story residential,
- Image 6 – a 3-story residential, and
- Image 12 – a 5-story residential.

Neutral responses were understood to mean that the image presented is acceptable; however the respondent's attitude toward it is neither favorable nor unfavorable. If "neutral and more preferred" responses are combined, we can see clearer patterns of preferences that arise. For example, when "neutral" and "more preferred" responses are combined, the top three choices (17, 14, and 8) all share a town center-like development with a mix of office, residential, and/or retail uses. Generally, there was some support at each of the public meetings for encouraging a

wider mix of uses in the MEC. Participants also seemed to prefer building types with varied rooftop heights, potentially with pitched roofs and dormers, compared with buildings with flat roofs.

The least preferred developments (Images 7, 10 and 6) all share a high density of residential uses with retail or office space. These images also depict developments that are typically found in more urban areas, with smaller setbacks than what is proposed for the MEC.

Several participants chose not to participate in the exercise. Five people wrote on their survey sheet that they did not want residential units added to the MEC. Their comments are mentioned below in the appendix. Six people circled negative responses to all images presented during the slideshow. However, many participants in attendance engaged with the exercise by providing differentiated opinions to the images presented. Participants were able to consider various types of uses and architectural styles for the MEC area.

Town Hall Meeting (Question and Answer Session)

Much of the feedback from the Town Hall portion of the meeting focused on the introduction of residential uses into the MEC. Some residents were concerned the introduction of new residential uses in the MEC may diminish the quality of life that drew them to Melville. There were also concerns expressed about how the introduction of rental units or low-income housing could lower the property values of the surrounding homes. Frank Fish from BFJ Planning mentioned that New York State law prevents zoning language from specifying whether new units will be rental or owner-occupied units. The type of ownership will depend entirely on demand and market forces.

Other participants in the audience questioned how this plan aligns with regional plans for Suffolk County and Long Island. Some expressed concerns that the MEC Plan was not being done in coordination within a larger planning context (e.g. *Connect Long Island*, *Long Island 2035 Visioning Initiative*, *Cleaner, Greener Long Island Regional Sustainability Plan*); while others said they thought the MEC Plan is part of regional planning efforts that will change the character of Melville and surrounding communities. Some residents in the audience said economic developments should not be encouraged at the expense of the community character, and that efforts should be focused on beautification of existing developments in the MEC area. There were some participants who wanted to know what strategies would be implemented besides zoning changes to improve business conditions in the MEC.

There were also many comments about potential impacts from new development in the MEC. One participant was concerned that the study's school children projections may be inaccurate due to the high quality and desirability of the Half Hollow Hills School District that serves the Melville area. Data from studies and comparable developments which support the study's analysis have been posted on the Town's website. Some residents fear that impacts to traffic congestion are not being properly considered in the planning process, and that bicycle lanes should not be introduced to the MEC. It was explained that the advent of mixed-use with

residential would help to improve traffic conditions by having a lower daily trip generation rate and during peak hours than office uses alone. There was some concern that the Bus Rapid Transit planning process being conducted by Suffolk County, separately from the MEC plan, will not benefit the Melville area because of existing low-ridership on Suffolk County Transit Bus System.

Some participants who work in the real estate industry addressed the demographic changes within Melville (loss of the younger professional workforce to more urban environments), and how that pattern has not been seen in similar suburban communities adjacent to large metropolitan areas across the country. Mark Hamer, a member of the Steering Committee spoke about the need for land-use changes that will keep Melville competitive. He said, the Town of Huntington and Long Island in general is behind the trend with regard to business development and workforce retention and suggested the existing model for the suburban office park is outdated.

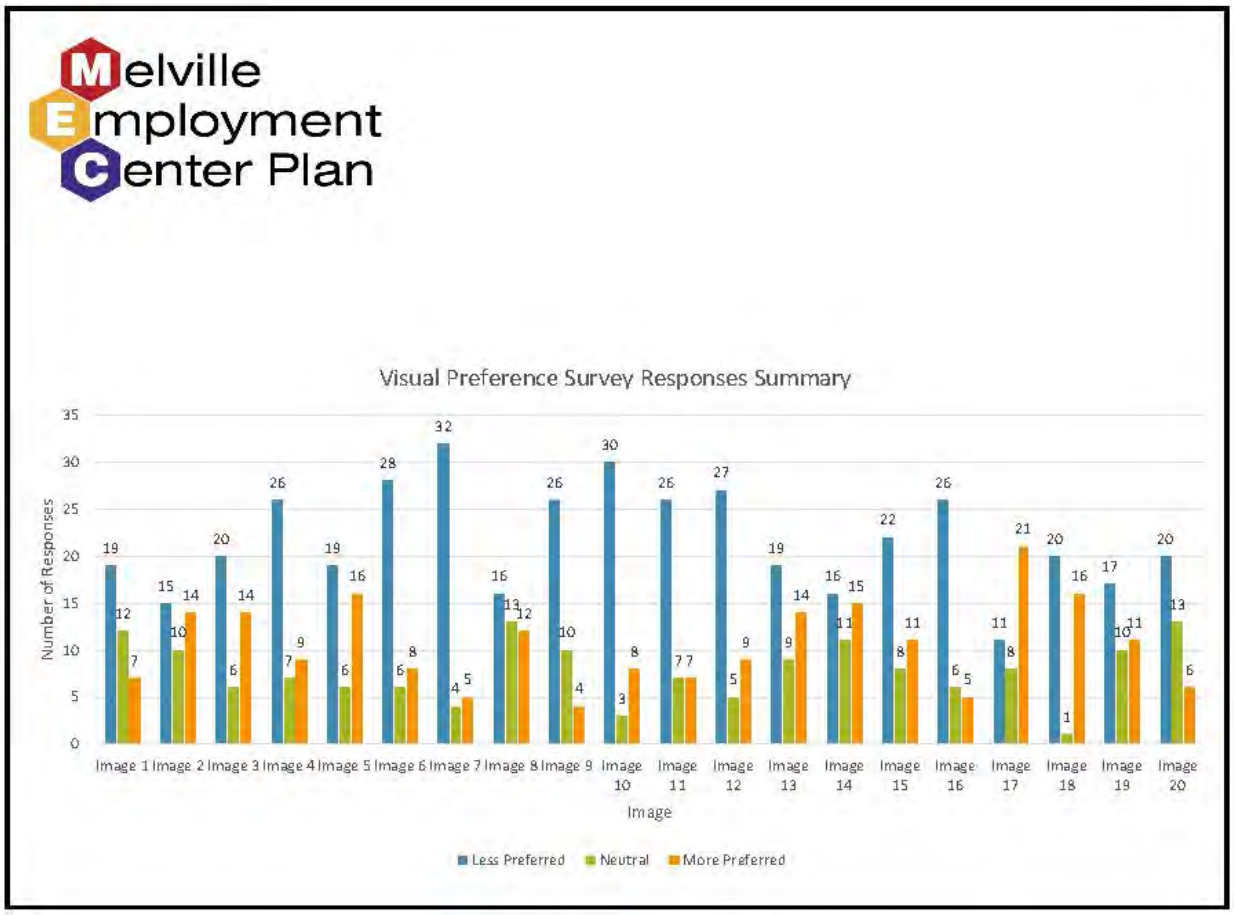
Appendix: Visual Preference Survey Responses

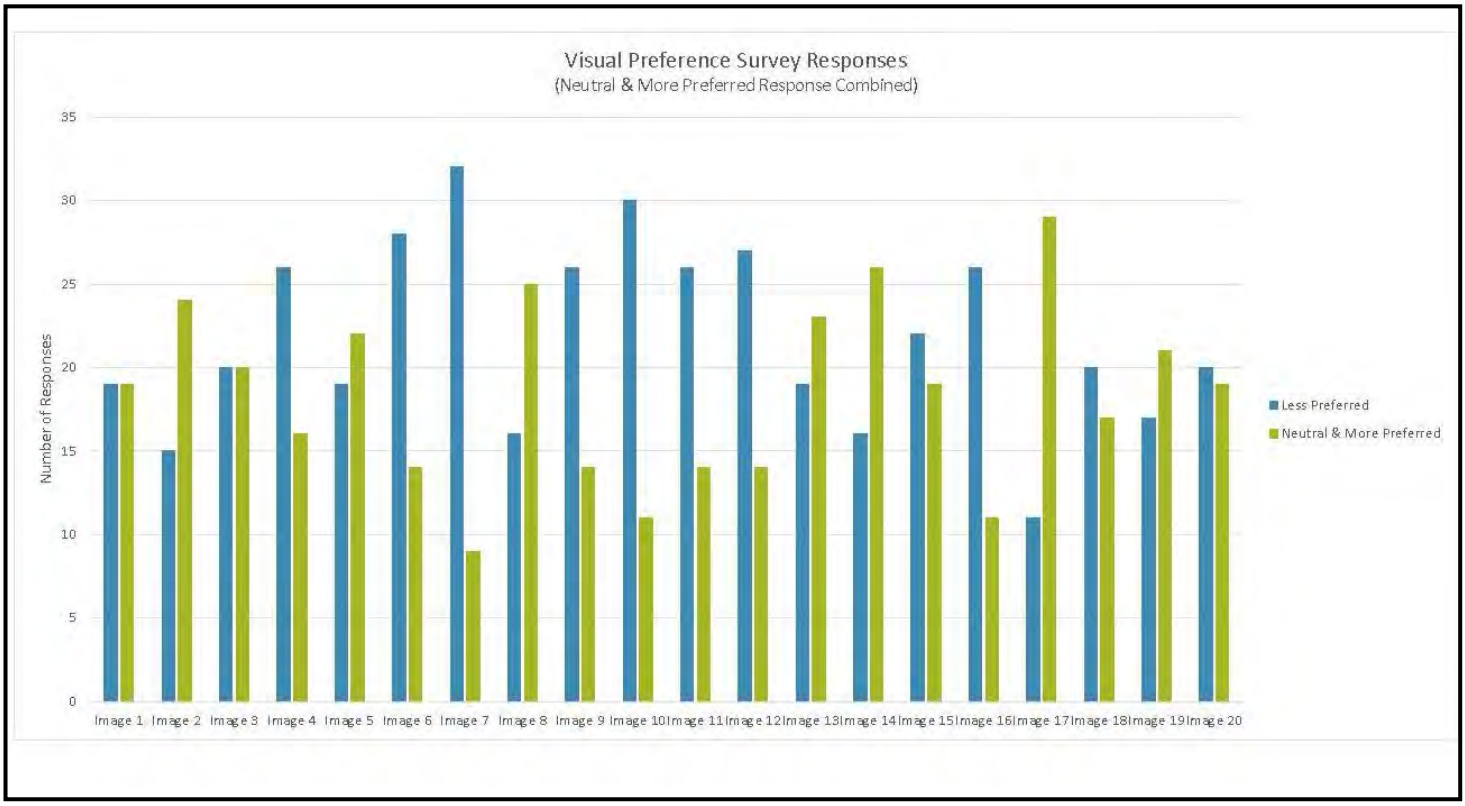
Visual Preference Survey Summary of Responses			
	Less Preferred	Neutral	More Preferred
Image 1	19	12	7
Image 2	15	10	14
Image 3	20	6	14
Image 4	26	7	9
Image 5	19	6	16
Image 6	28	6	8
Image 7	32	4	5
Image 8	16	13	12
Image 9	26	10	4
Image 10	30	3	8
Image 11	26	7	7
Image 12	27	5	9
Image 13	19	9	14
Image 14	16	11	15
Image 15	22	8	11
Image 16	26	6	5
Image 17	11	8	21
Image 18	20	1	16
Image 19	17	10	11
Image 20	20	13	6

Visual Preference Survey Summary of Responses (Combined Neutral & More Preferred)		
	Less Preferred	Neutral & More Preferred
Image 1	19	19
Image 2	15	24
Image 3	20	20
Image 4	26	16
Image 5	19	22
Image 6	28	14
Image 7	32	9
Image 8	16	25
Image 9	26	14
Image 10	30	11
Image 11	26	14
Image 12	27	14
Image 13	19	23
Image 14	16	26
Image 15	22	19
Image 16	26	11
Image 17	11	29
Image 18	20	17
Image 19	17	21
Image 20	20	19

*Five People wrote that they did not want any residential uses in the MEC area. These five people were not included in the final tally in this report. Their comments have been included on page 9.

*This data set does include those who circled "-1" for every image presented.


Melville
Employment
Center Plan
Visual Preference Survey Responses Summary
Number of Responses
Image
Less Preferred
Neutral
More Preferred


Visual Preference Survey Responses
(Neutral & More Preferred Response Combined)
Number of Responses
35
30
25
20
15
10
5
0
Image 1
Image 2
Image 3
Image 4
Image 5
Image 6
Image 7
Image 8
Image 9
Image 10
Image 11
Image 12
Image 13
Image 14
Image 15
Image 16
Image 17
Image 18
Image 19
Image 20
Less Preferred
Neutral & More Preferred

Visual Preference Survey Responses

-1= Less Preferred; 0=Neutral; 1= More Preferred; 9= No Response Provided

Respondent	Image																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	-1	1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	0	-1	-1	-1
2	-1	-1	-1	0	0	-1	-1	1	-1	-1	-1	-1	1	0	-1	-1	0	-1	-1	0
3	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
4	-1	1	-1	-1	-1	-1	-1	0	-1	-1	-1	-1	0	1	0	-1	1	1	1	-1
5	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	1	1	-1	-1
6	1	0	0	-1	-1	-1	-1	0	-1	0	-1	-1	-1	0	1	0	1	1	-1	-1
7	0	0	1	-1	1	-1	-1	-1	-1	-1	-1	-1	1	1	-1	-1	0	-1	0	0
8	-1	-1	1	1	1	0	0	1	-1	1	0	1	1	0	1	0	1	1	1	0
9	-1	0	-1	-1	-1	-1	-1	0	0	-1	-1	-1	0	0	-1	9	0	9	-1	-1
10	0	0	-1	-1	-1	0	-1	0	-1	-1	1	0	-1	1	-1	0	1	-1	0	0
11	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
12	0	1	1	1	1	1	0	1	1	1	-1	0	1	1	1	1	1	1	1	1
13	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
14	1	0	1	1	1	-1	-1	1	-1	-1	-1	-1	0	1	0	1	1	1	1	0
15	0	0	-1	-1	0	0	-1	0	0	-1	0	-1	0	0	-1	9	0	9	9	9
16	9	-1	-1	-1	0	-1	-1	-1	0	-1	-1	-1	-1	0	-1	-1	-1	-1	0	0
17	0	0	1	1	1	1	1	0	0	-1	1	1	1	-1	1	-1	1	1	0	0
18	-1	-1	0	1	-1	-1	-1	0	-1	-1	-1	9	1	-1	-1	-1	0	1	0	0
19	0	-1	1	0	1	-1	-1	-1	0	-1	-1	-1	0	1	0	-1	1	9	-1	1
20	1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	-1	0	1	-1	-1	-1	-1	-1	-1
21	-1	1	1	-1	1	0	1	-1	-1	1	0	1	1	0	-1	-1	1	-1	1	1
22	1	0	-1	-1	-1	-1	-1	1	-1	-1	-1	-1	-1	-1	0	-1	0	-1	0	-1
23	1	1	1	1	1	1	1	0	1	-1	1	1	1	-1	1	0	1	1	1	1
24	0	1	1	0	1	1	0	1	0	1	0	1	0	-1	1	0	1	1	-1	-1
25	0	1	-1	-1	0	-1	-1	0	-1	-1	0	0	-1	-1	-1	-1	1	-1	-1	-1
26	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
27	-1	-1	1	1	1	1	-1	0	-1	1	0	0	1	0	1	-1	1	-1	-1	-1
28	1	1	1	0	1	1	0	1	0	0	1	1	1	1	0	1	1	1	1	1
29	0	1	0	-1	1	-1	-1	1	-1	1	-1	0	0	-1	0	1	1	-1	1	0
30	1	1	1	-1	0	-1	-1	0	0	-1	-1	-1	-1	1	-1	-1	-1	0	1	-1
31	9	9	-1	-1	-1	-1	-1	-1	9	-1	9	-1	-1	1	-1	9	9	-1	9	-1
32	-1	1	0	0	1	-1	-1	1	-1	0	-1	-1	1	0	-1	-1	1	1	-1	0
33	9	9	9	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	9	9	9	9	9	9
34	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
35	0	1	1	1	1	1	1	1	-1	1	1	1	1	1	1	-1	1	1	0	-1
36	-1	0	-1	-1	-1	-1	-1	0	1	-1	-1	-1	-1	0	-1	-1	0	-1	0	0
37	0	0	0	0	1	0	-1	1	1	-1	1	-1	-1	1	0	0	-1	-1	0	0
38	-1	-1	-1	0	0	0	-1	0	0	-1	0	-1	0	1	1	-1	1	1	0	0
39	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	9	-1	9	9	9
40	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
41	0	1	1	1	1	1	1	1	-1	1	1	1	1	0	1	-1	1	1	1	-1
42	9	9	9	-1	9	-1	9	9	9	9	9	1	1	1	1	1	1	1	1	1

Written Comments:

Response #3: Participants: No Mixed Use None. No residential mixed use

Response #4: I am in favor of Plan C Mixed Usage

Response#6: I really mistrust this whole process. In previous civic meetings we were told certain things and the town/state did whatever it wanted. This whole thing smells of "money grab" and "done deal"

Response #9: Too Many Steps in number 16; Question mark for number 18

Response #11: No Residential

Response #13: Nothing residential or Mixed Use

Response #16: This is not for a suburb

Respondent #17 added stars next to images 4 and 7.

Response #26: It's too bad that you have made the decisions without concern for the community! You would have done better to answer questions first.

Where respondent #31 wrote "No" next to an image it was counted as "prefer less."

Where respondent #36 wrote "No!" next to images 4 and 6 they were considered "prefer less" responses.

Response #38: Concerned about traffic; school impact

Response #39: Image 16 - not accessible; Image 17 - too many floors; Image 18 accessibility; If residential only 2 floors. 3&4 floors not appropriate. How will handicapped people get into and out of homes/floors of home? Office with restaurant imp.

Response #40: Image 1-3: Better than 4 stories; Image 4-5: Too big; Image 6-16: Too much like a city; Image 17-20: Most of these are shockingly ugly.

Meeting participants who did not participate in the visual preference exercise, but submitted comments on their survey sheets:

Respondent #1: I do not want residential. I do not want residential.

Respondent #2: Not a good idea!! Don't do not want to see graphs & pictures.

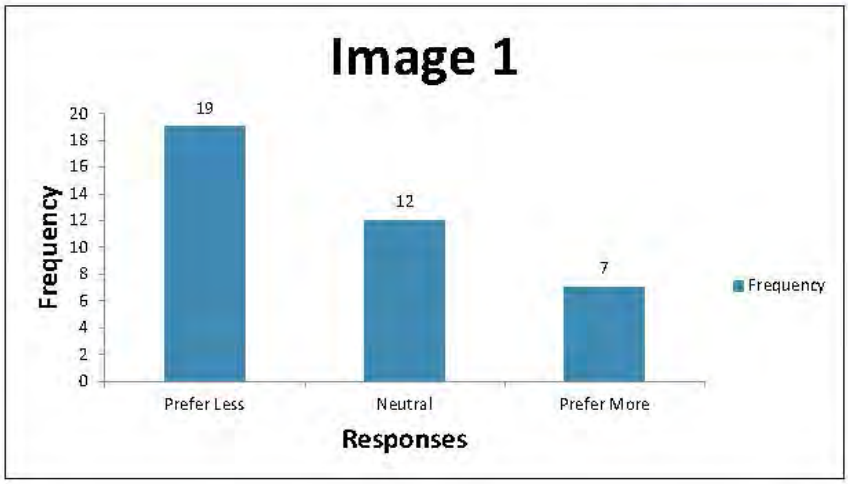
Respondent #3: Not interested.

Respondent #4: Hate Everything!!

Respondent #5: Prefer No Residential. No mixed use. Prefer none of them. No Spot zoning.

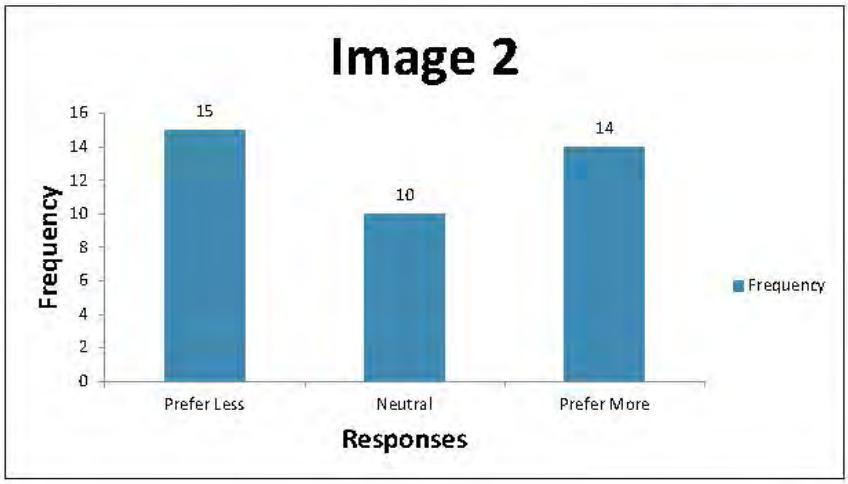
Melville Employment Center Plan

Response	Frequency
Prefer Less	19
Neutral	12
Prefer More	7



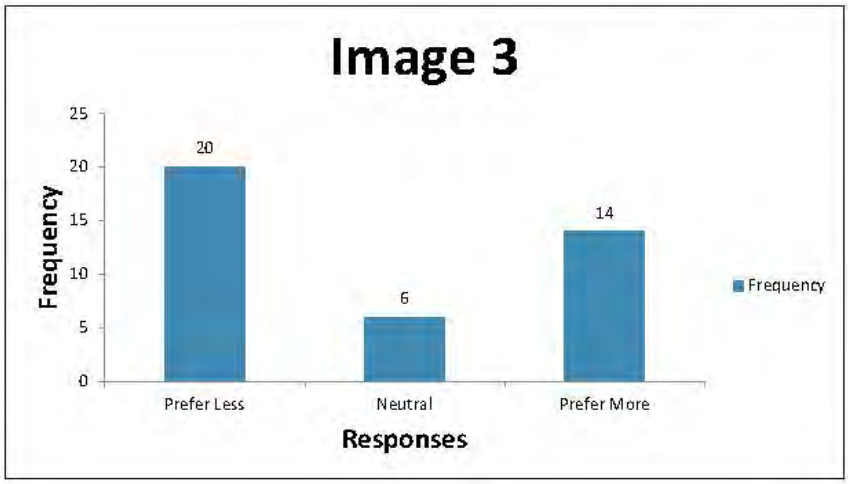
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	15
Neutral	10
Prefer More	14



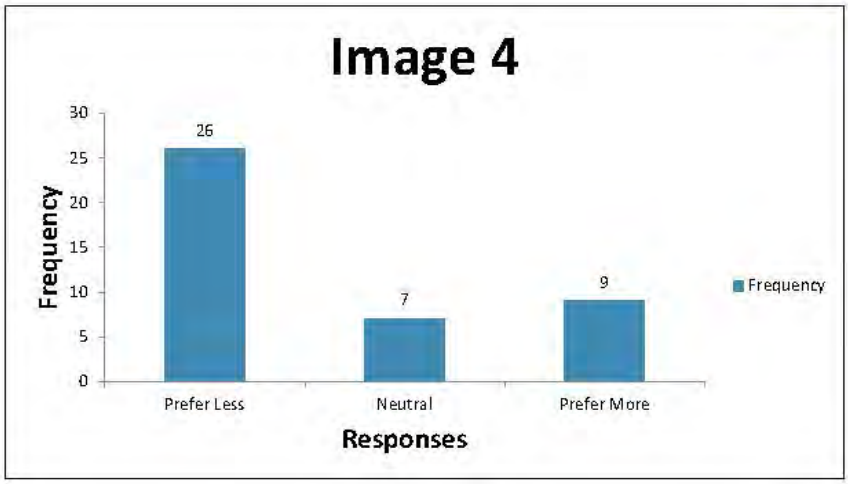
Melville Employment Center Plan

Response	Frequency
Prefer Less	20
Neutral	6
Prefer More	14



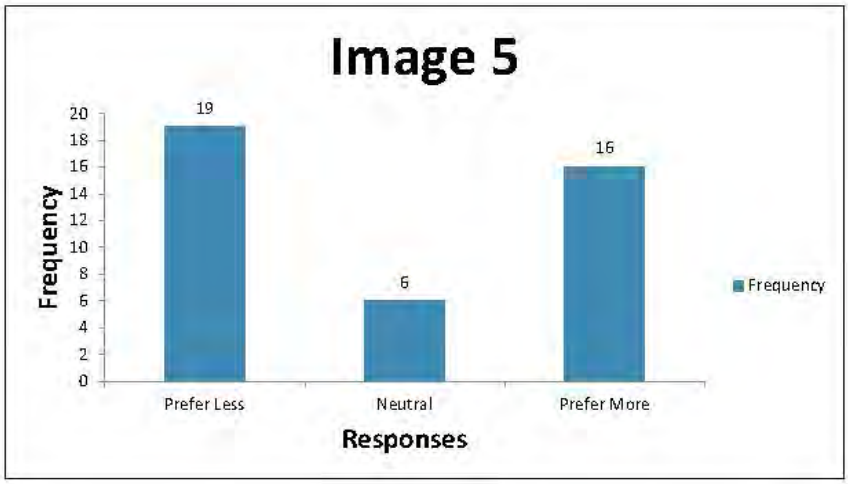
Melville Employment Center Plan

Response	Frequency
Prefer Less	26
Neutral	7
Prefer More	9



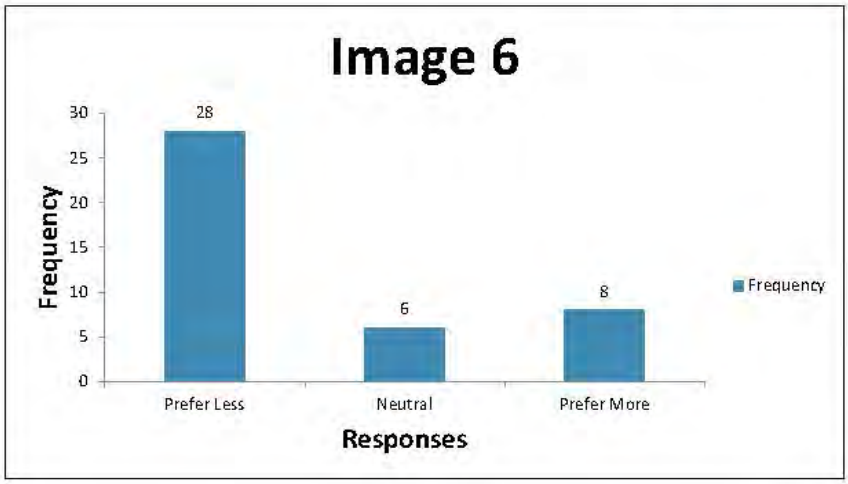
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	19
Neutral	6
Prefer More	16



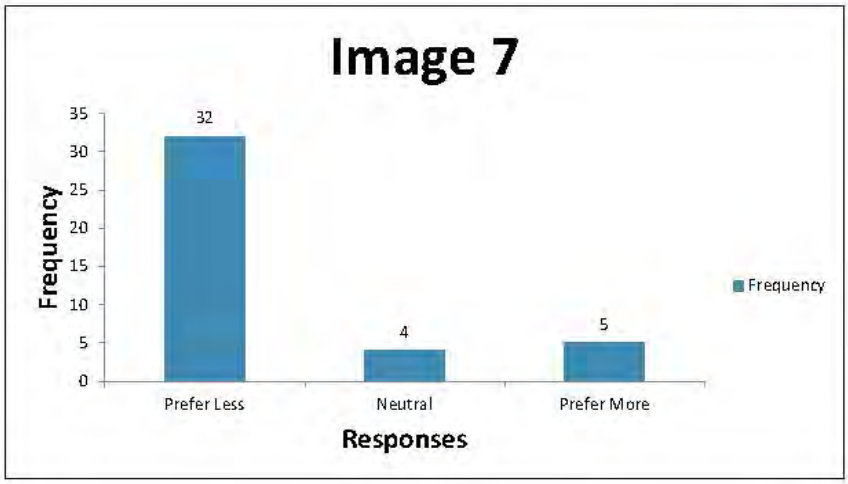
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	28
Neutral	6
Prefer More	8



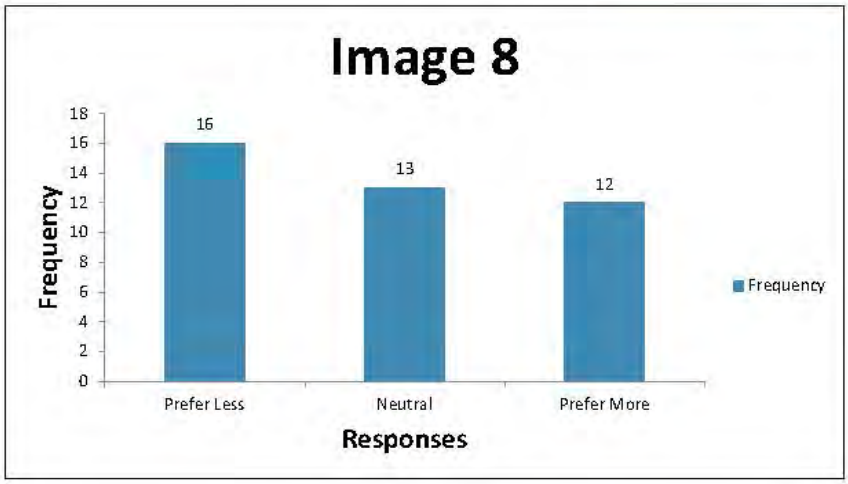
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	32
Neutral	4
Prefer More	5



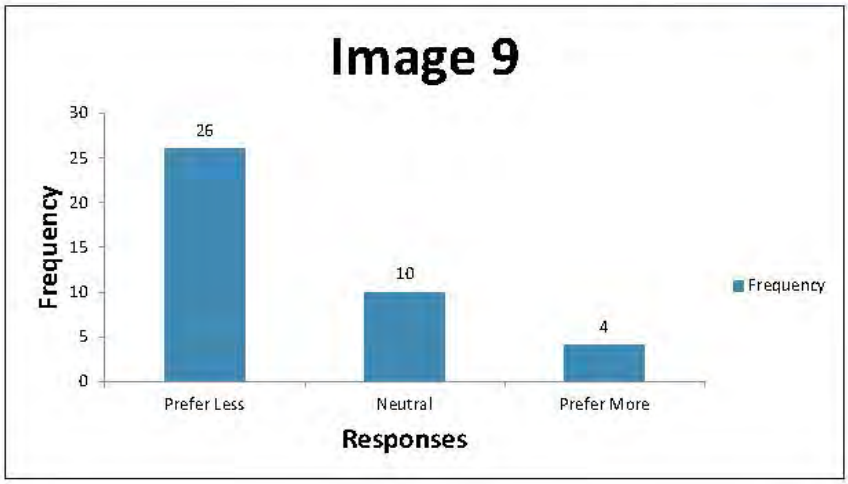
Melville Employment Center Plan

Response	Frequency
Prefer Less	16
Neutral	13
Prefer More	12



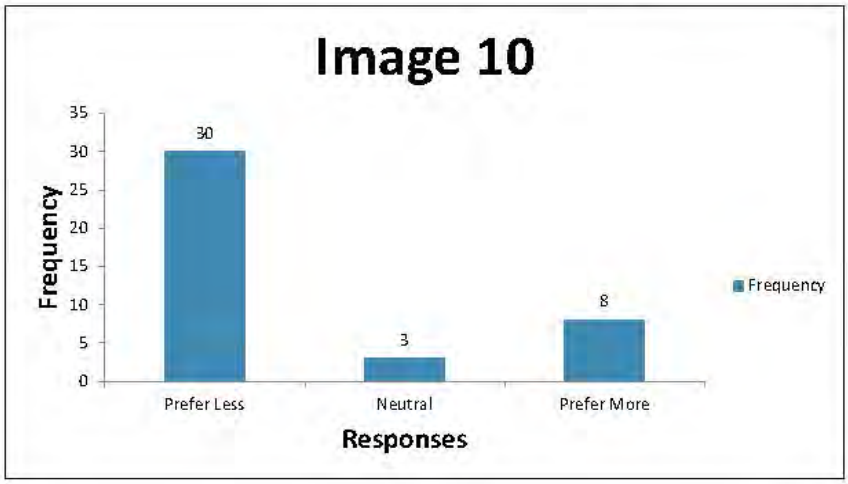
Melville Employment Center Plan

Response	Frequency
Prefer Less	26
Neutral	10
Prefer More	4



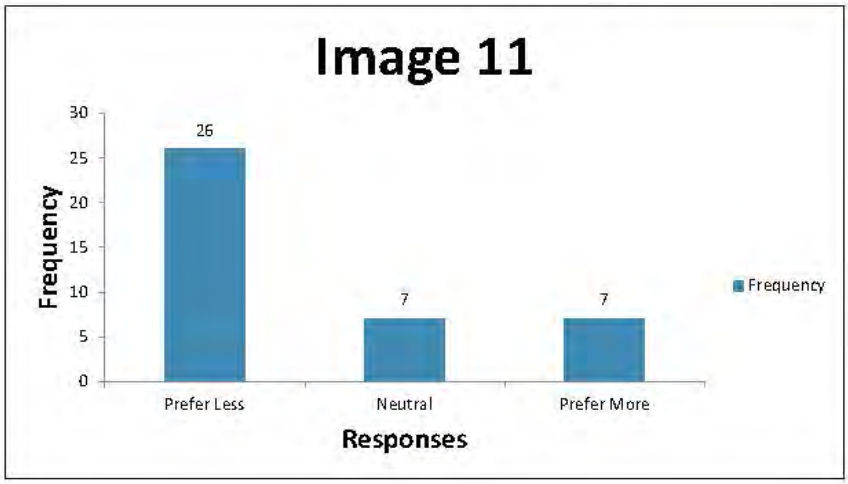
Melville Employment Center Plan

Response	Frequency
Prefer Less	30
Neutral	3
Prefer More	8



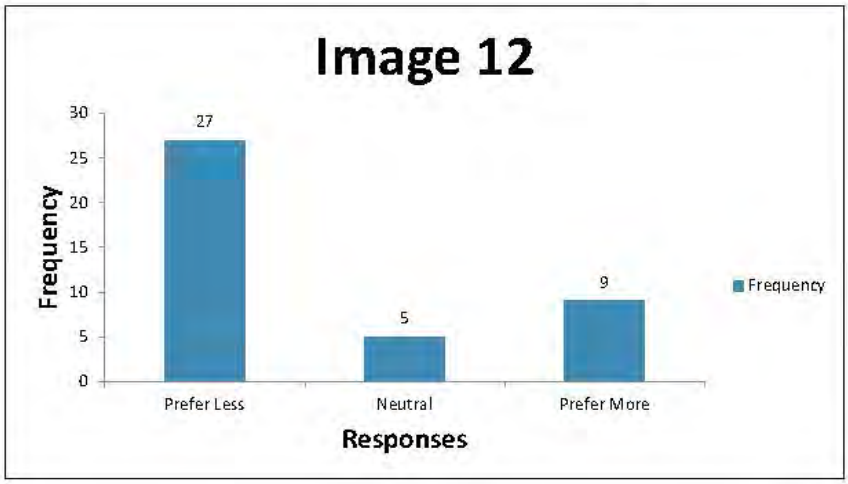
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	26
Neutral	7
Prefer More	7



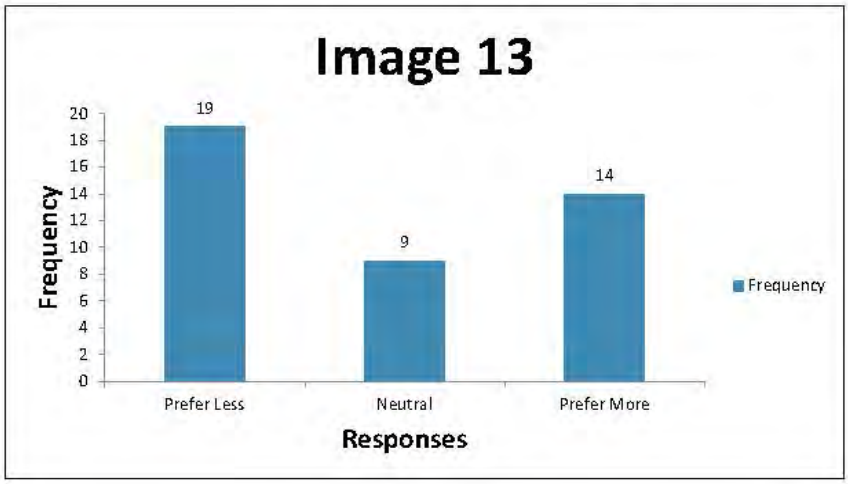
Melville Employment Center Plan

Response	Frequency
Prefer Less	27
Neutral	5
Prefer More	9



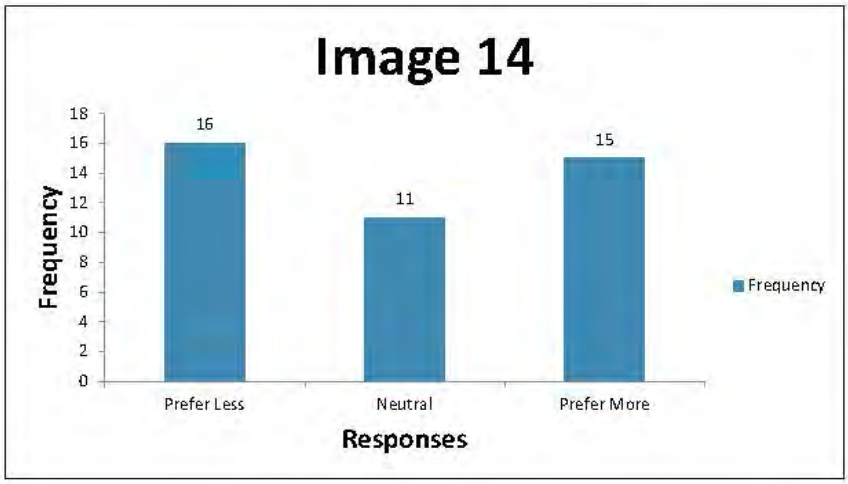
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	19
Neutral	9
Prefer More	14



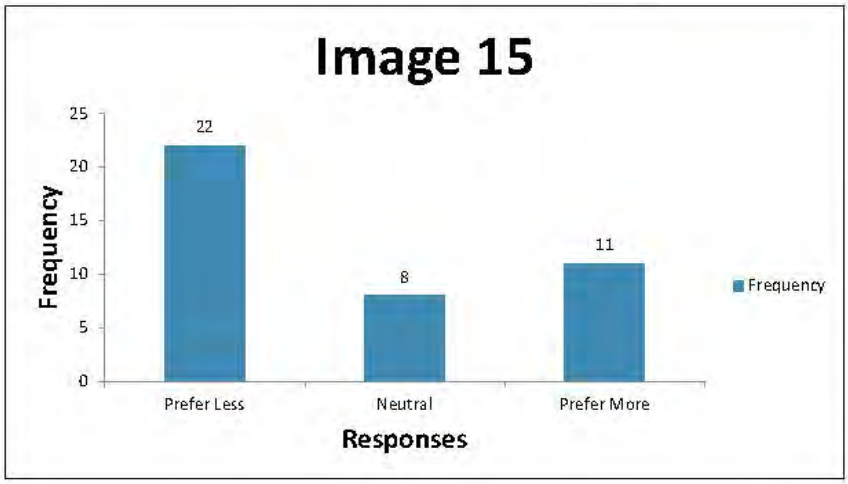
Melville Employment Center Plan

Response	Frequency
Prefer Less	16
Neutral	11
Prefer More	15



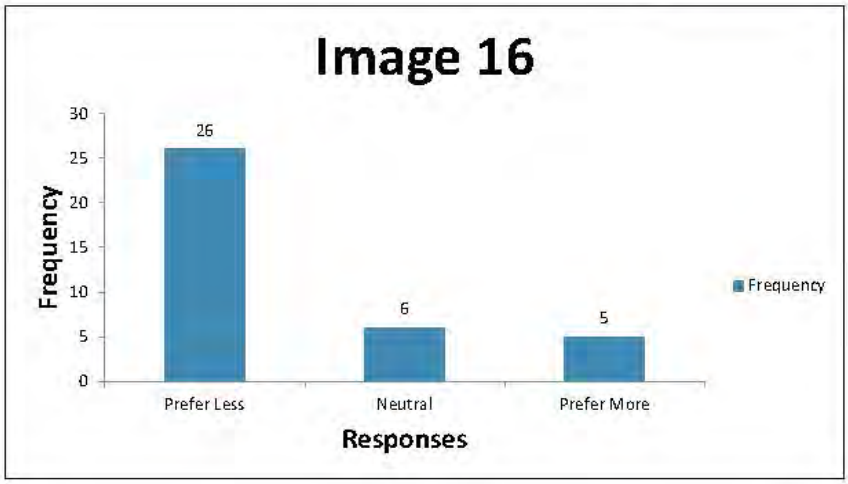
Melville Employment Center Plan

Response	Frequency
Prefer Less	22
Neutral	8
Prefer More	11



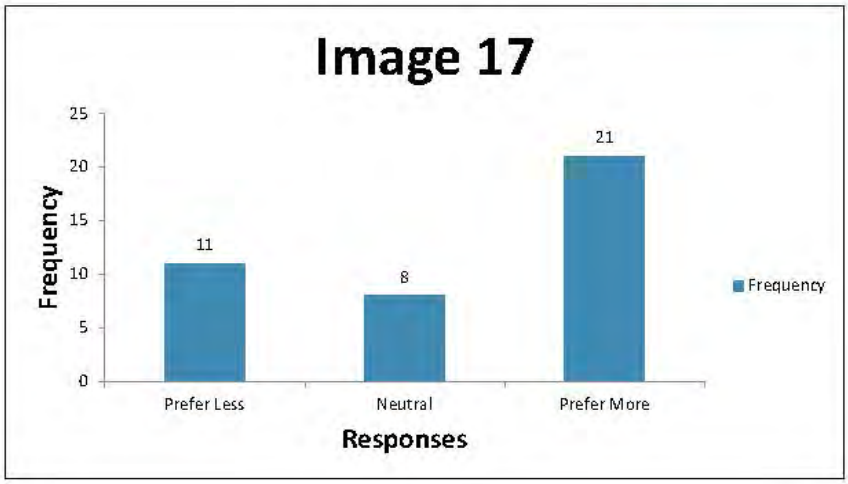
Melville Employment Center Plan

Response	*Frequency*
Prefer Less	26
Neutral	6
Prefer More	5



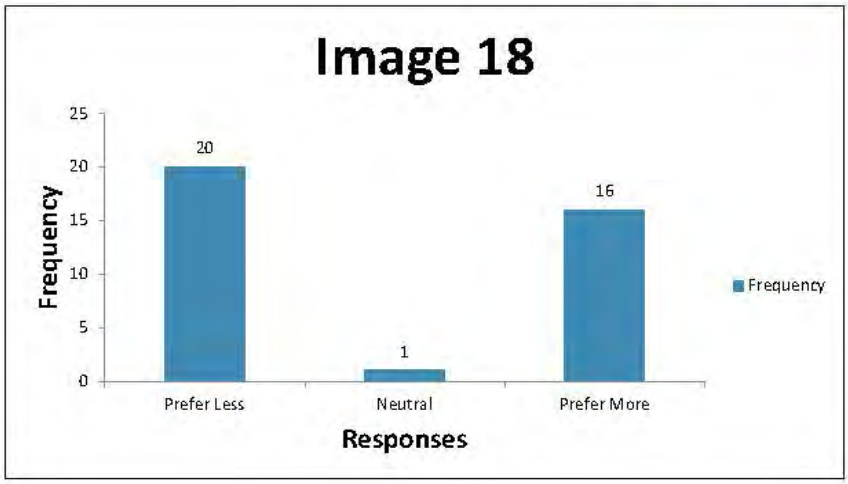
Melville Employment Center Plan

Response	Frequency
Prefer Less	11
Neutral	8
Prefer More	21



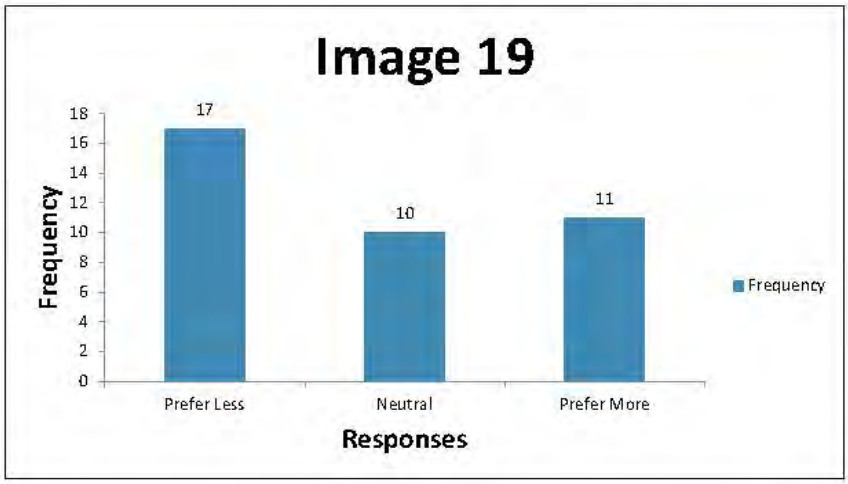
Melville Employment Center Plan

Response	Frequency
Prefer Less	20
Neutral	1
Prefer More	16



Melville Employment Center Plan

Response	*Frequency*
Prefer Less	17
Neutral	10
Prefer More	11



Melville Employment Center Plan

Response	Frequency
Prefer Less	20
Neutral	13
Prefer More	6