Bay Area Transportation Working Group

January 21, 2021

Tri-Valley-San Joaquin Valley Regional Rail Authority
Attn: Valley Link Draft EIR
1362 Rutan Court #100
Livermore, California 94551

via e-mail to drafteircomments@valleylinkrail.com

Dear Authority Representatives:

This document contains comments by the Bay Area Transportation Working Group in regard to the Valley Link Draft Environmental Impact Report (DEIR) published December 2, 2020, by the Tri-Valley-San Joaquin Valley Regional Rail Authority.

The comments are ordered according to the corresponding sections of the DEIR.

1.2 Project Overview

The Proposed Project, called "Valley Link", is a new 42-mile, 7-station passenger rail project that will connect the existing Dublin/Pleasanton Bay Area Rapid Transit (BART) Station in Alameda County to the approved Altamont Corridor Express (ACE) North Lathrop Station in San Joaquin County.

Valley Link with its 33,000 projected daily ridership by 2040 has been widely heralded as the solution to I-580 gridlock. The inconvenient truth is that several recent studies project that during that same period the traffic on I-580 will increase from last February's pre-COVID level of 200,000 cars a day to 350,000 cars a day. The claim that Valley Link with a projected ridership of 33,000 a day would ease I-580 congestion is patently false.

1.2.4 Project Alternatives

Section 1.2.4 lists six "Alternatives"; **not a single one of which constitutes a legitimate CEQA alternative to the pre-selected, mostly single-track 42 mile rail line between North Lathrop and the East Dublin BART Station.**

- Southfront Road Station "Alternative": An alternative station at

Southfront Road does not constitute a viable alternative to the proposed 42 mile rail extension to North Lathrop. Moreover, a station at this location would directly contradict the intent of

Alameda County Measure BBM which called for improved connections between the Tri-Valley and BART.

- Stonecut Alignment Alternative: This would replace a section of track through the Altamont Hills. A 2.25 mile change in trackage does not constitute a viable alternative to a 42 mile long rail line.
- Mountain House Station Alternative: A change in the location of a station does not constitute a viable alternative to a 42 mile long rail line
- West Tracy OMF Alternative: A change in the location of an Operations and Maintenance Facility does not constitute a viable alternative to a 42 mile long rail line.
- Downtown Tracy Station Parking Alternative 1: A change in the location of a parking lot does not constitute a viable alternative to a 42 mile long rail line.
- Downtown Tracy Station Parking Alternative 2: A change in the location of a parking lot does not constitute a viable alternative to a 42 mile long rail line.

In short, none of the six "alternatives" included in Section 1.2.4 conforms to CEQA requirements as set forth in CEQA Section 15126.6 a, b, c and d. See CEQA sections below.*

1.2.5 Other Alternatives
Fourteen other "alternatives", enumerated in Section 1.2.5, "were dismissed from further analysis" because of "not meeting most of the project objectives", "being infeasible" or "not avoiding or substantially reducing one or more of the significant impacts of the proposed project".

No viable alternatives to the Valley Link proposal shown and described in the DEIR were considered. Here are two that should have been evaluated and analyzed:

The Joint ACE/Valley Link Alternative: Of the 14 dismissed "alternatives", the one entitled "Altamont Tunnel" deserves attention. The Valley Link route through the Altamont Hills is much less direct than the existing ACE route and therefore would result in unnecessarily long Valley Link travel times. Serious consideration should be given to facilitating a joint ACE/UPRR/Valley Link operation along a single set of straightened out and otherwise upgraded tracks using the UPRR/ACE right-of-way. It is likely that this upgrade would involve some tunneling. A straighter alignment along a single set of tracks would lead to higher speeds for the both ACE and Valley Link. Two parallel sets of relatively low-use passenger rail systems running through the very low density Altamont Hills on two separate tracks simply doesn't make sense. A way should be found to operate with a single set of tracks.

An important need in the I-580/I-680 Corridor is to significantly reduce passenger rail trip times between the San Joaquin Valley via the Tri-Valley to both Silicon Valley and the East Dublin BART terminal as well as to improve non-private vehicle travel opportunities within the Tri-Valley area. The case for a joint ACE/Valley Link combined development program including more tunneling along the ACE line and supplemented by an upgraded long distance bus service is a strong one.

The All-Bus Alternative: A well-integrated network of comfortable and upgraded long distance buses operating out of traffic congestion would be far cheaper to build and operate, and be far

more flexible and comprehensive than a largely single track rail service from North Lathrop. Properly laid out and implemented, a really good bus service would significantly improve travel connections within the Tri-Valley as well as to more distant points to the north, east, southwest and west. Such a system would have to be comfortable, safe, reliable, frequent, fast, convenient and understandable. Each is addressed in turn below:

Interior Comfort: There is no reason that buses can't be just as comfortable as trains. The hi-tech industries throughout the Bay Area with their "hi-tech" buses have set a new standard when it comes to bus service. An integrated Tri-Valley/San Joaquin bus service should meet this standard.

Safe: Some would-be riders do not feel safe on buses (although, bus travel is far safer than travel in private vehicles). A high priority should be placed upon assuring and operating a bus system in which all travelers feel physically and personally safe.

Reliable: Because buses mired in traffic congestion are not dependable, bus service is often seen as hopelessly unreliable. There is one fix for this and that is to develop an all-around high class bus service that operates mostly if not entirely out of congestion. Since an efficient Tri Valley – San Joaquin east-west line would logically operate on I-580, buses would necessarily have to operate in restricted lanes where other traffic was sufficiently limited to guarantee free flowing bus travel at all times. This could take the form of bus-only lanes, tolled express lanes with bus priority, or tolling applied to all freeway lanes. It is unlikely that high performance, well-used transit services could be attained, without corollary steps designed to assure consistently reliable service.

Fast: Getting somewhere by bus needs to compete with private vehicle travel. This objective requires not only freeway priority treatment for uncongested bus travel, but also synchronized arterial traffic signals, bus signal pre-emption, and speedup of loading and unloading times, including off-vehicle pre-paid fares. The objective should be to make the system attractive for those who can otherwise drive and for transit dependent travelers.

Convenient: Practical park/ride spaces should be provided to confront spread-out suburban areas where not everyone is within walking distance of a bus network. Practical ways of getting to a bus stop include walking, cycling, motor-scooter, etc. but also driving. All of these options require attention.

Understandable: To be successful transit systems must be understandable and easy to use. This requires a well-designed and persistent marketing program including clear and easily accessible maps and schedules, trip finders and fare breakdowns. When potential riders understand a service they are more likely to use it.

2.2 Project Goals and Objectives

Connectivity: Section 2.2.2 is entitled: "Establish rail connectivity between the Bay Area Rapid Transit District's rapid transit system and the Altamont Corridor Express commuter service in the Tri-Valley".

With a Valley Link Station at Greenville Road, this connection could be made only if an ACE station were placed adjacent to the Valley Link station (or if the two systems were joined on a single set of tracks at a joint Valley Link/ACE Station). In Appendix G, in a letter to Mr. Rattney dated July 30, 2020, such an ACE station is mentioned. However we could find no other references to a Greenville ACE station in the DEIR nor anything about the cost of adding this station.

Shifting the Greenville Road Valley Link Station to Southfront Road as contemplated in Section 1.2.4 would eliminate the possibility of a Tri-Valley connection between the two passenger rail services.

Cost Effectiveness:

1.4.2 Legislative Mandate – California State Assembly Bill 758
The DEIR misrepresents the intent and mandate in the legislation creating the Tri Valley San Joaquin Valley Regional Rail Authority (TVSJRRA). AB758 states clearly and unambiguously:

> "It is the intent of the Legislature to establish the Tri-Valley-San Joaquin Valley Regional Rail Authority to plan and help deliver a *cost-effective connection from the San Joaquin Valley to the Bay Area Rapid Transit District's rapid transit system and the Altamont Corridor Express in the Tri-Valley* to address regional economic and transportation challenges."

Absent a viable Alternative Analysis it is impossible to gauge the relative cost-effectiveness of the Valley Link proposal compared to its alternatives, including the proposed joint ACE/Valley Link operation and the proposed high quality bus system in and around the Tri-Valley and San Joaquin County. It should be noted that either of these two alternatives has a greater potential to serve local and regional travel needs than the preferred proposal.

As indicated above, finding a way of operating effectively on one set of tracks through the Altamont Hills deserves more consideration than it seems to have received, as does substituting a high class and well integrated network of buses in lieu of a separate Valley Link line to North Lathrop.

2.4.3 Scheduling:
Table 2-3 shows a list of construction tasks and their individual durations for each of the three segments; namely Segment I (East Dublin BART Station to Greenville Road – 11.74 miles); Segment II (Greenville Road to West Tracy 14.52 miles); and Segment III (West Tracy to North Lathrop 15.58 miles). But the DEIR does not include a critical path project schedule or even a bar graph showing how the project would proceed. Identifying a hoped-for rail service start-up dates many years in the future accomplishes nothing. Instead there should be a definitive project schedule based upon a carefully considered set of initial conditions that includes important mile-stone dates such as:

environmental clearance achieved
beginning and completion of preliminary and final engineering

construction bid opening, award and start dates for each Segment
construction completion dates for each Segment
beginning and end of start-up testing

Absent a detailed and well publicized schedule, major public infrastructure projects tend to languish. Schedules can be and often are modified but it is important that a large and complex project be placed on a schedule as early in the program as possible. The DEIR should include a flow chart or other detailed schedule of the program.

2.7 Projected Ridership

2.7.1 Ridership

The Valley Link DEIR suggest that the proposed rail project will attract approximately 8,400 to 11,100 weekday passengers when it begins service in 2025 depending upon whether the initial operating segment eastern endpoint is at Greenville Road, Southfront Road or Mountain House [Note that the initial rail service is not scheduled to begin operation until 2027-28].

Table 2-7 on page 2-37 is mislabeled, but suggests that were the full 42 mile line to be completed in the 2025 timeframe, the Valley Link ridership is posited at 12,700 to 13,400 passengers per weekday.

The projected Valley Link BART to North Lathrop rail ridership for 2040 is estimated to be 31,700 to 33,000, depending on whether a station is constructed in Livermore at Greenville Road or Southfront Road. **Note**, No 2025 or 2040 ridership is presented which is inclusive of a new ACE station near Greenville Road (as shown in Figure 2-4A and Figure 2-22).

No explanation of the basis for derivation of the ridership estimates is presented in the DEIR. Reference is made in Section 2.7 to "Appendix F, Valley Link Ridership Technical Memorandum – Revised" for more detail concerning the ridership estimation. Closer examination of Appendix F reveals serious reasons to question the credibility of the project ridership estimates.

Accurately forecasting the Valley Link rail ridership some 20 or more years into the future is imprecise at best and faced with broad uncertainties. Flyvbjerg, Skamris Holm, and Buhl studied demand forecasts for 210 infrastructure projects in 14 nations.[1] Their work shows with very high statistical significance that forecasters generally do a poor job of estimating the demand for rail transportation infrastructure projects. ***For 9 out of 10 rail projects, passenger forecasts are overestimated; the average overestimation is 106%.*** In three previous research efforts, they examined the question of project performance regarding costs and cost-related risks. Projects do not perform as forecasted in terms of costs either; almost nine out of ten projects fall victim to significant cost overruns.

[1] How (In)accurate Are Demand Forecasts in Public Works Projects? The Case of Transportation
Bent Flyvbjerg, Mette K. Skamris Holm, and Søren L. Buhl; Journal of the American Planning Association, Spring, 2005

Ridership is a primary metric for gauging the merit or "feasibility" of the proposed Valley Link rail project. That is because ridership directly determines the effectiveness of the project in accommodating future travel demand, in achieving desired greenhouse gas reductions through shifts of private vehicle trips to transit, and in relieving roadway congestion. Additionally, ridership affects passenger fare revenues which are crucial to the rail project's on-going financial operating performance.

The DEIR's ridership methodology and estimation process as documented in Appendix F is entirely insufficient and inadequate to support the Valley Link's $3 billion rail investment decision. Among its shortcomings are:

- A hybrid ridership forecasting process which attempts to integrate two independent travel demand estimating processes to forecast Valley Link rail passengers rather than a single integrated demand modeling framework encompassing both the Bay Area/Tri-Valley and San Joaquin County tributary areas.[2]
- Travel demand behavior and trip-making relationships based on outdated, pre-COVID19 patterns. And without documentation of the model's underlying structure. No documentation is provided regarding travel model calibration and validation/robustness (i.e., can the Valley Link model estimate post COVID ridership numbers and patterns?)
- Failure to utilize available, broadly-used population/household and attributes synthesis methods, large scale travel data from smart phone apps and cell location tracking data resources, and ground counts measurements of Tri Valley and San Joaquin area travel. This means no accurate quantitative base year data foundation is established for travel forecasts and alternatives evaluation.
- No documentation of future population, employed residents, household and job geographic distribution inputs to the travel demand model(s).
- Questionable ridership analysis methodology and biased delineation for a bus/BRT alternative. No reference to I-580 managed lanes utilization or roadway pricing including full tolling as proposed in MTC's Plan Bay Area 2050
- No sensitivity analysis nor risk assessment evidence to quantify the risk/likelihood of Valley Link rail passenger estimation accuracy.
- No consideration of post–COVID-19 household location and traveler decision behavior shifts, remote work trends, e-commerce/communications technology travel substitution evolution, nor changes in corporate business protocol and practice on office workforce, future travel and Valley Link rail ridership.
- No information nor documentation regarding future road segment traffic volumes, ACE ridership, nor other local transit ridership for the Valley Link alternative scenarios presented in the DEIR. This means no one can assess how Valley Link rail or other alternatives may relieve future traffic congestion and/or affect ACE and local transit ridership.
- Lack of transparency and full alternatives examination for these critical demand estimation element of the VL project assessment obstructs objective analysis and decision-making; consequently it also increases the public's downside financial and economic risks.

[2] The California Statewide Travel Demand Model is one example of such an integrated, multi-model forecasting tool.

Baseline Ridership Comparison
Comparing existing conditions to the Valley Link near-term 2025 ridership is one way to check on the reasonableness of the ridership projection. The number of BART weekday riders entering and alighting is measured every day. At the BART Pleasanton/Dublin Station average weekday passengers have hovered around 8,000 to 8,360 from 2017 through 2020 (pre-COVID).

A 2015 BART rider survey recorded home origins of BART riders by exiting station. For the BART Pleasanton/Dublin Station, some 640 to 900 BART weekday passenger trips in 2017 – 2020 were by resident of San Joaquin County. Ridership estimates for Valley Link's 2025 Mountain House initial operating segment indicate 6,500 to 7100 BART weekday passenger trips are projected to be made by San Joaquin residents – **a sevenfold to eleven-fold increase over existing conditions**. This suggests a red-flag concerning the validity of the Valley Link projected ridership numbers. The concern is markedly greater for the longer-term 2040 ridership forecast because of significantly increased uncertainty risks.

2.8 Project Costs and Revenues

2.8.1 Capital Costs
Compared to earlier Valley Link presentations the cost section in the DEIR is fairly well laid out. The capital cost breakdowns are detailed. Soft costs and contingencies appear to have been properly identified and broken out.

From Appendix G AECOM letter to Mr. Rattnay dated 7.30.20:
The "high range" capital cost of bringing Valley Link service 11.74 miles to Greenville Road is estimated in 2018 dollars to be $1.19 billion. (Using the 3.2% per year inflation rate set forth in the Project Description section, the mid-2021 cost of Segment I would be $1.31 billion). In the absence of a project construction schedule in the DEIR, the mid-point of construction of this phase is estimated to be 2025. In 2025 dollars the cost of Segment I would be $1.48 billion.
In Attachment 1 on Page 5 of 31, the "high range" mid-2018 cost, including all contingences and markups, of extending Valley Link service 42 miles to North Lathrop is estimated to be $2.92 billion, in mid-2018 dollars. It is noted that this figure represents a 16% increase from the $2.51 billion total (also in 2018 dollars) presented in the Valley Link Feasibility Report that was released in October of 2019.
Assuming that the $2.92 billion cost in 2018 dollars is correct and using the designated 3.2% per year inflation rate, the cost of the project in 2021 dollars would be $3.21 billion. The cost of Segment I with an assumed 2025 mid-point of construction would be $1.48 billion. Escalating the cost of Segments II and III to an assumed 2035 mid-point of construction would produce a cost for those two segments of $2.96 billion (excluding the 2025 Segment I cost). Therefore the composite 42 mile rail project construction cost would be $4.44 billion in year-of-construction dollars. Thus, the claim by project promoters that the entire project could be completed for less than $3 billion is preposterous.

2.8.2 Operation and Maintenance Costs and Revenues
The O&M costs summarized in this section is limited to a summary statement drawn from a table of 2025 and 2040 estimated O&M cost projections. However the cost table (Table 2-9) appears in error since its operating frequency and costs for the 2040 entries are inconsistent with Appendix G data.

O&M Costs: from AECOM Letter to Mr. Rattnay dated 7.2.20:
Included in the O&M cost section is a careful listing of all of the elements that go into making up O&M cost estimates. However the costs of the various elements are not included. Instead the estimated O&M cost of the Valley Link project as set forth in the DEIR appears to have been developed based upon the cost of two existing DMU systems elsewhere in the country judged by the Consultant to be similar to the Valley Link system. If so, this is not an adequate way of defining something as important as the future annual operating and maintenance cost of a major project.

In Table 5 the estimated first year O&M costs (assuming the Greenville Station and the 12/24 train frequency option) are escalated by 3.2% per year to 2028, assumed to be the start-up year for Segment I and to mid-2040 assumed to be the start-up year of "full build out". The first year O&M cost of Segment I (East Dublin BART Station to Greenville Road) is projected to be $12,430,000 a year. The first year O&M cost of "full build out (all three segments in full operation) is estimated to be $55,344,000 a year.

Revenues from the farebox are estimated to reach 50% of operating expense by year 3 (2030). That would imply fare revenues of $6.62 million in 2030 (and $6.62 million in operating subsidy) Valley Link projects 8,372 weekday riders in 2028, so that would imply an average fare of only $2.65 per passenger. These estimates are unreasonably low. From the information presented in the DEIR it is not possible to verify the reliability of the ridership or the O&M figures.

Conclusion
The screening process used in the Valley Link Feasibility Study and the DEIR is presented as a three-tier process which examines:

1. Whether or not they would meet most of the project's basic objectives
2. Whether or not they are feasible
3. Whether or not they would avoid or substantially lower one or more significant impacts of the Proposed Project

The DEIR is fundamentally flawed by the failure of the Authority to take a holistic approach to addressing transportation issues and solutions. No serious consideration was given to other strategies or other project alternatives. Neither was there a reasonable examination of transit services operating in conjunction with a well-developed expansion of I-580 managed lanes (as well as for I-680, I-880 and other Bay Area freeways) and planned tolling. The Project Feasibility and DIR process is also believed to be badly flawed by inconsistent

methodology in ridership and greenhouse gas emission estimates. And lastly, nowhere in the document is there an assessment of cost effectiveness.

* Excerpts from CEQA

CEQA § 15126.6. Consideration and Discussion of Project Alternatives

(a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553 and Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal.3d 376).

(b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

(c) Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

(d) Evaluation of alternatives. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as

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