

To: O&S Committee

Date: October 12<sup>th</sup>, 2017

From: Bill Churchill

Reviewed by:

Assistant General Manager of Administration

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## **SUBJECT: Fixed Route Service Near Schools**

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### **Background:**

As requested by the Board, staff has prepared this report to provide a broad perspective of K-12 student passengers using County Connection services. It is important to note this body of work did not evaluate potential student ridership to colleges since the issues they present are significantly different from those related to K-12. The goal of this report is to provide the Board with an understanding of the challenges posed by providing students with service adjacent to schools, an idea of how widespread these services extend and hopefully the value of providing the services.

County Connection currently provides service adjacent to 44 schools represented by nine different school districts across its service area. These schools range from elementary schools to high schools and include some continuation schools. Please refer to Attachment A for a complete list of schools and districts. In order to gain a system wide perspective of bus routes and schools, staff developed a service map with an overlay of schools (please see Attachment A). The service map provides a rather clear perspective of the breadth of service to schools in Central County and demonstrates all member jurisdictions receive a significant level of service designed to meet school bell times. Routes outlined in blue represent standard public transit routes while those in red represent school trippers. For perspective, most red lines would have been blue lines prior to the 2009 service reduction.

More challenging for staff to understand is the exact genesis of providing this level of service near schools. One thing is clear; the passage of Proposition 13 in 1978 eroded many K-12 school bus programs in Contra Costa County and the state as a whole, creating a significant unfilled need for student transportation. As County Connection developed through the eighties and nineties, providing service for school children became part of the fabric of transportation demand served. Staff could not locate any documentation that describes a policy or a methodology for adding schools to the service plan during the early development years of the Authority, rather it is assumed that service meeting bell times was added organically as routes were developed near schools and student demand became apparent. Staff has included with this memo an updated Service Expansion Policy that was modified in 2000. This policy provides guidance for several types of service expansion,

including service near schools (please refer to Attachment D). By the year 2000 the existing school tripper service had already been developed and was part of the Authorities service plan.

County Connection meets this demand in two ways, providing special school “tripper” service that matches the bell times of schools through the 600 series routes. Some schools happen to be adjacent to regular routes with frequent service such that students can use the route to get to school and the route does not need to be adjusted to meet specific bell times.

### **Regulatory Requirements:**

Although public transit agencies are precluded from operating dedicated school bus service there are ways to allow school children to use public transit systems. Public transit agencies may create special “tripper” buses designed to meet bell times of schools such that students can use these public buses to get to and from their classes. There are a couple of rules that must be followed in order to legally do this. The tripper bus must be open for use by the general public, the schedules and routing must be published in a reasonable time prior to operating the service and the bus must use stops branded similarly to the rest of the bus system. When providing school tripper service County Connection has always complied with federal regulations and has not received any findings through the federal review process.

### **The Complexities of Providing Service to Schools**

Over the last two decades providing cost effective public transportation that allows student access to schools in Contra Costa County has become enormously challenging as schools modify their bell times and schedules. Staff has had to develop relationships with personnel at each of the schools that bus routes serve to ensure the time tables match school bell times. Gone are the days of the standard Monday through Friday 8am to 3pm schedule. Bell times fluctuate from year to year and many schools have created modified schedules where one or more days in the week have a separate unique bell times. For example, some schools have a normal schedule Monday, Tuesday, Thursday and Friday but have “Late-In” bell times at 8:30am on Wednesdays. Other schools have an early out at 2:30pm on Wednesdays and still others schedule their Late-In’s on Mondays. Just to make things even more complicated many schools add 12:00pm early outs at different times throughout the school year. One of the most challenging schedule issues occurred this year with the Acalanes School District implementing a block schedule for all their high schools. The block schedule essentially creates a different bell time for each day.

Attempting to schedule public transit buses to match this bewildering array of bell times across forty four schools and remain within federal guidelines is an extremely difficult task. It is also becoming more expensive to provide these school trippers as schools continue with this trajectory of customized bell schedules. Each tripper represents a relatively small piece of work usually no more

than two hours. Staff connects these small tripper runs with longer standard pieces of work to create a typical eight hour or ten hour assignment for an operator. This becomes almost impossible if the tripper operating times change from day to day to meet bell times. If the tripper cannot be combined with other standard routes then an operator pulls the bus out from division to perform the trip and must then return to division afterward. This adds to labor cost, fuel, miles traveled and maintenance costs.

In addition to scheduling challenges there are significant planning hurdles to overcome as well. In many jurisdictions the general directional flow of student passengers is opposite of the commuter crowd. A good example of this is the large number of students traveling to OIS and Miramonte in Orinda. In this example, students travel from the 24 Freeway corridor and Orinda BART station toward Moraga to reach their destinations. Simultaneously, commuters travel in the opposite direction to reach Orinda BART or the freeway. Planners are required to figure out how to divide the given resources to best fit the needs of two different demographics behaving in opposite ways. These contrasting service demands occur system wide adding to the complexity of designing transportation services to equitably serve the communities.

The dynamic nature of schools and neighborhoods presents an additional challenge in providing transportation services. Communities tend to have a natural ebb and flow in demographics over time. A young community may have many children creating a robust attendance at a particular school, creating significant demand for transportation services. As the community ages and the children grow up and move out, school attendance drops as does the need for transportation and sometimes the school shuts down. There are many examples throughout the service area where this has occurred; several are listed on Attachment A.

### **Student Ridership Statistics**

Accurately calculating student ridership has proven to be a rather challenging endeavor. Bus operators count all passengers boarding the bus and categorize these riders into a number of different demographic categories. The student/youth category was discontinued in FY16 in part to simplify the implementation of Clipper and reduce the number of categories operators had to manage. From a financial perspective removing the student demographic was a non-issue since the fare students pay is the same as adults. Staff used ridership data from FY15 to calculate student ridership and determined that students represent approximately 10% of the total passengers carried. Total student ridership for FY15 was 340,066. Staff assumed student ridership to be stable from year to year and applied the 10% to the total passenger counts in FY16 and FY17 resulting in ridership numbers of 348,558 and 339,758 respectively. Interestingly the student ridership volume for 600 series service and regular routes are fairly similar. Please refer to Attachment C for ridership statistics.

**Conclusion:**

While providing service to students is clearly challenging, it is also clear they represent a significant component of the total passengers carried by County Connection. Staff recognizes the importance of providing service to this demographic and notes that additions of school service may exacerbate the ability to be efficient and may degrade the Authority's ability to effectively serve other demographics with transportation needs. The Service Expansion policy as modified in 2000 provides a reasonable framework for adding school service in a way that ensures the new service is productive and cost effective.

Additionally, maintaining strong relationships with school personnel and continuing to educate schools and districts as to the challenges of using public transit to move school children will help reduce some of the challenges. Should the Authority someday begin to add service, in particular mid-day service, providing school service may become more cost effective by providing assignments to attach school trippers to.

**Recommendations:**

None: Information Only

**Attachments:**

- 1) Attachment A : List of Schools and Districts
- 2) Attachment B : System Map Overlaid with K-12 Schools
- 3) Attachment C : Projected Student Ridership
- 4) Attachment D : Service Expansion Policy

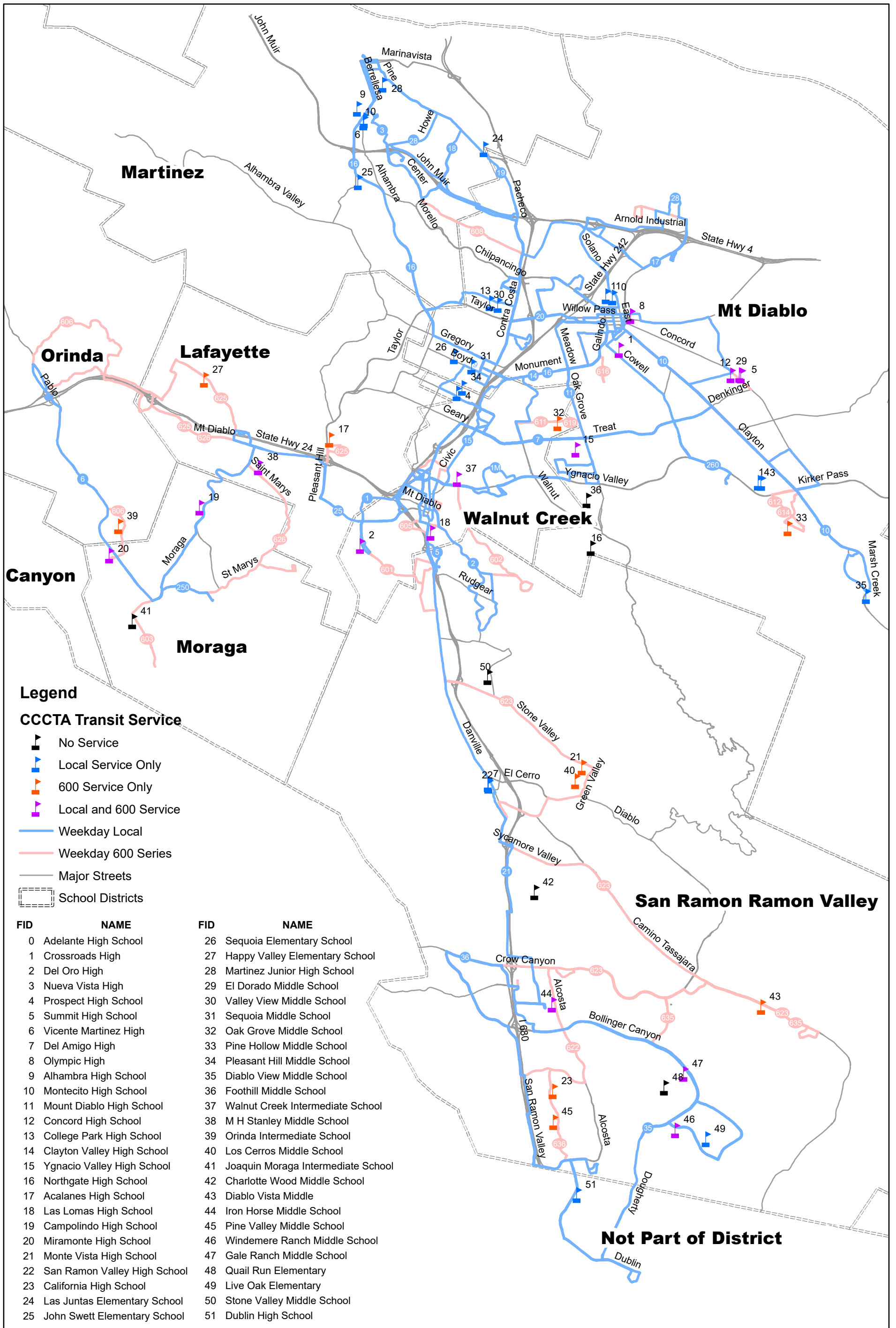
**Attachment A**

**County Connection Service Near Schools**

School	City	600 Routes	Regular Route/ No Dedicated Service	No Longer Serviced Date
<b>Acalanes School District</b>				
Acalanes High School	Lafayette	625		
Campolindo High School	Moraga	603	6	
Miramonte High School	Orinda	606	6	
Las Lomas High School	Walnut Creek		2,5,21	
<b>Lafayette School District</b>				
Happy Valley Elementary	Lafayette	625		
Stanley Intermediate School	Lafayette	626		
<b>Martinez Unified School District</b>				
John Swett Elementary	Martinez		16	
Las Juntas Elementary	Martinez		19	
Alhambra High School	Martinez		3,16,98X,	
Vicente Martinez High School	Martinez		18,19,28	
Martinez Junior High School	Martinez		18,19,28	
<b>Moraga School District</b>				
Joaquin Moraga Intermediate	Moraga			6 -03/22/09
<b>Mt. Diablo Unified School District</b>				
Oak Grove Middle School	Concord	611,613,616,619		
Pine Hollow Middle School	Concord	612,614,		
Concord High School	Concord	615	15	
College Park High School	Pleasant Hill	608	18	
Valley View Middle School	Pleasant Hill	608	18	
Nueva Vista High	Concord	615	15	
Summit High School	Concord	615	15	
El Dorado Middle School	Concord	615	15	
Olympic High School	Concord		15	
Crossroads High School	Concord		15	
Prospect High School	Pleasant Hill		9	
Adelante High School	Concord		17,19	
Mt. Diablo High School	Concord		17,19	
Ygnacio Valley High School	Concord		15,11,7	
Sequoia Elementary	Pleasant Hill		9	
Sequoia Middle School	Pleasant Hill		9	
Clayton Valley High	Concord		10	
Pleasant Hill Middle School	Concord		15	
Diablo View Middle School	Clayton		10	610-6/21/16
Foothill Middle School	Walnut Creek			609-6/21-16
Northgate High School	Walnut Creek			609-6/21/16
Gateway High School	Bay Point			
River View Middle School	Bay Point			

School	City	600 Routes	Regular Route/ No Dedicated Service	No Longer Serviced Date
Orinda Union School District				
Orinda Intermediate School	Orinda	606		
San Ramon Valley Unified School District				
California High School	San Ramon	622,636,		
Monte Vista High School	Danville	623		
Iron Horse Middle School	San Ramon	636		
Pine Valley Intermediate	San Ramon	622,636		
Diablo Vista Middle School	Danville	635		
Stone Valley Middle	Alamo	623		
Dougherty Valley High School	San Ramon	635	35	
Gale Ranch Middle School	San Ramon	635	35	
Windemere Ranch Middle	San Ramon	635	35	
San Ramon Valley High School	Danville		21	
Del Amigo High School	Danville		21	
Charlotte Wood Middle School	Danville			
Los Cerros Middle School	Danville			
Walnut Creek School District				
Walnut Creek Intermediate	Walnut Creek	601,605,602	15	
Dublin Unified School District				
Dublin High School	Dublin		36	

# Attachment B: CCCTA Transit Service to Public Schools



## Legend

### CCCTA Transit Service

- No Service
- Local Service Only
- 600 Service Only
- Local and 600 Service
- Weekday Local
- Weekday 600 Series
- Major Streets
- School Districts

FID	NAME
0	Adelante High School
1	Crossroads High
2	Del Oro High
3	Nueva Vista High
4	Prospect High School
5	Summit High School
6	Vicente Martinez High
7	Del Amigo High
8	Olympic High
9	Alhambra High School
10	Montecito High School
11	Mount Diablo High School
12	Concord High School
13	College Park High School
14	Clayton Valley High School
15	Ygnacio Valley High School
16	Northgate High School
17	Acalanes High School
18	Las Lomas High School
19	Campolindo High School
20	Miramonte High School
21	Monte Vista High School
22	San Ramon Valley High School
23	California High School
24	Las Juntas Elementary School
25	John Swett Elementary School

FID	NAME
26	Sequoia Elementary School
27	Happy Valley Elementary School
28	Martinez Junior High School
29	El Dorado Middle School
30	Valley View Middle School
31	Sequoia Middle School
32	Oak Grove Middle School
33	Pine Hollow Middle School
34	Pleasant Hill Middle School
35	Diablo View Middle School
36	Foothill Middle School
37	Walnut Creek Intermediate School
38	M H Stanley Middle School
39	Orinda Intermediate School
40	Los Cerros Middle School
41	Joaquin Moraga Intermediate School
42	Charlotte Wood Middle School
43	Diablo Vista Middle
44	Iron Horse Middle School
45	Pine Valley Middle School
46	Windemere Ranch Middle School
47	Gale Ranch Middle School
48	Quail Run Elementary
49	Live Oak Elementary
50	Stone Valley Middle School
51	Dublin High School

**Not Part of District**

**Attachment C**  
**WEEKDAY - Special Service**

<b>Route</b>	<b>School</b>	<b>FY 14-15</b>	<b>FY 15-16</b>	<b>FY 16-17</b>
601	Walnut Creek Intermediate	13,334	13,205	16,578
602	Walnut Creek Intermediate	25,830	26,297	24,613
603	Campolindo High School & St Mary's College	4,576	4,680	3,409
605	Walnut Creek Intermediate	13,319	12,479	14,141
606	Orinda Intermediate, Miramonte HS & St Mary's College	58,350	65,539	63,380
608	Valley View Middle School & College Park HS	4,459	4,446	3,197
609 *	Foothill Middle School & Northgate HS	1,182	969	N/A
610 *	Diablo View Middle School	1,869	1,294	N/A
611	Oak Grove Middle School	16,880	15,734	16,466
612	Pine Hollow Middle School	6,296	8,259	6,586
613 *	Oak Grove Middle School	8,739	7,570	10,285
614	Pine Hollow Middle School	6,822	7,289	6,925
615	Concord HS & Elderado Middle School	7,126	5,663	4,236
616	Oak Grove Middle School	7,536	6,929	6,826
619	Oak Grove Middle School	6,884	6,957	8,808
622	California HS	4,695	5,063	4,141
623	Monte Vista HS	7,620	7,600	8,030
625	Acalanes HS	6,484	6,914	6,984
626	Stanley Middle School & St Mary's College	5,167	5,571	6,731
627	Workshop on Mason Circle	14,716	14,272	13,055
635	Dougherty Valley HS	2,645	3,014	3,464
636	California HS & Iron Horse Middle School	11,642	11,528	13,671
649 *	ITT Tech & DVC	131	139	73

**Total Ridership on 600'S    236,303    241,411    241,599**

**Projected Student Riders @ 77% of Total    181,953    185,887    186,031**

**Projected Student Riders on Fixed Routes (not 600's)    158,113    162,672    153,727**

**Projected Total Student Riders Fixed Routes + 600's    340,066    348,558    339,758**

**\* NOTES:** FY 15-16 - Route 613 - APC #'s used for ridership in some mths - data not on 'Fare Check' rpt.  
FY 16-17 - Routes 609 & 610 were discontinued  
Route 649 discontinued as of December 2016



## Attachment D

SUBJECT: Service Expansion

POLICY: In April of 1991, CCCTA adopted a Policy on Service Expansions/Demonstration Projects which was general in nature, and which contained four elements addressing maximization of the existing system, financial planning and contributions by member jurisdictions, performance measures for new services, and demonstration project definitions.

In FY 2000, the Operations and Scheduling (O&S) Committee requested that staff take another look at this area and develop a more comprehensive set of guidelines for service expansion that would set priorities and include definitions for service development.

### Assumptions

1. The recommendations herein are consistent with CCCTA's Mission Statement.
2. All new service shall be subject to the productivity standards contained in CCCTA's Productivity Standards Policy for new service.
3. All new or improved service requested by private entities shall be fully subsidized by the private entity. This subsidy should include full subsidy of all operating cost, and any "lost opportunity cost" and capital cost (if possible). The costs shall be adjusted at least biannually to reflect the actual cost of providing the service.
4. All new service shall maximize opportunities for interlining and minimize deadhead and non-productive time and/or miles.
5. All new service assumes the availability of operating funds, whether public or private, and the availability of vehicles and human resources (drivers) to operate the service without negatively impacting existing service. No new service in any category shall be undertaken without adequate funds to continue the service for at least one full year, or, in the case of limited-time circulators, for the time period requested.
6. The priorities and assumptions herein apply only to general public services, and not to specialized service for ADA eligible riders as provided by LINK.
7. The priorities listed below recognize that improvements made in one priority area may also benefit users in another priority area (i.e., improvements for routes serving commuters may also benefit the transit dependent.)

8. The priorities below can include creative approaches to service provision, including the use of vans, flex routing, subscription services, substitution of one type of service for another, and other approaches meant to maximize opportunities for productivity and to reduce operating costs.
9. All service improvements are subject to a public hearing process and Board approval, except for minor adjustments as listed in Priority A. All service improvements must demonstrate that they do not have opposition from a majority of the community they are intended to serve, including neighborhoods in which vehicles are proposed to operate.
10. Special event services are not included in this list of priorities, as they are not considered a type of service that competes for or strains the capital, human and financial resources of CCCTA. These services are not operated regularly and are not operated during peak times. In all cases, they are also heavily subsidized by the venue for which the service is being provided.

### Definitions

Circulator Service: Service which serves a single community, operates all day, and circulates between at least two major origins and destinations, one of which is a Central Business District or major shopping area. Circulators may also serve collector points, such as park and ride lots. Circulators may be short term (holiday periods, for example) or ongoing. The overall goal of circulator service is to encourage the use of alternative transportation to reduce congestion and the demand for parking in the downtown business district.

Commute Service: Service scheduled to connect with BART during the morning (6 am to 8:30 or 9:00 am) and afternoon (4:00 to 6:30 or 7:00 pm) commute peaks which serve major employment centers or transit hubs, and which operates with limited stops, and headways no greater than 20 minutes. The overall goal of commute service is to reduce congestion and offer transit alternatives to Single Occupant Vehicle (SOV) drivers.

Expanded Service: Changes to an existing route which involve the addition of more than one hour of new service, additional days of service, additional origins and/or destinations not covered by the existing route, and which may or may not require additional equipment and drivers to deliver. Those expansions, which do not require additional vehicles or drivers, would take precedence over those that do. Expanded service is often passenger driven, and a higher priority will be given to expanded service, which responds to the needs of transit dependent users. Priority will also be given to service expansions included in one or more adopted planning documents (SRTP, Contra Costa County Welfare to Work Transportation Plan, CCTA Transportation Plan, etc.)

Fully Subsidized: Service for which at least operating costs, based on the actual cost per hour and cost per mile from the prior year of the system as a whole, is

paid by a third party. Based upon availability of vehicles, the subsidy may also include a capital cost for vehicles.

High Demand: Average ridership of at least 28 passengers per hour or at least 2.5 passengers per revenue mile, or an average load factor which exceeds 70%. These averages exceed the system standard by at least 50%.

Minor Service Change: An adjustment to an existing route or routes which provides new or relocated stops, new or adjusted time points, small amounts of new service (less than one hour per day), reconfigurations which do not affect running time, and other small adjustments which do not require the addition of drivers or equipment to the route. Minor service changes are most often passenger and/or operator driven.

New Service: Service which does not take the place of a discontinued service and which does not duplicate existing service, or which serves a new area or new origins/destinations not currently served, or which is subsidized by the requesting sponsor and/or new funds available to CCCTA.

Private Entity: Any business, agency, government body, organization, company, or corporation which is not a member of the CCCTA Joint Powers Agency.

Productivity Standards Policy: The Productivity Standards Policy adopted by the CCCTA Board of Directors on December 21, 1995.

School Service: Added buses at school start and dismissal times which operates on school days only. Schedules are developed to coordinate with school bell times. Service is open to the general public, but tends to carry heavy loads of middle school and high school students for one or two AM and PM peak trips. The overall goal of school service is to offer student transportation for schools, which do not have “yellow school bus” service.

Transit Dependent: Adult riders paying cash fare to ride, or using a regular 20- or 40-ride punch pass, and seniors and disabled riders as defined on operator trip cards. Through periodic onboard surveys (every three years), transit dependency will be further defined by income, availability of a vehicle to make the trip, and availability of a valid driver’s license.

### Priorities

A. Minor Service Changes to Existing Routes that do any of the following without adding more vehicles or drivers.

- Improves on time performance.
- Adjusts time points within the schedule.
- Adds time (not more than one hour) at the beginning or end of the day, or midday by extending a run, which would otherwise go out of service.

- Adds new stops along an existing route.
- Adjusts routing to better serve new or relocated trip generators without jeopardizing existing productive portions of the route or reducing headways.
- Splits a route into two pieces to make it more direct without increasing total revenue hours.
- Adjusts BART meet times to reduce wait times for BART/bus transfers.
- Adjusts running time by utilizing existing layover or recovery time.
- Improves safety (pedestrian access, vehicle access).

These service changes will be done at the discretion of staff, within existing budgeted resources, and consistent with bid change dates if the change affects a run cut.

B. Improvements to Existing Routes Which Show High Demand by (in priority order)

- Increasing frequency (reduced headways).
- Extending hours of operation (beyond one hour) earlier or later based on demand.
- “Layering” express service over high demand routes which have an end to end running time of more than 45 minutes.
- Adding Sunday service.
- Restructuring a route to make it more productive by (any one of the following)
  - Serving new trip generators/eliminate non-productive route segments
  - Using fewer vehicles to deliver same level of service
  - Improving on time performance.

These improvements generally require additional resources in the form of vehicles, drivers and funding. Those improvements, which can be accomplished without additional drivers or vehicles, will take priority over those that do.

Improvements listed in planning documents will receive priority.

Improvements, which use other than CCCTA funds, will receive priority (for example, welfare to work funds to add Sunday service or extended hours).

C. Improvements to Commute Service including but not limited to:

- Service requested by private entities, which pay the cost for providing such service. Priority will be given to fully paid costs including capital. Second priority to fully paid operating and lost opportunity cost, third priority to fully paid operating cost, and fourth priority to partially paid operating cost only if it is determined by the Board that the overall

community benefit justifies an investment of CCCTA funds. These services could include any of the following:

- Development of direct express service in cooperation with other regional providers to work sites, which are now poorly served, and for which at least partial funding is available. This includes commute service for persons transitioning from welfare to work.
- Shuttles to/from BART or other rail to key trip generators/collectors (employment sites, park and ride lots, etc) where demand is fully documented.
- Late evening shuttles from BART to neighborhoods or key collector points using smaller vehicles.

D. New Circulator Service

- As requested by member jurisdictions where operating costs are at least 80% subsidized by the member jurisdiction or other third party if fares are to be charged, and 100% subsidized if circulator is free.

E. New School Service

- Where service can be interlined with an existing route
- Where access/egress and boarding locations are not a safety issue
- Where no new drivers or vehicles are needed to do so OR
- Where the School District (or other third party) pays for additional drivers and/or vehicles needed to provide the service

DATE OF ADOPTION: August 17, 2000