

# SANTA CLARA BICYCLE & PEDESTRIAN WAYFINDING

PROPOSAL FROM THE SUBCOMMITTEE OF THE SANTA CLARA BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE (BPAC)

OCTOBER 2019

DIANE HARRISON, KEN KRATZ, BRUCE DONOGHUE, THANH DO



Legend:

Ken  
Sept 19, 2019

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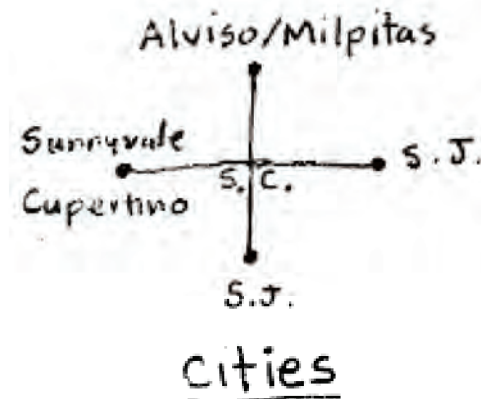
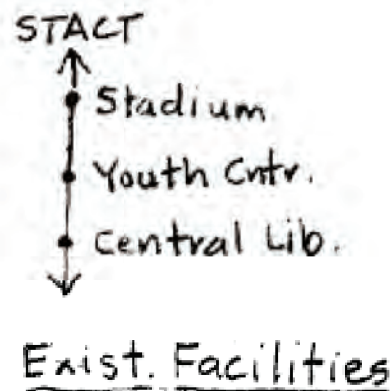
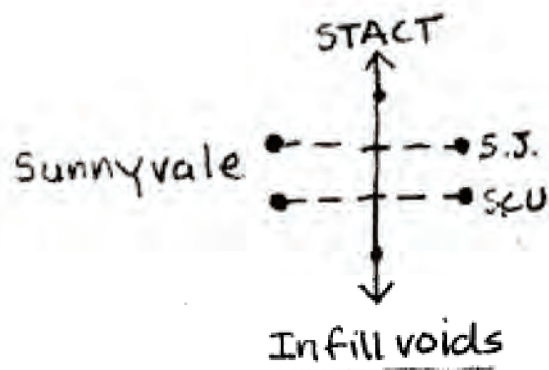
Great American  
Wayfinding Map

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Sept 19, 2019



# BASIS FOR SELECTIONS

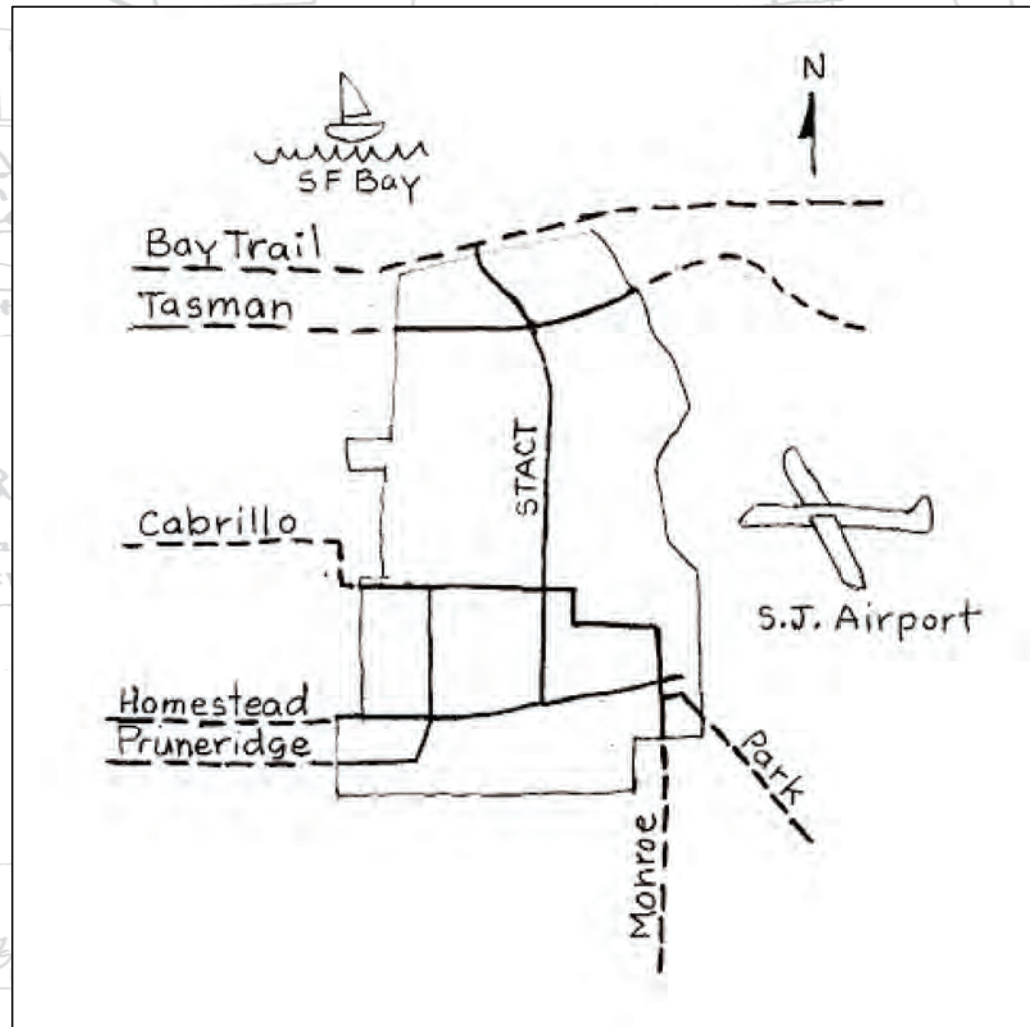
- Interconnect adjacent cities
- Create wayfinding on existing routes
- Infill voids in the system
- Connect primary community assets and facilities



Wayfinding Map

Ken  
Sept 19, 2019

# CITY WAYFINDING SYSTEM



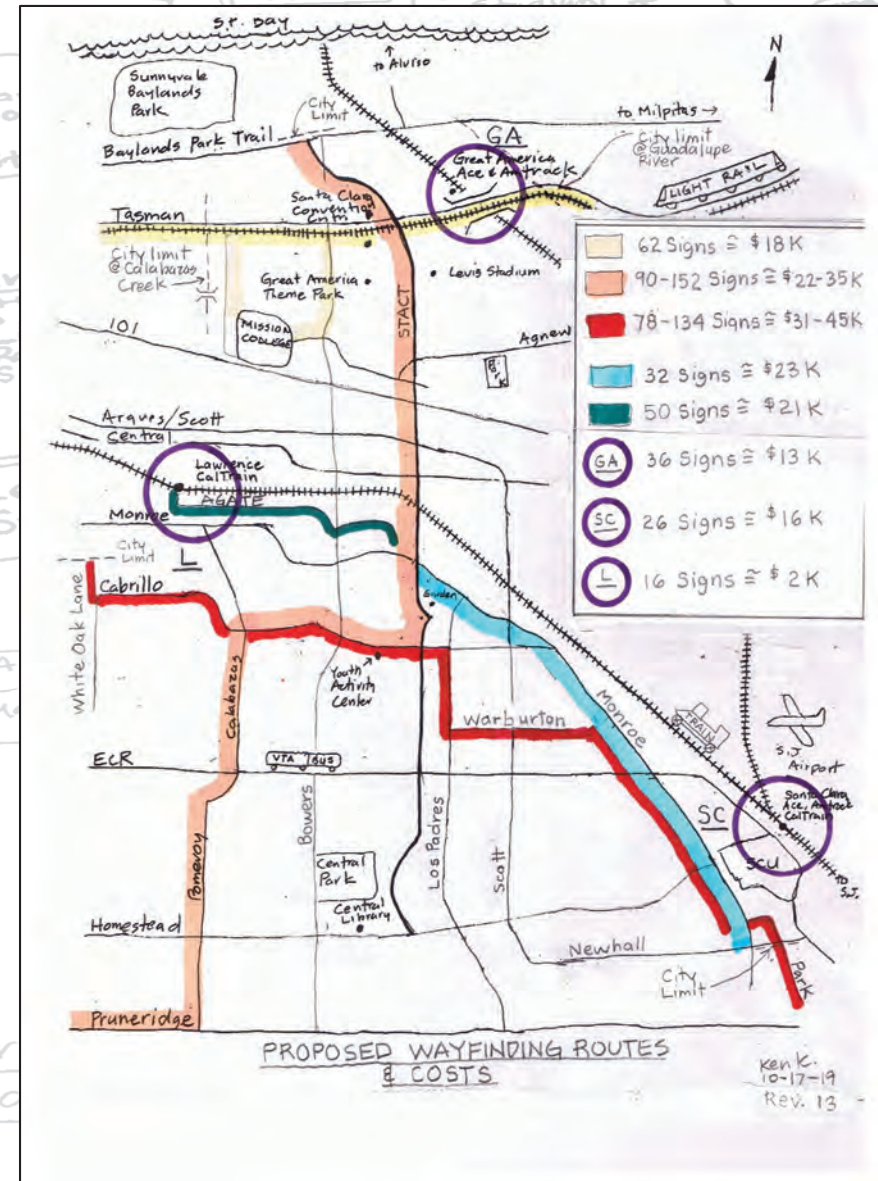
**Note:** CalTrain Station routes are not shown

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# ROUTES AND COSTS

- Range of routes cost from estimated 16 signs/\$2K to 152 signs/\$35K.
- Prioritize mini routes from transit stations @ Great America, Santa Clara and Lawrence CalTrain Stations.
- Prioritize cross-town connection from Sunnyvale to San Jose via Cabrillo Ave to Park Ave.

**Disclaimer:** Additional costs will be incurred when lane stripes and marking are installed on now blank suggested routes





# MINI ROUTES WAYFINDING

**Direction:** Varies

**Starts:** near Transit Stations

**Ends:** Various map destinations

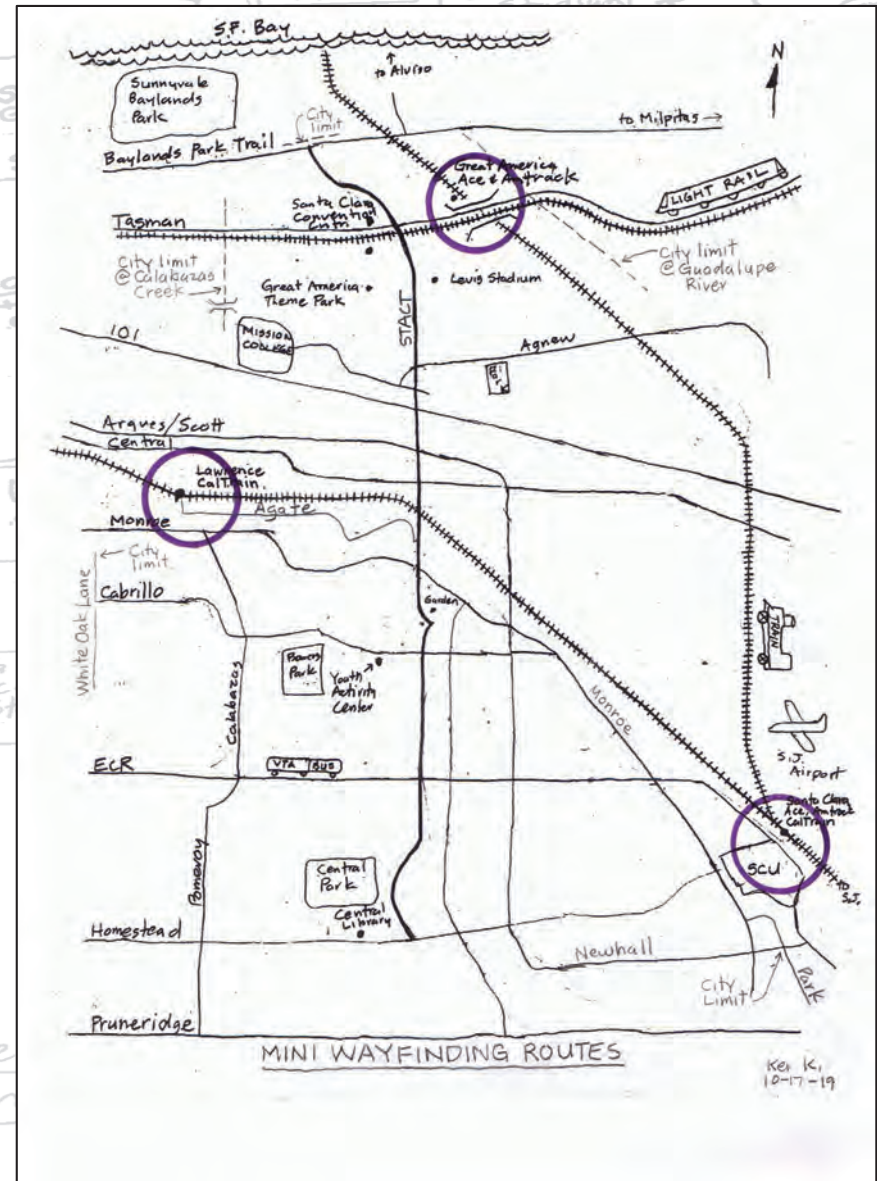
**Length:** Short

**# of Signs:** 16-36

**Estimated Costs:** \$2K - \$16K

**Highlights:**

- Closes last-mile gaps
- Santa Clara station to Santa Clara University
- Great America station to Levi's stadium/Mission College
- Lawrence Station to Agate Route



# CABRILLO ROUTE

**Direction:** West-East

**Starts:** White Oak Lane in Santa Clara, at the border of Sunnyvale

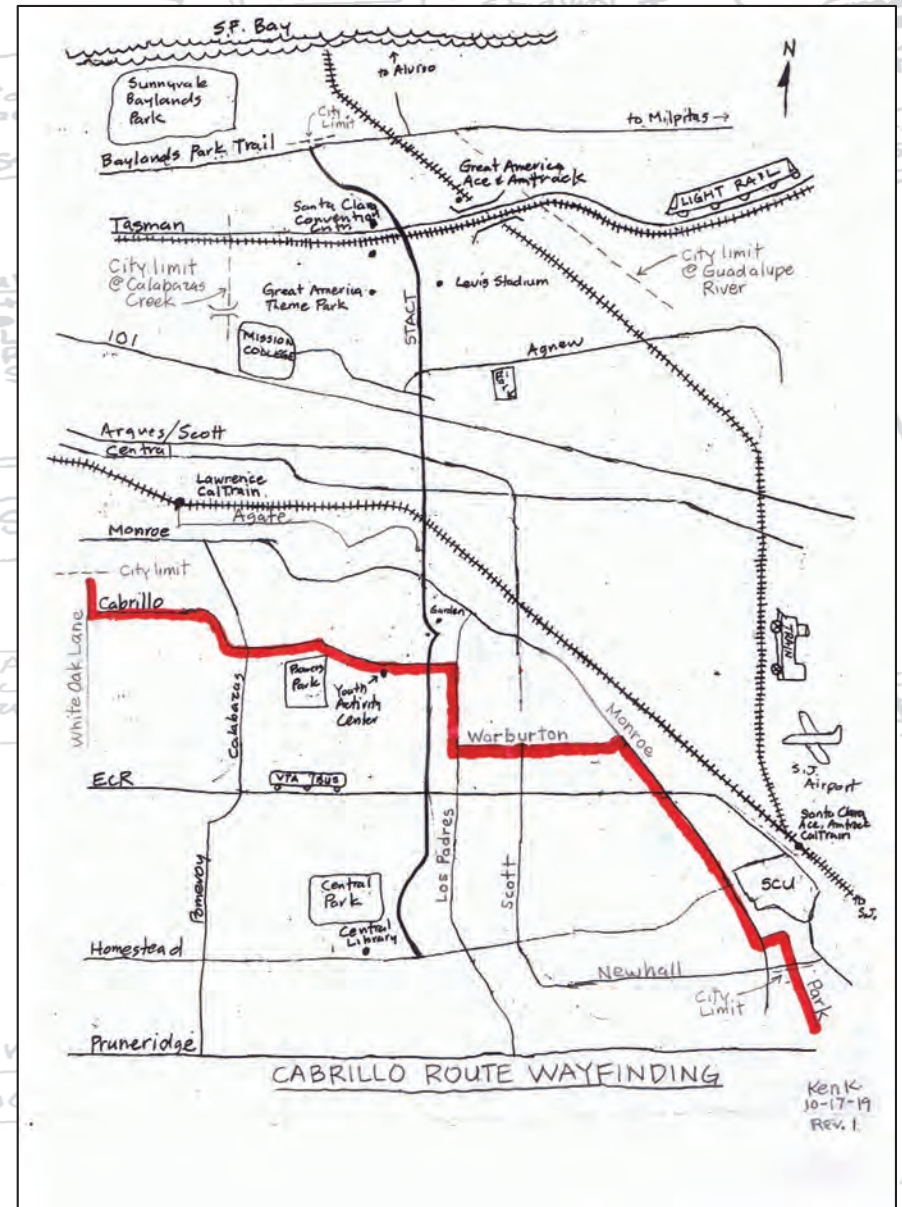
**Ends:** Park Ave in San Jose

**Length:** 6 miles

**# of Signs:** 78-134

**Estimated Costs:** \$32K-\$46K

**Highlights:** City Hall, Triton Museum, City parks, Schools, Library, Senior Center, Santa Clara University, US Post Office, Franklin Mall, Communities of Concern.





# SAN TOMAS AQUINO ROUTE

**Direction:** North-South

**Starts:** S.F. Bay Trail

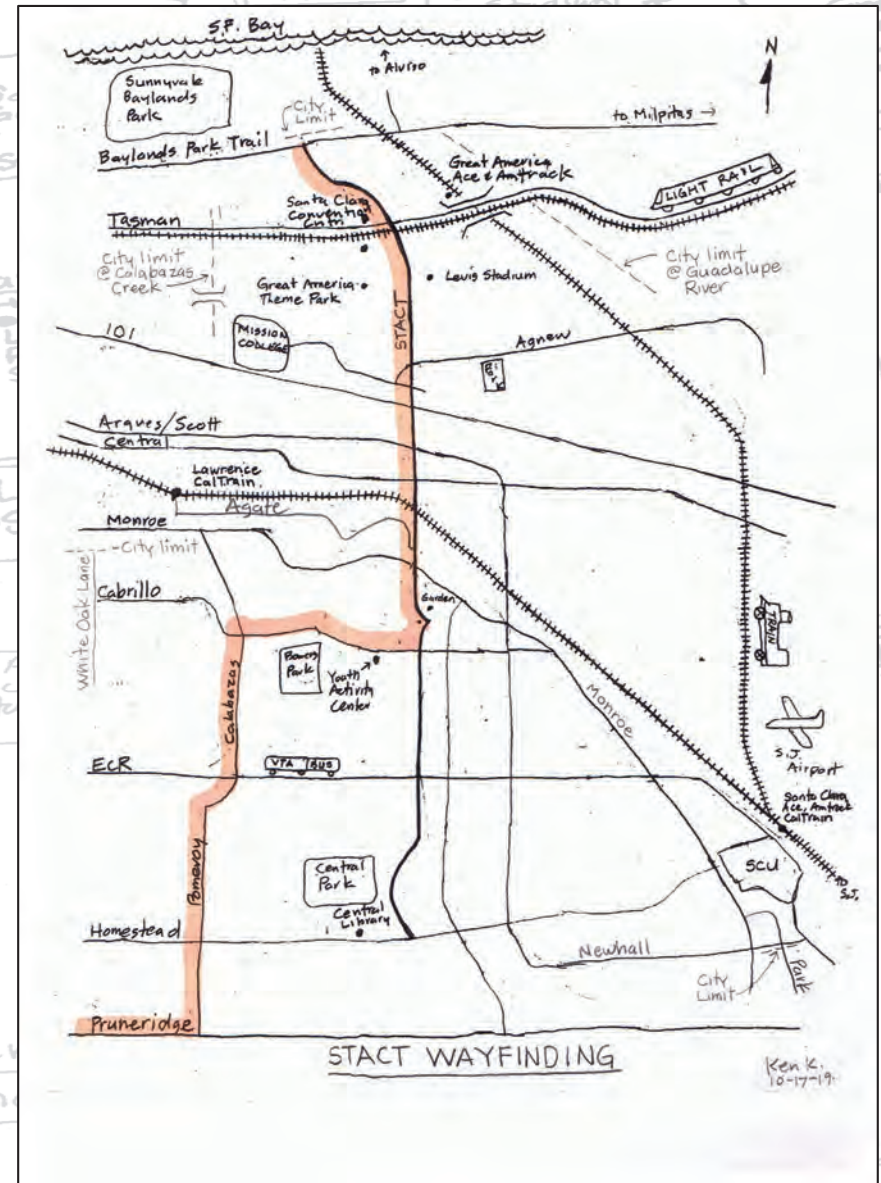
**Ends:** Pruneridge Ave in  
Cupertino

**Length:** 7 miles

**# of Signs:** 90-152

**Estimated Costs:** \$22-\$35K

**Highlights:** Connects schools,  
youth centers and employment  
centers





# AGATE ROUTE

**Direction:** West-East

**Starts:** French St at  
Lawrence CalTrain Station

**Ends:** STACT @ Monroe St

**Length:** 2 miles

**# of Signs:** 50

**Estimated Costs:** \$21K

**Highlights:** Directs bicycle  
traffic from Lawrence station  
to STACT, covers Community  
of Concern.



# MONROE ROUTE

**Direction:** West-East

**Starts:** Monroe St @ STACT

**Ends:** Newhall St. in San Jose

**Length:** 3 miles

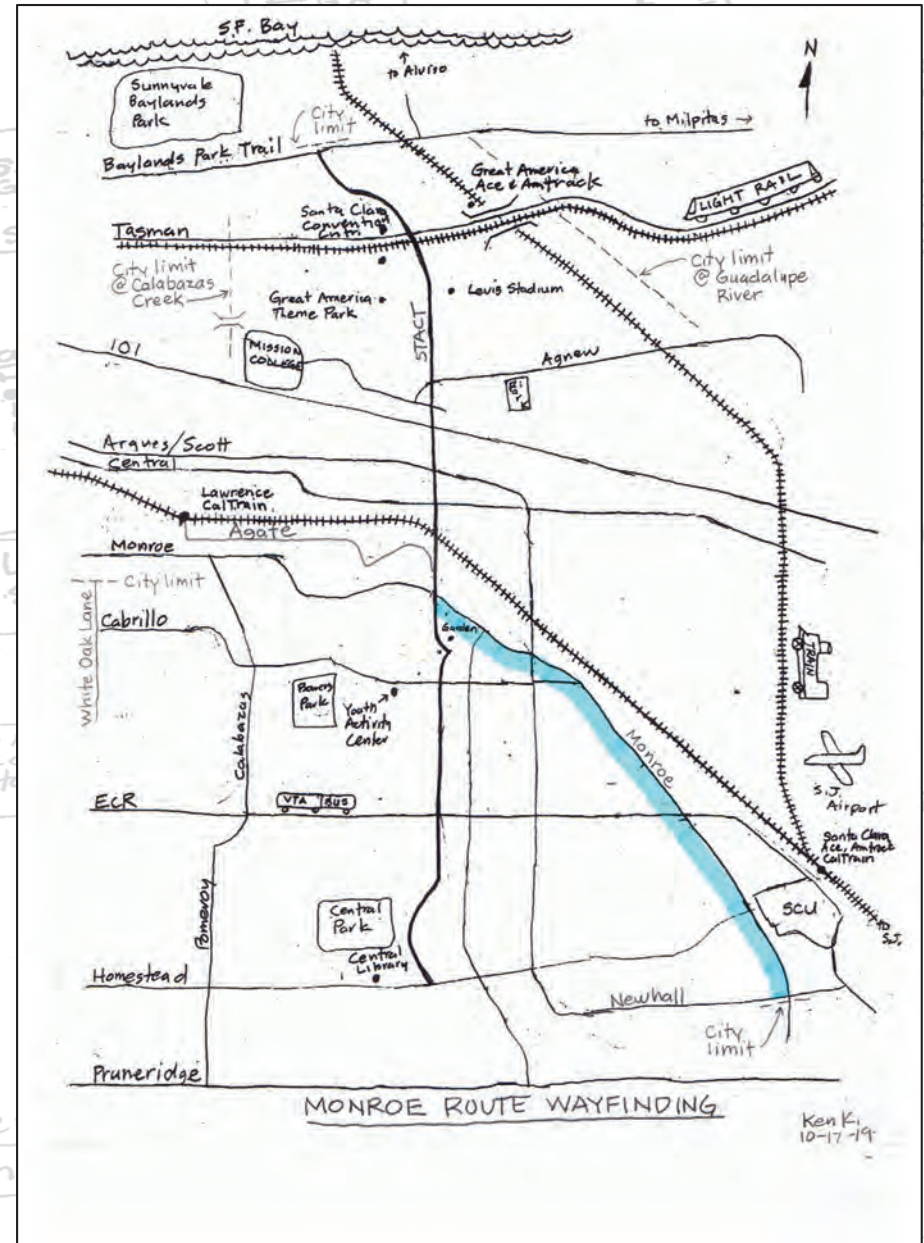
**# of Signs:** 32

**Estimated Costs:** \$23K

**Highlights:** Covers Community of Concern, Franklin Mall, old Santa Clara

## Legend:

- 1 sign on right side of pole





# TASMAN ROUTE

**Direction:** West-East

**Starts:** Tasman Drive @ Calabazas Creek Trail

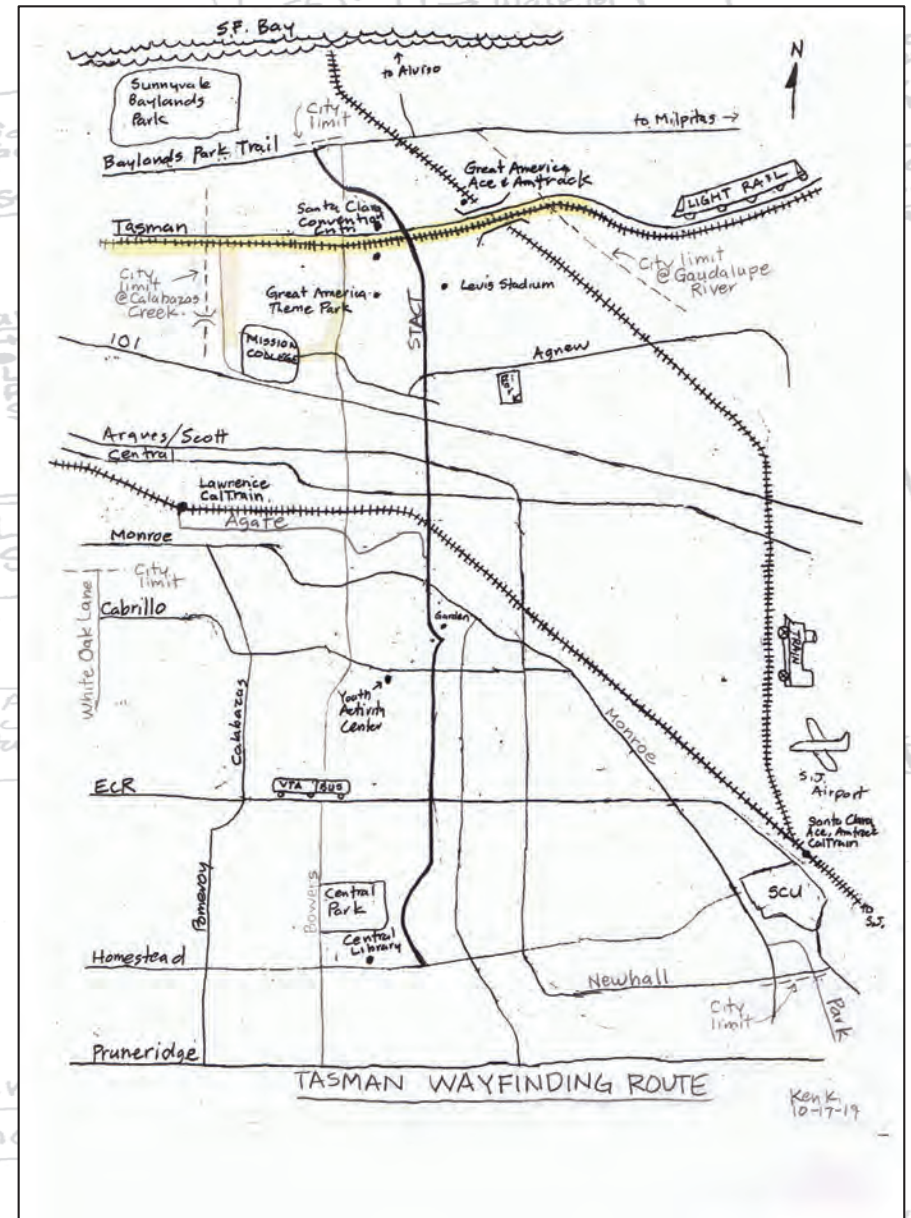
**Ends:** Guadalupe River Trail, San Jose

**Length:** 3 miles

**# of Signs:** 62

**Estimated Costs:** \$18K

**Highlights:** Links to bike lanes at San Jose and Sunnyvale borders, access to many city attractions, Mission College



# FUNDING SOURCES

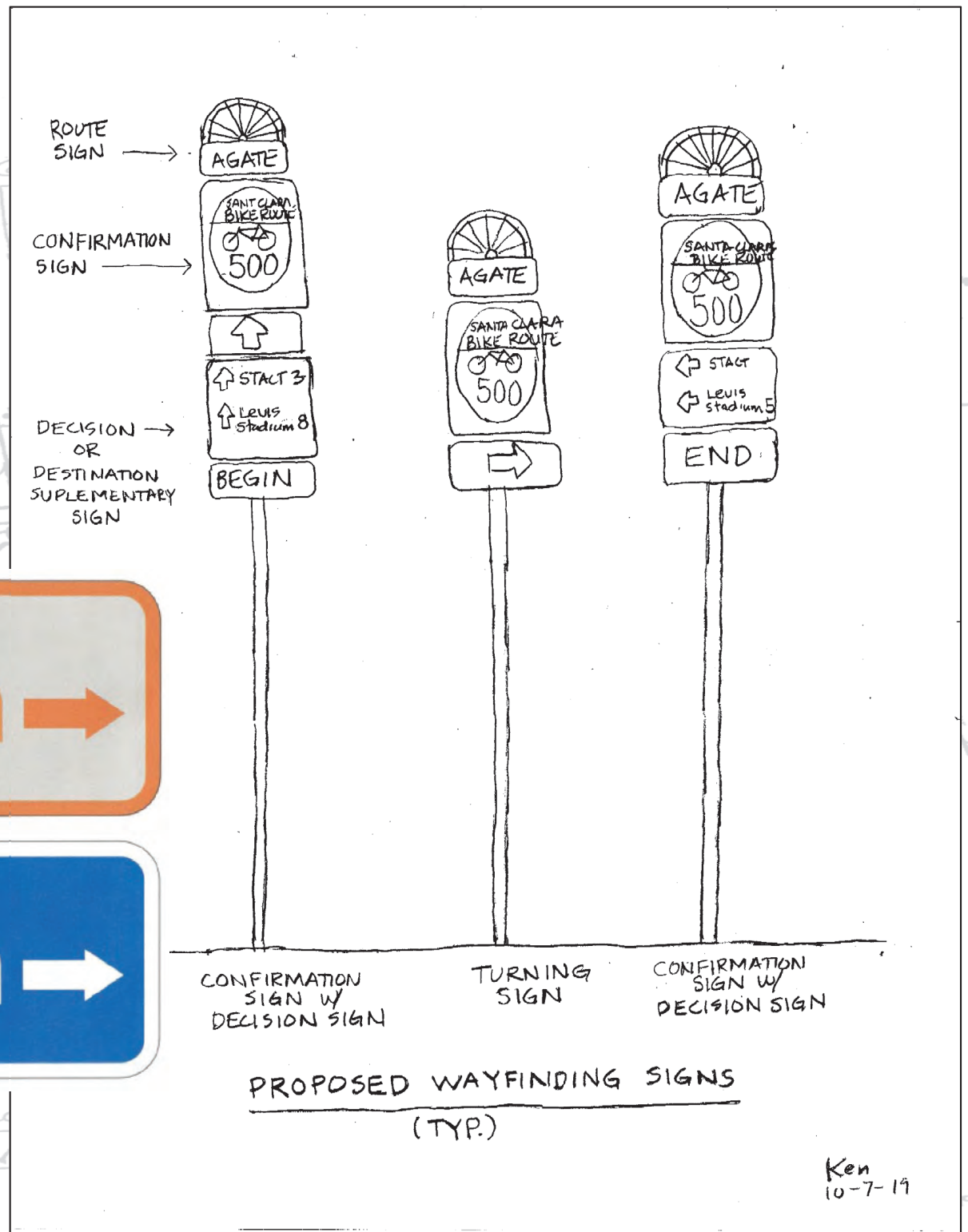
- Transportation Funds for Clean Air (with VTA funding; reduce vehicle emissions)
- Bicycle Facilities Grant Program (reduce vehicle emissions)
- One Bay Area Grant (with VTA funding; projects in Priority Development Areas)
- MTC: Regional Measure 3 (highway and transit projects)
- VTA: Measure B (maintenance, transit, and traffic safety)
- VERBS (vehicle emissions reduction at schools, Safe Routes to Schools program)
- TDA 3 (transportation development)
- CSC: Traffic Impact Fee (mitigate traffic impacts)
- Multi-modal Improvement Plan (City Place project, improve air and transport)

Great America Train Station  
Wayfinding Map

Ken  
Sept 19, 2019



# SIGN TYPES



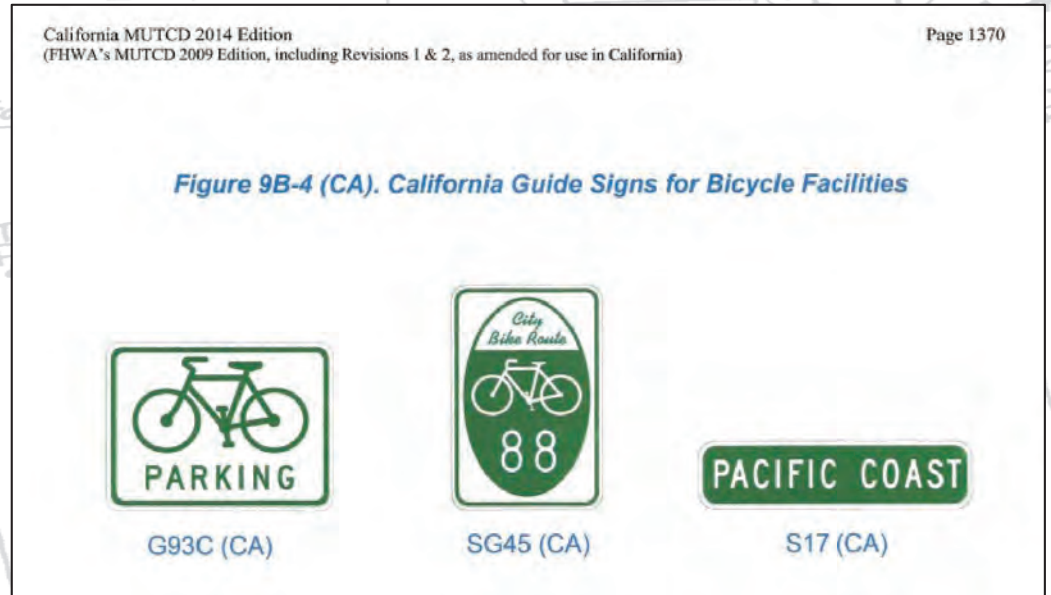
# RECOMMENDATIONS

## Priorities

1. Mini Routes around transit
2. Cabrillo Route to Park Ave
3. San Tomas Aquino Route
4. Agate Route to STACT
5. Monroe Route
6. Tasman Route

### Legend:

- 1 sign on right side of pole



Great mini  
Wayfinding Ma

Ken  
Sept 19, 2019




# APPENDIX

- Cost Estimate Summary
- Sign Study by Diane Harrison
- Base Map by Bruce Donoghue
- Single Line Maps by Ken Kratz
- Signage Visuals by Bruce Donoghue and Ken Kratz
- Funding Sources Expanded
- Community of Need Defined by Santa Clara Bike Plan Update 2018
- Santa Barbara Bicycle Coalition
- Link to Google Drive Appendix

Great America Train Station  
Wayfinding Map

Ken  
Sept 19, 2019

# COST ESTIMATE SUMMARY



Routes	Priority	Existing Poles	Additional Poles Requested	Total Poles	Total Signs Requested	Estimated Cost
Santa Clara CalTrain	1	7	6	13	26	\$15,960
Great America	1	15	3	18	36	\$12,810
Lawrence CalTrain	1	5	0	5	16	\$1,500
Cabrillo Route	2	30-58	9	39-67	78-134	\$31,170-\$45,150
San Tomas Aquino Route	3	43-74	2	45-76	90-152	\$22,400-\$35,420
Agate Route	4	19	6	25	50	\$21,000
Monroe Route	5	7	9	16	32	\$23,170
Tasman Route	6	28	3	31	62	\$18,270

## Legend:

**Disclaimer:** Additional costs will be incurred when lane stripes and marking are installed on now blank suggested routes

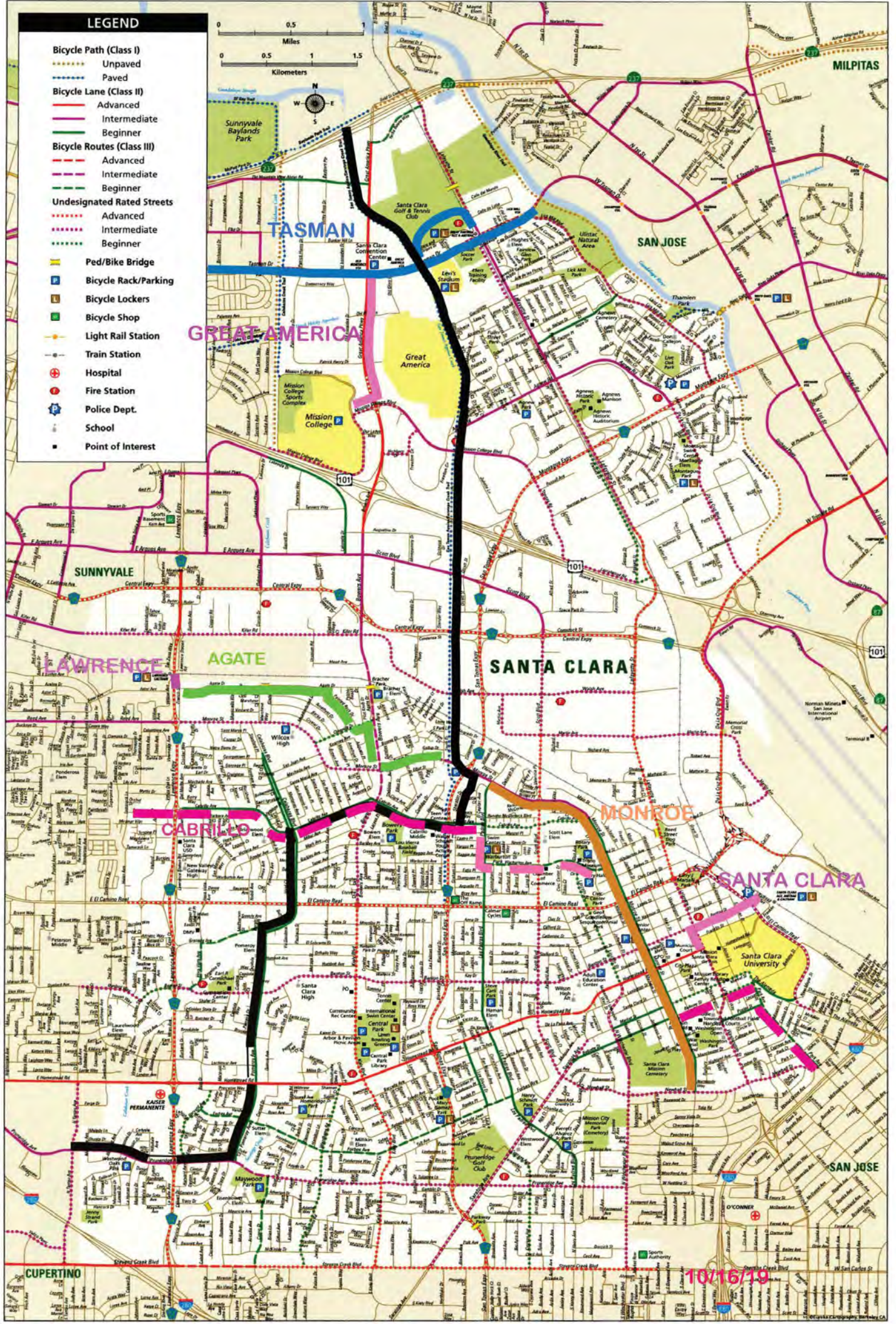
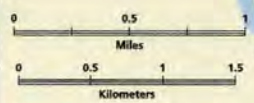
Source for Approximate Costs: p. 27 of [2014 Bicycle Wayfinding Proposal for the Santa Barbara Coast Communities](#) from Santa Barbara Bicycle Coalition

Ken  
Sept 19, 2019



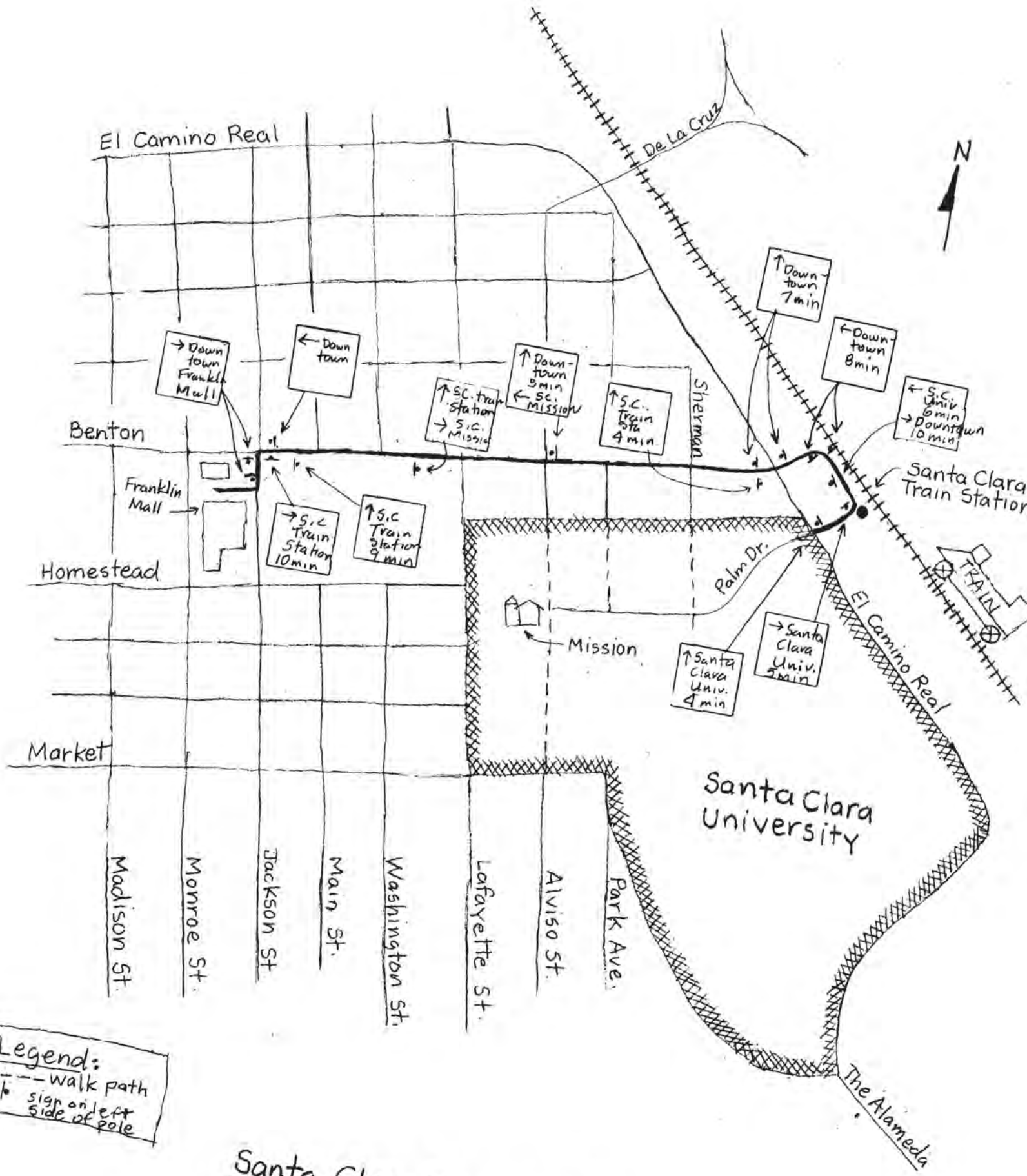
# LEGEND

- Bicycle Path (Class I)
  - Unpaved
  - Paved
- Bicycle Lane (Class II)
  - Advanced
  - Intermediate
  - Beginner
- Bicycle Routes (Class III)
  - Advanced
  - Intermediate
  - Beginner
- Undesignated Rated Streets
  - Advanced
  - Intermediate
  - Beginner
- Ped/Bike Bridge
- Bicycle Rack/Parking
- Bicycle Lockers
- Bicycle Shop
- Light Rail Station
- Train Station
- Hospital
- Fire Station
- Police Dept.
- School
- Point of Interest



10/16/19

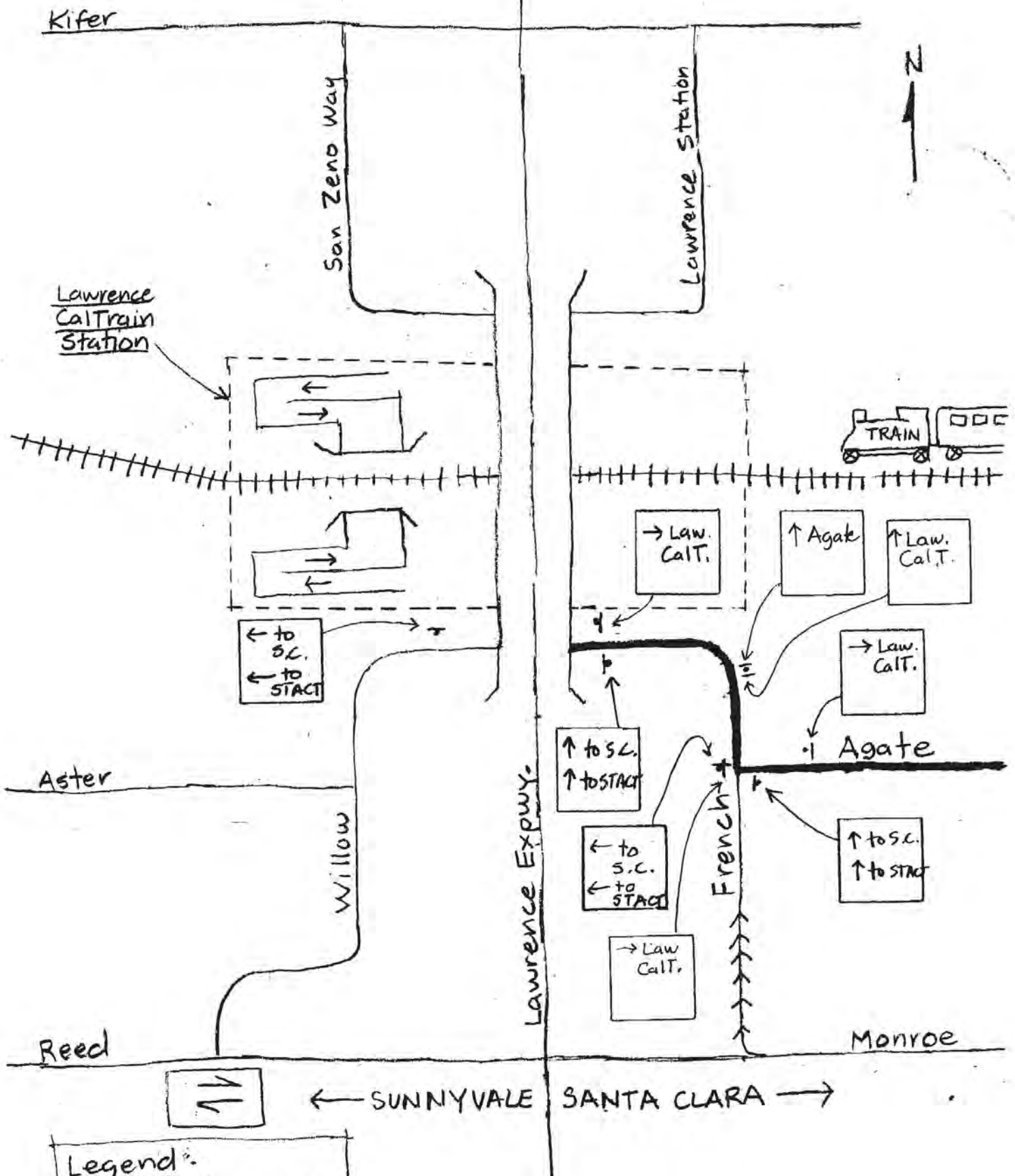




Santa Clara Train Station  
Wayfinding Map







Lawrence CalTrain  
Station  
Wayfinding Map

Ken K.  
Oct. 15, 2019





S.F. Bay



Sunnyvale  
Baylands  
Park

START  
↑ Lewis  
↑ M.C.  
↑ Prune  
START

to Alviso

START  
↔ Bay Trail  
END

START  
→ Train  
↑ Bay Trail

to Milpitas

Baylands Park Trail

CONV. CTR.

START  
→ Conv. Ctr.  
↑ Lewis  
↑ M.C.

Santa Clara  
Convention Ctr.

Great America  
Ace & Amtrak



Tasman

↑ M.C. ↑ M.C. → M.C.

Great America  
Theme Park

START  
→ M.C.  
← Park  
↑ Prune

Levis Stadium

START  
→ Lewis  
← Conv. Ctr.  
↑ Bay

Agnew

Mission College

START  
↑ YAL  
↑ Conv. Lib  
↑ Prune

START  
↔ Conv. Lib  
↑ YAL  
↑ Prune

Arques/Scott

Central

Lawrence  
CalTrain

Agate

Monroe

START  
← Pom  
School  
← Prune  
START  
→ H.S.

START  
↑ YAL  
↑ ECR  
↑ Prune

START  
→ YAL  
→ Prune  
↑ ECR

START  
↑ YAL  
↑ ECR  
↑ Prune

START  
↑ M.C.  
↑ Lewis  
↑ Conv. Ctr.

START  
↑ M.C.  
↑ Lewis  
↑ Conv. Ctr.

START  
↑ M.C.  
↑ Lewis  
↑ Conv. Ctr.

START  
↑ Pom  
School  
↑ Prune

START  
→ B.P.R.  
↑ Lewis  
↑ Conv. Ctr.

START  
→ YAL  
→ Lewis  
→ Bay Trail

START  
↑ Pom  
School  
↑ Prune

START  
→ YAL  
→ Lewis  
↑ Conv. Ctr.

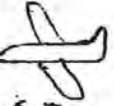
START  
→ YAL  
→ Lewis  
↑ Conv. Ctr.

START  
→ Lewis  
→ Conv. Ctr.  
→ Bay Trail

START  
↑ Lewis  
↑ Conv. Ctr.  
↑ Bay Trail

START  
↑ Lewis  
↑ Conv. Ctr.  
↑ Bay Trail

START  
→ Garden  
↑ Lewis  
↑ Bay Trail



S.J. Airport

Santa Clara  
Ace, Amtrak  
CalTrain

ECR

START  
← Pom  
School  
← Home  
← Prune

START  
↑ Pom  
↑ Home  
↑ Prune

START  
↔ Home  
↑ Prune  
↑ Sunny

Homestead

START  
↑ Sunny  
END

START  
→ Conv. Ctr.  
↑ Lewis  
↑ Conv. Ctr.

START  
↑ Conv. Ctr.  
↑ Lewis  
↑ Bay Trail

Central Lib.

Central Park

Central Library

SCU

SAN TOMAS AQUINO CREEK TRAIL  
WAYFINDING

Ken K.  
10-12-19

S.F. Bay

to Alviso

to Milpitas

Sunnyvale  
Baylands  
Park

Baylands Park Trail

Great America  
Ace & Amtrack

LIGHT RAIL

Tasman

Santa Clara  
Countryside

Great America  
Theme Park

Lewis Stadium

Mission  
College

Agnew

101

Arques/Scott  
Central

Lawrence  
Caltrain

Monroe

Cabrillo

Eck

Benton

Bomeroy

Homestead

Pruneridge

Calabazas

Barney  
Park

Youth  
Activity  
Center

Monroe  
bike  
trail

Bike Trail

Central  
Park

Central  
Library

Los Padres

Scott

Neuhall



S.J.  
Airport

Santa Clara  
Ace, Amtrak  
Caltrain

SCU

Monroe  
Valley  
Fair

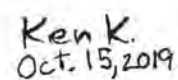
Monroe  
Valley  
Fair  
STREET

MONROE STREET  
WAYFINDING ROUTE

Valley Fair

Ken/K10.15-10







**Figure 9B-6. Example of Bicycle Guide Signing**

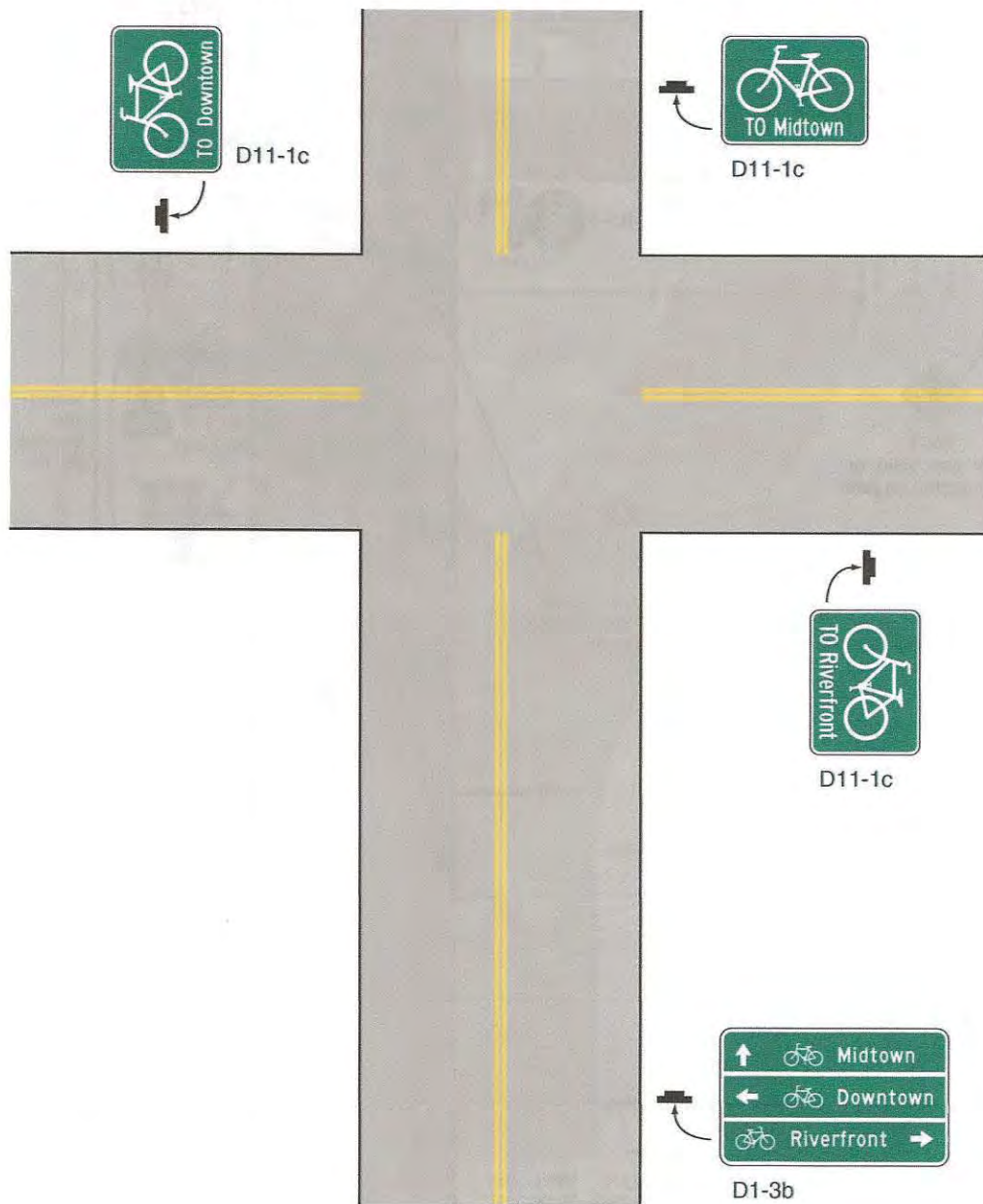
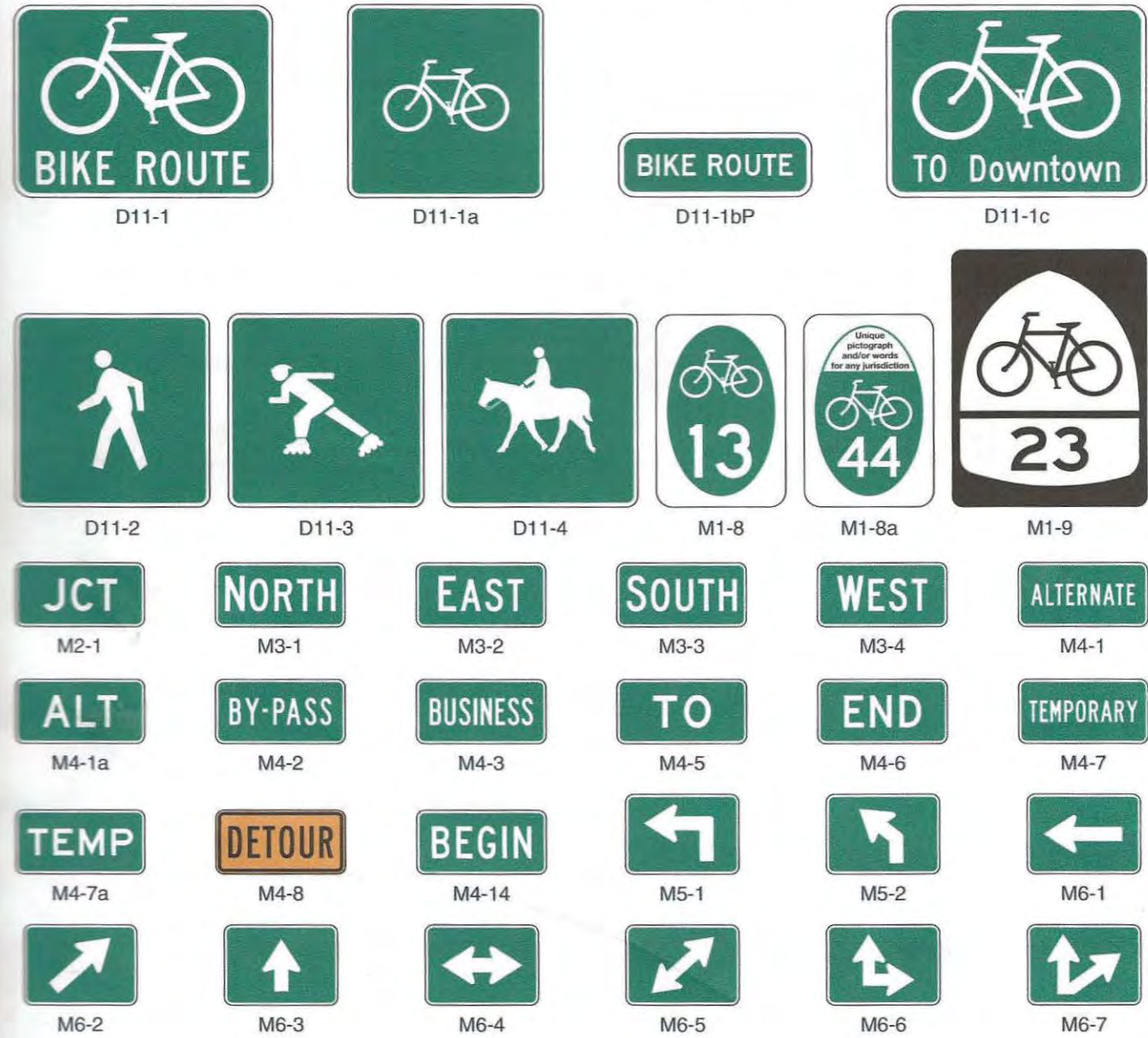




Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities (Sheet 2 of 2)



## Way-finding Routes - Sign Study

### Route 1 - Cabrillo (Sunnyvale to San Jose via Cabrillo & Monroe)

#### **Eastbound:**

Begin: Santa Clara city limit on White Oak Lane - Begin route **sign** - southbound

Left turn onto **Poinciana** - Left turn **sign** on White Oak Lane, confirmation **sign** on Poinciana  
Confirmation **signs**: **Cabrillo** after Lawrence Expwy, after Calabazas in combination with San Tomas Aquino route, before Bowers in combination with San Tomas Aquino route, before STACT/San Tomas Expwy  
Destination **signs** for: Wilcox High School (at Calabazas), Cabrillo Middle School, STACT (there already), Skate Park

Right turn onto **Los Padres** - right turn **sign** on Cabrillo, confirmation **sign** on Los Padres in combination with Los Padres route  
Destination **sign** for: Warburton Park

Left turn onto **Warburton** - combination **sign** on Los Padres with Los Padres route (left for Cabrillo route, straight for Los Padres route), confirmation **sign** on Warburton  
Confirmation **sign**: after Scott  
Destination **signs** for: Triton Museum & Rotary Park, City Hall

Right turn onto **Monroe** - right turn **sign** on Warburton, confirmation **sign** on Monroe  
Confirmation **signs**: before or after ECR, before Homestead  
Destination **signs** for: senior center, Mission Library (at Lexington)

Left turn onto **Bellomy** - combination **sign** on Monroe with Monroe route (left for Cabrillo route, straight for Monroe route), confirmation **sign** on Bellomy  
Destination **sign** for: Buchser Middle School

Left turn onto **Jackson** - left turn **sign** on Bellomy, confirmation **sign** on Jackson  
Right turn onto **Market** - right turn **sign** on Jackson, confirmation **sign** on Market  
Confirmation **sign**: before Lafayette St  
Destination **sign** for: SCU

Right turn onto **Park** - right turn **sign** on Market, confirmation **sign** on Park  
Confirmation **sign**: after Bellomy

End: **Park & Idaho** - End route **sign** with through arrow for downtown San Jose

Way-finding signs: 27                      Destination signs: 10                      Poles needed: 0

### Westbound:

Begin: **Park & Idaho** - Begin route **sign** on Park northbound.

Confirmation **sign**: after Bellomy

Destination **sign** for: SCU

Left turn onto **Market** - left turn **sign** on Park, confirmation **sign** on Market

Confirmation **sign**: after Lafayette St

Destination **sign** for: Mission Library (at Main)

Right turn onto **Monroe** - right turn **sign** on Market, confirmation **sign** on Monroe in

combination with Monroe route

Confirmation **signs**: before Homestead, before or after ECR

Destination **sign** for: senior center

Left turn onto **Warburton** - combination **sign** on Monroe with Monroe route (left turn for

Cabrillo route, straight for Monroe route), confirmation **sign** on Warburton

Confirmation **sign**: before or after Scott

Destination **signs** for: Triton Museum & Rotary Park, City Hall

Right turn onto **Los Padres** - right turn **sign** on Warburton, confirmation **sign** on Los Padres in

combination with Los Padres route

Destination **sign** for: Warburton Park

Left turn onto **Cabrillo** - combination **sign** on Los Padres with Los Padres route (left for

Cabrillo route, straight for Los Padres route), confirmation **sign** on Cabrillo.

Confirmation **signs**: after STACT/San Tomas Expwy in combination with San Tomas Aquino route, after Bowers in combination with San Tomas Aquino route, before Calabazas in

combination with San Tomas Aquino route (left for San Tomas Aquino route, straight for Cabrillo route), before Lawrence Expwy

Destination **signs** for: Skate Park, STACT (there already), Cabrillo Middle School, Wilcox High School (at Calabazas)

Right turn onto **White Oak Lane** - right turn **sign** on **Poinciana**, confirmation **sign** on White Oak, End Route **sign** at Santa Clara city limit with through arrow for downtown Sunnysvale

Way-finding signs: 23

Destination signs: 10

Poles needed: 1



Route 2 - San Tomas Aquino (Bay Trail to Cupertino via STACT & Calabazas & Pomeroy & Pruneridge)

**Southbound:**

Begin: Junction of Bay Trail & **STACT** - Begin route **sign** - northbound (though immediately loops south)

Confirmation **signs**: after Agnew, before Monroe in combination with Agate route (right for Agate, straight for San Tomas Aquino)

Destination **signs** for: each street exit (8), golf & tennis club, convention center & light rail, game day detour, Great America, Santa Clara Square Marketplace

Right turn onto **Cabrillo** - right turn **sign** on trail, confirmation **sign** on Cabrillo in combination with Cabrillo route

Confirmation **sign**: before or after Bowers in combination with Cabrillo route

Destination **signs** for: skate park, Cabrillo middle school, Wilcox High School (at Calabazas)

Left turn onto **Calabazas** - combination **sign** on Cabrillo with Cabrillo route (left for San Tomas

Aquino route, straight for Cabrillo route), confirmation **sign** on Calabazas (LH side)

Confirmation **sign**: before or after El Camino Real

Left turn onto **Pomeroy** - left turn **sign** on Calabazas, confirmation **sign** on Pomeroy

Confirmation **signs**: before or after Benton, before or after Homestead

Destination **signs** for: Pomeroy Elementary, Carmichael Park (right) & Santa Clara High (left) at Benton, Sutter Elementary, Maywood Park at Pruneridge

Right turn onto **Pruneridge** - right turn **sign** on Pomeroy, confirmation **sign** on Pruneridge

Confirmation **sign**: before or after Lawrence Expwy

Destination **sign** for: for Kaiser Hospital at Harvard Ave (note to take left at Lehigh)

End: Pruneridge & Meadow (or city line) - End route **sign** with through arrow for Cupertino

Way-finding signs: 17 (many of which are already in place)

Destination signs: 21

Poles needed: 1 (but can be paid for by Irvine?)

All right exit arrows should be 5-15 degrees off vertical

### Northbound:

Begin: **Pruneridge & Meadow** (or city line) - Begin route **sign** - eastbound

Confirmation **sign**: before or after Lawrence Expwy

Destination **sign** for: for Kaiser Hospital at Harvard Ave (note to take left at Lehigh)

Left turn onto **Pomeroy** - left turn **sign** on Pruneridge, confirmation **sign** on Pomeroy

Confirmation **signs**: before or after Homestead, before or after Benton

Destination **signs** for: Maywood Park at Pruneridge, Sutter Elementary, Carmichael Park (left) & Santa Clara High (right) at Benton, Pomeroy Elementary

Right turn onto **Calabazas** - right turn **sign** on Pomeroy, confirmation **sign** on Calabazas (LH side)

Confirmation **sign**: before or after El Camino Real

Destination **sign** for: Wilcox High School (at Cabrillo)

Right turn onto **Cabrillo** - right turn **sign** on Calabazas, confirmation **sign** on Cabrillo in combination with Cabrillo route

Confirmation **sign**: before or after Bowers in combination with Cabrillo route

Destination **signs** for: skate park, Cabrillo middle school

Left turn onto **STACT** - combination **sign** on Cabrillo with Cabrillo route (left for San Tomas Aquino route, straight for Cabrillo route), confirmation **sign** on trail

Confirmation **signs**: before Monroe in combination with Agate route (left for Agate, straight for San Tomas Aquino), before or after Agnew

Destination **signs** for: each street exit (8), golf & tennis club, convention center, game day detour, Great America, Santa Clara Square Marketplace

End: Junction of Bay Trail & STACT - End route **sign** with left arrow for Alviso/Milpitas/San Jose, right arrow for Sunnyvale/Mountain View

Way-finding signs: 17 (many of which are already in place)

Destination signs: 21

Poles needed: 1 (but can be paid for by Irvine?)

All left exit arrows should be 5-15 degrees off vertical

## Route 4 - Monroe (STACT to San Jose via Monroe)

### **Southbound:**

Begin: Junction of Monroe & STACT - Begin route **sign** - eastbound (though slowly turns south)

Confirmation **signs**: before Los Padres in combination with Los Padres route (right for Los Padres route, straight for Monroe route), before or after Scott, after Warburton in combination with Cabrillo route, before or after ECR, before Homestead, before Bellomy in combination with Cabrillo route (left for Cabrillo route, straight for Monroe route)

Destination **signs** for: Triton Museum & City Hall (at Warburton) (sign exists), senior center, Mission Library (at Lexington), SCU (at Santa Clara St.), Buchser Middle School (at Bellomy), cemetery (at Jonathan St.)

End: Newhall - End route **sign** with through arrow for San Jose & West Valley Mall

Way-finding signs: 7                      Destination signs: 5                      Poles needed: 0

### **Northbound:**

Begin: Newhall & Monroe - Begin route **sign** northbound on Monroe.

Confirmation **signs**: after Market in combination with Cabrillo route, before or after Homestead, before or after ECR, before Warburton in combination with Cabrillo route (left for Cabrillo route, straight for Monroe route), before or after Scott, after Los Padres in combination with Los Padres route

Destination **signs** for: Triton Museum & City Hall (at Warburton) (sign exists), senior center, Mission Library (at Lexington), SCU (at Santa Clara St.), Buchser Middle School (at Bellomy), cemetery (at Jonathan St.)

End: Junction of Monroe & STACT - End route **sign** with right & left arrows for STACT

Way-finding signs: 7                      Destination signs: 5                      Poles needed: 0



Route 5 - Agate (Lawrence Caltrain station to STACT Trail & Monroe via Agate Dr.)

**Eastbound:**

Begin: French St at Lawrence Expwy - Begin route **sign** eastbound

Left turn onto **Agate** - left turn **sign** on French, confirmation **sign** on Agate

Confirmation **sign**: before bridge over Calabazas creek

Right turn onto **Painted Rock** - right turn **sign** on Agate, confirmation **sign** on Painted Rock

Left turn onto **Chromite** - left turn **sign** on Painted Rock, confirmation **sign** on Chromite

Confirmation **sign**: after street becomes South Drive

Destination **sign** for: Bracher Park (left) & School (right) (at Alhambra)

End: **South Drive & Monroe** - End route **sign** with left arrow (or U-turn arrow) for STACT northbound, left then right arrow for STACT southbound. May need an extra **sign** or two to direct riders onto sidewalk for northbound, onto diagonal crosswalk for southbound.

Way-finding signs: 10+      Destination signs: 1      Poles needed: 5

**Westbound:**

Begin: **STACT Trail & Monroe** - Two Begin route **signs** - one on southbound STACT westbound, one on northbound STACT continuing northbound across intersection, then westbound

Right turn onto **South Drive** - right turn **sign** on Monroe (visible from STACT), confirmation **sign** on South Drive

Confirmation **sign**: after street becomes Chromite

Destination **sign** for: Bracher Park (right) & School (left) (at Cortez)

Right turn onto **Painted Rock** - right turn **sign** on Chromite, confirmation **sign** on Painted Rock

Left turn onto **Agate** - left turn **sign** on Painted Rock, confirmation **sign** on Agate

Confirmation **sign**: before bridge over Calabazas creek

Right turn onto **French** - right turn **sign** on Agate, confirmation **sign** on French

End: French St. at Lawrence Expwy - End route **sign** with right arrow for Lawrence Caltrain station, through arrow for Sunnyvale

## FUNDING SOURCES:

Federal: DHCD: Affordable Housing and Sustainable Communities Program (*connectivity*)

State: CDPFR.: Recreational Trails Program (*maintenance and new facilities for trails*)

CTC: California Active Transportation Program (*shifting trips to walking and cycling*)

Congested Corridors Program (*change travel behavior, reduce vehicle miles*)

Local Partnership Program, SB 1 (*bicycle and pedestrian improvements*)

CalTrans: Sustainable Transportation Planning Grants (*funds studies and design work*)

Highway Safety Improvement Program (*addresses safety challenges*)

CNRA: Cultural, Community, and Natural Resources Grant Program (*trail improvements*)

Urban Greening Grants (*urban trails between home, work, school, commercial*)

Local: BAAQMD:

Transportation Funds for Clean Air (*with VTA funding; reduce vehicle emissions*)

Bicycle Facilities Grant Program (*reduce vehicle emissions*)

One Bay Area Grant (*with VTA funding; projects in Priority Development Areas*)

MTC: Regional Measure 3 (*highway and transit projects*)

VTA: Measure B (*maintenance, transit, and traffic safety*)

VERBS (*vehicle emissions reduction at schools, Safe Routes to Schools program*)

TDA 3 (*transportation development*)

CSC: Traffic Impact Fee (*mitigate traffic impacts*)

Multi-modal Improvement Plan (*City Place project, improve air and transport*)

Private/Public partnerships:

Chamber of Commerce: (*programs?*)

Silicon Valley Leadership Group: (*programs ?*)

Source: Compiled from City of Santa Clara Bicycle Plan Update 2018