National Park Service
U.S. Department of the Interior

John F. Kennedy National Historic Site
Brookline, Massachusetts

John F. Kennedy National Historic Site General Management Plan Support: *Transportation Study*

Top Image: Entrance to John F. Kennedy National Historic Site; Bottom Image: Decorative plaque at entrance.
Source: Volpe Center photographs (September 2009)

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John A. Volpe National Transportation Systems Center

U.S. Department of Transportation
Research and Innovative Technology Administration

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Report Notes

This report was prepared by the U.S. Department of Transportation John A. Volpe National Transportation Systems Center, in Cambridge, Massachusetts. The Project Team was led by Anna Biton, of the Transportation Policy, Planning, and Organizational Excellence Division, and included Michael Clark of MacroSys. In addition, Frances Fisher and David Spiller of the Service Operations and Assessment Division also contributed.

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Acronyms

The following terms are used in this report:

DPW	Brookline Department of Public Works
FHWA	Federal Highway Administration
FRLA	Frederick Law Olmsted National Historic Site
FTA	Federal Transit Administration
GMP	General Management Plan
JOFI	John Fitzgerald Kennedy National Historic Site
LONG	Longfellow National Historic Site
MAPC	Metropolitan Area Planning Council
MassDOT	Massachusetts Department of Transportation
MBTA	Massachusetts Bay Transportation Authority
MPO	Metropolitan Planning Organization
MUTCD	Manual of Uniform Traffic Control Devices
NHS	National Historic Site
NPS	National Park Service
RV	Recreational vehicle
TRIP	Paul S. Sarbanes Transit in the Parks Program

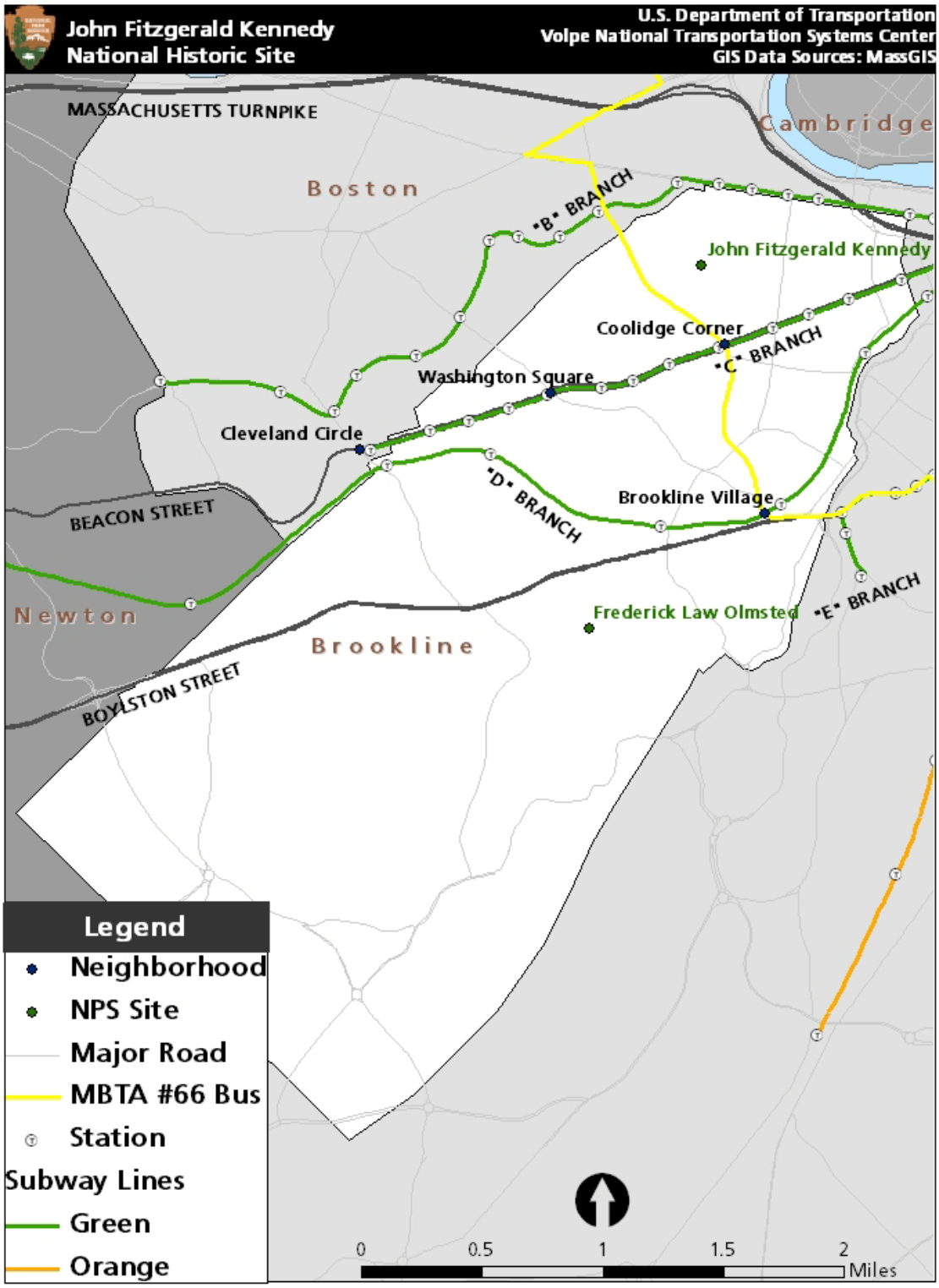
1 Introduction

The John Fitzgerald Kennedy National Historic Site (JOFI), operated by the National Park Service (NPS) is located in the Town of Brookline, Massachusetts. The site is a three-story, nine-room dwelling (c. 1909) that served as the first family home of Joseph P. and Rose Fitzgerald Kennedy (1914-20) and the birthplace of their son, President John F. Kennedy. The site is jointly managed with the Frederick Law Olmsted National Historic Site (FRLA) in Brookline (est. 1979) and Longfellow National Historic Site (LONG) in Cambridge (est. 1972). Key management, administrative, educational and maintenance positions are shared by the three sites. Curatorial service for JOFI is provided through shared positions at LONG.

The NPS is in the process of developing a General Management Plan (GMP) for the JOFI site, a strategic plan to address key operational issues and historic preservation over a 15 to 20 year horizon. The GMP process, which began in 2008, and is expected to be completed in 2010, is focused on the desired future condition of the park and its visitor experience. It will address the following areas: visitor experience, the historic neighborhood, reaching various audiences, preservation, and partnerships and public outreach. The site's location in a dense, residential neighborhood presents some challenges to accessing the site, primarily with regard to parking, signage and wayfinding.

The purpose of this study is to support the GMP process by examining the current transportation-related conditions associated with JOFI and its plans for the future. The organization of this report is as follows: Chapter 2 summarizes existing conditions related to the JOFI site and the surrounding area, including site management, visitation, land use, and transportation. Chapter 3 explores and assesses a variety of potential activities that NPS could undertake to improve access to and information about the JOFI site. Chapter 4 expands upon Chapter 3, by applying some of the potential activities to the possible GMP alternative of opening a satellite visitor center in the Coolidge Corner area. Chapter 5 provides conclusions and next steps for NPS to consider. The appendices provide follow up information on many of the activities described in Chapter 3.

Figure 1
General Location and Context



2 Existing Conditions

This chapter discusses existing conditions related to the John Fitzgerald Kennedy National Historic Site (JOFI) and the Town of Brookline, including sites of local interest, land use patterns, and transportation facilities and options.

2.1 Location and Context

The John Fitzgerald Kennedy National Historic Site is located in the Town of Brookline, Massachusetts, which is bordered on the west by the City of Newton and on all other sides by the City of Boston. Brookline's population of approximately 57,000 residents[*] enjoys plentiful open space and parks, good public schools, and good transportation access in this popular historic "streetcar suburb" of Boston. The Town covers 6.8 square miles, with a more densely-populated urban area in the northern section of the town and a more suburban, larger lot area in the southern portion of the town.

The Muddy River makes up much of the town's eastern border with Boston and is part of the larger Emerald Necklace park chain, designed by Frederick Law Olmsted in the late nineteenth century. Major transportation infrastructure in the town includes the east-west corridors of Boylston Street (Route 9) and Beacon Street, and the north-south corridors of Harvard Street, Washington Street, and Chestnut Hill Avenue. Boylston Street serves as a two-lane urban highway throughout its length, separating the northern and southern portions of Brookline.

In addition to several bus lines, Brookline is served by two branches of the light rail "Green Line" operated by the Massachusetts Bay Transportation Authority (MBTA). The "C" branch operates as a streetcar along Beacon Street, between Cleveland Circle and downtown Boston, with 13 stops in Brookline. The "D" line operates on a dedicated rail right of way between Riverside in Newton and downtown Boston, with five stops in Brookline located in an area between Boylston Street and Beacon Street. The "B" branch streetcar operates along Commonwealth Avenue in Boston, between Boston College in Newton and downtown Boston. While its route is entirely located within the City of Boston, in several places the route and the stops are located in very close proximity to the Brookline town line.

Major commercial districts of the town include Brookline Village (at the intersections of Boylston Street, Washington Street, and Harvard Street), Washington Square (at the intersection of Beacon Street and Washington Street), and Coolidge Corner (at the intersection of Beacon Street and Harvard Street).

John F. Kennedy National Historic Site

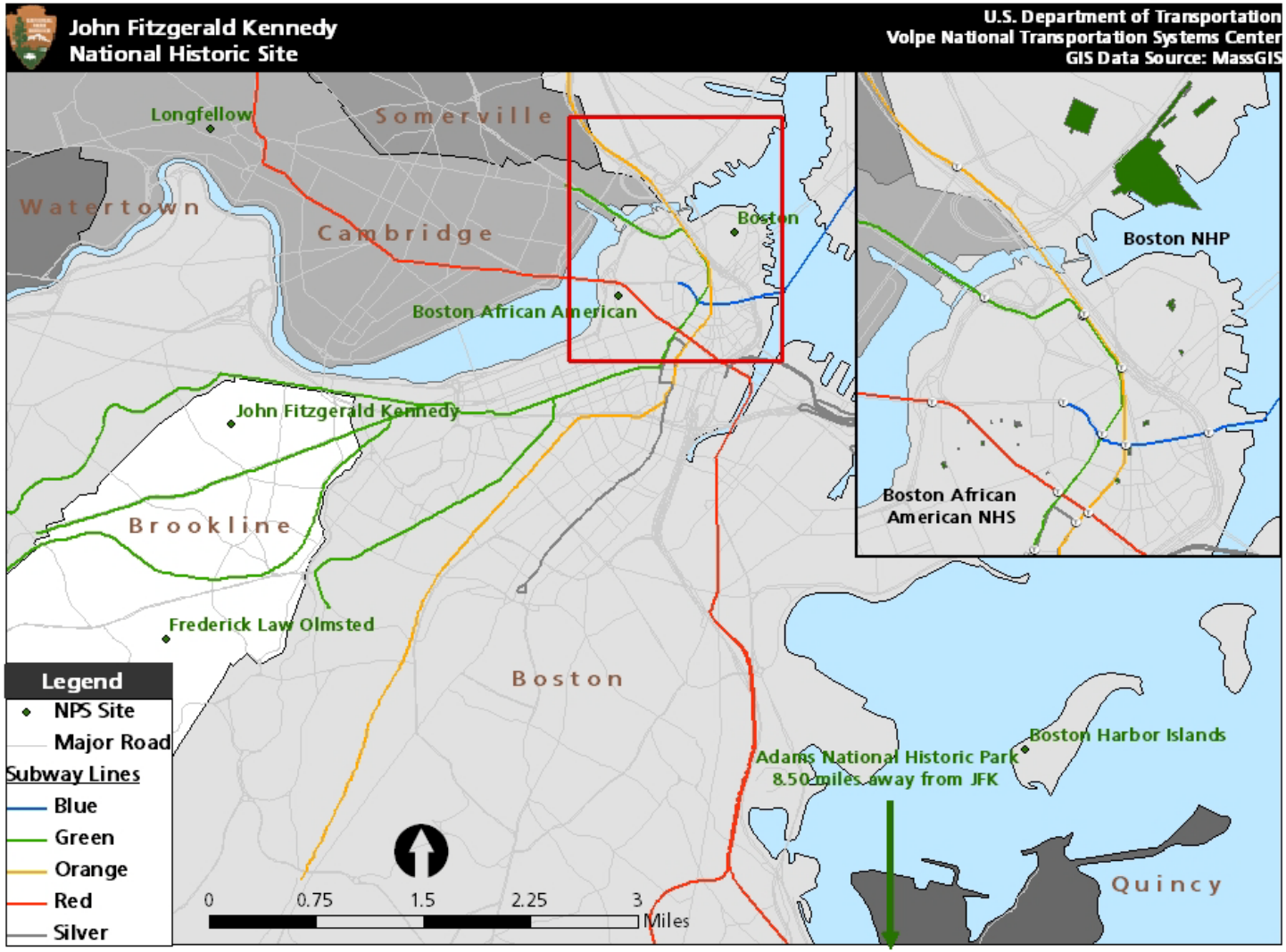
JOFI is one of thirteen park units managed by the National Park Service (NPS) in Massachusetts. The site comprises a house and small backyard, situated on less than 0.1 acre, in a densely developed, urban residential neighborhood. It is located on Beals Street, a narrow side street in close proximity to the busy, commercial Coolidge Corner district of Brookline. There is no parking associated with the site. All parking is located on the street (two-hour parking limit) or in nearby municipal lots. Public transportation is available by streetcar or bus (MBTA Green Line "C" and "B" stops about one-half mile from the site or bus route 66 on Harvard Street, at the end of the block).

The site was established in 1967, after having been repurchased by the Kennedy family and restored to its approximate appearance in 1914—1920 under the guidance of Rose Kennedy as a memorial to President Kennedy in 1966. Following restoration, the family donated the birthplace to the NPS and it opened to the public in 1969.

JOFI is one of several NPS sites located in the Boston area, most of which are concentrated around downtown Boston. Figure 2 shows the locations of NPS sites in the immediate Boston area.

[*] 2000 U.S. Census

Figure 2
NPS Sites around Boston



Coolidge Corner

Coolidge Corner is a pedestrian-oriented neighborhood centered at the intersection of Beacon Street and Harvard Street, and served by the Coolidge Corner stop on the "C" branch of the Green Line. A 2007 District Plan defined the Coolidge Corner area as stretching from Harvard Street between the Boston border to the north and School Street to the south, and along Beacon Street from Lancaster Terrace to the west and Powell Street to the east.

While the dominant land use in this district is residential (primarily high density or multi-family), Coolidge Corner is also the commercial hub of Brookline. Concentrated along Harvard Street and Beacon Street, the district contains 42 percent of the retail commercial businesses in the town. The majority of the businesses are located in the few blocks immediately surrounding the intersection of Harvard Street and Beacon Street, with another smaller commercial strip called "JFK Crossing" starting approximately one-half mile away on Harvard Street, near the intersection with Beals Street[*].

Nearly three-quarters of the businesses in Coolidge Corner are locally or regionally owned, though the presence of national chains has increased in recent years. The vacancy rate in Coolidge Corner is also relatively low, though retail space comes at a relatively high cost. The area is also home to several community based organizations including synagogues, churches, a senior center, and the Edward Devotion Elementary School. Businesses and community organizations around Coolidge Corner have commonly identified issues such as limited public parking, the cost of retail spaces, and limited public gathering space as detriments to the neighborhood. The Coolidge Corner area is displayed in Figure 3.

Edward Devotion School

The Edward Devotion Elementary School is located at 345 Harvard Street, on the corner of Harvard Street and Stedman Street. Serving over 700 students between pre-kindergarten and eighth grades, it is the primary elementary school for the Coolidge Corner neighborhood and the largest of eight elementary schools in Brookline.[†] The school was built in 1924, and will undergo a $55 million renovation (its third major renovation) in 2014.[‡]

As a child, John F. Kennedy attended the school from kindergarten through third grade. JOFI regularly engages in educational programming with students from the Devotion School including an annual event in May for third graders to commemorate the birthday of President Kennedy.

51 Abbottsford Road

In 1920, the Kennedy family moved to a larger home just a few blocks away on Abbottsford Road, where they lived until 1927. Though the home is currently occupied and privately owned, it is included as a key site of interest for visitors to walk to while on the self-guided walking tour of the neighborhood. Results from a 2006 visitor survey indicate that approximately 19 percent of visitors elect to take the neighborhood tour.

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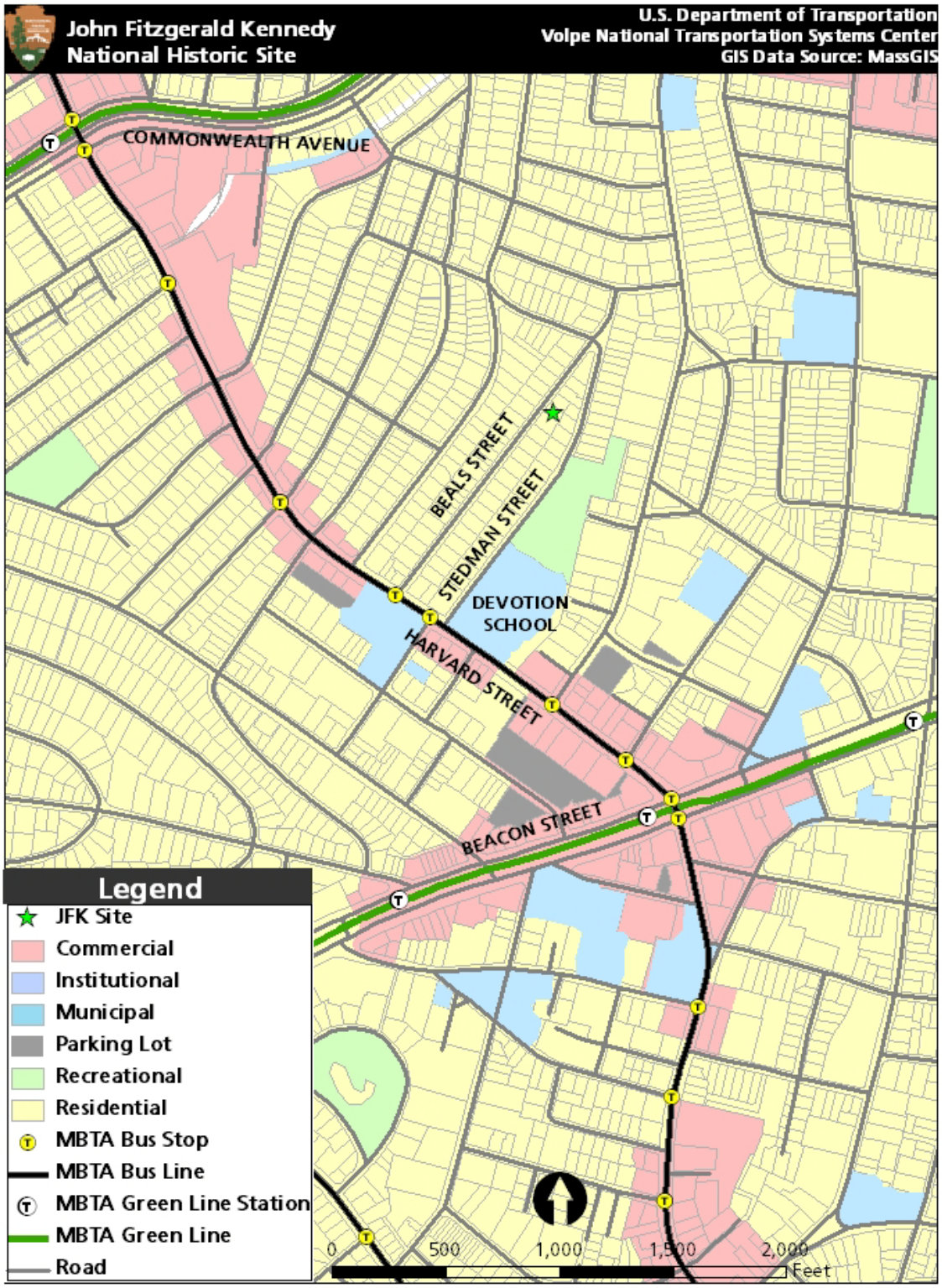
[*] Coolidge Corner Transportation Analysis, 2007.

[†] [†] *"Edward Devotion School"*. Town of Brookline. <http://devotion.brookline.k12.ma.us/School+Information/> Accessed 23 October 2009.

[‡] *"FY 2010-2015 CIP Project Descriptions"* Town of Brookline. <http://www.brooklinema.gov/index.php?option=com_docman&task=doc_download&gid=1530&Itemid=742> Accessed 23 October 2009.

Figure 3
Coolidge Corner Area and Land Use



2.2 Site Management and Visitation

The JOFI site is jointly managed with FRLA in Brookline (est. 1979) and LONG in Cambridge (est. 1972). Key management, administrative, and maintenance positions are shared by the three sites. Curatorial service for JOFI is provided through shared positions at LONG.

The unit includes a leased maintenance facility in the Boston neighborhood of Brighton, approximately 1.6 miles from JOFI, which jointly serves the three historic sites. The maintenance staff is housed at the remote facility, and the administrative/management staff are either housed at FRLA or in temporary offices at the maintenance facility while FRLA is undergoing renovations. There is a site manager and supervisory ranger at each site.

JOFI has one full-time, year-round ranger on site and typically three to five seasonal staff members. The full-time position has been vacant since January 2009; rangers or other NPS management staff members from nearby sites have been rotating through via three-month temporary assignments since the position became vacant.

While the grounds are open year-round, the house at JOFI is open to the public seasonally, typically from late May to late September each year. In 2009, NPS was able to secure funds to remain open until November 1st. Hours of operation during the public season are Wednesday through Sunday, from 10 a.m. until 4:30 p.m. In recent years, approximately 7,000-8,000 visitors have come to the site over a four-month period. Approximately 30-35 bus groups visit the site each year. Visiting the grounds and the visitor center/bookshop are free, with a $3 entrance fee to tour the house.

Visitors enter through the back of the house, where there is an orientation center in the basement. The visitor center includes a small bookshop and area for viewing the orientation film; the house tour takes place on the first and second floors of the house. The site is not accessible to visitors with mobility impairments – entry to the visitor center as well as the main portion of the house requires navigating stairs, some of which are steep and narrow. Thus far it has not been possible to make accessibility improvements to the house while maintaining the historic structure and façade.

The National Park Service provides guided tours of the house with its display of household furnishings, photographs, and significant mementos personally collected by Rose Fitzgerald Kennedy. Many pieces in the museum collection are original to the 1914--1920 historic period, reflecting the lifestyle and various interests of the Kennedys. Maps are available for self-guided tours of the nearby neighborhood, and Park Rangers occasionally lead such tours.

NPS conducted a visitor study at JOFI in the summer of 2006. Over a one-month period in June and July, a total of 473 questionnaires were distributed to visitor groups, with 316 responses. The survey included questions on a variety of topics, including issues relevant to this study, such as how visitors accessed the site. Key highlights from the survey data are presented below.

Visit Frequency and Length of Stay

The survey found that nearly 94 percent of visitors were at the site for the first time in the past 12 months, and nearly 84 percent were at the site for the first time ever. The relatively low percentage of repeat visitors indicates that efforts to educate potential visitors about the site and how to access it must continually reach a new audience.

The average length of stay for most visitors is approximately one hour, with 65 percent of visitors remaining at the house or taking a self-guided walking tour of the neighborhood for one to two hours. The two-hour parking limitation on Beals Street accommodates most visits, although some visitors would prefer to remain parked on Beals Street and walk to the Coolidge Corner commercial district for shopping or a meal before or after their visit, which may not be possible under the given time constraints.

Visitor Origin and Knowledge of Site

The survey found that most visitors to JOFI are families or groups of two to three people. Fewer than 10 percent of visitors arrived with organized groups (commercial tours, educational, or other organized groups). Of the visitors who obtained information about the park prior to the visit, the most common sources were travel guides or other tour books and publications, word of mouth, or by living in the area. While external travel guides may rely on the park website for information, only 15 percent of visitors used the park website to gather information prior to their visit. Furthermore, prior to visiting, only 43 percent of visitors were aware that the site is managed by NPS.

Approximately a quarter of visitors responded that they had not had sufficient information about the park prior to their visit; additional information that the groups needed but was not available included directions to the site (by car and/or by public transportation) and general information about hours of operation. These results underscore some of the challenges for disseminating information about JOFI and making it accessible.

Visitor Mode of Access

Survey results indicated that approximately 40 percent of visitors arrive by private vehicle, and 55 percent arrive by walking or a combination of public transportation and walking. Most visitors arriving by vehicle did not encounter problems with parking, though those that did found limited street parking or had been expecting a parking lot and encountered some confusion regarding where to park.

In general, though most visitors did not have difficulty in finding the park, survey responses indicated a desire for improved signage in the immediate area as well as from the highway, and better driving and walking directions.

Partnerships with Other Local Organizations

The National Park Service has limited, but overall positive, relationships with local governmental and civic groups regarding the JOFI site. The NPS sites (JOFI and FRLA) are generally viewed as an asset within the Town of Brookline, though they have traditionally had a relatively low profile. JOFI has had recent contact with the planning director and some other town officials and staff, through the GMP process.

JOFI currently provides educational programs to 200 students annually, mostly from Devotion School third grade, who study local history. The programs typically include a walking tour of the neighborhood and focus on local issues and problem solving. NPS would like to expand educational programming with students from the Brookline and Boston schools, but is constrained by the seasonal schedule, onsite space limitations, and transportation access. It is relatively easy to host students from the Devotion School because they are able to walk to the site; formal programs with students from farther away would be more difficult to accommodate, in part because of the need to transport them by school bus or multiple cars, or by public transportation.

JOFI also has had limited relationships with other Kennedy related institutions in the area, such as the Rose Kennedy Greenway, the Kennedy School of Government at Harvard University and the JFK Presidential Library located on the campus of UMass-Boston. These sites serve different purposes and focus on different aspects of the Kennedy family's life, and could potentially complement each other well. For example, NPS views the JFK Library as a more modern facility, which might benefit from a connection to an historic building having associations with President Kennedy's early life. There is no existing cooperative agreement or common vision between JOFI and the library, and most visitors to JOFI do not also visit the library. While the sites are somewhat geographically dispersed, NPS would be open to the possibility of expanding relationships with these institutions, as well as other universities in the region.

Another possibility might be to develop an agreement with other NPS Presidential sites, to raise the profile of JOFI and share information amongst the parks on how to better reach out to different groups in the community. Some NPS sites have local "friends of" groups that assist with fundraising, advocacy, and public outreach. This might be something that JOFI considers in the future.

2.3 Land Use, Development, and Demographics

Land Use and Development Patterns

The Town of Brookline was incorporated in 1705, and served as a farm town for the neighboring larger city of Boston. In the early nineteenth century the Town's proximity to Boston made it both a prime supplier of fresh produce to the city, and attractive to wealthy Bostonians looking for weekend and summer country retreats.

The arrival of the Boston & Worcester Railroad in Brookline Village in 1848 and the extension of Beacon Street served to focus the year-round population at Brookline Village. The development of the electric streetcar line on Beacon Street in 1889 (the second in the nation) better connected Brookline to Boston, creating a market for the subdivision of many older estates and farms. It also led to building luxury apartments along Beacon Street throughout the late 1800s and early 1900s. The Town's development patterns have long been well established, with over half of the residential buildings built before 1940.

Unlike many other Massachusetts towns, Brookline has never had significant industrial areas. Through its transformation from farm to suburb, Brookline retained significant open spaces, creating the nation's first public playgrounds in 1871 and the first country club in 1882. The Town retains historic buildings from its early days through Victorian and later eras, many of which are listed in the National Register of Historic Places.[*]

Demographic and Economic Characteristics

According to the 2000 U.S. Census, Brookline has a population of approximately 57,000 residents, roughly 44 percent of which have lived in the town for less than five years.[†] The Census estimated median family income at approximately $132,000 in 2007, compared to approximately $81,000 overall in Massachusetts. Home prices in Brookline are also relatively high, estimated in 2008 at nearly $659,000, compared to $364,000 for Massachusetts.[‡] Most Brookline families rent and live in multifamily buildings. Overall, Brookline residents are well-served by public services. The town is one of 12 municipalities in the state with the highest possible bond rating.[§]

Coolidge Corner is one of the relatively less expensive areas to live in Brookline. Average assessed values for single-family homes and condominiums are lower than the town average, and the district provides a significant portion of the community's affordable housing. Development pressures remain strong, however. With much of the land already built out, construction projects have focused on pre-existing structures. Most of the building stock in Coolidge Corner was constructed before 1980.[**]

2.4 Transportation and Traffic

Cycling and Pedestrian Activity

Visitor surveys have found that approximately 55 percent of JOFI visitors arrive at the site by foot or a combination of public transportation and walking, while very few visitors arrive by bicycle. There are

[*] Brookline Comprehensive Plan
[†] 2000 U.S. Census
[‡] U.S. Census American Factfinder http://factfinder.census.gov/home/saff/main.html?_lang=en
[§] Brookline Comprehensive Plan
[**] Brookline Comprehensive Plan

sidewalks on both sides of Beals Street and on most streets in the Coolidge Corner district, though widths and conditions vary. There are no bicycle racks at the JOFI site or elsewhere on Beals Street.

In general, there is high pedestrian activity around Coolidge Corner, centered around the intersection of Harvard and Beacon Streets and extending a few blocks in each direction. Pedestrians may reach the area by foot, bicycle, bus, train, or automobile – many park and then walk around the area. Another commercial area close to Harvard Street and Beals Street, referred to as "JFK Crossing", also tends to have high levels of pedestrian activity.

Pedestrian facilities in the Coolidge Corner district are generally in good condition. In 2004 the Town made several improvements on Harvard Street, including: new benches, trash receptacles, light fixtures, planter pots and bike racks. Pavement markings, neckdowns (extended sidewalks at corners to reduce crossing distances) and upgraded signal equipment were also installed, making it easier and safer for pedestrians to negotiate this busy street. The Beacon Street reconstruction also includes plans for improved pedestrian signals, sidewalks with curb-cuts for improved handicapped accessibility, and neckdowns installed at corners to reduce crossing distances and provide better visibility.[*]

There are some bicycle amenities present in the Coolidge Corner district, and more are planned or in progress. There are intermittent bicycle lanes on Harvard Street and on Beacon Street. In sections where the roadway width will not accommodate a bicycle lane on Beacon Street, there are frequent "Share the Road" signs and pavement markings to better alert drivers to the presence of cyclists. An existing Town bylaw prohibits bicyclists from riding on the sidewalks in commercial areas such as Coolidge Corner.

Previous traffic studies have also identified a general need for more bicycle parking in the Coolidge Corner area; it is not uncommon within the Coolidge Corner district to see bicycles chained or locked to street lights, trash barrels, benches and parking meters. While some clustered bike racks will be installed as part of the Beacon Street reconstruction, more bicycle racks are needed in general within the Coolidge Corner district.

Signage and Wayfinding

There is limited signage directing visitors to the JOFI site. NPS knows of three directional signs guiding visitors to the site – on the corner of Beals Street and Harvard Street at the turn to the site, on the corner of Cambridge Street and Harvard Avenue in Allston, approximately 1.1 miles from the site, and on the corner of Boylston Street and Harvard Street, approximately 1.2 miles away from the JOFI site. The signs on Boylston Street and Cambridge Street, pictured in Figure 4 and Figure 5, respectively, provide no information to the visitor regarding the distance to the site or further directions. The sign on Cambridge Street is particularly difficult to locate—it is obscured by graffiti and does not allow enough space for motorists to turn left onto Harvard Avenue. Neither of these signs includes the familiar NPS logo or format, and there are no other signs between these points and the corner of Beals Street. The sign on Beals Street (Figure 6) does not indicate that the site is in fact located on that street or how far down the street it is located.

[*] Coolidge Corner Plan Transportation Analysis, 2007

Figure 4
JOFI Sign from Route 9
Source: U.S. DOT Volpe Center

Figure 5
JOFI Sign Cambridge St. and Harvard St.
Source: U.S. DOT Volpe Center

Figure 6
JOFI Sign Harvard St. and Beals St.
Source: U.S. DOT Volpe Center

The JOFI site is noted on the station areas maps posted at the Coolidge Corner Green Line stop. However, the map is situated below waist level and the image of the site is somewhat difficult to read. The map is shown in Figure 7.

Figure 7
MBTA Station Area Map
Source: U.S. DOT Volpe Center

There are no signs located in other important locations, such as from Coolidge Corner, Commonwealth Avenue, or the exit for Route 9 from Route 128. Both visitors and NPS staff have indicated a need for better informational and directional signage to guide visitors to the site.

The Coolidge Corner transportation study conducted for the Town in 2007 also indicated a general need for better signage in the Coolidge Corner area, particularly to direct visitors to available parking areas.

While there may be some opportunities to partner with the Town for an expanded signage campaign, this may also signal general reluctance within the Town for extensive signage, based on design and aesthetic concerns. Other potential partners related to signage would be the Brookline Chamber of Commerce, the City of Boston, and the MassDOT.

Automobile Traffic and Circulation

Beals Street

The JOFI site is located on Beals Street, a one-way residential street that runs for one long block (approximately 0.25 miles) from Harvard Street to Stedman Street in Brookline. Though there are officially two travel lanes, on-street parking on one side of the street effectively narrows the roadway to 1.5 travel lanes. The sidewalks on both sides of Beals Street are in generally good condition, with some cracking and breaking due to tree roots.

Daily travel on Beals Street is assumed to be made primarily by residents and their guests, though there may be some other cut-through traffic.

Figure 8
Beals Street
Source: U.S. DOT Volpe Center

Harvard Street

Harvard Street in Brookline, a north-south cross street, is approximately 1.4 miles in length and is bordered by various commercial, office, institutional and residential uses. The intersection with Beacon Street is considered to be the commercial hub of the Coolidge Corner District and the Town. A traffic study in 2000 estimated approximately 18,000 average daily vehicles on Harvard Street. The #66 bus operated by the MBTA runs between Harvard Square in Cambridge to Dudley Station in Boston. As part of the route, it runs along the full length of Harvard Street in Brookline.

Within the Coolidge Corner District, Harvard Street has generally one vehicular travel lane in each direction, though it widens at several locations to provide space for left turns. The width of the street also allows for a parking lane on each side of the street, and an intermittent bicycle lane.[*]

[*] Coolidge Corner Transportation Analysis, 2007

Beacon Street

Beacon Street is one of the major roadways in Brookline, running approximately 2.7 miles in an east-west direction, connecting downtown Boston and Newton. The roadway averages approximately 160 feet in width and serves many users, including; automobiles, bicyclists, pedestrians, and buses with a light-rail line operating at grade on its center-strip. Throughout its length, Beacon Street is bordered by various commercial, office, institutional and residential uses. Based on projections from a 1997 study, the section of Beacon Street near Coolidge Corner Street is estimated to carry approximately 40,000 vehicles per day.[*]

In recent years the Town has undertaken a roadway reconstruction project on Beacon Street, completed in 2009. The reconstructed roadway will remain at approximately 160 feet in width, with a typical cross-section including sidewalks on both sides (width will vary), parallel parking in each direction, two travel lanes in each direction, a 30-34 foot reservation area, a center angle parking area in one direction, and a bicycle lane in one direction.[†]

Coolidge Corner Traffic Enforcement

Despite anticipated improvements associated with the Beacon Street reconstruction project, traffic congestion remains a consistent problem in Coolidge Corner. Common problems in the area include short signal timing for pedestrians to cross Beacon Street, a short traffic signal for cars on Harvard Street at the intersection with Babcock Street, traffic merging into a single line in the middle of the Beacon Street-Harvard Street intersection, and vehicles blocking the Beacon Street-Harvard Street intersection.

In late September 2009, Brookline police began to test new enforcement measures to alleviate traffic issues, using funds from a small state grant. Crews made temporary changes to street parking and signal timing, and installed signs warning drivers of fines for blocking intersections. The increased enforcement resulted in more citations against drivers for failing to yield to pedestrians, blocking the intersection, and red-light violations. [‡] In November 2009 the Town decided to continue with some of the changes[§] and, in May 2010, announced it would eliminate six parking spots on Harvard Street's northbound lane at the Beacon Street intersection to create a second lane of travel.[**]

Parking

JOFI Site

There is no parking lot associated with the JOFI site; the house does not have a driveway. There is parallel parking available along one side of Beals Street (and other neighboring residential streets) for park visitors and staff, some teachers from the nearby Devotion School, as well as residents and their guests. There is no designated handicapped parking on the street. The sign on the corner of Beals Street and Harvard Street that points toward the JOFI site does not include information on the actual house number or how far down the house is located; many visitors are unsure of how far down the block to drive and will not look for parking until they have passed the house. This leads to additional parking pressure toward the end of the one-way street.

While residents with a sticker are not subject to the two-hour parking limit, there is no overnight on-street parking allowed in Brookline. JOFI receives three permits from the Town for their staff to park on Beals Street for longer than two hours. While these permits typically cost $500 per year, the Town provides

[*] Coolidge Corner Transportation Analysis, 2007
[†] Coolidge Corner Transportation Analysis, 2007
[‡] Boston Globe October 30, 2009 http://www.boston.com/yourtown/news/brookline/2009/10/brookline_hearing_on_coolidge.html
[§] Brookline TAB November 30, 2009
http://www.boston.com/yourtown/news/brookline/2009/11/brooklines_coolidge_corner_reg.html
[**] Brookline TAB May 5, 2010
http://www.wickedlocal.com/brookline/features/x1406504345/Brookline-to-remove-Coolidge-Corner-parking-spots-in-hopes-of-calming-traffic

them to NPS at no cost. The staff members typically try to park further down the street in order to leave the spaces directly in front of the site open for visitors. There is no designated handicapped parking for the JOFI site or on Beals Street in general (though the site is also not handicapped accessible).

Figure 9
Beals Street Parking Sign
Source: U.S. DOT Volpe Center

Due to the combination of the overnight parking ban, parking turnover, and site operations hours – open for slightly less than the typical work day –there is typically street parking available for JOFI visitors, though it may not be open directly in front of the house. There is typically more competition for parking on weekends. The two-hour parking ban appears to be relatively well enforced, although JOFI does not typically receive complaints from visitors that they have received tickets for over-staying the time limit.

Street parking availability for maintenance vehicles and tour buses is problematic, as there is no guarantee that there will be sufficient space on the street for the larger vehicles. While NPS typically arranges to have maintenance vehicles arrive in the morning, when there is more likely to be space available after the overnight ban, it is not always possible to ensure adequate space for maintenance and contractor vehicles.

Edward Devotion School
Parking availability is also an issue for faculty and staff at the Edward Devotion Elementary School, located at the intersection of Harvard Street and Stedman Street. There are a total of 79 teacher and staff parking spaces available on-site at the Devotion School. Of these, 70 spaces are located in the garage (designed to accommodate 54 vehicles) and nine parallel parking spaces are available in the school driveway. A town poll conducted in 2006 indicated that an additional 50 spaces would be required to accommodate demand from the 170-person staff.

In order to better accommodate employees at the school, the Brookline Department of Public Works assigns 50 hang-tag permits to school staff for parking in the immediate area, not subject to restrictions during school hours. The spaces are distributed on local streets accordingly: 15 spaces on Stedman Street; ten spaces each on Naples Road and Fuller Street; and five spaces each on Beals Street, Gibbs Street, and Clarence Street. The spaces on Beals Street are located further up the block, in order to reduce the impact on JOFI visitors. The parking spaces dedicated for Devotion School staff are reserved only while school is

on-site parking at the Devotion School comes from faculty and staff needed to conduct summer programs and maintain school operations. The number of spaces needed varies each summer, but is typically under the designed capacity of the parking garage. In contrast, parking demand for JOFI is at its peak during these summer months.

Coolidge Corner District

As the area with the largest concentration of business activity in the Town of Brookline, the Coolidge Corner area also has the greatest need for and supply of metered parking. The broader Coolidge Corner District, defined by the Town planning study as Harvard Street from the Boston border to School Street to the south, and Beacon Street from Lancaster Terrace to the west and Powell Street to the east, includes six municipally owned parking lots, metered street parking, and time-limited parking on residential streets. There are approximately 401 parking spaces available in the municipal parking lots, and 740 spaces available on-street, with various restrictions limiting the duration and type of parking permitted. Table 1 and Figure 10 provide a breakdown of parking spaces by public lot and Table 2 shows metered street parking spaces in the Coolidge Corner district.

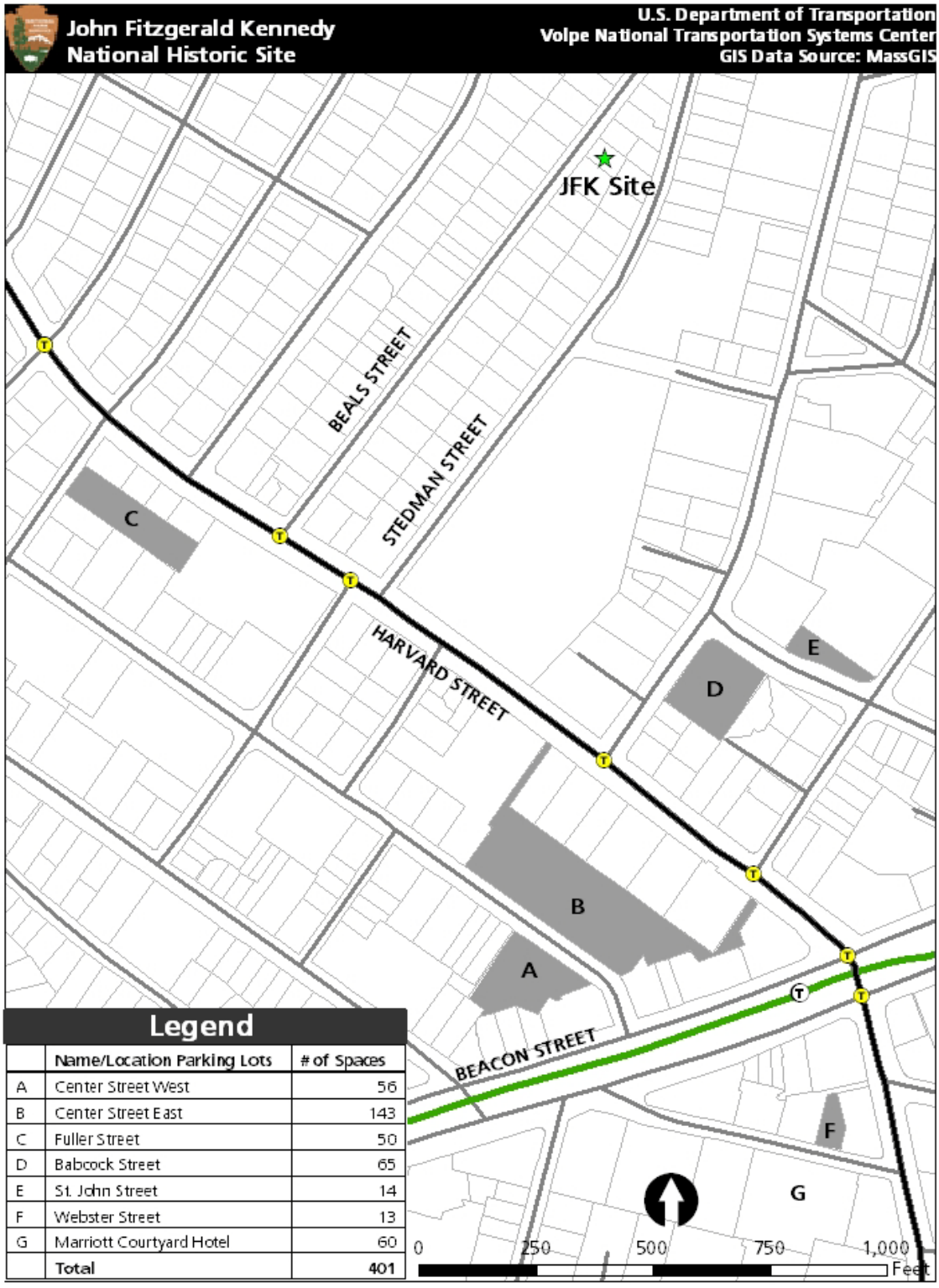
Table 1
Public Parking Lot Spaces in the Coolidge Corner District
Source: Coolidge Corner Study Transportation Analysis

Name / Location Parking Lots	# of Spaces
Center Street West	56
Center Street East	143
Fuller Street	50
Babcock Street	65
St. John Street	14
Webster Street	13
Marriott Courtyard Hotel	60
Total	**401**

Table 2
Metered On-Street Parking Spaces in the Coolidge Corner District
Source: Coolidge Corner Study Transportation Analysis

Name / Location Parking Meters	# of Spaces
Beacon Street	367
Harvard Street	255
Pleasant Street	30
Centre Street	21
Babcock Street	16
John Street	24
Longwood Avenue	6
Charles Street	6
Webster Street	7
Sewall Avenue	10
Total	**740**

Figure 10
Public Lots in Coolidge Corner Area



Legend

	Name/Location Parking Lots	# of Spaces
A	Center Street West	56
B	Center Street East	143
C	Fuller Street	50
D	Babcock Street	65
E	St. John Street	14
F	Webster Street	13
G	Marriott Courtyard Hotel	60
	Total	**401**

Town monitoring efforts have found the municipal lots and street metered parking in Coolidge Corner district to average 70 to 90 percent occupancy, depending on the time of day and day of the week. The Town has also found that there appears to be a shortage of available and convenient parking for employees in the Coolidge Corner area.

The Commercial Permit Parking program was instituted in 2007 to assist employees working in the Coolidge Corner and Brookline Village commercial districts. The program provides a limited number of employee permits available for purchase at a cost of $500 per year. The hang-tag permits allow the employee to park on certain residential streets, located within one-quarter mile of the place of employment, not subject to the two-hour parking limit. There are also a limited number of spaces available in non-metered lots in the Coolidge Corner area. Permits for these spaces cost $78 per month. There is typically a waiting list for the popular program.

Transit

The Massachusetts Bay Transportation Authority (MBTA) is the primary transit provider in the Boston region. It provides a range of services to the 175 cities and towns within its service district, including rapid transit (heavy and light rail), bus, commuter rail, ferry, and paratransit. The Town of Brookline is served by both light rail (the Green Line) and multiple buses.

The Coolidge Corner stop on the Green Line "C" branch is located at the intersection of Harvard Street and Beacon Street, approximately 0.4 miles from the JOFI site. The MBTA estimates a total of 14,718 daily passenger boardings on the 'C' Branch of the Green Line, of which 4,150 passengers boarded at Coolidge Corner. This stop has the most daily boardings of all of the Green Line branches. The service typically runs every six to ten minutes, depending on the time of day. This stop does include wheelchair accessible boarding features.[*]

The Packards Corner and Harvard Avenue stops on the Green Line "B" branch are located on Commonwealth Avenue in Boston, and are each approximately 0.6 miles from the JOFI site. The MBTA estimates approximately 28,486 daily boardings on the "B" branch of the Green Line, with 1,571 daily boardings at the Packards Corner stop and 4,077 daily boardings at the Harvard Avenue stop. The "B" branch of the Green Line runs through the campus of Boston University and much of the volume on the line is assumed to be university-related. While the stops on the "B" branch are also located quite close to the JOFI site, they do not feel as connected to the site as the Coolidge Corner neighborhood. These stops do not include wheelchair accessible boarding features.

In addition to the Green Line, the #66 bus also runs in the Coolidge Corner area and stops very close to the JOFI site. It is one of the most utilized routes in the MBTA system. The #66 bus route travels between Harvard Square in Cambridge and Dudley Square in Boston, including running along Harvard Street in Brookline. There are stops in each direction at the corner of Harvard Street and Beals Street, approximately 0.1 miles from the JOFI site. The route includes automated announcements that call out the location of each stop. The announcement does alert passengers to the stops near Beals Street and JFK Crossing, but does not mention the JOFI site. In 2004, the #66 route had an average of 11,088 weekday riders, roughly split evenly between inbound (toward Dudley Station) and outbound (toward Harvard Square) runs. An average of 25 to 50 passengers board or alight in either direction from the bus stops located closest to the JOFI site on any given day.[†]

[*] MBTA 2009 "Blue Book"
[†] MBTA Spring 2004 Bus Boarding Data

Figure 11
MBTA Route 66 Bus Stop – Beals Street and Harvard Street
Source: U.S. DOT Volpe Center

2.5 Summary of Initial Findings

The following is a summary of the major items identified in this introductory analysis. These findings inform the approach to alternatives considered in Chapter 3.

- The John F. Kennedy National Historic Site (JOFI) site in Brookline, Massachusetts, is located in a dense, urban, primarily residential neighborhood. It is in close proximity to Coolidge Corner, a major commercial and transit hub for the Town of Brookline.

- Visitors arrive by foot, bicycle, transit, or personal automobile. There is no parking associated with the JOFI site; visitors arriving by automobile may find parallel parking spaces on the street, which are limited to two hours. There are general issues with limited parking availability in the Coolidge Corner neighborhood of Brookline. JOFI would like to promote access by foot, bicycle, and public transportation.

- There are no dedicated facilities for tour or school bus or maintenance vehicle parking associated with the JOFI site.

- Signage and other traveler information to assist visitors in locating the JOFI site are limited, causing some difficulty and confusion in finding the site.

- JOFI would like to expand educational and community programming, though structural and space constraints in the house itself limit the ability to bring more people to the site.

3 Transportation Alternatives

Based on the issues identified Chapter 2 and the goals of the General Management Plan (GMP) process, there are a variety of potential activities that NPS could consider to improve access to the JOFI site. These potential activities could be implemented individually or in combination, to help achieve one or more of the following desired outcomes, as identified in Chapter 2:

- Increase and improve access by public transportation
- Reduce visitor confusion
- Improve information for prospective visitors
- Increase and improve access by pedestrians and bicyclists
- Assist visitors in moving among multiple sites
- Facilitate group visits

This chapter introduces several potential activities and provides initial assessment of their possible benefits, implementation considerations, and rough cost ranges. The next chapter discusses how various transportation activities might be combined and additional considerations, in the context of the GMP alternative to open a satellite visitor contact station in the Coolidge Corner area.

The potential transportation activities are listed briefly below, and then discussed in greater detail. The discussions include general information about cost and feasibility, with a brief assessment at the end of each sub-section.

Activity	Improve Transit Access	Reduce Confusion	Improve Information	Pedestrian & Bicycle Access	Moving Among Sites	Facilitate Groups
2.1 Coordination with the MBTA	X		X			
2.2 Provide interpretive tour or shuttle service	X		X		X	X
2.3 Revised directions and access text on the JOFI website	X	X	X	X		
2.4 Provision of bicycle parking				X		
2.5 Provision of directional signage		X	X		X	
2.6 Provision of walking route markers		X	X	X	X	
2.7 Potential Summer Use of the Devotion School Parking	X					X

3.1 Coordination with the MBTA

There are several ways that NPS could work to increase access to the JOFI site via public transportation. These efforts focus on improved information to potential visitors about how to access the site using public transportation, as well as providing information to existing transit riders about the JOFI site. The following sections describe some of the efforts that NPS could undertake to increase access by transit.

Website Information

One of the general recommendations of this analysis is to revise the content on the JOFI website to provide more detailed and more targeted information on how to access the JOFI site. This effort is discussed in more detail in Section 2.3, with sample content available for NPS to consider. The sample language would highlight public transportation as a primary mode of access for JOFI visitors.

Bus Announcement

While information on MBTA access to the site has focused primarily on the proximity to the Green Line stop in Coolidge Corner, another important access point is the Route 66 bus, running between Harvard Square and Dudley Station. The bus, which runs along Harvard Street in Brookline, currently stops close to the corner of Harvard Street and Beals Street in both the northbound and southbound directions.

The Route 66 bus uses audio announcements at its stops to assist visually impaired passengers and provide general information about stops and transfer points. The announcements sometimes include information about points of interest at or around the stop location. Initial conversations with MBTA staff indicate that there are no technical limitations to including the JOFI site in the announcements for the Beals Street stop (outbound) and the Williams Street stop (inbound). The language could be added immediately, on an ad hoc basis, or at a later date through a formal agreement with the MBTA.

One potential complication related to bus announcements is the limited operating season at the JOFI site. NPS would want the announcements to be read only during the months when the site is open. This additional level of detail would likely lead NPS to pursue a more formal agreement with the MBTA, in order to ensure that the announcements would be enabled during the appropriate months and disabled during the off-season.

Should NPS decide that it would like to initiate such an agreement, it should contact:
James Folk
Director of Operations & Service Development
MBTA
45 High Street
Boston, MA 02110
jfolk@mbta.com

Advertising on the MBTA

One way to reach potential new visitors and the transit-riding public would be to advertise on the MBTA. There are a variety of options for advertising, including inside vehicles, underground rapid transit stations, or at bus or Green Line stops. The MBTA contracts with different companies to manage the various advertising options. MBTA advertising might be a good way to publicize the JOFI website, thereby increasing the percentage of visitors who use the website for information in planning their visits.

Stations and Vehicles

Advertising on MBTA vehicles and stations is managed by Titan Outdoor Sales. The minimum campaign lasts four weeks, with per-week discounts available for longer campaigns. Rates vary by product, scale, and type of organization. Advertisements could range from relatively small display cards inside trains to large posters on subway platforms. A four-week campaign would cost in the range of $10,000 to $15,000,

not including costs for design and production. Additional information on products and pricing is provided in Appendix 3.

There is typically a relatively high demand for advertising to the Green Line audience, due in part to the service to local colleges and sporting venues. It is generally recommended to reserve space two to three months in advance of the desired campaign timing, to be sure that the necessary space is available.

Bus Stops and Green Line Stops

Advertising at bus stops and Green Line stops is managed by Cemusa Inc. Boston. The company provides advertising for Green Line stations along Commonwealth Avenue and Beacon Street, as well as bus shelters and street furniture throughout the MBTA system. The standard sized poster is approximately 5'x4', with some other sizing options. A four-week campaign would cost in the range of $600 per poster, not including costs for design and production. Production costs in the range of $25 per poster. Additional information on locations, rates, and sizes is available in Appendix 3.

It is generally recommended to reserve space at least one to two months in advance, particularly if there are specific shelter locations in which NPS would like to advertise. There is more flexibility in timing if NPS is willing to consider multiple location options.

Park and Ride Information

Encouraging visitors to use suburban MBTA rapid transit and commuter rail stations to access the JOFI site would decrease pressure on the available parking supply at JOFI and lessen reliance on wayfinding information to direct visitors to the site. A number of stations could serve as ideal locations to encourage visitors to use public transportation to access the site. Riverside Station in Newton, at the end of the "D" branch of the Green Line, features 925 parking spaces in its surface lot. According to the MBTA website, average weekday parking availability at Riverside is 10 percent. The station is located almost directly off of I-95/Route 128 near the I-90 interchange, allowing for easy access for visitors travelling from the west. Additionally, accessing the Coolidge Corner "C" branch station from this location is not difficult, requiring only one transfer at Kenmore Station. Other possible candidates include Woodland Station, also located off of I-95/Route 128 one stop east of Riverside on the "D" Branch, and Alewife Station at the terminus of the Red Line in Cambridge.

NPS could consider including directions to and from these stations on its website, with direct links to the MBTA for more information. If NPS decides to pursue an advertising arrangement with the MBTA, as discussed above, it might consider expanding the reach of the advertising to include these station areas.

Another consideration for JOFI staff concerns how to properly handle inquiries of parking availability for the oversized vehicles, such as campers or recreational vehicles (RVs), of potential visitors. Although current municipal parking supply cannot accommodate oversized vehicles, NPS could inquire with the MBTA regarding appropriate rapid transit or commuter rail station parking lots at which oversized vehicles can be parked. These parking lots would likely be at suburban commuter rail stations, where parking supply may not be expected to be at capacity on a regular basis. It is not known at this time whether or how the MBTA accommodates oversized vehicle parking at its lots. NPS might also consider which regional RV parks and campgrounds lend themselves to best access of JOFI using public transportation.

Assessment

There are several opportunities for NPS to consider in raising its profile among MBTA users and encouraging access by public transportation. Use of the automated announcements on the Route 66 bus would be inexpensive and easy to implement, assuming that NPS and MBTA can easily arrange for the announcements to be turned on and off seasonally, as appropriate. Advertising on the MBTA is also an attractive seasonal option, if funds are available to design an advertising campaign.

Prior to entering into an agreement with the MBTA regarding automated announcements on the Route 66 bus, NPS would need to be aware of future plans for improving service along the route. There have been recent discussions related to eliminating or consolidating some stops in order to improve travel time along the route, which could impact the stops closest to JOFI. Even if those stops were removed however, there would likely be a stop within one-quarter mile of the intersection of Harvard and Beals Streets.

3.2 Interpretive or Transportation-Based Shuttle Services

There are several options and issues for NPS to consider regarding providing alternative transportation services to access the JOFI site. This discussion outlines basic issues and questions to be considered, and provides general information about such services. It does not include an in-depth study of viability or service planning.

Type of Service

The first consideration for a potential alternative transportation service to serve the JOFI site is whether it would function as an interpretive tour in addition to moving visitors between multiple locations, or if it would be focused on providing transportation only.

Interpretive Tour

An interpretive tour service would be designed to provide additional information to visitors about the area and other sites, in addition to providing transportation between multiple locations. It might become a longer route than would otherwise be selected if just to move visitors between locations because it would incorporate time to pass by other sites, as well as time for the guide to provide information.

An interpretive service to serve JOFI could be organized around a particular theme, which would help determine the route and the other sites that would be highlighted as part of the tour. The tour could serve a relatively narrow area of sites around Coolidge Corner or in Brookline, or could be expanded more broadly in the Boston area. It might also be possible to partner with an existing tour provider in the region to include JOFI in a tour route. Potential theme ideas include:

- Sites related to President Kennedy and his family – potential sites could include the JFK Presidential Library and the new Edward Kennedy Institute for the Senate at UMass Boston, the Rose Kennedy Greenway, and the Kennedy School of Government and park at Harvard University
- Other local NPS sites – could include the Frederick Law Olmsted National Historic site, the Longfellow National Historic Site, or any other local NPS site
- Other presidential sites – could include the Adams National Historic Site and other locations of particular importance to former presidents or national leaders with connections to Massachusetts and the Boston area
- Other sites of significance in the time period – could include other local or regional sites with significance related to the late 1910's and early 1920's

Another consideration associated with an interpretive tour service is whether the vehicle would stop at various locations, and for how long. For example, the tour could bring passengers from an off-site visitor contact station to Beals Street, before continuing on to another site of interest. One possibility would be for the operator to bring visitors to the house, wait while they tour, and then continue on to the next destination. This would require NPS to identify a location for the vehicle to park while visitors are inside. Another possibility would be a regularly scheduled service that would run continuously, allowing visitors to disembark to spend more time in a certain location, and rejoin later.

This type of service would be quite expensive to operate but is expected to the kind of audience that would be willing to pay a higher price. NPS should consider partnering with a professional tour company to provide this type of service.

Transportation Shuttle

A transportation shuttle would focus primarily on moving visitors between the JOFI site and other key destinations such as nearby transit stations. These could include the Green Line stops at Coolidge Corner, Brookline Village, Babcock Street, or Kenmore Square. If the JOFI boundaries were expanded to include additional sites, such as a visitor contact station in Coolidge Corner, a shuttle could be used to transport passengers between the visitor contact station and Beals Street.

Another possibility would be an on-demand service that could pick up or drop off visitors to and from nearby locations. This would be a relatively small vehicle, and driven by an existing ranger. Under this model, the service would operate infrequently enough that an existing staff member would drive the vehicle, thus eliminating the need for additional operating staff (this assumes that current staff have time available for such an activity). The vehicle would need to be parked for most of the day at the Beals Street site, potentially using one of the staff permits. It would then need to be returned to the maintenance site each evening in Brighton, or the parking lot at FRLA, since it could not be parked overnight on Beals Street. This type of service is not particularly practical, but would be a low-cost way to offer a shuttle service to potential visitors.

Service Demand and Potential Users

Prior to moving forward with implementing an alternative transportation service, NPS should consider a more detailed assessment of the demand and the potential audience for the service. Visitation to the JOFI site is relatively low given the nature of the site and the short operating season, though an expanded schedule could raise visitation. It may be possible to use some of the information gathered in the 2006 visitor survey data to guide the assessment. Transit service demand is challenging to determine in general, and particularly for recreational services or services in which the users have multiple transportation options. As a first step, NPS could estimate the service characteristics and calculate the passengers needed in order to adequately finance and support the service.

The assessment will also help to define the type of service that is most appropriate, and to determine the operating characteristics necessary to make the service viable. For example, given the relatively short distance between Coolidge Corner and Beals Street, the audience for a shuttle between these sites would likely be visitors with mobility impairments or other restrictions preventing them from walking. Demand for such a service would likely be relatively low; a small on-demand, taxi-type service might be sufficient. Alternately, visitors committed to experiencing a larger tour might be more inclined to ride the relatively short distances on heavily trafficked streets, because they would be receiving interpretive information during the ride, as well as visiting additional sites.

If NPS were to expand the JOFI site to include another location, such as a visitor contact station in Coolidge Corner, it might consider a transportation service as a way to manage the flow of visitors to Beals Street. In this case demand would be high, as all visitors would use the shuttle.

Operating Characteristics

The shuttle could operate on a fixed schedule (e.g., departing every 15 or 20 minutes), or it could operate on an on-demand basis, transporting visitors to the train or an alternate location whenever they desire or there are enough passengers ready to warrant the trip. The desired length of the route and the shuttle frequency will determine the number of vehicles necessary to achieve such a level of service. NPS might consider purchasing one or two additional vehicles beyond that number, so that there is a spare available in the event that a primary vehicle must be repaired during normal shuttle service hours.

Vehicle Parking and Shuttle Stops

Another issue to consider is parking the vehicle during the day, in between shuttle runs. If the shuttle does not run continuously, then the vehicle would need to be parked for some portion of the day. While visitors typically are able to find a space on Beals Street, NPS cannot be assured that the driver will be able to find a space that is large enough and close enough to the JOFI site at any time of the day. Also, depending on the operations schedule, it could be possible for the vehicle to exceed the two-hour parking limit. One possible solution is to utilize the parking garage at the Devotion School on Stedman Street when school is out of session in July and August. This school has expressed a willingness to work with NPS to address any parking issues associated with the site. However, annual variations in the number of spaces needed for summer staff at the school and height restrictions in the garage may complicate such an arrangement. NPS might also coordinate with the Town of Brookline to explore the possibility of paying for a dedicated parking space on Beals Street, though initial discussions with the Transportation Department indicate that it is unlikely that they would be able to agree to such an arrangement. NPS could also inquire about leasing a parking space at a nearby business or institution with a large parking supply. One such possibility is Boston University, which owns multiple parking lots off of Commonwealth Avenue in Allston and may experience less demand in the summer months.

Depending on the type of service, NPS might also want to explore the possibility of securing a location for a shuttle stop or pick-up point. Given roadway design and traffic issues, this may not be possible, though there may be opportunities for shared use of MBTA bus stops or taxi stands, etc. NPS might be able to add value to such locations by providing bus stop amenities such as a bench or signage to indicate that visitors are waiting in the correct location. NPS would need to coordinate with the MBTA, the Town of Brookline, or the City of Boston, regarding design standards for such amenities and agreements to allow them to be placed in the right of way.

Information and Advertising

If NPS were to implement an alternative transportation service, whether interpretive or shuttle focused, it should also consider an information or advertising campaign. While service information would likely be available on the website, it might also be appropriate to reach out to tour groups, guidebook companies, or other groups.

Vehicle Considerations

There are several important considerations in determining the appropriate type of vehicle for providing the alternative transportation service.

Vehicle Size

The type of service and the desired route will help to determine the necessary vehicle characteristics. Given the space limitations at the house on Beals Street, NPS might consider using a relatively small vehicle to serve the JOFI site. Because the site can accommodate no more than eight people on the second floor at one time[*], NPS might not want to bring many people to the house at once. A transportation service could be useful in staggering visitor arrival times, so as not to exceed the space limitations. A smaller vehicle might also be desirable, given the relatively narrow local streets and limited parking availability on Beals Street.

Vehicle Design

Depending on the type of service provided, NPS could consider whether to pursue an open-air or closed vehicle. An open-air vehicle might be more conducive to an interpretive tour type of service, though it could function with either type of service. If the service were to operate in the colder months, a closed vehicle may be more appropriate. NPS would also need to determine whether there are noise ordinances in the Town of Brookline that would limit the use of an open-air vehicle for interpretive services in Coolidge Corner or in the residential neighborhood that includes Beals Street.

[*] Space study conducted by the EYP architecture firm, 2009

Fuel

Depending on the characteristics of the shuttle service, NPS could also determine whether it would be possible to pursue an alternative fuel shuttle vehicle. Such a vehicle might be smaller or quieter, and could have lower emissions, thereby improving the visitor and neighbor experience and providing environmental benefits. Special needs for storage and maintenance, as well as the availability of fuel, must also be considered when deciding whether to pursue an alternative fuel vehicle.

Vehicle Storage

NPS would have to consider where to house shuttle vehicle(s) in the evenings and off-season. Depending on the number of vehicles, their size, and any special considerations related to their storage, it might be possible for them to be housed at the NPS maintenance facility in Brighton, approximately 1.6 miles from Beals Street.

Financing

In addition to the capital costs of acquiring the vehicle, there are significant operations and maintenance costs. NPS would need to consider potential funding sources, including internal NPS funds, available grants, user fees, and partnerships with other organizations.

Operations and Maintenance

Operating and maintaining a vehicle is an ongoing expense, typically considerably more than the capital expenditure to purchase the vehicle. Costs to operate and maintain a vehicle depends primarily on the number of hours and miles that a vehicle is driven. A good rule of thumb estimate is approximately $50-65 per operating hour for both operations and maintenance. Using this estimate, it would cost approximately $10,000 per month for one vehicle to operate eight hours a day, five days per week.

NPS would need to consider whether it would be necessary to hire a new staff member to operate the vehicle(s), or if an existing staff member would be available and able to drive the vehicle(s) – this depends both on staff availability and the vehicle type, in terms of whether a special driver's license would be necessary. For example, a commercial license is required for vehicles that carry 16 or more people, including the driver. Costs might be lower if existing staff or a volunteer were available to operate the vehicle(s). Similarly, NPS would also need to consider whether its existing maintenance facility in Brighton would have the necessary capacity and expertise to service the vehicle(s), or if alternate arrangements would be required. While NPS might be able to purchase the vehicle(s) using grant funds, such as NPS Category III or FTA Paul S. Sarbanes Transit in the Parks Program (TRIP) funds, they (or a partner) would likely need to pay the salary for the driver, as well as maintenance expenses through other sources, as these programs do not cover operating and maintenance expenses.

User Fees

In order to offset the costs of operating an alternative transportation service, NPS could consider charging a user fee. The fee could be incorporated into the JOFI admission fee, or it could be charged separately as an additional fee. NPS should carefully consider the fee structure, as even a nominal fee may dissuade some visitors from using a transportation service, while others may be willing to pay a fee. Depending on the service, a user fee that seems reasonable may or may not completely cover the cost of operating the service and maintaining the vehicle(s).

The appropriate fee would depend in part on the type of service provided – for example, an interpretive tour could charge a higher fee than a more limited shuttle service, because of the additional value provided by the interpretation. The fee would also depend in part on the extent of the service; NPS could charge more to visitors being picked up from farther away, such as Kenmore Square, than an MBTA station within walking distance.

In the event that visitor fees do not completely cover the cost of operating and maintaining the shuttle, NPS would have to identify alternate sources of funding. There may be other internal funds available, or NPS might consider partnering with another entity to partially fund the service and potentially attract additional visitors. A partnership might be organized thematically, such as partnering with other historic groups to serve visitors interested in accessing multiple sites. It could also be more commercially focused, working with a business association or other tour operator. Operating the shuttle in partnership with another entity might introduce additional considerations for vehicle type and size, in order to meet the needs of all stakeholders.

Assessment

Given the JOFI site's proximity to the MBTA, relatively low visitation, and constraints on increasing visitation to the Beals Street house, a traditional transportation shuttle is not likely to be viable. A quick calculation estimates that even with a fee of $5 per rider, which is higher than the entrance fee to the site, nearly 100 percent of JOFI visitors would have to use the shuttle service in order for fares to cover the cost of operations and maintenance. The estimates are based on the assumptions provided below.

Operations	
Hourly rate	$ 60
Hours per day	8
Cost per day	$ 480
Fare	$ 5
Break-even passengers per day	96
Visitation	
Annual Visitors	8,000
Months operation	4
Weeks operation	4
Days per week	5
Average daily visitors	100

It is unrealistic to assume that 100 percent of visitors would use the shuttle service or that they would be willing to pay a $5 fee for a relatively short ride. Given the proximity to available transit, the primary audience for a neighborhood shuttle would likely be visitors with mobility impairments who are unable to walk the one-quarter to one-half mile distance. However, given the accessibility constraints of the house itself, this demand for shuttle service is less likely. A shuttle from a farther away location would be less cost effective as it might require more than one vehicle in order to maintain frequent service. It might be possible to operate a shuttle only on weekends, if visitation is highest then, though feasibility is still unlikely. If NPS is committed to providing this type of service, it would need to be prepared to fund a significant portion of the operating expenses through sources other than fares.

The most likely scenario in which a transportation shuttle service would be viable or desirable is if NPS expanded interpretive services to include a visitor contact station in Coolidge Corner, and wanted to use a shuttle to manage the flow of visitors to the house on Beals Street. This would ensure a high percentage of visitors using the service and provide a useful function to NPS.

3.3 Revised JOFI Website Text

While the 2006 JOFI visitor survey results indicate that only 15 percent of visitors used the park website to gather information before their visit, it is assumed that guidebooks and other tourist information providers use the website to gather some of their information about the site. The results also indicate an opportunity for NPS to encourage greater use of the website to obtain information prior to visiting.

In order to improve access and information about the JOFI site, NPS should consider revising and rearranging the directions provided on the JOFI website. The existing text does not emphasize access by alternative modes or indicate that parking on Beals Street is limited.

The directions page begins with information about accessing the Boston region by plane, train, or intercity bus, rather than focusing on local instructions for vehicular and public transportation access to the site itself. In addition, little information is provided about street parking, including availability and time constraints. The visitor survey results included comments from several visitors that they had difficulty finding the site because they were expecting a dedicated parking lot; specific information about parking at the site would help to reduce such confusion.

A map of JOFI and the surrounding area (with possible transit links) would also be helpful. Appendix 1 provides potential sample text for the directions page of JOFI's website. In addition to updating the directions page, NPS may want to consider placing some or all of this information on the JOFI homepage.

Assessment

Revising and improving the access information on the JOFI website would be relatively quick and inexpensive for NPS to implement, and would not likely require frequent maintenance.

3.4 Provision of Bicycle Parking

NPS could consider installing bicycle racks at the JOFI site to promote access by bicycle. Bicycle racks would provide safe and convenient bicycle parking for employees and visitors to the site, and could encourage more visitors to arrive by bicycle. The website could be updated to promote arrival by bicycle.

There are many different types of bicycle racks, ranging in size, cost, and style. Racks installed at JOFI could hold just one or two bicycles each, or could be as large as 10-15 bicycles each. It is possible to purchase smaller racks that hold only two bicycles for as little as $200. Appendix 4 provides more detailed information on bicycle rack styles and costs. The racks would likely have to be installed in the backyard, as there is not sufficient space on the sidewalk or in front of the house.

Installation

Bicycle racks are best installed on a firm, flat surface, such as concrete or asphalt. While it might be possible to install racks directly onto the ground, it is more difficult to ensure that the racks will be sturdy and secure if they are not attached to a firm surface, such as a concrete pad. Depending on the size, style, and orientation of the rack, it is generally necessary to allow a few feet of clearance between walls or buildings and between racks. This ensures that there is sufficient space for the bicycles and for people to maneuver around them. The City of Cambridge has developed a useful guide on the appropriate location, design, and installation of bicycle racks. The guide is provided in Appendix 4. NPS could also consider working with the Brookline Transportation Department or the Brookline Bicycle Advisory Committee to select the most appropriate racks and installation locations.

Funding

In addition to using NPS funds for purchasing and installing bicycle racks on the JOFI site, there may be opportunities to apply for grant funds to support bicycle racks.

The Federal Transit Administration Paul S. Sarbanes Transit in Parks Program (TRIP) funds capital and planning expenses for alternative transportation systems in national parks and public lands. Because bicycle racks facilitate access by alternative transportation modes, they would likely qualify for funding under this grant program. Information about the TRIP program, and other funding sources, is available in Appendix 5.

Locally, the Metropolitan Area Planning Council (MAPC), the Regional Planning Agency for the Boston area, administers a bicycle rack reimbursement and discount program. The program, which is funded through the Boston Region MPO, MassDOT, and the Federal Highway Administration, provides full reimbursement of the cost of purchasing bicycle racks (minus shipping and installation costs) for all 101 cities and towns in MAPC's region. While the program is targeted primarily toward installation of bicycle racks on town-owned property, other public property, such as State and Federal owned, is eligible.

The NPS could potentially obtain racks through this program, though the application would have to be coordinated with and submitted by the Town of Brookline. NPS would be responsible for shipping and installation costs, and would likely have to provide the initial funds. If funds are not available for reimbursed racks through the program, NPS may still be able to purchase racks at discounted rates. Contact information is available in Appendix 6.

Assessment

Installation of bicycle racks would be a relatively easy and inexpensive way to provide amenities to support arrival by an alternative mode of transportation. It is unclear, however, the demand for such facilities, particularly at a site whose primary visitors come from out of town and do not return multiple times. The 2006 visitor survey results indicate that only one percent of visitors arrive by bicycle, though it is unclear if there would be more demand for bicycle access if the site were better promoted as bicycle-friendly. Bicycle racks would also serve employees, who might be inclined to travel by bicycle if there were a more convenient and secure place to lock their bicycle for the day.

Another consideration about bicycle racks is the amount of space they require. Given the constraints on the site, the racks would need to be installed in the backyard area behind the house. While there is sufficient space available for bicycle rack installation, it would constrain the ability to use the space in other ways or for larger functions. NPS would need to advertise that bicycle racks are available, as they would not be visible from the street.

As NPS continues to consider its programming and outreach activities for the site, including the audiences that it would like to reach, it is worthwhile to consider whether provision of bicycle facilities would support those goals.

3.5 Signage Improvements

JOFI visitors and staff have identified the lack of wayfinding signage directing visitors to the JOFI site as a significant access challenge. Providing additional signage would serve two purposes: it would enhance the visitor experience by reducing confusion and frustration en route to the JOFI site, and it would increase the visibility and importance of the site throughout the region.

There are several issues to consider regarding sign design and location. First, roadway signs must be well-located from a driver's perspective, allowing motorists to spot it and give time to adjust if a traffic maneuver is necessary. Signs closer to the JOFI site should also be easily visible to pedestrians accessing the site. Signs should provide clear information that can be absorbed instantly, and be aesthetically appealing to attract attention while minimizing the impact on "visual clutter". NPS may be able to add signs to existing structures, such as street signs, utility poles, or freestanding streetlights, depending on arrangements with the entities managing the rights of way. This could potentially be less expensive and more efficient than erecting new signs.

Sign Design

Signs providing information about and directing potential visitors to the JOFI site should conform to the NPS design guidelines as well as any state or local guidelines dictated by the agency managing the right of way in which the sign is located.

The NPS sign design guidelines are established through the NPS *UniGuide* Sign Standards, with detailed information provided on the NPS UniGuide website. The purpose of the program is to provide a common, easy to understand, and recognizable graphic image to visitors accessing any NPS unit. The NPS sign program management should result in signs that:

- Offer clear, concise, and consistent communications to park visitors while not intruding on natural and historic settings.
- Maximize the public's convenience and safety and reduce the Service's liability exposure by ensuring compliance with pertinent federal regulations and principles of sound engineering and communication.
- Build upon, but are not bound by, NPS design traditions.
- Strengthen the NPS public identity and perception as one organization by reflecting current NPS graphic design standards.
- Are appropriate in appearance, size, and material to a wide range of park environments.
- Allow changes as park communication needs and other circumstances change.
- Are easy to acquire, maintain, and replace, and are reasonably priced.
- Comply with NPS's commitment to rely more on standardized design.

Roadway signs must also comply with the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD); these standards are intended to provide clear, consistent, and safe signs for use on public roadways. Under an existing agreement between NPS and FHWA, signs that follow the NPS standards are typically considered in conformance with the MUTCD standards. Examples of sign designs are provided in Appendix 7; NPS should consult the UniGuide website for further information.

Sign Placement Guidelines

In order to place additional signs throughout the region directing visitors to the JOFI site, NPS would need to coordinate with the state and local agencies that manage the roadway rights of way. There may be general guidelines related to sign size and design, as well as placement location and proximity to intersections or other signs. Information available about the general approach to requesting permission to place new signs is summarized below, organized by agency.

Town of Brookline

The Town of Brookline has no formal process for approving construction of street signs; it considers each application on a case-by-case basis. NPS would propose the sign design, materials necessary for construction, suggested location, and associated costs for construction. The Brookline Department of Public Works (DPW) would visit the location and determine the suitability of the sign placement, giving strong consideration to motorist safety. Initial conversations with the DPW provided little information about guidelines related to sign aesthetics, though the Brookline Planning Department would likely be involved if the sign were placed in a heavy commercial area such as Coolidge Corner. The Brookline Planning Department is currently conducting a wayfinding study for the commercial area in Brookline Village, which, when completed, may provide useful information for NPS considering signs in the Coolidge Corner district.

City of Boston

The Boston Transportation Department approves design proposals and administers all signs along city roads and works with the Public Works Department, which is responsible for installation and maintenance. The city determines suitability of a given location; NPS would be responsible for costs for design, construction, and installation. NPS and the City of Boston would need to develop a formal agreement related to other associated costs and maintenance responsibilities. NPS should first contact the Boston Transportation Department if interested in pursuing directional signs within the city of Boston.

Massachusetts Department of Transportation (MassDOT)
Signs erected along MassDOT rights of way must conform to the MassDOT Supplemental Sign Policy and the FHWA MUTCD. Most of the relevant roadways under MassDOT jurisdiction are freeways.

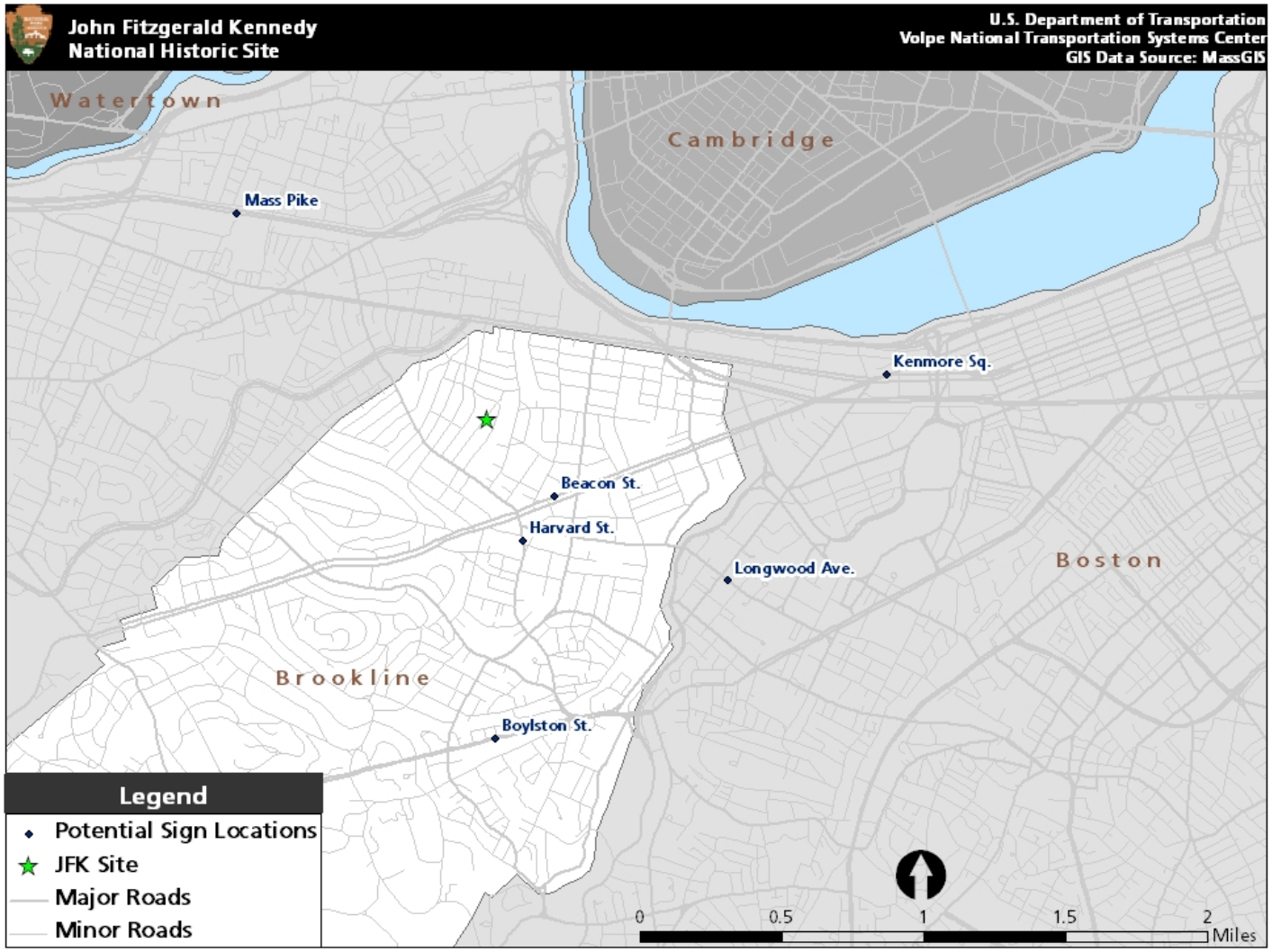
Signs placed on MassDOT freeways must not be within 800 feet of another sign or freeway interchange and no more than three miles from the primary street used to reach a tourist attraction (Harvard Street in Brookline). Signs must be no more than four turns from the feeder road (Beals Street), with additional signage in place or soon to be in place to further direct visitors to the attraction. All signs for tourist attractions must be ground mounted installations.

Applications are available from the MassDOT Highway Division Office. The applicant assumes all costs for fabrication, construction, and maintenance of signs, although NPS would be exempted from the annual maintenance fee, because it is a Federal agency.

Potential Sign Locations
The Project Team has identified six key locations for potential new signs, discussed below and highlighted in Figure 12. These locations consider commonly traveled routes to the JOFI site, trailblazing needed at both the spot of the sign and throughout the remainder of the route, overall local traffic, commonly traveled access points to the Boston region, and key intersections requiring traffic maneuvers (i.e. turns) to direct visitors to the JOFI site. Careful consideration of these issues will allow NPS to raise awareness of the JOFI site and provide useful wayfinding information to both local residents and visitors.

Additional signs should include the following information:
- The name of the JOFI site
- Directional assistance
- Mileage to the JOFI site

Figure 12
Potential Sign Locations



Beacon Street westbound, East of Coolidge Corner, Brookline
Management: Town of Brookline
Motorists and pedestrians visiting from downtown Boston will most likely be approaching the site from the east on Beacon Street. A sign shortly before Coolidge Corner would advise visitors to turn right onto Harvard Street.

Harvard Street northbound, South of Coolidge Corner, Brookline
Management: Town of Brookline
The existing sign on Boylston Street/Route 9 westbound, near the Washington Street intersection at Brookline Village, provides very little information to JOFI visitors. It does not indicate whether to stay on Washington Street or stay right onto Harvard Street at Brookline Village, or provide any information about the distance to the site. Additional signage on this route, especially with mileage information, will help prevent motorists from becoming discouraged.

Boylston Street/Route 9 eastbound, West of Washington Street intersection in Brookline Village, Brookline
Management: MassDOT
The JOFI website advises visitors approaching from I-95/Route 128 and other points west to use Boylston Street/Route 9 through Newton and Brookline. A sign before Washington Street, combined with additional wayfinding signage along the rest of the route, will direct these visitors to the JOFI site. One complication is the Boylston Street/Washington Street intersection itself, which is configured for drivers to turn right onto Walnut Street shortly after the intersection before looping around and turning right onto Washington Street.

Massachusetts Turnpike/Route 90 eastbound, West of Exit 18 (Cambridge Street), Boston
Management: MassDOT
This stretch of roadway is heavily trafficked, both by commuters and visitors to the region using the Massachusetts Turnpike to access downtown Boston, presenting an opportunity for JOFI to increase its visibility among potential visitors.

Beacon Street westbound, East of Kenmore Square, Boston
Management: City of Boston
A sign in this location would capitalize on the heavy pedestrian traffic in Kenmore Square, increasing visibility for the JOFI site, as well as guide motorists through the confusing Kenmore Square split of Brookline Avenue, Commonwealth Avenue, and Beacon Street. Careful consideration would be required in determining the exact placement, in order to take advantage of pedestrian traffic, while providing sufficient notice for motorists to place themselves into the correct lanes for Beacon Street westbound.

Longwood Avenue westbound, East of Brookline Avenue intersection, Boston
Management: City of Boston (does not manage the Riverway)
Anecdotal evidence suggests that JOFI visitors often access the site from the Longwood area, and are frequently confused about the correct way in which to travel. One consideration for a wayfinding sign in this area would be how to adequately serve both pedestrians and motorists.

Assessment
NPS would benefit from improved signage and wayfinding to assist JOFI visitors trying to access the site. Proposed additional signage should be limited to a small number of strategic locations in order to maximize effectiveness and limit visual clutter. Depending on the proposed locations, NPS would have to work individually with up to three different agencies to implement new signage – the Town of Brookline, the City of Boston, and MassDOT. Design and placement requirements vary by jurisdiction.

Overall, a coordinated signage campaign could be an effective way to enhance the visitor experience through improved wayfinding. Depending on the size and materials, NPS signs can cost from $30 to $500 per unit. Any sign production plan should include provisions for duplicate signs, so that they can be

readily replaced in a timely manner as needed due to vandalism or weathering. While there are likely to be restrictions on the locations that could accommodate new directional signs, there may be several opportunities to improve wayfinding throughout the region.

3.6 Walking Route Enhancements

As part of an effort to improve visitor experience and integrate the JOFI site into the narrative of the Coolidge Corner area, NPS could consider a number of enhancements along the suggested neighborhood walking tour or between Coolidge Corner and Beals Street.

Sidewalk or Streetscape Improvements

NPS could consider partnering with the Town of Brookline to make sidewalk or other streetscape improvements to the portions of Beals Street or any other roadways that visitors would use along the walking route between Coolidge Corner, the house on Beals Street, and historically significant sites in the area. Harvard Street underwent streetscape improvements in 2004, including new paving, benches, light fixtures, trash receptacles, planter pots, and bicycle racks. New pavement markings and upgraded traffic signals were also installed to make it easier and safer for pedestrians to negotiate the street.[*] NPS could coordinate with the Town to identify potential opportunities for similar improvements on Beals Street or other relevant roadways, or additional improvements needed on Harvard Street.

Some sections of the sidewalk on Beals Street are damaged and could benefit from improvement, though special care would need to be taken to protect the historic planar trees, which are important to the character of the street and the neighborhood. There may be other additions, such as historic lamp posts on Beals Street, that NPS could install, which would provide a more pleasant visitor experience walking in the neighborhood. In general, NPS would most likely pay to install any improvements, and would need to coordinate with the Town regarding ongoing maintenance.

Walking Route Enhancements

NPS could consider enhancing the recommended walking route of the area through signage or markings better directing and educating visitors about various points of interest, including the JOFI site and other historic sites in the community.

Sidewalk Trail

A marked sidewalk walking trail could connect the house on Beals Street to various neighborhood sites, including Coolidge Corner. The premise would be similar to the popular Freedom Trail, which guides visitors to various sites of historical significance in downtown Boston and Charlestown. In order to maximize the visitor experience, NPS and the Town could attempt to coordinate the creation of a sidewalk trail with any desired sidewalk or streetscape improvements along affected areas. A proposal for this type of attraction would be submitted to the Brookline Department of Public Works and reviewed by the Town Council. While this type of improvement could be very attractive and promising, there are no similar existing projects in Brookline to look to as precedent.

Walking Route Markers

Markers along neighborhood sidewalks could be used to direct visitors from one site to another. Markers could be relatively small and roughly waist-high, and designed in such a way as to be consistent with the historic neighborhood character. Proposals would need to consider the placement of the markings and if they would be located within the public right of way. They would also need to include provisions for replacement and maintenance. NPS would need to establish the benefits of such an approach and coordinate with the Town regarding exact placement, maintenance, and liability.

[*] Coolidge Corner Transportation Analysis, 2007

Informational Signage at Sites

Additional informational signage or displays at sites along a neighborhood walking tour could inform visitors of the historical and cultural significance of the sites to the Town of Brookline and the Kennedy family. NPS could also consider coordinating directly with the owners at sites of interest, such as the association at St. Aidan's Church, to explore the possibility of installing historical markers onsite. There may also be opportunities for partnership with the Brookline Historical Society like this to enhance the opportunities for historical interpretation throughout the Coolidge Corner District.

Public Art Installation

NPS and the Town could use the walking tour route as a way to feature displays of public art, thereby promoting interest in the route, raising the civic recognition of the tour, and better facilitating visitor orientation along the route. Depending upon which form the public art would take, NPS and the Town could commission local artists to create works of art which would reflect civic pride, blend aesthetically with the character of the neighborhood, and perhaps relate to the Kennedy family and/or the early 20th century time period in which John F. Kennedy was raised.

One possibility is to install plaques or medallions within sidewalk cement along the walking route. These plaques could serve as interest markers at sites along the route, or as directional signage leading visitors to the next attraction. As with the process for a sidewalk trail, NPS would submit a proposal to the Brookline Department of Public Works and reviewed by the Town Council. There are no similar existing projects in Brookline at this time.

Assessment

There may be opportunities to make relatively inexpensive enhancements to the walking route around Beals Street, which could provide benefit to JOFI visitors as well as neighborhood residents. While there may be concerns with the Town related to maintenance and liability, there are likely to be opportunities for collaboration.

3.7 Potential Summer Use of the Devotion School Parking

One possibility for NPS to expand parking availability at the JOFI site is to explore a partnership with the nearby Edward Devotion School for partial use of their on-site parking during the summer months, when school is not in session. The school, located at the corner of Harvard and Stedman Streets, is located approximately one-quarter mile from the JOFI site (the driving distance is slightly higher, due to the one-way streets in the area). The Devotion School site includes 79 parking spaces designated for staff; there are 70 spaces in the parking garage (originally designed to accommodate 54 vehicles) and nine spaces in the school driveway. Due to the limited availability of on-site parking for staff, potential use of the school's parking capacity is not possible when school is in session, roughly between September 1 and June 30. However, in July and August, parking capacity at the school exceeds the number of spaces needed for summer staff, presenting an opportunity to address some of the parking issues related to the JOFI site.

A brief discussion with Devotion School administrative staff indicated that the school may be willing to develop a partnership with NPS to allow visitors to utilize some of the school parking to access JOFI during the summer months. The spaces available to JOFI visitors would most likely be in the parking garage rather than the driveway, as the school would likely keep this area open for uses related to summer programming.

Due to the varying nature of the Devotion School summer programming, an agreement between NPS and the school may require adjustment or negotiation on an annual basis. The extent of summer programming offered by the school varies on an annual basis, resulting in a fluctuating number of spaces needed on-site for summer staff each year. In addition to the administrative staff necessary to support the school's primary functions, daily parking use by staff fluctuates based on the school's summer activities, classes, and programs. Summer activities typically do not require full use of the parking garage, though there may

be years in which the availability of visitor parking at the Devotion School would be more limited, or unavailable, if more staff are required for summer programming.

While additional parking capacity at the Devotion School for visitor parking may alleviate parking congestion along Beals Street and in the area, there are several important issues for NPS to consider before initiating a partnership.

Information and Enforcement
It is important for NPS to carefully consider how to advertise the additional parking availability at the Devotion School. One issue to consider is whether NPS would prefer that visitors park at the school even if spaces are available on Beals Street, or if the school spaces would be intended only for spillover when space on Beals Street is not available. Another issue to consider is whether the spaces in the school garage would be subject to the same two-hour parking limit, and if so, how that limit would be enforced.

Prior to developing an agreement, it would be useful to explore how the school currently manages parking in the garage and whether it is always open, if teachers must provide identification in order to enter and exit, and if there are problems with unauthorized users parking in the garage. This information would help to guide NPS and the school in developing protocols for use of the space and how to ensure that there is not unauthorized use of the school parking garage. One way for NPS to manage the use of the school parking might be to provide users with a placard or other marker to place in the car to "validate" their use of the space, though this would be complicated by requiring that the visitors either arrange for the permits ahead of time or stop at the house on Beals Street first before going to park in the garage.

Signage and Wayfinding
One issue to consider in developing the agreement between NPS and the Devotion School is whether JOFI visitors would be restricted to parking in specific spaces in the garage, or if any open space would be available to them. The arrangement might require signage or markings to direct JOFI visitors to park in the appropriate spaces, as well as additional wayfinding necessary to assist them in reaching the JOFI site on Beals Street.

Large Vehicle Use
It may be possible to use the parking garage at the Devotion School to accommodate larger vehicles accessing the JOFI site, such as outside tour groups or an NPS-sponsored shuttle vehicle. Conversations with Devotion School staff indicated that a shuttle vehicle would have to be no taller than approximately eight feet to meet the parking garage's height restrictions at its lowest level, although more precise measurements could verify the exact restriction. Such use of the garage for a larger vehicle could be arranged for the entire summer (e.g., for an NPS shuttle), or in advance on a case-by-case basis (e.g., for outside tour groups). Use of the parking garage in this way might reduce the amount of parking available for visitors in private vehicles.

Expansion of Devotion School Garage
As part of an arrangement to allow unrestricted use of the Devotion School parking garage for JOFI visitors and staff at all times of the year, NPS may wish to enter into an agreement with the School, Town of Brookline, and other stakeholders to explore the possibility of expanding the Devotion School parking garage to serve multiple uses. The garage currently accommodates 70 vehicles during the school year, though it was originally designed for 54 vehicles. School officials estimate that an additional 50 spaces are needed to accommodate staff and faculty during the school year.

Costs for expanding an underground parking garage are difficult to estimate, and each situation is specific enough that it makes it difficult to use previous cases for comparison. It is commonly accepted that construction of an above-ground structure costs approximately $15,000 per parking space, though variations in planning, design, permits, and financing can increase total costs by 30 to 40 percent. An

underground parking facility will almost certainly cost more, given the additional structural needs.[*] An expansion must consider issues such as the site topography and location of the water table, design of the existing garage, and effects on the buildings above the parking garage.

One local example of such an expansion exists – a 2005 project involving the construction of an above-ground parking facility and the expansion of an underground garage at 830/850 Boylston Street in Brookline. This expansion added 287 more spaces to a 631 space garage (increasing capacity by 45%), at a cost of approximately $27,875 per space for a total cost of $8,000,000.[†]

Using an estimate of $30,000 per space, it would cost $1.5 million to add 50 spaces to accommodate additional school need, plus the number of spaces needed to accommodate JOFI need. Under such a scenario NPS and the School Department would also need to partner to fund additional on-going maintenance costs of the facility.

Assessment

Use of the Devotion School parking garage could be a very convenient and effective way for NPS to address some of the issues related to parking supply and accommodating larger vehicles. The arrangement would likely require annual negotiation, in order to respect the variations in summer programming and the associated school parking needs. Depending on enforcement and management needs, the administration of such an arrangement could prove prohibitive for NPS.

[*] http://www.vtpi.org/tca/tca0504.pdf
[†] http://www.env.state.ma.us/mepa/pdffiles/enfs/012404em/13187.pdf

4 GMP Alternative – Satellite Visitor Contact Station

One of the alternatives under consideration in the JOFI General Management Plan process is to expand interpretation opportunities by establishing a visitor contact station closer to Coolidge Corner. Such a facility would serve multiple purposes, including providing space for rotating exhibits and community events, as well as a more centrally located and handicapped accessible presence. It would likely be open year-round, though the Beals Street house would likely remain open only seasonally. This chapter discusses some of the transportation implications of such an addition and how it would relate to the transportation activities discussed in Chapter 2. The addition would have specific issues related to visitor information, site access and parking, and moving visitors between sites.

4.1 Visitor Information

Adding a satellite visitor contact station to JOFI introduces additional needs related to providing sufficient information to potential visitors. Visitors would require information about site locations, access, parking, how to move between the sites, and whether they must enter at the visitor contact station or if it is possible to enter the park at either location.

The JOFI website should provide information about each site: its location, directions and access, hours of operation, and what can be found at the site. Information about potential rotating exhibits or special events is particularly important to attract repeat visitors, which JOFI has had difficulty doing. Additional signage is also recommended to direct visitors to the visitor contact station, benefiting people arriving by car as well as by foot.

4.2 Site Access and Parking

A visitor contact station in Coolidge Corner would provide a more centrally located access point for the JOFI site. The visitor contact station might attract greater visitation, as it would be more visible and could attract interest from passersby who might not otherwise know about or think to visit JOFI.

Depending on the location, the visitor contact station could be quite close to the Green Line and bus stops, making access by transit ideal. NPS should consider the options regarding coordination with the MBTA discussed in Section 2.1 in order to highlight and promote access by transit.

While there are several municipal parking lots and street parking spaces throughout the Coolidge Corner district, the popularity of the area creates significant competition for parking. It is highly unlikely that NPS would be able to acquire or lease a space, or obtain permitting, for dedicated parking for either staff or visitors. The town already provides three permits, free of charge, for JOFI staff to park on Beals Street for longer than two hours. NPS would likely have to apply for staff parking in Coolidge Corner through the existing Commercial Permit Parking program, which has a waiting list. Given existing infrastructure and demand for parking for businesses and employees in the district, it is also unlikely that NPS would be able to validate visitor parking in local lots, as is currently the practice at the Adams National Historic Site. Despite the limitations associated with parking on Beals Street, it may have more convenient parking access than locations closer to the heart of Coolidge Corner.

Another concern related to the addition of a satellite visitor contact station and parking is the two-hour parking limit and whether it would be possible for visitors who drove to JOFI to see both locations within the time limit. While it is reasonable to visit the house on Beals Street and take the walking tour within two hours, it might be more difficult to participate in additional activities, spend time at the visitor contact station, and travel between all related sites within the limit. Further, NPS should not encourage visitors to drive between locations in order to avoid overstaying the parking limit. For these reasons it is important for NPS to carefully consider the potential activities and programming associated with the various sites and the full visitor experience. It is also especially important to provide information about parking availability and encourage access by alternative modes.

4.3 Movement between Sites

In considering a potential satellite visitor contact station, one important consideration is how and when visitors would move between the sites. Important access-related questions include:

- Must visitors access the sites in a particular order (i.e., enter visitor contact station prior to visiting Beals Street)?
- Can visitors access either site at any time? – NPS could consider allowing a free flow of visitors between the sites or using the arrangement of the separate visitor contact station to manage the flow of visitors to Beals Street, in order to accommodate the constraints imposed by the structural condition of the upper floors of the house.
- Can visitors access Beals Street independently or must they arrive with a group from the visitor contact station? – This could help to manage the flow of visitation and allow for additional interpretive opportunities during the visit.

NPS could consider several infrastructure or service-related activities that relate to moving visitors between a site in Coolidge Corner and Beals Street.

Shuttle Service

As discussed in Section 2.2, NPS could consider providing an interpretive or transportation-based shuttle to assist visitors in moving between sites and potentially offer additional information regarding the sites. Given the relatively short distance between the potential sites and the cost to operate a shuttle, it is not likely to be a viable option unless NPS specifically wants to manage the flow of visitors to Beals Street or is willing to underwrite a significant portion of the operating expenses.

Sidewalk or Streetscape Improvements

NPS could consider partnering with the Town of Brookline to make sidewalk or other streetscape improvements to the portions of Beals Street or any other roadways that visitors would use in walking between Coolidge Corner and the house on Beals Street. Harvard Street underwent streetscape improvements in 2004, including new paving, benches, light fixtures, trash receptacles, planter pots, and bicycle racks. New pavement markings and upgraded traffic signals were also installed to make it easier and safer for pedestrians to negotiate the street.[*] NPS could coordinate with the Town to identify potential opportunities for similar improvements on Beals Street or other relevant roadways, or additional improvements needed on Harvard Street.

Some sections of the sidewalk on Beals Street are damaged and could benefit from improvement, though special care would need to be taken to protect the historic planar trees, which are important to the character of the street and the neighborhood. There may be other additions, such as historic lamp posts on Beals Street, that NPS could install, which would provide a more pleasant visitor experience walking in the neighborhood. In general, NPS would most likely pay to install any improvements, while the Town would be responsible for ongoing maintenance.

Walking Route Enhancements

NPS could consider enhancing the recommended walking route through signage or markings identifying points of interest or directing visitors to various sites. The markers could be relatively small and roughly waist-high, and designed in such a way as to be consistent with the historic neighborhood character. Another consideration would be a marked sidewalk walking trail, similar to the Freedom Trail in Boston, connecting the visitor contact station with the house on Beals Street and other various sites.

If interested in either approach, NPS would submit a proposal to the Town Council, through the Department of Public Works. In regards to a proposal concerning walking route markers, the proposal

[*] Coolidge Corner Transportation Analysis, 2007

would consider the placement of the markings and if they would be located within the public right of way, as well as provisions for replacement and maintenance. NPS could also consider coordinating directly with the owners at sites of interest, such as the association at St. Aidan's Church, to explore the possibility of installing historical markers onsite. There may also be opportunities for partnership with the Brookline Historical Society to enhance the opportunities for historical interpretation throughout the Coolidge Corner District. There is no precedent for either of these types of walking route enhancements in Brookline, and potential concern related to marker maintenance and liability. NPS would need to establish the benefits of such an approach and coordinate with the Town regarding exact placement, maintenance, and liability.

NPS could also explore the possibility of using guides (park rangers or volunteers) to assist with site interpretation and visitor movement along the walking route. Guides would escort visitors from the visitor contact station to the house on Beals Street, with the option of continuing onward to other neighborhood attractions or directly to the nearest transit station. The idea of a "loop", with visitors beginning at the visitor contact station, continuing to the JOFI house and other neighborhood attractions, and concluding at the most convenient transit station, would facilitate the efficient flow of visitors between sites and assist visitors with accessing transit at the conclusion of the tour.

If NPS were to consider this option in conjunction with the opening of a visitor contact station, it should consider checking with the Town to see if any permits are needed to conduct walking tours of the neighborhood, as well as if there are any restrictions on tour length, stopping points, noise, or group size.

5 Conclusions and Next Steps

This study provides information on a range of activities that NPS could take to improve access to and information about the JOFI site, including: coordination with the MBTA; interpretive or transportation-based shuttle services; improved website information; provision of bicycle parking; signage improvements; walking route enhancements; and potential summer use of the Devotion School parking garage. The study also examines implementation of some of these activities in the context of the GMP alternative to establish a satellite visitor center in the Coolidge Corner area.

NPS should use this information in considering future activities at the JOFI site and explore where and how it might be able to further develop and expand upon partnerships with other local public and private organizations.

Appendix 1 – Sample Web Directions Text

The following is text that could be used to replace the directional information currently provided on the JOFI website. NPS could use some or all of the suggestions provided below to improve visitor information about access to the site.

If you are using an internet direction program or GPS navigation device, our physical address is 83 Beals Street, Brookline, MA 02446.

Street parking along Beals Street and the surrounding area is free though limited. All street and metered parking is restricted to two hours. Visitors are encouraged to use public transportation to access the site.

Public Transportation (The "T")

The MBTA offers transit service to points in Brookline near the John F. Kennedy National Historic Site. The "B" and "C" branches of the light-rail Green Line service the Commonwealth Avenue and Beacon Street corridors of Boston and Brookline, respectively, which are a short distance away from JOFI. Additionally, the #66 bus services Harvard Street, less than a quarter mile away from the site.

From downtown Boston: Take a Green Line "C" train (heading to Cleveland Circle) from downtown Boston to Coolidge Corner; walk four blocks north along Harvard Street, turn right onto Beals Street, and continue to #83. Or take a Green Line "B" train (heading to Boston College) to Babcock Street; cross Commonwealth Avenue and walk four blocks south along Babcock Street, turn right onto Manchester Street, turn left onto Stedman Street, take the right fork onto Beals Street, and continue approximately ¼ mile to #83. The "B" and "C" trains can both be accessed at any Green Line stop from Kenmore eastward.

From points west: Take a Green Line "C" train from Cleveland Circle to Coolidge Corner; walk four blocks north along Harvard Street, turn right onto Beals Street, and continue to #83. Or take a Green Line "B" train from Boston College to Harvard Avenue; walk 0.4 miles south along Harvard Street, turn left onto Beals Street, and continue approximately ¼ mile to #83. Additionally, the Green Line "D" train can be accessed at points in Newton and Brookline; take it to Kenmore and transfer to a "B" or "C" train heading outbound, or transfer to the #66 bus heading northbound at Brookline Village.

From Harvard Square: Take the #66 bus from Harvard Square to Williams Street on Harvard Street in Brookline. Cross Harvard Street, turn around and walk back one block, turn right on Beals Street, and continue approximately ¼ mile to #83.

From Dudley Square: Take the #66 bus from Dudley Square to Beals Street and continue approximately ¼ mile to #83.

Please refer to the MBTA's website for additional information on accessing the John F. Kennedy National Historic Site using public transportation from other locations throughout the area.

By Car

Street parking is available along Beals Street, as well as surrounding roads. Parking is free though limited, and there is a two-hour restriction. Note that Beals Street is a residential street.

From I-90/Massachusetts Turnpike: Follow I-90/Massachusetts Turnpike and take exit 18 going eastbound (Allston/Brighton), OR exit 20 going westbound (Brighton/Cambridge), use the Allston/Brighton exit ramp, merge onto Cambridge Street, and proceed approximately one mile. At the fourth traffic light, turn left onto Harvard Street and proceed for about one mile. Turn left onto Beals Street and continue ~0.2 miles to #83.

From I-95: Take I-95 to exit 25 (I-90/Massachusetts Turnpike) and follow to exit 18 (Allston/Brighton). Take the Allston/Brighton exit ramp, merge onto Cambridge Street, and proceed approximately one mile. At the fourth traffic light, turn left onto Harvard Street and proceed for about one mile. Turn left onto Beals Street and continue ~0.2 miles to #83.

From I-93: Take I-93 to exit 20 (I-90/Massachusetts Turnpike), and follow to the Turnpike exit 20 (Brighton/Cambridge), use the Allston/Brighton exit ramp, merge onto Cambridge Street, and proceed approximately one mile. At the fourth traffic light, turn left onto Harvard Street and proceed for about one mile. Turn left onto Beals Street and continue ~0.2 miles to #83.

The John F. Kennedy National Historic Site can also be accessed using local roads. Route 9 (Boylston Street in Brookline), Beacon Street, and Commonwealth Avenue are all east-west thoroughfares through Brookline and the surrounding area which cross Harvard Street (Harvard Street begins a few blocks north of Route 9 off Washington Street in Brookline Village).

By Bicycle

Visitors may access the site by bicycle, though there are no formal bicycle parking facilities at the John F. Kennedy National Historic Site or on Beals Street. Visitors may lock their bicycles to the fence in the back of the site or use bicycle racks on Harvard Street or Beacon Street in the Coolidge Corner area.

Accessing the Boston Region

Logan International Airport is the primary airport serving the Boston region. For information regarding Logan Airport, please visit the Massport's website. Manchester-Boston Regional Airport (Manchester, NH) and T.F. Green Airport (Warwick, RI) offer additional service in the area, with bus and train service connecting the two airports to Boston.

Amtrak offers service to Boston's Back Bay and South Stations from points west and south of the city on its Acela Express, Lake Shore Limited, and Northeast Regional lines. Amtrak's Downeaster line offers service between Portland, ME and Boston's North Station.

The Massachusetts Bay Transportation Authority provides commuter rail service from many towns and cities in eastern Massachusetts and in northern Rhode Island, to North and South Stations. For information about commuter rail routes, schedules, and fares, please consult the MBTA's website.

A number of commercial bus operators offer service to Boston's South Station Bus Terminal: South Station's official website provides a partial list of the major carriers servicing the Boston region.

Both the bus and train terminals at North and South Stations offer easy access to the "T," the MBTA's public transportation system in metropolitan Boston.

Appendix 2 – Sidewalk Bicycle Racks

There are a variety of styles of commercial bicycle racks, which range in size, cost, capacity, and visual design. Racks that allow for two points of contact (wheel and frame) allow stability to prevent the bicycle from falling over, and they also are more secure in preventing theft. Many of the standard rack styles can be customized to include a logo or other design; an entirely custom design is also possible.

Some of the most common types of racks are shown below.

Hitch Rack
Good for use on a sidewalk or other narrow spaces. Design can be customized.

Capacity: 2 bicycles – one on each side.

Cost: ~ $200 per rack

Hoop Rack
Common, secure.
Design can be customized

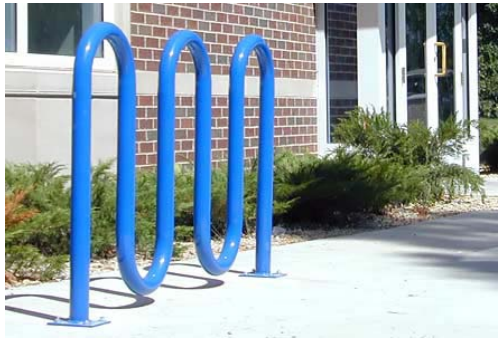
Capacity: 2 bicycles – one on each side.

Cost: ~$200 per rack

Rolling Rack
Good for a location that has multiple bicycles.

Capacity: 5 to 11 bicycles, depending on number of loops.

Cost: ~$400-700, depending on number of loops



Campus Rack
Good for a location that has multiple bicycles.

Capacity: 3 to 11 bicycles, depending on number of loops.

Cost: ~$450-900, depending on number of bicycles

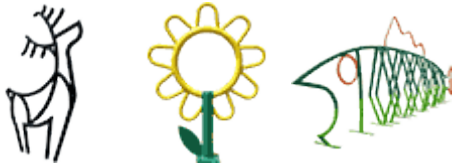
"Bicycle" Rack
Fun, artistic bicycle rack.

Capacity: 2 to 4 bicycles.

Cost: ~$400 per rack

Custom Racks
Custom designed racks are an option for a more creative, artistic bicycle parking experience. A rack could be designed with a NPS theme.

Custom racks that are based on an existing hoop or hitch design are likely to be the most cost-effective.



(deer, sunflower, fish)

Appendix 3 – MBTA Advertising Information

Advertising on MBTA vehicles and stations is managed by Titan Outdoor Sales., whereas advertising at bus stops and Green Line stops is managed by Cemusa Inc. Boston. Informational brochures offered by each of these companies are included below.

boston & national parks

commuter profile

mbta/boston

>>

gender	subway
male	51.9%
female	48.1%

>>

age	subway
18 - 24	21.4%
25 - 34	18.1%
35 - 44	22.2%
45 - 54	17.2%
55 - 64	11.8%
65+	9.4%

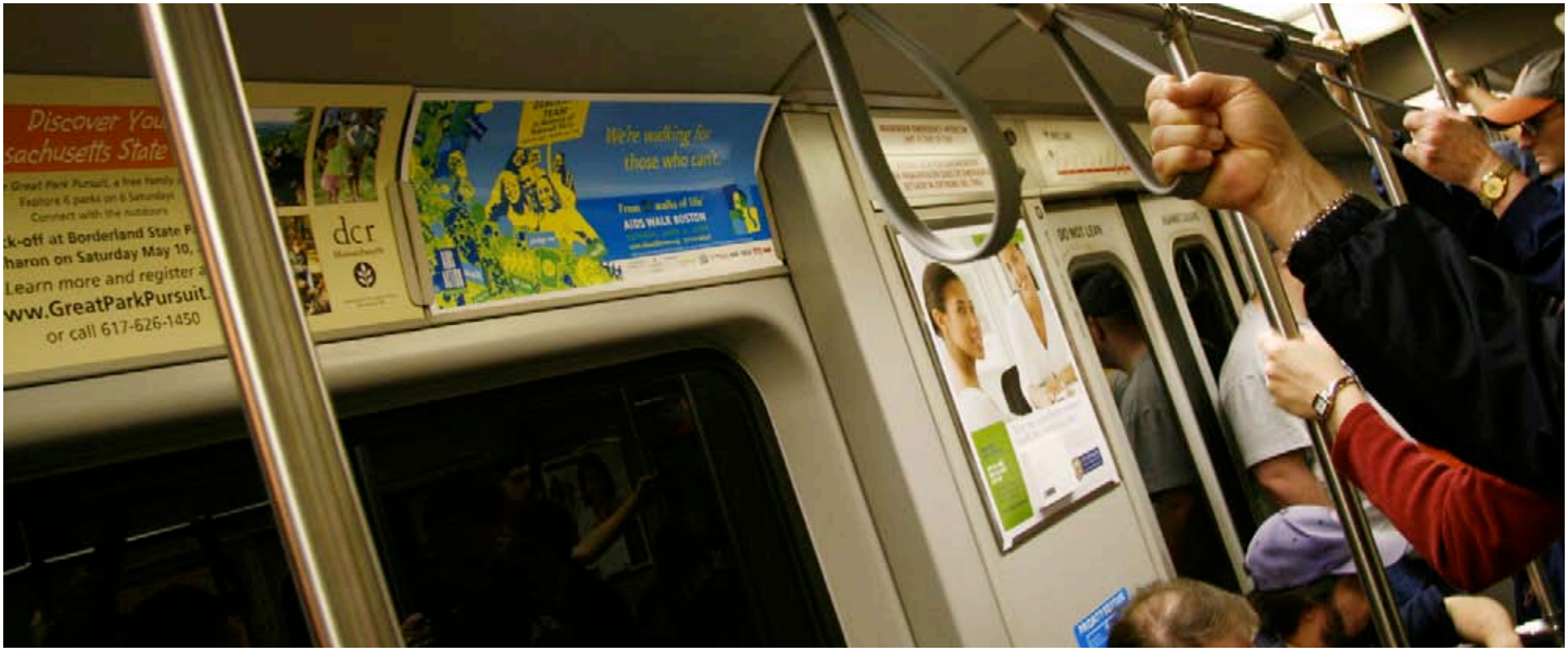
>>

hhi (000)	subway
less than $25k	7.9%
$25k - $34.9k	3.8%
$35k - $49k	12.7%
$50k - $74.9k	10.8%
$75k+	64.8%

>>

occupation summary	subway
full-time (35+ hours)	50.5%
part-time (<35 hours)	26.4%
other/not employed *incl students	23.2%
white collar	58.8%
blue collar	18.1%

subway interiors



>>

every week roughly
4.1 million people
ride a titan train.

about subway interiors	*display type*	*size*
Direct your message to consumers on the move. Each day over 625,300 riders use the MBTA Subway System. 22”H x 21”W car cards and 11”H x 28”W Car Cards are available to suit any creative execution or budget. Include your website or phone number to direct consumers to your business, or attach ‘take-one’ pads to your ad for a call to action.	**Car Card A**	22”H x 21”W
	Car Card B	11”H x 28”W
	Car Card C	22”H x 15.5”W

Also available are 22”H x 15.5”W Interior Car Cards on the Green Line Trolleys only.

TITAN
titan360.com

subway platform posters

>>

every week roughly
4.1 million people
ride a titan train.

about subway platform posters	*display type*	*size*
Subway Platform Advertising builds brand recognition through placement and frequency. This large, colorful media form draws the attention of daily commuters before they make their spending decisions. Target the ***625,300+*** riders who pass through the MBTA Subway System everyday with your creative message.	**Platform Poster**	46”H x 60”W

TITAN
titan360.com

subway map

DAILY BOARDINGS

Red Line	210,500
Green Line	204,800
Orange Line	154,400
Blue Line	55,600

Source MA Bay Transportation Authority FY04 Ridership www.mbta.com

RED LINE	# UNITS
Alewife	31
Davis	28
Porter	30
Harvard	60
Central	12
Kendall/MIT	16
Charles/MGH	16
Park Street	20
Downtown Crossing	42
South Station	68
Broadway	36
Andrew	18
JFK/UMass	24
Ashmont	TBD
Mattapan	6
North Quincy	6
Wollaston	9
Quincy Center	42
Quincy Adams	42
Braintree	48

ORANGE LINE	# UNITS
Oak Grove	24
Malden	18
Wellington	12
Sullivan Square	18
North Station	48
Haymarket	24
State	48
Downtown Crossing	48
Chinatown	14
NE Medical Center	32
Back Bay	40
Mass Ave.	32
Ruggles	12
Roxbury Crossing	12
Jackson Square	12
Stony Brook	12
Green Street	12
Forest Hills	18

GREEN LINE	# UNITS
Newton Centre	2
Coolidge Corner	4
Fenway	2
Kenmore	60
Hynes Convention	36
Symphony	12
Prudential	12
Copley	46
Arlington	36
Boylston	24
Park Street	84
Government Center	42
Haymarket	36
Lechmere	9

BLUE LINE	# UNITS
Wonderland	12
Revere Beach	8
Beachmont	12
Suffolk Downs	8
Orient Heights	12
Wood Island	12
Maverick	18
Government Center	24
Bowdoin	12

>> boston attraction clients

did you know...
25.8% of adults 18+ in the boston dma **have attended the theater in the past year.**

- American Rep Theater
- Anime Boston
- Attleboro's Annual Expo
- Avenue Q
- BOA Championship
- Big Apple Circus
- Blue Man Group
- Bodies Exhibition
- Boston Ballet
- Boston Bruins
- Boston Globe Show
- Boston Harbor Cruises
- Boston Harbor Islands
- Boston Music Awards
- Boston Symphony Orchestra
- Broadway Across America
- Cambridge River Festival
- Coolidge Corner Theater
- Dew Tour
- Erin Go Brawl
- Feld Entertainment
- Foxwoods/MGM
- GPTMC
- Greek Festival
- ICA
- Improv Asylum
- Independent Film Festival
- Legally Blond
- Live Nation
- Museum of Fine Arts
- Museum of Science
- New England Aquarium
- NCAA
- NoCa
- PGA Tour
- Spam-A-Lot
- Spring Awakening
- Suffolk Downs
- Taste of Cambridge
- TD BankNorth Garden
- The Color Purple
- Urban Nutcracker
- Worcester Art Museum
- Zoo New England

TITAN
titan360.com

>> national parks // subway media // may 10th - november 2nd

Option #1 - Red & Orange Lines

media	*size*	*showing*	*units*	*bonus*	*20-week rate card value*	*20-week discounted net investment*	*4-week circulation*
Subway Interior Car Cards	11"h x 28"w	Special	100	25	$27,500	$12,500	4,863,444

Option #2

media	*size*	*showing*	*units*	*bonus*	*20-week rate card value*	*20-week discounted net investment*	*4-week circulation*
Subway Station Platform Posters	46"h x 60"w	Special	10	5	$29,500	$15,000	5,252,520

Production is not included in above cost

TITAN

titan360.com

>>

contact us

matt born

Account Executive

50 Braintree Hill Office Park
Braintree, MA 02184

T 781.930.4324
F 781.356.2059

matt.born@titan360.com

NEW YORK • **BOSTON** • MIAMI

CEMUSA

BOSTON REDEFINED

ILLUMINATED BUS SHELTER ADVERTISING

WALK • RIDE • DRIVE

86 Lincoln St.|Brighton, MA 02135
Phone: 617.787.3888 Ex. 13 • Fax: 617.787.3388 • Mobile: 617.596.9267

The Company

CEMUSA KEY FACTS

- Cemusa, international leader in outdoor advertising
- Present in more than 160 cities across 13 countries in Europe, North, South and Central America
- More than 160,000 elements installed
- More than 900 employees
- Founded in 1984
- Subsidiary of the Spanish FCC Group (Fomento Construcciones y Contratas) leading group in the services and construction sector in Europe
- Broad range of street furniture created by the most prestigious designers and architects in the world.


SUPERMERCADO
LATINO
• ENVIO DE DINERO
• PAGO DE BILES
• CAMBIO DE CHEQUES
Productos de Centroamerica, Suramerica,
del Caribe y Norteamerica!
458 Broadway Everett, MA
617.389.3926


MT. AUBURN STREET
I HAVE A PLAN
to protect my company... and my family.
TUFTS Health Plan


CEMUSA

Advertising with Cemusa

A STRATEGIC MEDIUM

- Cemusa differentiates itself as a media company in a number of ways. From the advertiser point of view, the principal unique aspect is the company's concentration not just in the business of Outdoor advertising but its specialization in Street Furniture as a discreet sector.

- A further benefit of partnering with Cemusa, which sets us apart from the pack, is our passion for flexibility. We offer weekly posting schedules; this important innovation allows our clients to start and end campaigns on any day of the week and to change creative work and copy on a weekly basis. This is refreshing change from the traditional four-week campaign and has been welcomed by the industry.

- Excellence in advertising deserves excellence in environment. Our group of world renowned architects is the envy of many in the industry. Having your advertising associated with our world-class designs adds value to your campaign that is above and beyond quantifiable media value.

- Our professionalism combined with our flexibility allows us to offer a superior advertising proposition.


"I REALIZED
my day is better
when I know what
I want from it."
Text COFFEE to 30241
to share your revelation.
You'll be glad you did.
GREEN MOUNTAIN COFFEE
A REVELATION IN EVERY CUP™


One Dam Good BieR
AMSTER GOOD TIMES
AMSTEL LIGHT


$1 ANY SIZE
JUST FOR YOU
AND ANYONE ELSE READING THIS
NEWMAN'S OWN
I'm lovin' it

Advantages of the Medium

REASONS TO USE OUT-OF-HOME ADVERTISING

- As traditional media fragment, Street Furniture is becoming an increasingly crucial element in any advertising campaign.
- It reaches people and is efficient as a mass-market medium. 80% of the US population reports walking over 6 miles a week with the more affluent groups walking the most.
- It builds frequency. As a cost effective medium, street furniture allows the advertiser to purchase multiple sites providing vital repetitive impacts.
- It invites creativity. Were not constrained by 30 second time slots nor do we insist on four-week programs.
- It provides the opportunity for highly targeted advertising copy is always on display. This is 24/7 advertising.

BOSTON WRAPS

The Importance of Design

EXCEPTIONAL DESIGNS

Cemusa designs its street furniture taking into account the following aspects:

- **SAFETY:** street furniture is designed with high quality components such as extruded aluminium and high resistance tempered glass.
- **COMFORT:** excellent installation, maintenance and cleaning of our street furniture, self-cleaning public toilets, diverse seating arrangements in bus shelters and accessibility for people with disabilities.
- **PUBLIC INFORMATION:** Our street furniture high quality displays provide information for tourists and the general public; schedules, bus routes, maps, clocks and temperature displays.
- **VISIBILITY:** Bus shelters can be easily seen by bus drivers and by the public, the transparency of the glass optimizes visibility of the surroundings from the inside.

Every element is designed to match the aesthetics of the city environment, integrating street furniture as an exclusive part of city life. Cemusa enhances the city environment, while providing high quality services to citizens.

BOSTON

BOSTON
Commonwealth Ave.
Ruggles Station

ALLSTON/BRIGHTON
Commonwealth Ave.

BROOKLINE
Beacon Street

ROXBURY
Dudley Station

CHARLESTOWN
Sullivan Station

SOMERVILLE
Davis Square
Broadway
Highland Ave.
Mystic Ave.
Elm Street
Middlesex Ave.
Washington Street
Medford Street
McGrath Highway

WATERTOWN
Arsenal Street
Main Street
Mount Auburn Street
Galen Street

CAMBRIDGE
Harvard Square
Kendall Square
Central Square
Porter Square
Massachusetts Ave.
Alewife Station
Mount Auburn Street
Concord Ave.
Cambridge Street

REVERE
Broadway
Wonderland Station
Revere Beach Parkway
American Legion Highway
Winthrop Ave.
Revere Street
Central Ave.
Lynnway

EVERETT
Broadway
Main Street
Bow Street
Elm Street
Revere Beach Parkway

NEWTON
Woodland Station

CHELSEA
Broadway
Chestnut Street
City Hall Ave.
Arlington Street
Washington Ave
Spruce Street

LYNN
Market Square
Franklin Street
Broadway
Oxford Street
Western Ave
Lynnway
Lynnfield Street
Market Street
Broad Street
Mount Vernon Street

SALEM
Loring Ave.
Highland Street
Lafayette Street

QUINCY
North Quincy Station
Quincy Adams Station
Wollaston Station

WALTHAM
Carter Street
Moody Street

BOSTON
Bus Shelter Spec Sheet

CEMUSA, PART OF YOUR CITY.

Cemusa bus shelters deliver both mass or targeted reach with a large-format impact. With magazine-quality reproduction. Cemusa shelters are a great extension of print and television campaigns. 24/7 illumination offers an unrivaled means of high-quality visibility throughout both high-trafficked metropolitan areas and residential neighborhoods.

Standard Poster Size
Overall: 68.40" high x 47.24" wide
Live Area: 67.32" high x 45.67" wide

Print Fabrication
Art must be produced in one piece.
Art Bleeds to edge on all four sides.

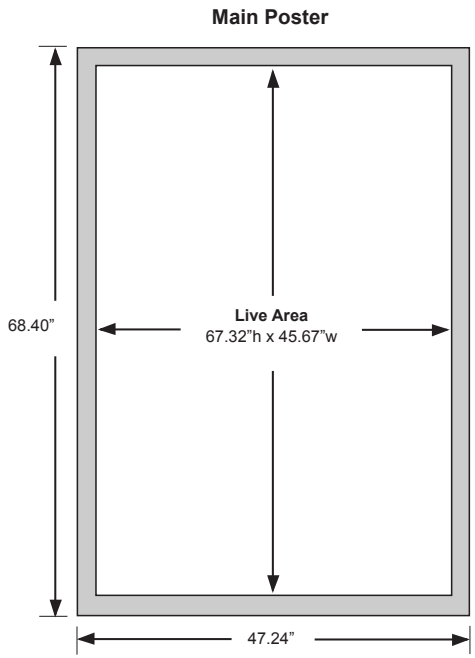
Materials/Paper Stock*
Backlit 8.5-mil opaline laminated on both sides
with 1.5-mil heat-sealed overlay.

Finish
UV or conventional clear coat in compliance with product bulletin specifications or substrate and ink manufacturers.

Inks
Solvent based pigmented or sufficient UV inks and waterproof/weatherproof.

Artwork
Copy must be changed in compliance with printers' warranty.

Overage
Cemusa recommends to print a minimum 25% overage per copy.



Suggested Mechanical Size
Output resolution 300 dpi, mechanical scaled 1/4' to 1.

Delivery
Must receive copy ten working days prior to posting date.

Cemusa
86 Lincoln Street
Brighton, MA 02135
Tel. 617 787 3888
Attn: Felix Monteagudo

** Cemusa shall not be held liable for any degradation of paper quality or performance whatsoever that may result from the use of any materials other than those described above.*

BUS SHELTER

BUS SHELTER RATES

	Net 4 Weeks ($)

Panels may be made location specific at a premium of 20%.

BUS SHELTER WRAPS RATES

	Net 4 Weeks ($)

ALL RATES EXCLUDE PRODUCTION COSTS.
Bus Shelter Wraps Rates exclude installation and removal.

SHOWCASE DISPLAY RATES

Subject to approval and availability, shelters may be made available to advertisers wishing to display product placement within the advertising panel at the net rate of $7,500 per four-week period. Please contact your Account Executive for installation and removal pricing details.

ADDITIONAL OPPORTUNITIES

Bluetooth technology, electronic paper and lenticulars may be accommodated subject to availability and approval. See your Account Executive for details..

TAB
FOR ME

Melissa Doody -
Senior Account Executive -
CEMUSA INC. BOSTON
86 Lincoln St. • Brighton, MA 02135 -
Phone: 617.787.3888 Ex. 13 • Fax: 617.787.3388 -
Mobile: 617.596.9267 -
Email: mdoody@cemusainc.com
www.**cemusa**.com

Appendix 4 – Cambridge Bicycle Racks Placement Guide

A bicycle parking guide created by the City of Cambridge can be found at this address:
http://www.cambridgema.gov/CityOfCambridge_Content/documents/tpat_BikeParkingBrochure.pdf

Appendix 5 – Potential Funding Opportunities

There are a variety of potential funding sources that NPS and its local partners could apply to in order to pursue access (or other) improvements to the JOFI site. Preliminary information about several potential sources is provided below.

Paul S. Sarbanes Transit in Parks Program (TRIP)

Congress established the Paul S. Sarbanes Transit in the Parks Program, formerly Alternative Transportation in Parks and Public Lands (ATPPL) Program, to enhance the protection of national parks and federal lands and increase the enjoyment of those visiting them. Administered by the Federal Transit Administration in partnership with the Department of the Interior and the Forest Service, the program funds capital and planning expenses for alternative transportation systems such as shuttle buses and bicycle trails in national parks and public lands. The goals of the program are to conserve natural, historical, and cultural resources; reduce congestion and pollution; improve visitor mobility and accessibility; enhance visitor experience; and ensure access to all, including persons with disabilities.

Funds may be used for projects that are located off-site, if there is an obvious connection to how they support access to the unit by alternate transportation. Federal lands units may partner with local governments or other entities in applying for funds. For more information see: http://www.fta.dot.gov/funding/grants/grants_financing_6106.html

Congestion Mitigation & Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide (CO), and particulate matter (PM-10, PM-2.5) which reduce transportation related emissions. Funds are eligible for projects that mitigate traffic congestion and improve air quality; transit projects and bicycle and pedestrian projects are eligible. Funds may be available for pilot transit operations projects. The Federal share is typically 80 percent, requiring a 20 percent local match. For more information see: http://www.fhwa.dot.gov/safetealu/factsheets/cmaq.htm

Public Lands Highways Discretionary (PLHD)

The Public Lands Highways – Discretionary (PLHD) Program provides funding for transportation planning, research, and engineering and construction of, highways, roads, parkways, and transit facilities that are within, adjacent to, or provide access to Indian reservations and Federal public lands, including national parks, refuges, forests, recreation areas, and grasslands. PLH funds can be used for any type of Title 23 transportation project providing access to or within Federal or Indian lands and may be used for the State/local matching share for apportioned Federal-aid Highway Funds, as described in 23 USC 120(l). The program is administered by the Federal Highway Administration's Federals Lands Highway Office. Eligible activities include operations and maintenance of transit facilities, parking areas, and provisions for pedestrians and bicycles. For more information see: http://flh.fhwa.dot.gov/programs/plh/discretionary/

Surface Transportation Program (STP)

The Surface Transportation Program provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the National Highway System, bridge projects on any public road, transit capital projects, and intra-city and inter-city bus terminals and facilities. The Federal share is generally 80 percent, requiring a 20 percent local match. For more information see: http://www.fhwa.dot.gov/safetealu/factsheets/stp.htm

Park Roads and Parkways (PRP)

The Park Roads and Parkways Program (PRP) provides funding for the design, construction, reconstruction, maintenance, or improvement of refuge roads and bridges that provide access to or are within a unit of the National Park Service (NPS). PRP funds can be used for any type of Title 23

transportation project providing access to or within NPS lands and may be used for the State/local matching share for apportioned Federal-aid Highway Funds, as described in 23 USC 120(l). Eligible activities include operations and maintenance of transit facilities, parking areas, and provisions for pedestrians and bicycles. Typically the backlog of basic maintenance of existing roads requires all of the allotted funding for this program. For more information see: http://flh.fhwa.dot.gov/programs/prp/

Appendix 6 – Regional Bicycle Parking Program Information

More information on MAPC's Regional Bike Sharing Program, including all relevant forms, can be found at the program website. Attached below is information, taken from the website, on how to participate and reimbursement.

How to Participate

How to Participate

Great News! With the current round of funding, there is no limit to the amount of bike racks that a community may order. Funding is available on a first come, first served basis. Follow the procedure below to secure racks.

1. Subscription Form

To participate in the program, first complete and return the **Bike Parking Subscription Form**. The form must be signed by a person with contracting authority for your municipality. Please sign the form and email or fax to the contact at the bottom of this page. Previous participants in the bike parking program do not need to fill out an additional form.

MAPC will send you confirmation after the subscription form is received. You may then begin to select bike parking equipment per the procedure outlined below.

2. Choose Bike Racks

The Regional Bike Parking Program has three participating vendors: Creative Metalworks, Dero, and Madrax. Each vendor has its own catalog of products. For guidance in selecting bike racks and installation locations, refer to the Bike Parking Location and Installation Guidelines.

Each of the vendors has provided a special MAPC web link, available by clicking on the respective images below. Products listed in the MAPC specific link are the *only* bike parking products that are eligible for reimbursement as part of this program. The eligible projects have been carefully selected to meet state of the art bike parking requirements.

Click on the icons to visit the company websites. The websites are password protected and may be obtained by contacting MAPC.

CREATIVE METALWORKS LLC

Contact: Merrill Denney
merrill@creativemetalworksllc.com
888-BIKE-RAX

DERO

Contact: Andy Lageson
andy@dero.com
888-337-6729

MADRAX

Contact: Andrea Clausen
andreac@thomas-steele.com
800-241-2505

3. MAPC Pre-Approval

Prior to placing the final order, you must contact MAPC for approval of the order quote. Contact David at dloutzenheiser@mapc.org.

3. Place Your Order

Place your order and arrange shipment directly with the vendor(s) of the particular product(s) that you wish to order. You must pay up-front for the cost of the racks and shipping. You are responsible for installation of the purchased equipment.

4. Reimbursement

Racks purchased through the program must be installed according to the Location and Installation Guidelines before you may request reimbursement. To qualify for reimbursement, the racks must be installed within *6 months* of the order date, or by the end of April if the 6th month is a winter month.

If you plan to seek reimbursement, carefully review the Bike Parking Reimbursement Instructions.

Reimbursement Instructions

Reimbursement Instructions

You may apply for reimbursement for the purchase cost of all installed bike racks of eligible styles. Shipping and installation costs are not reimbursable. MAPC reserves the right to limit reimbursement amounts and to alter reimbursement procedures.

The reimbursement program is made possible by the Boston Region MPO, the Massachusetts Deparment of Transportation, and the Federal Highway Administration.

Carefully follow the steps below to be reimbursed:

1. **Contact** MAPC to receive approval (see "How to Particpate") before placing an order for any items for which you will seek reimbursement.

2. **Installed in an Eligible Location**

- Racks must be installed according to the Installation Guidelines. Racks must be installed clearly visable to the entrance to the destination served. Rack placement must provide adequate space for loading and unloading (see Guidelines for further information).
- Racks must be installed on publicly-controlled land. The land may be owned by the municipality or any another public entity, including public schools, libraries, the MBTA, and DCR. You will not receive reimbursement for equipment installed on private property.
- Racks must be permanently installed (secured to ground).
- Racks must be installed correctly according to specifications. A bicycle correctly locked to the rack must not obstruct pedestrian routes or other access points. Incorrectly installed racks will not be reimbursed until reinstalled correctly.

3. **Submit items for proof of installation.**

- A digital photograph of each rack location before and after installation.
- A signed Reimbursement Invoice and Eligibility Statement attesting that racks and locations are eligible.

4. **Complete the** Reimbursement Invoice Form and include copies of all vendor invoices, highlighting those items for which you seek reimbursement.

5. **Submit the Reimbursement Invoice Eligibility Statement, Reimbursement Invoice Form and proof of installation by email to MAPC**. Digital photographs may be submitted by email or in the case of a large number of photographs, a CD may be mailed to:

David Loutzenheiser
Metropolitan Area Planning Council
60 Temple Place
Boston, MA 02111

6. **MAPC will reimburse you directly for all approved items.**

Appendix 7 – Example UniGuide Sign Designs

A UniGuide Sign brochure is shown below. NPS staff have access to the full UniGuide website with additional information.

*Uni*Guide Signs

A Quick Overview

BUNTING
ARCHITECTURAL EXCELLENCE

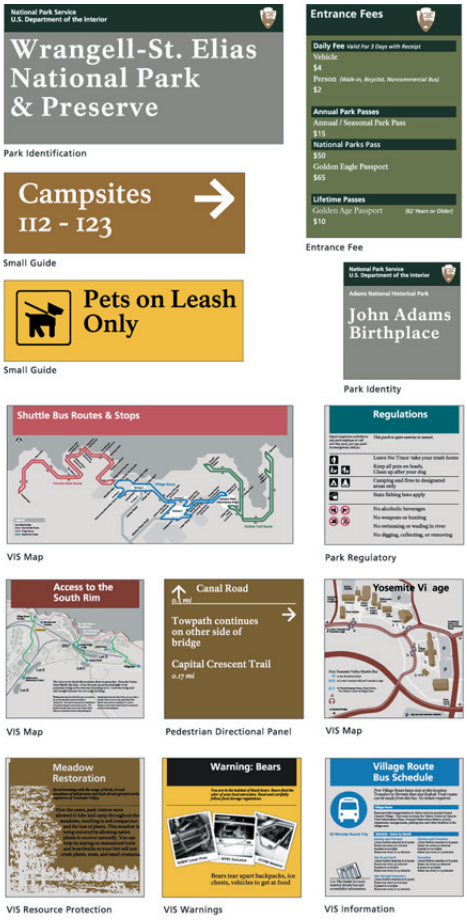
Rev.1 11/2005

Park & Facility Identification Signs

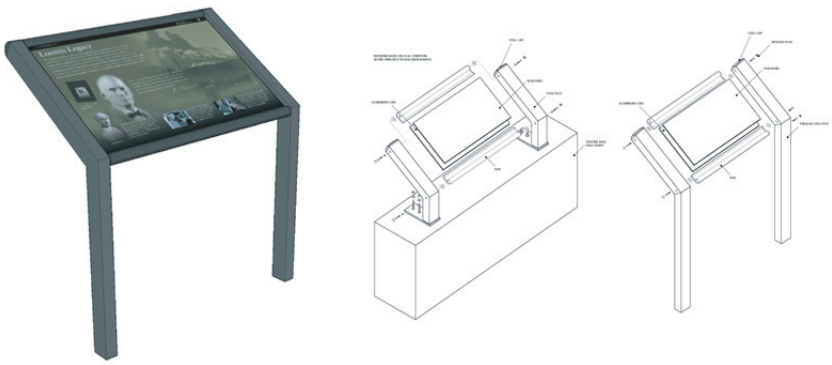
Park and Facility ID signs welcome visitors as they arrive to the park and reflect the importance and quality of the park and the agency. Monolithic, double-post, and hanging sign types may be constructed in a variety of materials to ensure that they are appropriate to their setting.

Visitor Information System Signs

Visitor Information System (VIS) signs are designed to provide an attractive and consistent way to present a broad range of messages. The modular system allows posting of regulations, safety warnings, information, interpretation, pedestrian guidance, and other wayfinding information including maps. Sign panels can be manufactured from a variety of methods including porcelain enamel, high pressure laminate, fiberglass embedment, and overlaminated digital prints.



Wayside Exhibits



Bunting is the designated manufacturer for Wayside bases and panels for the National Park Service. Bases are available in a variety of formats including reverse angle assemblies, low profile reverse angle assemblies, sled bases, and reverse angle deck mount assemblies. Panels are fabricated from porcelain enamel, high pressure laminate, embedded fiberglass, and overlaminated digital prints.

Road Guide Signs

Road Guide Signs are placed on park roads to direct the first-time or infrequent visitor to facilities and areas within a park. All Motorist Guide Signs use the NPS Roadway typeface which was designed to present information so that it can be read quickly from a moving vehicle. Sign size is determined by message size using a specific formula for layout based on the capital letter height.

Highway Guide Signs

Highway Guide Signs are used on public highways and expressways to guide visitors to a park. They are formatted using standardized layout grids using the same basic principles as those designated for Road Guide signs except for the possible use for the NPS Arrowhead, FHWA directional arrow, and displays only one legend per sign assembly.

Pathfinder Signs

Pathfinders serve as an additional assist in guiding visitors to specific park sites and features in urban and highly developed suburban environments. By displaying the NPS arrowhead and other graphic elements, Pathfinders also help to reinforce park and agency identity. Boundary markers and custom trail markers are also available.

Park Boundary Signs

Boundary Signs designate the beginning of park land. These signs are useful in areas of multiple land ownership, or where it is better to place an entrance sign at a location other than the official park boundary.

NPS Arrowheads

NPS Arrowheads are available in a variety of standard sizes and materials. Choose from porcelain enamel, high pressure laminate, western red cedar, high density foam or reflective decals.

Traffic Regulatory Signs

MUTCD regulatory and warning signs are used within a park to govern the operation of motor vehicles. All traffic signs are Type II reflective sheeting with Type III available as an option.

Bunting's main plant in Verona, Pennsylvania.

The Bunting Graphics NPS management team.

Who is Bunting Graphics?

Bunting Graphics has been selected the single provider of signs purchased by the National Park Service after a nationwide competitive process. The company was founded in 1980 and is currently recognized as one of the nation's leading sign manufacturers, noted for its craftsmanship, project management skills, and its reliance on the latest sign fabrication technologies.

In addition to sign manufacturing, Bunting Graphics offers a wide range of sign planning and design services through a network of firms located in each region of the country. Working through Bunting and the Harpers Ferry Center, these firms can design a single park entrance sign, or can help you assess and prepare a plan for an entire park's signage needs. Additionally, we offer access to a variety of sign related specialists including traffic engineers, landscape architects, human factors researchers, and visitor flow and capacity analysts.

A word from company president Jody Bunting.

As a longtime fan of our national parks, I have seen firsthand the results of your efforts and consequently have a deep regard for the work that you do. I also have a deep appreciation for the importance of signs in communications and have come to believe that signs are very likely the primary means by which you communicate with park visitors. Certainly the types of messages that signs convey are far more varied than any other medium, and, in many cases more important.

I am acutely aware of the obligation we have to serve you well: to deliver signs of good quality, at reasonable prices, in a timely manner, and a requirement to ensure that our communications with you are clear, courteous, and efficient. That is exactly what I pledge to you. I promise to do everything possible to see that you are satisfied with our products and services and that you remain proud to have us as an extension of your organization.

Ordering Procedures

For Traffic and Recreational symbol signs, please see the order form on our website at nps.buntinggraphics.com. The order form may be emailed to lizg@buntinggraphics.com or faxed to Liz Gamelier at (412) 820-4404. A firm price quote including packaging and shipping will be returned to the sender. *f*

Sign orders for Park/Facility ID, Visitor Information and Motorist Guidance signs are reviewed with HFC for conformance to UniGuide standards. Specific questions about these types of signs may be addressed to Liz Gamelier at 412-820-2200, x257 or the COTR in Harpers Ferry, Robert Clark at (304) 535-5022. *f*

For more information on the NPS UniGuide, the sign catalog and the Bunting Graphics team, visit the Bunting NPS Sign Program website: ***nps.buntinggraphics.com***

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14. ABSTRACT

This report provides an overview of transportation and access issues related to the John F. Kennedy National Historic Site and the surrounding area in Brookline, MA. The study defines transportation-related goals for the site and provides support for development of the site's General Management Plan (GMP). It identifies and evaluates several potential transportation alternatives, and discusses their implementation in the context of one of the GMP alternatives, which would be to establish a satellite visitor center for the site.

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As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

September 2010