Santa Cruz County Regional Transportation Commission's

BICYCLE ADVISORY COMMITTEE

SPECIAL MEETING
AGENDA

Monday, November 16, 2020

6:00 pm to 8:30 pm

NOTE: TELECONFERENCE
Join the online meeting to see presentations:
https://us02web.zoom.us/j/85302656676?pwd=V01GdXR2RDhNZ3dhT0E1dENSdTRIdz09
Online meeting ID: 853 0265 6676
Password: 514161
Dial-in: +1 669 900 9128

Members of the public may not attend this meeting in person. Comments and questions may be shared with the Committee through teleconference audio in real time, or by prior written submission to ttravers@sccrtc.org.
This meeting is being held by teleconference in accordance with the Brown Act as currently in effect under the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20, which allow local board and committee members and the public to participate and conduct meetings by teleconference, videoconference, or both. View full executive order.

COMMITTEE MEMBERSHIP

Member	Alternate	Representing
Grace Voss	Janneke Strause	District 1
Shea Johnson	Casey Beyer	District 2
Peter Scott	Sally Arnold	District 3
Anna Kammer	Vacant	District 4
Rick Hyman	Theresia Rogerson	District 5
Mike Moore	Vacant	City of Capitola
Matt Farrell	Bruce Sawhill	City of Santa Cruz
Richard Masoner	Vacant	City of Scotts Valley
Murray Fontes	Drew Rogers	City of Watsonville
Amelia Conlen, Chair	Matt Miller	Ecology Action/Bike To Work
Leo Jed	Jim Langley	Comm. Traffic Safety Coalition

The majority of the Committee constitutes a quorum for the transaction of business.

1. Call to Order

2. Introductions

3. Announcements – RTC staff

4. Oral communications – members and public

The Committee will receive oral communications during this time on items not on today's agenda. Presentations must be within the jurisdiction of the Committee and may be limited in time at the discretion of the Chair. Committee members will not take action or respond immediately to any Oral Communications presented, but may choose to follow up at a later time, either individually, or on a subsequent Committee agenda.

5. Additions or deletions to consent and regular agendas

CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the Committee or public wishes an item be removed and discussed on the regular agenda. Members of the Committee may raise questions, seek clarification or add directions to Consent Agenda items without removing the item from the Consent Agenda as long as no other committee member objects to the change.

6. Approve draft minutes of the August 10, 2020 Bicycle Advisory Committee meeting

7. Accept summary of hazard reports

8. Bicycle Route Signage Project update – Tommy Travers, RTC Transportation Planner

REGULAR AGENDA

9. Transit Corridor Alternatives Analysis and Rail Network Integration Study performance measure analysis and proposed locally preferred alternative - review and provide input – Ginger Dykaar, RTC Sr. Transportation Planner, Brianna Goodman, Transportation Planner, Shannon Munz, Communications Specialist, Luis Mendez, Deputy Director

10. Highway 9 complete streets planning update – Tommy Travers, RTC Transportation Planner

11. Updates related to Committee functions – Committee members (oral updates)

12. Adjourn

NEXT MEETING: The next Bicycle Committee meeting is scheduled for December 14, 2020 from 6:00pm to 8:30pm **via teleconference**.

HOW TO REACH US

Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue, Santa Cruz, CA 95060
phone: (831) 460-3200 / fax (831) 460-3215
email: info@sccrtc.org / website: www.sccrtc.org

AGENDAS ONLINE

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Santa Cruz County Regional Transportation Commission's

BICYCLE ADVISORY COMMITTEE

DRAFT MINUTES

Monday, August 10, 2020
6:00 pm to 8:30 pm

Teleconference

1. Call to Order: Chair, Amelia Conlen called the meeting to order at 6:05 pm.

2. Introductions

Members Present:
Amelia Conlen, Bike-to-Work, Chair
Grace Voss, District 1
Janneke Strause, District 1 (Alt.)
Casey Beyer, District 2 (Alt.)
Peter Scott, District 3
Sally Arnold, District 3 (Alt.)
Anna Kammer, District 4
Rick Hyman, District 5
Theresia Rogerson, District 5 (Alt.)
Matt Farrell, City of Santa Cruz
Richard Masoner, City of Scotts Valley
Murray Fontes, City of Watsonville
Drew Rogers, City of Watsonville (Alt.)
Leo Jed, CTSC

Unexcused Absences:

Excused Absences:
Shea Johnson, District 2
Michael Moore, City of Capitola
Bruce Sawhill, City of Santa Cruz (Alt.)
Jim Langley, CTSC (Alt.)
Matt Miller, Bike-to-Work (Alt.)

Vacancies:
District 4 – Alternate
City of Capitola – Alternate
City of Scotts Valley – Alternate

Staff:
Tommy Travers, Transportation Planner
Rachel Moriconi, Senior Transportation Planner
Amy Naranjo, Transportation Planner

Guests:
Ingrid McRoberts, Caltrans
Audrey Ogden, Caltrans
Terri Persons, Caltrans

3. Announcements – none

4. Oral communications – Sally Arnold announced that the Friends of the Rail & Trail has launched a new campaign for transforming transportation called Coast Connect (coastconnect.org). Gina Cole announced Bike Santa Cruz County's Bike Match program facilitating bicycle donations to essential workers

(bikesantacruzcounty.org/bikematch). Theresia Rogerson announced that the County Health Services Agency is planning on a grant application to the state's Active Transportation Program for several "traffic gardens" in the Watsonville area. Drew Rogers announced that Mountain Bikers of Santa Cruz will install a pump track in Watsonville.

5. Additions or deletions to consent and regular agendas – none

CONSENT AGENDA

A motion (Hyman/Farrell) was made to approve the consent agenda. The motion passed unanimously with members Conlen, Voss, Beyer, Scott, Kammer, Hyman, Farrell, Masoner, Fontes, and Jed voting in favor.

6. Approved draft minutes of the June 8, 2020 Bicycle Advisory Committee meeting

7. Accepted summary of hazard reports

8. Approved recommendation to the RTC to approve City of Watsonville's Transportation Development Act (TDA) allocation request for $337,920 for MBSST Segment 18 Phase 1 construction project

9. Accepted letters of support from the Bicycle Advisory Committee for grant applications by:
    a. County of Santa Cruz for Highway 152/Holohan intersection project
    b. City of Santa Cruz for Swanton Delaware Multiuse Path project
    c. City of Santa Cruz for MBSST Segment 7 Phase 2
    d. City of Santa Cruz for MBSST Segment 8/9

10. Accepted informational item: Highway 1 Program Update to RTC

REGULAR AGENDA

11. Caltrans District 5 Active Transportation Plan review and provide input – Ingrid McRoberts, Audrey Ogden, and Terri Persons, Caltrans staff, presented the current status of the development of the draft Plan. They described the goal to triple bicycling rates, double walking rates, and double public transit rates, and the focus on social equity and partnership with local groups. Delivery of the final draft Plan is expected in late fall 2020 and will now include a public webpage with a more extensive collection of "story maps" to describe and visualize conditions and recommendations. Information from existing plans from local jurisdictions and other input from local Partner Teams as well as public input have been collected, and the next step is the final compilation and mapping of all the sources. Prioritization of needs based on the four goals of mobility, equity, preservation, and safety, with new emphasis on equity, will result in the preliminary draft Plan, which will then have another review by local Partner Teams. Caltrans staff stated they would work with Watsonville to review the city's new complete streets plans from late 2019 for inclusion in the draft plan. Committee member(s) asked if the project team is identifying wide highway shoulders as bicycle facilities or as a gap in bicycling infrastructure, and staff responded it would be a gap. Members also asked about

consideration of "parklets" on state highways and discussed the sharing of Watsonville's collision data with Caltrans.

12. Draft Project List for the 2045 Regional Transportation Plan review and provide input – Amy Naranjo, RTC Transportation Planner, presented the preliminary draft Project List for the next update of the state-mandated long-range Regional Transportation Plan (RTP) for the county. The Project List describes transportation projects that local agencies plan to pursue. The preliminary draft Project List includes new and updated projects as compared to the previous version of the RTP, and staff is seeking input from the Committee particularly regarding bicycle-related projects or if there are projects missing from the list. This first list will be considered by the RTC in September 2020. Eventual prioritization of the constrained list of projects, or those expected to be funded, will be based on how each project advances the goals and targets of the RTP. Staff clarified for committee members that only projects ultimately sponsored by a qualified local jurisdiction or organization may be on the list, and that project recommendations from the 2021 County Active Transportation Plan will be able to be amended to the RTP in the case that the final Project List is already approved before the Active Transportation Plan recommendations are made.

13. Measure D 5-Year Plans review and provide input – Rachel Moriconi, RTC Senior Transportation Planner, presented a history and description of the 2016 countywide ½-cent transportation sales tax Measure D, including a summary of each of the funding categories defined by the measure. Each year, the RTC and local transportation agencies produce a 5-Year Plan showing how they plan to use Measure D funding over the next five years. She requested input and recommendations from the committee on proposed distribution of funds for regional categories and projects, including the Monterey Bay Sanctuary Scenic Trail Network (MBSST), Highway Corridors, Highway 9/San Lorenzo Valley (SLV), and Rail Corridor. In response to questions from committee members, she provided updates on sections of the rail trail and of safety improvements for pedestrians and bicyclists near the San Lorenzo Valley Schools campus. Member(s) suggested that in light of the current economy, staff consider prioritizing shorter-term projects that are more certain to be completed and meet state and federal grant program criteria so as to maximize outside funding. Staff responded that the RTC's proposed Measure D 5-year plan updates and Strategic Implementation Plan do focus on getting projects shovel-ready and providing matching funds in order to leverage grants for construction work.

    A motion (Hyman/Jed) was made to recommend that the RTC approve the bicycle-related projects in the Measure D 5-Year Plans. The motion passed with members Conlen, Voss, Arnold, Kammer, Hyman, Farrell, Masoner, Fontes, and Jed voting in favor. Beyer voted against the motion suggesting bike elements should not be de-connected from other parts of the Measure D program.

14. County of Santa Cruz Active Transportation Plan update and provide input – Amelia Conlen, BAC Chair/Ecology Action, introduced the kickoff of development of a new Active Transportation Plan for unincorporated Santa Cruz County, focusing on the urban service areas. The first stage of public input collection begins now and asks community members for walking or bicycling barriers and safe places in an interactive web map format. Public input collection had been delayed due to COVID-19 but there will be limited in-person outreach as well as further online outreach in fall 2020 for the draft Plan. Ms. Conlen presented maps and collected input from many Committee members on the locations of the unincorporated county where

there are barriers to bicycling. Many locations and issues were discussed, generally being high vehicle speeds, vehicles cutting corners, insufficient width of and poor maintenance of bike lanes and shoulders, and lack of crosswalks.

15. Highway 152/Holohan Road intersection project – Amelia Conlen, BAC Chair, and Anna Kammer, BAC District 4 Representative (oral update), discussed that meetings and emails with County staff resulted in green-paint bicycle facility improvements being included in the plans for the Highway 152/Holohan Rd/College Rd intersection that was previously presented at the June BAC meeting. The County and Caltrans did not accept the addition of bike lanes or reduction of vehicle lane widths on Highway 152. Member(s) discussed continuing to pursue recommendations from the Watsonville Safe Routes to Schools plan in this vicinity and to request that the upcoming Caltrans District 5 Active Transportation Plan recommend the narrowing of vehicle lanes to allow for safer bicycling and walking.

16. Updates – Rick Hyman reported that the County has new plans for the intersection of Mt. Hermon Rd and Conference Drive in Scotts Valley to include pavement markings as the BAC recommended in 2018. Murray Fontes reported that construction of MBSST Segment 18 Phase 1 is experiencing delays of a few months. Gina Cole shared the new form to request Slow Streets in unincorporated areas of the county (https://docs.google.com/forms/d/e/1FAIpQLSfZvZlhqvum80BY3t0NbYagAquhjD1QfiveWblCV2yW1dnNSg/viewform), stated that Bike Santa Cruz County is working with the City of Watsonville on a future program in that city, and stated that the City of Santa Cruz will establish 11 Slow Streets. Sally Arnold reported that opening of MBSST Segment 7 Phase 1 is planned for October.

17. Adjourn – 8:35 pm

NEXT MEETING: The next Bicycle Committee meeting is scheduled for October 5, 2020 from 6:00pm to 8:30pm. The meeting is expected to be held **via teleconference.**

Minutes respectfully prepared and submitted by:
Tommy Travers, Transportation Planner

Bicycle Hazard Reports
August - October, 2020

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
10/20/20	Rebecca	Downing	305 Spreckels Dr	Soquel Dr	Aptos	Bike: Plant overgrowth or interference	Please trim all vegetation away from this narrow road. Cyclists have no space except the roadway to ride so being able to see the edge of the roadway will help improve safety along this dangerous section of Spreckels Drive.	DPW	10/30/20	**11/2/20 Dorothy Morgan:** Hello SCCRTC, I have forwarded your message to our Road Maintenance Dispatch. **11/2/20 Road Maintenance Dispatch:** SERVICE REQUEST ISSUED 20-001593
10/15/20	Rick	Hyman	705 Capitola Rd	7th Ave	Santa Cruz	Bike: Bikeway not clearly marked	The first part of the northbound bike lane on 7th Avenue just north of Capitola Rd is obliterated. Appears that there was a repavement but then the bike lane it was not restriped.	DPW	10/16/20	**10/16/20 Dorothy Morgan:** Good Afternoon SCCRTC, I have forwarded your message to Roads Dispatch and Traffic engineering. Thank you for your email requesting the bike lane to be repainted. I have forwarded your email to Roads Dispatch who will review and responds to you directly.
10/14/20	Connie	Wilson	507 Market St	Avalon St	Santa Cruz	Bike: Debris on shoulder or bikeway, Other	the shoulder along market street between the creek and the highway under crossing is covered in debris. I try to keep our section cleaned up but it is too dangerous to clean more sections. Many cyclist as well as some pedestrians walk along Market Street. The traffic travels very fast and many times do not give space, definitely not 3 feet. This is a popular and well traveled cyclist route. Very concerning as they must take the lane without a clear shoulder	Jim Burr, Claire Gallogly	10/16/20	Sent follow-up email on 10/30/20
10/14/20	Teresa	Fukuda	2990 Park Ave	Soquel Dr	Santa Cruz	Bike: Traffic signal problem	Often find myself stuck at this left turn onto Park and sensor doesn't seem to be working for a bike? I'm not sure if it's just me or if it's a real issue. Just wanted to give a heads up!	DPW	10/16/20	**10/16/20 Dorothy Morgan:** Good Afternoon SCCRTC, I have forwarded your message to Roads Dispatch and Traffic engineering. **10/22/20 Rodolfo Rivas:** Hi Teresa, The detection system sensitivity has been adjusted now to better detect bikes. Please feel free to contact us with any bicycle traffic issues. Your feedback is appreciated.

Bicycle Hazard Reports
August - October, 2020

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
10/14/20	Stacey	Kyle	21620 E Cliff Dr	17th Ave	Santa Cruz	Bike: Traffic signal problem	The left turn signal at the intersection of Portola and 17th Ave (turning left on to 17th Ave) does not trigger for a bike. I must wait until a car lines up behind me in order to safely make this turn.	DPW	10/16/20	**10/16/20 Dorothy Morgan:** Good Afternoon SCCRTC, I have forwarded your message to Roads Dispatch and Traffic engineering. **10/22/20 Rodolfo Rivas:** Hi Stacey, The detection system sensitivity has been adjusted now to better detect bikes. Please feel free to contact us with any bicycle traffic issues. Your feedback is appreciated.
10/08/20	Athena	Taylor	Capitola Rd	Harbor View Ct.	Live Oak	Bike: Rough pavement or potholes, Lighting problem	Street lights often flicker off, there's four or five between 7th Ave and Soquel on Capitola.	DPW	10/30/20	**11/2/20 Jana Vargas:** Good morning, This street light issue needs to be reported to PG& E at https://www.pge.com/en_US/residential/customer-service/home-services/street-light-outages/street-light-outages.page?
10/05/20	Rick	Hyman	1668 Capitola Rd	17th Ave	Santa Cruz	Bike: Plant overgrowth or interference	trees growing over bike lane, cyclist has to duck or swerve	DPW	10/07/20	**10/7/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Road Maintenance Department for review and response.
10/02/20	Steve	Rempel	1720 Bean Creek Rd	N/A	Scotts Valley	Bike: Debris on shoulder or bikeway	On Bean Creek Road, there is always a turn with a dangerous about of sand over the asphalt. I believe it's in the vicinity of this sandstone cliff It's particular dangerous for motorcycles and bicycles. It been there for decades, and there is no real way to fix it, because of the constant influx of sand from above, but a friend had a good suggestion, which is to put up a warning sign about the sand. I may not have the exact location right, but it's close by, and the sand in the curve will be obvious. One of our group came close to crashing when he hit the sand a week or so ago.	DPW	10/02/20	**10/5/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Traffic Division for review and response.

Bicycle Hazard Reports
August - October, 2020

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
09/29/20	Anna	Kammer	410 Hames Rd	N/A	Watsonville	Bike: Debris on shoulder or bikeway, Bikeway not clearly marked	This section of Hames Rd. is very dangerous for cyclists. There are cement barriers alongside the roadway in the shoulder, obligating cyclists to ride in the vehicle travel lane. Vehicles regularly travel over the posted speed limit of 25 mph, and cannot always see cyclists as they crest the hill. Vehicles often come too close to cyclists creating a safety issue. It would be really great to have a "Share the Road" or a "3 foot distance" sign here. Ideally, the dirt would be pushed back, and the barriers removed so cyclists can use the shoulder.	DPW	10/02/20	**10/5/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Traffic Division and Road Maintenance Department for review and response.
09/29/20	Anna	Kammer	Calabasas Rd.	N/A	Freedom/ Watsonville	Bike: Debris on shoulder or bikeway, Bikeway not clearly marked	Hello! There is a lot of debris (dirt, pebbles and glass) in the bike lane on Calabasas between Bradford Rd. and Buena Vista Dr. This bike lane is often blocked with vehicles or trash/recycle cans. These hazards make it very difficult for riders to ride safely in the bike lane, and obligating them to ride in the vehicle travel lane. It would be GREAT if this part of Calabasas could be cleaned (street sweeper?) on a regular basis. Thank you!	DPW	10/02/20	**10/5/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Road Maintenance Department for review and response.
09/26/20	Rick	Hyman	675 Harbor Cove	N/A	Santa Cruz	Bike: Plant overgrowth or interference	low hanging tree branches above downhill bike path	DPW	10/02/20	**10/5/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Road Maintenance Department for review and response.
09/26/20	Rick	Hyman	925-235 Brommer St	Live Oak Ave	Santa Cruz	Bike: Plant overgrowth or interference	tree hangs low above westbound bike lane	DPW	10/02/20	**10/5/20 Jana Vargas:** Good morning, Thank you for your email. I will forward your request to our Road Maintenance Department for review and response.
09/25/20	Anne	Berne	Water St	Market St	Santa Cruz	Bike: Debris on shoulder or bikeway	At least a gallon of shattered glass all over bike path on Water street going down hill.	Jim Burr, Claire Gallogly	10/02/20	sent follow-up email on 10/30/20

Bicycle Hazard Reports
August - October, 2020

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
09/23/20	Anne	Berne	Water St	N/A	Santa Cruz	Bike: Debris on shoulder or bikeway	Glass is all over the path going down Water street. It looks like noone cleaned up after a tinted car window got shattered. There is glass at the top and then a huge amount at the bottom on the protected part of the slope. It's been there for about a week. I bike with my dog and after that first ride, he had huge cuts on his feet. Today, when the glass was still there, I had to lift my bike up off the path onto the side walk so that he wouldn't have feet problems again.	Jim Burr, Claire Gallogly	09/24/20	sent follow-up email on 10/30/20
09/23/20	Michael	Levy	North Coast bike path to Wilder Ranch	N/A	Santa Cruz	Bike: Rough pavement or potholes	Rider flew off bike when it hit a bump on the steep part of the bikeway leading down to Wilder Ranch. There may be a root raising the road surface.	Nancy Cross, Caltrans	09/23/20	sent follow-up email on 10/30/20
09/17/20	Sandrine	Georges	4201 Capitola Rd	42nd Ave	Capitola	Bike: Debris on shoulder or bikeway	Hello, there is shattered glass/debris in the traffic lane arriving at the Stop sign on 42n St. corner of Capitola Rd by the Sandpiper building (4201 Capitola rd. Capitola), I had to dismount and walk the sidewalk with my bike instead of being able to just stop a the stop sign and proceed... Thank you for cleaning this up ASAP. Best regards,	Steve Jesberg, Kailash Mozumder	09/18/20	**9/18/20 Steve Jesberg:** A crew member was dispatched this morning to clean up the site.
08/31/20	Rick	Hyman	1499 Soquel Ave	Pocheco Ave	Santa Cruz	Bike: Rough pavement or potholes	traveling westbound on Soquel Dr. through the intersection with the Highway One on-ramp, there is green paint to guide cyclists between the roadway and the on-ramp; within that pathway where cyclists are to travel are two big potholes	Nancy Cross, Caltrans	09/08/20	**9/25/20 Nancy Cross:** The potholes were addressed by the maintenance crews on 9/16/2020. The citizen received an email stating tracking ticket 811676 was closed.
08/13/20	Sandrine	Georges	4450 Capitola Rd	Crystal St	Capitola	Bike: Debris on shoulder or bikeway	1/ 4450 Capitola rd, Capitola, northbound=Broken glass in bike lane 2/4433 Clares St. Capitola, northbound=Broken glass in bike lane	Steve Jesberg, Kailash Mozumder	08/14/20	Follow-up email sent on 9/4/20
08/11/20	Janine	Honey	3751 N Main St	Cherryvale Ave	Soquel	Bike: Plant overgrowth or interference	Plant growth, including poison oak, grows over guard rail. This forces bicyclists into road on an already dangerous curve with minimal space for bikes and poor visibility. Also many bicyclists come this way.	DPW	08/12/20	**8/12/20 Dorothy Morgan:** Good morning SCCRTC, Thank you for your email about the overgrown vegetation on N. Main Street. I have included our Road Maintenance Dispatch who will review and respond to you directly. **8/12/20 Road Maintenance Disptach:** SERVICE REQUEST ISSUED 20-001201
08/10/20	Lauren	Freeman	Wilder Ranch Bike Path	N/A	Santa Cruz	Bike: Plant overgrowth or interference, Debris on sidewalk	Hello! Hello! The Wilder Ranch Bike/Ped Path is getting overgrown by tree branches that are encroaching into the lanes.	Nancy Cross, Caltrans	08/12/20	Follow-up email sent on 9/4/20

Bicycle Hazard Reports
August - October, 2020

Date	First Name	Last Name	Location	Cross Street	City	Reported Hazards	Additional Comments	Forwarded To	Forwarded Date	Response
08/10/20	Justin	Shaw	400 Beach St	Cliff St	Santa Cruz	Bike: Vehicles or objects blocking sidewalk	The new vendors on Beach street have been increasingly encroaching on the bike lane over the past week or so making it a dangerous area to pass through on a bike. They serve customers that stop in the bike lane, sit in the bike lane, even have their folding tables sticking out in the bike lane. The painted yellow lines that the city has provided do nothing to keep them separate from the bike lanes. Why are they not better placed against the fence on the pedestrian sidewalk? Who is in charge of this decision?	Jim Burr, Claire Gallogly	08/10/20	Follow-up email sent on 9/4/20
08/08/20	Carl	Bendix	Pellegrini St	Felt St	Twin Lakes	Bike: Other	Millennium babysitter in roadway obstructing one entire lane at intersection. Unsafe for pedestrians, cyclists, and automobiles.	DPW	08/10/20	**8/10/20 Dorothy Morgan:** Good Morning SCCRTC, Thank you for your email about the roadway obstruction on Pellegrini and Felt. I have included our Road Maintenance Dispatch and Encroachment Inspectors who will review and respond to you directly. **8/10/20 Kristine Conley:** I performed a site visit to determine what hazards exist. There was no hazards blocking the roadway as of my inspection at 9:45am 8/10/2020. If there was something I missed or clarification is needed, please reply to this message.
08/07/20	David	Stihler	Glenwood Rd	Mountain Charlie Rd	Santa Cruz	Bike: Other	When the CHP diverted traffic from Hwy 17 at about 10:54 on 07/31 hundreds of cars traveled southbound on glenwood at very high speeds terrifying multiple cyclists who were caught on the road. There were several near death road rage incidents with two drivers who ran cyclists into the canyon walls with horns honking and swerving to push bikes off the road. While most drivers were safe, the hundreds of drivers with multiple dangerous drivers created a terrifying trip for the dozen or so cyclists, horses and pedestrians on the road. When diverting traffic onto mountain roads there must be interagency alerts and participation to avoid deaths and injury. CHP, Sheriff and or SV Police should have been diverted to control the flow of traffic and protect the safety of people in the community. I teach bicycle safety in San Jose and am on the Scotts Valley Safety Committee for pedestrian and cyclists improvements and even with my knowledge was unable to reasonably and safely get back home.	DPW	08/07/20	**8/7/20 Dorothy Morgan:** Good Afternoon SCCRTC, Thank you for reporting this traffic hazard complaint. I have included our Traffic Engineer who will review this process and they will respond to you directly. **8/7/20 Russel Chen:** The hazard report has been forwarded to CHP.

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AGENDA: November 16, 2020

TO: SCCRTC Bicycle Advisory Committee

FROM: Tommy Travers, Transportation Planner

RE: Bicycle Route Signage Project Update

RECOMMENDATIONS

RTC staff recommends that the Bicycle Advisory Committee (BAC) receive information about the Countywide Bicycle Route Signage wayfinding project

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BACKGROUND

The RTC worked with the community to develop the Santa Cruz County Bicycle Route Signage Program Implementation Plan, which was finalized in 2015. The Plan included several input meetings involving the public, the six local jurisdictions (Caltrans, the County, Santa Cruz, Watsonville, Scotts Valley, and Capitola), and the BAC, to select key destinations throughout the county and the preferred bicycle routes to access them and to design signage. The goal was to increase bicycling by guiding people to routes which are safer and are more likely to utilize or connect to bike lanes or paths. The project webpage is https://sccrtc.org/bikesignage/.

RTC staff secured grant funding from the California Transportation Commission and led construction of the signs in a complex process involving the multiple jurisdictions, in order to ensure design continuity and more importantly the continuation of signed routes across jurisdictional boundaries.

DISCUSSION

Between June 2019 and February 2020, nearly all the signs were installed, while the final signs in Capitola were done by October 2020. Staff carefully inspected all 303 signs after installation and ordered changes where needed.

Staff had planned post-construction outreach including attending public events and printing paper maps of the new routes. Due to COVID-19, this outreach was pared down to include online outreach via email, social media, and Ecology Action's Biketober month, and a new web map (https://arcg.is/1iSXqa0). The web map includes the new routes as well as a new update of all county bikeways (lanes and paths). All designated Regional Routes and Local Routes have new wayfinding signage, while some of the designated Neighborhood Routes do as well.

RTC staff recommends that members of the BAC explore the newly

signed routes of the Bicycle Signage Project. Post construction, sign maintenance is the responsibility of each local jurisdiction per agreements negotiated by the RTC. Staff will continue to communicate with each public works department regarding maintenance.

SUMMARY

Installation of all wayfinding signs of the Bicycle Route Signage Project has been complete throughout Santa Cruz County.

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AGENDA: November, 2020

TO: Regional Transportation Commission Advisory Committees

FROM: Ginger Dykaar - Sr Transportation Planner, Brianna Goodman - Transportation Planner, Shannon Munz - Communications Specialist, and Luis Mendez - Deputy Director

RE: Transit Corridor Alternatives Analysis and Rail Network Integration Study – Performance Measure Analysis and Proposed Locally Preferred Alternative

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RECOMMENDATIONS

Staff recommends that the Regional Transportation Commission advisory committees review and provide input on the performance measure analysis and the proposed locally preferred alternative for the Transit Corridor Alternatives Analysis and Rail Network Integration Study of high-capacity public transit for the Santa Cruz Branch Rail Line.

BACKGROUND

The Santa Cruz County Regional Transportation Commission (RTC), in cooperation with METRO, is developing the Transit Corridor Alternatives Analysis and Rail Network Integration Study (TCAA/RNIS) to evaluate transit investment options that provide an integrated transit network for Santa Cruz County utilizing all or part of the length of the Santa Cruz Branch Rail Line as a dedicated transit facility. Transit alternatives are compared to identify a transit alternative that provides the greatest benefit to the Santa Cruz County residents, businesses and visitors in terms of economy equity, and the environment. Proposed future intercounty and interregional connections to the Bay Area, Monterey County, Gilroy, and beyond are considered.

The analysis framework applied in the TCAA/RNIS is based on the Triple Bottom Line Approach (TBLA), a performance-based planning approach utilizing the sustainability principles of economy, equity and environment, to evaluate future investment decisions (**Figure 1**).

Figure 1. Triple Bottom Line Approach to the TCAA/RNIS

DISCUSSION

The focus of the TCAA/RNIS is to identify a preferred transit alternative to serve the most populous and congested sections of Santa Cruz County – from the western edge of the City of Santa Cruz to Watsonville/Pajaro. The primary objectives of the study include:

- Identify, evaluate and compare a range of high-capacity public transit service options for the Santa Cruz Branch Rail Line for a future year of 2040 that can coexist with a bicycle and pedestrian trail along the branch line right-of-way
- Plan an integrated transit network for Santa Cruz County utilizing all or parts of the SCBRL as a dedicated continuous transit facility
- Utilize a performance-based alternatives analysis for identifying various options for achieving a set of goals and objectives to facilitate decision-making
- Involve the community, partner agencies, the RTC and METRO in the decision-making process to identify a preferred alternative and next steps to implement the preferred transit alternative

The key milestones of the project are outlined below.

<u>Milestone 1.</u>

- ✓ Development of Goals, Screening Criteria, and Performance Measures
  - The goals, screening criteria, and performance measures were developed based on a triple bottom line framework of sustainability that recognizes that transportation is intertwined with economic, equity, and environmental concerns.
- ✓ Initial List of Transit Alternatives
  - A full range of high-capacity transit alternatives were identified to utilize all or part of the Santa Cruz Branch Rail Line right-of-way.
- ✓ RTC approval of Milestone 1 was received on March 6, 2020

<u>Milestone 2.</u>

- ✓ Screen the Initial List of Alternatives into a Short List of Alternatives

  - High-level screening using screening criteria to narrow the initial list of alternatives to a short list of alternatives for detailed analysis.
- ✓ RTC approval received on June 4, 2020.

Milestone 3.

- ✓ Value Engineering on Short List of Alternatives
  - Determine the project alignment, station locations, and service frequency for each of the alternatives based on cost, ridership and travel time analysis
- ✓ Performance Measure Analysis and Proposed Locally Preferred Alternative
  - Performance measure results on short list of alternatives and seek input on proposed locally preferred alternative.
- ➢ Public and Stakeholder input is being solicited in November 2020
- ➢ METRO input is scheduled for November 20, 2020
- ➢ RTC input is scheduled for January 14, 2021 and RTC approval is scheduled for February 4, 2021

The TCAA/RNIS project team composed of RTC and METRO staff and HDR consultants have worked together on every aspect of the project. Input from the RTC advisory committees is being sought on **Milestone 3** - the draft performance measure results and proposed locally preferred alternative (Attachment 1). Input has been provided by the Alternatives Analysis Ad Hoc Committee.

Milestone 3

The Milestone 2 screening results identified the following four alternatives to move forward into the more detailed performance measure analysis and consideration for the locally preferred alternative.

- Bus Rapid Transit - a fixed-route bus system that could operate on the Santa Cruz Branch Rail Line as a dedicated right-of-way, as well as on Highway 1 bus on shoulders/auxiliary lanes and the local roadway network.
- Commuter Rail Transit - passenger rail service operating on fixed rails with multiple individually propelled cars, typically providing an interurban or regional service. Commuter rail usually has a higher volume ridership capacity and relatively longer distances between stops when compared to light rail.
- Light Rail Transit - passenger rail service operating on fixed rails with single or multiple individually propelled cars, typically providing an urban or interurban service with a lighter volume ridership capacity per consist compared to commuter rail.
- Autonomous Road "Train" - an emerging transit mode that combines the benefits of bus rapid transit and light rail with advanced autonomous driving features, providing an urban or interurban service. The system uses rubber tires running on pavement within a dedicated running way. The vehicles tend to visually resemble light rail vehicles, with a similar passenger capacity.

The first step in Milestone 3 was to perform a value engineering analysis to determine the optimal alignment, station locations and service plan for each of the four alternatives based on cost, ridership, and travel time for moving forward into the more detailed performance measure analysis. The detailed analysis of the performance of each alternative was evaluated and results were used to compare and differentiate the performance benefits of the four alternatives and to identify the proposed Locally Preferred Alternative. The characteristics, advantages and disadvantages of the four alternatives as determined from the performance measure analysis are presented in Attachment 1 and the detailed performance measure results can be found in Attachment 2. The draft TCAA/RNIS report with further details on both the value engineering and the performance measure analysis is provided on the TCAA/RNIS SCCRTC webpage (https://sccrtc.org/projects/multi-modal/transitcorridoraa/).

Proposed Locally Preferred Alternative

The proposed Locally Preferred Alternative (LPA) is Electric Passenger Rail. A decision on whether the rail option will be electric commuter rail (CRT) or electric light rail (LRT) is not recommended as part of this planning study. The infrastructure needed for either CRT or LRT is similar. Deferring this decision will maintain flexibility for future decisions on the rail vehicle type, while clean energy rail technologies advance. A decision on different electric rail vehicle types and sizes would therefore be better studied in the preliminary engineering and environmental analysis phase of delivery. The characteristics and benefits of Electric Passenger Rail for the proposed Locally Preferred Alternative are provided in Attachment 3.

The benefits of Electric Passenger Rail as proposed for the Locally Preferred Alternative include:

- Faster, more reliable travel times
- Greater reduction in vehicle miles traveled & greenhouse gas emissions
- 91% of stations are within disadvantaged communities
- Strong transit ridership potential
- Operates with freight and recreational rail in shared-use corridor
- Supports Transit Oriented Development
- Shortest implementation time
- Best existing rail network integration at Pajaro
- Assures continuous transportation corridor
- More funding potential
- Flexible design for seats, bicycles & mobility devices based on need
- Level boarding platforms at all stations
- More energy efficient per passenger mile

Milestone 3 Stakeholder Engagement

Stakeholder engagement for Milestone 3 of the TCAA/RNIS will be extensive. RTC staff encourages participation from a diverse set of transportation interests including members of the public, community organizations, RTC Advisory

committees, and partner agencies. Input will be solicited from the public through an online open house that is designed similar to an in-person open house with a series of four stations that provided background information on the alternatives analysis, the results of the performance measure analysis, the proposed locally preferred alternative, and a survey to solicit input on the information presented (https://sccrtc-tcaa.com/). Input through the online open house will be collected from November 6 through November 27, 2020. Notification of the online open house is being promoted through email blasts, mailers, social media, print/radio ads, media coverage, and RTC website news. An online chat room held during two time slots each 1.5 hours long will provide another avenue for real-time dialogue between the public and the project team (see times below). Input is being sought from the RTC Advisory Committees (Bike Committee, Elderly and Disabled Transportation Advisory Committee, and Interagency Technical Advisory Committee), and Partner Agencies through online meetings.

Stakeholder engagement for Milestone 3 includes the following:

- October 14, 2020: Ad Hoc Committee Meeting
- November 6 - 27, 2020: Public Online Open House
- November 12, 2020 (12-1:30PM): Open House Live Chat Room
- November 16, 2020: RTC Bicycle Advisory Committee
- November 17, 2020: RTC Elderly and Disabled Transportation Advisory Committee
- November 18, 2020 (6-7:30PM): Open House Live Chat Room
- November 19, 2020: Partner Agency Meeting
- November 20, 2020: METRO board meeting
- January 14, 2021: Public hearing, RTC Meeting to seek input from Commission
- February 4, 2021: RTC Meeting to seek approval

NEXT STEPS

November 2020: Stakeholder Engagement on Milestone 3 – Analysis Results and Proposed Locally Preferred Alternative
January 14, 2021: Presentation to the RTC on the Analysis Results, Draft Report and Proposed Locally Preferred Alternative
February 4, 2021: Staff Recommendation of Locally Preferred Alternative presented to the RTC for potential approval
April 1, 2021: TCAA/RNIS Business Plan presented to the RTC for potential approval

SUMMARY

The Transit Corridor Alternatives Analysis is using a triple bottom line framework for evaluating transit investment options that provide an integrated transit network for Santa Cruz County utilizing all or part of the length of the Santa Cruz Branch Rail Line as a dedicated transit facility. The TCAA project team requests that the RTC advisory committees review and provide input on Milestone 3 – the performance measure results and proposed locally preferred alternative.

Attachments:

1. TCAA/RNIS Four Alternatives – Characteristics, Advantages & Disadvantages
2. TCAA/RNIS Performance Measure Results
3. Proposed Locally Preferred Alternative

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Arterial & Right-of-Way Bus Rapid Transit (BRT)

CHARACTERISTICS:

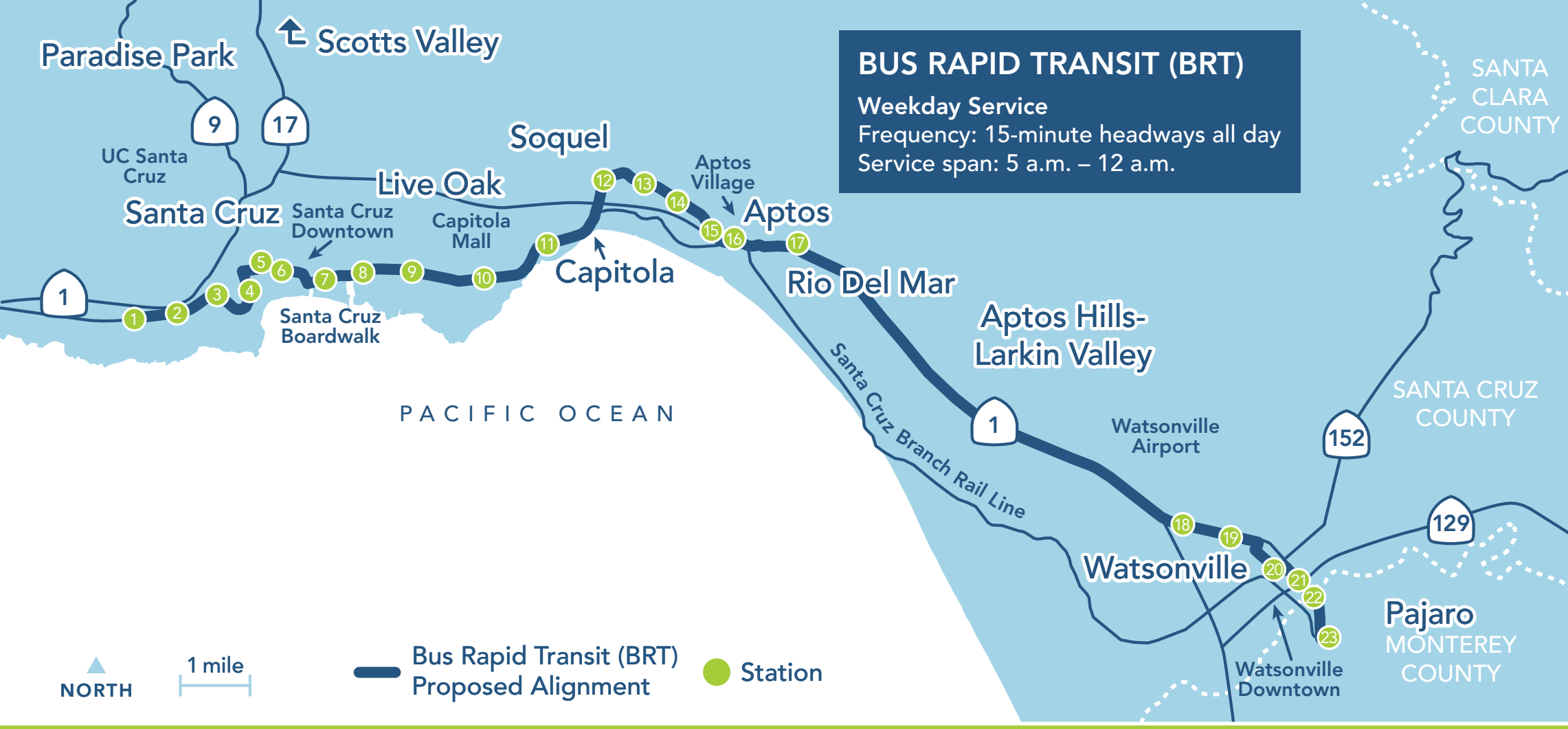
- Fixed-route bus with propulsion type (electric–hydrogen fuel cell, battery)
- Operating primarily on:
  - Santa Cruz Branch Line as a dedicated right-of-way (ROW)
  - Highway 1 & local roadway network on shoulders/auxiliary lanes
- Defined stations with transit signal priority & off-board fare collection to reduce travel times
- Frequent, bi-directional service for substantial part of weekdays & weekends
- Operates on Santa Cruz Branch Line up to 65 mph (combination of one & two-way with reverse direction on parallel local streets)

PROS

- Strong transit ridership potential
- Integrates easily with overall transportation system
- Ability to adapt to new technologies
- Lowest costs (capital, operations & maintenance)
- No impact to Roaring Camp for access to boardwalk
- Greater number of stops
- Greater flexibility/resiliency to climate change

CONS

- Least reliable & longer travel times
- Utilizes less than 7 miles of rail ROW
- Incompatible with freight where BRT is on ROW
- Eliminates Roaring Camp connection to regional rail network
- Level boarding platforms less likely for stops on road network
- Limited capacity for bicycle & mobility devices
- Requires transfer to regional rail network
- Limited Transit-oriented Development potential



Station #	Name	Station #	Name	Station #	Name
1	Natural Bridges Station	9	17th Station	17	Rio Del Mar/Soquel Station
2	Fair Station	10	41st Station	18	Main/Green Valley Station
3	California Station	11	Monterey Station	19	Ramsay Park Station
4	Pacific Station	12	Soquel/Park Station	20	Watsonville TC Station
5	SC Metro TC Station	13	Cabrillo College Station	21	Main/Riverside Station
6	Riverside/San Lorenzo Station	14	Soquel/Mar Vista Station	22	Porter/San Juan Station
7	Seabright/Murray Station	15	Rancho Del Mar Center Station	23	Pajaro Station
8	7th Station	16	Aptos Village Station		

Electric Commuter Rail (CRT)

CHARACTERISTICS:

- Passenger rail service with electric propulsion (hydrogen fuel cell, battery)
- Operating on fixed rails with multiple individually-propelled cars
- Higher ridership capacity & longer distance between stops
- Operates on single track with rail sidings for two-way travel up to 30-60 mph
- Potential Positive Train Control and Centralized Traffic Control or similar signal system

PROS

- Faster, more reliable travel times
- Greater reduction in vehicle miles traveled & greenhouse gas emissions
- Strong transit ridership potential
- Operates with freight and recreational rail in shared-use corridor
- Supports transit-oriented development
- Shortest implementation time
- Best existing rail network integration (potential one-seat ride to Monterey & cross-platform transfers at Pajaro)
- Assures continuous transportation corridor
- More funding potential
- 91% of stations are within disadvantaged communities
- Flexible designs for seats, bicycles & mobility devices based on need
- Level boarding platforms at all stations
- More energy efficient per passenger mile

CONS

- Higher costs (capital, operations & maintenance)
- Lower ridership estimates than BRT and LRT
- Less resilience to climate change impacts

Station #	Name	Station #	Name
1	Natural Bridges Station	9	Aptos Station
2	Bay Street Station	10	Downtown Watsonville Station
3	Downtown Santa Cruz/Boardwalk Station	11	Pajaro Station
4	Seabright Station		
5	17th Avenue Station		
6	41st Avenue Station		
7	Capitola Station		
8	Cabrillo Station		

Electric Light Rail (LRT)

CHARACTERISTICS:

- Passenger rail service with electric propulsion (hydrogen fuel cell, battery)
- Operating on fixed rails with single or multiple individually-propelled cars
- Less ridership capacity
- Operates on single track with rail sidings for two-way travel up to 30-60 mph
- Potential Centralized Traffic Control or similar signal system

PROS

- Faster, more reliable travel times
- Greatest reduction in vehicle miles traveled & greenhouse gas emissions
- Strong transit ridership potential
- Operates with freight in shared-use corridor (may need temporal separation)
- Supports transit-oriented development
- Shortest implementation time
- Assures continuous transportation corridor
- 92% of stations are within disadvantaged communities
- Does not impede other rail use within corridor (current or future)
- Flexible design for seats, bicycles & mobility devices based on need
- Level boarding platforms at all stations
- More energy efficient per passenger mile

CONS

- Higher costs (capital, operations & maintenance)
- Lower ridership estimates than BRT
- Less resilience to climate change impacts
- May require transfer to connect with regional rail network

Station #	Name	Station #	Name
1	Natural Bridges Station	9	Capitola Station
2	Fair /Almar Avenue Station	10	State Beach Station
3	Bay Street Station	11	Aptos Station
4	Downtown Santa Cruz Depot Park Station	12	La Selva Beach Station (seasonal)
5	Boardwalk Station (seasonal)	13	Ohlone Parkway Station
6	Seabright Station	14	Downtown Watsonville Station
7	17th Avenue Station	15	Pajaro Station
8	38th/41st Avenue Station		

Autonomous Road "Train" (ART)

CHARACTERISTICS:

- Emerging transit mode with electric propulsion (hydrogen fuel cell, battery) combining benefits of BRT & LRT with autonomous driving features
- Rubber tires within dedicated pavement alignment
- Resembles LRT vehicles with similar passenger capacity
- Similar infrastructure to BRT including permanent stations, transit signal priority & frequent service
- Operates on single lane within Santa Cruz Branch Line ROW up to 40-45 mph (includes sidings for two-way travel)

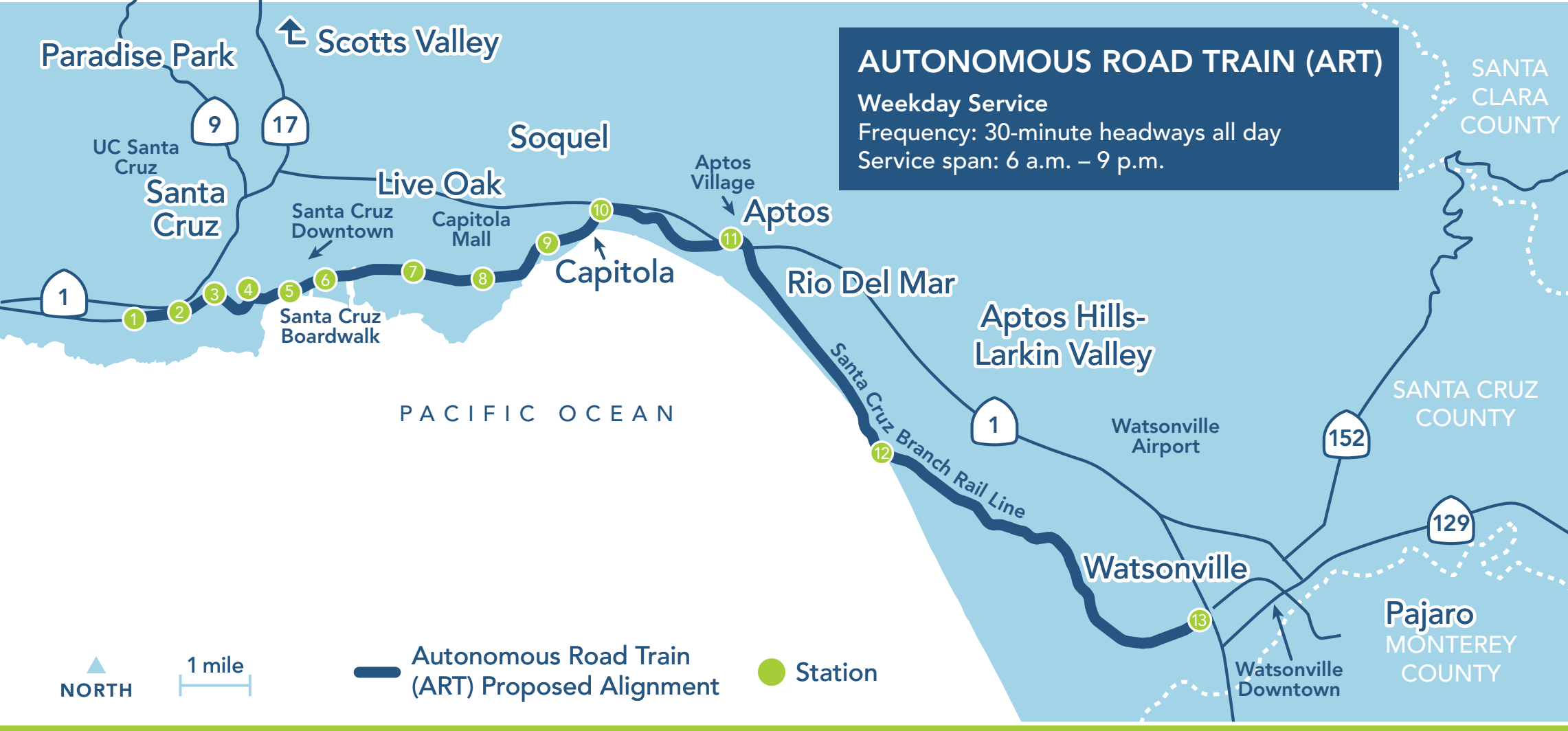
ART system recently deployed in City of Yibin, China

PROS

- Strong transit ridership potential
- Supports greenhouse gas emission reduction goals
- Greater ability to adapt to new technologies
- Supports transit-oriented development
- 92% of stations are within disadvantaged communities
- Flexible design for seats, bicycles & mobility devices based on need
- Level boarding platforms at all stations

CONS

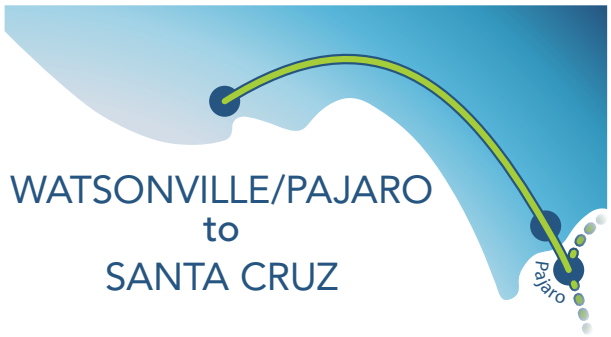
- Capital cost is highest – 50% more than rail transit
- Incompatible with freight rail
- To preserve freight in Watsonville, must transfer to local bus at Lee Rd. to access downtown Watsonville & Pajaro
- Longer travel time
- Less flexibility/resiliency to climate change



Station #	Name	Station #	Name
1	Natural Bridges Station	9	Capitola Station
2	Fair/Almar Avenue Station	10	State Beach Station
3	Bay Street Station	11	Aptos Station
4	Downtown Santa Cruz Depot Park Station	12	La Selva Beach Station (seasonal)
5	Boardwalk Station (seasonal)	13	Lee Road Station
6	Seabright Station		
7	17th Avenue Station		
8	38th/41st Avenue Station		

ATTACHMENT 2

TRANSIT CORRIDOR
ALTERNATIVES ANALYSIS



ALTERNATIVE EVALUATION RESULTS

ALTERNATIVE EVALUATION RESULTS: ECONOMY

GOAL: Fiscal Feasibility

METRIC:	BRT	CRT	LRT	ART
CAPITAL COSTS	$410,000,000	$478,000,000	$465,000,000	$720,000,000
CAPITAL COST/MILE	$18,000,000	$22,000,000	$21,000,000	$31,000,000
CAPITAL COST/RIDER/30 YEARS	$6.40	$9.70	$8.90	$14.60
CAPITAL COST/PASSENGER MILE/30 YEARS	$1.40	$1.20	$1.00	$1.70
OPERATIONS & MAINTENANCE (O&M) COSTS/YEAR	$19,540,000	$25,000,000	$25,000,000	$28,000,000
O&M COSTS/MILE/YEAR	$875,000	$1,126,000	$1,106,000	$1,217,000
O&M COST/RIDER	$9.20	$15.20	$14.3	$17.00
O&M COST/PASSENGER MILE	$1.20	$2.10	$1.90	$2.20
% FUNDING LIKELY FROM EXISTING SOURCES	64%	59%	61%	36%
FUNDING LIKELY FROM POTENTIAL FUTURE SOURCES	While difficult to predict what future funding sources will be available for each alternative, Governor Newsom's recent Executive Order (EO N-79-20) directs state agencies to "build toward an integrated, statewide rail and transit network, consistent with the California State Rail Plan, to provide seamless, affordable multimodal travel options for all." Future funding is likely to increase for each alternative, but unknown to what extent.			
	$380M additional funding sources (local or other) needed to provide extra capital and operations & maintenance funds to fully fund project for 25 years	$530M additional funding sources (local or other) needed to provide extra capital and operations & maintenance funds to fully fund project for 25 years	$510M additional funding sources (local or other) needed to provide extra capital and operations & maintenance funds to fully fund project for 25 years	$910M additional funding sources (local or other) needed to provide extra capital and operations & maintenance funds to fully fund project for 25 years

GOAL: Well integrated transportation system that supports economic vitality

WILL THE PROJECT INCREASE DEVELOPMENT ALONG THE CORRIDOR?	Likely to increase transit-oriented development (TOD) in segments along rail ROW where BRT guideway is built, less likely where BRT runs on roadway network	More likely to generate TOD on entire route	More likely to generate TOD on entire route	More likely to generate TOD on majority of route
TOTAL NUMBER OF JOBS (DIRECT & INDIRECT) GENERATED THROUGH CONSTRUCTION IN THE NEAR TERM	4,100	5,100	4,900	7,400
TOTAL NUMBER OF JOBS (DIRECT & INDIRECT) GENERATED LONGER TERM THROUGH O&M ACTIVITY	210	270	270	300
IMPACTS ON FREIGHT RAIL OPERATIONS	• Assumes freight rail can only be accommodated between Pajaro up to Park Ave. at Coronado St. in Capitola – Converts railway to a paved guideway between Park Ave. in Capitola & Natural Bridges Dr. – Freight would need to be abandoned north of Park Ave.	• Allows freight & passenger rail to comingle with positive train control – Passenger rail frequency may make it more challenging to run freight at same time as passenger rail, but can be accommodated – Freight rail can also run outside of passenger service hours	• Can run with or without FRA-compliant vehicle – With: freight impact same as CRT – Without: freight cannot comingle with passenger rail & required to be temporally separated	• Assumes freight rail can only be accommodated within Watsonville up to Lee Rd. – Converts railway to a paved guideway between Lee Rd. in Watsonville & Natural Bridges Dr. in Santa Cruz – Freight rail would need to be abandoned north of Lee Rd.

ALTERNATIVE EVALUATION RESULTS: ECONOMY

GOAL: Well integrated transportation system that supports economic vitality

METRIC:	BRT	CRT	LRT	ART
IMPACTS ON SANTA CRUZ BIG TREES & PACIFIC RAILWAY (SCBG)	• Expected to bypass boardwalk area via San Lorenzo Blvd. & Laurel St. to access Pacific Ave. Metro Transit Center allowing SCBG to continue accessing boardwalk via east leg of the Wye • Utilizes west leg of Wye & thus alternatives would be needed for SCBG to turn their trains • Eliminates access for SCBG to bring rail cars in/out of greater rail network via Pajaro	• Can share same set of tracks with SCBG if scheduling allows, since vehicles are both FRA-compliant – Siding may be beneficial for SCBG in boardwalk area to allow commuter rail to pass SCBG while boarding/alighting • If there are scheduling challenges for SCBG with high frequency commuter rail & freight rail equipment, SCBG could benefit from separate set of tracks from east leg of Wye to boardwalk area although expense & ROW needed to accommodate additional set of tracks along Beach St. may make this infeasible • Another option is for SCBG boarding/alighting to occur at Depot Park Station although this is not of interest to SCBG given potential significant impact on their business • Allows SCBG & Pacific Railway to bring rail cars in/out via Pajaro as long as there is proper coordination with passenger & freight rail services	• With FRA-compliant vehicle has same impact on SCBG as CRT (see explanation under CRT) • If not FRA-compliant, SCBG & LRT can share same set of tracks if there's temporal separation between vehicles – Length of time may be short enough to allow this but needs further investigation – Technological changes in rail signaling may also reduce time for temporal separation even further • If need for temporal separation is too limiting or there are scheduling challenges between SCBG with high frequency light rail, SCBG could benefit from a separate set of tracks from east leg of Wye to boardwalk area although expense & ROW needed to accommodate additional set of tracks along Beach St. may make this infeasible – Another potential option is for SCBG boarding/alighting to occur at Depot Park Station although this is not of interest to SCBG given potential significant impact on their business • With non-FRA compliant vehicle, allows SCBG to bring rail cars in/out via Pajaro as long as there's proper coordination with passenger and freight rail service.	• Requires paved, dedicated guideway through boardwalk area, along Beach St. & up to Depot Park Station • SCBG existing route served with a set of tracks parallel to ART guideway from east leg of Wye to boardwalk area – Beach St. would need to accommodate ART guideway, one set of tracks, a cycle track for bikes, one vehicle lane at minimum, & sidewalks on both sides which may be infeasible – A set of tracks & ART guideway crossing through Wharf roundabout will be challenging • Another option is for SCBG boarding/alighting to occur at Depot Park Station although this is not of interest to SCBG given potential significant impact on their business • Alternative configurations would be needed for SCBG to reverse their trains as they currently use entire Wye • Eliminates access for SCBG to bring in/out rail cars or locomotives of greater rail network via Pajaro
IMPACTS ON EXISTING & FUTURE FREIGHT RAIL BUSINESSES & RAIL VOLUMES	• Not compatible with freight rail north of Park Ave. near Highway 1 • Increased freight rail volumes limited between Park Ave. near Highway 1 & Lee Rd. in Watsonville with exception of Buena Vista Landfill that could benefit from freight rail • Potential freight customers include Buena Vista Landfill plus existing & future customers in Watsonville including agricultural, fuel, lumber & food products	• Freight rail customers could be served along entire length of rail line from Pajaro to Davenport • Potential freight customers include construction materials, agricultural, lumber, fuel & food products plus material from Buena Vista Landfill • Freight volumes in Watsonville & Pajaro could increase for existing & future customers including additional agricultural, fuel, lumber & food products • Transload site for transferring goods to/from rail would increase freight volumes with potential site location in Watsonville	• Freight rail customers could be served along entire length of rail line from Pajaro to Davenport • Potential freight customers include construction materials, agricultural, lumber, fuel & food products plus material from Buena Vista Landfill • Freight volumes in Watsonville & Pajaro could increase for existing & future customers including additional agricultural, fuel, lumber & food products • Transload site for transferring goods to/from rail would increase freight volumes with potential site location in Watsonville	• Freight Rail would be limited to freight customers between Lee Rd. in Watsonville to Pajaro • Freight volumes in Watsonville & Pajaro could increase from existing & future customers including additional agricultural, fuel, lumber & food carloads • Transload site for transferring goods to/from rail would increase freight volumes with potential site location in Watsonville
WHAT IS THE LEVEL OF RISK THAT THE CORRIDOR WILL NOT REMAIN CONTINUOUS? WILL ALTERNATIVE BEST UTILIZES RAIL CORRIDOR & PRESERVE FUTURE OPTIONS?	• Implementation would require petitioning Surface Transportation Board for abandonment of freight rail service north of Park Ave. & to railbank – There are no guarantees the petition would be granted so there are risks that RTC could lose control of all or portion of Rail ROW	• Utilizes 22.2 miles of rail ROW from Pajaro Station to Natural Bridges Dr., thus has no risks of losing rail corridor continuity	• Utilizes 22.6 miles of rail ROW from Pajaro Station to Natural Bridges Dr. & if freight rail continues, has no risks of losing rail corridor continuity	• Implementation would require petitioning Surface Transportation Board for abandonment of freight rail service north of Lee Rd. & to railbank – There are no guarantees petition would be granted so there are risks that RTC could lose control of all or portion of Rail ROW

ALTERNATIVE EVALUATION RESULTS: SOCIAL EQUITY

METRIC:	BRT	CRT	LRT	ART
GOAL: Promotes active transportation				
BICYCLE CAPACITY ON TRANSIT/EVERY 30 MINUTES DURING PEAK PERIOD	• Standard storage is 2-4 bicycles per articulated BRT (eight bicycles for two BRT every 30 mins.) • Flexible design to include seats, space for bicycles and mobility devices	• Standard storage is 2-4 bicycles per car (Marin's SMART has space for 12 bicycles per car. A three car train set could accommodate 36 bicycles every 30 mins.) • Flexible design to include seats, space for bicycles and mobility devices	• Standard storage is 2-4 bicycles per car (Siemens S70 has 24 bikes for each 3-car trainset every 30 minutes) • Flexible design to include seats, space for bicycles and mobility devices	• Flexible design to include seats, space for bicycles and mobility devices
LEVEL BOARDING ABILITY FOR BICYCLISTS	• Able to provide level boarding platforms at all stations along rail ROW • Stops along roadway alignment may not accommodate level boarding due to space limitations	• Able to provide level boarding platforms at all stations	• Able to provide level boarding platforms at all stations	• Able to provide level boarding platforms at all stations • Connection from ART station at Lee Rd to downtown Watsonville and Pajaro Station are via local bus and would not have level boarding.
EFFECTS ON RAIL TRAIL & CALIFORNIA COASTAL TRAIL	• No change to coastal rail trail location as planned in Monterey Bay Sanctuary Scenic Trail Master Plan with exception of minor station adjustments where passing sidings may be needed • Single guideway in two narrow sections of ROW (California St. to Laurel St. & 30th Ave. to 47th Ave.) with two-way signaled operation so both transit and trail could coexist	• No change to coastal rail trail location as planned in Monterey Bay Sanctuary Scenic Trail Master Plan with exception of minor adjustments at siding locations • A few potential locations identified for passing sidings where coastal rail trail may need to be shifted to immediately adjacent public way & physically separated from traffic	• No change to coastal rail trail location as planned in Monterey Bay Sanctuary Scenic Trail Master Plan with exception of passing sidings and station locations • A few potential locations identified for passing sidings where coastal rail trail could be shifted to immediately adjacent public way & physically separated from traffic	• No change to coastal rail trail location as planned in Monterey Bay Sanctuary Scenic Trail Master Plan with exception of siding locations • A few potential locations identified for passing sidings where coastal rail trail could be shifted to immediately adjacent public way & physically separated from traffic
GOAL: Supports safer transportation for all modes				
ANNUAL COLLISIONS BY TRANSIT ALTERNATIVE PER YEAR	2.00	0.05	0.91	0.80
CHANGE IN TOTAL ANNUAL FATAL & INJURY COLLISIONS PER YEAR (CONSIDERING REDUCED AUTO TRAVEL)	0.46	-1.89	-1.18	-1.16
ANNUAL CHANGE IN COST OF COLLISIONS	-$62,700	-$612,800	-$52,100	-$92,600

ALTERNATIVE EVALUATION RESULTS: SOCIAL EQUITY

GOAL: Provides accessible & equitable transportation system that is responsive to the needs of all users

METRIC:	BRT	CRT	LRT	ART
TOTAL NUMBER OF STATIONS/STOPS	23	11	13	11
NUMBER OF STATIONS/STOPS WITHIN DISADVANTAGED CENSUS TRACTS	17	10	12	10
% OF STATIONS/STOPS WITHIN DISADVANTAGED CENSUS TRACTS	74%	91%	92%	91%
NUMBER OF STATIONS/STOPS WITHIN 1/2 MILE OF DISADVANTAGED CENSUS TRACTS	22	11	13	11
% OF STATIONS/STOPS WITHIN 1/2 MILE OF DISADVANTAGED CENSUS TRACTS	96%	100%	100%	100%
TRANSIT FREQUENCY (# PER HOUR) OFF PEAK	4	1	2	2
TRANSIT PASSENGER CAPACITY MILES TRAVELED *Based on transit frequency per hour, transit capacity per vehicle (bus/train) & hours of service per day*	204,000	209,800	299,000	262,000
TRANSIT FARE *Fare range depending on distance traveled*	• Typical service fare (similar to options evaluated): $2-5 per one-way trip (based on average of Santa Cruz METRO & five San Francisco Bay Area transit agencies) • Average fare per trip assumed to be $3.50 for estimating funding revenues	• Typical service fare (similar to options evaluated): $2.75-5.75 per one-way trip (based on average of seven CA commuter rail systems) • Average fare per trip assumed to be $4.50 for estimating funding revenues	• Typical service fare (similar to options evaluated): $1.75-3.25 per one-way trip (based on survey of five CA light rail & two Pacific Northwest systems) • Average fare per trip assumed to be $4.50 for estimating funding revenues	• No data available for ART system so LRT fares assumed to be representative of an ART fare • Average fare per trip assumed to be $4.50 for estimating funding revenues
MOBILITY DEVICE CAPACITY ON TRANSIT EVERY 30 MINUTES DURING PEAK PERIOD	• Typical capacity is two ADA accessible seats per articulated BRT (four seats for two BRT every 30 mins.) • Flexible design to include seats, space for bicycles & mobility devices	• Typical capacity is two ADA accessible seats per car (six seats for each three car trainset every 30 mins.) • Flexible design to include seats, space for bicycles & mobility devices	• Typical capacity is four ADA accessible seats per car (12 seats for each three car trainset every 30 mins.) • Flexible design to include seats, space for bicycles & mobility devices	• Typical capacity is four ADA accessible seats per car (12 seats for each three car trainset every 30 mins.) • Flexible design to include seats, space for bicycles & mobility devices
INDEPENDENT ACCESSIBILITY FOR ALL AGES & ABILITIES INCLUDING LEVEL BOARDING	• Able to provide level boarding platforms at all stations along rail ROW • Stops along roadway alignment may not accommodate level boarding due to space limitations	• Able to provide level boarding platforms at all stations	• Able to provide level boarding platforms at all stations	• Able to provide level boarding platforms at stations between Natural Bridges Dr. & Lee Rd. Station • Local bus connection from Lee Rd. Station to downtown Watsonville & Pajaro Station with no level boarding

ALTERNATIVE EVALUATION RESULTS: SOCIAL EQUITY

GOAL: Offers reliable & efficient transportation choices that serve the most people

METRIC:	BRT	CRT	LRT	ART
TRANSIT TRAVEL TIME DURING PEAK PERIODS *Average end-to-end Travel Time in minutes (includes station dwell time)*	90	45	55	62
AUTO TRAVEL TIME ON HWY 1 NB A.M. PEAK (MINS)	60	60	60	60
AUTO TRAVEL TIME ON HWY 1 SB A.M. PEAK (MINS)	30	30	30	30
AUTO TRAVEL TIME ON HWY 1 NB P.M. PEAK (MINS)	35	35	35	35
AUTO TRAVEL TIME ON HWY 1 SB P.M. PEAK (MINS)	61	61	61	61
NUMBER OF AT-GRADE CROSSINGS & MITIGATION MEASURES	• 34 grade crossings (26 public/8 private) • Assumes appropriate active warning devices, traffic signal interconnects & improved sight distances	• 70 grade crossings (41 public/29 private) • Assumes appropriate active warning devices, traffic signal interconnects, quiet zones & improved sight distances	• 70 grade crossings (41 public/29 private) • Assumes appropriate active warning devices, traffic signal interconnects, quiet zones & improved sight distances	• 62 grade crossings (35 public/27 private) • Assumes an appropriate active warning devices, traffic signal interconnects, quiet zones & improved sight distances
IMPACTS AT GRADE CROSSINGS - ESTIMATED SIGNAL GATE DOWN TIME EACH TIME TRANSIT PASSES GRADE CROSSING (SECONDS)	60	90	75	75
REGIONAL CONNECTIVITY	• Would connect with planned regional & intercity rail service at Pajaro Station via a transfer from BRT to rail	• Would connect to proposed intercity rail service at Pajaro via a cross-platfrom transfer for access to Gilroy, planned High Speed Rail line plus Salinas & destinations south • An FRA-compliant vehicle would allow "one-seat" ride on proposed regional service between Santa Cruz & Monterey	• Would connect to proposed intercity rail service at Pajaro via a cross-platfrom transfer for access to Gilroy, planned High Speed Rail line plus Salinas & destinations south • A non-FRA-compliant vehicle would require separate set of tracks into Pajaro station & cross platform transfer to regional service to Monterey. • If FRA-compliant vehicle, connection would be same as CRT	• On Santa Cruz Branch Rail Line would need transfer to local bus service at Lee Rd. plus transfer from bus to regional & intercity rail service at Pajaro Station

ALTERNATIVE EVALUATION RESULTS: SOCIAL EQUITY

GOAL: Offers reliable & efficient transportation choices that serve the most people

METRIC:	BRT	CRT	LRT	ART
TRAVEL TIME RELIABILITY DURING PEAK PERIODS *The 95th percentile planning reliability time (in mins) in 2040 conditions, estimated using reliability factors presented in Highway Capacity Manual*	132	56	69	78
TRAVEL TIME RELIABILITY DURING PEAK PERIODS	• Lowest travel time reliability due to traveling on mixed traffic roadways 70% of route • Utilizes exclusive 6.7 miles guideway on ROW • Operates in mixed traffic for 6.6 miles on Highway 1 between Airport & Rio Del Mar Blvds. – Travels in bus shoulders/auxiliary lane for 1 mile on Highway 1 between Freedom & Rio Del Mar Blvd. • Operates in mixed traffic on local roadways in Watsonville, Aptos, Soquel & downtown Santa Cruz – Could utilize bus priority system designs (i.e. queue jumps & signal priority) at many of the 9 miles of local road intersections to provide travel time reliability benefits	• Highest travel time reliability due to traveling nearly exclusively on dedicated facility • Delays may occur if not separated into dedicated facility in areas where ROW is shared use with autos such as on Walker St. in Watsonville & Beach St. in Santa Cruz	• Highest travel time reliability due to traveling nearly exclusively on dedicated facility • Delays may occur if not separated into dedicated facility in areas where ROW is shared use with autos such as on Walker St. in Watsonville & Beach St. in Santa Cruz	• Highest travel time reliability due to traveling nearly exclusively on dedicated facility • Delays may occur for travelers using bus connector service at Lee Rd. Station to downtown Watsonville & Pajaro Station due to mixed traffic operations – Could utilize bus priority system designs (i.e. queue jumps & signal priority) at many of the 3.2 miles of local road intersections to provide travel time reliability benefits

ALTERNATIVE EVALUATION RESULTS: ENVIRONMENT

GOAL: Promotes a healthier environment

Will project substantially increase transit ridership?

METRIC:	BRT	CRT	LRT	ART
WEEKDAY TRANSIT RIDERSHIP IN CORRIDOR IN 2040 (DAILY)	6,650	5,150	5,450	5,150
WEEKDAY TRANSIT RIDERSHIP IN CORRIDOR IN 2040 - CONSIDERS FUTURE GENERAL PLAN UPDATES (DAILY)	7,650	7,150	7,300	7,000
WEEKDAY TRANSIT RIDERSHIP IN CORRIDOR IN 2040 - ASSUMES 10% ADDITIONAL RIDERSHIP DUE TO TRANSIT ORIENTED DEVELOPMENTS ONCE TRANSIT FACILITY IS OPERATIONAL (DAILY)	8,400	7,900	8,000	7,700
WEEKEND TRANSIT RIDERSHIP IN CORRIDOR - LOCAL/REGIONAL TRIPS IN 2040 (DAILY)	3,400	2,800	3,000	2,800
COUNTYWIDE TRANSIT RIDERSHIP (DAILY)	37,500	34,500	34,300	34,100
TRANSIT PASSENGER CAPACITY/3-HOUR PEAK PERIOD	1,440	2,700	2,650	2,650

Does project support the goal of minimizing emissions? How long will the project take to implement?

AUTO VEHICLE MILES TRAVELED REDUCED/DAY	-16,280	-20,490	-22,020	-20,650
REDUCTION IN GREENHOUSE GAS EMISSIONS - IN ANNUAL METRIC TONS IN YEAR 2040	3.00	3.78	4.06	3.78
LENGTH OF TIME TO IMPLEMENT (IN YEARS) *High level planning estimates without details for the final design, funding plan, construction schedules, etc.*	15-17	11-13	11-13	20-24
CRITERIA POLLUTANTS - IN ANNUAL METRIC TONS IN YEAR 2040	0.0070	0.0088	0.0094	0.0088

Will project adapt to climate change?

CLIMATE CHANGE RESILIENCY *Length of alignment with potential for coastal erosion impacts due to 88 cm sea level rise with 100 year storm event (miles)*	0.57	1.85	1.85	1.85

ALTERNATIVE EVALUATION RESULTS: ENVIRONMENT

GOAL: Promotes a healthier environment

Are there effects of the project on biological resources, visual, noise & vibration?

METRIC:	BRT	CRT	LRT	ART
EFFECTS ON BIOLOGICAL RESOURCES, VISUAL, NOISE & VIBRATION	• Electric BRT quieter than diesel powered bus • Not visually obstructive & least likely to cause vibration • Least impact on environmentally sensitive areas as it's primarily in vicinity of the sloughs in Watsonville	• Noisier than other alternatives, but quiet zones would eliminate need for sounding horns at roadway crossings & are included in cost estimates • Not visually obstructive & moderate level of vibration • Increased rail service along ROW may impact environmentally sensitive areas including biological resources as it utilizes ROW in vicinity of the sloughs west of Watsonville	• Moderate noise level, but quiet zones would eliminate need for sounding horns at roadway crossings & are included in cost estimates • Not visually obstructive & moderate level of vibration • Increased rail service along ROW may impact environmentally sensitive areas including biological resources as it utilizes ROW in vicinity of the sloughs west of Watsonville	• Noise level unknown, but sounding horns at roadway crossings are not required due to rubber wheel option • Not visually obstructive & least likely to cause vibration • Increased transit service along ROW may impact environmentally sensitive areas including biological resources as it utilizes ROW in vicinity of the sloughs west of Watsonville
	Does project support the goal of reduced energy usage?			
REDUCTION OF ENERGY/FUEL CONSUMPTION BASED ON AUTO MODE SHIFTS TO THE ALTERNATIVES (AVERAGE BTU/PASSENGER MILE)	1,957	1,528	1,500	1,500-1,957

ALTERNATIVE EVALUATION RESULTS: OTHER GOALS

GOAL: Addresses project-specific concerns

METRIC:	BRT	CRT	LRT	ART
IS PROJECT TECHNICALLY FEASIBLE?	Traditional, tested technology & technically feasible	Traditional, tested technology & technically feasible	Traditional, tested technology & technically feasible	Existing, testing infrastructure, but not traditional & introduces new technological risks
IS PROJECT CONSISTENT WITH OTHER LOCAL, STATE & FEDERAL PLANNING EFFORTS?	• SCC Regional Transpo Plan • Unified Corridor Study • CA State Rail Plan • MBSST Master Plan	• SCC Regional Transpo Plan • Unified Corridor Study • CA State Rail Plan • MBSST Master Plan	• SCC Regional Transpo Plan • Unified Corridor Study • CA State Rail Plan • MBSST Master Plan	• CA State Rail Plan • MBSST Master Plan
IS PROJECT CONSISTENT WITH LOCAL, STATE AND FEDERAL REGULATORY REQUIREMENTS?	• SB375/other GHG regulations • Coastal Commission	• SB375/other GHG regulations • Coastal Commission • Proposition 116 • FAST Act (travel time reliability)	• SB375/other GHG regulations • Coastal Commission • Proposition 116 • FAST Act (travel time reliability)	• SB375/other GHG regulations • Coastal Commission • FAST Act (travel time reliability)
DOES PROJECT INTEGRATE INTO EXISTING TRANSPORTATION INFRASTRUCTURE?	• Connects with local bus service at Santa Cruz Metro Center & Watsonville Transit Center • Existing local bus service connects at four future stations • Local bus service could be provided to/from all future stations	• Connects with local bus service at seven future stations (Watsonville Downtown, Aptos Village, 41st Ave., 17th Ave., Seabright Ave., Downtown Boardwalk, Natural Bridges Dr.) • Local bus service could be provided to/from all future stations	• Connects with local bus service at eight future LRT stations (Watsonville Downtown, Ohlone Parkway, Aptos Village, 41st Ave., 17th Ave., Seabright Ave., Downtown Boardwalk, Natural Bridges Dr.) • Local bus service could be provided to/from all future stations	• Connects with local bus service at six future ART stations (Aptos Village, 41st Ave., 17th Ave., Seabright Ave., Downtown Boardwalk, Natural Bridges Dr.) • Local bus service could be provided to/from all future stations • Local bus connector service from Lee Rd. station to Pajaro would also connect to Watsonville Downtown Transit Center
DOES PROJECT HAVE ABILITY TO ADAPT TO FUTURE TECHNOLOGY?	• More flexibility adapting to new technologies due to more flexible infastructure with pavement and lower vehicle costs/shorter useful life	• Less flexibility adapting to new technologies due to less flexible infrastructure due to fixed guideway and higher vehicle cost/longer useful life	• Less flexibility adapting to new technologies due to less flexible infrastructure due to fixed guideway and higher vehicle cost/longer useful life	• Moderate flexibility adapting to new technologies due to more flexible infrastructure due to pavement and higher vehicle costs/longer useful life
HOW EASILY CAN PROJECT BE INTEGRATED INTO EXISTING RIGHT-OF-WAY?	• No significant ROW expected to be needed to construct facility on ROW • Additional ROW could be required at larger stations that include parking or other amenities that require more space	• No significant ROW expected to be needed to construct facility on ROW • Additional ROW could be required at larger stations that include parking or other amenities needing more space	• No significant ROW expected to be needed to construct facility on ROW • Additional ROW could be required at larger stations that include parking or other amenities needing more space	• No significant ROW expected to be needed to construct facility on ROW • Additional ROW could be required at larger stations that include parking or other amenities needing more space

ATTACHMENT 3

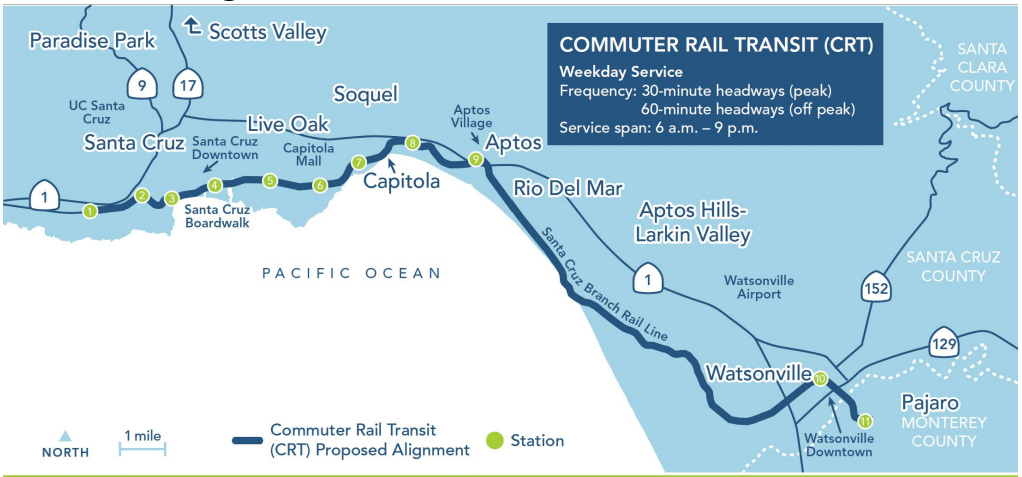
Proposed Locally Preferred Alternative for the Santa Cruz Branch Rail Line

Electric Passenger Rail (CRT/LRT)

Characteristics:

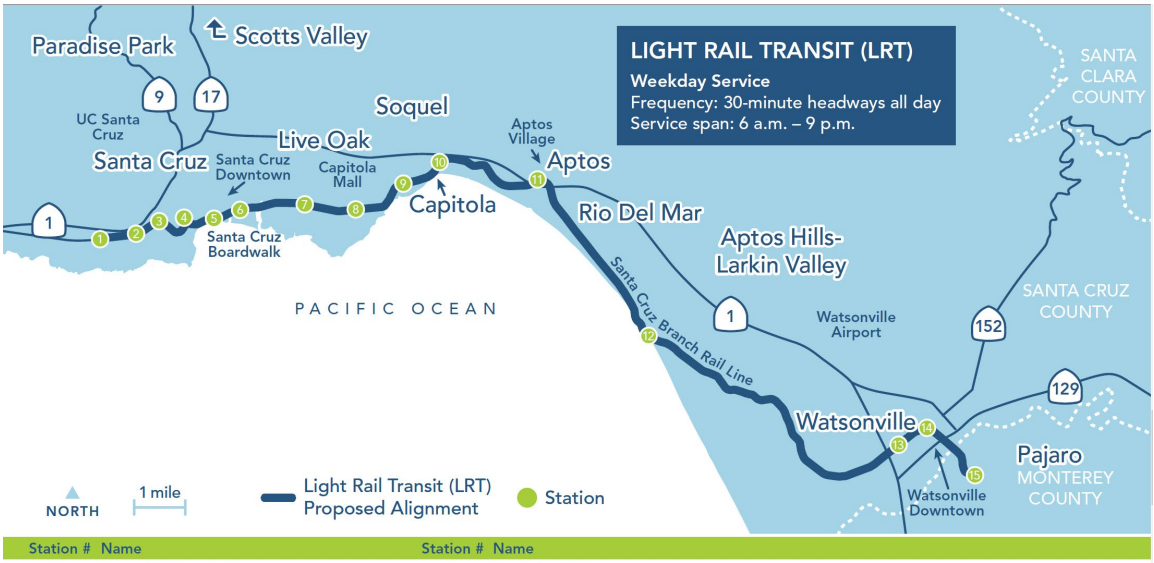
Rail options can be described as passenger rail service operating on fixed rails with single or multiple individually-propelled cars, providing a local or regional service along an exclusive guideway. Operations will be structured on a single track within the Rail ROW with periodic sidings allowing for two-way travel. A decision on whether the rail option will be commuter rail (CRT) or light rail (LRT) is not recommended as part of this planning study. The infrastructure needed for either CRT or LRT is similar enough as to not impede further preliminary engineering or environmental studies of the corridor for rail transit. Deferring this decision will maintain flexibility for future decisions on the rail vehicle type, while clean energy rail technology advances.

CRT Alignment and Stations Evaluated in TCAA/RNIS



Station #	Name	Station #	Name
1	Natural Bridges Station	9	Aptos Station
2	Bay Street Station	10	Downtown Watsonville Station
3	Downtown Santa Cruz/Boardwalk Station	11	Pajaro Station
4	Seabright Station		
5	17th Avenue Station		
6	41st Avenue Station		
7	Capitola Station		
8	Cabrillo Station		

LRT Alignment and Stations Evaluated in TCAA/RNIS



Station #	Name	Station #	Name
1	Natural Bridges Station	9	Capitola Station
2	Fair /Almar Avenue Station	10	State Beach Station
3	Bay Street Station	11	Aptos Station
4	Downtown Santa Cruz Depot Park Station	12	La Selva Beach Station (seasonal)
5	Boardwalk Station (seasonal)	13	Ohlone Parkway Station
6	Seabright Station	14	Downtown Watsonville Station
7	17th Avenue Station	15	Pajaro Station
8	38th/41st Avenue Station		

Additional characteristics of the proposed Passenger Rail LPA include:

- **Vehicle Speeds** will be capable of traveling from 30 to 60 mph in the Rail ROW, with both CRT and LRT traveling at similar average and maximum travel speeds in the corridor.
- The number of **Stations** is expected to range from 11 to 13 stations on the Rail ROW, with the CRT configuration having the lower number of stations and LRT having the higher number of stations. This analysis was based on traditional station spacing and interactions for each passenger rail service. Both CRT and LRT could also include seasonal stations in the Rail ROW to better accommodate tourist and seasonal activity in the corridor. Although this study considered the number and location of station alternatives, a more detailed study during preliminary engineering and environmental review may consider different alternatives.
- The use of **FRA compliant or non-FRA compliant vehicles** will be determined in the next phase of the analysis. If non-FRA compliant vehicles are identified for use, then both CRT and LRT could be configured to operate with freight rail in this shared-use corridor only if temporally separated (i.e., freight rail and passenger rail operations will operate at different times of the day). This will require the implementation of Centralized Traffic Control (CTC) or similar signal systems. If FRA compliant vehicles are implemented, then the passenger rail (both CRT and LRT) vehicles can comingle with freight rail in this shared-use corridor and both Centralized Traffic Control (CTC) and Positive Train Control (PTC) would be required.

- **Frequency of service** would be established in a future phase of project development and could increase over time as ridership increases. Headway is the number of minutes between each train. Higher frequency (lower headways) for major stops and lower frequency for minor stops could provide the best tradeoff of travel time versus ridership and is a common practice among rail systems. Both CRT and LRT in the TCAA/RNIS analysis considered 30 minute headways during peak periods. CRT had a 60 minute headway for off-peak and LRT continued with a 30 minute frequency all day. The ridership analysis showed that a higher frequency service of 30 minute headways during mid-day served a demand that is not served by 60 minute headways mid-day.
- **Daily period of service** would be established in a future phase of project development and will likely increase over time as ridership increases. Weekday span evaluated in the TCAA/RNIS was from 6AM to 9PM and 7AM to 10PM for weekend for both CRT and LRT.
- **Level platform boarding** is a common feature in both CRT and LRT services at each station, no matter the station size in order to provide universal access for all ages and abilities and ease of boarding for travelers with bicycles.
- The CRT and LRT alternatives assume **alternative fuel technologies** including hydrogen fuel cell, battery or other future clean, or non-fossil fuel technologies without the need for an overhead catenary system. Alternative fuel technologies are advancing rapidly, along with trainsets. Within the next decade, options for clean fuel trainsets will likely expand significantly compared to what is available today.

BENEFITS OF ELECTRIC PASSENGER RAIL FOR THE LOCALLY PREFERRED ALTERNATIVE

The benefits of electric passenger rail for the locally preferred alternative, considering both CRT and LRT, are provided below.

- **Provides Faster Travel Times and Greater Travel Time Reliability**. Passenger rail with CRT and LRT by utilizing a dedicated guideway for the entire distance between Santa Cruz and Pajaro provides the fastest travel times and greatest level of travel time reliability compared to the other alternatives.
- **Reduces Auto Vehicle Miles Traveled and Greenhouse Gas Emissions**. As transit ridership increases, auto vehicle miles traveled will decrease. Rail ridership combined with the longer average trip distances on rail transit, provide the greatest reduction in vehicle miles traveled and associated greenhouse gas emissions and criteria pollutants.
- **Serves a High Percentage of Disadvantaged Populations in Santa Cruz County.** The passenger rail LPA, with both CRT and LRT, includes 91% of its rail station stops within census tracts identified as transportation disadvantaged populations in the county.
- **Provides Regional Rail Network Compatibility**. The passenger rail LPA is expected to provide the best regional network integration potential and compatibility with the California State Rail Plan and neighboring Monterey County -regional rail project plans connecting at the future Pajaro Station with only a cross platform transfer to the state rail network. An FRA compliant vehicle provides the potential for a one-seat ride between Santa Cruz and Monterey.

- **Provides the Shortest Length of Time to Implement**. The schedule for implementing the passenger rail LPA, for both CRT and LRT, will require less time than the other alternatives.
- **Assures Continuous Corridor for Transit and Trail**. The LPA ensures continuous use of the Rail ROW for its intended purpose, which creates more certainty on preserving the corridor for all uses.
- **Provides Greatest Opportunities for Transit-Oriented Development**. Fixed-guideway passenger rail services such as those provided by CRT and LRT provide the best opportunities for Transit-Oriented Development (TOD) and future demand for transit ridership compared to the other alternatives.
- **Utilizes the Full Rail ROW between Pajaro Station and Westside Santa Cruz**. The LPA utilizes the full length of the Rail ROW as a dedicated transit facility that currently has unused capacity.
- **Provides More Funding Sources Available for Passenger Rail.** As presented in Chapter 5, CRT and LRT offer more opportunities to obtain existing and potential future funding than the other alternatives. The State has established a vision of a major expansion of the rail network throughout California as provided in the 2040 California State Rail Plan. The State has committed to provide funding to implement rail projects. Governor Newsom's recent Executive Order (EO N-79-20) directing state agencies to "Build towards an integrated, statewide rail and transit network, consistent with the California State Rail Plan, to provide seamless, affordable multimodal travel options for all" continues with this commitment.
- **Will not Impede Existing or Potential Future Freight and Recreational Rail from Using the Corridor.** The passenger rail LPA provides the least impact to existing and potential future freight rail operations on the Rail ROW. Freight rail and passenger rail can share the same set of tracks but may require temporal separation if the vehicles are not FRA-compliant. Both CRT and LRT can best accommodate SCBG recreational rail operations to the Boardwalk.
- **Provides Greater Flexibility to Allocate Space for Seats, Bicycles, and Mobility Devices based on Need.** CRT and LRT have greater capacity to tailor the rail vehicles to meet local needs for seating, bicycle storage and mobility devices. Vehicle design that can be flexible to accommodate a range of seating, bicycle capacity and mobility devices will provide the greatest benefit.
- **Provides Ability to Have Level Boarding at all Stations**. Both CRT and LRT can accommodate level boarding at all stations providing universal access for all ages and abilities.
- **Assures Energy Efficiency per Passenger Capacity Mile.** As technology advances for each of the four alternatives, the options for delivering greater energy efficient solutions will be explored and further defined. The passenger rail LPA provides similar energy efficiencies per passenger mile as the other alternatives. As electrification of rail vehicles advance, there will be more options for zero-emission trainsets.

AGENDA: November 16, 2020

TO: SCCRTC Bicycle Advisory Committee

FROM: Tommy Travers, Transportation Planner

RE: Highway 9 Update

RECOMMENDATIONS

RTC staff recommends that the Bicycle Advisory Committee (BAC) receive information about complete streets planning along Highway 9 in the San Lorenzo Valley and participate in upcoming public meetings

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BACKGROUND

The RTC worked with the community to develop the Highway 9/San Lorenzo Valley Complete Streets Corridor Plan (https://sccrtc.org/slv), which was finalized in June 2019. The Plan was the culmination of numerous public meetings, committee meetings, public workshops, meetings with schools and local businesses, and public online surveys. The Plan lays out the community's priorities for specific highway modifications that more adequately consider bicycling and walking among the other transportation modes. In February 2019, the BAC approved submitting their final comments on the Draft Plan to the project team supporting the Plan generally while also providing some final comments and requesting BAC inclusion in design review of Plan projects.

DISCUSSION

Most of the priority projects in the Plan are located in Caltrans jurisdiction, and some projects off the highway are in County jurisdiction. Since RTC adoption of the Plan, RTC staff has met multiple times with Caltrans and County staff to facilitate planning and design of the first projects. To date, several crosswalks have been enhanced and signage for safer routes has been installed near the three-schools campus. Currently, RTC is working in cooperation with Caltrans on a variety of next steps in the implementation of complete streets concepts. One major priority area, which has been allocated $7 million in funding from Caltrans Division of Safety, is improvement of safe bicycle and pedestrian access on Highway 9 between Felton and the SLV Schools campus.

The project initiation document (PID) phase is the first formal Caltrans project phase in developing a solution for a specific transportation problem, and occurs prior to the environmental phase of a project. The project initiation phase follows the system and regional planning process, which in this case was the Hwy 9/SLV

Complete Streets Corridor Plan. The outcome of the project initiation process is a PID that establishes a well-defined purpose-and-need statement, and a proposed project scope tied to a reliable cost estimate and schedule for subsequent phases of environmental, final design, and construction. With a completed PID, complete streets projects can be implemented and funded in the future.

Caltrans is currently developing four PIDs for areas covered by the Hwy 9/SLV Complete Streets Corridor plan. Two of the PIDs will be ready for public comment in December: the SLV Schools access PID and a PID for wider pavement striping on Highway 9 throughout the San Lorenzo Valley. Caltrans is also beginning work on a Measure D-funded Complete Streets PID to consider all SLV CS Plan-recommended complete streets projects on Highway 9. Finally, Caltrans is also working on a PID for a repaving project on Highway 9 which extends from Highway 1, through Felton, to El Solyo Heights north of Felton into which Caltrans leadership desires to incorporate, fund, and construct complete streets elements.

Caltrans currently plans to hold a public meeting in mid-December to seek input on the SLV Schools access and the striping PIDs. There is also planned a public meeting in February to seek input on the Complete Streets PID and complete streets opportunities in the CAPM repaving project in Felton.

RTC staff recommends that members of the BAC participate in the upcoming Caltrans meetings to ensure that BAC priorities are incorporated. Staff will notify BAC members once meeting dates in December and February are announced.

SUMMARY

Implementation of complete streets projects along Highway 9 in the San Lorenzo Valley is proceeding with notable RTC staff involvement. Bicycle Advisory Committee members have an opportunity to provide input in the scoping phase of several projects being let by Caltrans.

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