

2020-2029

SHORT RANGE TRANSIT PLAN: Appendices



Appendix A: Route Profiles

Appendix A: Route Profiles



FY 2017 Farebox Recovery: 15% % transfer (to route): 25% % Clipper usage: 16%

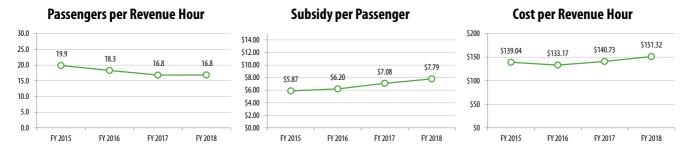
		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	194,263	5,396	257	11,496	319	15	177,386	4,927	234
Saturday	27,564	766	174	1,541	43	10	24,621	684	156
Sunday	26,171	727	145	1,720	48	10	27,378	761	152
Total	247,998	6,889	226	14,757	410	13	229,385	6,372	209

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$1,617,108	\$44,920	\$2,136	\$247,041	\$6,862	\$326	\$1,370,067	\$38,057	\$1,810	
Saturday	\$217,536	\$6,043	\$1,377	\$36,894	\$1,025	\$234	\$180,642	\$5,018	\$1,143	
Sunday	\$242,142	\$6,726	\$1,345	\$35,826	\$995	\$199	\$206,316	\$5,731	\$1,146	
Total	\$2,076,786	\$57,689	\$1,897	\$319,761	\$8,882	\$292	\$1,757,025	\$48,806	\$1,605	

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	16.9	\$7.05		15.3%
Saturday	17.9	\$6.55		17.0%
Sunday	15.2	\$7.88		14.8%
Total	16.8	\$7.08	\$140.73	15.4%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	280,486	15,330	\$2,041,616	\$302,337	\$1,739,279	18.3	\$6.20	\$133.17	14.8%
FY 2017	247,998	14,757	\$2,076,786	\$319,761	\$1,757,025	16.8	\$7.08	\$140.73	15.4%
FY 2018	250,651	14,885	\$2,252,338	\$298,773	\$1,953,565	16.8	\$7.79	\$151.32	13.3%







FY 2017 Farebox Recovery: 17% % transfer (to route): 10% % Clipper usage: 11%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	184,918	5,137	244	14,244	396	19	126,319	3,509	167
Saturday	16,752	465	106	1,537	43	10	16,232	451	103
Sunday	14,088	391	78	1,773	49	10	18,729	520	104
Total	215,758	5,993	197	17,553	488	16	161,280	4,480	147

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$1,312,992	\$36,472	\$1,734	\$232,926	\$6,470	\$308	\$1,080,066	\$30,002	\$1,427
Saturday	\$142,334	\$3,954	\$901	\$21,235	\$590	\$134	\$121,099	\$3,364	\$766
Sunday	\$163,993	\$4,555	\$911	\$18,898	\$525	\$105	\$145,095	\$4,030	\$806
Total	\$1,619,319	\$44.981	\$1,479	\$273.059	\$7,585	\$249	\$1,346,260	\$37,396	\$1,229

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	13.0	\$5.84		17.7%
Saturday	10.9	\$7.23		14.9%
Sunday	7.9	\$10.30		11.5%
Total	12.3	\$6.24	\$92.25	16.9%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	243,635	14,872	\$1,971,172	\$259,453	\$1,711,719	16.4	\$7.03	\$132.55	13.2%
FY 2017	215,758	17,553	\$1,619,319	\$273,059	\$1,346,260	12.3	\$6.24	\$92.25	16.9%
FY 2018	207,816	17,906	\$1,825,020	\$256,290	\$1,568,730	11.6	\$7.55	\$101.92	14.0%







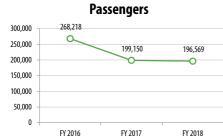
FY 2017 Farebox Recovery: **16%** % transfer (to route): **24%** % Clipper usage: **12%**

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	145,707	4,047	192	8,042	223	11	64,277	1,785	85
Saturday	28,305	786	179	1,434	40	9	11,466	319	73
Sunday	25,138	698	140	1,589	44	9	12,750	354	71
Total	199,150	5,532	182	11,065	307	10	88,492	2,458	81

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$1,096,892	\$30,469	\$1,449	\$179,427	\$4,984	\$237	\$917,465	\$25,485	\$1,212	
Saturday	\$195,468	\$5,430	\$1,237	\$35,226	\$979	\$223	\$160,242	\$4,451	\$1,014	
Sunday	\$216,299	\$6,008	\$1,202	\$32,255	\$896	\$179	\$184,044	\$5,112	\$1,022	
Total	\$1,508,659	\$41.907	\$1,378	\$246,908	\$6.859	\$225	\$1,261,751	\$35.049	\$1,152	

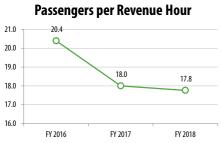
	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	18.1	\$6.30		16.4%
Saturday	19.7	\$5.66		18.0%
Sunday	15.8	\$7.32		14.9%
Total	18.0	\$6.34	\$136.35	16.4%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	268,218	13,154	\$1,703,216	\$308,138	\$1,395,078	20.4	\$5.20	\$129.48	18.1%
FY 2017	199,150	11,065	\$1,508,659	\$246,908	\$1,261,751	18.0	\$6.34	\$136.35	16.4%
FY 2018	196,569	11,070	\$1,618,197	\$230,746	\$1,387,451	17.8	\$7.06	\$146.18	14.3%

















Days of Service: **Wkdy**Avg Freq (Wkdy Peak): **60 min**Avg Freq (Wkdy Non-Peak): Avg Freq (Wked): -

FY 2017 Farebox Recovery: 12% % transfer (to route): 31% % Clipper usage: 12%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	49,255	1,368	65	3,445	96	5	32,408	900	43
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	49,255	1,368	65	3,445	96	5	32,408	900	43

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$473,413	\$13,150	\$625	\$57,438	\$1,596	\$76	\$415,975	\$11,555	\$550
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$473,413	\$13,150	\$625	\$57,438	\$1,596	\$76	\$415,975	\$11,555	\$550

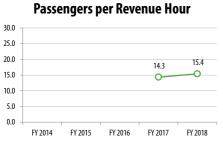
	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	14.3	\$8.45		12.1%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	14.3	\$8.45	\$137.44	12.1%

Trends		Passengers	Revenue Hours	Operating Costs	Passenger Revenue	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
	FY 2016									
Historie	FY 2017	49,255	3,445	\$473,413	\$57,438	\$415,975	14.3	\$8.45	\$137.44	12.1%
_	FY 2018	52,463	3,407	\$502,240	\$56,785	\$445,455	15.4	\$8.49	\$147.43	11.3%















Days of Service: **Wkdy**Avg Freq (Wkdy Peak): **60 min**Avg Freq (Wkdy Non-Peak): Avg Freq (Wked): -

FY 2017 Farebox Recovery: 10% % transfer (to route): 26% % Clipper usage: 12%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	40,103	1,114	53	3,707	103	5	37,048	1,029	49
Saturday	-	-	-	-	-	-	-	-	-
Sunday	=	-	-	-	-	-	-	-	-
Total	40,103	1,114	53	3,707	103	5	37,048	1,029	49

	(Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$509,475	\$14,152	\$673	\$49,634	\$1,379	\$66	\$459,841	\$12,773	\$607	
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Total	\$509,475	\$14,152	\$673	\$49.634	\$1,379	\$66	\$459,841	\$12,773	\$607	

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	10.8	\$11.47		9.7%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	10.8	\$11.47	\$137.45	9.7%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	181,786	10,502	\$1,378,760	\$219,997	\$1,158,763	17.3	\$6.37	\$131.29	16.0%
FY 2017	40,103	3,707	\$509,475	\$49,634	\$459,841	10.8	\$11.47	\$137.45	9.7%
FY 2018	40,315	3,299	\$487,313	\$45,550	\$441,763	12.2	\$10.96	\$147.71	9.3%









Passengers per Revenue Hour







FY 2017 Farebox Recovery: 23% % transfer (to route): 17% % Clipper usage: 8%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	492,328	13,676	650	16,909	470	22	224,421	6,234	296
Saturday	84,453	2,346	535	2,860	79	18	43,336	1,204	274
Sunday	82,088	2,280	456	3,284	91	18	50,021	1,389	278
Total	658,869	18,302	602	23,052	640	21	317,778	8,827	290

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$2,367,217	\$65,756	\$3,127	\$533,190	\$14,811	\$704	\$1,834,027	\$50,945	\$2,423	
Saturday	\$403,729	\$11,215	\$2,555	\$97,853	\$2,718	\$619	\$305,876	\$8,497	\$1,936	
Sunday	\$463,362	\$12,871	\$2,574	\$98,732	\$2,743	\$549	\$364,630	\$10,129	\$2,026	
Total	\$3,234,308	\$89,842	\$2,954	\$729,775	\$20,272	\$666	\$2,504,533	\$69,570	\$2,287	

	Passengers per Revenue Hour		Cost per Revenue Hour	Farebox Recovery
Weekday	29.1	\$3.73		22.5%
Saturday	29.5	\$3.62		24.2%
Sunday	25.0	\$4.44		21.3%
Total	28.6	\$3.80	\$140.30	22.6%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	472,718	9,300	\$1,202,986	\$544,109	\$658,877	50.8	\$1.39	\$129.35	45.2%
FY 2017	658,869	23,052	\$3,234,308	\$729,775	\$2,504,533	28.6	\$3.80	\$140.30	22.6%
FY 2018	665,936	23.006	\$3,476,029	\$697,189	\$2,778,840	28.9	\$4.17	\$151.09	20.1%















FY 2017 Farebox Recovery: 19% % transfer (to route): 18% % Clipper usage: 6%

Operating Costs

\$415,238 \$402,355 \$457,21

\$500,000

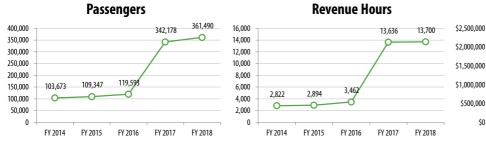
\$1,901,678 \$2,054,477

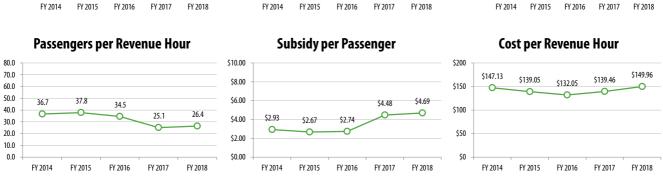
		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	278,217	7,728	368	9,938	276	13	133,318	3,703	176
Saturday	33,779	938	214	1,715	48	11	24,259	674	154
Sunday	30,182	838	168	1,983	55	11	28,002	778	156
Total	342,178	9,505	312	13,636	379	12	185,579	5,155	169

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$1,384,291	\$38,453	\$1,829	\$290,481	\$8,069	\$384	\$1,093,810	\$30,384	\$1,445	
Saturday	\$240,062	\$6,668	\$1,519	\$40,774	\$1,133	\$258	\$199,288	\$5,536	\$1,261	
Sunday	\$277,325	\$7,703	\$1,541	\$37,877	\$1,052	\$210	\$239,448	\$6,651	\$1,330	
Total	\$1,901,678	\$52,824	\$1,737	\$369,132	\$10,254	\$337	\$1,532,546	\$42,571	\$1,400	

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	28.0	\$3.93		21.0%
Saturday	19.7	\$5.90		17.0%
Sunday	15.2	\$7.93		13.7%
Total	25.1	\$4.48	\$139.46	19.4%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	119,593	3,462	\$457,211	\$129,715	\$327,496	34.5	\$2.74	\$132.05	28.4%
FY 2017	342,178	13,636	\$1,901,678	\$369,132	\$1,532,546	25.1	\$4.48	\$139.46	19.4%
FY 2018	361,490	13,700	\$2,054,477	\$359,118	\$1,695,359	26.4	\$4.69	\$149.96	17.5%







FY 2017 Farebox Recovery: 22% % transfer (to route): 9% % Clipper usage: 11%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	201,564	5,599	266	11,313	314	15	139,528	3,876	184
Saturday	18,489	514	117	1,517	42	10	18,370	510	116
Sunday	17,183	477	95	1,761	49	10	21,402	595	119
Total	237,236	6,590	217	14,590	405	13	179,300	4,981	164

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$978,903	\$27,192	\$1,293	\$230,134	\$6,393	\$304	\$748,769	\$20,799	\$989
Saturday	\$131,907	\$3,664	\$835	\$22,520	\$626	\$143	\$109,387	\$3,039	\$692
Sunday	\$153,484	\$4,263	\$853	\$21,844	\$607	\$121	\$131,640	\$3,657	\$731
Total	\$1,264,294	\$35,119	\$1,155	\$274,498	\$7.625	\$251	\$989,796	\$27,494	\$904

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	17.8	\$3.71		23.5%
Saturday	12.2	\$5.92		17.1%
Sunday	9.8	\$7.66		14.2%
Total	16.3	\$4.17	\$86.65	21.7%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	147,480	6,795	\$900,804	\$146,345	\$754,459	21.7	\$5.12	\$132.57	16.2%
FY 2017	237,236	14,590	\$1,264,294	\$274,498	\$989,796	16.3	\$4.17	\$86.65	21.7%
FY 2018	244.998	14,841	\$1,458,817	\$259,446	\$1,199,371	16.5	\$4.90	\$98.29	17.8%

















Days of Service: **Wkdy, Sa, Su** Avg Freq (Wkdy Peak): **8 trips** Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): **16 trips**

FY 2017 Farebox Recovery: **8%** % transfer (to route): **7%** % Clipper usage: **11%**

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	17,166	477	23	2,631	73	4	45,398	1,261	60	
Saturday	9,922	276	64	1,319	37	9	20,810	578	135	
Sunday	9,240	257	49	1,542	43	8	24,457	679	129	
Total	36,328	1,009	33	5,492	153	5	90,665	2,518	83	

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$229,650	\$6,379	\$306	\$17,691	\$491	\$24	\$211,959	\$5,888	\$282
Saturday	\$113,378	\$3,149	\$736	\$11,622	\$323	\$75	\$101,756	\$2,827	\$661
Sunday	\$132,750	\$3,688	\$699	\$10,646	\$296	\$56	\$122,104	\$3,392	\$643
Total	\$475,778	\$13,216	\$435	\$39,959	\$1,110	\$36	\$435,819	\$12,106	\$398

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	6.5	\$12.35		7.7%
Saturday	7.5	\$10.26		10.3%
Sunday	6.0	\$13.21		8.0%
Total	6.6	\$12.00	\$86.63	8.4%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	37,276	5,475	\$408,987	\$48,421	\$360,566	6.8	\$9.67	\$74.70	11.8%
FY 2017	36,328	5,492	\$475,778	\$39,959	\$435,819	6.6	\$12.00	\$86.63	8.4%
FY 2018	36,010	5,535	\$525,378	\$40,082	\$485,296	6.5	\$13.48	\$94.92	7.6%

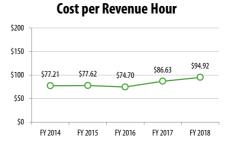














FY 2017 Farebox Recovery: **53%** % transfer (to route): **0%** % Clipper usage: **0%**

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	21,940	2,438	186	804	89	7	10,735	1,193	91	
Saturday	43,799	1,460	388	1,473	49	13	20,480	683	181	
Sunday	56,377	1,708	378	2,040	62	14	28,212	855	189	
Total	122,116	3,700	321	4,316	131	11	59,428	1,801	156	

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$104,033	\$11,559	\$882	\$37,751	\$4,195	\$320	\$66,282	\$7,365	\$562
Saturday	\$152,661	\$5,089	\$1,351	\$79,948	\$2,665	\$708	\$72,713	\$2,424	\$643
Sunday	\$217,032	\$6,577	\$1,457	\$132,049	\$4,001	\$886	\$84,983	\$2,575	\$570
Total	\$473,726	\$14.355	\$1,247	\$249,748	\$7,568	\$657	\$223.978	\$6,787	\$589

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	27.3	\$3.02		36.3%
Saturday	29.7	\$1.66		52.4%
Sunday	27.6	\$1.51	•	60.8%
Total	28.3	\$1.83	\$109.75	52.7%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	116,942	4,673	\$531,384	\$245,779	\$285,605	25.0	\$2.44	\$113.73	46.3%
FY 2017	122,116	4,316	\$473,726	\$249,748	\$223,978	28.3	\$1.83	\$109.75	52.7%
FY 2018	163 916	5 930	\$739.882	\$365,872	\$374 010	27.6	\$2.28	\$124.78	49 5%

















FY 2017 Farebox Recovery: 9% % transfer (to route): 13% % Clipper usage: 12%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	59,903	1,664	80	7,282	202	10	133,167	3,699	177
Saturday	8,410	234	55	1,492	41	10	27,123	753	176
Sunday	8,285	230	44	1,907	53	10	34,638	962	182
Total	76,598	2,128	70	10,680	297	10	194,928	5,415	178

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$645,737	\$17,937	\$860	\$64,332	\$1,787	\$86	\$581,405	\$16,150	\$774
Saturday	\$131,882	\$3,663	\$856	\$9,260	\$257	\$60	\$122,622	\$3,406	\$796
Sunday	\$169,286	\$4,702	\$891	\$8,856	\$246	\$47	\$160,430	\$4,456	\$844
Total	\$946,905	\$26,303	\$865	\$82,448	\$2,290	\$75	\$864,457	\$24,013	\$789

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	8.2	\$9.71		10.0%
Saturday	5.6	\$14.58		7.0%
Sunday	4.3	\$19.36		5.2%
Total	7.2	\$11.29	\$88.66	8.7%

`	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	erating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	70,292	10,611	\$811,978	\$88,808	\$723,170	6.6	\$10.29	\$76.52	10.9%
FY 2017	76,598	10,680	\$946,905	\$82,448	\$864,457	7.2	\$11.29	\$88.66	8.7%
FY 2018	82.745	10.656	\$1,034,218	\$85,312	\$948.906	7.8	\$11.47	\$97.06	8.2%















FY 2017 Farebox Recovery: 15% % transfer (to route): 26% % Clipper usage: 16%

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	121,141	10,095	479	7,705	642	30	174,624	14,552	690	
Saturday	-	-	-	-	-	-	-	-	-	
Sunday	-	-	-	-	-	-	-	-	-	
Total	121,141	10,095	479	7,705	642	30	174,624	14,552	690	

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$1,116,954	\$93,080	\$4,415	\$164,963	\$13,747	\$652	\$951,991	\$79,333	\$3,763
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$1,116,954	\$93,080	\$4,415	\$164,963	\$13,747	\$652	\$951,991	\$79,333	\$3,763

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	15.7	\$7.86		14.8%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	15.7	\$7.86	\$144.96	14.8%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	259,678	7,717	\$1,075,263	\$300,186	\$775,077	33.7	\$2.98	\$139.34	27.9%
FY 2017	121,141	7,705	\$1,116,954	\$164,963	\$951,991	15.7	\$7.86	\$144.96	14.8%
FY 2018	-	-	-	-	-	-	-	-	

















Days of Service: School Days Avg Freq (Wkdy Peak): 3 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

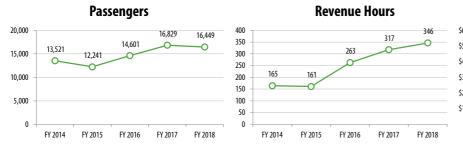
FY 2017 Farebox Recovery: 29% % transfer (to route): 0% % Clipper usage: 4%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	16,829	510	31	317	10	1	2,404	73	4
Saturday	-	-	-	-	=	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	16,829	510	31	317	10	1	2,404	73	4

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$42,180	\$1,278	\$77	\$12,227	\$371	\$22	\$29,953	\$908	\$54
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$42,180	\$1,278	\$77	\$12,227	\$371	\$22	\$29,953	\$908	\$54

	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	31.5	\$1.78		29.0%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	31.5	\$1.78	\$132.89	29.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	14,601	263	\$36,924	\$12,809	\$24,115	31.7	\$1.65	\$140.50	34.7%
FY 2017	16,829	317	\$42,180	\$12,227	\$29,953	31.5	\$1.78	\$132.89	29.0%
FY 2018	16,449	346	\$52,862	\$9,533	\$43,329	23.7	\$2.63	\$152.81	18.0%















Days of Service: School Days Avg Freq (Wkdy Peak): 5 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

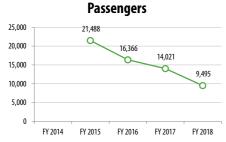
FY 2017 Farebox Recovery: 11% % transfer (to route): 0% % Clipper usage: 7%

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	14,021	425	24	637	19	1	6,963	211	12	
Saturday	-	-	-	-	-	-	-	-	-	
Sunday	-	-	-	-	-	-	-	-	-	
Total	14,021	425	24	637	19	1	6,963	211	12	

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$87,534	\$2,653	\$152	\$9,504	\$288	\$17	\$78,030	\$2,365	\$136
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$87,534	\$2,653	\$152	\$9,504	\$288	\$17	\$78,030	\$2,365	\$136

	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	18.5	\$5.57		10.9%
Saturday	=	\$-		- %
Sunday	-	\$-		- %
Total	18.5	\$5.57	\$137.44	10.9%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	16,366	559	\$82,403	\$12,638	\$69,765	16.8	\$4.26	\$147.54	15.3%
FY 2017	14,021	637	\$87,534	\$9,504	\$78,030	18.5	\$5.57	\$137.44	10.9%
FY 2018	9,495	344	\$52,503	\$4,578	\$47,925	16.9	\$5.05	\$152.73	8.7%

















Days of Service: School Days Avg Freq (Wkdy Peak): 6 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 21% % transfer (to route): 0% % Clipper usage: 2%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	34,820	1,055	64	640	19	1	4,753	144	9
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	=	-
Total	34,820	1,055	64	640	19	1	4,753	144	9

		Operating Costs		P	assenger Revenue		Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$81,509	\$2,470	\$149	\$17,140	\$519	\$31	\$64,369	\$1,951	\$117
Saturday	\$-	\$-	\$-	\$-	\$-	\$ -	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$ -	\$-	\$-	\$-
Total	\$81,509	\$2,470	\$149	\$17,140	\$519	\$31	\$64,369	\$1,951	\$117

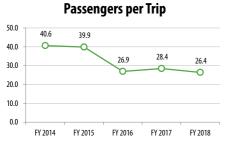
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	28.4	\$1.85		21.0%
Saturday	=	\$-		- %
Sunday	-	\$-		- %
Total	28.4	\$1.85	\$127.32	21.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	33,705	552	\$77,694	\$23,478	\$54,216	26.9	\$1.61	\$140.75	30.2%
FY 2017	34,820	640	\$81,509	\$17,140	\$64,369	28.4	\$1.85	\$127.32	21.0%
FY 2018	23,647	457	\$68,521	\$12,134	\$56,387	26.4	\$2.38	\$150.03	17.7%





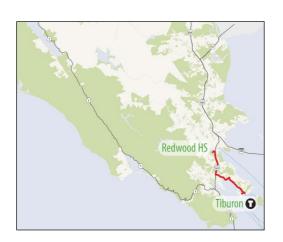












Days of Service: School Days Avg Freq (Wkdy Peak): 5 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: **34%** % transfer (to route): **0%** % Clipper usage: **5%**

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	27,161	823	50	374	11	1	6,893	209	13	
Saturday	-	-	-	-	-	-	-	-	-	
Sunday	-	-	-	-	-	-	-	-	-	
Total	27,161	823	50	374	11	1	6,893	209	13	

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$56,273	\$1,705	\$103	\$18,859	\$571	\$34	\$37,414	\$1,134	\$68	
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Total	\$56,273	\$1,705	\$103	\$18,859	\$571	\$34	\$37,414	\$1,134	\$68	

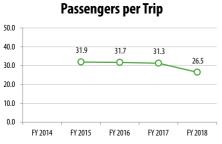
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	31.3	\$1.38		33.5%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	31.3	\$1.38	\$150.58	33.5%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy Pas	ssengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	30,906	431	\$68,366	\$28,456	\$39,910	31.7	\$1.29	\$158.77	41.6%
FY 2017	27,161	374	\$56,273	\$18,859	\$37,414	31.3	\$1.38	\$150.58	33.5%
FY 2018	30.850	592	\$95,816	\$20.918	\$74.898	26.5	\$2.43	\$161.84	21.8%

















Days of Service: **Wkdy** Avg Freq (Wkdy Peak): -Avg Freq (Wkdy Non-Peak): **30 min** Avg Freq (Wked): -

FY 2017 Farebox Recovery: **66%** % transfer (to route): **9%** % Clipper usage: **6%**

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	19,860	662	39	1,696	57	3	15,480	516	31	
Saturday	-	-	-	-	-	-	-	=	-	
Sunday	-	-	-	-	-	-	-	=	-	
Total	19,860	662	39	1,696	57	3	15,480	516	31	

	(Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$183,943	\$6,131	\$364	\$121,007	\$4,034	\$239	\$62,936	\$2,098	\$124	
Saturday	\$-	\$-	\$ -	\$-	\$-	\$-	\$-	\$-	\$-	
Sunday	\$-	\$-	\$ -	\$-	\$-	\$-	\$-	\$-	\$-	
Total	\$183,943	\$6,131	\$364	\$121,007	\$4,034	\$239	\$62,936	\$2,098	\$124	

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	11.7	\$3.17		65.8%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	11.7	\$3.17	\$108.44	65.8%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016									
FY 2017	19,860	1,696	\$183,943	\$121,007	\$62,936	11.7	\$3.17	\$108.44	65.8%
FY 2018	22,976	2,012	\$254,330	\$118,945	\$135,385	11.4	\$5.89	\$126.41	46.8%









Days of Service: School Days Avg Freq (Wkdy Peak): 4 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 16% % transfer (to route): 1% % Clipper usage: 8%

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	13,757	417	25	600	18	1	8,580	260	16	
Saturday	-	-	-	-	-	-	-	-	-	
Sunday	-	-	-	-	-	-	-	-	-	
Total	13,757	417	25	600	18	1	8,580	260	16	

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$72,469	\$2,196	\$132	\$11,570	\$351	\$21	\$60,899	\$1,845	\$111
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$72,469	\$2,196	\$132	\$11,570	\$351	\$21	\$60,899	\$1,845	\$111

	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	19.3	\$4.43		16.0%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	19.3	\$4.43	\$120.86	16.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	13,197	595	\$77,991	\$12,684	\$65,307	18.2	\$4.95	\$131.17	16.3%
FY 2017	13,757	600	\$72,469	\$11,570	\$60,899	19.3	\$4.43	\$120.86	16.0%
FY 2018	11,798	597	\$82,641	\$9,917	\$72,724	16.1	\$6.16	\$138.45	12.0%

















Days of Service: School Days Avg Freq (Wkdy Peak): 2 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 20% % transfer (to route): 0% % Clipper usage: 24%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	6,414	194	12	253	8	0	4,127	125	8
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	=	-	-
Total	6,414	194	12	253	8	0	4,127	125	8

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$33,182	\$1,006	\$61	\$6,635	\$201	\$12	\$26,547	\$804	\$48
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$33,182	\$1,006	\$61	\$6,635	\$201	\$12	\$26,547	\$804	\$48

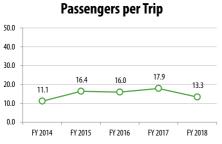
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	17.9	\$4.14	•	20.0%
Saturday	-	\$-	•	- %
Sunday	-	\$-	•	- %
Total	17.9	\$4.14	\$131.10	20.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	6,391	315	\$43,776	\$6,241	\$37,535	16.0	\$5.87	\$138.80	14.3%
FY 2017	6,414	253	\$33,182	\$6,635	\$26,547	17.9	\$4.14	\$131.10	20.0%
FY 2018	4,852	320	\$45,279	\$4,233	\$41,046	13.3	\$8.46	\$141.47	9.3%

















Days of Service: School Days Avg Freq (Wkdy Peak): 2-3 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 29% % transfer (to route): 5% % Clipper usage: 2%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	16,406	497	30	191	6	0	2,175	66	4
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	16,406	497	30	191	6	0	2,175	66	4

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$25,426	\$770	\$46	\$7,258	\$220	\$13	\$18,168	\$551	\$33
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$25,426	\$770	\$46	\$7,258	\$220	\$13	\$18,168	\$551	\$33

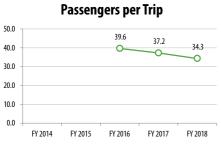
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	37.2	\$1.11		28.5%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	37.2	\$1.11	\$133.47	28.5%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	10,268	167	\$21,672	\$6,341	\$15,331	39.6	\$1.49	\$129.93	29.3%
FY 2017	16,406	191	\$25,426	\$7,258	\$18,168	37.2	\$1.11	\$133.47	28.5%
FY 2018	18,475	253	\$37,421	\$7,095	\$30,326	34.3	\$1.64	\$147.82	19.0%

















Days of Service: School Days Avg Freq (Wkdy Peak): 4-5 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 25% % transfer (to route): 1% % Clipper usage: 4%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	36,801	1,115	67	594	18	1	10,649	323	19
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	36,801	1,115	67	594	18	1	10,649	323	19

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$73,842	\$2,238	\$134	\$18,463	\$559	\$33	\$55,379	\$1,678	\$100	
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Total	\$73,842	\$2,238	\$134	\$18,463	\$559	\$33	\$55,379	\$1.678	\$100	

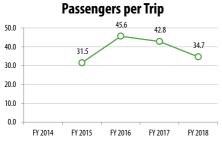
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	42.8	\$1.50		25.0%
Saturday	-	\$-		- %
Sunday	=	\$-		- %
Total	42.8	\$1.50	\$124.42	25.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue Op	erating Subsidy Pass	engers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	42,643	759	\$100,712	\$25,851	\$74,861	45.6	\$1.76	\$132.67	25.7%
FY 2017	36,801	594	\$73,842	\$18,463	\$55,379	42.8	\$1.50	\$124.42	25.0%
FY 2018	44.574	781	\$107.633	\$21.865	\$85,768	34.7	\$1.92	\$137.75	20.3%





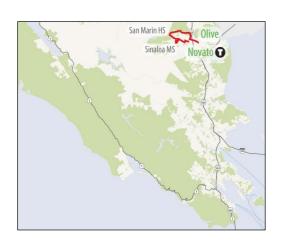












Days of Service: School Days Avg Freq (Wkdy Peak): 3 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: 21% % transfer (to route): 0% % Clipper usage: 5%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	13,738	416	25	358	11	1	4,342	132	8
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	13,738	416	25	358	11	1	4,342	132	8

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$41,965	\$1,272	\$76	\$8,847	\$268	\$16	\$33,118	\$1,004	\$60
Saturday	\$-	\$-	\$ -	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$41,965	\$1,272	\$76	\$8,847	\$268	\$16	\$33,118	\$1,004	\$60

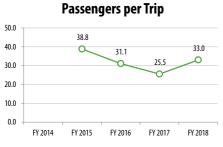
	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	25.5	\$2.41		21.1%
Saturday	=	\$-		- %
Sunday	-	\$-		- %
Total	25.5	\$2.41	\$117.29	21.1%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Trip	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	17,858	360	\$46,133	\$14,660	\$31,473	31.1	\$1.76	\$128.08	31.8%
FY 2017	13,738	358	\$41,965	\$8,847	\$33,118	25.5	\$2.41	\$117.29	21.1%
FY 2018	12,168	351	\$45,902	\$6,145	\$39,757	33.0	\$3.27	\$130.83	13.4%















\$665,412

FY 2018

\$590,663 \$591,224

FY 2017

FY 2016

\$569,962

FY 2015



Days of Service: Wkdy, Sa, Su Avg Freq (Wkdy Peak): 30 min Avg Freq (Wkdy Non-Peak): 30 min Avg Freq (Wked): 30 min

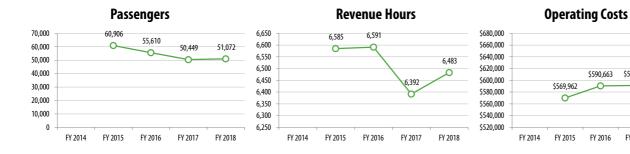
FY 2017 Farebox Recovery: 11% % transfer (to route): 20% % Clipper usage: 11%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	40,817	1,134	54	5,020	139	7	58,766	1,632	78
Saturday	4,888	136	31	637	18	4	10,931	304	69
Sunday	4,744	132	26	735	20	4	12,607	350	70
Total	50,449	1,401	46	6,392	178	6	82,304	2,286	75

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$462,388	\$12,844	\$611	\$51,411	\$1,428	\$68	\$410,977	\$11,416	\$543
Saturday	\$59,904	\$1,664	\$379	\$6,230	\$173	\$39	\$53,674	\$1,491	\$340
Sunday	\$68,932	\$1,915	\$383	\$6,460	\$179	\$36	\$62,472	\$1,735	\$347
Total	\$591,224	\$16,423	\$540	\$64,101	\$1,781	\$59	\$527,123	\$14,642	\$481

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	8.1	\$10.07		11.1%
Saturday	7.7	\$10.98		10.4%
Sunday	6.5	\$13.17		9.4%
Total	7.9	\$10.45	\$92.50	10.8%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue Op	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	55,610	6,591	\$590,663	\$73,164	\$517,499	8.4	\$9.31	\$89.61	12.4%
FY 2017	50,449	6,392	\$591,224	\$64,101	\$527,123	7.9	\$10.45	\$92.50	10.8%
FY 2018	51.072	6.483	\$665,412	\$64,723	\$600,689	7.9	\$11.76	\$102.64	9.7%









FY 2017 Farebox Recovery: 11% % transfer (to route): 17% % Clipper usage: 15%

		Passengers			Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	57,316	1,592	76	7,175	199	9	65,884	1,830	87	
Saturday	8,218	228	52	1,331	37	8	13,020	362	82	
Sunday	5,806	161	32	1,536	43	9	15,023	417	83	
Total	71,340	1,982	65	10,042	279	9	93,926	2,609	86	

		Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$646,194	\$17,950	\$854	\$80,857	\$2,246	\$107	\$565,337	\$15,704	\$747	
Saturday	\$120,205	\$3,339	\$761	\$12,568	\$349	\$80	\$107,637	\$2,990	\$681	
Sunday	\$138,407	\$3,845	\$769	\$10,487	\$291	\$58	\$127,920	\$3,553	\$711	
Total	\$904.806	\$25,134	\$826	\$103.912	\$2,886	\$95	\$800.894	\$22,247	\$731	

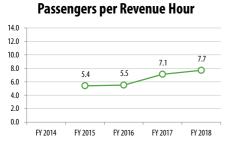
	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	8.0	\$9.86		12.5%
Saturday	6.2	\$13.10		10.5%
Sunday	3.8	\$22.03		7.6%
Total	7.1	\$11.23	\$90.10	11.5%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue 0	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	17,522	3,185	\$280,634	\$28,092	\$252,542	5.5	\$14.41	\$88.12	10.0%
FY 2017	71,340	10,042	\$904,806	\$103,912	\$800,894	7.1	\$11.23	\$90.10	11.5%
FY 2018	78.027	10.123	\$1,007,459	\$103,529	\$903.930	7.7	\$11.58	\$99.52	10.3%

















FY 2017 Farebox Recovery: 13% % transfer (to route): 16% % Clipper usage: 10%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	35,589	989	47	3,306	92	4	38,809	1,078	51
Saturday	3,911	109	25	490	14	3	5,829	162	37
Sunday	3,298	92	18	566	16	3	6,726	187	37
Total	42,798	1,189	39	4,363	121	4	51,364	1,427	47

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$302,758	\$8,410	\$400	\$42,450	\$1,179	\$56	\$260,308	\$7,231	\$344
Saturday	\$44,829	\$1,245	\$284	\$5,018	\$139	\$32	\$39,811	\$1,106	\$252
Sunday	\$51,616	\$1,434	\$287	\$4,533	\$126	\$25	\$47,083	\$1,308	\$262
Total	\$399,203	\$11.089	\$365	\$52,001	\$1,444	\$47	\$347,202	\$9,645	\$317

	Passengers per Revenue Hour	,,	Cost per Revenue Hour	Farebox Recovery
Weekday	10.8	\$7.31		14.0%
Saturday	8.0	\$10.18		11.2%
Sunday	5.8	\$14.28		8.8%
Total	9.8	\$8.11	\$91.51	13.0%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue Op	erating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	49,494	4,384	\$388,005	\$59,296	\$328,709	11.3	\$6.64	\$88.51	15.3%
FY 2017	42,798	4,363	\$399,203	\$52,001	\$347,202	9.8	\$8.11	\$91.51	13.0%
FY 2018	43.943	4,358	\$441,126	\$47,757	\$393,369	10.1	\$8.95	\$101.21	10.8%

















FY 2017 Farebox Recovery: 15% % transfer (to route): 13% % Clipper usage: 13%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	41,761	1,160	55	3,014	84	4	28,706	797	38
Saturday	4,220	117	27	620	17	4	5,778	161	37
Sunday	3,785	105	21	715	20	4	6,667	185	37
Total	49,766	1,382	45	4,349	121	4	41,152	1,143	38

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$271,762	\$7,549	\$359	\$44,873	\$1,246	\$59	\$226,889	\$6,302	\$300
Saturday	\$55,697	\$1,547	\$353	\$6,217	\$173	\$39	\$49,480	\$1,374	\$313
Sunday	\$64,137	\$1,782	\$356	\$5,878	\$163	\$33	\$58,259	\$1,618	\$324
Total	\$391,596	\$10,878	\$358	\$56,968	\$1,582	\$52	\$334.628	\$9,295	\$306

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	13.9	\$5.43		16.5%
Saturday	6.8	\$11.73		11.2%
Sunday	5.3	\$15.39		9.2%
Total	11.4	\$6.72	\$90.04	14.5%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016									
FY 2017	49,766	4,349	\$391,596	\$56,968	\$334,628	11.4	\$6.72	\$90.04	14.5%
FY 2018	51,096	4,347	\$432,567	\$54,153	\$378,414	11.8	\$7.41	\$99.52	12.5%









FY 2017 Farebox Recovery: 11% % transfer (to route): 8% % Clipper usage: 8%

		Passengers			Revenue Hours		Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	76,675	2,130	101	6,754	188	9	95,654	2,657	126
Saturday	9,952	276	63	1,325	37	8	18,630	518	118
Sunday	8,879	247	49	1,528	42	8	21,497	597	119
Total	95,506	2,653	87	9,607	267	9	135,781	3,772	124

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$625,542	\$17,376	\$826	\$78,006	\$2,167	\$103	\$547,536	\$15,209	\$723
Saturday	\$122,485	\$3,402	\$775	\$12,104	\$336	\$77	\$110,381	\$3,066	\$699
Sunday	\$140,992	\$3,916	\$783	\$11,713	\$325	\$65	\$129,279	\$3,591	\$718
Total	\$889.019	\$24,695	\$812	\$101.823	\$2,828	\$93	\$787.196	\$21,867	\$719

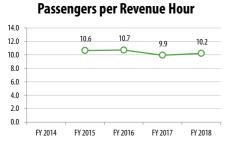
	Passengers per Revenue Hour		Cost per Revenue Hour	Farebox Recovery
Weekday	11.4	\$7.14		12.5%
Saturday	7.5	\$11.09		9.9%
Sunday	5.8	\$14.56		8.3%
Total	9,9	\$8.24	\$92.54	11.5%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue Op	perating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	98,886	9,226	\$831,623	\$120,959	\$710,664	10.7	\$7.19	\$90.14	14.5%
FY 2017	95,506	9,607	\$889,019	\$101,823	\$787,196	9.9	\$8.24	\$92.54	11.5%
FY 2018	98.028	9,596	\$982,992	\$93,853	\$889,139	10.2	\$9.07	\$102.44	9.5%

















FY 2017 Farebox Recovery: 12% % transfer (to route): 6% % Clipper usage: 13%

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	69,126	1,920	91	7,643	212	10	85,748	2,382	113
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	-
Total	69,126	1,920	91	7,643	212	10	85,748	2,382	113

	(Operating Costs			Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	
Weekday	\$697,953	\$19,388	\$922	\$82,621	\$2,295	\$109	\$615,332	\$17,093	\$813	
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	
Total	\$697,953	\$19,388	\$922	\$82,621	\$2,295	\$109	\$615,332	\$17,093	\$813	

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	9.0	\$8.90		11.8%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	9.0	\$8.90	\$91.32	11.8%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016	71,429	6,414	\$575,805	\$83,288	\$492,517	11.1	\$6.90	\$89.77	14.5%
FY 2017	69,126	7,643	\$697,953	\$82,621	\$615,332	9.0	\$8.90	\$91.32	11.8%
FY 2018	65,515	7,639	\$770,914	\$75,202	\$695,712	8.6	\$10.62	\$100.92	9.8%

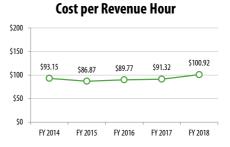
















Days of Service: School Days Avg Freq (Wkdy Peak): 2 trips Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

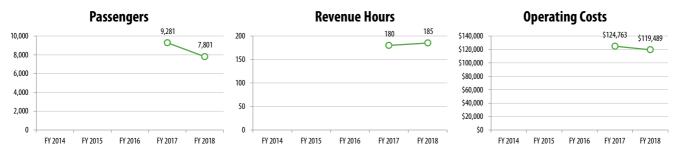
FY 2017 Farebox Recovery: **26%** % transfer (to route): -% Clipper usage: -

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	9,281	281	17	180	5	0	1,638	50	3
Saturday	-	-	-	-	-	-	-	-	-
Sunday	-	-	-	-	-	-	-	-	=
Total	9,281	281	17	180	5	0	1,638	50	3

		Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$124,763	\$3,781	\$227	\$32,170	\$975	\$58	\$92,593	\$2,806	\$168
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$124,763	\$3,781	\$227	\$32,170	\$975	\$58	\$92,593	\$2,806	\$168

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	51.6	\$9.98		25.8%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	51.6	\$9.98	\$693.13	25.8%

ends		Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
ric T	FY 2016									
listori	FY 2017	9,281	180	\$124,763	\$32,170	\$92,593	51.6	\$9.98	\$693.13	25.8%
_	FY 2018	7,801	185	\$119,489	\$30,331	\$89,158	42.2	\$11.43	\$645.89	25.4%









Days of Service: **School Days** Avg Freq (Wkdy Peak): **17 trips** Avg Freq (Wkdy Non-Peak): -Avg Freq (Wked): -

FY 2017 Farebox Recovery: **60%** % transfer (to route): -% Clipper usage: -

		Passengers		Revenue Hours			Revenue Miles		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	127,219	3,855	231	1,065	32	2	12,096	367	22
Saturday	-	-	-	-	=	-	-	-	-
Sunday	=	-	-	-	=	-	-	-	-
Total	127,219	3,855	231	1,065	32	2	12,096	367	22

	(Operating Costs		Passenger Revenue			Operating Subsidy		
	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily	Annual	Avg Monthly	Avg Daily
Weekday	\$738,585	\$22,381	\$1,343	\$440,896	\$13,360	\$802	\$297,689	\$9,021	\$541
Saturday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Sunday	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Total	\$738,585	\$22,381	\$1,343	\$440,896	\$13,360	\$802	\$297,689	\$9,021	\$541

	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
Weekday	119.4	\$2.34		59.7%
Saturday	-	\$-		- %
Sunday	-	\$-		- %
Total	119.4	\$2.34	\$693.25	59.7%

	Passengers	Revenue Hours	Operating Costs	Passenger Revenue	Operating Subsidy	Passengers per Revenue Hour	Subsidy per Passenger	Cost per Revenue Hour	Farebox Recovery
FY 2016									_
FY 2017	127,219	1,065	\$738,585	\$440,896	\$297,689	119.4	\$2.34	\$693.25	59.7%
FY 2018	125,370	1,095	\$707,377	\$487,153	\$220,224	114.5	\$1.76	\$645.89	68.9%





Appendix B: Fare and Eligibility Analysis

Background

The Marin Transit 2016 and 2018 Short Range Transit Plans took an in-depth look at Marin Transit's fare policy, and proposed changes to the structure and fare prices in response to the following policy goals:

- Maintain cost effectiveness targets by service typology;
- Offer fare media that encourages ridership and simplifies payment;
- Keep Marin Transit fares in line with peer agencies;
- Provide non-cash options to support operational efficiency; and
- Maximize social equity by providing mobility for all within the county

In 2016, the District released the Marin Access Strategic Analysis and Recommendations report which provides an in-depth overview of Marin Access programs and riders and the market forces that influence current and future demand. The study examined how Marin Access services are being utilized, what aspects of the programs are well-performing, and what changes in policy or programs will improve the rider experience and enhance mobility management in the county. This study identified opportunities and constraints to improve Marin Access fare and eligibility policies and recommended the following strategies:

- Reevaluate fare policies to optimize public subsidy, achieve sustainable programs, ensure fares are
 equitable and maintain a safety net for low-income individuals, and create pricing that manages
 consumer demand for services
- Reassess eligibility thresholds to achieve consistency and equity across all Marin Access and Marin Transit programs

Staff revisited previous recommendations on fares and eligibility criteria for Marin Access program and the Low-Income Fare Assistance (LIFA) that is offered to seniors and those with disabilities.

A comprehensive review of fares and eligibility thresholds together has not been completed to date. With the addition of new programs such as Connect, upgraded technology expected to come online in 2020 such as the ability to pay fares via an online "wallet," and growing needs in the community, revisiting the fares and eligibility policies were deemed necessary.

As part of the SRTP 2020-2029, staff conducted a comprehensive evaluation of fare pricing, policies, and program eligibility standards to develop updates to fare policy that will benefit riders and increase the financial sustainability of Marin Transit programs. Staff also conducted a survey of riders in November and December 2018 to inform these efforts, better understand why riders use certain payment methods, and identify possible incentives to achieve fare proposal goals.

The following Appendix reflects these updates and changes.

Guidelines for Setting Fares and Eligibility Standards

As a result of evaluating fare pricing, policies, and program eligibility standards, staff identified the following challenges and established fare policy and eligibility goals that guided the recommended policy changes.

Key Considerations and Challenges

- Marin Transit has not increased its Fixed Route and Paratransit fares since 2004.
- Fare revenues in Demand Response programs do not keep pace with increasing operations costs and do not meet current financial performance targets.
- Marin Transit's ADA Paratransit fare is the second lowest among peer agencies in the Bay Area.
- Some fares do not reflect the premium features offered across various services and programs. For
 example, the fare for some curb to curb, non-ADA demand response services is lower than the Fixed
 Route fare.
- Marin Transit cannot independently change its fares within the Clipper system as its fare table in Clipper is shared with Golden Gate Transit. Until Clipper independence is reached, all changes to local fares must be agreed upon by both agencies.
- Even though the fare for local trips is \$2, Clipper users on local routes are required to tag-on/tag-off. This continues to be an obstacle for attracting local passengers to use Clipper. When a passenger forgets to tag off on exiting a Marin Transit bus, they are charged a higher regional fare.
- Eligibility criteria to receive low-income fare assistance is inconsistent across services and programs. This has led to rider and community partner confusion.

Rider Survey

In 2018, Marin Transit staff conducted a survey of riders as part of a larger agency effort to simplify its fare structure. The goal of the survey was to better understand why use certain payment methods and identify possible incentives to achieve goals of the fare proposal. The survey also intended to identify level of rider's awareness of different fare media options, determine willingness to shift away from cash to period passes and Clipper, and gauge rider's interest in mobile ticketing.

The fare payment survey was administered online and on-board in both English and Spanish. A total of 535 responses were received with 301 responses coming from onboard riders and 234 responses online. About 17 percent of riders responded in Spanish, and 25 percent of onboard surveys were completed in Spanish. Over 85 percent of all respondents identified themselves as transit riders.

In summary, cash was overwhelmingly perceived as an easy and convenient way to pay. Common theme in survey responses included:

- Lack of knowledge on Clipper and passes,
- Cash being known as the only fare payment method, and
- Financial challenges with affording a prepaid fare payment option

The survey results also confirmed that over a quarter of cash users will be willing to consider using passes if they were less expensive, while more than 60% of cash users were not aware of the 10% Clipper discount. Additionally, over 25% of cash users indicated concerns of being overcharged when paying by Clipper.

Lastly, about 67% of surveyed riders responded they were interested in mobile ticketing. Of those riders, 41% currently pay with cash, 40% percent pay with Clipper, and 19% percent use a pass product.

The results of the survey confirmed that while there are opportunities to shift away from cash to support operational efficiencies, cash may remain as the preferred method of fare payment for about 19% of the riders who indicated that they will not consider using any other fare media.

Staff also concluded that pass and Clipper usage can be incentivized through pricing adjustments, and considering the limited level of riders knowledge on some of the fare products, a focused marketing and education on fares is recommended to reinforce the impact of the policy updates and lead to riders behavioral changes in fare payment.

Fare and Eligibility Policy Goals

The 2020-2029 SRTP recommendations for fare policy and eligibility standards are targeted at the following goals:

- Simplify senior/ADA program eligibility;
- Encourage pass and Clipper usage over cash payment to streamline and improve operations;
- Offer fare media that incentivizes ridership and simplifies payment;
- Keep fares and subsidy levels commensurate with the services offered across programs;
- Adjust fare assistance programs to maximize social equity and provide mobility options for all Marin residents;
- Maintain cost effectiveness targets by service typology; and
- Keep Marin Transit fare policies consistent with regional efforts to coordinate and integrate transit agencies fares.

The proposed policy changes fall into the following three categories:

- Fare policies;
- Low-income fare assistance (LIFA) for older adults and those with disabilities; and
- Program eligibility for demand response programs.

Due to the interrelationship between these policies, staff considered changes to these three areas concurrently.

Fare Policy

The 2018 Short Range Transit Plan described recommendations for system-wide changes to fare pricing and structure. Staff are using the 2018 SRTP update as a guide for the updated fare policy changes. Staff continue to carefully weigh potential recommendations and guidelines to ensure they are consistent with regional goals and facilitate transfers with our partner transit agencies.

The 2018 SRTP recommended fixed route changes to Clipper pricing and youth fares. Staff did not recommend any major changes to fixed route fares due to the following factors:

- Marin Transit and Golden Gate Transit are embedded within the Clipper regional fare system, and changes related to fare structure cannot be achieved independently within the Clipper environment. Golden Gate Transit declined to support proposed changes to youth fares.
- Regional efforts are underway by MTC and San Francisco Planning and Urban Research (SPUR) to simplify fares and improve coordination within the region. Recommendations for significant changes to fixed routes fares should follow guidance from the region and additional coordination with our partner transit agencies.

Marin Transit will be designated as an independent operator under Clipper 2.0, which is expected to occur by 2023. Staff recommends postponing fixed route fare changes to when the District has control over its fare pricing, while remaining consistent with any future regional guidance.

The proposed eligibility and fare policy changes fall into two main categories are shown in Table B-1:

- Adjust pricing and structure of Fixed Route Fare Media (passes)
- Implement a phased update for fare structure and pricing of Marin Access/ Paratransit programs

Fixed Route Fare Media Changes

7-day Passes:

Proposed Change:

■ Eliminate the 7-day Pass for all fare categories, including Adult/Senior/Youth

The following are expected impacts of these changes:

- Eliminate the administrative burden associated with providing weekly passes that are currently underutilized.
- Minimal impact on current pass users. This is due to very low usage of this pass (below one percent).
 Lowering monthly pass prices will be provide a new cost-effective option.

Monthly Passes:

Proposed Changes:

- Reduce Adults Monthly Pass prices to \$40 (-50% compared to current \$80 pass price)
- Reduce Senior Monthly Pass price to \$20 (-25% compared to current \$25 pass price)

The following are expected impacts of these changes:

- Make monthly passes a more attractive option to encourage pass usage over cash fare payments.
- Provide additional discount for regular riders who rely on public transit.
- Encourage additional usage of the services.

Demand Response Program Fares and Fare Policy

Dial-a-Ride (DAR) Fares

Proposed Changes:

- Increase DAR fare to \$4.00 for the general public (from \$2.00 to \$4.00 for the Novato DAR and from \$2.50 to \$4.00 for Rural DAR).
- Increase Senior/ADA DAR fare from \$1.00 to \$2.00.

The following are expected impacts of these changes:

• Fare pricing to align with the premium aspects of DAR services compared to Fixed-Route (i.e. on-demand curb-to-curb pick-up and drop-off services).

- DAR pricing to support operational efficiencies and cost performance targets.
- Higher DAR fares will be an incentive for the general public to use Fixed Route services over DAR
 where possible. This will free up additional capacity for Senior/ADA riders and alleviate current
 capacity issues.

ADA Paratransit Fares

Proposed Changes:

- Increase all paratransit program fares to \$3.00 in Phase 1, effective July 1, 2020. This equates to a 50% increase in the fare for current mandated paratransit and a 20% increase compared to the current extended, or non-mandated, service area for paratransit services.
- Increase all paratransit fares to \$4.00 in Phase 2, effective July 1, 2023.

The following are expected impacts of these changes:

- A competitive pricing structure will encourage riders to use Fixed Route services or other Marin Access programs over ADA Paratransit services, where possible.
- Fare pricing will keep pace with growing paratransit operations costs and help meet District's performance targets.
- Staff proposes increased eligibility thresholds and additional fare assistance subsidy levels for the Low-Income Fare Assistance Program to alleviate or eliminate the impact of fare increase on lowincome riders.

Catch-A-Ride (CAR) Fare Structure

Proposed Changes:

- Adjust CAR fare structure to require an initial \$4.00 fare from rider to activate the subsidy of \$14 per trip, effective July 1, 2020. The rider will pay 100 percent of the trip cost beyond \$18. The subsidy per trip level will remain the same as currently provided for CAR riders that are not income eligible. Increase the limit of allowable subsidized trips from eight to ten trips per month. This is 25 percent more trips compared to the current program.
- Adjust CAR base fare from \$4.00 to \$5.00, effective July 1, 2023. All other fare rules stay the same. The rider will pay 100 percent of the trip cost beyond \$19.

The following are expected impacts of these changes:

- The initial \$4 contribution encourages use of Fixed Route services over CAR where possible
- Increased fare revenue will allow program to continue to meet District's performance targets
- Riders will have an additional two CAR trips per month to support increased trip making

Volunteer Driver Reimbursement Subsidy

Proposed Changes:

 Increase volunteer driver mileage reimbursement to \$0.60/mile. This will be a 70% mileage reimbursement increase for STAR and 50% mileage reimbursement increase for TRIP compared to current rates. The following are expected impacts of these changes:

- Higher mileage reimbursements will increase the incentives for volunteer drivers to participate in the program
- Increased incentives will encourage riders take more trips using the Volunteer Driver Programs,
 which are more cost-effective than paratransit or other Marin Access services
- Provides additional support for Senior/ADA riders to ask for and receive ride assistance

Table B-1: Proposed Fare Changes

Program	Current	Proposed Phase 1 (July 1, 2020)	Proposed Phase 2 (July 1, 2023)
Adult			
Adult Cash Fare	\$2.00	No change	No change
Adult Clipper Single Ride	\$1.80	No change	No change
Adult 1-Day Pass	\$5.00	No change	No change
Adult 7-Day Pass	\$20.00	Eliminate	No change
Adult 31-Day Pass	\$80.00	\$40.00	No change
Seniors 65+ / Persons with Disa	abilities		
S/D Cash Fare	\$1.00	No change	No change
S/D Clipper Single Ride	\$1.00	No change	No change
S/D 1-Day Pass	\$2.50	No change	No change
S/D 7-Day Pass	\$10.00	Eliminate	No change
S/D 31-Day Pass	\$25.00	\$20.00	No change
Youth Ages 5 - 18			
Youth Cash Fare	\$1.00	No change	No change
Youth Clipper Single Ride	\$1.00	No change	No change
Youth 1-Day Pass	\$2.50	No change	No change
Youth 7-Day Pass	\$10.00	Eliminate	No change
Youth 31-Day Pass	\$40.00	No change	No change
6 Month Youth Pass	\$175.00	Eliminate	No change
Annual Youth Pass	\$325.00	No change	No change
Annual Youth Pass - low incom	e Free	No change	No change
Demand Response			
Novato Dial-A-Ride	\$2.00/\$1.00	\$4.00/\$2.00	No change
Rural Dial-A-Ride	\$2.50	\$4.00/\$2.00	No change
Paratransit - Mandated	\$2.00	\$3.00	\$4.00
Paratransit - Extended	\$2.50	\$3.00	\$4.00
Catch A Ride	Free up to \$14.00/\$18.00 (1)	\$4.00 + 100% of fare above	\$5.00 + 100% of fare
	Limit of 8 trips/month	\$18.00	above \$19.00
		Limit of 10 trips/month	Limit of 10 trips/ month
Volunteer Driver	No Fare - Driver reimbursement \$.35/mile or \$.40/mile West Marin	No Fare - increase driver reimbursement to \$0.60/mile	No change

Note: (1) Qualified low-income riders get an additional \$4.00 in subsidy per ride or free rides up to \$18.00.

Low-Income Fare Assistance

Low-Income Fare Scholarship program provides fare assistance to Paratransit and Catch-A-Ride passengers who qualify as low income. Income qualified paratransit riders receive up to \$40 per quarter to use for local paratransit rides or 80 rides per year. In terms of eligibility, all ADA eligible clients who are recipients of Supplemental Security Income (SSI) will be eligible to receive Paratransit low-income scholarship. Income eligibility for Catch-A-Ride service is determined based on Elder Economic Index and is self-reported. Eligible low-income riders receive an additional \$4 subsidy per trip on Catch-A-Ride.

Under current policy, fare assistance eligibility varies across these programs, and the scholarship is limited to Catch-A-Ride and Paratransit services. Additionally, the documentation required to demonstrate eligibility is inconsistent and varies across transportation services. Income disclosure in multiple instances has been a burden for many applicants, and staff believe that this requirement has prevented access to fare assistance. Staff proposes to consolidate eligibility for both programs to simplify the application process and provide a higher financial safety net for older adults and those with disabilities in financial need.

The proposed changes to low-income fare assistance program fall into two categories: eligibility and application process, and financial assistance, as listed in the following sections. Table B-2 presents a summary of current and proposed changes to the fare assistance program.

Eligibility and Application Process

- Consolidate eligibility criteria for fare assistance and make it applicable to all programs. Consistent eligibility standard improves operations, and District's ability to serve those with financial need.
- Registered Medi-Cal participants or riders with income at or below the current Elder Economic Index that correlates with their living situation will be eligible.
- Medi-Cal eligibility will be verified by the Travel Navigator team via County of Marin. Income-based eligibility for non-Medi-Cal participants will be assessed based on the applicant's income documentation.
- LIFA will be offered to all eligible applicants across Marin Access programs during the program eligibility determination process. The LIFA application and determination process can be consolidated with program eligibility, while one will not hold up the process for the other.
- LIFA eligibility will require annual renewal at the start of each calendar year. Those that qualify based on Medi-Cal eligibility will be renewed through coordination between the Travel Navigator department and the County of Marin. Those that qualify based on income will be required to provide updated income documentation each calendar year. Clients will communicate with the Travel Navigator to renew their eligibility.

Financial Assistance

Fare Assistance Credit:

All low-income riders eligible for LIFA will receive \$20 in credit each month in phase 1 (effective July 1, 2020), and \$25 in phase 2 (effective July 1, 2023). The LIFA credit can be used toward the

- base fare of all Marin Access program including Paratransit, Catch-A-Ride, Dial-A-Ride and Connect. LIFA credit cannot be applied to the balance of trip over \$18 in Catch-A-Ride service.
- LIFA credit is applied for all eligible clients on a monthly basis, to a maximum of \$240 in credit per year. The LIFA credit will not roll over annually and is reset at the start of each calendar year. The unused credit will expire at the end of each calendar year and has no cash value.
- LIFA credit cannot be applied to trips for companions and will not be reimbursed in the event of noshows of same day cancellations. Incidents out of the rider's control will be reviewed on a case by case basis.

Fixed Route Pass:

- All LIFA eligible riders will be eligible to receive free access to Fixed Route services. Eligible clients will have to opt in to receiving the fixed route pass. Opting in includes completing a fixed route pass request form, review of a short video designed to orient the applicant on to how to use the pass and more generally how to use fixed route service, review and signature of a certification form stating that they understand the policies for use, and a usable photo that will be affixed to their Marin Access badge. Transportation to and from Marin Access orientation sessions is the responsibility of the applicant. Alternatively, applicants can use the Marin Transit website to complete the opt in process or attend a Marin Access orientation session offered on a bi-weekly basis.
- All eligible clients will receive a Marin Access badge that includes their name, Marin Access ID number, and photos that comply with the following requirements:
 - o Must be current and show the applicants face in a clearly visible fashion;
 - o Travel Navigators will assess the usability of photos provided; and
 - Photos will also be uploaded to the platform used for scheduling and routing to improve ability to detect fraudulent use of services.
- The fixed route pass will be renewed annually with the period of validity signified by a sticker that will be attached to the badge indicating the current year
- Clients can replace a lost Marin Access Badge only once annually at a cost of \$20. Clients who lose their badge must fill out a lost badge form and return it to the Travel Navigators. The client will need to pick up all replacement badges to verify their identity and can make alternative arrangements on a case by case basis with approval from Marin Transit staff.

The following are expected impacts of these changes:

- The new low-income eligibility threshold will significantly increase the number of riders eligible to receive LIFA fare assistance and offset any proposed increases in fares;
- A streamlined application process for Medi-Cal participants and options for documenting income
 will remove the burden of duplicated paperwork for riders to obtain and/or demonstrate to
 demonstrate LIFA eligibility;
- Replacing ticket booklets with ride credits in riders' accounts will eliminate administrative work and reduce management costs; and
- All potential LIFA eligible riders will be able to opt into multiple programs without the need for separate applications.

Table B-2: Overview of Current and Proposed Low-Income Fare Assistance Programs for Marin Access Clients

	Current Programs		Proposed LIFA
	Paratransit Fare Assistance	Catch A Ride Fare Assistance	
Program Eligibility ⁽¹⁾	Marin County resident or visitor and approved for ADA service based on ability-based evaluation	Marin County resident, age 80+, or 60-79 and no longer driving -or- ADA approved	Marin County Resident, age 65+ -or- ADA approved
LIFA Eligibility Threshold	SSI Eligibility ⁽²⁾	Income Tied to Elder Economic Index ⁽³⁾	Income Tied to Elder Economic Index ⁽³⁾ or Medi-Cal Qualified
Financial Assistance	Ticket booklets valued at total of \$40 per quarter	Additional \$4 subsidy per ride (up to \$32 per month)	 \$20.00 in credit each month for use on all Demand Response programs.(4) Monthly Pass for free access to Fixed Route.
Documentation Required to Demonstrate Eligibility	SSI Eligibility Letter	Self-Reported	 Medi-Cal status can be confirmed with County of Marin Proof of age/address/income required (documentation can include SSI letter, AGI from federal income tax forms, recent paystubs, Marin County General Assistance Letter, etc.)
Program Applicability	Paratransit Only	Catch-A-Ride Only	Paratransit, Catch-A-Ride, and Dial-A-Ride
Process	Two 10-ticket/ride booklets mailed to participant on a quarterly basis by Travel Navigators	Additional subsidy applied at booking beyond CAR subsidy	Credit added into e-wallet account to scheduling software and applied at time of booking; Fixed Route monthly pass distribution TBD
Delivery	Paper, manual process	None - managed through Access database	None - managed through scheduling software
Eligibility Renewal	N/A	N/A	Annual

Notes:

- 1. Recipient of LIFA must apply and be approved for one of the Marin Access programs including ADA paratransit, Volunteer Driver, or Catch-A-Ride.
- 2. The income limit for SSI is the federal benefit rate (FBR), which is \$771 per month/\$9,252 annually for an individual and \$1,157 per month/\$13,884 for a couple in 2019.
- 3. Based on annual household income: \$22,272 / 1-person household, Owner w/o Mortgage
- 4. Demand Response programs include Paratransit, Catch-A-Ride, Connect, Novato Dial-A-Ride, Pt Reyes Dial-A-Ride, and Dillon Beach Dial-A-Ride.

Program Eligibility (Demand Response Programs)

To simplify and coordinate eligibility for programs targeted at older adults and persons with disabilities, staff proposes changes to the Catch-A-Ride and the Volunteer Driver programs. Table B-3 shows a summary of current and proposed changes to the fare assistance program. The proposed changes include.

- Standardize eligibility criteria across Volunteer Driver and Catch-A-Ride programs to include Marin County residents who are either 65+ or ADA eligible; and
- Proposed eligibility criteria will apply to all new applicants only, and current clients will be grandfathered into programs.

Staff expects the following results:

- Consistent and simplified eligibility criteria will make the program easier for applicants to understand and for community partners to share;
- The number of eligible riders will increase due to removing the 80+ age limit and the "no longer driving" criteria from Catch-A-Ride eligibility; and
- New streamlined eligibility criteria will encourage seniors to consider "giving up the keys" earlier by educating them about their transportation options before they lose their ability to drive.

Table B-3: Overview of Demand Response Program Current and Proposed Eligibility

Demand Response Program Eligibility	Existing Eligibility Criteria	Proposed Eligibility Criteria
Local Paratransit (mandated and extended)	Marin County resident or visitor and approved for ADA service based on ability-based evaluation	No Change
Volunteer Driver Reimbursement Programs (STAR & TRIP)	Marin County resident, age 60+ -or- ADA approved	Marin County Resident, age 65+ ⁽¹⁾ -or- ADA approved
Catch A Ride	Marin County resident, age 80+, or 60-79 and no longer driving -or- ADA approved	Marin County Resident, age 65+ -or- ADA approved
Marin Transit Connect Dial-A-Ride	None (General Public Services)	No Change

Notes:

The process for adoption of the fare and eligibility policy changes includes the public comment period. Staff will also prepare a Title VI fare equity analysis for the Board of Directors to review.

^{1.} Existing clients are grandfathered into program. New eligibility criteria apply to all new applicants.

Appendix C: Unfunded Service Needs Assessment

Appendix C captures a number of local transit expansion service needs Marin Transit has identified based on the following:

- Input from riders (Bus Passenger Advisory Committee, comment cards, driver feedback, etc.)
- Input from Stakeholders (Partner agencies, local cities and towns, etc.)
- Current and previous planning studies
- Changes in transportation market conditions
- Changes in demographics

The expansion services described in this appendix illustrate the opportunities the District will pursue if financial resources are available. These services are additive to the service levels assumed in the District's Service plan (see Chapter 3). The improvements further the objective in Strategy #1 of the Measure A Expenditure Plan:

Develop a seamless local bus transit system that improves mobility and serves community needs, including special transit for seniors and the disabled

Staff evaluated expansion projects based on an estimate of their ability to score well in an assessment based on the performance criteria in the Measure A Expenditure Plan for transit investment. These criteria include:

- Fills a gap in the bus transit network
- Meets productivity standards (passengers per hour)
- Meets cost effectiveness standards (subsidy per passenger)
- Relieves congestion (total ridership)
- Provides seamless connections (to regional service)
- Eliminates "pass ups" (overcrowding on routes)
- Promotes environmental justice (demographic analysis)
- Attracts outside funding (federal, state, toll, other local)

To estimate performance under these criteria, District staff performed a qualitative assessment. Scores were given based on three tiers: **High** ($\bigoplus \bigoplus \bigoplus$) - likely supports goal, **Medium** ($\bigoplus \bigoplus$) - potentially supports goal, and **Low** (\bigoplus) - questionable whether the service will support goal. These ratings are estimates of the project's ability to achieve the goal.

Table C-1: Measure A Bus Transit Investments Evaluation Criteria Ratings Summary

Measure A Goal	High Rating Goal High Rating High Rating		Low Rating
Fill gap in the bus transit network	Provides service to an area currently not served by any public transit service	Provides service to an area with limited public transit service	Provides additional service to an area already served well by public transit
Meets productivity standards (passengers per hour)	Productivity expected to greatly exceed standard	Productivity expected to regularly meet standard	Ability to meet productivity standard is questioned
Meets cost effectiveness standards (subsidy per passenger)	Cost effectiveness expected to greatly exceed standard	Cost effectiveness expected to regularly meet standard	Ability to meet cost effectiveness standard is questioned
Relieves congestion (total ridership)	Ridership potential is great and has potential to significantly reduce vehicle trips	Ridership potential is strong and may reduce select vehicle trips	Ridership potential is questionable and may not impact congestion relief
Provides seamless connections (to regional service)	Service is available and timed to meet regional services including bus, rail, and ferry	Service is available but not timed specifically to meet regional services including bus, rail, and ferry	Service is not available nor timed to meet regional services including bus, rail and ferry
Eliminates "pass ups" (overcrowding on routes)	Service is offered on the same route/corridor, during the same times when current overcrowding conditions regularly occurs	Service is offered on similar routes/corridors and during the same times when potential overcrowding conditions can occur	Service does not address any potential overcrowding conditions on services
Promotes environmental justice (demographic analysis)	The service is offered to serve populations that demonstrate the greatest need for the service	The service is offered equitably based on who it serves and its cost	The service is offered to a specific population that does not demonstrate strong need based on their demographics
Attracts outside funding (federal, state, toll, other local)	Service relies on less than 25% of Measure A to implement and operate	Service relies on 25-50% of Measure A to implement and operate	Service requires at least 50% of Measure A to implement and operate

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix C: Unfunded Service Needs Assessment

The District will not prioritize or implement expansion projects in a sequential order simply based on their qualitative ratings. This assessment demonstrates the trade-offs between projects and highlights their strengths and weaknesses. Implementing any of these services will require the District to consider cost and other factors.

Staff identified a total of 21 expansion services in the unfunded needs assessment and assigned them to seven categories. In no particular order, these include:

- Expand and Enhance Shuttle Services
- Expand and Enhance K-12 School Bus Services
- Enhance Service Frequency in Transit Corridors
- Provide Limited Stop or Express Services
- Expand Rural and Recreational Services
- Provide and Support Flexible First and Last Mile Services
- Expand Services for Those with Special Needs

At the end of this appendix, Table C-10 and Table C-11 summarize each expansion service by rating, cost, ability to implement, and relative priority within the unfunded list. Some of these ratings are speculative as many of these projects require additional study and analysis.

The following is a brief narrative of each expansion category that outlines the expansion need, summarizes how the service is expected to perform under the evaluation criteria, estimates costs, and identifies opportunities for funding or partnerships.

Expand and Enhance Shuttle Services

Overview

Marin Transit has continued to expand shuttle services since the passage of Measure A. Shuttles provide a cost-effective fixed-route transit option for the areas of the county with lower ridership demands. The initial three shuttle routes launched in 2006 operated just under 5,000 annual revenue hours. Currently, the District operates over 35,000 annual hours of shuttle service on six routes. Ridership has grown from approximately 25,000 annual passenger trips to nearly 400,000 annual passenger trips.

The Measure A Expenditure Plan identified Mill Valley and Sausalito as candidates for shuttle service that currently do not have shuttle service. The Expenditure Plan envisioned locally designed shuttle services termed the "Millie" and the "Sally" for these communities. Although shuttle services have not developed in these communities, local and regional services in these areas provide some of the county's highest transit service levels. Any new shuttle services in these communities will likely be coupled with a decrease in local big bus or regional transit services.

Marin Transit's original 2006 Short Range Transit Plan called for a new shuttle route to replace a legacy Golden Gate Transit service in East Corte Madera and Larkspur. Marin Transit met this need by implementing Route 221 in 2007. Due to low ridership, the District eliminated this route in 2010. This left a service void for residents of Corte Madera east of Highway 101. Recent requests for service to these residential areas have reinstated the need to reconsider shuttle service, coupled with growth in retail services in the area, the SMART extension to Larkspur, and increased parking issues at Larkspur Ferry.

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix C: Unfunded Service Needs Assessment

Night service was also a goal of the shuttle program under the Expenditure Plan, and there are opportunities for further expansion. This need continues to arise in the communities of Novato and Tiburon where regular fixed route services end between 8:00 - 9:00 pm.

The outreach conducted during the Novato Transit Needs Assessment Study and the Novato Community Based Transportation Study identified a lack of service to the Bolling Circle area of Novato (Hamilton). Further discussion with this community is required to determine the specific need. Based on anticipated ridership demand, potential deviation of the Routes 251 or 257 shuttle services may be the best option.

Table C-2 provides a summary of the Shuttle Expansion services, how the need was identified, and next steps for possible implementation.

Table C-2: Shuttle Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
Mill Valley	New circulator shuttle in Mill Valley	Measure A Expenditure Plan, Public/Customer Requests	Planning: Review ridership on current local and regional services. Evaluate feasibility of extending Route 219	Low
Sausalito	New circulator shuttle in Sausalito	Measure A Expenditure Plan	Planning: Review ridership on current local and regional services. Monitor Volunteer Driver Gap Grant project issued to Sausalito	Low
E. Corte Madera	New circulator shuttle between E. Corte Madera and Larkspur Landing	Customer Requests	Planning: Assess potential markets and demand including ferry riders and SMART passengers and senior/ADA needs	Low
219 (Tiburon)	Expanded evening service for employees and patrons	Tiburon Transit Needs Assessment Study, Job Access Mobility Institute Study	Implement: Identify funding	Medium
251 (Novato)	Expanded evening service for residents	Novato Needs Assessment, Novato CBTP, Public/Customer Requests, Job Access Mobility Institute Study	Implement: Identify funding	Medium
251 or 257 (Novato)	Deviate Route 251 or 257 to serve Bolling Circle areas of Hamilton	Novato Needs Assessment, Novato CBTP, Public/Customer Requests	Outreach: Community feedback on specific transit needs. Planning: Assess trade- offs for added revenue service. Coordinate with City of Novato on bus stop siting and costs	Medium

Performance Criteria Ratings

Shuttle expansion projects tend to rate highest in filling a gap in the transit network that occurs due to low ridership demands. They may also score favorably in meeting productivity and cost-effectiveness standards due to lower operating costs. Any future shuttle projects in Mill Valley and Sausalito will overlap or duplicate current local and regional fixed route services. Staff assumes some reduction in service levels on existing routes will be necessary to achieve productivity and cost-effectiveness targets. Based on current riders of evening trips on local fixed-route services, added service will most benefit low-income riders who rely heavily on the transit service for mobility.

Cost Estimates or Considerations

The District's current shuttle operating cost is approximately \$90 per revenue hour including fuel. This equates to approximately \$350,000 per year for a short 30-minute runtime for a route that operates every 60 minutes on weekdays only and \$850,000 for a 60-minute runtime for a route that operates every 60 minutes daily. Although operating costs are lower than most other fixed route services, average farebox recovery on shuttle program routes is only 12%, and average passenger subsidy is \$9.00 per trip. Assuming Measure A accounts for 40% of all operating costs, each shuttle passenger trip is supported by \$3.60 of Measure A sales tax funding.

Opportunities for Funding / Partnerships

Shuttle routes primarily serve riders traveling within localized areas. There are opportunities to partner with local cities/towns, major employers, or Downtown Business Districts to subsidize the costs of shuttle services. Night service in Tiburon will directly support employees and patrons of local business. Shuttles in Sausalito and Mill Valley could perform similar roles. Novato service expansion projects may be eligible for MTC Lifeline or similar funding.

Marin Transit's original 2006 SRTP identified a fixed route shuttle service type titled "Local Initiative Service." The service was envisioned as relying on partnerships between local jurisdictions, agencies, or private employers and Marin Transit, with each providing half the cost of operation. These services would respond to a localized need and be unlikely to meet the District's performance targets. Under the program, the District determines subsidy levels based on the actual performance of the service. To date, there are no examples where these services were developed. However, Marin Transit may refer to this model to implement the identified unfunded shuttle needs.

Expand and Enhance K-12 School Services

Overview

As in much of California, the delivery of school transportation in Marin County has evolved significantly since approval of Proposition 13 and as demographic trends lead to changes in bus ridership. There is a substantial financial commitment required to operate and manage a full-service school transportation program. This has led many school districts to seek a broad range of alternatives to provide student access to school. These include expanded use of Marin Transit supplemental school service, shared use of contractual mechanisms such as that used by Marin Pupil Transportation Authority, fee for service offerings, and active promotion of alternatives through programs like Safe Routes to School (SR2S).

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix C: Unfunded Service Needs Assessment

Marin Transit operates 28 routes including ten supplemental school routes designed to add capacity to the transit network on school days. These supplemental services are generally stand-alone services for older students that are aligned with school bell times and operate Monday to Friday during the school year. In FY 2015/16, Marin Transit provided over 200,000 individual school-based rides on the supplemental services and averaged approximately 1,200 passengers daily on school days.

Marin Transit has performed a significant role in supporting yellow school bus service for several school districts. The level of support activities varies between contract procurement, contract management, daily operations monitoring, and bus pass sales/distribution. Three school districts in the County contract with Marin Transit to provide daily operations oversight: Reed Union, Ross Valley, and Mill Valley.

Partnering with the Marin County Office of Education and the Transportation Authority of Marin, Marin Transit released the *Countywide Coordinated School Transportation Study* in December 2015. This effort provided the District direction on its role in supporting home to school transportation services in Marin County. The study developed nine recommendations assigned to either a near-term or future scenario. Generally, the recommendations suggested that the District continue to support student transportation services and work to expand them based on the appropriate type of service (yellow bus or supplemental transit).

The report also identified potential demand for buses service that led to a "high" and "medium" ranking to each school. Based on these assignments, staff estimated service levels and associated costs to expand services to meet these demands. Costs were further assigned to a phased timeline based on additional resources, such as equipment and facilities needed to support growth.

Since the study concluded in 2015, the District formed an Ad-Hoc Committee of the Board to continue the momentum and work toward implementing the study recommendations. This committee met five times between May 2016 and April 2017. Based on this additional guidance, staff identified projects for K-12 school bus expansion. These are included in Table C-3, which summarize these services, how the need was identified, and next steps for implementation.

Table C-3: K-12 School Bus Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
Kentfield SD, Larkspur-Corte Madera SD	Implement Phase 1 of the Coordinated School Transportation Study	Measure A Expenditure Plan, 2015 Coordinated School Transportation Study	Planning: Finalize schedules and routing for programs without services today Implement: Identify funding	High
Reed Union SD, Mill Valley SD, Ross Valley SD, San Rafael Elementary SD, Dixie SD	Implement Phase 2 of the Coordinated School Transportation Study	Measure A Expenditure Plan, 2015 Coordinated School Transportation Study	Implement: Identify funding	Medium

Novato SD	Implement Phase 3 of the Coordinated School Transportation Study	Measure A Expenditure Plan, 2015 Coordinated School Transportation Study	Planning: Finalize schedules and routing for new services Implement: Identify funding	Medium
Countywide	Expand and improve supplemental school services to older students (high schools) in Marin County	Measure A Expenditure Plan, Tiburon/Novato Needs Assessments, 2015 Coordinated School Transportation Study	Implement: Identify funding	High

Performance Criteria Ratings

K-12 school services score high in several Measure A evaluation criteria categories. These include filling a gap in the bus transit network, meeting productivity and cost-effectiveness standards, and relieving congestion. Yellow bus services demonstrate benefits for the communities that have them or have recently implemented the service. Experience from yellow bus services and on the supplemental routes suggest high ridership levels are achievable on a per trip basis and a high farebox recovery (low subsidy) can be achieved. Staff assumes that a heavily discounted or free pass will be issued to students who qualify for the free or reduced lunch program, and this will result in a high rating for promoting environmental justice. All other criteria get a medium rating except providing seamless connections to the regional services, which is rated low.

Cost Estimates or Considerations

Current supplemental school operating costs are approximately \$130 per revenue hour. The relatively high cost is due to the significant amount of non-revenue time associated with running a service that only operates during school peak hours. Pricing for yellow bus is typically done by the day, and the rates account for the significant amount of midday down-time for the drivers.

Each yellow bus will cost between \$450 and \$625 per day to operate. The broad range of operating costs considers the difference between having a local facility for storage and maintenance versus relying on remote servicing and storage facilities. Assuming a 180-day school year, the annual cost per bus is between approximately \$81,000 and \$112,500. Since the operation of a yellow bus is purchased per day, the cost per student is a function of how efficiently the bus is used and how many different students can be served during the day. School district decisions on bell times and staggering schedules play a significant role in the cost efficiency of these services and the ability to expand them.

Opportunities for Funding / Partnerships

The Countywide Coordinated School Transportation Study offers insight into how to leverage partnerships to make transportation services more efficient and plan for expansion. The current supplemental school program is merged with the District's seasonal programs and College of Marin services. This creates operational efficiencies for transit vehicles and drivers. Further expansion of services to College of Marin or Dominican University may offer additional efficiencies through off-peak use of supplemental equipment and drivers.

Appendix C: Unfunded Service Needs Assessment

Yellow bus services are priced and operated differently than the supplemental services. Coordinating with the school districts on bell times and scheduling will greatly impact the cost efficiency. Yellow bus programs offer another tool for local communities to reduce roadway congestion and partnering with local cities and towns will offset the costs for expanding these services.

Enhance Service Frequency in Transit Corridors

Overview

The District provides high quality transit service in corridors that demonstrate high transit use and/or high levels of congestion. Chapter 2 identifies the District's performance metrics for service frequency goals. These metrics apply to corridors identified in the Measure A Expenditure Plan. While many corridor services meet their targets, some are not. These services may benefit from increasing frequencies and are identified as unfunded projects in Table C-4 below.

Table C-4 summarizes Service Frequency Expansion projects, how the need was identified, and next steps for possible implementation.

Table C-4: Frequency Enhancement Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
San Rafael – San Anselmo	Expand off-peak and weekend service levels from every 20 minutes to every 15 minutes. Routes available for expansion include Routes 23 or 68.	Measure A Expenditure Plan	Planning: Monitor route level performance and identify opportunity for expansion Implement: Identify funding	
San Rafael – Civic Center – Northgate	Expand off-peak and weekend service levels from every 20 minutes to every 15 minutes. Increasing Route 49 frequency is best opportunity for expansion.	Measure A Expenditure Plan	Planning: Monitor route level performance and identify opportunity for expansion Implement: Identify funding	
Hamilton – Downtown Novato	Expand off-peak and weekend service levels from every 20 minutes to every 15 minutes. Increasing Route 49 frequency is best opportunity for expansion.	Measure A Expenditure Plan	Planning: Monitor route level performance and identify opportunity for expansion Implement: Identify funding	

Performance Criteria Ratings

Expansion services that increase service frequency score well in improving connections and filling in the bus network. They make bus service more robust and convenient for passengers. At the same time, many of these routes are not meeting their productivity and cost-effectiveness standards. They will likely continue to struggle to meet these targets if service is added.

Cost Estimates or Considerations

Based on current Marin Transit operations, expanding frequency will cost approximately \$115 per revenue hour of service. Each of these identified frequency enhancements requires an investment of approximately 2,000 hours or close to \$230,000 annually.

Opportunity for Funding / Partnerships

Expanding service frequencies on the existing transit network has limited opportunities to attract outside funding or partnerships. The best opportunity to fund these expansion services may be to reallocate revenues to concentrate resources in the most traveled and heavily used transit corridors. Canceling lower ridership coverage-based transit services could enable the District to reinvest resources.

Provide Limited Stop or Express Services

Overview

The focus of local transit services is to increase mobility for Marin County residents. Local transit trips are shorter in length than regional bus and ferry trips. The operating characteristics of local transit balances service speed with accessibility and can result in long travel times for some trips.

Goal C under the SRTP Corridor-Level performance measures calls for providing competitive travel times to promote transit use. Perhaps the most sensitive market to travel times are commuters who rely on the service daily and oftentimes transfer to another local or regional service to complete their trip. This market may increase with the introduction of SMART.

In June 2016, Marin Transit implemented Routes 71x and 23x to test how express services perform in a corridor already served by local routes. Route 71x provided an 18% travel time savings over other services in the Highway 101 corridor by removing the bus pad stops in San Rafael, Larkspur, and Corte Madera. Express Route 23x significantly decreases end-to-end travel times in the Fairfax to San Rafael corridor that is also served by Route 23.

The District has identified one other expansion project to achieve travel time savings in the Mill Valley to San Rafael corridor. An express service along Route 17 can achieve travel time savings for current riders and attract new riders to this route. In addition, Route 17 could be designed to provide a convenient link to future SMART services for southern Marin County residents traveling north.

The current deviation of Route 17 to Strawberry Village increases travel times for many riders traveling to Mill Valley. The ongoing study of the East Blithedale / Tiburon Blvd interchange is assessing improvements to pedestrian and bicycle circulation, with a focus on how these users connect to transit services. The study results will be evaluated in concert with express bus options for Mill Valley and other areas of southern Marin County.

Table C-5 provides a summary of the Limited Stop or Express Expansion services, how the District identified the need, and next steps for possible implementation.

Table C-5: Limited Stop or Express Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
San Rafael – Mill Valley	New weekday peak only express service connecting Downtown San Rafael to Mill Valley	2012 Onboard Survey, On- Time performance Assessment	Planning: Identify exact alignment and stops. Implement: Identify funding	Medium

Performance Criteria Ratings

Marin Transit anticipates that express services will perform well in terms of productivity and costeffectiveness standards. These services focus on areas of high ridership, operate with higher speeds, and result
in more efficient use of revenue time. Express services will overlap with existing services as they would
operate in high ridership corridors already served by transit. However, they will create a new service type that
may attract a new market by filling in a gap in the network for these users. The highest ratings for express
services are in the areas of seamless connections as they will provide direct service to the San Rafael Transit
Center and SMART station.

Cost Estimates or Considerations

Limited or express services will likely need the same vehicle capacity as the District's big bus program and cost approximately \$135 per revenue hour. Initially, the District will schedule express services in peak travel hours to target commute needs. This will require relatively few revenue hours of service. Yet, adding service in the peak requires additional fleet beyond the current baseline service. Annual operating cost estimates for an express route during peak hours range from approximately \$250,000 to \$500,000 per year, depending on service frequency and route length. Most important, adding more buses to the fleet will require a commensurate addition of parking and maintenance facility capacity.

Opportunities for Funding / Partnerships

Funding for these services will likely directly compete for resources allocated within the fixed route program. The District may seek opportunities to reduce regular fixed route service levels as a result of expanded express services to fund these services.

Expand Rural and Recreational Services

Overview

The District provides fixed route services to rural West Marin on the West Marin Stagecoach and Muir Woods Shuttle. The rural services serve residential mobility needs and provide access to the recreational areas in West Marin. The Muir Woods Shuttle provides a direct public transit connection to one of the Bay Area's top tourist destinations. Together, these services provide congestion relief for many Marin County roadways and highways during weekend and holiday travel.

The National Park Service (NPS) and Marin Transit supported the Muir Woods Shuttle. The Shuttle provides peak season service on weekends and holidays and summer weekdays to Muir Woods National Monument. Now in its thirteenth season, the Shuttle carries nearly 25% of all Muir Woods visitors on the

busiest visitation days and recorded over 120,000 passenger trips in FY 2016/17. The shuttle is a valuable resource to reduce roadway congestion in Sausalito, Tam Junction, and West Marin on weekends and holidays.

One area of near-term growth for rural and recreational services is a new route alignment to attract passengers who do not have access to a car before they enter Marin County. This alignment will serve the south side of the Golden Gate Bridge at the toll plaza and connect to regional transit services. These include San Francisco SFMTA Routes 28 and 76X, Golden Gate Transit Routes 2, 30, 70, 101, and the PresidiGO shuttle. Additional planning work and coordination with the operators and property owners will be required to identify stop and layover opportunities at the Bridge, service levels to the park, and the routing of the service within Marin County.

Another area of growth in the Recreational services is a potential connection between Muir Woods and Larkspur Landing. The Larkspur Ferry terminal, and the new extension of SMART, offer a unique mix of regional transit services and a large supply of parking that could make this a desired location for a new pickup point on the service. Marin Transit will continue discussions with Golden Gate Transit, SMART, and the NPS to determine the feasibility and interest in this new route.

The District significantly expanded rural Stagecoach service in June 2014. This expansion enhanced service on the North and South Routes 68 and 61 during peak weekends. Recreational travel to the Golden Gate National Recreation Area (GGNRA) causes significant congestion in Marin County. Continued expansion of the South Route will increase alternatives for those accessing GGNRA without a car and for those unable to visit Muir Woods due to lack of reservations.

Table C-6 provides a summary of the Rural and Seasonal expansion services, how the District identified the need, and next steps for implementation.

Table C-6: Rural and Seasonal Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
Golden Gate Bridge – Muir Woods – West Marin	New route connecting the Golden Gate Bridge and West Marin	Muir Woods Shuttle Annual Evaluation Report, Stakeholder Meetings	Planning: Further study circulation at Toll Plaza parking lot, identify service levels and routing Implement: Identify funding	High
Larkspur Landing- Muir Woods	New route connecting the Larkspur Ferry/Larkspur SMART station and Muir Woods	Stakeholder Meetings	Planning: Further study demand and connection opportunities. Implement: Identify funding and expand fleet	Medium

Performance Criteria Ratings

Expansion of the Muir Woods Shuttle program scores well in nearly all categories. These include fills a gap in the bus transit network, meets productivity and cost-effectiveness standards, relieves congestion, and attracts outside funding. These ratings are based on anticipated performance of future services as projected from the

Appendix C: Unfunded Service Needs Assessment

current performance of Routes 66 and 66f. All other ratings except for "promotes environmental justice" are scored as medium.

Cost Estimates or Considerations

The NPS pays for 50% of the total operating costs for the Muir Woods Shuttle, and the service has a farebox recovery ratio of nearly 50%. These aspects of the service make it very cost-effective for the District to operate, and it requires very low levels of local Measure A contributions.

Opportunities for Funding / Partnerships

Partnership with the NPS is key to the success of the Muir Woods Shuttle, and the partners will continue to identify new opportunities to expand and enhance the service.

Provide and Support Flexible First/Last Mile Services

Overview

Marin Transit's fixed route services offer scheduled public transit along the county's most heavily traveled corridors. Most of these services efficiently move as many people as possible to reduce congestion and improve mobility. The Local Connector fixed route services offer a more personalized shuttle service to areas that demonstrate regular demand for transit service and can meet the District's productivity targets. The District's paratransit and mobility management services provide another personalized layer of services for senior and special needs riders. While these offerings serve a significant number of Marin County residents, there are still gaps that makes transit use less attractive or infeasible for many residents.

First/last mile services fill those gaps in the transportation network and can overcome barriers typically associated with getting to or from fixed route transit stops. These barriers may be a function of the topography or geography, characteristics of the transportation network (narrow streets, lack of sidewalks, limited bike facilities, and unsafe crossings), or a user's physical limitation that restricts their ability to access bus stops.

Marin Transit continues to work with local community and partner organizations to identify other cost-effective solutions to this transportation barrier. A key question concerns the level of ownership and subsidy the District should provide versus relying on the private market or users to fund and provide these services. Table C-7 summarizes the key rider markets that will benefit from improved first/last mile services and some potential delivery models for these markets. The next step will be additional study to identify the most appropriate service model.

SMART rail service in Marin has presented a new option for regional travel for Marin County residents and employees. While some stations are well served by transit due to their location, Novato stations are in isolated areas that are challenging for traditional transit service to serve. Regular fixed route services in Marin are also timed to the "pulse" in Downtown San Rafael. This limits the ability to create timed connections at other locations along the rail corridor.

First/last mile services are potential service models that could fill the gaps between the regional rail and bus networks in Marin. In Novato, these services could be focused on serving the rail connections or a larger group of riders located in a general public dial-a-ride service area.

First/last mile services could also help fill a transit gap within the underserved East San Rafael/Peacock Gap neighborhood. The District's recent outreach efforts with this San Rafael neighborhood have identified the need for ferry feeder and bus connections to the Downtown bus and train depot. Golden Gate Transit operated a ferry feeder route that served this neighborhood and discontinued the route due to low ridership. Recent neighborhood surveys identify the Larkspur Ferry and the San Rafael Transit Center as the top two commute destinations. Over one-third of the 450 responses from the initial survey indicated ferry use as a destination. Over 85% of respondents that use the ferry currently drive to the ferry terminal. The potential synergies between connecting residents to the train, bus, and ferry indicate that they will benefit more from a first/last mile solution than a traditional ferry feeder service.

Table C-7: Rider Markets Identified for First / Last Mile Services

Rider Market	Peak Service Needs (Time/Day)	Service Area	Potential Service Delivery Model	Alternative Delivery Models (supported and coordinated - not directly operated)
Seniors	Midday, weekdays and all-day weekends	Countywide	Point to point services (on- demand), subscription shopper shuttles	Subscription taxi, TNC, or similar service
All	All	Locations with especially hilly terrain where fixed route and paratransit services cannot operate	Flex route service timed to bus operations at town center but circulates in residential areas in between	Subscription taxi, TNC, or similar service; car share
All	Night and off- peak hours	Commercial and residential areas with lower ridership demands	Flex route service timed to bus operations at town center but circulates in residential areas in between	Subscription taxi, TNC, or similar service; vanpools; car share; bike share
Ferry / Rail Passenger	AM / PM Peaks, weekdays	Residential areas with lower ridership demand or smaller employment sites	Point to point shuttles (subscription service), timed to trains or ferries	Subscription taxi, TNC, or similar service; vanpools; car share; bike share

Directly Operated Services

Direct operation of first/last mile services will give the District greater control and oversight in safety and training of drivers and vehicle type, capabilities, and cleanliness. Typically, direct operation has a higher cost. Marin Transit foresees opportunities for increasing the efficiency and effectiveness of its current services with the provision of this new service type.

Consistent with Marin Access program goals, the first step in offering more personalized first/last mile services is to better coordinate and integrate current and new program offerings. Riders will be able to see all transportation options when they book their trip. Schedulers will view availability across all programs. Currently, these consist of paratransit, Catch-A-Ride, Novato Dial-A-Ride, and volunteer driver programs. For example, schedulers may be able to assign a same-day Catch-A-Ride trip to paratransit to increase service efficiency.

Appendix C: Unfunded Service Needs Assessment

There may be limited opportunities for greater efficiency and economies of scale in integrating these programs. The District should evaluate a new service model that will operate as a flex route service that can be adapted to community needs and the areas served. Marin Transit's diverse offerings of fixed route services provide riders with transit services based on a timetable for regular service. Flex routes offer solutions to address additional mobility needs. The District should evaluate a smaller vehicle type based on capacity needs of the service and ability to decrease costs.

Supported and Coordinated Services

The taxi industry is a potential partner for supporting and coordinating first and last mile services. Recent advances in technology and smart phone access have spurred a new transportation market. Transportation Network Companies (TNCs) such as Uber and Lyft offer new opportunities for first and last mile transportation in addition to other shared-ride (Chariot, Sidecar, Lyft Line, Uberpool, etc.) or car-share companies (ZipCar, Getaround, etc.). These services are widely available in urbanized areas and much less so in suburban areas such as Marin County.

The District's recent Catch-A-Ride partnership with the taxi industry is one model for brokering trips for seniors and ADA riders. In Marin County, the ability to expand these programs through the taxi providers is limited. Marin Transit should explore additional opportunities to support and coordinate with private or non-profit providers that require a lower per passenger subsidy levels than the Catch-A-Ride program. One option is to offer free transfers to fixed route services from taxis, transportation network company (TNC) services, or other approved providers. This will reduce the need for the District to provide these services directly and offer riders an incentive to use fixed-route transit. Since first/last mile connections are relatively short distance, the out-of-pocket costs will be minimal. The total cost of the trip will be more attractive as the transit portion provided as free. Encouraging this behavior will also create incentives for these outside providers and strengthen the market for and availability of services for Marin residents.

Marin Transit will also continue to partner with the Transportation Authority of Marin (TAM) on their countywide transportation demand management (TDM) strategies. The District will monitor TAM's current discount ride program for first and last mile services to and from the SMART stations in partnership with Lyft. Future co-location of car share and bike share stations at key transit facilities will offer alternative travel options in areas where fixed route services are not financially or physically feasible. Partnering to support vanpooling is another option to increase access to and from transit stops.

The District could pursue a hybrid arrangement where Marin Transit provides the vehicle, maintenance, and driver training. The service could be provided through either the Volunteer Driver program, an organization that benefits from the service, or individuals who pool together for a shared ride. There may be additional opportunities to use the same vehicle outside service hours, for example, in a car share program to support other countywide mobility goals.

Driverless Technology

Marin Transit will also need to consider a future with driverless cars and how they will impact public transit. Many automakers already offer autopilot functionality. There are still many technology and regulatory hurdles to overcome.

While autonomous vehicles offer many opportunities for mobility, their impact on congestion is unclear. There are few opportunities in Marin for additional infrastructure enhancements that will increase roadway capacity. In a future with autonomous vehicles, public transit's role may be to focus on moving travelers on

Appendix C: Unfunded Service Needs Assessment

capacity-constrained corridors. Along with high quality transit service on congestion corridors, autonomous vehicles could fill the need for first and last mile connections.

Table C-8 provides a summary of the First and Last Mile expansion services, how the District identified the need, and next steps for implementation.

Table C-8: First and Last Mile Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
Novato Local Connectors	SMART connector services to the two Novato stations	2015 MTC SMART Integration Study	Planning: Identify potential transfer demand and best way to support these needs	Medium
East San Rafael Connector Bus	Peak hour feeder bus to connect East San Rafael to Larkspur Ferry via San Rafael Transit Center / SMART station	2016/2017 Community Survey and Outreach	Planning: Map routing and cost estimates Implement: Secure funding	Medium
Countywide	New directly operated flex route services for general public	Measure A Expenditure Plan, Tiburon/Novato/West Marin Needs Assessments	Planning: Further study to identify potential markets and subsidy levels	High
Countywide	Partner with outside providers to develop complementary services in areas with transit gaps	2016 SRTP	Planning: Further study to identify potential markets and subsidy levels	High
Countywide	Support outside providers - free transfer agreements	Measure A Expenditure Plan, Tiburon/Novato Needs Assessments	Planning: Further study to identify opportunities. Talk with outside providers and explore how the process will function	Medium

Performance Criteria Ratings

First and last mile services score highest in filling gaps in the bus transit network and providing seamless connections. The focus of these services is on cost-effective opportunities to achieve these goals. These services will be explored as part of the District's upcoming planning process.

Since the program is still not well-defined, it is challenging for staff to score the other performance criteria. The ability to achieve high productivity or subsidy goals is questionable. These programs will not target large populations, yet they rely on heavy passenger loads. The metrics may also be challenging to quantify if the service increases the efficiency of other local services or significantly reduces the District's reliance on outside providers, such as TNCs, over whom the District does not have oversight.

Cost Estimates or Considerations

Due to the personalized nature of these services, the cost per passenger is likely going to be high. The level of District investment and subsidy levels is determined by the decision to directly contract to operate service versus relying on outside providers. There may be opportunities to leverage available resources by integrating and better coordinating Marin Transit's current programs, even if the District contracts directly for the operation. The District may not have a net increase in costs with this type of implementation if they increase the number of passengers served and reduce per passenger subsidies. Relying on and creating incentives for outside service providers such as taxis to support the District's goals could also be a cost-effective way to implement this type of service without directly operating it.

Opportunities for Funding / Partnerships

The District should focus on partnership opportunities to develop first and last mile services and consider the ever-changing environment of mobility options. The District's partnership with Whistlestop for Volunteer Driver programs offers an opportunity to leverage low-cost resources to help fill gaps in the transportation network. The District's partnerships with the taxi industry may lead to future win-win opportunities that enable the District to expand mobility for seniors while strengthening the network of taxi services. Other potential partnership opportunities with TNCs could offers similar win-win arrangements.

The District will continue to work with TAM to ensure TDM programs are well-integrated with public transit and residents who choose a car-free lifestyle have a wide range of mobility options. This includes providing a "safety net" for transportation when one option fails or is not feasible for a specific trip. TDM programs support service to public transit and can address the first and last mile challenges identified across the county.

Expand Services for Those with Special Needs

Overview

While Marin County's population experiences slow-to-little growth, the number of older adults is rapidly increasing. The number of senior residents – those over the age of 65 – in Marin has almost doubled since the year 2000 and is projected to increase an additional 41 percent in the next ten years. An aging population has a significant impact on transportation and transportation needs. As residents may need or want to shift their travel behavior to non-driving modes, cost-effective and convenient options will help keep this population active, healthy, and engaged within our community.

Marin Access programs serve a subset of seniors and people with disabilities who depend on public transportation to maintain their independence and a high quality of life. Marin Transit will always need to provide a high-touch, high-subsidy program to meet the needs of these riders. Any new offerings should be developed in coordination with agencies and organizations that also support this population. Coordinated planning will reduce costs, prevent service duplication, and provide riders and caregivers with the best possible service.

Table C-9 provides a summary of the Special Needs expansion services, how the District identified the need, and next steps for implementation.

Table C-9: Special Needs Expansion Services

Route / Service Area	Description	Need Identified	Next Steps	Priority Level
Countywide	Develop new same day, curb-to-curb services for seniors as available to make current program offerings more efficient	Measure A Expenditure Plan, Tiburon/Novato Needs Assessments, Senior Mobility Action & Implementation Plan, 2016 Marin Access Strategic Analysis & Recommendations	Planning: Study current trip request and denials and understand software need to consolidate scheduling	High
Countywide	Develop a reservation agreement program for senior shopper shuttles and group outings utilizing paratransit equipment	Marin Mobility Consortium; Marin Access Innovation Incubator; 2016 Marin Access Strategic Analysis & Recommendations	Planning: Assess available capacity; Determine eligibility criteria; Identify key origins and destinations	High
Countywide	Provide specialized counseling or travel training to riders with specific needs (e.g. people with developmental disabilities or the blind)	Measure B Expenditure Plan, 2016 Marin Access Strategic Analysis & Recommendations; Outreach to Adult Day Programs responsible for frequent paratransit ridership	Outreach: Partner with local agencies and organizations to develop curriculum and identify participants	Medium
Countywide	Provide innovative rider- focused transportation solutions that improve access to healthcare and promote wellbeing	2016 Marin Access Strategic Analysis & Recommendations; 2016 Marin Access Rider Survey; Marin Mobility Consortium	Planning: Identify transportation challenges that limit or prevent access to healthcare and/or limit wellbeing, particularly in rural West Marin; Continued partnership and collaboration with transportation and health care providers, focused on	Medium

Performance Criteria Ratings

Services that target those with special needs receive the highest marks in promoting environmental justice. Based on recent outreach and stakeholder feedback, expanding same-day curb-to-curb options for seniors and improving access to healthcare score well in filling a gap within the transportation network. Curb-to-curb services also provide seamless connections for those who need it most.

Due to the relative high cost and low ridership of these services, they score low on many criteria score compared to traditional mass transit services. However, some of these service models are either untested or underdeveloped. There may be opportunities to improve these scores once new service models are tested or further refined.

Cost Estimates or Considerations

Although services for those with special needs tend to have high subsidy levels, the total amount of expected service is lower than other expansion projects. Cost estimates assume the continuation of other Marin Access supportive service and that expansion services will enhance these offerings.

Opportunities for Funding / Partnerships

The District is exploring creative options to fund these services. These include:

- Partnering with private transportation companies seeking to test new models;
- Group shopping/recreational shuttles through paratransit contract;
- Travel training partnerships; and
- National Center for Mobility Management/Rides to Wellness funding.

Marin Transit recognizes that demand for these services is not typically focused on peak hour travel times. There may be opportunities to reuse program resources during the off-peak hours to provide operational and financial efficiencies.

Expansion Scoring and Priorities

Table C-10 summarizes all unfunded service improvements and organizes them by priority level. Priorities are assigned based on the evaluation ratings and ease of implementation. Overall service ratings are calculated based on an equal weighting of all Measure A criteria. Funding was not a factor in assigning priority. Many of these projects could be achieved with outside funding, partnerships, or discretionary grant funds.

The priority assignments are based on the District's needs and assume current services levels and programs. Staff will revisit this list and the priority assignments annually and update them to reflect future needs for local transit service.

Table C-11 provides a summary of the project rating in each of the evaluation criteria, an estimate of annual operating costs and Measure A contribution, and an assessment of the ease of implementation. The cost is an estimate of the annual operating costs to Marin Transit. Each dollar sign (\$) represents approximately \$50,000 per year of added operating cost. The darker portions of the "\$" indicate the portion of the financial support that will likely come from local Measure A funds or its replacement.

Table C-10: Expansion Services by Priority

High Priority, Not Ready Project (Ratings = **High**, **Not Ready** to Implement)

Yellow Bus Expansion: Kentfield & Larkspur-Corte Madera School Districts

Yellow Bus Expansion: Reed Union, Mill Valley, Ross Valley, San Rafael Elementary, & Dixie School Districts

Expand Supplemental Transit: Tamalpais Union, San Rafael, Novato School Districts

Provide new service between Golden Gate Bridge and West Marin

Medium Priority Projects, Ready Projects (Rating = Medium, Ready to Implement)

Expand Shuttle: Tiburon Evenings (219)

Expand Shuttle: Novato Evenings (251)

Expand Shuttle: Novato Hamilton (251 or 257)

Expand Fixed Frequency in San Rafael – San Anselmo Corridor

Expand Fixed Route Frequency in San Rafael – Civic Center Corridor

Expand Fixed Route Frequency in Hamilton –Downtown Novato Corridor

Mill Valley Express (Route 17x)

Medium Priority Projects, Not Ready Projects (Rating = Medium, Not Ready to Implement)

Yellow Bus Expansion: Novato School District

New route connecting the Larkspur Ferry/SMART station and Muir Woods

Novato connector services

East San Rafael Connector Bus

Provide flex route services for general public

Partner to provide new flexible first/last mile options

Support outside providers to strengthen first/last mile connections

Expand same day curb-to-curb options for seniors

Provide innovative rider-focused transportation solutions that improve access to healthcare and promote wellbeing

Low Priority Projects, Not Ready Projects (Rating = **Low**, Ready to Implement)

Develop a reservation agreement for senior shopper shuttles and group outings

Provide specialized counseling or travel training to riders with specific needs

Expand Shuttle: New circulator shuttle between E. Corte Madera and Larkspur Landing

Low Priority Projects, Not Ready Projects (Rating = **Low**, Not **Ready** to Implement)

New Shuttle: Mill Valley

New Shuttle: Sausalito

Table C-11: Expansion Project Ratings

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Proj. #	Expansion Services	Fill gap in the bus transit network	Meets productivity standards	Meets cost effectiveness standards	Relieves congestion	Provides seamless connections	Eliminates "pass ups"	Promotes environmental justice	Attracts outside funding	Overall Rating (equal weighting of criteria)	Estimated Operating Cost ⁽¹⁾	Ease of Implementation
1.0	Expand and Enhance Shuttle Services											
1.1	New Shuttle: Mill Valley	•	00	00	00	•	•	•	•	0	\$\$\$\$\$ \$\$\$\$\$	•
1.2	New Shuttle: Sausalito	•	00	00	•	•	•	•	•	0	\$\$\$\$\$ \$\$\$\$\$	•
1.3	Expand Shuttle: Tiburon Evenings (219)	000	•	•	•	00	•	000	•	00	\$ \$\$	000
1.4	Expand Shuttle: Novato Evenings (251)	000	0	0	•	0	0	000	0	00	\$\$\$	000
1.5	Expand Shuttle: Novato Hamilton (251 or 257)	000	•	•	•	•	•	000	•	00	\$	000
2.0	Expand and Enhance K-12 School Bus Services											
2.1	Yellow Bus Expansion: Kentfield & Larkspur- Corte Madera School Districts	000	000	••	000	0	000	00	000	000	\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$	0
2.2	Yellow Bus Expansion: Reed Union, Mill Valley, Ross Valley, San Rafael Elementary, & Dixie School Districts	000	000	00	000	•	000	••	000	000	\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$	•
2.3	Yellow Bus Expansion: Novato School District	000	••	••	••	•	000	••	000	00	\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$	0
2.4	Expand Supplemental Transit: Tamalpais Union, San Rafael, Novato School Districts	000	000	000	000	•	000	000	•	000	\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$	••
3.0	Enhance Service Frequency in Transit Corridors											
3.1	Expand Fixed Frequency in San Rafael – San Anselmo Corridor	00	0	0	00	000	00	00	0	00	\$\$\$\$\$	000
3.2	Expand Fixed Route Frequency in San Rafael – Civic Center Corridor	00	•	•	00	000	00	00	•	00	\$\$\$\$\$	000

Table C-11: Expansion Project Ratings

Proj. #	Expansion Services	Fill gap in the bus transit network	Meets productivity standards	Meets cost effectiveness standards	Relieves congestion	Provides seamless connections	Eliminates "pass ups"	Promotes environmental justice	Attracts outside funding	Overall Rating (equal weighting of criteria)	Estimated Operating Cost ⁽¹⁾	Ease of Implementation
3.3	Expand Fixed Route Frequency in Hamilton – Downtown Novato Corridor	••	•	•	••	000	••	••	•	••	\$\$\$\$\$	000

4.0	Provide Limited Stop or Express Services											
4.1	Mill Valley Express (Route 17x)	••	••	••	••	000	•	••	•	••	\$\$\$\$\$ \$\$\$\$\$	000
5.0	Expand Rural and Recreational Services											
5.1	Provide new service between Golden Gate Bridge and West Marin	000	000	000	000	000	•	•	000	000	\$\$\$	0
5.2	Increase service on Route 61 to support weekend and holiday demands	•	••	00	000	••	000	•	000	00	\$	00
5.3	Increase weekday service on Route 61 to support locals and students	00	•	•	•	00	•	•	•	•	\$	00
6.0	Provide and Support Flexible First/Last Mile Servi	ces										
6.1	Novato connector services	••	•	•	•	000	•	•	000	00	\$\$\$\$\$	00
6.2	East San Rafael Connector Bus	000	•	•	•	000	•	•	•	00	\$ \$\$	00
6.3	Provide flex route services for general public	000	•	•	•	000	•	00	•	00	\$\$\$\$\$	0
6.4	Partner to provide new flexible first/last mile options	000	•	•	⊕	000	•	00	••	00	\$\$	0
6.5	Support outside providers to strengthen first/last mile connections	000	•	•	•	000	•	•	••	••	\$	00
7.0	Expand Services for Those with Special Needs											

Appendix C: Unfunded Service Needs Assessment

Table C-11: Expansion Project Ratings

Proj.#	Expansion Services	Fill gap in the bus transit network	Meets productivity standards	Meets cost effectiveness standards	Relieves congestion	Provides seamless connections	Eliminates "pass ups"	Promotes environmental justice	Attracts outside funding	Overall Rating (equal weighting of criteria)	Estimated Operating Cost ⁽¹⁾	Ease of Implementation
7.1	Expand same day curb-to-curb options for seniors	000	•	••	•	000	•	••	•	00	\$	0
7.2	Develop a reservation agreement for senior shopper shuttles and group outings	0	0	0	0	•	0	000	•	0	\$\$	000
7.3	Provide specialized counseling or travel training to riders with specific needs	0	•	0	0	•	0	000	0	0	\$	000
7.4	Provide innovative rider-focused transportation solutions that improve access to healthcare and promote wellbeing	000	•	0	0	•	0	000	000	00	\$ \$\$	00

Notes:

^{(1) &}quot;\$" represents approximately \$50,000 in annual operating costs. **Black** "\$" indicates estimates for portion of costs covered by Measure A

$\textbf{Marin Transit} \ | \ 2020-2029 \ \mathsf{Short} \ \mathsf{Range} \ \mathsf{Transit} \ \mathsf{Plan}$

Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehicle Type	Service	Fuel Type	Retirement Year
Marin Transit	550	Articulated New Flyer	2007	5FYD4YS077C031482	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	551	Articulated New Flyer	2007	5FYD4YS097C031483	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	552	Articulated New Flyer	2007	5FYD4YS007C031484	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	553	Articulated New Flyer	2007	5FYD4YS027C031485	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	554	Articulated New Flyer	2007	5FYD4YS047C031486	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	555	Articulated New Flyer	2007	5FYD4YS067C031487	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	556	Articulated New Flyer	2007	5FYD4YS087C031488	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	557	Articulated New Flyer	2007	5FYD4YS0X7C031489	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	558	Articulated New Flyer	2007	5FYD4YS067C031490	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	559	Articulated New Flyer	2007	5FYD4YS087C031491	60.7 ft	63	2	Articulated Motorbus	Fixed Route	Diesel	2019
Marin Transit	1701	Gillig Hybrid	2017	15GGD3016H3188166	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1702	Gillig Hybrid	2017	15GGD3018H3188167	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1703	Gillig Hybrid	2017	15GGD301XH3188168	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1704	Gillig Hybrid	2017	15GGD3011H3188169	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1705	Gillig Hybrid	2017	15GGD3018H3188170	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1706	Gillig Hybrid	2017	15GGD301XH3188171	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1707	Gillig Hybrid	2017	15GGD3011H3188172	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1708	Gillig Hybrid	2017	15GGD3013H3188173	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1709	Gillig Hybrid	2017	15GGD3015H3188174	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1710	Gillig Hybrid	2017	15GGD3017H3188175	40 ft	34	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2029
Marin Transit	1801	BYD Electric	2018	4B9KALA69J2038902	35 ft	32	2	Standard Motorbus	Fixed Route	Battery Electric	2030
Marin Transit	1802	BYD Electric	2018	4B9KALA60J2038901	35 ft	32	2	Standard Motorbus	Fixed Route	Battery Electric	2030
Marin Transit	3301	New Flyer Hybrid	2010	5FYH4KV12AB036881	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Marin Transit	3302	New Flyer Hybrid	2010	5FYH4KV14AB036882	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Marin Transit	3303	New Flyer Hybrid	2010	5FYH4KV16AB036883	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022

$\textbf{Marin Transit} \, \big| \, 2020-2029 \, \text{Short Range Transit Plan}$

Marin Transit	3304	New Flyer Hybrid	2010	5FYH4KV18AB036884	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehicle Type	Service	Fuel Type	Retirement Year
Marin Transit	3305	New Flyer Hybrid	2010	5FYH4KV1XAB036885	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Marin Transit	3306	New Flyer Hybrid	2010	5FYH4KV11AB036886	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Marin Transit	3307	New Flyer Hybrid	2010	5FYH4KV13AB036887	35.8 ft	29	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2022
Marin Transit	100	El Dorado Aerotech	2011	1FDFE4FS7BDA34651	24 ft	20	2	Cutaway	Fixed Route	Gasoline	Retired- Active
Marin Transit	105	El Dorado Aerotech	2013	1FDFE4FS9DDA72661	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	108	El Dorado Aerotech	2013	1FDFE4FS6DDA83875	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	109	El Dorado Aerotech	2013	1FDFE4FS8DDA83876	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	110	El Dorado Aerotech	2013	1FDFE4FS9DDA83868	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
MarinTransit	111	El Dorado Aerotech	2013	1FDFE4FS7DDA83870	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	112ma	El Dorado Aerotech	2013	1FDFE4FS9DDA83871	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	113	El Dorado Aerotech	2013	1FDFE4FS9DDA83872	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	114	El Dorado Aerotech	2013	1FDFE4FS2DDA83873	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	115	El Dorado Aerotech	2013	1FDFE4FS4DDA83874	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2020
Marin Transit	1680	El Dorado Aerotech	2016	1FDE4FS0GDC56729	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2023
Marin Transit	1880	El Dorado Aerotech	2018	1FDFE4FS2JDC16420	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2025
Marin Transit	1980	El Dorado Aerotech	2019	1FDFE4FS1KDC13252	24 ft	20	2	Cutaway	Fixed Route	Gasoline	2026
Marin Transit	1501	Lowfloor Gillig Hybrid	2015	15GGE301XG1092953	29 ft	26	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1502	Lowfloor Gillig Hybrid	2015	15GGE3011G1092954	29 ft	26	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1503	Lowfloor Gillig Hybrid	2015	15GGE3013G1092955	29 ft	26	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1504	Lowfloor Gillig Hybrid	2015	15GGE3015G1092956	29 ft	26	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1505	Lowfloor Gillig Hybrid	2015	15GGD3012F1181501	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1506	Lowfloor Gillig Hybrid	2015	15GGD3012G1181502	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1507	Lowfloor Gillig Hybrid	2015	15GGD3014G1181503	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1508	Lowfloor Gillig Hybrid	2015	15GGD3016G1181504	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027

$\textbf{Marin Transit} \, \big| \, 2020-2029 \, \text{Short Range Transit Plan}$

Marin Transit	1509	Lowfloor Gillig Hybrid	2015	15GGD3018G1181505	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Marin Transit	1510	Lowfloor Gillig Hybrid	2015	15GGD301XG1181506	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehide Type	Service	Fuel Type	Retirement Year
Marin Transit	1511	Lowfloor Gillig Hybrid	2015	15GGD3011G1181507	40 ft	38	2	Standard Motorbus	Fixed Route	Hybrid Diesel-Electric	2027
Caltrans	618	El Dorado Aero Elite 270	2012	1FDAF5GY1BED06704	27 ft	22	2	Cutaway	Fixed Route	Gasoline	2019
Caltrans	619	El Dorado Aero Elite 270	2012	1FDAF5GY2BEC98984	27 ft	22	2	Cutaway	Fixed Route	Gasoline	2019
Caltrans	620	El Dorado Aero Elite 270	2012	1FDAF5GY4BEC64917	27 ft	22	2	Cutaway	Fixed Route	Gasoline	2019
Caltrans	1136	El Dorado Aero Elite 320	2012	1FDAF5GY3CEA34206	32 ft	30	2	Cutaway	Fixed Route	Gasoline	2019
Marin Transit	1560	El Dorado Aero Elite 270	2015	1FDAF5GY4FED20196	27 ft	22	2	Cutaway	Fixed Route	Gasoline	2022
Marin Transit	1561	El Dorado Aero Elite 270	2015	1FDAF5GY6FED46248	27 ft	22	2	Cutaway	Fixed Route	Gasoline	2022
Marin Transit	301MV	El Dorado 29' XHF	2015	1N9HBAC60FC084220	29 ft	29	2	Standard Motorbus	Fixed Route	Diesel	2027
Marin Transit	1760	El Dorado 29' XHF	2017	1N9HBAC65HC084098	29 ft	29	2	Standard Motorbus	Fixed Route	Diesel	2029
Marin Transit	1761	El Dorado 29' XHF	2017	1N9HBAC67HC084099	29 ft	29	2	Standard Motorbus	Fixed Route	Diesel	2029
Marin Transit	1860	El Dorado 35' XHF	2018	1N9HEAC65JC084231	35 ft	41	2	Standard Motorbus	Fixed Route	Diesel	2030
Marin Transit	1861	El Dorado 35' XHF	2018	1N9HEAC67JC084232	35 ft	41	2	Standard Motorbus	Fixed Route	Diesel	2030
Marin Transit	3060	El Dorado 35' XHF	2008	1N9HEACL48C084169	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2020
Marin Transit	3061	El Dorado 35' XHF	2008	1N9HEACL08C084170	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2020
Marin Transit	3062	El Dorado 35' XHF	2011	1N9HEACL2BC084226	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2023
Marin Transit	3063	El Dorado 35' XHF	2011	1N9HEACL4BC084227	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2023
Marin Transit	3064	El Dorado 35' XHF	2011	1N9HEACL6BC084228	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2023
Marin Transit	3065	El Dorado 35' XHF	2012	1N9HEACL2DC084066	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2024
Marin Transit	3066	El Dorado 35' XHF	2012	1N9HEACL4DC084067	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2024
Marin Transit	3067	El Dorado 35' XHF	2012	1N9HEACL6DC084068	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2024
Marin Transit	3068	El Dorado 35' XHF	2012	1N9HEACL8DC084069	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2024
Marin Transit	3069	El Dorado 35' XHF	2012	1N9HEACL4DC084070	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2024
Marin Transit	1860	El Dorado 35' XHF	2018	1N9HEAC65JC084231	35 ft	37	2	Standard Motorbus	Fixed Route	Diesel	2030

Marin Transit | 2020–2029 Short Range Transit Plan

Marin Transit	1861	El Dorado 35' XHF	2018	1N9HEAC67JC084232	35ft	37	2	Standard Motorbus	Fixed Route	Diesel	2030
Marin Transit	1870	Mobile Information Kiosk	2018	1FDUF5GT1HEE86051	-	0	0	Other	Other	Gasoline	2033
Marin Transit	308	Starcraft	2009	1FD3E35L68DB57261	22 ft	8	3	Cutaway	Demand Response	Gasoline	Retired Active
Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehicle Type	Service	Fuel Type	Retirement Year
Marin Transit	701	Starcraft Ford Class A	2015	1FDEE3FL9FDA12259	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	702	Starcraft Ford Class A	2015	1FDEE3FL3FDA12263	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	703	Starcraft Ford Class A	2015	1FDEE3FLXFDA12258	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	704	Starcraft Ford Class A	2015	1FDEE3FL5FDA12264	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	705	Starcraft Ford Class A	2015	1FDEE3FL4FDA12269	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	706	Starcraft Ford Class A	2015	1FDEE3FL4FDA12272	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	707	Starcraft Ford Class A	2015	1FDEE3FL9FDA12266	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	708	Starcraft Ford Class A	2015	1FDEE3EFLFDA12260	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	709	Starcraft Ford Class A	2015	1FDEE3FL7FDA12265	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	710	Starcraft Ford Class A	2015	1FDEE3FL9GDC07284	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	711	Starcraft Ford Class A	2015	1FDEE3FL6GDC07291	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	712	Starcraft Ford Class A	2015	1FDEE3FL8GDC07289	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	713	Starcraft Ford Class A	2015	1FDEE3FL6GDC07288	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	714	Starcraft Ford Class A	2015	1FDEE3FL8GDC07292	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	715	Starcraft Ford Class A	2015	1FDEE3FL4GDC07290	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	716	Starcraft Ford Class A	2015	1FDEE3FL4GDC07287	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	717	Starcraft Ford Class A	2015	1FDEE3FL5GDC07282	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	718	Starcraft Ford Class A	2015	1FDEE3FL3GDC07281	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	719	Starcraft Ford Class A	2015	1FDEE3FL2GDC07286	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	720	Starcraft Ford Class A	2015	1FDEE3FL1GDC07280	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	721	Starcraft Ford Class A	2015	1FDEE3FL0GDC07285	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	722	Starcraft Ford Class A	2015	1FDEE3FL7GDC07283	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020

$\textbf{Marin Transit} \, \big| \, 2020-2029 \, \text{Short Range Transit Plan}$

Marin Transit	723	Starcraft Ford Class A	2015	1FDEE3FL1GDC07294	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	724	Starcraft Ford Class A	2015	1FDEE3FLXGDC07293	20 ft	8	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	801	Starcraft Ford Class B	2015	1FDEE4FLOFDA25638	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	802	Starcraft Ford Class B	2015	1FDEE4FL9FDA25640	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	803	Starcraft Ford Class B	2015	1FDEE4FL7FDA25636	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehicle Type	Service	Fuel Type	Retirement Year
Marin Transit	804	Starcraft Ford Class B	2015	1FDEE4FL0FDA25641	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	805	Starcraft Ford Class B	2015	1FDEE4FL9FDA25637	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	806	Starcraft Ford Class B	2015	1FDEE3FL9FDA25635	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	807	Starcraft Ford Class B	2015	1FDEE3FL9FDA25639	22 ft	12	3	Cutaway	Demand Response	Gasoline	2020
Marin Transit	808	Starcraft Ford Class B	2018	1FDEE3FS2JDC16505	24 ft	12	3	Cutaway	Demand Response	Gasoline	2023
Marin Transit	809	Starcraft Ford Class B	2018	1FDEE3FS9JDC16503	24 ft	12	3	Cutaway	Demand Response	Gasoline	2023
Marin Transit	810	Starcraft Ford Class B	2018	1FDEE3FS8JDC14466	24 ft	12	3	Cutaway	Demand Response	Gasoline	2023
Marin Transit	1830	Ford Transit Van	2017	1FBZX2CMXJKA11854	22 ft	6		Van	Demand Response	Gasoline	2022
Marin Transit	1831	Ford Transit Van	2017	1FBZX2CM9HKA50865	22 ft	6		Van	Demand Response	Gasoline	2022
Marin Transit	1832	Ford Transit Van	2017	1FBZX2CM8HKA77068	22 ft	6		Van	Demand Response	Gasoline	2022
Marin Transit	1833	Ford Transit Van	2017	1FBZX2CM7HKB38961	22 ft	6		Van	Demand Response	Gasoline	2022
Golden Gate Transit	501	El Dorado	2013	1FDEE3FL6DDA45187	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate								,	·		
Transit Golden Gate	502	El Dorado	2013	1FDEE3FLXDDA39960	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Transit Golden Gate	503	El Dorado	2013	1FDEE3FL1DDA39961	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Transit	504	El Dorado	2013	1FDEE3FL3DDA39962	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	505	El Dorado	2013	1FDEE3FL9DDA89121	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	506	El Dorado	2013	1FDEE3FL0DDA89122	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	507	El Dorado	2013	1FDEE3FL2DDA89123	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018

$\textbf{Marin Transit} \, \big| \, 2020-2029 \, \text{Short Range Transit Plan}$

Golden Gate Transit	508	El Dorado	2013	1FDEE3FL4DDA89124	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	509	El Dorado	2013	1FDEE3FL6DDA89125	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	510	El Dorado	2013	1FDEE3FLODDB06033	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	511	El Dorado	2013	1FDEE3FL6DDB06036	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	512	El Dorado	2013	1FDEE3FL8DDB06037	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Owner	MT Vehicle Number	Manufacturer	Year of Manufacture	Vehicle ID Number	Vehicle Length	Seated Capacity	Wheelchair Capacity	Vehicle Type	Service	Fuel Type	Retirement Year
Golden Gate Transit	513	El Dorado	2013	1FDEE3FLXDDB06038	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Golden Gate Transit	514	El Dorado	2013	1FDEE3FL1DDB06039	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Whistlestop	601	Starcraft Ford E-350	2013	1FDEEFL0DDA79240	22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Whistlestop	602	Starcraft Ford E-350	2013		22 ft	8	3	Cutaway	Demand Response	Gasoline	2018
Whistlestop	603	Starcraft Ford E-350	2013		22 ft	8	3	Cutaway	Demand Response	Gasoline	2018

Appendix E: Title VI Program

Marin Transit's Title VI Program is available for download at:

http://marintransit.org/titlevi.html

This plan was approved by the Marin Transit Board of Directors on July 24, 2017 and is updated every three years. Below is the Plan's Table of Contents that shows the outline and structure of the document.

Marin County Transit District Federal Title VI Civil Rights Program for 2017-2020 to FTA Circular C 4702.1B issued October 2012	
Marin Transit Title VI Complaint Procedures	3
Marin Transit Title VI Complaint Form	5
List of Transit-Related Title VI Investigations, Complaints, and Lawsuits	8
Marin Transit Public Participation Plan	9
Introduction	10
Developing Plans to Engage the Public	10
Characteristics of Marin Local Transit Riders	11
Marin Transit Methods for Public Outreach and Participation	12
Project Open Houses, Workshops, and Community Meetings	14
Website Support	15
Media Relations and Non-English Speaking Residents	15
Community Events	16
Community Organizations	16
Flexible Public Participation Opportunities	16
Translation Assistance	16
Multilingual Information Materials	17
Presentations and Visual Aids	17
Street Level and On Board the Bus Outreach	17
Social Media	17
Community Advisory Groups and Focus Groups	18
Public Notices and Legal Notices	18
Community-Based Organizations and Contractor Outreach	18
Email Communication	18
Board of Directors' Meetings	18
Passenger Advisory Groups	19

$\textbf{Marin Transit} \ | \ 2020-2029 \ \mathsf{Short} \ \mathsf{Range} \ \mathsf{Transit} \ \mathsf{Plan}$

Appendix E: Title VI Program

Mobility Management Travel Training Programs	19
Metropolitan Transportation Commission (MTC) / Public Participation Plan	19
Public Participation in Major Service and Fare Changes	20
Legal Publication of Notice and Additional Outreach on Public Hearings	20
Identifying Lessons Learned	21
Keeping the Public Participation Plan Up-to-Date	22
Marin Access Mobility Management Goals and Activities Regarding Outreach to Riders, Stakeholders, and Community Organizations	23
APPENDIX A - Marin Transit Public Participation Plan and Summary of Results for Proposed Major Service Changes for June 2016	26
APPENDIX B – Community Input on Outreach Strategies	30
APPENDIX C - Marin Transit Public Outreach Activities by Type of Service Change	31
Marin Transit Language Assistance Plan - Improving Access to Transit Services for Persons with Limited English Proficiency in Marin County	
1. Introduction	35
2. Plan Summary	35
3. Marin Transit's Service Area and Demographics	35
4. LEP Four Factor Analysis	37
6. Building on Marin Transit's Inclusive Coordinated Transportation Partnership to Reach Spanis and Vietnamese-Speaking Senior & Disabled Residents	
7. Contact Information	56
Attachment 1 - Marin Transit Passenger Survey 2017 - Results from Selected Questions	57
Membership of Non-Elected Committees and Councils	60
Description of Marin Transit Monitoring of Subrecipients for Compliance with Title VI	60
Title VI Equity Analysis of Marin Transit Constructed Facilities	60
Setting System-wide Service Standards and Policies	61
Demographic and Service Profile Maps and Charts	65
Demographic Ridership and Travel Patterns, Collected by Surveys	75
Demographics and Travel Patterns of Marin Transit Riders	78
Results of Marin Transit's System Monitoring Program and Report	83
Public Engagement Process for Developing Policies for Major Service Changes, Disparate Imparand Disproportionate Burden	-
Marin Transit Title VI Civil Rights Policies on Major Service Changes, Disparate Impact, and Disproportionate Burden	91
Marin Transit Policy on Major Service Changes	91

$\textbf{Marin Transit} \ | \ 2020-2029 \ \mathsf{Short} \ \mathsf{Range} \ \mathsf{Transit} \ \mathsf{Plan}$

Appendix E: Title VI Program

Marin Transit Policies on Disparate Impact and Disproportionate Burden	95
Results of Service and/or Fare Equity Analyses Conducted	98
Title VI Fare Equity Analysis for Change to Youth Fare Category and Elimination of St.	
Title VI Service Equity Analysis of West Marin Stagecoach Route 68 Expansion	109
Title VI Service Equity Analysis of Proposed Major Service Changes to Marin Local Bu Community Shuttle Routes for June 2016	
Programa de Derechos Civiles para 2017-2020 de Marin County Transit District conform VI Federal para cumplir con el Comunicado C 4702.1B de la FTA emitido en octubre de	
Declaración de la Política conforme al Título VI de Marin Transit – Aviso al Público	148
Procedimientos de Queja conforme al Título VI de Marin Transit	149
Formulario de Queja conforme al Título VI de Marin Transit	151

Appendix F: Operating Revenue

	Source	% of Operations Budget	FY2020 Funding (Millions)	Projected Growth	Description	Notes					
	Fares	11%	\$4.1	0%	Farebox revenue	Cash fares, pass sales, clipper usage, youth pass sales; no growth except with fare increase in FY2022					
AL	Measure A/Measure AA	39%	\$14.4	2.7%	1/2 cent County Sales Tax	Under Measure AA District receives 54.5% of revenues generated by this tax after administrative other costs - 33% for local operations, 3% for rural operations, 9.5% for special services, 4% for capital and 5% for school service					
LOCAL	Measure B 3% \$1.2		\$1.2	0.0%	Marin County \$10 Vehicle License Fee	Marin Transit receives 35% for specialized senior and paratransit programs					
	Property Tax	12%	\$4.6	3.0%	Marin County Property Tax	Dedicated tax allocated directly to Marin Transit					
	Other	7%	\$2.5	3.0%	Fee for Service, Advertising, Interest etc.	Includes GGBHTD payments for the regional paratransit and contribution towards local paratransit; Also includes interes and advertising revenue.					
	TDA	14%	\$5.8	2.7%	State Local Transportation Fund (LTF) - Transportation Development Act Funding; 1/4-cent statewide sales tax	Statewide allocated based on population; Marin County share is split under terms within GGT operations contract based on passengers and hours; Marin Transit received 38% in FY18					
STATE	STA Population	\$1.3 1.5% 6%		1.5%	State Transportation Development Act Funding, from state sales tax on	Distributed to Marin County Cities based on population, Marin Transit's share is split under terms within GGT operations contract based on passengers and hours; Marin Transit received 38.5% in FY20					
	STA Revenue		\$1.6	1.5%	diesel fuel	Distributed by the State to Transit Agencies based on annually reported local revenue expended on transit service.					
	STA Lifeline	<1%	\$0.4	-	MTC Program using multiple funding sources including Transit STA	Depending on the cycle this has been distributed by formula or by a competitive grant process administered by the Transportation Authority of Marin					

Marin Transit | 2020–2029 Short Range Transit Plan

Appendix F: Operating Revenue

	Source	% of Operations Budget	FY2020 Funding (Millions)	Projected Growth	Description	Notes
	FTA 5311 – Rural Funding	<1%	\$0.21	3.0%	Federal Rural Transit Funding	Regional Apportionment that is split by MTC using a formula based on rural population served and rural route miles provided
-	FTA – 5307 ADA Set Aside	2%	\$0.7	1.6%	Federal Funding for Paratransit	
FEDERAL	FTA -5310 Mobility	1%	\$0.4	-	Discretionary grant funds for mobility project	Current grant for same day paratransit and mobility management. Administered through Caltrans.
	NPS – Muir woods	1%	\$0.7	0.0%	Federal funding that MTC sets aside for paratransit expenses.	Allocated by MTC to balance their adopted Core Capacity distribution framework. Operators who have revenue shares that were under their framework allocation received population based funds in the first cycle. GGBHTD (with Marin Transit) did not receive these funds.

Appendix G: Zero Emission Fleet Replacement Plan

Marin Transit's first Battery Electric Bus went into revenue service at the end of February, and staff is collecting information on range, fueling costs, and capabilities. Based on initial results, the range will not be sufficient for the majority of service blocks (the distance a bus drives in one day) without additional charging. Given the rapid pace of technological change and new electric buses in the pipeline, staff expects that the range for the next generation of zero-emission buses will increase.

For purposes of the Fleet Replacement Plan, staff assumed the following availability for all-electric vehicles:

- An FTA-approved cutaway bus will be available in 2025;
- An FTA-approved narrow body bus will be available in 2030;
- The range of in-depot charged buses will increase from about 125 miles to 300 miles by 2027; and
- Over the next five years, there will not be a significant infusion of capital funding for Marin
 Transit to construct infrastructure improvements that support in-route vehicle charging or
 hydrogen fueling stations.

To plan for technological uncertainty, Marin Transit staff has developed the following recommendations:

- Develop a base plan that assumes the zero-emission technology is available to meet the minimum ICT requirements, without significant changes to routing or requiring in-route charging infrastructure;
- 2) Identify decision points that will allow time for developing route changes or infrastructure projects, if required; and
- 3) Identify decision points purchasing additional zero-emission vehicles if technology exceeds expectations and/or there is significant additional capital to pursue in-route charging or other mitigations to deploy zero-emission buses.

To meet the replacement plan goals, Marin Transit first anticipates the feasibility of converting the standard bus fleet to electric buses. The narrow-bodied vehicles needed for rural and recreational services have vehicle work blocks of over 300 miles on steep, hilly terrain. This makes them the most challenging to convert. Marin Transit plans to start to replace those vehicles with zero-emission technology in FY 2031 to allow more time for the technology to improve. Marin Transit will be able to modify the procurements planned for FY 2024 and FY 2027 should a suitable zero emission vehicle type become available earlier.

In addition to the draft replacement plan in Table G-1 below, staff have provided a more detailed chart of the plan in Table G-2.

Table G-1: Marin Transit Draft Fixed Route Vehicle Replacement Plan

	Zero Emission	New Vehicle Purchases - Fixed Route Fleet											
Fiscal Year	Fleet Percentage	Standard Size Buses	XHFs - Heavy Duty, Narrow Body										
FY 2020	3%	11 - 40ft Hybrid Buses		4 - 29ft XHFs									
FY 2021	3%	4 - 40ft Electric Buses	9 - Cutaways	2 - 35ft XHFs									
FY 2022	8%												
FY 2023	8%	7 - 35ft Hybrid Buses	1 - Cutaway	2 - 29ft XHFs									
FY 2024	8%												
FY 2025	8%			8- 35ft XHFs									
FY 2026	9%		1 - Cutaway 1 - Electric Cutaway										
FY 2027	14%	4 - 30ft Hybrid Buses 7 - 40ft Electric Buses											
FY 2028	17%		7 – Cutaways 2 - Electric Cutaways	1 - 35ft XHF 2 - 29ft XHFs									
FY 2029	29%	10 - 40ft Electric Buses											
FY 2030	31%		1 - Electric Cutaway										
FY 2031	33%	2 - 35ft Electric Buses		2 - 35ft Electric Narrow Body									
FY 2032	41%			2 - 35ft Electric Narrow Body 4- 30ft Electric Narrow Body									
FY 2033	56%	15 - 40ft Electric Buses	2 - Electric Cutaways										
FY 2034	68%	7 - 35 ft Zero Emission Buses		2 - 30ft Electric Narrow Body									
FY 2035	77%		9 - Electric Cutaways										
FY 2036	77%												
FY 2037	87%		1 - Electric Cutaway	8 - 35 ft Electric Narrow Body									
FY 2038	87%												
FY 2039	97%	7 - 40ft Electric Buses 4 - 30ft Electric Buses		1 - 35 ft Electric Narrow Body									
FY 2040	100%		2 - Electric Cutaways	2 - 30ft Electric Narrow Body									

Decision Points and Next Steps

Staff have identified points in the next ten years when Marin Transit will decide whether to make increase its investments in Zero Emission Buses earlier or make other decisions regarding the future of the zero-emission fleet.

- ➤ 2020 Procurement and In-service Plan for FY 2021 Electric Vehicles By the end of 2019, Marin Transit needs a procurement and in-service plan for the four electric vehicles to be purchased in FY 2021. This plan will include vehicle selection, an operations plan, associated operations contractor agreements, and a plan for infrastructure and power delivery.
- ➤ 2024 Initial Infrastructure Plan Marin Transit will complete an initial infrastructure plan that will allow three years for implementation and construction before delivery of seven electric vehicles in FY 2027 and ten electric vehicles in FY 2029. The District is currently working to purchase a facility that would accommodate electric vehicle infrastructure. If the District has not yet purchased a facility, the plan will include alternatives. These may include hydrogen fuel cell buses, if the fueling is available, or consolidating electric vehicles with contractors that are able to install electrical infrastructure on their properties.
- ➤ 2025 Confirm Vehicle Types for FY 2027 Procurement Marin Transit will evaluate the battery range of available zero-emission vehicles. The District will also evaluate the status of its infrastructure and power delivery capabilities to determine whether it is possible increase the percentage of zero-emission buses in the FY 2027 procurement. At this time, the FY 2027 procurement is planned to consist of seven 40-foot electric and four 30-foot hybrid buses.
- ➤ 2025 Determine if a zero-emission cutaway bus is available Marin Transit's first planned replacement of a cutaway (shuttle) with zero-emission technology is planned for FY 2026 to provide additional time for testing and development of a federally-approved vehicle. In addition, a price of the technology needs to go down for purchase of these vehicles to be cost effective over the shorter vehicle life (seven years). If no federally approved vehicle is available, CARB will exempt agencies from the requirement. Until a zero-emission alternative is available, the District will evaluate replacement of its shuttles with a standard size battery electric buses or replacing with standard gasoline vehicles
- ➤ 2027 Confirm Vehicle Types for FY 2029 Procurement Determine whether battery range has improved enough to deliver the District's existing service profile. If not, the FY 2029 procurement allows time for Marin Transit to evaluate purchasing additional vehicles, cutting or re-designing service to match vehicle constraints, and/or negotiating with jurisdictions to install opportunity charging at strategic locations throughout the county.
- ➤ 2028 Confirm Vehicle Types for FY 2031 Procurement of Narrow-Bodied Vehicles Decide whether there is a zero-emission bus capable of operating on the West Marin Stage and Muir Woods Shuttle services. If not, Marin Transit will have to consider cutting these programs. If a narrow-bodied vehicle is available and the range is the only concern, the District will evaluate purchasing additional vehicles to provide the service and/or whether installing opportunity charging along the routes is feasible,

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix G: Zero Emission Fleet Replacement Plan

➤ 2029 – Update Initial Infrastructure Plan – Based on the current fleet status and the state of zero-emissions bus technology, Marin Transit will update the infrastructure plan in advance of the FY 2032 procurements that will bring the District's fleet to over 50 percent electric.

Electric bus technology is evolving rapidly. Marin Transit values the benefits of zero-emission buses. The District will recommend investments that take advantage of proven technologies while closely monitoring new developments. Marin Transit needs to be flexible as it develops the quickest, most reliable path toward a sustainable and completely zero-emission fleet. Staff will explore technology options as each of decision points nears and will evaluate the best investments that will move the District toward a battery electric fleet at a faster pace than the current vehicle replacement plan.

Table G-2: Marin Transit Detailed Fixed Route Vehicle Replacement Plan

								S	RTP Years	- FY20-F	/29														
						1		I	I				Re	eplaceme	nts (In-se	ervice yea	r)	1	ı		ı		1	1	
Contractor	Vehicle Type	Life Cycle (yrs)		Final Vehicle	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 ⁽⁴⁾	FY 2027	FY 2028	FY 2029 ⁽⁵⁾	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
nsit	60 ft Artic	12	10	0																					
Tra	35ft Hybrid	12	7	0				7																	
Gate	35ft Electric	12	2	9												2			7						
Golden Gate Transit	40ft Hybrid	12	10	0	11																				
	40ft Electric	12	0	25		4 ⁽¹⁾								10				15 ⁽²⁾							
	Shuttle	7	13	0		9		1			1		7												
rter	Electric Cutaway	7	0	12							1		2		1		2	1		9					
Marin Airporter	40ft Hybrid	12	7	0								7													
rin A	40ft Electric	12	0	7																				3	
Mai	30ft Hybrid	12	4	0																					
	30ft Electric	12	0	4								4												5	
uo	Stage Cutaway	7	6	0																					
rtati	29ft XHF	12	3	0	4			2					2												
odsı	30ft Electric	12	0	9													4		2						
MV Transportation	35ft XHF	12	10	0	2	2				8(3)			1												
¥	35ft Electric	12	0	12												2	2					8		1	2

= Fleet No Longer Exists

Notes:

(1) Purchase of 4 Electric Buses in FY 2021 (and replacement in 2033) going on GGT contract is contingent upon service levels and GGT ability/willingness to operate vehicle type

= Electric Fleet

- (2) Replacement of 11 40ft Hybrids and 4 40ft Electric Vehicles combined in FY 2033
- (3) Purchase of 5 35ft XHFs and 3-35ft XHFs combined in FY 2025
- (4) 25% of purchases are Required to be Zero-Emission under CARB's Innovative Clean Transit Rule
- (5) 100% of purchases are required to be Zero-Emission under CARB's Innovative Clean Transit Rule

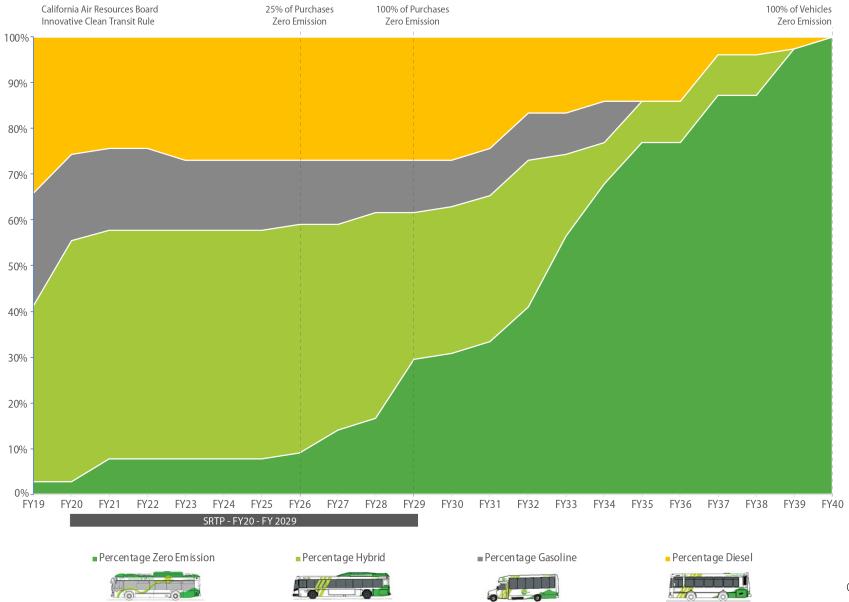


Figure G-1: Marin Transit Fixed Route Fleet Composition Over Time

Appendix H: Public Comments

Date: 12/27/2019 Source: Online form

Commenter: Age: 65+ Annual Household income: 35-50k Frequent user of Marin Access

services

Comment: I live at a 200-plus independent senior center (Sequoia Living Tamalpais). I request that the

> #228 line be extended one mile for a stop at the Tamalpais. There is already a pleasant bench area to sit, if the stop was placed there. It would increase your 228 ridership considerably, because they need access up and down El Portal Street to Sir Francis Darke, the Larkspur ferry, etc. and also down Eliseo for medical/dental appointments and to College of Marin for classes. I have taken the 228 route myself and know its drawbacks: (missing the bus because the driver is looking toward El Portal when I am almost at the stop, late scheduled arrivals due to traffic. However, for seniors, some with mobility problems, it opens up greater community access to the transit hubs and the greater Marin area via the Marin Airporter, the new Larkspur Smart train stop and Larkspur Ferry. In addition there is an adjacent condo (Spyglass) above us. Low cost transportation for the Tamalpais employees will help our service people and seasonal part time worker gaps, in like food servers, housekeeping and caregivers. Please give serious consideration to this

suggestion before all the major transit routes are set.

Comment Response: Staff are exploring updates to the routes serving that area to increase routes efficiency and reduce travel times for riders; As part of that effort staff will assess alignment alternatives

along with potential new bus stops as applicable.

Date: 1/5/2020 Source: Email

Commenter: Age: N/A Annual Household income: N/A Frequent user of local bus services

Comment: [TRANSDEF Comments - See Attachment]

Comment

Response: See Comment Response on pages H-2 through H-6

Date: 1/13/2020 Source: Public Hearing Commenter: TRANSDEF

Comment: I'm here today to connect the dots between your SRTP and climate change. My message is

> that this is not just another boring document you are being asked to approve. Now that Marin has courageously pioneered Marin Clean Energy, the biggest remaining source of GHG emissions in the county is motor vehicles. The SRTP offers a simple low-cost method of encouraging residents to take transit, rather than drive. First, a word on how I

Appendix H: Public Comments

came up with the plan that is in Appendix H, public comments. Last February, my car died. Rather than buy another beater, I decided to conduct a real world experiment: Could one have a reasonably high quality of life in Marin without a car? After nearly a year's worth of data, the answer is emphatically Yes.

The question now is "How to encourage many more Marin residents to become Marin Transit riders?" The answer is simple, but not easy: Provide frequent service that is easy to understand. That's what my plan attempted to do. Interestingly, there is no staff analysis of my comments in the packet. There are all kinds of reasons for institutional resistance, including the granddaddy of them all, Not Invented Here. I'm here this morning to point out the ravages of wildfire in Australia and note the climactic similarities between California and Australia. Pundits have described this as hell on earth. There are forests that will never regrow.

What other evidence do you as a Board need, before setting aside business as usual? Is it possible you don't yet acknowledge the degree of crisis facing the continuation of life on Earth, as we've know it? If you do recognize that something needs to be done about congestion and GHGs, please understand that yet another routine approval of a staff document won't cut it.

I suggest that making your existing revenue hours far more productive is the obvious thing to do. The Draft SRTP does not do that. Your direction to staff could make a big difference in your ridership and your role in Marin's transportation hierarchy.

Comment Response:

The following is a response to the Short Range Transit Plan (SRTP) comments and recommendations included in the letter from the Transportation Solutions Defense and Education Fund (TRANSDEF) dated January 5, 2020. The District received copies of a similar letter on May 10, 2019 and March 29, 2019 and met with Mr. Schonbrunn in August of 2019 to discuss these suggestions. Overall, we believe the comments and recommendations are well thought out and deserve additional analysis and consideration. The following summarizes next steps for consideration of how these suggestions and how the role of the SRTP in this process.

Prior to specific route level suggestions, TRANSDEF highlights a couple points about transit priority within the transportation hierarchy that are consistent with the documents discussion of the challenges related to this issue discussed on page 3-3.

- Highway 101 HOV hours. The District agrees with the comment that HOV hours of operation should be extended to give transit some priority on the most congested corridor in the County. While not directly impacting Marin Transit, it is also suggested that HOV lanes should be added to the 580 and the Richmond Bridge to assist regional transit options in these congested corridors.
- Bus Rapid Transit (Fairfax to San Rafael). The District agrees that the east-west corridor between Fairfax and San Rafael is a prime candidate for transit priority measures. In partnership with Marin Transit, the Town of Fairfax, the Town of San Anselmo, and the City of San Rafael, the Transportation Authority of Marin (TAM) completed the Fairfax-San Rafael Corridor Study in 2015. This study identified improvements in this corridor to improve transit reliability, reduce travel times, and increase ridership.

Unfortunately, it appears that the recommendations of this study have not been considered by the local jurisdictions as individual projects have been carried

Appendix H: Public Comments

forward. For example, San Rafael's 3rd Street Rehabilitation study, San Anselmo's Red Hill Median Improvement Project, and Fairfax's Downtown Parkade Project do not incorporate study recommendations that would improve transit in the corridor and these projects were funded with local Measure A transportation funds.

- Transfer with GGT vehicles. Missed transfer connections greatly degrade the transit experience and should be mitigated whenever possible. The issue of communication across drivers or between contractors may be present but the larger issue is the decision of when, and how long to hold to make a connection. Often times, holding a bus at certain stops for one or two passengers can result in many more missing their connection at another stop. The District has formal rules for when and where drivers should hold for a transfer. Outside these rules, it is believed that missed connections should be addressed through the scheduling process to proactively address chronically late trips.
- On Board Technology. It is recognized by District staff that some features of the on-board technology do not perform at a 100% satisfactory level at all times. The single largest hurdle to having a fully functional, integrated system across all contractors and vehicles is our inability to have Golden Gate Transit equip Marin Transit owned vehicles with the on-board systems used by our other contractors. Conversations will continue with the Bridge District to see if this can be resolved in the future.

Response to Network Improvement Solutions

The underlying recommendation for network improvements is to no longer operate a pulse operation from the San Rafael Transit Center and instead operate a "trunk and feeder" system using the Highway 101 corridor as the "trunk" and implement high frequency local circulators as the "feeder" systems. Elements of this recommendation have been implemented over the past 4-5 years including coordination with Golden Gate Transit in 2016 to go from 30 minute frequencies on Highway 101 to service every 15 minutes. Further, capital improvements have been made in recent years at key transfer facilities between local service and regional service including at Redwood/Grant (Novato), San Rafael Transit Center (San Rafael/San Anselmo/Fairfax) and Marin City (Sausalito/Mill Valley). Restructuring to full "trunk and feeder" system would require two significant changes that are viewed as challenging and outside the funding and regulatory control of the District.

First, having convenient transfers between local and regional services requires having bus stops or transfer locations to facilitate these connections. Aside from the three transfer locations previously mentioned, there are few stops that allow these convenient transfers. Ideally, these transfer locations would be located along the trunkline or highway 101. However, the freeway bus pads are challenging to facilitate transfers and to serve by local transit without committing the routing to Highway 101. Pedestrian and bike access issues are also observed at nearly all these bus stop locations.

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix H: Public Comments

Funded and unfunded opportunities to improve these connections and construct transit supportive infrastructure at these locations are described in the Capital Plan of the SRTP on pages 4-13 and 4-14. It is noted that these rely on partnerships with the local jurisdictions, the County of Marin, TAM and Caltrans. TAM's upcoming Highway 101 interchange study funded under Measure AA will be a good opportunity to assess potential capital improvements to support better local to regional transfer activity.

The second element needed to support a successful trunk and feeder system is high frequency service on both the 101 corridor and the local corridors. Without these frequencies, missed transfers greatly impact the transit riding experience. It should also be recognized that many trips within the County under this restructured system may now require not only one, but often two transfers to make a one-way trip. For example, a trip from Downtown Mill Valley to Hamilton in Novato would require a transfer from local to regional at the Tiburon Wye and then another transfer between regional and local at the Ignacio or Bel Marin Keys interchange. Depending upon service frequency and how well-timed these connections may be, the overall trip time may be significantly higher than taking the current Route 17 and transferring to either Route 49 or 257 at the San Rafael Transit Center.

In 2016, the District made a series of service changes to focus on eliminating transfers and providing more one-seats to reduce the impact of missed or poorly timed connections. These connections focused primarily on the Canal region of San Rafael where most local transit trips countywide start or end. The trunk and feeder system would potential now require additional transfers to travel outside the Canal for all these riders.

Transdef's suggestions related to services in the 101 corridor and coordination with Golden Gate Transit is important and should be further explored. The SRTP was updated on page 3-14 to include specific mention to these efforts that should be continued in the coming years prior to changes to local trunline or basic services.

Specific comments on the route level recommendations are provided below.

Response to Service Suggestions to Eliminate Duplication

• Routes 22/23. Routes 22 and 23 do serve the same corridor between San Rafael and San Anselmo, as does Route 68. However, this service is not duplicative because these routes are spaced out to provide service every 15 minutes in this high ridership corridor. While overlapping routes require the rider to fully understand the system rather than simply looking to a single route, the different origin/destinations of the different routes offer one-seat rides, as opposed to asking riders to transfer in San Anselmo or Fairfax.

Connectivity to the San Rafael Transit Center has proved to be important for the success of nearly all routes that operate in Central Marin. Route 222, a variation of Route 22 that terminated at College of Marin and did not continue to Downtown San Rafael, was never able to achieve a productivity above 4 passengers per hour. Alternatives for Route 22, including extending to Downtown Fairfax, will be

considered before a formal recommendation is made for changes to this underperforming route.

- Routes 35/71x and 36/71x. We agreed that a simplification of route numbering system wide could help improve the legibility of the system. However, it also may further confuse riders if not fully thought through. Under the current structure, Route 71x shares only 47% of Route 35 stops north of SRTC and 40% of Route 36 stops south of SRTC. Unless there is a desire to take away the express nature of the 71x or make Route 35 and 36 better align with the 71x, showing these as different variations would be confusing since less than half of the stops are shared. This recommendation and route numbering should be considered as Marin Transit and Golden Gate Transit reassess the Highway 101 services. The SRTP was updated on page 3-14 to specifically reference this coordination.
- Routes 228 and 245. Addressed below as response to 29 and 257

Response to Service Suggestions to Eliminate Route Diversions

- Routes 17 and 22. The recommendation to bypass Strawberry Village is included in the SRTP (page 3-14) and has been implemented on Route 22 at the San Anselmo Hub. In March of 2020, the District will also experiment with a new express pattern on Route 17 (17x) that will bypass Strawberry Village on select weekday peak hour trips.
- Route 29. It is agreed that the loop to serve COM is better served by other Routes including 122 and the connection to Marin General needs to be improved. The DRAFT SRTP recommends altering Route 29 to improve the connection to Marin General and extending this route to Downtown Larkspur. The proposed alignment is intended to replace losses in service by a proposed less frequent Route 22, to speed up the connection from SRTC to Downtown Larkspur, and to open a new direct connection between Downtown Larkspur and Larkspur Landing (rail and ferry). Having 228 continue to service the S. Eliseo loop is more appropriate since this area needs service more than just weekday peak hours, the current span of service on Route 29.
- Route 49. Route 49 currently provides the most direct connection between the SRTC, Marin Civic Center and Northgate, three of the top transit activity centers in the County. Eliminating the connection to Northgate would be concerning due to the high level of ridership activity and the lack of another service that provides this efficient connection. We agree that the industrial areas east of Highway 101 between Freitas Parkway and Lucas Valley Road should be considered for service. Strong demands observed between the Civic Center SMART station and destinations along Smith Ranch Road and Lucas Valley on the Connect program support consideration for a fixed route option during at least weekday peak hours. This need may increase as Kaiser develops their site at Los Gamos and additional residential development is considered just south of Marin Commons. This is addressed in the SRTP under improved access to SMART stations (page 3-14).
- **Route 251.** Recommendation to eliminate Vintage Oaks segment is agree with and added on page 3-14.
- Route 257. Recommendation to alter the alignment north of Hamilton is consistent and included in DRAFT SRTP (page 3-14). Removing service to

MARIN TRANSIT | 2020–2029 SHORT RANGE TRANSIT PLAN

Appendix H: Public Comments

Dominican would help speed up the route but service for students to Dominican warrants at least 30 minute service. Alternatives could be considered as this change is further developed.

Response to New Route Suggestions

- Vintage Oaks Shuttle. Recommendation is somewhat consistent with DRAFT SRTP, however staff believe this route should at least connect to Downtown Novato at Redwood and Grant
- Hamilton Shuttle. Recommendation is somewhat consistent with the desire to improve connections to SMART in DRAFT SRTP (page 3-14). It should be noted that this is the purpose of the Homeowner funded Hamilton Shuttle. This recommendation would need to be considered in partnership with the City of Novato and the Hamilton Homeowners Association to avoid duplication with the Hamilton Shuttle.
- **Terra Linda Local Shuttle**. Recommendation is somewhat consistent with the desire to improve connections to SMART in DRAFT SRTP (page 3-14).
- SMART/Ferry Shuttle for Southern Marin Riders. Recommendation is somewhat consistent with the desire to improve connections to SMART in DRAFT SRTP (page 3-14). Idea to partner with TNCs are currently being explored in partnership with TAM as the next phase of the Connect service plan.
- **BRT**. See comments on page 1.

Response to New Stop Suggestions

Recommendations for new stops are supported and will be explored in partnership with TAM, Caltrans, and the local jurisdictions as appropriate.

Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

January 5, 2020 By E-Mail

Damon Connolly, President Board of Directors Marin County Transit District 711 Grand Ave, Suite 110 San Rafael, CA 94901

Re: SRTP Comments

Dear Supervisor Connolly:

The Transportation Solutions Defense and Education Fund (TRANSDEF) is a Marin-based advocate for improved regional planning in the Bay Area. We are die-hard transit advocates, and use Marin Transit services frequently. In general, we are very pleased with the District's service. In recognition of transit's essential role in a sustainable future, we are pleased to offer the following comments on the Draft Short-Range Transit Plan (Plan). (All citations are to the Plan.)

Making better use of District Resources

The Plan identifies four serious challenges facing the District. The one that your Board can do the most to remedy is this one:

"Defining transit's priority within the county's transportation hierarchy." (p. 3-1.)

TRANSDEF opposed TAM's recent Measure AA precisely because of TAM's prioritization of the needs of solo drivers. TRANSDEF believes there simply are no solutions for ever-increasing numbers of solo drivers on existing roadways. Eventually, the entire system will congest into massive gridlock. Our policy focus on reducing solo driving was addressed in a front page story in today's Mercury News, with the somewhat confusing title "Region at crossroads between less congestion and growing gridlock." (attached.) Either transit agencies provide convenient transit to make it easy for a niche segment of choice drivers to switch modes, thereby beginning the process of generating public support for more far-reaching transit investments, or the status quo will descend into gridlock. We don't see any other options.

As traffic continues to get worse, the District is forced to respond by adding more time to its schedules. (p. 3-11.) Over time, this will result in an inevitable reduction in service, as well as declining ridership due to the unattractiveness of increased travel times, unless countermeasures are taken. (See proposals below.)

Towards that end, TRANSDEF submitted our 4/12/19 "Network Improvement Suggestions--Update #1." (attached.) The thrust of the suggestions was utilizing the District's bountiful existing resources more effectively, to produce frequent service on Highway 101, by coordinating planning with Golden Gate Transit to have departures at least every 10 minutes to the north and south of San Rafael. While the Plan accepted some of our recommendations (e.g, modifying Strawberry Village service), for the most part, they were ignored.

What's need now is Board direction to staff, requesting a maximum effort to strategically combine north-south routes. We suggested these trunk route realignments be coupled with neighborhood shuttles, acknowledging that a higher percentage of trips would require transfers. However, if there are equally frequent shuttles, timed connections and places to wait out of the rain, this should encourage-rather than discourage--transit use.

We believe that a strategic restructuring of the District's trunk routes could have a tremendously beneficial impact on ridership, at essentially no increased cost. This increase in choice riders would be politically significant in starting to raise transit's priority in the District challenge identified above. TRANSDEF urges the Board to try the realignments suggested, before cutting service on the very routes that would be benefitted by the proposal: Route 17, Route 22, Routes 23/23X, Route 29, Route 36, Route 49, and Route 71X. (List of underperforming routes, pp. 3-11, 12.)

Highway 101 HOV lanes

TAM took a reactionary stance to last year's proposal to increase HOV lane hours of operation, explicitly favoring solo drivers over transit passengers. This is a prime example of "transit's priority within the county's transportation hierarchy" being unacceptably low. This action amounted to a TAM declaration that "We refuse to provide transit users with an incentive to not drive alone. If they don't drive, fine!"

TRANSDEF started writing memos before the construction of the Gap Closure project was complete, calling for HOV hours of operation to extend to all hours where the freeway was routinely congested. Neither TAM nor Caltrans ever expressed any interest in operating the HOV lane to consistently provide a travel time advantage to transit users. That indicated to TRANSDEF that Caltrans was never actually interested in facilitating HOVs, but instead just wanted to keep widening highways.

Bus Rapid Transit

Fairfax to the San Rafael Transit Center is a major congested corridor, in which too many solo drivers compete for space. Transit is unable to perform its function there, because of all the traffic. The creation of a peak-period arterial HOV lane would increase throughput in this corridor, by providing an uncongested route for buses and carpools. This would represent a new policy approach in the County: "Our resources are committed to moving the greatest number of people possible in congested corridors." This would mean establishing a clear priority for HOVs on Sir Francis Drake Boulevard, Red Hill Avenue and Third Street.

After the successful introduction of HOV lanes (with signals hung suspended over the lane like the ones on the Richmond Bridge), the next step would be to have fares paid before boarding, to speed up the route.

Transfers with GGT Vehicles

TRANSDEF has observed District Passengers asking the operator of late-running buses to call ahead to hold a bus at a transfer point. All too often, they are told "We can't communicate with Golden Gate operators--they have a different dispatcher. The time has come to put an end to the silos that prevent communications. TRANSDEF urges the Board to direct staff to initiate discussions with Golden Gate Transit to establish a Hot Line between the GGT and MT dispatchers, so that transfers can be coordinated when traffic conditions make buses run late. Nothing is worse than missing a bus by a couple of minutes, and having to wait an hour for the next one.

On-Board Technology

We note two specific problems with information systems that have been added to buses not working well:

- 1) Seemingly half the buses use a natural voice synthesizer to announce upcoming stops. The other half, however, use a mechanical-sounding synthesizer that is very difficult to understand, because the pronunciations are alien. For example, the word "Marin" is pronounced "MAH rin" rather than "muh RIN." It took hearing it four times before understanding that.
- 2) The Automatic Vehicle Locator data feed is unreliable. When working properly, this technology eliminates worrying about when the next bus will come. When it is unreliable, however, it is essentially useless.

Conclusion

TRANSDEF is pleased with how the District has improved service over the past few years. We look forward to assisting in the optimization and finalization of the Plan. Please call us with any questions.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn, President

Attachments: Mercury News article, 1/5/20

Network Improvement Suggestions--Update #1

DRIVING TOWARD A BETTER FUTURE?

Traffic

Region at crossroads between less congestion and growing gridlock

WISH LIST FOR THE 2020s

By Nico Savidge

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By 2030, Bay Area commuters could be taking autonomous shuttles to work and boarding next-generation BART trains bound for downtown San Jose. We could be zipping up and down the Peninsula on an electrified Caltrain and cruising past rush-hour congestion aboard regional buses on trafficfree express lanes.

Or we could be stuck crawling down increasingly jammed freeways and cramming into slower, less reliable public transit — while watching the wealthy buy their way out of traffic misery with tolls and self-driving vehicles.

The 2020s have just begun, but transportation experts say this decade the Bay Area must unwind the decisions that have led to grinding traffic, long commutes and Balkanized public transportation systems so that we can realize that first vision of the future instead of the second.

"Unless something drastically changes, it's going to get bad," pre-

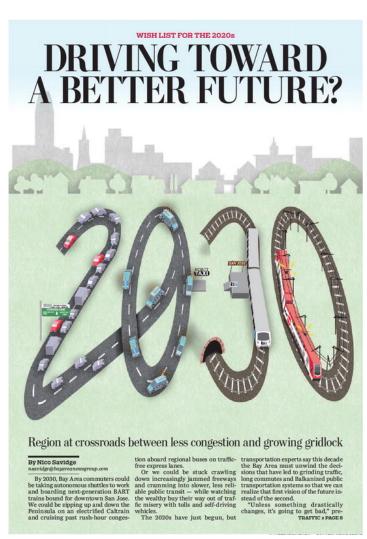


ILLUSTRATION BY PAI — BAY AREA NEWS GROUP

DRIVING TOWARD A BETTER FUTURE?

Traffic

dicted Gaby Sanchez, an Oakland resident who takes BART and occasionally drives to her job in San Francisco.

BART says its new Fleet of the Future train cars, which are set to fully replace the older "legacy" fleet by 2023, should ease crowding on packed rushhour trips because their layout provides more space for standing passengers. A new control system will allow longer trains to run

This past decade, commuters on the front lines suffered as the Bay Area's housing crisis magnified long-standing problems with its transportation systems, as a booming economy pushed legions of new workers into San Francisco and Silicon Valley while fueling an exodus to the more affordable fringes of this growing mega-region.

Although population growth slowed in recent years, by 2030 the Bay Area is projected to add more than 750,000 new residents — more than the population of Seattle.

"This is the time when we have to address our biggest challenges and set ourselves on a different course," said Laura Tolkoff, regional planning policy director for the urban planning think tank SPUR.

The organization is one of several leading a campaign for a 1-cent sales tax increase, set to go before voters in November, that would raise billions of dollars to fund Bay Area transportation projects.

Sanchez and her sister, Michelle, rattled off a wish list of changes they would like to see to make getting around the Bay Area easier: more frequent BART service to cut down on crowding, more bus routes, less expensive public transit fares and more affordable housing close to job centers like San Francisco.

Both were hopeful those changes could become a reality in the 2020s. But they also were tempering their optimism.

"I've only seen it get worse and worse," Michelle Sanchez said.

Bad news for drivers

No matter which kind of future the Bay Area moves toward, life will probably not get much easier for drivers. Commuting by car —

through the Transbay Tube more frequently once it's in place in 2028.

In all, BART says, the changes will allow the system to carry 30,000 passengers through the tube per hour at peak times, compared with about 21,000 now.

Caltrain's electrified service, which is set to begin in 2023, would mean a faster trip between San Jose and San Francisco, as well as more frequent service as the commuter railroad moves to remake itself as a BART-like urban transit system.

And the new express lanes that are set to eventually blanket freeways around the Bay Area could be a boon for regional bus routes by getting vehicles out of the traffic that slows them down today.

Transit agencies also will try to attract new passengers by expanding their reach, most notably with BART's extension into Santa Clara County.

Other ideas are in the works for new rail lines — one that would link the East Bay and the Peninsula across the long neglected Dumbarton Rail Bridge, and a line between the Central Valley and East Bay aimed at commuters who now struggle through some of the region's most brutal drives.

San Francisco Bay Ferry, which has doubled its ridership over the past five years, hopes to run trips every 15 minutes between the East Bay and San Francisco and plans to start offering new service from Berkeley, Redwood City and Treasure Island over the coming decade, in addition to adding terminals in Alameda and San Francisco's growing Mission Bay neighborhood.

Of course, all of these plans will take money.

especially if you're one of the nearly two-thirds of Bay Area workers who drive their cars alone each day — seems poised to get more difficult and more expensive through the 2020s. These days, the focus is on luring people out of their cars rather than making more space for drivers.

"We aren't looking to expand road infrastructure in the same way that we might have in decades before," said Hilary Nixon, chair of San Jose State University's Department of Urban and Regional Planning. "We just don't have the land space to accommodate that."

Instead, cities have been taking another look at streets that were engineered for decades to move cars as quickly as possible. And you can expect that trend to accelerate in the 2020s, Nixon said.

San Jose has re-engineered much of its downtown to better protect bicyclists and pedestrians, in large part by slowing down cars.

Oakland will reserve one lane in each direction of International Boulevard for buses once a long anticipated bus rapid transit project opens next year, and it could do the same for parts of Broadway.

Drivers eventually could pay congestion tolls to enter some of the busiest parts of downtown San Francisco, where city officials also recently approved a plan to banish private vehicles from the busiest parts of Market Street.

Berkeley officials have proposed plans for a carfree Telegraph Avenue.

There will be some bright spots for drivers.

You'll find one at bridge toll plazas, which John Goodwin, a spokesman for the Metropolitan Transportation Commission, said will be far quicker by the end of the decade once the commission completes its plan to eliminate cash toll lanes and go fully automated.

Supporters of a proposed transportation sales tax increase known as FASTER Bay Area say that vote in November will play a major role in determining which direction the region moves in the decade to come.

Big fixes, long delays

But even if voters approve the measure, the Bay Area will need to avoid the mistakes of its past for the money the tax raises to change the region's course.

Griffiths said that means ensuring big projects are delivered on time, noting major changes during the 2010s, such as the Transbay transit center and BART's extension to Warm Springs, were "plagued by delays."

BART's Silicon Valley extension, which is being built by the Valley Transportation Authority, has been showing signs of the same problem.

The Milpitas and Berryessa stations were supposed to open in 2016 when ground broke on the extension, but won't start welcoming passengers until sometime next year; VTA officials this fall pushed back their estimate for when the downtown San Jose stations could open by several years, to 2029 or 2030.

Perhaps most important, transit advocates say, the Bay Area needs to get out of the locally focused way it has long viewed transportation.

The region today is stitched together by more than two-dozen public transit agencies, which have long failed to coordinate the trains, buses and ferries people rely upon.

Syncing up schedules so that riders don't waste time waiting for a transfer, and integrating fares so people don't pay a penalty for needing to travel on two different systems, will be key to making sure the new transportation

"I feel pretty confident that toll booths in the Bay infrastructure that gets built is useful to riders, Area will be a thing of the past" by the end of the decade, Goodwin said, as will human tolltakers and the delays caused by slower cash lanes.

Of course, the cost to cross most Bay Area bridges will rise by \$1 in 2022 and another dollar in 2025 under Regional Measure 3, the toll hike voters approved in 2018 to fund a host of measures aimed at curbing traffic.

Meanwhile, the Bay Area's network of express lanes — which popped up on a handful of freeway stretches — could grow substantially in the coming years to include dreaded corridors like Highway 101 between San Francisco and San Jose, or Interstate 80 between the Bay Bridge and the Carquinez Strait. That will provide a quicker route for carpoolers, as well as drivers willing to pony up for the potentially pricey toll, Goodwin said.

Will people ditch cars?

Jessica Ross has the kind of commute that transit advocates hope more Bay Area residents will have in the 2020s. To get from her home in Oakland's Jack London Square neighborhood to her job at Salesforce in San Francisco, Ross can hop on a ferry or use a ride-hailing app to get to a BART station for a quick trip across the bay.

"The worst option is driving," Ross said.

If traffic is only going to get worse, the coming decade needs to be one in which the Bay Area's masstransit systems make themselves into faster and less expensive options than driving, said Ian Griffiths, policy director for the transportation advocacy nonprofit Seamless Bay Area.

"You cannot pursue something like congestion pricing or increasing tolls if you are not improving what people's alternatives are," Griffiths said.

said Tolkoff, the SPUR policy director.

"The worst-case scenario is that we could end up building a lot of projects that don't actually deliver real benefits," Tolkoff said.

If problems with the Bay Area's fractured public transit systems continue, the 2010s proved that the private sector — from ridehailing apps Uber and Lyft to electric scooters, to tech company employee shuttles — has plenty of interest in transportation as well.

BART and other transit agencies say the rise of ride-hailing companies has siphoned off riders.

But Nixon, the San Jose State professor, said private transportation could prove helpful by delivering riders to public transit systems; just think of all the electric scooters you see parked outside BART stations.

As the decade goes on and autonomous vehicle technology develops, Nixon said, riders could one day hop onto self-driving shuttles for a trip from their neighborhood to BART or Caltrain.

"We are much closer than we realize," Nixon said, to that future.



A San Francisco Bay Ferry arrives at Seaplane Lagoon in Alameda. The public transit system plans to start offering new service from Berkeley, Redwood City and Treasure Island

Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

Network Improvement Suggestions--Update #1

Transit Riches

Although few may recognize it, the Marin County Transit District is in a strikingly good position: It has managed to secure the resources for a large fleet of modern, low-noise, non-polluting buses and the operating budget to run them. Up-to-date electronics make it possible to inform riders of approaching buses, and on-board displays let passengers know when their stop is coming up. The system has large amounts of surplus capacity. At little to no marginal cost, this capacity could be put to use carrying choice riders, thereby making a dent in the county's chronic traffic congestion. This memo describes how to accomplish that.

It appears that the current route structure is the result of years of accretion of new routes. TRANSDEF suggests that now the time for a rethinking of the network structure. While we have no formal training in the art and science of network optimization, and therefore make no claims of expertise, we offer these thoughts that have resulted from close observation of the system.

The strategy proposed here is to shrink the number of trunk lines and use the resources thus freed up to increase their frequencies. These lines would connect by convenient transfer to high-frequency local circulators. Reducing the total number of routes should make the system far more understandable by a public that is now only starting to consider using transit. The current large number of routes, while an admirable improvement over the system of the 1990s, is confusing and hard to use.

The proposal would eliminate the SRTC pulse, replacing it with coordinated MT and GGT schedules that eliminate bunched departures and provide the maximum number of frequencies per hour.

The goal of this paper is a network design that reconfigures existing resources to provide higher frequencies. On the 101 backbone, interspersing MT trips with the 30, 70 and 101 would enable 7.5 minute peak headways to Novato and 10 minute headways to southern Marin. That would make it possible for passengers to no longer need schedules, eliminating two of the greatest disincentives to transit use: arcane schedules and waiting for a bus. This would open up transit use to a much broader public.

Aggressively promote the system with the theme: "Avoid the hassle--leave the driving to us." Frequent service that eliminates traffic frustrations and provides auto-competitive trip times would capture choice riders. The system has enough surplus capacity that many more passengers can be accommodated within the existing operating budget. The result would begin to change how Marinites expect to get around--an absolutely necessary step forced by the dual challenges of congestion and climate change.

Elimination of Duplication

Marin Transit has many routes that duplicate service of other routes. This resource will be tapped to optimize headways.

22/23

The 22 has always been a mysterious route. It seems unlikely that anyone rides it end-to-end, when the 36 is so much faster. We see no justification for the 22's duplication of the 23 between SRTC and The Hub. Properly redesigning legacy routes like the 22 will require good data on where current users are going.

Changing the 22 into a Marin City to Fairfax (if there's enough demand, or COM if not) route would make more sense. If scheduling permits, the route could be extended to Sausalito.

35/71X

Routes 35 and 71X are the same route north of SRTC, with two branches to the south. The 35 could be renamed the 71XC, for example, to indicate that it originates and ends in the Canal, rather than Sausalito. (The diversions to Civic Center and Northgate will be addressed below.) The advantage of this nomenclature is that it allows a doubling of express frequencies to Novato, all with the same route number. This would be a big benefit in terms of making the system easier to comprehend and use. Even more important, though, is the ability to space the departures out among the GGT departures-avoiding clumping--to achieve optimal headways.

36/71X

The 36 is essentially the same route as the 71X south of SRTC. The 36 should be extended to Sausalito and be renamed the 71XC.

228

The 228 seems to duplicate everything the 22, 29 and a segment of 23 do. The only detectible difference is the jog to MGH, and the SFDB segment from Bon Air to COM. The route can be eliminated if the suggestions about the 29, which are addressed below, are implemented. If that SFDB segment has significant ridership, the NB 22 could be turned right at COM to cover it, looping through MGH and S. Eliseo Dr. This would create a one-seat ride from Marin City to MGH, replacing a failed prior shuttle.

245

Most of Route 245 would be replaced by increasing the frequency of the 257. The Smith Ranch Road service might be able to be covered by an agreement with Lyft.

Comment

Note: implementing these changes would have the added benefit of demonstrating that MT is providing the disadvantaged communities of the Canal and Marin City with one-seat rides to major destinations.

Elimination of Diversions--speed up existing routes 17 and 22

Eliminate low-usage stops at Strawberry Village/Reed Blvd. by the 17 and 22. These loops are a tremendous time-drag. Stop the 22 at Tiburon Wye bus pads, and build a stop for the 17 on the overpass (similar to the Paradise Dr. stop for the 22), before the NB onramp. Use the Tower Dr. stop for the WB 17. Extend the 219 to Marin City, to provide service for the Strawberry Village stop. Use the GGT stop on the East side of Reed Blvd. for the NB 219.

29

When SMART service to Larkspur starts, the WB 29 should turn left on Bon Air, stop at MGH and then make the S. Eliseo loop. (COM has its own Route 122 on school days, so the rest of the 29 is duplication.) Eliminating COM would allow higher frequencies. Have the 29 meet each train and ferry (and push these agencies to coordinate), giving connecting passengers a fast and largely express ride to MGH.

Eliminate the confusion caused by swapping the route number between the 29 and 23X. Reformat the printed schedule to show Kerner Blvd./Larkspur St. as the originating stop of the WB 29, and as the terminus of the EB 29.

49

The non-trunkline Route 49 suffers from several diversions that not only literally lengthen the trip time, they make the journey <u>feel</u> endless. The route would be linear, faster and much more attractive with the following changes:

- Eliminate the crossing of the freeway to Northgate Mall and Terra Linda. Increased service on a truncated route 257 will cover that area (see below). Keep the 49 on the East side of the freeway.
- Replace the 49 loop through Hamilton with a local circulator. See below.
- Add service to a neighborhood with no service now: the light industrial area centered around Mitchell Blvd. in San Rafael. Run the NB 49 on the Redwood frontage road to Smith Ranch Rd.

49 Enhancements

- Build a transit center similar to Marin City on the Hwy. 101 overpass at Ignacio Blvd and Enfrente Rd. This would be phased in, as resources become available for it.
- This will optimize access to fast frequent transit (70, 71X) for Hamilton residents and employees, and allow the various Novato shuttles to connect without duplication.

251

To speed up the route, the 251 would no longer serve Vintage Oaks. Once the transit center is built, it would terminate at the new Ignacio Blvd and Enfrente Rd. Bus pads.

257

The 257 becomes the frequent route connecting the Novato and San Rafael transit centers to Terra Linda. It would operate express north of Alameda del Prado, leaving

Hamilton and Ignacio to other routes. It would remain on Lincoln at the south end, leaving service to Dominican to Route 233.

New Routes

Vintage Oaks Shuttle

A separate shuttle from the Novato transit center would directly serve the shopping center. With an agreement to carry a promotional wrap and exclusive service, Vintage Oaks might be persuaded to pay for all or part of the shuttle.

Hamilton Circulator

The circulator would make a continuous loop through the former base, connecting to the freeway bus pads, Pacheco Plaza and Hamilton Marketplace. After the construction of the new transit center, the circulator would go south on Alameda del Prado from the overpass, picking up the part of the 251 that is truncated. That would avoid having to turn around at Pacheco Plaza.

Terra Linda Local Circulator

This frequent circulator would loop between the Civic Center campus, the SMART station, Northgate Mall and Kaiser. The route eliminations described above may be enough to provide funding for this new service. In some ways, it might replace the Connect micro-transit pilot project.

SMART/Ferry Shuttle for Southern Marin Riders

A way of getting to the SMART station is described below under New Stops. Unfortunately, there is no convenient way to return home. An arrangement with Lyft Pool could enable paying passengers from the Ferry and SMART to get a free ride to the Lucky Drive bus ramp. Pickup locations could be located at the Ferry and SMART station.

BRT

We've long advocated the 23 as perfect for BRT and peak-hour HOV lanes. This proposal would require resources beyond the current budget. It would be a perfect RTP submission, if TAM can be brought to see its benefits.

New Stops

ESFDB

A bus pad on the NB on-ramp at SFD could connect directly to the SMART station, which is just up the hill from there. This stop would enable Southern Marin riders to connect conveniently with SMART. Fewer Southern Marin residents would be going to the Ferry, because of the availability of the Sausalito and Tiburon ferries. However, walking to the Ferry is feasible from the on-ramp if a path to ESFDB is provided. We don't have a suggestion for a SB stop, as the bridge over Corte Madera Creek would not allow for a safe pull-out.

Relocated Bus Pads

The Central and Southern Transit Study proposed relocating several of the freeway bus pads, to increase pedestrian safety. Please keep these alternatives in mind.