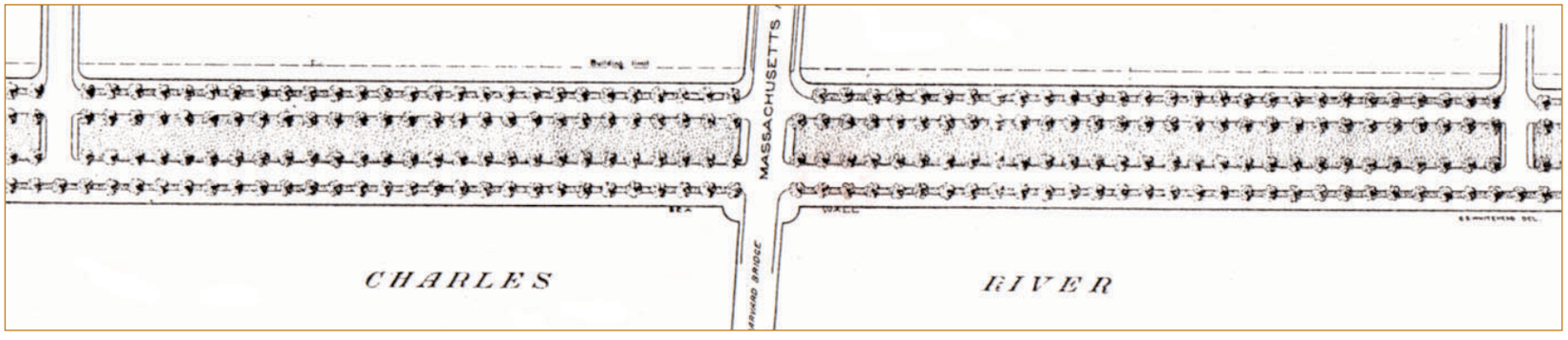


DETAIL FROM AN 1897 DRAWING BY OLMSTED, OLMSTED & ELIOT OF THE ORIGINAL PLAN FOR MEMORIAL DRIVE.

median and those along the riverfront require immediate attention. Soil compaction from off-path runners is killing the trees along the river: Most of this planting zone is compacted, with little or no turf. In marked contrast, the trees lining Memorial Drive along the MIT campus are well maintained and thriving. The broad lawn between the divided parkway provides ample room for plantings, but it is isolated from the shoreline and campus by high-speed traffic. Inappropriate plantings, particularly ornamental cherry and Zelkova trees, have changed the historic landscape throughout this segment.

PHOTO COURTESY CAMBRIDGE BICYCLE COMMITTEE

IN SEARCH OF SOFTER FOOTING AND TO AVOID THE CROWDED WALKWAY, JOGGERS HAVE WORN A NEW PATH ALONG THE CAMBRIDGE ESPLANADE.

The narrow pathway along the river (a six-foot asphalt path next to a four-foot granite cap) is constrained by the seawall rail and benches. The pathway is seriously overcrowded. Conflicts among pedestrians, skaters, and bicyclists cause some users to avoid this stretch of the reservation. The pathway is separated from the high-speed traffic on Memorial Drive by a narrow planting strip and a row of parked cars. The pathway on the MIT side, though it serves as a major access path for the campus, narrows to six feet in places. Conflicts between bicyclists and pedestrians also are common here. The narrowness of the pedestrian edge along the river does not reflect Charles Eliot's original plan, which called for pathways up to twenty feet wide set well back from the parkways. The speed and volume of automobile traffic today and the worn earth under the trees by the river shows the wisdom of Eliot's prescription.

A major concern along the Cambridge Esplanade is pedestrian safety. Due to its location at the lower end of the Basin, automobile traffic is heavy. The straight alignment, lack of traffic signals, and the failure to enforce speed limits encourages excessive speeds along this stretch of parkway. There is no safe or convenient way for pedestrians to cross Memorial Drive or Massachusetts Avenue at the Harvard Bridge.

Parking along Memorial Drive clearly increases access to the reservation, but it is an inappropriate use of scarce parkland. Far more spaces are provided than are necessary for park use. It is the last bastion of unsigned and unmetered parking spaces in the immediate area. This encourages others—members of the MIT community and commuters—to occupy most of the spaces provided.

The Memorial Drive underpass at Massachusetts Avenue floods and is a maintenance burden during storms.

Goals

- **Restore the boulevard character of the Cambridge Esplanade while enhancing the experience and safety of all park users, including drivers, bicyclists, and pedestrians.**

ALTERNATIVE A FOR THE CAMBRIDGE ESPLANADE WOULD NARROW MEMORIAL DRIVE AND SHIFT LANES TO ACCOMMODATE A SIGNIFICANT WIDENING OF THE RIVERFRONT PARKLAND.

Recommendations

- **Realign Memorial Drive at the Cambridge Esplanade,** according to one of two proposals, to expand parkland and reinforce the character of the parkway.

Extensive design analysis and input from citizens, abutters, and advisors on cultural landscapes resulted in two realignment schemes:

Alternative A would narrow both Memorial Drive and its median to establish a broad esplanade. It would eliminate one eastbound travel lane and shift the eastbound half of Memorial Drive into the existing median space, aligning the eastbound lane with the existing underpass. The riverfront parkland would thus be widened from twenty-seven to sixty-five feet, a substantial increase that would permit revitalization of the Cambridge Esplanade. The median would remain sufficiently wide to support a double row of trees, a character-defining feature of Memorial Drive. The formal layout of four lines of parkway trees spaced close together and close to the curb would be reestablished. Over time, the branches would overhang the parkway and the park, creating a unified canopy.

To take advantage of this new esplanade a parallel system of pathways would be established—a twelve-foot-wide pedestrian path at the seawall and a ten-foot-wide bike lane running between the path and the parkway. This designated bike path would merge with a multiuse path at both ends of the Cambridge Esplanade. Parking would be provided on the river side of Memorial Drive in short intermittent bays. Signage and enforcement would reserve the parking supply for people using the reservation, and reducing the amount of parking would decrease the need for a third lane to accommodate parallel parking. Fewer parked cars on the river side would open views of the Charles River. The main view corridors from the MIT campus would be kept clear of parked cars. Alternative A maximizes the benefit to both pedestrians and bicyclists while preserving the historic character of Memorial Drive.

Alternative B would narrow the roadway but not the median. It would eliminate the parking lane and convert one travel lane to intermittent parking bays. In contrast to the previous scheme, the eastbound lanes of Memorial Drive would not be realigned. This scheme would allow for the widening of the riverfront zone from twenty-seven to forty-five feet. The existing width of the median would be retained and replanted. Within the widened riverfront zone, the MDC would establish a twenty-foot-wide multiuse path at the seawall—sixteen feet for a footpath and four feet to accommodate granite coping. Use different pavement treatments to demarcate separate lanes for foot and wheeled traffic.

Other parkway alignments were considered. One would have eliminated the median and double row of trees. The loss of the historic formal landscape character in front of MIT and the adverse traffic implications (greater difficulty in crossing a wider parkway) led to this scheme's rejection. Memorial Drive is a contributing resource in the National Register district. While there is some flexibility in applying preservation criteria, the historic value of this cultural landscape would be entirely lost under this alternative.

Another alternative would have eliminated the underpass at Massachusetts Avenue, forcing traffic to stop at a Massachusetts Avenue traffic light. This would slow traffic but would also result in traffic queues worse than those at the JFK Street/Memorial Drive intersection. Analysis indicates that traffic would back up across the length of Harvard Bridge into Boston. The recommended pedestrian-activated crossing lights are sufficient to calm traffic. All pedestrian-activated crossing lights within the Basin should have a feature that counts down the time remaining to cross safely.

- **Replant and maintain continuous rows of shade trees to reemphasize the formal character of the Cambridge Esplanade.** Original plans indicate a tight tree spacing of thirty feet or less on center. Remove the ornamental trees in the median that currently block views to the Charles.

- **Provide a more open spacing of trees in front of MIT's Killian Court to preserve visual access to this important space**. Avoid or minimize any street signs or structures within this important view corridor.

- **Coordinate landscaping of the Cambridge Esplanade with the MIT campus master plan** to maximize the health of trees and the views of the Basin and skyline.

- **Restore historic railings, shelters, and benches.** Continue the MDC's commitment to replacing deteriorated railing with the same historic style. Remove and refurbish unstable rails as soon as possible to avoid accidents or loss of the rail. Set shelters back from the path and raise them high enough to avoid head injury to bicyclists.

- **Restore historic lighting along the parkways and paths.** When the parkway streetlights were moved from the outer edge of the parkway to the median, MIT provided pedestrian lights along the front of the campus. The edge towards the river is unlighted and should remain so. The pendant-style streetlights along the Cambridge Esplanade were based on the 1907 historic fixture and should be the standard for the Lower Basin and Memorial Drive.

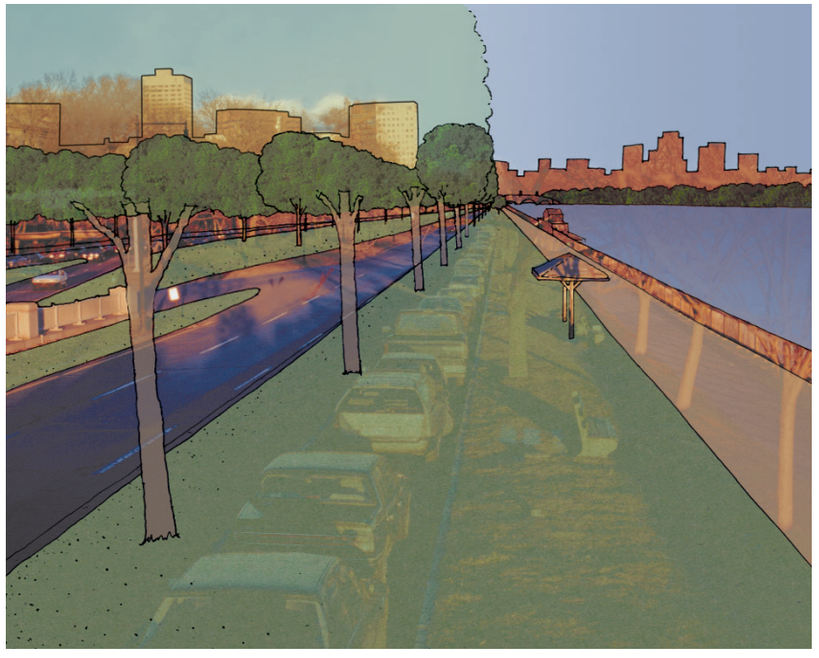
- **Install new pedestrian-activated signals and crosswalks** at Massachusetts Avenue, Endicott Street, and Wadsworth Street.

- **Narrow the approaches from Memorial Drive to Harvard Bridge to single lanes and remove parking near the intersection** to provide wider sidewalks at the intersection between Memorial Drive and Massachusetts Avenue.

- **Install strips of grooved pavement at the approaches to the Cambridge Esplanade, before important pedestrian crossings,** to calm traffic and call out pedestrian crossings. (The Memorial Drive underpass was originally lined with cobbles, which served to slow traffic considerably but are noisier and less safe than grooving.)

- **Widen the pathway along the river to accommodate wheeled and foot traffic more effectively.** Widen the walkway in front of MIT to at least ten feet while maintaining a minimum eight-foot planting strip for parkway trees.

- **Provide public bathrooms, drinking fountains, and telephones along the river and link these public amenities to future boathouse expansion.** The preferred location for MDC facilities would be near the MIT Sailing Pavilion.

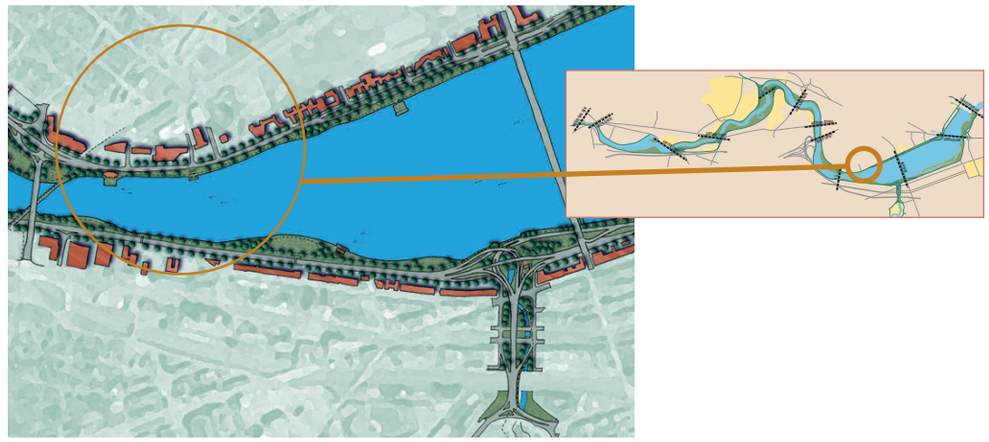


ALTERNATIVE B (RIGHT) WOULD NARROW EASTBOUND MEMORIAL DRIVE BUT NOT ALTER THE MEDIAN. THE RIVERSIDE PARK WIDENING WOULD BE LESS DRAMATIC THAN IN ALTERNATIVE A.

- **Install new pumps to help prevent flooding in the underpass.**

- **Develop a formal landing, similar to those at the Esplanade, on axis with MIT's Killian Court.** The original plan for the MIT campus envisioned such an overlook, and it was recommended in the 1928 *Report on Proposed Improvements of the Charles River Basin* (the "Harriman Report"). The seawall was built years before the dam and creates a significant vertical separation between the pathway and the water level. Grand steps down to a landing at the river would overcome this separation and establish the missing link between Killian Court and the river. This initiative might well attract the support of MIT alumni.

- **Close the entire eastbound parkway during weekends from March/April to October/November in a manner similar to Riverbend Park** further west on Memorial Drive (see Section 6N). The parkway closure period could be coterminous with daylight savings time—the first weekend in April to the last weekend in October—to reinforce public awareness. This lane closure would allow both the median and the parkway to be utilized. The westbound lanes could accommodate two-way traffic by eliminating parking during this period. Consider a cooperative arrangement with MIT for public parking during special events.



MIT HOUSES (3N)

Memorial Drive from the end of the seawall to Boston University Bridge

Key Resources

- *Memorial Drive (1897)*
- *West end of the seawall (circa 1899)*
- *Boston University Bridge (1928)*
- *William J. Reid Overpass at Boston University Bridge (1939)*
- *DeWolfe Boathouse, Boston University (1999)*

History

The Charles River Embankment Company, incorporated in 1881, began building the Cambridge seawall in 1882 and filling the marshes for a residential neighborhood that would rival the recently completed Back Bay. Unlike the Back Bay, this neighborhood of fine houses was to have had a grand boulevard fronting on the Basin with splendid views of the Boston skyline. Demand for house lots never developed, however, and the Charles River Embankment Company went bankrupt. The abrupt ending of the seawall just west of the MIT rowing pavilion and the transition