

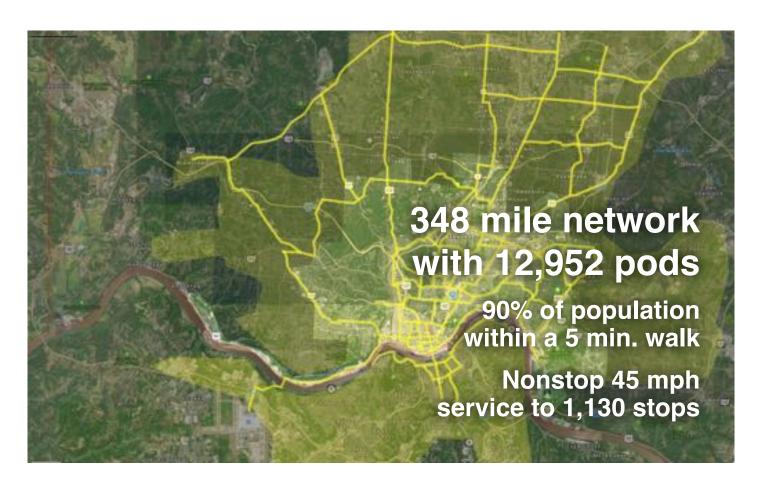


Transit X, LLC presents a preliminary proposal for a privately-funded fleet of fully-autonomous shared electric vehicle network for

# greater Cincinnati

High capacity • High speed • Nonstop • 24/7 Solar powered • Wait-free • Door-to-door • Resilient

26-page companion Transit X Handbook is available at transitx.com/transitxhandbook.pdf







Transit X proposes to build and operate a privately-financed pod network to carry passengers and freight for greater Cincinnati that makes the Transit X service convenient to 90% of the population.

Transit X efficiently services both suburbs and cities and provides for a higher quality of life. See transitx.com for more details. This 3-minute video (transitx.com/video) describes our innovative solution.

## **Major benefits**

- Reduce congestion
- · Provide parking relief
- · Reduce pollution
- Improve safety

The Transit X Handbook (<u>transitx.com/</u> <u>transitxhandbook.pdf</u>) answers many questions about our service, the company, our technology, and the way we address:



congestion, parking, road safety, pedestrian safety, ADA compliance, sustainability, fares, solar+storage, construction, aesthetics, operations, economic development, quality of service, security, station footprint, equitability, carbon footprint, transit integration, resiliency, reliability, rights-of-way, and open space.

## Congestion, parking, pollution, and safety

Most regions suffer from traffic congestion, limited parking, air pollution, and unsafe roads. Potential solutions are costly, but Transit X can solve these challenges without public funding. Transit X can integrate into the built environment, providing both short term relief and a long term solution.

## No public funding

Transit X does not require public funding because our business model appeals to investment banks and private equity firms that provide our project financing. Most of our infrastructure is factory-built, so that installation is fast and not disruptive. We have reduced or eliminated many costs of transportation infrastructure including materials, land, construction, fuel, debt service, and driver costs. Our approach to significantly reducing costs makes private financing possible.

## Proven technology

Our team and partners have built fully automated transit systems that are now in operation — Morgantown, WV, BART, and several others in Europe. Transit X may look unique, but the underlying design is very similar to systems that have been operating for 40 years with an exemplary safety record. An in-depth (1000+hours) technical assessment and feasibility analysis has been completed by

Altran. Altran is a global engineering firm with extensive expertise in automated transit systems. The first pilots of Transit X will be deployed by the end of 2018.

Before any groundbreaking, the system will be safety-certified and fully insured.

## **Quality Service**

Transit X provides on-demand, last-mile service that is superior to cars or buses. A service level agreement will guarantee high levels of availability and reliability. Our use of small vehicles (pods) makes this possible. By reducing car use, Transit X creates walkable and bike-friendly neighborhoods.

## Less pollution: Air, Sound, Light, Visual, Water

Transit X offers a much higher quality of life by eliminating many forms of pollution. Pods are quiet and have no emissions. Pods offer less visual impact than the existing roads and vehicles, and utility lines can be hidden within the track. At night, there is no light pollution from headlights or taillights. Water pollution from road runoff is significantly reduced.

#### Sustainable

Transit X runs on 100% sustainable energy and has a zero carbon footprint. The energy generated from solar panels on the track and stored within the poles is sufficient in most cases, but sustainable power contracts may used to buy and sell power to the grid. Transit X makes it possible to reduce the amount of impervious surfaces and increase green space by reducing the need for parking and roads.

## **More Transit & Fewer Cars**

Transit X provides the convenience and privacy that people value in cars, yet without the negative impacts of personal cars. Transit X combines the best of mass transit and personal transportation modes which will lead to higher use of mass transit and less use of personal vehicles.

## **De-risking Projects**

Transit X is working with large, established firms to provide fixed-price contracts for the engineering, certification, construction, and operations of a Transit X system. Theses partnerships enable Transit X to de-risk all of the major elements of the project, and provide performance guarantees.

We would work with regional urban planning and construction firms who are familiar with local codes and requirements.

#### **Jobs and Workforce Development**

Many jobs are created to build a new transportation infrastructure and transition away from roads. Municipalities that first embrace Transit X will be offered the opportunity to have Transit X manufacturing and assembly jobs in their area. The vast majority of the construction jobs will be locally sourced. Preferential hiring would be given to those workers potentially displaced by the transition to automated vehicles.

#### **Revenue Generator**

Not only does Transit X not require public financing, but the local municipality and right-of-ways owners receive 5% of gross revenue, which would be US\$94 million per year average over the first 10 years. For specifics, please see the "Taxes and Fees" section of this proposal.

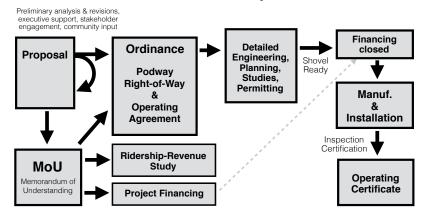
## **Short and Long Term Solution**

A project could be operational within 24 months from the start of a project. Transit X offers a rapidly-deployable solution that provides long term benefits. We would form a local company to build, operate, and maintain the network. At least 75% of the profits would be invested back into the region.

## **Moving Forward**

The diagram shows our general process for working with a municipality or rights-of-way owner. We would refine a proposal to meet your needs, then ask for a letter stating that you would like to move forward with a proposal that includes air rights and and an operating agreement. Example documents and a sample project schedule can be viewed at transitx.com/process

## **Process for municipalities**



## **Evaluation**

Please review our preliminary proposal, and then ask us any questions. We would be happy to provide further information, address specific concerns, or meet with specific people or groups. Any routes or coverage areas shown on the map are only preliminary suggestions and actual routes would be determined based on needs, rights-of-ways, utility corridors, location of trees, and many other factors.

We expect this proposal to be reviewed by one or more committees or working groups. Familiar transportation options, such as buses, light rail, subways, and ride-sharing services (including autonomous vehicles) may have already been considered. Very few options offer the convenience of cars with at least the capacity of buses, and most, if not all, require public funding and subsidies.

Private cars have a dominant mode share because people like the privacy and convenience of a car — despite the significant risks and negative impact associated with them. People won't give up their cars unless the alternative is both better and cheaper. That is what Transit X can provide.

We hope you agree that this proposal offers a way to address your challenges in both the short and long term, providing an option that is better and lower risk than any alternative — including continuing with the status quo.

Whatever process you use to evaluate this proposal, Transit X is open to working with you on refining this proposal to meet your needs. We hope you will conclude that moving forward with Transit X is an excellent opportunity to meet your current and future challenges.

Once we agree on how to move forward, we would ask for a letter (example at <u>transitx.com/process/loi.html</u>) stating that you intend to pass an ordinance for use of air rights along with a service agreement.

The buildout of the network would be rolled out in phases, where a first phase could be a 15 to 30 km pilot.

#### **Other Resources**

The resources below provide more general information:

- Transit X Handbook (transitx.com/transitxhandbook.pdf)
- Video overview (transitx.com/video)
- · Letters of Project Financing, Due Diligence, Contracts (transitx.com/letters.pdf)
- Sample Ordinance (transitx.com/process/ordinance.html)
- Service Agreement (<u>transitx.com/process/service\_agreement.html</u>)
- General Q & A (transitx.com/QandA.html)

#### Addendum

The remaining pages of this proposal provide more details specific to this project:

- Financial Project Summary with Pro Forma, pages 6-7
- Project Overview, Impact, and Assumptions, pages 8-9
- Taxes and Fees with Footprint, pages 10-11
- Fair Fare Policy, page 12

We look forward to working with you to improve the quality of life in greater Cincinnati through better transportation.

Sincerely,

Mike Stanley CEO, Transit X

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Mail: 1127 Commonwealth Ave #30, Boston, MA 02134 USA

## **Project Summary**

	Solar-powered automated transportation network infrastructure
Project type	Project financing of Green Infrastructure
Project cost	\$1.81 billion

Structure	Equity and Debt
Debt term	10 years @ 5%
Equity terms	35% projected IRR through 7 yrs Using a waterfall profit distribution of: 1. 90/10 split until Return of Capital, 2. then 50/50 until Target IRR met 3. then 10/90 onwards
Benefits to society and environment	Extremely high

## **Financials**

(US Dollars in millions)	Year 1	Total Years 1-10
Gross Revenues	1,114	18,707
Taxes and fees	56	935

## ESG (Environmental, Social, Governance) Benefits

Clean energy	yes	Resiliency	yes
Energy security	yes	Sustainable	yes
Emissions-free	yes	Equitable	yes
GHG-free	yes	Recyclable mat.	yes
Lowers pollution	yes	Affordable housing	yes
Clean water	yes	Improved Health	yes
Improved Safety	yes	Economic Devel.	yes
Fix Infrastructure	yes	Food security	yes



#### **About Transit X**

Transit X designs, builds, and operates solar-electric shared mobility infrastructure to supplant buses, trains, cars, and trucks. Transit X offers its service to municipalities and commercial developers. A demonstration system will be ready in early 2018, and pilots will begin by 2019. Transit X is a privately held company founded in 2015, based in Boston, Mass, and intends to be certified as a public benefit company.

#### Status

	Now	Prior to close
Project financing	Letter of Interest	Yes
Proven concept	Yes	Yes
Demonstration system	In development	Yes
Revenue study		Yes
Environmental study		Yes
Air rights	Resolution	Ordinance
Permits	Known process	Yes
Safety certification	Guar. fixed price	Yes
Construction (BOP):	Letter of intent	Guar. fixed price
Operations & Maint:	Letter of intent	Guar. fixed price
Project Engineering	TBD	25% design

General information available at <u>transitx.com</u>. Detailed information and references can be provided under appropriate non-disclosure/non-compete/non-circumvent agreements. Contact: Mike Stanley, CEO, Transit X, <u>mike@transitx.com</u>, 508-596-7024





## **Model Inputs and Assumptions**

562	Route length (km)
4,317	Starting number of pods
<u>15%</u>	Projected revenue growth
\$1,805,720,000	Project Cost
<u>70%</u>	% Debt financed
\$1,264,004,000	Debt
\$541,716,000	Equity
\$108,343,200	Capital return per year
15%	Target IRR
\$81,257,400	Target return per year
\$163,694,301	Debt payment (per year)

The revenue estimates are conservative because they only show revenue from passenger fares, which may be less than 30% of total revenue. A substantial revenue stream can be expected from freight, advertising, developer fees, private leasing, private branch & stops, subsidies, municipal contracts, carbon credits, water delivery, conduit leasing, 3rd-party services, mail & package delivery, para-transit, private shuttles, sale of surplus power to grid, and naming rights.

Travel per year per pod (km)	168,197
Revenue per vehicle-km (US\$)	1.53
Cost per pod	\$5,000
OPEX as % of project cost	5%
Debt Interest rate	5%
Debt term (yrs)	10
Years to return equity capital	<u>5</u>
Profit share when below capital return	90%
Profit share when below Target IRR	<u>50%</u>
Profit share when above Target IRR	10%

#### **Pro Forma**

	Years	1	2	3	4	5	6	7	8	9	10	11	12
Revenue		0	1,114,461,049	1,281,630,207	1,473,874,738	1,694,955,948	1,949,199,341	2,241,579,242	2,577,816,128	2,964,488,547	3,409,161,829	3,920,536,104	4,508,616,519
5% RoW÷tax÷fee		0%	55,723,052	64,081,510	73,693,737	84,747,797	97,459,967	112,078,962	128,890,806	148,224,427	170,458,091	196,026,805	225,430,826
OPEX		0	90,286,000	103,828,900	119,403,235	13							
Debt service		0	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	\$163,694,301	0

Investor share %		24%	22%	20%	19%	17%	12%	11%	11%	11%	11%	11%
Investor IRR	0%	18%	21%	24%	28%	32%	41%	47%	53%	61%	69%	82%
Investor balance	\$(541,716,0 \$	(336,490,405) \$	(115,902,185) \$	122,353,056 \$	380,925,368 \$	662,862,315 \$	884,994,029 \$	1,138,025,471 \$	1,426,591,601 \$	1,756,022,620 \$	2,132,448,262 \$	2,579,287,151
Investor IRR to date	loss	-62%	-14%	11%	24%	32%	35%	38%	40%	41%	42%	43%

#### **Important Notices**

The information contained in this document is not an offer to sell or a solicitation to buy any security. These materials and documents and information from which they are derived or which are referred to by or accessible from them may contain forward looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 2E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward looking statements and are subject to risks and uncertainties. Forward looking statements generally can be identified by the use of forward looking terminology such as "may," "will," "expect," "intend," "estimate," "project," "anticipate," "believe" or "plan" or the negative thereof or variations thereon or similar terminology. Although Transit X believes that the expectations reflected in such forward looking statements are reasonable, it can give no assurance that such expectations will prove to be correct. All forward looking statements speak only as of the date made. Except as required by law, Transit X undertakes no obligation to update any forward looking statement to reflect events or circumstances after the date on which it is made or to reflect the occurrence of anticipated or unanticipated events or circumstances. These materials and documents and information from which they are derived or which are referred to by or accessible from them represent Transit X's best estimate as to the allocation of the funding proceeds based upon its present business plan and financial condition. The costs and expenses to be incurred in pursuing the Company's business plan cannot be predicted with certainty. There can be no assurance that unforeseen events will not occur or that the Company's business plan will be achieved or that it will not be changed, and it is possible that the funding proceeds may be applied in a manner other than that described herein.





	516 A.			
	Land area of region	637	km²	245.7 sq miles
2	Number of people in region (residents + visitors)	500,000		
3	Travel distance per year by all people (residents and visitors)	5,000,000,000	km	3,105,590,062 miles
	Percentage of all travel that occurs within the region	70%		
	Road coverage (percent of area conveniently served by paved roads)	80%		
	Service area size	509.6	km <sup>2</sup>	196.6 sq miles
	Coverage: percent of people convenient (5 min walk) to Transit X	90%		
	Estimate #1 for network length based on desired coverage	562	km	348.8 miles
	Length of paved roads in region	2,059	km	1,279.0 miles
)	Estimate #2 for network length based on length of public roadways	463	km	287.8 miles
I	Transit X network length	562	km	348.8 miles
2	Route density ratio (route length to service area)	1.10		
	Number of stops	1,130		
	Triple-speed route length		km	0 miles
	Water crossing route length		km	0 miles
	Total costs for project not including pods	\$1,740,960,000	NIII	
,	per person	\$3,482		
	Mode share of travel on Transit X	85%		4 047 000 007 "
	Distance traveled on Transit X, per year	2,975,000,000		1,847,826,087 mile
)	per day	8,150,685	km	5,062,537 miles
	Daily potential energy generation with standard panels on tracks	4,313	MWh	
	Sustainable energy use per day	166	MWh	4% of max capacity
	Energy storage capital cost for 1 day(s) of supply at \$800 per kWh	\$132,632,554		
	Size (rated power) of solar installation	38,544	KW	
	Cost to generate sustainable energy (\$3,500 per kWh)	\$134,902,936	rvv	
			nou dou	9% of OPEX
	Cost of sustainable energy gen&storage at \$0.15 per kWh (If purchased)		per day	9% 01 OFEX
	Daily number of people riding Transit X		customers	
	Distance per Transit X customer per day		km	11.9 miles
	Average distance per trip (with 3 trips per day)	6	km	4.0 miles
	Passenger fare for shared 6 km trip (at US\$0.27 per km)		for average trip	
	Passenger distance traveled during peak hour	1,630,137		1,012,507 miles
				, ,
2	Breakeven	110,199	customers per day	
3			(24% of people cor	venient to Transit X)
ŀ	Number of pods needed to meet peak demand	12,952	pods	
;	Number of people per pod		and 33 customer	s per pod
	Distance per pod per year	168,197		o po. pou
,	Pod garage volume [unit: cubic shipping containers]		SC <sup>3</sup>	
	Cost of pods		is \$130 per perso	
)	(optional) Capital cost of energy generation and storage	\$267,535,490	is \$535 per perso	on
Pro	oject finances			
>		\$1,805,720,000		
2	Total project cost. Does not include energy generation and storage.  Equity	\$541,716,000		
	Equity	\$1,264,004,000		
		Ψ1,204,004,000		
	1 manood			
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<b>1</b> 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5				
; ;	Debt service	\$189,600,600		
1 5 6 7	Debt service Fees and taxes	\$189,600,600 \$79,962,826		
1 5 7 8	Debt service	\$189,600,600		
1 5 6 7 7 3 8	Debt service Fees and taxes	\$189,600,600 \$79,962,826		
3	Debt service Fees and taxes OPEX + Debt service + Tax + Fees	\$189,600,600 \$79,962,826 \$368.926.467		
1 5 6 7 3 3 9 9 9	Debt service Fees and taxes OPEX + Debt service + Tax + Fees Project costs — per person	\$189,600,600 \$79,962,826 \$368.926.467 \$3,611		
4 5 6 7 8 9 0 1 1 2 3	Debt service Fees and taxes OPEX + Debt service + Tax + Fees  Project costs — per person Number of motor vehicles displaced	\$189,600,600 \$79,962,826 \$368.926.467 \$3,611 <b>297,500</b>	motor vehicles	
3 4 5 6 6 7 8 8 9 9 0 1 1 2 2 3 3 4	Debt service Fees and taxes OPEX + Debt service + Tax + Fees Project costs — per person	\$189,600,600 \$79,962,826 \$368.926.467 \$3,611	motor vehicles	
4 5 6 6 7 7 8 9 9 0 1 1 2 2 3 3 4	Debt service Fees and taxes OPEX + Debt service + Tax + Fees  Project costs — per person Number of motor vehicles displaced	\$189,600,600 \$79,962,826 \$368.926.467 \$3,611 <b>297,500</b>	motor vehicles	
4 5 6 7 8 9 0 1 1 2 3	Debt service Fees and taxes OPEX + Debt service + Tax + Fees  Project costs — per person Number of motor vehicles displaced Yearly cost of cars displaced — per person	\$189,600,600 \$79,962,826 \$368.926.467 \$3,611 <b>297,500</b> \$5,355		1,312,672 miles



## Impact of proposed network

1	Reduction in CO2 emissions (metric tons of CO2-eq)	293,781
2	Est. cost to maintain 2,059 km roadway	\$105,019,200
3	Reduced waste products per year	47,674 metric tons
4	Travel time saved per year	340 hrs/person
5	Cost savings per capita per year from reduced car ownership	\$992
6	Increase in household income from time saving and car costs	10%
7	Reported injuries avoided per year	1,845
8	Lives saved per year	18
9	Land freed from parking (1,691 acres)	6,842,500 m <sup>2</sup>
10	and its commercial value	\$6,842,500 per year
11	Health care savings	High
12	Heat island mitigation from replacing asphalt with green space	1 to 3 °C
13	Change in global temperature	TBD °C
14	Decrease in sea level	TBD mm

## **Model Inputs**

	•			
1	Ratio of road length to track length	4		
2	Convenient walk time to Transit X route	5	min.	
3	Walking speed	4.9	km/h	3 mph
4	Width of convenient swath along track	0.82	km	1 miles
5	Fixed cost per km. Solar+storage not included.	\$3,100,000		
6	Fixed cost per km	\$3,100,000		
7	Water crossing: additional cost per km	\$9,300,000		
8	Triple-speed: additional cost per km	\$6,200,000		
9	Average distance traveled per person per year (for trips under 1600 km)	10,000	km	6,211 miles
10	Average distance per day per person	27	km	
11	Mode share % of people convenient to Transit X	85%	at 5 min walk.	
12	Percentage of daily demand during peak hour	20%		
13	Maximum capacity per track	23,598	pph	
14	Average dwell time during peak hour		seconds	
15	% of pods traveling on route with highest demand	18%		
16	Average speed of pod	72	km/h	45 mph
17	Average # of trips for people riding Transit X		per day	
18	Average occupancy per pod during peak hours	2.2	people	
19	Average occupancy per pod	1.4		
20	Maximum occupancy per pod	5	people	
21	Empty pods: Percentage non-revenue	25%		
22	Cost per pod	\$5,000		
23	Worldwide Median Income per Household (US\$)	10,000		
24	Median household income (US\$)	55,000		
25	People per Household	2.3		
26	Base fare per km	\$0.48		
27	(per mile)	\$0.77		
28	O&M as % of project cost	5%		
29	Percentage debt financed	70%		
30	Length of loan/debt		years	
31	Interest rate for debt	5%		
32	kg CO2 emissions per liter of gasoline	2.37		
33	Monetary value of 1 hour personal time (USD)	13.75		
34	Eat. roadway maintenance per year per km	\$51,000	m2	
35	Area of one parking lot space	23	m²	247 sf
36	Commercial income of land	\$1	per m <sup>2</sup>	
37	Distance from roadway that is convenient	0.25	km	
38	Stops per km	2.0		
39	Solar panel area per meter of track	2.0		
40	Cost of sustainable energy and storage		per kWh	
41	Global Horizontal Irradiance (GHI)		kWh/m²/day	
42	Cost to generate sustainable energy		per kW	
43	Energy storage cost	\$800	per kWh	

## Pod & Car

	Pod	Car
Service life (years)	20	12
Full cost of vehicle per year	\$200	\$9,000
Public cost to maintain infrastructure (per km)	\$0	\$100,000
Energy Efficiency in MPGe	1188	24
Energy Efficiency in liters/100km	0.20	9.8
Energy used (Watt-hours/km)	28	1375
mass of CO2 per vehicle per km (kg)	0	0.09875
Vehicle mass (kg)	45	1950
Average speed of travel (km/h)	72	16
Typical travel time (in minutes) for 6 km trip	5	24
Fare/cost per km	\$0.48	\$0.62
Number of deaths per 100M passenger-km	0.00001	1
Number of injuries per 100M passenger-km	0.0006	62
Volume to park (cubic meters)	5.7	70.9
Volume to park (cubic meters)	5.7	70.9

## **Model Inputs (cont)**

45	Currency name		
46	Equal to US\$1	1	
47	Sustainable energy/electricity generation & storage as	OPEX	
48	Solar production ratio	1.57	



Energy storage capacity





4% of gross revenue proportioned to air rights owners and a municipal fee/tax of 1% of gross revenue. Both air rights and fee/tax have a minimum payment based on the Footprint and the Transit X Commercial Rate (TXCR).

	Note: Inputs have box outline	
Municipal rates		
Total commercial land area	3,000,000 m <sup>2</sup>	32,289,000 sq ft. (741.3 acres)
Total commercial income to muni	\$3,000,000	
TXCR (Transit X Commercial Rate)	\$1.00 per m <sup>2</sup>	
TXCR is the yearly tax rate per land area. Calculation: total land area of commercial properties in the municipality, divided by all the municipal income generated by those properties. The TXCR is used to calculate the minimum tax/fee.		
Project Revenue		
Length of Transit X route	562 km	348 miles
Estimated gross revenue per unit length	\$2,847,679 per km	
Municipal Tax	% of gross revenue with minimum.	
1% gross revenue	\$28,477 per route-km	
Minimum per year	\$1,640 per route-km	\$2,646 per route-mile
Air Rights Leasing Fee	% of gross revenue with minimum.	Proportioned based on length.
% of route on municipal land	90%	
4% gross revenue	\$113,907 per route-km	
Minimum per year	\$1,640 per route-km	\$2,646 per route-mile
Taxes and Fees		
Paid to Municipality	<b>\$73,565,800</b> per year	
with minimum	\$1,750,395	
Paid to Private land owners	\$6,397,026	

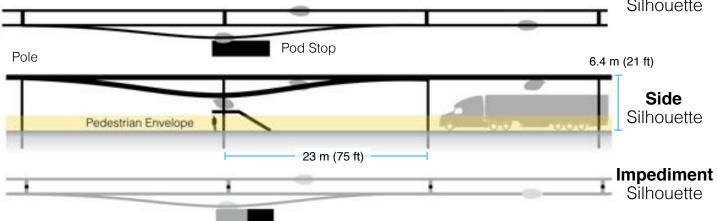
\$92,126

...with minimum

## Footprint calculations for minimum fee

## Yearly fees and taxes

**Top** Silhouette



Note: Diagrams for illustrative purposes.

Footprint Calculations	Metric	Imperial
Track width	<u>0.41</u> m	16.1 inches
Track height	<u>0.61</u> m	24.0 inches
Pole diameter	<u>0.3</u> m	11.8 inches
Pole cross section	0.07 m <sup>2</sup>	0.8 sf
Stop landing area	<u>1</u> m <sup>2</sup>	10.8 sf
width	<u>1</u> m	39.4 inches
length	<u>1</u> m	39.4 inches
Ramp length	<u>21</u> m	68.9 feet
Pole span	<u>23</u> m	75.5 feet
Number of poles per unit length	43.5 poles per km	70.0 poles per mile
Pole height	<u>6</u> m	19.7 feet
Single track	1126.7 m <sup>2</sup>	12124 sf
Area of Side Silhouette	688.3 m <sup>2</sup>	7406 sf
Area of Top Silhouette	423.1 m <sup>2</sup>	4553 sf
Impediment Area (adjusted)	15.4 m <sup>2</sup>	165 sf
Dual track	1536.7 m <sup>2</sup>	16535 sf
Area of Side Silhouette	688.3 m <sup>2</sup>	7406 sf
Area of Top Silhouette	833.1 m <sup>2</sup>	8964 sf
Impediment Area (adjusted)	15.4 m <sup>2</sup>	165 sf
Stop	51.8 m <sup>2</sup>	558 sf
Area of Side Silhouette	25.6 m <sup>2</sup>	276 sf
Area of Top Silhouette	21.2 m <sup>2</sup>	228 sf
Impediment Area (adjusted)	5.0 m <sup>2</sup>	54 sf
Stops	2 stops per km	3.2 stops per mile
% of dual track	100%	3.2 Stops per fille
Average area per unit length	1,640 m² per route-km	28,469 sf per route-mile
Contract values		
% gross revenue for muni tax/fee	1%	
% gross revenue for air rights (RoW)	4%	
% gross revenue for RoW+tax+fee	5%	
Impediment Factor	5	

## **Fair Fares**



Fares will be similar to existing mass transit, and several times less than taxis or ride-sharing services. Transit X Fair Fare is a universal passenger fare model that applies to all regions and all times. Fares are proportional to the median income of the area and inversely proportional to per capita use, so the more people that use Transit X, the lower the base fare. Market-rate fares are offset by Half-price fares. There are no pre-set escalations.

		0% of use	50% of use	+25% Income	60% of use	50% market fares
Median household income	US\$	55,000	\$55,000	\$68,750	\$55,000	\$55,000
Nominal fare	US\$	0.48	\$0.48	\$0.60	\$0.48	\$0.48
% of total travel on Transit X		0%	50%	50%	60%	90%
Discount for usage	US\$	0.00	\$0.12	\$0.15	\$0.14	\$0.22
Base Fare (US\$)	per km	0.48	0.36	0.45	0.34	0.26
per passenç	ger-mile US\$	0.77	0.58	0.72	0.54	0.42
for shared pod (20	0% discount)	0.62	0.46	0.58	0.43	0.34
for shared seating (36	0% discount)	0.54	0.40	0.51	0.38	0.30
% Fares at Market rate		50%	20%	20%	20%	50%
% Fares at Base rate		20%	80%	80%	80%	20%
% Fares at Half Base rate		30%	0%	0%	0%	30%
Estimated average fare US\$	per km	1.12	0.57	0.72	0.54	0.62

#### Price comparison with common travel modes (in Boston, USA)

	Mode »	Bus	Commuter Rail	Subway	Personal Car	Taxi / TNC's
Average distance (km)		5	18	8	8	5
Price per trip	US\$	\$1.85	\$8.00	\$2.50	\$6.00	\$12.00
Typical price per km	US\$	\$0.37	\$0.44	\$0.31	\$0.75	\$2.40

## **Base Inputs**

Travel distance per household per year (trips under 1600 km)	23,000 km
% of median household income for 23,000 km transportation	20%
Fare Discount when Transit X travel per household is 23,000 km per year	50%
Minimum median household income. Fares are based on this minimum.	\$5,000 USD
Discount for shared pod	20%
Discount for shared bench seat	30%
Discount for Half Base rate	50%
Projected multiple of Market rate vs.Base rate	4
% increase in median income for scenario	25%
Percent of Total Travel Per Capita on Transit X	60%