School Choice in Boston
A Case Study at Mission Hill School

Mission Hill School

Boston Public Schools Assignment Plans

The current Boston Public Schools (BPS) school assignment plan divides the city into three zones and elementary school families enter a lottery for one of the 20+ schools in their zone. Beginning with the 2014-2015 school year, the Boston Public Schools is proposing a new school assignment plan for the city. Under the complex new plan, each student is eligible to enter the lottery for an individualized list of approximately 6-13 nearby elementary schools. If the nearest schools are of lower quality, the students are given additional options until they have at least two "top-tier" schools on their list.

This project examines the impact of the change in school assignment plans on Mission Hill School (MHS) and on the school's neighborhood in Jamaica Plain. The proposed plan will significantly reduce the distance students travel to school.
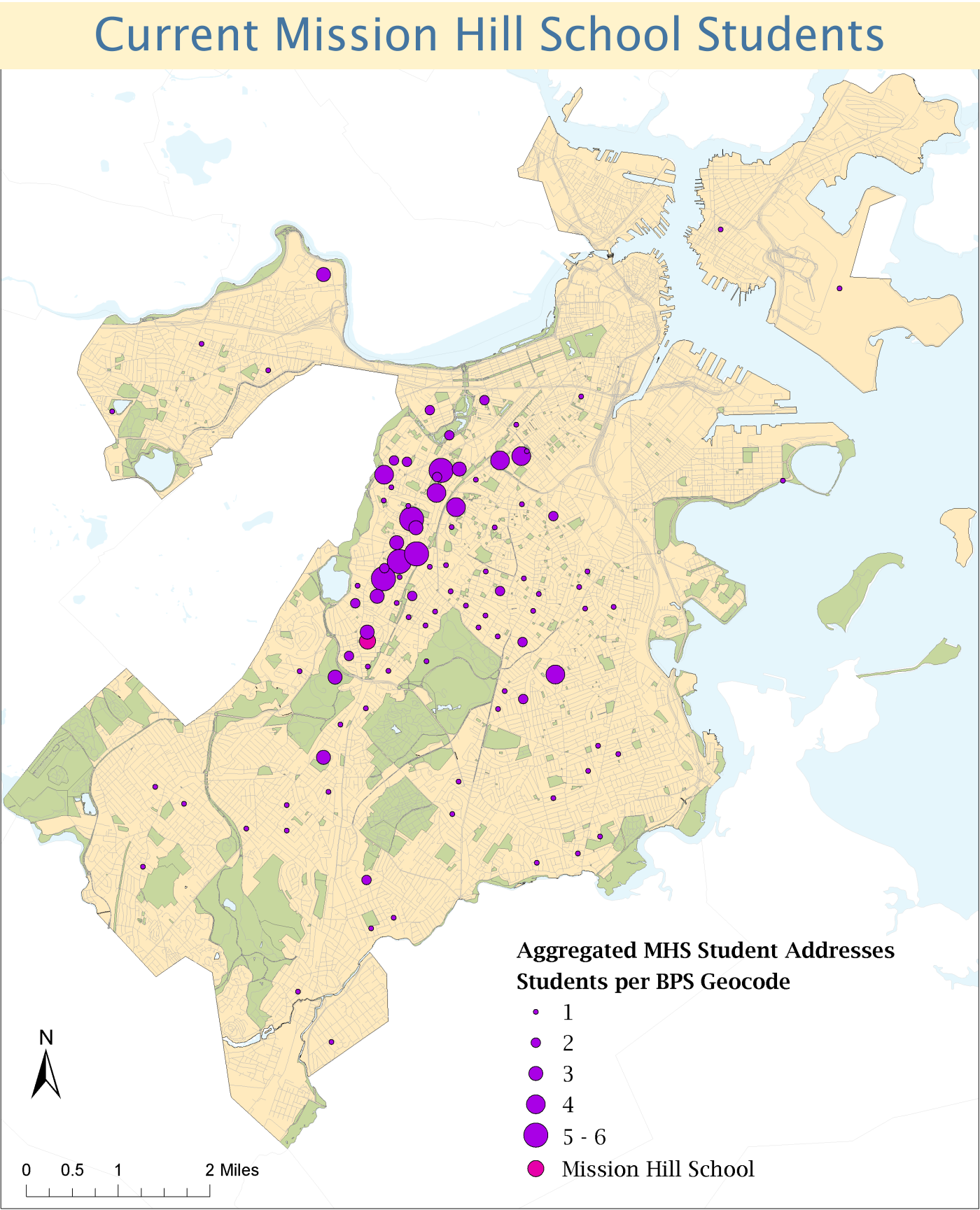
The School: Mission Hill School

Mission Hill School is a public school currently located in the Jamaica Plain neighborhood of Boston. It serves approximately 214 students in grades K0-8. Mission Hill School was a citywide school until 2010, and in 2012, the school moved from Mission Hill to its current location in Jamaica Plain. Children at Mission Hill School come from all parts of the city of Boston. I calculated the distance along the street network from each student's home to the school.
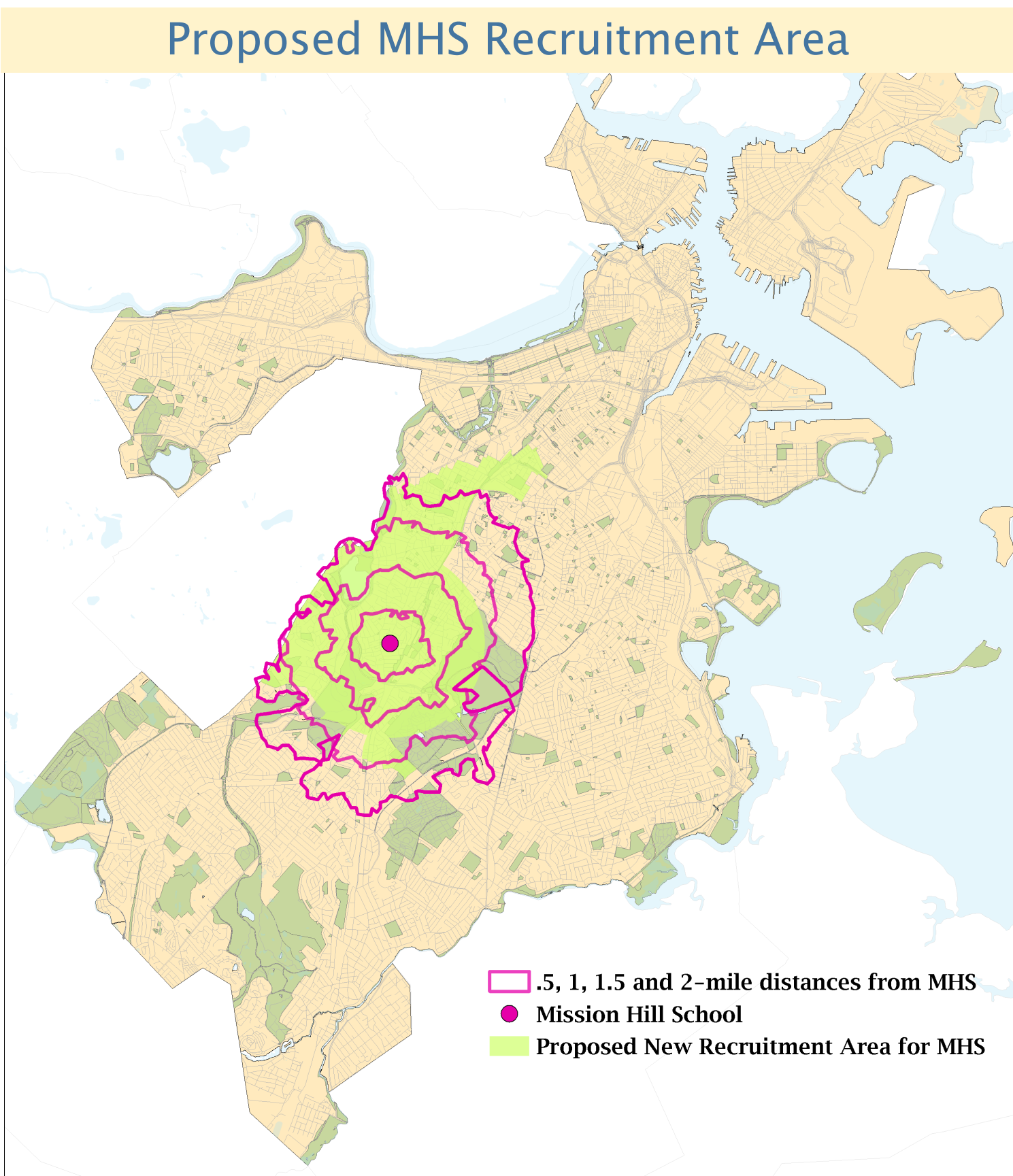
The proposed school assignment algorithm is complex; however, information on bostonschoolchoice.org suggests that the Mission Hill School will be open to students living in zip codes 02130 (Jamaica Plain), 02120 (Mission Hill) and other areas that are within one mile of the school. I estimated how far children within this recruitment area would have to travel to attend MHS.

Ten school buses serve MHS every morning and afternoon.

Current Mission Hill School Students

Aggregated MHS Student Addresses
Students per BPS Geocode
- 1
- 2
- 3
- 4
- 5 - 6
- Mission Hill School

Current Situation – Distance to School	MHS Students	Neighborhood Kids (to Boston schools)
Mean (miles)	2	1.9
Maximum (miles)	7	6.5
Percentage <1 mile	18% of students	38% of students

Proposed MHS Recruitment Area

- .5, 1, 1.5 and 2-mile distances from MHS
- Mission Hill School
- Proposed New Recruitment Area for MHS

Proposed Plan – Distance to School	MHS Recruitment Area	Schools Available to MHS Neighborhood
Mean (miles)	1.25	1.5
Maximum (miles)	2.5	3
Percentage < 1 mile	38% of land area	38% of schools

The Neighborhood: Jamaica Plain

According to a Boston Public Schools 2011-2012 dataset, there were 212 K0-8 students living within approximately .25 miles of MHS. Of those students, 75% attended Boston Public Schools. Overall, the 212 students living in the neighborhood attended 56 different schools. I calculated the distance from MHS (the center of the neighborhood) to each of the Boston schools attended by the children. This analysis does not include the 29 children who attended school outside of Boston, and likely traveled significantly further distances.
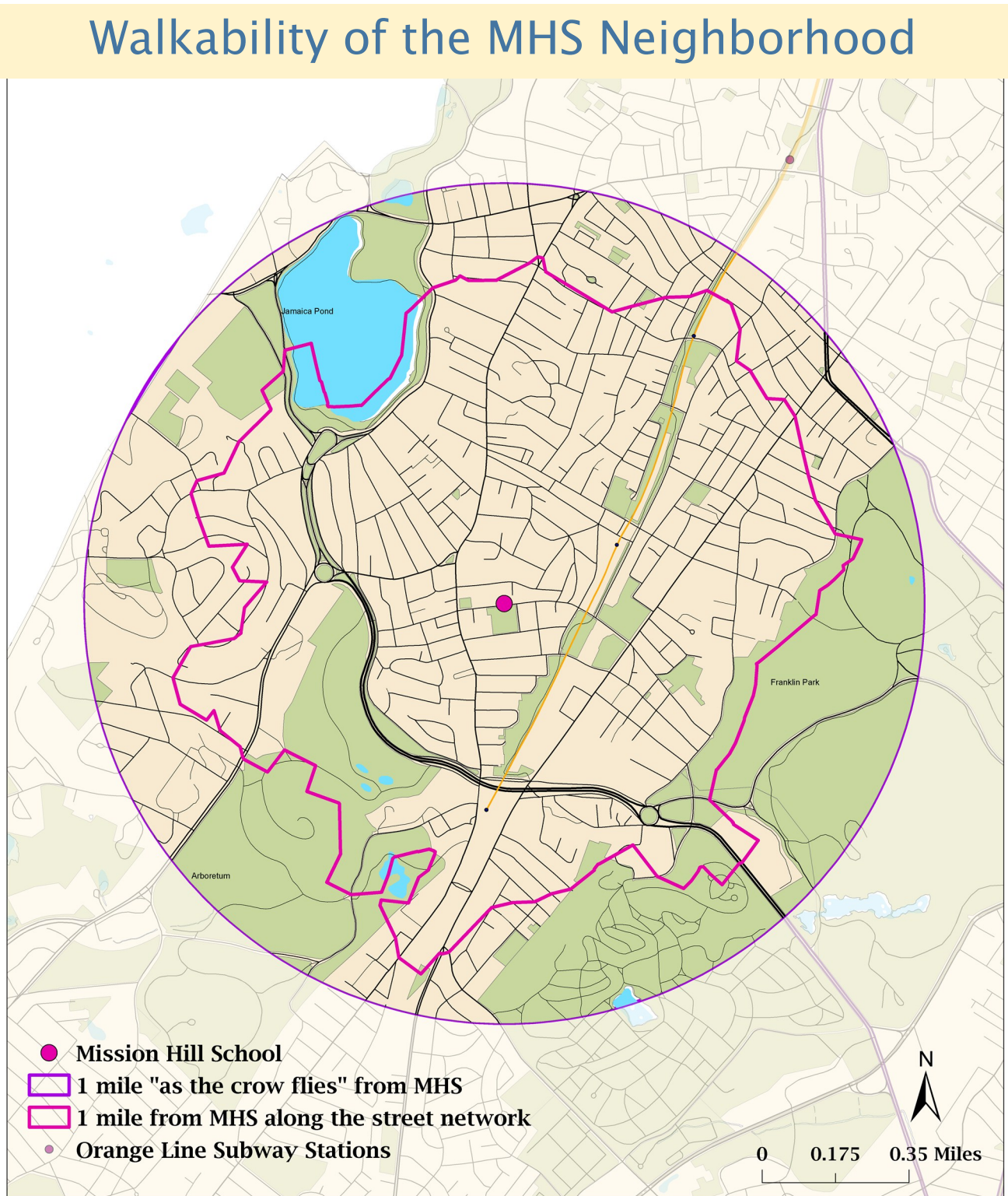
My analysis of the new assignment plan focused on the Boston Public School options available to K-5 students since K0 & K1 and 6-8th grade students have different options. Currently the students in the neighborhood are eligible for lotteries at 22 public elementary schools. Under the new plan, children in grades K-5 who live in the immediate neighborhood of MHS will be eligible for the lottery for MHS and 12 other nearby elementary schools. If K-5 students from the neighborhood choose to attend public schools, the new plan will allow them to attend schools closer to home.

Current Schools of Neighborhood Children

MHS Neighborhood
Schools Attended by MHS Neighborhood Kids
Number of Students per School
- 1 - 2
- 3 - 5
- 6 - 9
- 10 - 11
- 12 - 32

Available Public K–5 Schools

Public Elementary Schools
by Availability under Assignment Plans
- Current
- Proposed
- Both
- MHS Neighborhood
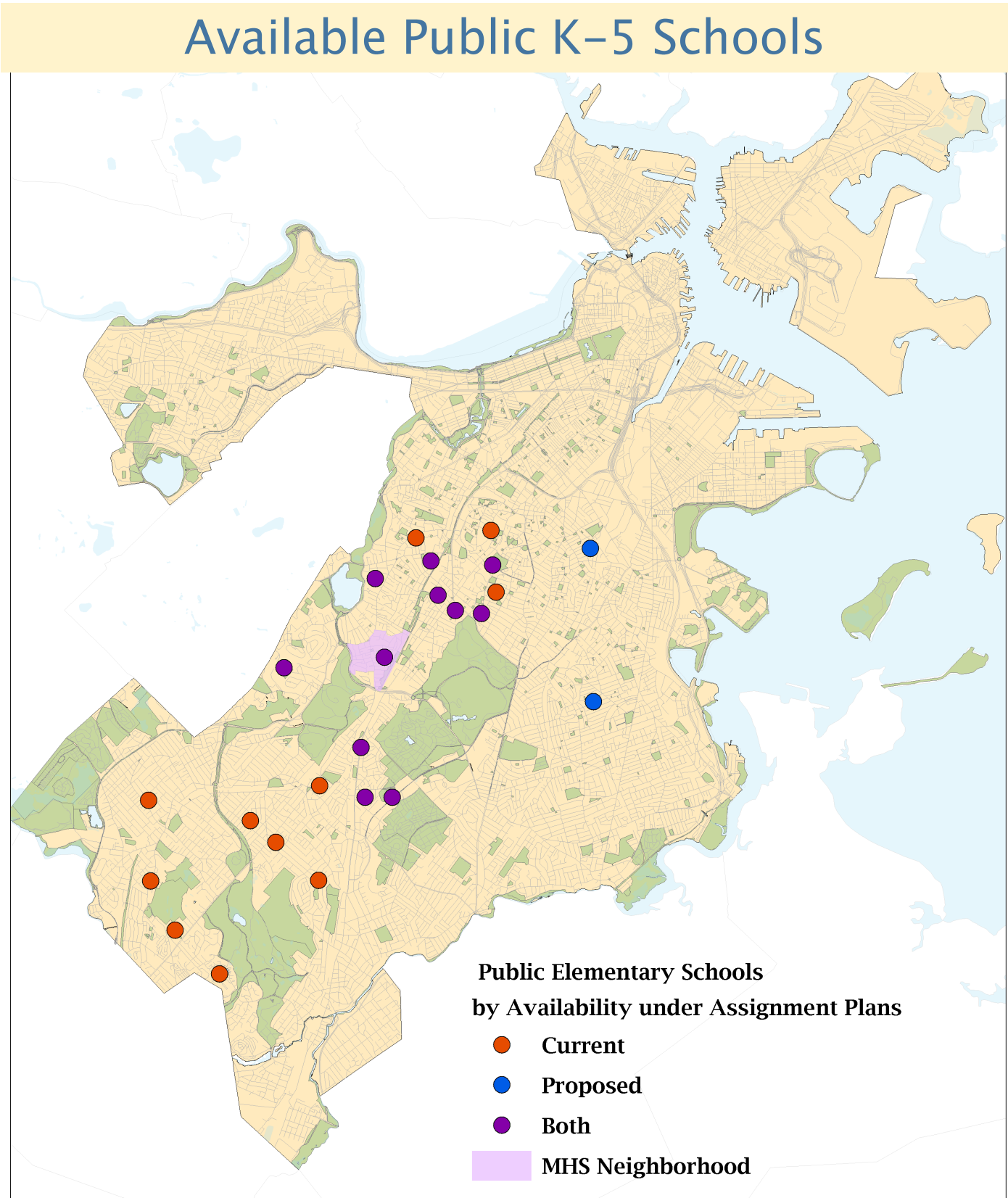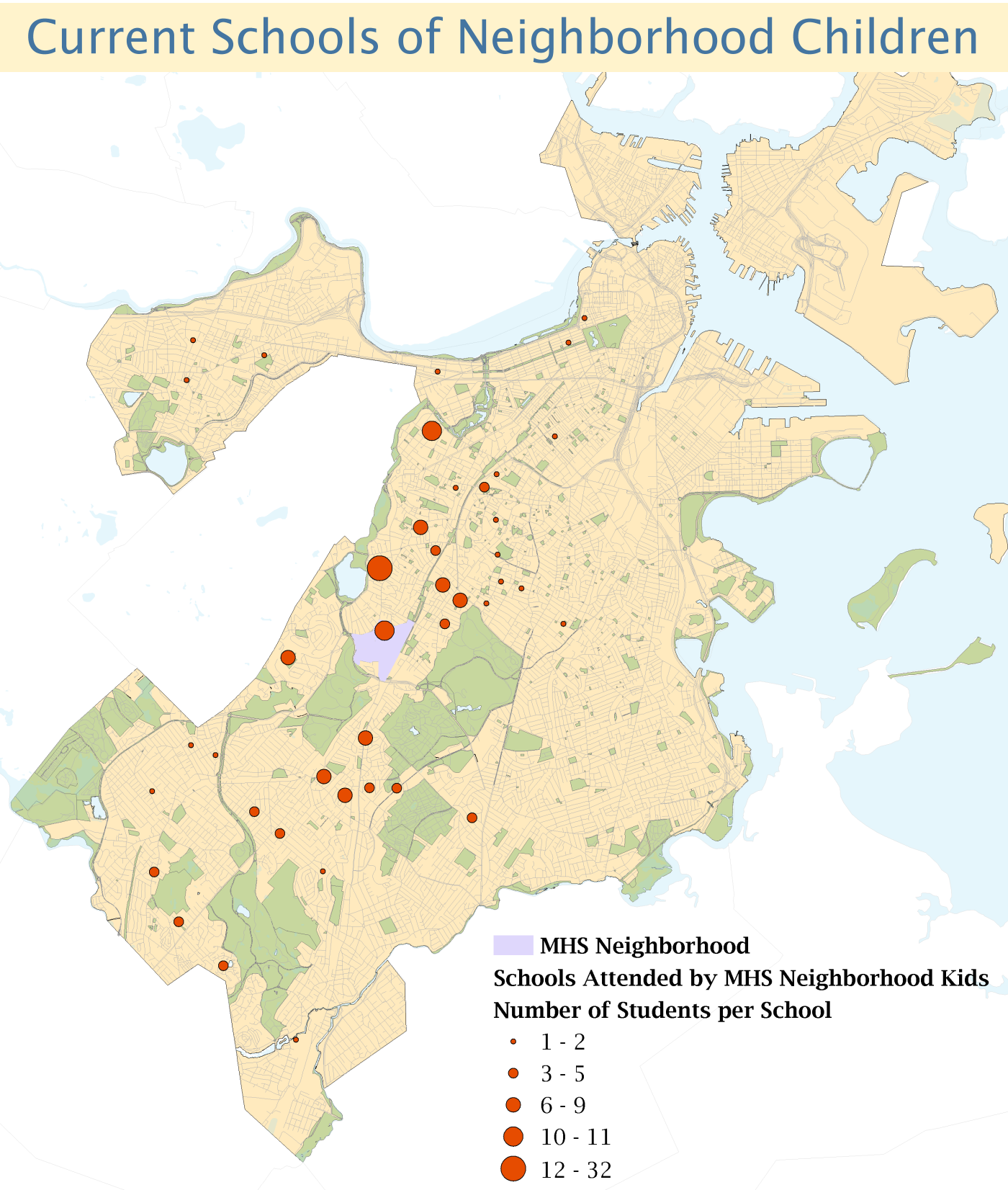
Future Potential for Walking to School

Under the proposed school assignment plan, more children may want to walk to school through the MHS neighborhood. Issues of safe and walkable urban form will move to the forefront, as distance becomes less insurmountable.

I measured the walkability of the street network surrounding MHS using the method described in Giles-Corti et al. (2011).[1] The ratio of the area of the one-mile street network buffer to the Euclidean one-mile buffer around the school is .54. Giles-Corti et al. determined that a ratio of at least .6 was desirable for walkability. Large areas of open space and many dead-end streets undermine the connectivity of the street network. To assess the exposure to traffic danger, I calculated the ratio of the total length of roads within the street network one-mile buffer to the total length of small residential roads. 78% of the road length within the one-mile network is made up of small residential streets. Crossing guards or other interventions may be necessary to help children cross the larger streets.

[1] Giles-Corti B, Wood G, Pikora T, Learnihan V, Bulsara M, Van Niel K, Timperio A, McCormack G, Villanueva K. (2011). School site and the potential to walk to school: the impact of street connectivity and traffic exposure in school neighborhoods. *Health and Place*. 17(2).

Walkability of the MHS Neighborhood

- Mission Hill School
- 1 mile "as the crow flies" from MHS
- 1 mile from MHS along the street network
- Orange Line Subway Stations

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