



StreetsLA Sidewalk and Transit Amenities Program ("STAP") FINANCIAL MODEL

VERSION

4.2

UPDATED

8/6/21



SCENARIOS

PROJECT OPTIONS

Finance Considerations		Capital Considerations		OpEx Considerations	
City Revenue Share	60.5%	% of Pillars to install	0%	Public WiFi available	None
Annual MAG to City (with CPI)	10,000,000	# of Icon shelters	50		
\$6m one-time Payment	Yes	# of Panels	50		
Capitalize Energy	No	ePaper City-Transit screens	2		
Capitalize Licensing	No	Inductive phone chargers	3		
Project Reinvestment City Rev %	15%	LoRaWAN network	Yes		
Vertical Bridge partnership	Yes	Solar capacity	High		
Rollout Schedule	Optimized				

Rollout Schedules	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Aggressive	1,000	1,000	1,000							
Optimized	770	830	800	600						
Delayed	616	664	640	480	300	300				

EXECUTIVE SUMMARY

Project Revenues	% of Rev	Totals	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Ad Revenues	99.4%	634,983,120		26,290,079	50,196,822	58,423,734	62,057,486	66,599,910	70,540,743	72,014,704	74,119,208	76,264,588	78,475,846
Other Revenues	0.6%	3,815,666		2,560,000	123,600	127,308	131,127	135,061	139,113	143,286	147,585	152,012	156,573
Total Project Revenues	100.0%	638,798,785		28,850,079	50,320,422	58,551,042	62,188,614	66,734,971	70,679,855	72,157,990	74,266,793	76,416,600	78,632,418
City Revenues													
MAG	17.3%	110,638,793		6,000,000	10,300,000	10,609,000	10,927,270	11,255,088	11,592,741	11,940,523	12,298,739	12,667,701	13,047,732
Revenue Share	43.2%	275,834,472		11,454,298	20,143,855	24,814,381	26,696,841	29,119,569	31,168,572	31,715,061	32,632,671	33,564,342	34,524,881
Project Options	0.0%	-		0	0	0	0	0	0	0	0	0	0
Total City Revenues	60.5%	386,473,265		17,454,298	30,443,855	35,423,381	37,624,111	40,374,657	42,761,313	43,655,584	44,931,410	46,232,043	47,572,613
Annual Expenses													
Operations Expenses	17.5%	111,508,931		5,897,863	8,352,264	9,853,918	11,412,871	11,748,176	12,100,621	12,463,640	12,837,549	13,222,675	13,619,356
Ad Commissions and Fees	22.0%	140,816,589		5,497,919	11,524,303	13,273,744	13,151,631	14,612,138	15,817,922	16,038,766	16,497,834	16,961,882	17,440,450
Total Annual Expenses	39.5%	252,325,520		11,395,781	19,876,567	23,127,662	24,564,502	26,360,314	27,918,543	28,502,406	29,335,383	30,184,557	31,059,805
Capex													
Design-Build Capex	34.1%	217,682,013		82,965,698	42,475,091	41,649,637	32,543,947	50,000	16,566,505	1,431,136	-	-	-
Maintenance Capex	3.0%	19,049,494		788,702	1,505,905	1,752,712	1,861,725	1,997,997	2,116,222	2,160,441	2,223,576	2,287,938	2,354,275
Energy Capex	0.0%	-		-	-	-	-	-	-	-	-	-	-
Systems Integration Capex	0.0%	-		-	-	-	-	-	-	-	-	-	-
Total Capex	37.1%	236,731,507		83,754,400	43,980,996	43,402,349	34,405,672	2,047,997	18,682,727	3,591,577	2,223,576	2,287,938	2,354,275
City Disbursement													
Project Reinvestment	9.1%	57,970,990		2,618,145	4,566,578	5,313,507	5,643,617	6,056,199	6,414,197	6,548,338	6,739,711	6,934,806	7,135,892
General Fund / Council Districts	51.4%	328,502,275		14,836,153	25,877,277	30,109,873	31,980,495	34,318,459	36,347,116	37,107,246	38,191,698	39,297,237	40,436,721
Total Disbursements	60.5%	386,473,265		17,454,298	30,443,855	35,423,381	37,624,111	40,374,657	42,761,313	43,655,584	44,931,410	46,232,043	47,572,613

Systems Integration Capex

Total Capex	TRUE	236,731,507	83,754,400	43,980,996	43,402,349	34,405,672	2,047,997	18,682,727	3,591,577	2,223,576	2,287,938	2,354,275
--------------------	-------------	-------------	------------	------------	------------	------------	-----------	------------	-----------	-----------	-----------	-----------

ASSUMPTIONS

GLOBAL

FY0 end date	31-Dec-2021	
Contract year 1	2022	
Contract tenor	10	years
CPI / PPI Inflation	3%	

Notes: 1. CPI assumed 1.000 in 2021 and 2022, then growing at inflation thereafter

Financing	City	Partner
Loan Interest Rate	2%	7%
Years to Pay off	10	10
% Contribution to Financing	100%	0%
Financing Capital	236,731,507	

Agreement Fee	MAG
Agreement Fee	6,000,000
Bonus Revenue (as % of Total Rev) in lieu of Agreement Fee	1%
Baseline MAG	10,000,000

INVENTORY

Existing Sites	%	Qty
% of existing shelters w/viable grid access	90.0%	1,696
# of new shelter locations	3,000	
Legacy Shelters	1,884	as per the RFP
Legacy Kiosks	203	as per the RFP

Legacy / Refurbished Shelters	
All Legacy Kiosks removed by	2025
All Legacy Shelters removed by	2025
Legacy Shelter Salvage Rate	30.0%
Final year of Removals Salvage Rate	15.0%

Location Distribution by Advertising	Total	Shelters	Non-Shelters
Super Premium location	2.5%	75	54
Premium location	3.3%	100	100
High-Level location	19.5%	584	185
Standard location	74.7%	2241	-
Non-viable location (Pillars)	0%	0	-
	100.0%	3,000	339

	Panels	Kiosks*	Lockers	Docks
		38	5	11
	50	25	7	18
	0	89	32	64
	0	-	-	-
	50	152	44	93

Max % Shelter Locations w/	Max Icons	Max Panels	Non-Shelters
Super Premium location			71%
Premium location	50	50	100%

	Panels	Kiosks*	Lockers	Docks
	0.0%	50.0%	6.7%	14.7%
	50.0%	25.0%	7.0%	18.0%

ASSUMPTIONS

	34,570	35,100	35,693	36,317	38,376	39,144	39,926	40,725	41,539	42,370
High-Quality- Base digital	500	500	500	500	500	500	513	525	538	552
	41.4%	32.3%	36.9%	39.7%	41.6%	46.2%	46.2%	46.2%	46.2%	46.2%
	16,146	12,597	14,399	15,483	16,205	17,999	18,448	18,910	19,382	19,867
Standard - Eco:grid static	500	500	500	500	500	500	515	530	546	563
	75.0%	50.0%	46.3%	35.0%	37.5%	40.0%	40.0%	40.0%	40.0%	40.0%
	4,875	3,250	3,010	2,275	2,438	2,600	2,678	2,758	2,841	2,926
Standard - Eco:solar static	500	500	500	500	500	500	515	530	546	563
	75.0%	50.0%	46.3%	35.0%	37.5%	40.0%	40.0%	40.0%	40.0%	40.0%
	4,875	3,250	3,010	2,275	2,438	2,600	2,678	2,758	2,841	2,926

CAPEX

Maintenance Capex

Maintenance capex %

3.0%

Replacement Digital Products

Replacement Digital Products after 5 years

	Allure x2	AZO x1	Media Player
	\$14,673	13,053	1,948

Shelter Unit Cost per Type	Icon	Base	Eco:grid	Eco:solar	Pillar	Shelter	Additional Shelter
Shelter structure	26,225	15,878	18,122	18,122	13,551	6,077	Shelter
Screen / Ad box	-	26,795	-	-	-	120	Design
Media Player	-	1,948	-	-	-	300	Permit Drawings
ePaper City-Transit screens	2,359	2,359	2,359	2,359	1,658	50	Permits
ePaper - 2 screen system	2,359	2,359	2,359	2,359	1,658	-	
ePaper - 1 screen system	-	-	-	-	-	-	
Cellular (modem, license, config, ancillary)	1,040	1,040	1,040	1,040	1,040	5,000	Site Work
LoRaWAN router	69	69	69	69	69	850	Installation
Smart City elements	1,451	1,451	1,451	1,451	219	-	
Inductive charger - 3	821	-	-	-	-	-	
Inductive charger - 2	-	-	-	-	-	-	
Inductive charger - 1	-	-	-	-	-	-	
Solar equipment	-	-	-	6,121	-	-	
Solar equipment - High	-	-	-	6,121	510 Watt	510 Watt	
Solar equipment - High/Mid	-	-	-	-	510/340 Watt	510/340 Watt	
Solar equipment - Mid	-	-	-	-	340 Watt	340 Watt	
Solar equipment - Low	-	-	-	-	170 Watt	170 Watt	
	34,324	51,898	25,400	31,521	18,195	12,397	

Other Furniture Unit Cost per Type

	Panel	Kiosk	Locker	Dock
Structure	14,180	8,541	10,049	10,512

ASSUMPTIONS

Screen	-	26,107	13,053	26,795
Media Player	-	1,948	1,948	1,948
ePaper City-Transit screens	2,359	-	-	-
Cellular (modem, license, config, ancillary)	1,040	1,040	1,040	1,040
LoRaWAN router	69	69	69	69
Smart City elements	219	219	219	219
Solar equipment	-	-	-	-
	17,867	37,924	26,379	40,583

Construction Costs

Permitting & Inspections	100	Unit costs per Shelter Installation (New & Refurbished)
Site prep work - Digital & Icon	10,500	Unit costs per Digital Shelter Site Work
Site prep work - Static shelters	10,500	Unit costs per Static Shelter Site Work (New & Refurbished)
Site prep work - Pillars	5,500	Unit costs per Pillar Site Work
Trench work (5G Vertical Bridge sites)	25,000	Yes Additional site prep & data costs
Site prep & power to non-shelter furnitures	20,000	100% % of Non-Shelter furnitures requiring grid stubs/site prep
Power & Data	1,000	100% % of all furniture requiring connection to Power & Data

Overheads

Contractor mobilization and markup	10.0%	% of Other Installation Costs
Contingency	20.0%	% of Other Installation Costs
Bonding	1.5%	% of Other Installation Costs

Design & Consulting Services

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
SOM		1,032,750								
Tranzito		775,000								
Black & Veatch		450,000	400,000							
BMW Designworks		1,000,000	590,100							
Fehr & Peers		300,000	140,000	50,000	50,000	50,000	50,000	50,000		
Studio 111 per furniture	400	483,000	382,000	370,000	240,000	-	-			

Notes: 1. Design & Consulting Services assumed for Construction Phase only

OPEX

Routine Maintech Labor

	Monthly	Annual
Refurbished Shelters	110	1,320
New Shelters - Digital	125	1,500
New Shelters - Static	115	1,380
Pillars	45	540
Panels	10	120
Kiosks	10	120
Lockers	15	180
Docks	30	360

ASSUMPTIONS

Installations

	One-Time
Move and Install Refurbs	1,100
Install Shelters	1,210
Install Pillars	550
Install Panel	1,100
Install Kiosks	550
Install Lockers	550
Install Docks	550

Executive Staff

	Hours	Hourly Rate	Annul Comp
Executive Director	2,080	73.54	152,958
CTO	1,040	96.00	99,840
General Manager	2,080	63.96	133,029
Office Coordinator	2,080	35.00	72,800

Labor mark-up & Overheads 63.0% FAR Overhead Rate

Energy Annual Cost per Type

	kWh	Unit Cost	Cost
Super Premium - Icon static	956	0.218	208
Super Premium - Base digital	8,986	0.218	1,959
Premium - Icon static	956	0.218	208
Premium - Base digital	8,986	0.218	1,959
High-Quality - Icon static	956	0.218	208
High-Quality- Base digital	8,986	0.218	1,959
Standard - Eco:grid static	1,292	0.218	282
Standard - Eco:solar static	-	0.218	-
Non-viable - Pillar	-	0.218	-
Panels (static ad wrap)	956	0.218	208
Kiosks (digital ad screen)	8,175	0.218	1,782
Lockers (digital ad screen)	5,820	0.218	1,269
Docks (digital ad screen)	9,835	0.218	2,144

Systems Integration

	Annual	
CurbCMS	100	per unit
Curb App	100,000	per annum
Broadsign CMS License	504	per digital unit
ePaper License	36	per screen
Locker License	624	per unit
Scooter License	800	per unit

Other Expenses

	Annual	
IT Support	200	per Screen
Network - High speed Public WiFi	360	per Shelter
Network - Low speed Public WiFi	120	per Shelter

ASSUMPTIONS

Network - LoRaWAN	-	<i>per Shelter</i>
Marketing/ Promotions	160,000	<i>artreach program</i>
Office expense	40,000	<i>incl. IT, office supplies, and similar</i>
Professional services	80,000	<i>legal, finance, new ventures</i>
Performance Bond	-	<i>covered in construction costs</i>
Insurance - Annual	45,000	
Insurance - Auto	-	<i>covered in maintenance costs</i>
Insurance - Cyber	25,000	<i>per annum</i>
Insurance - Professional Liability	20,000	<i>per annum</i>
Insurance - Property	-	<i>covered in maintenance costs</i>
Insurance - Construction	25,000	
Insurance - Builder's Risk	25,000	<i>four-year construction term, based on \$100m for entire project</i>
Insurance - General Liability (\$2m or more)		<i>covered by AP Construction</i>
Insurance - Umbrella (\$5m limit)		<i>covered by AP Construction</i>
Incidentals / Contingencies	10%	

CHECKS: TRUE FALSE

Totals	31-Dec-2021	31-Dec-2022	31-Dec-2023	31-Dec-2024	31-Dec-2025	31-Dec-2026	31-Dec-2027	31-Dec-2028	31-Dec-2029	31-Dec-2030	31-Dec-2031
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

REVENUE

CPI 1.000 1.000 1.030 1.061 1.093 1.126 1.159 1.194 1.230 1.267 1.305

Advertising Revenues by Type											
Digital (Shelters)	307,820,686	14,960,244	25,945,296	28,319,678	29,835,624	31,363,956	33,751,088	34,575,293	35,482,710	36,349,415	37,237,381
Digital (Non-Shelters)	145,411,335	6,947,210	12,824,526	13,633,277	14,186,312	14,951,079	15,776,455	16,152,665	16,581,174	16,976,767	17,381,870
Static (Shelters)	136,834,075	2,218,125	7,098,000	11,970,179	13,433,550	15,604,875	16,333,200	16,644,771	17,209,102	17,836,086	18,486,187
Static (Non-shelters)	44,917,024	2,164,500	4,329,000	4,500,600	4,602,000	4,680,000	4,680,000	4,641,975	4,846,222	5,102,320	5,370,408
Total Advertising Revenues by Type	634,983,120	26,290,079	50,196,822	58,423,734	62,057,486	66,599,910	70,540,743	72,014,704	74,119,208	76,264,588	78,475,846

Advertising Revenues by Unit											
Shelters	444,654,760	17,178,369	33,043,296	40,289,857	43,269,174	46,968,831	50,084,288	51,220,064	52,691,812	54,185,501	55,723,568
Panels	44,917,024	2,164,500	4,329,000	4,500,600	4,602,000	4,680,000	4,680,000	4,641,975	4,846,222	5,102,320	5,370,408
Kiosks	88,948,584	4,227,834	7,909,746	8,366,810	8,685,846	9,160,281	9,626,916	9,857,803	10,126,186	10,369,159	10,618,003
Lockers	10,485,652	506,080	906,204	975,031	1,020,334	1,073,826	1,143,773	1,170,997	1,200,975	1,229,574	1,258,859
Docks	45,977,099	2,213,297	4,008,576	4,291,435	4,480,133	4,716,972	5,005,766	5,123,865	5,254,014	5,378,034	5,505,008
Total Advertising Revenues by Unit	634,983,120	26,290,079	50,196,822	58,423,734	62,057,486	66,599,910	70,540,743	72,014,704	74,119,208	76,264,588	78,475,846

Commissions & Fees	(139,696,286)	(5,783,817)	(11,043,301)	(12,853,222)	(13,652,647)	(14,651,980)	(15,518,963)	(15,843,235)	(16,306,226)	(16,778,209)	(17,264,686)
Net Advertising Revenues	TRUE 495,286,833	20,506,262	39,153,521	45,570,513	48,404,839	51,947,930	55,021,779	56,171,469	57,812,982	59,486,378	61,211,160
Net Advertising Revenues YoY Growth		-	90.9%	16.4%	6.2%	7.3%	5.9%	2.1%	2.9%	2.9%	2.9%
Net Advertising Revenues per Screen	86,827	9,433	10,212	8,386	7,296	7,831	8,294	8,467	8,715	8,967	9,227
Other Revenues	3,815,666	2,560,000	123,600	127,308	131,127	135,061	139,113	143,286	147,585	152,012	156,573
Total Net Revenues	499,102,499	23,066,262	39,277,121	45,697,821	48,535,967	52,082,991	55,160,892	56,314,755	57,960,567	59,638,391	61,367,732

Advertising Revenue per Screen											
Shelters		11,155	10,326	8,394	7,212	7,828	8,347	8,537	8,782	9,031	9,287
Panels		21,645	43,290	45,006	46,020	46,800	46,800	46,420	48,462	51,023	53,704
Kiosks		13,907	26,019	27,522	28,572	30,133	31,667	32,427	33,310	34,109	34,928
Lockers		11,502	20,596	22,160	23,189	24,405	25,995	26,614	27,295	27,945	28,610
Docks		11,899	21,551	23,072	24,087	25,360	26,913	27,548	28,247	28,914	29,597
Blended		12,093	13,093	10,752	9,354	10,039	10,633	10,855	11,173	11,496	11,829

NET ADVERTISING REVENUES

Shelters											
	Year 1 Rev										
Super Premium - Icon static	43,290	-	-	-	-	-	-	-	-	-	-
Super Premium - Base digital	50,700	82,702,001	3,802,500	7,722,000	7,932,600	8,119,800	8,599,500	8,814,488	9,034,850	9,323,719	9,556,812
Premium - Icon static	43,290	44,917,024	2,164,500	4,329,000	4,500,600	4,602,000	4,680,000	4,680,000	4,641,975	4,846,222	5,102,320
Premium - Base digital	34,570	36,647,485	1,728,480	3,510,000	3,569,280	3,631,680	3,837,600	3,914,352	3,992,639	4,072,492	4,153,942
High-Quality - Icon static	31,493	-	-	-	-	-	-	-	-	-	-
High-Quality- Base digital	16,146	188,471,200	9,429,264	14,713,296	16,817,798	18,084,144	18,926,856	21,022,248	21,547,804	22,086,499	22,638,662
Standard - Eco:grid static	4,875	42,872,974	53,625	2,769,000	5,350,891	4,263,350	4,567,875	4,872,400	5,018,572	5,169,129	5,324,203
Standard - Eco:solar static	4,875	49,044,076	-	-	2,118,688	4,568,200	6,357,000	6,780,800	6,984,224	7,193,751	7,409,563
Total Shelters		444,654,760	17,178,369	33,043,296	40,289,857	43,269,174	46,968,831	50,084,288	51,220,064	52,691,812	54,185,501

Faces, Shelters	2	1,540	3,200	4,800	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Revenue per Faces, Shelters		11,155	10,326	8,394	7,212	7,828	8,347	8,537	8,782	9,031	9,287

Panels											
	Year 1 Rev										
Super Premium	43,290	-	-	-	-	-	-	-	-	-	-
Premium	43,290	44,917,024	2,164,500	4,329,000	4,500,600	4,602,000	4,680,000	4,680,000	4,641,975	4,846,222	5,102,320
High-Quality	31,493	-	-	-	-	-	-	-	-	-	-
Total Panels		44,917,024	2,164,500	4,329,000	4,500,600	4,602,000	4,680,000	4,680,000	4,641,975	4,846,222	5,102,320

CHECKS: TRUE

Totals	31-Dec-2021	31-Dec-2022	31-Dec-2023	31-Dec-2024	31-Dec-2025	31-Dec-2026	31-Dec-2027	31-Dec-2028	31-Dec-2029	31-Dec-2030	31-Dec-2031
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

REVENUE

Faces, Panels	2	100	100	100	100	100	100	100	100	100	100	
Revenue per Faces, Panels		21,645	43,290	45,006	46,020	46,800	46,800	46,420	48,462	51,023	53,704	
Kiosks	Year 1 Rev											
Super Premium	50,700	41,902,347	1,926,600	3,912,480	4,019,184	4,114,032	4,357,080	4,466,007	4,577,657	4,724,018	4,842,118	4,963,171
Premium	34,570	18,323,743	864,240	1,755,000	1,784,640	1,815,840	1,918,800	1,957,176	1,996,320	2,036,246	2,076,971	2,118,510
High-Quality	16,146	28,722,495	1,436,994	2,242,266	2,562,986	2,755,974	2,884,401	3,203,733	3,283,826	3,365,922	3,450,070	3,536,322
Total Kiosks		88,948,584	4,227,834	7,909,746	8,366,810	8,685,846	9,160,281	9,626,916	9,857,803	10,126,186	10,369,159	10,618,003
Faces, Kiosks	2	304	304	304	304	304	304	304	304	304	304	
Revenue per Faces, Kiosks		13,907	26,019	27,522	28,572	30,133	31,667	32,427	33,310	34,109	34,928	
Lockers	Year 1 Rev											
Super Premium	50,700	2,756,733	126,750	257,400	264,420	270,660	286,650	293,816	301,162	310,791	318,560	326,524
Premium	34,570	2,565,324	120,994	245,700	249,850	254,218	268,632	274,005	279,485	285,074	290,776	296,591
High-Quality	16,146	5,163,595	258,336	403,104	460,762	495,456	518,544	575,952	590,351	605,110	620,237	635,743
Total Lockers		10,485,652	506,080	906,204	975,031	1,020,334	1,073,826	1,143,773	1,170,997	1,200,975	1,229,574	1,258,859
Faces, Lockers	1	44	44	44	44	44	44	44	44	44	44	
Revenue per Faces, Lockers		11,502	20,596	22,160	23,189	24,405	25,995	26,614	27,295	27,945	28,610	
Docks	Year 1 Rev											
Super Premium	50,700	12,129,627	557,700	1,132,560	1,163,448	1,190,904	1,261,260	1,292,792	1,325,111	1,367,479	1,401,666	1,436,707
Premium	34,570	13,193,095	622,253	1,263,600	1,284,941	1,307,405	1,381,536	1,409,167	1,437,350	1,466,097	1,495,419	1,525,327
High-Quality	16,146	20,654,378	1,033,344	1,612,416	1,843,046	1,981,824	2,074,176	2,303,808	2,361,403	2,420,438	2,480,949	2,542,973
Total Docks		45,977,099	2,213,297	4,008,576	4,291,435	4,480,133	4,716,972	5,005,766	5,123,865	5,254,014	5,378,034	5,505,008
Faces, Docks	2	186	186	186	186	186	186	186	186	186	186	
Revenue per Faces, Docks		11,899	21,551	23,072	24,087	25,360	26,913	27,548	28,247	28,914	29,597	
Total Advertising Revenues		634,983,120	26,290,079	50,196,822	58,423,734	62,057,486	66,599,910	70,540,743	72,014,704	74,119,208	76,264,588	78,475,846
Commissions & Fees												
Ad sales commission	7.0%	44,448,818	1,840,306	3,513,778	4,089,661	4,344,024	4,661,994	4,937,852	5,041,029	5,188,345	5,338,521	5,493,309
Ad sales team	15.0%	95,247,468	3,943,512	7,529,523	8,763,560	9,308,623	9,989,987	10,581,111	10,802,206	11,117,881	11,439,688	11,771,377
Total Commissions & Fees		139,696,286	5,783,817	11,043,301	12,853,222	13,652,647	14,651,980	15,518,963	15,843,235	16,306,226	16,778,209	17,264,686
Net Advertising Revenues		495,286,833	20,506,262	39,153,521	45,570,513	48,404,839	51,947,930	55,021,779	56,171,469	57,812,982	59,486,378	61,211,160

OTHER REVENUES

5G Vertical Bridge sites	Unit Rev.											
Trench sites	25,000	2,500,000	2,500,000	-	-	-	-	-	-	-	-	
Co-leasing sites	1,200	1,315,666	60,000	123,600	127,308	131,127	135,061	139,113	143,286	147,585	152,012	156,573
Total 5G Vertical Bridge sites		3,815,666	2,560,000	123,600	127,308	131,127	135,061	139,113	143,286	147,585	152,012	156,573

CHECKS: TRUE

Totals	31-Dec-2021	31-Dec-2022	31-Dec-2023	31-Dec-2024	31-Dec-2025	31-Dec-2026	31-Dec-2027	31-Dec-2028	31-Dec-2029	31-Dec-2030	31-Dec-2031
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

CAPEX

Installs - Pillars	-	-	-	-	-	-	-	-	-	-	-
Installs - Refurb Shelters	480	231	249	-	-	-	-	-	-	-	-
Installs - Panels	50	50	-	-	-	-	-	-	-	-	-
Installs - Kiosks	152	152	-	-	-	-	-	-	-	-	-
Installs - New Lockers	44	44	-	-	-	-	-	-	-	-	-
Installs - New Docks	93	93	-	-	-	-	-	-	-	-	-
Removals - Legacy Shelters	1,884	770	830	284	-	-	-	-	-	-	-
Removals - Refurbished Shelters	480	-	210	270	-	-	-	-	-	-	-
Disposals - Legacy Shelters	1,361	539	581	241	-	-	-	-	-	-	-
Disposals - Refurbished Shelters	480	-	210	270	-	-	-	-	-	-	-
Refurbishments - Legacy Shelters	523	231	249	43	-	-	-	-	-	-	-
Removal & Disposal - Legacy Kiosks	203	152	-	-	51	-	-	-	-	-	-
Removals	TRUE	2,567	-	922	1,040	554	51	-	-	-	-
Installs	TRUE	3,000	-	770	830	800	600	-	-	-	-
Refurbishments	TRUE	523	-	231	249	43	-	-	-	-	-
Disposals	TRUE	2,044	-	691	791	511	51	-	-	-	-
Installs, New and Refurbished Shelters		2,721	-	242	1,079	800	600	-	-	-	-
Installs, New Shelters Only		2,241	-	11	830	800	600	-	-	-	-

Installation Costs	One-Time										
Move and Install Refurbs	1,100	586,398	-	254,100	282,117	50,181	-	-	-	-	-
Install Shelters	1,210	3,786,400	-	931,700	1,034,429	1,026,951	793,320	-	-	-	-
Install Panel	1,100	55,000	-	55,000	-	-	-	-	-	-	-
Install Kiosks	550	83,600	-	83,600	-	-	-	-	-	-	-
Install Lockers	550	24,200	-	24,200	-	-	-	-	-	-	-
Install Docks	550	51,150	-	51,150	-	-	-	-	-	-	-
Total Installations	TRUE	4,586,748	-	1,399,750	1,316,546	1,077,132	793,320	-	-	-	-

Construction Costs											
Permitting & Inspections	100	per shelter	285,773	-	24,200	111,137	84,872	65,564	-	-	-
Site prep work - Digital & Icon	10,500	per shelter	7,969,500	-	7,969,500	-	-	-	-	-	-
Site prep work - Static shelters	10,500	per shelter	30,006,125	-	2,541,000	11,669,385	8,911,560	6,884,180	-	-	-
Site prep work - Pillars	5,500	per shelter	-	-	-	-	-	-	-	-	-
Trench work (5G Vertical Bridge sites)	25,000	per site	2,500,000	-	2,500,000	-	-	-	-	-	-
Site prep & power to non-shelter furnitures	20,000	100.0%	6,780,000	-	6,780,000	-	-	-	-	-	-
Power & Data Tie-in	1,000	100.0%	2,709,256	-	350,000	854,900	848,720	655,636	-	-	-
Direct Construction Costs			50,250,654	-	20,164,700	12,635,422	9,845,152	7,605,380	-	-	-
Contractor mobilization and markup	10.0%		5,025,065	-	2,016,470	1,263,542	984,515	760,538	-	-	-
Contingency	20.0%		10,050,131	-	4,032,940	2,527,084	1,969,030	1,521,076	-	-	-
Bonding	1.5%		753,760	-	302,471	189,531	147,677	114,081	-	-	-
Total Construction Costs	TRUE		70,666,357	-	27,916,331	17,932,126	14,023,507	10,794,394	-	-	-

DESIGN & CONSULTING SERVICES

Design & Consulting Services											
SOM			1,032,750	-	1,032,750	-	-	-	-	-	-
Black & Veatch			850,000	-	450,000	400,000	-	-	-	-	-
BMW Designworks			1,590,100	-	1,000,000	590,100	-	-	-	-	-
Fehr & Peers			690,000	-	300,000	140,000	50,000	50,000	50,000	50,000	-
Studio 111			1,475,000	-	483,000	382,000	370,000	240,000	-	-	-
Tranzito			775,000	-	775,000	-	-	-	-	-	-
Total Design & Consulting Services	TRUE		5,637,850	-	3,265,750	1,512,100	420,000	290,000	50,000	50,000	50,000

MAINTENANCE CAPEX

Advertising Revenues			634,983,120	-	26,290,079	50,196,822	58,423,734	62,057,486	66,599,910	70,540,743	72,014,704	74,119,208	76,264,588	78,475,846
Total Maintenance Capex	3.0%	TRUE	19,049,494	-	788,702	1,505,905	1,752,712	1,861,725	1,997,997	2,116,222	2,160,441	2,223,576	2,287,938	2,354,275

CHECKS: TRUE FALSE

Totals	31-Dec-2021	31-Dec-2022	31-Dec-2023	31-Dec-2024	31-Dec-2025	31-Dec-2026	31-Dec-2027	31-Dec-2028	31-Dec-2029	31-Dec-2030	31-Dec-2031
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

OPEX

CPI	<input type="text" value="3.0%"/>	1.000	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305
OpEx												
Maintenance labor	43,914,523	1,518,240	2,796,574	3,673,600	4,688,586	4,829,243	4,974,120	5,123,344	5,277,044	5,435,356	5,598,416	
Executive staff	8,569,961	747,562	769,989	793,089	816,881	841,388	866,629	892,628	919,407	946,989	975,399	
Systems Integration	13,684,481	874,788	1,048,074	1,225,497	1,375,031	1,416,282	1,458,770	1,502,533	1,547,609	1,594,038	1,641,859	
Energy	24,658,160	1,668,053	2,237,896	2,333,719	2,403,730	2,475,842	2,550,117	2,626,621	2,705,420	2,786,582	2,870,180	
IT Support	6,793,871	221,800	399,434	581,161	729,723	751,615	774,163	797,388	821,310	845,949	871,328	
Network Expenses	-	-	-	-	-	-	-	-	-	-	-	
Marketing/ Promotions	1,834,221	160,000	164,800	169,744	174,836	180,081	185,484	191,048	196,780	202,683	208,764	
Office expense	458,555	40,000	41,200	42,436	43,709	45,020	46,371	47,762	49,195	50,671	52,191	
Professional services	917,110	80,000	82,400	84,872	87,418	90,041	92,742	95,524	98,390	101,342	104,382	
Bonding	-	-	-	-	-	-	-	-	-	-	-	
Insurance	540,875	51,250	52,600	53,991	55,423	56,848	58,273	59,698	61,123	62,548	63,973	
Incidentals / Contingencies	10,137,176	536,169	759,297	895,811	1,037,534	1,068,016	1,100,056	1,133,058	1,167,050	1,202,061	1,238,123	
Total OpEx	111,508,931	5,897,863	8,352,264	9,853,918	11,412,871	11,748,176	12,100,621	12,463,640	12,837,549	13,222,675	13,619,356	

MAINTENANCE

Routine Maintech Labor	Monthly		Annual											
	110	1,320	672,012	-	304,920	367,092	-	-	-	-	-	-	-	
Refurbished Shelters	125	1,500	12,191,836	-	1,063,500	1,095,405	1,128,267	1,162,115	1,196,979	1,232,888	1,269,875	1,307,971	1,347,210	1,387,626
New Shelters - Digital	115	1,380	30,298,186	-	84,180	1,266,467	2,475,695	3,454,744	3,558,386	3,665,138	3,775,092	3,888,345	4,004,995	4,125,145
New Shelters - Static	45	540	-	-	-	-	-	-	-	-	-	-	-	-
Pillars	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional Shelters														
Panels	10	120	68,783	-	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829
Kiosks	10	120	209,101	-	18,240	18,787	19,351	19,931	20,529	21,145	21,780	22,433	23,106	23,799
Lockers	15	180	90,794	-	7,920	8,158	8,402	8,654	8,914	9,181	9,457	9,741	10,033	10,334
Docks	30	360	383,811	-	33,480	34,484	35,519	36,584	37,682	38,812	39,977	41,176	42,411	43,684
Total Maintenance Labor	TRUE	43,914,523	-	1,518,240	2,796,574	3,673,600	4,688,586	4,829,243	4,974,120	5,123,344	5,277,044	5,435,356	5,598,416	

EXECUTIVE STAFF

Executive Staff	249,322	100% of FTE	2,858,192	249,322	256,801	264,505	272,440	280,614	289,032	297,703	306,634	315,833	325,308
Executive Director	162,739	50% of FTE	1,865,623	162,739	167,621	172,650	177,830	183,164	188,659	194,319	200,149	206,153	212,338
CTO	216,837	100% of FTE	2,485,796	216,837	223,342	230,043	236,944	244,052	251,374	258,915	266,682	274,683	282,923
General Manager	118,664	100% of FTE	1,360,350	118,664	122,224	125,891	129,667	133,557	137,564	141,691	145,942	150,320	154,830
Office Coordinator	TRUE	8,569,961	747,562	769,989	793,089	816,881	841,388	866,629	892,628	919,407	946,989	975,399	

SYSTEMS INTEGRATION

Shelters			770	1,600	2,400	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Other Inventory			339	339	339	339	339	339	339	339	339	339	339	339
Digital Units			998	998	998	998	998	998	998	998	998	998	998	998
Digital Faces			1,952	1,952	1,952	1,952	1,952	1,952	1,952	1,952	1,952	1,952	1,952	1,952
ePaper Units			1,640	3,300	4,900	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100
Systems Integration														
CurbCMS	100	per unit	3,396,935	110,900	199,717	290,581	364,862	375,807	387,082	398,694	410,655	422,975	435,664	
Curb App	100,000	per annum	1,146,388	100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477	
Broadsign CMS License	504	per digital unit	5,766,240	502,992	518,082	533,624	549,633	566,122	583,106	600,599	618,617	637,175	656,290	
ePaper License	36	per ePaper	2,207,253	59,040	122,364	187,143	239,963	247,162	254,577	262,214	270,080	278,183	286,528	
Locker License	624	per unit	314,752	27,456	28,280	29,128	30,002	30,902	31,829	32,784	33,767	34,780	35,824	
Scooter License	800	per unit	852,913	74,400	76,632	78,931	81,299	83,738	86,250	88,837	91,503	94,248	97,075	
Total Systems Integration	TRUE	13,684,481	874,788	1,048,074	1,225,497	1,375,031	1,416,282	1,458,770	1,502,533	1,547,609	1,594,038	1,641,859		

OTHER

	Total	31-Dec-2021	31-Dec-2022	31-Dec-2023	31-Dec-2024	31-Dec-2025	31-Dec-2026	31-Dec-2027	31-Dec-2028	31-Dec-2029	31-Dec-2030	31-Dec-2031
	Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EXPENSES BY SUBCONTRACOR												
Lockers (digital ad screen)	1,160,656		1,160,656	-	-	-	-	-	-	-	-	-
Docks (digital ad screen)	3,774,229		3,774,229	-	-	-	-	-	-	-	-	-
Total Other Equipment	11,592,767		11,592,767	-	-	-	-	-	-	-	-	-
Replacement Digital Products												
Replacement screens - Allure dual-sided (Base)	10,403,157							10,403,157	-	-	-	-
Replacement screens - Allure dual-sided (Kiosk)	2,230,296							2,230,296	-	-	-	-
Replacement screens - AZQ (Lockers)	574,354							574,354	-	-	-	-
Replacement screens - Allure dual-sided (Docks)	1,364,589							1,364,589	-	-	-	-
Total Replacement screens (after 50,000 hours)	14,572,396		-	-	-	-	-	14,572,396	-	-	-	-
Replacement media player (Base)	2,762,271							1,381,136	1,381,136	-	-	-
Replacement media player (Kiosk)	296,097							296,097	-	-	-	-
Replacement media player (Lockers)	85,712							85,712	-	-	-	-
Replacement media player (Docks)	181,164							181,164	-	-	-	-
Total Replacement media players (after 50,000 hours)	3,325,245		-	-	-	-	-	1,944,109	1,381,136	-	-	-
Total Replacement Digital Products	17,897,640		-	-	-	-	-	16,516,505	1,381,136	-	-	-

LA STAP BEST AND FINAL OFFER (BAFO) NARRATIVE

Submitted August 6, 2021

Amended Version 4.21, submitted August 16, 2021

(Amended pages 2, 8, 9 to show “Preferred” scenario alongside “Base” scenario)

Part 1 - Best and Final Offer Price Proposal

1. Submit a price proposal with only one scenario in which the City provides 100% CAPEX.

Our price proposal Best and Final Offer is submitted as a PDF copy entitled “LA STAP BAFO_Tranzito” (Version 4.2 Updated 8/6/21).

This document (herein referred to as “BAFO”) is composed of the following tabs:

Scenarios: This tab is composed of various Project Options (see below) for the City to consider. It is intended to be a worksheet, whereby the City can see financial consequences in real-time, to assist in finalizing project parameters.

Summary: This tab provides a global project summary.

Assumptions: This tab contains all project parameters based upon confirmed information and best assumptions. This tab, combined with Project Options in the Scenarios tab, contain the entirety of information that is able to be inputted into the BAFO (denoted in **blue**).

Inventory: This tab provided detailed information on all shelters and other street furniture -- panels, kiosks, lockers, scooter docks, and legacy/ refurbished street furniture.

Revenues: This tab provides detailed information on Project Revenues.

CapEx: This tab provides detailed information on capital expenditures.

OpEx: This tab provides detailed information on operating expenditures.

Subcontractors: This tab splits all project costs by contractor / subcontractor.



Schedule: This tab provides project rollout in a simplified gantt schedule overview.

The “Scenarios” tab contains Project Options , where the City may elect to fine-tune its preferred project parameters.

BASE SCENARIO

The PDF “LA STAP BAFO_Tranzito” presents a “base” BAFO; this corresponds to a “base” City Revenue Share of **60.5%**.

Finance Considerations		Capital Considerations		OpEx Considerations	
City Revenue Share	60.5%	% of Pillars to install	0%	Public WiFi available	None
Annual MAG to City (with CPI)	10,000,000	# of Icon shelters	50		
\$6m one-time Payment	Yes	# of Panels	50		
Capitalize Energy	No	ePaper City-Transit screens	2		
Capitalize Licensing	No	Inductive phone chargers	3		
Project Reinvestment City Rev %	15%	LoRaWAN network	Yes		
Vertical Bridge partnership	Yes	Solar capacity	High		
Rollout Schedule	Optimized				

Capex			City Revenues		
Design-Build Capex	34.1%	217,682,013	MAG	17.3%	110,638,793
Maintenance Capex	3.0%	19,049,494	Revenue Share	43.2%	275,834,472
Energy Capex	0.0%	-	Project Options	0.0%	-
Systems Integration Capex	0.0%	-	Total City Revenues	60.5%	386,473,265
Total Capex	37.1%	236,731,507			

PREFERRED SCENARIO

Our preferred scenario is one where Licensing is capitalized and basic WiFi is offered at all locations (at 10 Mbps speeds, fast enough for non-streaming internet). This yields a City Revenue share of **62%**.

Finance Considerations		Capital Considerations		OpEx Considerations	
City Revenue Share	60.5%	% of Pillars to install	0%	Public WiFi available	Basic
Annual MAG to City (with CPI)	10,000,000	# of Icon shelters	50		
\$6m one-time Payment	Yes	# of Panels	50		
Capitalize Energy	No	ePaper City-Transit screens	2		
Capitalize Licensing	Yes	Inductive phone chargers	3		
Project Reinvestment City Rev %	15%	LoRaWAN network	Yes		
Vertical Bridge partnership	Yes	Solar capacity	High		
Rollout Schedule	Optimized				

Capex			City Revenues		
Design-Build Capex	34.1%	217,682,013	MAG	17.3%	110,638,793
Maintenance Capex	3.0%	19,049,494	Revenue Share	43.2%	275,834,472
Energy Capex	0.0%	-	Project Options	1.5%	9,407,839
Systems Integration Capex	2.1%	13,684,481	Total City Revenues	62.0%	395,881,104
Total Capex	39.2%	250,415,988			



Finance Considerations

- City Revenue Share: The BAFO is set at a rate of sixty-point-five percent (**60.5%**) of Project Revenues to the City. This final rate may increase based upon Project Options (see below).
- Annual MAG to City: Minimum Annual Guarantee, with an assumed three percent (**3%**) CPI annual increase. The MAG will begin in Year 2 (assumed in the calendar year 2023).
- \$6 one-time Payment: A Yes/No toggle selection.
 - **Yes** pays the one-time payment upon future mutually-agreed upon terms, and acts as a Year 1 MAG.
 - **No** pays a Project Options of an additional one percent (**1%**) of Project Revenues beginning Year 2.
- Capitalize Energy: The possibility exists to pre-purchase energy in order to purchase certified green energy via PPA/ VPPA arrangements.
 - **Yes** pays energy costs through CapEx, and pays a Project Options equal to current energy cost expenses (plus portion of OpEx contingency) -- currently projected as boosting City Revenues from **60.5%** to **64.4%**.
 - **No** pays energy costs through OpEx.
- Capitalize Licensing: The possibility exists to capitalize all licensing fees for the 10-year term (aka Systems Integration).
 - **Yes** pays licensing through CapEx, and pays a Project Options equal to current licensing cost expenses (plus portion of OpEx contingency) -- currently projected as boosting City Revenues from **60.5%** to **62.6%**.
 - **No** pays licensing costs through OpEx.
- Project Reinvestment: Optional election to maintain a percentage of City Revenues directly back into the project. While this option requires further scoping, the intention is to ensure a portion of the Project Revenues is devoted to boosting the STAP project, potentially for:
 - **Additional Shelters**: Installing a cost-efficient shade element at existing bus stops, particularly stops with existing bus benches and other amenities.
 - **Design Upgrades**: Optional design elements such as adhesive wraps, upgraded roof materials, arts-related programs, etc.



- **Feature Upgrades:** Emerging features may include charging add-ons for wheelchairs (from scooter docks), emerging sensor technologies, and other amenities.
- **Infrastructure Upgrades:** Re-grading and re-paving of sidewalks adjacent to bus shelters, smart-cities upgrades, etc.
- **Vertical Bridge Partnership:** Our vision is for the City to control 5G deployment by owning compartments within select STAP furniture to lease out space to one or more vendors. Given a minimum required height of sixteen feet (16') above the ground, Icon shelters and panels must be installed.
 - **Yes:** Vertical Bridge offers \$25,000 one-time fee (to pay for additional capital construction costs to secure fiber to the location) and \$1,200 annual fee (plus assumed CPI increase) per site.
 - **No** means no Vertical Bridge partnership.
- **Rollout schedule:** A variable rollout schedule based upon three settings. Rollout speed positively affects Project Revenues (a faster rollout equals more revenues). It is implied that a faster rollout requires tighter City coordination and participation:
 - Aggressive: A three-year rollout averaging 1000 shelters per annum.
 - Optimized: A four-year rollout averaging 750 shelters per annum.
 - Delayed: A six-year rollout averaging 500 shelters per annum.

Rollout Schedules	2022	2023	2024	2025	2026	2027
Aggressive	1,000	1,000	1,000			
Optimized	770	830	800	600		
Delayed	616	664	640	480	300	300

Capital Considerations

- **% of Pillars to install:** We anticipate that a portion of station locations will be deemed to be highly desirable to add a shelter but be non-viable from a space-perspective. In these locations, a small-footprint Pillar will be installed.
- **# of Icon shelters:** Icon shelters have an advertising panel of at least sixteen feet (16') high with:
 - Dual-sided static advertising wrap (with potential for future digitization).
 - Up to two ePaper City-Transit ePaper screens.
 - Smart cities sensors and safety light, City Light.
 - Temperature-controlled cabinet to house 5G small-cell equipment.



- # of panels: Standalone Icon panel.
- ePaper City-Transit screens: ePaper screens are used for City-Transit information screens. These screens provide real-time bus departure information, pre-programmed and on-demand city messaging, and other information. ePaper screens are assumed to be installed at all 3000 bus shelters and Panels.
 - **2** means a dedicated screen each for real-time bus departures and real-time and/or pre-programmed information from the City and transit agencies. NOTE: Pillars and some Eco:solar shelter locations may have data and power capacity for 1 screen regardless.
 - **1** means a single screen shares all information on a rotating basis (say, every 10 seconds).
 - **0** means no screens are installed.
- Inductive Phone Chargers: Smartphone dependence is greatest among many populations of concern, such as the visually-impaired and mobility-impaired populations.
 - **3** means three inductive chargers at all grid-connected bus shelters.
 - **2** means two inductive chargers at all grid-connected bus shelters.
 - **1** means two inductive chargers at all grid-connected bus shelters.
 - **0** means no chargers are installed.
- LoRaWAN network: Our vision is for the City to control Internet-of-Things (IoT) mobility -- such as shared scooters, shared bikes, and wheeled drones -- by offering and/or mandating use of a citywide Long Range WAN (LoRaWAN) network.
 - **Yes** means an increase in Capital costs for additional equipment and startup costs.
 - **No** means no LoRaWAN network.
- Solar capacity: All shelter locations without existing grid-power connections are pre-selected for photovoltaic solar cells. The selection of higher capacity panels enables a more stable present, and the headroom for future amenities and features:
 - **High** means installing high-capacity 510 watt panels.
 - **High/Mid** means installing 50% of locations with 510 watt panels and 50% of locations with 340 watt panels. This should be sufficient for most/ all of the features submitted in our Proposal.



- **Mid** means installing mid-capacity 340 watt panels. In high sun areas, this is sufficient to power most/ all of the features submitted in our Proposal.
- **Low** means installing low-capacity 170 watt panels. In high sun areas, this is sufficient to power some features submitted in our Proposal, and in others may only power a limited amount of features.

OpEx Considerations

- Public WiFi available: Public WiFi is an increasingly critical amenity. Additionally, public WiFi enables us to provide customized information and amenities (such as a native-language audio bus arrival time ticker) without asking users to provide the data.
 - **Fast** equates to approximately 100 Mbps speed, enough for multiple users to stream video and audio.
 - **Basic** means a 10 Mbps speed, enough for multiple users to download and upload emails, text-based webpages. Depending upon users and location-specific speeds, bandwidth may be sufficient for web-based phone and video calls.
 - **None** means no Free WiFi.

2. Operating Costs must be itemized beyond general categories of Maintenance, Administrative, etc. The City's CAPEX commitment will include expenses such as traffic control, trenching and construction related costs. Please consider the impact of the City's assumption of these costs as you detail your Operating Costs.

Please see the BAFO tab "OpEx" for detailed information on Operating Costs.

3. Itemize costs associated with Systems Integration and Indirect Management.



Systems Integration charges are listed below (see BAFO for detailed breakdown of costs):

Systems Integration	Annual Cost		
CurbCMS	100	<i>per unit</i>	3,396,935
Curb App	100,000	<i>per annum</i>	1,146,388
Broadsign CMS License	504	<i>per digital unit</i>	5,766,240
ePaper License	36	<i>per ePaper</i>	2,207,253
Locker License	624	<i>per unit</i>	314,752
Scooter License	800	<i>per unit</i>	852,913
Total Systems Integration	TRUE		13,684,481

- Curb CMS: A custom CMS program built on top of our existing CurbOS to manage various shared-use mobility infrastructure assets. This CMS is meant to be lightweight and API-based to provide the City with a singular Dashboard, Notifications feature, and Reports.
 - Advertising: Connects to Broadsign and most other API-based platforms.
 - Telematics: Real-time device heartbeats and status monitoring, hard-reset capabilities, and surveillance features.
 - Customer Service: Support tickets and real-time monitoring of user-initiated communications.
 - Maintenance: Maintenance records and real-time monitoring of maintenance activities.

- Curb App: A lightweight application that is meant to facilitate interaction with the shelter via Bluetooth connection. This app will interact with various aspects of the shelters such as free WiFi, ePaper City-Transit info, digital screen info, and other emerging interactions.

- Broadsign CMS License: Annual license to Broadsign Sales Professional CMS platform. This includes the Control Administrator, Control Player, Live, Control API, Publish, Reach, and Direct features.

- ePaper License: Annual software license to ePaper firmware/ API integrations.

- Locker License: Annual software license to lockers.

- Scooter License: Annual software license to scooter docks.



Re: Indirect Management, please note that Project Admin has been removed from the BAFO.

4. Provide total annual Operating Costs based on your proposed implementation plan.

Please see total annual Operating Costs by summarized groupings and itemized charges in the BAFO “OpEx” tab.

BASE SCENARIO

OpEx	
Maintenance labor	43,914,523
Executive staff	8,569,961
Systems Integration	13,684,481
Energy	24,658,160
IT Support	6,793,871
Network Expenses	3,887,856
Marketing/ Promotions	1,834,221
Office expense	458,555
Professional services	917,110
Bonding	-
Insurance	540,875
Incidentals / Contingencies	10,525,961
Total OpEx	115,785,573

PREFERRED SCENARIO (Licensing is capitalized, Basic WiFi provided)

OpEx	
Maintenance labor	43,914,523
Executive staff	8,569,961
Systems Integration	-
Energy	24,658,160
IT Support	6,793,871
Network Expenses	3,887,856
Marketing/ Promotions	1,834,221
Office expense	458,555
Professional services	917,110
Bonding	-
Insurance	540,875
Incidentals / Contingencies	9,157,513
Total OpEx	100,732,644



5. Provide a schedule of annual guarantee payments and City revenue share based on your proposed implementation. Alternatively, explore options to increase the City's revenue share percentage without an annual guarantee; provide an annual schedule for such options.

Please see the BAFO Executive Summary section in both “Scenarios” and “Summary” tabs for a detailed breakdown.

BASE SCENARIO (Licensing in OpEx, no WiFi)			PREFERRED SCENARIO (Licensing capitalized, Basic WiFi)		
City Revenues			City Revenues		
MAG	17.3%	110,638,793	MAG	17.3%	110,638,793
Revenue Share	43.2%	275,834,472	Revenue Share	43.2%	275,834,472
Project Options	0.0%	-	Project Options	1.5%	9,407,839
Total City Revenues	60.5%	386,473,265	Total City Revenues	62.0%	395,881,104

City Revenues are apportioned based on the following:

- Minimum Annual Guarantee (MAG) of \$10,000,000, with an annual CPI increase. The first MAG payment will be paid one full year after Phase 1 rollout commences. If selected, the one-time \$6,000,000 fee will act as the first year’s MAG, due after Phase 1 rollout commences. Additionally, see Clarifications (below) for further information.
- Revenue Share is based upon an assured rate of sixty percent (60.5%) inclusive of MAG revenues, assuming no free WiFi. We are open to options where the City can achieve potentially greater Revenue Share by not setting an assured rate, but by making the rate variable, thereby increasing risk/ reward profile to the City.
- Project Options are additional Project Options that the City may elect to take on to increase its share of Project Revenues. Two options currently in the BAFO include:
 - \$6 million one-time payment: Declining this payment results in a Project Options of an additional one percent (1%) of Project Revenues beginning Year 2.



- Capitalizing energy costs: Taking energy off OpEx results in a Project Options equal to current energy cost estimates (plus portion of OpEx contingency) -- currently projected as boosting City Revenues from 60.5% to 64.4%.

6. Provide a formalized revenue proposal for Vertical Bridge's 242 locations (40% of the 655 high-value locations).

Vertical Bridge offers a one-time payment of \$25,000 and an annual payment of \$1,200 per location, with a CPI annual increase. The BAFO assumes that the \$25,000 one-time payment will offset additional costs at Icon Shelter and Panel locations to secure a high-speed data connection (presumed to be fiber-optics, cable, or satellite). These revenues are listed in the BAFO as “Other Revenues”, and will be split proportionately.

Vertical Bridge takes responsibility to procure revenues to recoup its costs, presumably by securing leasing agreements to house one or more 5G small cell equipment. Vertical Bridge estimates that up to 20% of the 3000 sites (600 sites total) may be eligible for this sort of arrangement. However, we anticipate that only a select number of these sites will be economically feasible to implement once trenching and other startup costs are considered. Furthermore, we believe the max number of Icon shelters and Panels from an advertiser viability perspective may be less than this number as well.

5G small cell equipment must be installed at least 16' from the ground. We recommend a maximum number of 100 locations to start, with continuing dialogue to increase the eligible number based upon creative installation strategies and increasing City involvement to offset trenching costs.



Part 2 - Supporting Narrative

1. A. How your price proposal achieves the goals of STAP.

Our Proposal and accompanying BAFO is modular and agile in design to allow the City greater flexibility and control:

- Fully detailed Excel program offers full transparency and encourages a collaborative approach to the financial aspect of STAP.
- Reduced CapEx and OpEx eliminates expenses at the margins without sacrificing project quality or aims for Shelter-Shade-Safety-Comfort.
- Project Options provides built-in optionality of many aspects of the project in order to balance its capital investment to revenue maximization goals, and specific criteria as it relates to Rollout, Smart Cities development, and Amenities for users.
- Project Reinvestment % is considered to provide even greater options to the City. We've further scoped out a value-engineered Shelter option to help the City to commit to more shelter/ shade structures at other bus stops, specifically existing stops with bus benches. For example, fabricating and installing 2,000 Additional Shelters (estimated all-in cost of \$12,397) is budgeted at less than \$25 million, or about 6.5% of City Revenues.

1. B. How your price proposal is financially sustainable without compromising the issue of shade equity.

Equity is achieved by maximizing Shelter-Shade-Safety-Comfort at more locations with quick rollout options, and ensuring universal amenities across all shelters:

- Rollout options ranging from Aggressive, Optimal, and Delayed are all quick by default, with a rollout range from three to six years. Shelter rollout will prioritize areas tiered by maximum ad revenue viability (Super Premium sites, followed by Premium, High-Quality, and Standard), to ensure financial sustainability. But within these segments, we will work with our design team



members Fehr & Peers and Studio One Eleven to prioritize locations based upon passengers served, heat index, relative needs assessment, and location equity score.

- Uniform amenities and smart-cities features -- pending physical and power viability -- across all bus shelters to ensure equitable disbursement. All of our amenities have been designed and priced to ensure a uniform experience at all/ most locations regardless of neighborhood type or advertising viability.
- Project Reinvestment option reinforces the notion to keep Project Revenues within STAP to expand its total shelters, amenities, and services as the City and public dictate.

2. Detail and justify costs associated with Systems Integration and Indirect Management Costs.

The following Systems Integration deliverables are detailed above in question 3 and itemized in the BAFO “OpEx” tab. Their rationale is described below.

- Curb CMS: Annual licensing covers automated notifications, automated reports, feature upgrades, bug fixes, and ongoing development of the API integrations. This product allows all aspects of this project to be integrated: data, reports, dashboard, related databases such as support tickets and maintenance reports. The API-based structure enables a lightweight and agile footprint (ie relatively inexpensive and easy to maintain) and the ability to interact *interchangeably* with existing public agency and private company datasets. MDS and eventual ATSAC 2.0 integrations are on the roadmap. The City will retain ownership of the source code.
- Curb App: Annual license and customer support fee covers ongoing upgrades, bug fixes, and ongoing development of the API integrations. This product allows direct communication between the bus shelters (the City) and the public, and will be vital to offer universal amenities (such as free WiFi and user-specific alerts and notifications) and two-way communication and



interactions. We envision API-based integrations with 311 and the Angelino account. The City will retain ownership of the source code.

- Broadsign CMS License: Annual license for Broadsign’s media player provides access to its Supply-Side Platform and ad marketplace. There are other lower-cost options, which we have experience using and are open to exploring, but Broadsign’s solution is an industry-standard and highly recommended..
- ePaper License: Annual license for ePaper firmware and API integrations. This license is required and ensures the ongoing graphical functionality of the ePaper screens. The ongoing API support ensures that the Curb CMS will be able to directly communicate with and control the screens.
- Locker License: Annual license for locker functionality and API integrations. This license is required and ensures the ongoing functionality of the digital touchscreen, backend delivery carriers’ softwares, and phone-based customer communications. The ongoing API support ensures that the Curb CMS will be able to monitor and provide telematics support.
- Scooter License: Annual license for scooter dock functionality and API integrations. This license is required and ensures ongoing functionality of the scooter docks, backend mobility providers’ softwares and apps. The ongoing API support ensures that the Curb CMS will be able to monitor and provide telematics support.

Re: Indirect Management, please note that Project Admin has been removed from the BAFO.



3. The advertising commissions (operating costs) at 28% is higher than the industry standard of OOH operating costs, which is 22%. The justification of this commission provided on February 17, 2021, included CMS (Content Management System) a cost that is contained under Capital Expenses at a price of \$400,000; a Supply Side Platform that appears to duplicate Demand Side Platform functionality and proof of play, which is a functionality that can be provided through the CMS. Provide details on how the advertising commission number can be lowered toward the industry average.

Re: Advertising Commissions, this figure has been reduced in the BAFO to target 22%. NOTE: this 22% target includes profit, thereby our offer comes in significantly below the industry standard.

Re: CMS, our proposal will utilize two related yet distinctly different CMS platforms:

- Advertising CMS: such as Broadsign, is a required element for digital advertising. This CMS requires the purchase of:
 - Media players (included as a separate line item in the BAFO under the “Assumptions” tab, CapEx section).
 - Annual licensing fees (included as a separate line item in the BAFO under the “Assumptions” tab, CapEx section).
- Curb CMS: a custom-build from our existing CurbOS program, which is used to manage various shared-use mobility infrastructure assets. This CMS is meant to be lightweight and API-based to provide the City with a singular Dashboard, Notifications feature, and Reports.
 - Advertising: Connects to Broadsign and most other API-based platforms.
 - Telematics: Real-time device heartbeats and status monitoring, hard-reset capabilities, and surveillance features.
 - Customer Service: Support tickets and real-time monitoring of user-initiated communications.
 - Maintenance: Maintenance records and real-time monitoring of maintenance activities.



The referred to CMS Capital Expense (now listed as “Design & Consulting Services” for \$775,000) has been expanded after further project refinement post-demonstration:

- Curb CMS setup and configuration (Initial dashboard, notifications, reports setup based upon API integration and CurbOS customization).
- Curb App setup and configuration (Initial technologies selected, UI/UX development, API integration).
- Network setup and configuration (Data, LoRa, Bluetooth).

4. The Virtual Power Purchase Agreement (VPPA) is the highest capital expense in Tranzito’s proposal; however, this expense aligns with City of Los Angeles’ pLAN New Green Deal. Tranzito proposes that the VPPA would provide STAP with energy cost inflation protection. Please provide detailed estimates of those savings over the initial contract term of ten-years. Further, provide detail on the VPPA payment terms and conditions.

The energy futures market allows participants to hedge against future unexpected and dramatic price increases; the price for this hedge is a premium on current and future energy estimates based upon current inflation expectations. In essence, it’s insurance.

On a net basis, the cost of insurance is more than the expected payout, that’s how insurance companies stay in business. The same goes for the PPA/ VPPA market, but with infrequent and unpredictable moments when the price paid for energy -- even green energy, which yields clean energy credits -- remains lower than the market rate. This is because the other side of the ledger, the energy seller, are independent market participants.

Each project, such as a wind or solar farm, has its own financing needs and ROI expectations. Our goal is to find a project where STAP can purchase green energy at prevailing retail rates, and purchase it with capital rather than operating expenses.

The PPA/ VPPA space is quickly evolving, both in terms of regulation and the players/ products offered. At present, it is still in its infancy and as a result chaotic and fairly opaque. We have spent considerable time learning more about this emerging market, and present a broad summary based upon current conditions:



- Power Purchase Agreement (PPA): California voted in Direct Access¹ to allow non-residential customers to bypass incumbent electric utilities, but not in areas sold through municipally-owned utilities. The City of Los Angeles is governed through LADWP, therefore Direct Access does not automatically apply.

We would defer to the City to see if a special agreement can be forged with LADWP to allow STAP to utilize Direct Access, or inquire about other available options, in order to purchase green energy for this project.

- Virtual Power Purchase Agreement (VPPA): In a VPPA, no energy physically flows from buyer to seller, but is rather settled monthly or quarterly in a “contract of differences”, settling upon the difference between the agreed-upon price and current spot price. Finding a green project to supply the energy can be tricky, however, given the newness of the product. Because it is merely a financial contract, VPPAs are allowed in the City of Los Angeles.

Most VPPA projects have much higher energy needs than ours (slightly more than 100,000 Megawatt Hours), but based upon initial discussions we believe a successful VPPA partner can be established to purchase green energy at a price at parity to current retail rates. Finding a matching partner and project remains unpredictable; variables to consider include timing, rates offered, and risk-profile.

Both PPA and VPPA may provide LA STAP with three material benefits:

1. Green energy: Renewable energy credits (RECs) for every megawatt hour of energy that is consumed within the VPPA.
2. Inflation protection: A contract guarantees green energy at a predetermined price and/or pre-determined increase (typically 1% to 3% annual increase).
3. Flexibility in classification: Since a VPPA provides a predetermined energy price for the duration of the 10-year contract, the City may have the flexibility to classify energy costs as a capitalized (as opposed to an annual or operational) expense.

¹ [California Public Utilities Commission website](#)

With either a PPA or VPPA, we believe that the energy can be capitalized; thereby removing energy costs and its share of the 10% contingency from OpEx. Another option may be for the City to absorb the energy costs directly. In either case, our BAFO transfers 100% of the projected energy costs and its share of the 10% contingency directly to City Revenues as a Project Options. Energy costs are currently projected as additive to the City share by 4% (to boost the City's target share to **64.4%** of Project Revenues).

5. Provide a detailed Public Engagement Plan that supports the implementation of STAP based on your proposed schedule. Address specific areas of the program that must earn public support, such as the design of the elements and the use of digital.

Upon contract commencement, we will spend the first six months in Phase 0 and lead five parallel Working Groups -- Transition, Planning, Technology, Design, Launch -- of which three will have direct public engagement:

- Technology Group: Led by BMW Designworks with Tranzito, Complete Streets, ITS, ITA, MDS, ATSAC 3.0, DWP/BSL, utility providers, and CBOs.
- Design Group: Led by SOM with BMW Designworks, Studio One Eleven, Fehr & Peers, Tolar Manufacturing, EmpowerLA, and relevant Planning Group and community groups.
- Launch Group: Led by Studio One Eleven with Black & Veatch, Fehr & Peers, Vertical Bridge, DWP/BSL, Permits department, and EmpowerLA.

Technology Group

Goal: Coalition building with local technology infrastructure partners and technology departments within the City of Los Angeles, alignment of technologies, processes, goals, and vendors where advantageous to the City.

Leaders: **BMW Designworks** with support from Tranzito, LADOT, and ITS.

Relevant stakeholders:

1. Key Stakeholders: The following two working groups will inform each other and determine needs and requirements collaboratively between each other.



- a. Infrastructure Stakeholders: Fiber/Harline Data Providers, Mobile Service Providers (for LTE-M/ePaper displays off grid), Vertical Grid (potentially for micro cell service) Digital View (electronic packaging for eInk displays), VConn, Ad Provider(s), Tolar/SOM, Tranzito, HLB/City light manufacturer(s), Complete Streets, ITA, MDS, ATSAC 3.0, DWP/BSL, Accessibility Agencies
- b. Interaction Stakeholders: Complete Streets, ITA, MDS, ATSAC 3.0, DWP/BSL, Accessibility & Transit Agencies, VConn, Digital View, Ad provider(s), Agency 39a for App, Tranzito
2. Utility providers: Southern California Edison, cellular, broadband providers
3. EmpowerLA neighborhood coalitions
4. Business Improvement Districts (BIDs)

Format:

1. UX Interactive Plan: A core set of UX deliverables will be created and shared across the following touchpoints for STAP stakeholders:
 - a. Kick-Off Meeting between Infrastructure and Interaction stakeholder groups to set all key meetings and schedule for development of all interactive UX deliverables.
 - b. Interactive Stakeholder Interviews/Technology Exploration: Designworks and key partners will interview stakeholders over the course of the first 4-6 weeks either virtually or in person to engage in technology and strategy exploration, feasibility, and identification of constraints between physical and digital components, technology, and City owned systems.
 - c. Network / Data Stakeholders Interviews/Technology Exploration: Similar to above, with Tranzito as the lead.
 - d. UX Interactive Workshop: A full day workshop will be conducted at a location in Los Angeles or at Designworks headquarters in Newbury Park, CA to align and prioritize on process, timelines, and deliverables for Interaction UX.
 - e. Weekly/Monthly Meetings: After completion of the workshop, key stakeholders will be identified that are required to enable the deliverables outlined below, including approvals and/or enabling access to required components (API's, transit schedules, ADA requirements, local/emergency communications feeds, etc.) for development and testing.



- f. Design Development Reviews: Over the course of 3-6 months after the workshop we will develop physical and/or digital concepts and ultimately final designs that will be reviewed and approved by City Stakeholders.
- g. Refinement Review: Final review of interaction UX designs that will go live.
- h. All decisions will be captured after meetings and distributed to relevant stakeholder groups by the project team.

Deliverable:

1. Interactive UX Plan: Interactive UX designs will be developed in-line with overall design aesthetics for key STAP components across the following user touchpoints:
 - a. Integrated UX Strategy for Smart City Nodes: UX Design team will develop an overall strategic approach to the ecosystem of STAP digital UX components (noted below) including the definition of visual language and interactions.
 - b. Ad Screen: Community messaging, emergency and public service information.
 - c. ePaper Transit Screen: Transit information including real-time updates.
 - d. Kiosk: UX design for interactive kiosk and may include TAP or ticket purchase interactions to align with overall STAP design aesthetics
 - e. Mobile Ecosystem: Design of app, web, and wifi portal experience.
 - f. Physical to Digital Experience Design: Extension of UX interactive design to potentially include lighting, occupancy detection, open/closed status, and way finding depending on approved sensors and privacy/data permissions or challenges.
 - g. Ongoing UX Asset Creation: Interaction Design will include an ongoing bucket of design hours to enable City to add up to a specified level of additional content creation over the course of the first twelve months as launch assets and interaction playbook is being built.
2. Data Privacy Plan: A plan that details digital engagement strategies, technologies used, data privacy safeguards, reporting and audits plan, and scenarios plan in case of security breach.



3. Network Design Plan: A plan that details connection-to-endpoint plan, device connection plan, private network plan, private LoRaWAN plan (if applicable), public WiFi plan, and Bluetooth/ smart sensors plan.

Design Group

Goal: Plan and complete detailed design for optimized shelter production and installation process.

Leaders: SOM with support from BMW Designworks, Studio One Eleven, Tolar Manufacturing, Fehr & Peers, and EmpowerLA.

Relevant stakeholders:

1. Planning Group
2. EmpowerLA neighborhood coalitions
3. Business Improvement Districts (BIDs)
4. Councilmember's Office
5. General public outreach

Format:

1. Weekly internal design workshops with STAP Design Group Leaders. The group then sets meeting goals and jumps into a creative working group session utilizing a shared software tool. The working group session ends with clear assignments for members with the expectation for action reports the following meeting.
2. Participation in public engagement charrettes led by Studio One Eleven and coordinated by Empower LA and/or agency stakeholders. The format for these would typically be a design presentation by the Design Group, followed by Q&A and discussion.
3. STAP project design manager will record minutes and generate meeting agendas.
4. Each Design Group member acts as a representative for their respective organization, empowered as an officer of that organization or other role to make decisions during the meetings.

Deliverable:

1. Detailed design drawings
2. Finalize urban design plan, including Revitalization of refurbished shelters



3. Design direction for Phase 1: Rollout A

Our tight collaboration will ensure the aesthetic character guidelines developed and led by SOM in collaboration with Studio One Eleven and BMW Designworks are maintained throughout the design process. The aesthetic character guidelines and detailed documentation aim to ensure all future digital and physical expressions of mobility hubs are consistent, recognizable, and complement the existing built environment. We will maintain lighting, typeface, tone, and graphics for clear experience within both physical and digital planes.

SOM alongside Studio One Eleven will host a design charrette to refine high level concepts with relevant stakeholders, test the application of the draft STAP brand and identity style guide, as well as an early version of the Kit-of-Parts. This will inform our preliminary concepts for Phase 1: Rollout A.

We will incorporate feedback from the design charette to ensure the finalized Kit-of-Parts is customizable to reflect the surrounding community identity. We will also explore additional programming elements (kiosks, farmers markets, plaza, local vendors, art elements, etc) to enhance the transit user experience, and encourage the use of the space.

SOM and BMW Designworks will work closely with Tolar Manufacturing and other third party product suppliers to prepare construction drawings and specifications for the Kit-of-Parts meeting all relevant code and accessibility requirements within Phase 1. These permit documents will include the architecture, industrial design and engineering for Kit-of-Parts without reference to specific site location. Permitting the Kit-of-Parts as a stand alone system, will streamline the approval process for the site specific deployment to follow.

Launch Group

Goal: Permit planning to maximize early communication and establishment of parameters for a streamlined and expedited permit process.

Leaders: Studio One Eleven with support from Black & Veatch, Fehr & Peers, AP Construction, Vertical Bridge, DWP/BSL, and Permits department.

Relevant stakeholders:

1. StreetsLA STAP project manager and administrator
2. Planning Group
3. Council District Office staff/representatives
4. Utilities providers
5. EmpowerLA



Format:

4. Training and orientation session of program tools.
5. Permit planning agenda item on bi-weekly Planning Working Group meeting.
6. As-needed and ad-hoc meetings with relevant City departments, Council District Office staff or other stakeholders.

Deliverables:

1. Studio One Eleven, Permitting Plan
 - a. Permitting Plan including Expedited Site Approvals process and District-Wide Permit Process including timelines for approval.
 - b. Permit Application Packets for Phase 1, Rollout A
2. Black & Veatch, STAP Deployment Plan 1.0
 - a. Reporting and Asset Management Plan
 - b. Construction Best Practices and Scenario-Analysis document
 - c. Program Design
 - d. Program Rollout Schedule
 - e. Revitalization Plan
 - f. Install, Maintenance, and Replacement Plan

The primary purpose of the Launch Group is to identify a rollout target that is realistic and achievable, get multi-stakeholder buy-in on that target, and streamline the permitting process.



Clarifications

1. Routine Maintenance is scheduled at 50% weekly cleanings and 50% 3x weekly "hot spot" locations, for a project wide average of 2x weekly per shelter. Garbage disposal is scheduled at weekly intervals. Schedule additions, at the request of the City, will be billed on a per-unit rate as indicated in the BAFO "Assumptions" tab and will be deducted from Project Revenues before revenue splits.
2. Maintenance of legacy equipment is assumed to be performed by the current contractor if the operator elects for their continuing use for ad revenue purposes.
3. City MAG and one-time city payment are based upon a "per unit" pro-rata share of planned advertising faces installed and operable based upon BAFO rollout. A delay in rollout will result in a concurrent pro-rata deduction in City MAG and/or one-time city payment.
4. All work -- including construction, installations, and maintenance -- is assumed to not fall within Davis-Bacon Prevailing Wages.
5. The City is assumed to accept Liability and Property Insurance once shelters are installed and ownership transfer is established.

LA STAP BEST AND FINAL OFFER AMENDMENT

Version 2.2 Submitted October 31, 2021

The following points add clarification or amendments to Tranzito Response to Proposal (Version 4.21, submitted August 16, 2021).

Digital clarifications

- Page 33 - Networks “Our plan is to build a private CBRS network on top of our backhaul partner’s end-points.”
 - Modify to “Our plan is to explore the feasibility of building a private CBRS network on top of our backhaul partner’s end-points”
 - Justification: This plan is contingent upon the City’s discretion to install a 5G network to initiate a backhaul partner.

- Page 35 - Data - Sensors - “Each Bus shelter will have Bluetooth Low Energy (BTLE) beacons and Near-Field Communication (NFC) readers, with additional capacity for LIDAR and air quality sensors (AQS).”
 - Amend to “Each Bus shelter may have Bluetooth Low Energy (BTLE) beacons and Near-Field Communication (NFC) readers, with additional capacity for LIDAR and air quality sensors (AQS), though exact sensor configuration will be determined as we continue through the hardware design process.”
 - Justification: This plan is contingent upon final design considerations and the City’s discretion of sensors.

- Page 37 - “3. Curb App: The Curb App is a downloadable app that acts as a counterpart to bus shelter messaging.”
 - Amend to: “The Curb App may be a downloadable app that acts as a counterpart to bus shelter messaging”
 - Justification: Final end-user communication method will be decided upon after further scoping with relevant City stakeholders.

- Page 37 - Curb App “The primary architecture of the app will consist of a microservice framework. This architecture will allow the flexibility of adding in additional components in a modular way, removing the burden of maintaining a monolithic codebase, enabling new functions and features to be added as related projects and additional budgets allow.”



- Strike this paragraph.
 - Justification: Final app architecture will be decided upon after further scoping with relevant City stakeholders.
- Page 39 - Curb CMS “And the API/SDK map will show a live view of current connections.”
 - Strike this sentence.
 - Justification: Live view of current connections will not be possible for all connected systems, as not all systems incorporated in the CMS support identification of connections in real time. Appropriate monitoring will be built to support the business need of understanding usage and uptime to deliver a high level of service.
- Page 40 - “Movement and Interaction reports: All user interactions and anonymized pedestrian / vehicle movements are tracked and recorded to provide the City with useful information for planning purposes.”
 - Strike this sentence.
 - Justification: This plan is contingent upon the City’s discretion of data management and sensors and/ or third-party operator cooperation.
- Page 40 - “5. Maintenance tracking: We utilize Connixt”
 - Add “or a similar product that digitally tracks maintenance events”
 - Justification: The City may require the use of Cartegraph for maintenance tracking.
- Page 40 - “6. Help desk: We utilize Groove”
 - Add “but may transition to another vendor in the future”
 - Justification: The City may require 311 integration instead of a third-party support ticketing system.
- Page 40 - “and low-energy LoRa routers and sensors.”
 - Strike this sentence.
 - Justification: This plan is contingent upon the City’s discretion to install and support LoRa routers and sensors.

Contractual Clarifications

- BAFO 4.2 - Curb CMS charges are fixed by year total shown:
 - Justification: Staffing minimums remain regardless of units installed.



- BAFO 4.2 - Bonding requirements limited to construction related bonds.
 - Justification: Reduces total project costs; construction subcontractor has sufficient bonding to protect against construction-related liabilities at extremely favorable rates.
- BAFO 4.2 - CPI is assumed at 3%. If year-over-year inflation of any OpEx category expenses is beyond 2.5-3.5%, a formal petition may be filed for early consideration of revenue share adjustments to compensate accordingly.
- BAFO 4.2 - Executive staff allocation may be adjusted according to actual project staff allocation.

