

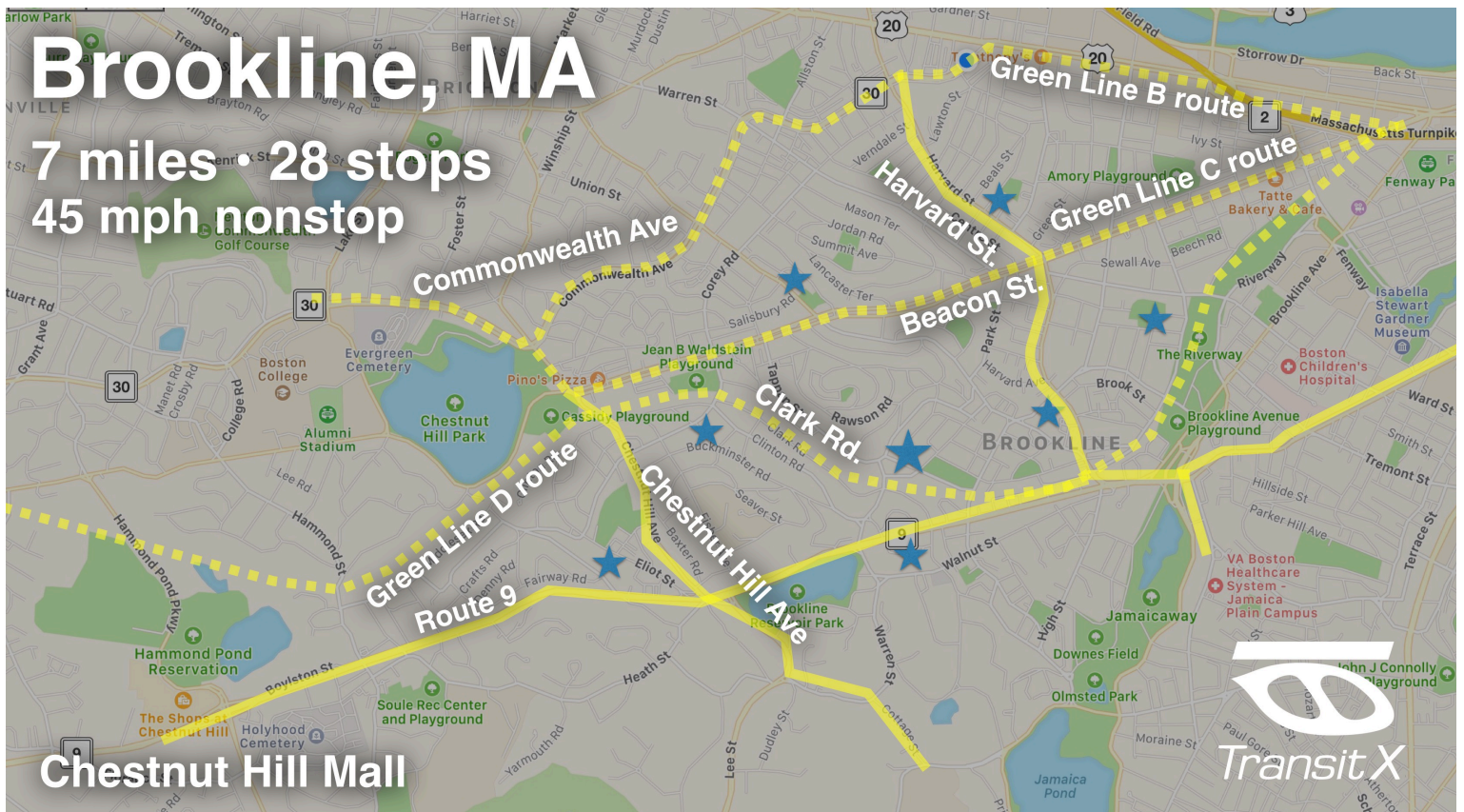


Transit X, LLC offers a concept proposal for

Brookline, MA

For a privately-funded mobility service that is

High capacity • Automated • Wait-free
Solar powered • Final destination • Resilient





Economics for Brookline, MA

Inputs are underlined.

Size of region	<u>17.6</u> km ²	6.8 sq miles
Number of people in region (residents + visitors)	<u>58,732</u>	
Travel distance per year by all people (residents and visitors)	851,614,000 km	528,952,795 mi
Percentage of all travel that occurs within the region	<u>30%</u>	
Region's area that is conveniently served by paved roads	<u>80%</u>	
Area to serve	14.08 km ²	5.4 sq miles
Desired coverage (percent of people convenient to Transit X)	<u>65%</u>	
Estimate #1 for network length based on desired coverage	<u>11</u> km	7.0 miles
Length of paved roads (non-highway) in region	<u>35</u> km	21.9 miles
Estimate #2 for network length based on paved roadways	<u>11</u> km	7.1 miles
Transit X network length	11 km	7.1 miles
Total fixed costs for Transit X	\$26,598,000	
...per person	\$453	
Mode share of travel on Transit X	55%	
Distance traveled on Transit X, per year	141,155,021 km	87,673,926 mi
...per day	386,726 km	240,203 mi
Daily number of people riding Transit X	32,449	
Distance per Transit X customer per day	12 km	7.4 mi
Average trip distance	4 km	2.5 miles
Cost for an average trip	\$1.12	
Distance traveled during peak hour	38,673 km	24,020 mi
Number of pods needed to meet peak demand	336 pods	
Pod shed parking volume	12 standard 53' trailers	
Cost of pods	\$1,680,000	
Cost of pods per person	\$29	
Milage per year per pod	420,104 km	too high
Revenue per pod per year	\$118,154	
Yearly payment to municipality for RoW	\$2,061,444	
System Economics		
Total system cost	\$28,278,000	
OPEX (O&M Costs)	\$1,979,460	
Equity	\$14,139,000	
Financed	\$14,139,000	
Revenue from fares	\$39,699,850	
EBITA (Profit)	\$37,720,390	
Debt service	\$1,838,070	
OPEX + Debt service	\$3,817,530	
Net income	\$35,882,320	
Operating Margin	95%	
One-time fixed costs (per person)	\$481	
Operating costs (per passenger-mile)	\$0.04	
Equivalent number of cars taken off the road	9,735 cars	
Yearly cost of cars removed (per person)	\$1,492	
Breakeven revenue distance per day	37,188 km	23,098 mi
Breakeven (people riding daily)	3,120 people	
IRR (Internal rate of return)	127%	
Payback period (profits pays back equity)	4 months	
Network capacity (number of pods)	341 pods	
Peak demand as % of maximum track capacity	99%	
Externalities (estimated)		
Reduction in CO2 emissions	16,726,870 kg CO ₂	
Public cost for maintaining roadways per year	\$1,795,200	
Reduced waste products per year	912,640 kg	
Travel time saved (hours per person per year)	211	
Cost savings per household per year over personal car ownership	\$1,474	
Increase in household income from time saving and car costs	10%	
Reported injuries avoided per year	88	
Lives saved per year	1	
Land freed from less street parking and parking lots	TBD	
Health care cost savings from lower pollution	TBD	
Municipal revenue from leasing rights-of-way	\$76,452	