

MEGAREGIONAL VIRTUAL COMMUNITY MEETING SUMMARY

FINAL

June 10, 2024 | 6 - 7:30 pm

Prepared By: Link21 Engagement & Outreach (E&O) Consultant Team





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Acronyms and Abbreviations

ACRONYM/ABBREVIATION	EVIATION DEFINITION	
BART	San Francisco Bay Area Rapid Transit District	
ССЈРА	Capitol Corridor Joint Powers Authority	

Link21 Program Team Names

TEAM NAME	TEAM MEMBERS	
Program Management Consultants (PMC)	The HNTB Team	
Program Management Team (PMT)	BART/CCJPA + PMC	
Consultants	Consultants supporting program identification/project selection	
Link21 Team	PMT + Consultants	



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1. Overview

OUESTION 1. WHAT IS YOUR ZIP CODE?

On Monday, Jun. 10, 2024, Link21 hosted a virtual community meeting from 6 - 7:30 pm via Zoom webinar with closed captioning. The meeting was simultaneously interpreted in Spanish and Cantonese and included a formal presentation with a Question & Answer (Q&A) session for attendees to interact directly with the Link21 Team. The virtual community meeting was recorded and posted on the Link21 <u>website</u>.

72 participants registered in advance of the meeting to access the Zoom link and responded to the registration survey. Of the 72 registrants, 53 attended the meeting.

QUESTION 1: WHAT IS YOUR ZIP CODE?							
RESPONS	ES						
90001	94089	94112	94536	94568	94609	95062	95816
93722	94102	94115	94538	94587	94611	95076	95820
94005	94103	94116	94541	94601	94612	95110	
94010	94107	94117	94547	94603	94703	95363	
94025	94109	94123	94549	94606	94704	95476	
94040	94110	94131	94553	94607	94708	95608	
94066	94111	94306	94555	94608	95014	95678	
QUESTION	N 2: HOW DID	OU LEARN A	BOUT THIS EV	/ENT? CHECK	ALL THAT A	PPLY.	
ANSWER						RESPONSES	
I saw it o	I saw it on social media (Twitter, Facebook, Instagram, LinkedIn, etc.).					25	
I saw it on the Link21 website.					15		
I heard a	I heard about it from friends or family.					8	
I received an email announcement from another government or transit agency.					6		
I received	I received a BART or Capitol Corridor email announcement.					5	
Other.					3		
I received a flyer at a transit station or event.					1		
I received a phone call or email from someone who works for Link21.					1		
I saw an ad in a print or online newspaper.					0		
I saw it covered in the news.					0		

Table 1-1. Zoom Registration Questions and Responses



QUESTION 3: DO YOU CURRENTLY RIDE ANY TYPE OF TRAIN AS A FORM OF TRANSPORTATION?					
ANSWER	RESPONSES				
Yes	61				
No	4				
QUESTION 4: WHICH TYPES OF TRAIN(S) DO YOU RIDE REGULARLY (ON MORE)? CHECK ALL THAT APPLY.	IESTION 4: WHICH TYPES OF TRAIN(S) DO YOU RIDE REGULARLY (ONCE PER WEEK OR DRE)? CHECK ALL THAT APPLY.				
ANSWER	RESPONSES				
BART	50				
Caltrain	20				
San Francisco Muni Metro	20				
Capitol Corridor	8				
Amtrak	6				
Valley Transportation Authority (VTA) Light Rail	5				
Other	3				
None / I don't ride any of these regularly	3				
San Joaquin	2				
Sonoma-Marin Area Rail Transit (SMART)	2				
Altamont Corridor Express (ACE)	1				

1.1. Meeting Summary

The meeting was facilitated by Linton Johnson from the San Francisco Bay Area Rapid Transit (BART), who opened with welcoming remarks and thanked attendees for coming. He then went over meeting details, including the meeting being recorded, closed captioning, and how to reach out for technical support via the Q&A feature. Linton explained how to access the interpretation channels in Spanish and Cantonese.

Linton introduced the meeting speakers panel:

- Sadie Graham, Link21 Program Director, BART
- Camille Tsao, Link21 Program Lead, Capitol Corridor
- Brian Soland, Link21 Manager of Rail Planning, BART

Linton presented the meeting agenda as follows:

- Part 1: Link21 Overview
- Part 2: Analysis Findings
- Part 3: Next Steps and Question & Answer Session



1.1.1. Part 1: Link21 Overview

Sadie Graham, BART's Link21 Program Director, shared the Link21 vision: To transform the BART and Regional Rail network into a faster, more connected, equitable, affordable, and accessible train system for future generations in the Northern California Megaregion. Sadie noted that at the core of Link21 is a second train crossing between Oakland and San Francisco. She explained how Link21 aims to address significant challenges facing the Megaregion such as insufficient access to meet community needs —especially those of Priority Populations— and expectations about crowding on BART in the future.

Sadie then shared Link21's goals:

- Transform the passenger experience
- Promote equity and livability
- Support economic opportunity and global competitiveness
- Advance environmental stewardship and protection

Sadie discussed the Link21 Program's commitment to equity and what it means:

- Prioritize engagement with communities that have been historically and systemically marginalized
- Benefit those who need it most
- Partner every step to avoid harms and create needed benefits

Sadie talked about the Equity Advisory Council (EAC), a key component of Link21's Equitable Engagement Program. The EAC was established in January of 2023 and is made up of 18 representatives from low-income communities, communities of color, and other historically marginalized communities that bring their lived experiences or professional familiarity in technical and policy areas to the Program. The EAC meets every other month to provide input and make formal recommendations to the Link21 team. EAC topics have included accessibility, anti-displacement, connecting transit, fares, community benefits, equity metrics, and more.

Sadie provided a snapshot of engagement during Phase 1 of the Link21 Program. Some highlights include:

- 185 agency stakeholder briefings and 164 community stakeholder events
- 39 electronic notices, 71,800 website visits and 34,395 subscribers, 3,698 online open house visits, and 1,739 submitted comments
- 15 surveys and 3,700 survey responses
- In total, 6.5 million digital impressions



Through these engagement efforts, stakeholders, policymakers, and members of the public have shared several key priorities/interests for Link21, including the following:

- Faster, direct, convenient Megaregional connections to San Francisco and the Peninsula (direct connections)
- Improved reliability and greater frequency of service
- Increased late night and weekend service
- Bicycle and pedestrian facilities at stations to reduce personal vehicle usage
- Improved safety and security, ADA accessibility, and minimized displacement/gentrification
- Fare equity and affordability

Link21 public opinion research conducted in fall 2023 shows considerable interest in the Program, with 70% of respondents supporting Link21's development. When asked about key features they want to see included in the project, the highest support was for creating a more-connected rail network that integrates existing systems, which was chosen as very/extremely important by 71% of respondents. 52% said allowing Peninsula service to extend through San Francisco to Oakland, with faster and more direct trips is very/extremely important. The feedback received through outreach and research aligns with the Link21 Program goals and objectives.

Link21 Crossing Decision

Sadie reviewed the Program timeline and its current status. Link21 completed Phase 0 (Program Definition), which established and evaluated goals and objectives, and is currently in Phase 1 (Project Identification). Part of this phase includes the upcoming program milestone of identifying a train crossing technology. This decision does not encompass an entire defined project.

Sadie then turned the presentation over to Camille Tsao, Capitol Corridor's Link21 Program Lead, who shared more about the Link21 technology decision. Camille reviewed how the Link21 Program advanced through the steps that preceded the upcoming decision.

This milestone decision is being made at this point in the project for three main reasons:

- The technology analysis is completed; the next step for current work is to define a Proposed Project to prepare for the Environmental Review phase.
- Identification of the crossing technology and accompanying service will allow focused planning.
- Ongoing state and federal support require a defined project.

Camille elaborated on the two different track gauge concepts for the crossing:



- Standard-Gauge (Regional Rail) Crossing
 - New Urban/Metro service at new and existing stations
 - Improved travel times and more direct Megaregional trips
 - Complements existing BART crossing
 - Provides redundancy and alleviates crowding
 - Utilizes existing rail corridors new track alignment is underground
- Broad-Gauge (BART) Crossing
 - New Urban/Metro service at new stations and improved Urban/Metro service at existing stations
 - Includes Oakland transfer between BART and Regional Rail.
 - Improved service on existing BART lines
 - BART trains could use either crossing (provides service redundancy and reduces crowding)
 - Utilizes existing rail corridors new track alignment is underground

1.1.2. Part 2 : Analysis Findings

Camille introduced Brian Soland, BART's Link21 Manager of Rail Planning, who provided an overview of the analysis comparing broad-gauge and standard-gauge rail in the crossing. Brian explained the relative similarities and differences between the two gauge types, and discussed evolving considerations like ridership, cost, and funding sources.

- Similarities:
 - Both technologies provide a similar share of benefits to Priority Populations (although broad-gauge benefits are largely within the existing service area while standard-gauge benefits expand access to new areas not already served by transit).
 - Both technologies provide benefits above and beyond the Justice40 Initiative, which says that equity populations should receive a 40% share of benefits for federally funded projects.
 - Both technologies support economic opportunity and livability by improving access to stations and jobs.
- Differences:
 - The passenger experience would differ between the two technologies. Though both technologies would increase the number of direct connections, standard-



gauge would provide more new direct connections, and would connect megaregional destinations.

- Standard-gauge technology would improve travel time significantly for trips to San Francisco from the megaregion, and also from the East Bay to the Peninsula. Broad-gauge technology would provide significantly less travel time savings to more people with shorter wait times in most East Bay stations.
- A standard-gauge crossing would allow use of different train services to improve connectivity across a wider region (Caltrain, San Joaquins, and Capitol Corridor could all benefit). A broad-gauge crossing would be usable by BART trains only, offering more localized advantages such as increased frequency within the urban core of the Bay Area.
- He also compared how the crossing can amplify the benefits of other planned projects throughout the megaregion, and how those projects could also benefit Link21. Generally, there are more projects that would connect to a standard-gauge crossing compared to ones that would connect to a BART crossing.

Brian discussed other considerations included in the analysis that will continue to inform project development into the future, but are not significant factors in the technology decision.

- It was determined that, regardless of which gauge type is chosen, there will be a substantial gain in new riders. Ridership gains depend on station locations, markets served, service levels and other factors which will be determined as the project is developed.
- Brian explained that costs of crossing infrastructure using either track gauge are broadly comparable, but the cost to improve the standard-gauge infrastructure connecting to the crossing would be higher because there has not been as much investment in standard-gauge infrastructure. As the project is defined, cost estimates will be refined, and allocations will be determined. Based on the current 1-2% design, cost estimates include:
 - \$18-\$30 billion for a new crossing with either technology.
 - \$5-\$10 billion for additional broad-gauge (BART) infrastructure.
 - \$15-\$25 billion for additional standard-gauge (Regional Rail) infrastructure.
- Another analysis consideration looks at opportunities for funding. Either technology choice would be eligible for local, state, and federal (Federal Transit Administration, FTA) funding. However, only standard-gauge is eligible for Federal Railroad Administration (FRA) funding.

1.1.3. Part 3: What's Next?

Sadie described the next steps for the Program, which include the following:



- Identify train crossing technology
- Project definition and refinement
- Funding strategy
- Governance and key stakeholder coordination
- Ongoing public engagement and equity

Sadie emphasized Link21's commitment to continue stakeholder engagement. This meeting is the second of two webinars being hosted this month. The first was held on on Thursday, June 6th from 6-7:30pm.

Along with the webinars, Link21 is launching an Online Open House in mid-June, which can be accessed at <u>www.link21openhouse.com</u> after launching. Ongoing community events and coordination efforts with the Equity Advisory Council will also continue.

Question & Answer Session

Linton opened the Question & Answer session where attendees were given the opportunity to submit questions via the Zoom Q&A feature or use the "raise hand" function to ask their question verbally. Questions were addressed live and via the Q&A feature. Any questions asked in the interpretation channels were also asked of the group by the interpreters. The Link21 team answered as many questions as possible in the time allotted. Questions and answers are listed below, including questions that were unanswered due to time limitations. Questions were answered by Camille Tsao, Sadie Graham, and Brian Soland, as well as the following individuals:

- Tim Lohrentz, Link21 Equity Lead
- Darin Ranelletti, Link21 Manager of Land Use Planning
- Donald Dean, Link21 Environmental Team Lead
- Andrew Tang, Link21 Manager of Program Evaluation

Table 1-2	2. Questions	and Answers
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QUESTIONS	ANSWERS
Why won't the Link21 Project revitalize the abandoned Oakland Central Station? It won't offer a connection to BART but it would connect an underserved neighborhood of West Oakland. The station is so beautiful, it's a shame to leave it without rail service.	• We've identified and are exploring several different stations in our concepts. This is a great suggestion for the process, and we will consider it as we move the Project into the next phase to determine station locations.
How would either of these impact timelines for delivery of the system generally?	 Both the broad-gauge (BART) crossing and standard-gauge



QUESTIONS	ANSWERS
	(Regional Rail) crossing will have different timelines we're not sure of yet, because it depends on factors like funding availability. For example, standard-gauge (Regional Rail) qualifies for FRA funding while a broad-gauge (BART) crossing does not. The state is interested in standard-gauge crossings because it aligns with their statewide Rail Plan and fills a gap in the standard-gauge network. However, the Regional Rail system is a more complex concept because it involves the negotiation of multiple rights-of-way, including Union Pacific, Capitol Corridor, Caltrain, etc.
Do the BART option's travel time savings assume Capitol Corridor will be electrified and receive frequent service as in the Regional Rail option? That seems like it would be a more apples-to-apples comparison, since Capitol Corridor can be improved regardless of whether it runs to San Francisco.	 Yes, the travel time savings for the BART option assume the Capitol Corridor will still be electrified and receive frequent service, similar to the Regional Rail option because of statewide goals that all rail services will be zero emissions by 2035. In all instances, operators are running zero emissions. The assumption in the BART option is that for Capitol Corridor – which wouldn't provide a direct connection to San Francisco and would require a transfer as it is today – the frequency would be the same as BART.
I've been out in the community, and I've been asked quite a few questions. Between the two different types of crossings, if it is BART, practically anyone would be able to make use of the system. If you are on Regional Rail operators such as the Capitol Corridor and San Joaquins, especially the San Joaquins, I've heard from people getting asked by the conductors, "Where is your ID." With BART, you enter and exit. With the priority populations, some of which don't have ID's, if we do Regional Rail, how will equity play out so that those people who might be using BART today change over to a Regional Rail who will be asked to procure an ID or get kicked off the train?	• Thank you for your comments and question, and we hear you. We will have to closely evaluate aspects about the Regional Rail system that don't work for priority populations specifically. It is a work in progress, and we are aware that some changes need to be made, including fares.



QUESTIONS	ANSWERS
In terms of what work it will take to make BART 24-hours, whether it's specific windows of time, but what has to be a part of the timelines of the planning to make that a reality?	 Extending BART service to 24-hours requires overcoming two hurdles. First, BART's own policies need changes to allow for extended operations. Second, a second crossing, either standard-gauge or broad-gauge, is necessary to enable maintenance during nighttime hours. Even with a limited window for maintenance, a second crossing would allow BART to offer longer service durations, even if not reaching the full 24 hours.
Could the standard-gauge technology extend Caltrain into Oakland with a transfer to BART and Capitol Corridor, without physically running Capitol Corridor trains into San Francisco? An Oakland transfer station seems like a less expensive way to get passengers to San Francisco than an underground way that would hurt effective frequency.	• Yes, standard-gauge technology could allow extending Caltrain to Oakland with transfers to BART and Capitol Corridor. While this might be a good first step, the Project ideally envisions a comprehensive network with multiple interoperable services offering seamless travel across the Bay. This aligns with California's Rail Plan that includes a Sacramento-to- San Francisco connection.
When will staff's recommendation be presented to BART and Capitol Corridor Boards?	• The Capitol Corridor Board meets every other month and the BART Board meets twice a month. We anticipate the technology decision discussion to happen with the Boards in September.
When will the crossing technology be decided?	 As mentioned, that decision will hopefully be advanced in the fall timeline.
How would standard-gauge and broad-gauge impact any future connections or plugins to California High Speed Rail?	• Choosing standard-gauge for the crossing would allow future expansion for California High-Speed Rail. The new crossing would be designed to accommodate high-speed trains if there's ever a plan to extend service to the East Bay.
At this time, is through-running Caltrain being considered as an option for the Regional Rail alternatives?	• Yes, through-running Caltrain to the East Bay is being considered as an option for the Regional Rail alternatives. This is a desire of the Link21 team, but it requires Caltrain's agreement.



QUESTIONS	ANSWERS
Why did the Project abandon the idea of incorporating both broad-gauge and standard- gauge track? Could it be due to funding constraints or were there other considerations involved?	 Though the idea of incorporating both standard-gauge and broad-gauge tracks was considered for the Project, it was ultimately rejected for two main reasons. First, safety regulations mandate increased space between tracks with differing crashworthiness standards. This would restrict the number of trains able to utilize the crossing. Secondly, the current BART infrastructure isn't designed to handle the heavier standard gauge trains. Upgrading the entire system to accommodate them would be cost-prohibitive. While funding wasn't the primary concern, the downsides of a dual-gauge system outweighed the potential benefits.
Why did we go from looking at options that have both Regional Rail and BART to looking at one or the other?	 The plan originally considered having both standard-gauge (Regional Rail) and broad-gauge (BART) tracks in a single crossing. However, this approach faced challenges such as the differing ideal locations for each type of track from different locations in the Bay, and also that building a tunnel wide enough for both types of tracks wasn't feasible because the technology doesn't exist yet. An analysis then showed that two tracks would be sufficient to meet future demand (2050 and beyond)
	future demand (2050 and beyond). This led to the current focus of choosing between a standard-gauge or a broad-gauge gauge crossing.
A lot of these statistics were very broad. How is Link21 making decisions based on traffic and trip flows and demand?	• While the Link21 traffic and trip flow data presented may seem broad, it serves the purpose of this initial decision phase. Future stages will involve more detailed analyses for specific aspects like station locations.
	• To understand travel demand, Link21 utilized more than 170 million records of cell phone data to create a comprehensive picture of travel patterns and also used travel



QUESTIONS	ANSWERS
	modeling based on the region's travel patterns to assess overall demand.
Regardless of the technology chosen, why can't a 14th Ave. to Rancho San Antonio Station be included in the Project? It would give better access to transit to disadvantaged communities and create an excellent transfer opportunity between standard-gauge rail and broad-gauge rail.	 Including a 14th Ave. to Rancho San Antonio Station in the Project is being considered despite the technology chosen for the crossing. While the station was only included in initial plans, there's continued interest from the community, especially from the great advocacy work seen by the San Antonio Station Alliance. The Project team acknowledges the station's potential benefits and plans to further analyze its feasibility in the next phase as well as its contribution to equity goals for the Project. Alternative ways to develop the station outside of the Link21 Project are also being explored.
I want to understand if the plans are being evaluated for their environmental impact: the greater expansion of the greater Bay Area and triggering urban sprawl rather than repurposing existing areas for transit access. Is this a factor in your thinking as you evaluate the alternatives?	 Yes, the Project's environmental impact assessment will consider potential urban sprawl caused by increased development around new stations. This analysis will go beyond just the immediate footprint of the crossings and stations but will encompass potential land-use changes across the entire region. Additionally, the environmental review will examine the risk of displacement due to development and potential for station-related redevelopment projects. These factors will be formally evaluated during the state CEQA and federal NEPA Environmental Review processes, which will occur once specific alignments and station locations are finalized. Some environmental impact studies may also be conducted independently of these official processes.
I was at a transit conference last year, and some Department of Transportation people (I can't recall if Caltrans or Federal) said a second Bay crossing near Alameda/Jack London would be near-impossible because of	• Our engineering team has looked at this. While the vehicle tunnels make building a crossing in that area challenging, our team has, at least



QUESTIONS	ANSWERS
the two automotive tunnels in the area. Any thoughts on this?	preliminarily, been able to find a way to avoid conflict with those tunnels.
If BART gauge is selected for stations, it's going to be easy for wheelchaired users to get on and off like they are now. If standard-gauge is selected, in order to help speed the process of getting on and off the standard-gauge trains, instead of having to find a conductor for a special wheelchair lift, would there be consideration that a raised platform entry onto the train would be considered for the new train cars in operation, so wheelchair users have better and faster access?	 Yes, level boarding will be a priority for wheelchair users regardless of the chosen track gauge (BART or standard). The goal is to achieve level boarding at all stations, but it will require time and coordination, especially for stations located on freight rail right-of-way where separating passenger and freight train tracks is necessary. For any new stations built with the chosen gauge, level boarding will be incorporated, similar to how BART stations currently function. This allows for easy boarding for wheelchairs, bikes, and strollers. Implementing level boarding at existing stations is more complex. Caltrain currently uses mini-high platforms at some stations, similar to Muni, for these situations.
By 2025, BART expects 7,000 units—35% of which are affordable—will be built on its land. What would the acquisition of new land for new stations do for overall housing goals BART has and will bring to the Bay Area? Is new housing a requirement for these new stations being considered near the new transbay tube?	 BART aims to create equitable communities around transit stations. While specific housing goals haven't been set for stations near the new Bay crossing yet, incorporating housing, especially affordable housing, will be a key consideration during the planning process. This collaborative effort with local communities will ensure stations foster vibrant, mixed-income neighborhoods where residents benefit from easy access to transit.
How is the Project addressing historic inequities to transit access, such as the disparate length between BART stations in East Oakland and other urban communities on the BART system?	 The Project itself isn't designed to address the historical imbalance of station access across the entire region. However, we are considering ways to improve access for disadvantaged communities within the Project's scope, including analyzing potential infill stations like San Antonio Station in East Oakland and also exploring a co-developed station with San Francisco CTA in the



QUESTIONS	ANSWERS
	Bayview. If a standard-gauge option is chosen, enhancing the Coliseum station and enabling a potential one- seat ride to the Peninsula is an option for East Oakland residents.
Could you talk a bit more about the performance capabilities being considered or assumed for both standard- and broad-gauge technologies (e.g. acceleration capabilities, top speeds, headways). How much do the capabilities differ and overlap? How do these assumptions impact the results of the analysis being performed?	 The performance capabilities of standard-gauge (Regional Rail) and broad-gauge (BART) trains for the Project are expected to be very similar. BART has a well-established system with defined standards for acceleration, top speed, and headways (frequency). With electrification, standard-gauge trains can achieve similar performance to BART in terms of faster headways, shorter dwell times, and reliable service. These assumptions about similar capabilities have minimal impact on the overall analysis. The focus is more on other factors, such as future compatibility and potential improvements, when choosing between the two track gauge options.
When will the Link21 Program be taking substantive feedback from the community about the plan for the future of trains and rail crossings across Northern California? The community has ideas, and we hope to communicate those to you as the Project planners.	 We appreciate all the feedback we've received so far. We currently need to choose a track gauge technology (standard-gauge or broad-gauge (BART)) to solidify plans for station locations and alignments. Once this decision is made, we will launch a substantive community engagement effort. This will involve focused discussions with residents in areas directly impacted by infrastructure changes, while also continuing broader regional outreach. We've successfully used co-creation workshops in the past to gather longterm visions from communities, and plan to utilize similar methods for indepth discussions on specific details in the next phase.
If Union Pacific does not allow overhead wires for electrification of Capitol Corridor, would this discontinue Capitol Corridor after 2035?	 Capitol Corridor service will not be discontinued after 2035 even if Union Pacific doesn't allow electrification.



QUESTIONS	ANSWERS
	 There are emerging alternatives; the state is exploring hydrogen-powered trains for Capitol Corridor, eliminating the need for overhead wires. Also, while current battery range isn't sufficient, future improvements might make them a viable option. Regional Rail trains are constantly being upgraded for better performance, so expect advancements beyond what's currently available.
Is the recording of this event accessible to public? How can I access it?	<i>(answered in chat)</i> The recording will be accessible to the public. You can see the video at link21program.org.
We are very excited that Link21 is finally kicking off the public outreach phase of this Project. When will community members have an opportunity to provide substantive feedback on design plans and share our own vision with Project managers?	
When will the crossing tech be decided?	
Why is the marketing here pitted as BART vs CC and not standard gauge trains such as ACE, CC, Caltrain, San Joaquin vs broad gauge trains? Or why isn't it pitched as a mainline rail option to alleviating salesforce capacity for through running trains?	
I saw one of the slides that mentioned electrification of Capitol Corridor etc. Would that have to be completed first before standard gauge trains could be running on this extension? I remember Caltrain had to be electrified before it could potentially extend to Salesforce transit center since the station is underground.	
Has an option that has both gauges been explored?	



QUESTIONS	ANSWERS
Have you considered the use of multi-gauge trains in the analysis, and if so, what were the findings?	
By listening to the goals of Link21, what problems does Link21 want to solve? All seems to point to San Antonio Station. What is the probability of San Antonio Station becoming reality?	
Is there anything preventing San Antonio Station from being included in the final Link21 Project design regardless of the train technology chosen for the second transbay crossing (standard-gauge vs. BART-gauge)?	
I understand that, given the current financial and ridership factors, a dual-gauge tunnel isn't possible. However, can there be provisions to include the other gauge in the future? for example, in New York City, the LIRR commuter rail made use of an existing subway tunnel to extend the commuter rail line into Grand Central Station.	
East Oakland is one of the most disadvantaged communities in the BART and Regional Rail service network. What is the Link21 Program doing to better connect East Oakland to the larger region?	
When Link21 Project planners conduct the next round of public outreach, will you be sure to include the San Antonio Station Alliance (SASA) as a key partner in that stage of engagement?	
I noticed that the standard-gauge rail option has the line extending straight out the Salesforce Center. So, would a BART-only option take the place of that standard-gauge rail placement, and exclude building a potential third tunnel that runs on standard rail?	
What metrics will you use to determine whether you decide to build a new BART/Regional Rail station in East Oakland (such as San Antonio Station)?	



QUESTIONS	ANSWERS
Will the Megaregional rail start accepting Clipper in the future?	
Why do transit projects in the USA take so much longer than in other countries?	
As of today, where does Link21 lean towards? BART or Standard?	
Are the plans evaluated for their environmental impact (i.e., expansion of the greater Bay Area vs. redevelopment of existing urban areas that would benefit from better transit access)?	
If broad gauge is selected, will BART consider additional routes in SF (e.g., Geary subway to the west side of SF)?	
Will today's slides be available on Link21 website?	
What's the current ridership on these different systems? If access to BART is improved within the communities, do the projected numbers for future riders on the larger system change?	
How much would the constrained rail capacity at the Transbay Terminal affect the decision on what technology is selected for the rail crossing? Caltrain only has 4 tracks to work with and the station throat leading into the Transbay Terminal is not particularly fast.	
What are some things you are considering when determining the development of an infill station such as San Antonio station?	
What metrics are you using to determine whether you incorporate an East Oakland station into your plans?	
We already have a BART crossing so the question is why do we need another,	



QUESTIONS	ANSWERS
especially when you consider that BART trains would need dedicated platforms at the Transbay terminal (and beyond).	
BART studied and ruled out an infill station at Brush Street between Jack London and West Oakland in 2003, concluding that it backed up trains too much in the wye. Does this constrain use of the I-980 corridor for rail with an effective transfer to BART, or is Link21 reevaluating that constraint?	
Can you share any highlights from those collected cell phone records used to study trip demand?	
What areas that could be part of a new crossing showed up as high demand but are underserved now - and could you address San Antonio on this specifically?	
Will new alternative maps be posted on the Link21 website with the release of this year's online open house? The maps currently shown are very confusing and have not been updated for a long time.	

Table 1-3. Comments

COMMENTS

I am not your neighbor from Pennsylvania, but I have biked Pennsylvania's GAP and C&O trail and enjoyed my visit! I'd love to connect about Link21 at [email address].

No question, but I want to second the need for new stations in Oakland as part of either plan! The San Antonio station plan makes a lot of sense: https://www.sanantoniostation.net/

With regards to the question about the 16th Street station, please refer to the 2014 Transbay blended tunnel proposal and you will see that it is located strategically at the intersection between the tunnel alignment and the wye connection between the current southbound and northbound Capital Corridor tracks.

Once again, the real issue is 750 DC 3rd rail (world record 105 MPH) and 25knv overhead catenary (World record 358 MPH). 3rd rail is suitable over short distances while 25KV OCS is suitable both for short distances and longer distances operated at 2x or 3X operating speeds.



On the question of dual gauge, this is not an issue, as stated. The challenge revolves around operating 750V DC 3rd rail and 25KV AC catenary simultaneously over the same set of tracks.

Hydrogen is a fake technology and Capitol Corridor or Link 21 should not use it. Electricity is proven and reliable and should be used for future projects.

Linton concluded the Q&A session, then invited attendees to engage with the Link21 team at future community events, via social media, and the website at Link21program.org. Linton thanked everyone for attending and closed the meeting at 7:30 pm.



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Appendix A. Zoom Transcript

This is a Zoom transcript of the meeting.

00;00;09;25 - 00;00;28;11

Linton Johnson, Link21, Facilitator

Good evening and welcome to join me live from BART's headquarters in Downtown Oakland. And we're all around the Bay. We're excited to be here tonight. We have a great event planned for this evening. We know you could be doing a lot of other things tonight, so we're grateful you're choosing to spend time with us.

00;00;28;17 - 00;00;51;03

Linton Johnson, Link21, Facilitator

For those of you who have participated in meetings previously, welcome back. And for anyone who is new, we're glad you're engaging with us tonight. My name is Linton Johnson, and I'll be moderating this meeting this evening. We are here to connect with you tonight about Link21, a Megaregional, multi-generational transportation program from Northern California. This is the second of two webinars we're hosting this month. The first took place last Thursday, June 6th.

00;00;51;05 - 00;01;09;24

Linton Johnson, Link21, Facilitator

We'll also be providing the public with an Online Open House that will launch soon, in the next two weeks, and remain available through July. To visit the Online Open House at your convenience, you'll need just an internet connection on your mobile device or computer, and the link will be housed on our Program website at Link21program.org.

00;01;09;26 - 00;01;31;07

Linton Johnson, Link21, Facilitator

Before we dive into the presentation, let's get some housekeeping items out of the way. The meeting format includes a presentation and a question-and-answer session. Our goal for this evening is to try to save the last 30 minutes to answer your questions, and to reach as many participants as possible. We're offering this meeting virtually on Zoom, as well as participating via the telephone.



00;01;31;09 - 00;01;53;26

Linton Johnson, Link21, Facilitator

This meeting is recorded and will be posted in a few days on the Link21 Program website. We're hosting this live event in English, Spanish and Cantonese, and we've got interpreters who I'm going to introduce in a few minutes. They're going to join me here in this room or channel in Zoom works. So, in order to access the audio channel for English, Spanish or Cantonese, you're going to need to click the interpretation button.

00;01;53;26 - 00;02;14;05

Linton Johnson, Link21, Facilitator

That's the globe icon in the Zoom taskbar. A menu will appear, and you may select the language you require, but don't do this just yet. I'm about to introduce our interpreters, and they're going to repeat these instructions in all languages. And then you'll be able to join the audio channel for that language. Closed captioning is also available.

00;02;14;05 - 00;02;36;15

Linton Johnson, Link21, Facilitator

So, if you'd like to use that option, please click the CC icon in the Zoom taskbar and then select subtitles to view on screen or Live Transcript to see the full transcript on the side panel. Now, if you need technical support, you can use the Zoom Q&A option. Just or just raise your hand. So now I'm going to invite the interpreters to repeat these instructions in Spanish and then in Cantonese.

00;02;36;22 - 00;02;41;25

Linton Johnson, Link21, Facilitator

First up we have Claudia providing Spanish interpretation.

00;02;41;28 - 00;03;08;25

Spanish Interpreter, Claudia

Thank you. <Spanish Interpretation>



00;03;33;10 - 00;04;03;29

Spanish Interpreter, Claudia

<Spanish Interpretation> Thank you Linton. Back to you.

00;04;04;02 - 00;04;12;03

Linton Johnson, Link21, Facilitator

All right. Thank you, Claudia. Now Felix is providing Cantonese interpretation. Welcome, Felix.

00;04;12;05 - 00;04;14;08 Cantonese Interpreter, Felix Thank you. Linton.

00;04;14;10 - 00;04;37;14

Cantonese Interpreter, Felix

<Cantonese Interpretation>

00;06;10;06 - 00;06;32;08

Linton Johnson, Link21, Facilitator

All right. Thank you. Felix, we have a hand that's already raised. Looks like we have some excited folks ready to ask some questions. We're going to have a Q&A section. Coming up here first, though, we have our speakers. Let's meet our speakers first. We've got Sadie Graham, who's our fearless leader.

00;06;32;10 - 00;06;40;17

Sadie Graham, Link21 BART Program Director

Good evening, everyone. I'm Sadie Graham, the Program Director for BART for the Link21 Program. And thanks for your time tonight.



00;06;40;19 - 00;06;44;13 Linton Johnson, Link21, Facilitator And we have Camille.

00;06;44;16 - 00;06;49;24

Camille Tsao, Link21 CCJPA Program Director

Hi, everybody. Camille Tsao here from Capitol Corridor. Thanks for being here.

00;06;49;27 - 00;06;53;00

Linton Johnson, Link21, Facilitator

And Brian Soland, please introduce yourself.

00;06;53;02 - 00;06;58;13

Brian Soland, Link21 BART Manager of Rail Planning

Well, everyone, my name is Brian Soland. I'm the Manager of Rail Planning for Link21.

00;06;58;16 - 00;07;29;23

Linton Johnson, Link21, Facilitator

I look forward to all your presentations. Just to give you an idea of how this is going to work tonight: tonight's meeting is broken up into three parts. Part one, we're going to discuss what Link21 is and why it's needed within our Megaregional train network. We'll share an update on our Program engagement and what we have heard from our stakeholders and the public, and we'll discuss where the Program is headed, with a key decision for the crossing and a reminder of the potential service improvements that are driving the future decision.

00;07;30;00 - 00;07;52;08

Linton Johnson, Link21, Facilitator

And then in part two, we'll focus on sharing what we've learned from our analysis, comparing the benefits that are either a standard gauge, which is Regional Rail, or broad gauge, which is more like BART, crossing could provide, including where they're



similar and where they differ regarding our goals and objectives. And then in the final part, part three, we will discuss the next steps for the Program and look at upcoming engagement activities.

00;07;52;11 - 00;08;18;21

Linton Johnson, Link21, Facilitator

And then finally we're going to move to your questions and answers. And during that time, we'll have the opportunity to ask questions directly of our team members. This is using the comment feature on Zoom, or by raising your hand and asking the question live. So, with that, let's get started. Sadie, the Link21 Program Director for BART will be kicking us off this evening to discuss what Link21 is and why it's such an important part of the planning for a better future that would connect a Megaregion like it's never been connected before.

00;08;18;27 - 00;08;20;16

Linton Johnson, Link21, Facilitator

So, Sadie, over to you...

00;08;20;18 - 00;08;49;19

Sadie Graham, Link21 Director

Okay, Linton. Thank you. And thanks again everyone. I see a full room, so that's exciting! So, for anyone who doesn't know the background, Link21 is a partnership between Capitol Corridor and BART, with a vision to transform the BART and Regional Rail networks in the Northern California 21-county Megaregion into a faster, more connected, equitable, affordable and accessible train system for future generations.

00;08;49;21 - 00;09;15;05

Sadie Graham, Link21 Director

At the heart of Link21 is a new Transbay Rail Crossing between San Francisco and Oakland, and it will also include improvements on BART and Regional Rail to better connect between those existing systems. And while there may not be infrastructure improvements throughout the 21-county Megaregion, we are analyzing how the Program can deliver benefits to all riders within that broader Megaregion.



00;09;15;12 - 00;09;19;19 Sadie Graham, Link21 Director So next slide.

00;09;19;21 - 00;09;42;06

Sadie Graham, Link21 Director

So what problem is Link21 trying to solve? Well, there is a fair amount of rail in the Megaregion. It doesn't necessarily meet our needs, which means ultimately that it's just not competitive to get people out of their cars and riding the trains. And we need to get people out of their cars to reach our state's ambitious greenhouse gas reduction goals.

00;09;42;08 - 00;10;12;14

Sadie Graham, Link21 Director

And historically, the existing systems were not necessarily planned for those who need transit the most. There's an equitable service that does and doesn't equally serve all, and it doesn't prioritize the needs of the region's transit dependent riders, which means that there is inadequate access to the benefits of transit, which are jobs, housing, and other destinations. And the existing Transbay capacity is insufficient to meet expected crowding on BART in the future.

00;10;12;16 - 00;10;38;21

Sadie Graham, Link21 Director

And while we know that this is not something we face today, it does remain a future challenge and we need to plan for it now. So early in the Program. Next slide please. Early on in the Program, we met with the Community Based Organizations (CBOs) and other key stakeholder partners to set out the vision for the Program. And based on this early engagement, we established these four key goals.

00;10;38;24 - 00;11;04;11

Sadie Graham, Link21 Director

The goals are backed by key objectives that support how we've identified, developed, and evaluated rail solutions that will benefit the Megaregion. You can see here the foundational goal is to transform the passenger experience. And it's foundational



because we must achieve that goal to then be able to promote equity and livability, create economic opportunities and global competitiveness and advance environmental protection.

00;11;04;14 - 00;11;16;22

Sadie Graham, Link21 Director

So, in our planning work, we analyze how different concepts measure against delivering these goals and objectives, which is what we're going to be sharing with you here today.

00;11;16;24 - 00;11;41;21

Sadie Graham, Link21 Director

Since inception, the Program has made a commitment to elevating equity. as you see, it's a priority. And one of our goals, we to do so, we've identified priority populations and communities that have been marginalized and ultimately really just not historically involved in these types of long-range planning efforts. And we've targeted our engagement to reach those communities.

00;11;41;23 - 00;12;08;04

Sadie Graham, Link21 Director

A key component to our equitable engagement Program is the Equity Advisory Council (EAC), which I'll explain more in detail on the next slide. And then we have also used equity as a lens in our analysis to make sure we understand how the benefits of the Program are to be distributed to ensure that they'll be distributed equitably and to prioritize, you know, serving those transit-dependent riders.

00;12;08;06 - 00;12;38;03

Sadie Graham, Link21 Director

So, in January of last year, we launched an Equity Advisory Council (EAC). The EIC has 18 representatives on it from low-income communities, communities of color, and other historically marginalized communities, that bring their lived experience or a professional familial familiarity in technical and policy areas to the Program. The EAC meets every other month, and they provide input and make formal recommendations to the Program team.



00;12;38;05 - 00;13;15;25

Sadie Graham, Link21 Director

These are on topics such as the equity metrics, the concepts that we've developed, antidisplacement and community benefits and early environmental work. And their input has helped guide the concept development along the way. Some of the key topics or themes that, resonate from those discussions are really increasing access to service, which includes the physical infrastructure, avoiding displacement, developing improvements that benefit priority populations, and making service that and making sure that the future service is affordable.

00;13;15;28 - 00;13;38;17

Sadie Graham, Link21 Director

Next slide. Oh, actually go back. it's my pleasure to point out today that we have one of our EAC members, Clarence Fisher, on the call today. I'm very happy to have him. And we'll take any of his questions or if you have a question for him, we'll figure out how he can answer it. So anyway, Clarence, thanks for your dedication and showing up.

00;13;38;19 - 00;14;16;20

Sadie Graham, Link21 Director

Next slide. So, this is a quick snapshot of the successful engagement the Program has had during their phase one of our work since March of 2022, we proactively have reached over 11,000 community members and partners in almost in almost over 350 activities. We built awareness of the Program through a number of mediums including social media, the Program website, community canvasing, and of course, these webinars and a key tactic that we introduced in 2023, which Linden talked about earlier, was the inclusion of this Online Open House.

00;14;16;22 - 00;14;48;20

Sadie Graham, Link21 Director

And I'll remind you again about it later, because we're very excited for when it will be up and running. And you can share it with anyone who couldn't make it here tonight. So, from all of these engagement efforts, there are a number of resounding themes that we've heard. So regardless of where people live or work or just want to go to explore in the region, people ultimately tell us they want faster, more direct, reliable, convenient connections to destinations throughout the Northern California region.



00;14;48;22 - 00;15;22;17

Sadie Graham, Link21 Director

Part of this key theme is creating more direct connections between Sacramento and the East Bay and the San Francisco Peninsula. People are also interested in, you know, improving transfers between BART and Regional Rail, especially with increased frequency, which ultimately would provide better travel reliability, better non-peak service options. So that means times outside of the traditional 9 to 5 commute, improved bicycle and pedestrian and transit connections.

00;15;22;19 - 00;15;37;20

Sadie Graham, Link21 Director

Those multimodal connections at our stations, as well as improved safety and security, and accessibility on the trains and in ground stations. And then last but not least, of course, affordable fares is something that we hear from everyone.

00;15;37;22 - 00;15;41;03

Sadie Graham, Link21 Director

Next slide please.

00;15;41;06 - 00;16;09;07

Sadie Graham, Link21 Director

To further gather some public sentiment on Link21, we did some public opinion research last year with registered voters across the region. And this research showed that there is resounding support for Link21, with 70% of respondents supporting the Project's development. When asked about key features that they wanted to see included in the Project, the highest support was for creating a more connected rail network that integrates existing systems.

00;16;09;09 - 00;16;31;14

Sadie Graham, Link21 Director

There's also great support for connecting the Peninsula to Oakland in the East Bay, with rail service that's faster and more direct and ultimately, we were just glad to see that this



feedback is in line with the Program's goals and objectives. So, we're nearing a Program milestone, which is to determine the train technology, the best train technology for the crossing.

00;16;31;17 - 00;17;00;12

Sadie Graham, Link21 Director

Next slide please. So, in phase zero, we adopted a problem statement which included the vision and the goals and objectives. we're now in this phase one where we've been developing various Program concepts that can help inform this crossing decision. The decision of what train technology to advance will ultimately allow us to focus on working to further define what then can be ready to advance into environmental review.

00;17;00;14 - 00;17;27;12

Sadie Graham, Link21 Director

So, we're not defining the whole Project at this point. That will happen before us, Phase Two, and there's much more work to be done with the community and our local partners, jurisdictions and other stakeholders to really identify those proposed rail improvements such as station locations, extents of the Project, etc. So today and this upcoming milestone is really just looking at that crossing technology.

00;17;27;15 - 00;17;34;12

Sadie Graham, Link21 Director

And with that, I'm going to turn it over to Camille for the next slide.

00;17;34;14 - 00;18;03;04

Camille Tsao, Link21 CCJPA Program Director

So, this diagram illustrates how we have moved from our Link21 problem statement and goals and objectives. Through the evaluation of concepts to the decision point, we are now at the problem statement. Goals and objectives identified the most important things our Program would need to address in the business case evaluation. We looked at how well the standard-gauge (Regional Rail) and broad-gauge track concepts address those things.



00;18;03;06 - 00;18;26;06

Camille Tsao, Link21 CCJPA Program Director

Out of this evaluation, we have identified how the two technologies differ in their ability to address and solve the identified challenges. After a train crossing technology is identified, the next step in this process will be to define a proposed project to advance to the next phase of work.

00;18;26;09 - 00;19;03;27

Camille Tsao, Link21 CCJPA Program Director

So why is now the time to decide on the train technology in the crossing? There are three reasons. First, we have completed the analysis that we need to inform the decision, which is based primarily on strategic differentiators. Additional work after this decision will focus on designing the proposed Project to get it ready for the environmental phase. Second, identification of the crossing technology and service will allow us to focus our planning efforts on one technology instead of two.

00;19;03;29 - 00;19;37;13

Camille Tsao, Link21 CCJPA Program Director

Thus far, we've been developing both standard gauge/Regional Rail and broad gauge/ BART concepts. So thirdly, ongoing state and federal support requires that we define the Project. It will help our funding applications to be clear about what the Project is. Since the crossing technology determines to which rail network we will connect.

00;19;37;15 - 00;20;08;06

Camille Tsao, Link21 CCJPA Program Director

Since we're considering two different track gauges for the crossing, each presents a unique opportunity to better provide two different types of service. We have urban metro service shown in the green lines on our maps, and intercity express service shown in purple lines on our maps. Urban metro service is the fast, frequent and reliable service that people usually associate with BART.

00;20;08;06 - 00;20;57;21

Camille Tsao, Link21 CCJPA Program Director



Caltrain will also provide urban metro service when it commences electrified service later this year. In 2024, urban metro trips tend to be short to medium distances, so there are typically shorter distances between the stations. Intercity express service is meant for medium- to longer- distance trips, and the service tends to be a little less frequent. It serves a larger area with longer distance between stations than urban metro, so the Link21 Program, with either a standard-gauge or broad-gauge crossing could make improvements to both types of services.

00;20;57;23 - 00;21;33;12

Camille Tsao, Link21 CCJPA Program Director

So here we are representing a standard-gauge (or Regional Rail) crossing that connects the Capitol Corridor and the Caltrain networks. As you see in purple. Now the Green Line again represents urban metro: fast, frequent, reliable service. The purple lines represent the longer-haul, less-frequent intercity service. So, we have a pink line here that shows you how services might use the new crossing.

00;21;33;12 - 00;22;09;22

Camille Tsao, Link21 CCJPA Program Director

So, a standard gauge crossing gives you a "two for one" opportunity where you can have two different service types using that new crossing. This type of overlapping service is done successfully in places like England, Paris and others. So, in this example, there are opportunities for a better BART-to-intercity transfer station somewhere in central Oakland, as well as new urban metro stations in the East Bay.

00;22;09;25 - 00;22;42;14

Camille Tsao, Link21 CCJPA Program Director

In the next map, we are showing what a broad-gauge, or BART, crossing concept might be like, and it would connect to the BART network in the East Bay. In this example, Megaregion-serving intercity service (again in the purple) does not have a direct link into San Francisco. So, there would be an opportunity for an additional BART-to-intercity transfer somewhere within Oakland.

00;22;42;17 - 00;23;15;28

Camille Tsao, Link21 CCJPA Program Director



We've been looking at Jack London Square as a possibility, so that folks that are on those purple lines, could transfer to the new BART crossing to get over to San Francisco. Since the additional alignment avoids existing bottlenecks in Oakland, it would allow for improved frequency on the East Bay BART lines. Now I'm going to hand it to Brian to present the evaluation findings.

00;23;16;00 - 00;23;42;09

Brian Soland, Link21 BART Manager of Rail Planning

Thanks, Camille. Brian Soland here again, the Manager of Rail Planning for Link21. So, I'll be covering an overview of the analysis that's been undertaken, comparing the broad-gauge and standard-gauge options in the crossing. You know, to frame up this decision, we are describing the similarities and differences as they relate to our goals and objectives.

00;23;42;11 - 00;23;56;22

Brian Soland, Link21 BART Manager of Rail Planning

And we've also identified these evolving considerations that will inform project development into the future. And I'll be going over all of these in the upcoming slides.

00;23;56;25 - 00;24;26;15

Brian Soland, Link21 BART Manager of Rail Planning

This first comparison shows how the two technologies both promote equity and livability and provide a large share of benefits to priority populations. The percentages shown here are the share of benefits attributed to priority populations as it relates to jobs, community resources, and overall trips for low-income households. We took the overall new access to opportunity jobs, for example.

00;24;26;15 - 00;25;01;22

Brian Soland, Link21 BART Manager of Rail Planning

And, to get at what percentage of those are going to our priority populations. Now, both technologies provide benefits above and beyond the Justice40 federal requirement. This requirement is important. It says that equity populations should receive a 40% share of benefits for federally funded projects. Both technologies achieve that and



above and beyond. And it's really not too surprising given the level of importance that the Project has placed on equity and serving priority populations.

00;25;01;24 - 00;25;36;19

Brian Soland, Link21 BART Manager of Rail Planning

One difference here that I'd like to note is between the two options is that broad gauge's benefits are largely within existing service areas, whereas standard gauge expands access of transit to new areas, to new priority population areas, that aren't already served by fast, frequent, reliable urban metro-type transit. This next metric relates to a comparison of access to station and jobs.

00;25;36;21 - 00;26;00;18

Brian Soland, Link21 BART Manager of Rail Planning

And these are indicators for our goals that support economic opportunity and livability. Both technologies improve access of populations within a half mile of stations (37,000 for standard gauge and 28,000 for broad gauge). Both technologies also increase the number of jobs within an hour commute. And they do so about at the same level.

00;26;00;18 - 00;26;22;24

Brian Soland, Link21 BART Manager of Rail Planning

So, for the general population throughout the region, the average person now would have access to 45,000 more jobs. And if we only look at the priority population areas in that same assessment, the average person will have access to about 80,000 more jobs.

00;26;22;27 - 00;26;55;21

Brian Soland, Link21 BART Manager of Rail Planning

So, this next metric considers "how" for the crossing. Now we're getting into the differences here, how a crossing project can transform the passenger experience with Megaregional connectivity. And if you recall, this is one of those key parts of our problem statement that Sadie was describing earlier: both technologies do increase the number of new direct connections available within the rail network and improve the number of destinations that would be connected by just one transfer.



00;26;55;23 - 00;27;30;08

Brian Soland, Link21 BART Manager of Rail Planning

However, the technologies do differ in how they're able to really deliver this. We found that with standard gauge, it can do this by allowing for multiple services, using that single crossing and increasing opportunity for more direct, no-transfer-needed connections across the Megaregion; with BART, a broad-gauge option, it is less transformative on this metric than where we see more Megaregional connections with the standard gauge option.

00;27;30;15 - 00;27;57;06

Brian Soland, Link21 BART Manager of Rail Planning

A broad-gauge crossing improves the connectivity by bolstering the existing BART network, and it provides the opportunity for better frequencies and transfers to Megaregional destinations. And you see the example trip that we have here from Sacramento to San Francisco. No transfer needed, but with, with a broad-gauge BART crossing, it would still require transfer.

00;27;57;08 - 00;28;41;05

Brian Soland, Link21 BART Manager of Rail Planning

It's just the number of BART trains that would be accessing that transfer facility would be more frequent. So, this next metric compares the travel time savings. A standardgauge crossing improves travel time significantly for trips to San Francisco from the metro region, and also from the East Bay to the Peninsula. From Sacramento to San Francisco, for example, the savings would be more than 20 minutes, and from Emeryville to Redwood City, the savings would be a full 45 minutes, which would be a significant savings to a person's commute if they were going Emeryville to Redwood City.

00;28;41;05 - 00;29;15;22

Brian Soland, Link21 BART Manager of Rail Planning

In this example, a broad-gauge crossing would also have travel time savings. It would reduce the wait times for most of the East Bay BART stations, because you'd have opportunity for better frequency, and it would also improve travel time specifically to Mission Bay. There's an opportunity for new stations in Mission Bay with that broad-gauge crossing from the East Bay stations. In this example from Fremont to Mission Bay, the savings would be about 20 minutes.



00;29;15;24 - 00;29;44;14

Brian Soland, Link21 BART Manager of Rail Planning

This next comparison considers how the different rail services that operate in the Bay area. Now, a new crossing would benefit them – and we call it interoperability – and this can improve local, regional or Regional Rail travel for standard gauge. A standard-gauge crossing would allow for true interoperability where multiple services could use the crossing, including Caltrain.

00;29;44;17 - 00;30;14;16

Brian Soland, Link21 BART Manager of Rail Planning

The San Joaquins are coming from Stockton, Capitol Corridor coming from Sacramento. And it would have a big impact on connectivity of all of these different providers and services able to use this crossing. And it would improve reliability on key portions of the standard gauge network. The example in the map here that's been shown, is The Portal project, also called the Downtown Crossing, which will connect to standard gauge connections from Fourth and King.

00;30;14;18 - 00;30;42;03

Brian Soland, Link21 BART Manager of Rail Planning

That's moves the Caltrain station there closer to downtown San Francisco and Salesforce Transit Center. With Caltrain and California High-Speed Rail, with a standard gauge crossing, the operators would be able to use and connect to the Link21 crossing across the Bay. For a broad-gauge crossing, it's a closed system, and only BART trains would be able to use that crossing.

00;30;42;05 - 00;30;54;26

Brian Soland, Link21 BART Manager of Rail Planning

BART would focus on more localized benefits like improving the opportunity to improve frequency of East Bay BART service, for example.

00;30;54;29 - 00;31;20;23

Brian Soland, Link21 BART Manager of Rail Planning



So, this next comparison shows how a crossing can amplify the benefits of other planned projects throughout the Megaregion, and how those projects could also benefit. Link 21. The projects shown on this list here: some of them are farther along in project development and others we've included in our baseline assumptions like The Portal project, others we haven't.

00;31;20;26 - 00;31;49;25

Brian Soland, Link21 BART Manager of Rail Planning

So, one example is how a standard-gauge crossing could increase the benefits of the Project. We just discussed The Portal. A new crossing would make the Salesforce Transit Center a through-station so trains could access both sides of the Bay through the Salesforce Transit Center using just that link between Fourth and King and Salesforce Transit Center.

00;31;49;25 - 00;32;15;13

Brian Soland, Link21 BART Manager of Rail Planning

A new standard-gauge crossing would spur a 60 to 70% increase in passenger volume for The Portal project, making it more beneficial all around and generally across the region here. There are more projects that would connect to a standard-gauge crossing compared to ones that would connect to a BART crossing.

00;32;15;16 - 00;32;40;03

Brian Soland, Link21 BART Manager of Rail Planning

So, as I mentioned earlier, our analysis identified a few considerations that will continue to monitor and inform project development into the future. One of these is that we looked at ridership potential. And overall, here we see potential for – we ran a model and analyzed it – potential significant gains and new riders.

00;32;40;06 - 00;33;05;20

Brian Soland, Link21 BART Manager of Rail Planning

The big picture here is that ridership isn't really a differentiator at this stage. Part of the reason for that is that it's very much dependent on station locations, service levels and alignments. We have multiple concepts for what those stations could be and what the service could be, but it's so early that there are still many, many options on the table.



00;33;05;20 - 00;33;36;02

Brian Soland, Link21 BART Manager of Rail Planning

And the ridership will fluctuate based on that quite a bit. From our analysis, it showed that the number of stations in San Francisco was a driver of variability of the ridership. And this is where you see the two purple lines. They represent two different numbers for ridership. The range for standard gauge by adding one station boosted ridership by 25,000 riders.

00;33;36;04 - 00;34;02;04

Brian Soland, Link21 BART Manager of Rail Planning

And then the dashed line that goes beyond 2050, some of the major improvements that I just presented on that previous map that weren't in our baseline would continue to have a positive impact on the ridership growth. So, another point consideration is the cost. We are still at an early stage of conceptual design: 1% or 2%.

00;34;02;04 - 00;34;36;08

Brian Soland, Link21 BART Manager of Rail Planning

Therefore, we have a quite a broad range of preliminary cost estimates. And it's worth contextualizing here. Costs of crossing infrastructure are broadly comparable: just the crossing. But once you begin considering the cost of improvements for connecting the infrastructure, standard gauge is generally higher. And this is because historical investment in the standard gauge network has been less than in the BART network.

00;34;36;10 - 00;35;07;22

Brian Soland, Link21 BART Manager of Rail Planning

And in future phases of work, we're going to continue to focus on homing in on the costs and bringing that range to something more manageable as we get into more detailed design. So, this last consideration that I'll be presenting is around opportunities for funding. And Camille mentioned it a bit before, some of the differences here, but I'll get into a little bit more detail on technology choice, and either makes the project eligible for state and local funding.



00;35;07;22 - 00;35;36;29

Brian Soland, Link21 BART Manager of Rail Planning

So that's good. And then a project providing urban metro service: this is a more regional-local type service aligned with FTA or Federal Transit Administration funding. And either technology choice would provide that sort of service and therefore be eligible for that kind of funding. Standard gauge would allow for intercity trains or intercity service to use the crossing as well.

00;35;37;01 - 00;36;13;09

Brian Soland, Link21 BART Manager of Rail Planning

And this would make the Project eligible for Federal Railroad Administration (FRA) funding, as well. It's worth noting here that FRA has a new funding vehicle called the Corridor Identification and Development Program. The State of California has six corridors in this program, one of which includes the Capitol Corridor and the Link21 crossing. And then the federal funding, which was administered through the 2021 Bipartisan Infrastructure Law, includes more than 100 billion in rail funding.

00;36;13;12 - 00;36;26;27

Brian Soland, Link21 BART Manager of Rail Planning

And that funding is funneled through to the Corridor ID Program I just mentioned. So, with that, I will be turning it over to Sadie Graham to talk about what is next.

00;36;26;29 - 00;37;03;21

Sadie Graham, Link21 Director

Excellent. Thank you. Next slide. So here is sort of the high-level general next steps for the Program after identifying the train technology and the crossing. We'll be working closely with local communities and jurisdictions to further define the Project, including locations of stations and alignments. We have a lot of work to do in order to address, you know, the future funding strategy for a Program like this, key governance questions, you know, who's going to own and operate these types of this type of service?

00;37;03;23 - 00;37;30;27

Sadie Graham, Link21 Director



Well, continuing stakeholder and public engagement. And so, at the next milestone, we will have a Project that would be defined enough for us to then advance into the formal, federal and state, environmental review process. So, we're just going to end on this, next slide, which is this last slide., You know, today is our second of two virtual community events.

00;37;31;00 - 00;37;53;28

Sadie Graham, Link21 Director

I did see someone in the chat asking if the recording is accessible to the public. And yes, it is, I'm stealing Linton's thunder here, but we have a history of all of our programs on that portion of the page. And you can go there, and you can find the recording. I think it'll probably take 1 or 2 days to get up there.

00;37;53;28 - 00;38;15;14

Sadie Graham, Link21 Director

And, if you're also really interested in sharing this, you can also direct any friends to that Online Open House that should be up and running in the next week. And then we do, of course, have our upcoming Equity Advisory Council (EAC) meeting on Tuesday, July 16th. And so, with that, I'm going to give it back to Linton.

00;38;15;14 - 00;38;30;05

Sadie Graham, Link21 Director

Thanks for the questions that are coming in. I'm going to pass it to you, Linton.

00;38;30;07 - 00;38;43;14

Linton Johnson, Link21, Facilitator

Zoom brings us all together. It's a small world, and we would like to invite you. Maybe your neighbor can then just drive, take a train and come see you.

00;38;43;17 - 00;39;00;26

Linton Johnson, Link21, Facilitator





Well, anyway, you know, this is a time I get excited because it's the time we get to hear from everybody on this call. All our panelists get to hear from the public. It's time we get to hear from you. I know we throw a lot of information at you all, which means you probably have a lot of questions.

00;39;00;26 - 00;39;20;15

Linton Johnson, Link21, Facilitator

So, let's dive right into our Q&A session and get some of those questions answered. Some of you probably are asking the question, how do I ask my question? Well, there are several ways to participate. Whether you're on the phone or sitting at your computer or with your mobile device. For those of you joining via Zoom, you may ask your questions verbally or type them into the Q&A box.

00;39;20;17 - 00;39;42;14

Linton Johnson, Link21, Facilitator

You can find the Q&A box by clicking on the Q&A icon in the Zoom taskbar. Now, if you prefer to ask your question verbally, you can simply raise your hand. Use the Raise Your Hand icon in the taskbar, and when I call on you, the webinar host will grant you permission to speak. Then you'll be able to unmute yourself and ask the question, and if you're joining us, get the toll-free dial in line.

00;39;42;16 - 00;40;03;20

Linton Johnson, Link21, Facilitator

You can raise or lower your hand by dialing *9. The phone line manager will unmute you, and you can record your question and add it to the queue. As a reminder, we're going to work really hard to get to as many questions as possible from as many of you as possible for accessibility. We're not going to type the responses into the comment box, but rather verbally share them as we can.

00;40;03;23 - 00;40;25;03

Linton Johnson, Link21, Facilitator

And as Sadie just said the meeting will be recorded – is being recorded – and the summary will be on the website following these webinars for your reference. Now we have the cream of the crop of experts on the line for you. You just heard from some of



them, Sadie, Camille and Brian. But we're also going to have some more experts on some very talented people, and we're going to introduce them.

00;40;25;06 - 00;40;33;20

Linton Johnson, Link21, Facilitator

And finally, once you say a few things, introduce yourself and say which you can, which are which your expertise.

00;40;33;22 - 00;40;36;19

Darin Ranelletti, Link21 Manager of Land Use Planning

Yeah. Thanks, Linton. Good evening, everyone. I'm Darin Ranelletti.

00;40;36;19 - 00;40;50;09

Darin Ranelletti, Link21 Manager of Land Use Planning

And I'm the Manager of Land Use Planning at BART for Link21. And I focus on the relationship between train stations and the surrounding community. So, if you have any interest or questions in that, let me know that you know.

00;40;50;12 - 00;40;56;10

Linton Johnson, Link21, Facilitator

All right. And Tim Lohrentz, also your expertise, what questions you can answer for folks on the line.

00;40;56;13 - 00;41;14;05

Tim Lohrentz, Link21 Equity Lead

Thanks, Linton, and good evening, everyone. My name is Tim Lohrentz. Yeah, I'm the Equity Program Administrator within the Office of Civil Rights, which means I'm the Equity Lead for Link21. I can answer questions related to our equity process or even maybe about engagement or outreach as well.



00;41;14;08 - 00;41;18;10

Linton Johnson, Link21, Facilitator

All right. Thank you. Tim. Andrew Tang, what are the questions that you can answer?

00;41;18;13 - 00;41;34;20

Andrew Tang, Link21 Manager of Program Evaluation

Hi. My name is Andrew Tang. I'm with BART staff and I'm the Manager of Program Evaluation for Link21. And what that means is I've looked at the different ideas that have been proposed for Link21 and evaluate how well they do.

00;41;34;23 - 00;41;39;14

Linton Johnson, Link21, Facilitator

Right. And Donald, last but never least.

00;41;39;17 - 00;41;54;21

Donald Dean, Link21 Environmental Team Lead

Yeah. Thanks a lot. And good evening, everybody. My name is Donald Dean and I'm the Manager of Environmental Review at BART. And I'm also the Lead for the Link21 Environmental team. So happy to take any questions related to upcoming environmental review in the future.

00;41;54;23 - 00;42;21;18

Linton Johnson, Link21, Facilitator

That sounds great. We appreciate everybody joining us. All right. So, our first question is from an anonymous attendee. And I think, Brian, this one is going to go to you. And the question is from an anonymous attendee who says, why won't the Link21 Project revitalize the abandoned Oakland Central Station? It won't offer a connection to BART, but it would connect an underserved neighborhood of West Oakland.

00;42;21;18 - 00;42;27;03 Linton Johnson, Link21, Facilitator



The station is so beautiful, it's a shame to leave it without rail service.

00;42;27;05 - 00;43;05;17

Brian Soland, Link21 BART Manager of Rail Planning

Yeah, thanks for that comment. And we've identified several different station locations in our concepts, and we've been exploring those and getting feedback from the public. on those, station locations have not been determined yet. So, it's great to hear this suggestion for station location there. And it can be something that we and others consider as we advance the Project and the next phase of work where we really get into the detail of, of, looking into and determining the station locations and alignments.

00;43;05;19 - 00;43;07;07

Brian Soland, Link21 BART Manager of Rail Planning

So, thank you for that.

00;43;07;09 - 00;43;18;20

Linton Johnson, Link21, Facilitator

No problem. Camille, this question is for you. It looks like it's from Ron Busby. And Ron asks, how would either of these impact timelines for delivery of the system in general?

00;43;18;22 - 00;43;56;22

Camille Tsao, Link21 CCJPA Program Director

Yeah. Good question. So, both the BART crossing and standard gauge or Regional Rail crossing will have different timelines depending on things like funding availability. So, as Brian presented, the funding sources for Regional Rail or standard gauge does include Federal Railroad Administration (FDA) funding, whereas the BART crossing would not be a problem.

00;43;56;22 - 00;44;36;05

Camille Tsao, Link21 CCJPA Program Director

But, and so the timing and availability of funding is a big issue for the Regional Rail concept, it is a more complex concept because it involves multiple Right of Way (ROW)



owners. So, the Union Pacific State Railroad owns most of the Right of Way (ROW) that Capitol Corridor and some of the other operators run on. Caltrain owns a good portion of its Right of Way (ROW).

00;44;36;07 - 00;45;06;11

Camille Tsao, Link21 CCJPA Program Director

So, there's just more Right of Way (ROW) owners involved. We would be definitely working with the UPRR if the crossing were standard gauge. We'd also be working very closely with the State, because, according to the Statewide Rail Plan, they're very interested in a standard-gauge crossing that fills a gap in the standard gauge network.

00;45;06;14 - 00;45;25;18

Camille Tsao, Link21 CCJPA Program Director

So, while we don't know the exact years and would be able to compare the delivery timelines, those are the factors that would weigh into how long it would take to deliver those.

00;45;25;20 - 00;45;50;27

Linton Johnson, Link21, Facilitator

I have one more question for you. This one is from Anthony Campana. And he asks, did the BART option travel time savings assume Capitol Corridor will be electrified and receive frequent service? As in the Regional Rail option? That seems, he says, like it would be a more apples-to-apples comparison since Capitol Corridor could be improved regardless of whether it runs to San Francisco.

00;45;50;29 - 00;46;29;01

Camille Tsao, Link21 CCJPA Program Director

Yeah. So, there is a State mandate that Capitol Corridor and other rail services – actually all transit services – must be zero emission, run zero-emission vehicles by the year 2035. So yes, in our concepts, and all concepts, all the operators are running zero-emission vehicles. As you know we have multiple operators in our network.



00;46;29;03 - 00;47;02;12

Camille Tsao, Link21 CCJPA Program Director

So, the capital assumptions for Capitol Corridor, other than, you know, not being able to cross the Bay in the new crossing, would be the same whether it's a BART crossing or a Regional Rail crossing. But obviously you don't have that direct connection to San Francisco so, there is an impact to folks that are required to transfer, and they do that already today.

00;47;02;15 - 00;47;17;24

Camille Tsao, Link21 CCJPA Program Director

They need to transfer to BART to get to San Francisco. But yes, the assumptions for Capitol Corridor frequency would be the same in the BART.

00;47;17;26 - 00;47;34;26

Linton Johnson, Link21, Facilitator

All right, we have a hand raised. I think the first one that's raised is the 510 phone number, we go to that one first.

00;47;34;28 - 00;48;01;14

Attendee:

Okay. This is Clarence Fisher speaking. I will ask one question right now. Afterwards, I'm going to raise my hand again to give other people chances. You know, before you come back to me. Okay. In fairness to everyone on the call, I've been out in the community, and I've been asked quite a few questions.

00;48;01;16 - 00;48;39;02

Attendee:

Let me start with this one. Between the two different types of crossing, if it is BART, practically anyone would be able to make use of the system. And what I mean by that is it seems that if you are on Regional Rail operators such as the Capital Corridor and San Joaquin, especially the San Joaquin, I've heard from people that the conductors ask, "Where's your ID?"



00;48;39;05 - 00;49;22;19

Attendee:

On BART, you just enter, you go and exit. So, for the priority populations, some of which are people who don't have IDs, if we do Regional Rail, how will the equity play out so that those people who might be using BART today, changing over to a Regional Rail, (where conductors may say, where's your ID) and if they don't have an ID and get kicked off the train, thank you.

00;49;22;21 - 00;49;29;02

Linton Johnson, Link21, Facilitator

All right. Who would like to answer that question?

00;49;29;04 - 00;50;07;16

Camille Tsao, Link21 CCJPA Program Director

Yeah. You know, I think definitely we're going to have to look at a lot of different things about the Regional Rail system that don't work for priority populations, especially. So, we haven't solved that issue yet. But we hear you, and, you know, we're in the process of changing just how we collect fares.

00;50;07;19 - 00;50;23;22

Camille Tsao, Link21 CCJPA Program Director

And so, I'll just say it is a work in progress. and we are aware that we need to make some changes, on that end.

00;50;23;24 - 00;50;37;26

Linton Johnson, Link21, Facilitator

All right. I think we have another hand raised. That was Clarence Fisher, who's a member of our Equity Advisory Council (EAC). We appreciate your service, Mr. Fisher. Ron Busby has his hand raised as well. And he's on the phone, Mr. Busby.

00;50;37;29 - 00;50;58;24

Attendee:



Yes. I was a long-time listener, first time caller. I wanted to know in terms of what work it will take to actually make BART 24 hours, whether it's by weekends or by specific points in time, what work has to happen? I know it's something that's kind of discussed, but what has to be a part of the timeline and the planning to make that a reality?

00;50;59;01 - 00;51;07;02

Attendee:

And what are some of the barriers to actually executing that portion of the work?

00;51;14;19 - 00;51;43;03

Brian Soland, Link21 BART Manager of Rail Planning

Sure. So, thanks for the question. And this is definitely something that we hear a lot of, you know: extending hours of service on BART is something that that we hear at a public meetings quite a bit. So, thanks for the question. So, there are policy changes that we need to happen with the maintenance policy at BART prior to being able to implement something like that.

00;51;43;05 - 00;52;05;17

Brian Soland, Link21 BART Manager of Rail Planning

One of the other things that would help advance would be a second crossing, whether it's standard gauge or broad gauge to be able to connect across the Bay. So that means it could happen on one of the crossings, while the other is open to some extended hours of service.

00;52;05;19 - 00;52;16;05

Brian Soland, Link21 BART Manager of Rail Planning

And that could be a possibility with either a broad gauge or standard gauge connection. Sadie, would you like to add to that?

00;52;16;07 - 00;52;47;10

Sadie Graham, Link21 Director





No, I think you got it. I mean, the thing that not everyone understands is that there's a small window of time that we can do our maintenance activities – during the evening. And, you know, nothing is maintenance-free. And so, I think, as Brian said, either crossing would allow the availability or the sort of ability for us to provide maybe not 24-hour service all the time, but night and weekend, sort of that longer service that we hear from individuals often.

00;52;47;10 - 00;52;50;08

Sadie Graham, Link21 Director

So, it's a good question.

00;52;50;10 - 00;53;12;25

Linton Johnson, Link21, Facilitator

And if you want to ask your questions and you're on Zoom, just make sure you type in the Q&A box. You can find the Q&A box on the Q&A icon in the Zoom task bar. And if you prefer to ask your question verbally, you can raise your hand using the raise hand icon on that same taskbar. And when I call on you, the webinar host will grant you permission to speak, unmute yourself, and ask a question.

00;53;12;28 - 00;53;29;28

Linton Johnson, Link21, Facilitator

And you can also ask via the toll-fee dial-in line. You can raise your hand by dialing *9 and the phone line manager. Unmute yourself and record your question and add to the queue. And of course, we're going to try to get to as many questions as possible. So, we do have a question for you, Brian.

00;53;29;28 - 00;53;54;12

Linton Johnson, Link21, Facilitator

And that question is, could the standard-gauge technology – this one is from Anthony – extend Caltrain into Oakland with the transfer to BART in Capitol Corridor without physically running Capitol Corridor trains into the San Francisco and Oakland transfer station seems like a less expensive way to get passengers to San Francisco than the underground. Why that wouldn't be effective, let's say.



00;53;54;15 - 00;54;33;28

Brian Soland, Link21 BART Manager of Rail Planning

Yeah. that's an astute operations comment. Thanks, Anthony. And so just in terms of our thinking on how the service could be provided is that it would be, you know, working with Caltrain to see if they could cross the Bay and connect into Oakland and to BART on the East Bay side. And what you're getting at here is, could that connection be enough if it also connected to a transfer to Capital Corridor?

00;54;34;00 - 00;55;13;13

Brian Soland, Link21 BART Manager of Rail Planning

Certainly, that that could be something that works. One of the key things though, that that our Program has really strived for is thinking about an interconnected network and, and what you described could maybe be a first phase, but what we would strive for is a network where multiple different services could, could intermingle and provide service across the Bay.

00;55;13;15 - 00;55;40;08

Brian Soland, Link21 BART Manager of Rail Planning

And, and I'll also note that the connection from Sacramento across the Bay is also part of the California State Rail Plan vision. And so, consistency with that is an important aspect in terms of working with the state and advancing the Project. So, thank you.

00;55;40;11 - 00;55;50;22

Linton Johnson, Link21, Facilitator

All right. Sadie, we have a question from Daniel Bell. And his question is when will staff's recommendation be presented to BART and the Capitol Corridor Boards?

00;55;50;25 - 00;56;17;20

Sadie Graham, Link21 Director

Good question. We are. So, the Capitol Corridor Board meets every other month and the BART Board meets twice a month. And so, we anticipate that in September when those align up, would be when we would go to our boards, to have a discussion on this technology decision.



00;56;17;22 - 00;56;33;00

Linton Johnson, Link21, Facilitator

All right. Darin, we have a question for you. This is from Nathan Yang. When will the crossing be decided?

00;56;33;03 - 00;56;48;13

Sadie Graham, Link21 Director

I think it's the same answer to the question that I just answered. So, I think that decision is hopefully going to be advanced in the September or in the fall timeline.

00;56;48;16 - 00;57;15;27

Linton Johnson, Link21, Facilitator

Okay, sounds good. Camille, I have actually two questions. I think kind of the same that that can be answered from Ron and Anthony. How would standard and broad gauge impact any future connection or plug-ins to California High-Speed Rail?

00;57;15;29 - 00;57;58;05

Sadie Graham, Link21 Director

Yeah. So right now, High-Speed Rail is planned to serve San Francisco, go up the Peninsula and terminate service in San Francisco at the Salesforce Transit Center. So, with a Regional Rail or standard-gauge crossing, we would design that new crossing so that high-speed trains could use the new crossing if someday there were plans for highspeed trains to go to the East Bay via the crossing.

00;57;58;07 - 00;58;12;14

Linton Johnson, Link21, Facilitator

And the other one is from an anonymous attendee. Is through-running Caltrain being considered as an option for the Regional Rail alternatives.



00;58;12;16 - 00;58;43;08

Camille Tsao, Link21 CCJPA Program Director

That is something that Caltrain would need to agree to. It is definitely on the table. But we would need them to agree to that. And there would be some work to do in order for them to make that decision. It obviously entails serving counties that they don't serve today.

00;58;43;08 - 00;58;55;13

Camille Tsao, Link21 CCJPA Program Director

They're not represented on the board. But from a technical standpoint, absolutely, that would allow them to run to the East Bay.

00;58;55;15 - 00;59;09;21

Linton Johnson, Link21, Facilitator

Are you ready for one more? Okay! Evan has a question. Why did the Project abandon the idea of incorporating both broad- and standard- gauge track? Could it be due to the funding constraints or other considerations involved?

00;59;09;24 - 00;59;31;18

Camille Tsao, Link21 CCJPA Program Director

Yeah. So, this is the dual-gauge question that we get pretty much every time we have one of these sessions and it's a good one. So, for those folks that aren't familiar with what dual gauge is, in places around the world, you know, where there are two different track gauges, you can have them in one place.

00;59;31;18 - 01;00;07;11

Camille Tsao, Link21 CCJPA Program Director

They just kind of overlap with one another, if you will. We did look at that possibility, in the new crossing. And it wasn't abandoned due to funding constraints necessarily. It was more that the capacity of the new crossing would be constrained if we were to have both those gauges, because the types of vehicles that run on those tracks have different crashworthiness standards.



01;00;07;11 - 01;00;34;22

Camille Tsao, Link21 CCJPA Program Director

And therefore, you need to run them further apart. So, it would have reduced capacity in the crossing. And also, if we were to run, you know, the heavier type of equipment that runs on standard gauge, tracks on BART facilities, you know, BART facilities are meant for the lighter weight BART trains.

01;00;34;22 - 01;01;05;21

Camille Tsao, Link21 CCJPA Program Director

So, then we would have to upgrade, you know, existing BART facilities to be able to handle those heavier trains. So, the benefits of being able to squeeze two types of tracks into one crossing don't outweigh the lower capacity and the additional infrastructure upgrades that would be needed throughout the system.

01;01;05;23 - 01;01;06;19

Linton Johnson, Link21, Facilitator

That makes sense.

01;01;06;21 - 01;01;27;05

Brian Soland, Link21 BART Manager of Rail Planning

Camille, sorry, can I just ask you a follow up question there? Because I think maybe the heart of Cody's question may actually maybe like, why did we go from also looking at options that have both regional Rail and BART to just looking at Regional Rail or BART.

01;01;27;12 - 01;01;55;25

Camille Tsao, Link21 CCJPA Program Director

Yes. Thank you for pointing that out. Yeah. So earlier on our starting assumption was that we would have two BART gauge tracks crossing the Bay, as well as two standard gauge tracks. This was, you know, the finding of an earlier MTC study in 2019 that that concept would perform well in terms of meeting, you know, the goals of trying to serve travel demand across, through the transbay corridor in the future.



01;01;56;28 - 01;02;48;17

Camille Tsao, Link21 CCJPA Program Director

What we found, though, is that, yes, you know, that the optimal location for a standard gauge crossing would be to connect into the Salesforce Transit Center so that we could have trains, have service, you know, on the Peninsula connect to service coming from the East Bay. Whereas a BART crossing, rather than forcing it to be, you know, right next to the existing two, which is, you know, by Market Street, we found that, you know, there's pretty good demand for folks wanting to go a little further south to the Mission Bay area.

01;02;48;24 - 01;03;19;29

Camille Tsao, Link21 CCJPA Program Director

And so, a better performing alignment for a new BART crossing would not be where we would necessarily put the standard-gauge crossing, which then means you're actually building two crossings, one of one gauge, one of another. Now, if you're building two crossings, you've eliminated, you know, the supposed benefit of building one crossing.

01;03;20;02 - 01;04;00;12

Camille Tsao, Link21 CCJPA Program Director

Also, there's no tunnel boring machine with a diameter that's big enough – at least not yet – to have one tunnel bore wide enough for tracks. So, we'd be basically building two crossings. So, then our team started to question, do we really need two crossings? And Andrew Tang and his team conducted some analysis. And we found that, you know, two tracks are enough for 2050 and beyond to meet travel demand.

01;04;00;15 - 01;04;15;19

Camille Tsao, Link21 CCJPA Program Director

So that sent us down the path of let's just have two tracks crossing the Bay, one type of track gauge. And what should that track gauge be?

01;04;16;22 - 01;04;43;14

Linton Johnson, Link21, Facilitator



Alright, that sounds good. So, I have another question. This one is for Andrew. And this one comes from Laura. A lot of these statistics are very broad. How is Link21 making decisions based on traffic and flows and demand? That's the question.

01;04;46;10 - 01;05;08;11

Andrew Tang, Link21 Manager of Program Evaluation

So, I heard two questions. One is the broadness and then of the trip patterns of clients in the first, okay, which is at this point, yes. The analysis results are fairly broad, but we are making a fairly broad decision. We are deciding about whether the technology in the crossings should be standard gauge or broad gauge.

01;05;08;13 - 01;05;29;14

Andrew Tang, Link21 Manager of Program Evaluation

After we've made that broad decision, we will start making more detailed decisions such as station locations and alignments and sequences and things like that. And when those decisions come to play, we'll need to do more detailed analysis. So that's all coming. So, stay tuned. And then about the second part, looking at trip patterns.

01;05;29;21 - 01;05;54;01

Andrew Tang, Link21 Manager of Program Evaluation

Absolutely. that's what this is all about, understanding where people want to travel to and from and which ones are markets where people are willing to use trains. To support this study, we collected 170 million cell phone records to get a very, very detailed picture of where people are traveling to and from and when.

01;05;54;03 - 01;06;17;13

Andrew Tang, Link21 Manager of Program Evaluation

And we are using a travel model to assess how many of those would be willing to use a train if the train service were improved. And, we're basing our travel model on the one that the Metropolitan Transportation Commission uses, which is the sort of the accepted model in this area. We did make some improvements, which I won't go into, but we use that to develop our ridership estimates.



01;06;17;16 - 01;06;20;21 Linton Johnson, Link21, Facilitator You said 100 million cell phone records?

01;06;20;23 - 01;06;22;07

Andrew Tang, Link21 Manager of Program Evaluation

170 million.

01;06;22;12 - 01;06;23;04 Linton Johnson, Link21, Facilitator Wow.

01;06;23;11 - 01;06;26;08

Andrew Tang, Link21 Manager of Program Evaluation

Yeah. So, I think we have a pretty good picture of where people go to and from.

01;06;26;12 - 01;06;50;14

Linton Johnson, Link21, Facilitator

Yeah. All right. Well, thank you for that. And if you have other questions that you want answered, we got about, over 20 minutes left. So please ask questions. If you're joining from Zoom, you can ask those questions by typing them into the Q&A box. You can find that Q&A box by clicking Q&A on the taskbar and the Zoom icon on the bar.

01;06;50;21 - 01;07;15;22

Linton Johnson, Link21, Facilitator

If you prefer to ask those questions verbally, you can raise your hand using the Raise your Hand function and the taskbar. And when I call on you to log in, our hosts will get your permission to speak, and you'll be unmuted. If you're joining us on the phone, you can dial in. You can lower the hand and raise your hand by using *9 as a reminder, we're going to try to get to all your questions and try to get to as many people as possible.



01;07;15;29 - 01;07;35;21

Linton Johnson, Link21, Facilitator

And if you have lots of questions about the same subject, we'll probably just answer one person's question. And that will answer a lot of people's questions. And that's kind of what we're going to do right now here with the next question. And this one's from Brian. A lot of people are asking the same question about San Antonio.

01;07;35;21 - 01;08;01;27

Linton Johnson, Link21, Facilitator

Brian, regardless of the technology chosen why can't a 14th Avenue Rancho San Antonio Station, which is a lot of people asking the same type of question, be included in the Project? Then we get better access to transit for disadvantaged communities and create an excellent transfer opportunity between standard gauge and broad gauge.

01;08;02;00 - 01;08;23;13

Brian Soland, Link21 BART Manager of Rail Planning

Yeah, thanks for the question. Ao San Antonio, well, we have a San Antonio Station included in the BART concepts. And, you know, we've also done some additional analysis of could it be included in the standard-gauge crossing as well, but it was only included in those BART concepts. And, you know, well, it's only shown on that map.

01;08;23;13 - 01;08;47;09

Brian Soland, Link21 BART Manager of Rail Planning

It's something that we've heard from folks quite a bit who're interested in a station here, regardless of the gauge in the crossing. and this is something we'll continue to analyze as we move on to the next phase of the work. I don't think a decision on standard gauge is going to shift that that decision one way or another.

01;08;47;11 - 01;09;15;11

Brian Soland, Link21 BART Manager of Rail Planning

Just a note overall about an infill station there: There could be other avenues for advancing separately from Link21 to do an internal station on the BART network, in



particular through BART system expansion policy. It would certainly still be included within Link21, regardless of the decision on technology.

01;09;15;14 - 01;09;34;26

Sadie Graham, Link21 Director

Yeah. Let me just, chime in there, because I wanted to give the San Antonio Station Alliance Group a little shout out. You guys are doing a great job and I've got a lot of respect for that. And I appreciate all the questions. And we hear you. And we'll continue to look at the San Antonio station.

01;09;34;28 - 01;10;07;12

Sadie Graham, Link21 Director

There was a question in there about Link21 and the problem statement and, also prioritizing equity. And I am with you. I think there's a lot of great reasons for there to be a San Antonio station and to continue looking at it inherently. Link21 is set out to address that bigger Megaregional connectivity question that's answering, you know, how are we creating a more integrated network between these two types of systems.

01;10;07;14 - 01;10;30;28

Sadie Graham, Link21 Director

And it is focused on the transbay corridor. So, keep showing up. Keep doing it. And we will continue to look at San Antonio Station as part of this project. But I think to Brian's point, and I've talked to some of you directly, is that that you need to continue to do the work that you're doing, advocating and not necessarily seeing Link21 as the only way in which you can advocate for that.

01;10;30;28 - 01;10;45;16

Sadie Graham, Link21 Director

And I think, I think you've gotten that message. And so, we hear you and we'll continue looking at it, and are happy to further engage with the community and your group as we continue moving forward.



01;10;45;18 - 01;10;54;15

Linton Johnson, Link21, Facilitator

All right. We've got some hands raised. We have Youngchae Lee, who has a question. Go on.

01;10;54;18 - 01;11;30;06

Attendee:

Hi, I'm Youngchae with the San Antonio Station Alliance. I will not harp on that point, but I do want to understand if the plans are being evaluated for their environmental impact. Meaning, like the greater expansion of the greater Bay Area and potentially, you know, triggering further urban sprawl versus redeveloping existing urban areas that would benefit from better transit access.

01;11;30;08 - 01;11;41;07

Attendee:

Like, is that a factor in your thinking as you evaluate these options?

01;11;41;10 - 01;11;43;17

Linton Johnson, Link21, Facilitator

Who would like to take that?

01;11;43;20 - 01;11;59;28

Sadie Graham, Link21 Director

Don, do you want to answer that? I think the question is how we evaluate the impacts on the greater Megaregion, maybe encouraging sprawl rather than infill development, if I characterize that.

01;12;00;03 - 01;12;29;06

Donald Dean, Link21 Environmental Team Lead

Yeah. There are environmental terms. We'll be looking at land use changes related to the Link21 Project, not just in the area of the crossing and new stations, but also in the



Megaregion, wherever there's a potential physical impact. We'll be looking at that. There's also a number of land use changes that can take place around stations and related to different alignments.

01;12;29;06 - 01;13;06;25

Donald Dean, Link21 Environmental Team Lead

So that's another thing we'll be looking at. I know also that part of our land use analysis would be looking at potential displacement and redevelopment of those areas. And I know that Darren and his land use team have been looking at, you know, redevelopment activity and displacement related to those land use changes. Some of those things will be looked at as part of the environmental analysis that we're going to do once we get an alignment and stations nailed down. They'll be part of our CEQA/NEPA analysis. CEQA is the California Environmental Quality Act and also the federal parallel review is the NEPA process, the National Environmental Policy Act.

01;13;06;27 - 01;13;23;04

Donald Dean, Link21 Environmental Team Lead

So those are all things we'll look at as part of our environmental review. Some of those will be done independently of the actual CEQA/NEPA document that we do, but those will certainly be things that we look at as part of the overall environmental analysis that we'll be doing.

01;13;23;06 - 01;13;44;16

Linton Johnson, Link21, Facilitator

All right. Let's move on to some of the questions here. So Camille, we have a question from Ben. He is asking, I was at a transit conference last year. And he can't recall if they were Caltrans or federal agency reps who said a second crossing near Alameda/Jack London would be nearly impossible because of the two automotive tunnels in the area.

01;13;44;16 - 01;13;47;05 Linton Johnson, Link21, Facilitator Any thoughts on this?



01;13;47;07 - 01;14;26;07

Camille Tsao, Link21 CCJPA Program Director

Well, our engineering team has looked at that. And Brian, can speak more to it if needed. But it does make crossing in that area challenging. At least preliminarily, we've been able to find a way to avoid conflict with those tunnels they're referring to – the Webster and Posey tubes – I believe, which happen to be substandard and probably need to be replaced at some point.

01;14;26;09 - 01;14;35;06

Camille Tsao, Link21 CCJPA Program Director

But that's beside the point. Our team has figured out, at least conceptually, how to avoid those tunnels.

01;14;35;09 - 01;15;00;12

Linton Johnson, Link21, Facilitator

Right. So, we have our Equity Advisory Council (EAC) member. If you still have another question, I'm going to give you an opportunity to ask another question.

01;15;00;17 - 01;16;05;19

Attendee:

This is Clarence Fisher again. If BART gauge is selected for stations, it's going to be very easy for wheelchair users to get on and off the train such as current stations are done. If standard gauge is selected in order to help speed the process of getting on and off the standard gauge trains, and, instead of having to find a conductor for a special wheelchair lift to get on and off the trains, would there be a consideration that a raised platform entry on to the train to be considered with the new train cars?

01;16;05;19 - 01;16;13;27

Attendee:

Would that operate so that wheelchair users could board on and off the train quickly? Thank you.



01;16;13;29 - 01;16;17;01

Linton Johnson, Link21, Facilitator

That sounds like a question for Camille.

01;16;17;03 - 01;16;46;00

Camille Tsao, Link21 CCJPA Program Director

Yeah. Thanks, Clarence. What Clarence is referring to is what we call level boarding. So, as he described, you know, as you see, when you when you ride BART, and you're on waiting on the platform to get on to the train, someone with a bike or wheelchair or stroller can roll right onto the train because the platform and the train car floor at the same level.

01;16;46;03 - 01;17;17;13

Camille Tsao, Link21 CCJPA Program Director

Oftentimes throughout the Regional Rail system, you don't have that. You have to take a step up or so in order to get to the train. The quick answer is for any new stations that are built that are Regional Rail, which, you know, the ones that we proposed would most likely be underground. Those would have a level boarding.

01;17;17;15 - 01;17;59;14

Camille Tsao, Link21 CCJPA Program Director

It's when you have to, you know, when you have to introduce service at an existing station, that's where things get a little more complicated. and one solution that Caltrain has been using for a while now is there are some cars that will have what's called a mini high platform. And, you know, you see it on the Muni system sometimes as well, where there will be a platform for people that need level boarding for, you know, at least one of the cars.

01;17;59;17 - 01;18;33;28

Camille Tsao, Link21 CCJPA Program Director

But yeah, that is something that over time, you know, level boarding is the desired condition, if you will, of a transit rail station. it's just going to take some time to get there



and it's going to require some coordination. If we're on state-owned right of way, it's going to require separating tracks that freight trains use versus passenger trains.

01;18;34;01 - 01;18;49;29

Camille Tsao, Link21 CCJPA Program Director

So, there's just more involved in implementing level boarding on existing Regional Rail stations in particular. But it is the goal.

01;18;50;01 - 01;19;21;18

Linton Johnson, Link21, Facilitator

All right. Well, we've got another question. And this one is for you. And let's see. This question is just coming in. I think by 2025, BART, it's about 7000 units, 35% of which are affordable, will be built on its land. What would the acquisition of new land for new stations do for overall housing goals BART has and will bring to the Bay Area?

01;19;21;18 - 01;19;29;10

Linton Johnson, Link21, Facilitator

Is new housing a requirement for these new stations being considered near the new Transbay Tube?

01;19;29;13 - 01;19;53;08

Darin Ranelletti, Link21 Manager of Land Use Planning

Thanks. great question. The goal of Link21 is what we call an equitable, transit-oriented community. So that's where there's a positive relationship between the transit service and the surrounding community, with the right types and amounts of surrounding activities to support the transit system. And the transit contributes positively to the surrounding community.

01;19;53;10 - 01;20;23;08

Darin Ranelletti, Link21 Manager of Land Use Planning

So, certainly, housing and other types of activities are something that we're going to be looking at. And, likely setting goals around housing near stations. Now, that hasn't been



developed yet. That's something that we'll be doing as we continue to work with local jurisdictions and communities and as we define the Project with alignments

01;20;23;10 - 01;20;52;00

Darin Ranelletti, Link21 Manager of Land Use Planning

And stations, But yeah, there would be planning around stations so that we could achieve that, equitable transit-oriented community, with housing, at various income levels to meet the needs and the goals of the local community, so that, all folks can benefit from the enhanced transit service that comes with Link21.

01;20;52;02 - 01;21;10;27

Linton Johnson, Link21, Facilitator

All right. Thank you. Darin. Tim, this one's for you. She asks, how is the Project addressing historic inequities to transit access, such as the disparate lengths between BART stations in East Oakland and other urban communities in the BART system?

01;21;10;29 - 01;21;37;11

Tim Lohrentz, Link21 Equity Lead

Yeah. Thanks. good question. So, a couple of things. I mean, in general, the main focus of the project or this Program is to build a new crossing under the Bay. So, it's not really looking at how we can transform the entire transit network throughout the region. We are looking at how people in priority populations can gain access to transit.

01;21;37;11 - 01;22;04;18

Tim Lohrentz, Link21 Equity Lead

And you saw some of the metrics so that we know that we're providing a lot of new access to priority populations. We've been looking at some, a couple, infill stations, as mentioned already, San Antonio Station. We also have done some analysis about a potential station together with SFCTA at Bayview.

01;22;04;20 - 01;22;36;21

Tim Lohrentz, Link21 Equity Lead



So that's another example. in terms of further south in East Oakland, if it's a standard gauge, there would be an enhanced station at Coliseum and the transfer between BART and standard gauge there. It could potentially offer a one-seat ride from Coliseum Station to the Peninsula. So that would be a new service option for people in East Oakland.

01;22;41;25 - 01;23;11;16

Linton Johnson, Link21, Facilitator

All right, this question is for Brian, and this one is from Philip. Philip is asking, could you talk a bit more about the performance capabilities being considered or assumed for both standard- and broad-gauge technologies. For example, acceleration capabilities, top speed headways. How much do the capabilities differ and overlap, and how do these assumptions impact results of analysis being performed?

01;23;11;18 - 01;23;51;10

Brian Soland, Link21 BART Manager of Rail Planning

Yeah, that's great question. And, you know, the system for BART is largely developed and there are extensive standards and practices that BART has for all of the things that you mentioned there, and for, standard gauge that, you know, there are opportunities for improvements in the coming decades and where other regions throughout the, you know, all over the world have invested in standard gauge.

01;23;51;10 - 01;24;28;19

Brian Soland, Link21 BART Manager of Rail Planning

They have similar capabilities to what BART has here. When once you electrify the fleet you end up being able to run faster headways with shorter dwell times, and, you know, more fast, frequent, reliable service just like BART provides today. And the capabilities are largely similar. Once you have the infrastructure in place, there's not that much to differentiate what the trains can do.

01;24;28;22 - 01;24;45;16

Linton Johnson, Link21, Facilitator



All right. Thank you. Brian. So, we've got a couple more hands raised and a few more minutes left. So, let's try to get to that if we haven't heard from you. Ben Matlaw, I want to give you an opportunity to ask your question. Ben, what is your question?

01;24;45;19 - 01;25;14;07

Attendee:

Yeah. Thank you so much for having this community meeting. I appreciate the opportunity for public input, or at least public questions about the Project. And I was actually wondering when the Link21 Program will be seeking feedback, substantive feedback, from the community about the plans for the future of trains and rail crossings in Northern California.

01;25;14;10 - 01;25;26;01

Attendee:

As you know, the community has ideas, and we're hoping to also communicate those ideas to you as the Project planners say.

01;25;26;01 - 01;25;27;17 Linton Johnson, Link21, Facilitator It sounds like your question.

01;25;27;20 - 01;26;12;17

Sadie Graham, Link21 Director

Yeah, I'll take that one. thanks for that, Ben. Well, as I mentioned, I think it's really important that we make this technology decision so that we can focus more strategically on one technology. Or the other, because that does impact the station location and the alignments and such. And so, you're very correct with this: after we make this decision, and sort of within the next phase of work that needs to be done, there's going to be a lot of on-the-ground community work done with communities that will certainly be the areas where we would have any infrastructure improvements.

01;26;12;19 - 01;26;53;29

Sadie Graham, Link21 Director



We will continue to want to talk to the broader region so that people understand the benefits that they might receive even if they are not living in that neighborhood. And so, I think, we feel like we have been taking substantial or substantive feedback and are happy to continue to do that. You know, we have taken this approach of co-creation in the past where we've really tried to get with CBOs or different organizations and, you know, sit down at the table and have longer discussions about people about what, you know, people need and what they're envisioning.

01;26;53;29 - 01;27;15;24

Sadie Graham, Link21 Director

And so, I imagine that we'll do something to that extent where it's a little bit more of like sitting around a table having larger discussions on that. So again, you're right in that those more sort of detailed, substantive questions need to be answered with the community in this next phase of work.

01;27;15;27 - 01;27;42;11

Linton Johnson, Link21, Facilitator

All right. I think we have time for just one more question. And this one is going to go for, to Camille. And this one is from Daniel Bell. I see here, if Union Pacific does not allow overhead wires for electrification of Capital Corridor, would this discontinue Capitol Corridor service after 2035?

01;27;42;13 - 01;28;14;29

Camille Tsao, Link21 CCJPA Program Director

Thanks for the question. The answer is no. The state is going to be procuring the vehicles for Capitol Corridor and the other intercity services. Right now, what they're looking at is hydrogen, hydrogen-powered trains. So, hydrogen would generate the electricity, for the trains instead of needing overhead wires. Also, you know, battery technology just continues to improve.

01;28;15;02 - 01;28;42;10

Camille Tsao, Link21 CCJPA Program Director

Right now, they don't have sufficient range for a service like ours. We know we travel 170 miles. So, battery isn't there right now, but, you know, perhaps someday it'll get



there. So, there are options other than having overhead wires. We've kind of assumed that that, you know, Union Pacific is not going to be too keen on that.

01;28;42;13 - 01;29;12;26

Camille Tsao, Link21 CCJPA Program Director

So, the state has been looking at other technologies, generally, you know. Just keep in mind that Regional Rail trains, in particular, have been modernizing and are just getting better and better in terms of performance. So, what you see today on the tracks is not what you're going to be seeing in the future.

01;29;12;28 - 01;29;34;23

Linton Johnson, Link21, Facilitator

Thank you, Camille. So, we may not get into all of your questions. If you do have more questions, we will have an Online Open House coming up. Look for that at Link21program.org. Thank you for joining us. This has been a great dialog. You might see us at train stations and communities and at community events and other places presenting, sharing information and answering your questions.

01;29;34;23 - 01;30;00;15

Linton Johnson, Link21, Facilitator

So come say hello. If you're interested in having Link21 present to your organization, please contact us via telephone line at 855-905-LINK. Or like I said at our website, Link21program.org. You can stay engaged through social media by following BART or Capitol Corridor on Facebook, Instagram, Twitter and LinkedIn. Use #Link21. That concludes our presentation.

01;30;00;15 - 01;30;11;10

Linton Johnson, Link21, Facilitator

We really appreciate you spending your evening with us. We know you've been doing a lot of things right now, and we are grateful for your time. We look forward to hearing from you again and thank you for joining us and have a great evening. Thank you everyone.



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