CHAPTER 5
DRAFT EIR REVISIONS

This chapter presents specific revisions to the text or graphics of the Draft EIR that are being made in response to comments or to amend and clarify material in the Draft EIR. Where revisions to the main text are called for, the page and paragraph in the Draft EIR are identified, followed by the appropriate revision. Added text is indicated with double-underlined text. Deletions to text in the Draft EIR are shown with ~~strikeout~~.

The revisions to the Draft EIR derive from two sources: (1) comments raised in one or more of the comment letters received by BART on the Draft EIR; and (2) staff-initiated changes that correct minor inaccuracies, typographical errors, or clarify material found in the Draft EIR subsequent to its publication and circulation. None of the changes or clarifications presented in this chapter significantly alter the conclusions or findings of the Draft EIR.

A. COVER, TITLE PAGE, AND TABLE OF CONTENTS

The cover illustrations for Volumes 1, 2, and 3 of the Draft EIR have been revised to show corrections to the lane configuration along I-580.

B. SUMMARY

Page 10, Figure S-1, Conventional BART – Overview, is revised to fix the spelling error and add labels for the access road to the storage and maintenance facility.

Page 11, Figure S-2, DMU Alternative – Overview, is revised to add labels for the access road to the storage and maintenance facility.

BART TO LIVERMORE EXTENSION PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

Volume 1 of 3
Summary through Section 3.H Hydrology and Water Quality

State Clearinghouse No. 2012082104

BART

San Francisco Bay Area Rapid Transit District

July 2017

BART TO LIVERMORE EXTENSION PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

Volume 2 of 3
Section 3.I Biological Resources through Chapter 6 List of Preparers and References

State Clearinghouse No. 2012082104

San Francisco Bay Area Rapid Transit District
July 2017

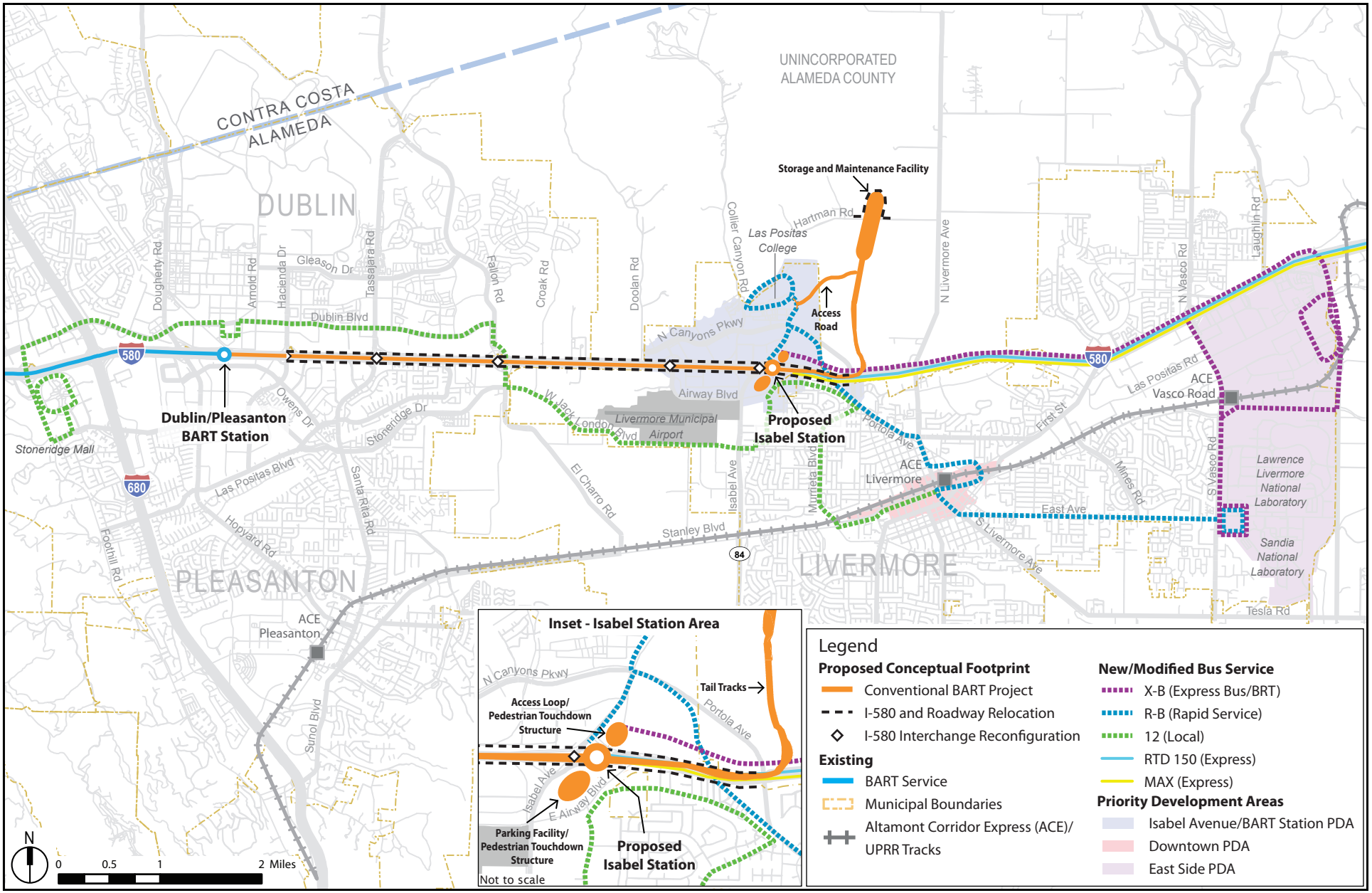
BART TO LIVERMORE EXTENSION PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

Volume 3 of 3
Appendices

State Clearinghouse No. 2012082104

San Francisco Bay Area Rapid Transit District

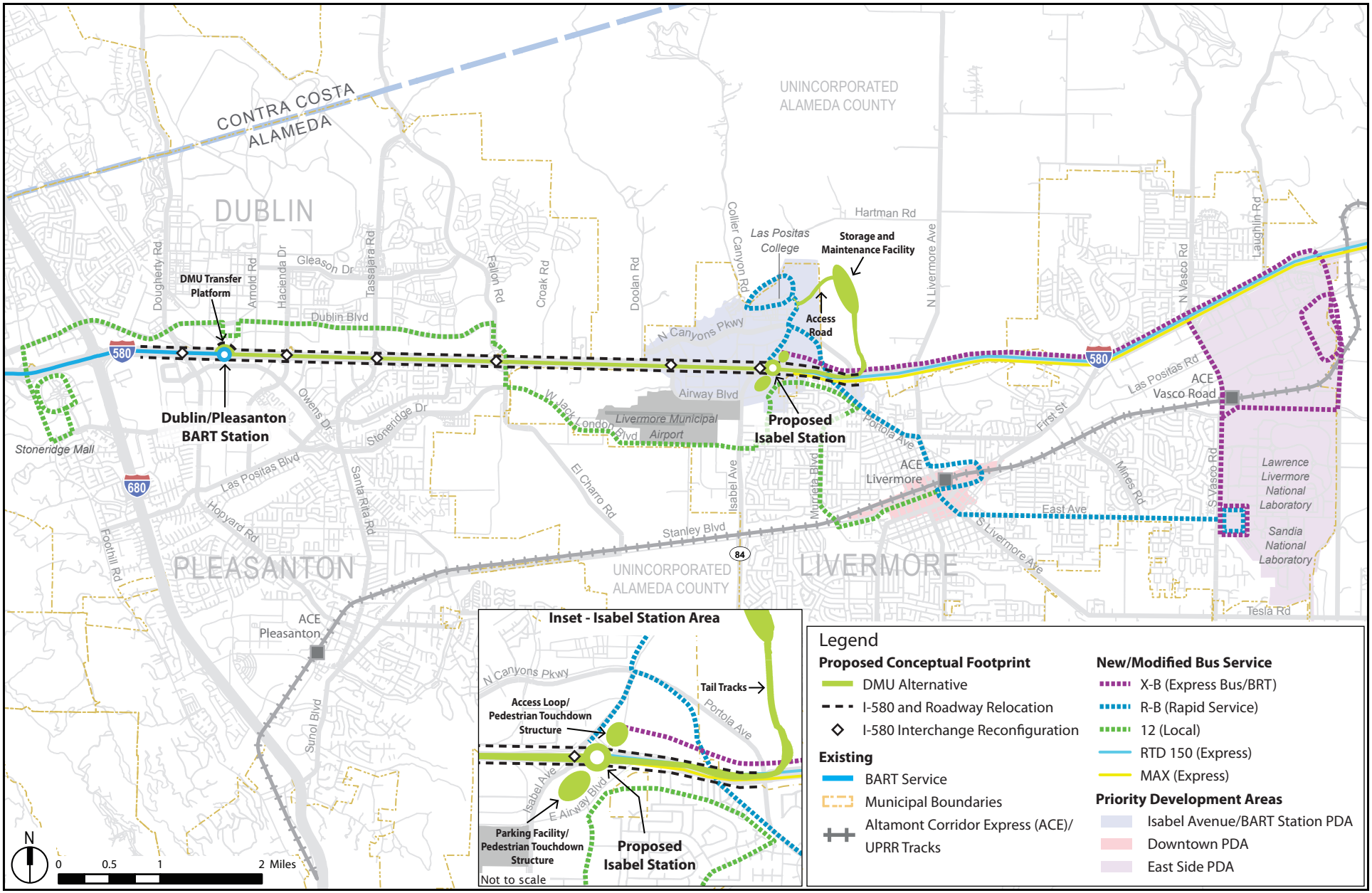
July 2017



Source: Arup, 2017a,b.

BART to Livermore Extension Project EIR

Figure S-1
Conventional BART Project Overview



Source: Arup, 2017a,b.

BART to Livermore Extension Project EIR

Figure S-2
DMU Alternative
Overview

Page 14, the following text has been added to the last paragraph on page 14:

> Construction of the Proposed Project, DMU Alternative, or Express Bus/BRT Alternative is anticipated to begin in 2021 and last approximately 5 years through 2026. Construction activities would occur in phases at various locations along the project corridor. Operations for the Proposed Project and these alternatives are expected to begin in 2026.
>
> The Enhanced Bus Alternative, as well as the feeder bus improvements under the Proposed Project and other Build Alternatives would be constructed over approximately 2 months. Operations for the Enhanced Bus Alternative are expected to begin in 2021.

Page 17, following the last paragraph:

> c. Funding
>
> Approximately $533 million (2016 dollars) in funding has been committed to the design and construction of the BART to Livermore Extension Project. Committed project funding is provided by a combination of revenues from local impact fees, Alameda County use tax, and State and regional funds.
>
> The source of the remaining funding for the Proposed Project, the DMU Alternative, and the EMU Option has yet to be determined. No additional funding is required for the Express Bus/BRT Alternative or Enhanced Bus Alternative.

C. CHAPTER 1 INTRODUCTION

Page 60 and 61, the text under subheading (2) ACEforward is changed as follows:

> **(2) ACEforward**
>
> SJRRC ~~proposes~~ proposed to implement ACEforward, a phased rail infrastructure and service improvement plan to increase frequency, increase service reliability, and enhance passenger facilities along the existing ACE service corridor from San Jose to Stockton and to extend ACE service to Modesto and Merced. This improvement plan would have provided the foundation for SJRRC's long-term vision of inter-city/commuter passenger rail services.
>
> ACEforward ~~includes~~ included near-term and longer-term improvements. Near-term improvements ~~includes~~ included plans to increase service to six

trains per day and extend service to Modesto. Longer-term improvements included plans to expand service to 10 trains per day and extending service to Merced. Among the longer-term improvements ~~are~~ were 11 alternatives to connect ACE to BART in the Tri-Valley Area:[42]

- Alternative P-TV-1a: ACE to BART Isabel Avenue at grade
- Alternative P-TV-1b: ACE to BART Isabel Avenue on elevated structure
- Alternative P-TV-1c: DMU/EMU to BART Isabel Avenue
- Alternative P-TV-1d: Bus shuttle from ACE Livermore to BART Isabel Avenue
- Alternative P-TV-2a: ACE to BART Dublin/Pleasanton at grade
- Alternative P-TV-2b: ACE to BART Dublin/Pleasanton on elevated structure
- Alternative P-TV-2c: DMU/EMU to BART Dublin/Pleasanton
- Alternative P-TV-2d: Existing bus shuttle from ACE Pleasanton to BART West Dublin/Pleasanton
- Alternative P-BART-1: BART to Greenville and ACE Greenville Road
- Alternative P-BART-2: BART to ACE Livermore intermodal and ACE Vasco Road
- Alternative P-BART-3: BART to ACE Livermore and ACE Vasco Road intermodal

Most of these alternatives would have connected directly to the BART system. For example, Alternatives P-TV-1a, b, and c would have extended ACE to the proposed Isabel Station; and Alternatives P-TV-2a, b, and c would have extended ACE to the Dublin/Pleasanton Station. Alternatives P-BART-1, 2, and 3 would have extended BART to meet ACE at Greenville, the Livermore intermodal or the Vasco Road intermodal. The remaining two alternatives would have used a bus shuttle to make the ACE to BART connection.

~~ACEforward is currently under environmental review and the Draft~~ The ACEforward Draft EIR was published in May 2017. The ACEforward Draft EIR ~~evaluates~~ evaluated the near-term improvements at the project level and ~~evaluates~~ evaluated the longer-term improvements at the program level. At

[42] San Joaquin Regional Rail Commission, 2017. ACEforward Draft Environmental Impact Report, Description of Longer-Term Improvements, page 3-19. May.

~~this~~ that time, the 11 alternatives for connections to BART ~~have not been~~ were not developed sufficiently to allow a project-level evaluation in the Draft EIR and they ~~are~~ were not anticipated to be fully developed until at least 2023.[43]

Subsequent to the publication of the BART to Livermore Extension Project Draft EIR, and following the close of the public comment period on the ACEforward Draft EIR on August 31, 2017, the SJRRC determined that it would not continue with the ACEforward project and rescinded that proposed project's Draft EIR. The SJRRC now proposes a different project. As described in the Notice of Preparation for an EIR evaluating an ACE Extension from Lathrop to Ceres/Merced (January 10, 2018), "the ACEforward project is not moving forward" and the "improvements envisioned in the ACEforward plan no longer represent the intention of the SJRRC for ACE." Therefore, the ACE to BART connections identified in the ACEforward Draft EIR are not considered reasonably foreseeable future projects. BART reviewed the ridership analysis in the BART to Livermore Draft EIR in light of the elimination of the ACEforward plan and determined that the changes did not substantially affect the analysis.[44] Therefore, no revisions have been made to the Draft EIR.

Page 72, Table 1-1, Public Agencies with Possible Future Permit and/or Approval Authority, is revised as shown on the following page to further clarify Caltrans and Zone 7 review and approvals.

Action/Approvals Required - Project reports and plans, including approval of proposed planting/irrigation plans and specifications for areas within the State ROW

Page 75, the column for Permit or Approval Jurisdiction in Table 1-1 has been revised to include the following text:

Zone 7 Geotechnical Borings/Well Drilling/Abandonment Permitting as applicable

[43] San Joaquin Regional Rail Commission, 2017. op. cit. Introduction, page 1-14. May.
[44] Cambridge Systematics, 2018, BART to Livermore: Anticipated Ridership Impacts Due to Elimination of ACEfoward Service Plan. Memo dated March 12, 2018.

D. CHAPTER 2 PROJECT DESCRIPTION

Page 90, Figure 2-1, Conventional BART Project – Overview, is revised to add labels for the access road to the storage and maintenance facility.

Page 106, end of first full paragraph:

> However, these additional two levels are not part of the Proposed Project or Build Alternatives and therefore are not analyzed in the Draft EIR. Additional environmental analysis would be undertaken if BART were to pursue construction of additional parking levels in a separate project at a later time.

Page 116, end of first full paragraph:

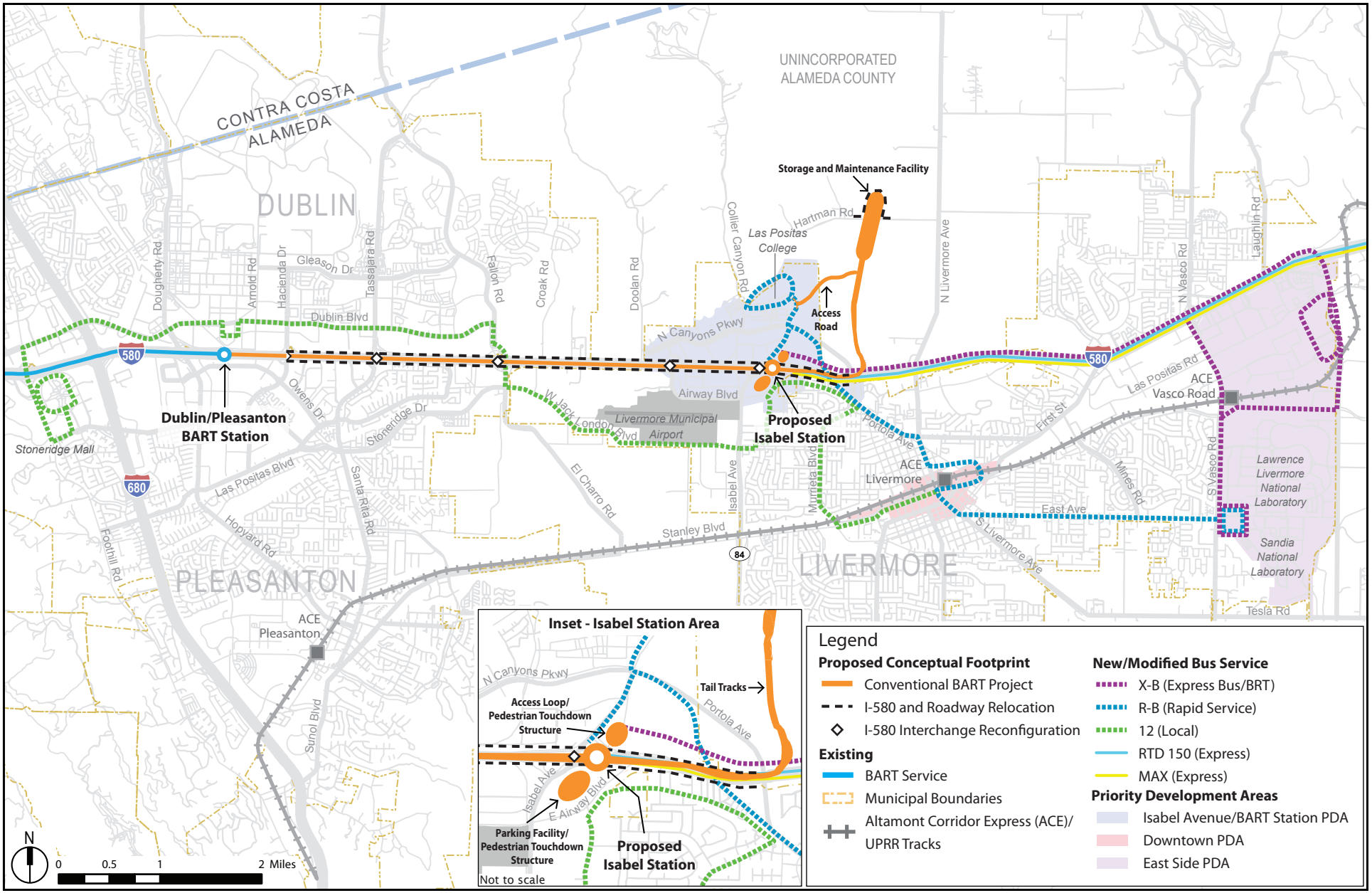
> Three bus routes connect to ACE in the project vicinity: from the ACE Pleasanton Station, Wheels 53 connects to the West Dublin/Pleasanton Station and Wheels 54 connects to Dublin/Pleasanton Station; and from the ACE Livermore Station, Wheels 10 connects to the Dublin/Pleasanton Station.

The following staff-initiated text change is made to page 121 of the Draft EIR, subsection c. Fleet Size:

> Based on the analysis, the Proposed Project would require an additional 36 BART cars to accommodate the anticipated increase in ridership and the longer route while maintaining a level of crowding similar to the BART systemwide average. In addition, two additional rush trains would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. These two trains would provide three inbound runs to San Francisco and one outbound run in the AM peak period, with the reverse in the PM peak period. No additional buses would be needed to serve the Proposed Project.

Page 124, Figure 2-13, DMU Alternative – Overview, is revised to add labels for the access road to the storage and maintenance facility.

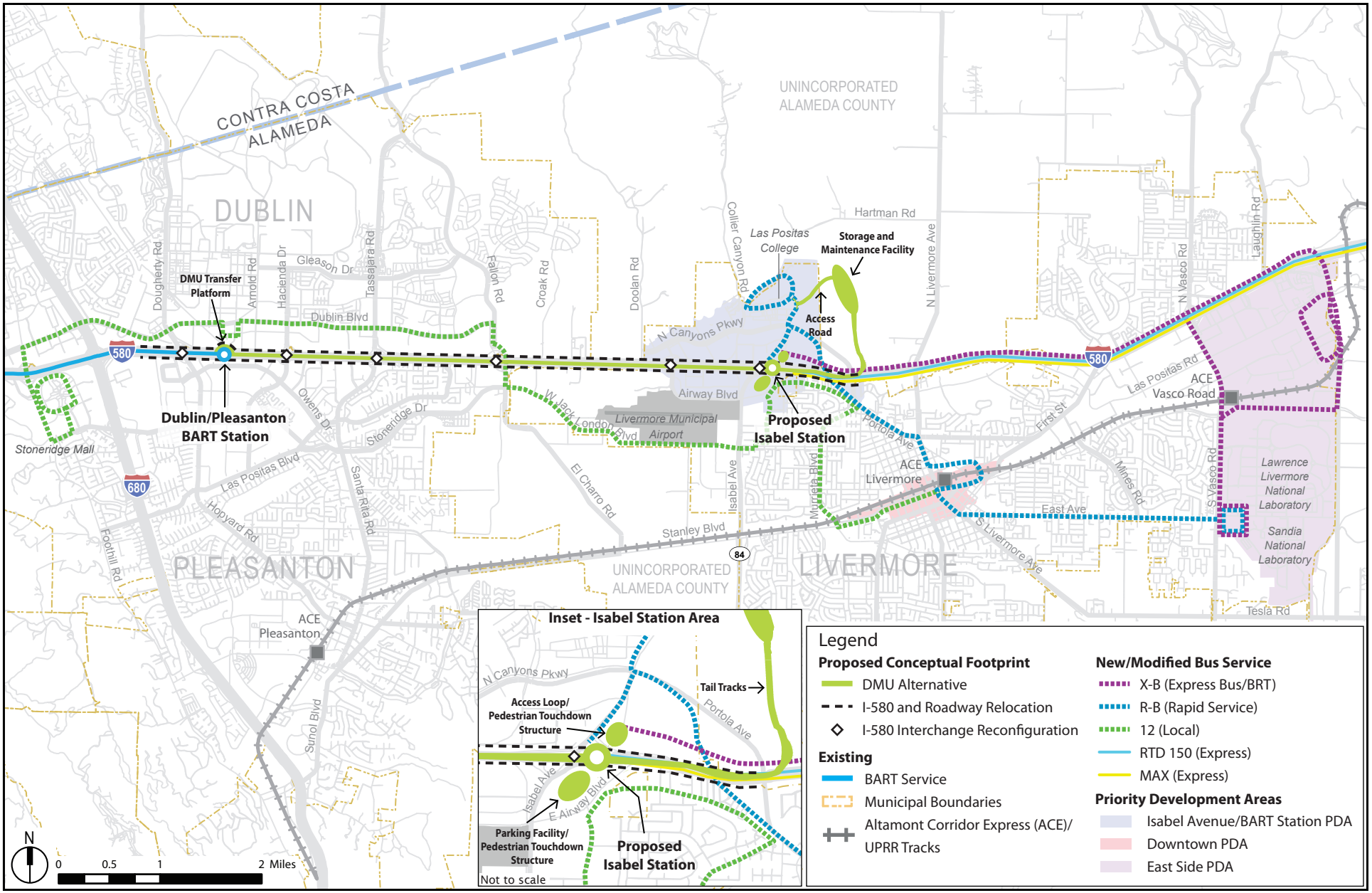
Page 128, Figure 2-15, DMU Alternative – Typical DMU and EMU Vehicle, is revised to show a new model of an EMU vehicle.



Source: Arup, 2017a,b.

BART to Livermore Extension Project EIR

Figure 2 - 1
Conventional BART Project Overview



Source: Arup, 2017a,b.

Figure 2-13
DMU Alternative
Overview

Typical DMU Train

Typical EMU Train

Source: Arup, 2011; Mark Duferene, 2016.

Figure 2-15
DMU Alternative
Typical DMU and EMU Vehicles

Page 135, added to end of third full paragraph:

> However, these additional two levels are not part of the Proposed Project or Build Alternatives and therefore are not analyzed in the Draft EIR. Additional environmental analysis would be undertaken if BART were to pursue construction of additional parking levels in a separate project at a later time.

The following staff-initiated text change is made to page 143 of the Draft EIR, subsection c. Fleet Size, first paragraph:

> Based on the analysis, the DMU Alternative would require an additional 24 BART cars to accommodate the anticipated increase in ridership while maintaining a level of crowding similar to the BART systemwide average. In addition, two additional rush trains would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. These two trains would provide three inbound runs to San Francisco and one outbound run in the AM peak period, with the reverse in the PM peak period. No additional buses would be needed to serve the DMU Alternative.

Page 157, end of last paragraph:

> Three bus routes connect to ACE in the project vicinity: from the ACE Pleasanton Station, Wheels 53 connects to the West Dublin/Pleasanton Station and Wheels 54 connects to Dublin/Pleasanton Station; and from the ACE Livermore Station, Wheels 10 connects to the Dublin/Pleasanton Station.

The following staff-initiated text change is made to page 161 of the Draft EIR, first sentence:

> Based on the analysis, the Express Bus/BRT Alternative would require an additional 12 BART cars to accommodate the increased ridership anticipated while maintaining a level of crowding similar to the BART systemwide average. In addition, one additional rush train would be provided for the peak period to accommodate the additional passengers anticipated from the Tri-Valley Area. This train would provide one inbound run to San Francisco in the AM peak period, and one outbound run in the PM peak period.

The second paragraph on page 192 of the Draft EIR (Chapter 2, Project Description) has been revised as follows to clarify the allocation of the costs of the storage yard and maintenance facility to the Proposed Project:

> The capital cost for the Proposed Project includes 100 percent of the cost to include a storage yard and 25 percent of the cost to include a BART ~~storage and~~ maintenance facility. A BART storage yard is directly and fully attributable to the Proposed Project, while a ~~BART storage and~~ maintenance facility is needed to service both the Proposed Project as well as the overall future needs of the Daly City-Dublin/Pleasanton Line.

E. CHAPTER 3 ENVIRONMENTAL ANALYSIS

1. Section A. Introduction to Environmental Analysis

Table 3.A-2A below replaces Table 3.A-2 on page 229 to provide updated numbers for existing and projected population, housing units, and jobs in the Isabel Neighborhood Plan (INP) area. For travel modeling purposes, the Draft EIR considered an aggregate of traffic analysis zones that included the INP area. Therefore, the numbers provided in Table 3.A-2 of the Draft EIR were for this larger area, rather than just the INP area. Table 3.A-2A below provides existing and projected numbers for just the INP area. In addition, the existing housing units provided below include the completion of 476 Shea Homes - Sage units, which were not included in the Draft EIR table. Table 3.A-2A also includes a correction for the number of existing jobs.

TABLE 3.A-2A PROJECTED GROWTH IN THE INP AREA THROUGH 2040

Population	Existing[a]	2040	Increase over Existing
City of Livermore General Plan	3,311	3,311	0
Plan Bay Area for INP Area	3,311	8,560	5,249
Isabel Neighborhood Plan	3,311	13,114	9,803
Housing Units			
City of Livermore General Plan	1,383	1,383	0
Plan Bay Area for INP Area	1,383	3,575	2,192
Isabel Neighborhood Plan	1,383	5,478	4,095
Jobs			
City of Livermore General Plan	8,744	14,597	5,853
Plan Bay Area for INP Area	8,744	10,497	1,753
Isabel Neighborhood Plan	8,744	17,892	9,148

Notes:
[a] Existing jobs and housing units are derived from Plan Bay Area for year 2013, with the addition of the recent completion of 476 Shea Homes - Sage housing units.
Source:
City of Livermore, 2018.

The analysis in the Draft EIR was based on the land use changes (delta) associated with the Project compared to the No Project Conditions for the analysis years 2025 and 2040 and the change between the Cumulative Conditions and No Project Conditions for the same years. The numbers in Table 3.A-2A represent the same underlying land use files used in the Alameda County transportation model and the DEIR analysis. The adjustments illustrated in Table 3.A-2A reflect the more limited scope of the INP area only, rather than the larger area of the INP and aggregated traffic zones. Therefore, there was no change to any of the quantitative analysis in the Draft EIR, and the analysis in the Draft EIR remains valid.

2. Section B. Transportation

Page 241, Table 3.B-2, is revised to reflect updated average delay and LOS at intersections, as follows:

TABLE 3.B-2 INTERSECTION LEVEL OF SERVICE, EXISTING (2013)

				AM Peak Hour		PM Peak Hour	
#	Intersection	Control	Location	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1	Dougherty Road & Amador Valley Road	Signal	Dublin	53.0	D	37.1	D
2	Hopyard Road/Dougherty Road & Dublin Boulevard	Signal	Dublin	41.5	D	56.9	E
3	Dougherty Road/Hopyard Road & I-580 WB Ramps	Signal	Dublin	12.1	B	12.6	B
4	Hopyard Road/Dougherty Road & I-580 EB Ramps	Signal	Pleasanton	50.2	D	27.9	C
5	Hopyard Road & Owens Road	Signal	Pleasanton	37.6	D	180.9	F
6	Hopyard Road & Stoneridge Drive	Signal	Pleasanton	25.5	C	42.2	D
7	Hopyard Road & Las Positas Boulevard	Signal	Pleasanton	27.0	C	41.2 ~~13.1~~	D ~~B~~
8	Willow Road & Owens Road	Signal	Dublin	11.4	B	~~29.6~~ 13.1	B ~~C~~
9	Hacienda Drive & Dublin Boulevard	Signal	Dublin	23.7	C	29.6 ~~23.1~~	C ~~C~~
10	Hacienda Drive & Martinelli Boulevard/Hacienda Crossings	Signal	Dublin	19.1	B	23.1 ~~8.6~~	C ~~A~~
11	Hacienda Drive & I-580 WB Ramps	Signal	Pleasanton	7.8	A	8.6 ~~15.9~~	A ~~B~~
12	Hacienda Drive & I-580 EB Ramps	Signal	Pleasanton	11.9	B	15.9 ~~51.0~~	B ~~D~~
13	Hacienda Drive & Owens Road	Signal	Dublin	43.2	D	39.9 ~~47.2~~	D ~~D~~

TABLE 3.B-2 INTERSECTION LEVEL OF SERVICE, EXISTING (2013)

				AM Peak Hour		PM Peak Hour	
#	Intersection	Control	Location	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
14	Tassajara Road & Dublin Boulevard	Signal	Dublin	41.8	D	47.2 ~~9.8~~	D ~~A~~
15	Tassajara Road & I-580 WB Ramps	Signal	Pleasanton	10.2	B	9.4 ~~29.3~~	A ~~C~~
16	Santa Rita Road & I-580 EB Ramps/Pimlico Drive	Signal	Pleasanton	33.2	C	27.5 ~~54.4~~	C ~~D~~
17	Santa Rita Road & Valley Avenue	Signal	Pleasanton	45.3	D	57.9 ~~35.3~~	E ~~D~~
18	Bernal Avenue/Valley Avenue & Stanley Boulevard	Signal	Dublin	35.3	D	35.3 ~~12.1~~	D ~~B~~
19	Fallon Road & Dublin Boulevard/Croak Road	Signal	Dublin	22.0	C	12.1 ~~8.1~~	B ~~A~~
20	El Charro Road/Fallon Road & I-580 WB Ramps	Signal	Livermore	8.3	A	8.1 ~~6.2~~	A ~~A~~
21	El Charro Road & I-580 EB Ramps	Signal	Livermore	5.9	A	6.2 ~~26.3~~	A ~~C~~
22	El Charro Road & Stoneridge Drive/Jack London Boulevard	Signal	Livermore	20.8	C	26.3 ~~N/A~~	C ~~N/A~~
23	Stanley Boulevard & El Charro Road	Signal	Livermore	N/A	N/A	N/A ~~15.8~~	N/A ~~B~~
24	Airway Boulevard/Driveway & North Canyons Parkway	Signal	Livermore	7.0	A	15.8 ~~4.7~~	B ~~A~~
25	Airway Boulevard & I-580 WB Ramps	Signal	Livermore	3.1	A	4.7 ~~36.1~~	A ~~D~~
26	Airway Boulevard & I-580 EB Ramps/Kitty Hawk Road	Signal	Livermore	35.4	D	36.1 ~~26.1~~	D ~~C~~
27	Collier Canyon Road & North Canyons Parkway/Portola Avenue	Signal	Livermore	23.3	C	26.1 ~~23.5~~	C
28	Isabel Avenue/Campus Hill Drive & Portola Avenue	Signal	Livermore	25.5	C	23.5 ~~8.3~~	C ~~A~~
29	Isabel Avenue & I-580 WB Ramps	Signal	Livermore	7.8	A	8.3 ~~5.2~~	A
30	Isabel Avenue & I-580 EB Ramps	Signal	Livermore	6.3	A	5.2 ~~23.3~~	A ~~C~~
31	Isabel Avenue & Airway Boulevard	Signal	Livermore	27.7	C	23.3 ~~45.3~~	C ~~D~~
32	Isabel Avenue & Jack London Boulevard	Signal	Livermore	93.6	F	34.4 ~~15.4~~	C ~~B~~
33	Isabel Avenue Connector & Stanley Boulevard	Signal	Livermore	18.8	B	15.0 ~~13.1~~	B
34	Murrieta Boulevard/Driveway & Portola Avenue	Signal	Pleasanton	23.7	C	30.1	C
35	Murrieta Boulevard & Jack London Boulevard	Signal	Livermore	17.8	B	17.3	B

TABLE 3.B-2 INTERSECTION LEVEL OF SERVICE, EXISTING (2013)

				AM Peak Hour		PM Peak Hour	
#	Intersection	Control	Location	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
36	Murrieta Boulevard & Stanley Boulevard	Signal	Livermore	48.6	D	44.5	D
37	Livermore Avenue & I-580 WB Ramps	Signal	Livermore	33.2	C	12.9	B
38	Livermore Avenue & I-580 EB Ramps	Signal	Livermore	15.6	B	148.3	F
39	Livermore Avenue & Portola Avenue	Signal	Livermore	38.6	D	36.4	D
40	First Street/Springtown Boulevard & I-580 WB Ramps	Signal	Livermore	8.4	A	5.7	A
41	First Street & I-580 EB Ramps	Signal	Livermore	8.4	A	29.8	C
42	First Street & Mines Road	Signal	Livermore	27.8	C	63.3	E
43	Vasco Road / I-580 WB Ramps	TWSC	Livermore	0.9	A	1.1	A
44	Vasco Road / I-580 EB Ramps	TWSC	Livermore	0.3	A	0.6	A
45	Vasco Road & East Avenue	Signal	Livermore	16.3	B	77.3	E
46	Greenville Road & I-580 WB Ramps	Signal	Livermore	11.7	B	4.6	A
47	Greenville Road & I-580 EB Ramps	Signal	Livermore	9.6	A	13.6	B
48	Greenville Road /Altamont Pass Road	Signal	Livermore	80.8	F	47.7	E
49	Greenville Road & Southfront Road	Signal	Livermore	10.9	B	13.6	B
50	Greenville Road / Patterson Pass Road	TWSC	Livermore	>120	F	>120	F

Notes: LOS = level of service; Avg. = average; sec = seconds; TWSC = two-way stop controlled; WB = westbound; EB = eastbound; N/A = not applicable.
Sources: Arup, 2017; Cambridge Systematics, 2017.

Page 249, Table 3.B-5, Surrounding Transit Services, Existing, is revised to include a note regarding ACE Pleasanton to Dublin/Pleasanton BART Station Wheels connections and to show information about Wheels Routes 10R, 53, and 54:

TABLE 3.B-5 SURROUNDING TRANSIT SERVICES, EXISTING

Operator	Route	Existing Peak Headway	Existing Service Span	Route Overview
LAVTA	10	30 min	▪ Weekday: 4:00 a.m. – 1:14 a.m. ▪ Saturday: 4:57 a.m. – 1:14 a.m. ▪ Sunday: 5:17 a.m. – 1:14 a.m.	LLNL to Dublin/Pleasanton Station (to Stoneridge Mall on weekends and M–F 7:20–11:56 p.m. only).
LAVTA	10R	15 min	▪ Weekday: 4:32 a.m. – 1:38 a.m. ▪ Weekend: 6:02 a.m. – 1:38 a.m.	East Dublin/Pleasanton Station, Valley Care Livermore, Transit Center
LAVTA	12	30 min	▪ Weekday: 6:00 a.m. – 10:40 p.m. ▪ Weekend *(Sunday only)*: 6:00 a.m. – 10:40 p.m.	Livermore Transit Center to Stoneridge Mall via Dublin/ Pleasanton Station
LAVTA	12X	45 min	▪ Weekday: 6:00 a.m. – 9:15 p.m. ▪ Weekend: No service	Livermore Transit Center, Valley Care Livermore Campus, Airway Park and Ride, Las Positas College, Kitty Hawk/Armstrong, Dublin Boulevard/Fallon intersection, East Dublin/Pleasanton Station
LAVTA	20X	45 min	▪ Weekday: 6:15–10:00 a.m. & 4:00–6:40 p.m. ▪ Weekend: *No service*	Dublin/Pleasanton Station, Greenville Road, LLNL/SNL, Livermore Transit Center
LAVTA	53	30-80 min	▪ Weekday: 5:36 a.m. – 8:39 a.m. & 3:55 p.m. – 7:16 p.m. ▪ Weekend: *No service*	Fairgrounds, East/ACE, West Pleasanton BART Station, Stoneridge Mall
LAVTA	54	60 min	▪ Weekday: 6:51 a.m. – 8:20 a.m. & 3:47 p.m. – 6:16 p.m. ▪ Weekend: *No service*	ACE, Hacienda, West Pleasanton BART
LAVTA	Rapid Route	15 min	▪ Weekday: 5:30 a.m. – 8:00 p.m.	Dublin/Pleasanton Station to Livermore Transit Center
RTD	150	60 min	▪ Weekday: 4:10 a.m. – 10:20 p.m. ▪ Weekend: *No service*	Stockton Downtown Transit Center, Stockton-Michigan Park & Ride, Lathrop: Save Mart, Tracy Transit Station, Dublin/Pleasanton Station

TABLE 3.B-5 SURROUNDING TRANSIT SERVICES, EXISTING

Operator	Route	Existing Peak Headway	Existing Service Span	Route Overview
MAX	BART Express	60 min (two inbound trips in a.m. and two outbound trips in p.m.)	▪ Weekday: 4:40–9:00 a.m. & 3:45–8:00 p.m. ▪ Weekend: *No service*	Modesto Downtown Transportation Center, Sisk Road Orchard Supply Hardware Parking Lot (Modesto), Dublin/Pleasanton Station
SJRRC	ACE	30 min (four inbound trips in a.m. and four outbound trips in p.m.)	▪ Weekday: 4:20–9:17 a.m. & 3:35–8:50 p.m. ▪ Weekend: *No service*	Downtown Stockton Transit Center to San Jose (via Livermore and Pleasanton)
StaRT	Commuter	One trip per peak period, peak direction	▪ Weekday: 4:15–6:10 a.m. & 4:20–6:20 p.m.	Turlock, Patterson, Pleasanton via I-5 and I-580
County Connection	35	30 min (peak) 60 min (off peak)	▪ Weekday: 6:00 a.m. – 8:17 p.m. ▪ Weekend: *No service*	San Ramon Transit Center, Bollinger Canyon Road, Dougherty Road, Dublin/Pleasanton Station
County Connection	36	60 min	▪ Weekday: 6:15 a.m. – 9:00 p.m. ▪ Weekend: *No service*	San Ramon Transit Center, San Ramon, Dublin/Pleasanton Station
County Connection	97X	30 min (peak) No off-peak service	▪ Weekday: 6:30 a.m. – 7:00 p.m.	Bishop Ranch Express, South: Dublin/Pleasanton Station to Bishop Ranch

Notes: This table refers to existing surrounding transit services prior to implementation of Wheels Forward Plan. Three bus routes connect to ACE in the project vicinity: from the ACE Pleasanton Station, Wheels 53 Connects to the West Dublin/Pleasanton Station and Wheels 54 connects to Dublin/Pleasanton Station; and from the ACE Livermore Station, Wheels 10 connects to the Dublin/Pleasanton Station.
min = minutes; LAVTA = Livermore-Amador Valley Transit Authority; RTD = San Joaquin Regional Transit District; MAX = Modesto Area Express; StaRT = Stanislaus Regional Transit; SJRRC = San Joaquin Regional Rail Commission; LLNL = Lawrence Livermore National Laboratory; SNL = Sandia National Laboratories.
Sources: Livermore-Amador Valley Transit Authority (LAVTA), 2014; San Joaquin Regional Transit District (RTD), 2016; Stanislaus Regional Transit (StaRT), 2016; County Connection, and Modesto Area Express (MAX), 2016; San Joaquin Regional Rail Commission (SJRRC), 2016.

Page 251, second paragraph:

In the current condition, there are bus shuttles connecting BART to the ACE Pleasanton Station, operated by LAVTA, including Route 53 to the West Dublin/Pleasanton Station and Route 10 to the Dublin/Pleasanton Station. In addition, Wheels 10 connects the ACE Livermore Station to the Dublin/Pleasanton Station. Stanislaus Regional Transit provides bus service

in Stanislaus County. The operator runs one commuter route to the existing Dublin/Pleasanton Station, starting from the city of Turlock, via the city of Patterson.

Page 251, Table 3.B-6, Weekday Ridership, Existing, is revised to show existing ACE ridership at the Vasco ACE Station, Livermore ACE Station, and Pleasanton ACE Station:

TABLE 3.B-6 WEEKDAY RIDERSHIP, EXISTING

Operator	Route	Station	Ridership
LAVTA	10	-	1,470
LAVTA	12/12X	-	490
LAVTA	20X	-	60
LAVTA	Rapid Route	-	1,440
SJRRC	ACE	-	4,380
SJRRC	ACE	Vasco Road	490
SJRRC	ACE	Livermore	540
SJRRC	ACE	Pleasanton	1,720

Notes: LAVTA = Livermore-Amador Valley Transit Authority; SJRRC = San Joaquin Regional Rail Commission; ACE = Altamont Corridor Express.
Sources: Livermore-Amador Valley Transit Authority (LAVTA), 2014; San Joaquin Regional Rail Commission (SJRRC), 2014-2015.

Page 269, the following text is added following the first paragraph under "BART Ridership Forecast".

The BLVX Travel Demand Model, a version of the Alameda CTC travel demand model customized for the BART to Livermore Extension Project, was used to forecast station-to-station origin-destination ridership for the Proposed Project and Alternatives under each analyzed scenario. These ridership forecasts were used in an operations analysis to determine peak-hour passenger loads and fleet requirements for each BART line. The average of all of the peak line loads was used to determine the systemwide peak load. The analysis used assumptions for future BART operations plans that adhered to practical constraints such as the capacity limit of the Transbay Tube, but also were designed specifically to prevent passenger peak loads on any one line from deviating substantially from the systemwide average.

Traffic incidents are indirectly taken into account by the BLVX Travel Demand Model. In preparing the model for analysis via the validation and calibration step, the model's processes for generating transit ridership and traffic volumes are informed by existing, observed conditions. While the set of observed data to be used is selected to exclude existing conditions with major, outlier incidents, the selected dataset does represent 'typical' travel conditions, which include some amount of incidents. Therefore, the model's transit ridership and traffic volume outputs do reflect the effects of the ordinary course of incidents on delays.

The model does not use the likelihood of incidents as an independent variable in explaining travel behavior; the current state of the art in travel demand modeling is unable to do so. Thus, the level of incidents cannot be used as an explanatory variable in travel forecasting.

Page 272, first paragraph under **(4) Impacts on other Transit Services**:

To quantify the effect of the Proposed Project and Build Alternatives on transit operators' ability to meet their efficiency and ridership goals, the study analyzed daily ridership for key selected transit providers near the Proposed Project and Build Alternatives. The BLVX Travel Demand Model generated daily ridership forecasts for the relevant transit providers under each project scenario and alternative. Several methodological factors could have led the BLVX model to under-estimate ACE ridership compared to modeling performed by ACE for its ACEforward EIR. In particular, the BLVX model is adapted from a model developed by the Alameda County Transportation Commission, which does not include geographic coverage of Stanislaus and Merced counties. The ACE model is also a different type of model that focuses on ACE service and incorporates lower ACE travel time assumptions. However, the BLVX analysis included a sensitivity test to determine whether a faster ACE travel time would affect BART system ridership, and found that BART ridership was affected by less than 1 percent.

Page 274, the first paragraph under **(1) Freeway Segments**:

This section summarizes the known completed and planned improvements for I-580 between 2013~~4~~ and 2025 and 2040, as follows:

Page 274, following the last bullet of the list, is revised to include the new express lanes constructed between Fallon Road/El Charro Road and Vasco Road:

- Construct new express lanes between Fallon Road/El Charro Road and Vasco Road in the westbound and eastbound direction

Page 274, the last paragraph on the page:

The lane configuration for I-580 changes significantly between Existing Conditions (2013~~4~~) and 2025 and 2040 Project Conditions. Table 3.B-13 shows the freeway configuration for I-580 for 2014 and 2025/2040.

Page 275, Table 3.B-13, is revised to note add two footnotes regarding the express lanes:

TABLE 3.B-13 I-580 LANE CONFIGURATION IN 2014 AND 2025/2040, NO PROJECT CONDITIONS

			2014 General Purpose Lanes		2014 Express Lanes[1]		2025/2040 General-Purpose Lanes		2025/2040 Express Lanes	
#	To	From	WB	EB	WB	EB[2]	WB	EB	WB	EB
1	Dougherty Road/Hopyard Road	Hacienda Drive	5	7	0	0	5	7	1	0
2	Hacienda Drive	Tassajara Road/Santa Rita Road	5	5	0	1	5	5	1	1
3	Tassajara Road/Santa Rita Road	Fallon Road/El Charro Road	5	5	0	1	5	5	1	1
4	Fallon Road/El Charro Road	Airway Boulevard	4	5	0	1	5	5	1	2
5	Airway Boulevard	Isabel Avenue	4	5	0	1	5	5	1	2
6	Isabel Avenue	Livermore Avenue	4	4	0	1	5	5	1	2
7	Livermore Avenue	Springtown Boulevard/First Street	4	4	0	1	5	5	1	2
8	Springtown Boulevard/First Street	Vasco Road	4	5	0	1	5	5	1	2
9	Vasco Road	Greenville Road	4	4	0	1	4	4	1	1
10	Greenville Road	Carroll Road/Flynn Road	4	4	0	0	4	5	0	0

Notes:

[1] Express Lanes is a generic term referring to both high occupancy vehicle lanes and high occupancy toll lanes.

[2] In 2014, the eastbound direction of I-580 included an HOV lane only; the conversion of that lane from HOV to express lane (i.e., allowing single drivers to pay a toll to use it), occurred in 2016.

EB = eastbound; WB = westbound.

Current and future freeway configuration assumptions were agreed upon by BART and Alameda CTC.

Source: Alameda CTC, BART, and City of Livermore, 2016.

Page 276, Table 3.B-14, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-14 I-580 PERFORMANCE IN AM, 2025 NO PROJECT CONDITIONS

			General-Purpose Westbound		General-Purpose Eastbound		Express Lane Westbound		Express Lane Eastbound	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/Hopyard Road	Hacienda Drive	E	0.971	B	0.471	E	0.978	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	**E** ~~**F**~~	**0.995** ~~**1.00**~~	B	0.532	**F**	**1.012**	A	0.291
3	Tassajara Road/Santa Rita Road	Fallon Road/El Charro Road	**F**	**1.004**	B	0.567	**F**	**1.024**	A	0.293
4	Fallon Road/El Charro Road	Airway Boulevard	E	0.986 ~~0.97~~	B	0.547 ~~0.55~~	**E** ~~**E**~~	**1.000** ~~**0.99**~~	A	0.147 ~~0.15~~
5	Airway Boulevard	Isabel Avenue	**F**	**1.048** ~~**1.04**~~	B	0.488 ~~0.49~~	**F**	**1.053** ~~**1.04**~~	A	0.147 ~~0.15~~
6	Isabel Avenue	Livermore Avenue	**F**	**1.062** ~~**1.05**~~	B	0.537 ~~0.54~~	**F**	**1.065** ~~**1.06**~~	A	0.147 ~~0.15~~
7	Livermore Avenue	Springtown Boulevard/First Street	E	0.984	B	0.519 ~~0.52~~	E	0.994	A	0.147 ~~0.15~~
8	Springtown Boulevard/First Street	Vasco Road	E	0.978	B	0.567	E	0.981	A	0.146 ~~0.15~~
9	Vasco Road	Greenville Road	E ~~D~~	0.977 ~~0.87~~	B	0.571	D	0.866 ~~0.87~~	A	0.00
10	Greenville Road	Carroll Road/ Flynn Road	**F**	**1.038** ~~**1.04**~~	B	0.444	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that operate at unacceptable levels.
Source: Cambridge Systematics, 2017.

Page 277, Table 3.B-15, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-15 I-580 PERFORMANCE IN PM, 2025 NO PROJECT CONDITIONS

			General-Purpose Westbound		General-Purpose Eastbound		Express Lane Westbound		Express Lane Eastbound	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	C	0.634	C	0.714	B	0.449 ~~0.45~~	N/A	N/A
2	Hacienda Drive	Tassajara Road/ Santa Rita Road	C	0.630	D	0.899 ~~0.90~~	B	0.448 ~~0.45~~	D	0.827 ~~0.83~~
3	Tassajara Road/ Santa Rita Road	Fallon Road/ El Charro Road	C	0.659 ~~0.66~~	E	0.954	B	0.474	D	0.846 ~~0.85~~
4	Fallon Road/ El Charro Road	Airway Boulevard	C	0.623	E	0.970	B	0.473	B	0.442
5	Airway Boulevard	Isabel Avenue	B	0.545	E	0.953	B	0.426 ~~0.43~~	B	0.398 ~~0.40~~
6	Isabel Avenue	Livermore Avenue	C	0.636 ~~0.64~~	**F**	**1.037 ~~1.04~~**	B	0.421	B	0.33 ~~0.40~~
7	Livermore Avenue	Springtown Boulevard/ First Street	B	0.513	E	0.922	B	0.66 ~~0.37~~	B	0.402
8	Springtown Boulevard/ First Street	Vasco Road	C	0.586 ~~0.59~~	E ~~D~~	0.903	B	0.356	B	0.364
9	Vasco Road	Greenville Road	B	0.578 ~~0.51~~	D	0.892 ~~0.79~~	A	0.180	C	0.624
10	Greenville Road	Carroll Road/ Flynn Road	C	0.603	D	0.817 ~~0.82~~	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C= volume to capacity ratio; **bold**/gray shading indicates segments that operate at unacceptable levels.
Source: Arup, 2017.

Page 279, Table 3.B-16, is revised to correctly reflect some No Project conditions for some highway segments:

TABLE 3.B-16 I-580 PERFORMANCE IN AM, 2040 NO PROJECT CONDITIONS

#	To	From	General-Purpose Westbound		General-Purpose Eastbound		Express Lane Westbound		Express Lane Eastbound	
			LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/Hopyard Road	Hacienda Drive	E	0.981	B	0.548 ~~0.55~~	B	0.466 ~~0.47~~	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	**F**	**1.004**	C	0.651	B	0.450	A	0.192
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	**F**	**1.020**	C	0.668 ~~0.67~~	B	0.446 ~~0.45~~	A	0.198 ~~0.20~~
4	Fallon Road/El Charro Road	Airway Boulevard	E	0.995	C	0.653	B	0.44	A	0.105
5	Airway Boulevard	Isabel Avenue	**F**	**1.064**	C	0.588 ~~0.59~~	B	0.435 ~~0.40~~	A	0.102
6	Isabel Avenue	Livermore Avenue	**F**	**1.103**	C	0.633	B	0.396 ~~0.40~~	A	0.098 ~~0.10~~
7	Livermore Avenue	Springtown Boulevard/ First Street	**F**	**1.026** ~~**1.03**~~	C	0.628 ~~0.63~~	B	0.378	A	0.105
8	Springtown Boulevard/First Street	Vasco Road	**F**	**1.037** ~~**1.04**~~	D	0.766 ~~0.77~~	A	0.349 ~~0.35~~	A	0.102
9	Vasco Road	Greenville Road	E	1.071 ~~0.95~~	C	0.674 ~~0.60~~	A	0.280	A	0.174
10	Greenville Road	Carroll Road/ Flynn Road	**F**	**1.056**	B	0.567	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that operate at unacceptable levels.
Source: Cambridge Systematics, 2017.

Page 280, Table 3.B-17, is revised to correctly reflect some No Project conditions for some highway segments:

TABLE 3.B-17 I-580 PERFORMANCE IN PM, 2040 NO PROJECT CONDITIONS

			General-Purpose Westbound		General-Purpose Eastbound		Express Lane Westbound		Express Lane Eastbound	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/Hopyard Road	Hacienda Drive	C	0.748 ~~0.75~~	C	0.684	A	0.214	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	D	0.758 ~~0.76~~	E	0.940	A	0.221	A	0.232
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	D	0.758 ~~0.78~~	E	0.976 ~~0.98~~	A	0.222	A	0.239 ~~0.24~~
4	Fallon Road/ El Charro Road	Airway Boulevard	D	0.754	E	0.970	A	0.216 ~~0.22~~	A	0.129 ~~0.13~~
5	Airway Boulevard	Isabel Avenue	C	0.664	E	0.992	A	0.202	A	0.124
6	Isabel Avenue	Livermore Avenue	D	0.771	**F**	**1.083**	A	0.199 ~~0.20~~	A	0.128 ~~0.13~~
7	Livermore Avenue	Springtown Boulevard/ First Street	C	0.738 ~~0.74~~	**F**	**1.013**	A	0.181	A	0.119 ~~0.12~~
8	Springtown Boulevard/ First Street	Vasco Road	D	0.826 ~~0.83~~	**F**	**1.016** ~~**1.02**~~	A	0.174	A	0.109 ~~0.11~~
9	Vasco Road	Greenville Road	C	0.776 ~~0.69~~	D	0.957 ~~0.85~~	A	0.131	A	0.167
10	Greenville Road	Carroll Road/ Flynn Road	D	0.750	D	0.816 ~~0.82~~	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that operate at unacceptable levels.
Source: Cambridge Systematics, 2017.

Page 281, Table 3.B-18, is revised to correctly reflect roadway improvements:

TABLE 3.B-18 LOCAL ROADWAY IMPROVEMENTS, 2025 AND 2040 NO PROJECT CONDITIONS

Street	Limits	Improvement	Relevant Analysis Year	Relevant Study Intersection #
Dublin				
Dublin Boulevard	Brannigan Street to Fallon Road	Widen to ~~eight~~ six lanes	2025 and 2040	#19
Dublin Boulevard	Dougherty Road to North Canyons Parkway	Extension	2040	N/A
~~Fallon Road~~	~~Connect to Tassajara Road~~	~~Extension~~	~~2040~~	~~N/A~~
~~Gleason Drive~~	~~To Fallon Road~~	~~Extension~~	~~2040~~	~~N/A~~
~~Fallon Road Interchange~~	~~N/A~~	~~Upgrade~~	~~2040~~	~~#20~~
~~Dublin Boulevard~~	~~To Schaefer Ranch Road~~	~~Extension~~	~~2040~~	~~N/A~~
Tassajara Road	Dublin Boulevard to I-580	Widen to eight lanes	2025 and 2040	#14
Tassajara Road	Fallon to Dublin	Widen to six lanes	2040	#14
Hacienda Road	Dublin Boulevard to Central Parkway	Widen to six lanes	2040	#9
Dougherty Road	Sierra Court to City Limits	Widen to ~~eight~~ six lanes	2025 and 2040	#1

Notes: EB = eastbound; WB = westbound; N/A = not applicable
Local roadway improvement assumptions were made with input from the Cities of Livermore, Dublin and Pleasanton.
Sources: City of Livermore, 2009. City of Livermore General Plan, Land Use Element. February. Adopted 2004, amended 2009.
City of Pleasanton, 2009. City of Pleasanton General Plan 2005–2025.
City of Dublin, 2012a. City of Dublin General Plan. March. Adopted 1985, updated 2012.

Page 283, Table 3.B-19, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-19 LOCAL ROADWAY INTERSECTION PERFORMANCE, 2025 AND 2040 NO PROJECT CONDITIONS

		2025 No Project AM		2025 No Project PM		2040 No Project AM		2040 No Project PM	
#	Intersection	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dougherty Road & Amador Valley Road	30.4	C	35.0	D	**98.1**	**F**	32.6	C
2	Hopyard Road/Dougherty Road & Dublin Boulevard	43.5	D	**106.9**	**F**	**101.6**	**F**	**147.9**	**F**
3	Dougherty Road/Hopyard Road & I-580 WB Ramps	11.0	B	17.4	B	18.1	B	19.1	B
4	Hopyard Road/Dougherty Road & I-580 EB Ramps	37.8	D	33.5	C	42.5	D	46.3	D
5	Hopyard Road & Owens Road	33.0	C	**108.7**	**F**	32.1	C	**100.7**	**F**
6	Hopyard Road & Stoneridge Drive	30.1	C	37.0	D	32.4	C	39.3	D
7	Hopyard Road & Las Positas Boulevard	24.1	C	27.2	C	25.9	C	32.4	C
8	Willow Road & Owens Road	11.7	B	22.7	C	12.4	B	22.4	C
9	Hacienda Drive & Dublin Boulevard	24.0	C	29.1	C	37.4	D	31.7	C
10	Hacienda Drive & Martinelli Boulevard/Hacienda Crossings	19.2	B	25.5	C	20.2	C	28.8	C
11	Hacienda Drive & I-580 WB Ramps	7.4	A	8.5	A	7.7	A	8.9	A
12	Hacienda Drive & I-580 EB Ramps	17.4	B	20.3	C	18.9	B	20.7	C
13	Hacienda Drive & Owens Road	27.5	C	32.5	C	23.4	C	30.5	C
14	Tassajara Road & Dublin Boulevard	43.0	D	42.0	D	50.5	D	46.2	D
15	Tassajara Road & I-580 WB Ramps	8.8	A	9.5	A	11.5	B	11.8	B
16	Santa Rita Road & I-580 EB Ramps/Pimlico Drive	17.8	B	30.6	C	19.5	B	32.8	C
17	Santa Rita Road & Valley Avenue	21.7	C	**45.8**	**D**	24.0	C	**77.5**	**E**

TABLE 3.B-19 LOCAL ROADWAY INTERSECTION PERFORMANCE, 2025 AND 2040 NO PROJECT CONDITIONS

		2025 No Project AM		2025 No Project PM		2040 No Project AM		2040 No Project PM	
#	Intersection	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
18	Bernal Avenue/Valley Avenue & Stanley Boulevard	37.4	D	32.8	C	38.5	D	32.6	C
19	Fallon Road & Dublin Boulevard/Croak Road	**48.2**	**D**	21.4	C	35.1	D	30.1	C
20	El Charro Road/Fallon Road & I-580 WB Ramps	8.0	A	9.4	A	10.8	B	9.5	A
21	El Charro Road & I-580 EB Ramps	8.2	A	8.2	A	11.3	B	12.0	B
22	El Charro Road & Stoneridge Drive/Jack London Boulevard	26.8	C	18.3	B	26.5	C	28.6	C
23	Stanley Boulevard & El Charro Road	N/A[a]	N/A[a]	N/A[a]	N/A[a]	38.9	D	31.6	C
24	Airway Boulevard/Driveway & North Canyons Parkway	**129.5** ~~**78.7**~~	**F** ~~**E**~~	13.7 ~~13.6~~	B	**98.8**	**F**	35.7	D
25	Airway Boulevard & I-580 WB Ramps	20.7 ~~20.8~~	C	8.2 ~~5.4~~	A	16.4	B	5.5	A
26	Airway Boulevard & I-580 EB Ramps/Kitty Hawk Road	29.1 ~~28.6~~	C	27.6 ~~27.9~~	C	30.8	C	39.4	D
27	Collier Canyon Road & North Canyons Parkway/Portola Avenue	25.6 ~~22.9~~	C	24.1 ~~25.6~~	C	24.0	C	22.3	C
28	Isabel Avenue/Campus Hill Drive & Portola Avenue	25.7 ~~27.9~~	C	23.5 ~~25.0~~	C	27.7	C	27.5	C
29	Isabel Avenue & I-580 WB Ramps	10.3 ~~10.8~~	B	9.6 ~~9.9~~	A	11.5	B	14.4	B
30	Isabel Avenue & I-580 EB Ramps	6.0 ~~6.6~~	A	4.7 ~~6.6~~	A	6.1	A	6.4	A
31	Isabel Avenue & Airway Boulevard	36.5 ~~26.7~~	D ~~C~~	46.1 ~~31.7~~	D ~~C~~	34.3	C	36.4	D
32	Isabel Avenue & Jack London Boulevard	37.1 ~~37.1~~	D	43.1 ~~43.1~~	D	**50.6**	**D**	**79.8**	**E**
33	Isabel Avenue Connector & Stanley Boulevard	15.7	B	15.8	B	40.5	D	**73.8**	**E**
34	Murrieta Boulevard/Driveway & Portola Avenue	14.1	B	20.2	C	14.5	B	33.7	C

TABLE 3.B-19 LOCAL ROADWAY INTERSECTION PERFORMANCE, 2025 AND 2040 NO PROJECT CONDITIONS

		2025 No Project AM		2025 No Project PM		2040 No Project AM		2040 No Project PM	
#	Intersection	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
35	Murrieta Boulevard & Jack London Boulevard	17.9	B	20.5	C	25.0	C	**100.7**	**F**
36	Murrieta Boulevard & Stanley Boulevard	40.3	D	29.3	C	**98.3**	**F**	**45.8**	**D**
37	Livermore Avenue & I-580 WB Ramps	21.4	C	39.3	D	23.5	C	27.8	C
38	Livermore Avenue & I-580 EB Ramps	17.5	B	**108.2**	**F**	17.5	B	**74.3**	**E**
39	Livermore Avenue & Portola Avenue	40.2 ~~39.3~~	D	37.4 ~~37.3~~	D	43.8	D	**52.6**	**D**
40	First Street/Springtown Boulevard & I-580 WB Ramps	16.3	B	7.5	A	16.3	B	14.1	B
41	First Street & I-580 EB Ramps	9.8	A	30.4	C	14.5	B	**47.1**	**D**
42	First Street & Mines Road	24.2	C	**48.6**	**D**	26.2	C	**52.1**	**D**
43	Vasco Road/I-580 WB Ramps	1.0	A	1.1	A	0.7	A	1.7	A
44	Vasco Road/I-580 EB Ramps	0.3	A	0.7	A	N/A[b]	N/A[b]	N/A[b]	N/A[b]
45	Vasco Road & East Avenue	18.8	B	42.2	D	20.9	C	**87.4**	**F**
46	Altamont Pass Road /Greenville Road & I-580 WB Ramps	**123.8**	**F**	7.0	A	8.8	A	5.3	A
47	Southfront Road/ Greenville Road & I-580 EB Ramps	10.0	A	13.8	B	4.2	A	9.2	A
48	Greenville Road/Altamont Pass Road	35.1	D	**79.8**	**E**	7.1	A	**96.1**	**F**
49	Greenville Road & Southfront Road	8.9	A	14.2	B	14.3	B	13.9	B
50	Greenville Road/ Patterson Pass Road	**61.7**	**E**	**132.2**	**F**	40.6	D	**156.3**	**F**

Notes: LOS = level of service; EB = eastbound; WB = westbound; N/A = not applicable.
Bold/gray shading indicates segments that operate at unacceptable levels.
[a] Future planned intersection, to be constructed by 2040, with extension of El Charro Road to Stanley Boulevard.
[b] Intersection to be eliminated in 2040 with planned interchange reconfiguration.
Source: Cambridge Systematics, 2017.

Page 288, third paragraph has been revised to read:

> Under 2025 and 2040 No Project Conditions, the analysis assumed that other surrounding transit service would remain identical to existing conditions, except for future ACE service, which is described below.

Elsewhere on page 288, the text has been revised to read:

> ACE proposed ~~is currently conducting environmental review of its ACEforward program, which is~~ a series of improvement projects and service upgrades in its ACEforward program, to be implemented through 2022. ~~The following two phases of the ACEforward program are included in the BLVX Travel Demand Model analysis.~~ The first phase of ACE improvements includes the extension of service to Modesto and would increase daily round trips to San Jose from four trains to six. The second phase improvements would include extension of service to Merced and the expansion of service to 10 round-trip trains daily. The BLVX Travel Demand Model analysis assumes that the ACE service increase to 10 trains daily applies to both analysis years, 2025 and 2040. However, the BLVX model's coverage area does not include Stanislaus or Merced Counties; therefore, the ACE extensions to Modesto and Merced were not included in the transportation analysis. Moreover, ACE has rescinded the ACEforward EIR and announced that it does not intend to pursue the projects evaluated in that EIR, including the extension to Modesto. However, for purposes of the travel demand model, it is reasonable to assume the future increase in ACE service frequency.

Page 302, Table 3.B-30.A, Vehicle Trips Removed from the Roadway Network by the Proposed Project and Alternatives, is inserted as a new table immediately following Table 3.B-30:

TABLE 3.B-30.A VEHICLE TRIPS REMOVED FROM THE ROADWAY NETWORK BY THE PROPOSED PROJECT AND ALTERNATIVES

	Conventional BART Project	DMU Alternative (with EMU Option)	Express Bus/BRT Alternative	Enhanced Bus Alternative
2025 Project-Only	5,300	4,300	1,700	300
2025 Cumulative	5,900	4,500	2,500	1,100
2040 Project-Only	8,800	5,400	3,000	500
2040 Cumulative	11,000	7,000	4,200	1,400

Page 302, Table 3.B-30.B, Number of BART Trips Originating from San Joaquin County, is inserted as a new table immediately following the new Table 3.B-30.A:

TABLE 3.B-30.B NUMBER OF BART TRIPS ORIGINATING FROM SAN JOAQUIN COUNTY

	No Project Alternative	Conventional BART Project	DMU Alternative (with EMU Option)	Express Bus/BRT Alternative	Enhanced Bus Alternative
2040 Project-Only	3,000	5,900	4,600	3,300	3,100

Page 317, Table 3.B-32, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-32 AM WESTBOUND GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.971	E	0.974	E	0.976	E	0.974	E	0.977
2	Hacienda Drive	Tassajara Road/Santa Rita Road	E	0.995	E	0.996	E	0.995	**F**	**1.001**	E	0.998
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.004	F	1.003	E	0.999	F	1.008	F	1.005
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.986 ~~0.975~~	E	0.996 ~~0.969~~	E	0.997 ~~0.968~~	E	0.988 ~~0.976~~	E	0.991 ~~0.974~~
5	Airway Boulevard	Isabel Avenue	F	1.048 ~~1.037~~	F ~~E~~	1.020 ~~0.993~~	F	1.046 ~~1.017~~	F	1.049 ~~1.038~~	F	1.052 ~~1.037~~
6	Isabel Avenue	Livermore Avenue	F	1.062 ~~1.051~~	F	1.077 1.0~~51~~	**F**	**1.084** ~~**1.061**~~	F	1.065 ~~1.054~~	F	1.067 ~~1.052~~
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.984	E	0.991 ~~0.992~~	E	0.995	E	0.989	E	0.984
8	Springtown Boulevard/ First Street	Vasco Road	E	0.978	E	0.998 ~~0.99~~	E	0.989	E	0.978	E	0.977
9	Vasco Road	Greenville Road	E	0.977	E	0.993 ~~0.996~~	E	0.993 ~~0.995~~	E	0.980	E	0.976
10	Greenville Road	Carroll Road/ Flynn Road	F	1.038	**F**	**1.061**	**F**	**1.065**	F	1.040	F	1.043

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact ~~operate at unacceptable levels as the result of the Proposed Project or Alternatives~~.
Source: Cambridge Systematics, 2017.

Page 319, Table 3.B-34, is revised to modify the footnote:

TABLE 3.B-34 AM EASTBOUND GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	B	0.471	B	0.469	B	0.470	B	0.470	B	0.471
2	Hacienda Drive	Tassajara Road/Santa Rita Road	B	0.532	B	0.523	B	0.527	B	0.531	B	0.532
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	B	0.567	B	0.558	B	0.562	B	0.565	B	0.567
4	Fallon Road/ El Charro Road	Airway Boulevard	B	0.547	B	0.536	B	0.542	B	0.545	B	0.547
5	Airway Boulevard	Isabel Avenue	B	0.488	B	0.462	B	0.477	B	0.487	B	0.487
6	Isabel Avenue	Livermore Avenue	B	0.537	B	0.535	B	0.535	B	0.536	B	0.538
7	Livermore Avenue	Springtown Boulevard/ First Street	B	0.519	B	0.533	B	0.526	B	0.519	B	0.520
8	Springtown Boulevard/ First Street	Vasco Road	B	0.567	C	0.591	C	0.581	B	0.569	B	0.568
9	Vasco Road	Greenville Road	B	0.571	B	0.579	C	0.580	B	0.572	B	0.571
10	Greenville Road	Carroll Road/ Flynn Road	B	0.444	B	0.452	B	0.452	B	0.446	B	0.445

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact. ~~that operate at unacceptable levels as the result of the Proposed Project or Alternatives.~~
Source: Cambridge Systematics, 2017.

Page 320, Table 3.B-35, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-35 PM EASTBOUND GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	C	0.714	C	0.714	C	0.712	C	0.712	C	0.712
2	Hacienda Drive	Tassajara Road/Santa Rita Road	D	0.899	D	0.892	D	0.896	D	0.896	D	0.895
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	E	0.954	E	0.934	E	0.946	E	0.949	E	0.948
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.970	E	0.956 ~~0.943~~	E	0.959 ~~0.951~~	E	0.963	E	0.963
5	Airway Boulevard	Isabel Avenue	E	0.953	E	0.943 ~~0.927~~	E	0.952 ~~0.943~~	E	0.949	E	0.949
6	Isabel Avenue	Livermore Avenue	F	1.037	F	1.048 ~~1.039~~	F	1.052 ~~1.050~~	F	1.031	F	1.034
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.922	E	0.935 ~~0.939~~	E	0.934 ~~0.938~~	E	0.915	E	0.920
8	Springtown Boulevard/ First Street	Vasco Road	E	0.903	E	0.912 ~~0.916~~	E	0.916 ~~0.919~~	D	0.893	E	0.902
9	Vasco Road	Greenville Road	D	0.892	E	0.908 ~~0.911~~	E	0.906 ~~0.908~~	D	0.888	D	0.886
10	Greenville Road	Carroll Road/ Flynn Road	D	0.817	D	0.838	D	0.834	D	0.817	D	0.813

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 323, a new bullet item is inserted before the first bullet item under the "DMU Alternative" heading:

- **Isabel Avenue and Livermore Avenue General-Purpose (Segment 6).** Under 2025 with DMU Alternative Conditions, this freeway segment would operate at a V/C ratio of 1.084 and LOS F during the AM peak hour in the westbound direction. The V/C ratio for this segment

increases by more than 2 percent than it would under No Project Conditions, resulting in a significant impact.

Page 326, Table 3.B-36, is revised to reflect refinements in methodology:

TABLE 3.B-36 AM WESTBOUND GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2040 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.981	E	0.979	E	0.979	E	0.981	E	0.983
2	Hacienda Drive	Tassajara Road/Santa Rita Road	F	1.004	E	0.995	E	0.998	F	1.008	F	1.007
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.020	F	1.014	F	1.012	F	1.019	F	1.022
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.995	E	0.967	E	0.973	E	0.995	E	0.997
5	Airway Boulevard	Isabel Avenue	F	1.064	F	1.033	F	1.060	F	1.066	F	1.068
6	Isabel Avenue	Livermore Avenue	F	1.103	**F**	**1.141** ~~**1.147**~~	**F**	**1.137** ~~**1.142**~~	F	1.104	F	1.104
7	Livermore Avenue	Springtown Boulevard/ First Street	F	1.026	**F**	**1.061** ~~**1.067**~~	**F**	**1.058** ~~**1.063**~~	F	1.027	F	1.024
8	Springtown Boulevard/ First Street	Vasco Road	F	1.037	**F**	**1.068** ~~**1.069**~~	**F**	**1.080** ~~**1.086**~~	F	1.035	F	1.037
9	Vasco Road	Greenville Road	F	1.071	**F**	**1.095** ~~**1.097**~~	F	1.089 ~~1.080~~	F	1.070	F	1.069
10	Greenville Road	Carroll Road/ Flynn Road	F	1.056	**F**	**1.078**	F	1.072	F	1.061	F	1.060

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact. ~~that operate at unacceptable levels.~~
Source: Cambridge Systematics, 2017.

Page 329, Table 3.B-39, is revised to correctly reflect 2040 traffic volumes:

TABLE 3.B-39 PM EASTBOUND GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2040 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	C	0.684	C	0.684	C	0.680	C	0.685	C	0.686
2	Hacienda Drive	Tassajara Road/Santa Rita Road	E	0.940	E	0.931	E	0.935	E	0.942	E	0.941
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	E	0.976	E	0.961	E	0.971	E	0.977	E	0.979
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.970	E	0.957	E	0.967	E	0.971	E	0.970
5	Airway Boulevard	Isabel Avenue	E	0.992	E	0.9736 9	E	0.985 3	E	0.994	E	0.995
6	Isabel Avenue	Livermore Avenue	F	1.083	**F**	**1.1092 1**	**F**	**1.117 30**	F	1.084	F	1.085
7	Livermore Avenue	Springtown Boulevard/ First Street	F	1.013	**F**	**1.0334 3**	**F**	**1.051 64**	F	1.011	F	1.011
8	Springtown Boulevard/ First Street	Vasco Road	F	1.016	**F**	**1.0394 9**	**F**	**1.054 67**	F	1.017	F	1.020
9	Vasco Road	Greenville Road	E	0.957	E	0.9859 3	**F**	**1.001 1**	E	0.957	E	0.958
10	Greenville Road	Carroll Road/ Flynn Road	D	0.816	D	0.846	D	0.859	D	0.817	D	0.817

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments ~~that operate at unacceptable level~~ that have a significant impact.
Source: Cambridge Systematics, 2017.

Page 330, the first paragraph and first four bullets:

Under the Proposed Project in 2040, significant impacts would occur on five general-purpose freeway segments, compared to No Project Conditions. Impacts would occur at the following segments:

- **Isabel Avenue to Livermore Avenue General-Purpose (Segment #6)**. This segment would operate at a V/C ratio of 1.141 ~~1.147~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.109 ~~1.121~~ and LOS F during the PM peak hour in the eastbound direction.
- **Livermore Avenue to Springtown Boulevard General-Purpose (Segment #7)**. This segment would operate at a V/C ratio of 1.061 and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.033 ~~1.043~~ and LOS F during the PM peak hour in the eastbound direction.
- **Springtown Boulevard to Vasco Road General-Purpose (Segment #8)**. This segment would operate at a V/C ratio of 1.068 ~~1.069~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.039 ~~1.049~~ and LOS F during the PM peak hour in the eastbound direction.
- **Vasco Road to Greenville Road General-Purpose (Segment #9)**. This segment would operate at a V/C ratio of 1.095 ~~1.097~~ and LOS F during the AM peak hour in the westbound direction.

Page 331, all four bullets:

Under the DMU Alternative in 2040, four general-purpose freeway segments would have a significant impact compared to No Project Conditions. Impacts would occur at the following segments:

- **Isabel Avenue to Livermore Avenue General-Purpose (Segment #6)**. This segment would operate at a V/C ratio of 1.137 ~~1.142~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.117 ~~1.130~~ and LOS F during the PM peak hour in the eastbound direction.
- **Livermore Avenue to Springtown Boulevard General-Purpose (Segment #7)**. This segment would operate at a V/C ratio of 1.058 ~~1.063~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.051 ~~1.064~~ and LOS F during the PM peak hour in the eastbound direction.

- **Springtown Boulevard to Vasco Road General-Purpose (Segment #8)**. This segment would operate at a V/C ratio of 1.080 ~~1.086~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.054 ~~1.067~~ and LOS F during the PM peak hour in the eastbound direction.
- **Vasco Road to Greenville Road General-Purpose (Segment #9)**. This segment would operate at a V/C ratio of 1.001 ~~1.011~~ and LOS F during the PM peak hour in the eastbound direction.

Page 333, Table 3.B-40, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

:TABLE 3.B-40 AM WESTBOUND HOV/EXPRESS LANE FREEWAY LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

#	To	From	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.978	E	0.978	E	0.977	E	0.968	E	0.984
2	Hacienda Drive	Tassajara Road/Santa Rita Road	F	1.014	F	1.012	F	1.013	F	1.013	F	1.014
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.024	F	1.020	F	1.019	F	1.020	F	1.026
4	Fallon Road/ El Charro Road	Airway Boulevard	F ~~E~~	1.000 ~~0.990~~	F ~~E~~	1.003 ~~0.979~~	E	0.997 ~~0.988~~	E	0.988 ~~0.983~~	E	0.995
5	Airway Boulevard	Isabel Avenue	F	1.053 ~~1.044~~	F ~~E~~	1.021 ~~0.999~~	F	1.046 ~~1.034~~	F	1.045 ~~1.036~~	F	1.052 ~~1.041~~
6	Isabel Avenue	Livermore Avenue	F	1.065 ~~1.055~~	F	1.077 ~~1.049~~	F	1.084 ~~1.065~~	F	1.061 ~~1.051~~	F	1.067 ~~1.058~~
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.994	E	0.991 ~~0.990~~	**F**	**1.003**	E	0.984	E	0.993
8	Springtown Boulevard/ First Street	Vasco Road	E	0.981	E	0.998 ~~0.990~~	E	0.996	E	0.971	E	0.985
9	Vasco Road	Greenville Road	D	0.866	D	0.884 ~~0.872~~	D	0.845 ~~0.839~~	D	0.844	D	0.859
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact. ~~that operate at unacceptable levels~~.
Source: Cambridge Systematics, 2017.

Page 336, Table 3.B-43, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-43 PM EASTBOUND HOV/EXPRESS LANE FREEWAY LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	D	0.827	D	0.812	D	0.813	D	0.834	D	0.819
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	D	0.846	D	0.831	D	0.835	D	0.854	D	0.837
4	Fallon Road/ El Charro Road	Airway Boulevard	B	0.442	B	0.442 ~~0.430~~	B	0.441 ~~0.434~~	B	0.445	B	0.436
5	Airway Boulevard	Isabel Avenue	B	0.398	B	0.397 ~~0.390~~	B	0.398 ~~0.391~~	B	0.402	B	0.394
6	Isabel Avenue	Livermore Avenue	B	0.433	B	0.450 ~~0.426~~	B	0.449 ~~0.428~~	B	0.437	B	0.429
7	Livermore Avenue	Springtown Boulevard/ First Street	B	0.402	B	0.399 ~~0.389~~	B	0.404 ~~0.394~~	B	0.408	B	0.397
8	Springtown Boulevard/ First Street	Vasco Road	B	0.364	B	0.366 ~~0.357~~	B	0.364 ~~0.357~~	B	0.370	B	0.360
9	Vasco Road	Greenville Road	C	0.624	C	0.628 ~~0.614~~	C	0.62 ~~0.610~~	C	0.637	C	0.618
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 337, first bullet:

DMU Alternative. Under the DMU Alternative in 2025, one express lane freeway segment would have a significant impact compared to No Project Conditions. Impacts would occur at the following segment:

- ~~**Tassajara/Santa Rita Road to Fallon/El Charro Road**~~ **Livermore Avenue to Springtown Boulevard/First Street Express Lane (Segment #7).** Under 2025 with DMU Alternative Conditions, this express lane freeway segment would operate at a V/C ratio of 1.003 and LOS F during the AM peak hour in the westbound direction. The V/C ratio for this segment increases by more than 2 percent than it would under No Project Conditions.

Page 339, Table 3.B-44, is revised to reflect refinements in methodology:

TABLE 3.B-44 AM WESTBOUND I-580 HOV/EXPRESS LANE LEVEL OF SERVICE, 2040 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	B	0.466	B	0.454	B	0.460	B	0.460	B	0.465
2	Hacienda Drive	Tassajara Road/Santa Rita Road	B	0.450	B	0.438	B	0.445	B	0.444	B	0.450
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	B	0.446	B	0.434	B	0.441	B	0.440	B	0.446
4	Fallon Road/ El Charro Road	Airway Boulevard	B	0.435	B	0.421	B	0.432	B	0.431	B	0.436
5	Airway Boulevard	Isabel Avenue	B	0.399	B	0.385 ~~0.389~~	B	0.395 ~~0.396~~	B	0.393	B	0.398
6	Isabel Avenue	Livermore Avenue	B	0.396	B	0.409 ~~0.386~~	B	0.415 ~~0.394~~	B	0.388	B	0.394
7	Livermore Avenue	Springtown Boulevard/ First Street	B	0.378	B	0.395 ~~0.372~~	B	0.398 ~~0.377~~	B	0.371	B	0.378
8	Springtown Boulevard/ First Street	Vasco Road	A	0.349	A	0.349 ~~0.342~~	A	0.370 ~~0.345~~	A	0.343	B	0.356
9	Vasco Road	Greenville Road	A	0.280	A	0.287 ~~0.279~~	A	0.283 ~~0.279~~	A	0.280	A	0.275
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 342, Table 3.B-47, is revised to reflect refinements in methodology:

TABLE 3.B-47 PM EASTBOUND I-580 HOV/EXPRESS LANE LEVEL OF SERVICE, 2040 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	A	0.232	A	0.225	A	0.224	A	0.231	A	0.232
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	A	0.239	A	0.232	A	0.231	A	0.238	A	0.238
4	Fallon Road/ El Charro Road	Airway Boulevard	A	0.129	A	0.127	A	0.129	A	0.129	A	0.128
5	Airway Boulevard	Isabel Avenue	A	0.124	A	0.113 ~~0.123~~	A	0.120 ~~0.123~~	A	0.123	A	0.122
6	Isabel Avenue	Livermore Avenue	A	0.128	A	0.155 ~~0.128~~	A	0.157 ~~0.128~~	A	0.128	A	0.128
7	Livermore Avenue	Springtown Boulevard/ First Street	A	0.119	A	0.140 ~~0.118~~	A	0.149 ~~0.120~~	A	0.119	A	0.119
8	Springtown Boulevard/ First Street	Vasco Road	A	0.109	A	0.130 ~~0.108~~	A	0.139 ~~0.110~~	A	0.109	A	0.109
9	Vasco Road	Greenville Road	A	0.167	A	0.195 ~~0.165~~	A	0.207 ~~0.166~~	A	0.167	A	0.167
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 343, Table 3.B-48, is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-48 INTERSECTION DELAY AND LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	Intersection	Time	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dougherty Road & Amador Valley Road[a]	AM	30.4	C	33.7	C	38.6	D	30.2	C	30.2	C
		PM	35.0	D	38.4	D	43.9	D	35.3	D	35.0	C
2	Hopyard Road/Dougherty Road & Dublin Boulevard[a]	AM	43.5	D	46.4	D	50.4	D	43.7	D	47.4	D
		PM	106.9	F	**109.8**	**F**	**111.2**	**F**	98.6	F	106.7	F
3	Dougherty Road/Hopyard Road & I-580 WB Ramps[a]	AM	11.0	B	10.5	B	10.9	B	10.9	B	10.9	B
		PM	17.4	B	14.2	B	18.6	B	22.2	C	17.7	B
4	Hopyard Road/Dougherty Road & I-580 EB Ramps	AM	37.8	D	38.7	D	40.8	D	37.9	D	37.6	D
		PM	33.5	C	32.2	C	34.4	C	26.8	C	34.0	C
5	Hopyard Road & Owens Road	AM	33.0	C	34.5	C	33.8	C	33.0	C	33.1	C
		PM	108.7	F	*115.1*	*F*	*115.2*	*F*	107.6	F	109.1	F
6	Hopyard Road & Stoneridge Drive	AM	30.1	C	28.9	C	30.4	C	30.3	C	30.3	C
		PM	37.0	D	39.1	D	38.4	D	37.1	D	37.1	D
7	Hopyard Road & Las Positas Boulevard	AM	24.1	C	24.0	C	24.0	C	24.0	C	24.1	C
		PM	27.2	C	27.3	C	27.3	C	27.2	C	27.8	C
8	Willow Road & Owens Road	AM	11.7	B	21.8	C	11.3	B	11.7	B	11.7	B
		PM	22.7	C	20.0	C	16.5	B	13.1	B	22.7	C
9	Hacienda Drive & Dublin Boulevard[a]	AM	24.0	C	24.0	C	24.0	C	24.0	C	23.9	C
		PM	29.1	C	28.9	C	29.0	C	29.1	C	29.1	C
10	Hacienda Drive & Martinelli Boulevard/Hacienda Crossings[a]	AM	19.2	B	19.2	B	19.2	B	19.2	B	19.2	B
		PM	25.5	C	23.6	C	24.3	C	34.8	C	24.7	C
11	Hacienda Drive & I-580 WB Ramps[a]	AM	7.4	A	7.2	A	7.4	A	7.3	A	7.4	A
		PM	8.5	A	7.3	A	7.3	A	10.4	B	8.1	A
12	Hacienda Drive & I-580 EB Ramps	AM	17.4	B	21.1	C	17.4	B	21.1	C	18.9	B
		PM	20.3	C	20.3	C	20.5	C	32.9	C	20.3	C
13	Hacienda Drive & Owens Road	AM	27.5	C	26.5	C	27.3	B	24.7	C	28.0	B
		PM	32.5	C	31.1	C	31.8	C	30.5	C	33.5	C
14	Tassajara Road & Dublin Boulevard[a]	AM	43.0	D	41.1	D	41.3	D	41.6	D	42.1	D
		PM	42.0	D	41.6	D	41.7	D	41.9	D	42.3	D

TABLE 3.B-48 INTERSECTION DELAY AND LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

#	Intersection	Time	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
15	Tassajara Road & I-580 WB Ramps[a]	AM	8.8	A	9.5	A	8.7	A	8.8	A	8.8	A
		PM	9.5	A	9.4	A	9.5	A	9.5	A	9.5	A
16	Santa Rita Road & I-580 EB Ramps/Pimlico Drive	AM	17.8	B	18.3	B	17.8	B	17.9	B	17.8	B
		PM	30.6	C	26.4	C	30.6	C	32.8	C	30.5	C
17	Santa Rita Road & Valley Avenue	AM	21.7	C	21.9	C	21.9	C	21.7	C	21.8	C
		PM	45.8	D	46.9	D	48.6	D	46.6	D	45.5	D
18	Bernal Avenue/Valley Avenue & Stanley Boulevard	AM	37.4	D	40.5	D	37.5	D	37.4	D	37.4	D
		PM	32.8	C	32.7	C	32.8	C	32.7	C	32.8	C
19	Fallon Road & Dublin Boulevard[a]	AM	48.2	D	43.6	D	41.2	D	45.2	D	47.1	D
		PM	21.4	C	20.4	C	20.8	C	25.8	C	21.2	C
20	El Charro Road/Fallon Road & I-580 WB Ramps[a]	AM	8.0	A	8.6	A	8.1	A	8.0	A	8.0	A
		PM	9.4	A	9.3	A	9.5	A	9.2	A	9.4	A
21	El Charro Road & I-580 EB Ramps	AM	8.2	A	8.3	A	8.6	A	8.2	A	8.3	A
		PM	8.2	A	8.2	A	8.2	A	8.1	A	8.2	A
22	El Charro Road & Stoneridge Drive/Jack London Boulevard	AM	26.8	C	16.5	B	16.5	B	26.8	C	26.7	C
		PM	18.3	B	18.1	B	18.1	B	16.6	B	18.3	B
23	Stanley Boulevard & El Charro Road	AM	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]
		PM	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]
24	Airway Boulevard/Driveway & North Canyons Parkway	AM	129.5 ~~78.7~~	F ~~E~~	36.2 ~~38.3~~	D	102.8 ~~63.2~~	F ~~E~~	128.0 ~~74.0~~	F ~~E~~	129.6 ~~75.5~~	F ~~E~~
		PM	13.7 ~~13.6~~	B	11.0 ~~11.9~~	B	11.8 ~~12.6~~	B	13.4 ~~13.1~~	B	13.9 ~~13.8~~	B
25	Airway Boulevard & I-580 WB Ramps	AM	20.7 ~~20.8~~	C	8.9 ~~13.7~~	A ~~B~~	13.0 ~~25.5~~	B ~~C~~	19.5 ~~20.4~~	B ~~C~~	19.8 ~~17.7~~	B
		PM	8.2 ~~5.4~~	A	4.3 ~~5.0~~	A	9.1 ~~4.9~~	A	4.2	A	7.7 ~~5.0~~	A
26	Airway Boulevard & I-580 EB Ramps/Kitty Hawk Road	AM	29.1 ~~28.6~~	C	28.8 ~~38.3~~	C ~~D~~	25.5	C	31.3 ~~31.1~~	C	31.4 ~~31.0~~	C
		PM	27.6 ~~27.9~~	C	26.4 ~~25.6~~	C	27.6 ~~25.8~~	C	24.1 ~~23.0~~	C	27.6 ~~24.4~~	C
27	Collier Canyon Road & North Canyons Parkway/Portola Avenue	AM	25.6 ~~22.9~~	C	25.4	C	25.2 ~~22.5~~	C	23.4	C	25.4	C
		PM	24.1 ~~25.6~~	C	23.2 ~~24.6~~	C	41.6 ~~24.7~~	D ~~C~~	41.0 ~~23.1~~	D ~~C~~	23.3 ~~25.7~~	C

TABLE 3.B-48 INTERSECTION DELAY AND LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

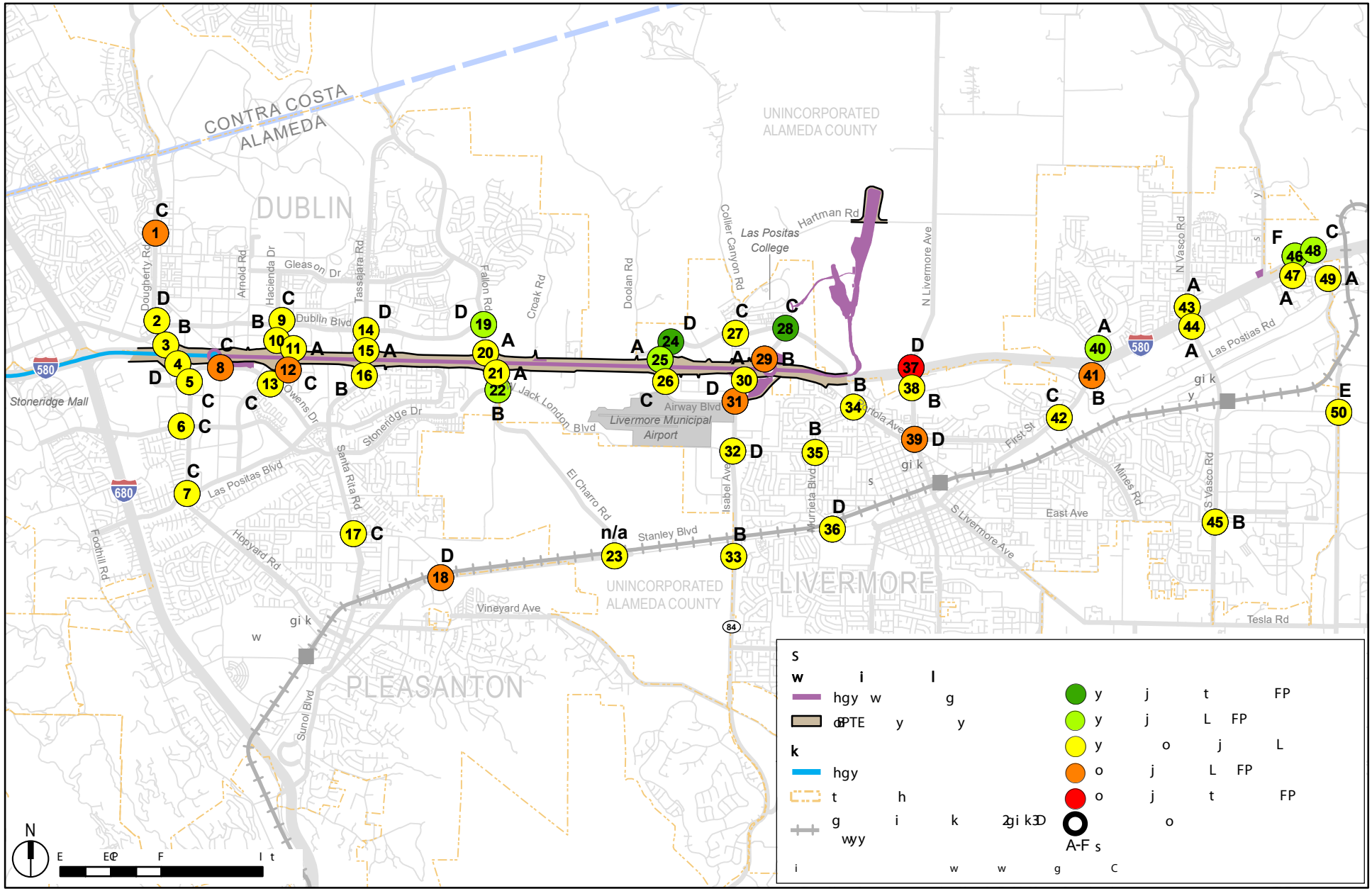
#	Intersection	Time	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
28	Isabel Avenue/Campus Hill Drive & Portola Avenue	AM	52.1 ~~27.9~~	D ~~C~~	25.7 ~~27.6~~	C	25.8 ~~27.8~~	C	25.7 ~~28.1~~	C	25.6 ~~28.0~~	C
		PM	23.5 ~~25.0~~	C	23.3 ~~23.9~~	C	23.6 ~~24.1~~	C	23.5 ~~24.7~~	C	23.5 ~~25.1~~	C
29	Isabel Avenue & I-580 WB Ramps	AM	10.3 ~~10.8~~	B	14.0 ~~17.9~~	B	11.9 ~~17.2~~	B	10.3 ~~11.3~~	B	10.3 ~~11.3~~	B
		PM	9.6 ~~9.9~~	A	9.7 ~~9.9~~	A	9.6 ~~9.9~~	A	9.6 ~~13.0~~	A ~~B~~	9.6 ~~9.9~~	A
30	Isabel Avenue & I-580 EB Ramps	AM	6.0 ~~6.6~~	A	8.9 ~~8.0~~	A	7.4 ~~7.3~~	A	6.1 ~~5.9~~	A	6.1 ~~5.9~~	A
		PM	4.7 ~~6.6~~	A	6.4 ~~8.1~~	A	4.8 ~~6.5~~	A	4.7 ~~5.1~~	A	4.7 ~~6.7~~	A
31	Isabel Avenue & Airway Boulevard	AM	36.5 ~~26.7~~	D ~~C~~	40.6 ~~32.9~~	D ~~C~~	31.5 ~~30.5~~	C	36.9 ~~27.2~~	D ~~C~~	37.5 ~~27.4~~	D ~~C~~
		PM	46.1 ~~31.7~~	D ~~C~~	*72.8*	*E*	*70.9*	*E*	35.3 ~~30.6~~	D ~~C~~	35.4 ~~30.2~~	D ~~C~~
32	Isabel Avenue & Jack London Boulevard	AM	37.1	D	36.6	D	34.0	C	34.0	C	34.1	C
		PM	43.1	D	45.8	D	47.0	D	43.4	D	43.5 ~~45.8~~	D
33	Isabel Avenue Connector & Stanley Boulevard	AM	15.7	B	16.3	B	15.7	B	15.8	B	16.0	B
		PM	15.8	B	15.2	B	15.2	B	15.2	B	15.2	B
34	Murrieta Boulevard/Driveway & Portola Avenue	AM	14.1	B	14.8 ~~16.8~~	B	14.8 ~~16.1~~	B	14.1	B	14.1	B
		PM	20.2	C	35.8 ~~29.0~~	D ~~C~~	26.8 ~~30.1~~	C	19.5	B	20.3	C
35	Murrieta Boulevard & Jack London Boulevard	AM	17.9	B	17.9	B	17.9	B	17.8	B	17.8	B
		PM	20.5	C	27.4	C	26.4	C	19.5	B	20.5	C
36	Murrieta Boulevard & Stanley Boulevard	AM	40.3	D	37.7	D	37.3	D	38.0	D	38.4	D
		PM	29.3	C	29.2	C	29.2	C	29.1	C	29.3	C
37	Livermore Avenue & I-580 WB Ramps	AM	22.5 ~~21.4~~	C	37.7 ~~23.6~~	D ~~C~~	28.3 ~~21.5~~	C	22.3 ~~21.4~~	C	22.8 ~~21.4~~	C
		PM	39.3	D	13.7	B	26.3	C	11.3 ~~11.4~~	B	12.3	B
38	Livermore Avenue & I-580 EB Ramps	AM	16.4 ~~17.5~~	B	18.7 ~~18.8~~	B	16.8 ~~21.1~~	B ~~C~~	16.5 ~~17.5~~	B	16.4 ~~17.5~~	B
		PM	108.2	F	**141.5** ~~**112.8**~~	**F**	**118.3** ~~**101.4**~~	**F**	110.0	F	107.9	F
39	Livermore Avenue & Portola Avenue	AM	40.2 ~~39.3~~	D	43.9 ~~43.4~~	D	42.2 ~~41.1~~	D	39.3 ~~39.4~~	D	40.2 ~~39.3~~	D
		PM	37.4 ~~37.3~~	D	**55.3** ~~**54.1**~~	**E** ~~**D**~~	42.9 ~~43.3~~	D	35.6	D	36.8	D

TABLE 3.B-48 INTERSECTION DELAY AND LEVEL OF SERVICE, 2025 PROJECT CONDITIONS

#	Intersection	Time	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
40	First Street/ Springtown Boulevard & I-580 WB Ramps	AM	16.3	B	9.2	A	11.6	B	16.3	B	16.3	B
		PM	7.5	A	7.5	A	7.4	A	5.2	A	7.4 ~~10.6~~	A ~~B~~
41	First Street & I-580 EB Ramps	AM	9.8	A	16.6	B	10.4	B	9.8	A	9.8	A
		PM	30.4	C	31.7	C	32.8	C	33.8	C	34.0	C
42	First Street & Mines Road	AM	24.2	C	24.5	C	24.4	C	24.6	C	24.2	C
		PM	48.6	D	*56.4*	*E*	*54.8*	*D*	45.3	D	52.0	D
43	Vasco Road / I-580 WB Ramps	AM	1.0	A	1.0	A	1.0	A	1.0	A	1.0	A
		PM	1.1	A	1.1	A	1.1	A	1.1	A	1.1	A
44	Vasco Road / I-580 EB Ramps	AM	0.3	A	0.3	A	0.3	A	0.3	A	0.3	A
		PM	0.7	A	0.7	A	0.7	A	0.7	A	0.7	A
45	Vasco Road & East Avenue	AM	18.8	B	17.6	B	19.0	B	18.9	B	18.8	B
		PM	42.2	D	42.5	D	39.8	D	44.5	D	41.6	D
46	Altamont Pass Road & I-580 WB Ramps	AM	123.8	F	118.3	F	102.2	F	110.2	F	112.3	F
		PM	7.0	A	6.8	A	6.8	A	6.3	A	6.4	A
47	Southfront Road & I-580 EB Ramps	AM	10.0	A	9.8	A	9.9	A	10.0	A	10.0	A
		PM	13.8	B	13.8	B	13.7	B	14.3	B	14.6	B
48	Greenville Road /Altamont Pass Road	AM	35.1	D	32.1	C	37.1	D	32.6	C	32.3	C
		PM	79.8	E	**81.0**	**F**	**81.0**	**F**	**80.2**	**F**	79.6	E
49	Greenville Road & Southfront Road	AM	8.9	A	9.9	A	8.9	A	8.9	A	8.9	A
		PM	14.2	B	15.8	B	15.2	B	14.7	B	14.2	B
50	Greenville Road / Patterson Pass Road	AM	61.7	E	63.6	E	55.2	E	58.7	E	58.6	E
		PM	132.2	F	136.6	F	129.1	F	127.4	F	137.1	F

Notes: EB = eastbound; WB = westbound; LOS = level of service.
Bold/gray shading indicates intersections having a significant impact; i*talic*/gray shading indicates policy-exempt intersections having a less-than-significant impact.
[a] The significant impact criteria of the Cities of Dublin and Pleasanton use added vehicle trips as a metric rather than increased delay.
Source: Cambridge Systematics, 2017.

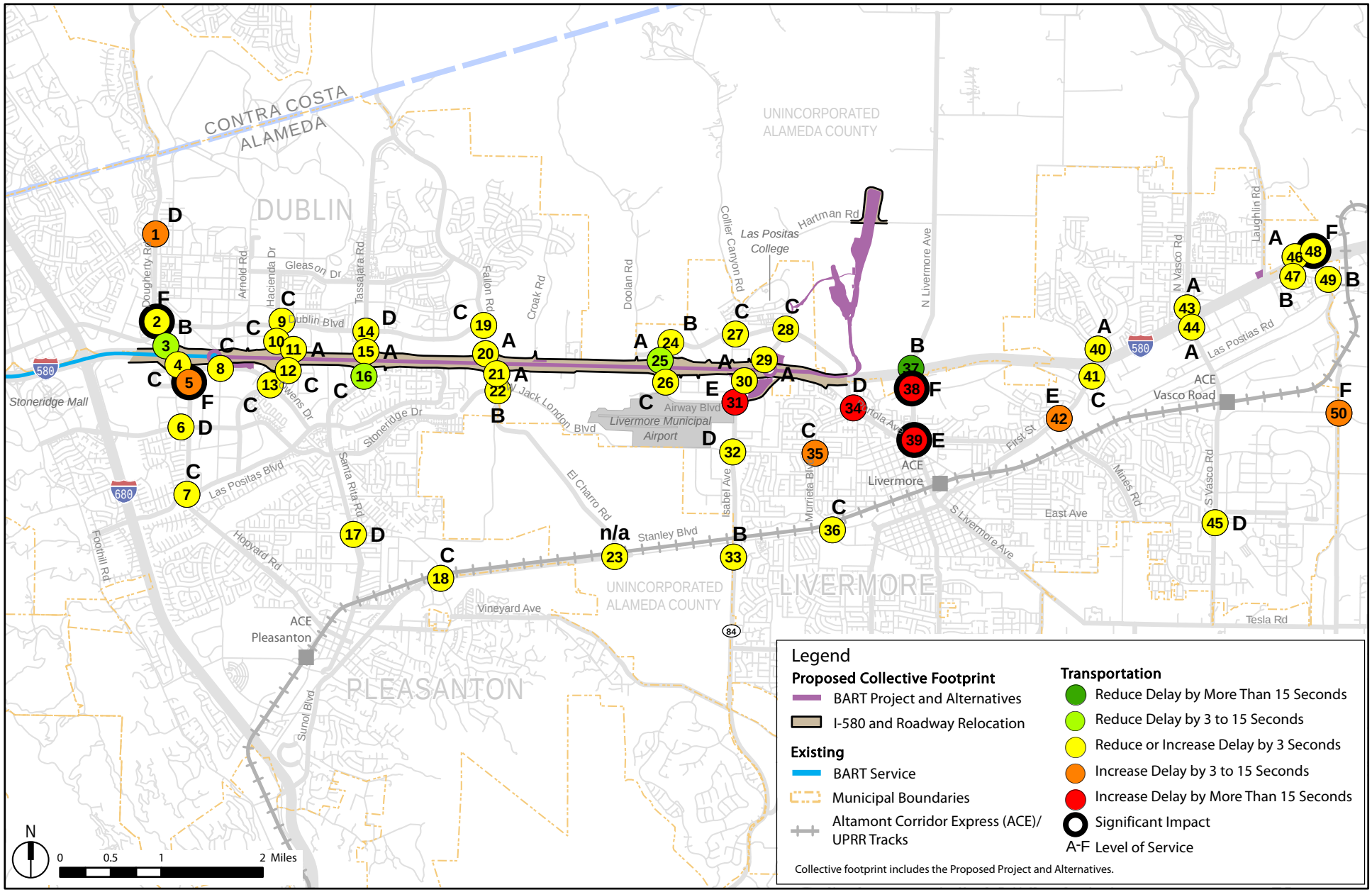
Pages 348 to 355, Figures 3.B-10 to 3.B-17 are revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:



Source: Arup, 2017.

BART to Livermore Extension Project EIR

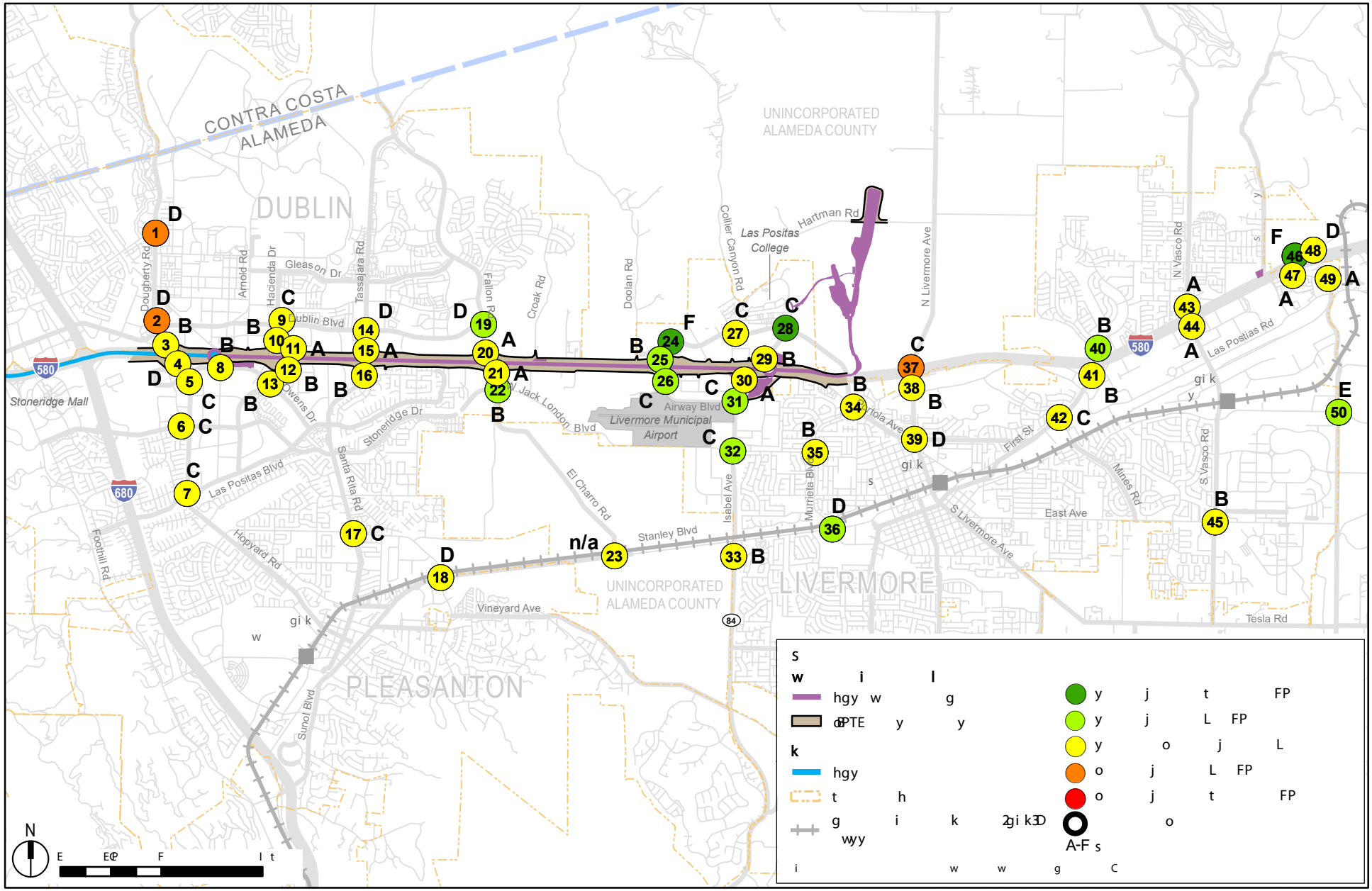
Figure 3.B-10
Transportation
Intersection LOS and Change in AM Delay
2025 Conventional BART Project



Source: Arup, 2017.

BART to Livermore Extension Project EIR

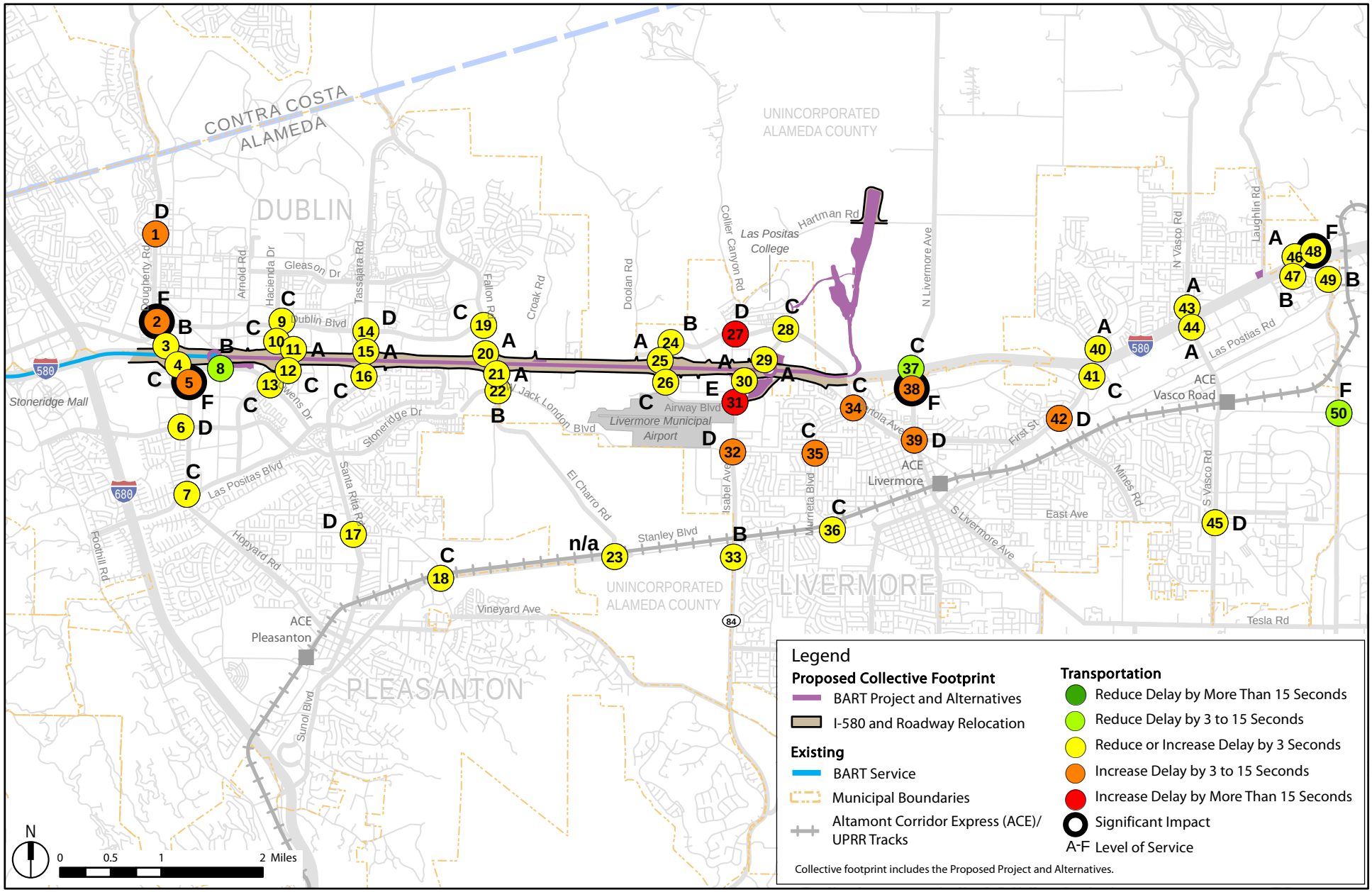
Figure 3.B-11
Transportation
Intersection LOS and Change in PM Delay
2025 Conventional BART Project



Source: Arup, 2017.

BART to Livermore Extension Project EIR

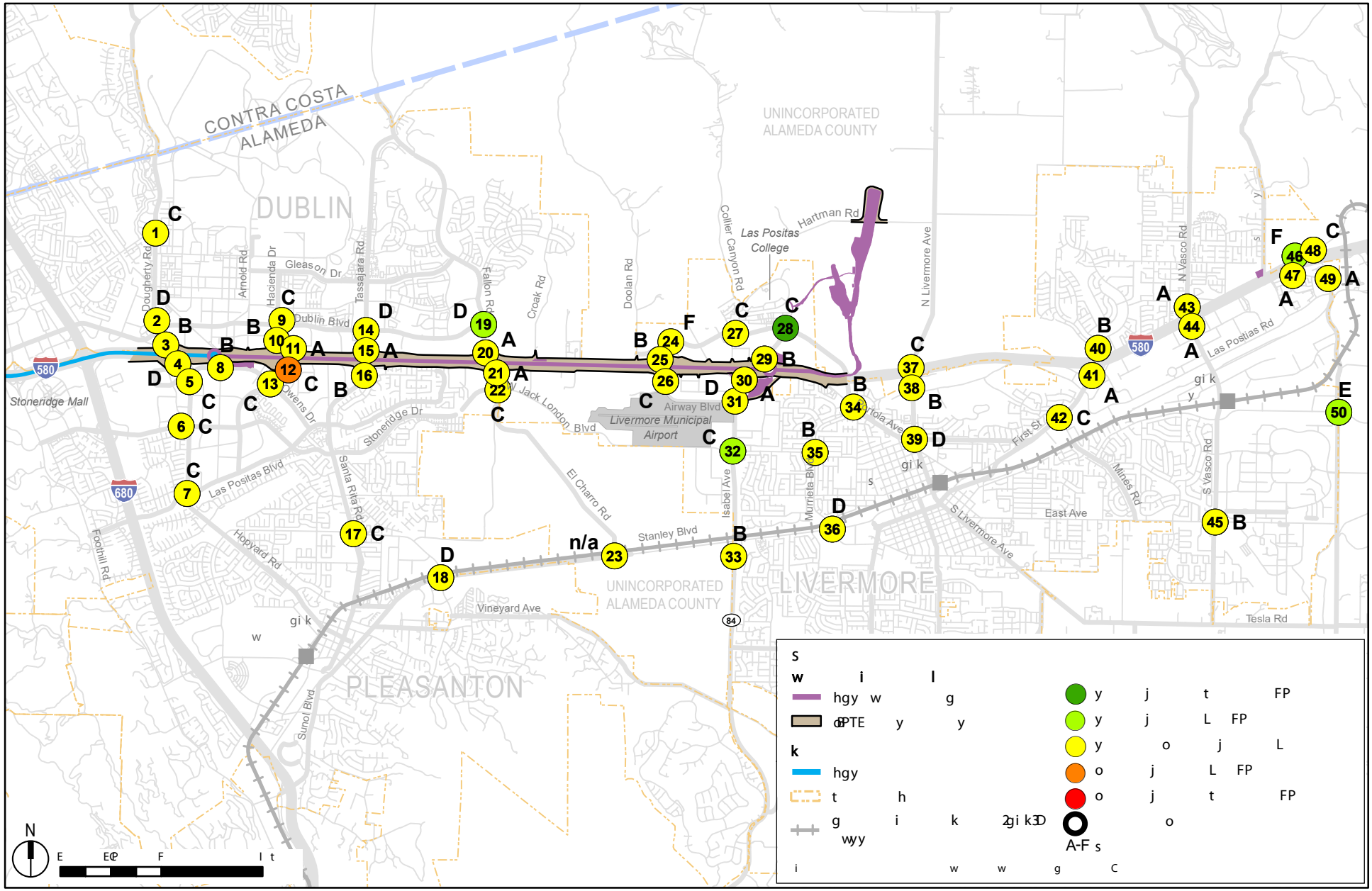
Figure 3.B-12
Transportation
Intersection LOS and Change in AM Delay
2025 DMU Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

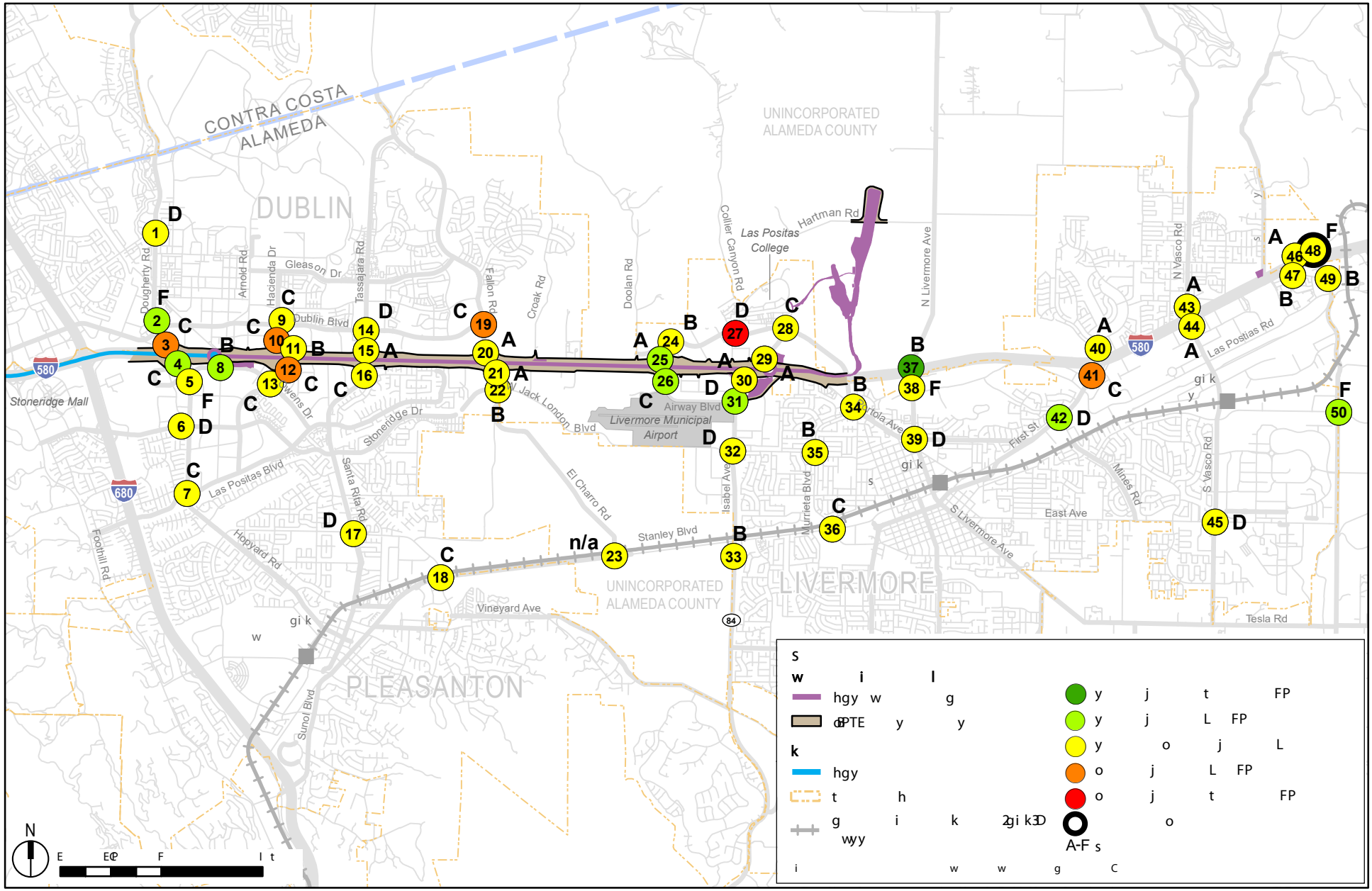
Figure 3.B-13
Transportation
Intersection LOS and Change in PM Delay
2025 DMU Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

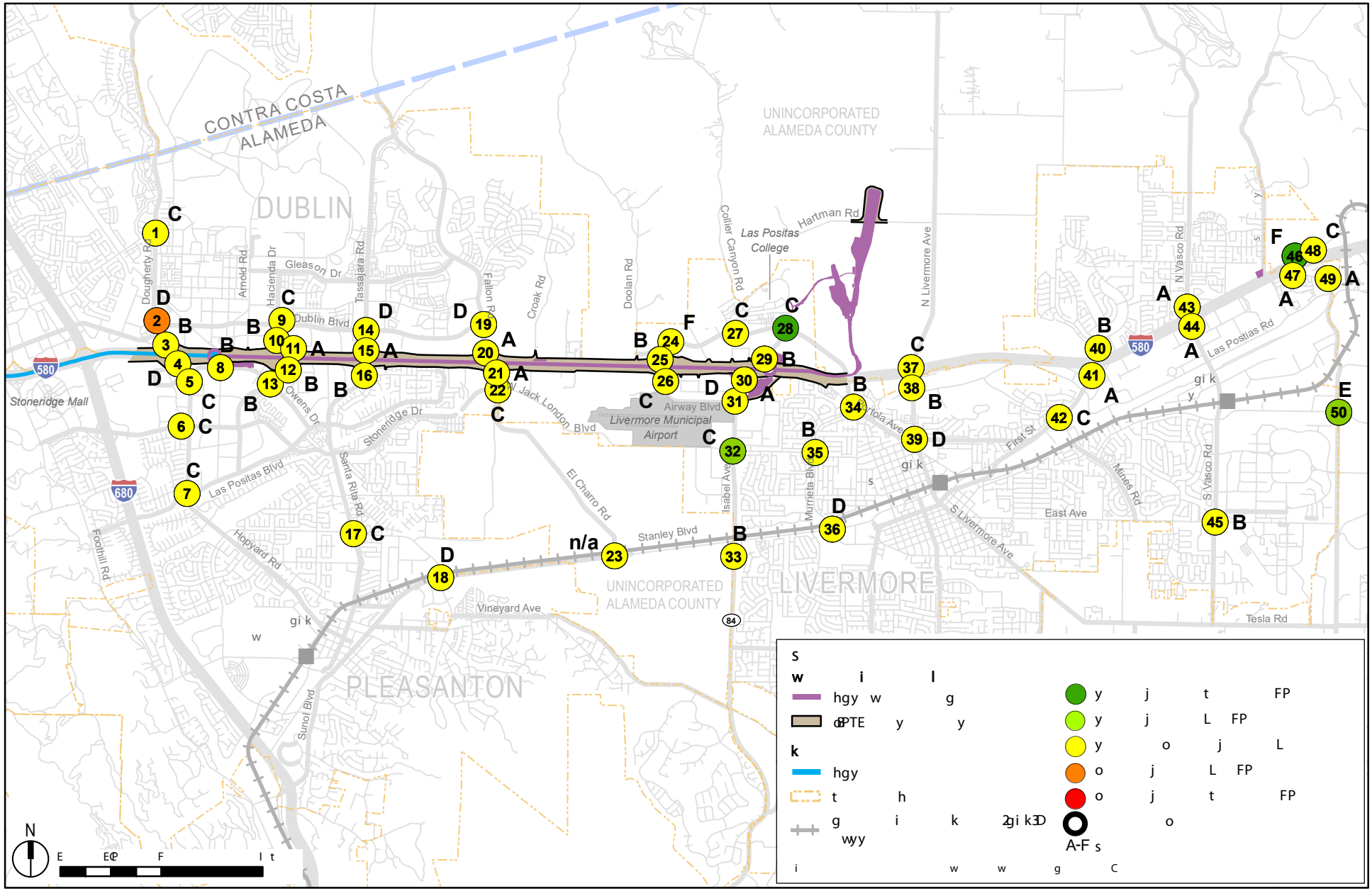
Figure 3.B-14
Transportation
Intersection LOS and Change in AM Delay
2025 Express Bus/BRT Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

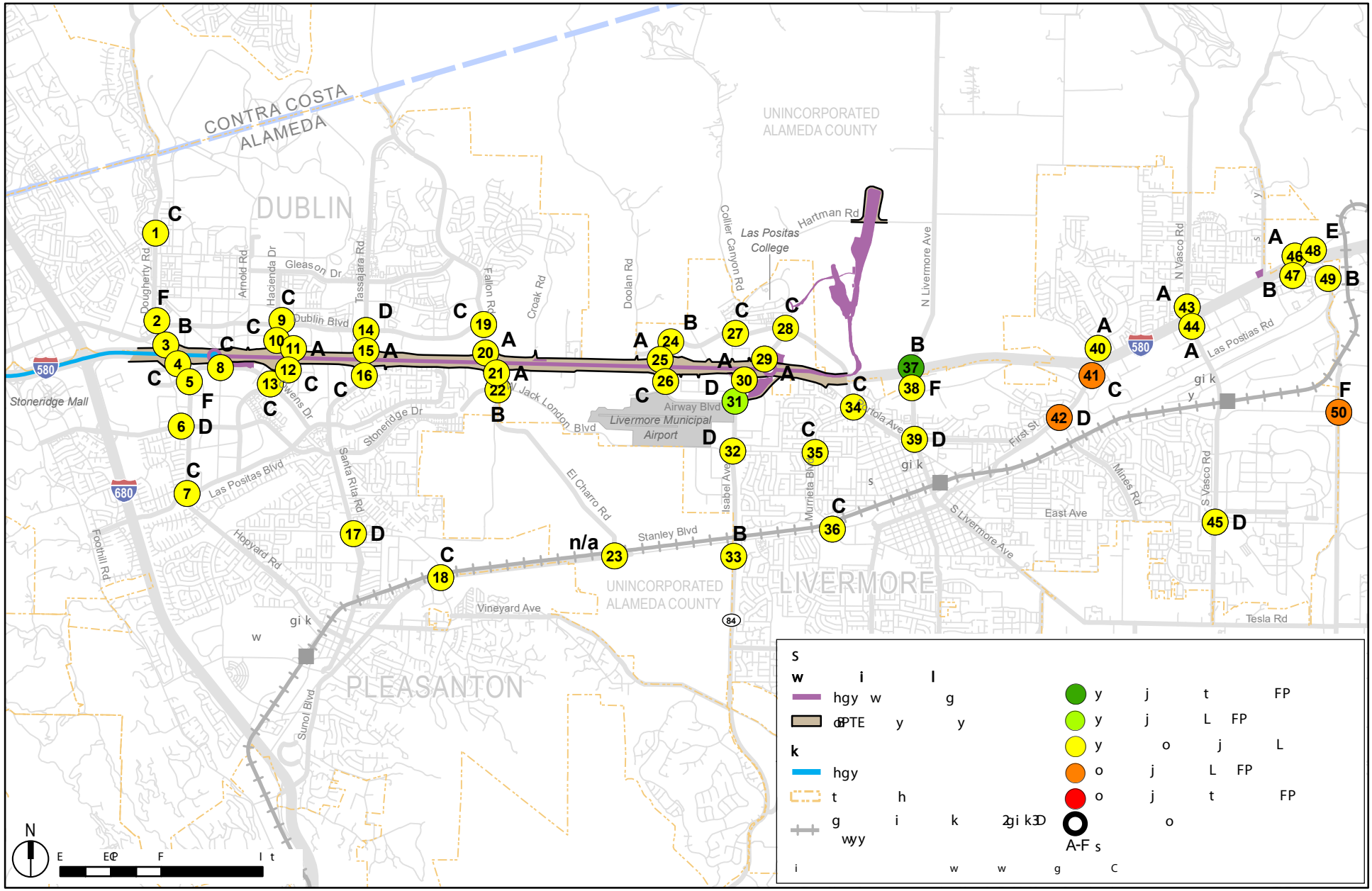
Figure 3.B-15
Transportation
Intersection LOS and Change in PM Delay
2025 Express Bus/BRT Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

Figure 3.B-16
Transportation
Intersection LOS and Change in AM Delay
2025 Enhanced Bus Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

Figure 3.B-17
Transportation
Intersection LOS and Change in PM Delay
2025 Enhanced Bus Alternative

Page 356, second paragraph:

> **Conventional BART Project.** Under the Proposed Project in 2025, ~~six~~ seven intersections would exceed the standard for significant impacts. However, two of these intersections are exempt by policy from applicable LOS standards; therefore, impacts at these intersections would be considered less than significant. One of the ~~four~~ five remaining intersections that experience impacts above the significant impact threshold may also be exempt, but is treated here as non-exempt until exemption is confirmed by the relevant jurisdiction.

Also on Page 356, sixth paragraph:

> Significant impacts would occur at ~~four~~ five intersections, as follows:

Page 356, a new bullet is inserted before the second to last bullet on the page and the second to last bullet item is revised:

- **Livermore Avenue & I-580 EB Ramps (Intersection #38) PM**. Under 2025 Project Conditions, this intersection would operate at an LOS F with a delay of 141.5 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Livermore Avenue & Portola Avenue (Intersection #39) PM**. Under 2025 Project Conditions, this intersection would operate at an LOS ~~D~~ E with a delay of 55.3 ~~54.1~~ seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

Page 357, immediately following the bulleted list:

> Significant impacts at Intersection #2, Intersection #38, and Intersection #48 would be reduced to less than significant with implementation of **Mitigation Measure TRAN-7a,** which requires improvements for turning and through lanes. Significant impacts at Intersection #5 and #39 would also be reduced with implementation **Mitigation Measure TRAN-7a**, which would include creating a full eight-phase signal operation at Intersection #5 and the addition of a second northbound left-turn lane at Intersection #39. However, these mitigations would not reduce the respective impacts at Intersection #5 and Intersection #39 to less than significant, and further improvements at these intersections would be infeasible due to physical constraints. Impacts at Intersection #5 and Intersection #39 would be significant and unavoidable. **(SU)**

DMU Alternative. Under the DMU Alternative in 2025, six ~~five~~ intersections would exceed the standard for significant impacts. Two of these intersections are exempt by policy from applicable LOS standards, and are therefore considered to experience less-than-significant impacts. One of the four ~~three~~ remaining intersections that experience impacts above the significant impact threshold may also be exempt, but is treated here as non-exempt until exemption is confirmed by the relevant jurisdiction.

Page 357, second to last paragraph on the page and the bullet item that continues to page 358 is edited as follows:

Significant impacts would occur at four~~three~~ intersections, as follows:

- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2) ~~AM/~~PM**. Under 2040 Project Conditions, this intersection would operate at ~~an LOS F with a delay of 106.7 seconds in the AM peak and~~ an LOS F with a delay of ~~164.8~~111.2 seconds in the PM peak period. This intersection also has 189 additional trips under the DMU Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Dublin's threshold of 50 additional trips.

Page 358, a new bullet is inserted before the last bullet in the list:

- **Livermore Avenue & I-580 EB Ramps (Intersection #38) PM**. Under 2025 Project Conditions, this intersection would operate at an LOS F with a delay of 118.3 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

Page 358, immediately following the last bullet:

Significant impacts at Intersection #2, Intersection #38, and Intersection #48 would be reduced to less than significant with implementation of **Mitigation Measure TRAN-7b,** which requires improvements for turning and through lanes. Significant impacts at Intersection #5 would also be reduced with implementation **Mitigation Measure TRAN-7b**, which would include creating a full eight-phase signal operation at Intersection #5. However, this mitigation would not reduce the impact at Intersection #5 to less than significant, and further improvements at this intersection would be infeasible due to physical constraints. Impacts at Intersection #5 would be significant and unavoidable. **(SU)**

Page 359, Mitigation Measure TRAN-7a, has been edited to add Intersection #38:

Mitigation Measure TRAN-7a: Improvements for Intersections #2, #5, #38, #39, and #48 under 2025 Project Conditions (Conventional BART Project).

BART shall coordinate with local jurisdictions to implement and contribute its fair share toward funding the following improvements at the following intersections:

- Dougherty Road & Dublin Boulevard (Intersection #2) – Add a third southbound left turn lane and a second westbound right turn lane.
- Hopyard Road & Owens Road (Intersection #5) – Create a full eight-phase signal operation. Alternatively, if this intersection is confirmed to be exempt from the City of Pleasanton's LOS standard following consultation with the City of Pleasanton, no mitigation is required.
- Livermore Ave & I-580 EB Ramps (Intersection #38) – Add a dedicated northbound right-turn lane.

Page 360, Mitigation Measure TRAN-7b, has been edited to add Intersection #38:

Mitigation Measure TRAN-7b: Improvements for Intersections #2, #5, #38, and #48 under 2025 Project Conditions (DMU Alternative/EMU Option).

BART shall coordinate with local jurisdictions to implement and contribute its fair share toward funding the following improvements at the following intersections:

- Dougherty Road & Dublin Boulevard (Intersection #2) – Add a third southbound left turn lane and a second westbound right turn lane.
- Hopyard Road & Owens Road (Intersection #5) – Create a full eight-phase signal operation. Alternatively, if this intersection is confirmed to be exempt from the City of Pleasanton's LOS standard following consultation with the City, no mitigation is required.
- Livermore Ave & I-580 EB Ramps (Intersection #38) – Add a dedicated northbound right-turn lane.

Page 380, beginning at the first full paragraph:

Table 3.B-50 below presents the daily ridership projections under 2025 Project Conditions for surrounding transit services; ACE ridership is

expected to drop under the Proposed Project and DMU Alternative. Once BART is extended to Santa Clara County, some ACE riders traveling to southern Alameda County and Santa Clara County may prefer to ride BART but may be unable to find parking at the Dublin/Pleasanton Station. However, under the Proposed Project and DMU Alternative, these riders would switch from ACE to BART due to the available parking spaces at Isabel Station.

Note that the BLVX Travel Demand Model was set up specifically to provide as accurate a forecast as possible on BART system ridership. Different ridership forecasting methodologies were used in the ridership modeling performed by ACE for the ACEforward EIR, which primarily focuses on ACE and therefore is likely to produce more accurate ACE ridership projections. Multiple factors point to the possibility that the BLVX Travel Demand Model has under-estimated future ACE ridership, including lack of geographic coverage of Stanislaus and Merced counties and higher travel time assumptions than those in ACE's model for the ACEforward EIR.

Similarly, note that the ridership projections do not include an assumption of a BART-ACE rail connection. ACE ridership could increase if any of the BART-ACE rail connection alternatives considered in the ACEforward Draft EIR analysis are implemented.

Page 382 of the Draft EIR, first paragraph:

ACE currently serves a higher number of riders and would also see a decrease. Note that, for the reasons described on page 272, the analysis may have under-predicted ACE ridership. Also, ACE ridership could increase if any of the BART-ACE rail connection alternatives considered in the ACEforward Draft EIR analysis are implemented. ~~Because the changes in ridership are small compared to overall ridership for these transit services, the impacts to these transit services is not expected to be significant.~~ Overall, impacts under the Proposed Project related to surrounding transit service ridership in 2025 and 2040 would be less than significant, and no mitigation measures are required. (LS)

Page 393, Table 3.B-52 is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-52 AM WESTBOUND I-580 GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.971	E	0.982	E	0.980	E	0.973	E	0.974
2	Hacienda Drive	Tassajara Road/Santa Rita Road	E	0.995	E	0.997	E	0.999	**F**	**1.001**	**F**	**1.002**
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.004	F	1.006	F	1.007	F	1.007	F	1.008
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.986 ~~0.975~~	E	0.995 ~~0.969~~	E	0.974	E	0.978	E	0.976
5	Airway Boulevard	Isabel Avenue	F	1.048 ~~1.037~~	E	1.023 ~~0.997~~	F	1.025	F	1.044	F	1.041
6	Isabel Avenue	Livermore Avenue	F	1.062 ~~1.051~~	F	1.062 ~~1.035~~	F	1.043	F	1.055	F	1.055
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.984	E	0.978 ~~0.975~~	E	0.976	E	0.987	E	0.988
8	Springtown Boulevard/ First Street	Vasco Road	E	0.978	E	0.982 ~~0.980~~	E	0.972	E	0.979	E	0.981
9	Vasco Road	Greenville Road	E	0.977	E	0.973	E	0.974	E	0.979	E	0.977
10	Greenville Road	Carroll Road/ Flynn Road	F	1.038	F	1.038	F	1.031	F	1.039	F	1.041

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact. ~~*Italic*/gray shading indicates policy-exempt intersections having a less-than-significant impact.~~
Source: Cambridge Systematics, 2017.

Page 396, Table 3.B-55 is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-55 PM EASTBOUND I-580 GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	C	0.714	C	0.709	C	0.707	C	0.713	C	0.719
2	Hacienda Drive	Tassajara Road/Santa Rita Road	D	0.899	D	0.895	D	0.894	D	0.892	E	0.901
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	E	0.954	E	0.939	E	0.951	E	0.946	E	0.953
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.970	E	0.958 ~~0.946~~	E	0.972 ~~0.964~~	E	0.961	E	0.974
5	Airway Boulevard	Isabel Avenue	E	0.953	E	0.946 ~~0.933~~	E	0.961 ~~0.953~~	E	0.949	E	0.958
6	Isabel Avenue	Livermore Avenue	F	1.037	F	1.049 ~~1.042~~	F	1.055 ~~1.050~~	F	1.037	F	1.042
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.922	E	0.937 ~~0.941~~	E	0.941 ~~0.944~~	E	0.920	E	0.931
8	Springtown Boulevard/ First Street	Vasco Road	E	0.903	E	0.918 ~~0.922~~	E	0.918 ~~0.920~~	E	0.902	E	0.910
9	Vasco Road	Greenville Road	D	0.892	E	0.915 ~~0.918~~	E	0.914 ~~0.916~~	D	0.890	E	0.904
10	Greenville Road	Carroll Road/ Flynn Road	D	0.817	D	0.835	D	0.832	D	0.817	D	0.823

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 398, Table 3.B-56, is revised to reflect refinements in methodology:

TABLE 3.B-56 AM WESTBOUND I-580 GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2040 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.981	E	0.978	E	0.980	E	0.983	E	0.983
2	Hacienda Drive	Tassajara Road/Santa Rita Road	F	1.004	E	0.994	E	0.996	F	1.006	F	1.007
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.020	F	1.011	F	1.013	F	1.023	F	1.022
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.995	E	0.967	E	0.979	E	0.997	E	0.997
5	Airway Boulevard	Isabel Avenue	F	1.064	F	1.028 ~~1.027~~	F	1.050	F	1.067	F	1.068
6	Isabel Avenue	Livermore Avenue	F	1.103	**F**	**1.160** ~~**1.166**~~	**F**	**1.152** ~~**1.157**~~	F	1.105	F	1.104
7	Livermore Avenue	Springtown Boulevard/ First Street	F	1.026	**F**	**1.080** ~~**1.086**~~	**F**	**1.062** ~~**1.065**~~	F	1.026	F	1.024
8	Springtown Boulevard/ First Street	Vasco Road	F	1.037	**F**	**1.088** ~~**1.092**~~	**F**	**1.069** ~~**1.072**~~	F	1.035	F	1.037
9	Vasco Road	Greenville Road	F	1.071	**F**	**1.124** ~~**1.130**~~	**F**	**1.096** ~~**1.099**~~	F	1.068	F	1.069
10	Greenville Road	Carroll Road/ Flynn Road	F	1.056	**F**	**1.120**	**F**	**1.084**	F	1.061	F	1.060

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact ~~that operate at unacceptable levels~~.
Source: Cambridge Systematics, 2017.

Page 401, Table 3.B-59, is revised to reflect refinements in methodology:

TABLE 3.B-59 PM EASTBOUND I-580 GENERAL-PURPOSE FREEWAY LEVEL OF SERVICE, 2040 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	C	0.684	C	0.684	C	0.681	C	0.684	C	0.686
2	Hacienda Drive	Tassajara Road/Santa Rita Road	E	0.940	E	0.937	E	0.936	E	0.940	E	0.941
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	E	0.976	E	0.976	E	0.976	E	0.978	E	0.979
4	Fallon Road/ El Charro Road	Airway Boulevard	E	0.970	E	0.974	E	0.974	E	0.967	E	0.970
5	Airway Boulevard	Isabel Avenue	E	0.992	E	0.99 ~~0.95~~	**F**	**1.009** ~~**1.008**~~	E	0.992	E	0.995
6	Isabel Avenue	Livermore Avenue	F	1.083	**F**	**1.135** ~~**1.145**~~	**F**	**1.137** ~~**1.150**~~	F	1.086	F	1.085
7	Livermore Avenue	Springtown Boulevard/ First Street	F	1.013	**F**	**1.048** ~~**1.057**~~	**F**	**1.062** ~~**1.075**~~	F	1.011	F	1.011
8	Springtown Boulevard/ First Street	Vasco Road	F	1.016	**F**	**1.051** ~~**1.060**~~	**F**	**1.060** ~~**1.073**~~	F	1.017	F	1.020
9	Vasco Road	Greenville Road	E	0.957	E	0.986 ~~0.993~~	**F**	**1.001** ~~**1.011**~~	E	0.950	E	0.958
10	Greenville Road	Carroll Road/ Flynn Road	D	0.816	D	0.845	D	0.858	D	0.817	D	0.817

Notes: LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates segments that have a significant impact ~~that operate at unacceptable levels~~.
Source: Cambridge Systematics, 2017.

Page 402, first 4 bullets:

For the Proposed Project under 2040 Cumulative Conditions, five general-purpose freeway segments would have a significant impact compared to No Project Conditions. Impacts would occur at the following segments:

- **Isabel Avenue to Livermore Avenue General-Purpose (Segment #6).** This segment would operate at a V/C ratio of 1.160 ~~1.166~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.135 ~~1.145~~ and LOS F during the PM peak hour in the eastbound direction.
- **Livermore Avenue to Springtown Boulevard General-Purpose (Segment #7).** This segment would operate at a V/C ratio of 1.080 ~~1.086~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.048 ~~1.057~~ and LOS F during the PM peak hour in the eastbound direction.
- **Springtown Boulevard to Vasco Road General-Purpose (Segment #8).** This segment would operate at a V/C ratio of 1.088 ~~1.092~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.051 ~~1.060~~ and LOS F during the PM peak hour in the eastbound direction.
- **Vasco Road to Greenville Road General-Purpose (Segment #9).** This segment would operate at a V/C ratio of 1.124 ~~1.130~~ and LOS F during the AM peak hour in the westbound direction.

Page 403, first five bullets:

Under the DMU Alternative in 2040, six general-purpose freeway segments would have a significant impact compared to No Project Conditions. Impacts would occur at the following segments:

- **Airway Boulevard to Isabel Avenue General-Purpose (Segment #5)**. This segment would operate at a V/C ratio of 1.009 ~~1.008~~ and LOS F during the PM peak hour in the eastbound direction.
- **Isabel Avenue to Livermore Avenue General-Purpose (Segment #6)**. This segment would operate at a V/C ratio of 1.152 ~~1.157~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.137 ~~1.150~~ and LOS F during the PM peak hour in the eastbound direction.

- **Livermore Avenue to Springtown Boulevard General-Purpose (Segment #7)**. This segment would operate at a V/C ratio of 1.062 ~~1.065~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.062 ~~1.075~~ and LOS F during the PM peak hour in the eastbound direction.
- **Springtown Boulevard to Vasco Road General-Purpose (Segment #8)**. This segment would operate at a V/C ratio of 1.069 ~~1.072~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.060 ~~1.073~~ and LOS F during the PM peak hour in the eastbound direction.
- **Vasco Road to Greenville Road General-Purpose (Segment #9)**. This segment would operate at a V/C ratio of 1.096 ~~1.099~~ and LOS F during the AM peak hour in the westbound direction and a V/C ratio of 1.001 ~~1.011~~ and LOS F during the PM peak hour in the eastbound direction.

Page 405, Table 3.B-60 is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-60 AM WESTBOUND I-580 HOV/EXPRESS LANE FREEWAY LEVEL OF SERVICE, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	E	0.978	E	0.968	E	0.974	E	0.965	E	0.976
2	Hacienda Drive	Tassajara Road/Santa Rita Road	F	1.014	F	1.004	F	1.013	F	1.001	F	1.015
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	F	1.024	F	1.011	F	1.019	F	1.010	F	1.030
4	Fallon Road/ El Charro Road	Airway Boulevard	F ~~E~~	1.000 ~~0.990~~	E	0.995 ~~0.974~~	E	0.996 ~~0.988~~	E	0.989 ~~0.982~~	E	0.993
5	Airway Boulevard	Isabel Avenue	F	1.053 ~~1.044~~	F ~~E~~	1.016 ~~0.994~~	F	1.045 ~~1.032~~	F	1.040 ~~1.030~~	F	1.056 ~~1.045~~
6	Isabel Avenue	Livermore Avenue	F	1.065 ~~1.055~~	F	1.060 ~~1.045~~	F	1.064 ~~1.055~~	F	1.057 ~~1.047~~	F	1.071 ~~1.062~~
7	Livermore Avenue	Springtown Boulevard/ First Street	E	0.994	E	0.978 ~~0.993~~	E	0.980 ~~0.994~~	E	0.987	E	0.994
8	Springtown Boulevard/ First Street	Vasco Road	E	0.981	E	0.982 ~~0.991~~	E	0.975 ~~0.985~~	E	0.975	E	0.990
9	Vasco Road	Greenville Road	D	0.866	D	0.866 ~~0.869~~	D	0.865 ~~0.869~~	D	0.854	D	0.860
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 408, Table 3.B-63 is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-63 PM EASTBOUND I-580 HOV/EXPRESS LANE FREEWAY LEVEL OF SERVICE, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	D	0.827	D	0.785	D	0.769	D	0.829	D	0.773
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	D	0.846	D	0.805	D	0.785	D	0.847	D	0.788
4	Fallon Road/ El Charro Road	Airway Boulevard	B	0.442	B	0.427 ~~0.417~~	B	0.414 ~~0.408~~	B	0.443	B	0.411
5	Airway Boulevard	Isabel Avenue	B	0.398	B	0.382 ~~0.376~~	B	0.371 ~~0.367~~	B	0.400	B	0.369
6	Isabel Avenue	Livermore Avenue	B	0.433	B	0.431 ~~0.411~~	B	0.412	B	0.436	B	0.399
7	Livermore Avenue	Springtown Boulevard/ First Street	B	0.402	B	0.387 ~~0.377~~	B	0.373 ~~0.367~~	B	0.407	B	0.372
8	Springtown Boulevard/ First Street	Vasco Road	B	0.364	A	0.352 ~~0.342~~	A	0.340 ~~0.334~~	B	0.370	A	0.338
9	Vasco Road	Greenville Road	C	0.624	C	0.603 ~~0.589~~	B	0.583 ~~0.575~~	C	0.634	C	0.590
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 414, Table 3.B-67, is revised to reflect refinements in methodology:

TABLE 3.B-67 PM EASTBOUND I-580 HOV/EXPRESS LANE FREEWAY LEVEL OF SERVICE, 2040 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	To	From	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C
1	Dougherty Road/ Hopyard Road	Hacienda Drive	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Hacienda Drive	Tassajara Road/Santa Rita Road	A	0.232	A	0.227	A	0.226	A	0.234	A	0.232
3	Tassajara Road/Santa Rita Road	Fallon Road/ El Charro Road	A	0.239	A	0.234	A	0.233	A	0.241	A	0.238
4	Fallon Road/ El Charro Road	Airway Boulevard	A	0.129	A	0.128	A	0.127	A	0.127	A	0.128
5	Airway Boulevard	Isabel Avenue	A	0.124	A	0.116 ~~0.124~~	A	0.122 ~~0.125~~	A	0.122	A	0.122
6	Isabel Avenue	Livermore Avenue	A	0.128	A	0.158 ~~0.135~~	A	0.164 ~~0.135~~	A	0.127	A	0.128
7	Livermore Avenue	Springtown Boulevard/ First Street	A	0.119	A	0.142 ~~0.123~~	A	0.152 ~~0.123~~	A	0.120	A	0.119
8	Springtown Boulevard/ First Street	Vasco Road	A	0.109	A	0.130 ~~0.111~~	A	0.140 ~~0.111~~	A	0.109	A	0.109
9	Vasco Road	Greenville Road	A	0.167	A	0.192 ~~0.166~~	A	0.207 ~~0.167~~	A	0.166	A	0.167
10	Greenville Road	Carroll Road/ Flynn Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Source: Cambridge Systematics, 2017.

Page 415, Table 3.B-68 is revised to correctly reflect that Portola Avenue will be two lanes, rather than four lanes, in 2025:

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	Intersection	Time	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Dougherty Road & Amador Valley Road[a]	AM	30.4	C	32.0	C	37.5	D	30.6	C	30.7	C
		PM	35.0	D	38.5	D	43.2	D	24.1	C	34.8	C
2	Hopyard Road/Dougherty Road & Dublin Boulevard[a]	AM	43.5	D	52.2	D	50.8	D	44.1	D	44.7	D
		PM	106.9	F	109.5	F	**109.7**	**F**	**98.6**	**F**	105.0	F
3	Dougherty Road/Hopyard Road & I-580 WB Ramps[a]	AM	11.0	B	11.5	B	11.2	B	11.8	B	11.9	B
		PM	17.4	B	18.0	B	16.8	B	21.6	C	20.9	C
4	Hopyard Road/Dougherty Road & I-580 EB Ramps	AM	37.8	D	38.2	D	41.3	D	35.7	D	35.3	D
		PM	33.5	C	34.4	C	29.9	C	26.5	C	26.4	C
5	Hopyard Road & Owens Road	AM	33.0	C	34.4	C	33.5	C	33.3	C	33.2	C
		PM	108.7	F	*116.0*	*F*	*115.2*	*F*	110.0	F	111.5	F
6	Hopyard Road & Stoneridge Drive	AM	30.1	C	30.2	C	30.0	C	30.4	C	30.5	C
		PM	37.0	D	38.6	D	37.7	D	38.9	D	38.6	D
7	Hopyard Road & Las Positas Boulevard	AM	24.1	C	24.0	C	23.9	C	24.0	C	24.0	C
		PM	27.2	C	27.2	C	27.8	C	27.2	C	27.7	C
8	Willow Road & Owens Road	AM	11.7	B	16.4	B	11.4	B	11.9	B	12.0	B
		PM	22.7	C	23.2	C	12.9	B	13.0	B	12.9	B
9	Hacienda Drive & Dublin Boulevard[a]	AM	24.0	C	24.0	C	24.0	C	24.0	C	24.0	C
		PM	29.1	C	28.9	C	29.0	C	29.0	C	29.2	C
10	Hacienda Drive & Martinelli Boulevard/Hacienda Crossings[a]	AM	19.2	B	19.2	B	19.2	B	19.2	B	19.2	B
		PM	25.5	C	24.3	C	26.8	C	35.2	D	34.7	C
11	Hacienda Drive & I-580 WB Ramps	AM	7.4	A	7.1	A	7.4	A	8.8	A	8.7	A
		PM	8.5	A	7.4	A	9.3	A	11.2	B	10.7	B
12	Hacienda Drive & I-580 EB Ramps	AM	17.4	B	20.8	C	17.0	B	15.9	B	16.2	B
		PM	20.3	C	20.2	C	16.2	B	29.6	C	21.7	C
13	Hacienda Drive & Owens Road	AM	27.5	C	21.8 ~~18.7~~	C ~~B~~	13.1 ~~19.7~~	B	13.3 ~~27.8~~	B	13.4 ~~19.7~~	B
		PM	32.5	C	31.7	C	39.5	D	30.3	C	33.8	C
14	Tassajara Road & Dublin Boulevard[a]	AM	43.0	D	40.9	D	41.7	D	43.5	D	43.4	D
		PM	42.0	D	41.6	D	44.8	D	43.2	D	45.3	D
15	Tassajara Road & I-580 WB Ramps[a]	AM	8.8	A	9.5	A	8.8	A	10.1	B	10.2	B
		PM	9.5	A	9.4	A	10.0	A	9.5	A	9.7	A
16	Santa Rita Road & I-580 EB Ramps/Pimlico Drive	AM	17.8	B	18.3	B	17.9	B	18.3	B	18.3	B
		PM	30.6	C	30.6	C	37.5	D	32.9	C	32.8	C

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

#	Intersection	Time	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
17	Santa Rita Road & Valley Avenue	AM	21.7	C	21.7	C	21.9	C	21.8	C	21.8	C
		PM	45.8	D	50.2	D	48.8	D	49.5	D	49.9	D
18	Bernal Avenue/Valley Avenue & Stanley Boulevard	AM	37.4	D	37.3	D	37.3	D	37.4	D	37.4	D
		PM	32.8	C	32.7	C	32.5	C	32.8	C	32.8	C
19	Fallon Road & Dublin Boulevard[a]	AM	48.2	D	41.7	D	44.9	D	48.6	D	50.7	D
		PM	21.4	C	20.6	C	21.7	C	21.6	C	22.1	C
20	El Charro Road/Fallon Road & I-580 WB Ramps[a]	AM	8.0	A	8.2	A	8.1	A	9.0	A	9.0	A
		PM	9.4	A	9.4	A	9.1	A	8.8	A	9.1	A
21	El Charro Road & I-580 EB Ramps	AM	8.2	A	8.6	A	8.6	A	9.7	A	9.8	A
		PM	8.2	A	8.2	A	9.1	A	8.8	A	8.1	A
22	El Charro Road & Stoneridge Drive/Jack London Boulevard	AM	26.8	C	17.0	B	17.2	B	20.5	C	20.6	C
		PM	18.3	B	18.1	B	18.0	B	18.3	B	16.9	B
23	Stanley Boulevard & El Charro Road	AM	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]
		PM	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]	N/A[a,2]
24	Airway Boulevard/Driveway & North Canyons Parkway	AM	129.5 ~~78.7~~	F ~~E~~	38.5 ~~53.9~~	F ~~D~~	94.3 ~~130.4~~	F	**162.7 ~~84.4~~**	**F**	**140.1 ~~86.4~~**	**F**
		PM	13.7 ~~13.6~~	B	11.4 ~~12.2~~	B	26.2 ~~26.5~~	C	14.1 ~~14.0~~	B	15.8 ~~14.8~~	B
25	Airway Boulevard & I-580 WB Ramps	AM	20.7 ~~20.8~~	C	10.1 ~~18.4~~	B	15.9 ~~23.7~~	B ~~C~~	22.2 ~~21.4~~	C	22.1 ~~21.4~~	C
		PM	8.2 ~~5.4~~	A	4.4 ~~5.1~~	A	6.1 ~~12.3~~	A ~~B~~	7.6 ~~5.4~~	A	4.3 ~~4.2~~	A
26	Airway Boulevard & I-580 EB Ramps/Kitty Hawk Road	AM	29.1 ~~28.6~~	C	26.8 ~~40.5~~	C ~~D~~	28.5 ~~43.2~~	C ~~D~~	31.4 ~~31.1~~	C	32.0 ~~31.2~~	C
		PM	27.6 ~~27.9~~	C	26.8 ~~25.8~~	C	28.8 ~~32.5~~	C	27.5 ~~27.6~~	C	36.6 ~~23.4~~	D ~~C~~
27	Collier Canyon Road & North Canyons Parkway/Portola Avenue	AM	25.6 ~~22.9~~	C	24.4	C	24.0	C	25.6	C	23.8	C
		PM	24.1 ~~25.6~~	C	83.2 ~~20.7~~	F ~~C~~	29.3 ~~26.0~~	C	23.4 ~~25.7~~	C	23.4 ~~26.7~~	C
28	Isabel Avenue/Campus Hill Drive & Portola Avenue	AM	52.1 ~~27.9~~	D ~~C~~	26.0 ~~28.0~~	C	25.7 ~~28.0~~	C	25.7 ~~28.1~~	C	25.7 ~~28.1~~	C
		PM	23.5 ~~25.0~~	C	24.2 ~~25.5~~	C	24.5 ~~27.1~~	C	23.6 ~~25.2~~	C	23.4 ~~25.6~~	C
29	Isabel Avenue & I-580 WB Ramps	AM	10.3 ~~10.8~~	B	13.1 ~~17.1~~	B	10.8 ~~16.2~~	B	10.3 ~~11.3~~	B	10.3 ~~11.3~~	B
		PM	9.6 ~~9.9~~	A	9.8	A	9.7	A	9.6 9.9	A	9.6 ~~12.6~~	A ~~B~~

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

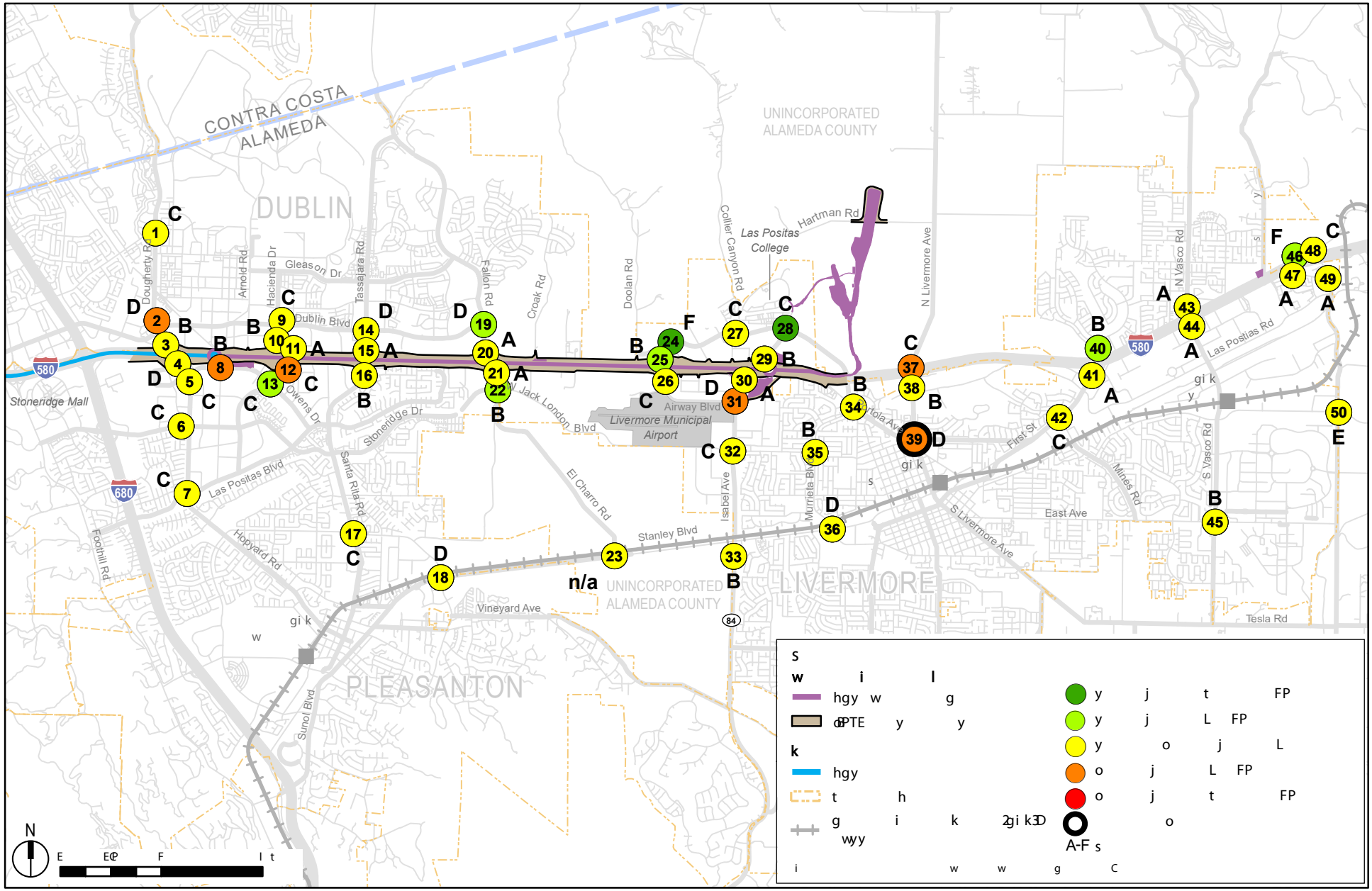
#	Intersection	Time	No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
30	Isabel Avenue & I-580 EB Ramps	AM	6.0 ~~6.6~~	A	7.8	A	7.1 ~~7.5~~	A	6.0 ~~5.9~~	A	6.1 ~~6.0~~	A
		PM	4.7 ~~6.6~~	A	6.4 ~~8.9~~	A	4.9 ~~9.4~~	A	4.7 ~~6.6~~	A	5.1 ~~5.8~~	A
31	Isabel Avenue & Airway Boulevard	AM	36.5 ~~26.7~~	D ~~C~~	*50.4* ~~*51.7*~~	*D*	34.3 ~~28.7~~	C	36.4 ~~26.9~~	D ~~C~~	37.4 ~~27.4~~	D ~~C~~
		PM	46.1 ~~31.7~~	D ~~C~~	*67.2*	*E*	*50.6* ~~*41.4*~~	*D*	36.0 ~~30.7~~	D ~~C~~	40.9 ~~30.5~~	D ~~C~~
32	Isabel Avenue & Jack London Boulevard	AM	37.1	D	34.5	C	34.7	C	34.4	C	34.2 ~~34.3~~	C
		PM	43.1	D	*51.7*	*D*	45.8	D	42.4	D	44.4 ~~46.5~~	D
33	Isabel Avenue Connector & Stanley Boulevard	AM	15.7	B	15.7	B	15.8	B	16.2	B	15.8	B
		PM	15.8	B	15.9	B	19.7	B	15.0	B	17.8	B
34	Murrieta Boulevard/Driveway & Portola Avenue	AM	14.1	B	15.0 ~~20.5~~	B ~~C~~	14.8 ~~14.9~~	B	14.1	B	14.1	B
		PM	20.2	C	29.0 ~~44.2~~	C ~~D~~	22.9 ~~28.5~~	C	20.3	C	20.5 22.2	C
35	Murrieta Boulevard & Jack London Boulevard	AM	17.9	B	17.9	B	17.9	B	17.8	B	17.8	B
		PM	20.5	C	27.7	C	26.1	C	20.5	C	23.4	C
36	Murrieta Boulevard & Stanley Boulevard	AM	40.3	D	38.3	D	37.7	D	40.3	D	37.9	D
		PM	29.3	C	29.4	C	29.4	C	29.3	C	29.4	C
37	Livermore Avenue & I-580 WB Ramps	AM	22.5 ~~21.4~~	C	32.5 ~~24.7~~	C	27.2 ~~21.8~~	C	25.5 ~~21.4~~	C	26.1 ~~21.4~~	C
		PM	39.3	D	29.5 ~~14.4~~	C ~~B~~	25.1 ~~20.2~~	C	19.4	B	21.5 ~~13.2~~	C ~~B~~
38	Livermore Avenue & I-580 EB Ramps	AM	16.4 ~~17.5~~	B	17.1 ~~10.9~~	B	10.8 ~~17.8~~	B	10.0 ~~17.5~~	A ~~B~~	10.2 ~~17.5~~	B
		PM	108.2	F	**138.1** ~~**117.1**~~	**F**	93.4 ~~102.2~~	F	93.7 ~~109.8~~	F	98.5 ~~107.7~~	F
39	Livermore Avenue & Portola Avenue	AM	40.2 ~~39.3~~	D	**46.0** ~~**46.9**~~	**D**	**45.0** ~~**42.6**~~	**D**	42.1 ~~40.8~~	D	43.1 ~~41.9~~	D
		PM	37.4 ~~37.3~~	D	**65.3** ~~**52.3**~~	**E** ~~**D**~~	45.2 ~~44.1~~	D	37.1 ~~36.3~~	D	40.9 ~~40.5~~	D
40	First Street/Springtown Boulevard & I-580 WB Ramps	AM	16.3	B	12.4	B	11.7	B	16.3	B	16.3	B
		PM	7.5	A	7.5	A	12.7	B	7.4	A	5.2	A
41	First Street & I-580 EB Ramps	AM	9.8	A	9.9	A	10.1	B	9.9	A	9.8	A
		PM	30.4	C	32.0	C	36.0	D	30.5	C	37.6	D
42	First Street & Mines Road	AM	24.2	C	24.6	C	23.0	C	24.2	C	24.6	C
		PM	48.6	D	*57.1*	*E*	*54.9*	*D*	49.9	D	*54.8*	*D*

TABLE 3.B-68 INTERSECTION LEVEL OF SERVICE AND CHANGE IN DELAY, 2025 CUMULATIVE CONDITIONS

			No Project Alternative		Conventional BART Project		DMU Alternative (with EMU Option)		Express Bus/BRT Alternative		Enhanced Bus Alternative	
#	Intersection	Time	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
43	Vasco Road / I-580 WB Ramps	AM	1.0	A	1.0	A	1.0	B	1.0	B	1.0	A
		PM	1.1	A	1.1	A	1.1	A	1.1	A	1.8	A
44	Vasco Road / I-580 EB Ramps	AM	0.3	A	0.3	A	0.3	A	0.3	A	0.3	A
		PM	0.7	A	0.7	A	0.7	A	0.7	A	0.7	A
45	Vasco Road & East Avenue	AM	18.8	B	18.9	B	18.1	B	18.8	B	19.0	B
		PM	42.2	D	42.1	D	41.4	D	41.3	D	42.0	D
46	Altamont Pass Road & I-580 WB Ramps	AM	123.8	F	111.8	F	121.9	F	116.8	F	112.3	F
		PM	7.0	A	6.8	A	6.9	A	6.6	A	6.4	A
47	Southfront Road & I-580 EB Ramps	AM	10.0	A	10.0	A	9.9	A	10.0	A	10.0	A
		PM	13.8	B	13.7	B	14.0	B	13.9	B	14.6	B
48	Greenville Road /Altamont Pass Road	AM	35.1	D	32.9	C	38.1	D	33.2	C	33.5	C
		PM	79.8	E	**80.9**	**F**	**81.4**	**F**	79.3	E	**80.6**	**F**
49	Greenville Road & Southfront Road	AM	8.9	A	8.9	A	8.8	A	8.8	A	8.9	A
		PM	14.2	B	14.9	B	14.6	B	11.0	B	14.3	B
50	Greenville Road / Patterson Pass Road	AM	61.7	E	63.0	E	61.1	E	62.0	E	61.1	E
		PM	132.2	F	120.9	F	**138.6**	**F**	133.6	F	**146.0**	**F**

Notes: EB = eastbound; WB = westbound; N/A = not applicable; LOS = level of service; V/C = volume-to-capacity ratio.
Bold/gray shading indicates intersections having a significant impact; i*talic*/gray shading indicates policy-exempt intersections having a less-than-significant impact.
[a] The significant impact criteria of the Cities of Dublin and Pleasanton use added vehicle trips as a metric rather than increased delay.
Source: Cambridge Systematics, 2017.

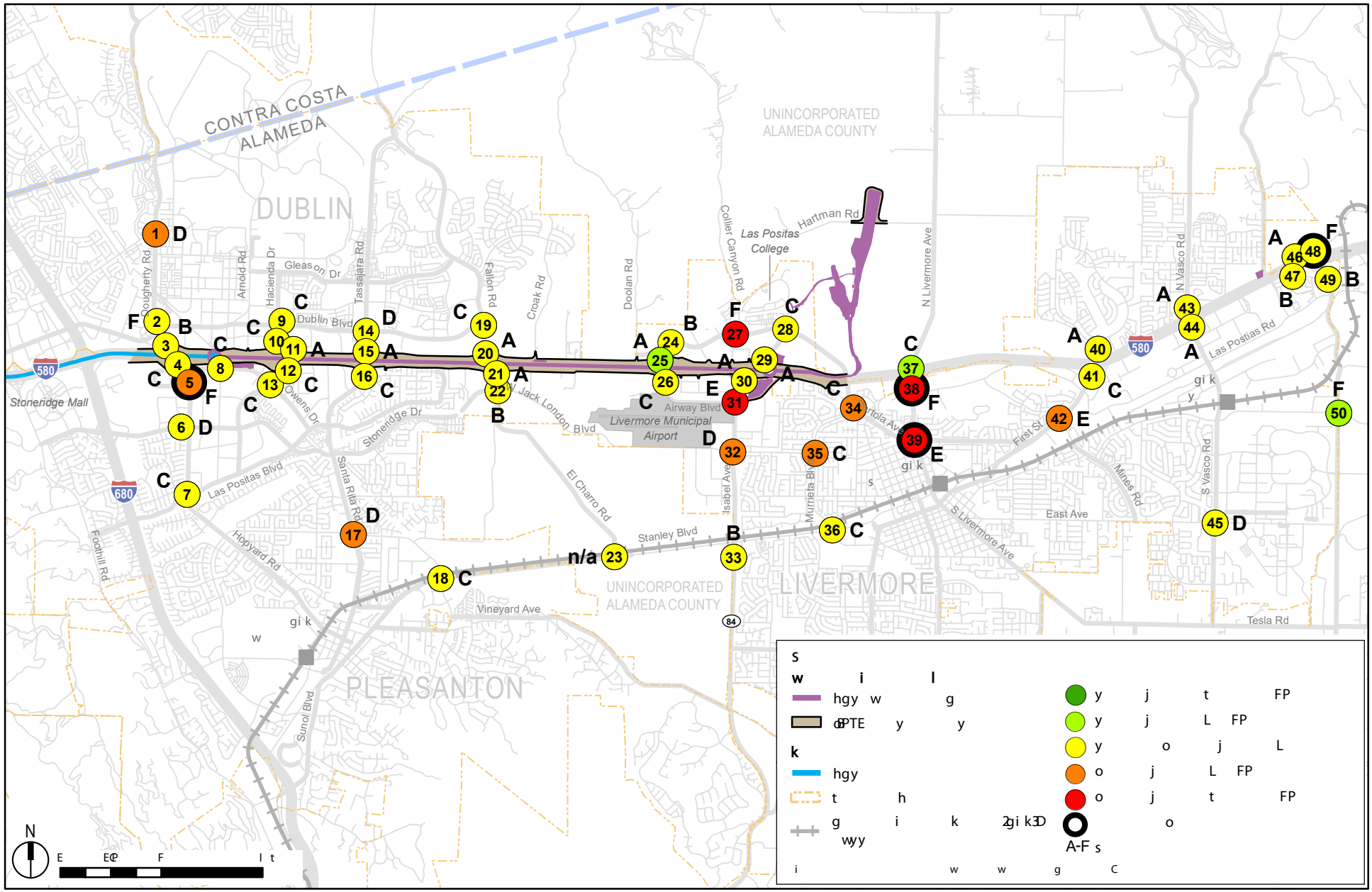
Page 419 through Page 426, Figures 3.B-27 to 3.B-34, are revised to reflect refinements in methodology:



Source: Arup, 2017.

BART to Livermore Extension Project EIR

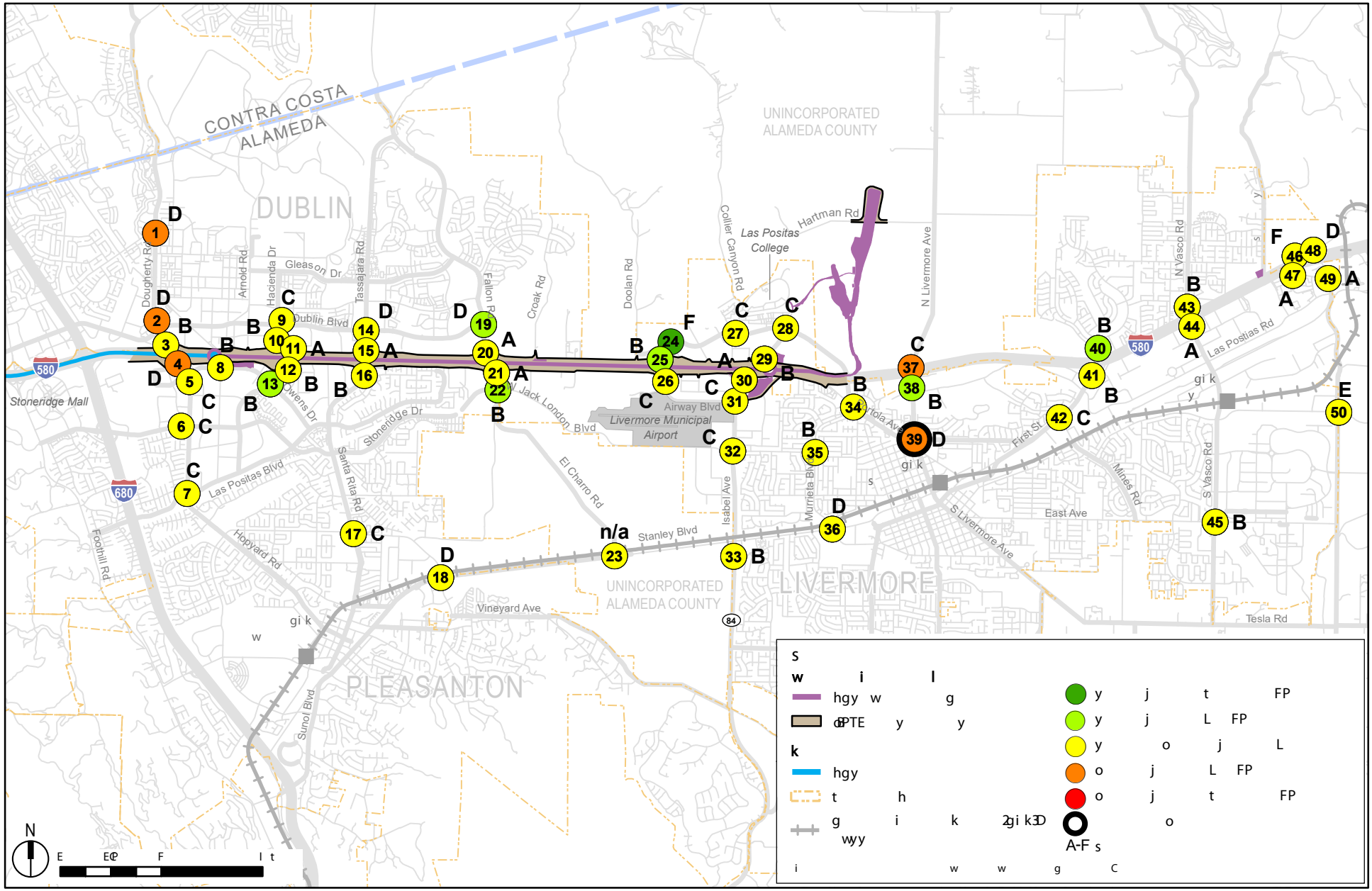
Figure 3.B-27
Transportation
Intersection LOS and Change in AM Delay
2025 Cumulative Conditions, Conventional BART Project



Source: Arup, 2017.

BART to Livermore Extension Project EIR

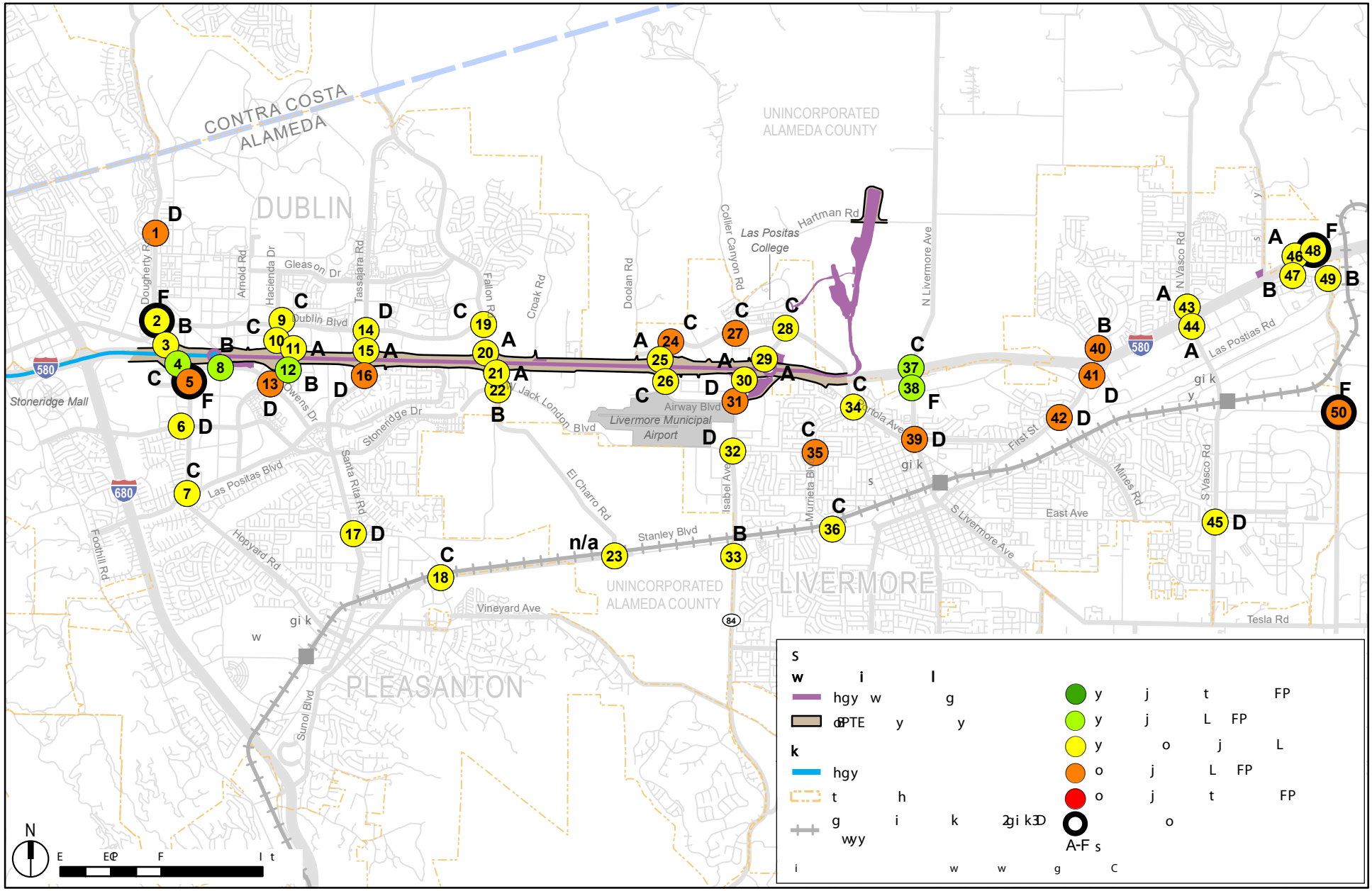
Figure 3.B-28
Transportation
Intersection LOS and Change in PM Delay
2025 Cumulative Conditions, Conventional BART Project



Source: Arup, 2017.

BART to Livermore Extension Project EIR

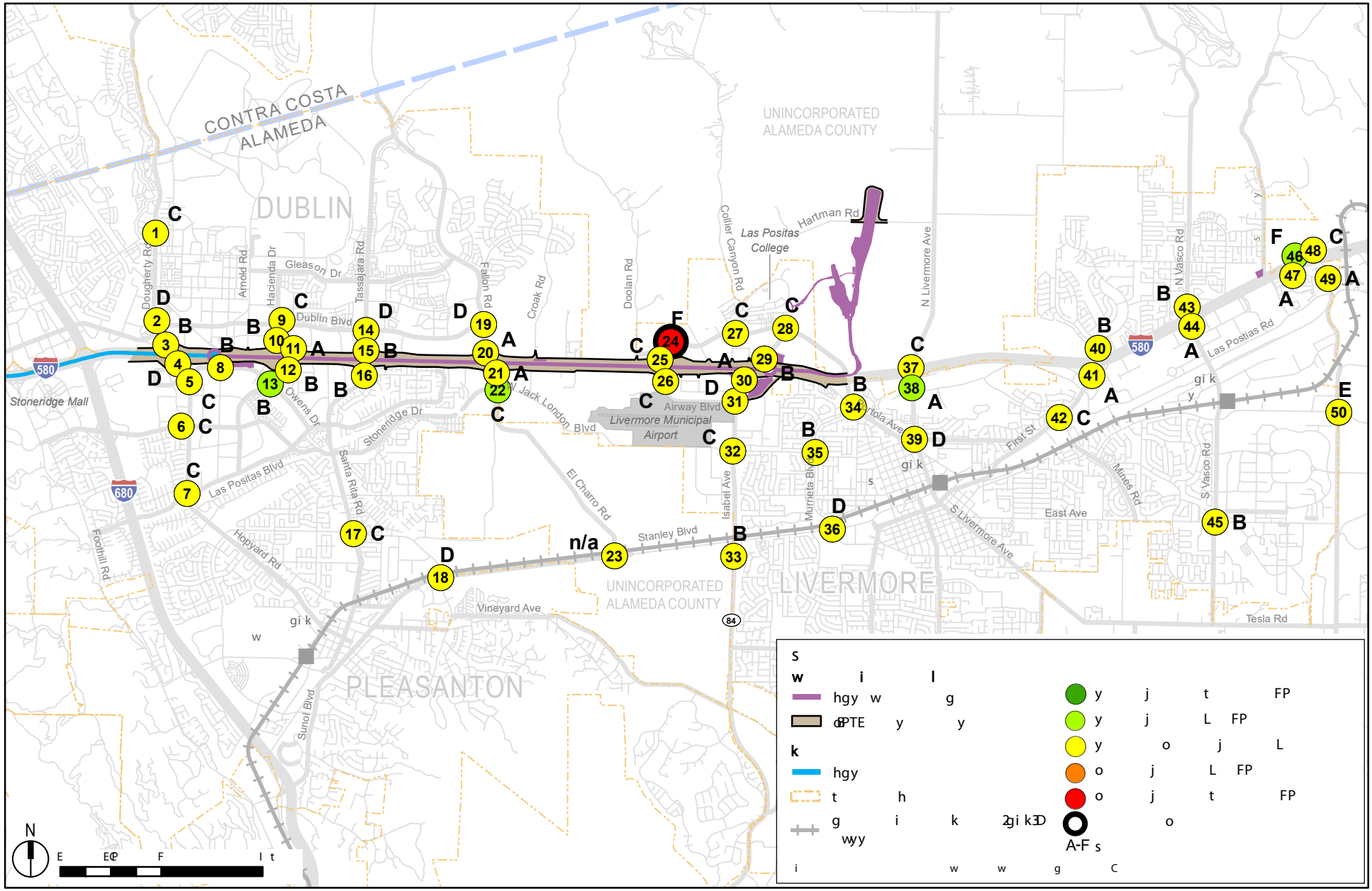
Figure 3.B-29
Transportation
Intersection LOS and Change in AM Delay
2025 Cumulative Conditions, DMU Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

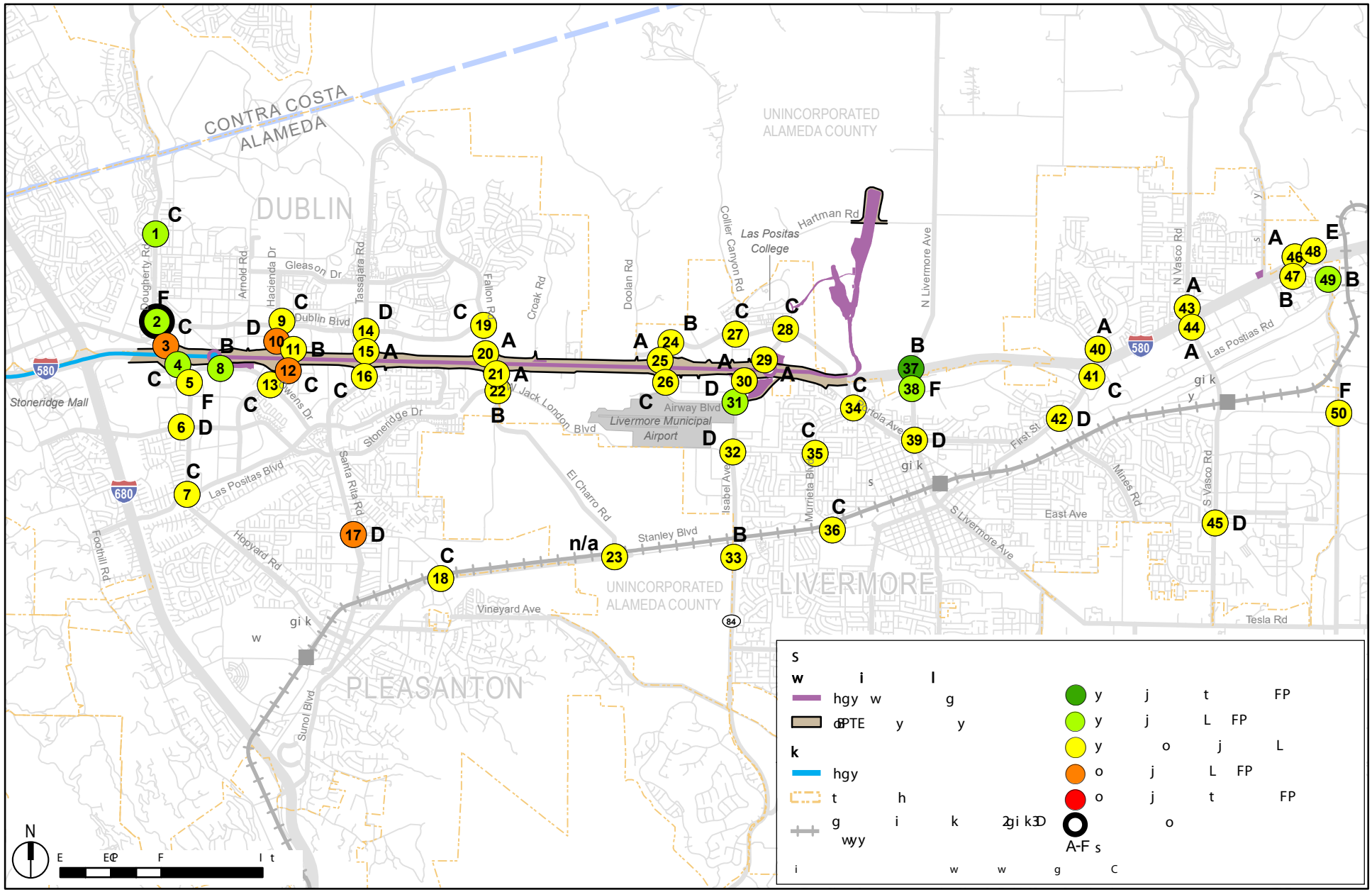
Figure 3.B-30
Transportation
Intersection LOS and Change in PM Delay
2025 Cumulative Conditions, DMU Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

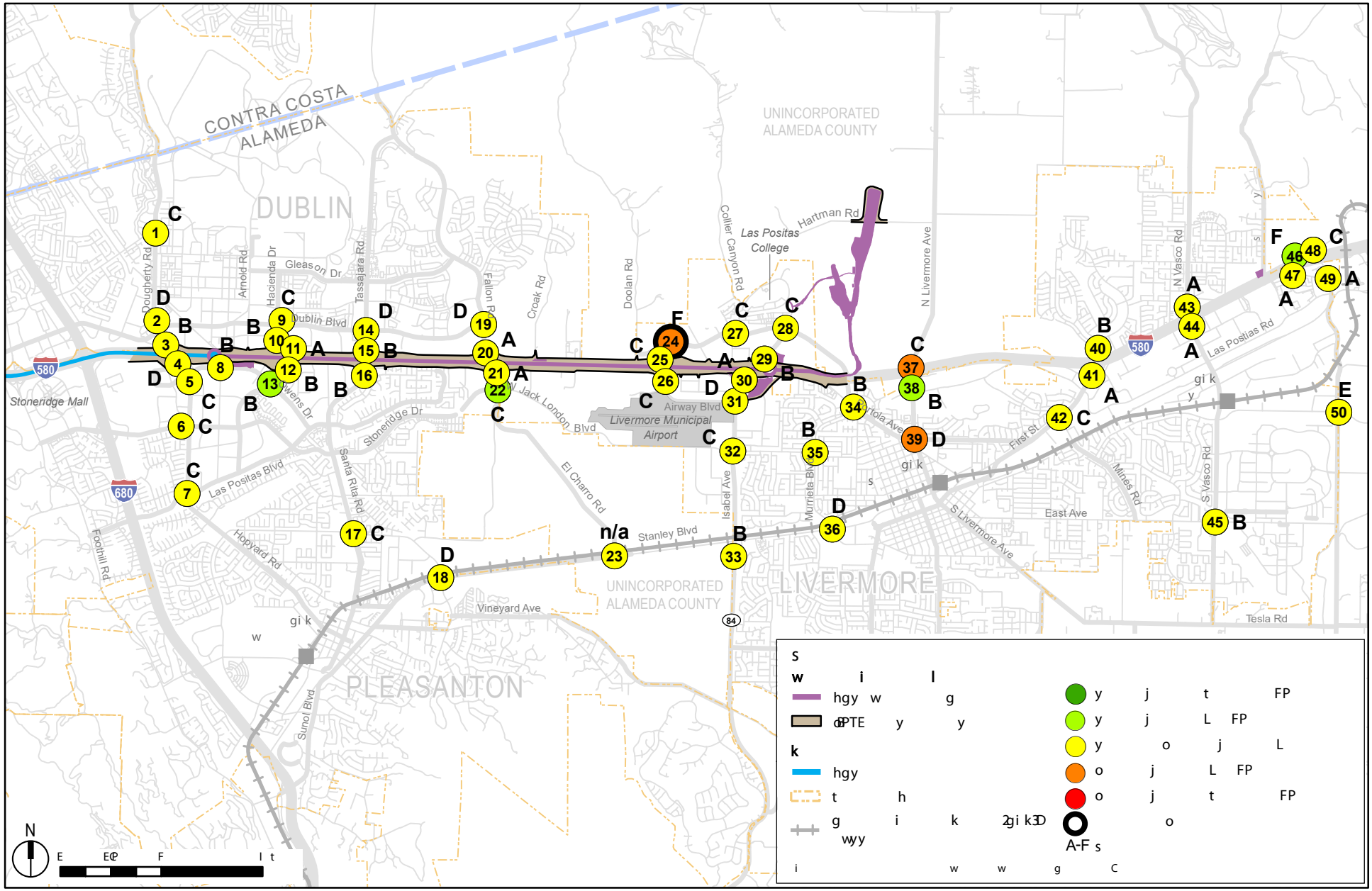
Figure 3.B-31
Transportation
Intersection LOS and Change in AM Delay
2025 Cumulative Conditions, Express Bus/BRT Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

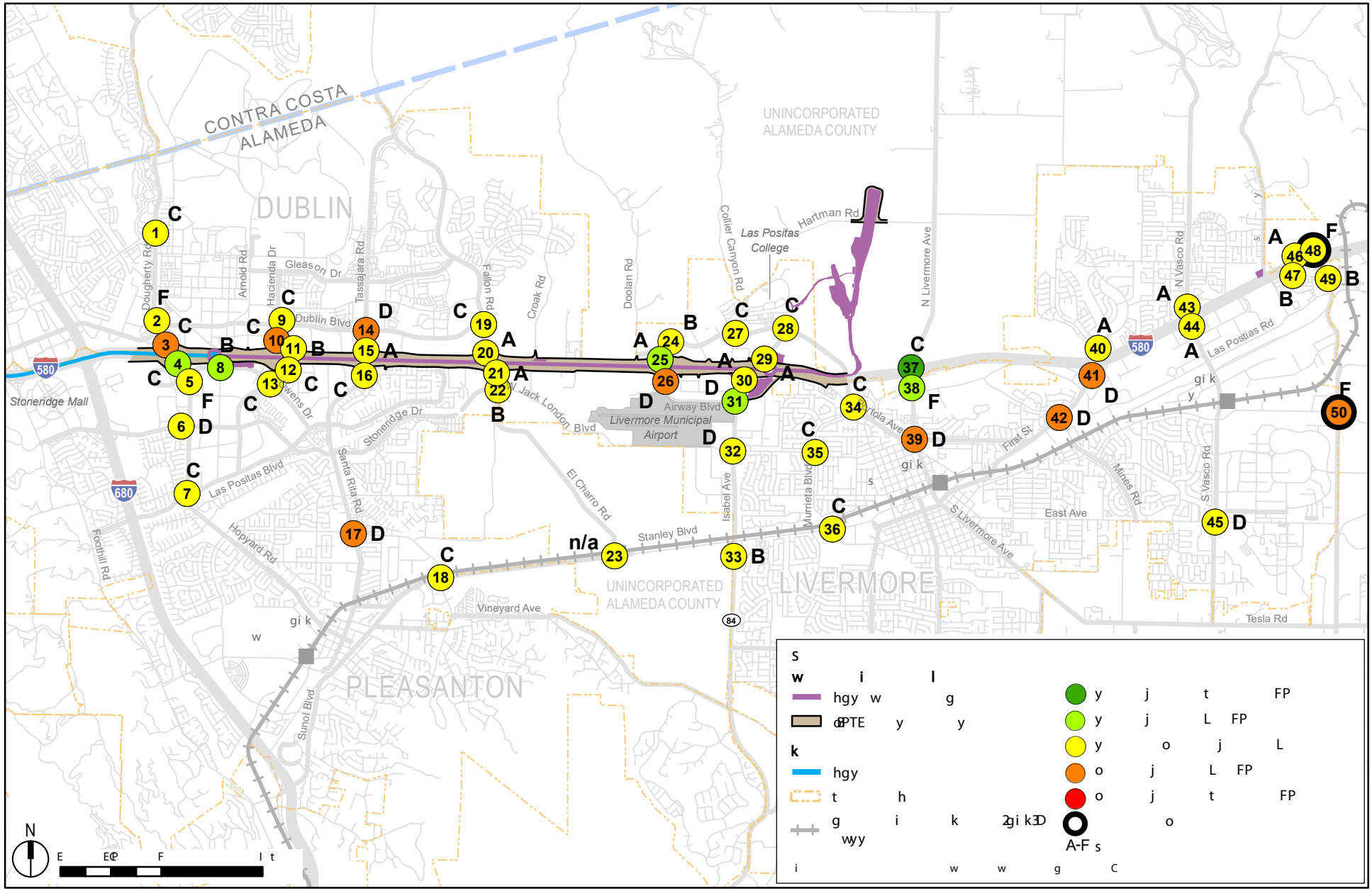
Figure 3.B-32
Transportation
Intersection LOS and Change in PM Delay
2025 Cumulative Conditions, Express Bus/BRT Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

Figure 3.B-33
Transportation
Intersection LOS and Change in AM Delay
2025 Cumulative Conditions, Enhanced Bus Alternative



Source: Arup, 2017.

BART to Livermore Extension Project EIR

Figure 3.B-34
Transportation
Intersection LOS and Change in PM Delay
2025 Cumulative Conditions, Enhanced Bus Alternative

Page 427, the first three bullets:

The policy-exempt intersections are as follows:

- **Isabel Avenue & Airway Boulevard (Intersection #31)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS D with a delay of ~~51.7~~50.4 seconds in the AM peak period and an LOS E with a delay of 67.2 seconds in the PM peak period. However, this intersection is designated as exempt from the City of Livermore's LOS standard because this intersection is near a freeway interchange.
- **Isabel Avenue & Jack London Boulevard (Intersection #32)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS D with a delay of 51.7 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.
- **First Street & Mines Road (Intersection #42)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 57.1 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Also on Page 427, the last two bullets on the page and continuing through the first 2 bullets on Page 428:

Significant impacts would occur at the following four intersections:

- **Hopyard Road & Owens Road (Intersection #5)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 116.0 seconds in the PM peak period. This intersection also has 58 additional trips under Cumulative ~~Project~~ Conditions compared to No Project Conditions in the PM peak period, which is greater than the City of Pleasanton's threshold of 10 additional trips. However, this intersection is designated a Gateway Intersection and may be exempt from the City of Pleasanton's LOS standard if vehicular capacity improvements would be contrary to other City goals.
- **Livermore Avenue & I-580 EB Ramps (Intersection #38)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an

LOS FD with a delay of 138.1 ~~117.1~~ seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

- **Livermore Avenue & Portola Avenue (Intersection #39)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS D with a delay of 46.0 ~~46.9~~ seconds in the AM peak period and an LOS ~~D~~E with a delay of 65.3 ~~52.3~~ seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Greenville Road/Altamont Pass Road (Intersection #48)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 80.9 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

Page 428, the fourth paragraph is revised and a new bullet point is added:

DMU Alternative. For the DMU Alternative under 2025 Cumulative Conditions, ~~six~~ seven intersections would experience significant impacts. ~~One~~ Two of these intersections are ~~is~~ exempt by policy from LOS standards. One of the five other remaining intersections that experience significant impacts may also be exempt by policy, but is treated here as non-exempt until the exemption is confirmed by the relevant jurisdiction.

The policy-exempt intersection is as follows:

- **Isabel Avenue & Airway Boulevard (Intersection #31)**. Under 2025 Cumulative Conditions, this intersection would operate at an LOS D with a delay of 50.6 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Page 429, the third bullet is edited to remove Intersection #24 and add Intersection #39:

- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2)**. Under 2025 Cumulative Conditions, this intersection would operate at an LOS F with a delay of 109.7 seconds in the PM peak period. This intersection also has 87 additional trips under the DMU Alternative compared to No Project Conditions in the PM peak period,

which is greater than the City of Dublin's threshold of 50 additional trips.

- **Hopyard Road & Owens Road (Intersection #5)**. Under 2025 Cumulative Conditions, this intersection would operate at an LOS F with a delay of 115.2 seconds in the PM peak period. This intersection also has 22 additional trips under the DMU Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Pleasanton's threshold of 10 additional trips. However, this intersection is designated a Gateway Intersection and may be exempt from the City of Pleasanton's LOS standard if vehicular capacity improvements would be contrary to other City goals.
- **Livermore Avenue & Portola Avenue ~~Airway Boulevard/North Canyons Parkway~~ (Intersection ~~#24~~ #39)**. Under 2025 Cumulative Conditions, this intersection would operate at an LOS ~~F~~ D with a delay of 45.0 ~~130.4~~ seconds in the AM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

Page 429, first paragraph following the bulleted list is revised to remove Intersection #24 and add Intersection #39:

At Intersection #2, ~~Intersection #24,~~ Intersection #48~~,~~ and Intersection #50, significant impacts would be reduced to a less-than-significant level with implementation of **Mitigation Measure TRAN-19b,** which requires intersection improvements such as additional turning and through lanes. Impacts at Intersection #5 and Intersection #39 could not be reduced to less than significant despite the implementation proposed in **Mitigation Measure TRAN-19b**. The impacts at Intersection #5 and Intersection #39 under 2025 Cumulative Conditions would therefore be significant and unavoidable. **(SU)**

Page 429 and 430, **Express Bus/BRT Alternative** analysis:

Express Bus/BRT Alternative. For the Express Bus/BRT Alternative under 2025 Cumulative Conditions, two intersections would experience significant or less-than-significant impacts. Significant impacts would occur at the following two intersections:

- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 98.6 seconds in the PM peak period. This intersection also has 56 additional trips under the Express Bus Alternative compared to No Project Conditions in the PM peak period,

which is greater than the City of Dublin's threshold of 50 additional trips.

- **Airway Boulevard/North Canyons Parkway (Intersection #24)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 162.7 ~~84.4~~ seconds in the AM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

At ~~Intersection #2 and~~ Intersection #24, significant impacts would be reduced to less than significant with implementation of **Mitigation Measure TRAN-19c,** which requires intersection improvements such as additional turning and through lanes. **(LSM)**

Page 430, starting at the third full paragraph and continuing through the last bullet item:

The policy-exempt intersection is as follows:

- **First Street & Mines Road (Intersection #42)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS D with a delay of 54.8 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Significant impacts would occur at the following three intersections:

- **Airway Boulevard/North Canyons Parkway (Intersection #24)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 140.1 ~~86.4~~ seconds in the AM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Greenville Road/Altamont Pass Road (Intersection #48)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 80.6 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Greenville Road/Altamont Pass Road (Intersection #50)**. Under 2025 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 146.0 seconds in the PM peak period, which is

greater than 45 seconds, the significance threshold identified for this intersection.

Page 436, last two bullets on the page:

- **Isabel Avenue & Airway Boulevard (Intersection #31)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 77.8 seconds in the AM peak period and an LOS F with a delay of 82.3 seconds in the PM peak period. However, this intersection is designated as exempt from the City of Livermore's LOS standard because this intersection is near a freeway interchange.
- **Isabel Avenue & Jack London Boulevard (Intersection #32)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 57.4 seconds in the AM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Page 445, the first 4 paragraphs on the page:

- **Murrieta Boulevard & Stanley Boulevard (Intersection #36)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 104.3 seconds in the AM peak period and an LOS D with a delay of 51.2 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.
- **First Street & Mines Road (Intersection #42)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 105.9 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Significant impacts would occur at the following nine intersections:

- **Dougherty Road & Amador Valley Road (Intersection #1)**. Under 2040 Cumulative Conditions, this intersection would operate at an LOS F with a delay of 154.2 seconds in the AM peak period. This intersection also has 360 additional trips under Cumulative ~~Project~~ Conditions compared to No Project Conditions in the AM peak period, which is greater than the City of Dublin's threshold of 50 additional trips.

Page 446, the last two bullets on the page, continuing onto Page 447:

- **Isabel Avenue & Airway Boulevard (Intersection #31)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 63.2 seconds in the AM peak period and an LOS F with a delay of 86.2 seconds in the PM peak period. However, this intersection is designated as exempt from the City of Livermore's LOS standard because this intersection is near a freeway interchange.
- **Murrieta Boulevard & Stanley Boulevard (Intersection #36)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 62.9 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

From the first full bullet on Page 447 through the third bullet on Page 448:

- **First Street & Mines Road (Intersection #42)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 78.4 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Significant impacts would occur at the following eight intersections:

- **Dougherty Road & Amador Valley Road (Intersection #1)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 143.0 seconds in the AM peak period. This intersection also has 284 additional trips under the DMU Alternative

compared to No Project Conditions in the AM peak period, which is greater than the City of Dublin's threshold of 50 additional trips.

- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 107.5 seconds in the AM peak period and LOS F with a delay of 158.4 seconds in the PM peak period. This intersection also has 197 additional trips in the AM peak period and 351 additional trips in the PM peak period under Cumulative ~~Project~~ Conditions compared to No Project Conditions, which is greater than the City of Dublin's threshold of 50 additional trips.
- **Hopyard Road & Owens Road (Intersection #5)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 107.8 seconds in the PM peak period. This intersection also has 192 additional trips under the DMU Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Pleasanton's threshold of 50 additional trips. However, this intersection is designated a Gateway Intersection and may be exempt from the City of Pleasanton's LOS standard if vehicular capacity improvements would be contrary to other City goals.
- **Santa Rita Road & Valley Avenue (Intersection #17)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 77.9 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Murrieta Boulevard & Jack London Boulevard (Intersection #35)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 110.1 seconds in the PM peak period, which is greater than 45 seconds.
- **Livermore Avenue and Portola Avenue (Intersection #39)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 68.5 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Greenville Road & Altamont Pass Road (Intersection #48)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 106.6 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

- **Greenville Road/Patterson Pass Road (Intersection #50)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS D with a delay of 49.9 seconds in the AM peak period and an LOS F with a delay of 173.1 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

From the last bullet on Page 448 through the fourth bullet on Page 449:

The policy-exempt intersection is as follows:

- **First Street & Mines Road (Intersection #42)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 60.0 seconds in the PM peak period. However, this intersection is exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Significant impacts would occur at the following ~~five~~ four intersections:

- **Dougherty Road & Amador Valley Road (Intersection #1)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 103.4 seconds in the AM peak period. This intersection also has 50 additional trips under the Express Bus Alternative compared to No Project Conditions in the AM peak period, which is equal to the City of Dublin's threshold of 50 additional trips.
- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 152.5 seconds in the PM peak period. This intersection also has 64 additional trips under the Express Bus Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Dublin's threshold of 50 additional trips.
- **Hopyard Road & Owens Road (Intersection #5)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 102.7 seconds in the PM peak period. This intersection also has 92 additional trips under the Express Bus Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Pleasanton's threshold of 10 additional trips. However, this intersection is designated a Gateway Intersection

and may be exempt from the City of Pleasanton's LOS standard if vehicular capacity improvements would be contrary to other City goals.

- **Greenville Road/Patterson Pass Road (Intersection #50)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 183.4 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- With the exception of Intersection #5, impacts at the intersections above would be reduced to less than significant with implementation of **Mitigation Measure TRAN-20c,** which requires intersection improvements such as additional turning and through lanes. **Mitigation Measure TRAN-20d** requires full eight-phase signal operations at Intersection #5; however, this intersection improvement would not be sufficient to reduce impacts to less than significant at Intersection #5. Further lane additions would be infeasible due to physical constraints at this location; therefore, impacts at Intersection #5 would be significant and unavoidable under 2040 Cumulative Conditions. **(SU)**

Page 450, changes to all bullets on the page:

The policy-exempt intersection is as follows:

- **First Street & Mines Road (Intersection #42)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 60.0 seconds in the PM peak period. However, this intersection may be exempt from the City of Livermore's LOS standard because of environmental constraints, ROW constraints or cut-through traffic volumes or other City of Livermore policies that prevent the implementation of improvements that would achieve the City's LOS standards.

Significant impacts would occur at the following five intersections:

- **Dougherty Road & Amador Valley Road (Intersection #1)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 104.7 seconds in the AM peak period. This intersection also has 59 additional trips under the Enhanced Bus Alternative compared to No Project Conditions in the AM peak period, which is greater than the City of Dublin's threshold of 50 additional trips.
- **Hopyard Road/Dougherty Road & Dublin Boulevard (Intersection #2)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would

operate at an LOS F with a delay of 101.7 seconds in the AM peak period and LOS F with a delay of 151.4 seconds in the PM peak period. This intersection also has 70 additional trips in the AM peak period and 58 additional trips in the PM peak period under Cumulative ~~Project~~ Conditions compared to No Project Conditions, which is greater than the City of Dublin's threshold of 50 additional trips.

- **Hopyard Road & Owens Road (Intersection #5)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 102.7 seconds in the PM peak period. This intersection also has 29 additional trips under the Enhanced Bus Alternative compared to No Project Conditions in the PM peak period, which is greater than the City of Pleasanton's threshold of 10 additional trips. However, this intersection is designated a Gateway Intersection and may be exempt from the City of Pleasanton's LOS standard if vehicular capacity improvements would be contrary to other City goals.
- **Santa Rita Road & Valley Avenue (Intersection #17)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS E with a delay of 79.9 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.
- **Greenville Road/Patterson Pass Road (Intersection #50)**. Under 2040 Cumulative ~~Project~~ Conditions, this intersection would operate at an LOS F with a delay of 177.2 seconds in the PM peak period, which is greater than 45 seconds, the significance threshold identified for this intersection.

3. Section C. Land Use and Agricultural Resources

Page 489, following the Land Use Policy 73 bullet, the following text has been added:

- Land Use Program 82. The County shall work with East County cities to designate high density and high-intensity uses along major arterials and within walking distance of transit stops. The County shall work with cities to designate land near proposed BART stations for high density residential uses and personal services (e.g., child care).

Page 506, Mitigation Measure AG-1: Provide Compensatory Farmland under Permanent Protection:

> **Mitigation Measure AG-1: Provide Compensatory Farmland under Permanent Protection (Conventional BART Project and DMU Alternative/EMU Option)**
>
> BART shall mitigate the loss of agricultural land, including Prime Farmland, Unique Farmland, and land zoned for agricultural use by providing for permanent agricultural use at an off-site location at a 1-to-1 ratio. The land shall have similar agricultural value to the acreage lost. BART will consult with the Alameda County Resource Conservation District to identify appropriate and available farmland to permanently protect. BART will coordinate with the City of Livermore and Alameda County to leverage other resources available from those agencies for open space preservation to enhance the value of the mitigation and benefits to North Livermore. The preferred location shall prioritize appropriate and available land near the land being removed from agricultural use, urban growth boundaries and/or existing easements. ~~The preferred location for the mitigation property shall be in Eastern Alameda County although other locations are possible~~. The protection will be in perpetuity through agricultural land easements or other permanent protection.

Page 508, second paragraph:

> ~~While the tail tracks and storage and maintenance facility would be consistent with the types of uses conditionally allowed in the Agricultural district zoning designation, as described in the Consistency with Applicable Local Plans and Land Use Policy subsection below, t~~The tail tracks and storage and maintenance facility would cover approximately 104 acres of agriculturally zoned land.

Page 517, second paragraph:

> As described below, the Proposed Project and Alternatives would ~~primarily~~ generally be consistent with applicable land use plans and policies and would fulfill or support the policies related to TOD, extension of BART, and agricultural land to varying degrees. However, the Proposed Project and DMU Alternative could conflict with East County Area Plan Land Use Policy 89 pertaining to rangeland, and Livermore General Plan Objective OSC-3.1, Policy 1, pertaining to farmland designated by the FMMP, as noted below. In addition, the storage and maintenance facility use, which is proposed under the Proposed Project and DMU Alternative, could conflict with uses

anticipated in the Agricultural district as enumerated in Chapter 17.06 of the Alameda County Zoning Ordinance.

Page 520, third paragraph:

While the proposed tail tracks and storage and maintenance facility are not standard uses described in most zoning regulations, they are part of the transportation infrastructure, and would be considered a public use similar to a public utility. While public utility buildings and uses are allowed per Chapter 17.06.40.K of the Alameda County Zoning Ordinance, the Zoning Ordinance specifically excludes storage garages, repair shops or corporation yards in the A district. The storage and maintenance facility could be considered a repair shop or corporation yard, although these terms are not specifically defined in the Alameda County Zoning Ordinance. ~~The tail tracks and storage and maintenance facility would be consistent with the types of uses conditionally allowed in the Agricultural district zoning designation.~~ Therefore, the storage and maintenance facility under the Proposed Project ~~would not~~ could conflict with the County zoning designations.

Page 520, fifth paragraph:

~~Similar to the Proposed Project, the DMU Alternative would be consistent with the zoning of the respective municipalities.~~ As shown in Figure 3.C-8, the proposed tail tracks and storage and maintenance facility would be located on unincorporated county land zoned for agricultural uses (Agricultural [A] district). This land mostly consists of open grasslands with intermittent cattle grazing. The only agricultural uses within the collective footprint are located at the far northwestern corner, in the construction staging area for the storage and maintenance facility. ~~The tail tracks and storage and maintenance facility would be consistent with the types of uses conditionally allowed in the Agricultural district zoning designation.~~ As noted above, a storage and maintenance facility could be considered a repair shop or corporation yard, both uses which are prohibited in the Agricultural district. Therefore, similar to the Proposed Project, the DMU Alternative would mostly be consistent with the zoning of the respective municipalities, although the storage and maintenance facility could conflict with the County agricultural zoning designations.

4. Section D. Population and Housing

No revisions are necessary.

5. Section E. Visual Quality

Page 589, Figure 3.E-8, Conventional BART – El Charro Road Overpass, is revised to show the correct number of lanes on I-580 on the following page.

Page 606, Figure 3.E-17, DMU Alternative – El Charro Road Overpass, is revised to show the correct number of lanes on I-580 on the following pages.

Page 612, Figure 3.E-19, EMU Option – El Charro Road Overpass, is revised to show the correct number of lanes on I-580 on the following pages.

Page 626, Mitigation Measure VQ-5: Revegetate Areas of Removed Landscaping:

> **Mitigation Measure VQ-5: Revegetate Areas of Removed Landscaping (Conventional BART Project, DMU Alterative/EMU Option, and Express Bus/BRT Alternative)**
>
> BART shall revegetate areas where landscaping has been removed in kind to the greatest extent feasible. BART shall ensure that all landscaping plans are consistent with the existing vegetation of the area while serving sustainability goals. A qualified landscape architect retained by BART's contractors will ~~approve~~ develop all landscaping plans for the area.

Existing Conditions

Conventional BART Project

Viewpoint 3: East along I-580 corridor at proposed BART mainline track

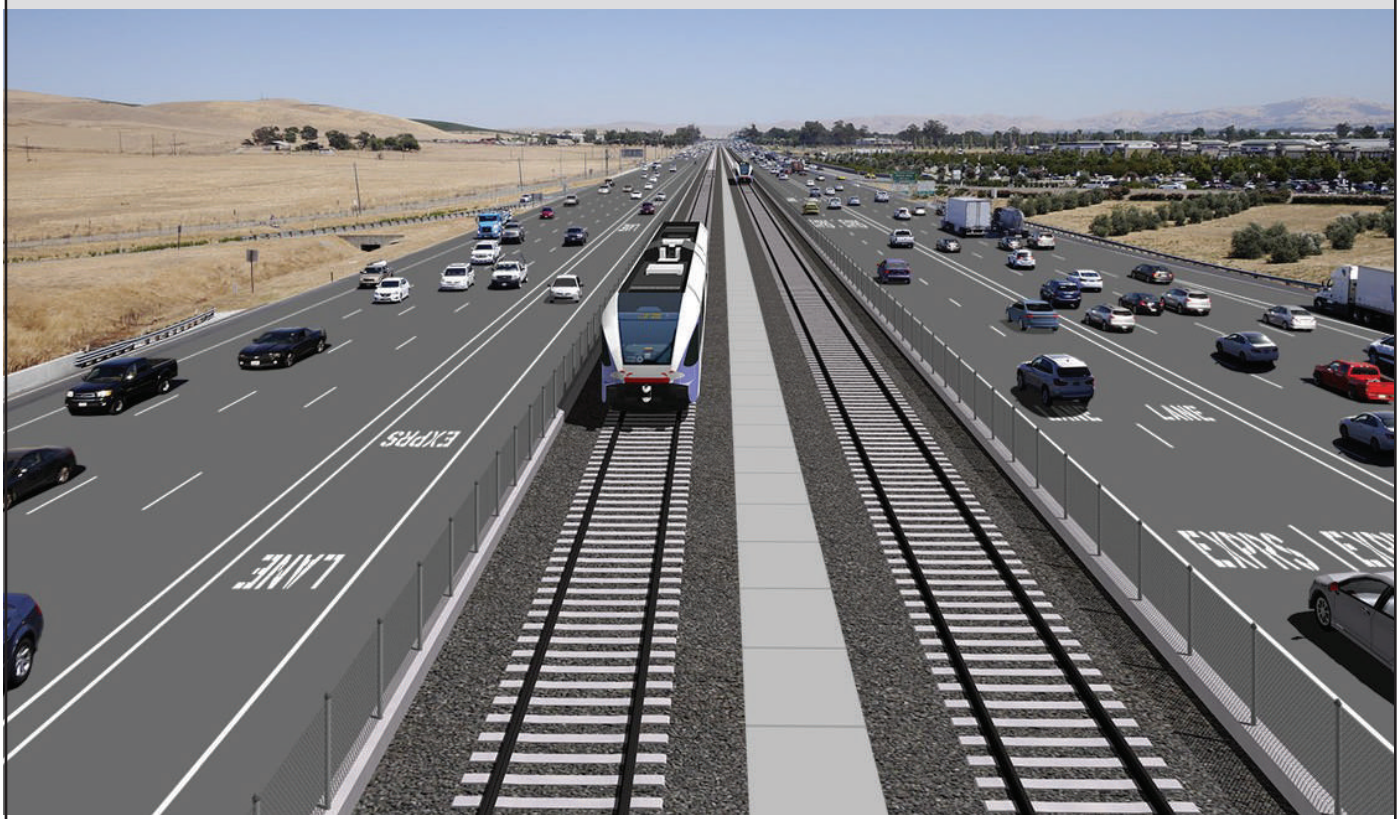
Source: Urban Advantage, 2017.

BART to Livermore Extension Project EIR

Figure 3.E-8
Visual Quality
Conventional BART Project
El Charro Road Overpass

Existing Conditions

DMU Alternative



Viewpoint 3: East along I-580 corridor at proposed DMU mainline track

Source: Urban Advantage, 2017.

BART to Livermore Extension Project EIR

Figure 3.E-17
Visual Quality
DMU Alternative
El Charro Road Overpass

Existing Conditions

EMU Option

Viewpoint 3: East along I-580 corridor at proposed EMU mainline track

Source: Urban Advantage, 2017.

BART to Livermore Extension Project EIR

Figure 3.E -19
Visual Quality
EMU Option
El Charro Road Overpass

6. Section F. Cultural Resources

Page 678, first paragraph:

> Additionally, the INP would impact the Gandolfo Ranch Historic District as the area would be redeveloped with ~~office~~ park and residential uses. Because the district is considered a historical resource for the purposes of CEQA, redevelopment of the ranch would be a significant impact. There are no feasible mitigation measures to reduce this impact.

7. Section G. Geology, Soils, Seismicity, Mineral and Paleontological Resources

Page 703, first paragraph, is updated with a revised reference:

> Erosive soils are those that are easily worn away and transported to another area either by wind, water, or gravity. Soils that contain high amounts of loose sand and silt (fine soil particles smaller than sand) are more easily erodible than soils that are more consolidated. Excessive soil erosion can lead to damage of building foundations and roadways. Erodible soils generally do not occur beneath the collective footprint.[45]

8. Section H. Hydrology and Water Quality

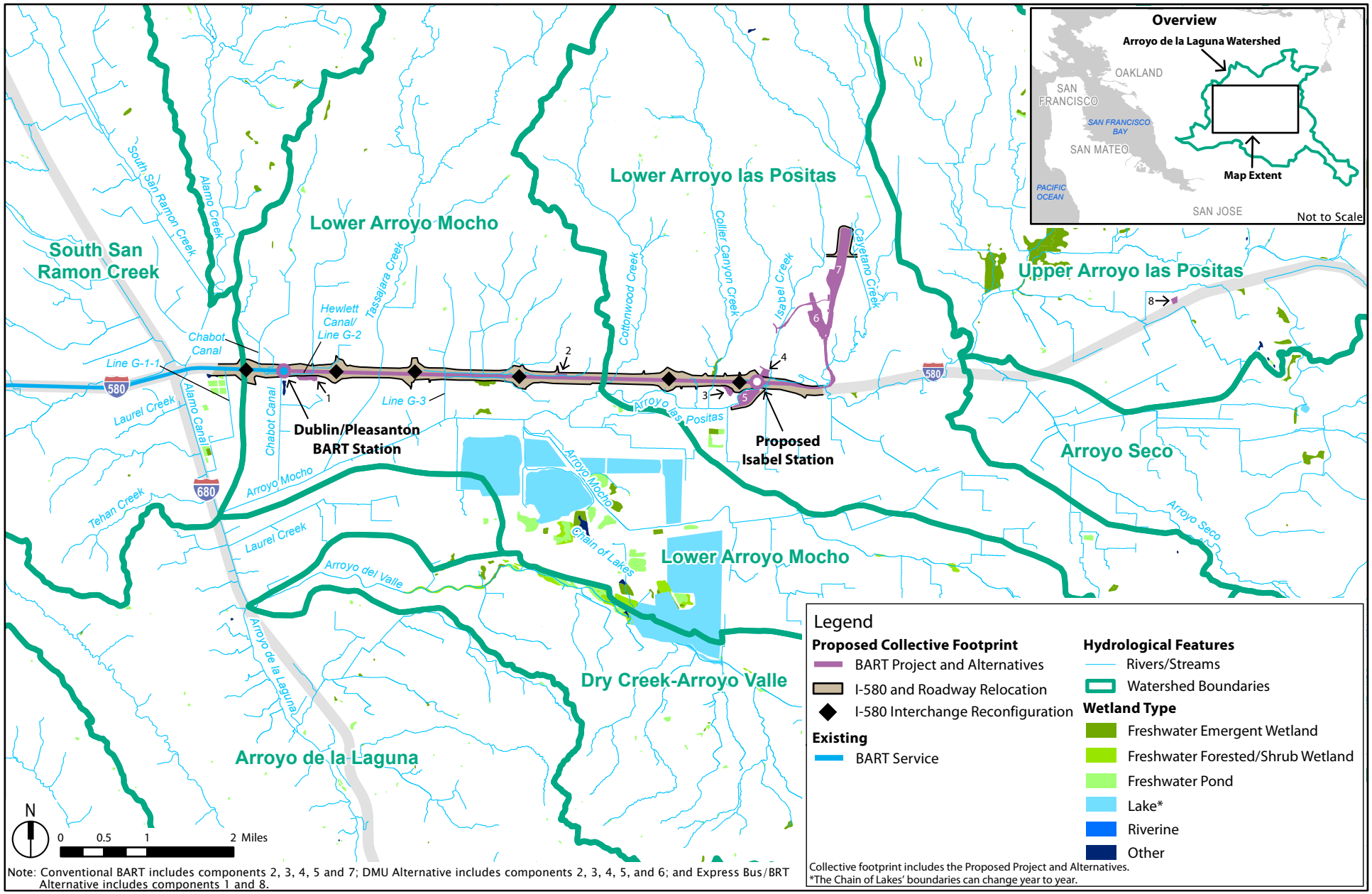
Page 748, third paragraph, last sentence:

> ~~Additionally, though tributary inputs and total annual runoff volumes can be highly variable, discharges from quarries in the Pleasanton area generally result in year-round flow in the lower reach of Arroyo Mocho and downstream to Arroyo de la Laguna.~~[46]

Page 750, Figure 3.H-2, Surface Hydrology, is revised to show an updated representation of the Chain of Lakes and added a note in the legend regarding the Chain of Lakes' boundaries:

[45] ~~U.S. Department of Agriculture, 1977. Soil Survey Alameda County Area, California.~~ National Resources Conservation Service. 2016. K Factor, Whole Soil—Alameda Area, California (Erodibility). September 28.

[18] Gunther, A.J, J. Hagar, and P. Salop, 2000. An Assessment of the Potential for Restoring a Viable Steelhead Trout Population in the Alameda Creek Watershed. Prepared for the Alameda Fisheries Restoration Workgroup. February 7.



Note: Conventional BART includes components 2, 3, 4, 5 and 7; DMU Alternative includes components 2, 3, 4, 5, and 6; and Express Bus/BRT Alternative includes components 1 and 8.

Source: Arup, 2017b; DWR, 2004; USFW (NWI), 2012; Zone 7, 2016.

Figure 3.H-2
Hydrology and Water Quality
Surface Hydrology

Page 763, first paragraph:

Groundwater recharge occurs through natural and artificial recharge from rainfall, releases from the South Bay Aqueduct of Lake del Valle, ~~and~~ gravel mining (water) recharge to ~~Arroyo Mocho and~~ Arroyo del Valle, and Zone 7 release of State Water Project to Arroyo Mocho when available; however, the majority of recharge is through artificial recharge and recharge through stream channels.

Page 782, third paragraph, last sentence:

> As discussed previously, Zone 7 requires an encroachment permit prior to activities or construction that will be conducted within the agency's property, easements, or ROWs and a well drilling/abandonment permit prior to any drilling including well destruction, well construction, or geotechnical borings.

9. Section I. Biological Resources

Page 891, Mitigation Measure BIO-2: Consult with USFWS and Reduce Impacts on Vernal Pool Invertebrates and Their Habitat in the I-580 Corridor Area – north of Croak Road and Cayetano Creek Area, fifth paragraph:

> b. Participation in a USFWS-approved vernal pool invertebrate mitigation bank program such as the Mountain House Conservation Bank with purchase of appropriate vernal pool creation and preservation credits to mitigate for anticipated vernal pool habitat losses. BART, after consulting with the agencies, will select appropriate and available mitigation locations, with a preference for those in Eastern Alameda County, North Livermore and Doolan Canyon.

Page 897, last sentence of Mitigation Measure BIO-3.B: Provide Compensatory Habitat to Mitigate for the Loss and Disturbance of CTS and CRLF Habitat:

> The final replacement ratios and related amount of mitigation land determined by the USFWS and CDFW during the FESA and CESA permitting processes shall be based on the assessed functions and values of agency-approved mitigation lands such as the Ohlone West Conservation Bank in southern Alameda County, or a comparable bank. BART, after consulting with the agencies, will select appropriate and available mitigation locations, with a preference for those in Eastern Alameda County, North Livermore, and Doolan Canyon.

Page 909, last sentence of Mitigation Measure BIO-6.B: Off-Site Compensatory Habitat for Burrowing Owl:

> Mitigation may be provided concurrent with other mitigation commitments, such as requirement to protect upland habitat for CTS, CRLF, or SJKF, provided that potential foraging habitat is available for BUOW on mitigation lands. BART, after consulting with the agencies, will select appropriate and available mitigation locations, with a preference for those in Eastern Alameda County, North Livermore, and Doolan Canyon.

Page 922, last sentence of Mitigation Measure BIO-10.B: Provide Compensatory Habitat to Mitigate for the Loss and Disturbance of San Joaquin Kit Fox Habitat:

> Habitat compensation ratios determined by the USFWS and CDFW during the FESA and CESA permitting processes shall be based on the assessed functions and values of the impacted lands and those of the approved compensation lands or agency-approved SJKF mitigation site. BART, after consulting with the agencies, will select appropriate and available mitigation locations, with a preference for those in Eastern Alameda County, North Livermore, and Doolan Canyon.

Page 928, Mitigation Measure BIO-11.B: Compensatory Mitigation for Wetlands, Waters of the U.S. and/or Waters of the State, first item in mitigation measure, last sentence:

> 1. Purchase or dedicate land to provide wetland preservation, restoration, or creation in a ratio of at least 1-to-1 (i.e., no net loss). Wetland mitigation requirements may be adjusted in the final conditions of the 404 permit, 401 water quality certification, and streambed alteration agreement issued by the USACE, RWQCB, and CDFW, respectively. Where practical and feasible, on-site mitigation shall be implemented. If the use of on-site mitigation is not practical and feasible to meet resource agency-required compensatory mitigation requirements, BART, after consulting with the agencies, will select appropriate and available off-site mitigation locations, with a preference for property in Eastern Alameda County, North Livermore, and Doolan Canyon. BART shall satisfy the remaining portions of the obligation through the purchase of mitigation credits through an approved wetland mitigation bank.

10. Section J. Noise and Vibration

Page 967, Table 3.J-1, has been edited to replace one of the short-term noise measurement locations (ST-2) with a new long-term noise measurement location (LT-9) and add a second long-term noise measurement location (LT-10), as follows:

TABLE 3.J-1 SUMMARY OF AMBIENT NOISE MEASUREMENTS IN THE STUDY AREA

Location/Representative Project Element	Predominant Noise Source	Primary Land Use Category	Descriptor	Measured Value (dBA)
LT-1: 5200 Iron Horse Parkway, Dublin CA. Adjacent to an existing residential development (recently constructed). Nearest receptor to the existing Dublin/Pleasanton Station and proposed construction staging area. Due to security restrictions, long-term data were collected at a secure location approximately 600 feet to the east and then adjusted using short-term monitoring data for the receptor location, which has direct line-of-sight with the Dublin/Pleasanton Station. *This location is representative of area adjacent to the proposed platforms (DMU Alternative and Express Bus/BRT Alternative)*	I-580 and operations of the **Dublin/Pleasanton Station**	Mixed-Use Transit Village with Residential	24-hour L_{eq}	63
			Min. hourly L_{eq}	55
			L_{max}	78
			L_{dn}	66
			CNEL	67
LT-2: Pimlico Drive, Pleasanton, CA. Residential area approximately 170 feet south of I-580 centerline and approximately 1.5 miles east of the existing Dublin/Pleasanton Station. This location is protected from freeway noise by an existing sound wall. Noise reduction of the sound wall experienced by receptors in this area was captured by the monitor at this monitoring location. *This location is representative of area adjacent to the proposed rail extension (Proposed Project and DMU Alternative).*	Traffic from I-580	Residential	24-hour L_{eq}	59
			Min. hourly L_{eq}	52
			L_{max}	79
			L_{dn}	64
			CNEL	64
LT-3: Terminus of Gateway Avenue and Shea Center Drive, Livermore, CA. Representative of Shea Homes – Sage Project residential receptors and future potential residential neighborhood as identified in preliminary concept plans for the INP. *This location is representative of area north of the proposed rail extension and Isabel Station (Proposed Project and DMU Alternative).*	Traffic from Distant I-580	Residential	24-hour L_{eq}	56
			Min. hourly L_{eq}	48
			L_{max}	78
			L_{dn}	61
			CNEL	62
LT-4: Campus Hill Drive at Montage Neighborhood, Livermore, CA. Closest receptor to the access road for the proposed storage and maintenance facility (approximately 325 feet). *This location is representative of area north of the proposed rail extension and Isabel Station (Proposed Project and DMU Alternative).*	Traffic from I-580	Residential	24-hour L_{eq}	61
			Min. hourly L_{eq}	49
			L_{max}	97
			L_{dn}	64
			CNEL	65

TABLE 3.J-1 SUMMARY OF AMBIENT NOISE MEASUREMENTS IN THE STUDY AREA

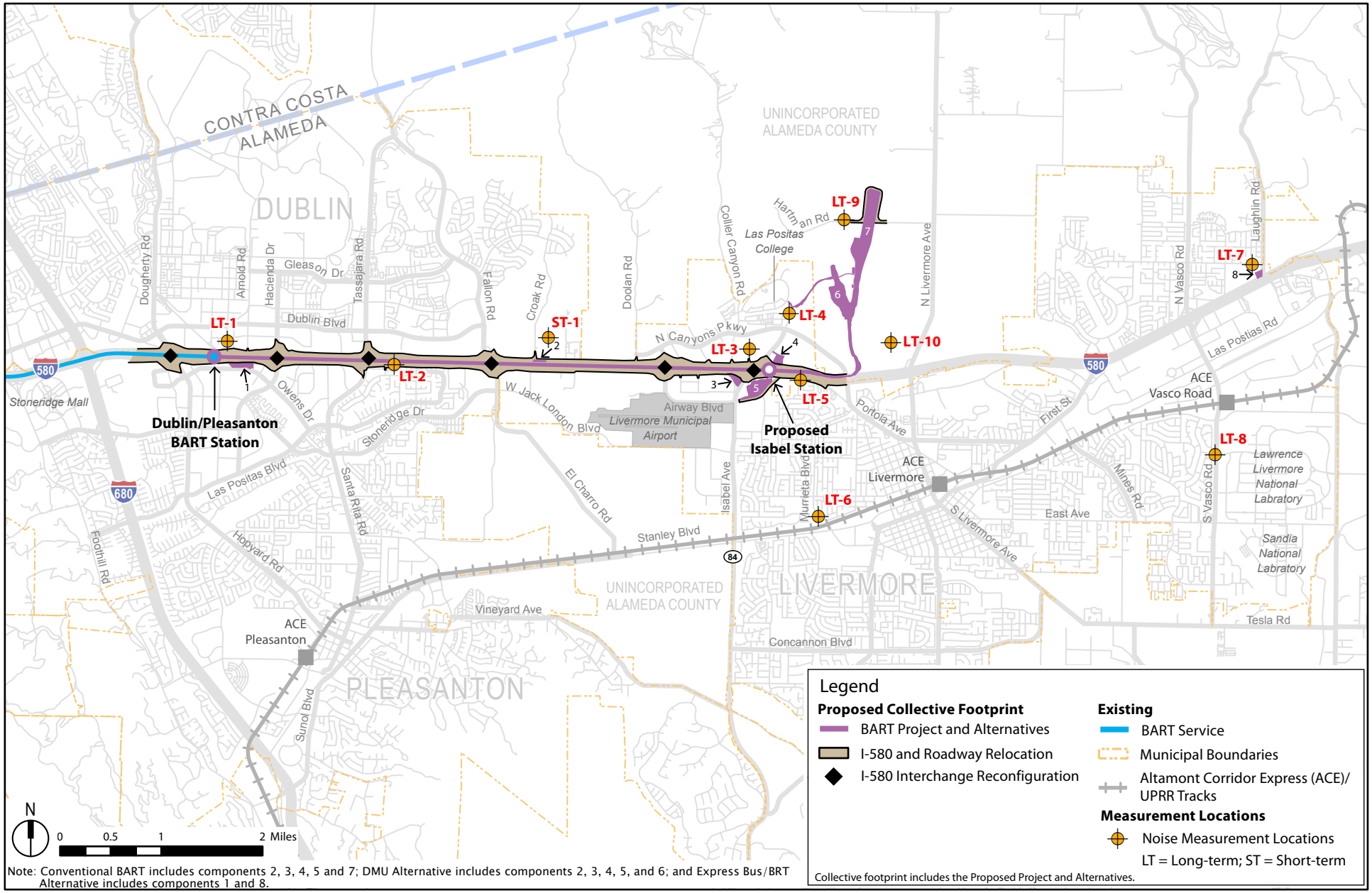
Location/Representative Project Element	Predominant Noise Source	Primary Land Use Category	Descriptor	Measured Value (dBA)
LT-5: Saddleback Circle and Sutter Street, Livermore, CA. Residential area closest to the proposed Isabel Station and parking structure (approximately 1,500 feet) and about 400 feet south of the I-580 centerline. This location is protected from freeway noise by an existing berm and partial sound wall, noise reductions from which were captured by the monitor. *This location is representative of area south of the proposed rail extension and Isabel Station (Proposed Project and DMU Alternative).*	Traffic from I-580	Residential	24-hour L_{eq}	62
			Min. hourly L_{eq}	55
			L_{max}	88
			L_{dn}	66
			CNEL	67
LT-6: Murrieta Boulevard South of Jack London Boulevard, Livermore, CA. Adjacent to LAVTA bus route 12. Adjacent receptors are protected from roadway noise by an existing sound wall, from which noise reductions were not captured by the monitor due to access restrictions. The sound wall is anticipated to reduce noise levels at adjacent receptors by at least an additional 5 dBA. *This location is representative of residences adjacent to roadways experiencing increased bus service (Proposed Project and Build Alternatives).*	Traffic from Murrieta Boulevard	Residential	24-hour L_{eq}	62
			Min. hourly L_{eq}	50
			L_{max}	97
			L_{dn}	66
			CNEL	66
LT-7: West of Laughlin Road, Livermore CA. Adjacent to existing residential development. *This location is representative of residences in the vicinity of the Laughlin parking lot (Express Bus/BRT Alternative).*	Traffic from Laughlin Road and Distant I-580	Residential	24-hour L_{eq}	57
			Min. hourly L_{eq}	53
			L_{max}	76
			L_{dn}	64
			CNEL	64
LT-8: South Vasco Road at Daphne Drive, Livermore, CA. Residential receptors adjacent to the proposed X-B Express Bus route. Adjacent receptors are protected from roadway noise by an existing sound wall, from which noise reductions were not captured by the monitor due to access restrictions. The sound wall is anticipated to reduce noise levels at adjacent receptors by at least an additional 5 dBA. *This location is representative of residences adjacent to roadways experiencing increased bus service (Proposed Project and Build Alternatives).*	Traffic from Vasco Road	Residential	24-hour L_{eq}	66
			Min. hourly L_{eq}	54
			L_{max}	95
			L_{dn}	69
			CNEL	70

TABLE 3.J-1 SUMMARY OF AMBIENT NOISE MEASUREMENTS IN THE STUDY AREA

Location/Representative Project Element	Predominant Noise Source	Primary Land Use Category	Descriptor	Measured Value (dBA)
LT-9: Western Terminus of Hartman Road, Alameda County. Agricultural rural farmhouses approximately 920 feet west of proposed storage and maintenance facility. *This location is representative of residences adjacent to proposed storage and maintenance facility (Proposed Project).*	Livestock; Infrequent traffic on Hartman Road	Agricultural use with rural farmhouses	24-hour L_{eq}	52
			Min. hourly L_{eq}	32
			L_{max}	83
			L_{dn}	53
			CNEL	54
LT-10 North Livermore Road Residences, Alameda County Agricultural rural farmhouses approximately 1,265 feet east of proposed tail tracks to storage and maintenance facility. *This location is representative of residences adjacent to the tail tracks (Proposed Project).*	Livestock; Infrequent traffic on shared driveway for residences and distant I-580 traffic	Agricultural use with rural farmhouses	24-hour L_{eq}	51
			Min. hourly L_{eq}	47
			L_{max}	95
			L_{dn}	56
			CNEL	56
ST-1: 3457 Croak Road, Dublin, CA. Lone unoccupied farmhouse approximately 680 feet from proposed BART crossover. *This location is representative of residences adjacent to proposed wayside facility (Proposed Project and DMU Alternative).*	Traffic from I-580	Residential and agricultural use	Peak hour L_{eq}/ Estimated L_{dn}	66/70
~~**ST-2: Eastern Terminus of Hartman Road, Alameda County.** Agricultural rural farmhouses approximately 600 feet west of proposed storage and maintenance facility. *This location is representative of residences adjacent to proposed storage and maintenance facility (Proposed Project).*~~	~~Livestock; Infrequent traffic on Hartman Road~~	~~Agricultural use with rural farmhouses~~	~~Daytime L_{eq}~~	~~50~~

Notes: LT = long-term (24-hour) noise measurement location; ST = short-term (20-minute) noise measurement location; dBA = A-weighted decibels; L_{eq} = average or constant sound level; L_{max} = maximum sound level; L_{dn} = day-night noise level; CNEL = Community noise equivalent level; I- = Interstate Highway; LAVTA = Livermore-Amador Valley Transit Authority.
Measurements were taken on the following dates: September 12, 2016 (for LT-1 and LT-2); September 14, 2016 (LT-3, LT-4, and LT-5); September 16, 2016 (LT-6, LT-7, and LT-8); February 15, 2017 (ST-1); ~~and May 2, 2017 (ST-2).~~ January 22, 2018 (LT-9) and January 3, 2018 (LT-10).

Page 967, Figure 3.J-2, has been edited to replace one of the short-term noise measurement locations (ST-2) with a new long-term noise measurement location (LT-9) and add a second long-term noise measurement location (LT-10), as follows:



Note: Conventional BART includes components 2, 3, 4, 5 and 7; DMU Alternative includes components 2, 3, 4, 5, and 6; and Express Bus/BRT Alternative includes components 1 and 8.

Source: Arup, 2017.

BART to Livermore Extension Project EIR

Figure 3.J-2
Noise and Vibration
Noise Measurement Locations

Page 970, Table 3.J-2, has been edited to replace one of the short-term noise measurement locations (ST-2) with a new long-term noise measurement location (LT-9) and add a second long-term noise measurement location (LT-10), as follows:

TABLE 3.J-2 REPRESENTATIVE SENSITIVE RECEPTORS WITHIN STUDY AREA

Sensitive Receptor Type	Name	Address	Land Use Category	Representative Noise Measurement Location
Multi-family Residential Complex	Avalon Condominiums	5200 Iron Horse Parkway, Dublin	Category 2	LT-1
Residential Neighborhood	Fairlands/Pleasanton Meadow Neighborhood	Santa Rita Road to Las Positas Drive, South of I-580, Pleasanton	Category 2	LT-2
School (Private)	Pleasanton Kindercare (pre-K)	3760 Brockton Drive, Pleasanton	Category 3	LT-2
Senior Residential Facility	Stoneridge Creek Retirement Community	3300 Stoneridge Creek Way, Pleasanton	Category 2	LT-2
Future Residential Neighborhood	Shea Homes – Sage Project	Shea Center Drive to Portola Avenue, Livermore	Category 2	LT-3
Residential Neighborhood	Montage Neighborhood	Between Las Positas College and Portola Avenue	Category 2	LT-4
Residential Neighborhood	Somerset Neighborhood	Sutter Street to Montecito Circle, Livermore	Category 2	LT-5
Residential Neighborhood	Summerset and Northside Neighborhoods	Both sides of Murietta Boulevard between E. Jack London and E. Stanley Boulevards, Livermore	Category 2	LT-6
Residential Neighborhood	Northeastern Residential Neighborhoods	Vasco Road to Laughlin Road, Livermore	Category 2	LT-7
Residential Neighborhood	Coventry and Stratford Park Neighborhoods	West of Vasco Road between Patterson Pass Road and East Avenue, Livermore	Category 2	LT-8
Single-Family Residential	Rural Agricultural Farmhouse	1442 Hartman Road, unincorporated Alameda County	Category 2	LT-9

TABLE 3.J-2 REPRESENTATIVE SENSITIVE RECEPTORS WITHIN STUDY AREA

Sensitive Receptor Type	Name	Address	Land Use Category	Representative Noise Measurement Location
Single-Family Residential	Rural Farmhouse	2295 North Livermore Road, unincorporated Alameda County	Category 2	LT-10
Single Family Residential	Rural Agricultural Farmhouse	3457 Croak Road, Dublin, CA, unincorporated Alameda County	Category 2	ST-1
~~Single- Family Residential~~	~~Rural Agricultural Farmhouse Cluster~~	~~Western end of Hartman Road, unincorporated Alameda County~~	~~Category 2~~	~~ST-2~~

Notes: LT = Long-term (24-hour) noise measurement location; ST = short-term (20-minute) noise measurement location; I- = Interstate Highway.

Page 978, Table 3.J-7, has been edited to include an increased array of Noise Impact Exposure levels:

TABLE 3.J-7 OPERATIONAL NOISE IMPACT CRITERIA

Existing Noise Exposure, L_{eq} or L_{dn} (dBA)[a]	Project Noise Impact Exposure (Contribution), L_{eq} or L_{dn} (dBA)[a]					
	Category 1 or 2 Sites[b]			Category 3 Sites[b]		
	No Impact	Moderate Impact	Severe Impact	No Impact	Moderate Impact	Severe Impact
<43	<Ambient +10	52-58	>58	<57	57-63	>63
43	<52	52-58	>58	<57	57-63	>63
44	<52	52-58	>58	<57	57-63	>63
45	<52	52-58	>58	<57	57-63	>63
46	<53	53-59	>59	<58	58-64	>64
47	<53	53-59	>59	<58	58-64	>64
48	<53	53-59	>59	<58	58-64	>64
49	<54	54-59	>59	<59	59-64	>64
50	<54	54-59	>59	<59	59-64	>64
51	<54	54-60	>60	<59	59-65	>65
52	<55	55-60	>60	<60	60-65	>65
53	<55	55-60	>60	<60	60-65	>65

TABLE 3.J-7 OPERATIONAL NOISE IMPACT CRITERIA

Existing Noise Exposure, L_{eq} or L_{dn} (dBA)[a]	Project Noise Impact Exposure (Contribution), L_{eq} or L_{dn} (dBA)[a]					
	Category 1 or 2 Sites[b]			Category 3 Sites[b]		
	No Impact	Moderate Impact	Severe Impact	No Impact	Moderate Impact	Severe Impact
54	<55	55-61	>61	<60	60-66	>66
55	<56	56–61	>61	<61	61–66	>66
56	<56	56–62	>62	<61	61–67	>67
57	<57	57–62	>62	<62	62–67	>67
58	<57	57–62	>62	<62	62–67	>67
59	<58	58–63	>63	<63	63–68	>68
60	<58	58–63	>63	<63	63–68	>68
61	<59	59–64	>64	<64	64–69	>69
62	<59	59–64	>64	<64	64–69	>69
63	<60	60–65	>65	<65	65–70	>70
64	<61	61–65	>65	<66	66–70	>70
65	<61	61–66	>66	<66	66–71	>71
66	<62	62–67	>67	<67	67–72	>72
67	<63	63–67	>67	<68	68–72	>72
68	<63	63–68	>68	<68	68–73	>73
69	<64	64–69	>69	<69	69–74	>74
70	<65	65–69	>69	<70	70–74	>74
71	<66	66–70	>70	<71	71–75	>75

Notes: dBA = A-weighted decibels; L_{eq} = average or constant sound level; L_{dn} = Day-night noise level.
[a] L_{dn} is used for land use where nighttime sensitivity is a factor. L_{eq} (during the hour of maximum transit) noise exposure is used for land use involving only daytime activities. The values under Project Noise Impact Exposure refer to noise level contribution generated by the project only and do not include other sources of noise. Other existing noise sources are taken into account in the values listed under Existing Noise Exposure.
[b] Category 1 includes uses where quiet is an essential element in their intended purpose, such as indoor concert halls or outdoor concert pavilions or National Historic Landmarks where outdoor interpretation routinely takes place. Category 2 includes residences and buildings where people sleep. Category 3 includes institutional land uses with primarily daytime and evening use such as schools, places of worship and libraries.
Source: Federal Transit Administration (FTA), 2006.

Page 980, Table 3.J-8, has been edited to distinguish between mainline train speed and tail track train speed:

TABLE 3.J-8 SUMMARY OF KEY PARAMETERS FOR OPERATIONAL NOISE ANALYSIS OF BART AND DMU TRAINS

	2025		2040	
Parameter	**Conventional BART Project**	**DMU Alternative (same for EMU Option)**	**Conventional BART Project**	**DMU Alternative (same for EMU Option)**
Reference Sound Exposure Level dBA at 50 feet[a]	79	82	79	82
Number of cars per train during peak hour	10	8	10	8
Average number of cars per train during daytime (7:00 a.m. to 10:00 p.m.)	7.5	5.1	8.1	5.1
Average number of cars per train during nighttime (10:00 p.m. to 7:00 a.m.)	8.5	5.6	8.2	5.6
Peak hour volume of trains	8	8	10	10
Average hourly daytime volume of trains (7:00 a.m. to 10:00 p.m.)	7.6	7.6	7.9	7.9
Average hourly nighttime volume of trains (10:00 p.m. to 7:00 a.m.)	7.3	7.3	6.8	6.8
Maximum Mainline train speed	80 mph	75 mph	80 mph	75 mph
Maximum Tail Track train speed	20 mph	20 mph	20 mph	20 mph
Train speed at switches	50 mph	50 mph	50 mph	50 mph
Track type (e.g., welded, jointed)	welded	welded	welded	welded

Notes: dBA = A-weighted decibels; mph = miles per hour.
[a] BART reference sound exposure level from HMMH, 2003, where L_{max} measured 84 dBA at 50 feet for a single BART car traveling at 80 mph. Frequency and speed based on data from ARUP. Parameters account for trains traveling in both directions. For DMU, reference sound exposure level from FTA for DMU's, incorporating a 3-dBA reduction for use of ballast instead of concrete.
Sources: Harris Miller & Hanson, Inc. (HMMH), 2003; Connetics Transportation Group, 2017.

Page 980, last paragraph:

~~Note that~~Because the FTA reference noise levels for diesel trains assume an air horn~~, which~~ that is louder than a transit vehicle horn (~~such as~~i.e. louder than BART ~~has). However, for the purpose of~~horns), this analysis~~, the~~ uses horn noise levels ~~were~~ determined empirically by measuring the sound exposure level during BART train arrivals at an existing BART station. This measurement level has been incorporated into the analysis for the Proposed Project as well as the DMU Alternative (including EMU Option).

Page 981, first paragraph:

In addition to the noise from trains running on rail tracks, the Proposed Project and ~~Build Alternatives~~ DMU Alternative/EMU Option would generate noise from other sources, including maintenance activities. Noise levels from these sources ~~may~~were predicted using empirical measurements of sound exposure levels at an existing BART maintenance facility and using reference noise levels inventoried by the FTA. Table 3.J-8A summarizes the typical noise levels associated with the activities at the storage and maintenance facility. Further, the Proposed Project and DMU Alternative would have substations located along the corridor; these are assessed by first applying the screening distances presented in Table 3.J-6. If a receptor would be located within the screening distance of a proposed high voltage or traction power substation, reference noise levels are used to estimate the resultant noise contribution at that receptor, which would then be compared to the noise impact criteria in Table 3.J-7.

Page 981, new Table 3.J-8A inserted after first paragraph:

TABLE 3.J-8A TYPICAL STORAGE AND MAINTENANCE FACILITY ACTIVITY NOISE LEVELS

Sources[1]	Assumed Duration	Average Noise Level (dBA, Leq at 50 feet)	Average Noise Level (dBA, Leq at 500 feet)
Rail Sources[2]			
Train movement over switch in yard (8-10 mph)	5 per hour	53	33
Train movement over switch in yard (8-10 mph) with standard horn	1/hour	53	33
Train movement over switch in yard (8-10 mph) with yard horn	1/hour	57	37
High-railer, a fixed guideway vehicle to transport BART staff in the yard	1/hour	56	36
Car coupling (single event per hour)	5/hour	38	18
Stationary Sources			
Blow pit operation (interior of separate building)	Constant	62	42
Impact wrenches (interior of shop)	30/hour	58	28
Car washing[3]	6/15 hours	65	45
Wheel truing[4] (interior of shop)	3 hours of swing shift	63	43

Notes:
[1] Information based on monitored sound exposure levels for each source, unless otherwise noted.
[2] Rail sources based on 7 cars per train except for high-railer.
[3] Based on FTA data 2006.
[4] Wilson Ihrig, 2011
Sources: ESA, 2018; and Wilson Ihrig & Associates, 2011 (for wheel truing). See Appendix G for the operational assumptions for each of these activities.

Page 981, Table 3.J-9 is moved from page 982 to 981, following the text under the heading "Noise from Increased Vehicle Traffic."

Page 990, Table 3.J-12, has been revised to reflect an updated noise measurement location:

TABLE 3.J-12 CONVENTIONAL BART PROJECT – PREDICTED CONSTRUCTION NOISE LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Noise Level (dBA L_{eq}) at 50 feet	Construction Noise Level (dBA L_{eq}) at Receptor	Noise at Sensitive Receptors Exceeding 90 dBA L_{eq} Daytime Threshold?	Noise at Sensitive Receptors Exceeding 80 dBA L_{eq} Nighttime Threshold?
Dougherty Road/ Hopyard Road to Hacienda Drive	LT-1	Residential	370	92.0	74.6	No	No
Hacienda Drive to Tassajara Road/Santa Rita Road	--	No receptors	--	--	--	No	No
Tassajara Road/Santa Rita Road Interchange	LT-2	Residential	1,100	92.0	65.2	No	No
Tassajara Road/Santa Rita Road to Fallon Road/El Charro Road	LT-2	Residential	170	92.0	**81.4**	No	**Yes**
Fallon Road/El Charro Road Interchange	--	No receptors	--	--	--	No	No
Fallon Road /El Charro Road to East Airway Boulevard	--	No receptors	--	--	--	No	No
East Airway Boulevard Interchange	--	No receptors	--	--	--	No	No
East Airway Boulevard to Isabel Avenue	LT-3	Residential	1,000	101.3	75.3	No	No
Isabel Avenue Interchange	LT-3	Residential	1,100	92.0	65.2	No	No
Proposed Isabel Station	LT-3	Residential	1,200	101.3	73.7	No	No
Isabel Station South Parking Facility	LT-5	Residential	950	101.3	75.7	No	No
Isabel Station to Storage and Maintenance Facility	LT-5	Residential	430	92.0	73.3	No	No

TABLE 3.J-12 CONVENTIONAL BART PROJECT – PREDICTED CONSTRUCTION NOISE LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Noise Level (dBA L_{eq}) at 50 feet	Construction Noise Level (dBA L_{eq}) at Receptor	Noise at Sensitive Receptors Exceeding 90 dBA L_{eq} Daytime Threshold?	Noise at Sensitive Receptors Exceeding 80 dBA L_{eq} Nighttime Threshold?
East Airway Boulevard Realignment	LT-5	Residential	50	92.0	**92.0**	**Yes**	**Yes**
Storage and Maintenance Facility	~~ST-2~~LT-9	Residential	~~430~~920	92.0	~~73.3~~66.7	No	No

Notes: -- = not applicable; dBA = A-weighted decibels; L_{eq} = equivalent (average) noise level; LT = long-term noise measurement location; ST = short-term noise measurement location.
Bold/gray text indicates noise levels exceeding threshold.
The study area is the maximum Federal Transit Authority screening distance (within 1,600 feet of project centerline).
Sensitive receptors listed above are Category 2 receptors (residences and buildings where people normally sleep). In addition, one Category 3 receptor (Pleasanton Kindercare), represented by LT-2, is over twice as far from construction activities as the Monitoring Location LT-2; therefore, resultant noise levels would be at least 6 dBA less than those reported for LT 2. There are no Category 1 receptors in the study area.

Page 993, Table 3.J-13, has been revised to reflect an updated noise measurement location:

TABLE 3.J-13 CONVENTIONAL BART – PREDICTED CONSTRUCTION VIBRATION LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Vibration Level (PPV, in/sec) at 25 feet	Construction Vibration Level (PPV, in/sec) at Receptor	Exceeds 0.12 PPV in/sec Structural Damage Threshold?	Construction Vibration Level (VdB) at 25 feet	Construction Vibration Level (VdB) at Receptor	Exceeds 72 VdB Residential Human Annoyance Threshold?
Dougherty Road/ Hopyard Road to Hacienda Drive	LT-1	Residential	370	0.21	0.0037	No	94	59	No
Hacienda Drive to Tassajara Road/Santa Rita Road	--	No receptors	--	--	--	No	--	--	No
Tassajara Road/Santa Rita Road Interchange	LT-2	Residential	1,100	0.21	0.0028	No	94	57	No
Tassajara Road /Santa Rita Road to Fallon Road /El Charro Road	LT-2	Residential	170	0.21	0.00072	No	94	45	No
Fallon Road/El Charro Road Interchange	--	No receptors	--	--	--	No	--	--	No
Fallon Road/El Charro Road to East Airway Boulevard	--	No receptors	--	--	--	No	0	--	No
East Airway Boulevard Interchange	--	No receptors	--	--	--	No	0	--	No
East Airway Boulevard to Isabel Avenue	LT-3	Residential	1,000	0.644	.0025	No	104	56	No
Isabel Avenue Interchange	LT-3	Residential	1,100	0.21	0.00072	No	94	45	No

TABLE 3.J-13 CONVENTIONAL BART – PREDICTED CONSTRUCTION VIBRATION LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Vibration Level (PPV, in/sec) at 25 feet	Construction Vibration Level (PPV, in/sec) at Receptor	Exceeds 0.12 PPV in/sec Structural Damage Threshold?	Construction Vibration Level (VdB) at 25 feet	Construction Vibration Level (VdB) at Receptor	Exceeds 72 VdB Residential Human Annoyance Threshold?
Proposed Isabel Station	LT-3	Residential	1,200	0.644	0.00019	No	104	54	No
Isabel Station South Parking Facility	LT-5	Residential	1,400	0.644	0.0015	No	104	52	No
Isabel Station to Storage and Maintenance Facility	LT-5	Residential	430	0.21	0.0029	No	94	57	No
East Airway Boulevard Realignment	LT-5	Residential	50	0.21	0.21	**Yes**	94	**94**	**Yes**
Storage and Maintenance Facility	~~ST-2~~LT-9	Residential	~~430~~920	0.21	0.~~0029~~0009	No	94	~~57~~47	No

Notes: -- = not applicable; LT = long-term noise measurement location; ST = short-term noise measurement location; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels.
Bold/gray text indicates noise levels exceeding threshold.
The study area is the maximum Federal Transit Authority screening distance (within 1,600 feet of project centerline).
Sensitive receptors listed above are Category 2 receptors (residences and buildings where people normally sleep). In addition, one Category 3 receptor (Pleasanton Kindercare), represented by LT-2, is over twice as far from construction activities as the Monitoring Location LT-2.

Page 998, Table 3.J-15, has been revised to reflect an updated noise measurement:

TABLE 3.J-15 DMU ALTERNATIVE – PREDICTED CONSTRUCTION VIBRATION LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Vibration Level (PPV, in/sec) at 25 feet	Construction Vibration Level (PPV, in/sec) at Receptor	Exceeds 0.12 PPV in/sec Structural Damage Threshold?	Construction Vibration Level (VdB) at 25 feet	Construction Vibration Level (VdB) at Receptor	Exceeds 72 VdB Human Annoyance threshold?
West of Dougherty Road to Dublin/Pleasanton Station	LT-1	Residential	370	0.21	0.0036	No	94	59	No
Dougherty Road/Hopyard Road to Hacienda Drive	LT-1	Residential	370	0.21	0.0037	No	94	59	No
Dublin/Pleasanton Station DMU Transfer Platform	LT-1	Residential	370	0.21	0.0037	No	94	59	No
Hacienda Drive Interchange	--	No receptors	--	0.21	--	No	--	--	No
Hacienda Drive to Tassajara Road/Santa Rita Road	--	No receptors	--	0.21	--	No	--	--	No
Tassajara Road/Santa Rita Road Interchange	LT-2	Residential	855	0.21	0.00072	No	94	45	No
Tassajara Road/Santa Rita Road to Fallon Road/El Charro Road	LT-2	Residential	100	0.21	0.012	No	94	69	No
Fallon Road/El Charro Road Interchange	--	No receptors	--	--	--	No	--	--	No
Fallon Road/El Charro Road to East Airway Boulevard	--	No receptors	--	--	--	No	--	--	No
East Airway Boulevard Interchange	--	No receptors	--	--	--	No	--	--	No
East Airway Boulevard to Isabel Avenue	LT-3	Residential	1,000	0.644	0.0025	No	104	56	No

TABLE 3.J-15 DMU ALTERNATIVE – PREDICTED CONSTRUCTION VIBRATION LEVELS AT REPRESENTATIVE SENSITIVE RECEPTORS

Alignment Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Distance to Receptor from Alignment (feet)	Construction Vibration Level (PPV, in/sec) at 25 feet	Construction Vibration Level (PPV, in/sec) at Receptor	Exceeds 0.12 PPV in/sec Structural Damage Threshold?	Construction Vibration Level (VdB) at 25 feet	Construction Vibration Level (VdB) at Receptor	Exceeds 72 VdB Human Annoyance threshold?
Isabel Avenue Interchange	LT-3	Residential	1,100	0.21	0.00072	No	94	45	No
Proposed Isabel Station	LT-3	Residential	1,200	0.644	0.000194	No	104	54	No
Isabel Station South Parking Facility	LT-5	Residential	1,400	0.644	0.001537	No	104	52	No
Isabel Station to Storage and Maintenance Facility	LT-5	Residential	430	0.21	0.002944	No	94	57	No
East Airway Boulevard Realignment	LT-5	Residential	50	0.21	~~0.21~~0.10	~~Yes~~No	94	**~~94~~85**	**Yes**
Storage and Maintenance Facility	LT-4	Residential	1,900	0.21	0.000317	No	94	38	No

Notes: -- = not applicable; LT = long-term noise measurement location; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels.
Bold/gray text indicates noise levels exceeding threshold.
The study area is the maximum Federal Transit Authority screening distance (within 1,600 feet of project centerline).
Sensitive receptors listed above are Category 2 receptors (residences and buildings where people normally sleep). In addition, one Category 3 receptor (Pleasanton Kindercare), represented by LT-1, is over twice as far from construction activities as the Monitoring Location LT-2.

Page 1009, Table 3.J-18, has been revised to reflect an updated noise measurement location:

TABLE 3.J-18 CONVENTIONAL BART PROJECT – LOCATION OF SWITCHES

Switch Location	Nearest Receptor	Distance to Receptor (feet)
East of I-580/Fallon Road/ El Charro Road interchange	Rural Farmhouse on Croak Road (ST-1)	680
West of the I-580/Isabel Avenue interchange	Shea Homes – Sage Project (LT-3)	2,800
East of Campus Hill Drive and Campus Loop intersection	Montage Neighborhood (LT-4)	3,400
	Hartman Rural Residences (~~ST-2)~~LT-9)	3,400

Notes: LT = long-term noise measurement location; ST = short-term noise measurement location; I- = Interstate Highway.
Source: Arup and Anil Verma Associates, Inc., 2017.

Page 1009, last paragraph, has the following sentence added:

> As shown in Table 3.J-19, all predicted noise levels would be below the significance criteria at each receptor. For example, at the closest receptors (170 feet from tracks between Tassajara Road/Santa Rita Road and Fallon Road/El Charro Road) the existing L_{dn} was measured at 64 dBA. At this existing noise level, the acceptable L_{dn} contribution from BART trains is less than 61 dBA (exclusive of existing noise levels). The L_{dn} contribution from BART trains at this receptor would be 59 dBA, which would result in a net increase of 1.2 dBA when considering existing noise levels. The L_{dn} contribution from BART trains at this receptor of 54 dBA would not exceed the FTA threshold at this receptor of 61 dBA. This predicted noise level contribution to the L_{dn} assumes a conservative 5 dBA of shielding from the existing sound wall. Furthermore, as shown in Table 3.J-19.A, nighttime noise at LT-10 generated by trains running along the tail tracks would also be below the significance criteria.

Page 1010, Table 3.J-19, has been revised to reflect an updated noise measurement location and include a note regarding speed of trains on tail tracks.

TABLE 3.J-19 CONVENTIONAL BART PROJECT – PREDICTED DAY-NIGHT NOISE LEVELS FROM BART TRAINS IN 2025

Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Existing Noise Level (dBA L_{dn})	Threshold for Acceptable Noise Contribution (L_{dn})[a]	Noise Level Generated by Proposed Project at Receptor (L_{dn}) (with horn noise in parenthesis)	Noise at Sensitive Receptors Exceeding Threshold?
Hacienda Drive to Tassajara Road/Santa Rita Road	--	No receptors	--	--	--	--
Tassajara Road/Santa Rita Road Interchange	LT-2	Residential receptor: 1,100 feet southeast of alignment	64	<61	46	No
Santa Rita Road to El Charro Road	LT-2	Residential receptor: 170 feet south of alignment	64	<61	54	No
Fallon Road/El Charro Road to East Airway Boulevard	ST-1	Single unoccupied farmhouse 680 feet north of switch	70	<65	61[b]	No
East Airway Boulevard to Isabel Avenue	LT-3	Residential receptor: 1,000 feet north of alignment	61	<59	56 (56)	No
Isabel Station to Storage and Maintenance ~~Facility~~Facility[c]	LT-5	Residential receptor: 370 feet south of alignment of tail tracks	66	<62	~~55~~49	No
Isabel Station to Storage and Maintenance Facility[c]	LT-10	Rural residential receptor: 1,265 feet east of tail tracks	56	<56	49	No

Notes: -- = not applicable; dBA = A-weighted decibels; LT = long-term noise measurement location; ST = short-term noise measurement location; L_{dn} = day-night noise level; FTA = Federal Transit Authority.
When noise shielding such as a sound barrier, existing buildings, or natural berm is present, assumed predicted noise level is conservatively reduced by 5 dBA. In some cases (LT-2), where a noise barrier currently exists, the predicted noise level is conservatively reduced by 10 dBA as demonstrated by noise monitoring and modeling.
[a] This is the contribution threshold from train operations for each specific receptor and is based on the existing noise environment for each receptor consistent with FTA guidance for moderate impact. See Table 3.J-5 for definition of Moderate Impact.
[b] This value includes switch noise considered as a stationary source per FTA Guidance.
[c] Trains traveling between Isabel Station and the storage and maintenance facility would travel at a maximum speed of 20 miles per hour which is reflected in the predicted project noise contribution.

TABLE 3.J-19 CONVENTIONAL BART PROJECT – PREDICTED DAY-NIGHT NOISE LEVELS FROM BART TRAINS IN 2025

Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Existing Noise Level (dBA L_{dn})	Threshold for Acceptable Noise Contribution (L_{dn})[a]	Noise Level Generated by Proposed Project at Receptor (L_{dn}) (with horn noise in parenthesis)	Noise at Sensitive Receptors Exceeding Threshold?

The study area is the maximum FTA screening distance (within 1,600 feet of project centerline).
Sensitive receptors listed above are Category 2 receptors (residences and buildings where people normally sleep). In addition, one Category 3 receptor (Pleasanton Kindercare), represented by LT-2, is over twice as far from construction activities as the Monitoring Location LT-2; therefore, resultant noise levels would be at least 3 dBA less than those reported for LT 2. There are no Category 1 receptors in the study area.

Page 1011, one new table is added at the top of the page.

TABLE 3.J-19.A CONVENTIONAL BART PROJECT – PREDICTED NIGHTTIME NOISE LEVELS FROM BART TRAINS ON TAIL TRACKS IN 2025

Monitoring Point ID	Sensitive Receptor in Study Area	Existing Nighttime Noise Level[a] (dBA L_{eq})	Threshold for Acceptable Noise Contribution (L_{eq})	Noise Level Generated by Proposed Project at Receptor (L_{eq})	Noise at Sensitive Receptors Exceeding Threshold?
LT-10	Rural residential receptor: 1,264 feet east of tail tracks	47	<53	43	No

Note:
[a] Existing noise level is an average of the 5 nighttime hours with the lowest monitored Leq values. Existing noise measurements were taken at LT-10 on January 2 and 3, 2018.
dBA = A-weighted decibels
LT-9 is not included in this table because it is about 1 mile north of the tail tracks, which do not run perpendicular to this receptor, and is separated from the terminus of the tail tracks by the storage and maintenance facility. Therefore, any noise levels from the tail tracks at LT-9 would be imperceptible compared to the noise from the storage and maintenance facility, which is assessed in Table 3.J-19.B and 3.J-19.C.

Page 1012, the last 2 paragraphs are revised and 2 new tables added:

- **Noise Generated by the Storage and Maintenance Facility.** A storage and ~~storage and~~ maintenance facility would be constructed for the storage of approximately 172 BART cars and a maintenance facility would be designed to accommodate the servicing and periodic maintenance of BART trains vehicles. Vehicle cleaning, washing, and routine light vehicle maintenance activities would be carried out at this facility. The facility would have approximately nine tracks for the storage of BART trains, as well as a train control tower; a train control room; a TPSS; a building for cleaning supplies, equipment, and waste; a vehicle cleaning platform; and a blowdown. FTA guidance identifies a screening distance of 1,000 feet from proposed storage yards and shops, beyond which noise impacts would be less than significant. The nearest receptors to the proposed storage and maintenance facility would be several ranch houses located on Hartman Road, approximately ~~600 feet to the west. All other receptors would be beyond the 1,000-foot screening distance.~~

  ~~FTA reference noise levels for yards and shops were used to determine an hourly L_{eq} at 50 feet of 76 dBA, conservatively assuming five trains into the yard in an hour. This would attenuate to 49 dBA at the nearest receptors on Hartman Road. Existing monitored daytime noise levels at these residences was monitored at 50 dBA (ST-2, Table 3.J-1), where the threshold for a moderate impact is 54 dBA. At this existing noise level, the acceptable L_{eq} contribution from train operations is less than 54 dBA. Thus~~920 feet to the west. All other receptors would be beyond the 1,000-foot screening distance.

  A detailed noise analysis was conducted to assess the noise impacts that may result from a variety of activities at the storage and maintenance facility at the Hartman Road residence (LT-9) as well as at residences to the southeast of the storage and maintenance facility along the tail tracks (LT-10).

  Predicted noise levels assuming simultaneous operation of storage and maintenance facility activities were calculated in terms of the 24-hour L_{dn} metric and are presented in Table 3.J-19A. In addition, noise levels were also predicted in terms of the nighttime hourly L_{eq} metric which were then compared to FTA's nighttime noise criteria applicable to the existing nighttime hourly noise levels monitored at each of the nearest two receptors (LT-9 and LT-10). Predicted noise levels assuming

simultaneous operation of activities in terms of the nighttime hourly L_{eq} metric and are presented in Table 3.J-19B. As shown in these tables, predicted noise from storage and maintenance facility operations would be below the applicable FTA criteria for both receptors locations in terms of the L_{dn} noise metric as well as in terms of the nighttime L_{eq} noise metric. Therefore, the noise impacts from operations of the storage and maintenance facility would be less than significant. ~~Perimeter~~Furthermore, perimeter walls or building enclosures may ~~further~~additionally reduce these predicted noise levels.

TABLE 3.J-19.B CONVENTIONAL BART PROJECT – PREDICTED DAY-NIGHT NOISE LEVELS FROM OPERATIONS OF THE STORAGE AND MAINTENANCE FACILITY

Monitoring Point ID	Sensitive Receptor in Study Area	Existing Noise Level (dBA L_{dn})	Threshold for Acceptable Noise Contribution (L_{dn})[a]	Noise Level Generated by Proposed Project at Receptor (L_{dn})	Noise at Sensitive Receptors Exceeding Threshold?
LT-9	Rural residential receptor: 920 feet west of the storage and maintenance facility	53	<55	45	No
LT-10	Rural residential receptor: 3,010 feet southeast of storage and maintenance facility	56	<56	34	No

Notes:
[a] Existing noise level is an average of the 5 nighttime hours with the lowest monitored Leq values.

TABLE 3.J-19.C CONVENTIONAL BART PROJECT – PREDICTED NIGHTTIME NOISE LEVELS FROM OPERATIONS OF THE STORAGE AND MAINTENANCE FACILITY

Monitoring Point ID	Sensitive Receptor in Study Area	Existing Nighttime Noise Level[a] (dBA L_{eq})	Threshold for Acceptable Noise Contribution (L_{eq})	Noise Level Generated by Proposed Project at Receptor (L_{eq})	Noise at Sensitive Receptors Exceeding Threshold?
LT-9	Rural residential receptor: 920 feet west of alignment of storage and maintenance facility	32	<42	40	No
LT-10	Rural residential receptor: 3,010 feet southeast of storage and maintenance facility	47	<53	29	No

Notes:
[a] Existing noise level is an average of the 5 nighttime hours with the lowest monitored Leq values.

Page 1015, Table 3.J-21, has been revised to reflect an updated noise measurement location and include a note regarding speed of trains on tail tracks:

TABLE 3.J-21 DMU ALTERNATIVE – PREDICTED DAY-NIGHT NOISE LEVELS FROM DMU TRAINS IN 2025

Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Existing Noise Level (dBA L_{dn})	Threshold for Acceptable Noise Contribution (L_{dn}) (see Table 3.J.5)[a]	Noise Level Generated by DMU Alternative at Receptor (L_{dn}) (Train with horn noise in parenthesis)	Noise at Sensitive Receptors Exceeding Threshold?
Dougherty Road/ Hopyard Road to Hacienda Drive	LT-1	5200 Iron Horse Parkway: 370 feet north of alignment	66	<62	57	No
Dublin/Pleasanton Station DMU Transfer Platform	LT-1	5200 Iron Horse Parkway: 320 feet North of station	66	<62	58	No
Hacienda Drive to Tassajara Road/Santa Rita Road	--	No receptors within 1,600 feet	--	--	--	--
Tassajara Road/Santa Rita Interchange	LT-2	Residential uses: 1,100 feet south of alignment	64	<61	48	No
Tassajara Road/Santa Rita Road to Fallon Road/El Charro Road	LT-2	Residential receptor: 170 feet south of alignment	64	<61	56	No
Fallon Road/El Charro Road to East Airway Boulevard	ST-1	Single unoccupied farmhouse 680 feet north of switch	70	<65	62[b]	No
East Airway Boulevard to Isabel Avenue	LT-3	Residential receptor: 1,000 feet from alignment	61	<59	58 (58)	No (No)

TABLE 3.J-21 DMU ALTERNATIVE – PREDICTED DAY-NIGHT NOISE LEVELS FROM DMU TRAINS IN 2025

Segment	Monitoring Point ID	Nearest Representative Sensitive Receptor in Study Area	Existing Noise Level (dBA L_{dn})	Threshold for Acceptable Noise Contribution (L_{dn}) (see Table 3.J.5)[a]	Noise Level Generated by DMU Alternative at Receptor (L_{dn}) (Train with horn noise in parenthesis)	Noise at Sensitive Receptors Exceeding Threshold?
Isabel Station to Storage and Maintenance ~~Facility~~Facility[c]	LT-5	Residential receptor: 370 feet south of alignment of tail tracks	66	<62	~~57~~54	No
Isabel Station to Storage and Maintenance Facility[c]	LT-10	Rural residential receptor: 1,265 feet east of tail tracks	56	<56	54	No

Notes: -- = Not applicable; LT = long-term noise measurement location; ST = short-term noise measurement location; dBA = A-weighted decibels; L_{dn} = day-night noise level; FTA = Federal Transit Authority.
Table does not include the contribution from switches, which are assessed separately.
When noise shielding such as a sound barrier, existing buildings, or natural berm is present, assumed predicted noise level is conservatively reduced by 5 dBA. In some cases (LT-2), where a noise barrier currently exists, the predicted noise level is conservatively reduced by 10 dBA as demonstrated by noise monitoring and modeling.
[a] This is the contribution threshold from train operations for each specific receptors and is based on the existing noise environment for each receptors consistent with FTA guidance.
[b] This value includes switch noise considered as a stationary source per FTA Guidance.
[c] Trains traveling between Isabel Station and the storage and maintenance facility would travel at a maximum speed of 20 miles per hour which is reflected in the predicted Project noise contribution.

Page 1017, the "Noise Generated by the Storage and Maintenance Facility" paragraph is revised:

- **Noise Generated by the Storage and Maintenance Facility.** A storage and maintenance facility would be designed to accommodate the servicing and periodic maintenance of DMU vehicles. Fueling, vehicle cleaning, washing, and routine light vehicle maintenance activities would be carried out at this facility. In addition, the storage tracks at the storage and maintenance facility would accommodate the storage of approximately three DMU trains (12 vehicles). A train control tower and train control room would be constructed to support the storage and maintenance facility. ~~FTA guidance identifies a screening distance~~Noise generated by the storage and maintenance facility under the DMU Alternative would have lesser noise impacts than those predicted for the Proposed Project because the facility would be smaller—it would only store 12 DMU vehicles instead of 172 BART cars—and the facility would be over 1,000 feet further away from ~~proposed storage yards and shops, beyond which noise impacts would be less than significant. The nearest receptors to the proposed storage and maintenance facility would be several ranch houses on Hartman Road,~~ Receptor LT-9 (approximately ~~1,800~~ 2,200 feet ~~to the north and residences on Selby Lane, 3,000 feet to the southwest of the proposed storage and maintenance facility.~~from the receptor). All receptors would be beyond the FTA screening distance for ~~parking facilities~~ yards and shops and would be separated by intervening hills (which provide an acoustic and visual buffer). Therefore, the noise impacts of the storage and maintenance facility under the DMU Alternative would be less than those described for the Proposed Project and noise impacts would be less than significant.

Page 1022, the third bullet point: "Noise Generated by the Storage and Maintenance Facility" is revised:

- **Noise Generated by the Storage and Maintenance Facility.** Operation of the proposed storage and maintenance facility would be the same as under the 2025 analysis. Predicted noise levels from operations of the proposed storage and maintenance facility would be ~~49~~45 dBA, L_{dn} at the nearest receptors on Hartman Road. Existing ~~monitored daytime~~ noise levels at these residences was monitored at ~~50~~53 dBA, L_{dn} (see Table 3.J-1), where the threshold for a moderate impact is ~~54~~55 dBA, L_{dn}. At this existing noise level, the acceptable ~~L_{eq}~~ L_{dn} contribution from operation of the maintenance facility is less than ~~54~~55 dBA. ~~The~~

Additionally, predicted nighttime noise levels from operations of the proposed storage and maintenance facility would be 40 dBA, L_{eq} at the nearest receptors on Hartman Road. Existing hourly nighttime noise levels at these residences was monitored at 32 dBA, L_{eq} during the quietest nighttime hours, where the threshold for a moderate impact is 42 dBA, L_{eq}. At this existing noise level, the acceptable L_{dn} contribution from operation of the maintenance facility is less than 42 dBA. Therefore, because the Proposed Project would be less than FTA's applicable thresholds, the noise impacts from operations of the storage and maintenance facility would be less than significant.

Page 1025, last paragraph:

Seven representative roadway segments were selected for analysis. Three of the seven roadway segments were selected due to their proximity to the existing Dublin/Pleasanton Station (Owens Drive from Willow Road to Hacienda Drive, Martinelli Way from Hacienda Drive to the BART Parking Structure, and Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway). In the vicinity of the proposed Isabel Station, sensitive receptors are located south of East Airway Boulevard, which would be used by vehicles accessing the parking facilities, and thus this roadway segment was included in the analysis (East Airway Boulevard from Portola Avenue to Sutter Street). No sensitive receptors are located along the other roadways that would be used to access the Isabel Station parking facilities—including Isabel Avenue south of I-580, Kitty Hawk Road, and East Airway Boulevard to Rutan Drive. Additionally, the storage and maintenance facility would generate worker trips that would use Campus Hill Drive (Campus Hill Drive from Portola Avenue to ~~Storage and Maintenance Facility Access Road).~~the storage and maintenance facility via the access road). Two roadway segments were selected due to the proposed increase in local bus service that would occur along these arterial roadways, which are adjacent to residential uses (Murietta Boulevard from Jack London Boulevard to

Page 1028, Table 3.J-24, has been revised as follows:

TABLE 3.J-24 MODELED NOISE LEVELS ON LOCAL ROADWAYS IN 2025

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	Noise Level	Noise Level	Change	Noise Level	Change	Noise Level	Change	Noise Level	Change
AM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	68.9	68.6	-0.3	68.6	-0.3	68.8	-0.1	68.8	-0.1
Martinelli Way from Hacienda Drive to the BART Parking Structure	65.7	65.6	-0.1	65.7	0.0	65.6	-0.1	65.7	0.0
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	71.6	71.6	0.0	71.6	0.0	71.6	0.0	71.6	0.0
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	65.7	~~65.7~~66.1	±0.0~~4~~	~~65.8~~66.2	+0.~~1~~5	65.7	0.0	65.7	0.0
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	67.6	67.6	0.0	67.6	0.0	67.6	0.0	67.6	0.0
Vasco Road from Patterson Pass Road to East Avenue	70.1	69.8	-0.3	70.1	0.0	70.1	0.0	70.1	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	62.6	66.4	**+3.8**	65.3	**+2.7**	62.6	0.0	62.6	0.0
PM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	70.8	70.7	-0.1	70.8	0.0	70.7	-0.1	70.8	0.0
Martinelli Way from Hacienda Drive to the BART Parking Structure	68.7	67.9	-0.8	68.2	-0.5	68.6	-0.1	68.6	-0.1

TABLE 3.J-24 MODELED NOISE LEVELS ON LOCAL ROADWAYS IN 2025

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	**Noise Level**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	72.9	72.9	0.0	72.9	0.0	72.9	0.0	72.9	0.0
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	67.0	67.~~0~~3	±0.~~0~~3	67.~~0~~3	±0.~~0~~3	66.9	-0.1	67.0	0.0
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	68.7	69.0	+0.3	68.9	+0.2	68.6	-0.1	68.7	0.0
Vasco Road from Patterson Pass Road to East Avenue	71.3	71.3	0.0	71.2	-0.1	71.4	+0.1	71.3	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	66.0	68.1	**+2.1**	67.3	**+1.3**	66.0	0.0	66.0	0.0

Notes: dBA = A-weighted decibels; L_{eq} = hourly equivalent (average) noise level. **Bold**/gray text indicates noise levels exceeding threshold.
Change in noise levels are the change between the No Project Conditions and the Project Conditions. Positive values represent an increase in noise levels and negative values represent a decrease in noise levels. Campus Hill Drive noise levels reflect shift change traffic increment from employees of the storage and maintenance facility for the Proposed Project and DMU Alternative.

Page 1035, Table 3.J-26, has been revised as follows:

TABLE 3.J-26 MODELED PEAK HOUR NOISE LEVELS ON LOCAL ROADWAYS IN 2040

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	No Project Alternative	Noise Level	Change	Noise Level	Change	Noise Level	Change	Noise Level	Change
AM Peak Hour L_{eq} (dBA)									
Owens Drive from Willow Road to Hacienda Drive	69.3	69.1	-0.2	69.1	-0.2	69.3	0.0	69.3	0.0
Martinelli Way from Hacienda Drive to the BART Parking Structure	66.3	66.3	0.0	66.3	0.0	66.3	0.0	66.3	0.0
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	72.1	72.0	-0.1	72.0	-0.1	72.0	-0.1	72.0	-0.1
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	66.2	66.~~3~~6	+0.~~1~~5	66.~~2~~6	±0.~~0~~4	66.1	-0.2	66.1	-0.2
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	68.5	69.1	+0.6	68.9	+0.3	68.4	-0.1	68.4	-0.1
Vasco Road from Patterson Pass Road to East Avenue	70.4	70.3	-0.1	70.4	0.0	70.3	-0.1	70.4	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	62.5	66.8	**+4.3**	65.0	**+2.5**	62.6	0.1	62.5	0.0
PM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	71.5	71.7	+0.2	71.6	+0.1	71.5	0.0	71.5	0.0
Martinelli Way from Hacienda Drive to the BART Parking Structure	69.6	68.4	-1.2	69.0	-0.6	69.6	0.0	69.5	-0.1

TABLE 3.J-26 MODELED PEAK HOUR NOISE LEVELS ON LOCAL ROADWAYS IN 2040

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	**No Project Alternative**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	73.7	73.7	0.0	73.7	0.0	73.7	0.0	73.8	+0.1
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	67.1	67.~~1~~5	±0.~~0~~4	67.~~2~~5	+0.~~1~~4	67.1	0.0	67.1	0.0
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	70.0	70.3	+0.3	70.2	+0.2	69.8	-0.2	69.9	-0.1
Vasco Road from Patterson Pass Road to East Avenue	72.4	72.5	+0.1	72.4	0.0	72.4	0.0	72.4	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	66.3	68.2	**+1.9**	67.4	**+1.1**	66.2	-0.1	66.3	0.0

Notes: dBA = A-weighted decibels; L_{eq} = hourly equivalent (average) noise level. **Bold**/gray text indicates noise levels exceeding threshold.
The change in noise levels is the difference between the No Project Conditions and the Project Conditions. Positive values represent an increase in noise levels and negative values represent a decrease in noise levels. Campus Hill Drive noise levels reflect shift change traffic increment from employees of the storage and maintenance facility for the Proposed Project and DMU Alternative.

Page 1037, the second bullet for the Conventional BART Project is revised as follows:

- **Noise Levels Associated with Traffic Redistribution on Local Roadways.** As shown in Table 3.J-26, the greatest increase in roadway noise would occur along East Airway Boulevard (2.5 dBA) during the AM peak hour. This would represent more than a 1-dBA increase at a receptor where existing noise levels are above 62 L_{eq}, and thus would be a significant impact. A lesser but still significant impact would also occur during the PM peak hour. Noise level increases along all other roadways would be less than 1 dBA and less than significant.

Page 1053, the second paragraph is revised as follows:

Cumulative noise level increases along roadways were estimated using the FHWA Traffic Noise Prediction Model. Modeled weekday traffic noise level estimates for seven roadway segments are presented in Table 3.J-30. Noise levels in Table 3.J-30 represent cumulative conditions with and without the project (Proposed Project and all of the Alternatives) for 2025 at a distance of 50 feet from the roadway center. For the Proposed Project, Table 3.J-30 indicates that greatest increase in roadway noise would occur along East Airway Boulevard (3.4 dBA) during the AM peak hour. This would represent more than a 1-dBA increase at a receptor where existing noise levels are above 62 L_{eq} (refer to Table 3.J-9), a significant increase. A lesser but still significant impact would also occur during the PM peak hour. As described in **Impact NOI-5**, this impact would be reduced to a less-than significant level with implementation of **Mitigation Measure NOI-5**, which would require construction of a sound barrier that would reduce noise impacts along East Airway Boulevard.

Additionally, under cumulative conditions, the Proposed Project would result in an increase in roadway noise of greater than 1 dBA along Campus Hill Drive during the PM peak hour. However, the majority of this increase is attributable to traffic generated by the Isabel Neighborhood Plan which identified a significant and unavoidable roadway noise impact on Isabel Avenue north of Portola Avenue exceeding 3 dBA.[6] As shown in Table 3.J-24, the contribution of traffic noise along this roadway from the Proposed Project alone would be 0.4 dBA, which is well below the threshold of human perception. Consequently, while there would be a significant and unavoidable roadway noise impact along Campus Hill Drive in the 2025

[6] City of Livermore, *Draft Environmental Impact Report for the Isabel Neighborhood Plan*, January 2018. Page 3.6-28.

cumulative scenario, the contribution of the Proposed Project would be less than cumulatively considerable. Noise level increases along all other roadways would be less than 1 dBA and less than significant.

Page 1053, the third paragraph "Conclusion" is revised as follows:

- **Conclusion.** As described above, the cumulative noise level increases associated with highway relocation and traffic redistribution under the Proposed Project would exceed the applicable thresholds at receptors south of East Airway Boulevard. However, as described in **Impact NOI-5**, the Proposed Project would be required to implement **Mitigation Measure NOI-5**, which would require construction of a sound barrier that would reduce noise impacts to a less-than-significant level along East Airway Boulevard. Similarly, other cumulative projects would also be required to assess and mitigate significant ambient noise level increases associated with traffic redistribution on local roadways. While a cumulative noise impact would occur along Campus Hill Drive, the vast majority of this impact is the result of traffic generated by the Isabel Neighborhood Plan with the Proposed Project adding a less than cumulatively considerable contribution. Therefore, the Proposed Project, in combination with past, present, and probable future projects, would have a less-than-significant impact related to ambient noise level increases under 2025 conditions. **(LS)**

Page 1054, the third paragraph is revised as follows:

Noise Levels Associated with Traffic Redistribution on Local Roadways in the 2025 Cumulative Conditions. Modeled weekday traffic noise level estimates for seven roadway segments are presented in Table 3.J-30. These noise levels represent conditions with and without the Proposed Project or any of the Alternatives for 2025 at a distance of 50 feet from the roadway center. For the DMU Alternative, Table 3.J-30 indicates that greatest increase in roadway noise would occur along East Airway Boulevard (0.9Campus Hill Drive (1.2 dBA) during the AMPM peak hour. This which would represent less than a 1 exceed the 1 dBA increase threshold at a receptor where existing noise levels are above 62 L_{eq}, a less-than- are above 62 dBA. However, the majority of this increase is attributable to traffic generated by the Isabel Neighborhood Plan which identified a significant and unavoidable roadway noise impact (refer to on Isabel Road north of

Portola Avenue exceeding 3 dBA[7]. As shown in Table 3.J-~~9).~~ 24, the contribution of traffic noise along this roadway from the and DMU Alternative alone would be 0.5 dBA, which is well below the threshold of human perception. Consequently, while there would be a significant and unavoidable roadway noise impact along Campus Hill Drive, the contribution of the DMU alternative would be less than cumulatively considerable. Noise level increases along all other roadways would also be less than 1 dBA and less than significant.

Page 1055, Table 3.J-30:

[7] City of Livermore, *Draft Environmental Impact Report for the Isabel Neighborhood Plan*, January 2018. Page 3.6-28.

TABLE 3.J-30 MODELED NOISE LEVELS ON LOCAL ROADWAYS UNDER 2025 CUMULATIVE CONDITIONS

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	Noise Level	Noise Level	Change	Noise Level	Change	Noise Level	Change	Noise Level	Change
AM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	68.9	68.6	-0.3	68.6	-0.3	69.0	+0.1	69.0	+0.1
Martinelli Way from Hacienda Drive to the BART Parking Structure	65.7	65.6	-0.1	65.7	0.0	65.6	-0.1	65.7	0.0
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	71.6	71.6	0.0	71.6	0.0	71.6	0.0	71.6	0.0
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	65.7	66.6 ~~66.3~~	+0.9 ~~+0.6~~	66.6 ~~66.2~~	+0.9 ~~+0.5~~	65.7	0.0	65.7	0.0
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	67.6	67.6	0.0	67.6	0.0	67.6	0.0	67.6	0.0
Vasco Road from Patterson Pass Road to East Avenue	70.1	70.1	0.0	70.0	-0.1	70.1	0.0	70.1	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	62.6	66.0	**+3.4**	63.5	+0.9	62.6	0.0	62.6	0.0
PM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	70.8	70.7	-0.1	70.7	-0.1	70.7	-0.1	70.7	-0.1
Martinelli Way from Hacienda Drive to the BART Parking Structure	68.7	68.2	-0.5	68.5	-0.2	68.7	0.0	68.8	+0.1
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	72.9	72.9	0.0	72.9	0.0	72.9	0.0	72.9	0.0

TABLE 3.J-30 MODELED NOISE LEVELS ON LOCAL ROADWAYS UNDER 2025 CUMULATIVE CONDITIONS

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	**Noise Level**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**	**Noise Level**	**Change**
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	67.0	68.2 ~~68.0~~	**+1.2** ~~**+1.0**~~	68.2 ~~67.9~~	**+1.2** ~~**+0.9**~~	66.9	-0.1	66.9	-0.1
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	68.7	69.0	+0.3	68.9	+0.2	68.6	-0.1	68.8	+0.1
Vasco Road from Patterson Pass Road to East Avenue	71.3	71.3	0.0	71.3	0.0	71.3	0.0	71.3	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	66.0	67.9	**+1.9**	66.4	+0.4	66.0	0.0	66.0	0.0

Notes: dBA = A-weighted decibels; L_{eq} = peak hour equivalent (average) noise level. **Bold**/gray text indicates noise levels exceeding threshold. Negative values reflect reductions in traffic on these roadways due to availability of closer stations or facilities.
Change in noise levels are the change between the No Project Conditions and the Project Conditions. Positive values represent an increase in noise levels and negative values represent a decrease in noise levels.

Page 1061, Table 3.J-32:

TABLE 3.J-32 MODELED NOISE LEVELS ON LOCAL ROADWAYS UNDER 2040 CUMULATIVE CONDITIONS

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	Noise Level	Noise Level	Change	Noise Level	Change	Noise Level	Change	Noise Level	Change
AM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	69.3	69.4	+0.1	69.2	-0.1	69.4	+0.1	69.4	+0.1
Martinelli Way from Hacienda Drive to the BART Parking Structure	66.3	66.3	0.0	66.3	0.0	66.3	0.0	66.3	0.0
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	72.1	72.0	-0.1	72.0	-0.1	72.1	0.0	72.3	+0.2
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	66.2	66.7 ~~66.3~~	+0.5 ~~+0.1~~	66.7 ~~66.3~~	+0.5 ~~+0.1~~	66.1	-0.1	66.1	-0.1
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	68.5	69.3	+0.8	69.2	+0.7	68.4	-0.1	68.5	0.0
Vasco Road from Patterson Pass Road to East Avenue	70.4	70.3	-0.1	70.5	+0.1	70.4	0.0	70.4	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	62.5	66.9	**+4.4**	66.3	**+3.8**	62.5	0.0	62.5	0.0
PM Peak Hour L_{eq} (dBA)									
Owens Drive From Willow Road to Hacienda Drive	71.5	71.6	+0.1	71.6	+0.1	71.5	0.0	71.5	0.0
Martinelli Way from Hacienda Drive to the BART Parking Structure	69.6	69.2	-0.4	69.0	-0.6	69.7	+0.1	69.8	+0.2
Dublin Boulevard from Hacienda Drive to the Iron Horse Parkway	73.7	73.7	0.0	73.7	0.0	73.8	+0.1	73.9	+0.2
Campus Hill Drive from Portola Avenue to Storage and Maintenance Facility Access Road	67.1	67.3[1] ~~67.0~~	+0.2 ~~-0.1~~	67.3 ~~67.0~~	+0.2 ~~-0.1~~	67.1	0.0	67.1	0.0

TABLE 3.J-32 MODELED NOISE LEVELS ON LOCAL ROADWAYS UNDER 2040 CUMULATIVE CONDITIONS

	No Project Alternative	Conventional BART Project		DMU Alternative		Express Bus/BRT Alternative		Enhanced Bus Alternative	
Roadway Segment	Noise Level	Noise Level	Change	Noise Level	Change	Noise Level	Change	Noise Level	Change
Murietta Boulevard from Jack London Boulevard to Stanley Boulevard	70.0	70.5	+0.5	70.5	+0.5	69.9	-0.1	70.0	0.0
Vasco Road from Patterson Pass Road to East Avenue	72.4	72.7	+0.3	72.6	+0.2	72.5	+0.1	72.4	0.0
East Airway Boulevard from Portola Avenue to Sutter Street	66.3	68.9	**+2.6**	68.1	**+1.8**	66.3	0.0	66.3	0.0

Notes: dBA = A-weighted decibels; L_{eq} = peak hour equivalent (average) noise level. **Bold**/gray text indicates noise levels exceeding threshold.
Change in noise levels are the change between the No Project Conditions and the Project Conditions. Positive values represent an increase in noise levels and negative values represent a decrease in noise levels. Campus Hill Drive noise levels reflect the traffic increment from the employees traveling during the shift change at the storage and maintenance facility for the Proposed Project and DMU Alternative.
[1] The regional travel demand model shows a decrease in traffic volumes for this roadway segment in 2040 cumulative scenario versus the 2025 cumulative scenario which results in a reduced roadside noise value and a reduced impact in 2040 compared to 2025.

Page 1063, first bullet:

- **Noise Levels Associated with Highway Relocation and Future Cumulative Development.** Weekday traffic noise level estimates were modeled for the nearest receptors along the same three segments of I-580 as for the Proposed Project. Predicted noise levels at these receptors under 2040 No Project Conditions and 2040 Cumulative ~~With~~with DMU Alternative are presented in Table 3.J-31 and reflect the peak hour conditions with the greatest predicted freeway volumes (AM peak hour conditions for the segment from Dougherty Road/Hopyard Road to Hacienda Drive, and PM peak hour conditions for the other two segments).

Page 1063, second bullet:

- **Noise Levels Associated with Traffic Redistribution on Local Roadways in the 2040 Cumulative Conditions**. Modeled weekday traffic noise level estimates for seven roadway segments are presented in Table 3.J-32. These noise levels represent conditions with and without the Proposed Project and Build Alternatives for 2040 at a distance of 50 feet from the roadway center. For the DMU Alternative, Table 3.J-32 indicates that greatest increase in roadway noise would occur along East Airway Boulevard (3.8 dBA) during the AM peak hour. This would represent more than a 1-dBA increase at a receptor where existing noise levels are above 62 L_{eq}, a significant impact (refer to Table 3.J-9). Implementation of **Mitigation Measure NOI-5** would reduce this impact to a less-than-significant level. Noise level increases along all other roadways would be less than 1 dBA and less than significant.

11. Section K. Air Quality

In response to comments, the following text is added to the third paragraph on page 1121:

Sources considered in the operational HRA include: (1) traffic generated by full buildout of the BART to Livermore Extension Project (roadway segments with an increase in average daily traffic volume greater than 10,000 vehicles per day); (2) traffic lanes shifting closer to, or farther from sensitive receptors as a result of the I-580 relocation; (3~~2~~) buses; (4~~3~~) DMUs (DMU Alternative only); (5~~4~~) maintenance trucks and solvents to be used for maintenance operations at the BART and DMU maintenance facilities (Proposed Project and DMU Alternative); and (6~~5~~) maintenance operation of the diesel-fired emergency generators. Under State regulatory guidelines,

DPM is used as a surrogate measure of carcinogen exposure for the mixture of chemicals that make up diesel exhaust.

A new section is added under the fourth paragraph on page 1122 as follows:

I-580 Relocation – Changing the Location of Traffic with Respect to Sensitive Receptors (Conventional BART Project, DMU Alternative/EMU Option, and Express Bus/BRT Alternative). This analysis addresses the impacts of moving traffic on I-580 closer to and/or farther from sensitive receptors as a result of the highway relocation. Generally, the westbound I-580 lanes would be shifted to the north and the eastbound I-580 lanes would be shifted to the south to accommodate the widened median for the rail extension or the bus transfer platforms, resulting in traffic being closer to, as well as farther from, each respective sensitive receptor.

In order to assess health risks from highway relocation, cancer risk and $PM_{2.5}$ concentration values were calculated for the MEISRs using the BAAQMD Highway Screening Analysis Tool.[8] The tool was used to estimate the excess cancer risk from shifting the traffic closest to a sensitive receptor even closer and shifting distant traffic on I-580 lanes headed the opposite direction, even farther (similar to the example above).

Health risks from the BAAQMD Highway Screening Analysis Tool were estimated using 2014 emission rates from CARB's mobile source emissions estimation tool EMFAC2007.[9] As EMFAC2007 is no longer available for public use, the more recent model (EMFAC2014) was run for calendar years 2014 through 2050.[10] To estimate cancer risk in 2025, a scaling value was developed to adjust for fleet improvements in DPM emissions between 2014 and 2025. The scaling value takes into account the year-by-year changes to estimated fleet-average per-mile emission factors and applies an appropriate weighting for age-specific exposure factors over a 30-year period starting at the third trimester. The scaling value also takes into account the updates to

[8] Bay Area Air Quality Management District (BAAQMD), 2011. Highway Screening Analysis Tool. Alameda County. 6 ft and 20 ft. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/alameda-6ft.kmz?la=en and http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/alameda-20ft.kmz?la=en. Accessed January 2018.

[9] BAAQMD. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en. Accessed January 2018.

[10] Every calendar year between 2014 and 2050 (inclusive) was evaluated because cancer risk is based on a 30-year exposure and exposure parameters vary by year. A 30-year exposure starting in 2025 will end in 2054. The maximum year possible to run EMFAC is 2050. Thus, it is assumed that DPM emissions level off (i.e., stay constant) after 2050.

OEHHA (2015) risk assessment guidelines made since the development of the BAAQMD Highway Screening Analysis Tool, updating the exposure factors for cancer risk (including daily breathing rate, fraction of time at home, and age sensitivity factors). Additionally, an adjustment was made to account for the increase in traffic volumes on I-580 from 2014 (the basis for the Highway Screening Analysis Tool) and project evaluation years 2025 and 2040. The resulting adjustments for lower future emissions, higher traffic volume, and updated OEHHA guidance were used to scale cancer risk estimates from the Highway Screening Analysis Tool. To estimate $PM_{2.5}$ concentration in 2025, the $PM_{2.5}$ concentration from the Highway Screening Analysis Tool was multiplied by the ratio of the emission factor for $PM_{2.5}$ in 2025 to the emission factor for $PM_{2.5}$ in 2014, scaled upwards for the increase in traffic volume on I-580. It is conservatively assumed that DPM emissions contribute 80 percent of the total cancer risk from highway emissions. The same scaling factor developed to estimate highway impacts for 2025 (accounting for lower emissions and updated risk assessment guidelines) was conseratively applied to estimate highway impacts for 2040 emissions, although it is expected that highway impacts in 2040 would be much lower due to reduced emissions anticipated under existing regulations. Appendix H shows the contribution to cancer risk and $PM_{2.5}$ concentration from the highway relocation (Table 41).

The Draft EIR is revised to include the following sentence in the fifth paragraph on page 1122 as follows:

Passenger Vehicle Traffic (Conventional BART Project and Alternatives). To address the impacts of passenger vehicle traffic described in Section 3.B, Transportation, road segments with an increase in average daily traffic volume greater than 10,000 vehicles per day were identified. A screening-level risk assessment was completed for these segments using the BAAQMD Roadway Screening Analysis Calculator.[5] The same adjustment for lower emissions in future years, as described above, was applied to the BAAQMD Roadway Screening Analysis Calculator. Cancer risk and $PM_{2.5}$ concentration were identified for the operational MEISR.

The Draft EIR is revised to include the following sentence at the end of the first paragraph on page 1160 under Impact 11 (Result in emissions of TACs and $PM_{2.5}$ causing increased health risk above BAAQMD significance thresholds under 2025 Project Conditions) as follows:

In addition, the relocation of I-580 would result in changes to health risk at nearby sensitive receptors.

Draft EIR Tables 3.K-19 and 3.K-20 on page 1161 and 1162, respectively, have been revised as follows:

TABLE 3.K-19 MAXIMUM OPERATIONAL PROJECT CANCER RISK AT OFF-SITE RECEPTORS IN 2025

	Excess Cancer Risk (in 1 million)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	Resident	Resident	Resident	Resident
Traffic	~~--~~*0.26	~~--~~*0.26	~~--~~*0.26	--[a]	--[a]
Highway Relocation	--[e]	--[e]	--[e]	1.4	--
Buses	6.1	6.1	6.1	4.1	6.3
DMU	--	1.6	--	--	--
Generator (Isabel Station)	0.44	0.44	0.44	--	--
Generator (Maintenance Facility)	0.025	0.043	0.043	--	--
Maintenance Trucks and Shuttle Van[c,d]	9.1E-06	2.1E-05	2.1E-05	--	--
Solvent Use	--[b]	--[b]	--[b]	--	--
Total	6.8 ~~6.5~~	8.4 ~~8.2~~	6.8 ~~6.6~~	5.5 ~~4.1~~	6.3
Significance Threshold	10	10	10	10	10
Above Threshold?	No	No	No	No	No

Notes: -- = not applicable.
[a] Incremental increase in traffic volume is less than 10,000 vehicles per day for all roadway segments. Per BAAQMD screening methodology, cancer risk is assumed to be negligible.
[b] Solvent use in the storage and maintenance facility for the Proposed Project, DMU Alternative, and EMU Option would be less than the BAAQMD permitting thresholds. Cancer risk is not explicitly evaluated and is assumed to be negligible.
[c] A numerical value with "E" denotes scientific notation; thus, 5.6E-06 is equivalent to 5.6×10^{-6}.
[d] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[e] For the Conventional BART Project, DMU Alternative,and EMU Option, the highway relocation would result in a reduction in cancer risk at the MEISR because the cancer risk impact from moving the westbound lanes of I-580 closer to the MEISR (by 11 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in cancer risk (beneficial effect) is not included.

TABLE 3.K-20 MAXIMUM ANNUAL AVERAGE OPERATIONAL PROJECT $PM_{2.5}$ CONCENTRATIONS AT OFF-SITE RECEPTORS IN 2025

	$PM_{2.5}$ Concentration (µg/m³)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	School	Resident	Resident	Resident
Traffic	~~--~~*0.0054	--[a]	~~--~~*0.0052	--[a]	--[a]
Highway Relocation	--[d]	0.024	--[d]	0.0049	--
Buses	0.0087	0.00043	0.0087	0.0057	0.0085
DMU	--	0.022	--	--	--
Generator (Isabel Station)[b]	0.00059	4.2E-05	0.00059	--	--
Generator (Maintenance Facility)[c]	3.3E-05	0.00013	5.8E-05	--	--
Maintenance Trucks and Shuttle Van[c]	2.3E-08	6.4E-08	5.8E-08	--	--
Total	0.015 ~~0.0093~~	0.047 ~~0.023~~	0.015 ~~0.0093~~	0.011 ~~0.0057~~	0.0085
Significance Threshold	0.3	0.3	0.3	0.3	0.3
Above Threshold?	No	No	No	No	No

Notes: -- = not applicable; µg/m³ = micrograms per cubic meter; $PM_{2.5}$ = fine particulate matter.
[a] Incremental increase in traffic volume is less than 10,000 vehicles per day for all roadway segments. Per BAAQMD screening methodology, cancer risk is assumed to be negligible.
[b] A numerical value with "E" denotes scientific notation; thus, 3.7E-05 is equivalent to 3.7×10^{-5}.
[c] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[d] For the Conventional BART Project and EMU Option, the highway relocation would result in a reduction in concentration at the MEISR because the concentration impact from moving the westbound lanes of I-580 closer to the MEISR (by 11 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in $PM_{2.5}$ concentration (benefical effect) is not included.

Page 1162 of the Draft EIR has been revised as follows:

Conventional BART Project. In 2025, the Proposed Project would result in potential impacts to health risk associated with TAC and $PM_{2.5}$ concentrations due to changes in passenger vehicle activity, highway relocation, new bus routes, activities at the storage and maintenance facility, and emergency generators.

- In 2025, the Proposed Project would have an overall net reduction in VMT of 38,250,574 miles compared to the 2025 No Project Conditions. However, as described above, this analysis conservatively does not

quantify the reduction in TAC and $PM_{2.5}$ associated with the net reduction in VMT.

- ~~No roadway segments were projected to have an increase of 10,000 vehicles per day. Thus, the contribution to incremental cancer risk and $PM_{2.5}$ concentration is not evaluated for changes in passenger vehicle.~~
- There is one roadway segment of Airway Boulevard projected to have a net increase of greater than 10,000 vehicles per day within 1,000 feet of the MEISR. This segment is to the south of I-580 and to the west of Sutter Street. All other roadway segments would have a net increase of less than 10,000 vehicles per day or a net decrease in roadway volume. Thus, this one roadway segment was evaluated for contribution to incremental cancer risk and $PM_{2.5}$ concentration. In addition, I-580 is within 1,000 feet of the MEISR. Both will impact the MEISR.
- At the identified MEISR location, the westbound lanes of I-580 would be shifted 11 feet closer to the MEISR and the eastbound lanes would be shifted 36 feet farther from the MEISR. This results in a reduction in cancer risk and $PM_{2.5}$ concentration at the MEISR. The reduction (beneficial effect) is conservatively not acounted for in the overall cancer risk and $PM_{2.5}$ concentration at the MEISR.

The second paragraph on page 1163 of the Draft EIR has been revised as follows:

Table 3.K-19 shows that the increased cancer risk at the MEISR is ~~6.5~~ 6.8-in-1-million and Table 3.K-20 shows that the maximum $PM_{2.5}$ concentration is ~~0.0093~~ 0.015 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3, respectively. Therefore, the Proposed Project in 2025 would have less-than-significant impacts related to health risk. **(LS)**

In addition, the following revisions have been made to page 1163 of the Draft EIR:

DMU Alternative. In 2025, the DMU Alternative would result in similar emission sources as the Proposed Project, except that it would include DPM emissions from the DMU vehicles. The new and modified bus routes, highway relocation, emergency generators, and maintenance trucks at the storage and maintenance facility would be similar to the Proposed Project.

- In 2025, the DMU Alternative would have an overall net reduction in VMT of 28,578,215 miles compared to the 2025 No Project Conditions. However, as described above, this analysis conservatively does not quantify the reduction in TAC and $PM_{2.5}$ associated with the net reduction in VMT.

- ~~No roadway segments under this alternative were projected to have an increase of 10,000 vehicles per day. Thus, the contribution to incremental cancer risk and $PM_{2.5}$ concentration is not evaluated for changes in passenger vehicle activity.~~
- There is one roadway segment of Airway Boulevard projected to have a net increase greater than 10,000 vehicles per day within 1,000 feet of the MEISR. This segment is to the south of I-580 and to the west of Sutter Street. All other roadway segments would have a net increase of less than 10,000 vehicles per day or a net decrease in roadway volume. Thus, this one roadway segment was evaluated for contribution to incremental health risk and $PM_{2.5}$ concentration.
- At the identified cancer risk MEISR location, the westbound lanes of I-580 would be shifted 11 feet closer to the MEISR while the eastbound lanes would be shifted 36 feet farther from the MEISR. This results in a reduction in cancer risk at the MEISR. The reduction (benefical effect) is conservatively not accounted for in the overall cancer risk at the MEISR.
- At the identified $PM_{2.5}$ concentration MEISR location, the eastbound lanes of I-580 would be shifted 21 feet closer to the MEISR while the westbound lanes would be shifted 5 feet farther from the MEISR.

The second paragraph on page 1164 of the Draft EIR (under DMU Alternative) has been revised as follows:

> Table 3.K-19 shows that the increased cancer risk at the MEISR is ~~8.2~~ 8.4-in-1-million and Table 3.K-20 shows that the maximum $PM_{2.5}$ concentration is ~~0.023~~ 0.047 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3, respectively. Therefore, the 2025 DMU Alternative would have less-than-significant impacts related to health risk. **(LS)**

The second-to-last sentence in the third paragraph under the EMU Option on page 1164 of the Draft EIR has been revised as follows:

> Table 3.K-19 shows that the increased cancer risk at the MEISR is ~~6.6~~ 6.8-in-1-million and Table 3.K-20 shows that the maximum $PM_{2.5}$ concentration is ~~0.0093~~ 0.015 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3 respectively.

A new third-bullet is added under the Express Bus/BRT Alternative on page 1164 of the Draft EIR:

- At the identified MEISR location, the westbound lanes of I-580 would be shifted 43 feet closer to the MEISR while the eastbound lanes would be shifted 69 feet farther from the MEISR.

The last paragraph on page 1164 of the Draft EIR (under the Express Bus/BRT Alternative) has been revised as follows:

> In 2025, the cancer risk MEISR and maximum $PM_{2.5}$ concentration for the Express Bus/BRT Alternative are located at the Dublin Station – Avalon II apartment complex, approximately 127 meters north of the Dublin/Pleasanton Station. Table 3.K-19 shows that the increased cancer risk at the MEISR is ~~4.1~~ 5.5-in-1-million and Table 3.K-20 shows that the maximum $PM_{2.5}$ concentration is ~~0.0057~~ 0.011 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3, respectively. Therefore, the 2025 Express Bus/BRT Alternative would have less-than-significant impacts related to health risk. **(LS)**

Draft EIR Tables 3.K-21 and 3.K-22 on page 1166 and 1167, respectively, under Impact AQ-12 (Result in emissions of TACs and $PM_{2.5}$ causing increased health risk above BAAQMD significance thresholds under 2040 Project Conditions) have been revised as follows:

TABLE 3.K-21 MAXIMUM OPERATIONAL PROJECT CANCER RISK AT OFF-SITE RECEPTORS IN 2040

	Excess Cancer Risk (in 1 million)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	Resident	Resident	Resident	Resident
Traffic	~~1.3~~ 0.17	--[a]	--[a]	--[a]	--[a]
Highway Relocation	--[e]	--[e]	--[e]	--[f]	--
Buses	2.7	2.7	2.7	3.9	6.1
DMU	--	1.8	--	--	--
Generator (Isabel Station)	0.44	0.44	0.44	--	--
Generator (Maintenance Facility)	0.025	0.043	0.043	--	--
Maintenance Trucks and Shuttle Van[c,d]	4.5E-06	9.9E-06	9.9E-06	--	--
Solvent Use	--[b]	--[b]	--[b]	--	--
Total	~~4.5~~ 3.4	5.0	3.2	3.9	6.1
Significance Threshold	10	10	10	10	10
Above Threshold?	No	No	No	No	No

Notes: -- = not applicable.
[a] Incremental increase in traffic volume is less than 10,000 vehicles per day for all roadway segments. Per BAAQMD screening methodology, cancer risk is assumed to be negligible.
[b] Solvent use in the storage and maintenance facility under the Proposed Project, DMU Alternative, and EMU Option would be less than BAAQMD permitting thresholds. Cancer risk is not explicitly evaluated and is assumed to be negligible.
[c] A numerical value with "E" denotes scientific notation; thus, 2.7E-06 is equivalent to 2.7×10^{-6}.
[d] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[e] For the Conventional BART Project, DMU Alternative, and EMU Option, the highway relocation results in a reduction in cancer risk at the MEISR because the cancer risk impact from moving the westbound lanes of I-580 closer to the MEISR (by 11 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in cancer risk (beneficial effect) is not included.
[f] The 2040 MEISR for Express Bus/BRT Alternative is located over 1,000 feet from I-580. Any impacts from the highway relocation are expected to be negligible.

TABLE 3.K-22 MAXIMUM ANNUAL AVERAGE OPERATIONAL PROJECT $PM_{2.5}$ CONCENTRATIONS AT OFF-SITE RECEPTORS IN 2040

	$PM_{2.5}$ Concentration (µg/m³)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	School	Resident	Resident	Resident
Traffic	~~0.016~~0.0034	--[a]	--[a]	--[a]	--[a]
Highway Relocation	--[d]	0.06	--[d]	--[e]	--
Buses	0.0039	0.00021	0.0039	0.0053	0.0082
DMU	--	0.025	--	--	--
Generator (Isabel Station)[b]	0.00059	4.2E-05	0.00059	--	--
Generator (Maintenance Facility)	3.3E-05	0.00013	5.8E-05	--	--
Maintenance Trucks and Shuttle Van[c]	1.7E-08	4.7E-08	4.3E-08	--	--
Total	~~0.021~~ 0.079	~~0.025~~ 0.051	0.0046	0.0053	0.0082
Significance Threshold	0.3	0.3	0.3	0.3	0.3
Above Threshold?	No	No	No	No	No

Notes: -- = not applicable; PM_{10} = respirable particulate matter.
[a] Incremental increase in traffic volume is less than 10,000 vehicles per day for all roadway segments. Per BAAQMD screening methodology, cancer risk is assumed to be negligible.
[b] A numerical value with "E" denotes scientific notation; thus, 3.7E-05 is equivalent to 3.7×10^{-5}.
[c] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[d] For the Conventional BART Project and EMU Option, the highway relocation would result in a reduction in concentration at the MEISR because the concentration impact from moving the westbound lanes of I-580 closer to the MEISR (by 12 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in $PM_{2.5}$ concentration (beneficial effect) is not included.
[e] The 2040 MEISR for Express Bus/BRT Alternative is located over 1,000 feet from I-580. Any impacts from the highway relocation are expected to be negligible.

The second paragraph on page 1168 of the Draft EIR has been revised as follows:

Conventional BART Project. In 2040, emissions of TACs and $PM_{2.5}$ would be similar to those in 2025, with differences described below.

- ~~There is one segment of Airway Boulevard projected to have an increase of more than 10,000 vehicles per day. This segment is to the south of I-580 and east of the Isabel Station. All other roadway segments would have a net increase of less than 10,000 vehicles per day or a net decrease in roadway volume. Thus, this one roadway segment was evaluated for contribution to incremental health risk and $PM_{2.5}$ concentration.~~

- There is one roadway segment of Airway Boulevard projected to have a net increase greater than 10,000 vehicles per day within 1,000 feet of the MEISR. This segment is to the south of I-580 and to the east of Sutter Street. All other roadway segments would have a net increase of less than 10,000 vehicles per day or a net decrease in roadway volume. Thus, this one roadway segment was evaluated for contribution to incremental cancer risk and $PM_{2.5}$ concentration. In addition, I-580 is within 1,000 feet of the MEISR. Both will impact the MEISR.

The last paragraph under Conventional BART Project on page 1168 of the Draft EIR has been revised as follows:

> Tables 3.K-21 and 3.K-22, respectively, show that the increased cancer risk at the MEISR is ~~4.5~~ 3.4-in-1-million and the maximum $PM_{2.5}$ concentration is 0.~~021~~ 0.079 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3, respectively.

The last paragraph under DMU Alternative on page 1169 of the Draft EIR has been revised as follows:

> Tables 3.K-21 and 3.K-22 show that the increased cancer risk at the MEISR is ~~5.0~~ 3.4-in-1-million and the maximum $PM_{2.5}$ concentration is ~~0.025~~ 0.051 µg/m^3, which are below the thresholds of 10-in-1-million and 0.3 µg/m^3, respectively.

Draft EIR Tables 3.K-25 and 3.K-26 on page 1183 and 1184, respectively, under Impact AQ-18(CU) (Result in emissions of TACs and $PM_{2.5}$ causing increased health risk above BAAQMD significance thresholds under 2025 Cumulative Conditions) have been revised as follows:

TABLE 3.K-25 MAXIMUM OPERATIONAL CANCER RISK AT OFF-SITE RECEPTORS, 2025 CUMULATIVE CONDITIONS

	Excess Cancer Risk (in 1 million)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	Resident	Resident	Resident	Resident
Traffic[a]	~~126~~ 123	~~124~~ 122	~~124~~ 122	127	67
Highway Relocation	--[e]	--[e]	--[e]	1.4	--
Buses	6.1	6.1	6.1	4.1	6.3
DMU	--	1.6	--	--	--
Generator (Isabel Station)	0.44	0.44	0.44	--	--
Generator (Maintenance Facility)	0.025	0.043	0.043	--	--
Maintenance Trucks and Shuttle Van[b,d]	9.1E-06	2.1E-05	2.1E-05	--	--
Solvent Use	--[c]	--[c]	--[c]	--	--
Non-Project Sources	--	--	--	9.9	4.2
Total	**~~132~~ 130**	**~~132~~ 131**	**~~131~~ 129**	**~~141~~ 142**	77
Significance Threshold	100	100	100	100	100
Above Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	No

Notes: -- = not applicable. **Bold**/gray values exceed thresholds.
[a] Includes traffic impact from INP and Dublin/Pleasanton Parking Expansion. The analysis considers roadway segments with an average of greater than 10,000 vehicles per day.
[b] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[c] Solvent use in the storage and maintenance facility under the Proposed Project, DMU Alternative, and EMU Option would be less than BAAQMD permitting thresholds. Cancer risk is not explicitly evaluated and is assumed to be negligible.
[d] A numerical value with "E" denotes scientific notation; thus, 5.6E-06 is equivalent to 5.6×10^{-6}.
[e] For the Conventional BART Project, DMU Alternative, and EMU Option, the highway relocation results in a reduction in cancer risk at the MEISR because the cancer risk impact from moving the westbound lanes of I-580 closer to the MEISR (by 11 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in cancer risk (beneficial effect) is not included.

TABLE 3.K-26 MAXIMUM ANNUAL AVERAGE OPERATIONAL $PM_{2.5}$ CONCENTRATIONS AT OFF-SITE RECEPTORS, 2025 CUMULATIVE CONDITIONS

	$PM_{2.5}$ Concentration (µg/m³)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	School	Resident	Resident	Resident
Traffic[a]	0.82	1.15	0.80	0.86	0.58
Highway Relocation[e]	--[e]	**0.024**	--[e]	**0.0049**	--
Buses	0.0087	0.00043	0.0087	0.0057	0.0085
DMU	--	0.022	--	--	--
Generator (Isabel Station)	0.00059	4.2E-05	0.00059	--	--
Generator (Maintenance Facility)	3.3E-05	1.3E-04	5.8E-05	--	--
Maintenance Trucks and Shuttle Van[b,c]	2.3E-08	6.4E-08	5.8E-08	--	--
Non-Project Sources	--	--	--	0.0097	0.0050
Total	~~0.83~~ 0.79	~~1.17~~ **1.20**	~~0.81~~ 0.78	~~0.87~~ **0.88**	0.59
Significance Threshold	0.8	0.8	0.8	0.8	0.8
Above Threshold?	~~Yes~~ **No**	**Yes**	~~Yes~~ **No**	**Yes**	No

Notes: -- = not applicable; $PM_{2.5}$ = fine particulate matter. **Bold**/gray values exceed thresholds.
[a] Includes traffic impact from INP and Dublin/Pleasanton Parking Expansion. The analysis considers roadway segments with an average of greater than 10,000 vehicles per day.
[c–b] A shuttle van is included for the Proposed Project only.
[b–c] Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[c–d] A numerical value with "E" denotes scientific notation; thus, 3.7E-05 is equivalent to 3.7×10^{-5}.
[d–e] For the Conventional BART Project and EMU Option, the highway relocation results in a reduction in concentration at the MEISR because the concentration impact from moving the westbound lanes of I-580 closer to the MEISR (by 11 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in $PM_{2.5}$ concentration (beneficial effect) is not included.

The first bullet under Conventional BART Project on page 1184 of the Draft EIR has been revised as follows:

- There are ~~five~~ four roadway segments projected to have greater than 10,000 vehicles per day within 1,000 feet of the MEISR. In addition, I-580 is within 1,000 feet of the MEISR. Both will impact the MEISR.

The first paragraph on page 1185 of the Draft EIR has been revised as follows (for Conventional BART Project):

> Table 3.K-25 shows that the cumulative cancer risk at the MEISR is ~~132~~ 130-in-1-million and Table 3.K-26 shows the maximum $PM_{2.5}$ concentration is ~~0.83~~ 0.79 µg/m³~~,~~. The cumulative cancer risk is ~~which are~~ above the

thresholds of 100-in-1-million while the cumulative PM2.5 concentration is below the threshold ofand 0.8 µg/m^3,. respectively.

The first paragraph on page 1186 of the Draft EIR has been revised as follows (for DMU Alternative):

Table 3.K-25 shows that the cumulative cancer risk at the MEISR is 132 131-in-1-million and Table 3.K-26 shows the maximum $PM_{2.5}$ concentration is 1.17 1.20 µg/m^3, which are above the thresholds of 100-in-1-million and 0.8 µg/m^3, respectively.

The last paragraph on page 1186 of the Draft EIR has been revised as follows (for EMU Option):

Table 3.K-25 shows that the cumulative cancer risk at the MEISR is 131 130-in-1-million and Table 3.K-26 shows the maximum $PM_{2.5}$ concentration is 0.81 0.78 µg/m^3,. The cumulative cancer risk is above the threshold of 100-in-1-million while the cumulative $PM_{2.5}$ concentration is below the threshold of 0.8 µg/m^3. which are above the thresholds of 100-in-1-million and 0.8 µg/m^3, respectively.

The last paragraph on page 1187 of the Draft EIR has been revised as follows (for Express Bus/BRT Alternative):

Table 3.K-25 shows that the cumulative cancer risk at the MEISR is 141 142-in-1-million and Table 3.K-26 shows that the maximum $PM_{2.5}$ concentration is 0.87 0.88 µg/m^3, which are above the thresholds of 100-in-1-million and 0.8 µg/m^3, respectively.

Draft EIR Tables 3.K-27 and 3.K-28 on page 1190 and 1191, respectively, under Impact AQ-19(CU) (Result in emissions of TACs and $PM_{2.5}$ causing increased health risk above BAAQMD significance thresholds under 2040 Cumulative Conditions) have been revised as follows:

TABLE 3.K-27 MAXIMUM OPERATIONAL CANCER RISK AT OFF-SITE RECEPTORS, UNDER 2040 CUMULATIVE CONDITIONS

	Excess Cancer Risk (in 1 million)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	Resident	Resident	Resident	Resident
Traffic[a]	120	119	119	78	73
Highway Relocation	--[e]	--[e]	--[e]	--[f]	--
Buses	2.7	2.7	2.7	3.9	6.1
DMU	--	1.8	--	--	--
Generator (Isabel Station)	0.44	0.44	0.44	--	--
Generator (Maintenance Facility)	0.025	0.043	0.043	--	--
Maintenance Trucks and Shuttle Van[b,d]	4.5E-06	9.9E-06	9.9E-06	--	--
Solvent Use	--[c]	--[c]	--[c]	--	--
Non-Project Sources	--	--	--	9.9	4.2
Total	**123**	**124**	**122**	92	83
Significance Threshold	100	100	100	100	100
Above Threshold?	**Yes**	**Yes**	**Yes**	No	No

Notes: -- = not applicable. **Bold**/gray values exceed thresholds.
[a] Includes traffic impact from INP and Dublin/Pleasanton Parking Expansion. The analysis considers roadway segments with an average of greater than 10,000 vehicles per day.
[b] A shuttle van is included for the Proposed Project only. Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[c] Solvent use in the storage and maintenance facility under the Proposed Project, DMU Alternative, and EMU Option would be less than BAAQMD permitting thresholds. Cancer risk is not explicitly evaluated and is assumed to be negligible.
[d] A numerical value with "E" denotes scientific notation; thus, 2.7E-05 is equivalent to 2.7×10^{-5}.
[e] For the Conventional BART Project, DMU Alternative, and EMU Option, the highway relocation results in a reduction in cancer risk at the MEISR because the cancer risk impact from moving the westbound lanes of I-580 closer to the MEISR (by 12 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in cancer risk (beneficial effect) is not included.
[f] The 2040 MEISR for Express Bus/BRT Alternative is located over 1,000 feet from I-580. Any impacts from the highway relocation are expected to be negligible.

TABLE 3.K-28 MAXIMUM ANNUAL AVERAGE OPERATIONAL $PM_{2.5}$ CONCENTRATIONS AT OFF-SITE RECEPTORS, UNDER 2040 CUMULATIVE CONDITIONS

	$PM_{2.5}$ Concentration ($\mu g/m^3$)				
Source	**Conventional BART Project**	**DMU Alternative**	**EMU Option**	**Express Bus/BRT Alternative**	**Enhanced Bus Alternative**
Receptor Type	Resident	School	Resident	Resident	Resident
Traffic[a]	0.75	1.10	0.73	0.73	0.66
Highway Relocation	--[d]	0.026	--[d]	--[e]	--
Buses	0.0039	0.00021	0.0039	0.0053	0.0082
DMU	--	0.025	--	--	--
Generator (Isabel Station)	0.00059	4.2E-05	0.00059	--	--
Generator (Maintenance Facility)	3.3E-05	1.3E-04	5.8E-05	--	--
Maintenance Trucks and Shuttle Van[b]	1.7E-08	4.7E-08	4.3E-08	--	--
Non-Project Sources	--	--	--	0.0097	0.0050
Total	0.75	~~**1.12**~~ **1.15**	0.74	0.75	0.67
Significance Threshold	0.8	0.8	0.8	0.8	0.8
Above Threshold?	No	**Yes**	No	No	No

Notes: -- = not applicable; $\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = fine particulate matter. **Bold**/gray values exceed thresholds.
[a] Includes traffic impact from INP and Dublin/Pleasanton Parking Expansion. The analysis considers roadway segments with an average of greater than 10,000 vehicles per day.
[c] A shuttle van is included for the Proposed Project only.
[b] Maintenance trucks are included for the Proposed Project, DMU Alternative, and EMU Option.
[c] A numerical value with "E" denotes scientific notation; thus, 3.7E-05 is equivalent to 3.7×10^{-5}.
[d] For the Conventional BART Project and EMU Option, the highway relocation results in a reduction in concentration at the MEISR because the concentration impact from moving the westbound lanes of I-580 closer to the MEISR (by 12 feet) is outweighed by moving the eastbound lanes of I-580 farther from the MEISR (by 36 feet). As a conservative measure, this reduction in $PM_{2.5}$ concentration (beneficial effect) is not included.
[e] The 2040 MEISR for Express Bus/BRT Alternative is located over 1,000 feet from I-580. Any impacts from the highway relocation are expected to be negligible.

The second-to-last paragraph on page 1192 of the Draft EIR has been revised as follows (for DMU Alternative):

> Tables 3.K-27 and 3.K-28 show that the cumulative cancer risk at the MEISR is 124-in-1-million and the maximum $PM_{2.5}$ concentration is ~~1.12~~ 1.15 $\mu g/m^3$, respectively, which are above the thresholds of 100-in-1-million and 0.8 $\mu g/m^3$,

12. Section L. Greenhouse Gas Emissions

No revisions are necessary.

13. Section M. Energy

No revisions are necessary.

14. Section N. Public Health and Safety

Page 1380, third item in list:

- Zone 3: Isabel South Area and a limited portion of the I-580 Corridor Area near Freisman Road to the west and Isabel Avenue to the east.

Page 1380, following the first paragraph:

> While the relocation of I-580 for the Proposed Project and DMU Alternative could incrementally increase the portion of the freeway in Zone 3 near Freisman Road and Isabel Avenue, relocation would not change the grade of I-580 or the existing interchanges. The ALUCP recommends that 30 percent of the land area within Zone 3 be open land. Transit-oriented uses (train stations, bus stations, etc.), roads, automobile parking areas, and open parking garages are permitted uses in this zone. Thus, the relocation of I-580 is not anticipated to affect flight paths.

15. Section O. Community Services

No revisions are necessary.

16. Section P. Utilities

No revisions are necessary.

F. CHAPTER 4 OTHER CEQA CONSIDERATIONS

No revisions are necessary.

G. CHAPTER 5 PROJECT MERITS

Page 1493 of the Draft EIR has been revised to clarify the location of discussion of the project objectives, as follows:

> A discussion of how the Proposed Project and Alternatives satisfy project objectives ~~will be added to this chapter in the Final EIR, after BART has the opportunity to review and consider public comments and incorporate any revisions into the Final EIR.~~ is provided in Chapter 1, Introduction, of the Final EIR.

Page 1494 of the Draft EIR has been revised to clarify that the cumulative conditions as presented in Table 5-1 include the INP, as follows:

> This discussion includes both project-level beneficial effects from implementation of the Proposed Project or an alternative and cumulative beneficial effects from implementation of the Proposed Project or an alternative in combination with the effects of other projects, including the INP.

H. CHAPTER 6 LIST OF PREPARERS AND REFERENCES

No revisions are necessary.

I. APPENDICES

Appendix C of the Draft EIR, page 3 of 5 (for both the Proposed Project and DMU Alternative, respectively have been revised as follows:

Conventional BART Project – Potential Land Acquisition

APN	Parcel City	Approximate Percent of Parcel Needed for Permanent Project Footprint	Parcel Address	Land Use
905 000901303	LIVERMORE	5.1% to 10.0%	~~COLLIER CANYON~~NORTH CANYONS PARKWAY	~~Vacant industrial land (may include misc. imps)~~Vacant commercial land

DMU Alternative – Potential Land Acquisition

APN	Parcel City	Approximate Percent of Parcel Needed for Permanent Project Footprint	Parcel Address	Land Use
905 000901303	LIVERMORE	5.1% to 10.0%	~~COLLIER CANYON~~NORTH CANYONS PARKWAY	~~Vacant industrial land (may include misc. imps)~~Vacant commercial land

Appendix E of the Draft EIR, page 6, is revised as follows:

TABLE 1 CUMULATIVE PROJECTS AND PLANS

L6[a]	Chamberlin	Approximately 11 acres with an assumption for development of up to ~~100,000~~ 245,000 square feet of commercial and office space	Southwest corner of Airway Boulevard and North Canyons Parkway	~~No current developer. Unknown.~~ Potential for development in near term.

Appendix G of the Draft EIR is updated to revise the following aspects of the noise analysis. Please see Appendix B.1, Revised Noise Appendix, for these revisions.

- Pages added to the end of section *G.1 FTA Noise Calculations* that reflect refined noise analysis of receptors LT-9 and LT-10 from operations of the proposed storage and maintenance facility
- Pages replaced in section *G.2 Traffic Noise Input Assumptions and Modeling Output* to reflect revised cumulative traffic predictions and to include worker trips accessing the proposed storage and maintenance facility
- Pages added to the end of section *G.5 Noise Monitoring Summary Sheets* reflecting additional long-term noise monitoring conducted to perform a refined noise

analysis of receptors LT-9 and LT-10 from operations of the proposed storage and maintenance facility

Appendix H of the Draft EIR is updated as follows: Table 38 has been edited to reflect revised traffic volumes (see revisions for Section 3.B, Transportation), and a new Table 41 has been added to assess health risk from highway relocation. Please see Appendix B.2, Revised Air Quality Appendix, for these revisions. Only the two revised tables are included in Appendix B.2.

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