



MEMORANDUM

To: Anne Muzzini, County Connection

From: Richard Weiner and Terra Curtis

Date: September 28, 2015

Subject: Lamorinda Service Plan Implementation

This memo presents recommended new service strategies for serving commute, midday, and school-based trips in Lamorinda. These recommended strategies are the result of an approximately nine-month planning process of identifying existing challenges and opportunities, collaborating with local stakeholders, and soliciting the feedback of the Lamorinda Program Management Committee (LPMC), its Technical Advisory Committee (TAC), local stakeholders, and the general public. Implementation of these strategies could begin in 2015; however, many strategies' implementation is contingent upon funding availability.

PRIORITY STRATEGIES

Proposed prioritized service alternatives were presented to the TAC on July 22, 2015. The full LPMC reviewed the alternatives at their meeting on August 3, 2015. Collective feedback from these meetings, as well as information from the Lamorinda School Bus Program Manager, informed the final set of recommended priority alternatives and the proposed implementation steps. These priorities are summarized in Figure 1; implementation details for the top priority strategies are described in this memo.

Figure 1 Summary of Alternatives

Alternatives	Service Approach	Market Focus	Priority*
BART Feeder Services	Vanpool to BART	Commuters	Not recommended
	Moraga/Orinda BART Shuttle/Increase frequency on Route 6	Commuters	1
	Downtown Lafayette BART Shuttle	Commuters	2
Flexible Transit Services	Zone Service	Commuters, Senior Mobility	3
	Deviated Fixed-Route Service	Commuters, Senior Mobility	3
	Taxi Subsidy Program	Senior Mobility	1
	Technology-based Transportation Solutions	Commuters, Senior Mobility, School Trips	2
School Services	Expansion of School Bus Program	School Trips	1
	Increased School Transportation Program Coordination	School Trips	1

* Initial priorities are as follows:
 1 = immediate next steps; incorporate into Implementation Plan
 2 = consider when demand becomes more apparent, technology develops, and/or additional funding becomes available
 3 = reconsider at a later date

MORAGA/ORINDA BART SHUTTLE

Service Description

The primary goal of the proposed Moraga/Orinda BART shuttle service is to provide residents an alternative to driving and parking at BART during commute times. Parking at BART is constrained, so services that allow BART passengers not to park at the station are needed. Feedback from the general public and local stakeholders strongly suggests that high transit frequency is a necessary element of service if people are to rely on it for commuting and connecting to BART.

Figure 2 summarizes the service characteristics of two implementation options to achieve this goal:

- Option A: Creating a new standalone shuttle service between Moraga and Orinda BART
- Option B: Increasing frequency along existing Route 6 service

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Figure 2 Option A and Option B Service Summary

	Option A: Moraga/Orinda BART Shuttle	Option B: Increased Route 6 Frequency
Description	Shuttle between Moraga Center and Orinda BART along Moraga Way See Figure 5 and Figure 6.	Double frequency along Route 6 between Lafayette and Orinda BART stations See Figure 7.
Hours of service	6:00 a.m. – 9:30 a.m. 4:00 p.m. – 7:30 p.m.	6:00 a.m. – 9:30 a.m. 4:00 p.m. – 7:30 p.m.
Revenue hours	14 per day 3,570 annually	21 per day 5,355 annually
Frequency	20 minute headways when combined with existing Route 6 service (new vehicles operate at 40 minute headway)	20 minute headways when combined with existing Route 6 service
Layover at Orinda BART	None; drop-off only	15 minutes in bus queue zone
Layover in Moraga	8 minutes at School Street bus bay	None; drop-off and pass through
Bus turnaround at Orinda BART	Same as existing Route 6 operations	Same as existing Route 6 operations
Bus turnaround in Moraga	From Viader Street stop: turn left onto Moraga Road and take first left into Moraga Center retail complex. Continue to Moraga Way. Turn right on Moraga Way and away next run at the School Street stop. See Figure 6.	N/A
Stops	In the westbound direction (a.m.): <ul style="list-style-type: none"> ▪ Moraga Way/School Street (park-and-ride) ▪ Moraga Way/Camino Ricardo ▪ Moraga Way/Hardie Drive ▪ Holy Shepherd Lutheran Church (park-and-ride) ▪ Camino Pablo/Wells Fargo Bank ▪ Orinda BART No stops would be made in the eastbound direction in the morning. In the afternoon peak, stops would be made in the reverse direction with no westbound boarding.	All existing Route 6 stops between Moraga and Orinda BART along Moraga Way: <ul style="list-style-type: none"> ▪ School Street (park-and-ride) ▪ Camino Ricardo ▪ Hardie Drive ▪ Eastwood Drive ▪ Coral Drive ▪ Whitehall Drive ▪ Southwaite Court ▪ Ivy Drive ▪ Hall Drive ▪ Ardor Drive ▪ Orchard Road (east) ▪ Holy Shepherd Lutheran Church (park-and-ride) ▪ Glorietta Boulevard ▪ Brookside Road ▪ Orchard Road (west) ▪ Camino Pablo/Wells Fargo Bank ▪ Orinda BART

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	Option A: Moraga/Orinda BART Shuttle	Option B: Increased Route 6 Frequency
Number of vehicles	2	3
Number of drivers	2 full-time; 4 part-time	3 full-time; 6 part-time
Operations	<ul style="list-style-type: none"> ▪ Split shift or part-time operators ▪ Potential to contract out operations ▪ Potential midday layover at nearby park-and-ride location (e.g. Orinda Fields on Camino Pablo) 	<ul style="list-style-type: none"> ▪ Split shift or part-time operators ▪ County Connection-operated ▪ Potential midday layover at nearby park-and-ride location (e.g. Orinda Fields on Camino Pablo)
Estimated annual cost	\$267,750	\$401,625

Typical A.M. peak period drive times were identified using Google Maps, which is then used to calculate the number of vehicles required for a standalone shuttle service between Moraga Center and Orinda BART. Given existing boarding data, one-minute dwell time at each stop should be at least enough time to allow for passengers to board. This calculation is shown in Figure 3. The full cycle time—from departing Moraga Way at School Street to returning to the same location—should take approximately 32 minutes. This leaves 8 minutes buffer prior to the next scheduled departure. With 20 minute headways desired, two vehicles would be needed, with each vehicle departing every 40 minutes.

Figure 3 Option A: Moraga/Orinda BART Shuttle Run Time

Stop	Peak Period Travel Time (minutes)*	Peak Period Dwell Time (minutes)
Moraga Way/School Street (park-and-ride)	--	
Moraga Way/Camino Ricardo	2	1
Moraga Way/Hardie Drive	1	1
Holy Shepherd Lutheran Church (park-and-ride)	4	1
Camino Pablo/Wells Fargo Bank	5	1
Orinda BART	3	1
Return Time (Orinda BART to School Street bus bay)	12 minutes	
Cycle Time	32 minutes	

*Note: uses Google Maps A.M. peak period traffic data

Increasing frequency along Route 6’s full route would require 3 additional vehicles—the route is about twice as long as would be needed for a standalone shuttle. This is shown in Figure 4—a 2-hour cycle time with 20 minute headways would require 6 vehicles (or 3 additional) to operate.

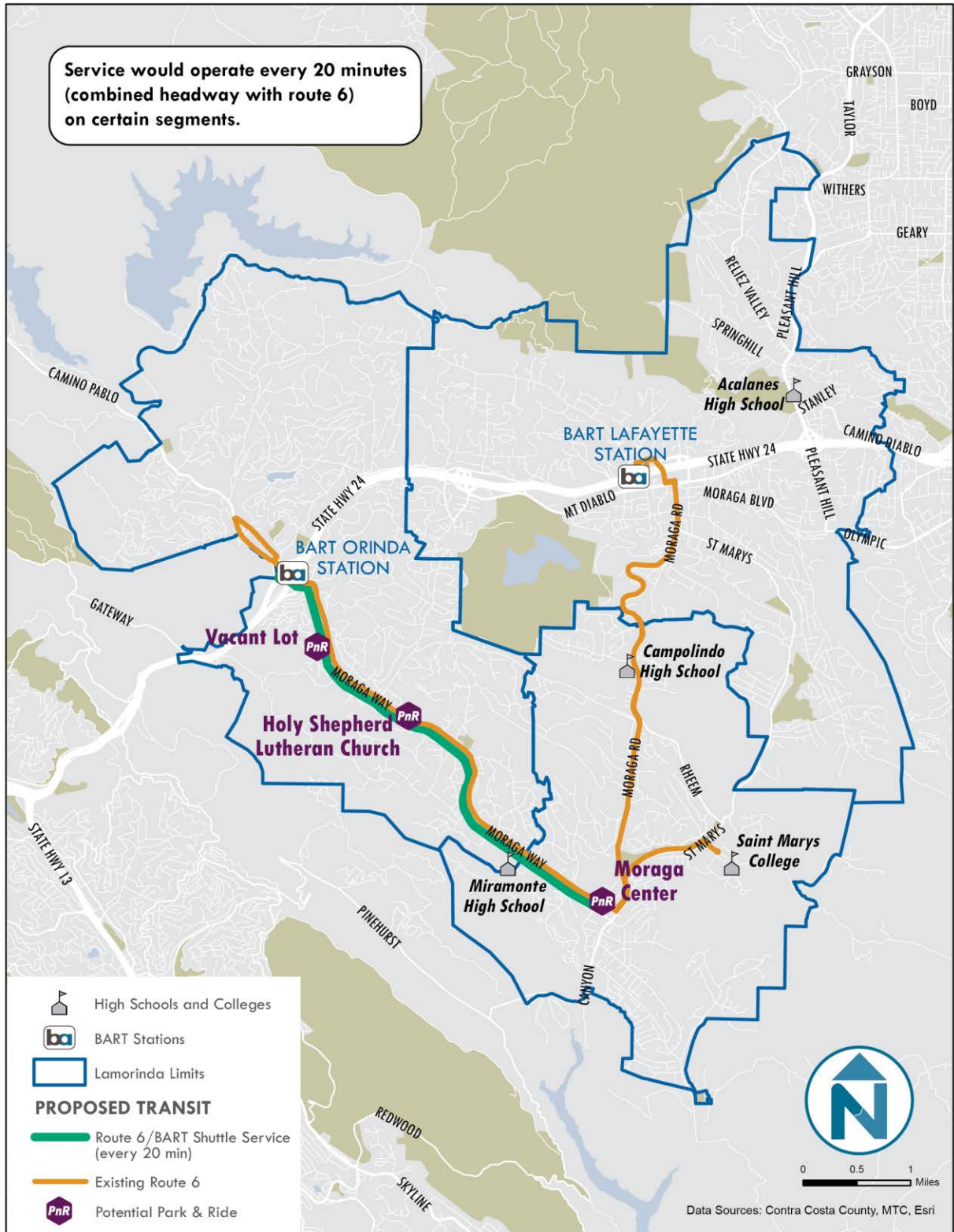
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Figure 4 Option B: Increased Route 6 Frequency Operations

	Existing Route 6 Operations (h:mm)	Double Route 6 Frequency (h:mm)
Dwell time at Orinda BART	0:15	0:15
Cycle time	2:00	2:00
Headway	0:40	0:20
Vehicles required	3	6

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Figure 5 Option A: Moraga/Orinda BART Shuttle



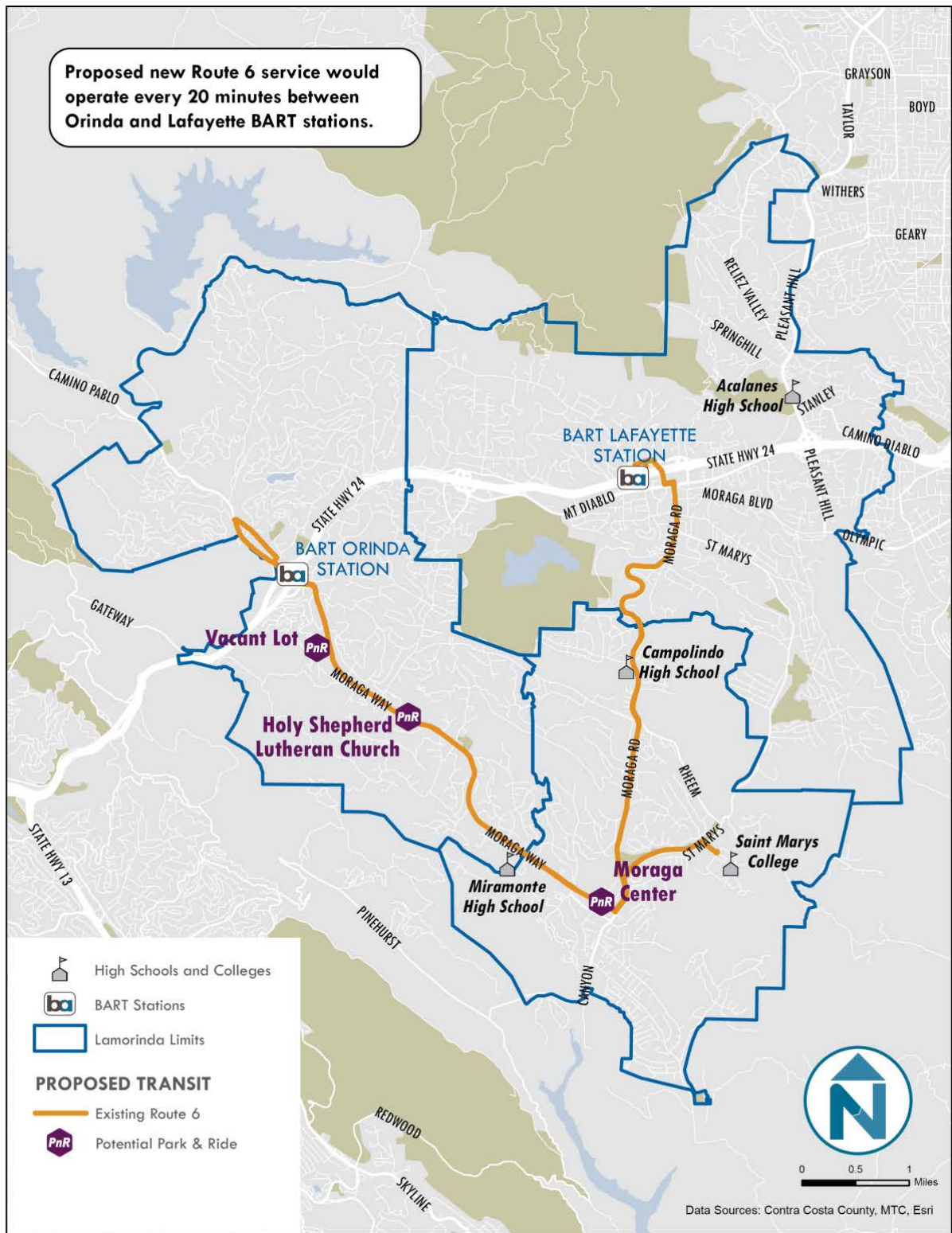
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Figure 6 Option A: BART Shuttle Turnaround at Moraga Center



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Figure 7 Option B: Increased Frequency on Route 6



Partnerships

Both implementation options present opportunities for partnerships. In regards to park-and-ride facilities, there is potential to collaborate with the Holy Shepherd Lutheran Church, Moraga Center and its ongoing Specific Plan Implementation effort, and the owner of the vacant parcel located at approximately 174 Moraga Way in Orinda. Each of these locations might serve as a park-and-ride for either BART feeder service. Moraga Center, with the Town's ongoing implementation of its specific plan and its proximity to Moraga residents, is perhaps the most important opportunity to explore in the short term.



In addition to the provision of park-and-ride facilities, marketing will be essential to creating demand for new services. Though most of this responsibility falls on the operator of the new service—County Connection—a partnership with BART should be pursued. BART has an interest in increasing ridership and cannot do this without support for non-drive-alone station access. Partnering to facilitate the success of new County Connection feeder service would also support BART's own objectives.

Additional marketing partnerships could be pursued with downtown Orinda businesses, residential complexes in Moraga, the City of Orinda, and the Town of Moraga. Of particular interest could be new residents—direct mailing campaigns to recently constructed, rented, or purchased properties may support a travel behavior change; Lamorinda cities and towns could work with developers to ensure new residents along this route are informed of their transit options. Lastly, promotions or incentives—free use of the shuttle during the first week of operations, for example—could attract new riders to County Connection service.

Branding and Messaging

Due to its overlap with existing County Connection service, branding, messaging, and marketing of new BART feeder service will be important for its success. If a standalone shuttle service is implemented, passengers should be able to quickly identify vehicles that offer limited stop service to BART and quickly differentiate them from overlapping local Route 6 vehicles. This could be achieved by renaming the peak period route as "6X" and/or by using unique vehicles and branding if an express shuttle is implemented.

The public survey response provides market insights on the opinions and needs of potential new customers. According to this feedback, new service branding and marketing should emphasize:

- Frequency
- Reliability
- Avoidance of BART parking

In addition to the marketing partnerships described above, the vehicles, existing Route 6 stops, and park-and-ride locations are opportune sites to advertise the new service.

Cost and Revenue

Given increased frequency, new service could potentially be provided with smaller vehicles, however smaller vehicles are not necessarily cheaper to operate. Operations costs are driven

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primarily by labor costs, which are different for County Connection-operated services and those that are contracted out.

Figure 8 summarizes the capital, operations, and maintenance costs expected in the first year of operations (assuming new vehicles would need to be procured).

Figure 8 Summary of Expected Cost

	Option A: Moraga/Orinda BART Shuttle	Option B: Increased Route 6 Frequency
Capital ¹	\$1,042,000 (40' diesel bus) \$240,000 (cut-away under 26')	\$1,563,000 (40' diesel bus) \$360,000 (cut-away under 26')
Annual Operations and Maintenance ²	\$267,750	\$401,625
Total FY15/16 Cost	\$1,309,750 (with 40' buses) \$507,750 (with cut-away)	\$1,964,625 (with 40' buses) \$761,625 (with cut-away)

It is recommended that new service charge the same standard fare that applies to passengers riding Route 6 today—\$2.00 Regular Adult/Youth Fixed-Route fare. Figure 9 presents a calculation of expected revenue based on these fares and potential new ridership. Research suggests that doubling frequency could increase ridership by as much as 50%.³

Figure 9 Summary of Expected Revenue

	Existing Route 6 Boardings ⁴	Expected Boardings (double frequency)
A.M. Peak – Moraga to Orinda BART	28	42
P.M. Peak – Orinda BART to Moraga	72	108
<i>Total Weekday Peak Boardings</i>	<i>100</i>	<i>150</i>
<i>Total Weekday Peak Revenue (\$2 Adult/Youth Fare)</i>	<i>\$200</i>	<i>\$300</i>
<i>Total Annual Peak Revenue (255 days)</i>	<i>\$51,000</i>	<i>\$76,500</i>

¹ Based on a FY15 new vehicle cost listed in County Connection's 2014 Short-Range Transit Plan, p. 30

² Based on existing County Connection fixed-route marginal cost per hour (\$75/hour)

³ TCRP Report 95, Chapter 9: *Transit Scheduling and Frequency: Traveler Response to Transportation System Changes*, pg. 9–5. Average elasticity of demand for increased frequency is 0.5 (for every 1% increase in frequency, a 0.5% increase in ridership could be expected).

⁴ As of Fall 2014, as reported by County Connection

Funding

A mix of local and state funding sources may be appropriate for the capital, operations, and maintenance expenditures associated with new BART feeder service. These options include:

- **Contra Costa County Measure J Sales Tax Revenue.** The Bus Services and Commute Alternatives programs covered within the Measure J expenditure plan each provide funds for this type of service. In FY 15, Measure J is expected to provide over \$4.2 million in revenue for County Connection transit service, as identified in the agency's Short Range Transit Plan. Over the 20 years of Measure J, the Bus Services program is expected to provide \$100 million in funding (about \$5 million per year) and \$20 million from the Commute Alternatives program (about \$1 million per year).
- **Transportation Development Act (TDA) Article 4 Funds.** County Connection expects to receive almost \$16 million in TDA Article 4 funds from the state in FY 15. These funds are eligible to be used for public transit. Demonstration projects in particular are called out as an eligible use. Article 4 funds are also eligible to be used for funding peak-period contracted services.⁵
- **TDA Article 4.5 Funds.** The City of Orinda or Town of Moraga is eligible to receive TDA Article 4.5 funds for Community Transit Services. A partnership between County Connection and these localities may open up new funding opportunities.
- **State Transit Assistance (STA) Funds.** County Connection is projected to receive over \$2 million in STA funds in FY 15. These funds are available for capital and operations expenses.
- **BART.** As discussed earlier, BART has an interest in increasing ridership without exacerbating parking demand. A funding partnership with BART may be appropriate.
- **Moraga Center Implementation.** Currently, the Moraga Center Specific Plan Implementation Project is ongoing. Implementation of this plan for increased, mixed-use density at the intersection of Moraga Road and Moraga Way includes the potential for new development in the heart of Moraga and at the origin of the proposed new BART feeder service. There could be opportunities to seek in-kind donations—such as improved pedestrian access, stop amenities, and park-and-ride improvements—from eventual developers on this site. This is a longer-term funding strategy.

Evaluation

Evaluation of this service should inform several key decisions and questions. Figure 10 summarizes several purposes of evaluation, which metrics to track, and how often to track them.

⁵ California Public Utilities Code Section 99260–99273, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=puc&group=99001-100000&file=99260-99273>

Figure 10 Evaluation Summary

Key Question	Metric / Measurement Tool	How often?
Is the service addressing the public's demand for higher frequency service?	Survey of riders (e.g. Textizen survey) and non-riders (e.g. windshield survey of BART parkers)	After first 6 months of service
Does it reduce parking pressure in Orinda BART parking lot? In adjacent neighborhoods?	Survey of riders (e.g. Textizen survey) – before and after behavior questions	Every 6 months for first year
Has it increased County Connection and BART ridership?	Existing County Connection ridership tracking Survey of riders (e.g. Textizen survey)	Every 6 months for first year
Has it increased County Connection productivity?	Existing County Connection ridership tracking	Every 6 months for first year
Should stops be added or removed?	Existing County Connection ridership tracking	Every 6 months for first year
Should route-end spurs be added to increase ridership?	Survey of non-riders (e.g. windshield survey of BART parkers)	Every 6 months for first year
Should the increased frequency service continue to operate?	Existing County Connection ridership tracking	Every 6 months for first year
Are the park-and-ride facilities well-utilized?	Two weekday midday parking counts	Every 6 months for first year
Are passengers able to make important transit connections (to BART in the morning; to County Connection in the evening)?	Survey of riders (e.g. Textizen survey) and non- or former riders (e.g. BART exit survey)	After first 6 months of service

Implementation Schedule and Administration

Figure 11 summarizes a potential implementation schedule. Because implementation is contingent upon funding availability, the schedule begins with secured funding.

Figure 11 Potential Moraga/BART Connecting Service Implementation Timeline

Timeline	Action
Month 1	Funding secured
Months 1-6	Choose Option A (shuttle) or Option B (increased Route 6 frequency) and finalize service planning
	Release RFP for new vehicles (if needed)
	Release RFP for contracted service operations (if needed)
	Pursue partnership with Holy Shepherd Lutheran Church to establish park-and-ride
Months 6-9	Pursue partnership with Safeway/Moraga Center ownership to establish park-and-ride at School Street
	Design marketing and outreach plan

Timeline	Action
	Implement marketing and outreach
Months 9-12	Establish baseline ridership figures
	Launch revenue service
Ongoing	Continue to monitor and refine as needed

TAXI SUBSIDY PROGRAM

Service Description

Taxi subsidy programs can be designed around several different models. The main distinction is whether the subsidy is offered through reimbursement (in which the participant temporarily bears the full cost of services; providers are compensated at the time service is rendered) or as an upfront subsidy via the purchase of vouchers or scrip (the participant bears only a portion of the cost; providers are compensated after services are rendered). For clarification, scrip is a temporary substitute for actual currency; a participant would purchase booklets of “scrip” in \$1, \$5, or \$10 denominations. A voucher program usually differs in that it does not function as cash, but rather as proof that an individual is a registered participant and eligible to receive fare discounts. These concepts are sometimes used interchangeably.

Figure 12 describes the pros and cons of voucher- and reimbursement-based programs.

Figure 12 Voucher versus Reimbursement Taxi Subsidy Programs

Taxi Subsidy Service Model	Pros	Cons
Voucher- / Scrip-based	Participant bears only portion of cost Cost can be contained by raising portion of fare contributed by participants, limiting scrip purchases, or possibly charging more for purchases over a monthly limit Can be built on an electronic taxicard system, rather than paper-based scrip booklets	No existing wheelchair-accessible taxis in the Lamorinda area Taxi providers bear upfront cost of trip until reimbursed by the city/transit agency Administratively cumbersome, open to fraud if relies on paper scrip Difficult to control fraud issues, especially with paper-based scrip system
Reimbursement-based	Participants do not need to obtain or keep track of paper vouchers Administrator does not need to staff a voucher sales window Taxi providers are compensated immediately following trip Cost can be contained by raising portion of fare contributed by participants, limiting subsidy over a	No existing wheelchair-accessible taxis in the Lamorinda area Participant must bear cost of trip until reimbursed by city/transit agency Difficult to control fraud issues

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	monthly trip value limit Reduces administrative burden on taxi companies	
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It is possible to administer voucher and scrip programs with the use of an electronic taxicard, rather than paper-based scrip or vouchers. Taxicards are specialized debit cards; these programs are fairly new and are most appropriate in areas with card swipe technology reliably present in taxicabs (see Figure 15). To determine the feasibility of this technology in Lamorinda, further research would be needed to establish whether the existing swipe feature in Lamorinda taxis is compatible with that required by the two primary taxicard vendors. There may be other upfront costs that make the small volume of anticipated trips too limited for a viable taxicard program.

In both cases, sales can be offered in person at the transit agency offices and select locations such as senior centers. Paper vouchers or scrip are sometimes made available by mail. In the case of electronic vouchers, purchases can be made online.

In addition to the voucher versus reimbursement program parameter, there are several program rules to establish before implementation, which include:

- Size of subsidy
- Trip or fare value limits
- Expiration of vouchers / scrip (e.g. after one year)
- Gratuity (typically, burden is on the customer)
- Eligibility requirements
- Reservation process
- Requirements of service providers

Figure 13 summarizes other taxi programs in the Bay Area. Voucher-based models are more common than reimbursement-based programs. The typical subsidy offered is around 75% of taxi fare.

Figure 13 Example Taxi Programs in Alameda County

City	Taxi Fare Value	Cost to Customer	Subsidy Limits	Eligibility
Albany	Reimbursement-based; 70% discount		Per-trip limit of \$25	Age 80+ Age 18+ and ADA-certified
Fremont	\$16	\$4	Limit one per trip, 20 vouchers per quarter	ADA-certified Age 80+ (Fremont residents) Age 70+ (Newark residents)
San Leandro	\$14	\$3.50	Limit 72 vouchers per year	Age 60+ Age 18+ and ADA-certified
Union City	\$16	\$4	Limit one per trip	ADA-certified

Figure 14 Taxi Program Recommended Service Parameters

Program Parameter	Recommendation
Fare media	Electronic taxicard if feasible, otherwise voucher-based model
Size of subsidy	75%
Subsidy limits	\$10 per trip after payment of initial voucher cost; passenger pays excess beyond voucher and subsidy
Expiration	After one-year of non-use
Gratuity	Responsibility of participant
Eligibility	Age 60+ or ADA-certified
Reservation process	Individual arranges ride with partnered taxi companies
Administration	County Connection-administered

Partnerships and Future Considerations

Successful taxi subsidy programs rely heavily on community partnerships. Taxi companies are necessary partners for a voucher-based system in which drivers must be aware of the program and any special fare-processing requirements. Other partners, such as senior centers, senior housing facilities, the Lamorinda Spirit Van, and the Lamorinda city staff and elected officials can help facilitate communication about the program, driver training, voucher/smartcard distribution, and funding opportunities.

Figure 15 summarizes local taxi providers' existing fleets. All four taxi providers contacted have credit card swipe capability available in their vehicles, which makes the implementation of a smartcard-based voucher system less costly. None of the companies currently has wheelchair-accessible vehicles, though one company—Orinda Taxi—is considering a purchase. Each offers a 5-10% discount to Lamorinda seniors already; there may be an opportunity to share the costs of the subsidy with the taxi companies.

Figure 15 Summary of Local Taxi Providers

Company	Discounts for Seniors	Swipe Capability	Wheelchair Accessibility	Pick-up / Drop-off	Fleet Size
Orinda Taxi	5-10%	Yes	No, considering purchase	Pick up anywhere in Bay Area, including airports	12
Moraga Taxi	5% 10% (within Moraga)	Yes	No, just started business in 2015	Pick up anywhere in Bay Area	4
Taxi Bleu	10%	Yes	No, chairs for babies	Pickup within Lamorinda, Walnut Creek	10
Contra Costa Yellow	10%	Yes	No	Pickup Lamorinda, and	10

Cab/Desoto			anywhere within central Contra Costa County
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The taxi voucher program would increase the subsidy available and the amount of mobility options for seniors and people with disabilities (at least those who do not use wheelchairs). In the future, County Connection, the LPMC, or other local stakeholders might be able to create a loan or grant program to facilitate taxi companies' purchase of wheelchair-accessible vehicles and their increased operating costs. In communities where there are no requirements or incentives for taxi companies or associations to provide a certain number or percentage of wheelchair accessible taxicabs, transit agencies and municipalities have used FTA and municipal funding, respectively, to help with the purchase of accessible taxicabs in order to infuse accessible taxicabs into the community. Transit agencies, for example, have used 5317 (New Freedom grants) at an 80%/20% match to buy accessible vehicles and lease them to taxi companies for a nominal amount, but under the condition that they participate in the taxi subsidy program. Additionally, municipalities have created incentive programs and funding schemes to also help defray the capital and operating cost of such vehicles

Branding and Messaging

No special branding needs to be established for the taxi subsidy program. Some existing example programs have developed a special name for their program (e.g. "Taxi Up and Go!"), however most describe it directly as the "Taxi Program." If a smartcard is pursued, it presents an opportunity to communicate a particular brand or logo, in which case it could make sense to piggyback on County Connection's existing LINK branding, or County Connection may wish to keep the identities of these two programs separate. The Mobility Manager would be responsible for developing branding.

Cost and Revenue

The Cost of Taxicards

Taxicards would eliminate the need to print and distribute scrip, which can cost thousands of dollars for a relatively small program. Taxicards do have their own costs; we are aware of two vendors involved in this industry. One of them provided the following sample costs for a small program:

- The cost of the taxicards (\$1 each for a basic card or \$2 for a photo ID card) – this cost could be passed onto the customer
- An initial setup cost is between \$10,000 and \$20,000 to program a custom fare structure and establish a payment website
- On-going payments to the vendor of \$5,000 per year for up to 10,000 trips plus an additional \$0.50 per trip if trip volumes exceed 10,000
- Swipe payment capability in each vehicle (already established in the Lamorinda area)

Calculating the ongoing costs requires an estimate of the number of annual trips that would be generated by such a program. Based on existing County Connection paratransit data from the National Transit Database, there are approximately 150,000 annual unlinked ADA passenger trips on LINK. The taxi program could attract some of those existing trips as well as new trips

from non-ADA-certified individuals (e.g. seniors without disabilities). Given that the taxi program is open to a wider population and would offer taxi trips at a significant subsidy, it is likely to attract more than the 10,000-trip threshold for a flat \$5,000 annual operating fee.

However, some savings could be achieved through the shift of longer paratransit trips to taxi trips; one of the key pieces of feedback we heard is the need for seniors to make trips outside the Lamorinda area. Existing paratransit operations cost approximately \$45 per trip on average—and more for longer trips. A 10-mile trip—say from Moraga to Berkeley—would cost approximately \$33 per trip in a taxi.

Fares

The only revenue associated with this program would be the portion of voucher costs covered by participants—usually about 25% of the taxi fare. Given that existing taxi companies in the area already offer up to 10% discount to seniors, there may be a cost sharing opportunity to have up to 35% of overall fares covered by parties other than the public sector.

Funding

Taxi subsidy programs are commonly funded through local sales tax revenues, cities' general funds, and federal and state programs for seniors and people with disabilities. Further detail on these sources is below.

- **City general funds.** Cities often contribute a portion of the cost through their general fund.
- **Measure J.** The Measure J Expenditure Plan states that “Additional funding to address non-ADA services, or increased demand beyond that anticipated, can be drawn from the “Subregional Transportation Needs Funds” category, based on the recommendations of individual subregions and a demonstration of the financial viability and stability of the programs proposed by prospective operator(s).” Central Contra Costa County can expect approximately \$16.2 million in revenues from this funding category—the most of any region within the county. These funds would be programmed by TransPAC, which has funding available for seniors' transportation needs above and beyond ADA services.
- **Federal Transit Funding and California TDA/STA funds.** Taxi programs sponsored by transit agencies typically pull from a variety of federal and state sources. In California, agencies often rely on Transportation Development Act funds to support these programs. Commonly used federal sources include Section 5310 and Section 5317—formerly referred to as “New Freedom” funding, which are distributed through states or regional planning organizations.

Evaluation

Performance monitoring of a taxi subsidy program needs to ensure that fraud is minimized, that costs justify the subsidy, and that its original goals are being met. Example metrics and monitoring practices include:

- Review of random sampling of taxi invoices to monitor fraud
- Cost per trip
- Number of ADA and non-ADA-eligible individuals served

- Total trips provided
- Customer outreach costs
- Requests for wheelchair-accessible trips

Implementation Schedule and Administration

Given that the taxi program would supplement County Connection’s existing LINK program and could build off its existing participant database, it is recommended that the taxi program be administered by County Connection.

Figure 16 summarizes a potential implementation schedule. Because implementation is contingent upon funding availability, the schedule begins with secured funding.

Figure 16 Potential Taxi Subsidy Program Implementation Timeline

Timeline	Action
Month 1	Funding secured
Months 1-3	Choose service parameters (voucher versus reimbursement; smartcard or paper-based) and program “business rules” (e.g. percent subsidy)
	Outreach to local taxi companies
	Release RFP for electronic taxicard system (if determined feasible)
	Establish baseline performance metrics
Months 3-6	Develop marketing and outreach plan
	Develop monthly monitoring and card distribution processes
	Outreach to local senior centers, existing ADA-certified LINK passengers
	Establish baseline ridership figures
Months 6-9	Launch service
Ongoing	Continue to monitor and refine as needed

EXPANSION OF SCHOOL BUS PROGRAM

Service Description

New school bus service would operate on the same model that it does today—operations would be contracted out to First Student by the Lamorinda School Bus Program. The operations contract is based on a per-bus fee of approximately \$80,000 per year, inclusive of operations and maintenance.⁶ Expansion would require contracting 6 new buses beyond the 21 already in use; given different school bell times, some buses are capable of serving multiple schools.

To address existing capacity issues, additional service to the following schools is recommended:

- Orinda Intermediate School
- Stanley Elementary School
- Miramonte High School
- Campolindo High School

To expand existing service to new schools with observed demand, new service to the following schools is recommended:

- Lafayette Elementary School
- Del Rey Elementary School
- Happy Valley Elementary

At the request of the LPMC, additional service expansion to Camino Pablo Elementary and Acalanes High School was considered. Camino Pablo formerly had school bus service, but this was discontinued due to low ridership; Lamorinda School Bus Program staff indicate very minimal demand from Camino Pablo parents. Parents of students at Acalanes High School were surveyed within the last year and expressed very little interest in additional service.

To capture the full potential of new services, further route planning needs to be completed to ensure routes and times match demand patterns. During the route planning phase, whether to expand to both morning and afternoon service or simply to provide morning capacity also needs to be considered. Initially, it appears that additional demand for service to Campolindo comes from parents in Lafayette;⁷ for Stanley Middle School, it appears there is additional demand from the west, particularly north of CA-24.⁸ Appendix A illustrates the home locations of parents who indicated they would be “somewhat” or “very likely” to utilize one of the new bus services to each of the seven schools listed above. Raw data is available to be shared for further route planning analysis.

Lastly, it is recommended not to mix students from middle or elementary schools with students from high schools; recent pilots of mixed service including Acalanes High and Stanley Middle students revealed that high school students are less likely to use the bus when mixed with middle school students.

⁶ The Lamorinda School Bus Program expects the 2017/2018 School Year contract to reflect this rate

⁷ Parent communication with the Lamorinda School Bus Program

⁸ Results from 2015 parent survey

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Partnerships

Like other new services, partnerships to enhance marketing, funding, and coordination will help to make new school bus service a success.

Partnership Opportunity	Potential Partner
Marketing	Acalanes Union High, Lafayette, and Orinda School Districts Last Trampas Creek Council Lafayette Elementary School PTA Stanley PTA 511 Contra Costa Individuals students and school groups Individual parents and families Sustainable Lafayette
Funding	Lamorinda School Bus Transportation Agency (LSBTA) – elected officials from Lamorinda jurisdictions Contra Costa Transportation Authority
Coordination ⁹	County Connection Southwest Area Transportation (SWAT) / 511 Contra Costa

Branding and Messaging

No changes to existing Lamorinda School Bus Program branding and messaging are recommended at this time. New services should operate under the existing branding and messaging framework.

Cost and Revenue

At approximately \$80,000 per bus per year, annual operations and maintenance costs associated with 6 new buses will total approximately \$480,000. This is in addition to the cost of the 21 buses that provide existing services (approximately \$1.6 million).

As reported by Lamorinda School Bus Program staff at the LSBTA meeting in April 2015, approximately two-thirds of the program funding comes from Measures C and J (local transportation sales tax revenues) and about one-third from parent contributions (through fares).¹⁰ If this ratio remains for new service, approximately \$320,000 new Measure J funding and \$160,000 additional fare revenue would be necessary. The CCTA is considering a 2016 ballot measure to increase local transportation funding. To acquire \$160,000 in additional fare revenue,

⁹ See next section for further detail on coordination

¹⁰ http://www.lamorindaschoolbus.org/uploads/LSBTA_Agenda_and_Packet_04-13-2015.pdf

assuming existing average fare revenue per student served, approximately 400-450 new students would need to utilize the service.¹¹

A final note on costs: the recommendation to procure six additional vehicles for service to seven schools is based on an assumption of one run per bus in the morning and one in the afternoon in almost all cases. Given recent experience in Orinda and Moraga, greater efficiencies can be achieved through the adjustment of school bell times, which could allow for two runs per vehicle in the morning and/or afternoon period. This additional vehicle use could result in a significant cost savings. Though there have been barriers to adjusting school bell times in the past, this option could be explored in the future as a way to expand school service with limited cost increases.

Funding

Starting in early 2014, the Contra Costa Transportation Authority has discussed the possibility of adding a 2016 ballot initiative to raise additional local transportation funding through a sales tax measure. As of March 2014, local polling indicated that approximately 68% of local voters would approve the measure.¹² Given the widespread support of school bus expansion, there is potential to use the possibility of new service to increase support for the ballot measure.

In addition, the Lamorinda School Bus Program plans to increase parent contributions by 2.5% each year (an annual bus pass costs \$480 per year for FY 15/16).

Evaluation

Evaluation and monitoring is most effective when targets for each performance measure are established beforehand. Prior to launching new service, a Census of existing operations would establish baseline performance, to which new service could be compared.

To assess the success of new bus routes, the following metrics should be tracked and compared to existing or baseline measures:

- Cost per trip by route
- Average ridership by route / round-trip equivalents by route
- Point in time (calendar year) at which each route's enrollment fills available capacity
- Percent of operations and maintenance costs covered by fares
- Periodic parent surveys (assessing cost appropriateness, desire for new service)

¹¹ The existing average revenue raised per student served is approximately \$375 per year. This figure was estimated by calculating the total annual operations and maintenance cost (21 buses multiplied by \$80,000 per bus per year)—\$1.680 million—dividing by 3 (one-third of funding from fares) and further by 1,500 (the total number of students served per year).

¹²

<https://www.google.com/url?q=http://www.ccta.net/about/download/Full%2520Packet.pdf&sa=U&ved=0CAUQFjAAahUKewju48yqo8XHAhWTCZIKHZo-BiA&client=internal-uds-cse&usg=AFQjCNHtl2gHIntZoEn2TKJNYw0I05wISg>

Implementation Schedule and Administration

Figure 25 summarizes a potential implementation schedule. Because implementation is contingent upon funding availability, the schedule begins with secured funding..

Figure 17 Potential School Bus Expansion Timeline

Timeline	Action
School Year 15-16	Continue to discuss possible ballot measure at LSBTA, CCTA board meetings
	Continue to track parent sentiment and requests
School Year 16-17	Develop marketing and outreach plan for ballot measure
	Promote passage of 2016 transportation sales tax measure with Lamorinda School Bus Program current and former parents
	Establish baseline ridership figures
Month 1	Funding secured
Months 1-3	Initiate detailed route planning and vehicle assignment process
Months 3-6	Promote new service alternatives to parents
Months 6-9	Launch service
Ongoing	Continue to monitor and refine as needed

INCREASED SCHOOL PROGRAM COORDINATION

Description

There is general consensus among Lamorinda residents that school-based trips play a significant role in morning and evening traffic congestion. As such, several programs and services exist to encourage students not to drive to school and offer non-driving alternatives to parents. These programs include the Lamorinda School Bus Program, County Connection’s School Tripper routes, the Student Transit Ticket Program, and the High School Carpool Program.

However, there are limited forums in which program staff can collaborate and coordinate efforts. To ensure the effectiveness of each of these programs, we recommend a formalized coordination initiative. Specifically, this initiative would lead to:

- Increased coordination between County Connection and Lamorinda School Bus Program service planners
- Increased communication between Lamorinda school administrators and Country Connection service planners
 - To improve County Connection service for altered school schedules, such as during in-service days
 - To promote the Student Transit Ticket Program

Partnerships

County Connection, the Lamorinda School Bus Program, and school superintendents will be essential partners in this initiative. Within each organization, one individual should be identified as the point person for all other organizations. For example, one staff person within the Lafayette School Superintendent’s Office would be responsible for notifying County Connection of altered school schedules or specific feedback on bus service from schools and parents. One person within County Connection would be identified to receive and distribute this information internally.

In addition, at least two annual meetings between County Connection and Lamorinda School Bus Program staff would enable:

- Pre-school year planning (meeting in spring)
- Mid-school year adjustments (meeting in late fall/winter)

Cost

The cost of such a program is staff time-only; it is included in existing administrative costs for each of the organizations mentioned. A one-to-two hour pre-year and mid-year meeting, plus preparation time, would account for approximately 20-25 total staff hours across organizations. Ongoing coordination as needed is not counted in this estimate.

Evaluation

Such an approach is recommended for one year. At the end of the year, the group should decide whether to continue formalized coordination efforts for an additional year. Items to confirm at the end of the first year include:

- Was a representative from each organization identified?
- Was ad-hoc communication effective?
- Was there support from higher-level management within organizations?

Implementation Schedule and Administration

Figure 26 summarizes a potential implementation schedule; implementation may be contingent upon funding availability, however this proposal requires additional staff time only.

Figure 18 Potential School Program Coordination Implementation Timeline

Timeline	Action
School Year 15-16	Identify points of contact within County Connection, Lamorinda School Bus Program, and school superintendents’ offices
	Ongoing ad-hoc communication among representatives
Spring 2016	Gather for pre-2016/2017 planning meeting
	Establish goals for SY 16/17
School Year 16-17	Ongoing ad-hoc communication among representatives

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Timeline	Action
Winter 2017	Mid-year evaluation/adjustment meeting
Ongoing	Discuss effectiveness of initiative and feasibility of continuation

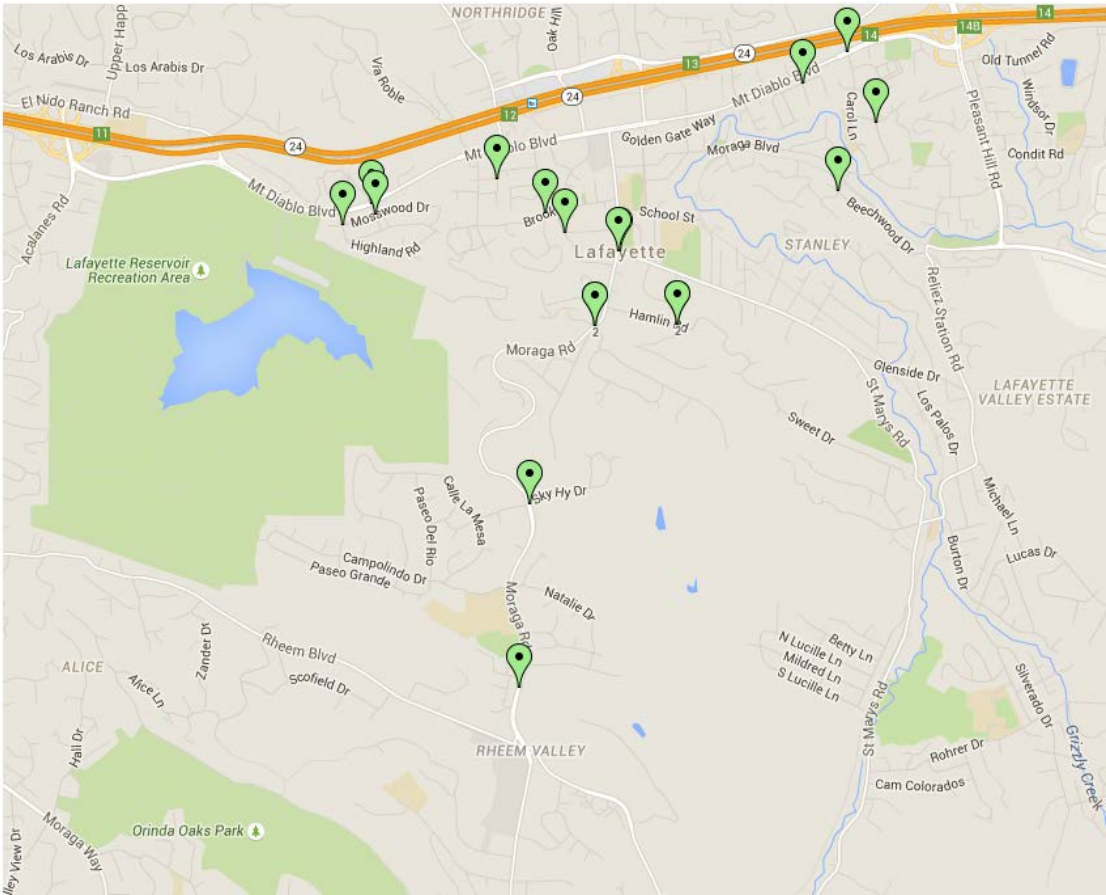
SUMMARY AND CONCLUSIONS

This memo specifies the implementation of four service alternatives that address commuter, senior, and school-based trips. These four alternatives were selected through a two-phase process of public feedback and consultation with local staff and elected officials. They represent top priorities for Lamorinda over the next one-to-two years.

Other alternatives were discussed. Those that were classified as “priority 2” in the Alternatives Refinement memo—the Downtown Lafayette BART Shuttle and On-Demand/Technology-Based Transportation Solutions—received an indication of support and should be reconsidered in the future as demand becomes more apparent, technology develops, or additional funding becomes available.

Appendix A Parent Home Locations

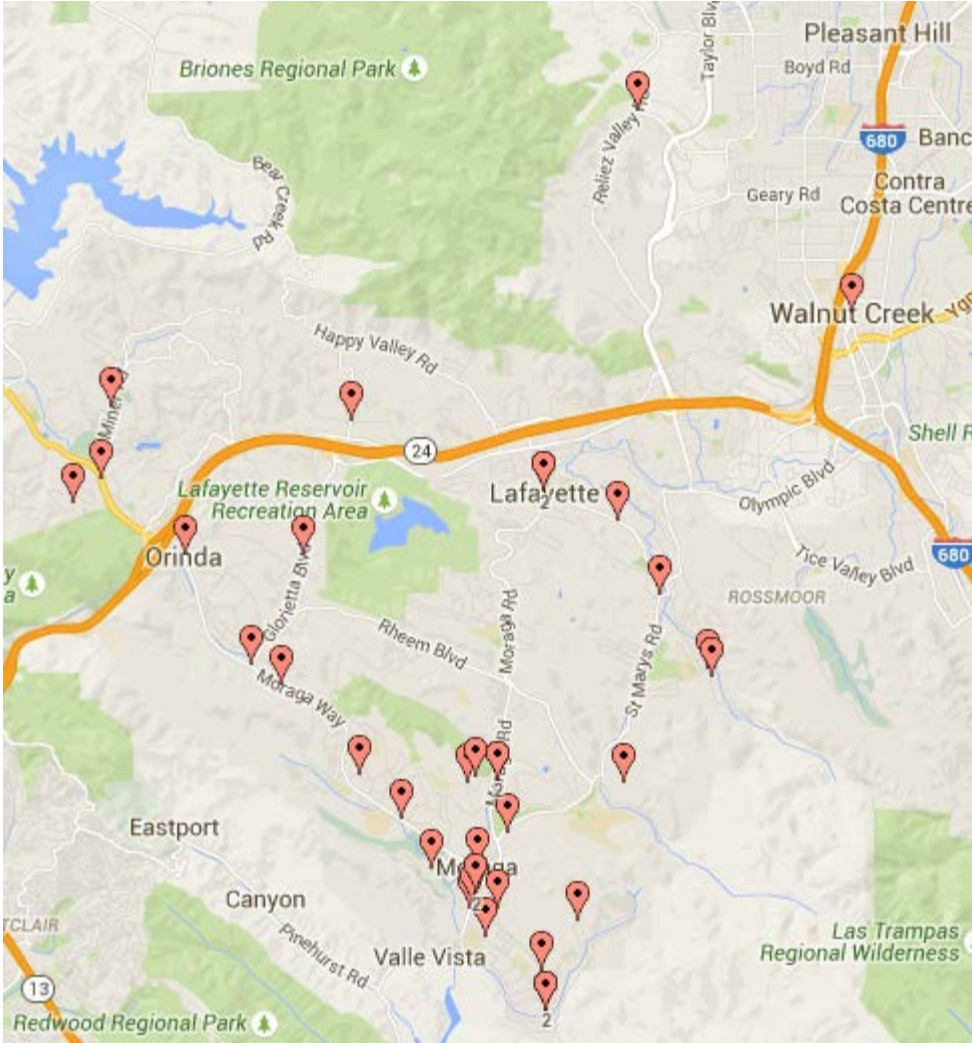
Figure 19 Family Home Locations – Lafayette Elementary School



Source: 2015 parent survey; Google Maps; Bat chGeo

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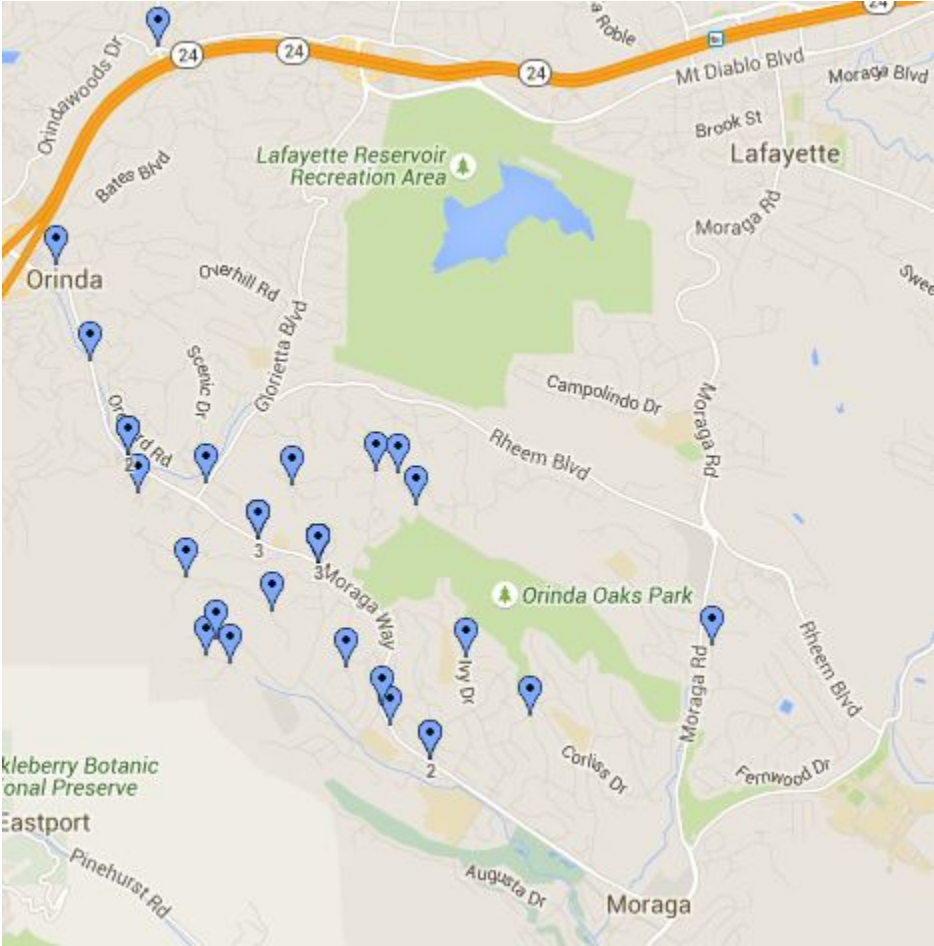
Figure 20 Family Home Locations – Campolindo High School



Source: 2015 parent survey; Google Maps; Bat chGeo

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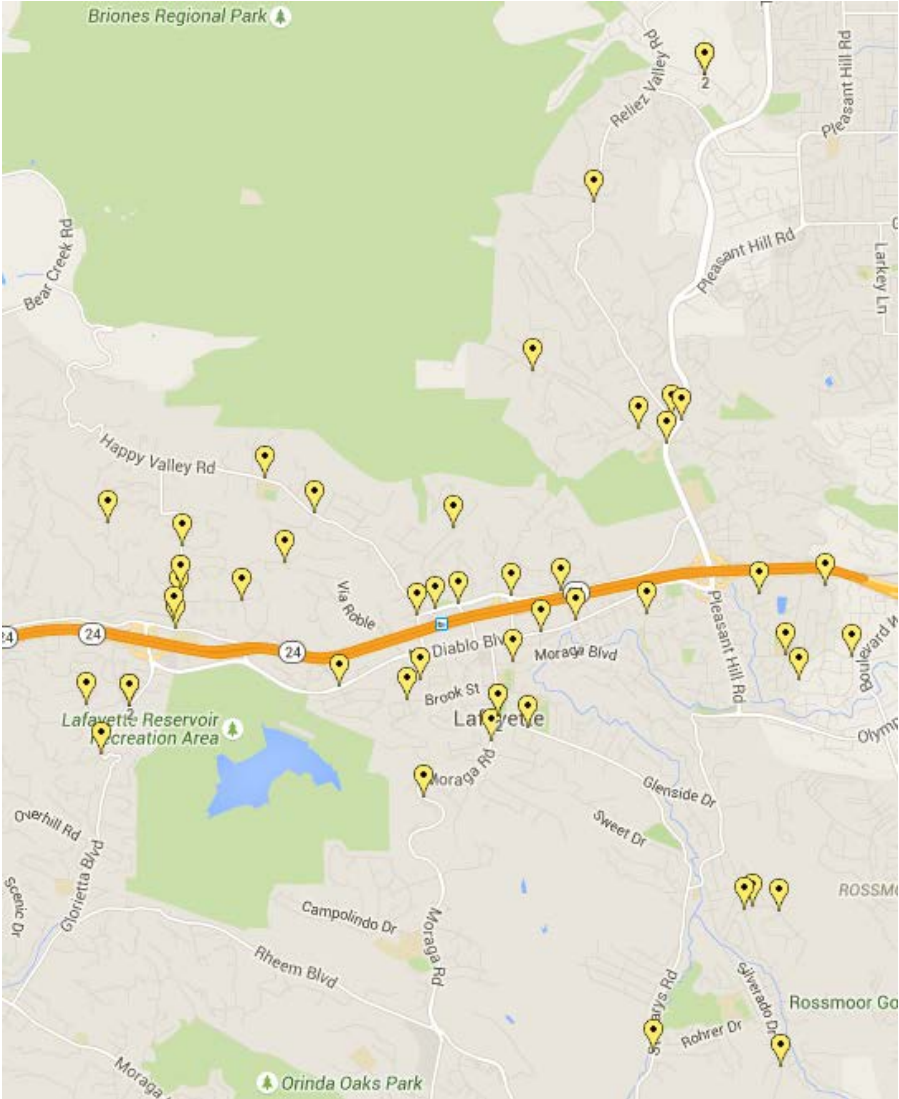
Figure 21 Family Home Locations – Del Rey Elementary School



Source: 2015 parent survey; Google Maps; Bat chGeo

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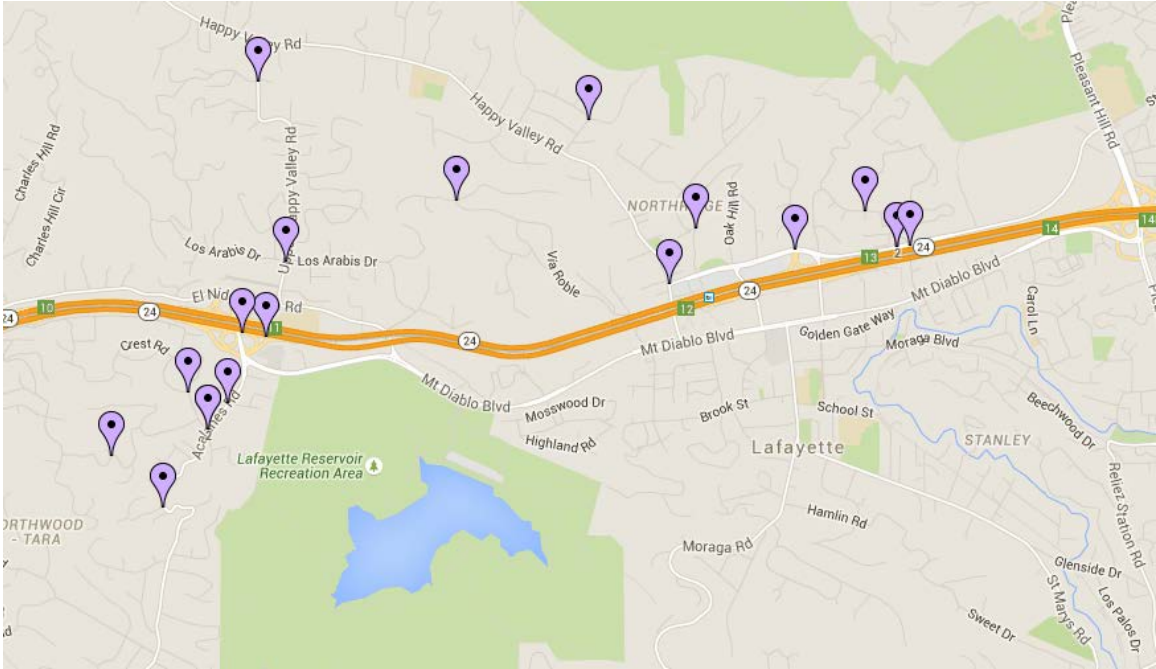
Figure 22 Family Home Locations – Stanley Middle School



Source: 2015 parent survey; Google Maps; Bat chGeo

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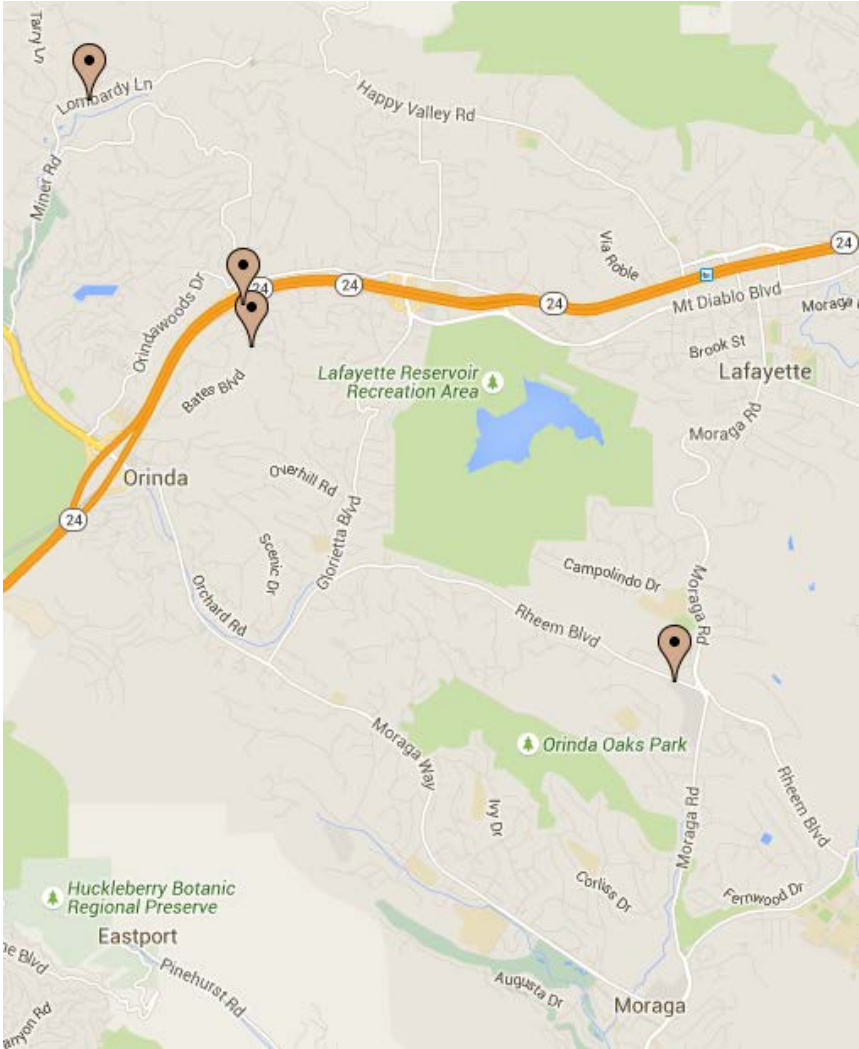
Figure 23 Family Home Locations – Happy Valley Elementary School



Source: 2015 parent survey; Google Maps; Bat chGeo

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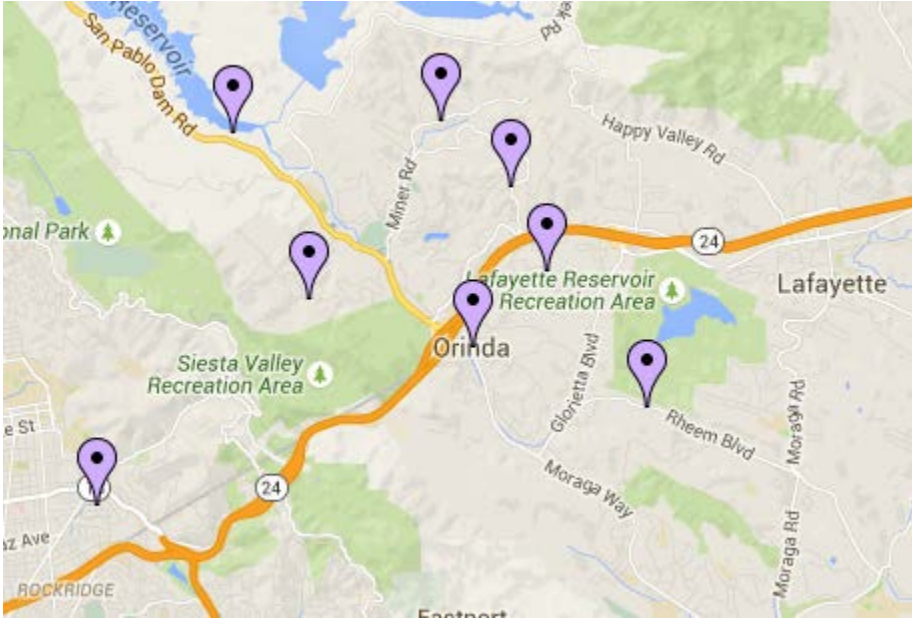
Figure 24 Family Home Locations – Miramonte High School



Source: 2015 parent survey; Google Maps; Bat chGeo

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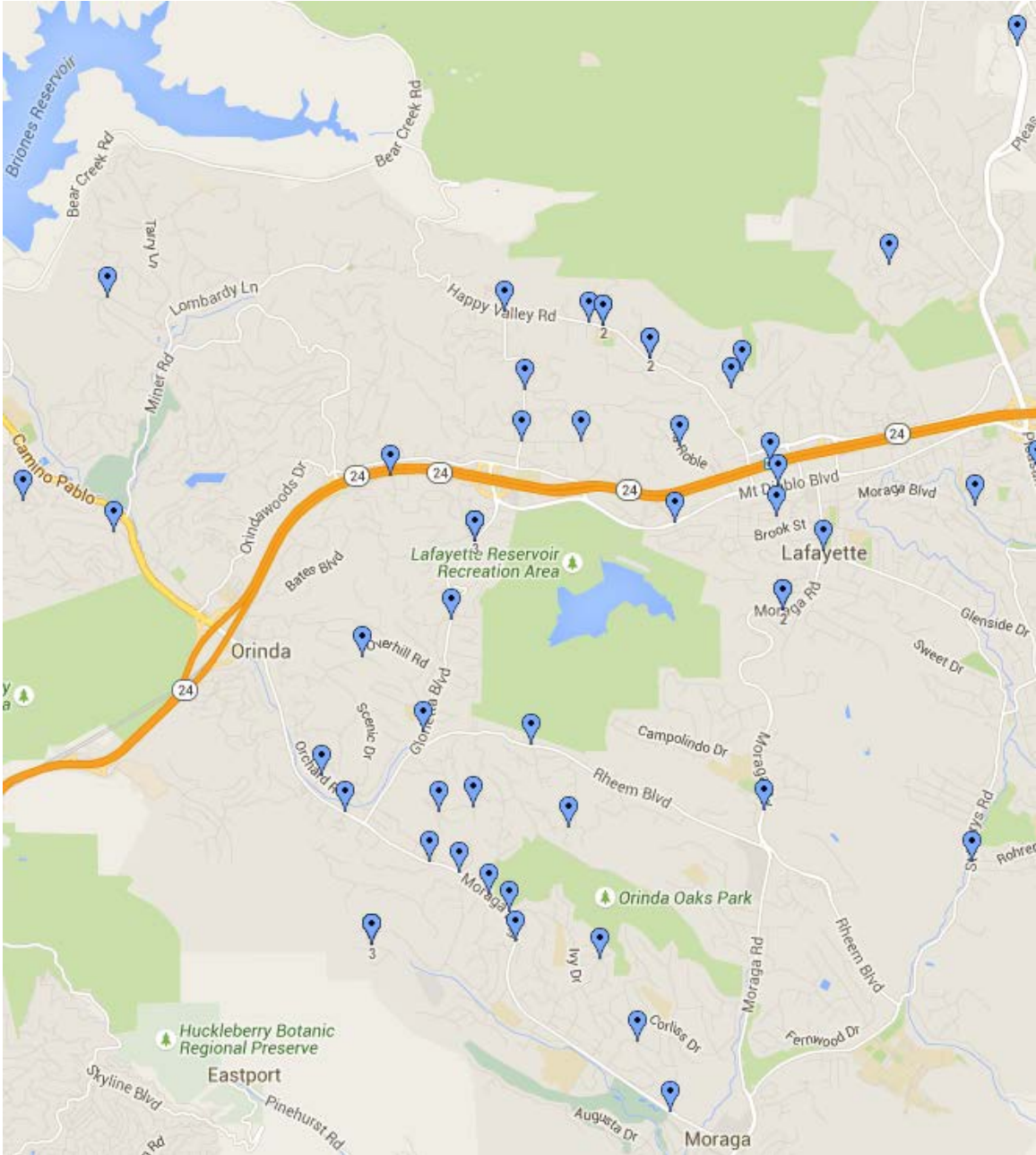
Figure 25 Family Home Locations – Orinda Intermediate School



Source: 2015 parent survey; Google Maps; Bat chGeo

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Figure 26 Parents with Children at Two or More Schools in Lamorinda



Source: 2015 parent survey; Google Maps; Bat chGeo