APPENDIX R

Access Improvements Cost Estimates

Preliminary Opinion of Probable Construction Cost
for
VTA'S BART Phase II Extension Project TOD Corridor and Access Planning Study
Construction/Engineering for Alum Rock/28th Street Station Access Improvements

Prepared By: Kimley-Horn **Date: February 2019**

#	DESCRIPTION	QUANTITY	UNIT	COST / UNIT	TOTAL COST
1	Install Class II bike lane on Julian Street from N. 6th Street to N. 21th Street	4,929	LF	$ 24.00	$ 118,296.00
2	Install Class IV bike lane on Julian Street from N. 21st Street to N. 28th Street	1,936	LF	$ 282.00	$ 545,952.00
3	Reconfigure N. 28th Street & Julian/McKee intersection	1	LS	$ 800,000.00	$ 800,000.00
4	Install two-way Class I on McKee Road from N. 28th Street to N. 33rd Street w/ Bridge Widening	1	LS	$ 10,500,000.00	$ 10,500,000.00
5	Install Class II bike lane on McKee Road from N. 33rd Street to N. Jackson Avenue	1,157	LF	$ 24.00	$ 27,768.00
6	Install Class IV bike lane on McKee Road from N. 33rd Street to N. Jackson Avenue	4,053	LF	$ 282.00	$ 1,142,946.00
7	Install Five Wounds Trail from Lower Silver Creek to US-280	1	LS	$ 3,500,000.00	$ 3,500,000.00
8	Install Class III bike boulevard on E. St. John Street from N. 13th Street to N. 18th Street	1,575	LF	$ 30.00	$ 47,250.00
9	Install connection on E. St. John Street from Coyote Creek to N. 24th Street including new pedestrian/bicycle bridge	1	LS	$ 6,540,000.00	$ 6,540,000.00
10	Install Class III bike lane from N. 24th Street to N. 28th Street	927	LF	$ 30.00	$ 27,810.00
11	Install Class I bike route from N. 24th Street to N. 28th Street	310	LF	$ 880.00	$ 272,800.00
12	Widen E. Santa Clara Street bridge over Coyote Creek	4,500	SF	$ 400.00	$ 1,800,000.00
13	Widen E. Santa Clara Street bridge over US-101	12,600	SF	$ 400.00	$ 5,040,000.00
14	Install Class IV bike lane on McLaughlin Avenue from Story Road to Peach Court	4,448	LF	$ 282.00	$ 1,254,336.00
15	S. 24th Street/McLaughlin Avenue/Peach Court/5 Wounds Trail intersection	1	LS	$ 765,875.00	$ 765,875.00
16	Upgrade Signals within Station Area	46	EA	$ 20,000.00	$ 920,000.00
17	Install wayfinding signage along access routes within Station Area	8	EA	$ 50,000.00	$ 400,000.00
18	Construct bulb-outs and ADA ramps within Station Area	73	EA	$ 50,000.00	$ 3,650,000.00
19	Construct transit islands within Station Area	13	EA	$ 400,000.00	$ 5,200,000.00
20	Install Additional BRT Station	2	EA	$ 500,000.00	$ 1,000,000.00
				Subtotal	$ 43,553,033.00
				50% Contigency	$ 21,776,516.50
				TOTAL	**$ 65,329,549.50**

Notes:

1. The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.
2. This Preliminary Opinion of Probable Cost ("OPC") is based on the DRAFT Station Access Improvements dated Feb 7, 2019.
3. This OPC was prepared without City review and approval, and as such, may be subject to change during the City permitting process.
4. Underground non-pavement utilities such as, but not limited to, water, sanitary sewer, and gas are assumed to be at an adequate depth.
5. Projects listed as line items above do not include any contingency as a factor for the cost. Contingency was only applied towards the Construction/Engineering for Alum Rock/28th Street Station Access Improvements project as a whole.
6. Miscellaneous soft costs were applied individually to each project line item above. Soft costs were assumed to be 4% Admin, 4% Environmental, 15% Design, 15% Construction management.
7. Cost shown is based on 2019 dollars.
8. The assumed contingency covers not explored at the current stage. Items include but are not limited to:

- Unknown improvements needed as part of the project (such as drainage improvements, pavement failure repair, landscaping/irrigation replacement, restriping, impacts to lighting/electrical, utility relocations that are not under franchise)
- More costly approach to the design/construction of the improvements than anticipated
- Environmental unknowns (contaminated soil, regulatory-required mitigations, high groundwater)
- Unscoped right-of-way acquisition, including temporary permits
- Federalizing the project and the additional costs of performing NEPA, coordinating with Caltrans

Preliminary Opinion of Probable Construction Cost
for
VTA'S BART Phase II Extension Project TOD Corridor and Access Planning Study
Construction/Engineering for Downtown San Jose Station Access Improvements

Prepared By: Kimley-Horn **Date: February 2019**

#	DESCRIPTION	QUANTITY	UNIT	COST / UNIT	TOTAL COST
1	Install Class IV bike lane on Market Street/Coleman Avenue from San Carlos Street to Autumn Street	6,675	LF	$ 282.00	$ 1,882,350.00
2	Install Class IV bike lane on E. St. John Street under SR-87	320	LF	$ 282.00	$ 90,240.00
3	Widen Sidewalk under SR-87	4,000	SF	$ 25.00	$ 100,000.00
4	Install Class II bike lane on N. 3rd Street from E. Taylor Street to Jackson Street	910	LF	$ 24.00	$ 21,840.00
5	Widen sidewalk on E. San Fernando Street from S. 4th Street to S. 10th Street	12,930	SF	$ 25.00	$ 323,250.00
6	Improve bike circulation on Guadalupe River Trail at Julian Street	1	LS	$ 260,000.00	$ 260,000.00
7	Install enhanced crossing at Guadalupe River Trail across St. John Street	1	LS	$ 305,000.00	$ 305,000.00
8	Upgrade Signals within Station Area	75	EA	$ 20,000.00	$ 1,500,000.00
9	Install RRFB / PHB	1	EA	$ 300,000.00	$ 300,000.00
10	Install wayfinding signage along access routes within Station Area	12	EA	$ 50,000.00	$ 600,000.00
11	Construct bulb-outs and ADA ramps within Station Area	93	EA	$ 20,000.00	$ 1,860,000.00
				Subtotal	$ 7,242,680.00
				50% Contigency	$ 3,621,340.00
				TOTAL	**$ 10,864,020.00**

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5. Projects listed as line items above do not include any contingency as a factor for the cost. Contingency was only applied towards the Construction/Engineering for Alum Rock/28th Street Station Access Improvements project as a whole.
6. Miscellaneous soft costs were applied individually to each project line item above. Soft costs were assumed to be 4% Admin, 4% Environmental, 15% Design, 15% Construction management.
7. Cost shown is based on 2019 dollars.
8. The assumed contingency covers not explored at the current stage. Items include but are not limited to:
   - Unknown improvements needed as part of the project (such as drainage improvements, pavement failure repair, landscaping/irrigation replacement, restriping, impacts to lighting/electrical, utility relocations that are not under franchise)
   - More costly approach to the design/construction of the improvements than anticipated
   - Environmental unknowns (contaminated soil, regulatory-required mitigations, high groundwater)
   - Unscoped right-of-way acquisition, including temporary permits
   - Federalizing the project and the additional costs of performing NEPA, coordinating with Caltrans

Preliminary Opinion of Probable Construction Cost
for
VTA'S BART Phase II Extension Project TOD Corridor and Access Planning Study
Construction/Engineering for Santa Clara Station Access Improvements

Prepared By: Kimley-Horn **Date: February 2019**

#	DESCRIPTION	QUANTITY	UNIT	COST / UNIT	TOTAL COST
1	Install Class IV bike lane on El Camino Real/The Alameda from Scott Boulevard to Benton Street	6,674	LF	$ 282.00	$ 1,882,068.00
2	Install Class IV bike lane on El Camino Real/The Alameda from Benton Street to W. Hedding Street and widen sidewalk	7,253	LF	$ 282.00	$ 2,045,346.00
3	Widen Sidewalk on El Camino Real/The Alameda from Benton Street to W. Hedding Street	4,953	SF	$ 25.00	$ 123,825.00
4	Install Class III bike boulevard on Benton Street from Alice Drive to Lincoln Street	2,534	LF	$ 30.00	$ 76,020.00
5	Install Class II bike lane on Benton Street from Lincoln St to El Camino Real	4,377	LF	$ 24.00	$ 105,048.00
6	Improve El Camino Real/Benton Street intersection	1	LS	$ 1,112,854.90	$ 1,112,854.90
7	Install Class I on Franklin Street from Lafayette Street to El Camino Real	1,780	LF	$ 880.00	$ 1,566,400.00
8	Install connection on Franklin Street to El Camino Real	1	LS	$ 50,000.00	$ 50,000.00
9	Install Class III bike blvd on Palm Dr from Sherman St to El Camino Real	733	LF	$ 30.00	$ 21,990.00
10	Install Class IV bike lane on De La Cruz Boulevard from Central Expressway to Reed Street	4,783	LF	$ 282.00	$ 1,348,806.00
11	Install class IV two-way lane on north side of De La Cruz interchange from Reed to Street to Brokaw Road	1	LS	$ 7,598,000.00	$ 7,598,000.00
12	Install Class IV bike lane on Brokaw Road from Coleman Avenue to Santa Clara Station	1,174	LF	$ 282.00	$ 331,068.00
13	Construct Sidewalk on Martin Ave from De La Cruz Blvd to Coleman Ave	42,240	SF	$ 25.00	$ 1,056,000.00
14	Install Class IV Bike Lanes on Coleman Ave from De La Cruz Blvd to Coleman Ave	4,536	LF	$ 282.00	$ 1,279,152.00
15	Construct Sidewalk on Coleman Ave from Brokaw Rd to W. Hedding St	4,800	SF	$ 25.00	$ 120,000.00
16	Install Class IV Bike Lanes on Coleman Ave from Brokaw Rd to W. Hedding St	6,972	LF	$ 282.00	$ 1,966,104.00
17	Upgrade Signals within Station Area	29	EA	$ 20,000.00	$ 580,000.00
18	Install RRFB or PHB	3	EA	$ 300,000.00	$ 900,000.00
19	Install wayfinding signage along access routes within Station Area	6	EA	$ 50,000.00	$ 300,000.00
20	Construct transit islands within Station Area	30	EA	$ 400,000.00	$ 12,000,000.00
21	Construct bulb-outs and ADA ramps within Station Area	26	EA	$ 20,000.00	$ 520,000.00
				Subtotal	$ 34,982,681.90
				50% Contingency	$ 17,491,340.95
				TOTAL	**$ 52,474,022.85**

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VTA's BART Phase II Extension - Alum Rock/28th Street Station

Measures to Address Gaps in Transportation Network

LEGEND

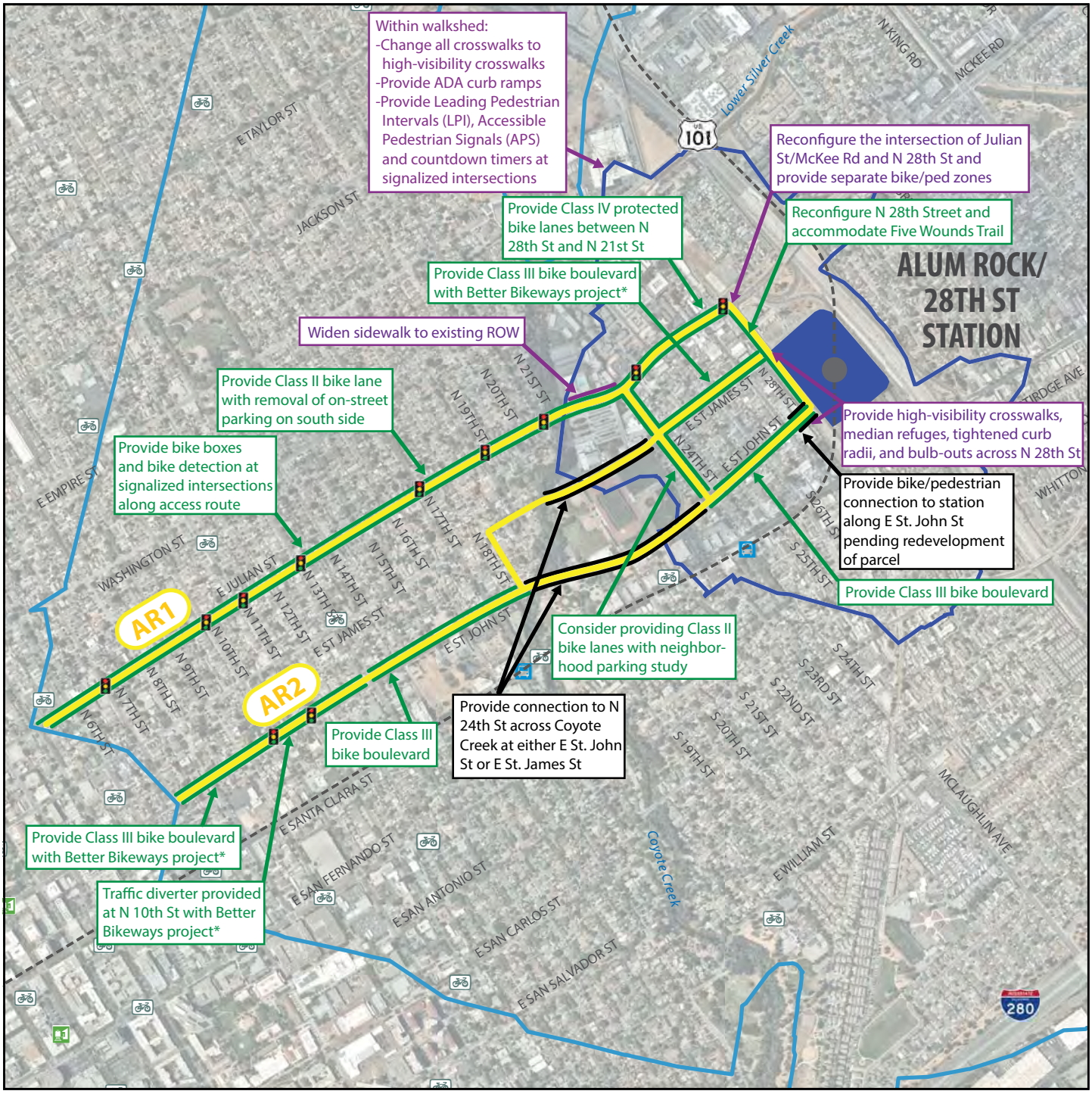
0 0.25 0.5 0.75 1 Miles

- AR — Alum Rock/28th Street Station Access Route
- 0.5 Mile Walkshed (10 min walk)
- 1.5 Mile Bikeshed (10 min bike ride)
- VTA's BART Phase II Extension Alignment
- Existing VTA BRT Stops
- Existing VTA LRT Stops
- Existing Ford GoBike Stations

N

VTA's BART Phase II Extension - Alum Rock/28th Street Station

Measures to Address Gaps in Transportation Network



LEGEND

- AR — Alum Rock/28th Street Station Access Route
- 0.5 Mile Walkshed (10 min walk)
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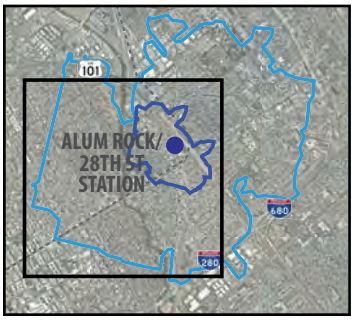
- VTA's BART Phase II Extension Alignment
- Existing Signalized Intersection
- Existing VTA BRT Stops
- Existing Ford GoBike Stations

- Pedestrian recommendation
- Bicycle recommendation
- Transit recommendation
- Connection or structure recommendation

*Project to be implemented by City of San José

0 0.125 0.25 0.5 Miles

Key Map



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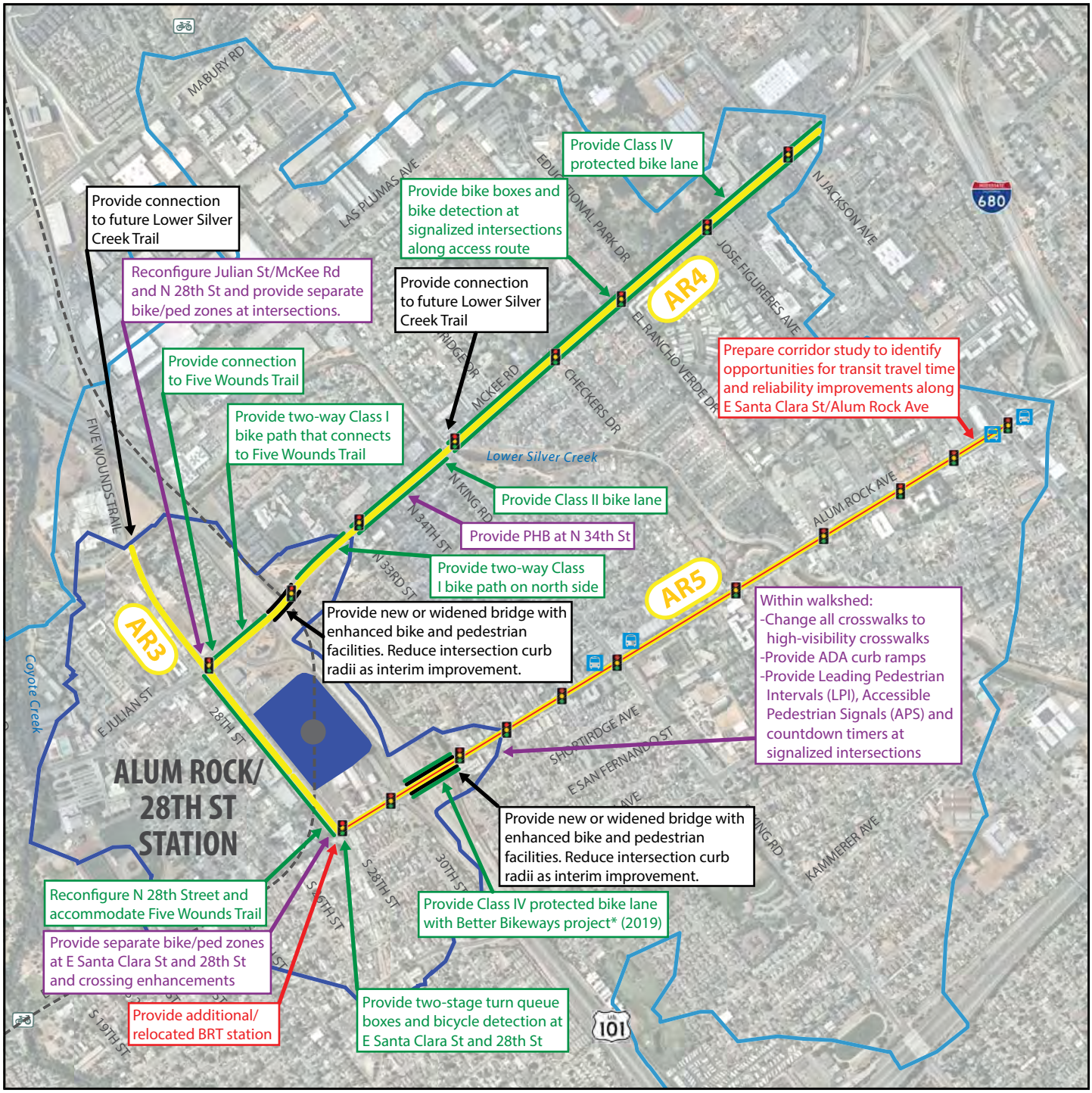
Measures to Address Gaps in Transportation Network



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- Existing Ford GoBike Stations

- Pedestrian recommendation
- Bicycle recommendation
- Transit recommendation
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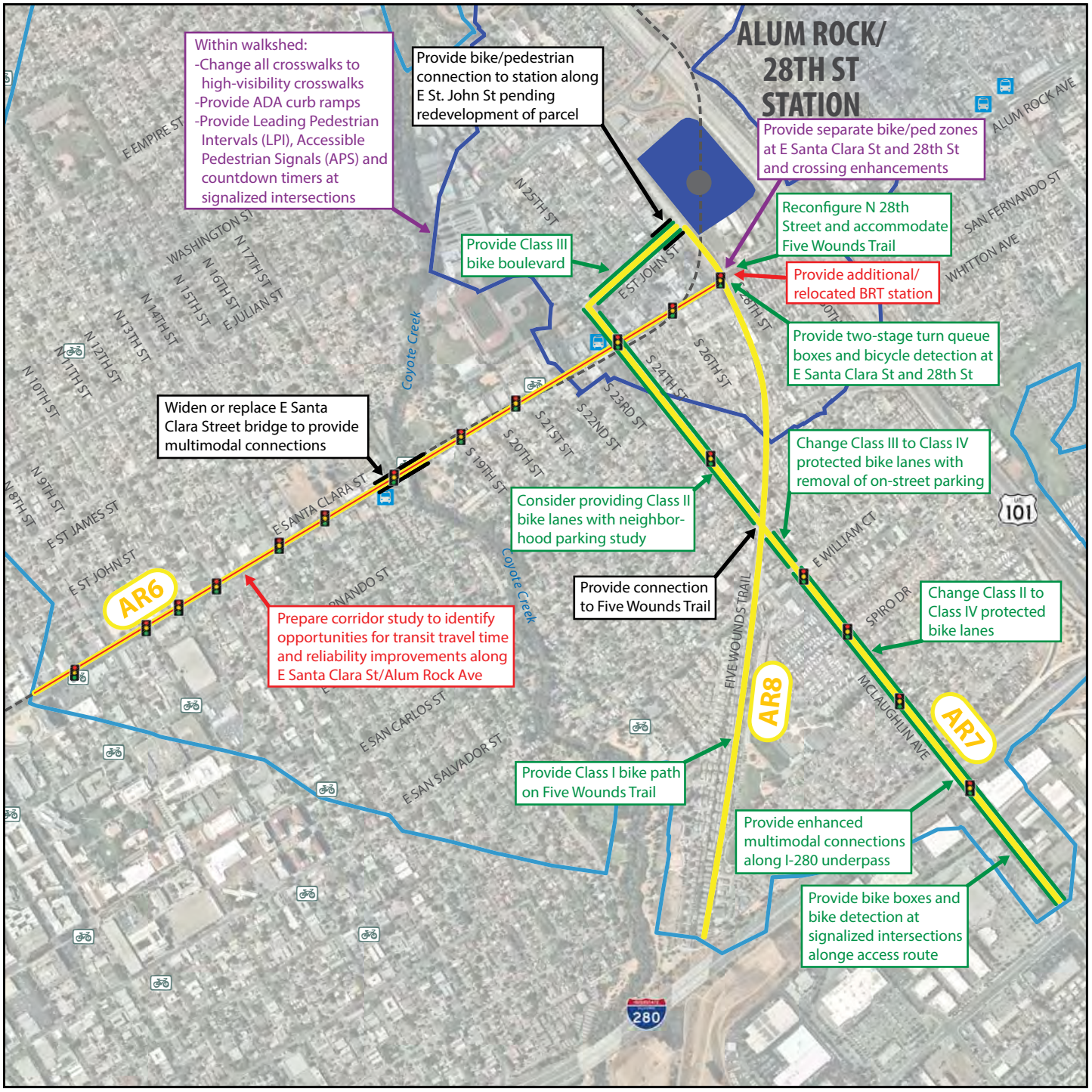
0 0.125 0.25 0.5 Miles

Key Map

N

VTA's BART Phase II Extension - Alum Rock/28th Street Station

Measures to Address Gaps in Transportation Network



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- Pedestrian recommendation
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- Transit recommendation
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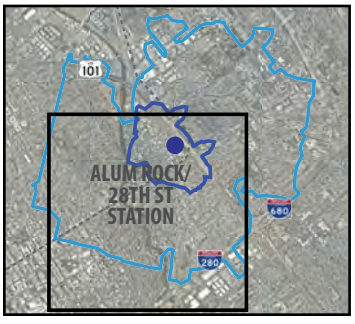
0 0.125 0.25 0.5 Miles

Key Map



N

VTA's BART Phase II Extension - Downtown San José Station

Measures to Address Gaps in Transportation Network

LEGEND

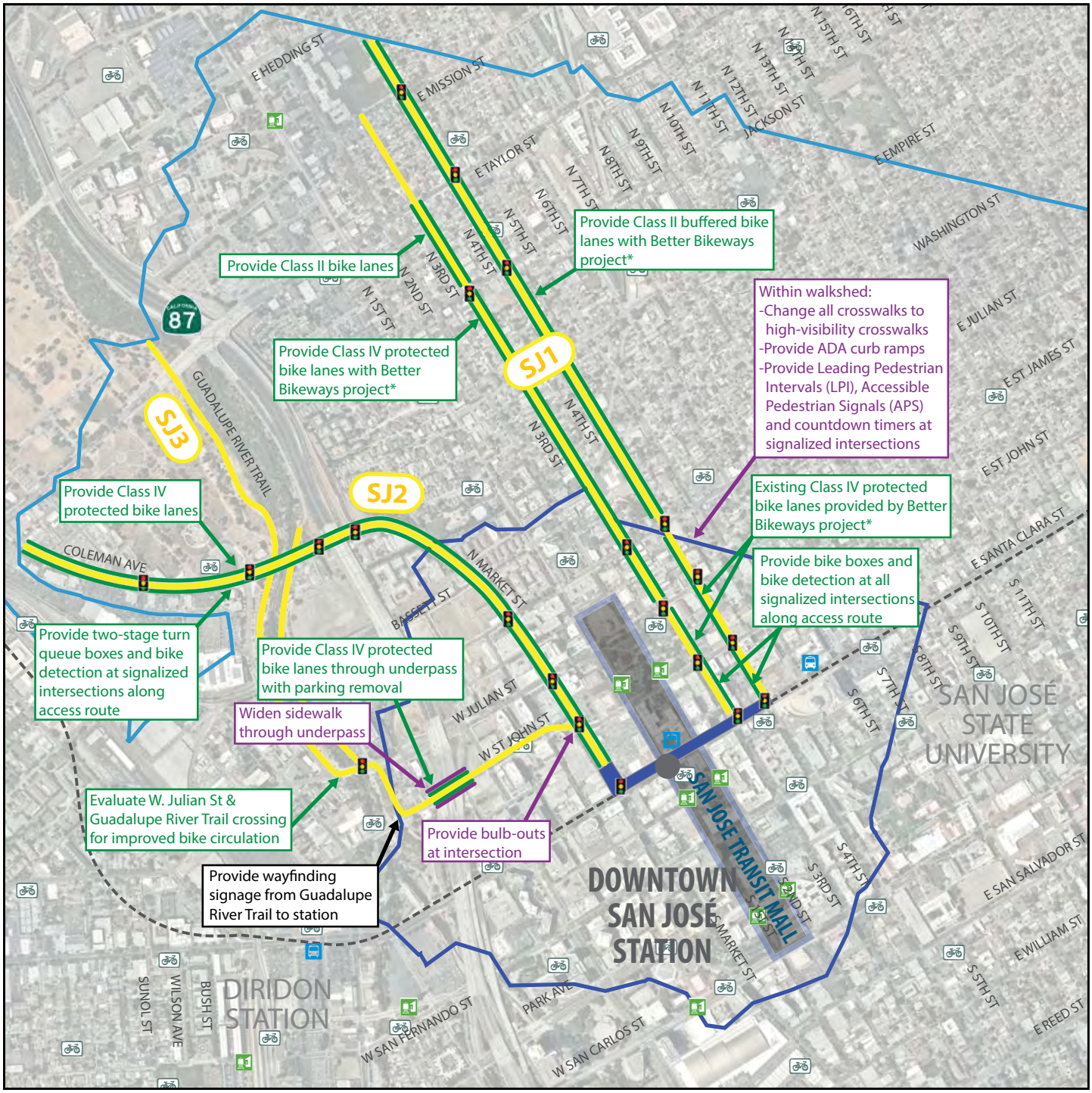
- SJ — Downtown San José Station Access Route
- 0.5 Mile Walkshed (10 min walk)
- 1.5 Mile Bikeshed (10 min bike ride)
- VTA's BART Phase II Extension Alignment
- Existing VTA BRT Stops
- Existing VTA LRT Stops
- Existing Ford GoBike Stations

0 0.25 0.5 0.75 1 Miles

N

VTA's BART Phase II Extension - Downtown San José Station

Measures to Address Gaps in Transportation Network



LEGEND

- SJ — Downtown San José Station Access Route
- 0.5 Mile Walkshed (10 min walk)
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- VTA's BART Phase II Extension Alignment
- Existing Signalized Intersection
- Existing VTA BRT Stops
- Existing VTA LRT Stops
- Existing Ford GoBike Stations

- Pedestrian recommendation
- Bicycle recommendation
- Transit recommendation
- Connection or structure recommendation

*Project to be implemented by City of San José

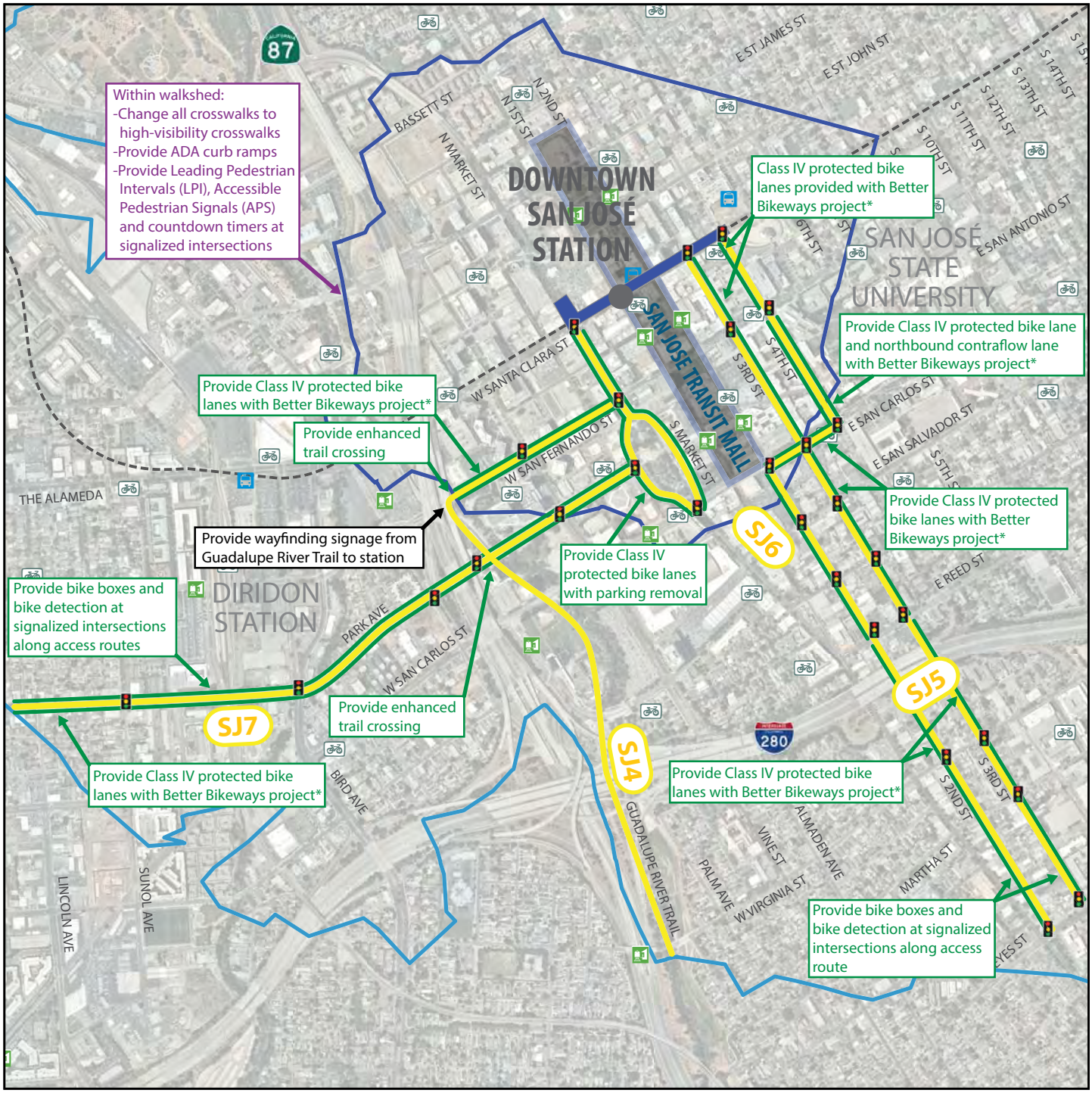
0 0.125 0.25 0.5 Miles

Key Map

N

VTA's BART Phase II Extension - Downtown San José Station

Measures to Address Gaps in Transportation Network



LEGEND

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- Pedestrian recommendation
- Bicycle recommendation
- Transit recommendation
- Connection or structure recommendation

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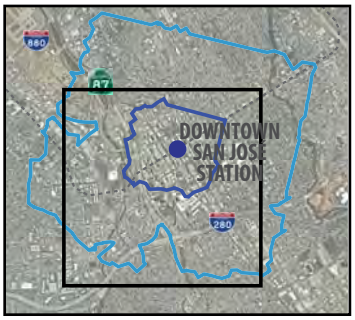
0 0.125 0.25 0.5 Miles

Key Map



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VTA's BART Phase II Extension - Downtown San José Station

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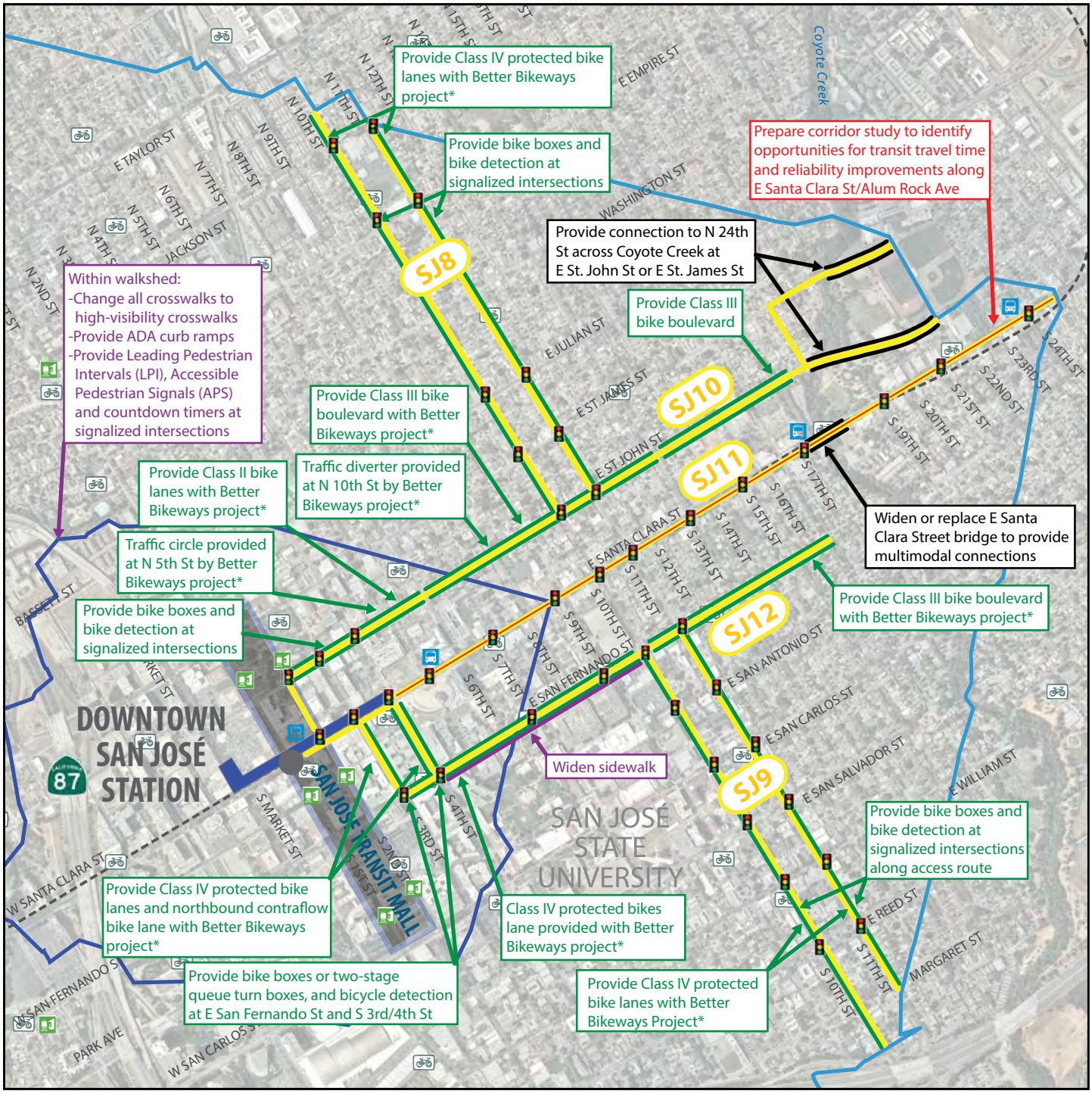

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- Transit recommendation
- Connection or structure recommendation

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0 0.125 0.25 0.5 Miles

Key Map

N

VTA's BART Phase II Extension - Santa Clara Station

Measures to Address Gaps in Transportation Network

LEGEND

0 0.25 0.5 0.75 1 Miles

- SC — Santa Clara Station Access Route
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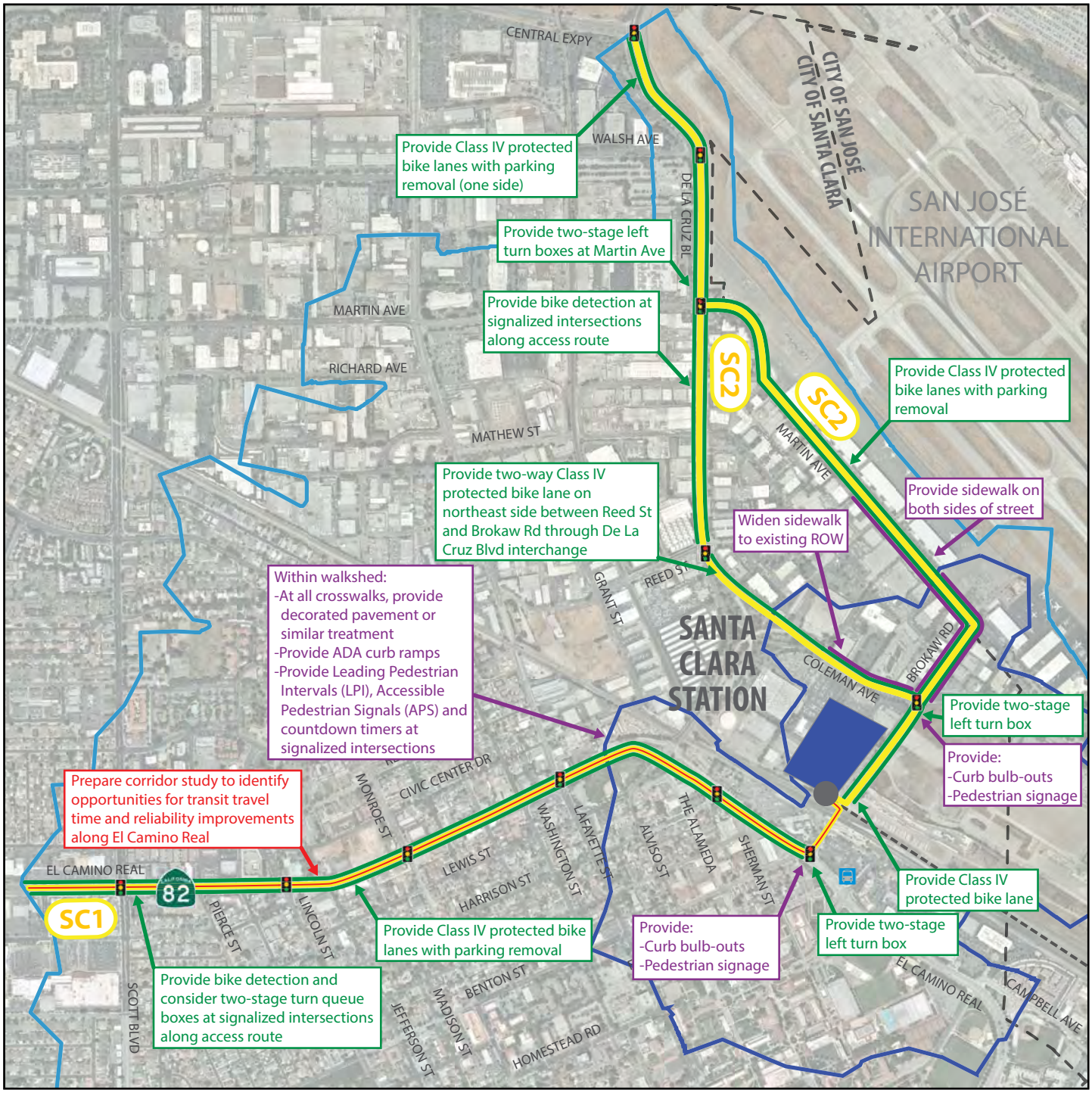

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- Pedestrian recommendation
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0 0.125 0.25 0.5 Miles

Key Map

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VTA's BART Phase II Extension - Santa Clara Station

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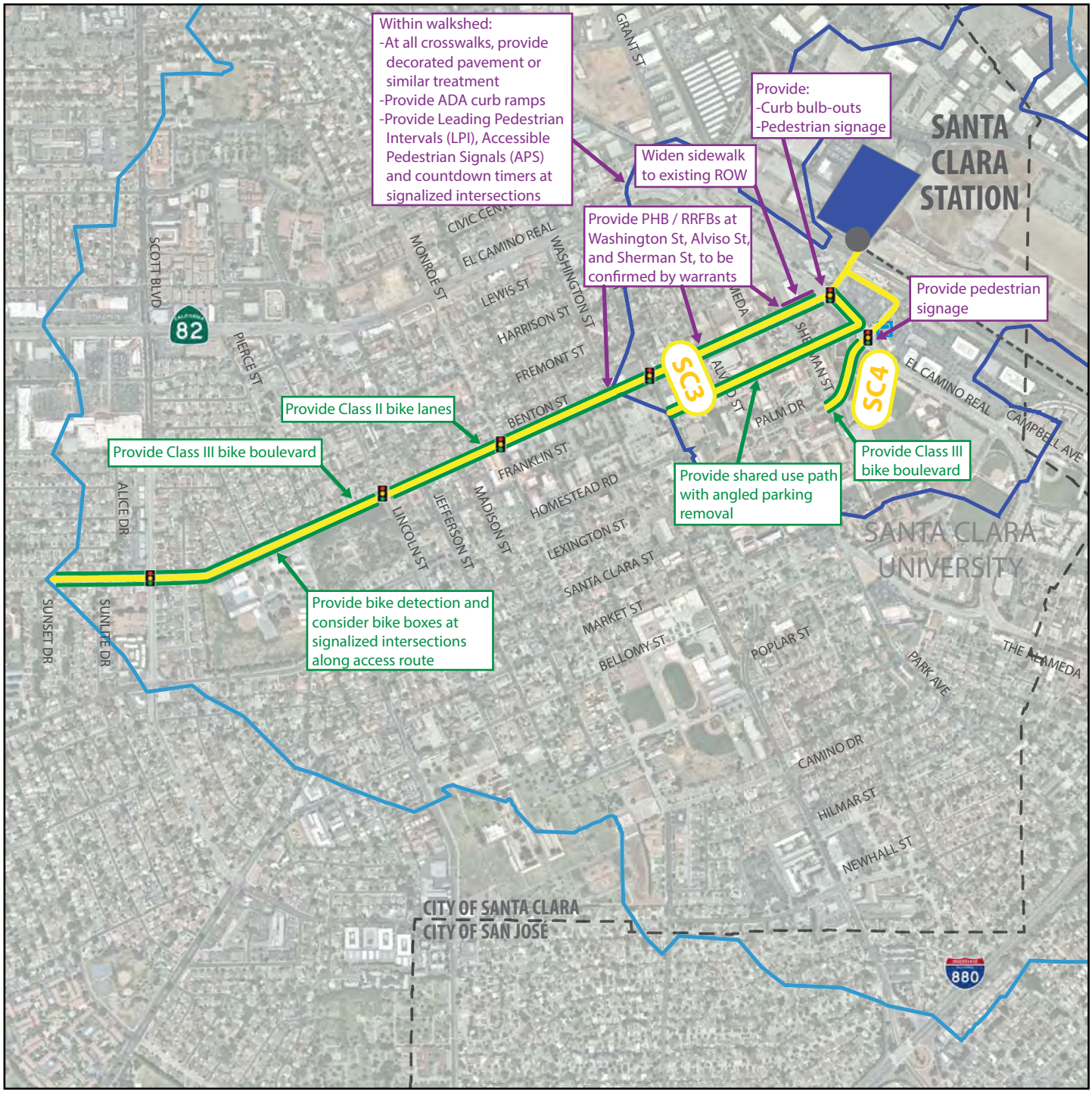

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0 0.125 0.25 0.5 Miles

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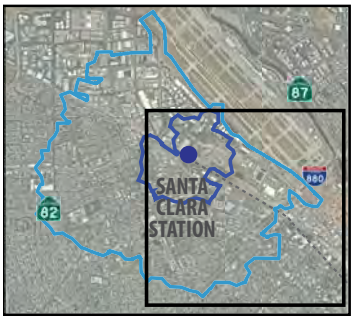

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