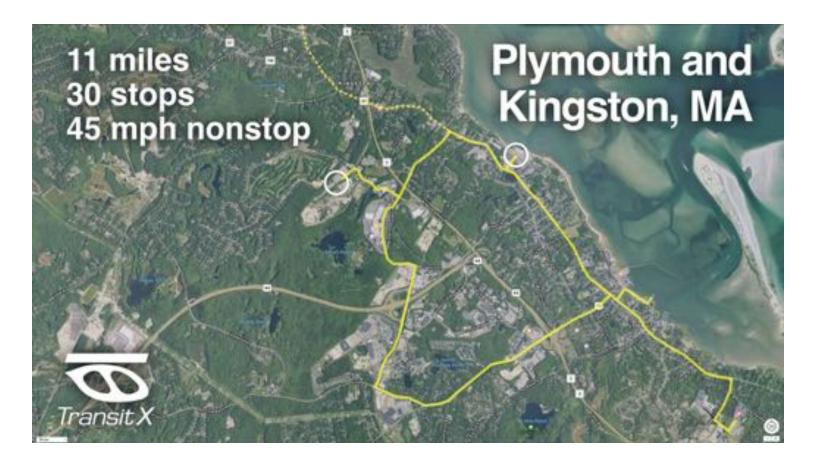




## Transit X, LLC offers a preliminary proposal for **Plymouth and Kingston, MA**

For a privately-funded shared mobility service that is

## High capacity · Automated · Wait-free Solar powered · Final destination · Resilient



## **E**conomics for Plymouth and Kingston, MA



Transit X.	Inputs are <u>underlined</u>		
Size of region Number of people in region (residents + visitors)	<u>298.1</u> 70.900	KITI-	115.0 sq miles
Travel distance per year by all people (residents and visitors)	1,028,050,000	km	638,540,373 mi
Percentage of all travel that occurs within the region	<u>60%</u>		
Road coverage (percent of area conveniently served by paved roads)	<u>50%</u>	1	
Service area size	149.05	km <sup>2</sup>	57.5 sq miles
Coverage (percent of people convenient to Transit X) Estimate #1 for network length based on desired coverage	<u>10%</u> 18	km	11.3 miles
Length of paved roads (non-highway) in region	373		231.4 miles
Estimate #2 for network length based on paved roadways		km	11.6 miles
Transit X network length	19	km	11.6 miles
Total fixed costs for Transit X	\$43,317,656		
per person	\$611		
Mode share of travel on Transit X	9%		
Distance traveled on Transit X, per year	52,430,550	km	32,565,559 mi
per day	143,645	km	89,221 mi
Daily number of people riding Transit X	6,027		
Distance per Transit X customer per day	24	km	14.8 mi
Average trip distance	8	km	4.9 miles
Cost for an average trip (at \$0.28 per km)	\$2.23		
Distance traveled during peak hour	14,365	km	8,922 mi
Number of pods needed to meet peak demand	125	nada	
Pod shed parking volume		standard 53' trailers	
Cost of pods	\$625,000	standard 53 trailers	
Cost of pods per person	\$9		
Yearly payment to municipality for RoW	\$861,815		
System Economics			
Total system cost	\$43,942,656		
OPEX (O&M) per year	\$3,075,986		
Equity	\$21,971,328		
Financed	\$21,971,328		
Revenue from fares	\$14,746,092		
EBITA (Profit)	\$11,670,106		
Debt service	\$2,856,273		
OPEX + Debt service	\$5,932,259		
Net income	\$8,813,834		
Operating Margin	79%		
One-time project costs (per person)	\$620		
Operating costs (per passenger-mile)	\$0.18		
Equivalent number of cars taken off the road	3,616	cars	
Yearly cost of cars removed (per person)	\$459		
Breakeven revenue distance per day	57,788	km	35,893 mi
			,000
Breakeven (people riding daily)	2,424	people	
IRR (Internal rate of return)	17%		
Payback period (profits pays back equity)	23	months	
Network capacity (number of pods)		pods	
Peak demand as % of maximum track capacity	23%	- 200	
Externalities (estimated)			
Reduction in CO2 emissions	6,213,020	kg CO <sub>2</sub>	
Public cost for maintaining roadways per year	\$19,003,875		
Reduced waste products per year	338,991	kg	
Travel time saved (hours per person per year)	423		
Cost savings per household per year over personal car ownership	\$2,947		
Increase in household income from time saving and car costs	20%		
Reported injuries avoided per year	33		
Lives saved per year			
	0		
Land freed from less street parking and parking lots	U TBD		
Land freed from less street parking and parking lots	TBD		