11. Teri E. Rie, Associate Civil Engineer, Contra Costa County Flood Control & Water Conservation District (web form dated November 5, 2008)

Letter 11

11/5/2008

Teri Rie
Associate Civil Engineer
Contra Costa County Flood Control & Water Conservation District

Subject: EBART DEIR and draft hydrology report

Hi Katie,

11-1 Is the draft hydrology report part of the DEIR? It is only referenced by footnotes, and is not included in the Appendix. The Flood Control District has several comments on the report, however we are not sure what the review and comment process is for the draft hydrology report. We will be faxing comments to you on the DEIR, however the comments will not include the comments for the draft hydrology report. Please clarify. Thanks Teri Rie

(925) 313-2363

11. Contra Costa County Flood Control & Water Conservation District, Teri E. Rie (letter dated November 5, 2008)

11.1 The WRECO Report is a Technical Report that was prepared for the engineering design team and used as a reference in Section 3.8, Hydrology, of the Draft EIR. The WRECO report is not an appendix to the Draft EIR. A copy of the report is available for review at:

San Francisco Bay Area Rapid Transit District
Contact: Katie Balk
300 Lakeside Drive, 16th Floor
Oakland, CA 94612
(866) 596-BART

The document can also be downloaded from the BART website:
www.ebartproject.org/docs.php?ogid=1000001103

12. Mark A. Seedall, Senior Planner, Contra Costa Water District (letter dated October 29, 2008)

Letter 12

CONTRA COSTA
WATER DISTRICT

1331 Concord Avenue
P.O. Box H20
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122

October 29, 2008

VIA FACSIMILE (510) 464-7673
Hard Copy to Follow

Ms. Katie Balk
BART Planning Dept.
300 Lakeside Dr.
Oakland, CA 94612

Subject: Comments on the Draft Environmental Impact Report for eBART-East Contra Costa BART Extension

Dear Ms. Balk:

The Contra Costa Water District (CCWD) has reviewed the Draft Environmental Impact Report for the eBART- East Contra Costa BART Extension.

12-1 CCWD manages and maintains water facilities that are owned and operated by the United States Bureau of Reclamation (Reclamation). This includes the Contra Costa Canal (Canal) as well as a number of untreated water laterals. The Canal crosses under State Route 4 approximately 1000 feet east of Bailey Road, between the Pittsburg/Bay Point BART Station and the proposed DMU transfer station. In addition to the Canal, Reclamation has easements for 3 untreated water pipelines, Laterals 7.3, 9.1, and 14 within the footprint of the transportation corridor. CCWD also owns the 42-inch diameter Multi-Purpose Pipeline that is within the Reclamation-owned property. The BART project has the potential to adversely affect the Canal and the laterals in the BART project area, as well as CCWD's Multi-Purpose Pipeline.

CCWD recommends that conditions for approving the project include the following:

12-2 -NEPA review is required for any actions required by Reclamation, with respect to its fee-owned property and easements.

-All issues potentially affecting Reclamation property should be thoroughly reviewed before approval of the project. Please contact Dino Angelosante at (925) 688-8152 if there is any need to encroach upon Reclamation property.

12-3 -BART shall provide to CCWD details on how their contractor will prevent the project from potentially impacting the Canal, laterals, and Multi-Purpose Pipeline during construction.

12-4 -CCWD should review the proposed project drainage plan. Drainage from the project should avoid the adjacent Contra Costa Canal.

12-5 -A six foot high property line fence is required to protect the Canal as well as a liner fence, if not already installed. Any damage to existing Canal fences from construction must be repaired to the satisfaction of CCWD.

12-6 -Reclamation and CCWD pipelines must be protected from damage by heavy construction equipment possibly crossing or working adjacent to the Canal, the existing laterals, and the Multi-Purpose Pipeline. Prior to any grading or crossing of these facilities with heavy equipment, BART must provide CCWD with information on the type and weight of equipment that will be crossing the facilities, identify how their work may impact the existing facilities, and identify their proposed mitigation and protection measures.

12-7 - If a shutdown of Reclamation laterals is required for any reason, BART and their contractor must comply with CCWD's requirements for maintaining service to existing treated and untreated water customers. BART shall be responsible for any costs incurred by CCWD to repair any damage to Reclamation or CCWD pipelines and services.

Please contact Chris Hentz at CCWD regarding engineering issues at (925) 688-8311. Alternatively, I may be contacted at (925) 688-8119 should you have further questions.

Sincerely,

Mark A. Seedall
Senior Planner

MAS/jmt

12. Contra Costa Water District, Mark A. Seedall (letter dated October 29, 2008)

12.1 The Contra Costa Water District (CCDW) has a number of facilities within the footprint of the transportation corridor. The Contra Costa Canal crosses SR 4 approximately 1,000 feet east of Bailey Road. This location would be approximately 500 feet west of construction for the proposed DMU transfer platform, and the canal would not be affected by construction for the Proposed Project. CCWD also has three laterals and one multi-purpose pipeline that are within the project footprint. The multi-purpose pipeline runs parallel to and within the same right-of-way as the Contra Costa Canal. As with the canal, it would not be impacted by the Proposed Project. Lateral 14 crosses the Proposed Project alignment approximately midway between Loveridge Road and Somersville Road. Lateral 9.1 crosses the project alignment east of Hillcrest Avenue, slightly east of the DMU platform for the Median Station. The third lateral, 7.3, is east of SR 160 and may cross the non-revenue DMU track connecting the remote maintenance facility under the Northside West and Northside East Stations options. BART would be required under the California Government Code (Section 4216-4216.9) to notify and coordinate with the CCWD prior to commencement of the construction of the Proposed Project.

12.2 The commentor recommends that the conditions for approving the project include National Environmental Policy Act (NEPA) review for any actions required by the United States Bureau of Reclamation (Reclamation), with respect to its fee-owned property and easements. BART will comply with applicable NEPA requirements if Reclamation facilities are impacted.

12.3 As noted in Response 12.1 above, BART is required under the California Government Code (Section 4216-4216.9) to notify and coordinate with the CCWD prior to commencement of the construction of the Proposed Project. Providing details of project construction and protection of CCWD facilities during construction will be part of the coordination process.

12.4 The Contra Costa Canal is close to the Proposed Project alignment at both the west and east ends of the alignment. At the west end, it is approximately 500 feet west of the construction of the DMU transfer platform. No construction impacts to the Contra Costa Canal are expected at for this facility. At the east end of the alignment, the canal is immediately south of the proposed site for the remote maintenance facility, which could be constructed as part of either the Northside West or Northside East Station options. As acknowledged by the Draft EIR (page 3.8-35), sediment and silt from the construction activity could potentially affect the canal. Implementation of Mitigation Measures HY-8.1, HY-8.2, and HY-9.1 would reduce potential erosion, siltation, and construction flooding impacts to a

less-than-significant level. Between the two ends of the alignment, the Proposed Project would operate primarily in the median of SR 4. A drainage plan for the Proposed Project's facilities in the median of SR 4 is being prepared in coordination with Caltrans. Drainage collected in the SR 4 median would be conveyed via Caltrans cross drains that are part of the SR 4 freeway facilities. No drainage is expected to enter the Contra Costa Canal. However, the Draft EIR, on page 3.8-33, under Mitigation Measure HY-9.1, requires BART's contractor to prepare a drainage plan for the Hillcrest Avenue Station option, for review by the City of Antioch and the CCCFCWCD. The mitigation measure on page 3.8-33 of the Draft EIR is revised as follows to acknowledge CCWD's involvement.

HY-9.1 Prepare and implement drainage plan. BART shall ensure that the contractor prepares a hydraulic analysis and drainage plan for the Hillcrest Avenue Station option, for review by the City of Antioch~~,~~ ~~and~~ the CCCFCWCD, and the CCWD. The drainage plan shall include a drainage study (hydrologic analysis) for review by the CCCFCWD. The purpose of the drainage plan is to help control the additional surface water runoff expected from the project in accordance with the NPDES C.3 provisions and input from the local agencies. BART will then ensure that the contractor implements the drainage plan to safely and efficiently convey stormwaters from the remote maintenance facility.

12.5 BART acknowledges that fences protecting the canal should be installed and maintained and any construction damage to the fences should be repaired to the satisfaction of CCWD.

12.6 BART agrees that existing pipelines must be protected from damage from heavy construction equipment. See Response 12.1 above regarding BART's requirement to notify and coordinate with the CCWD prior to commencement of construction activities.

12.7 BART and its contractors will comply with CCWD's requirements for maintaining service to water customers and for repairing any damage to Water District facilities. As described on pages 3.14-8 and 3.14-9 of the Draft EIR, Mitigation Measures UT-3.1, UT-3.2, and UT-3.3 would ensure that BART and its contractors restrict service interruptions to off-peak periods, arrange temporary backup service, and notify customers of planned service interruptions.

13. Victor Carniglia, Deputy Director, Economic Development, City of Antioch (letter dated November 4, 2008)

Letter 13

OFFICE OF CITY MANAGER

CITY OF ANTIOCH CALIFORNIA

November 4, 2008

Ellen Smith
eBART Project Manager
BART
300 Lakeside Drive
Oakland, CA 94612

Dear Ellen,

We appreciate the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the East Contra Costa BART Extension (eBART). The document is well written and presents the relevant information in a clear, easy to read manner.

Our comments are organized topically, starting with transportation related issues which are clearly central to the success of this project.

Transportation:

1. General Comment, Philips Ave. Hwy. 4 Interchange: The City of Antioch, in January 2006, retained the transportation engineering firm of Fehr and Peers, to prepare a study to determine the best way to address the access constraints in the Hillcrest eBART station area. This traffic study concluded that a new interchange, to be constructed at the extension of Philips Lane and Hwy. 4 (the Philips/Hwy. 4 Interchange), would act to alleviate existing and projected traffic congestion in and around the Hillcrest eBART station area. As a follow up to this analysis, the City in 2007 initiated the preparation of a Project Study Report (PSR) with CALTRANS for a new interchange to be constructed at the future extension of Philips Lane and Hwy. 4.

13-1

The City acknowledges that at this point in time the proposed Philips/Hwy. 4 Interchange is still speculative, as any action on the Philips/Hwy. 4 Interchange is pending before CALTRANS, and no funding to date has been secured for the construction of the Interchange. As a result, the City understands why the Philips/Hwy. 4 Interchange was not included in the traffic analysis of the DEIR as part of the future transportation network. However, given the potential benefits of the Philips/Hwy. 4 Interchange in relieving existing and projected traffic congestion, the City is requesting that BART include in the FEIR a description of the proposed Philips/Hwy. 4 Interchange and a qualitative discussion of the benefits of such an interchange. We are in the process of preparing language that BART can choose to insert in the FEIR to provide this description and qualitative discussion of the Philips/Hwy. 4 Interchange, which we will forward to you in the near future.

P.O. Box 5007
Antioch, CA 94531-5007
(925) 779-7011
FAX (925) 779-7003

13-2

2. Pg. 3.2-104: As the DEIR acknowledges, the Union Pacific Railroad (UP) has stated their intent to run freight traffic on the existing rail line (the Mococo line) that is located just north of the proposed Hillcrest eBART Station. The DEIR attempts to quantify the impacts of Union Pacific (UP) running freight trains on this existing rail line by analyzing the impact of a one mile long train traveling during the am peak hour. The DEIR analysis is structured in such a way that it presents the analysis in terms of the average delay per automobile. Unfortunately, this methodology does not appear to fully characterize the extent of the "gridlock" that is likely to occur in the area with the initiation of freight rail service by UP on the Mococo line.

   Analysis prepared recently by the City's transportation consultant, Fehr and Peers, as part of the Philips Interchange PSR process, utilizes a methodology that the City feels presents a clearer picture of the severity of the impacts created by UP initiating freight rail service on the existing Mococo rail line. The City requests that BART utilize in the EIR a methodology similar to that used by Fehr and Peers to present a more "real world" analysis of this important issue. As it now stands, the analysis in the DEIR, while likely technically accurate, is structured in such a way that it downplays the real world impact of UP initiating train service, and as a result undercuts the rationale for a grade separation at Hillcrest and the UP tracks.

13-3

3. Pg 2-19: The text states that Slatten Ranch will not be extended further east as part of the project. The EIR should clarify that the Project is building a short portion of Slatten, not the portion of Slatten adjacent to the Project's frontage.

13-4

4. Pg. 3.2-102: This section addresses the question of what will be the 2015 traffic impacts if both the Slatten Ranch Road extension from its current terminous north of Lone Tree Way to Hillcrest Ave., and the Viera extension from E. 18th to Slatten Ranch Road are not completed by 2015, as assumed in the DEIR. This "what if" analysis comes to the conclusion that most of the intersections in the area actually get worse with the construction of Slatten Ranch Road extension and the Viera extension. In addition, the roadway that should benefit most from the completion of the Slatten Ranch Road and Viera extensions, namely pm traffic on SR4 eastbound ramps at Hillcrest, shows almost no benefit of Slatten Ranch and the Viera extensions being constructed. The traffic analysis in the DEIR concludes that constructing Slatten and Viera extensions improves the volume to capacity ratio on SR4/Hillcrest Eastbound ramps by the very small amount of .01 (from 1.59 to 1.58).

   The reality is that Slatten and Viera will provide a "back door" for east bound pm traffic and should have a significant "real world" benefit on the SR4 eastbound ramps in the pm peak. The DEIR analysis is structured in such a way that a reader could come to the conclusion that traffic would be improved by not building Slatten or Viera. The EIR needs to be revised to provide a more realistic comparison of the projected traffic levels of service in 2015 with and without the Slatten Ranch and Viera extensions.

2

13-5

5. General comment: The transportation impacts and parking demand on the Hillcrest eBART station will be created by traffic generated in Antioch, Oakley, Brentwood, and the County driving to and parking at Hillcrest eBART. The EIR needs to document the projected ridership (and hence traffic volumes) attributable to each community when the Hillcrest eBART station open in 2015, and in 2030. This information will help to inform discussions by decision makers on the question of fair share of traffic, parking, and other impacts created by the eBART system.

Parking:

13-6

6. Pg 3.2-31: What will happen to the existing park and ride lots in Brentwood and Discovery Bay? These lots may no longer have the same utility with the Hillcrest eBART station.

Project Description:

13-7

7. Pg. 2-30-2.32: The plan and text showing the East Median option needs to be revised to be consistent with the City's East Median/Philips Option. This Option should clearly indicate that a second eBART station would be developer funded.

13-8

8. General Comment: This section, and the DEIR as a whole, could do a better job of providing a meaningful qualitative or quantitative comparison of the relative benefits of the various Hillcrest station location options being considered in the DEIR. The DEIR equivocates on this issue, stating there are benefits and drawbacks between the various alternatives. For example, in the Summary on pg. S-15 the text states that the station location "*options have advantages and disadvantages when compared to the proposed project, but are more expensive*". The few instances where there is an actual comparison between the various station location options occurs for issues where the proposed project has less of an impact, such as amount of land acquisition required.

   In reality, the three optional station location options for Hillcrest eBART, namely Northside West, Northside East, and Median East/Philips, would have real, tangible benefits to the eBART system. The following table provides a qualitative comparison of all the different station locations being studied in the EIR based on relevant criteria other than cost. This type of table or something similar should be included in the FEIR.

3

Table: Comparison of Hillcrest eBART Station Location Options

13-8 (cont'd)

	Relevant Criteria to Compare Station Locations					
Station Location	**Supportive of Transit Oriented Development (TOD)**	**Increased Ridership due to TOD**	**Flexibility for Future Extensions**	**Aesthetic and Visual Benefits**	**Potential for Public/ Private Partnerships**	**Flexibility to Meet Long Term Parking Demand**
Proposed Project	Good	Good	Better	Good	Good	Good
Northside West	Better	Better	Good	Better	Better	Better
Northside East	Better	Better	Good	Better	Better	Better
Median East/Philips	Best	Best	Best	Better	Best	Best

13-9

Security:

9. The EIR indicates that there will be no on site employees to "man" the eBART stations. More information needs to be provided on what type of security measures will be utilized at the stations to ensure the safety of the riders.

13-10

Visual Analysis:

10. Section 3.5: The "Simulated View" in Figure 3.5-9 shows a "blocky" metal building bordered by barbed wire fencing in the median. A visual analysis needs to be done that provides a more complete picture of the Proposed Project's visual impacts given the building, structures, and fuel tanks needed both inside and outside the median as outlined on Pg. 2-20.

Once again, we appreciate the opportunity to comment on the Draft EIR for the eBART extension to East County, and look forward to reviewing the Final EIR. If you have any questions concerning these comments, please feel free to contact me at (925) 779-7036 or e mail me at vcarniglia@ci.antioch.ca.us.

Sincerely,

Victor Carniglia
Deputy Director Economic Development

cc: City Council
Jim Jakel, City Manager
Martin Engelmann, CCTA

4

13. City of Antioch, Victor Carniglia (letter dated November 4, 2008)

13.1 Because of the uncertain status of the Phillips Lane interchange proposal, it was not included as a future transportation improvement project in the Draft EIR. In order to better recognize the status and implications of this project, the third paragraph on page 3.2-69 of the Draft EIR, is revised as follows:

> The CCTA and Caltrans have plans to improve the Hillcrest Avenue interchange as a part of the SR 4 widening project. These plans eliminate the intersection of SR 4 Westbound Ramps/Hillcrest Avenue by providing a new northbound to westbound loop on-ramp and improve and widen the approaches to the SR 4 Eastbound Ramps/Hillcrest Avenue intersections. These improvements would mitigate the impacts at the SR 4 Westbound Ramps/Hillcrest Avenue intersections but would not mitigate the impacts at the SR 4 Eastbound Ramps/Hillcrest Avenue intersection. These improvements are prohibitively costly in the near term and there is no identified funding that would allow this project to be completed by the Year 2015. It is expected, however, that these improvements would be funded and in place by the Year 2030. Further improvements to address the conditions at the SR 4 Eastbound Ramps/Hillcrest Avenue intersection have been studied by the City of Antioch. ~~but have been determined to be infeasible due the potential displacement of homes and commercial property.~~ The most comprehensive evaluation of alternative improvements for the Hillcrest Avenue interchange is the City of Antioch's "Northeast Antioch Circulation and Access Study" dated May 2, 2005. The following excerpts offer a summary of the alternative improvements that were evaluated in that report:
>
> - A-1 – *CCTA Route 4/Hillcrest Env Doc Improvements + WB Loop on-ramp, and reconstruct EB off-and on-ramps* – This is the planned SR 4 widening project for the interchange. The analysis indicated that it would be sufficient to accommodate Year 2030 traffic.
>
> - A-2 – *Hillcrest loop ramp collector distributor system with realigned Larkspur/Tregallas* – The report indicated that the cost of this improvement would be approximately $50 million and that it would have major impacts to an existing commercial center, church, and vacant developable property.

- A-3 – *Reconstruct Hillcrest interchange as a single-point urban interchange* – The report indicated that the cost of this improvement would be approximately $100 million and that it would have insufficient operations benefit on Hillcrest due to the close spacing of the required intersections.

- A-4 – *Reconstruct Hillcrest interchange along an alignment perpendicular to Route 4* – This option involved the construction of a completely new interchange located to the east of the current interchange. The cost of this project was reported as $150 million and it would involve realignment of Larkspur/Tregallas and acquisition of church, office, commercial, and vacant commercial property (greater than with A-2).

- A-5 – *A-1 + construct a local north/south over-crossing (over Route 4) to relieve Hillcrest traffic* – The cost of this option was placed at less than $50 million. It would involve realignment of Larkspur/Tregallas and acquisition of church, office, commercial, and vacant commercial lands.

- A-6 – *A-1 + construct Viera Avenue Undercrossing* – The cost of this option was placed at less than $50 million. It would involve acquisition of single-family homes and Hillcrest Park parking lot to accommodate the lowering of Larkspur Drive at Viera undercrossing. It would provide no long-term improvement to the Hillcrest interchange.

The study also identified two potential new interchange concepts to address the problem:

- B-1 – *Relocate Hillcrest interchange east to Hillcrest Park* – The cost of this project was identified as approximately $100 million. It would involve tremendous impacts to a residential area due to the new connection with Hillcrest Avenue, realignment of local roads and topography, and a major design exception for non-standard interchange spacing.

- B-2 – *Route 4/Route 160 Interchange with local interchange (Phillips Lane)* – This project involves a new interchange in addition to the Hillcrest Avenue interchange. The cost was identified as less than $150 million. Unlike the other projects A-2 through A-6 and B-1, it would not involve acquisition of existing developed properties south of the freeway, but would

require purchase of vacant lands north of the freeway. It would involve a design exception for interchange spacing. The City of Antioch is currently pursuing the approvals to implement this project.

The report also evaluated a series of improvements involving creation of a new interchange at Oakley Road and SR 4/SR 160, coupled with improvements at the East 18th Street interchange. Five of the six options involve new freeway ramps connecting to Oakley Road. The report notes that each of these options involves a major design exception for interchange spacing. Only option C-6, which is termed the *SB East Eighteenth/Main St Hook Ramp option*, would not involve design exceptions. This option involves construction of a new roadway link running parallel to and west of SR 160 between East 18th Street and Oakley Road. The southbound SR 160 on and off-ramps at East 18th Street would then be rebuilt as hook ramps that intersect with this new roadway. This would simplify the East 18th Street interchange and provide a "back door" access route to the Hillcrest Avenue Station area. Traffic using this new route to access the station would not have to use the Hillcrest Avenue interchange. However, because the roadway network assumed for the Year 2030 in the Draft EIR already assumed a connection from East 18th Street to Oakley Road and Slatten Ranch Road via either Viera Street or Phillips Lane, the traffic forecasts already include the sub-regional benefit of this improvement. There would be a localized improvement in conditions at the East 18th Street interchange, but no improvement at the Hillcrest Avenue interchange beyond that already accounted for in the Draft EIR due to the new connection between East 18th Street and Oakley Road that the City of Antioch is planning. Based on the evaluation of all of the above options, the study concluded that there were three primary options to improve freeway access:

1. Major modifications to the SR 4/Hillcrest Avenue interchange, with minor modifications to the SR 160/East Eighteenth interchange;

2. A new interchange at SR 4 and the Phillips Lane extension; and

3. Major modifications to the SR 160/East Eighteenth interchange, with minor modifications to the Hillcrest Avenue interchange.

The City of Antioch and the CCTA have reviewed all of the alternatives that fall under option 1 above for improvements at the SR 4/Hillcrest Avenue interchange. It was concluded that only option A-1

which is the interchange improvement project assumed in this EIR for the Year 2030 is feasible. Option A-2 would provide substantial mitigation beyond that provided by Option A-1, but it has been rejected because of its high cost and major disruption to commercial and residential property in the area. Option A-3, which requires a new freeway ramp connection to Oakley Road, involves significant design exceptions and would only provide minor relief in term of mitigation at the Hillcrest Avenue interchange.

Based on these findings, the City of Antioch has elected to pursue option 2, a new interchange, to be constructed at the extension of Phillips Lane and SR 4 (the Phillips Lane/SR 4 Interchange). While this improvement would help to accommodate the projected traffic growth in the Hillcrest Avenue Station Area, it would not fully mitigate the impacts at the Hillcrest Avenue interchange. As a follow up to this analysis, the City in 2007 initiated the preparation of a Project Study Report with Caltrans for a new interchange to be constructed at the future extension of Phillips Lane and SR 4.

It is important to acknowledge that the proposed Phillips Lane interchange is still speculative, because action on the interchange is still pending before Caltrans, and no funding has been secured for the construction of the interchange. For these reasons, this project was not viewed as a feasible mitigation for the impacts at the SR 4 Eastbound Ramps/Hillcrest Avenue.

During the preparation of the EIR, another alternative was identified to address the impacts at the SR 4 Eastbound Off-Ramp/Hillcrest Avenue intersection. This alternative would involve a realignment of Tregallas Road to bring its eastern terminus at Hillcrest Avenue directly into the intersection of the eastbound SR 4 ramps and Hillcrest Avenue. This would create an intersection which five legs or approaches. In addition:

- The signal timing would be designed so that right-turn movements from the SR 4 eastbound off-ramp, Tregallas Road and Larkspur Drive would overlap with through/left-turn movements to improve operations.

- Larkspur Drive would be changed to a right-in/right-out operation only. Hence, the southbound left turn from Hillcrest Avenue into Larkspur Drive would be eliminated along with the eastbound turn movement along the SR 4 eastbound off-ramp and Tregallas Drive.

This alternative would provide improved traffic operations and prevent queues on the eastbound SR 4 ramps from extending into the mainline of the freeway. It would adversely impact access and egress for the residential neighborhood served by Larkspur Drive. It also would conflict with one of the towers supporting the high voltage electrical lines which pass through the area.

A queuing analysis was performed by conducting traffic simulations of the operation of all the study intersections in the Hillcrest Avenue interchange area. This analysis also allows the optimization of the signal timing and coordination in the area. The analysis indicated that the queuing on the SR 4 Eastbound ramps in the PM peak hour could be reduced substantially with signal improvements. With implementation of the mitigation measure below, the impacts would be reduced. For example, the ramp would be 1,360 feet in length and the maximum estimated queue would be 820 feet, no longer extending into the mainline of the freeway. Without the signal timing improvements, the estimated queues were over 2,400 feet in length. However, even with the signal timing improvements, the level of service at the SR 4 Eastbound Ramps/Hillcrest Avenue intersection would remain at level of service F. As a result, the impacts at this location would be substantially reduced but would still be significant and unavoidable.

It is important to note that BART, the CCTA, and the City of Antioch continue to work with Caltrans to seek solutions to the traffic impacts at this interchange. Plans for the widening of SR 4 in this area are subject to review and refinement to address funding issues and the need to accommodate the Proposed Project. Also, the recent opening of the SR 4 Bypass has altered traffic patterns in the area. Once these changes are better understood, minor changes in geometrics and traffic signal timing and coordination modifications may serve to lessen the impacts at this location. However, all the parties involved have yet to find a feasible solution to the cumulative growth in traffic at this location. Thus, the impact at these two intersections is assumed to remain significant and unavoidable in the Year 2015. (SU)

TR-1.3 Hillcrest Avenue Interchange Area Traffic Signal Improvements. The traffic signals of the Hillcrest Avenue interchange area shall be interconnected and a coordinated traffic signal optimization plan which is designed to limit the queuing on the SR 4 eastbound off-ramp shall be implemented. The intersections to be included are Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway, Sunset Drive/Hillcrest Avenue, SR 4 Westbound Ramps/Hillcrest

Avenue, SR 4 Eastbound Ramps/Hillcrest Avenue, Larkspur Drive/Hillcrest Avenue, and Davison Drive/Hillcrest Avenue – Deer Valley Road. Modification of the above signal operations by year 2015 is the responsibility of the City of Antioch. BART would contribute its fair share of the actual costs of signal interconnection and development of an optimization plan. In the year 2030, the intersection of SR 4 Westbound Ramps/Hillcrest Avenue would no longer exist due to the planned interchange improvements and a new intersection at SR 4 Westbound/Sunset Drive would be added to the signal system.

13.2 The analysis in the EIR to address a potential increase in train traffic on the Union Pacific Railroad Mococo Line does not understate the potential impacts. However, the text of the EIR is modified to clarify and expand upon the results of this analysis. The fifth paragraph on page 3.2-103 of the Draft EIR is revised as follows:

> To provide some information regarding the potential impacts on train operations, a traffic simulation was done for Year 2030 with Proposed Project conditions. The analysis assumed operation of a single mile-long train through the area during the peak hour. The analysis indicated that the closing of the railroad crossing gates which are located just north of the Hillcrest Avenue/Sunset Drive intersection would cause substantial increases in the queuing of traffic. The most critical queuing would occur south of the intersection on Hillcrest Avenue where the queues would extend well into the SR 4 interchange complex. The analysis indicated that these queues would prevent the free movement of traffic to and from the SR 4/Hillcrest Avenue interchange ramps. This would cause traffic to queue on the eastbound and westbound off-ramps. These queues would extend onto the mainline of SR 4 causing delays for through traffic on the freeway as it attempts to pass this location. Average delays at the Hillcrest Avenue/Sunset Drive intersection during the AM peak hour when the train is passing through the crossing would be 4.5 minutes per vehicle. ~~would increase from 15.9 seconds per vehicle to 28.6 seconds per vehicle~~. During the PM peak hour, delays would also increase substantially. The vehicle queues from these train operations would block access and egress to the Hillcrest Avenue Station as well as to other existing and planned development in the area.

13.3 The Proposed Project would provide access to the Hillcrest Avenue Station from the intersection of Hillcrest Avenue and Sunset Drive, which serves the existing park-and-ride lot. Sunset Drive would be used to serve the initial 1000-space parking area, and improved to enhance bus, bicycle, and pedestrian access. From the new parking area, a road may extend east to serve the maintenance annex as shown in Figure 2-8. While the Proposed Project is not building a portion of Slatten Ranch Road unless funding is provided by others to cover the additional costs, construction of the station and station access would not preclude the future construction of Slatten Ranch Road as outlined in the City's RDP. Additional access road extensions would be made, as necessary, to serve the 1,600 parking spaces north of the UPRR (see Figure 2-8), if the City's road network as proposed in its RDP is not realized by the time additional parking is required and structured parking has not been provided. The second paragraph on page 2-19 of the Draft EIR is clarified as follows:

> **Vehicle Access and Parking.** An approximately 40-acre parking area for 2,600 parking spaces is planned on the north side of SR 4. Construction of the parking would take place incrementally; approximately 1,000 spaces (including 20 ADA spaces) on approximately 20 acres would be constructed as part of the initial phase (by the year 2015) and the remainder by 2030 (see Figure 2-8). The parking area is located in the northeast quadrant of the SR 4/Hillcrest Avenue interchange, near the current BART park-and-ride lot. The Proposed Project would provide access to the Hillcrest Avenue Station from the intersection of Hillcrest Avenue and Sunset Drive. Sunset Drive is currently a dedicated road from that intersection to the existing park-and-ride lot. The existing roadway would be improved to accommodate the initial 1,000-space parking area and provide enhanced bus, bicycle, and pedestrian access to the parking lot and station. From the new parking area, a road may extend far enough to the east to serve the maintenance annex, but would not extend beyond that. Additional access road extensions would be made in the future, as necessary, to provide access to the additional 1,600 parking space north of the UPRR, if the City's anticipated road network is not realized by the time additional parking is required.
>
> The City's Specific Plan envisions the integration of the future surface parking lots with future development by satisfying parking demand through structured parking rather than surface lots. ~~The future surface parking lots may be integrated with future development envisioned by the City's Ridership Development Plan, or satisfied on the site designated for parking provided during the year of opening through structural parking rather than surface lots.~~ Antioch has agreed to work

with BART and others to secure funding for Hillcrest Station-related parking and access. ~~As part of the Proposed Project,~~ The City of Antioch has planned access improvements that include an extension of Slatten Ranch Road from Hillcrest Avenue to Lone Tree Way and an extension of Viera Avenue to connect with Slatten Ranch Road. ~~would be constructed to provide access to the parking lot. Slatten Ranch Road would extend east only far enough to serve the DMU station and maintenance area but is not planned to extend further as part of the Proposed Project.~~ Construction of the station and station access would not preclude the future construction of Slatten Ranch Road as outlined in the City's plan, and Slatten Ranch Road could be constructed economically as part of the project, if additional funding by others was made available. The construction of Slatten Ranch Road is considered in this document in order to analyze the worse case scenario.

13.4 In response to this comment, the analysis presented on page 3.2-102 of the Draft EIR is augmented. The analysis in the Draft EIR included an evaluation of the impacts of Proposed Project related traffic only, with and without Slatten Ranch Road, as well as consideration of non–project related traffic growth that could occur with the development of Slatten Ranch Road. The analysis also included regional traffic that would use Slatten Ranch Road as an alternative route to SR 4 and the SR 4 Bypass. With the combined effects of all three of these traffic sources, it is difficult to understand the actual effect of Slatten Ranch Road on the traffic impact of the Proposed Project. To provide further information and to isolate the effect of the Proposed Project with and without Slatten Ranch Road, an additional analysis has been provided. This new analysis assumes that there would be no change in non-project-generated traffic. This is a hypothetical assumption which results in an analysis that shows the impact of the traffic generated by the Hillcrest Avenue Station with and without Slatten Ranch Road. Before presenting the analysis, the first sentence of the second paragraph on page 3.2-102 is revised as follows to clarify the future road network:

> In the Year 2015 when the Proposed Project initiates service, it is possible that Slatten Ranch Road and the planned connection of Viera Avenue to Slatten Ranch Road from E. 18th Street would not be completed.

Table 13-4 provides information on the impacts of the Proposed Project in the Year 2015 with and without the completion of Slatten Ranch Road, assuming there would be no change in the amount of non-project traffic in the area.

Table 13.4
Comparison of 2015 AM/PM Peak Hour Intersection Operations – With and Without Slatten Ranch Road and the Development Assumed with Slatten Ranch Road

		With Slatten Ranch Road			Without Slatten Ranch Road		
No.	**Intersection**	**V/C**	**Delay**	**LOS**	**V/C**	**Delay**	**LOS**
18	Sunset Drive/ Hillcrest Ave.	0.78 (0.78)	22.9 (31.5)	C (C)	0.94 (0.99)	17.3 (28.7)	C (D)
19	SR 4 Westbound Ramps/ Hillcrest Ave.	**1.14 (0.95)**	**59.6 (53.2)**	**E (D)**	**(1.02)**	**(43.7)**	**F (D)**
20	SR 4 Eastbound Ramps/ Hillcrest Ave.	**0.94 (1.58)**	**22.2 (>80.0)**	**C (F)**	**0.92 (1.82)**	**22.2 (>80.0)**	**C (F)**

Source: Wilbur Smith Associates, 2008.

Notes:

Boldfaced type indicates unacceptable values.
0.5 (0.65) – AM (PM)

As shown in Table 13.4, compared to Table 3.2-30 in the Draft EIR which assumes growth of non-project traffic in the area, conditions would generally degrade for the scenario where Slatten Ranch Road was not completed at the Sunset Drive/Hillcrest Avenue and SR 4 Westbound Ramps/Hillcrest Avenue intersections. This result occurs because the non-project related through traffic that would be attracted to Slatten Ranch Road could not occur if the road were not complete, and this traffic more than offsets the increased traffic from the Hillcrest Avenue Station that would occur if Slatten Ranch Road is not available for use east of the station. The absence of Slatten Ranch Road would worsen impacts at the already impacted SR 4 Eastbound Ramps/Hillcrest Avenue intersection. As noted under Impact TR-2, no feasible mitigation has been identified for the SR 4 Eastbound Ramps/Hillcrest Avenue intersection. With the completion of Slatten Ranch Road, some regional traffic would elect to use this route rather than SR 4. This shift in traffic movements would worsen conditions at the SR 4 Eastbound Ramps/Hillcrest Avenue intersection compared with the condition where Slatten Ranch Road is not completed. Without completion of Slatten Ranch Road, the intersection of the SR 4 Westbound Ramps/Hillcrest Avenue would also be affected. However, this impact would be mitigated by the improvements planned by the CCTA to the SR 4/Hillcrest Avenue interchange which would eliminate the SR 4 Westbound Ramps/Hillcrest Avenue intersection.

13.5 The comment requests data on the distribution of ridership demand among the communities of origin for local riders. While these data would not represent an impact requiring consideration in the EIR, BART is providing the data for informational purposes. The following text is added after the second paragraph on page 3.2-57 of the Draft EIR:

> In the year 2015, the ridership demand for the Hillcrest Avenue Station would have the following distribution of origin: Antioch – 46 percent, Oakley – 22 percent, Brentwood – 25 percent, and Byron/Discovery Bay – 7 percent. In the year 2030, the forecast ridership distribution would change slightly to Antioch – 43 percent, Oakley – 22 percent, Brentwood – 28 percent, and Byron/Discovery Bay – 7 percent. The distribution for the Railroad Avenue Station would be 66 percent from Pittsburg and 34 percent from Antioch in both 2015 and 2030.

13.6 The existing park-and-ride lots in Brentwood and Discovery Bay would continue as park-and-ride lots following completion of the Proposed Project. These lots would continue to be served by reconfigured Tri Delta Transit bus lines that would also serve the two new stations of the Proposed Project.

13.7 BART has provided a revised plan for the Median East Station option that would be consistent with the City's scenario for the Hillcrest Station Area Specific Plan. BART's revised Median Station East plan is illustrated in Figure 1-1 of this document. In the revised plan, the DMU maintenance facility has been relocated from the area near the potential Northside East Station site (and Phillips Lane extension) to a more westerly location closer to the Median East Station platform and just east of the Proposed Project's parking lot. This relocation would preserve the potential for construction of the Northside East Station at a time following construction of the Median Station East.

Relocating the DMU maintenance facility would shorten the amount of track necessary, and, because the topography at the new location is more level, grading would be reduced. Both these changes would reduce cost. Preserving the opportunity to construct the Northside East Station would also preserve the possibility of the transit-oriented development around that station and the concomitant economic benefits to the City.

The revised Median Station East plan would not create any new impacts not already identified under the four original station options, and would mitigate some of the impacts related to the original Median Station East option. These reduced impacts would include the reduction of impacts to coastal/valley fresh water marsh, and reduction in grading of the knoll adjacent to the north side of SR 4 (see Section 1.5 in the Introduction to this document).

As noted in the comment, additional funding for the Northside East Station would be provided by the developer. The following text is added after the first sentence of the fourth paragraph on page 2-32 of the Draft EIR:

> In this scenario, the future eBART station in the vicinity of the Northside East Station option would be developer funded.

13.8 The Draft EIR correctly stated that the Hillcrest Avenue Station has various advantages and disadvantages, but all are more expensive than the Proposed Project. The Draft EIR contains extensive discussion of the environmental impacts associated with the options, separately identified for each option under each impact area. Table 13.8 provides a qualitative comparison of how well the different Hillcrest Avenue Station options satisfy the project objectives

13.9 BART will be responsible for security on the Proposed Project, including stations. Security personnel will not be assigned to individual stations, but will patrol the eBART corridor, checking on stations and other facilities. Closed-circuit television cameras would be monitored from the operations center, which would have a communications link to the police. BART anticipates support agreements with the local jurisdictions to enhance security.

13.10 The simulated view of proposed maintenance facility and tailtracks east of the Hillcrest Avenue Median Station in Figure 3.5-9 on page 3.5-28 of the Draft EIR shows the proposed massing of maintenance facility structures. Although details within the maintenance facility area within the SR 4 median have not been finalized, features such as the fueling area and train washer described on page 2-20 of the Draft EIR would likely be located further to the east of this view within the median. In considering additional details as listed on page 2-20 for the maintenance facilities, such as the proposed tailtracks, maintenance facility and storage yard, and features within these areas, the maintenance facilities would still result in a less-than-significant visual compatibility and setting alteration impact because the specific features within the maintenance facilities would not create new features that visually encroach on existing uses.

Table 13.8
Comparison of Hillcrest Avenue Station Options – Satisfaction of Project Objectives

	Project Objectives								
Station Location	**Improve and Enhance Mobility in State Route 4**	**Enhance Access and Connectivity to Transit Systems**	**Promote Transit Oriented Land Use Initiatives and Policies**	**Enhance Economic Benefits**	**Achieve Financial Feasibility[a]**	**Balance Short, Medium and Long-Term Strategies**	**Protect and Enhance the Environment**	**Implement Measure J**	**Provide a Cost Effective and Technology Appropriate System**
Proposed Project	+	+	+	+	+	+	+	+	+
Northside West	+	+	++	+	0	+	0	+	0
Northside East	+	+	++	+	0	+	0	+	0
Median East	+	+	+	+	0	+	+	+	+
Revised Median Station East	+	+	++	+	0	+	+	+	+

Source: PBS&J, 2008.

Notes:
++: Superior at satisfying the Project Objectives
+: Satisfies the Project Objectives
0: Does not satisfy Project Objectives as well
a Station options not presently financially feasible may become feasible if additional funds are secured by or through the City of Antioch (see Tables 2-3 and 2-4 and accompanying text).

14. Casey McCann, Community Development Director, City of Brentwood (letter dated November 10, 2008)

Letter 14

THE CITY OF BRENTWOOD

HERITAGE • VISION • OPPORTUNITY

November 10, 2008

Ellen Smith
eBART Project Manager
Bay Area Transportation District
300 Lakeside Drive
Oakland, CA 94616

Dear Ms. Smith:

Subject: Draft Environmental Impact Report (DEIR) for the East Contra Costa BART Extension (eBART)

Dear Ms. Smith:

Although the public comment period for review of the DEIR has been completed, the City of Brentwood would appreciate if your agency would take into consideration the following brief comments:

14-1
- It is recommended the DEIR provide a discussion regarding the possibility of a future, long-term extension beyond the proposed Hillcrest eBART station location.
- If the possibility exists that eBART could be extended beyond the Hillcrest station at some time in the future, where would the eBART line be located (e.g. within the Highway 4 bypass median)?

14-2
- It is recommended that the approved project identify all of the necessary improvements to maintain optimal pedestrian, bicycle, and vehicular access to the Hillcrest station.

14-3
- Lastly, it is also recommended that the approved project identify all of the on-site parking improvements that will serve this station and that these improvements are not deferred.

Thank you for your consideration. If you have any questions, please do not hesitate to contact me at either (925) 515-5195 or cmccann@ci.brentwood.ca.us.

Sincerely,

Casey McCann
Community Development Director

COMMUNITY DEVELOPMENT
104 Oak Street • Brentwood, California 94513
Phone: 925-516-5405 • Fax: 925-516-5407
e-mail: dept-comdev@ci.brentwood.ca.us

14. City of Brentwood, Casey McCann (letter dated November 10, 2008)

14.1 The Proposed Project was originally envisioned as an eastward extension of BART approximately 23 miles from the existing terminus at Pittsburg/Bay Point to provide transit service to the communities of Pittsburg, Antioch, Oakley, Brentwood, and Byron/Discovery Bay. However, the cost for implementing the 23-mile transit extension presented funding problems. The Proposed Project, which is a 10-mile segment from Pittsburg/Bay Point to Hillcrest Avenue in Antioch, is Phase 1 of the longer, original Proposed Project. The current Phase 1 project has been designed to be extended farther east when conditions are favorable. A more detailed discussion of the project history and the evolution of the Proposed Project is presented in Section 1, Introduction, of the Draft EIR (pages 1-1 to 1-6).

There are two alignment possibilities for the further extension of the Proposed Project beyond Hillcrest Avenue. The first possibility is the extension of the Proposed Project via the SR 4 median, similar to the proposed alignment between Pittsburg/Bay Point and Hillcrest Avenue, and then possibly to the SR 4 Bypass. The second possibility is the extension of the Proposed Project along the UPRR Mococo alignment. All the Hillcrest Avenue Station options analyzed in the Draft EIR have been designed to allow extension; however, once the alignment is extended out of the median, it would most likely preclude an economical extension in the median and probably commit the system to the UPRR Mococo corridor alignment.

14.2 The Hillcrest Avenue Station is designed for access by autos, buses, bicycles, and pedestrians. The portions of Hillcrest Avenue approaching the station would also be improved by adding additional turning lanes for vehicles, a bicycle lane, and sidewalks. Please refer to Mitigation Measure TR-8.1 in Section 3.2, Transportation, of the Draft EIR. In Section 6, Revisions to the Draft EIR, of this document, additional information has been provided regarding pedestrian and bicycle access to the Hillcrest Avenue Station, as well as proposed modification to Tri Delta Transit bus routes.

14.3 The Proposed Project would construct 1,000 parking spaces as part of the initial opening in 2015. An additional 1,600 parking spaces (for a total of 2,600 spaces) would be constructed to meet anticipated additional parking demand by 2030. Parking, for both the initial opening in year 2015 and in year 2030, has been identified for all station options. This is explained more fully for the various station options on pages 2-17 to 2-32 of the Draft EIR. Please also refer to Master Response 7 in Section 3 of this document which provides further information of Hillcrest Avenue Station parking.

15. Bryan H. Montgomery, City Manager, City of Oakley (letter dated November 3, 2008)

Letter 15

CITY of OAKLEY
A PLACE for FAMILIES in the HEART of the DELTA

3231 Main Street
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www.ci.oakley.ca.us

November 3, 2008

Ellen Smith, eBART Project Manager
BART
300 Lakeside Drive
Oakland, CA 94612

Dear Ellen,

The City of Oakley appreciates the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the East Contra Costa BART Extension (eBART). In general, we believe the document and supporting analysis do a good job of describing and analyzing the project and its impacts.

15-1 We are not confident, however, that the DEIR adequately addresses the transportation impacts and parking demand on the Hillcrest eBART station – particularly with this being the terminal station for an extended period of time. The EIR needs to more clearly document the projected ridership (and resulting traffic volumes) attributable to each community when the Hillcrest eBART station is open in 2015, and in 2030. This information will help to inform decision makers on the question of fair share of traffic, parking needs, and other impacts created by the project.

15-2 As a part of the additional analyses, we are requesting that further study be conducted relating the modes of travel to the station with the projected ridership. It is our opinion that the more rural nature of East Contra Costa County needs to be more clearly considered as a factor in how riders will arrive at the station and what the parking needs will be. We strongly believe that further studies that incorporate the likely modes of travel of East County riders will demonstrate that the quantity of parking proposed in the DEIR to be very inadequate.

Again, we appreciate the opportunity to comment of the Draft EIR for the eBART extension to East County and we look forward to continuing to collaborate with you on this very important transportation project. If you

would like to discuss our comment letter or any aspect of the project please do not hesitate to contact Allen Bourgeois at (925) 625-7039 or by e-mail at bourgeois@ci.oakley.ca.us.

Respectfully submitted,

Bryan H. Montgomery
City Manager

cc: Oakley City Council
Jason Vogan, City Engineer
Rebecca Willis, Community Development Dir.
CM file

15. City of Oakley, Bryan H. Montgomery (letter dated November 3, 2008)

15.1 The comment requests data on the distribution of ridership demand among the communities of origin for local riders. While these data would not represent an impact requiring consideration in the EIR, BART is providing the data for informational purposes. The following text is added after the second paragraph on page 3.2-57 of the Draft EIR:

> In the year 2015, the ridership demand for the Hillcrest Avenue Station would have the following distribution of origin: Antioch – 46 percent, Oakley – 22 percent, Brentwood – 25 percent, and Byron/Discovery Bay – 7 percent. In the year 2030, the forecast ridership distribution would change slightly to Antioch – 43 percent, Oakley – 22 percent, Brentwood – 28 percent, and Byron/Discovery Bay – 7 percent. The distribution for the Railroad Avenue Station would be 66 percent from Pittsburg and 34 percent from Antioch in both 2015 and 2030.

15.2 The forecasting methodology does reflect the rural character of Eastern Contra Costa County based upon the growth expectations of each of the cities and the unincorporated areas. As is characteristic of the existing Pittsburg/Bay Point BART Station, the forecasts assume that many future transit users will have to drive long distances from areas not well served by transit in order to reach the stations. The assumptions used in the ridership forecasting and parking demand analysis are presented on page 3.2-41 of the Draft EIR. As noted, the forecasts assumed an unconstrained supply of parking at the Hillcrest Avenue Station. The number of spaces proposed to be provided at the Hillcrest Avenue Station was then sized to meet the forecast demand level. It is not likely that the actual ridership and parking demand at this station would exceed these conservative forecasts. It was also assumed that the distribution of the access by mode for the Hillcrest Avenue Station would be similar to that of the existing Pittsburg/Bay Point BART Station. The Pittsburg/Bay Point BART is a terminus station and has a high level of transit access. The new Hillcrest Avenue Station would also be a terminus station and Tri Delta Transit plans to provide a similar high level of transit service. While the planned development densities around the Hillcrest Avenue Station would exceed those around the Pittsburg/Bay Point Station, it is reasonable to expect that the mode of access for these two stations would be similar. The Pittsburg/Bay Point BART Station serves about 10,000 riders per day and has 2000 parking spaces. The Hillcrest Avenue Station would serve 8,200 riders in the year 2030 and would have 2,600 spaces. As a result, the Hillcrest Avenue Station would have proportionately more spaces per rider that the Pittsburg/Bay Point BART Station to assure that there would be sufficient parking.

16. Sharon Mossman, Contra Costa County Democratic Central Committee (web form dated September 24, 2008)

Letter 16

9/24/2008 0:53

Sharon Mossman
Contra Costa County Democratic Central Committee
sharon.mossman@yahoo.com

What My Constituents and Yours Want

16-1

I have been talking with my constituency and yours, the people who live in Antioch, Oakley and Brentwood. They do not want a Diesel train. They want the existing BART train extended, their reasons are:
1) there is no diesel made that is a total non-polluter, they do not want the air of their towns polluted and cause an increase in COPD;
2) with the increase in fuel prices they believe there will never be cap on the cost of tickets for the ridership;
3) they want to be able to board the train and go all the way to San Jose with out changing trains, no matter how efficient you believe the two trains will be at maintaining their schedule, it won't be and having to change trains is an unnecessary waste of their time; also, with the increasing numbers of working seniors and handicapped in our area it will create undue hardship on them
4) they don't care about your desires to eventually provide a train service Discovery Bay and beyond because those areas have not paid into the BART Tax Fund like the residents of Antioch, Oakley and Brentwood have;
5) they also know there will be increased costs due to requiring a separate set of drivers, training programs mechanics, maintenance and, possibly, management for the diesel trains
6) the residents of Antioch, Oakley and Brentwood have paid into the BART Fund for 40 years and they want what they have paid for and that is not a diesel train where they have to change trains and breath the emissions that will further pollute the air. This is your constituency and thousands have asked me to tell you what they want. Please listen to what they are telling you. They have requested that I file a petition to force this to a vote and take the decision out of your hands, if necessary, I will do as requested.

16. Contra Costa County Democratic Central Committee, Sharon Mossman (web form comment dated September 24, 2008)

16.1 Please refer to Master Responses 2 and 5 in Section 3 of this document. Master Response 2 addresses the Contra Costa County taxpayer's contributions to the BART system and BART's evaluation of providing conventional BART technology. Conventional BART is analyzed in the Draft EIR as one of the alternatives to the Proposed Project. This response also explains that the operational and maintenance costs for the BART Extension Alternative would actually be higher than for the Proposed Project. Master Response 5 describes the health risk assessment performed for the diesel emissions that are predicted from the proposed DMU technology. Master Response 5, along with the more detailed examination, presented in Impact AQ-7 in Section 3.11, Air Quality, of the Draft EIR provide background for the conclusion in the Draft EIR that health risks from the Proposed Project would be less than significant.

17. Chris Schildt, Program Associate, TransForm (letter dated November 5, 2008)

Letter 17

TRANSFORM

WORLD-CLASS PUBLIC TRANSPORTATION. WALKABLE COMMUNITIES.

November 5, 2008

Ellen Smith
BART
300 Lakeside Dr., 16th Floor
Oakland, CA 94612

Dear Ms. Smith,

Thank you for this opportunity to comment on the eBART Draft Evironmental Impact Report (DEIR) for the East Contra Costa BART Extension (eBART). On behalf of TransForm (formally TALC, the Transportation and Land Use Coalition), I want to applaud BART's effort to provide public rapid transit for residents and workers in east Contra Costa County.

Founded just over 10 years ago, TransForm is a coalition of over 100 Bay Area member organizations representing environmental, public health, social justice, and transportation equity issues. TransForm has been a long-time supporter of eBART. In 2004, TransForm actively supported Regional Measure 2 and Measure J to provide key funding for eBART. We also supported MTC Resolution 3434 and BART's System Expansion Policy and have been actively engaged in the Ridership Development Plans required under these policies in both Pittsburg and Antioch. We are excited about this project and the potential positive impacts it can bring local residents and the region.

In Spring 2008, TransForm submitted comments to BART on the scope of the EIR outlining several of our concerns about the eBART project. We are pleased to see many of our comments were addressed within the DEIR. In particular, we want to applaud BART's leadership in addressing the impact of eBART on global warming, as described in Impact AQ-3. The analysis done in the DEIR on greenhouse gas emissions exemplifies the type of forward-thinking analysis we need to accurately understand the long-term impacts of our transportation and land use decisions.

In reviewing the DEIR, we have several areas of concerns that we request BART addresses in the final EIR. These concerns fall into two general categories:

Hillcrest Avenue Station Options Analysis – The DEIR's analysis of the three options for the Hillcrest station location ("station options") is inadequate in fully addressing the impacts of those stations on ridership levels and land use potentials. We recommend several areas where this analysis can be strengthened in order to give the public and decision-makers a full understanding of the impacts of these options.

Transportation Impacts – The DEIR inadequately addresses the impacts of the Proposed Project on pedestrians and bicyclists in both the Railroad Avenue and Hillcrest stations. We recommend additional analysis be conducted on this issue. TransForm also has concerns about the mitigations listed in TR-2.

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Hillcrest Avenue Station Options Analysis

The location of the eBART station within the Hillcrest Station Area in Antioch will have profound and lasting impacts on ridership levels and development potential of the surrounding land.

In the DEIR, BART documented an increase of over 1,200 net daily rides based on station location alone. The preliminary documents from Antioch's Ridership Development Plan show over 1,800 more homes and 500 more jobs could be added to the station area depending on the location of the eBART station itself. *This represents a 4-fold net increase of ridership and development potential in the Hillcrest Station Area.*

By increasing homes, jobs, and ridership levels, these Hillcrest Avenue Station Options will aide BART in several of its stated objectives for the project, including:

17-1

- *Promote transit-oriented land use initiatives and policies* – through increased development near the transit station;
- *Protect and enhance the environment* – through focused growth that relieves pressure to develop in surrounding greenfields and reduced greenhouse gas emissions;
- *Enhance economic benefits* – through additional jobs and tax-generating development;
- *Improve overall transportation service and enhance mobility in the SR 4 corridor* – through increased eBART ridership, which will take additional cars off of SR 4.

However, these positive potential impacts of the Hillcrest Avenue Station Options are not adequately addressed within the DEIR. For example, Impact LU-7 describes the Hillcrest Avenue Station Options as "similar to the Proposed Project" in terms of encouraging transit-oriented development and supporting local efforts to provide a convenient alternative to the automobile. This under-represents the impacts of the station options to promote smart growth and increase eBART ridership.

Recommendation: Conduct analysis on the impacts of increased ridership and development under the Hillcrest Avenue Station Options scenarios. Include analysis in the following impacts and mitigations:

17-2 **Transportation (Section 3.2)** – Create a new Impact under the "Hillcrest Avenue Station Options Analysis" to study the impacts of the station options on freeway LOS for all segments in corridor. Compare to both No Project and Proposed Project scenarios.

17-3 **Land Use (Section 3.3)** – Impact LU-7: Analyze the significant increase in development potential of the station options as compared to the Proposed Project scenario.

17-4 **Air Quality (Section 3.11)** – Create a new Impact under the "Hillcrest Avenue Station Options Analysis" to study the impacts of the station options on regional greenhouse gas and ozone precursor emissions as compared to both No Project and Proposed Project scenarios. Model this Impact after Impact AQ-3.

17-5 **Energy (Section 3.15) -** Create two new Impacts under the "Hillcrest Avenue Station Options Analysis" to study the impacts of the station options on energy demand and petroleum demand as compared to both No Project and Proposed Project scenarios. Model these Impacts after Impact EN-1 and Impact EN-2.

17-6 **Benefits of the Proposed Project (Section 4.5)** – Create a "Hillcrest Avenue Station Options Analysis" section to analyze and summarize the benefits of the station options as compared to both No Project and Proposed Project scenarios.

Transportation Impacts

In addition to the comments above, we have concerns about two additional impacts under the Transportation section (Section 3.2):

1. The DEIR fails to consider several impacts on pedestrians and bicyclists. These impacts should be included in Impact TR-8:

17-7 **Railroad Avenue Station:** The DEIR fails to mitigate potentially significant impacts on pedestrians accessing the Railroad Avenue station via sidewalks on both the east and west sides of the Railroad Avenue overcrossing to SR 4.

The DEIR reports a 5 foot wide sidewalk along the east side of the Railroad Avenue overcrossing of SR 4, with additional sidewalk width in the vicinity of the station. However, this will not be adequate to address the large numbers of riders who will use this sidewalk to access the station. The DEIR reports 1,900 daily entries/exits from the station by 2030. All of these riders will have to use either the east or west side sidewalk to enter and exit the station. The majority of riders will choose to enter and exit the station using the east side sidewalk due to its proximity to parking, bus facilities, and the transit village along Bliss Avenue. A 5 foot wide sidewalk will not accommodate all eBART riders, which includes people with wheelchairs, strollers, and bicycles.

Recommendation: Increase this impact to a Potentially Significant Level. Mitigations should include widening the entire length of the sidewalk on the both sides of the Railroad Avenue overcrossing of SR 4 to accommodate safe pedestrian access to the station.

17-8 **Hillcrest Avenue Station:** Under the current DEIR, there is no pedestrian or bicycle access to the Hillcrest Avenue Station from the south side of SR 4. This creates a significant barrier on pedestrian and bicycle access to the station.

Recommendation: Analyze pedestrian and bicycle access to the Hillcrest Avenue Station from the south side of SR 4. Mitigations could include a pedestrian bridge over eastbound SR 4 lanes in order to connect the south side of the station area to the station. Residential parking permits can be used to ensure street parking in the southern neighborhood is not negatively impacted.

17-9 2. Impact TR-2 lists four intersections where a significant impact would occur under the Proposed Project: Hillcrest Ave/E. 18th Street; Sunset Drive/Hillcrest Avenue; and the SR 4 Eastbound Ramps/Hillcrest Avenue intersections. For the first two intersections, the DEIR proposes mitigations in the form of provisions of exclusive lanes for turning. We find this mitigation to be excessive considering the LOS designations of these intersections are only D and C, respectively.

Recommendation: Reevaluate Mitigation Measures TR-2.1 and TR-2.2 to include coordination of the intersection and optimization of signal timing plans instead of the provision of exclusive lanes.

Again TransForm appreciates BART's efforts to increase transportation choices for eastern Contra Costa County communities, and we look forward to seeing our questions addressed through the environmental review process. Please feel free to contact me if you have any questions regarding our concerns.

Sincerely,

Chris Schildt, Program Associate
TransForm

17. TransForm, Chris Schildt (letter dated November 5, 2008)

17.1 The Proposed Project and Hillcrest Avenue Station options are proposed as a transit project and do not provide the future transit-oriented development around the proposed stations. Consistent with the BART System Expansion Policy, the Proposed Project would extend transit services contingent upon local jurisdictions preparing Ridership Development Plans (RDP) for each of the station areas to promote transit-oriented development. BART is not required to analyze the development potential of each of the station options, except as the RDP development is part of the cumulative scenario. As part of the Specific Plan process, the City of Antioch did prepare an Alternatives Development Scenarios Report in May 2008[3] for the Hillcrest Station area. Since that time, the Specific Plan process has evolved and the City has developed a new station area plan. The draft Specific Plan includes a potential for 2,500 residential units, 1,200,000 square feet of office space, 1,000,000 square feet of retail space, 325 hotel rooms, and 5,600 jobs.

The Draft EIR contains extensive discussion of the environmental impacts associated with the options, separately identified for each option under each impact area. Table 13.8 of this document (see Response 13.8) provides a qualitative comparison of how well the different Hillcrest Avenue Station options satisfy the project objectives.

17.2 The Draft EIR provides a full evaluation of Proposed Project on freeway level of service for all segments in the SR 4 corridor. As noted on pages 3.2-71 and 3.2-72 of the Draft EIR under Impacts TR-3 and TR-4, the Proposed Project would not have an adverse impact on the freeway and would in fact have a beneficial effect due to the traffic which would be diverted from the freeway as a result of the increased transit ridership in the corridor. The other three station options for the Hillcrest Avenue Station would have greater development in the station area and would result in increased ridership as compared with the Proposed Project as noted on page 3.2-100 of the Draft EIR. As a result, these options would have an even greater beneficial effect on the freeway and there is no requirement that a freeway analysis be prepared since the effects do not represent adverse impacts.

17.3 Please refer to Response 17.1, above.

[3] City of Antioch, *Hillcrest Station Area Specific Plan Alternative Development Scenarios Report*, May 2008.

17.4 As discussed in Section 3.11, Air Quality, of the Draft EIR (page 3.11-32), the impacts from operation of the Proposed Project under the Hillcrest Avenue Station options, which includes Northside West, Northside East, and Median Station East options, would generally be the same as those for the Median Station. CO concentrations around intersections would still be well below ambient air quality standards.

Greenhouse gas and regional criteria pollutant emissions under any of the station options would be similar, though not identical, to those for the Proposed Project with the Median Station. Part of the difference in emissions would result from the location of the station options. In other words, because the station options are located east of the Median Station, DMU service to these station options involves more diesel fuel consumption and, hence, air emissions. Table 17.4 below shows the additional distance to the various Hillcrest Avenue Station options.

Table 17.4
Additional Track Mileage for Hillcrest Avenue Station Options (compared to the Median Station)

Hillcrest Avenue Station Option	Approximate Increase in One-way Track Distance to Station
Northside West	0.4 miles
Northside East	1.0 miles
Median Station East	0.1 miles

Source: ERM, 2009.

Because this increase in operational revenue service is slight, there would not be a substantial difference in greenhouse gas and criteria pollutant emissions. Nevertheless, the third sentence of the first paragraph on page 3.11-32 of the Draft EIR is revised to more accurately describe greenhouse gas and criteria pollutant emissions as being similar rather than the "same." It is important to understand that all options would have air emissions lower than those under the No Project Alternative.

> Greenhouse gas and regional criteria pollutant emissions under any of the station options would be similar ~~the same~~ as for the Median Station, because the number of riders (and consequently their avoided private motor vehicle trips) and energy use by the Proposed Project would be similar between the Hillcrest Avenue Station options, ~~independent of these options~~, and all options would have air emissions lower than those under the No Project Alternative.

17.5 In Section 3.15, Energy, of the Draft EIR (page 3.15-16), the energy impact from the Northside West, Northside East, and Median East Station options are described as being similar to the Proposed Project. However, as described in the Draft EIR, these options would likely increase energy use because of the slightly greater distance the trains would have to travel to reach the station platforms and maintenance facilities (see Table 17.4 in Response 17.4 above). The percent change from increasing the energy used for propulsion because of the greater distance to be traveled would be between 0.5 percent and 2 percent. The information in Impact EN-1 and Impact EN-2 for the Proposed Project would not be affected by this response which concerns the Hillcrest Avenue Station options, and no change is necessary. Similarly, the description of energy impacts of the station options on page 3.15-16 correctly reflects the differences in energy demand, and no change is necessary. Importantly, the Proposed Project would result in less overall energy resource consumption than the No Project alternative, as indicated by the commentor.

17.6 The Hillcrest Avenue Station options are analyzed in each section of the Draft EIR. Each section contains a heading labeled Hillcrest Avenue Station Options Analysis and under this heading, each option's impacts are addressed and comparisons to the Proposed Project are made. Please refer to Response 17.1 above, for information on comparing the relative benefits of each Hillcrest Avenue Station option.

17.7 The discussion and evaluation of pedestrian and bicycle impacts for the Railroad Avenue Station under Impact TR-8 on pages 3.2-96 and 3.2-97 of the Draft EIR (starting with the second paragraph) is revised as shown below. It is noted that improvements to access the station are contained in the Draft Railroad Avenue Specific Plan and these measures are reflected in the revised text as follows:

> **Railroad Avenue Station Area.** The Proposed Project is expected to generate a significant number of walking and biking trips to and from the stations (see Table 3.2-15). These modes of access to the station are especially notable at the proposed Railroad Avenue Station, which is expected to have 30 percent of the Proposed Project passengers arriving and departing by non-motorized modes. In the year 2030, this represents 266 pedestrian round trips and 19 bicycle round trips arriving at the station each weekday. In addition, the passengers arriving by auto would be walking to the station from where they parked or were dropped off. Both sides of Railroad Avenue have access to the DMU platform with stairs and elevator (see Figure 2-7). However, t~~T~~he design of the Railroad Avenue Station recognizes that the sidewalk along the west ~~east~~ side of the Railroad Avenue overcrossing of SR 4 is only 5 feet in width. The proposed station

design provides additional sidewalk width in the vicinity of the station entrances. Though the station design includes safety railings that would occupy 6 to 8 inches along each sidewalk curb, the design ~~and~~ avoids construction of other physical elements that would reduce the effective width of the existing sidewalk. Also, the layout of the station platform makes it more convenient to access the station from the east side of Railroad Avenue where the sidewalk is 10 feet wide.

As identified earlier, there are a number of street segments in the vicinity of the Railroad Avenue Station that lack sidewalks either on one or both sides. The Railroad Avenue Specific Plan prepared by the City of Pittsburg calls for a comprehensive program of sidewalk improvements which would result in construction of sidewalks for all the identified sidewalk gaps and upgrading the existing sidewalks in the area to a 10-foot width (with the exception of the sidewalk on the west side of the Railroad Avenue bridge over SR 4). If widening this sidewalk, which is now 5 feet in width, required a physical widening of the bridge, it could be prohibitively expensive. Other design solutions, such as narrowing the traffic lanes to expand the sidewalk, may be feasible. BART is committed to cooperating with the City of Pittsburg and others in their efforts to enhance safety and security on the Railroad Avenue overpass sidewalks. There are currently sidewalks in the station area on both sides of the primary streets that provide access to the station. One notable exception is Bliss Avenue which lacks sidewalks on either side between Railroad Avenue and Harbor Street. As the park-and-ride parking facility for the station is located on this street segment, it would be critical that the north side sidewalks on this street are completed by the time the Railroad Avenue Station opens.

The Specific Plan also calls for improvement to bicycle facilities on Railroad Avenue which in coordination with the existing bicycle lanes on Harbor Street would link the Railroad Avenue Station with the major existing and planned east-west bicycle facilities located both north and south of the station.

~~The Proposed Project along with the cities of Pittsburg and Antioch that will adopt transit oriented development plans that specifically call for strong linkages between the surrounding development and the stations are expected to enhance the network of pedestrian and bicycle facilities.~~

Hillcrest Avenue Station Area. The primary access route for pedestrians and bicyclists to the Hillcrest Avenue Station would be Hillcrest Avenue. The linkage to the station from Hillcrest Avenue

would be via improvements to existing Sunset Drive by BART. Hillcrest Avenue lacks a sidewalk along its western side between Sunset Drive and East 18th Street. While it would be desirable to complete this sidewalk, there is an adequate sidewalk along the east side of the street which is closest to the Hillcrest Avenue Station. The City of Antioch has prepared a Ridership Development Plan for the Hillcrest Station Area. This plan includes new roadway facilities such as Slatten Ranch Road, Phillips Lane, and Viera Avenue that will provide access to the Hillcrest Avenue Station. These new roads are planned to have sidewalks on both sides and bicycle lanes. The CCTA is planning a redesign of the Hillcrest Avenue interchange with SR 4. This redesign takes into consideration the needs of pedestrians and bicyclists; however, with the plan to locate the Hillcrest Avenue Station near this interchange, it is important that the new design for the interchange include adequate sidewalks and facilities for bicyclists.

MITIGATION MEASURE. The following measure to be implemented along with Mitigation Measure TR-~~2~~1.1~~2~~, which calls for improvements at the Hillcrest Avenue/Sunset Drive intersection, would reduce the pedestrian and bicycle impact at the Hillcrest Avenue Station to a less-than-significant level. (LTS)

TR-8.1 Construct sidewalks and bicycles lanes along Hillcrest Avenue and Sunset Drive~~Slatten Ranch Road~~. For the Hillcrest Avenue Station, the Hillcrest Avenue/Sunset Drive intersection will be improved as required in Mitigation Measure TR-~~2~~1.1~~2~~. In addition to the improvements required by TR-~~2~~1.1~~2~~, improvements shall include a sidewalk along the east side of Hillcrest Avenue and a southbound bicycle lane in the areas affected by the construction of the other required intersection improvements. BART shall contribute its fair share of these intersection improvements. In addition, BART shall provide safe and convenient bicycle and pedestrian access from the Sunset Drive/Hillcrest Avenue intersection to the station platform area.~~ The portion of Slatten Ranch Road to be constructed by BART shall include sidewalks and bicycle lanes.~~

17.8 There is pedestrian and bicycle access to the Hillcrest Avenue Station via the Hillcrest Avenue overcrossing of SR-4. The neighborhood located to the south of SR 4 is low density residential development. A pedestrian bridge connection to the Hillcrest Avenue Station from this neighborhood was examined during the project development process. The costs of the bridge outweighed the utility it would offer to a limited group of users. Also, the City of Antioch indicated that

residents of this neighborhood were opposed to the pedestrian connection due to concerns about parking infiltration and crime.

17.9 When an adverse intersection impact is identified, the first mitigation that is considered is signal timing optimization and coordination. In the case of the intersections noted, the analysis showed that the impact could not be mitigated through these measures alone and additional lanes were needed. Nevertheless, additional analysis was performed to evaluate the benefit of signal timing optimization and signal coordination. Specifically, a queuing analysis using Sim Traffic was performed for the AM and PM peak hours for the 2015 No Project, 2015 Proposed Project, 2030 No Project, and 2030 Proposed Project. The analysis indicated that the queuing on the SR 4 Eastbound ramps in the PM peak hour could be reduced substantially with signal improvements. While the impact would still be significant, a new Mitigation Measure TR-1.3 has been added, as indicated below.

TR-1.3 Hillcrest Avenue Interchange Area Traffic Signal Improvements. The traffic signals of the Hillcrest Avenue interchange area shall be interconnected and a coordinated traffic signal optimization plan which is designed to limit the queuing on the SR 4 eastbound off-ramp shall be implemented. The intersections to be included are Hillcrest Avenue/Arzate Lane – PG&E Service Center Driveway, Sunset Drive/Hillcrest Avenue, SR 4 Westbound Ramps/Hillcrest Avenue, SR 4 Eastbound Ramps/Hillcrest Avenue, Larkspur Drive/Hillcrest Avenue, and Davison Drive/Hillcrest Avenue – Deer Valley Road. Modification of the above signal operations by year 2015 is the responsibility of the City of Antioch. BART would contribute its fair share of the actual costs of signal interconnection and development of an optimization plan. In the year 2030, the intersection of SR 4 Westbound Ramps/Hillcrest Avenue would no longer exist due to the planned interchange improvements and a new intersection at SR 4 Westbound/Sunset Drive would be added to the signal system.

18. Robert Allen (letter dated September 29, 2008)

Letter 18

223 Donner Avenue
Livermore, CA 94551-4240

29 September 2008

BART Planning Department
c/o Katie Balk Fax 510-464-7673

Re: eBART Draft EIR

18-1 BART's East Contra Costa Extension should be BART gauge (5' - 6"), not freight gauge (4' – 8 ½ "). It should be regular BART and remain its entire length at grade in the freeway median. The maintenance facility, transfer station, and flyover should be deleted.

18-2 The trackway cost (ballasted double track, third rail traction power, train control, communications, ductwork, and barriers/fencing) should run about $131 million in today's dollars (based on BART historic costs escalated per Bay Area CPI-U). That cost does **not** include stations, rolling stock, land, special trackwork (crossovers, turnouts), environmental work, minor structures and earthwork, contingencies, or future escalation.

18-3 DPX (BART's Dublin-Pleasanton Extension) shows how well such a BART line can work, with car storage on tail tracks and maintenance performed elsewhere until the line is further extended.

18-4 I strongly urge two intermediate remotely-staffed stations: Pittsburg (Railroad Avenue) and Los Medanos (Century Blvd.). Los Medanos is in-direction for most Antioch patrons, while Hillcrest is not. It is near Los Medanos College as well.

18-5 **Re track gauge:** originally eBART presumed operation on UP's Mococo line. Any chance of that looks nil. Of UP's two lines between the San Joaquin Valley and the Bay area, only the Mococo line has a profile friendly to heavy freight service: nearly flat with minimal energy waste, diesel exhaust, and demand for motive power. Transit trackage parallel to the Mococo line would make potential industrial sites hard to serve with rail. Rail transit in the Mococo corridor is just not viable. By contrast, BART at grade in a wide Rt-4 Bypass median would need no new grade separation structures, and little earthwork or structure alignment.

18-6 There is no reason to make eBART freight gauge, set up a separate operating system, or put patrons to the inconvenience of a transfer. As noted in my attachment, this project could and should be part of an integrated regional rapid transit operation.

Robert S. Allen
(925) 449-1387
BART Director (1974-1988)

Attach: My Word: Merge BART and Caltrain, 29 September 2008

18. Robert Allen (letter dated September 29, 2008)

18.1 The Draft EIR evaluated a BART Extension Alternative in the median of SR 4 in Section 5, Alternatives, of the document. If the BART Extension Alternative were implemented, a transfer platform would not be necessary, but a maintenance facility and flyover would both still be necessary. Currently, there is storage space for 10 BART trains at the Pittsburg/Bay Point Station. This space would be eliminated with the extension of BART eastward and would need to be replaced at the terminus of the line. If the flyover were eliminated and the BART station placed in the median of SR 4 (similar to the Orinda BART Station), there would not be enough distance in the median for the station platform plus the track length necessary for train storage east of the station platform. BART operations also would need additional maintenance facilities at the terminus of the line, as the Concord Yard is at capacity. This space would not be available in the median. Providing train storage and maintenance outside of the median would reinstate the need for the BART alignment to exit from the median and the need for a flyover.

18.2 The commentor estimates a cost of $131 million for a 10-mile BART extension (or approximately $13.1 million per mile) for dual track, third-rail traction power, train control, communications, ductwork, and barriers/fencing. However, each extension project is unique and the costs from one project are not necessarily transferable to another.

Preliminary estimates for extending BART from Pittsburg/Bay Point indicate that the cost for guideway and track would be approximately $92 million, for BART systems (third-rail power and communications) approximately $471 million, and for aerial structures and retaining walls (without which the project could not be built) $31 million. These figures represent a total of $594 million. In addition, as stated in the comment, this does not include other cost components necessary for the BART extension, such as stations, rolling stock, land, special track work (crossovers, turnouts), environmental work, earthwork, minor structures, contingencies, and future escalation. The total cost to construct the BART extension is estimated to be $1,173 million.

18.3 Each extension project is unique and operational considerations vary between projects. As noted in Response 18.1 above, BART's Concord maintenance yard is at capacity and additional maintenance facilities are needed. Train storage lost at Pittsburg/Bay Point also would need to be replaced. The median east of Hillcrest Avenue does not provide sufficient space for train storage and maintenance.

18.4 Proposed Project stations would not be staffed, but would be supervised by the eBART Operations Control Center at the Hillcrest Avenue Station and roving supervisory staff.

A station is proposed at Railroad Avenue as part of the Proposed Project. A station at Los Medanos (Century Boulevard) was considered during the original eBART feasibility study. However, it did not meet the criteria used to identify potential station sites, which included the following issues:

- Station spacing – Century Boulevard is very close to Railroad Avenue.
- Density of existing and potential future development – The predominant land use is low density retail. Most of the vacant land is slated to be developed as auto dealerships. There is limited opportunity for transit-oriented development (TOD) and the current uses are not transit supportive.
- Accessibility from the local and regional highway network – Century Boulevard does not have freeway access and the nearby Somersville Road interchange is very congested.
- Potential transit connections – Los Medanos College, which is nearby, is the current local transit hub, and is one of the more important focal points for Tri Delta Transit. If a new hub were created at Century Boulevard, it would compete with the Los Medanos hub.
- Constructability – The commercial development in this area has been built right up to the existing right-of-way. The planned widening of SR 4 with the Proposed Project in the median would require a partial taking of several commercial parcels and a total taking of one major motel. Further widening to accommodate a station would involve displacing additional commercial buildings.
- Ridership – The Proposed Project's ridership model showed lower patronage at Century Boulevard than at Hillcrest Avenue.

18.5 There are two primary alignments for extension of transit between Pittsburg/Bay Point and Hillcrest Avenue. The first possibility is the extension the Proposed Project via the SR 4 median, similar to the proposed alignment between Pittsburg/Bay Point and Hillcrest Avenue, and then possibly via the SR 4 Bypass, and the second possibility is the extension of the Proposed Project along the UPRR Mococo line. The commentor supports the extension of transit in the median of SR 4 and the SR 4 Bypass. The commentor is correct that transit at grade in the SR 4 and SR 4 Bypass median would not need grade separation structures, although some earthwork and aerial structures are necessary. See Response 18.2 above for further details about the anticipated costs for conventional BART technology. BART also initially considered a transit extension along the Mococo line to be feasible; however, this alignment was subsequently rejected as infeasible, as described in the Draft EIR on page 5-178, due to BART's inability to reach agreement with UP on acquiring the ROW. As the commentor notes, a

transit extension along the UPRR Mococo line would make potential industrial sites more difficult to serve with rail.

18.6 This comment expresses a preference for an integrated regional rapid transit operation and does not address the adequacy of the Proposed Project EIR. For a response to this comment, see response to comment Letter #19.

19. Robert Allen (web form dated September 29, 2008)

Letter 19

My Word: Merge BART and Caltrain

Robert S. Allen 29 September 2008

Our legislators in 1957 formed the first five-county BART district. After San Mateo and Marin counties withdrew in 1961, 61.2% of Alameda, San Francisco, and Contra Costa County voters in 1962 approved $792 million in bonds. BART was born, and by 1999 the bonds were paid off. The time has come to consider a radical change: merge the Caltrain joint powers agency with BART in a single five-county rail rapid transit district.

Let the people vote on a new bond issue. (Adding San Mateo and Santa Clara counties and adjusting for inflation and population, a bond issue today like BART's in 1962 would yield about $16 billion.) Its main goal: widen, grade separate, and electrify the existing Caltrain peninsula line to allow at least four tracks: two BART gauge (south from Millbrae), two Muni to SFO, and at least two standard gauge for Bullet, freight, and other trains.

The enlarged district would bring BART around the Bay, in subway to the Golden Gate Bridge, and at grade in widened medians of East Bay freeways to Livermore, Antioch, and Crockett. Through new JEPA's (joint exercise of powers agreements) it would be poised to serve the North Bay and Central Valley.

19-1

Bullet trains would run into downtown San Francisco, serving people-mover stations at the San Francisco and San Jose airports. With Union Pacific permission, the new district would double track and grade separate their Mulford line to speed bullet trains from the San Jose depot to the San Jose and Oakland airports and a new BART intermodal station near Magnolia in Oakland. A new tube near Port Costa or Benicia could by-pass the Martinez drawbridge and speed the electrified bullet trains to Sacramento.

Except in San Jose, San Francisco, and Oakland, most of the BART trackway would be at grade, without the costly digging or structural work required by subway or aerial lines. **At grade** BART trackway (double track, traction power, train control, barriers, etc.) in a freeway median costs about $13.1 million per mile in today's dollars.

Frequent, reliable, safe, pollution-free, comfortable, and seamless BART service around the Bay - with automatic fare collection, one-operator trains of up to ten cars, and fenced right of way with no grade crossings - could ease many of the problems we face today. With the other rail improvements, we'd have a great transportation package.

The nearly six million people in our five counties would have the political and financial clout to support a bond issue for a unified rail rapid transit and bullet train system – just as voters in three counties pioneered BART a few decades ago.

RSA

Allen was a BART Director (1974-1988), and is retired from Southern Pacific's Western Division in Engineering and Operations. He is a Life member of American Railway Engineering and Maintenance of Way Association (AREMA), and serves on AREMA Committees 12 (Rail Transit) and 17 (High Speed Rail). He has also served on AREMA Committees 32 (Systems Engineering) and 16 (then Economics of Railway Location and Operations). He can be reached at 223 Donner Avenue, Livermore, CA 94551-4240 or (925) 449-1387.

19. Robert Allen (letter dated September 29, 2008)

19.1 Commentor suggests that the Proposed Project should be part of a larger, integrated regional rapid transit operation that would merge BART and Caltrain in a five-county transit district. Today, BART serves four counties: San Francisco, Alameda, Contra Costa, and San Mateo. Caltrain serves a similar function and provides rail transit service in San Francisco, San Mateo, and Santa Clara Counties. It is possible that at some point in the future a larger transit agency could be formed that would merge both BART and Caltrain. Costs to combine the two systems into one system could be considerable. Differences in vehicle technology (self-propelled electric vehicles versus diesel locomotives), track gauge, grade separations, train control, and other challenges in integrating the two systems would all need to be considered (see Response 18.2 above, regarding track costs per mile.) Links to other rail providers, such as the proposed statewide high speed train system and the Union Pacific Railroad, would also need to be addressed. Any merger of the BART system, a regional system, and the Caltrain system, which is run by the State of California, would have larger economic and political issues and would require a voter-approved ballot measure and legislative action at the state level.

While the decision whether to choose the DMU or one of the other project alternatives (including conventional BART technology) should be considered in the context of the overall, regional transit picture, the issues to be considered are the same regardless of whether BART and Caltrain merge at some future time. The Proposed Project would extend transit access into an area that is currently underserved, allowing East County residents access to the larger, regional transit system that includes not only BART, but Caltrain, Muni, and other transit providers. The Proposed Project is an extension of the BART system using a technology (DMU) that is appropriate given the anticipated ridership and construction costs. See Master Response 1 in Section 3 of this document for additional information on why BART selected the DMU as the Proposed Project.

20. Robert Allen (letter dated October 14, 2008)

10/14/2008 18:09 9254491387 KEN GUNN PAGE 01

Letter 20

223 Donner Avenue
Livermore, CA 94551-4240

14 October 2008

BART Planning Department
c/o Katie Balk, FAX 510-464-7673

Re eBART Draft EIR

These comments are in addition to my letter and attachment of 29 September 2008.

20-1 What a wise decision, to run the extension as at grade double track in the Route 4 median instead of bridging the westbound lanes and going along the Mococo line. The freeway median involves no grade crossings or separations, no major structures or earthwork, and built-in protection from trespassers.

20-2 With the BART alternative, there appears to be no imperative for a maintenance facility. While locating such a facility at the end of the line makes sense, three of BART's present five lines have shops several stations from the end, and a fourth has no such facility at all. Only the Richmond line has a shop and yard at the end of the line.

Interim car storage on tail tracks should suffice until the line is extended – hopefully in the Route 4 bypass – to Brentwood or beyond. This arrangement seems to work well at Dublin-Pleasanton and at Bay Point with the existing BART fleet.

20-3 Without the need for a transfer station, maintenance facility, flyover, or land other than for station parking, the cost of real BART should be a small fraction of what is proposed.

20-4 BART at grade ballasted trackway in a freeway median runs about $13.1 million/mile in 2008, based on historic BART costs escalated by the Bay Area CPI-U. That would make 10 miles of BART trackway about $131 million, including ballasted double track, traction power, train control, communications, ductwork, and fencing/barriers.

20-5 I again urge that the BART alternative include stations at Pittsburg, as in the eBART proposal, and at Century Blvd., near Los Medanos College and in direction for Antioch patrons. (For many in Antioch, Hillcrest is out of direction.) These stations could well be remotely staffed to save operating costs. While there is much open land near Century that could be used for parking, I would recommend against freeway access there.

20-6 Locomotive powered trains with trailer BART cars (perhaps stripped of power and train control, cannibalized to keep other cars working) would eliminate the cost of buying and maintaining DMU's – if it were necessary to defer traction power and train control.

20-7 BART track requires slightly longer cross-ties than freight gauge, but the same amount of rail and OTM. The gauge is only 17% wider; why is the cited cost so much more?

Robert S. Allen
449-1387
BART Director (1974-1988)

20. Robert Allen (letter dated October 14, 2008)

20.1 The commentor supports tracks in the median of SR 4. However, contrary to the comment, six bridges would be necessary to carry the Proposed Project over cross streets and utility corridors. These structures would be necessary for any of the alternatives to be constructed. The location of these aerial structures is described on page 2-7 of the Draft EIR.

20.2 As noted in Response 18.1, the Concord Yard is at capacity and additional BART cars would require additional maintenance capacity. Although as noted by the commentor, a maintenance facility could be located somewhere other than at the end of the line, the Proposed Project alignment within the median of SR 4 limits potential locations for maintenance facilities. Locating a maintenance facility at some mid-point along the Proposed Project alignment would displace existing development adjacent to SR 4 and would increase displacement impacts and acquisition costs compared to a location at the line's terminus, where undeveloped land is currently available. In regard to providing storage track behind (east of) a BART station in the median at Hillcrest Avenue, there would not be enough distance in the median for the station platform plus the track length necessary for BART train storage. This would necessitate the need for an out-of-the-median storage area, which would necessitate a flyover to carry the guideway out of the median and additional acquisition costs for the storage area.

20.3 A BART extension to Hillcrest Avenue is estimated to cost $1,173 million dollars. Preliminary estimates for extending BART from Pittsburg/Bay Point indicate that the cost for guideway and track would be approximately $92 million, for BART systems (third-rail power and communications) approximately $471 million. The maintenance facility is estimated to cost $125 million. All aerial structures for the BART Extension Alternative, including the flyover, are estimated to cost $31 million. The total estimated cost does not include a transfer platform, which is not necessary with the BART Extension Alternative, nor does it include other cost components necessary for the BART extension, such as stations, rolling stock, land, special track work (crossovers, turnouts), environmental work, earthwork, minor structures, contingencies, and future escalation. Therefore, eliminating the transfer platform, maintenance facility, and flyover would reduce the $1,173 million cost of the BART Extension Alternative by approximately $156 million. This would not be enough to make the BART Extension Alternative competitive with the DMU ($479 million) and other non-BART alternatives. Please refer to Response 18.2 above, for further details regarding the costs of the BART Extension Alternative.

20.4 Please refer to Response 18.2 above, regarding the costs of the BART Extension Alternative.

20.5 A station at Los Medanos (Century Boulevard) was considered for a possible station site during the original feasibility study for the Proposed Project. However, it did not meet the criteria used to identify potential stations. Please refer to Response 18.4 above, regarding the criteria for stations and remote staffing.

20.6 BART investigated the option of converting BART cars to form locomotive-powered trains with trailer BART cars. These trains would have consisted of a lead BART car equipped with an engine to provide power and a number of converted BART cars attached to it. Many issues were involved in refurbishing the BART cars, including safety and train control issues. Given the uncertainty involved in converting old BART cars, it was more cost effective to select the DMU technology, which is a proven and widely used technology.

20.7 BART tracks are 5 feet 6 inches wide and standard gauge tracks (freight gauge) are 4 feet 8.5 inches wide. The estimated cost for approximately 10 miles of BART track and guideway (BART systems not included) is $92 million. Please see Response 18.2 above, for additional details regarding the costs to implement conventional BART technology in the eBART corridor.