



SAFE ROUTES FOR SENIORS



10/31/2014

Design Guidelines and Planning Report

**Prepared by the Weymouth Department of Planning and
Community Development in partnership with WalkBoston**

**Town of Weymouth, MA
Susan M. Kay, Mayor**

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Acknowledgements

The Safe Routes for Seniors Design Guidelines and Planning Report was prepared by the Town of Weymouth's Department of Planning and Community Development (Planning Department). Partners in this study included the Weymouth Health Department, Elder Services Division, Department of Public Works, Police Department, and the non-profit walk advocacy organization, WalkBoston.

Safe Routes for Seniors was funded by a grant from the Massachusetts Council on Aging in partnership with the Massachusetts Department of Public Health. The Town of Weymouth acknowledges the following individuals for their commitments and contributions to the study:

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Executive Summary

In recent decades, the Town of Weymouth has seen its population age and diversify. In 2010, a little more than one fifth of residents were over the age of 59. By 2015, this proportion could reach more than one in four, or 28.4 percent of residents.¹ The Tufts Health Plan Foundation reports that among residents 65 years and older, about one third live alone, more than a fifth are obese, and about one in eight are income eligible for both Medicare and Medicaid (a proxy measurement for poverty).² Although the Town's Elder Services Division provides an array of resources to assist older residents, the Town's built environment has never been analyzed from a healthy aging perspective.

The Weymouth Department of Planning & Community Development (Planning Department) seeks to promote healthy aging by designing safer routes for seniors. Healthy aging is the aspiration that as adults age they will continue to have access to those opportunities that make for a better quality of life. Evidence shows that older adults are particularly affected by community design, and a variety of design choices have been identified to encourage seniors to walk more during their daily trips:

- Wide, unobstructed sidewalks create comfortable right of ways for pedestrians who rely on walking aides or motorized wheel chairs
- Smooth, non-slip, well-maintained pavement surfaces reduce the risk of falls
- High-contrast grade changes, detectable warning strips and ADA-compliant curb ramps alert pedestrians of their approach to streets and hazardous drop offs
- Longer crossing times and countdown signals give pedestrians more time for crossing and increase their awareness
- Sidewalk extensions and sharply angled street corners shorten crossing distances and slow turning vehicles
- Street trees and benches buffer traffic and provide resting places
- Shelters and public restrooms make public transit more pleasant

Over the summer of 2014, the Planning Department partnered with the Weymouth Health Department, Elder Services Division, Department of Public Works, Police Department and the non-profit walk advocacy group, WalkBoston, to conduct a data-driven senior pedestrian safety study. Information was collected on the Town's housing, land use, and pedestrian crashes relevant to older adults. This data was then mapped and analyzed to identify areas of need for designing safer, more comfortable walking conditions for seniors.

Street-level walk audits were conducted in target areas based on community input received from older adults during a public meeting at the Weymouth senior center. Areas of needs were identified as surrounding (1) Broad and Washington Streets, (2) Columbian Square, (3) Jackson Square, and (4) Bridge and Green Streets. Participants in the walk audits included a wide range of community representatives – many of them senior residents – and great care was taken to incorporate all relevant business associations, civic groups and municipal agencies.

The Safe Routes for Seniors study has produced a wealth of data for the Town of Weymouth to consider. Overall, the study finds that Weymouth’s infrastructure offers a solid foundation to begin building a healthy-aging community. “Weymouth has good bones,” says WalkBoston’s Executive Director Wendy Landman, though there are a number of pedestrian concerns that require short- and long-term attention. Sidewalk conditions and crosswalk visibility are two principal concerns that were identified, both by walk audit participants and public meeting attendees. Wide streets and turning radii were also found to complicate the pedestrian infrastructure, namely by prioritizing driver convenience over pedestrian comfort. Outdated walk signals and obstructed driver-pedestrian visibility were further found to decrease pedestrian comfort, especially at key intersections and crossings for older adults.

To respond to these areas of need with pedestrian improvements, this report offers design guidelines and implementation alternatives to inform the Town of Weymouth’s capital improvements planning process. Suggestions range from long-term, construction-heavy infrastructure changes to more innovative approaches like low-cost, high-impact place making. The Planning Department, in agreement with the Elder Services Division and the Health Department’s Healthy Wey initiative, believes that this report offers an important perspective for the Town’s agencies, boards and commissions to consider in developing the built environment. So long as Weymouth remains an aging community, walkability will be an important gateway to the health, safety and well-being of our seniors.

¹ “Weymouth Town (city), Massachusetts State & County Quick Facts,” *United States Census Bureau*, Jul. 2014, U.S. Department of Commerce, Web, 10 Oct. 2014 <<http://quickfacts.census.gov/qfd/states/25/2578972.html>>.

² “Massachusetts Healthy Aging Community Data Profile Weymouth (Norfolk),” *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014 <<http://mahealthyagingcollaborative.org/wp-content/uploads/2014/02/towncode336.pdf>>.

Chapter One: Community Profile

Overview of Weymouth

The Town of Weymouth is a mature suburban community located in Norfolk County near the crossroads of Routes 3 and I-93/I28, approximately 12 miles southeast of Boston. Settled in 1622 and incorporated in 1635, Weymouth is the second oldest township in the Commonwealth. From colonization to suburbanization, the community has participated in every major cultural and economic trend to affect the region in the last 379 years. Today, Weymouth has a strong residential character with a fair mix of established neighborhoods, new developments and several large apartment complexes. Most housing units are owner-occupied, single-family homes radiating outward from four village centers. Renter-occupied units account for about one third of the housing inventory, and Chapter 40B subsidized units make up about eight (8) percent.¹

Though fairly stable in recent decades, the population of Weymouth has steadily diversified. Among the 53,743 persons estimated to live in Weymouth, about one fifth are under 18 years of age, another fifth are over the age 59, and about 11 percent speak a language other than English at home.² Since 2010, two census block groups have been state-designated as Environmental Justice populations (i.e., 25 percent or more of the residents within the block groups identify as minorities).³ In addition, the number of school-age students in the Town's English learners program rose 13 percent between 2013 and 2014.

Arabic has exceeded Spanish as the second-most widely spoken language among English learners, with Portuguese ranking number one.⁴ Weymouth is also a designated entitlement community under the federal Community Development Block Grant program. There are 11 low- or moderate-income neighborhoods in the town, and about one out of every 14 residents lives below the federal poverty line.⁵



Figure I-1: Weymouth Town Hall

Photo by Lisa Irwin

Older Residents

Aging is one of the principal characteristics of the Weymouth community. Approximately one out of every five residents is over 59 years of age. By 2015, this proportion could reach more than one in four, or 28.4 percent of residents.⁶ Though easily grouped by age, older adults of Weymouth are not homogenous. A recent study by the Tufts Health Plan Foundation finds

that among adults aged 65 years and older of Weymouth, about one third live alone, 45 percent are married, and about one in eight (8) are income eligible for both Medicare and Medicaid (a proxy measurement for poverty). Compared to state averages, older residents of Weymouth have lower rates of glaucoma and osteoporosis. They do worse on other health indicators including higher rates of strokes, COPD, ischemic heart disease, congestive heart failure, colon cancer, and four or more chronic diseases. Nutrition and wellness indicators are also concerning among the town's seniors, though they are relatively in line with state averages. More than 75 percent of town's elderly population *does not* consume the recommended five or more serving of fruits or vegetables per day, and about one fifth are considered to be obese as measured by body to mass index (BMI).⁷

Community resources for older residents

Recognizing that older adults can be more vulnerable to hardships than other segments of the population (see Chapter Two for further discussion), the Town of Weymouth offers an array of resources to assist residents aged 60 years and older. In particular, Weymouth has an active senior center operated by the Town's Elder Services Division. The center hosts weekly group exercise classes for balance training and muscle strengthening. Bi-weekly blood pressure clinics and monthly hearing and vision screenings are also offered at the center. In addition, scheduled transportation to and from grocery stores, medical offices and social events are available. The center also employs two outreach workers who provide assistance to seniors with agency referrals, home visits, needs assessments and public-benefits enrollment.



Figure 1-2: Annual Braintree-Weymouth Senior Walk for Fitness (2014). Photo by Susan Barnes

Aside from delivering senior-specific resources, Weymouth has also been an active participant in the state-sponsored Mass in Motion initiative to improve public health through local policy, system and environmental changes. Since 2009, the Town's Healthy Wey program has brought together over one hundred community partners dedicated to creating a healthier Weymouth. Strategies for change have included expanding programs for regular exercise, starting a local farmer's market, and recruiting local restaurants to offer healthy, affordable food and drink options. Overall, the coalition promotes opportunities for healthy eating and active living throughout Weymouth. The Town's senior center has been a principal partner in this initiative. It provides community space and organizational support for a number of Healthy Wey activities, all of which point older adults towards a healthier way.

Outstanding needs of older residents

Notwithstanding the efforts of the Town's senior center and Healthy Wey program, there is much to be done to meet the needs of Weymouth's elderly population. The majority of residents aged 65 years and older live either with their families or alone in their own home.⁸ Due to reduced capabilities, these older adults can struggle with everyday tasks, not to mention health care and generally maintaining their quality of life. Yet according to a recent report by the AARP Public Policy Institute, 87 percent of adults aged 65 years and older would prefer to age in their current homes and communities.⁹ In other words, seniors want to age in place. They want to live full lives in the homes of their choosing for as long as they are able, while also maintaining as high a quality of life and level of independence as possible.

Helping older adults achieve this goal requires more than just a consideration of how programs and services can assist seniors in meeting their needs. It requires a deeper assessment and planning of the built environment through a healthy aging perspective. Towns like Weymouth must build their communities in ways that make it easier for seniors to maintain good health and, as a consequence, age in the homes and the neighborhoods of their choosing. Through the Safe Routes for Seniors study, Weymouth seeks to advance this goal by considering the role of street design in maintaining comfortable walking conditions for older adults. If seniors of Weymouth are encouraged to choose walking for more daily trips, they can better maintain good cardiovascular health in old age and follow a healthier way of aging.



Figure I-3
Source: WalkBoston, *Walk Your Way to Health*

¹ "Community Data," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014 <<http://www.weymouth.ma.us/planning-community-development/pages/community-data>>; Cecil Group, eds., *Town of Weymouth Master Plan* (Weymouth: Town of Weymouth, 2001), available online <<http://www.weymouth.ma.us/planning-community-development/pages/town-master-plan>>.

² "Community Data," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014 <<http://www.weymouth.ma.us/planning-community-development/pages/community-data>>.

³ "Environmental Justice Viewer," *Office of Geographic Information (MassGIS)*, n.d., Commonwealth of Massachusetts, Web, 10 Oct. 2014 <http://maps.massgis.state.ma.us/map_ol/ej.php>.

⁴ Schiavone, Christian, "Number of Arabic speakers doubles at Weymouth schools," *The Patriot Ledger* 16 May 2014, Web, 10 Oct. 2014 <<http://www.wickedlocal.com/article/20140516/News/140517168>>.

⁵ "Community Data," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014
<<http://www.weymouth.ma.us/planning-community-development/pages/community-data>>; "Community Development Block Grant (CDBG) Program," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014
<<http://www.weymouth.ma.us/planning-community-development/pages/community-development-block-grant-cdbg-program>>.

⁶ "Weymouth Town (city), Massachusetts State & County Quick Facts," *United States Census Bureau*, Jul. 2014, U.S. Department of Commerce, Web, 10 Oct. 2014 <<http://quickfacts.census.gov/qfd/states/25/2578972.html>>.

⁷ "Massachusetts Healthy Aging Community Data Profile Weymouth (Norfolk)," *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014
<<http://mahealthyagingcollaborative.org/wp-content/uploads/2014/02/towncode336.pdf>>.

⁸ *Ibid.*

⁹ Rondey Harrell, et al, *What is Livable? Community Preferences of Older Adults* (Washington: AARP Public Policy Institute, 2014), available online
<http://www.aarp.org/content/dam/aarp/research/public_policy_institute/liv_com/2014/what-is-livable-report-AARP-ppi-liv-com.pdf>.

Chapter Two:

Healthy Aging and Community Design

What is healthy aging?

The Massachusetts Healthy Aging Collaborative (MHAC) defines healthy aging as a multi-dimensional concept that “encompasses all aspects of a person’s life” beyond the mere presence or absence of disability and disease. It is the aspiration that as people age they will continue to have access to those opportunities that make for a better quality of life, such as health care, economic security and participation in one’s community.¹

Inevitably, older adults experience a number of changes associated with the normal aging process. Examples of these changes include the following:

- Decreased muscle strength and endurance
- Increased risk of falling due to loss of balance
- Increased risk of illness
- Decreased mobility
- Reduced hearing and/or vision

Medications can also play a role in reducing the physical capacities or changing the needs of older adults. Diuretics, or “water pills”, for example, require more frequent restroom visits during a person’s daily trips, which in turn makes access to public facilities particularly important for elderly persons on the go.²

Whatever the changes brought by aging, older adults need not experience a lower quality of life as measured by access to opportunities. A model of aging developed by the MHAC identifies several goals that make it possible for older adults to experience healthy aging even when living with disability or disease (see Figure 2-1).³ A community committed to healthy aging is one that will support older adults in achieving these goals. According to the MHAC, older adults should have the ability to do the following⁴:

- Maintain good diets through healthy eating and healthy drinking.
- Be socially engaged by staying close with friends, family and their community.
- Stay physically active through regular balance, cardio and/or strength activities.
- Be proactive about managing their health by understanding health conditions and seeking support from others.
- Feel safe from violence as well as secure in income and housing.
- Lead meaningful lives through a sense of purpose and valued activities.

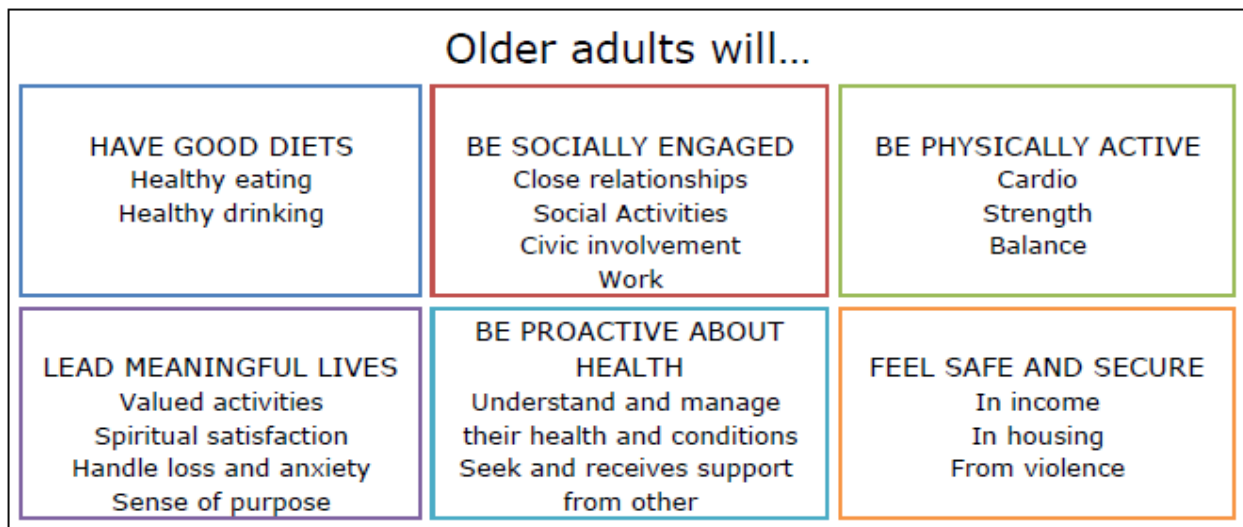


Figure 2-1: Massachusetts Healthy Aging Collaboration's Ingredients to Healthy Aging

Improving health through community design

Modern community planning is predicated upon the notion that the ways in which people build their cities can impact their health and wellbeing. During the Industrial Revolution, single land use and zoning regulations were tools for separating people from factories and containing public health problems caused by industrial waste (e.g., infectious diseases). By the second half of the twentieth century, this logic was flipped on its head. Urban sprawl was no longer needed to maintain good public health. Rather walkable neighborhoods, mixed land uses and green public spaces became the modern gateways to healthy living.⁵

A substantial amount of research has been done to indicate that health outcomes are influenced by an array of community design choices. The Pioneer Valley Planning Commission (PVPC) surveys a wide array of these studies in its recent publication, the *Healthy Community Design Toolkit: Leveraging Positive Change* (2014). Prepared by professional planners, the *Toolkit* offers ways to improve the health of a community by analyzing the built environment and making changes in local policies, regulations and the environment itself. For example, when development patterns include wide streets and generous parking, it becomes less pleasant and less convenient for people to walk or bike to destinations. People choose to drive for more daily trips, and the community

"Urban heat island effects occur when pavement and buildings absorb solar energy throughout the day and radiate that heat back into the air. This is due to pavement, buildings and other structures absorbing more heat from sunlight than the natural landscape." Source: PVPC, Massachusetts Healthy Community Design Toolkit

experiences a decline in physical activity as well as an increase in *urban-heat islands effects*. In

contrast, development patterns can foster more walkable communities when local regulations promote narrower roads, traffic calming measures and sidewalks buffered by trees and on-street parking. Interventions like these are just some the tools identified by the PVPC for building healthier communities.⁶

Community design impacts on older adults



Figure 2-2
Source: WalkBoston, *Walk Your Way to Health*

In partnership with the Massachusetts Council on Aging, the PVPC is working to adapt its *Toolkit* to incorporate accessibility concerns as well as healthy aging. Two focus groups comprised of older adults were conducted in Holyoke and Northampton, Massachusetts to gain a greater understanding of the concerns that elderly persons have on planning issues like safe streets and walkability. The PVPC's preliminary findings were shared with Mass in Motion grantees through a webinar in April 2014 as well as a workshop at the Mass in Motion Action Institute in May 2014.⁷

Thus far, a major finding of the adapted *Toolkit* has been the determination that older adults are particularly affected by community design compared to other age cohorts.⁸ “Older adults spend more of their time at home and in their immediate neighborhoods than younger Americans, and as a result, they are more affected by the opportunities and constraints created by the design of their community.”⁹ Physical impairments as well as income constraints tend to play a role in keeping the elderly close to home. Another issue is transportation, as older adults may not own a vehicle, may lack access to a car, or may choose not to drive for their own safety.¹⁰ Whatever the reason, it is evident that older adults are more sensitive than most to the opportunities and barriers created by the built environment.

By considering the role of street design in maintaining good cardiovascular health, communities like Weymouth can make it easier for seniors to incorporate physical activity into their daily routines. The Center for Disease Control and Prevention (CDC) advises that people aged 65 years or older should engage in 150 minutes of physical activity a week. Meeting this goal is an important step for older adults who wish to age in place. The Tufts Health Plan Foundation reports that regular physical activity not only reduces the risk of heart diseases and strokes but also helps to manage blood sugar levels in older adults with Type 2 diabetes. Moreover, exercise has been shown to decrease depression and may even help to prevent it.¹¹



Figure 2-3
Source: WalkBoston, *Walk Your Way to Health*

The PVCP has identified a variety of community design choices that can encourage older adults to walk more during daily trips.¹² These recommendations are consistent with those made by the walk advocacy group, Transportation Alternatives, in its *Safe Streets for Seniors Final Report* for the City of New York (2009).¹³ The following list represents a suite of community design choices that create safer, more comfortable streets for senior pedestrians:

- Sidewalks with an unobstructed, four- to six-foot wide pedestrian right of way offer comfortable clearways for older adults who have difficulty avoiding obstacles and may rely on walking aides or motorized wheel chairs for travel. See Figure 2-4.
- Smooth, non-slip, well-maintained pavement surfaces help reduce the risk of falls. See Figure 2-4.
- High-contrast grade changes, detectable warning strips and ADA-compliant curb ramps (leading directly to crosswalks) alert older adults of their approach to streets and hazardous drop offs. See Figure 2-5.
- Longer crossing times and countdown signals give older adults more time to cross and increase their awareness of time while doing so. See Figures 2-6.
- Sidewalk extensions and sharply angled street corners (near 90 degrees) shorten the crossing distance for older adults and help to slow turning vehicles, thus increasing pedestrian safety. See Figure 2-7.
- Street trees and benches buffer traffic as well as provide comfortable resting places for older adults. See Figure 2-8.
- Shelters and public restrooms at transit stops make it more pleasant for older adults to use public transportation. See Figure 2-9.



Figure 2-4: Wide, unobstructed sidewalks and smooth, well-maintained pavement surfaces.
Source: WalkBoston, *Walk Your Way to Health*



Figure 2-5: High-contrast grade changes, a detectable warning strip and ADA-compliant curb ramp. Photo by Nicholas Bulens



Figure 2-6: Longer signals with countdowns provide more time to cross with confidence.
Source: WalkBoston, *Walk Your Way to Health*



Figure 2-7: Sidewalk extensions, tight corners shorten the crossing distance and slow traffic.
Source: WalkBoston, *Pedestrian Advocacy 201*



Figure 2-8: Street benches and trees create comfortable resting places. Source: WalkBoston, *Good Walking is Good Business*



Figure 2-9: Bus shelters and shade trees make it more pleasant to ride public transit. Photo by Nicholas Bulens

Community design impacts in Weymouth from past to present

Historic patterns of development are meaningful to the community planning process. Though at first glance, features of Weymouth's built environment may appear ill-suited for walkability, a closer look reveals a solid foundation for creating (or rather rebuilding) a pedestrian culture.

In its earlier years, the Town of Weymouth had a pedestrian-oriented infrastructure consistent with its working class population. The Weymouth of the nineteenth century was a manufacturing town where many residents worked in local factories and most housing was concentrated around four village centers. By the 1890s, streetcars offered residents convenient transportation between the centers, and the region's railroads linked Weymouth to the greater Boston area. Not only were businesses and retail stores in close proximity to one another, but most shops were within walking distance of homes and neighborhoods.

Local storefronts thrived from the foot traffic of residents who regularly chose to walk and ride transit.¹⁴



Figure 2-10: Postcard showing streetcar system in lower Jackson Square. Source: Weymouth Historical Commission

After World War II, rising incomes led to an explosion in automobile ownership. This brought fundamental changes to the built environment. The state and federal governments launched an aggressive series of highway construction programs; residents of Weymouth began looking to Boston for higher paying jobs; and with the advent of the expressway and other major roads, driving became the dominate transportation choice for traveling between home and work. By the 1960s, reliance on the automobile (as well as the trend towards suburban decentralization) was firmly incorporated into the Town's master plan and zoning bylaw. Local requirements aimed to lessen congestion in the streets, prevent overcrowding of land, expand parking facilities, and encourage compact business development along its highways and local arterials. Over time, housing moved away from the village centers, and it became less efficient to maintain a local transit system. The streetcars and railroads were decommissioned, and Weymouth's last remaining shoe factory closed its doors in 1973. By the start of the millennium, patterns of development had led to a substantial loss of community accessibility, not to mention the overcrowding of local arterials by national retail stores and off-street parking.¹⁵



Figure 2-11: Satellite view of Middle Street, Washington Street (Rt-53) and Winter Street intersections, located within 0.5 miles of onramp to the Route 3 expressway. Image shows overcrowding of local arterials by large scale stores and off-street parking. Source: MassDOT.state.ma.us/highway, *Route 53 Middle St. & Winter St. Intersection*

As a bedroom community, Weymouth remains relatively dependent on the automobile for transportation. In 2013, there were approximately 1.7 vehicles per employed person and over half of the town's occupied housing units had two or more vehicles. The mean travel time to work is approximately 30 minutes, and only 8.8 percent of workers aged 16 years and older use public transit.¹⁶ Moreover, Weymouth scores 37 out of 100 on Walk Score's walkability index, classifying the town as "car dependent" and putting it well below the state walkability estimate (52.6). According to Walk Score, residents of Weymouth can walk to an average of only 0.1 restaurants, bars and coffee shops in five minutes.¹⁷

Despite dependence on the automobile, Weymouth retains a number of physical characteristics conducive to walking. These include four village centers with a mix of civic and commercial land uses; a variety of parks and playgrounds in close proximity to homes; and a "good" average block length as calculated by Walk Score (469 feet versus 643 feet for the state estimate).¹⁸ Local and regional transportation options have also expanded in recent years. The MBTA Greenbush Commuter Rail Line reopened in 2007 with stations located in the village centers of East Weymouth and Weymouth Landing. Moreover, two

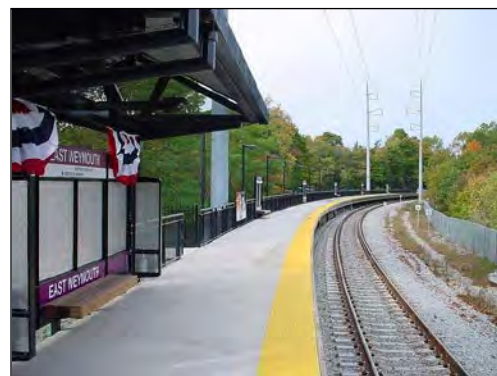


Figure 2-12: MBTA East Weymouth Commuter Rail Station. Source: public domain

MBTA bus routes were extended into South Weymouth in 2009, providing transportation to high-trafficked destinations like the village centers, grocery stores and the South Shore Hospital.

Though likely to remain car dependent in the near future, Weymouth has good bones to support further transportation alternatives, mostly notably walking and bicycling.

¹ *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014
<<http://mahealthyagingcollaborative.org>>.

² “What is Aging in Place?” *Age in Place*, 2014, Age In Place Networks and AgeInPlace.com, Web, 10 Oct. 2014
<<http://ageinplace.com/aging-in-place-basics/what-is-aging-in-place/#>>; Ruth Palombo, PhD, “Healthy Aging-Using Data to Inform Healthy Eating and Active Living,” Community Planning for Healthy Aging Workshop, Mass in Motion Action Institute, DCU Center, Worcester, 28 Apr. 2014.

³ “Highlights from the Massachusetts Healthy Aging Data Report: Community Profiles 2014,” *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014
<http://mahealthyagingcollaborative.org/wp-content/uploads/2014/01/MA_Healthy_Aging_Highlights_Report1.pdf>.

⁴ *Ibid.*

⁵ Dillon Sussman, “Healthy Community Design for Healthy Aging,” Community Planning for Healthy Aging Workshop, Mass in Motion Action Institute, DCU Center, Worcester, 28 Apr. 2014.

⁶ Pioneer Valley Planning Commission (PVPC), *Massachusetts Healthy Community Design Toolkit – Leveraging Positive Change* (Springfield: PVPC, 2014).

⁷ Lee Susan Ojamaa, “Healthy Community Design: A Safe Route to Healthy Aging,” *Focal Points News from the MCOA* Spring 2014: 8-9, available online
<http://www.mcoaonline.com/content/pdf/Focal_Points_Spring_2014.pdf>.

⁸ Dillon Sussman, “Healthy Community Design for Healthy Aging,” Community Planning for Healthy Aging Workshop, Mass in Motion Action Institute, DCU Center, Worcester, 28 Apr. 2014.

⁹ Henry Cisneros et al., eds., *Independent for Life: Homes and Neighborhoods for an Aging America* (University of Texas Press: Austin, 2012) 147.

¹⁰ Ruth Palombo, PhD, “Healthy Aging-Using Data to Inform Healthy Eating and Active Living,” Community Planning for Healthy Aging Workshop, Mass in Motion Action Institute, DCU Center, Worcester, 28 Apr. 2014.

¹¹ “Highlights from the Massachusetts Healthy Aging Data Report: Community Profiles 2014,” *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014
<http://mahealthyagingcollaborative.org/wp-content/uploads/2014/01/MA_Healthy_Aging_Highlights_Report1.pdf>.

¹² Dillon Sussman, "Healthy Community Design for Healthy Aging," Community Planning for Healthy Aging Workshop, Mass in Motion Action Institute, DCU Center, Worcester, 28 Apr. 2014.

¹³ Transportation Alternatives, *Safe Routes for Seniors Final Report* (Transportation Alternatives: New York, 2009), available online <http://www.transalt.org/sites/default/files/news/reports/2009/Safe_Routes_for_Seniors.pdf>.

¹⁴ Cecil Group, eds., *Town of Weymouth Master Plan* (Weymouth: Town of Weymouth, 2001), available online <<http://www.weymouth.ma.us/planning-community-development/pages/town-master-plan>>; Christine S. Beard Associates, eds., *A Preservation Plan for the Town of Weymouth, Massachusetts* (Weymouth: Town of Weymouth, n.d.), available online <<http://www.weymouth.ma.us/planning-community-development/pages/historic-preservation>>.

¹⁵ *Ibid.*

¹⁶ "Community Data," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014 <<http://www.weymouth.ma.us/planning-community-development/pages/community-data>>; "Weymouth Town (city), Massachusetts State & County Quick Facts," *United States Census Bureau*, Jul. 2014, U.S. Department of Commerce, Web, 10 Oct. 2014 <<http://quickfacts.census.gov/qfd/states/25/2578972.html>>.

¹⁷ WalkScore is a private company that maintains a public-access walkability index. It assigns a numerical walkability score to any address or community in the United States based on distances to amenities. "Living in Weymouth Town," *Walk Score*, 2014, Walk Score, Web, 10 Oct. 2014 <http://www.walkscore.com/MA/Weymouth_Town>.

¹⁸ "Massachusetts Healthy Aging Community Data Profile Weymouth (Norfolk)," *Massachusetts Healthy Aging Collaborative*, 2014, Tufts Health Plan Foundation, Web, 10 Oct. 2014 <<http://mahealthyagingcollaborative.org/wp-content/uploads/2014/02/towncode336.pdf>>.

Chapter Three:

Senior Pedestrian Target Areas

Data on senior pedestrians

Weymouth is the fourth most populous township in the Commonwealth, behind Framingham, Brookline and Plymouth. Among these municipalities, the population density of Weymouth is second only to Brookline, yet the land area of Weymouth is more than twice as large. This means that residents of Weymouth are more densely packed over a relatively large area. Though a great many local neighborhoods could benefit from walk audits, the Safe Routes for Seniors study aims to facilitate walking among older adults in particular. To achieve this goal, the Department of Planning and Community Department (Planning Department) researched the walking habits and preferred destinations of Weymouth's seniors.

The following factors were identified as relevant and important to the study's objective:

- *Senior Pedestrian Crashes (age 60+).* Multiple motor vehicle crashes involving senior pedestrians suggests that an area's walking conditions are unsafe for older adults. When implementing one of the nation's first senior pedestrian safety programs in 2008, the New York City Department of Transportation (NYDOT) selected 25 focus areas based on the density of senior pedestrian (age 65+) crashes resulting in fatalities or severe injuries in a five-year period (see Figure 3-1).¹ Adapting the NYCDOT model to Weymouth, the Planning Department chose to expand the concept of "senior pedestrian crash" to include persons aged 60 years or older who were injured or killed. The floor age of 60 was chosen because residents over this age currently account for more than one fifth of Weymouth's population, and they are further eligible to receive services at the Town's senior center. Moreover, rather than limit the study's perspective to only the last five years, crash data was researched as far

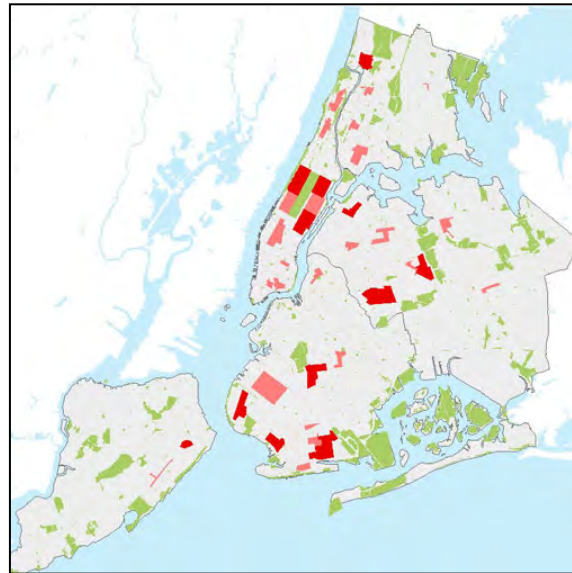


Figure 3-1: The NYDOT selected 25 senior pedestrian focus areas in the city's five boroughs based on the density of senior pedestrian (age 65+) crashes. Annual senior pedestrian fatalities decreased 19 percent in New York City between 2008 and 2012.

Source: [NYC.gov/html/dot](http://nyc.gov/html/dot)

back as possible in order to provide a meaningful dataset from which patterns or trends could be detected.

- *Senior Housing.* As discussed in Chapter Two, older adults are likely to spend more of their time at home or in their immediate neighborhoods. Improvements to walking conditions around senior housing can thus have a big impact on the physical activity of older adults. In Weymouth, senior housing is widely dispersed and takes multiple shapes and sizes. Nursing facilities are obviously relevant, and older adults account for a sizable portion of the Town's public housing population. In addition, there are several private developments across Weymouth that either restrict occupancy to senior citizens or include a large number of senior households.



Figure 3-2: Meet the Author event at Weymouth Tufts Library (2014). Source: Weymouth Public Libraries

- *Civic/Public Spaces.* Older adults are frequent users of civic and public spaces in Weymouth. They are not only regular patrons of the Weymouth Public Libraries but also recurrent visitors of many parks and trails (see Figures 3-2 & 3-3). When in close proximity to senior housing, civic and public spaces are likely to be desirable walking destinations. Therefore, pedestrian improvements around these spaces are likely to encourage older adults to walk more often.



Figure 3-3: Great Esker Park. Source: Southfield.com

- *Medical Services.* Facing increased risks of disability and illness, older adults are likely to visit areas offering medical services. These areas should be made safe and comfortable for senior pedestrians not only to encourage walking but also to support seniors in managing their health conditions. For Weymouth, this point is particularly applicable. An article in the *Patriot Ledger* once referred to Weymouth as the “South Shore’s medical mecca”. The Town’s medical services district encompasses about a two mile stretch of land on Route 18 and features 23 medical buildings with more than 100 laboratories, medical specialists, physician groups and treatment centers.² At the heart of the medical services district is the South Shore Hospital, Weymouth’s largest health care facility and one of the region’s leading providers of cardiac, emergency, home, health, hospice, oncology and surgical care. The hospital offers an array of on-site community benefit programs that serve the health and wellness needs of vulnerable populations, including older adults.³

- *Business Districts.* Like everyone, older adults visit commercial areas for both shopping and leisure. Yet seniors are also more likely to stay within their immediate neighborhoods (or at their community) when making daily trips. This makes local stores and town squares important destinations for the elderly. When in close proximity to housing, older adults are likely to walk to these destinations – assuming they feel safe and comfortable doing so. Thus, pedestrian improvements near stores and squares can encourage older adults to walk more often (not to mention retail spending is often higher in walkable areas⁴).

Taken together, the forgoing information provides a data-driven foundation for the Safe Routes for Senior study. When accounting for all factors, an “ideal” Senior Pedestrian Target Area (SPTA) can be described as a neighborhood or square that has a history of senior pedestrian crashes in close proximity to senior housing and further has some combination of public space, medical services and/or retail businesses within reasonable walking distance.

Collecting the data

The process of data collection required assistance from a number of Town agencies. Staffs were very supportive and worked in partnership with the Planning Department to obtain the relevant information.

Pedestrian crash records are maintained by the Weymouth Police Department and are separated by fatalities and injuries. For the purposes of the current study, these records were requested from the Town’s Traffic Officer as far back as possible through present day. The final data set included all pedestrian-to-vehicle crashes occurring between July 2009 and February 2014 that resulted in either injuries or a fatality.

Land use data is maintained by the Town’s Geographic Information System (GIS) Administrator. Fortunately, the study’s inquiries aligned nicely with the local zoning districts. First, the medical services (MS) district encompasses a large majority of the Weymouth’s clinics, hospitals, laboratories, medical offices and treatment facilities. Second, though public facilities and open spaces are vastly dispersed across the community, they are collectively grouped within the same district: i.e., public, semi-public and open space (POS). Lastly, only 4.5 percent of Weymouth’s land area is available for retail business. This use is narrowly contained within three separate but easily distinguished zoning districts: limited business (B-1), general business (B-2) and neighborhood center (NCD).⁵

Although senior housing information is not formally maintained by the Town, the Elder Services Division keeps an informal list of public and private options for older adults of Weymouth. Public housing properties are published by the Weymouth Housing Authority.

Visualizing where older adults walk

Given the physical nature of the information collected, the Planning Department mapped the data with the assistance of the Town's GIS Administrator. A map template used for visualizing the Weymouth's annual motor vehicle crashes was adapted for this purpose. The rendered map (see Appendix A) displays the following information:

- Senior pedestrian (60+) fatal crashes 2009-2014
- Senior pedestrian (60+) nonfatal crashes 2009-2014
- Public housing 2014
- Private senior housing 2014
- Nursing facilities 2014
- Limited business (B-1) zoning district
- General business (B-2) zoning district
- Medical services (MS) zoning district
- Neighbor center (NCD) zoning district
- Public, semi-public and open space (POS) zoning district



★	Senior Fatal Pedestrian Accidents '09 - '14
★	Senior Pedestrian Accidents '09 - '14
🏠	Public Housing 2014
🏠	Private Senior Housing 2014
🏠	Nursing Facilities 2014
🏠	Limited Business District
🏠	General Business District
🏠	Medical Services District
🏠	Neighborhood Center District
🏠	Public & Semi-Public Open Space

Figure 3-4 – Map legend for Senior Pedestrian Target Areas Map

Apart from merely visualizing the collected data, the map created by the GIS Administrator is instructive in at least two ways. First, it incorporates summary statistics about motor vehicle crashes from the 2012 calendar year. This feature helps to identify any correlations between the number of motor vehicle crashes and the number of senior pedestrian crashes throughout the town. Second, having been formatted to identify those intersections and streets with the highest annual number of crashes, the map contains 10 focus-area windows that zero in and display specific locations. As a consequence, Planning Department staff could examine all potential SPTAs side by side while keeping their relative locations in perspective.

Identifying areas of need

The Planning Department, in consultation with the study's partners, came to identify four SPTAs based on the factors outlined above. Described in some detail below, these areas not only correspond with a variety of data on senior pedestrians, but they are also fairly representative of Weymouth's four villages – North Weymouth, South Weymouth, East Weymouth and Weymouth Landing.

- *Broad and Washington Streets (Factors: senior pedestrian crashes, senior housing, medical services, civic/public spaces and business district).* Since July 2009, Broad and Washington Streets have seen two fatal senior pedestrian crashes and one nonfatal crash. There are three types of elderly housing adjacent to the intersection, which together provide living accommodations for over 450 older adults. These include the Colonial Rehabilitation & Nursing Center (nursing facility), Union Tower I apartments (public housing) and Colonial Village apartments (private senior housing). An MBTA bus stop (route 225) is situated in the immediate vicinity and includes a bus bench and shelter. Within a quarter (0.25) mile radius of the intersection, there is Jimmy's Broad Street Diner, Tufts Public Library, Weston Park and the Weymouth Landing Post Office – all popular destinations among the neighborhood's older adults. Furthermore, within a half (0.5) mile radius of the intersection, there is a walk-in urgent medical care facility (Express Health) as well as the Weymouth Landing village center with a number of restaurants and retail shops and an MBTA Commuter Rail Station. See Figure 3-5 for map.
- *Columbian Square (Factors: senior pedestrian crashes, senior housing, medical services, civic/public spaces and business district).* Located in South Weymouth, Columbian Square is the town's most frequented village center as measured by foot traffic. It not only features restaurants and retail shops but a wide variety of senior-frequented destinations, all within a quarter (0.25) mile radius of the square's center. These include the Cameo Cinema, Fogg Public Library, Olden's Pharmacy, South Shore Hospital, South Weymouth Post Office, Stella Tirrell Park/Playground and Whole Foods Market. Since July 2009, there have been six nonfatal senior pedestrian crashes within a half (0.5) mile radius of square, not to mention the area's more than 11 motor vehicle crashes in 2012. Adjacent to the square is Whittakers Rest Home (nursing facility) as well as the Camelot Apartments (private housing dominated by seniors). In addition, the square itself abuts the town's medical services district and is serviced by MBTA bus route 225. See Figure 3-6 for map.
- *Jackson Square (Factors: senior pedestrian crashes, senior housing, civic/public spaces and business district).* Another village center, Jackson Square in East Weymouth is home to some of the oldest and best known restaurants and retail shops in the town. These include Denly Gardens, Nikos Restaurant, the Venetian Restaurant, Weymouth House of Pizza and George Washington Toma TV & Appliances. Within a quarter (0.25) mile radius of the square's Pope Tower apartments (public housing), there is the East Weymouth Post Office, Herring Run Pool Park, Lovell Park/Playground and Pratt Public Library. An MBTA bus stop (route 222) is adjacent to the public housing and includes a bus bench and shelter. In addition, the square is host to an MBTA Commuter Rail Station. Since July 2009, there have been two nonfatal senior pedestrian crashes, both in lower Jackson Square. See Figure 3-7 for map.

- *Bridge and Green Streets (Factors: senior pedestrian crashes, senior housing, civic/public spaces and business district).* Located within a half (0.5) mile of the town's senior center, the intersection of Bridge and Green Streets marks a middle ground between the Bicknell Square village center and the Riverway Plaza, a commercial strip of large-scale retail stores that include CVS Store & Pharmacy and Lowe's Home Improvements Store. Since 2009, Bridge Street has seen three nonfatal senior pedestrian crashes. These occurred in close proximity to the Cadman Tower apartments (public housing) as well as MBTA bus stops for routes 221 and 222. Adjacent to Bicknell Square, there is also the North Weymouth Post Office, O'Sullivan Park/Playground and Beals Park. Furthermore, Bicknell Square is situated at the heart of the town's neighborhood center district with a number of restaurants and small retail stores. See Figure 3-8 for map.



Figure 3-5: Broad and Washington Streets, Senior Pedestrian Target Areas Map (Appendix A)

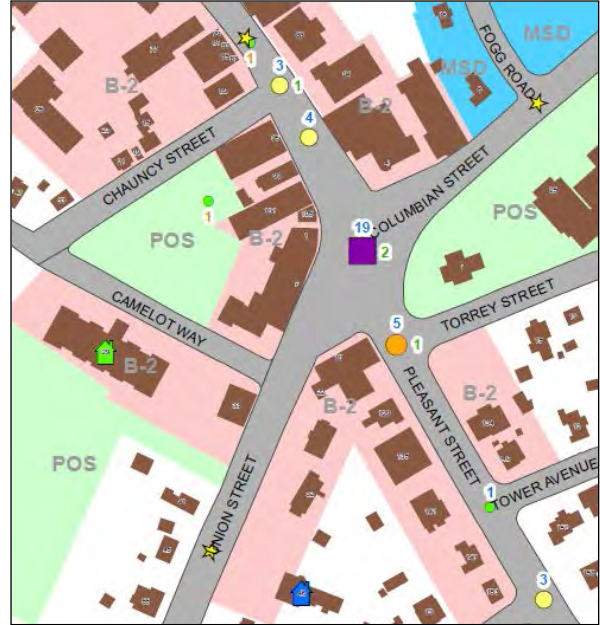


Figure 3-6: Columbian Square, Senior Pedestrian Target Areas Map (Appendix A)

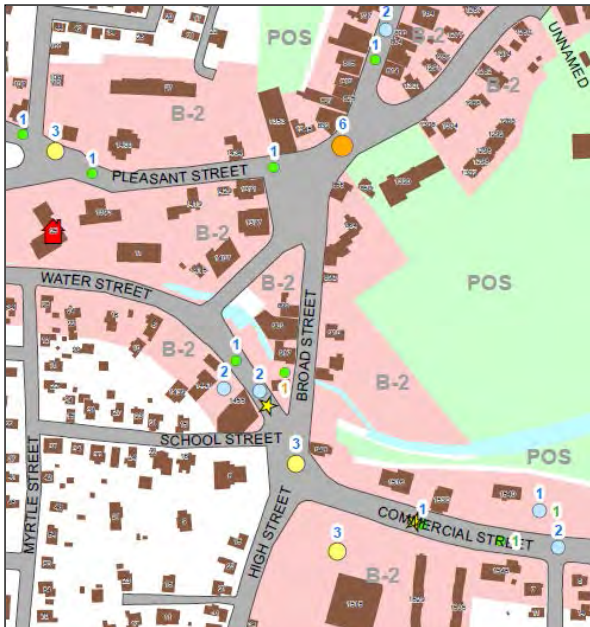


Figure 3-7: Jackson Square, Senior Pedestrian Target Areas Map (Appendix A)

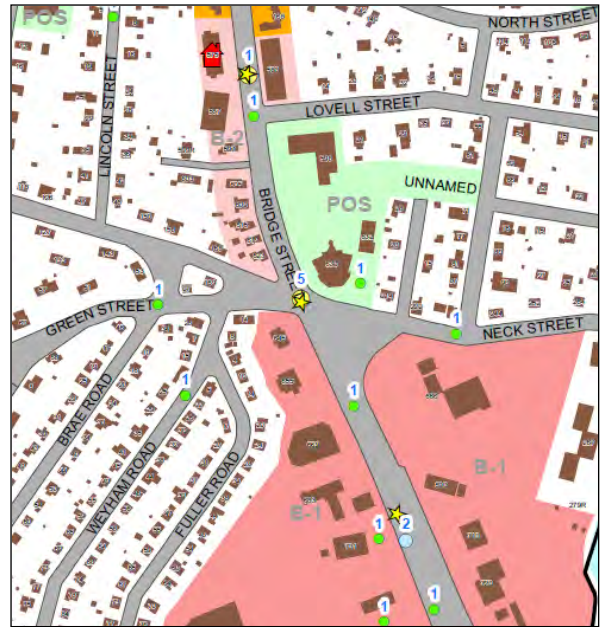


Figure 3-5: Bridge and Green Streets, Senior Pedestrian Target Areas Map (Appendix A)

¹ "Pedestrians: Safe Routes for Seniors," *New York City DOT*, 2014, City of New York, Web, 16 Oct. 2014 <<http://www.nyc.gov/html/dot/html/pedestrians/safeseniors.shtml>>.

² Sue Scheible, "The South Shore's medical mecca," *The Patriot Ledger* 2 May 2009, Web, 16 Oct. 2014 <<http://www.patriotledger.com/article/20090502/News/305029848>>.

³ *South Shore Hospital*, 2014, South Shore Hospital, Web, 16 Oct. 2014 <<http://www.southshorehospital.org/>>.

⁴ WalkBoston, *Good Walking is Good Business* (Boston: WalkBoston, 2012).

⁵ Although retail businesses are also allowed within the Town of Weymouth's Village Center district (VC), this zoning district is an overlay of a B-2 district. It would be redundant to include it here.

Chapter Four:

Engaging Older Adults

Completing the story



Figure 4-1
Source: WalkBoston,
Pedestrian Advocacy 201

As detailed in Chapter Three, the Department of Planning and Community Development (Planning Department) relied upon housing, land use and pedestrian crash data to identify a set of Senior Pedestrian Target Areas (SPTAs). This data was a critical starting point to the study, as it allowed the Planning Department to visualize where older adults of Weymouth lived, where they were likely to travel on foot, and where they were getting hurt while walking. However, in consultation with WalkBoston, the Planning Department determined that the story was incomplete. Although information on housing, land use and pedestrian crashes can identify foot-traffic areas, planning safe *routes* for seniors requires knowing specific destinations and lines of travel. With this knowledge, the Town can better target pedestrian improvements to maximize benefits for seniors. Moreover, it is important to acknowledge that older adults may choose *not* to walk in a certain

area because the pedestrian infrastructure is currently too unpleasant. If this is the case, then data on pedestrian crashes is not informative.

Ultimately, completing the story required the active engagement of Weymouth's seniors. Only by talking and listening to older adults can a community fully comprehend the walking habits and concerns of its elderly population.

Outreach to older adults

To engage older adults about the pedestrian infrastructure, a public meeting was scheduled for 10:00 am at the Weymouth senior center on Friday, June 20, 2014. The day and time were intended to maximize convenience for older adults. Not only did the meeting's schedule coincide with the senior center's peak hours, but persons interested in attending had access to free scheduled transportation from Elder Services.


In conducting outreach to older adults, guidance from the Elder Services Division was invaluable. During fiscal year 2013, the Division served 3,511 unduplicated seniors aged 60 and older through daily activities and programs offered at the senior center.¹ As Weymouth's largest social services provider to older adults, the Division is more knowledgeable than any


other local agency on how to reach senior residents as well as how best to solicit their participation and feedback.

The public meeting was first advertised in the senior center's *Elder Horizons* newsletter which is printed monthly and distributed in the thousands to an array of local venues (churches, grocery stores, libraries, senior apartments, etc.). In addition, the Planning Department leveraged numerous media outlets to promote the event. These included the following:

- A "Safe Routes for Seniors" webpage on www.weymouth.ma.us
- The Town of Weymouth's public event calendar
- The online *Weymouth Patch* Bulletin Board for community events
- News and announcements posted on www.weymouth.ma.us
- Flyers displayed at public libraries and Weymouth Town Hall
- A press statement released to the local civic associations and newspapers (coverage was provided by the *Weymouth News* and *Boston Globe South*)
- A recurring local television announcement aired by the Weymouth Educational Telecommunication Corporation (WETC)
- Social media postings by the Weymouth Public Libraries (facebook) and South Shore Elder Services (twitter)

William Begley, Chairman, Board of Elder Services Mayor Susan M. Kay Susan Barnes, Director

JUNE 2014 **Whipple Senior Center** 

 182 Green Street, Weymouth, MA 02191

WEYMOUTH ELDER HORIZONS

Senior Center 781-682-6140 • Transportation 781-331-3921 • Hours: Monday-Friday 9 a.m.—4 p.m.
Meal Site Lunch Reservation: Call 339-499-6419 by 10a.m. one week before you wish to come in.
www.weymouth.ma.us • Programs Hotline: 781-682-3822 after 9 a.m.

**Safe Routes for Seniors:
Presentation and Workshop**

Join us on **Friday June 20 at 10:00am** for a presentation and workshop on improving walkability around Weymouth and promoting healthy aging through safer routes for seniors. The Weymouth Planning Department has partnered with WalkBoston to design improvements to the town's street and sidewalks that will make it safer for seniors to walk and be active. Seniors are invited to hear more about the project and provide input on walking conditions and concerns in Weymouth. What streets and intersections do you think are unsafe for walking? What changes would you make? Share with us your opinions and suggestions, and learn how communities can be made safer through improvements to streets and sidewalks. So we know how much space we need to accommodate everyone, please register by calling the Whipple Senior Center at 781-682-6140. Your input is important!

Figure 4-2: Advertisement in *Elder Horizons* newsletter June 2014 edition

Though no formal survey was conducted on how older residents heard about the public meeting, anecdotal evidence indicates that the most successful forms of advertisement were the monthly newsletter, local newspaper articles and word of mouth by Town staff and community organizations. It is also noteworthy to mention that refreshments for attendees were advertised and served. These included healthy food and drink options consistent with the Town of Weymouth's Healthy Meeting Policy.

Conducting a public meeting for older adults

The public meeting was conducted by the Planning Department in partnership with the Elder Services Division and WalkBoston. Research was conducted on how similar events had been conducted by the Pioneer Valley Planning Commission (PVPC) and the New York City's Department of Transportation (NYDOT).² Suggestions were also shared among the study's partners. The final format included four parts:



Figure 4-3: Safe Routes for Seniors public meeting.
Photo by Valarie Sullivan

1. *Project overview.* The details of the Safe Routes for Seniors study were outlined in a power point presentation by the Planning Department. This included information on the project's funding, objectives and strategies. The Planning Department also explained the initial data-analysis process and elucidated how the four SPTAs were selected.
2. *Walk audit methodology.* As the study's technical assistance partner, WalkBoston presented information on the walk audit methodology. Participants learned not only what a walkability assessment entails but also what elements help to make streets safer and more comfortable for pedestrians. These are as follows:
 - Good sidewalk design characterized by limited curb cuts, traffic buffers (trees, street furniture, on-street parking, etc.) and pedestrian clearways that are wide, even, smooth and unobstructed.
 - Good street design characterized by appropriate traffic speeds, well-placed crosswalks, vertical structures (lights, signs, trees, etc.) and roadways with relatively narrow lanes and tight corners.



Figure 4-4
Source: WalkBoston, Walk Audit Methodology for Weymouth

- Safe intersections and crossings characterized by clear lines of sight, well-marked crosswalks, sidewalk extensions and appropriate signal timing with countdown crossing times.
- Well-maintained streets and sidewalks as measured by regularly repainted crosswalks, trimmed overgrowth (hedges, trees, etc.) and timely snow and ice removal.

See Chapter Five's *Weymouth Walk Audit Report* for images and definitions of walking environment terminology.

3. *Facilitated participation.* Using satellite images of the four SPTAs, the Planning Department facilitated a series of proxy walk audits with participants. One by one, an aerial map of each SPTA was projected onto a large screen for review. Handouts were provided to participants so they had the option to pen their comments rather than voice them (see Appendix B). For each SPTA, participants were asked to discuss three questions: (1) what are the popular destinations in the area; (2) what concerns do you have about the walking conditions; and (3) what safety improvements would you like to see? Facilitators regularly repeated comments for everyone to hear, and all comments were recorded on a large easel-size notepad in the front of the public meeting room.
4. *Open comment period.* Once participants 'walked thru' the SPTAs with facilitators, the floor was opened to questions and concerns not yet addressed. This open comment period was an opportunity for attendees to identify any areas of need that had not been identified through data analysis (perhaps because the area's walking conditions were too unsafe or unpleasant).

Following the close of the public meeting, reviews from attendees were overwhelmingly positive. This led the Planning Department to identify a number of constructive practices for engaging older adults.

- *Use visuals (handouts, maps, slides, etc.).* Community design images help elucidate what makes for a good/bad walking environment. In turn, older adults can begin to build the necessary observational skills to identify and explain problems with the pedestrian infrastructure.
- *Be familiar with local neighborhoods and squares.* Older adults respond positively to facilitators with whom they share a connection. An easy way to establish this connection and thereby stimulate discussion is to be familiar with local neighborhoods and squares. For example, call local landmarks by their 'townie' names (Lovell's Corner versus the intersection of Mutton Lane and Washington Street).

- *Repeat and display public comments.* Older adults can be hard of hearing as well as seeing. Those who experience such problems can feel left out the conversation and become disinterested. Facilitators should repeat public comments often, and should also record them for real-time review.

Insights from the senior participation process

Over thirty residents aged 60 years or older attended the public meeting on Friday, June 20, 2014. Though the attendees were fairly representatives of the different villages in Weymouth, a plurality lived in the Broad and Washington Streets neighborhood – the most dangerous of the SPTAs as measured by pedestrian fatalities.

From the outset of the meeting, there was a consensus among attendees that the Planning Department had correctly identified Weymouth’s most important areas of need. The older adults were thus forthcoming and spirited in acknowledging their concerns for the SPTAs. The following were the issues most commonly mentioned:

- *Poorly maintained sidewalks.* There was a strong consensus among attendees that the Town’s sidewalks are in poor condition and pose hazards to older adults who are at risk of tripping and falling. “Dismal” and “terrible” were common adjectives used to describe sidewalks in each of the four SPTAs. Particular concerns were expressed for sidewalks between the public library and senior housing on Broad Street, as well as those accessing the hospital in Columbian Square, where cracked and uneven pavement in both locations has led the neighborhoods’ seniors to travel by automobile rather than foot. One resident even noted that the sidewalks on Broad Street are too poor for a motorized wheelchair to travel safely. Attendees also bemoaned the absence of curbs and sidewalks on a number of important roadways. These included Water Street traveling north past the Herring Run Pool Park towards lower Jackson Square; Vine Street as a cut-thru between Broad and Washington Streets; Pleasant Street going west towards the Whole Foods/Pleasant Street Shops from Columbian Square; and Bridge Street traveling east towards the Riverway Plaza. Interestingly, those in attendance directly associated the poor conditions of sidewalks with not only discouraging walking but also doing a “disservice” to local businesses.
- *Vehicles not yielding.* Older adults were critical of traffic speed in most SPTAs, and there was a consensus that many drivers fail to yield to pedestrians. These conditions cause senior residents to feel unsafe, even when using designated crosswalks. Vehicles speeding and not yielding were reported to be particularly bad in Columbian Square (Pleasant and Union Streets) as well as along Broad and Washington Streets, which comprise major arterials for commercial trucks. Because of these conditions – fast moving traffic and unyielding drivers – attendees reported difficulties in accessing a number of destinations, including banks, coffee shops, libraries, post offices and salons.

The crosswalk adjacent to Jimmy's Broad Street Diner was described as particularly dangerous and unpleasant for older adults, though the restaurant itself is a very popular eatery and only a block away from the neighborhood's three senior housing buildings.



Figure 4-5: In Columbian Square, diagonal on-street parking reduces visibility and fast moving traffic causes senior pedestrians to feel unsafe.
Photo by Nicholas Bulens

- *Obstructed lines of sight.* Older adults commonly observed that the lines of sight between drivers and pedestrians are obstructed in many locations. These include crossings to the post office along Washington Street; the shops and restaurants adjacent to Union Street (Columbian Square); and the library, post office and retail shops in upper Jackson Square. In some areas – like Union Street and Jackson Square – the obstruction is a consequence of either a blind hill or curve. But in many locations, the culprit was identified as on-street cars parked too close to pedestrian crosswalks. This is especially true, attendees reported, inside Columbian Square (where on-street parking is diagonal), as well as near the post office and library in the Broad and Washington Streets SPTA (see Figures 4-5, 4-6 and 4-7).



Figure 4-6: Across from the post office on Washington Street, car parked adjacent to crosswalk obstructs driver-pedestrian visibility. Photo by Nicholas



Figure 4-7: Outside the post office entrance on Washington Street, a curb “bulb out” creates better driver-pedestrian visibility. Photo by Nicholas

- *Poorly marked crosswalks.* Attendees were persistent in expressing their concerns for the style and upkeep of the Town's crosswalks. Many bemoaned what they perceived as a failure to repaint crosswalks in the SPTAs, particularly in Columbian Square, as well as Broad and Washington Streets, where speed and reduced visibility are problematic. There was also a consensus that crosswalks painted using two parallel lines are insufficient to alert drivers to pedestrian traffic. Among attendees, there was a distinct preference for zebra/ladder stripping as well as in-street pedestrian signage to send better signals to drivers (see Figures 4-8 and 4-9).



Figure 4-8: Older adults said they prefer zebra/ladder-striped crosswalks. Source: WalkBoston, *Pedestrian Advocacy 201*



Figure 4-9: Older adults reported that in-street pedestrian signals are more noticeable. Photo by Nicholas Bulens

- *Obstructed pedestrian rights of ways.* Although the objects of obstruction varied, there were numerous reports from older adults that pedestrian rights of ways were too frequently blocked in the SPTAs. Overgrown vegetation was cited near Broad and Washington Streets, as well as lower Jackson Square near Water Street and Nicko's Restaurant. Parked vehicles were cited as frequently encroaching upon sidewalks on Broad Street, and some participants expressed concerns about encroachments by utility poles throughout the SPTAs. It was also mentioned that barrels, signs and tables sometimes created obstacles, though these objects were not seen as widely problematic.

After reviewing the public comments, the study's partners concluded that the four SPTAs had been appropriately identified as areas of need. Older adults of Weymouth generally agreed that these locations pose significant concerns for pedestrian safety, and design improvements were considered overdue and desirable.

¹ *Town Report July 1, 2012 – June 30, 2013* (Weymouth: Town of Weymouth, 2013), available online <<http://www.weymouth.ma.us/other-announcements/pages/2013-annual-report>>.

² Lee Susan Ojamaa, "Healthy Community Design: A Safe Route to Healthy Aging," *Focal Points News from the MCOA* Spring 2014: 8-9, available online
<http://www.mcoaonline.com/content/pdf/Focal_Points_Spring_2014.pdf>; "Pedestrians Safe Routes for Seniors," *New York City DOT*, 2014, City of New York, Web, 16 Oct. 2014
<<http://www.nyc.gov/html/dot/html/pedestrians/safeseniors.shtml>>.

Chapter Five:

Walk Audits

With technical assistance from WalkBoston, the Town of Weymouth conducted street-level walkability assessments, or walk audits, in the following Senior Pedestrian Target Areas (SPTA):

- Broad and Washington Streets
- Columbian Square
- Jackson Square
- Bridge and Green Streets

As detailed in Chapter Three, the four SPTAs were chosen based on their characteristics of housing, land use and number of senior pedestrian (60+) crashes. Walking routes for the SPTAs were developed by the Department of Planning and Community Development (Planning Department) (see Appendix C). Incorporated into the design of each route were comments voiced during the public meeting in June 2014 (see Chapter Four for details). As a consequence, the walk audits were conducted based on heightened scrutiny for the concerns of older adults.

Because community design is a multi-dimensional process involving many different stakeholders – engineers, planners, traffic officers, neighborhood groups, etc. – the partners of the Safe Routes for Senior study aimed to recruit representatives from as many interests as possible. This task proved challenging as Town staff and members of the public had many prior commitments during the summer months. Fortunately, excitement for the study was shared across organizational lines as well as across the community. In the end, those who participated in the walk audits compromised a substantial likeness to the actors involved in the community design process. Participants included Town staff from five agencies – the Elder Services Division, Health Department, Planning Department, Police Department and Department of Public Works. In addition, there were persons from the town’s business districts as well as neighborhood groups to represent the various villages of Weymouth –



Figure 5-1: WalkBoston staff uses chalk to draw sidewalk extensions during a walk audit.
Source: WalkBoston, *Walk Your Way to Health*

specifically, the Columbian Square Business Association, North Weymouth Civic Association and Tufts Public Library (a Weymouth Landing organization).

The following is a list of persons who, unless otherwise specified, participated in the four walk audits. Half of these persons qualified as seniors over the age of 59 years.

- Susan Barnes, Elder Services Director and Weymouth resident
- Nicholas Bulens, Grant Writer to Planning Department and Weymouth resident
- Frank Burke (*Jackson Square audit, Bridge/Green Streets audit*), Vice President to North Weymouth Civic Association, former District One Town Councilor (2012-2014) and Weymouth resident
- James Clarke, Planning Director and Weymouth resident
- Teryn Falkingham, (*Columbian Square, Jackson Square and Bridge/Green Streets audits*) Community Health Specialist and Assistant to Wellness Coordinator
- Wendy Landman, Executive Director to WalkBoston
- William MacArthur (*Columbian Square audit*), Pharmacist/Co-Owner to Olden Pharmacy, member to the Columbian Square Business Association
- Robert MacLean (*Broad/Washington Streets audit*), Library Services Director
- Braydon Marot, Project Engineer/EIT to Department of Public Works
- Owen MacDonald, Traffic Engineer to Planning Department
- Jennifer Pompeo, Patrolman to Weymouth Police and former Weymouth resident
- Jeannette Rose, Secretary to Board of Elder Services and Weymouth resident
- Bob Sloane, Senior Project Manager to WalkBoston
- Mark Snyder (*Columbian Square audit*), Owner of Snyder Jewelers and member to the Columbian Square Business Association
- Valerie Sullivan, Wellness Coordinator to Health Department
- Stephen Wright (*Broad/Washington Streets and Columbian Square audits*), Weymouth resident

Participants of the walk audits received street-level training in not only identifying problems with the pedestrian infrastructure but also evaluating the overall safety and quality of the walking experience on a given route. Participants found the experience to be enlightening and fruitful.

Though many skills were developed as a result of the walk audits, there is one lesson in particular that Town staff found critical: *evaluating the pedestrian environment requires a diverse set of eyes and interests*. In the judgment of study's partners, the success of the walk audits was owed in large measure to the information and experience that each participant brought to the table. Officer Jennifer Pompeo of the Weymouth Police provided first-hand knowledge of speed and traffic conditions in each SPTA; Braydon Marot, Project Engineer to the Department of Public Works, offered structural assessments of the Town's streetscapes; James Clarke, Planning Director, recounted street improvements that had previously occurred in the SPTAs; and Susan Barnes, Elder Services Director, shared the perspectives of the Town's senior center clients.



Figure 5-2

Source: WalkBoston, *Good Walking is Good Business*

Put simply, when a city or town conducts a walk audit for healthy aging, there is no compensating for the real-time knowledge of the community's engineers, planners, police officers, residents and senior center staff. As questions about pedestrian safety and comfort arise, it is salutary to have the relevant persons on hand to provide real-time accurate answers. Doing so enables a more efficient and more effective analysis of the built environment, thus maximizing the impact of the walk audits.

Following the walk audits, WalkBoston prepared a full report of findings in consultation with the study's partners. This report comprises the remaining pages of the chapter.



Walk Audit Weymouth, MA

July 9, 2014

Massachusetts Council on Aging Grant
Massachusetts Department of Public Health

MAKING MASSACHUSETTS MORE WALKABLE

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The community context

Weymouth has many of the attributes of a walkable community including a street system that has interconnected blocks of moderate size, a mix of land uses within reasonable proximity of many residents, a number of commercial areas that include a variety of civic uses, a mix of housing types including multi-family buildings and a wide mix of single family housing types, parks that are interspersed into many neighborhoods and a varied topography and landscape including both ponds and sea shore. In addition, Weymouth has a mix of transit services including both commuter rail and bus. This too provides an important backbone for a walkable place.

However, over the last 50 – 70 years the Town's transportation investments seem to have focused almost exclusively on vehicular travel, and to have given great preference to vehicle speed and flow over walking (or bicycling). Because of this focus, many of Weymouth's streets do not presently provide an attractive and safe walking environment.

The community now seems ready to improve the walking environment. The enthusiasm and interest of municipal staff, seniors who both participated in a walking focus group and joined in the walking audits, and several local businesspeople who joined the audits all speak to a high level of interest.

The report is organized below in three parts:

- An introduction that describes what is included in a walk audit and a discussion of terminology that will provide readers with the basic background needed to understand the recommendations.
- A summary section that includes several recommendations for immediate action and set of broad observations about the Weymouth walking environment.
- Detailed observations about each of the four walk audit areas.

Introduction

Under a Healthy Aging grant program administered in partnership by the MA Council on Aging and Department of Public Health, WalkBoston worked with a number of Weymouth municipal staff, local residents and businesspeople to carry out walk audits of four of

Weymouth's commercial districts. Each of these areas has seen senior pedestrian fatalities and/or accidents, and each was identified as problematic for senior walking safety during a focus group held in June 2014.

The four areas are:

- Broad/Washington Streets
- Columbian Square
- Jackson Square
- Bridge/Green Streets

A walk audit is a tool commonly used to identify problems with the pedestrian infrastructure. The assessments are often targeted to areas that have been identified as having existing safety problems and/or as areas that serve vulnerable populations such as seniors, children or transit users. These problems often include discontinuous sidewalk networks, unsafe street crossings, high speed traffic, damaged sidewalks and paths, unreliable pedestrian signals, accessibility (ADA) issues, lack of pedestrian crossing signage, and maintenance issues, such as crosswalks that need repainting or vegetation that has encroached on the pedestrian right-of-way.

Once identified, infrastructure improvements are categorized as short-term or longer-term priorities, and recommendations are made about carrying out improvements and repairs incrementally as funding becomes available. A safe and enjoyable walking environment is crucial to encouraging more seniors to walk and be physically active, a critical ingredient of healthy aging. A walking environment that is safe, convenient and attractive for seniors is of course also an environment that will encourage all Weymouth residents to walk and will also benefit the community's retail districts (see Attachment 1, "Good Walking is Good Business").

This report summarizes the existing conditions and recommends strategies and infrastructure improvements to enhance walking safety. Many of the observations relate to vehicular speed, visibility for both pedestrians and drivers, and street crossings. Lower-cost solutions are emphasized, but longer-term, more costly investments are also suggested.

Terminology

Below are images and definitions of the terms used to describe the walking environment in this report.

Crosswalk and Stop Line

Crosswalks can be painted in a variety of ways, some of which are more effective in warning drivers of pedestrians. Crosswalks are usually accompanied with stop lines. These lines act as the legally mandated stopping point for vehicles, and discourage drivers from stopping in the middle of the crosswalk.



Crosswalk patterns
Source: USFHA



Crosswalk and stop line
Source: http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_scdproj/sys_impact_rpt/images/fig16.jpg

Curb Ramp and Detectable Warning Strip

Curb ramps provide access from the sidewalk to the street for people using wheel chairs and strollers. They are most commonly found at intersections. While curb ramps have improved access for wheelchair-bound people, they are problematic for visually impaired people who use the curb as an indication of the side of the street. Detectable warning strips, a distinctive surface pattern of domes detectable by cane or underfoot, are now used to alert people with vision impairments of their approach to streets and hazardous drop-offs.



Curb ramp and detectable warning strip in Woburn, MA

Curb Extension/Curb Bulb-out

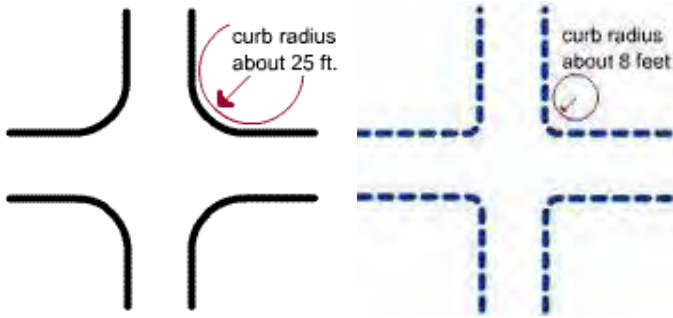
A sidewalk extension into the street (into the parking lane) shortens crossing distance, increases visibility for walkers and encourages eye contact between drivers and walkers.



Curb extensions are often associated with mid-block crossings

Curb Radius

A longer curb radius (on the left in figure below) allows vehicles to turn more quickly and creates longer crossing distance for pedestrians. A shorter curb radius (on the right in the figure below) slows turning speeds and provides pedestrians shorter crossing distances.



There are two excellent examples of the shortening of curb radii in Woburn, MA. The first (A) is a low-cost solution using a gravel-filled zone between the original curb line and the newly established road edge. The second is a higher-cost solution using grass and trees and extending the sidewalks to the new curb. Both work to slow traffic.

Fog Line

A fog line is a solid white line painted along the roadside curb that defines the driving lane and narrows the driver's perspective. Fog lines are most often used in suburban and rural locations, but may be appropriate in some urban conditions.



Fog lines delineate the vehicular driving zone on wide roadways.



(A) Gravel-filled curb extension



(B) Grass, trees and extended sidewalk in curb extension

In-street Pedestrian Crossing Sign

In-street pedestrian crossing signs are used at the road centerline within crosswalks to increase driver awareness of pedestrians in the area. These signs are a relatively low-cost, highly effective tool in slowing traffic by the narrowing travel lanes. They are popular with road maintenance departments since they can be easily moved for snow removal.



Leading Pedestrian Indicator (LPI)

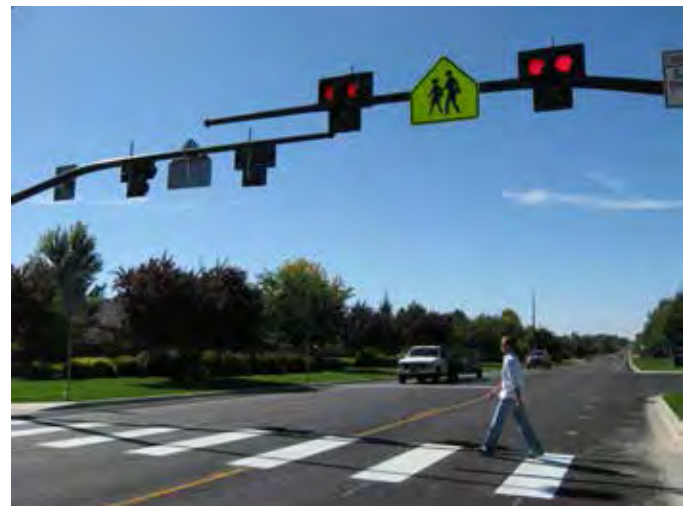
A leading pedestrian indicator gives pedestrians an advance walk signal before motorists get a green signal, giving the pedestrian several seconds to start walking in the crosswalk before a concurrent signal is provided to vehicles. This makes pedestrians more visible to motorists and motorists more likely to yield to them. Typical LPI settings provide 3 to 6 seconds of advance walk time.



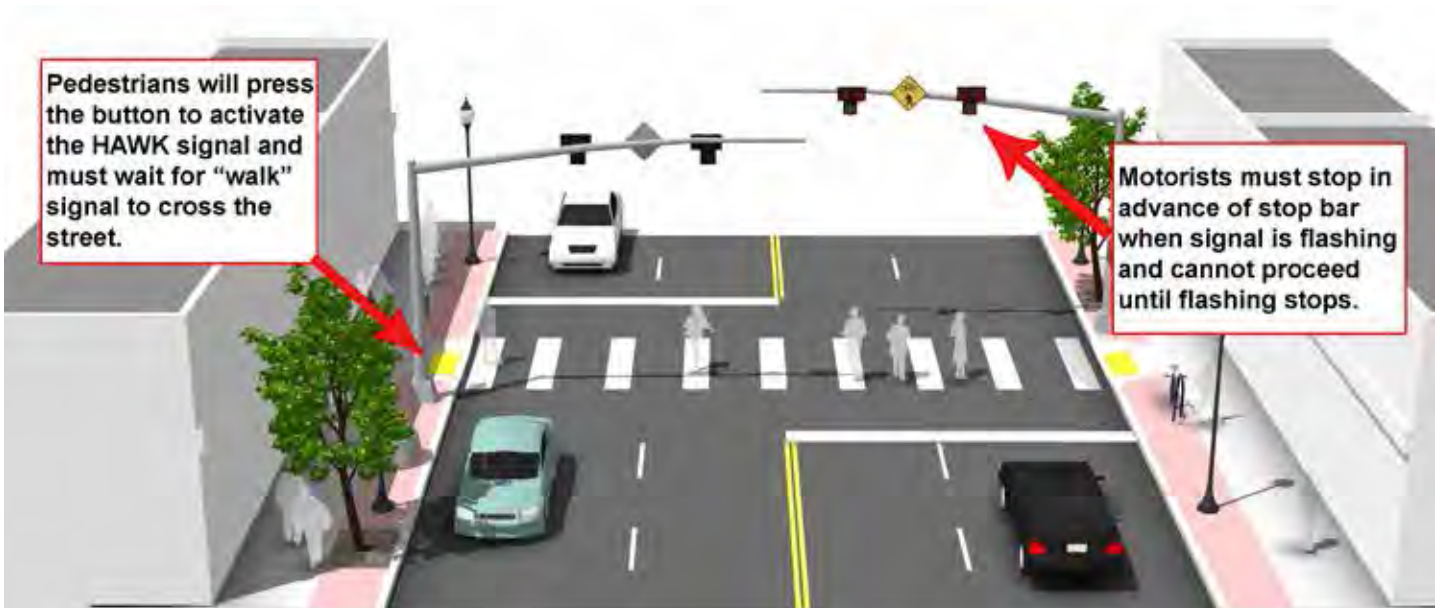
Source: http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_scdproj/sys_impact_rpt/images/fig34.jpg

High-Intensity Activated crossWalk (HAWK)

A HAWK beacon (High-Intensity Activated crossWalk beacon) is a traffic signal used to stop road traffic and allow pedestrians to cross safely. It is officially known as a Pedestrian Hybrid Beacon (PHB). The purpose of a HAWK beacon is to allow protected pedestrian crossings, stopping road traffic only as needed. Where standard traffic signal 'warrants' prevent the installation of standard three-color traffic signals, the HAWK beacon provides an alternative.



Source: <http://www.achdidaho.org/Projects/Images/NewHawkSignal092209%20014.jpg>



Source: <http://bloomington.in.gov/media/media/image/jpeg/13144.jpg>

Summary of Findings

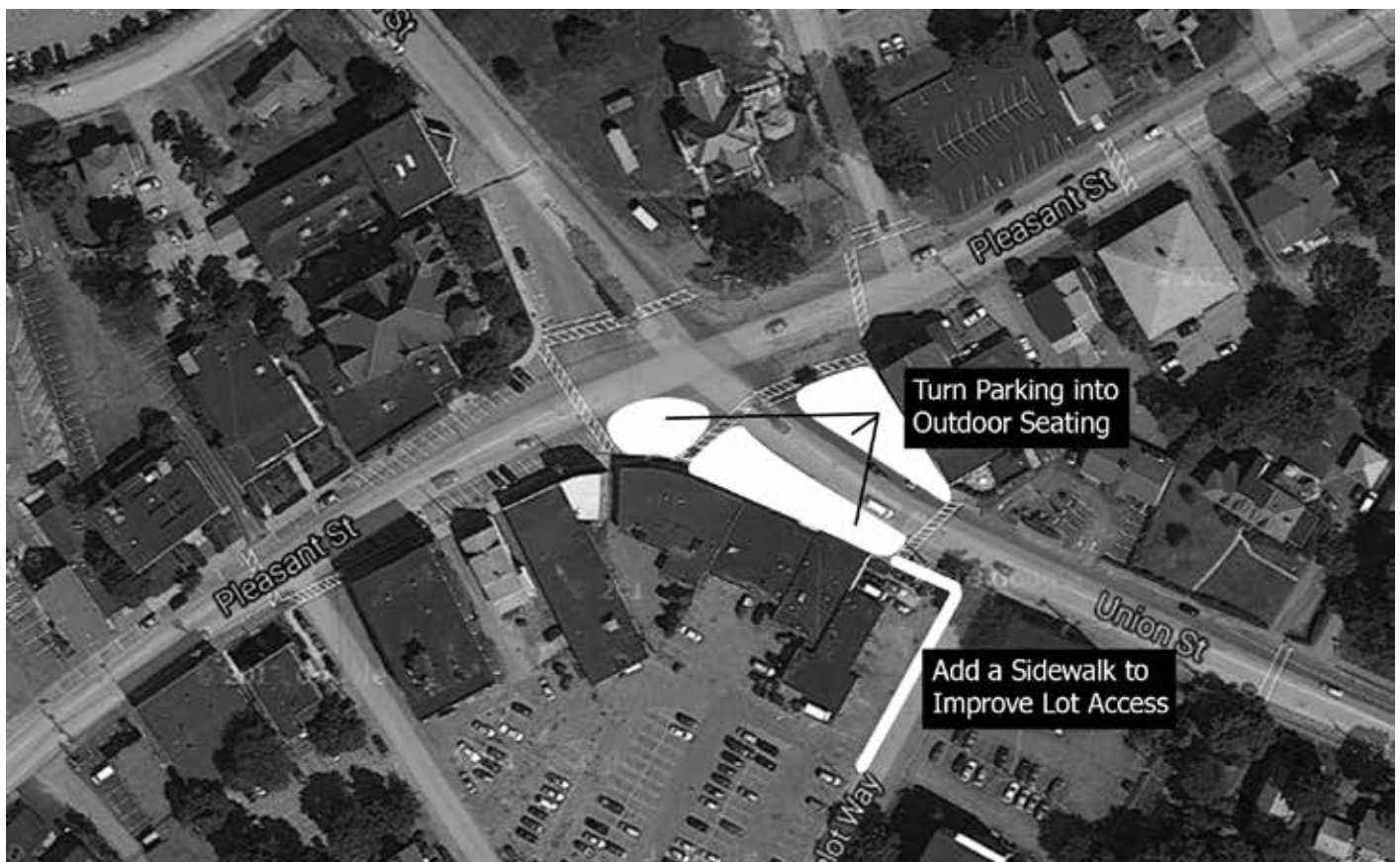
Immediate action recommendations - The four walk audits revealed two areas where WalkBoston recommends that Weymouth undertake immediate action:

- Implement a set of relatively low cost improvements to create a dramatically improved walk-friendly place at Columbian Square. This will both provide an immediate and tangible benefit for Weymouth's residents and help create community support for tackling more pedestrian improvements. There seemed to be great interest among the walk audit participants for re-claiming a pedestrian place at Columbian Square. The concept diagram below is intended to illustrate some of the low cost place-making strategies that Weymouth could explore. WalkBoston would recommend that the Town work with landscape designers and planners to develop a more detailed plan before proceeding.
- Address the safety issues facing seniors in the Broad/Washington area by adding better-marked

and regulated pedestrian crossings in several locations. Based on the multiple accidents in the area (including fatalities), the high number of seniors and the speed and visibility issues identified during the audit we recommend that Weymouth implement some immediate safety measures and also undertake a traffic engineering review to identify longer term improvements. See sections 6 and 7 of the Broad/Washington discussion below.

Broad observations – Based on the information gathered during the four walk audits WalkBoston has developed a short list of overall observations that we believe the Town should keep in mind as it begins to undertake walking improvements.

1. Weymouth's wide streets and many intersections with wide turning radii (at both small and large roadways) encourage traffic to move at relatively high speeds and make many of the community's streets and intersections difficult for seniors (and others) to cross. As Weymouth maintains and re-constructs the town's roadways it should begin to shorten pedestrian crossing distances, reduce vehicle turning speeds, reduce vehicle travel



speeds, and provide space for wider sidewalks and bicycle accommodations. Here are two ways to alter streets to favor pedestrians

- Narrow lane widths - low cost options include painting fog lines, adding bike lanes and adding on-street parking; over the long term and at higher cost the town should consider shifting curb lines to make sidewalks wider, especially on streets where pedestrians are present; and
- Tighten turning radii - options include paint, temporary bollards, asphalt curbs, and relocated granite curbing.

2. Many of Weymouth's crosswalks and intersections need pedestrian safety improvements such as:

- Re-painting crosswalks with reflective ladder or zebra style striping (and maintaining the paint),
- Adjusting signal timing to provide appropriate WALK times and reduce wait times for pedestrians to get a WALK signal (which may also reduce vehicle wait times as well).
- Adding in-street pedestrian crossing signs,
- Adding curb extensions to narrow crossing distances (starting with paint and bollards, eventually adding curbs and full re-construction),
- Prohibiting parking within 20 – 30' of crosswalks to improve visibility of and for pedestrians, and
- Adding flashing "HAWK" signals or pedestrian activated signals in critical locations.

3. A sustained program of sidewalk upgrading and maintenance is needed to fix the many uneven, missing and poorly maintained sidewalks that were observed during the walk audits.

4. Provide ADA compliant curb ramps. As the town undertakes street and sidewalk maintenance curb ramps need to be added and/or fixed, and in some locations this will require accompanying sidewalk widening and re-grading.

5. Review crosswalk provision at all bus stops. Several of the bus stops observed during the walk audit did not have very proximate crosswalks, which results in pedestrians crossing at unprotected locations.

6. Review existing signal timing at intersections where it stops all traffic on all legs of the intersection. Assure that the timing and geometry

allows pedestrians to cross the whole intersection. Walk Audits.

BROAD AND WASHINGTON STREETS

The Broad/Washington Street area is located on the northwestern side of Weymouth, near both Weymouth Landing and the boundaries with Braintree and Quincy. The area includes several significant senior housing developments, small retail establishments, individual residences, a public library and a private school. MBTA bus service is provided along Washington Street.

- Washington Street is State Route 53, and just south of the audit area Route 53 splits into two branches: Main Street (Route 18) which extends the full length of Weymouth into Abington; and the continuation of Washington Street (Route 53) that extends east into Hingham. North of the study area Route 53 continues into Braintree. This part of Washington Street handles traffic from two major highways serving the South Shore.
- Broad Street, east of the intersection with Washington Street, is a major east-west route across the Town and connecting into Hingham, where it connects with Route 228.
- The intersection of Broad and Washington Street is one of the most heavily traveled in the Town, with many turning movements.

The walk audit was held on Monday, July 14, 2014 between 9:30 and 11:30 am. A map of the route is shown below.



Map of walk audit route

1. Broad Street west of Washington Street

Weymouth's main library is located on Broad Street, one block from Washington Street, and Weston Park is located behind the library (with multiple access points from local streets). Many seniors walk to the library from the senior housing located east of Washington Street, which is one reason that the Broad/Washington intersection is so important for pedestrians. Broad Street in front of the library, while not as heavily traveled as Broad Street east of Washington, is quite busy. All vehicle access to the library and its parking areas is via Broad Street and the adjacent municipal parking lot contains about 50 parking spaces that serve both the park and the library. Additional municipal parking is provided on Franklin Street about one block west of the library.

Short-term recommendations

- Add in-street pedestrian crossing sign at the crosswalk from Stetson Street.
- Remove the parking space in front of the library closest to the Broad/Stetson Street crosswalk to improve visibility for pedestrians using the crosswalk.

Longer-term recommendations

- Relocate the Stetson Street crosswalk on Broad Street to directly align with the west sidewalk along Stetson Street (there is no sidewalk on the east side of Stetson St.).
- Add a curb ramp on the library side of the street to connect with the crosswalk.
- Add a new crosswalk across Stetson Street where existing curb ramps may be used.

2. Stetson Street, both sides

Stetson Street has no crosswalks, either at Broad Street or at Common Street, and where sidewalks exist they are in poor condition. Since Stetson Street does not carry much traffic, any improvements should be targeted to places where they would be most useful to local residents, nearby seniors, or South Shore Christian Academy students.

- Short-term recommendations
 - » Improve surface conditions of the sidewalk along the west side of Stetson Street
- Longer-term recommendations
 - » Consider adding a sidewalk along the east side of Stetson Street.

3. Common Street, both sides

There are no sidewalks on either side of Common Street, a very lightly used street.

Longer-term recommendations

- Consider adding a sidewalk on one side of Common Street.

4. Washington Street between Common/Vine and Broad Streets

Washington Street carries heavy traffic, including significant truck traffic. The posted speed is 30 mph but vehicles were moving closer to 40 mph in a number of locations. The combination of heavy, high-speed traffic and the curve in Washington Street as it approaches Common/Vine creates a significant impediment to pedestrian crossings anywhere other than at signalized crossings (which are several hundred feet away). A strip shopping development occupies the space between Vine Street and the Union Towers senior housing project. It occupies virtually half of the street frontage and has many wide curb cuts into Washington Street. Notwithstanding the poor pedestrian conditions in this area, several pedestrians were observed crossing the street.

Short-term recommendations

- Trim shrubbery that obstructs the sidewalk at (apparently) publicly owned land on the west side of the street.
- Remove trash from sidewalk
- Narrow curb cut and repair sidewalk in front of



Overgrown vegetation obstructing sidewalk on Washington Street

- business on the western side of Washington Street
- Consider adding a planter along the frontage of the strip development mall on the eastern side of Washington Street to provide a more attractive and interesting walk along the sidewalk, OR consider delineating a sidewalk by adding curbing, painting and/or paving treatments where the broad curb cuts lack sidewalks.

Longer-term recommendations

- Consider adding additional speed limit posting and enforcement on Broad Street for the safety of pedestrians and especially seniors. Changes in the road (such as narrower lanes) would be needed to reduce travel speeds.
- Improve lighting of the sidewalk on the western side of the street where there are some poorly lit areas



Extended curb cut on Washington Street



Limited nighttime visibility on Broad Street

5. Washington Street between Broad Street and the Post Office (103 Washington Street)

Going downhill into Weymouth Landing from Broad Street, sidewalks were generally adequate and fairly well maintained, although a few narrow sections of sidewalk exist next to tree pits. Two pedestrian paths on the west side of the street connect into Weston Park. A number of large and small commercial establishments are located in this area.



Pedestrian crossing in front of Post Office on Washington Street

Short-term recommendations

- Improve the pedestrian crossing in front of the Post Office
 - » Paint the crosswalk with zebra or ladder style markings
 - » Remove the parking space at east end of crosswalk to improve visibility of pedestrians waiting to cross. Several pedestrians were observed at the crossing and each of them experienced difficulties seeing traffic and being seen by drivers.
 - » Add in-street pedestrian crossing sign to alert drivers to pedestrian crossing.
 - » Remove tree wells and trees and repave openings to widen very narrow points in the sidewalk, OR extend sidewalks into tree wells to conform to ADA standards, possibly using pervious pavement to protect existing trees.
 - » Repair the sidewalks that are in poor condition.
 - » Encourage additional Washington Street abutters to add planters to brighten the walk for pedestrians, and thank the businesses who already maintain nice plantings for their contribution to the walking environment.



Tree well on a narrow sidewalk on Washington Street

- » Trim shrubs now encroaching on the sidewalk at the path to Weston Park.
- » Clean debris from sidewalk.
- » At Eclipse Hair Designs (155 Washington Street, between Broad and Richmond), a sidewalk leading from a driveway into the business has a sloped ramp up to the entrance, un-separated from the sidewalk. This creates a tripping hazard for pedestrians. The Town should work with the building owner to make safety improvements for the entrance.

Longer-term recommendations

- Further Improve the pedestrian crossing in front of the Post Office
 - » Construct a bulb-out on the east end of post office crosswalk.
 - » Add pedestrian activated traffic signal.
- Consider adding a mid-block crosswalk with bulb-outs at Richmond Street to connect with the path into Weston Park.
- Fix curb cuts to conform to ADA standards.
- Consider greater posting and enforcement of 30 mph speed limit for the safety of pedestrians and especially seniors. Changes in the road (such as narrower lanes, on-street parking) would help reduce travel speeds.



Overgrown shrubbery near entrance to Weston Park

6. Intersection of Washington Street and Broad Street

This intersection is very busy, with many turning movements especially to and from the eastern side of the intersection. Many seniors live near the southeast corner of this intersection, with more than 450 occupants of nearby public and private senior apartments and an adjacent nursing facility. Many of the seniors living here use the library, restaurant and retail facilities on the opposite sides of Washington and Broad Streets. The group noticed that the intersection has very wide curb radii that encourage fast moving turns by vehicles in the intersection (in particular on the east side of the intersection facing the former firehouse and near the senior housing).

The southeast corner of the intersection at the edge of the high-rise senior housing structure was notable for its wide sidewalk, and generous bench placement in front of a landscaped lawn.

Short-term recommendations

- Add zebra or ladder striping to all crosswalks.
- Review and consider modifications to the WALK signal times and phases to facilitate safe pedestrian crossings and reduce wait times for pedestrians.
- Add pedestrian countdown signals.
- Review possibility of narrowing all turning radii with paint and temporary treatments to test the impacts on pedestrian sense of safety. photo 3
- Consider signing the safest route for seniors to use for access to the library (test which crossings are most comfortable on each leg of the intersection).

- Add signs warning drivers that many seniors cross the street at this intersection.
 - » Add trash containers at the seating area on the southeast corner.
- Longer-term recommendations
 - » Permanently narrow turning radii to slow turning vehicles and shorten pedestrian crossing distances.
 - » Fix all curb cuts to meet current ADA standards and for proper alignment.
 - » Review lane widths to determine if they could be narrowed to reduce speeds and crossing distances.



Pedestrian crossing at Broad and Washington Streets



Long curb radius at Broad and Washington Streets

7. Broad Street east of Washington Street

This portion of Broad Street carries heavy, fast traffic and has been the site of several fatal pedestrian accidents. Access between senior housing on the south side of the street and both Jimmy's Broad Street Diner and other destinations on the north side was noted as a particular concern. Two unprotected crosswalks exist, one serving the diner at the corner of Phillips Street, and the second at a mid-block location about halfway between Phillips and Washington Streets. The crosswalk at Phillips Street appears to not meet ADA requirements (of particular importance because of the many seniors with disabilities who use the crosswalk) because the landing on the north side of the street is sloped up toward the sidewalk (between the curb and the property line). While the locations of these two crosswalks are not ideal in terms of sight lines and traffic speeds, they seem to serve pedestrian desire lines.

Short term recommendations

- Add an in-street pedestrian crossing sign at the Phillips Street crosswalk
- Paint the Phillips Street crosswalk with fresh zebra or ladder style striping
- Paint tighter turning radii at Phillips Street to shorten crossing distance
- Add signs warning drivers of an upcoming pedestrian crossing and of large number of seniors using the crossing



Pedestrian crossing near senior housing on Broad Street

- Consider adding a pedestrian activated HAWK signal at mid-block pedestrian crossings. (The High-Intensity Activated crossWalk beacon is used to stop road traffic to allow pedestrians to cross safely, stopping road traffic only as needed.)
- Consider eliminating the crosswalk closest to Washington Street (consult with residents of the senior housing beforehand, and coordinate with prior improvements to the crossing at Broad/ Washington)
- Repair sidewalks along Broad Street

Longer-term recommendations

- Re-build corners at Phillips Street to shorten crossing distance
- Review feasibility of adding bump outs on Broad Street to shorten crossing distance

8. Vine Street between Broad and Washington Streets

Vine Street has a mix of single and multi-family housing. The street directly connects Broad and Washington Streets, and takes a right-angle turn at its midpoint. Due to this direct connection, Vine Street serves as a bypass for traffic trying to avoid delays at the Broad/ Washington intersection and thus traffic can be quite heavy on what would otherwise simply be a narrow side street. Most of Vine Street does not have sidewalks, and because of the traffic and the poor sight lines, Vine Street is not a safe place to walk. A narrow and poorly maintained sidewalk exists along part of the south half of the street, much of it overgrown with shrubbery.

Short-term recommendations

- Paint the existing and missing crossings at the Broad/Vine/Webb Streets intersection with zebra or ladder style striping.
- Consider posting “watch for pedestrian” signs at each end of the street.
- Remove vegetation that has overgrown the existing sidewalk.

Longer-term recommendations

- Rehabilitate the existing sidewalk along the part of Vine Street closest to Washington Street.
- Consider adding a sidewalk along the parking lot adjacent to the southwest corner of Vine and Broad Streets, with a long-term plan to add sidewalks on one side of Vine Street.

- Consider reducing curb radii, to aid in slowing traffic at both intersections.
- Consider adding more lighting because Vine Street is poorly lit which is a problem for pedestrians who would not be very visible when walking in the street at night (because there is no sidewalk) at night



Poor nighttime visibility on Vine Street

COLUMBIAN SQUARE

Columbian Square, busy with traffic and pedestrians, is the largest commercial district in Weymouth. It is immediately adjacent to the large South Shore Hospital and many medical office buildings. The Square is distinctive architecturally, with the stately Fogg Opera Building, the Fogg Library, and the Old South Union Church dominating the local view.

The walk audit encompassed the Square itself, as well as a portion of Pleasant Street, Main Street and Fogg Road. The walk was held on Monday, July 21, 2014 between 9:30 -11:00 AM. A map of the route is below.



Weymouth- Columbian Square
Walk Audit Map

• Parking/Meeting Place



Map of walk audit route

1. Heart of Columbian Square – Intersection Pleasant/Union/Columbian

With its surrounding land uses of retail, restaurant, civic, residential and institutional buildings, Columbian Square has all the makings of a walkable “main street” district. The Square has been studied extensively and its streets and sidewalks are programmed for reconstruction as part of the mitigation to be provided by developers of the Weymouth Naval Air Station. However, this mitigation is dependent on the progress of the Air Station project and it is unknown when it will take place.

All four approaches to the Square are two-lane streets that widen out substantially into four- or six-lane streets to accommodate turning vehicles within the square. Due to the many turn lanes, the streets are very wide and are difficult for pedestrians trying to cross. In addition, along Union Street just west of Pleasant Street (an area with a number of restaurants) diagonal parking creates a very wide street area (approximately 120 feet) and drivers can't see pedestrians wanting to cross where diagonal parking restricts their view.



Old opera house in Columbian Square

- » Remove diagonal parking spaces on Union Street with installation of paint and planters to create an expanded sidewalk to be used for café tables and seating.
- » Work with businesses on both sides of Union Street to develop a use plan for the reclaimed space – whether for general purpose seating or for outdoor space directly related to individual restaurants
- » Improve the walking connection to the Camelot Way parking lot with addition of a marked “sidewalk” along Camelot Way and wayfinding signage on Union Street
- » Provide marked walkways within the parking lot connecting to both Camelot Way, Chauncy Street and the alley connection to Pleasant Street
- » Encourage businesses to open back entrances to the parking lot and add signage and lighting to enliven the parking lot
- » Improve the lighting and landscaping of the walkway leading from the municipal parking lot to Pleasant Street. Alley from parking to pleasant
- » Add a curb cut to Union Street crosswalk leading to Camelot Way and addition of In-street Pedestrian Crossing Sign in the crosswalk



Diagonal parking on Union Street

Short-term recommendations

- As highlighted in the immediate actions section at the beginning of this report, WalkBoston recommends that Weymouth make use of “lighter-quicker-cheaper” tools to reclaim space along Union Street to create a pedestrian zone on both sides of the street. The elements to explore should include:



Walkway to Camelot Way parking lot



Alley from parking lot to Pleasant Street

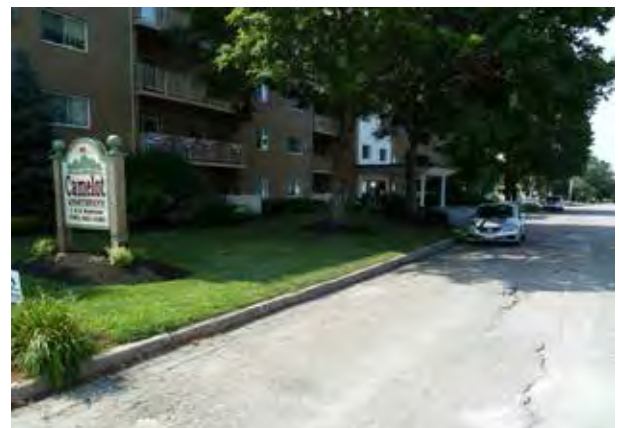
- Pedestrian safety improvements are needed for all legs of the Columbian Square intersection. Temporary improvements to explore include:
 - » Create temporary reductions of corner radii, through bollards or barrels, to reduce the speed of turning vehicles
 - » Create temporary bulb outs (with paint and barrels) at the corners to improve visibility for and of pedestrians (this is particularly important for pedestrians crossing Pleasant Street at Torrey Street where vehicles are approaching at high speeds from the northeast)
 - » Add In-street Pedestrian Crossing Signs to crosswalks on Pleasant Street at Torrey, Union/ Columbian and Chauncy Streets



Poor visibility across Pleasant Street

Longer-term recommendations

- Provide traffic signals at Columbian Square that provide ample pedestrian WALK time, countdown signals, leading pedestrian indicators, and appropriate phasing to facilitate walking without causing severe traffic delays
- Consider adding a pedestrian refuge island on Pleasant Street at the Torrey Street crossing, as the crossing is wide and there are some visibility issues for drivers.
- Add sidewalks on Camelot Way to serve the street's residents and the municipal parking lot Camelot way
- Review the need for turning lanes on all of the streets approaching Columbian Square and reduce the pavement width wherever feasible. The new street geometry should include tight turning radii and narrow lane widths to reduce crossing distances and moderate traffic speeds in the district.



Camelot Way



Wide turning lanes near Colombian Square



Municipal parking lot at Camelot Way

- If the new experimental pedestrian zone on Union Street is successful, add permanent paving, landscaping and street furniture.
- Review the angle parking on both sides of Pleasant Street to determine whether it could also be replaced with a wider, landscaped sidewalk and a more limited number of parallel parking spaces. Angle parking on pleasant
- Add trees and landscaping to the Camelot Way parking lot to make it more attractive to users. Municipal parking Camelot way
- Review need for additional lighting on the Pleasant Street crosswalk at Chauncy Street

2. Chauncy Street between Camelot Way and Pleasant Street

One boundary of the municipal parking lot, this street lacks sidewalks and provides an unattractive walking environment. With vehicles parked along the street and fairly frequent truck and auto traffic, the street does not feel safe for walkers. One participant mentioned that many of the parkers are employees of the South Shore Hospital, just a few blocks away. Chancy from pleasant walk to parking.

Short-term recommendations

- Repair the street paving at the Pleasant Street end of Chauncy Street to improve the pedestrian crosswalk
- Consider adding diagonal parking on the half-block of Chauncy Street closest to Pleasant Street to add to the business area parking supply, perhaps by designating Chauncy a one-way street.



Angle parking on Pleasant Street



Walk from parking lot to Chauncy Street

Longer-term recommendations

- Add a sidewalks on both sides of the street
- Improve lighting and landscaping of walkways leading from the municipal parking lot to Pleasant Street.

3. Pleasant Street between Chauncy and Main Streets

Sidewalks along Pleasant Street vary in width and condition, with some areas inadequate for safe and comfortable walking or to meet ADA standards. In some places where there are no curbs, parked cars occupy a portion of the sidewalk. For example, in front of Snyder Jewelers at 89 Pleasant Street, and at a nearby bicycle repair shop and lock shop the sidewalk is undistinguishable from the street pavement. Near the Main Street intersection (aka Independence Square), there is a significant driveway serving the Pleasant Shops shopping center, and there is no pedestrian walkway marked through the parking lot. At the bus stop on the north side of Pleasant Street near Main, private trash was awaiting pick up and almost completely blocked the sidewalk and bus stop.



Bus stop with trash along Pleasant Street

Short-term recommendations

- Repair and reconstruct the sidewalks to meet ADA standards. Particular problem areas are just west of Chauncy Street, at the bike and lock shops, adjacent to the Post Office, and curb cuts at Central and Wilbur Streets.



Inadequate curb ramp on Pleasant Street

Longer term recommendations

- Work with Pleasant Shops shopping center owner to improve pedestrian access, including an examination of the slope of the drive which creates a blind spot and the turning radii that encourage fast entry to the site, along with a new pedestrian path.
- Review night light levels and add lighting as needed



Shopping center entrance on Pleasant Street

4. Intersection of Pleasant and Main Street (Independence Square)

The scale and geometry of the intersection are entirely auto oriented.

Short-term recommendations

- Review signal timing and WALK phases to reduce wait times for pedestrians and ensure that they have adequate crossing time on all legs of the intersection

Longer term recommendations

- Explore re-design of the pedestrian crossings at Independence Square, to reduce crossing distance and improve sight lines through such measures as tightening turning radii and eliminating the free right turn from Pleasant onto Main northbound.



Intersection of Pleasant and Main Streets

5. Main Street between Pleasant Street and Fogg Road

This street is to be re-built and widened, and is to include new, ADA compliant sidewalks.

Short-term recommendations

- Review lighting levels in the plans to insure that adequate sidewalk lighting is provided.

6. Fogg Road

Fogg Road primarily serves South Shore Hospital. Much of it is quite pleasant for walking, but there are areas of narrow and missing sidewalk on the south side of the road.



Skinny curb ramp at Fogg and Main Streets

Longer term recommendations

- Add and/or widen sidewalks along Fogg Road to meet ADA standards.

JACKSON SQUARE

The Jackson Square area encompasses a mix of residential, commercial and institutional uses, and its three main streets carry fairly heavy, fast moving traffic. Below is a map of the walk audit route.



Map of walk audit route

1. Pleasant Street – Broad to Water Street

Pleasant Street just south of Broad Street has several retail shops and a Post Office. This portion of the street has adequate sidewalks and reasonable walking conditions. Further south, near the library and heading down the hill toward Water Street, the sidewalk conditions worsen.



Entrance to library

Short-term recommendations

- Add an In-street Pedestrian Crossing Sign to crosswalk in front of the library, and consider making it a right angle crossing to reduce the crossing distance (sight lines are poor in this location due to the hill and the slight curves in the roadway) library crosswalk

Longer term recommendations

- Repair the sidewalks along both sides of Pleasant Street narrow sidewalk on pleasant
- Significantly narrow the continuous curb cut at the Teen Center parking lot
- Fix the sidewalk and curb ramps at the intersection of Pleasant and Water Streets, where the width and angles of the ramps do not meet ADA standards inadequate ramp



Narrow sidewalk on Pleasant Street



Inadequate curb ramp at intersection of Pleasant and Water Streets

2. Water Street – Pleasant to High

This street includes a large senior apartment block, a number of single family homes, auto repair businesses and small retail at the northern end of the street. Poor sidewalk conditions, wide curb cuts and wide turning radii contribute to the street's poor walking conditions.

Short-term recommendations

- Add fog lines to narrow the travel lanes and help slow traffic speeds
- Trim the overhanging vegetation near the Herring Run Brook overlooks to remove walking obstacles and open up views of the Brook
- Explore ways to improve the safety of the crosswalk to Myrtle Street including addition of an In-Street Pedestrian Sign, zebra or ladder style striping of the crosswalk, and re-alignment of the diagonal crossing Myrtle street crosswalk
- Check the lighting of Commercial Street, especially at the intersection with Water Street, to see if it should be improved for pedestrians.



Crosswalk at Myrtle Street



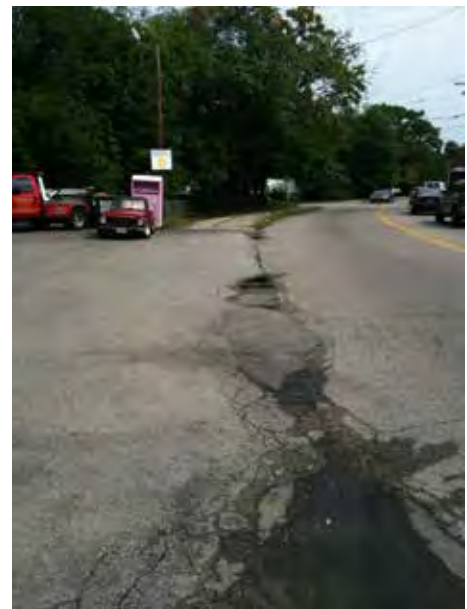
More damaged sidewalk on Water Street

Longer term recommendations

- Repair the sidewalks along both sides of Water Street water st sidewalk water st in need of work
- Explore opportunities to enhance landscaping and views of Herring Run Brook
- Narrow the wide curb cuts to businesses along the street water st curb cuts
- Tighten the turning radii at Commercial Street
- Consider narrowing the width of the street which is much wider than necessary, contributing to the speed of traffic



Sidewalk on Water Street in need of repair



Wide curb cuts on Water Street

3. Intersection of Broad/Commercial/High/School Streets

This intersection serves a number of businesses such as a 7-11, CVS and several restaurants that are of interest to local residents, including the seniors who live on Water Street. However, the scale of the intersection and the signal timing make it a daunting place for pedestrians.

Short-term recommendations

- Review and consider modifications to the WALK signal times and phases to facilitate safe pedestrian crossings and reduce wait times for

pedestrians. The existing timing is incorrect and stops all traffic on all legs, but without the timing or geometry to allow pedestrians to cross the whole intersection.

Longer term recommendations

- Permanently narrow turning radii to slow turning vehicles and shorten pedestrian crossing distances.
- Review lane widths to determine if they could be narrowed to reduce speeds and crossing distances.

4. Broad Street – Commercial to Pleasant

This street has several restaurants and commercial uses that draw pedestrians, and some of the businesses have added flowers and landscaping that provide amenities for walkers. However, the poor condition of some of the sidewalks and the lack of a midblock crossing to meet pedestrian desire lines reduce the walkability of the area.

Short-term recommendations

- Repair the sidewalk tripping hazards that exist in several locations
- Explore the possibility of a midblock crossing near The Venetian restaurant
- Review the crosswalk at the Post Office for addition of an in-street pedestrian sign

Longer term recommendations

- Repair all of the sidewalks
- Review possibility of tightening curb radii and narrowing lanes to reduce the pavement width at the Broad/Commercial intersection

BRIDGE STREET, SEA AND NORTH STREETS

Bridge Street is a major arterial that carries significant traffic volumes. Land uses along the street include a school, a large church, apartments, businesses and homes. A map of the walk audit route is below.



Map of walk audit route

1. Bridge Street – Green Street to Sea Street

The walking environment is diminished by the close proximity of fast moving vehicles to pedestrians walking along the adequate, but rather narrow sidewalks without the protections of a verge or street trees. Wide open turning radii at the intersections allow cars to move very quickly.



Wide turning radius on Bridge Street

Short-term recommendations

- Build a sidewalk along Bridge Street as it approaches Lowe's Plaza. The missing sidewalk poses a hazard for pedestrians to walk to the CVS at the far end of the Plaza.
- Review the signal timing at Green and Bridge Streets to consider changing from an all-way stop to a concurrent crossing which would reduce pedestrian wait times for a WALK signal
- Review the potential for adding protected crosswalks in close proximity to bus stops. Under the existing conditions there are bus stops on both sides of the street in several locations (near Blackstone Road and Lovell Street) without nearby crosswalks. Pedestrians are thus crossing Bridge Street without the protection of a crosswalk.



No protected crosswalk near bus stop

Longer term recommendations

- If there is adequate room in the right-of-way consider the addition of street trees to enhance walking environment along Bridge Street.



Area near bus stop on Bridge Street that could benefit from street trees

2. Bridge Street/Sea Street Intersection

This very broad intersection has many crossings for pedestrians making it difficult and uncomfortable to cross.

Short-term recommendations

- Review the geometry of the intersection to determine whether it is possible to narrow the turning radii and lane widths to shorten crossing distances and possibly eliminate turning lanes on Sea Street.

3. Sea Street

While there are several wide curb cuts and sidewalk repairs needed, Sea Street is a very pleasant walking environment with shade, slow moving traffic and several handsome homes to look at.

Short-term recommendations

- Repair curb cut on Pearl Street to make it ADA compliant.



Curb cut on Pearl Street in need of repair

4. North Street

There is no curb protecting the sidewalk along the west side of North Street, and this should be added to protect pedestrians.



Area on North Street in need of a curb

Chapter Six:

Realizing Safer Routes for Seniors

Implementing design recommendations

The Safe Routes for Seniors study, with contributions from all partners, has produced a vast amount of recommendations for the Town of Weymouth to consider. Of course, sustainable change to the built environment takes extensive time and resources to be realized. Urban planning has always been a long game for local governments, and it continues to be made longer by not just reductions in state aid but also the top-down, regulation-heavy environment in which municipalities operate today. But to take seriously the needs of its aging population, Weymouth must consider strategies for steering community design towards the goals of healthy aging. The longer the Town waits to consider changes – whether due to size, expense or timing – the higher the cost of missed opportunities to the community, particularly its older adults.

The following sections provide a suite of planning strategies to assist Weymouth in implementing the recommendations afforded by the current study. It is anticipated that the Town will need to pursue multiple strategies in combination or concurrence with one another in order for the community to realize safer routes for seniors.

Commitment to sustained sidewalk improvements

According to a 2012 analysis by the firm Vanasse-Hangen-Brustlin (VHB), Weymouth has approximately 150.70 miles of sidewalks and 150.64 miles of curbs. These account for about 85 percent of the Town's inventory of roads based on the most recent data reported by the Massachusetts Department of Revenue's Division of Local Services (2012).¹ The overwhelming majority of these sidewalks and curbs date back more than 35 years. They have seen little to no investment from the community in the last quarter century, and their current conditions raise significant concerns for older adults of Weymouth (see Chapter Four for public comments and Chapter Five for walk audit findings).

Construction costs are the great obstacle to upgrading and maintaining the sidewalks of any community. For Weymouth, this obstacle was practically insurmountable in recent years due to the onset of the Great Recession and its associated impact on local aid in Massachusetts. From FY2009 to FY2011, Weymouth saw an average annual decline in local aid of \$1.8 million. Although these numbers have rebounded slightly, FY2014 local aid to Weymouth remained approximately \$1 million below its pre-recession level.²

Notwithstanding the cost barrier, Mayor Susan Kay has committed \$150,000 to sidewalk improvements in Weymouth's FY2015 Town Budget. Thereafter, Mayor Kay intends to

commit up to \$250,000 each fiscal year for the same purpose. These funds will appear as a line item expense under the purview of the Department of Public Work (DPW). Although emergency repairs and handicap upgrades will receive priority consideration, investments in the Town's sidewalks will be steered towards high foot-traffic neighborhoods where upgrades will be most salutary. The Senior Pedestrian Target Areas (SPTAs) are, no doubt, ideal for this purpose.

The current study thus comes at an opportune time for Weymouth. As the Mayor and DPW look to prioritize pedestrian improvements, design recommendations for making streets safer and more comfortable will be invaluable to the sidewalk repair process. Not only does this report identify targeted improvements that are likely to encourage walking among older adults, but its recommendations are good for all residents. Safe streets for seniors are safe streets for everyone.

Lighter, quicker, cheaper place making

Many of the design recommendations offered by WalkBoston point to a new urban planning approach designed to accomplish low-cost, high-impact public space interventions at the community level. Described as “lighter, quicker, cheaper” (LQC) by Eric Reynolds of London's Urban Space Management, this strategy relies on incremental steps and low-cost experiments to transform local public space into dynamic pedestrian refuges where people can sit and gather. LQC is perhaps best known for its use in New York City's Streets Renaissance Campaign, which in recent years has



Figure 6-1: NYCDOT created a pedestrian plaza in Times Square with barrels and lawn chairs using “lighter, quicker, cheaper” place making. Source: WalkBoston, *Good Walking is Good Business*

transformed traffic dominated neighborhoods like Times Square into positive gathering places for pedestrians. In 2006, the New York City Department of Transportation (NYCDOT) conducted an experiment with the Times Square Alliance which used temporary structures to close lanes of traffic on Broadway and convert excess street space into a pedestrian plaza with portable chairs, tables and other amenities (see Figure 6-1). The changes not only enhanced the walking experience along Broadway, but the NYCDOT reported significant gains in both pedestrian safety and vehicle efficiency as a result of the interventions. The experiment proved so successful that New York's Mayor Michael Bloomberg endorsed making the new pedestrian plaza permanent as well as adding walking corridors through capital investments.³

While Weymouth is very different from New York City, LQC techniques are not limited to great metropolitan areas. In September 2014, planners in the City of Quincy (Weymouth's western abutter) experimented with converting street space into an impromptu park at the center of its Wollaston business district. City staff occupied three on-street parking spaces to lay out benches, a popcorn stand, potted flowers and a table with free coffee. Persons passing by were invited to pause, rest and simply admire the city from a new perspective. The experiment was meant to celebrate international PARK(ing) Day – an annual worldwide event where citizens and designers transform metered parking and challenge community's assumptions about the use of urban space (see Figure 6-2).⁴

Similar to Quincy's pop-up park, WalkBoston has recommended that Weymouth's planners investigate the desirability of one or more pedestrian plazas in Columbian Square. Working with the square's business association, the Town can use temporary barrels and tape to take back on-street parking, calm traffic and create an attractive gathering place furnished by movable benches, chairs and café tables. Over time, should the plaza prove popular, additional low-cost interventions like paint and decorative bollards can be used. The plaza will then become (little by little) a permanent fixture of Columbian Square, ultimately improving the pedestrian infrastructure. Moreover, older adults are likely to be among the principal beneficiaries of the intervention, as senior citizens place a high value on public spaces for rest and social interaction.



Figure 6-2: Quincy planners created an impromptu gathering place with moveable benches and plants. Source: Patriotledger.com, Quincy challenges assumptions about use of urban space. Photo by Chris Burrell

For LQC place making to work in Weymouth, Town staff must learn to interact differently with developers, business owners and residents.⁵ Planners will need to work with local stakeholders to build capacity and generate excitement for the experimentation process. A local task force may even be needed to shepherd the campaign from conception through implementation. Whatever the barriers, it is evident that adaptive reuse of excess street space, combined with the placement of temporary structures, can enable significant community transformation with minimal costs. This makes LQC a locally-powered alternative to traditional top-down construction which often takes too much money and too much time to be realized. Furthermore, while the permanency of capital-intensive projects leaves no room for trials, LQC allows a community to be both creative and flexible in its planning and designs.⁶

In sum, there are good reasons to think that Weymouth can benefit from LQC place making. First steps towards investigating this approach should include sharing the Safe Routes for

Seniors design recommendations with the Columbian Square Business Association as well as reaching out to Quincy's planners to learn from their recent experiment.

Complete Streets certification

First coined by advocacy groups in 2003, Complete Streets describes a comprehensive approach to streetscape design in which a community plans for not just motorists but pedestrians, bicyclists and transit riders of all ages and abilities. According to Smart Growth America, "Complete Streets are streets for everyone." Their design is meant to enable safe and comfortable access for all users regardless of their mode of transportation. In addition, there is no single design prescription for Complete Streets. Rather they are meant to be flexible and respond directly to their community context. Whatever their form, Complete Streets ultimately make it easier for people to cross the street, walk to shops, and bicycle to work. They help buses run on time and make it safer for people to walk to and from train stations. Complete Streets improve public health by making it easier, safer and more comfortable for people to be active in their daily lives.⁷

Given its salutary effects on pedestrian safety, Complete Streets merits consideration as a municipal policy to promote healthy aging in Weymouth. If adopted, not only would residents benefit from safer and more walkable streets, but municipal staff could enjoy priority access to a new pot of state funding for capital improvements. In April 2014, Governor Deval Patrick signed into law the Transportation Bond Bill which authorized \$50 million to roll out a Complete Streets Certification Program.⁸ The MassDOT has already announced an initial investment of up to \$5 million in the program.⁹ Funds are likely to be offered competitively, though the rules and regulations are still under development. Cities and towns wishing to become certified will need to meet the following criteria¹⁰:

- Adopt a Complete Streets bylaw, ordinance or administrative policy.
- Baseline the community's inventory of pedestrian and bicycle accommodations.
- Identify procedures to incorporate Complete Streets elements into local road projects.
- Confirm a review process for site development proposals that will incorporate Complete Streets elements into new private construction.
- Set a five-year goal for increased mode sharing (i.e., walking, bicycling and public transit riding) where applicable in the community.



Figure 6-3: List of towns and cities that have adopted a Complete Streets policy or ordinance with assistance from the Metropolitan Area Planning Council (eff. 10-2014). Source: MAPC.org

At present, the only municipalities in Massachusetts to have adopted Complete Streets policies are Acton, Boston, Everett, Littleton, Maynard, Reading, Salem and Somerville.¹¹ This means that should Weymouth achieve certification early on in the program, the Town could have access to a modest pool of competitive funding with few competitors to compete with. A first step towards certification would be a round table discussion among local stakeholders on what a future Complete Streets administrative policy might look like for Weymouth. Participants could include the Town's directors, planners, engineers, wellness coordinator and a technical assistance partner, such as the Metropolitan Area Planning Council or Pioneer Valley Planning Council.

It merits mention that the Weymouth Health Department was recently awarded a \$110,000 Mass in Motion Municipal Wellness and Leadership grant to be paid over the next three fiscal years. Complete Streets certification is among the priority goals of the Town's Healthy Wey Mass in Motion initiative.

Amended zoning rules and regulations for site designs

Like most communities, Weymouth requires site plans for all private development projects that are reviewed by local officials. During a site plan review, Town staff reviews documents required by the Weymouth Zoning Ordinance to ensure that the proposed land use and site designs meet local zoning standards as well as state and federal regulations.

From a community design standpoint, the site plan review process is a low-cost intervention which Weymouth can use long term to plan safer and more pleasant streets for seniors. Much progress has already been made on this front, as the Weymouth Planning Board has adopted frontage landscaping incentives for commercial businesses; a Mass in Motion inspired resolution for a "Healthier Future through the Built Environment and Community Design"; and a village center overlay (VC) district with associated design guidelines for the Town's village centers, retail and office districts. As the Town continues to evaluate new trends for location adaptation, this study encourages that future zoning changes be consistent with healthy aging

goals and address pedestrian circulation, landscape preservation, walkway lighting and the adequacy of public facilities and space.

It is important to note that adjustments to local zoning standards need not be major to be impactful. In Weymouth's case, a minor change to the bylaw could entail adding a parking-to-tree ratio for private construction, i.e., developers could provide plantings and/or landscaping in proportion to the number of on-site parking spaces. This would be a modest extension of the Town's existing incentive for frontage landscaping in the commercial districts. Although current Weymouth businesses would not be affected, Weymouth's boulevards would display less pavement and more green space over time as both private developments and land reuse moves forward. The streets in Weymouth would not only become more attractive for walking and bicycling, but the increased foot traffic would bring more business to local shops and storefronts

To leverage healthy aging changes through the site plan review process, a good first step would be to engage the Weymouth Planning Board and discuss a targeted review of the Town's zoning bylaw.

Host Community Agreement funds and MassWorks infrastructure grants

Low-cost incremental steps towards building a healthy community can only go so far. Eventually the realities of capital-intensive construction must be faced. Like most municipalities in Massachusetts, Weymouth relies on M.G.L. Chapter 90 state aid to fund the majority of its street repairs. For fiscal year 2015, Weymouth will receive approximately \$1.1 million to provide for the general maintenance of approximately 140 miles of public ways. Though Weymouth may have good reasons to prioritize upgrades for pedestrian infrastructure, there will always be equally good reasons to prioritize improvements to traffic lanes, especially since the community remains motorist-heavy. This means that alternative funding sources beyond formula-based state aid will be an important component of healthy community design in Weymouth.



Figure 6-4: SouthField
Source: Southfield.com

With respect to Columbian Square, the Town of Weymouth expects to receive approximately \$2 million in capital improvements funding to address traffic impacts associated with the redevelopment of the South Weymouth Naval Air Station, formally renamed SouthField. These funds are guaranteed by host community agreement (HCA) between the Town of Weymouth and the current developer of SouthField, Starwood Capital Group. The agreement also requires project mitigation measures to be taken (e.g., traffic signal installation) as project milestones are satisfied. If

planned accordingly, HCA funds could make permanent any low-cost LQC interventions for

walking improvements in Columbian Square, such as the pedestrian plaza proposed by WalkBoston. At minimum, the Department of Planning and Community Development (Planning Department) anticipates that the current study will guide enhancements of the Square's pedestrian infrastructure and generate direct benefits for older adults.

A more general source of funding for community design is the MassWorks Infrastructure Program – the state's one-stop shop for public infrastructure assistance. Having replaced six former grant programs, MassWorks is a highly-competitive funding source for Massachusetts communities. Under the Patrick Administration, priority funding has been given to support the production of multi-family housing in mixed-use districts that were well-connected to significant employment opportunities. More broadly, the program has also been used to support town center revitalization projects as well as transportation



Figure 6-5: Massachusetts State House

Source: MAPC.org

improvements consistent with regional/statewide land use and development plans.¹² In all likelihood, MassWorks will continue to prioritize the foregoing activities, though it is not unrealistic to think that the design recommendations contained in this report would merit strong consideration in future grant rounds. Generally speaking, each target area examined by this study is closely associated with a village center; serviced by one or more forms of public transit; and has some mixing of public spaces and retail shopping, all within walking distance of residential housing. Capital construction in these target areas, if consistent with some or all design recommendations contained in this report, would no doubt advance the revitalization of a village center as well as promote alternative transportation options consistent with the MassDOT's Healthy Transportation Policy Directive P-13-0001 (i.e., the state's Complete Streets policy). Taking these factors together, it seems likely that proposals by Weymouth to implement this study's design recommendations would muster a sizable number of points under the MassWorks Infrastructure Program. As Weymouth pursues its commitment to safer routes for seniors, it would behoove Town staff to monitor future MassWorks grant opportunities.

¹ "Community Data," *Weymouth MA*, 2014, Town of Weymouth, Web, 10 Oct. 2014
<<http://www.weymouth.ma.us/planning-community-development/pages/community-data>>.

² *Town Report July 1, 2012 – June 30, 2013* (Weymouth: Town of Weymouth, 2013), available online
<<http://www.weymouth.ma.us/other-announcements/pages/2013-annual-report>>.

³ “Lighter, Quicker, Cheaper: A Low-Cost, High-Impact Approach,” n.d., Project for Public Spaces, Web, 16 Oct. 2014 <<http://www.pps.org/reference/lighter-quicker-cheaper-a-low-cost-high-impact-approach/>>; “Lighter, Quicker, Cheaper: Transform Your Public Spaces Now,” n.d., Project for Public Spaces, Web, 16 Oct. 2014 <<http://www.pps.org/reference/lighter-quicker-cheaper-2-2/>>; Micheline Maynard, “Light, Quick And Cheap: The Big Shift In Urban Planning,” *Forbes*, Oct. 2013, Forbes.com LLC, Web, 16 Oct. 2014 <<http://www.forbes.com/sites/michelinemaynard/2013/10/23/light-quick-and-cheap-the-big-shift-in-urban-planning/>>.

⁴ Chris Burrell, “Quincy challenges assumptions about use of urban space,” *The Patriot Ledger* 19 Sep. 2014, Web, 16 Oct. 2014 <<http://www.wickedlocal.com/article/20140919/News/140915474>>.

⁵ Micheline Maynard, “Light, Quick And Cheap: The Big Shift In Urban Planning,” *Forbes*, Oct. 2013, Forbes.com LLC, Web, 16 Oct. 2014 <<http://www.forbes.com/sites/michelinemaynard/2013/10/23/light-quick-and-cheap-the-big-shift-in-urban-planning/>>.

⁶ “Lighter, Quicker, Cheaper: A Low-Cost, High-Impact Approach,” n.d., Project for Public Spaces, Web, 16 Oct. 2014 <<http://www.pps.org/reference/lighter-quicker-cheaper-a-low-cost-high-impact-approach/>>; “Lighter, Quicker, Cheaper: Transform Your Public Spaces Now,” n.d., Project for Public Spaces, Web, 16 Oct. 2014 <<http://www.pps.org/reference/lighter-quicker-cheaper-2-2/>>

⁷ “What are Complete Streets?” *Smart Growth America*, 2014, Smart Growth America, Web, 16 Oct. 2014 <<http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/complete-streets-faq>>.

⁸ “Advance Health Equity Through Transportation Policy,” *Massachusetts Public Health Association*, 2014, MPHHA, Web, 16 Oct. 2014 <http://www.mphaweb.org/Transportation_and_PublicHealth.htm>.

⁹ “Complete Streets Funding Announced,” *Transportation for Massachusetts*, Aug. 2014, Transportation for Massachusetts, Web, 16 Oct. 2014 <<http://www.t4ma.org/complete-streets-funding/>>.

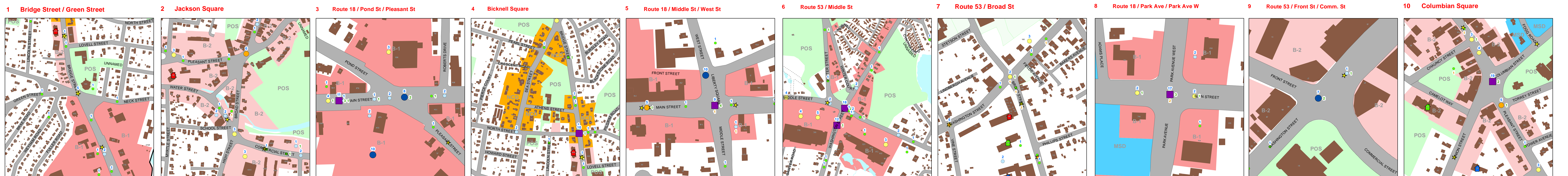
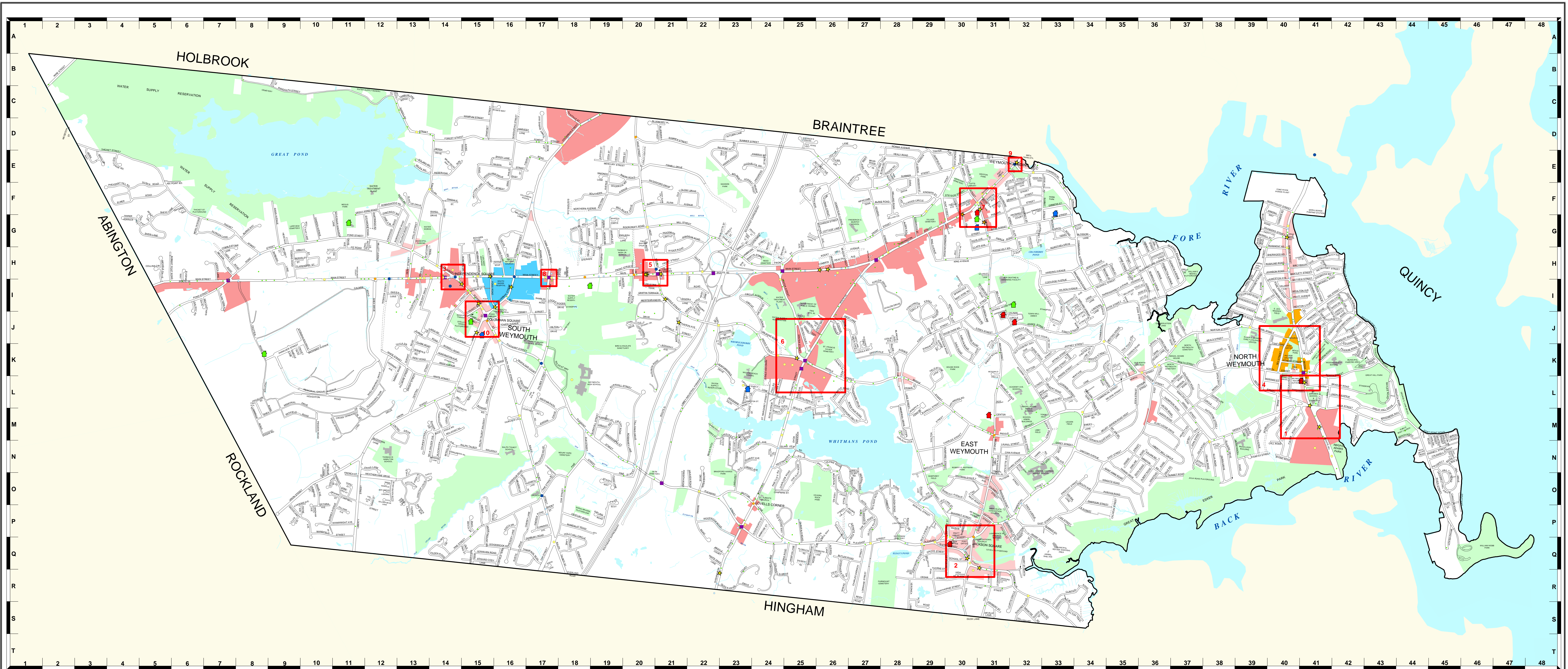
¹⁰ Metropolitan Area Planning Council (MAPC), *Fact Sheet: An Act Relative to Active Streets and Healthy Communities* (Boston: MAPC, 2014), available online <<http://www.mapc.org/sites/default/files/Active%20Streets%20Fact%20Sheet.pdf>>.

¹¹ “Complete Streets Roll On,” *Metropolitan Area Planning Council*, Oct. 2014, MAPC, 16 Oct. 2014 <<http://www.mapc.org/complete-streets-roll>>; National Complete Streets Coalition, *The Best Complete Streets Policies of 2013* (Washington: Smart Growth America, 2014), available online <<http://www.smartgrowthamerica.org/documents/best-complete-streets-policies-of-2013.pdf>>.

¹² “MassWorks Infrastructure Program,” *Mass.gov*, 2014, Executive Office of Housing and Economic Development, Web, 16 Oct. 2014 <<http://www.mass.gov/hed/economic/eohed/pro/infrastructure/massworks/>>.

Appendix A:

Senior Pedestrian Target Areas Map



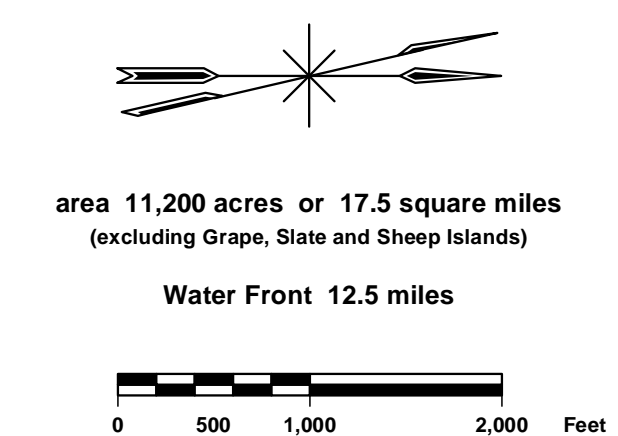
Safe Routes For Seniors

Senior Pedestrian Target Areas

The Town of
WEYMOUTH
Massachusetts



Prepared for: Department of Planning and
Community Development
Prepared by: WEYMOUTH GIS



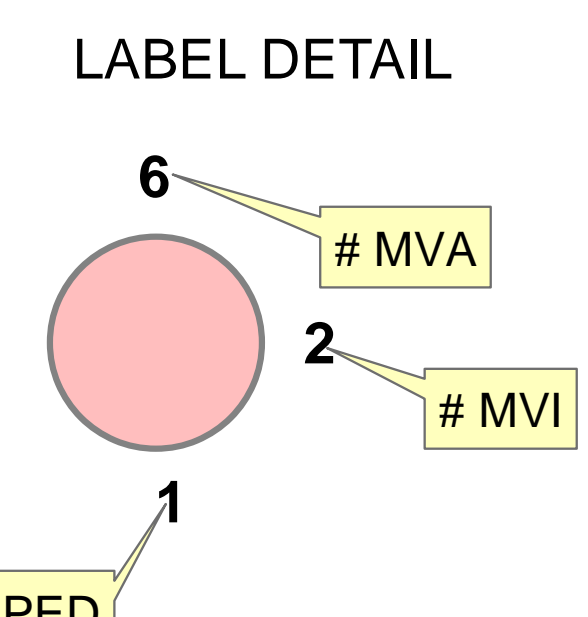
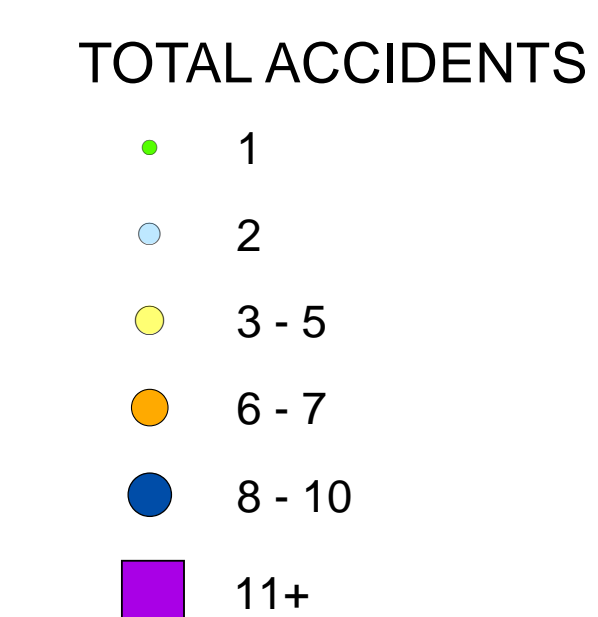
DISCLAIMER:
The Town of Weymouth makes no claims, no
representations, and no warranties, expressed
or implied, concerning the validity (expressed
or implied), the reliability or the accuracy of the
GIS data and GIS data products furnished by
the Town, including the implied validity of any
uses of such data. The use of this data, in any
such manner, shall not supersede any federal,
state or local laws or regulations.
ADDITIONAL SOURCES:
Massachusetts Executive Office of Environmental
Affairs, MassGIS; Community Boundaries
Accident Data provided by Weymouth Police Dept.



Legend

- ★ Senior Fatal Pedestrian Accidents '09 - '14
- ★ Senior Pedestrian Accidents '09 - '14
- ★ Public Housing 2014
- ★ Private Senior Housing 2014
- ★ Nursing Facilities 2014
- Red square: Limited Business District
- Pink square: General Business District
- Blue square: Medical Services District
- Orange square: Neighborhood Center District
- Green square: Public & Semi-Public Open Space

2012 Motor Vehicle Accident Summary



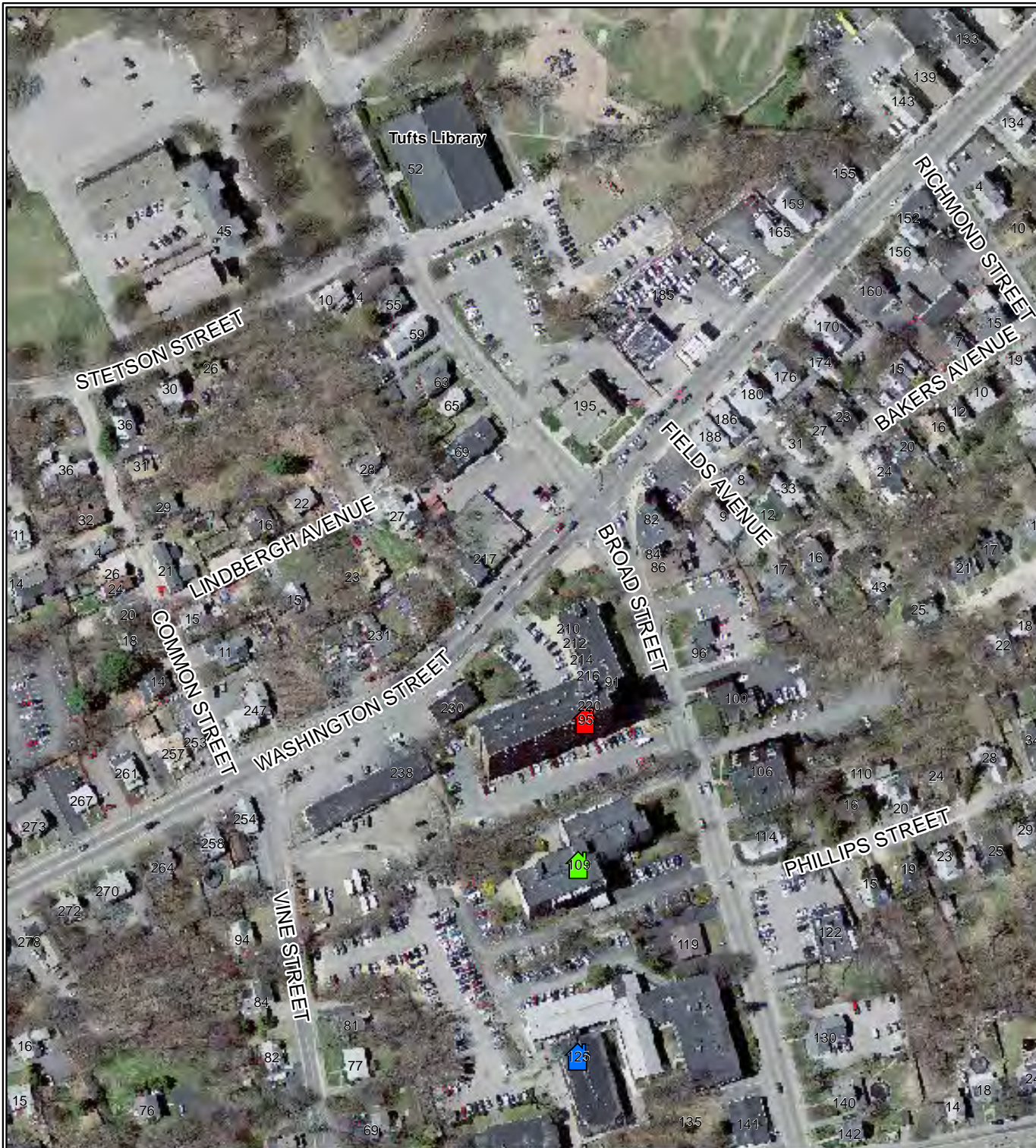
Traffic Accidents by Type*

- Motor Vehicle Accident with Fatality (1)
- Motor Vehicle Accident Personal Injury (142)
- Pedestrian Motor Vehicle Accident (26)
- Motor Vehicle Accident Property Damage Only (935)
- Parking Lot Accident Property Damage Only (136)
- Parking Lot Accident Personal Injury (8)
- Parking Lot Accident with Pedestrian (8)

* Totals from 01/01/12 to 12/31/12

Appendix B:

Public Meeting Handouts



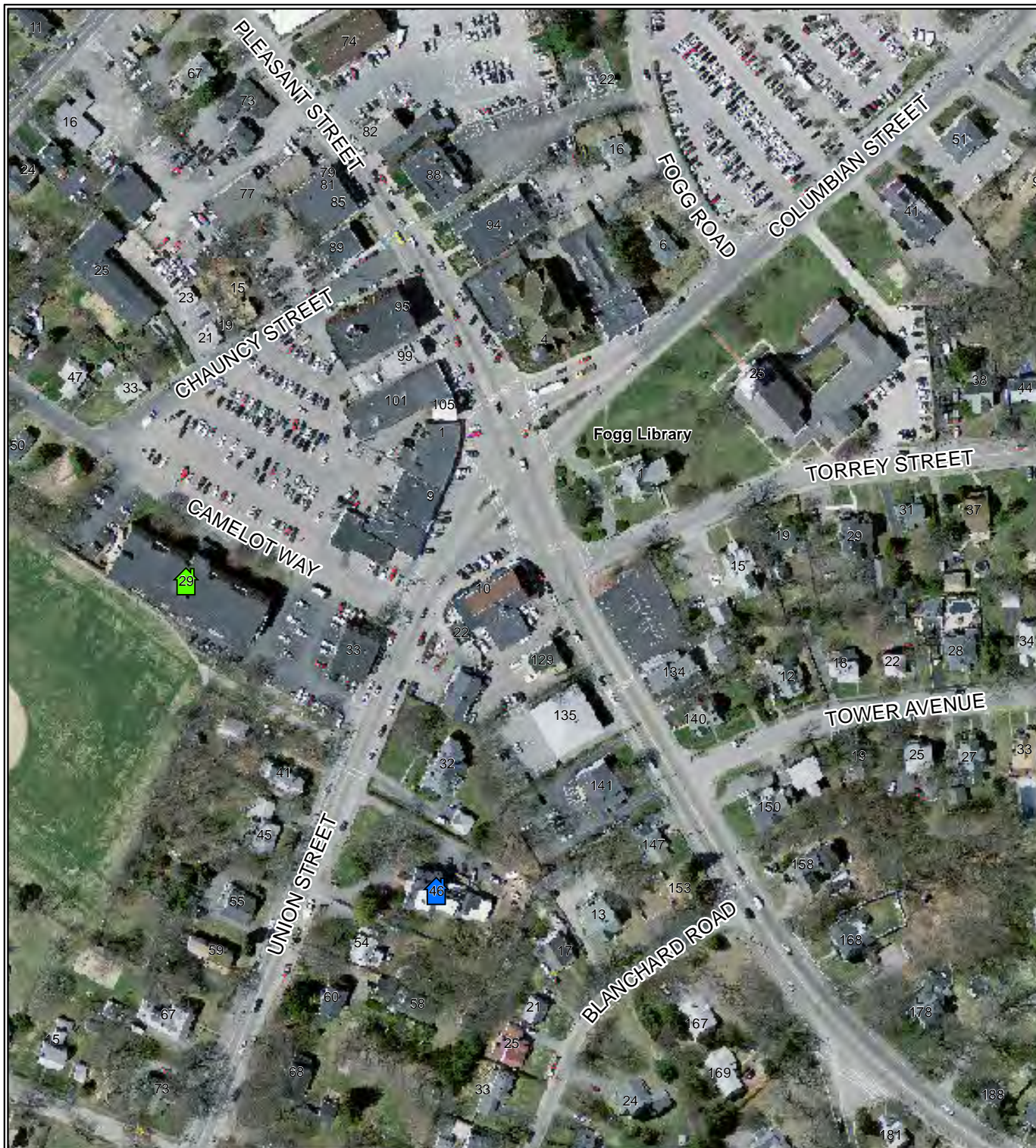
Route 53 / Broad St

Town of Weymouth
Safe Routes for Seniors
Participant Feedback
June 20, 2014



1 inch = 200 feet

Comments: (indicate location on map)



Columbian Square

Town of Weymouth
Safe Routes for Seniors
Participant Feedback
June 20, 2014



1 inch = 200 feet

Comments: (indicate location on map)



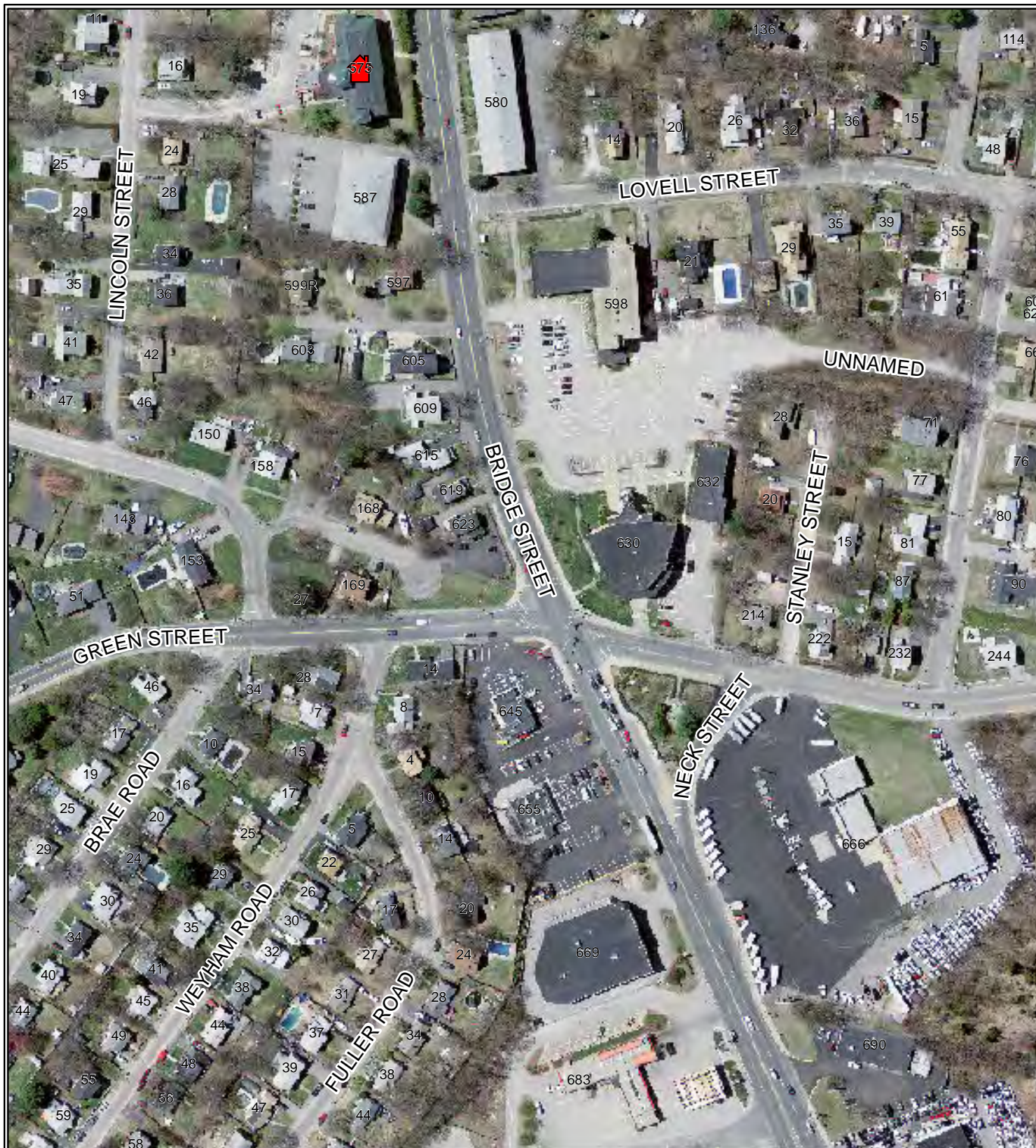
Jackson Square

Town of Weymouth Safe Routes for Seniors Participant Feedback June 20, 2014



1 inch = 200 feet

Comments: (indicate location on map)



Bridge St / Green St

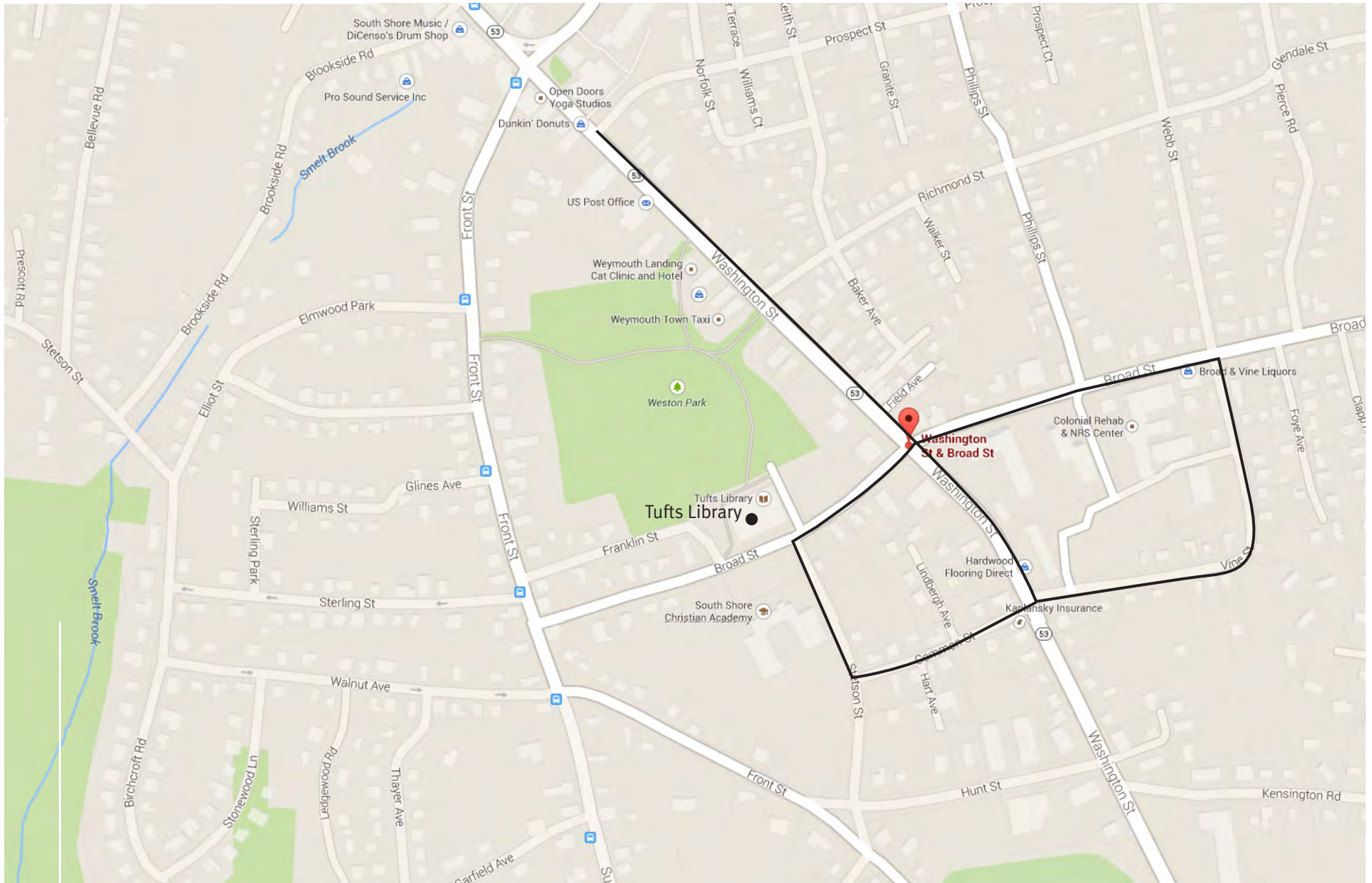
Town of Weymouth
Safe Routes for Seniors
Participant Feedback
June 20, 2014



1 inch = 200 feet

Comments: (indicate location on map)

Appendix C: Walk Audit Routes

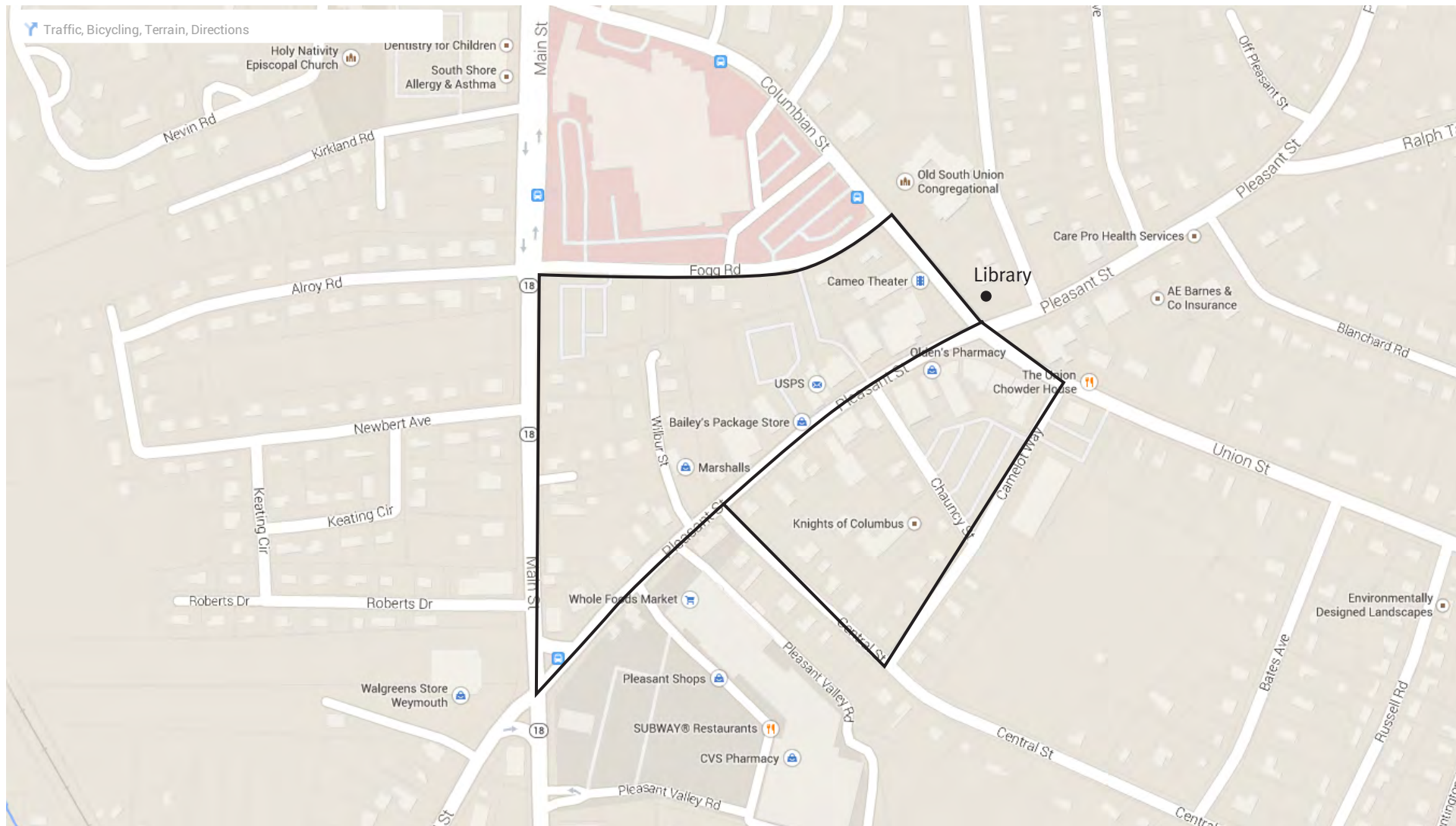


Weymouth- Broad St. and Washington St. Walk Audit Map

● Parking/Meeting Place



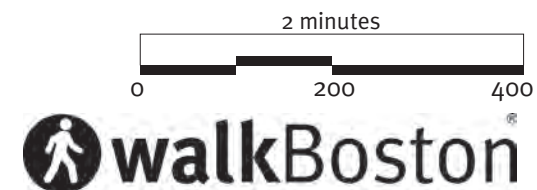
July 14, 2014

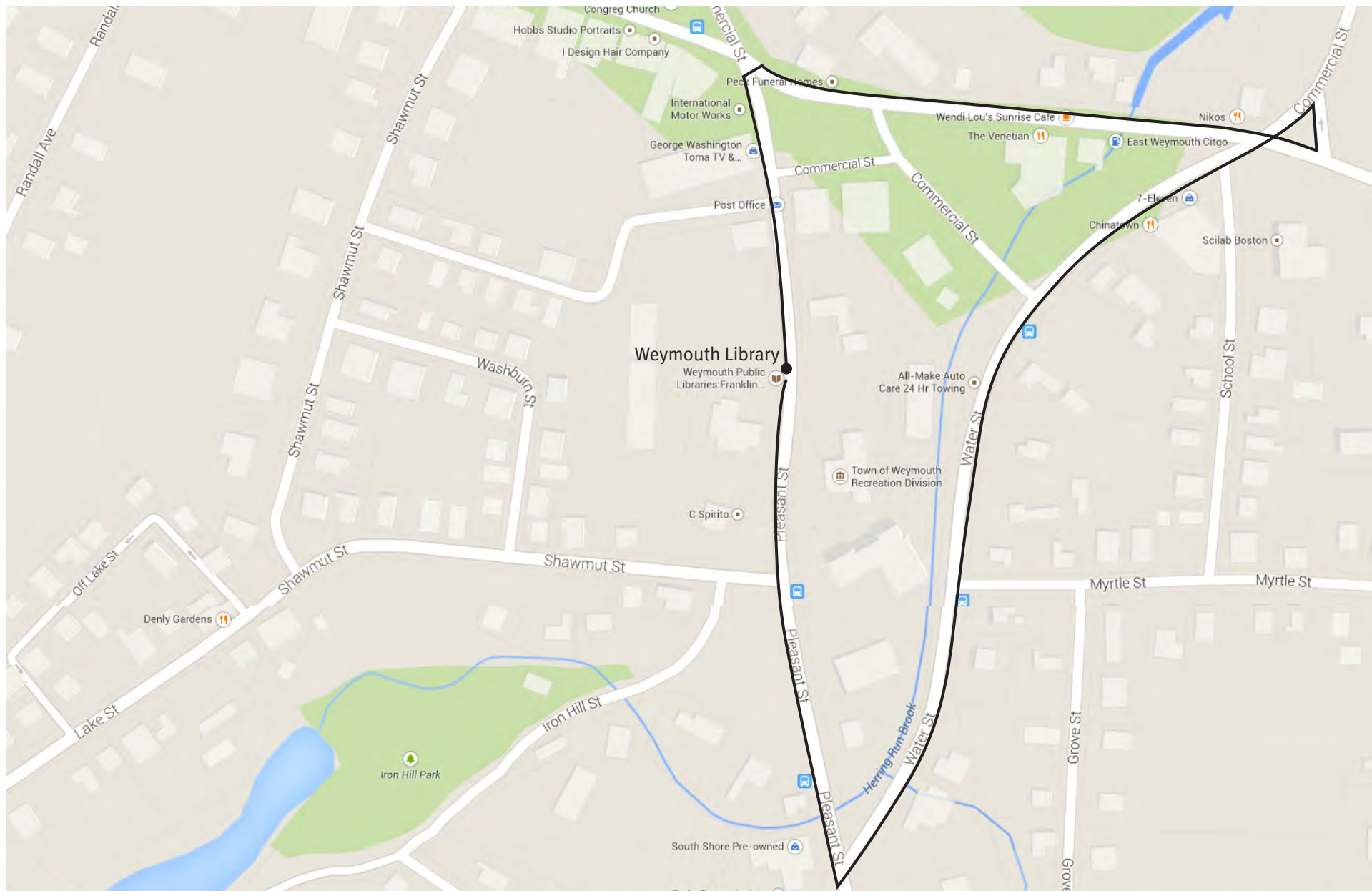


Weymouth- Columbian Square Walk Audit Map

July 14, 2014

● Parking/Meeting Place



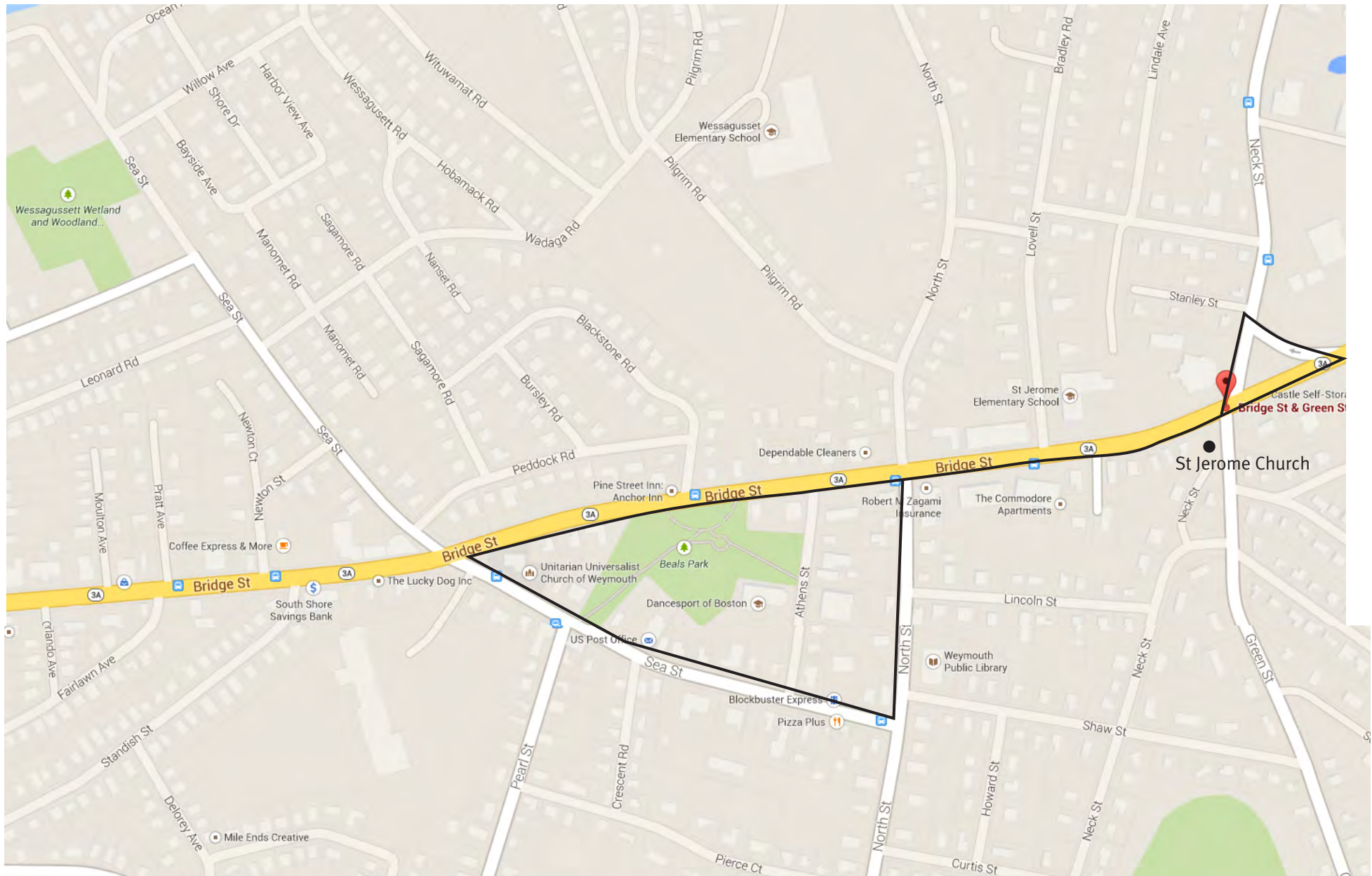


Weymouth- Jackson Square Walk Audit Map

July 14, 2014

- Parking/Meeting Place





Weymouth- Bridge St. & Green St. Walk Audit Map

July 14, 2014

● Parking/Meeting Place



