



agenda

Subject: **Marin Transit Ad Hoc Committee on School Transportation**

Location: **Marin County Civic Center, Room 324A (Rug Room)
3501 Civic Center Drive, San Rafael**

Date: **Wednesday, February 8, 2017**

Time: **2:30 PM – 4:30 PM**

1. Status of Near Term Action Items (oral report)
 - a. Ross Valley School Service
 - b. Kentfield School District Pilot Project
 - c. Transition of Rt. 115 Serving St. Hilary's School
 - d. Larkspur – Corte Madera School Service
 - e. Redwood High School
 - f. Later Start Proposals – Sir Francis Drake and Novato High Schools
2. Draft Guiding Principles for Advancing the Implementation Plan (Attachment)
3. Review of Prioritization of "High" and "Medium" Demand Schools and Relationship to Traffic Congestion Reduction (Attachment)
4. Review of Funding Needs for Phased Implementation (Material to be distributed)
5. Draft Fact Sheet: Benefits of School Transportation in Marin (Attachment)
6. Future Ad Hoc Committee Meetings





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February 8, 2017

Student Transportation Ad Hoc Committee
Marin County Transit District
3501 Civic Center Drive
San Rafael, CA 94903

SUBJECT: Draft Guiding Principles for Implementing a Student Transportation Program

Dear Ad Hoc Committee Members:

board of directors

katie rice
president
supervisor district 2

stephanie moulton-peters
vice president
city of mill valley

damon connolly
2nd vice president
supervisor district 1

judy arnold
director
supervisor district 5

kate colin
director
city of san rafael

dennis rodoni
director
supervisor district 4

kathrin sears
director
supervisor district 3

BACKGROUND: Over the past year, the Ad Hoc Committee has provided direction and guidance on the near term implementation activities recommended in the Coordinated Countywide School Transportation Study. Through the course of these meetings the Committee has also discussed the longer term needs and recommendations for student transportation in the County. There has been interest in establishing guiding principles for the future development of the program.

Attached is a first draft of potential guiding principles for the Ad Hoc Committee's consideration. This draft reflects several of the findings and conclusions from the School Transportation Study and builds on those by identifying more specifics on how future investments could be prioritized.

Respectfully submitted,

Nancy Whelan
General Manager

Attachment: Draft Guiding Principles

School Transportation in Marin County

Guiding Principles

In December 2015, Marin Transit completed the Coordinated Countywide Student Transportation Study. Key objectives of the study were to identify options to relieve roadway congestion while encouraging healthy mobility choices for Marin County students. The study resulted in several recommendations, some of which have been implemented within existing funding. Additional funding is needed to expand student transportation as recommended in the study.

The purpose of these guiding principles is to provide a broad framework for future implementation actions.

- Maintaining and enhancing bus service for students is a high priority as these services contribute significantly to reducing peak hour roadway congestion.
- As one of the more cost effective means of busing students, the existing county-wide fixed route system with a youth fare and discounted youth pass will continue to be supported. Expansion of the school bus service shall be accomplished using the most cost-effective model available.
- A mix of yellow school buses and public transit “school tripper” service will best meet the need to enhance student transportation in the County.
- Yellow school buses are designed to meet the needs of younger (K-8) students while public transit buses are better suited to serve high school students.
- Bus service should complement Safe Routes to School program and focus on serving the greatest number of students living beyond walking and biking distance to schools. This focus helps remove the most cars from our roadways.
- The organization structure for the governance, management, and planning of student transportation services shall foster participation by all stakeholders.
- All stakeholders will need to work toward identifying new funding to sustain and enhance current school transportation services.
- Decisions to allocate transportation resources shall be based on objective criteria, including:
 - Ridership, which represents auto trips eliminated from roads.
 - Subsidy per trip, which reflects public resources needed relative to user payment for the trip.
 - Willingness of schools and school districts to adjust bell times, adjust calendars, establish district boundaries, set enrollment policies supporting neighborhood schools, and support the youth transit pass program, as these factors heavily influence the cost effectiveness of a busing program.
 - Investments made by schools and school districts in operating current yellow bus programs shall be recognized if new public transportation funds become available for distribution.

- Public transportation dollars shall benefit students equitably across the county.
- While transit is typically a pay as you go model (single trip fare) and yellow bus services require longer commitments (semester or annual pass), per trip fares should be comparably priced, while reflecting the premium nature of the reserved-seat yellow bus system.
- Fare and pass pricing structures shall provide reduced rates for those who are least able to pay.

DRAFT



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February 8, 2017

Student Transportation Ad Hoc Committee
Marin County Transit District
3501 Civic Center Drive
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SUBJECT: Prioritization of “High” and “Medium” Demand Schools and Relationship to Traffic Congestion Reduction

Dear Ad Hoc Committee Members:

board of directors

katie rice
president
supervisor district 2

stephanie moulton-peters
vice president
city of mill valley

damon connolly
2nd vice president
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BACKGROUND: Reducing traffic congestion is one of the many benefits of bus services for students. The process used for identifying “high” and “medium” demand schools in the Countywide Student Transportation Study identified the schools with the greatest demand for busing services, or the highest number of current bus riders and potential bus riders. Assuming that each of these riders would have otherwise been transported to and from school in a car, we can estimate the number of car trips that are taken off the roadways by buses. This measure is not a measure of traffic congestion relief at specific intersections or on specific roadways, but it is an indicator of traffic reduction. A more detailed description of the method used to identify “high” and “medium” demand schools and estimates of car trip reduction are provided below for the Ad Hoc Committee’s discussion.

DISCUSSION:

The identification of “high” and “medium” need busing schools in the Coordinated Countywide School Transportation Study was determined based on an analysis of where students live relative to their school site. This analysis was completed by mapping all home locations for K-12 students in Marin County and measuring a straight-line distance to their respective school. It should be noted that at the time of study, not all schools had provided detailed home address data for students. In these districts, assumptions were made using residential parcel data and school district bounty lines to estimate distance from school. Since the study, data has been obtained for nearly every school district in the County and the analysis has been updated to reflect the new data.

Once student home origin data was mapped and distances to schools were calculated, the following thresholds were defined to identify schools with strong busing needs.

“High” Demand Schools: elementary and middle schools where more than 75% of students live over a half mile from school and high schools where over 50% of students live greater than one mile from school.

“Medium” Demand Schools: elementary and middle schools where more than 50% of students live over a half mile from school (all high schools were defined as high demand)

Thresholds were defined by the study team and tested against conditions in Marin County where busing accounts for a significant share of transportation. It generally makes the assumption that for K-8 students, students can walk and bike when distance to school is less than one half mile and distances over a half mile are more appropriate for busing and driving options including carpooling. At the high school level, one mile was used as the distance from school when busing or driving becomes the more desirable option.

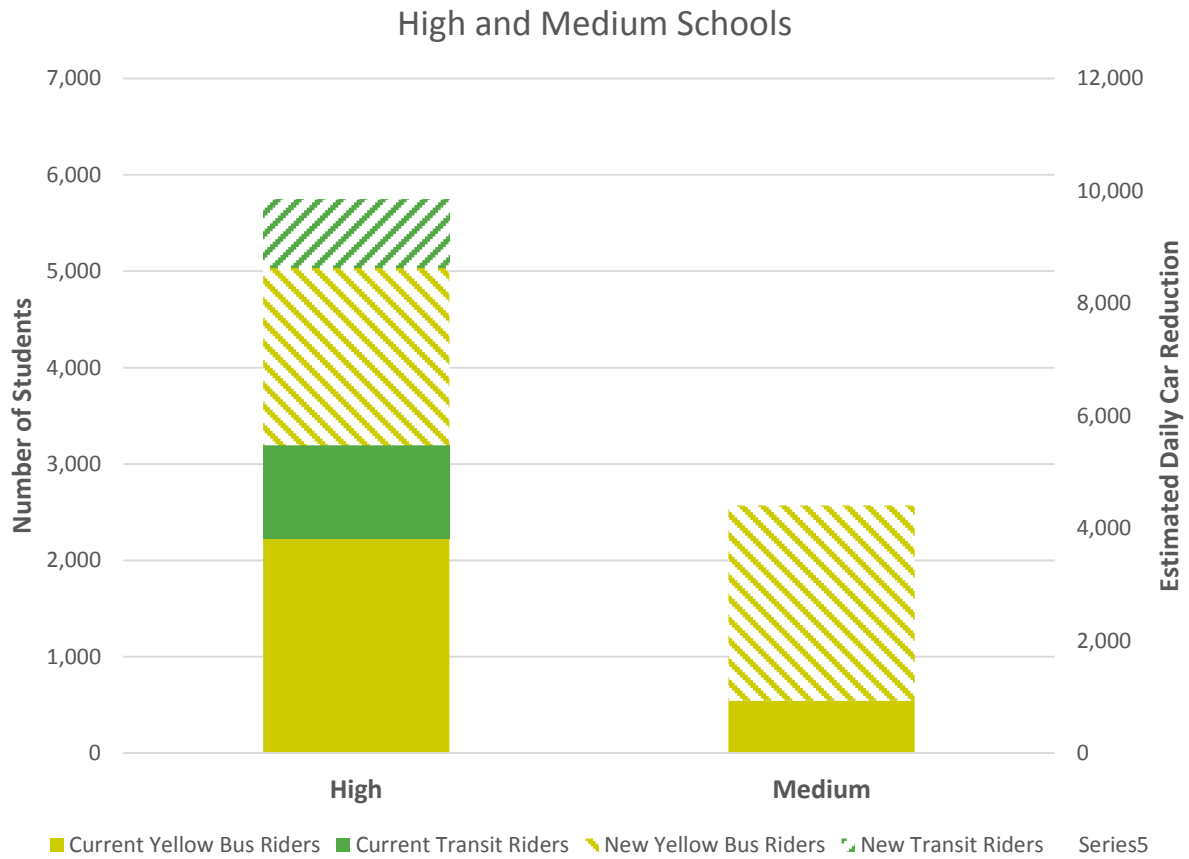
This demand-based assessment does not take into account the transportation network conditions that exist within each district that may make access to school more challenging or inviting. In Marin County, conditions that create access barriers including Highway 101 and other high speed roadway facilities that offer limited crossing opportunities and increase safety hazards. Topography and waterways also create natural barriers that may prevent students from easily accessing school sites. Alternatively, many districts have made great progress in developing walking and biking infrastructure that makes these modes more attractive and may attract students beyond the half mile or one mile buffers used in the assumptions.

The “high” and “medium” assignments assume that at least half of the student body would be potential bus riders and thus have a significant impact on traffic congestion on surrounding roadways. In areas where existing bus programs are already in operation, many of these students may already be on the bus and helping reduce roadway congestion. Based on the assessment, there were 25 individual schools that were identified as high need and all except two currently have some form of busing service. Another 20 schools were identified as “medium” need and all but nine currently have some form of busing programs.

While many of the “high” and “medium” need school have programs today, there are opportunities to expand at these programs to offer new routes and attract more students. This is especially true at the high schools where student distribution relative to the school sites is far more dispersed compared to the elementary and middle schools. Figure 1 shows that the “high” demand schools currently account for over 3,000 bus riding students and “medium” demand is just less than 500. Based on potential ridership, “high” demand schools could grow to serve nearly 6,000 daily students and “medium” is projected to serve over 2,500 students.

We can estimate reductions in car trips from busing programs by assuming that all students not riding the bus would account for two daily auto trips (AM and PM) and we have an average carpool rate of 20%. The current school trips served by yellow bus and supplemental transit routes are estimated to remove more than 7,000 daily car trips from our roads today. If the program is expanded for “high” and “medium” need schools an additional 7,000 daily car trips will be removed.

Figure 1. Student Bus Riders and Estimated Daily Car Trip Reduction



Respectfully submitted,

Robert Betts
Director of Planning & Operations

School Demand Assessment Results

The table below shows the results of the bus demand assessment conducted as part of the Coordinated Student Transportation Study. All K-12 public schools located within the urbanized areas of Marin were included. The table shows the identified demand assignment (high/medium/low), the current busing program (if available), the identified appropriate busing program (if applicable), and estimates for current, potential, and new riders.

Countywide, **55 total** schools were included and **26** were identified as candidates for **high busing demand**, **20** as candidates for **medium busing demand**, the remaining **9** as either **low demand or unknown** due to the lack of data.

School District	School	Busing Demand	Current Busing Program	Appropriate Type of Bus Program (if applicable)	Estimated # of Current Riders	Estimated # of Potential Riders	Estimated # of New Riders
Dixie	Dixie Elementary	High			83	148	+65
	Mary E. Silveira Elementary	Medium			68	141	+73
	Miller Creek Middle	High			170	185	+15
	Vallecito Elementary	Medium			46	162	+116
Kentfield	Bacich Elementary	Medium	-	(1)	0	231	+231
	Kent Middle	High	-	(1)	0	145	+145
Lagunitas	Lagunitas Elementary	High		(1)	39	72	+33
	San Geronimo Elementary	High		(1)	26	64	+38
Larkspur – Corte Madera	Cove Elementary	Medium		(1)	28	114	+86
	Hall Middle School	High		(1)	87	180	+93
	Neil Cummins	Medium	-	(1)	2	168	+166
Mill Valley	Edna McGuire Elementary	High	-	(1)	0	223	+223
	Mill Valley Middle School	High	-	(1)	10	314	+304
	Old Mill Elementary	Low	-	-	-	-	-
	Park Elementary	Low	-	-	-	-	-
	Strawberry Elementary	Medium	-	(1)	0	154	+154
	Tamalpais Valley	Medium	-	(1)	0	189	+189
Novato	Hamilton Meadow Park	Unknown ⁽²⁾	-		29	Unknown ⁽²⁾	Unknown ⁽²⁾
	Loma Verde Elementary	Medium	-		0	107	+107
	Lu Sutton	Low	-	-	-	-	-
	Lynwood Elementary	Medium	-		0	97	+97
	Novato High	High			48	244	+196
	Olive Elementary	Medium	-		0	125	+125
	Pleasant Valley Elementary	Medium	-		0	155	+155
	Rancho Elementary	Low	-	-	-	-	-
	San Jose Intermediate	High			86	274	+188
	San Marin High	High			56	170	+114
	San Ramon Elementary	Medium	-		19	171	+152
	Sinaloa Middle	High			52	317	+265
Reed	Bel Aire Elementary	High		(1)	221	221	-
	Del Mar Middle	High		(1)	180	180	-
	Reed Elementary	High		(1)	164	232	+68
Ross	Ross Elementary	Medium	-	(1)	0	97	+97
Ross Valley	Brookside Elementary	Low		-	-	-	-
	Hidden Valley Elementary	High		(1)	26	156	+130
	Manor Elementary	Medium	-	(1)	2	147	+145
	Wade Thomas Elementary	Medium	-	(1)	0	126	+126
	White Hill Middle School	High		(1)	405	405	-

(see reverse for remaining schools)

Legend: : Yellow Bus / : Supplemental Transit

San Rafael Elementary	Bahia Vista Elementary	Low	-	-	-	-	-
	Coleman Elementary	Medium			48	133	+85
	Glenwood Elementary	Medium			43	145	+102
	Davidson Middle	High			312	330	+18
	Laurel Dell Elementary	Medium			63	63	-
	San Pedro Elementary	High			358	358	-
	Short Elementary	Medium			80	80	-
	Sun Valley Elementary	Medium			75	173	+98
	Venetia Valley Elementary	Medium			188	243	+55
San Rafael High School	San Rafael High (including Madrone)	High			222	222	-
	Terra Linda High	High			125	195	+70
Sausalito – Marin City	Bayside MLK Academy	Low	-	-	-	-	-
	Willow Creek Academy	Unknown ⁽²⁾	-		15	Unknown ⁽²⁾	Unknown ⁽²⁾
Tamalpais	Redwood High	High			176	305	+129
	Sir Francis Drake High	High			54	157	+103
	Tamalpais High	High			102	174	+72

1. Other on demand bus transportation services may be applicable to this school including a student shuttle program.
2. Charter school with undefined enrollment boundaries. Absent actual student origin data, demand estimates are not feasible to estimate.

Legend: : Yellow Bus / : Supplemental Transit



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February 8, 2017

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SUBJECT: Fact Sheet for School Programs

Dear Ad Hoc Committee Members:

BACKGROUND: Marin Transit staff developed the attached draft fact sheet for schools to be a tool that both staff and board members can use to educate the public about the programs that Marin Transit offers for students. The goal of the final document is to educate the reader on the wide range of programs available and the success of these programs. In addition, the fact sheet will demonstrate the need to grow the distinct programs to reduce traffic congestion and serve the most students with the most appropriate service based on age. The intended audiences for the final document are voters, parents of students, elected officials and staff/boards of school districts.

Attached is a research document for the ad hoc committee to review and weigh in on the subject matter focus and provide direction on the specific facts to be included in the final document. A mockup of the layout will be provided at the meeting on February 8th to provide a visual of what the document might look like in its final form.

Respectfully submitted,

Kelly Zalewski
School Operations Analyst

Attachment 1: Draft objectives and facts

Fact Sheet: Marin Transit Programs for Schools

Project Objectives and Facts

Purpose: To be a tool that Marin Transit staff and board members can use to educate the public about the programs that Marin Transit operates to serve students in Marin County

Goals:

- Educate reader on magnitude and success of programs
- Demonstrate distinction between supplemental and yellow bus program
- Show the need to grow both programs in Marin
- Share benefits of growth of busing service to increase access to school and reduce traffic congestion

Audience:

- Voters
- Parents of students
- Elected officials
- Staff at school districts with interest in participating

Content:

The fact sheet will be a mix of facts about our distinct programs plus quotes from key individuals already participating in the programs.

Voice of the Customer – Quotes from people already involved and benefitting from the programs will incorporate storytelling and make the benefits more personal to the reader

Program	Type	Name	Quote focus
Mill Valley Yellow Bus	Parent	Parent – TBD	Ease of use
Tiburon Yellow Bus	Official	Police Chief or Mayor	Traffic relief
Ross Valley Y. Bus	School	David Finnane	Benefits to school
Supplemental	Office	Mary Jane Burke	County benefits
Supplemental	Student	Student - TBD	Independence/fam benefits

Facts – This is a compilation of facts grouped by focus area. Not all of the facts need to be used necessarily. Goal is to give equal weight to yellow bus and supplemental.

Marin Transit Programs	Source
<p>“There are currently an estimated 40,000 K-12 students enrolled in all public and private schools in Marin County and an estimated 62% of all students get to school via car, with 80% of these students riding alone or not in a carpool. This equates to approximately 25,000 students”</p>	<p>http://www.marintransit.org/pdf/planning/CCS_TS_FINAL_123115.pdf</p>
<p>Marin Transit provides operational support for yellow bus service in three school districts with 15 buses and transporting approximately 1,800 students on 47 routes daily</p>	<p>Marin Transit data – Board packet 01/23/16</p>
<p>The District provides ten Supplemental School routes to accommodate overcrowding on regular public transit services due to the demand for school-related transportation. The supplemental routes provide approximately 54 additional peak hour bus trips daily and carry an average of over 1,600 daily passenger trips, about 50 students per bus.</p>	<p>Marin transit Board packet - 9/19/16</p>
<p>In Fiscal Year 2015-16, over 3,900 youth pass “stickers” were distributed to 28 participating public and private schools.</p>	<p>Marin transit Board packet - 9/19/16</p>
Environment	
<p>Transit buses produce 33% less GHG emissions per passenger mile than a single occupancy vehicle</p>	<p>FTA: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/transit-environmental-sustainability/transit-role & https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PublicTransportationsRoleInRespondingToClimateChange2010.pdf</p>
<p>The yellow bus programs managed by Marin Transit removes 113.8 MTCO₂ equivalent in a year which is equivalent to the carbon sequestered by 108 acres of US forests in one year</p>	<p>sources: CARB GGHG emission reduction calculator & https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</p>
<p>The Supplemental Routes provided by Marin Transit removes 190.9 MTCO₂ equivalent in a year which is equivalent to the carbon sequestered by 181 acres of US forests in one year</p>	<p>Same as above</p>
Health	
Health	Source

Public transit users are more active and less likely to be overweight	American Heart Association 11/08/15: http://newsroom.heart.org/news/taking-public-transportation-instead-of-driving-linked-with-better-health?preview=cdf1
People who walk, bike or take public transportation to work tend to be thinner than those who ride in their own cars, according to a new study from the UK.	http://www.reuters.com/article/us-commute-weight-study-idUSKBN0GJ29V20140819
Although North Americans only walk an average of about 6 daily minutes overall, public transit users spend a median of 19 daily minutes walking, which nearly achieves the target of 22 daily minutes of moderate physical activity (Besser and Dannenberg 2005; Weinstein and Schimek 2005).	APTA: http://www.apta.com/resources/reportsandpublications/documents/apta_health_benefits_litman.pdf
They found that transit users average 1.7 daily kilometers of walking a day, which represents approximately two-thirds the recommended physical activity target, and is ten times greater than the 0.16 kilometers of walking averaged by non-transit users.	APTA: http://www.apta.com/resources/reportsandpublications/documents/apta_health_benefits_litman.pdf
Safety	
Safety	Source
Commuters Reduce Their Crash Risk by More Than 90 Percent When Taking Public Transit Instead of Driving	APTA Press Release 9/7/2016: http://www.apta.com/mediacenter/pressreleases/2016/Pages/Hidden-Traffic-Safety-Solution.aspx
Yellow School buses are approximately 7 times safer than passenger cars or Light Trucks	NHTSA: https://www.nhtsa.gov/road-safety/school-buses
Traffic	
Traffic	Source
Travel times reduced by as much as 40% on Tiburon blvd after introduction of Yellow Bus Challenge	Marin Transit data from Syncromatics – see also https://buschallenge.org/pages/about-us
It may come as news to some, but every school bus on the road eliminates approximately 36 cars.	http://www.americanschoolbuscouncil.org/issues/environmental-benefits
The above equates to the removal of 900 car trips in the morning to eight schools in Marin County and 800 car trips from those same schools in the afternoon	calculated by multiplying the number of yellow bus trips by 36 (totaling 1700 car trips removed to/from schools on a daily basis)
Social Equity	
Social Equity	Source
Marin Transit offers free youth transit bus passes so every child can get to school safely	http://www.marintransit.org/youthpass.html

3,000 students participate in the youth pass program, a discounted pass for all local bus service	Coordinated Countywide School Transportation Study (Marin Transit)
94% of students participating in the youth pass program qualify for free passes due to family income restrictions	Coordinated Countywide School Transportation Study (Marin Transit)

Marin Transit contact:

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