Analysis of Community Land Trusts as an Affordable Housing Strategy in Greater Boston

Introduction
A community land trust is a strategy used by cities and non-profit developers to create affordable housing. Community land trusts can reduce the cost of housing for both homeowners and renters. A homeowner’s cost is decreased because the cost is only attached to the structure rather than the structure and the land. Community land trusts can be organized to benefit renters by offering below market rental prices. This project analyzes land banking as a affordable housing strategy based on four criteria: proximity to the T, zoning, restricted areas, and proximity to schools, density of employment opportunities, and areas of open space like parkland. Lastly, target parcels were designated as developable or potentially developable. See the purple parcels in Figure 3. All residentially zoned parcels meeting the target criteria except for the area surrounding downtown Boston. The area is within one mile of the Massachusetts Bay Transportation Authority subway or T stations.

Methods
To display where land banking should occur, a preference grid of the study area was created using the raster calculator. The preference grid score was based on four criteria: proximity to the T, proximity to schools, density of employment opportunities, and areas of high opportunity or high rent to income ratios. Next, target parcels were identified using three selection criteria. Target parcels were over 2500 square feet, the lowest minimum lot size in MA. Target parcels were in non-restricted areas. Restricted areas were defined as floodplains, wetlands, and open space like parkland. Lastly, target parcels were designated as developable or potentially developable. See the purple parcels in Figure 3. All residentially zoned parcels meeting the target criteria except for developable land use were also identified. Developed parcels were not considered target parcels as they are more expensive. However, they are still important if funds are available and are included in the Figures. All parcels were joined with the preference grid using zonal statistics.

Results and Conclusions
The area surrounding downtown Boston has the highest preference scores as shown by the concentration of green in Figure 2. Surprisingly, Boston also has 84 parcels with one of the highest average preference scores of 13.1, see Table 1.

In Table 1, the five towns with the most target parcels, highest total acreage of target parcels, lowest average price per square foot of target parcels and highest average preference score of target parcels are highlighted to analyze community land trusts as a suitable strategy for affordable housing. Braintree, Milton, and Boston scored in the top five for three categories and have the highest potential to utilize community land trusts for affordable housing.

A close up of Milton is provided in Figure 5a and shows the distribution of parcels. Figure 5b demonstrates the applicability of this analysis in finding vacant, developable land. The parcels shown in Figure 5b are also zoned residential.

Further research could examine preference by town rather than the study area as whole. This would standardize the preference grid, which would be particularly important for analyzing density of employment.