

Massachusetts Avenue
Harvard Square to Porter Square:
A Proposal for Sustainable Improvements

Prepared by:
Agassiz-Baldwin Neighborhood
Neighborhood Nine
April 2010 - Updated, May 27, 2010

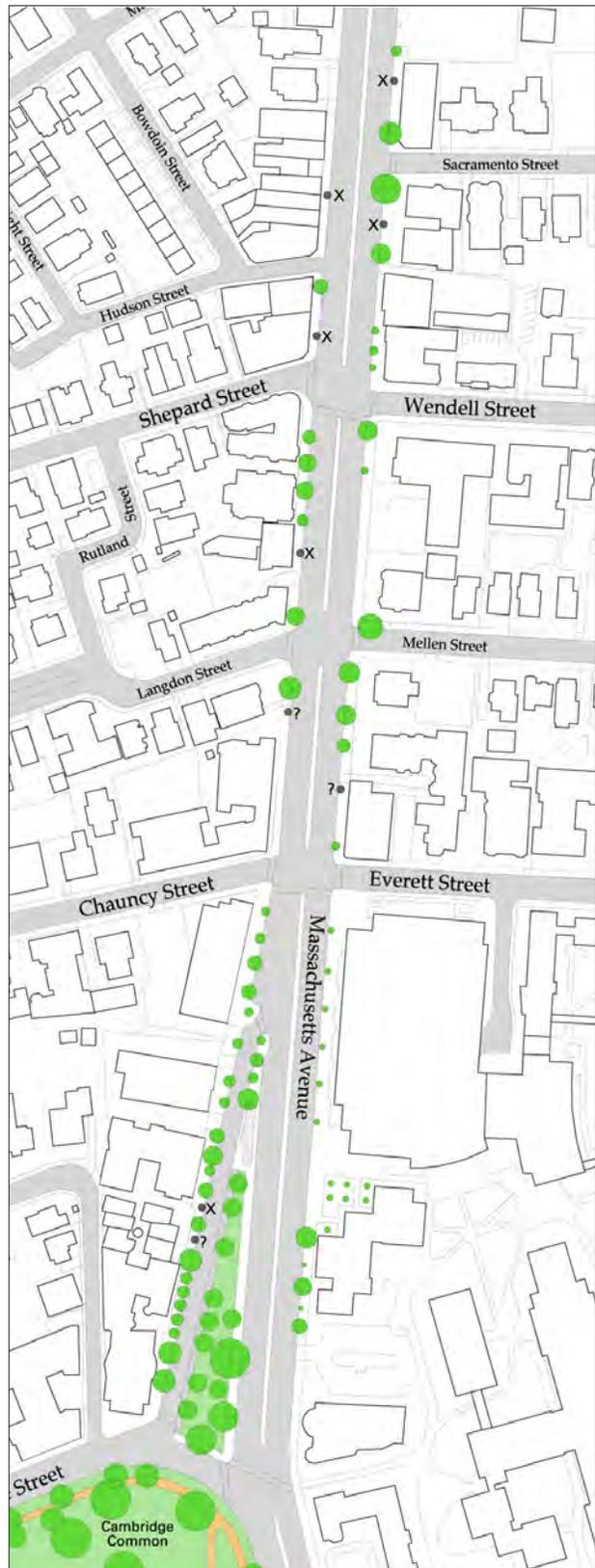
Send Questions & Comments to:
Ronald Axelrod <ronaldaxelrod@aol.com>
Dennis Carlone <dcarlone@carloneassociates.com>



Porter Square to Martin Street

1. Existing Public Space & Trees

The circles on the map indicate location and size of trees along Mass. Avenue. The size and health of each tree were graphically represented on the above drawings. Tree diameters range from 4 feet (recently planted) to 40 feet. Green circles



Martin Street to Cambridge Common

represent healthy trees. Damaged or highly questionable trees are toned gray and marked with an 'x' or '?'. Numerous opportunities for additional street tree planting exist. A more sustainable maintenance and planning approach would greatly improve the life and long-term health of the Avenue's trees.

INTRODUCTION:

Informal neighborhood discussions and meetings have been held from 2008 to today concerning the impacts of institutional buildings and other potential buildings between Porter and Harvard Square on Massachusetts Avenue. These City of Cambridge meetings focused on zoning and overlay districts that cover lower and upper portions of the Avenue.

The Agassiz Baldwin Neighborhood and Neighborhood Nine communities have come together to propose improvements to Mass. Avenue, our common public domain. Three representatives of the Agassiz Neighborhood: Fred Meyer, Stephen Diamond, Carol Weinhaus; two representatives of Neighborhood Nine: Dennis Carlone, Ron Axelrod; and one businessman and Mass. Avenue property owner: Charles Christopher have met with city officials and with neighborhood groups and some business owners that border this part of Mass. Avenue.

PROJECT GOALS:

- Create improved streetscape and pedestrian safety, improve retail viability, focused at major traffic intersections, including neckdowns, plantings, irrigation, street furniture, and sidewalk pavements.
- Reconstruct major intersections to respect current and expected traffic and pedestrian movements, including new geometrics and pavements.
- Plant new trees using state of the art sustainable methods, where needed while improving the sidewalks to improve safety as well as unify the shopping district.
- Promote the “Harvard/Lesley/Porter” stretch of Mass Avenue, between Harvard and Porter Square, as one unified mixed use district—the major communal meeting ground serving all surrounding neighborhoods and as “An Avenue of the Arts” building on the Art Institute of Boston and Maud Morgan art centers, and numerous artist-residents.



2. Mass. Avenue Sidewalk & Trees

This post 1906 photograph, taken just south of Roseland Street, looks northward and shows the Avenue’s 17-foot wide sidewalk and elm trees. These trees gave a special dignity and beauty to the area. Both trees and broad sidewalk were lost with a 1950’s street widening. Our long-term goal is quality sidewalks with a continuous tree canopy. (Photograph courtesy of Cambridge Historical Commission.)



3. Cambridge Public Way Enhancements

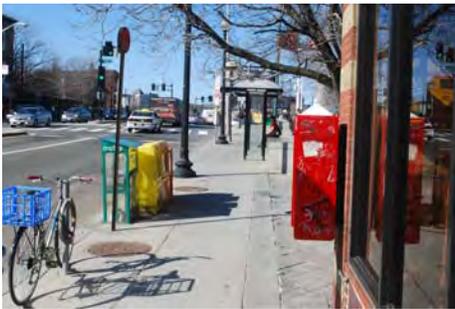
Over the last twenty years, new brick paving, well planted and protected trees, new pedestrian and street lighting, and sidewalk bump-outs have helped transform Central Square, and much of Cambridge Street. A view of Central Square in front of Au Bon Pain illustrates these changes.

PROJECT COMPONENTS:

The scope of work focuses on improvements and next steps.

- A. Pedestrian Safety
- B. Trees and Sidewalks
- C. Additional Urban Design
- D. Next Steps

A. PEDESTRIAN SAFETY IMPROVEMENTS



4. Commonwealth Lock Public Phone

The tightest sidewalk width along the Avenue is adjacent to the Porter Square MBTA station and carries heavy pedestrian traffic from the subway, commuter rail, and bus stop. Sidewalk crowding is made worse by the fourteen-inch projection of a public phone into the public way. The American Disabilities Act of 1990 prohibits an object protruding more than four inches into a walkway. This phone should be relocated around the building corner.

Pedestrian crossings at the intersections from Waterhouse Street to Upland Road are dangerous due to intersections that were designed for two-way cross streets are now one-way streets. These old “geometrics” of street widths and curb arrangements are not safe for crossing. In addition, there are not enough dedicated pedestrian crossings across Mass. Avenue furthering making it a dangerous Avenue to cross.

In some locations, pedestrian sidewalks are not wide enough to handle the number of pedestrians, as is the case at Porter Square. The sidewalk in front of the Commonwealth Lock Building and the adjacent bus stop is too narrow to handle the peak pedestrian flow to and from the T stops in the morning and evening. There are a number of ways to improve pedestrian safety:

5. Porter Square Bus Stop Shelter (right)

The placement of the bus shelter entirely on the City’s tight sidewalk restricts high-volume pedestrian traffic on the sidewalk along the MBTA Porter Square property. The bus shelter base projects 2’-7” into the 9’-0” sidewalk width, leaving only a 6’-5” clear passageway. During rush hour, some people are forced into the street due to crowded sidewalk conditions. To widen the sidewalk, the low wall and bus shelter should be relocated further back from the curb-line.



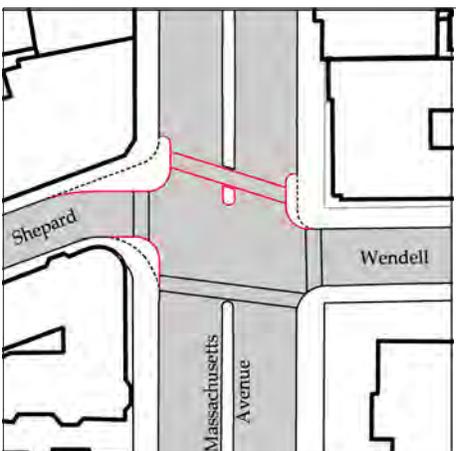
Increase the amount of pedestrian crossings along Mass. Avenue:

Currently most pedestrian crossings occur at only major cross streets. Some dedicated pedestrian crossings are more than 800 feet apart. 200-250 ft is the urban design standard, particularly important along retail corridors. Given this, standard crossings should be added at:

- Mellen / Langdon Streets
- Sacramento Street
- Garfield Street
- Lancaster / Forest Streets



6. Proposed Garfield Street Crosswalk
 Cambridge has begun studying a pedestrian-automated crosswalk with bump-out curbs at Garfield Street. The painted lines show extent of projection. Additional, similar crosswalks are needed elsewhere on the Avenue.



7. Shepard / Wendell Intersection
 Shepard Street, which once carried two-way traffic, is now one-way. Therefore the current Shepard crosswalk is too long and it is easy for pedestrians to feel stranded in the middle of the road as cars turn onto Shepard. A proposed upgrade to the intersection includes bump-out curb projections and an additional crosswalk (highlighted in red).

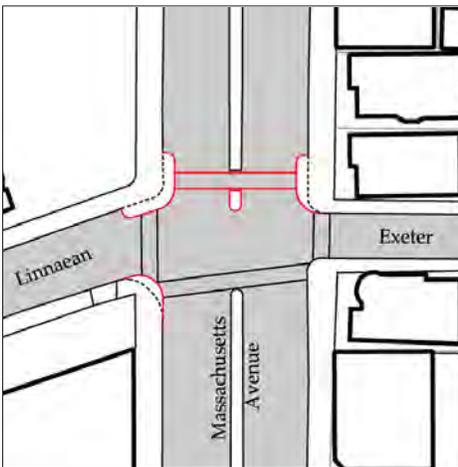
Improve Traffic Intersections:

Traffic intersections along Mass. Avenue have not changed since 1956 and reflect many streets that were two ways and are now one way. The following are suggestions for improvement:

- **Waterhouse Street:** This intersection currently has one crosswalk on Mass. Avenue and one across Waterhouse Street. Crosswalks recognizing the “desire lines” across Mass. Avenue south and north of the intersection should be developed. Other improvements to the geometrics of the curbs at the Cambridge Common side of the intersection and bus staging areas should also be included in this redesign.
- **Everett / Chauncy Streets:** This intersection is currently under construction as part of the change of Everett Street to a two way Street serving the parking garage of the new Harvard Law School building.
- **Shepard / Wendell Streets:** Pedestrian patterns have changed and increased dramatically with a new Lesley University dormitory on the east side of Mass. Avenue and Agassiz neighborhood pedestrians. Shepard and Lesley were two-way streets many years ago and are now one-way streets. The intersection needs to be redesigned to reflect additional Mass. Avenue crossing on the north side of the intersection as well as appropriate side street widths and geometrics to improve pedes-

trian safety. Shepard Street entry should be narrowed, to improve pedestrian safety, slow traffic down the more residential Shepard Street, and allow space for additional street trees as well as better and wider sidewalk treatments.

- **Sacramento Street:** The distance between Wendell and Garfield Streets is 800 ft. Based on safe pedestrian crossing distances between intersections, a crosswalk across Mass Avenue, at Sacramento Street is warranted. This is not an easy task as parking along Mass. Avenue may be affected.
- **Garfield Street:** Pedestrian crossing and traffic entering Mass. Avenue do so at their peril. The City is looking at this issue and will work on a redesign of the intersection to improve the pedestrian crossing and car traffic geometrics and sight lines to improve the safety of this intersection.
- **Linnaean / Exeter Streets:** Surprisingly, this intersection was left out of the Linnaean Street Traffic Calming project now in design. An additional crosswalk on the north side of the intersection should be studied as well as the geometrics of the intersection to increase the safety of pedestrians.
- **Lancaster / Forest Streets:** This off center intersection should be studied to see how pedestrian crosswalk(s) could work effectively. There is no dedicated crosswalk for 740 feet between Linnaean Street and Roseland Avenue.
- **Roseland Avenue:** This intersection should be studied once the Art Institute of Boston (AIB) building is designed and set for construction.
- **Upland Road:** The City has done extensive work on the traffic operations of this heavily used intersection. However, the very narrow sidewalk on the east side fronting on the Commonwealth Lock Building and in front of the bus stop at the T station needs widening to accommodate the heavy pedestrian loads to and from the T station at peak hours. Often this portion of the sidewalk is blocked by groups of people waiting for the bus.



8. Linnaean Street Intersection

In some ways similar to Shepard, the two-way Linnaean Street crosswalk is quite long for a side street. A proposed upgrade to the intersection includes bump-out curb projections and an additional new crosswalk (highlighted in red).

Tree plantings and improvements to the T Park should be additional items in this scope coordinated with the City’s ability to acquire oversight of this park.

B. TREE AND SIDEWALK IMPROVEMENTS



9. Tree Damage & A Substitute Bush
Mass. Avenue has too many damaged trees. The result is unsightly, stunted growth, and lack for tree canopy shade. Other trees have been cut down and, as illustrated in the above photo, replaced by a rose bush. Also note the asphalt patch to the left of the tree well, which would seem a temporary solution, but has been there for years.



10. Planted Median at High Traffic Street
In Boston, Cambridge Street's upgraded medians have reduced jaywalking. The dimensions of this Boston street are similar to the study area stretch of Mass Avenue.

Cracked and deteriorated sidewalks and old tree(less) wells run from Waterhouse Street to Upland Road. Unlike most other portions of Mass. Avenue, in Cambridge, this portion has not received any coordinated upgrade to the sidewalks and plantings in well over fifty years. While the city has planted some trees over the years and there have been pieces of sidewalks replaced, there has never been an overall program to coordinate tree planting and sidewalk repairs and upgrading.

To improve the appearance of the Avenue to stimulate economic growth and reinforce the quality of the neighborhoods we propose the following:

Tree Planting:

A survey of the trees between Waterhouse Street and Upland Road found:

- 22 tree wells have no trees or are paved over; new locations would benefit from trees as well.
- 30% of the trees need replacement.
- 20% of the trees are in fair condition for an average 8 to 15 year life.
- 50% of the trees are healthy for longer than 15-year life.

A tree-planting program should consist of the following objectives:

- Replace all dead and unsightly/damaged trees in appropriate tree wells. To insure that we have thriving street trees, plantings, irrigation and follow-up maintenance are necessary, tree plantings should be in structural soils with; large tree pits, pervious paving along the curbs and larger tree grates.
- New trees carefully placed to be consistent with retail interests and sight lines.
- Add low plantings at intervals along the 5'-0" to 6'-0" wide median strip that do not interfere with pedestrian and traffic safety, in part by reducing jaywalking opportunities.

11. Private Enhancement of Mass Avenue

An opportunity exists to improve Mass. Avenue planting within the setbacks of existing residential buildings. These concrete-paved setbacks are 3'-0" to 7'-0" from their property lines. Private plantings within the setback creates: 1. healthier street trees through greater water infiltration, 2. greater residential privacy by buffering the public way, 3. reduction in street and basement flooding, and 4. enhancement of public and private domains. Note the Langdon Street corner is heavily planted only along the side street and misses an opportunity along Mass. Avenue.



- Add trees & plantings at new intersection plazas or neckdowns.

Other ideas for plantings should include:

- Installation and maintenance of trees for institutional owners as Harvard and Lesley in front of their properties.
- "Adopt a tree" program of merchants and property owners on the Avenue to maintain the tree.
- Encourage property owners, especially non-retail frontage properties, to plant between sidewalk and their building to aid irrigation. The most healthy trees on the Avenue are in those situations.



12. Healthy Versus Damaging Tree Care

Numerous examples of business and resident street tree care exist along the Avenue. Although all well intended and in some cases at significant private cost, long-term results will vary greatly. The upper photo, taken in front of Joie de Vivre and Tamarind House, includes stone edging and maintained planting at grade. Assuming care was taken not to damage tree roots, tree life has likely been extended. The lower photo with its raised flower planting bed actually has the opposite effect. By raising the soil line, this tree is now planted too deeply resulting in a shortened life-span.

Sidewalks:

The condition of sidewalks from Waterhouse Street to Upland Road varies between acceptable to marginal / dangerous. Sidewalk repair over the years has been confined to small sections that were broken or severely deteriorated. The City has reconstructed some of the intersection sections to accept accessibility ramps. A survey of the side walks in this stretch of Mass. Avenue found:

- 40% broken panels
- 10% deteriorated in need of replacement
- 10% heaving such they are a tripping hazard
- There is no distinction to these sidewalks to help make this district feel distinct to the Avenue. Other examples in Cambridge as Central Square, Inman Square, and Cambridge Street, where sidewalks are brick-edged, have distinctive patterns to them help define the neighborhood or shopping district.

We envision improvements to the sidewalks in the following way:

- Develop an overall pavement design that respects the businesses, assists in tree and plant irrigation, and is cost effective.
- Replace sidewalks incrementally over a three year period in concert with owners, businesses and the City’s ability to fund such improvements.
- Coordinate sidewalk improvements with intersection improvements as described above.
- Extend sidewalks as part of neck-downs for safety improvements and for sitting areas.

C. ADDITIONAL URBAN DESIGN IMPROVEMENTS

Park Areas, Seating, and Landscaping:

This portion of Mass. Avenue can benefit from a number of urban design elements that provide visual improvement, pedestrian amenity, and bring a distinct character to the Harvard to Porter Square section of Mass. Avenue. Some of these elements are:

- **Identify small park areas:** These would provide seating and plantings. Some ideas include:
 - North Hall – Harvard Law School Dorm (between Mellen and Wendell) to include some seating as well as other landscaping
 - Garfield Street Intersection – this corner should be included in the pedestrian crossing upgrade as a potential seating area and to give better sight lines for pedestrians and cars
- **Linnaean Street Intersection Northwest Corner:** This privately-owned, chain-link-fenced, unlandscaped corner seems to be almost never entered by the apartment building tenants. A portion would be a small and wonderful park for the neighborhoods and bring life to this vacant area.
- **Porter Square Station Park:** This space should be integrated into the community with City of Cambridge and / or Lesley University oversight. Moving the current bus shelter back to allow pedestrian flow on the sidewalk and thoughtful cost



13. Areas of Great Public Potential

There are no public resting places along the 3,600-foot long length of Mass. Avenue. Two highly under-used sites offer different opportunities. A portion of the privately-owned Linnaean Street corner (upper photo) would create a wonderful, public green amenity and better buffer the adjacent apartment building. The existing MBTA ‘no man’s land’ (lower photo) should be brought under City control and programmed in part with an active, public use.

14. Harvard Law School Building

The timeless design by the Law School’s architect, Robert A. M. Stern, adds a handsome landmark at the southern end of the Mass. Avenue study area. The Law School is planning to add raised planting and seating along the building edge of a widened public sidewalk with irrigated street trees. This design approach helps ensure tree health and longevity. A similar tree irrigation approach would benefit the rest of the Avenue. (Rendering is courtesy of Robert A. M. Stern, Architect.)



effective ways to improve the use of this little park are in the community’s interest. This location would be an ideal for a Cambridge Bicycle Exchange Depot.

Additional Improvement Opportunities:

This stretch of Mass. Avenue from Waterhouse Street to Upland Road / Porter Square benefits from a number of unique and positive aspects:

- Harvard and Lesley Universities anchor either end of the Avenue with active properties in between. Both consider this stretch an important asset to their campuses and institutional lives. Both institutions have worked well with the community in development of their new buildings. Other properties they own should be viewed as to how they add to the Avenue’s quality and improvement. By the example of the landscape work in front of their current developments, the two Universities may show how sidewalk paving and tree planting should be continued along the Avenue.
- Two major art institutions— Maud Morgan Visual Arts Center and the forthcoming Art Institute of Boston—reinforce an already active artist community that surrounds Porter Square. An “Arts District” that enhances these two outstanding institutions would improve the visual quality of the Avenue and stimulate businesses. In turn, these businesses that thrive off the arts market will benefit the area and institutions. There are numerous “Arts Districts” around the country that can be used as models.



15. Maud Morgan Visual Arts Center

Just a few hundred feet from Mass. Avenue, this new visual arts center is planning to “offer a wide range of innovative, high quality studio art classes and programs for all ages” beginning this Fall. (Rendering courtesy of Prellwitz, Chilinski Associates Inc.)

D. NEXT STEPS



16. Recent Central Square Improvements

A second phase of public space construction was completed in 2009 in Lafayette Square at the east end of Central Square. The park's ample, raised planting and seating helps create an attractive, restful gathering place.



17. Retail Owner Sidewalk Enrichments

Nomad is a Mass. Avenue store owner that understands how to make a storefront come to life. Their seasonal displays of unique offerings are enhanced by exterior potted plants and attract pedestrian and auto travelers attention. In many ways this is the equivalent of restaurant outdoor dining. Similar, well-conceived retail displays should be encouraged throughout the district.

Neighborhood and City efforts to improve Mass. Avenue from Harvard to Porter Square have just begun. City of Cambridge staff we have met with have been very positive in support of many of the items discussed in this report. Improvements to intersections at Waterhouse Street, Shepard / Wendell Streets, and Garfield Street are to be designed this year after community input and constructed in 2011. Harvard Law School will complete its intersection improvements at Everett / Chauncy Street and plantings in front of the new building this year.

For the future, we propose a simple Plan for Harvard / Porter Progress:

1. Develop an overall Concept Plan of the intersections improvements, tree and urban design improvements on the Avenue with a set of standards that provide continuity as each piece is developed over the coming years.
2. Coordinate community input from the Agassiz and Neighborhood Nine interests.
3. Work with city agencies to define and prioritize improvements following the Concept Plan.
4. Coordinate improvements with businesses and landowners on Mass. Ave.
5. Identify funding sources for implementation.

IN GRATITUDE:

Agassiz-Baldwin Neighborhood and Neighborhood Nine committee members thank the public officials, university leaders, and neighborhood business owners we met during this study. In particular we appreciate the time and guidance given by: Massachusetts State Representative Alice Wolf; Cambridge City Councilor Sam Seidel; Cambridge's City Council; Community Development Department; Public Works Department; Traffic, Parking and Transportation Department; and Public Planting Committee; and Harvard and Lesley University representatives.



"A SOCIETY GROWS GREAT
WHEN ITS PEOPLE GROW TREES
WHOSE SHADE
THEY SHALL NEVER SIT IN."
Old Proverb