



Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Meeting Agenda

Metropolitan Transportation Commission Workshop

Thursday, May 26, 2022

9:30 AM

HYBRID (In person option available)

The Day 2 of the Metropolitan Transportation Commission Workshop is scheduled to meet on Thursday, May 26, 2022 at 9:30 a.m., in the Bay Area Metro Center (HYBRID - In person option available). In light of Governor Newsom's State of Emergency declaration regarding COVID-19 and in accordance with the recently signed Assembly Bill 361 allowing remote meetings, this meeting will be accessible via webcast, teleconference, and Zoom for all participants. A Zoom panelist link for meeting participants will be sent separately to committee, commission, or board members.

Meeting attendees may opt to attend in person for public comment and observation at 375 Beale Street, Yerba Buena Conference Room (1st Floor). In-person attendees must adhere to posted public health protocols while in the building.

The meeting webcast will be available at
<https://mtc.ca.gov/whats-happening/meetings/live-webcasts>.

Members of the public are encouraged to participate remotely via Zoom at the following link or phone number:

Attendee Link: <https://bayareametro.zoom.us/j/88041762540>

Or iPhone one-tap: US: +13462487799,,88041762540# or +12532158782,,88041762540#

Or Join by Telephone: (for higher quality, dial a number based on your current location) US:

+1 408 638 0968 or +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799 or

+1 312 626 6799 or +1 646 876 9923 or +1 301 715 8592 or

877 853 5247 (Toll Free) or 888 788 0099 (Toll Free)

Webinar ID: 880 4176 2540

International numbers available: <https://bayareametro.zoom.us/j/88041762540>

Detailed instructions on participating via Zoom are available at:

<https://mtc.ca.gov/how-provide-public-comment-board-meeting-zoom>. Committee members and members of the public participating by Zoom wishing to speak should use the "raise hand" feature or dial "*9". In order to get the full Zoom experience, please make sure your application is up to date.

Members of the public may participate by phone or Zoom or may submit comments by email at info@bayareametro.gov by 5:00 p.m. the day before the scheduled meeting date. Please include the committee or board meeting name in the subject line. Due to the current circumstances there may be limited opportunity to address comments during the meeting. All comments received will be submitted into the record.

MTC Commission Roster:**Alfredo Pedroza, Chair Nick Josefowitz, Vice Chair****Margaret Abe-Koga, Eddie Ahn, David Canepa, Cindy Chavez, Damon Connolly, Carol Dutra-Vernaci, Dina El-Tawansy, Victoria Fleming, Dorene M. Giacomini, Federal D. Glover, Sam Liccardo, Nate Miley, Gina Papan, David Rabbitt, Hillary Ronen, Libby Schaaf, James P. Spering, Amy R. Worth****Workshop Theme: Delivering the Next Generation of Transit Major Projects: Setting the Bay Area up for Success**

Objective: Understand their importance and specifics of major transit projects to achieving PBA2050 goals as well as the significant time, effort, funding, and risk associated with delivering mega projects. Discuss best practices, lessons learned, and risk management approaches and potential MTC regional value-add in project delivery. Finally, discuss how the Major-project Advancement Policy (MAP) will bring together a funding strategy, policy reinforcements, and risk management toward successful project delivery of the Next Generation of Transit for the Bay Area.

1) Day 1 Recap and Day 2 Goals (Chair Alfredo Pedroza and Therese McMillan, Executive Director)

2) The Mega Project Landscape

2a) [22-0810](#) A View from the National Perspective

Action: Information

Presenter: Ray Tellis, FTA Region IX Administrator

Attachments: [2a-View From National Perspective.pdf](#)

2b) [22-0811](#) Plan Bay Area 2050 - Tier 1 Projects

Staff will provide a review of scopes, schedules and budgets for some of the region's largest transit projects that are included in Tier 1 of Plan Bay Area 2050. Agency staff will be available to answer questions. Project highlighted will include: Caltrain Electrification; BART Core Capacity; BART to Silicon Valley Phase 2; Downtown Extension; Valley Link, and Programmatic projects.

Action: Information

Presenter: Theresa Romell, MTC and Other Agency Staff for Questions

Attachments: [2b-PBA 2050 - Tier 1 Projects.pdf](#)

3) [22-0980](#) MTC's Role in Getting Major Projects Delivered and Coordinated

Staff will review MTC's evolving role in major project delivery - from funding/policy, investor, and builder - and introduce a current effort focused on rail partnership/delivery including project delivery models being explored as part of the study.

Action: Information

Presenter: Therese McMillan, MTC and Alasdair Dawson, Steer Consultants

Attachments: [3-MTCs Role in Getting Major Projects Delivered and Coordinated.pdf](#)

Lunch Break: 11:45 – 1:00 pm**4) [22-0981](#) What Next? Major-project Advancement Policy, or MAP**

Staff will summarize the overall funding need and project readiness from the recent sponsor project submittals; provide an initial evaluation approach; and describe the policy foundation, timeline, and upcoming decision opportunities.

Action: Information

Presenter: Kenneth Folan, MTC

Attachments: [4-Major Project Advancement Policy_Summary Sheet.pdf](#)

[4-Major Project Advancement Policy_Presentation.pdf](#)

5) Next Steps and Closing Remarks (Chair Alfredo Pedroza)**6) Public Comment / Other Business****7) Adjournment**

Public Comment: The public is encouraged to comment on agenda items at Committee meetings by completing a request-to-speak card (available from staff) and passing it to the Committee secretary. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

Meeting Conduct: If this meeting is willfully interrupted or disrupted by one or more persons rendering orderly conduct of the meeting unfeasible, the Chair may order the removal of individuals who are willfully disrupting the meeting. Such individuals may be arrested. If order cannot be restored by such removal, the members of the Committee may direct that the meeting room be cleared (except for representatives of the press or other news media not participating in the disturbance), and the session may continue.

Record of Meeting: Committee meetings are recorded. Copies of recordings are available at a nominal charge, or recordings may be listened to at MTC offices by appointment. Audiocasts are maintained on MTC's Web site (mtc.ca.gov) for public review for at least one year.

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可及性和法令第六章: MTC 根據要求向希望來委員會討論有關事宜的殘疾人士及英語有限者提供服務/方便。需要便利設施或翻譯協助者，請致電 415.778.6757 或 415.778.6769 TDD / TTY。我們要求您在三個工作日前告知，以滿足您的要求。

Acceso y el Titulo VI: La MTC puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Comisión. Para solicitar asistencia, por favor llame al número 415.778.6757 o al 415.778.6769 para TDD/TTY. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

Attachments are sent to Committee members, key staff and others as appropriate. Copies will be available at the meeting.

All items on the agenda are subject to action and/or change by the Committee. Actions recommended by staff are subject to change by the Committee.



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 22-0810 **Version:** 1 **Name:**

Type: Report **Status:** Informational

File created: 4/15/2022 **In control:** Metropolitan Transportation Commission Workshop

On agenda: 5/26/2022 **Final action:**

Title: A View from the National Perspective

Sponsors:

Indexes:

Code sections:

Attachments: [2a-View From National Perspective.pdf](#)

Date	Ver.	Action By	Action	Result
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Subject:

A View from the National Perspective

Presenter:

Ray Tellis, FTA Region IX Administrator

Recommended Action:

Information

Bay Area Metro Commission Workshop

May 26, 2022



Ray Tellis

Regional Administrator, Region 9
Federal Transit Administration



FTA Risk Assessments

- FTA Risk Assessments and requiring projects to maintain a risk register have been invaluable to identify "higher risk activities" for extra attention and necessary resources
- Risk registers have highlighted areas of potential issues, allowing for proactive actions to head-off cost and schedule impacts
- Importantly, mitigations should be assigned to a dedicated project team member, and required actions should be tracked for timely completion
- Over time, FTA has developed a robust risk assessment process that serves projects well and uses a **P65%** (probability) for cost and schedule
- The FTA risk model uses factors developed from a study of cost overruns and schedule delays from prior projects
- In more recent times, FTA has conducted these assessments in a streamlined manner (EPD) with results that have withstood the test in predicting revenue service dates and the corresponding budgets



Partnerships and Relationships

- Strong relationships between the project sponsor leadership, project teams and federal staff have been critical to ensure success; direct, candid and transparent discourse ensured that success
- FTA fully understands that certain issues take time to address and bring to resolution.
- But, you have to come to FTA early; it is more important to demonstrate what you are doing about a problem, than that a problem occurred
- FTA/PMOC access to the project director and team should be unrestricted
- Communications should take place often and immediately when required to address an issue. We have a common goal in getting the project to the finish line



Supportive Reviews

- Value Engineering, Constructability Reviews and Peer Reviews have proven successful on projects, especially where the PMOC was brought aboard early to flush out impacts and opportunities in a timely manner
- Also, the FTA Construction Roundtable has proven to be an ideal opportunity for project sponsors to share battle stories and gain from the interaction with peers
- A direct line of communication with the agency's CEO were very effective
- This action by FTA (or any oversight entity) was appreciated by the project teams to bring action and resources, where the project team may not have the authority or responsibility for some larger agency actions that may be needed



Costs

- Project budgets and schedules are usually developed by a consultant team very early in the process, and time is money; these two key items are the primary measuring sticks of a successful project.
- The consultant team often creates a schedule and/or budget the owner wants to hear, versus a harsh reality for schedule and cost
- Final cost projections and schedule forecasts must improve; if cost overruns take place, the baseline assumptions were too optimistic
- The project budget and schedule should be revisited at the 30%, 60% & 90% design thresholds, and just before issuing bids Operations should be brought in early to weigh in and communicate their requirements for inclusion in the design



Costs – Delivery Method

- Contracting/delivery method must match the project to support a robust interface with relevant public agencies.
- Some projects are just not suited for Design-Build, and others are not suited for Design-Bid-Build.
- The permitting process in many cases is best left to the project sponsor to manage; Contractors cannot accurately estimate the time to obtain City and other third-party approvals, ex. Traffic Control Plans and Resource Agency (Corps of Engineers)
- More recently, the Progressive Design Build delivery method has demonstrated value to project sponsors for the following reasons:
 - Risk is controlled by the Progressive Design-Build process through design collaboration and open book pricing prior to negotiating construction price
 - Owner controls when to initiate negotiations
 - Ability to incorporate stakeholder input during design without triggering construction change orders
 - Flexibility to execute early works packages during design phase Owner has ability to take “off ramp” if agreement can’t be reached on construction price



Schedule - Utilities

- Better definition of utilities is key to avoid tunnel collapses and other mishaps that cause significant delays
- Advanced utility relocations most always take longer than anticipated; this creates a conflict with the follow-on contractor for scheduled access to the site - Keep with mainline contractor
- Spend the time and money for an aggressive utility identification program which includes extensive potholing
- Create a dedicated team to interface with each utility agency
- Survey verification for utility relocations are critical when installing new utilities to ensure the contractor is properly documenting the as-builts
- For utility relocations or installations on critical path, the contractor should consider having additional materials on hand in the event a differing site condition is observed



Good project management

- Lesson Learned – take full advantage of lessons learned from previous projects or multiple projects in the program
- Owner should retain control; the pass over to design-build contractor has yielded poor results at best with several major, impactful problems. Owner should retain quality control
- Conduct partnering sessions with Contractor principals; it provide a forum to assess individuals and most importantly assessment of relationships between parties



FTA Project Oversight

- FTA's robust oversight program that utilizes PMOCs, engineering firms, to assist in overseeing its major capital projects has served it well with PMOCs and SMEs forecasting problems beyond monitoring
- The program addresses issues and challenges on all aspects of a project, primarily project budgets, contingency levels, schedules and scope. The program also looks at safety, risk, quality, environmental impacts, real estate and legal trends on a project
- Other federal agencies and DOT modes have recognized the value in trying to emulate the FTA oversight model. Further, project teams have opted for an increased oversight on their project; sometimes preferring the FTA oversight engagement on a more frequent basis





[TRANSIT.DOT.GOV](https://www.transit.dot.gov)



FEDERAL TRANSIT ADMINISTRATION



Metropolitan Transportation Commission

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Legislation Details (With Text)

File #:	22-0811	Version:	1	Name:	
Type:	Report	Status:		Informational	
File created:	4/15/2022	In control:	Metropolitan Transportation Commission Workshop		
On agenda:	5/26/2022	Final action:			
Title:	Plan Bay Area 2050 - Tier 1 Projects				

Staff will provide a review of scopes, schedules and budgets for some of the region's largest transit projects that are included in Tier 1 of Plan Bay Area 2050. Agency staff will be available to answer questions. Project highlighted will include: Caltrain Electrification; BART Core Capacity; BART to Silicon Valley Phase 2; Downtown Extension; Valley Link, and Programmatic projects.

Sponsors:

Indexes:

Code sections:

Attachments: [2b-PBA 2050 - Tier 1 Projects.pdf](#)

Date	Ver.	Action By	Action	Result
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Subject:

Plan Bay Area 2050 - Tier 1 Projects

Staff will provide a review of scopes, schedules and budgets for some of the region's largest transit projects that are included in Tier 1 of Plan Bay Area 2050. Agency staff will be available to answer questions. Project highlighted will include: Caltrain Electrification; BART Core Capacity; BART to Silicon Valley Phase 2; Downtown Extension; Valley Link, and Programmatic projects.

Presenter:

Theresa Romell, MTC and Other Agency Staff for Questions

Recommended Action:

Information

The Megaproject Landscape

Plan Bay Area 2050 Tier 1 Projects



Megaproject Advancement Policy Commission Workshop
Day 2 Agenda Item 2

Definitions / Terms

- Megaprojects: Generally speaking, a regionally significant project with a total cost of \$1 billion or more
- Committed Funding: Funding that has been secured through a programming or other commitment process. Not subject to competitive award, voter approval, or legislative action
- MAP Submittals: Projects submitted as part of a request for information from MTC in March 2022; Costs/Funding \$ in Year of Expenditure
- Performance: References the Plan Bay Area 2050 Project Performance process - Performance was assessed in three distinct futures to identify investments that are resilient to uncertain future conditions
 - >1 Benefit/Cost; advances equity
 - >0.5 and <1 B/C; even for equity
 - <0.5 B/C; challenges for equity

Caltrain Electrification (PCEP)

Description

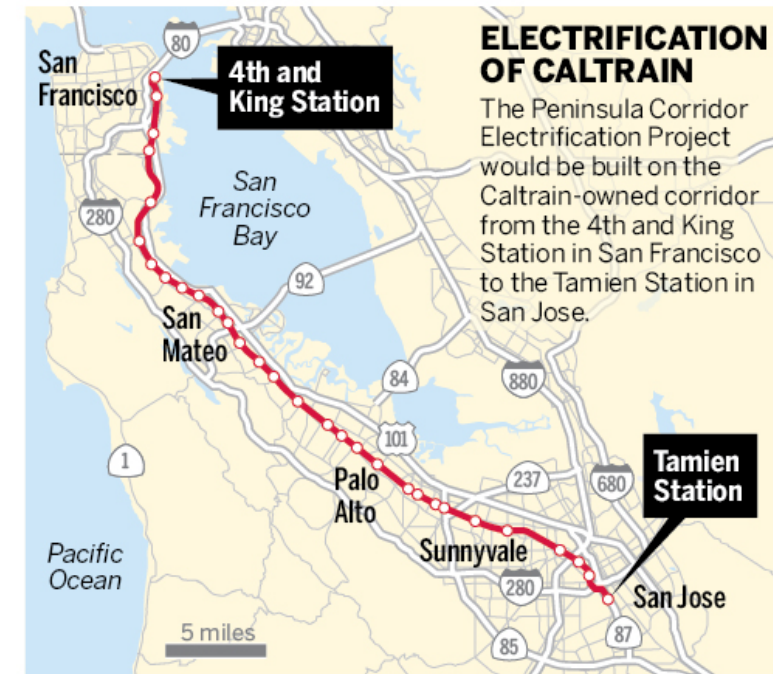
The Caltrain Electrification project will electrify 51 miles of Caltrain service between San Francisco and San Jose, increasing efficiency, capacity, and reliability along the corridor.

Sequencing

Anticipated Opening Year: 2024 (Tier 1)

PBA2050 Performance

No Performance Information - Committed Projects Are Exempt



Source: Caltrain

BAY AREA NEWS GROUP

Caltrain Electrification (PCEP)

Schedule & Funding

Phase	Anticipated Completion Date	Total Cost (\$ millions)	Committed Funding (\$ millions)	Uncommitted Funding Need (\$ millions)
Environmental/ Planning	Completed			
Design	Completed			
Right-of-Way	Completed			
Construction	2024 (Current Phase)	\$2,443	\$2,033	\$410
Total		\$2,443	\$2,033	\$410

- Committed funds cover 83% of total cost
- MAP submittal 23% higher than PBA 2050 cost estimate (includes recently announced cost increase)

BART Transbay Core Capacity Program

Description

The Transbay Corridor Core Capacity Program will allow BART to maximize throughput in the Transbay corridor through new railcars, an upgraded train control system, the Hayward Maintenance Complex (Phase 2), and new traction power substations.

Sequencing

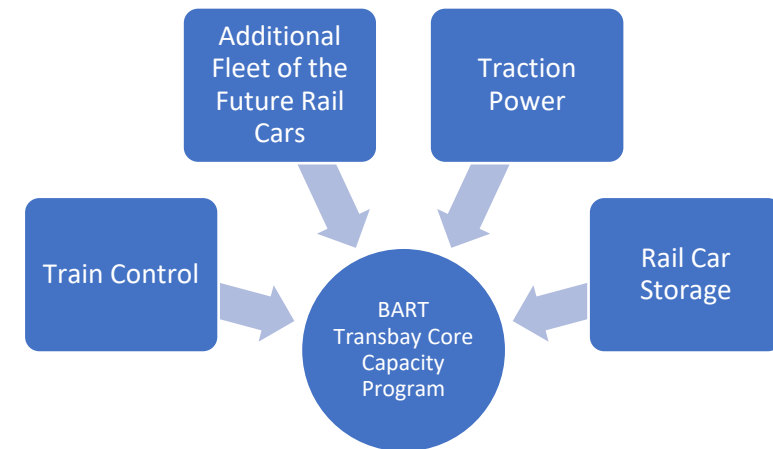
Anticipated Opening Year: 2028 (Tier 1)

PBA2050 Performance

Benefit/Cost

Equity

Guiding Principles



BART Transbay Core Capacity Program

Schedule & Funding

Phase	Anticipated Completion Date	Total Cost (\$ millions)	Committed Funding (\$ millions)	Uncommitted Funding (\$ millions)
Environmental/ Planning	2017 (Completed)	\$25	\$25	
Design	2020 (Completed)	\$59	\$59	
Right-of-Way	N/A	-	-	
Construction	2034 (Current phase)	\$3,741	\$3,177	\$564
Total		\$3,825	\$3,261	\$564

- Committed funds cover 85% of total cost
- MAP submittal 8% higher than PBA 50 cost estimate
- The amount of uncommitted funding remaining to complete construction is a preliminary estimate and will require further analysis and confirmation by BART

BART to Silicon Valley Phase II

Description

The BART to Silicon Valley Phase II project will extend BART service six miles from the Berryessa Transit Center to Santa Clara Caltrain Station, adding four new stations including a new station at San Jose Diridon Station.

Sequencing

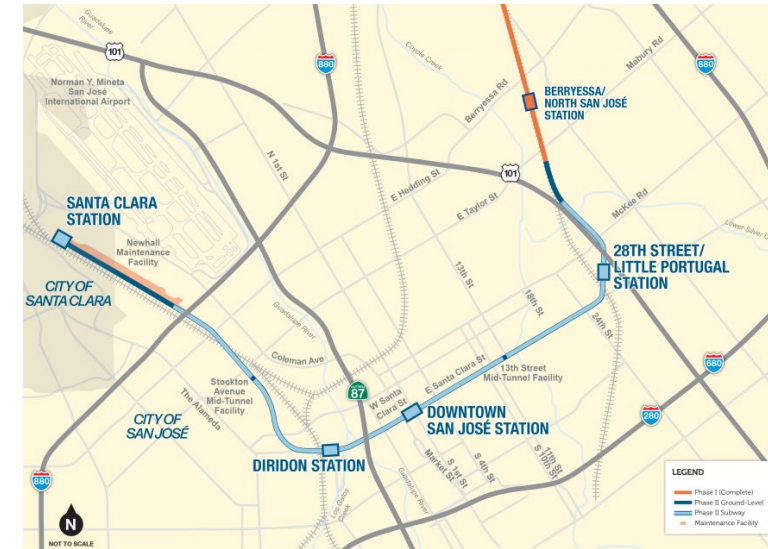
Anticipated Opening Year: 2030 (Tier 1)

PBA2050 Performance

Benefit/Cost

Equity

Guiding Principles



BART to Silicon Valley Phase II

Schedule & Funding

Phase	Anticipated Completion year	Total Cost (\$ millions)	Committed Funding (\$ millions)	Uncommitted Funding (\$ millions)
Environmental/ Planning	2018 (Completed)	\$205	\$205	
Design	2026 (Current phase)	\$505	\$505	
Right-of-Way	2023	\$653	\$653	
Construction	2030	\$5,981	\$2,896	\$3,085
Total		\$7,345	\$4,260	\$3,085

- Committed funds cover 58% of total cost
- For CIG program, FTA risk assessment identified potential cost increase to \$9 billion, 25% higher than VTA's current cost estimate, to cover contingencies. VTA has not yet verified this cost increase.

Caltrain Downtown Extension (DTX)

Description

The Downtown Rail Extension project will extend Caltrain and future California High-Speed Rail service approximately two miles from the existing 4th and King railyard to the Salesforce Transit Center, with a new station at 4th and Townsend.

Sequencing

Anticipated Opening Year: 2031 (Tier 1)

PBA2050 Performance

Benefit/Cost

Equity

Guiding Principles



Caltrain Downtown Extension (DTX)

Schedule & Funding

Phase	Anticipated Completion Date	Total Cost (\$ millions)	Committed Funding (\$ millions)	Uncommitted Funding Need (\$ millions)
Environmental/ Planning	2019 (Completed)			
Design	2025 (Current Phase)	\$136	\$89	\$47
Right-of-Way	2025	\$326	\$107	\$218
Construction	2031	\$4,538	\$639	\$3,899
Total		\$5,000	\$835	\$4,164

- Committed funds cover 17% of total cost
- MAP submittal 27% higher than PBA 2050 cost estimate

Valley Link

Description

The 26-mile initial operating segment of Valley Link project would construct new commuter rail service connecting San Joaquin County to Dublin/Pleasanton BART station, with two additional new Bay Area stations in eastern Alameda County.

Sequencing

Anticipated Opening Year: 2028 (Tier 1)

PBA2050 Performance

Benefit/Cost

Equity

Guiding Principles



Valley Link

Schedule & Funding

Phase	Anticipated Completion Date	Total Cost (\$ millions)	Committed Funding (\$ millions)	Uncommitted Funding (\$ millions)
Environmental/ Planning	2024 (CEQA Completed, NEPA/30% Design ongoing)	\$60	\$60	-
Design	2025	\$128	\$128	-
Right-of-Way	2025	\$160	\$80	\$80
Construction	2027	\$1,516	\$426	\$1,090
Total		\$1,864	\$694	\$1,170

- Committed funds cover 30% of total cost
- MAP submittal only for initial operating segment, at a cost 18% lower than PBA 2050 cost estimate for the Bay Area share of full 42-mile project

Zero Emissions Bus Transition

Description

The Zero Emissions Bus Transition program will support the electrification of the region's bus fleet, reducing emissions in line with state mandates and modernizing the fleet to provide more reliable service.

Sequencing

Anticipated Opening Year: Ongoing (Tiers 1 & 2)

PBA2050 Performance

No Performance Information - Not Modelable



Zero Emissions Bus Transition

- In 2018, the California Air Resources Board adopted the Innovative Clean Transit rule, requiring gradual transition to Zero Emission and all purchases in 2029 and beyond to be ZEB.
- In partnership with transit operators, MTC developing a regional transition strategy focused on cost/funding identification, coordination, and managing risk.
- Strategy to inform funding advocacy for state, federal and other opportunities

Key Takeaways

- Significant cost increases over the years; significant funding gaps remain
- Some projects poised to get over finish line....other barely at the starting gate
- Governance complex for funding, project delivery and long-term operations
- No standard approaches to risk management
- Key Risks:
 - Complex Agreements - Public Agency/Public Agency and Owner/Contractor
 - New Technologies and Innovative Construction Approaches
 - Uncertainty in Operating Funding Plans



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Legislation Details (With Text)

File #: 22-0980 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 5/13/2022 **In control:** Metropolitan Transportation Commission Workshop
On agenda: 5/26/2022 **Final action:**
Title: MTC's Role in Getting Major Projects Delivered and Coordinated

Staff will review MTC's evolving role in major project delivery - from funding/policy, investor, and builder - and introduce a current effort focused on rail partnership/delivery including project delivery models being explored as part of the study.

Sponsors:

Indexes:

Code sections:

Attachments: [3-MTCs Role in Getting Major Projects Delivered and Coordinated.pdf](#)

Date	Ver.	Action By	Action	Result
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MTC's Role in Getting Major Projects Delivered and Coordinated

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Presenter:

Therese McMillan, MTC and Alasdair Dawson, Steer Consultants

Recommended Action:

Information



MTC's Role in Getting Major Projects Delivered and Coordinated

**Therese McMillan, MTC
Alasdair Dawson and Raquel Gold,
Steer/Boxfish Consultant Team**

MTC's Involvement in Major Project Delivery – Planning, Funding and Policy

Regional Transportation Plan (Plan) – long range strategies for interrelated elements of Housing, Transportation, Economy and Environment.

Plan requires demonstration of operating funding for capital projects

MTC Resolution 3434 – funding and policies strategy to deliver transit projects

Advocacy and Endorsement for Federal and State Funding Categories (ex: FTA New Starts and Small Starts, State Transit Intercity Rail Capital Program)



MTC's Involvement in Major Project Delivery – Investor

Regional Measures 1, 2, and 3
(pending)

Oversee bridge toll investments to
reduce congestion in bridge
corridors

- Expenditure Plan Allocation Authority
- High Level Risk Management
- State statute provides MTC authority to redirect funds in certain circumstances following public hearing process



MTC's Involvement in Major Project Delivery – Builder

The Bay Area Toll Authority (BATA) collects toll funds and uses that money to fund major projects that support bridges, roads and the Bay Area transportation network.

- Bridges
- Express Lanes
- Electronic Tolling Infrastructure



Looking To The Future – Exploring Project Delivery Models

- In 2020, MTC was awarded a \$400,000 Caltrans Sustainable Transportation Planning Grant titled Bay Area Regional Rail Partnerships: Project Delivery and Governance
- Building on existing efforts, and in partnership with rail providers in the region, this effort will work to identify project delivery and governance structures to build and operate a more seamless and customer focused rail network.
- Opportunity for MTC and its rail partners to connect, collaborate, and evaluate options to advance rail projects to better support major infrastructure changes, megaproject delivery, and to improve cost effectiveness of delivering and operating rail.

Rail Partnership Study Focus

Opportunity to evolve delivery eco-system



Reference models help understand state of practice



Study findings will outline what could be done



Delivering Rail Projects – What Do We Need to Consider?



We are in “**exploratory mode**”, not evaluation mode.

Lines of Inquiry to Guide Exploration of Models

Inquiry 1 – does the existing model with multiple decision makers, planners, and delivery agencies support optimal projects and services delivered in an **optimal sequence**?



Inquiry 2 – as the network becomes increasingly physically integrated, can the existing model ensure **seamless customer experience** and project delivery?



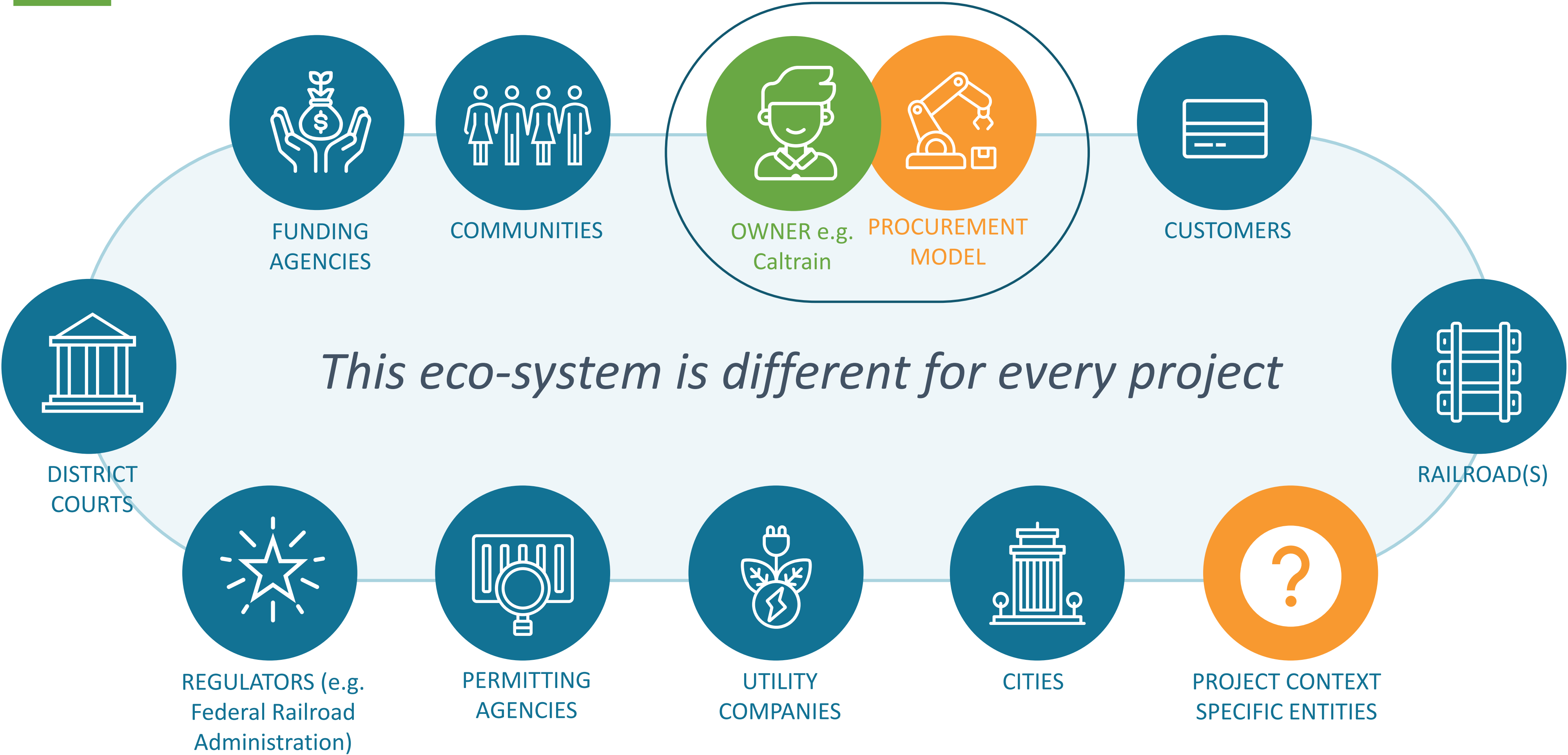
Inquiry 3 – as the volume of projects proposed for the Bay Area reaches historic levels, does the existing model enable value for money and **effective delivery** across the region?



Inquiry 4 – similar skills and knowledge are required across the range of proposed projects, can the existing model ensure **effective use of labor and innovation**?



Alignment in the delivery eco-system is important



Complexity to navigate



Operations-to-Capital Interface



Agency-to-Railroad Interface



Scale of Ambition



Procurement model powers

Reference Delivery Models: Region Overviews



9-County San Francisco Bay Area

9-Co. Area Population:	7.4 million
Regional rail*	509 miles
Annual ridership	148 million
Daily ridership	500,000
Regional rail planning entity	MTC/Many
Regional rail operator	Many
Regional rail delivery agency	Many
Project delivery contract holder	Various

*Networks included: ACE, BART, Caltrain, Capitol Corridor, SMART. All figures pre-COVID.



Ontario-Greater Toronto Area: Regional Rail Delivery

GTHA Population:	8.8 million
Regional rail**	400 miles
Annual ridership	280 million
Daily ridership	1.8 million
Regional rail planning entity	Metrolinx & Infrastructure Ontario
Regional rail operator	Metrolinx/GO Transit
Regional rail delivery agency	Metrolinx
Project delivery contract holder	Various

**Networks included: GO Transit, TTC. All figures pre-COVID.



Greater London: Megaproject Delivery

London Population:	8.9 million
Regional rail***	494 miles
Annual ridership	1.8 billion
Daily ridership	5 million
Regional rail planning entity	TfL/Network Rail/DfT
Regional rail operator	Various private and public
Regional rail delivery agency	Crossrail/Network Rail/TfL
Project delivery contract holder	Various

***Networks included: London Underground, London Overground, ThamesLink. All figures pre-COVID.

Combinations of delivery models are typical and have evolved in Canada...



- Large-scale, complex infrastructure projects using P3
- Advise on Planning and Strategic framework to guide future investments
- Conduct competitive P3 and conventional procurement



- Improve coordination, decision-making and integration of all modes
- Development of Transportation Plans
- Fund/manage funding
- Oversee delivery and operate GO Regional Rail services – broad procurement powers



Toronto Transit Commission

- Municipal operator operating Light Rail, Street car and Subway
- Assets remain with Metrolinx for asset operations and maintenance
- Some new assets and legacy assets built / maintained by TTC

...and in London



- Portfolio of projects in Greater London mainly managed by TfL and Network Rail
- Department for Transport (DfT) and Transport for London (TfL) created and fund Crossrail Ltd
- Mayor is a decision-maker for TfL (Chair) and stakeholder for DfT and Network Rail



- Responsible for operations, maintenance, renewals, enhancements of rail infrastructure
- Created internal Infrastructure Projects team for major Thames Link investment (like Link21) and Crossrail infrastructure on behalf of Crossrail Ltd (like Caltrain for CHSR)
- Delivers HS2 conventional infrastructure improvements on behalf of HS2 Ltd

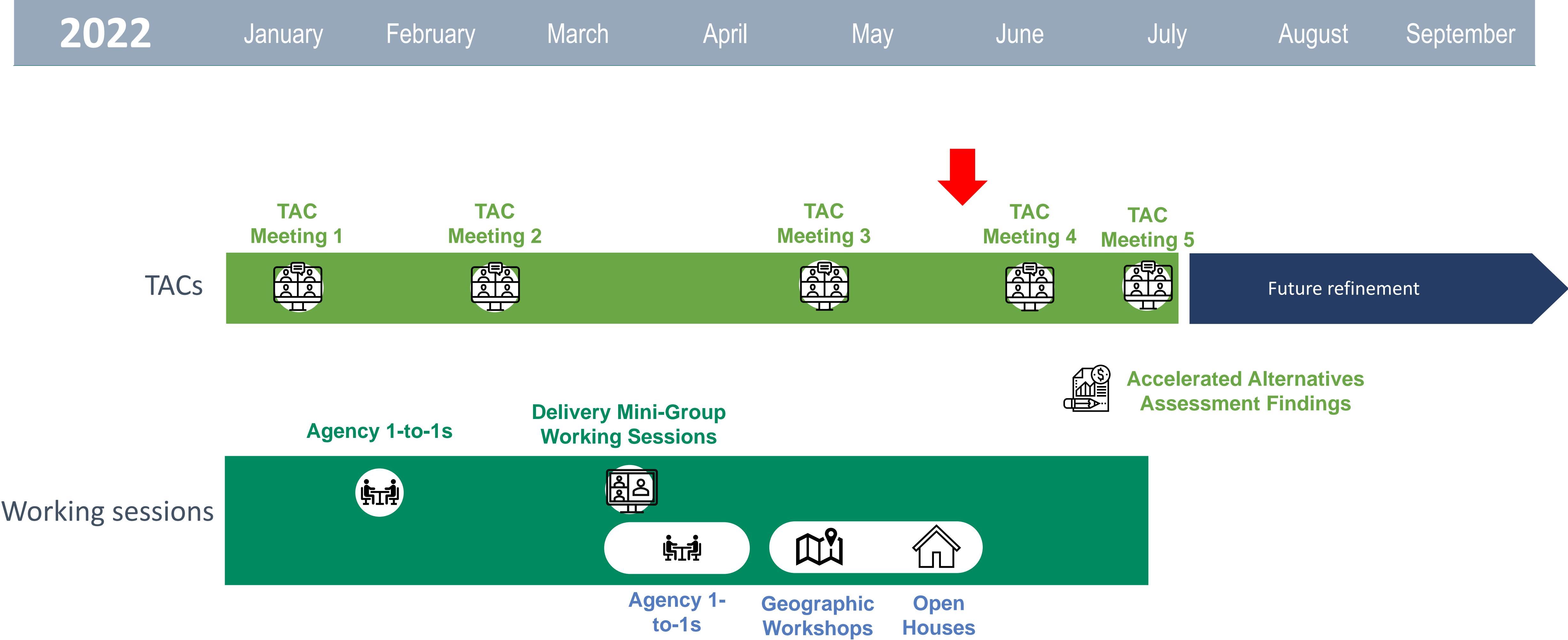
HS2

- SPVD equivalent or “arms length government company” to deliver \$52Bn High Speed 2 asset
- Will have a private passenger rail operator asset *could* be managed by Network Rail



- Delivery of \$23Bn 74-mile (14 mi in tunnel) cross-London regional rail (also similar to Link21)
- Crossrail Ltd holds the contracts, but central Govt is the ultimate backstop
- Delivers core elements of program (central tunnelled segments and signaling)
- Private operator (MTR) asset will be handed over to TfL, private developer did a station

Rail Partnerships Study Timeline and Workstreams



Thank you



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #:	22-0981	Version:	1	Name:	
Type:	Report	Status:		Informational	
File created:	5/13/2022	In control:		Metropolitan Transportation Commission Workshop	
On agenda:	5/26/2022	Final action:			
Title:	What Next? Major-project Advancement Policy, or MAP				

Staff will summarize the overall funding need and project readiness from the recent sponsor project submittals; provide an initial evaluation approach; and describe the policy foundation, timeline, and upcoming decision opportunities.

Sponsors:

Indexes:

Code sections:

Attachments: [4-Major Project Advancement Policy Summary Sheet.pdf](#)
[4-Major Project Advancement Policy Presentation.pdf](#)

Date	Ver.	Action By	Action	Result
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Subject:

What Next? Major-project Advancement Policy, or MAP

Staff will summarize the overall funding need and project readiness from the recent sponsor project submittals; provide an initial evaluation approach; and describe the policy foundation, timeline, and upcoming decision opportunities.

Presenter:

Kenneth Folan, MTC

Recommended Action:

Information

Metropolitan Transportation Commission Commission Workshop

May 26, 2022

Agenda Item 4

Major Project Advancement Policy (MAP)

Subject:

Update on the MAP, including background and stakeholder engagement, a summary of project information, and evaluation criteria.

Background:

Following the recent adoption of Plan Bay Area 2050, there is a need and an opportunity for regional coordination to meet the funding and project delivery challenges of the current and future set of major transportation projects in the region. The Commission and the Blue Ribbon Transit Recovery Task Force (BTRTF) have noted the importance of regional leadership and coordination to support development and delivery of large and regionally-significant transportation projects across all modes. To further this regional coordination, MTC is developing the Major Project Advancement Policy (MAP).

The MAP will be a regional policy to support implementation of Plan Bay Area 2050, aimed at delivering the next round of major transportation projects, building off the Bay Area's previous Regional Transit Expansion Program, MTC Resolution No. 3434. For large, regionally significant projects in Plan Bay Area 2050, the MAP will seek to achieve regional coordination on federal, state, and regional discretionary funding requests and develop MTC's role in risk management and ensuring consistency with regional policies.

The MAP will consist of three components:

- **Funding Strategy:** Develop full funding plans for projects in the MAP. Identify appropriate discretionary funding sources and prioritize or sequence funding requests. Endorsements and sequencing strategies may be developed for fund sources such as Federal Transit Agency Capital Investments Grant program (New Starts, Small Starts and Core Capacity) and programs of the federal Bipartisan Infrastructure Law, state sources such as the Transit and Intercity Rail Capital Program, Senate Bill 1 programs, general state budget augmentations and other state sources. Other non-local fund sources may also be considered for endorsement and sequencing strategies.

- **Policy Reinforcements:** Monitor project progress and consistency with policy commitments in Plan Bay Area 2050 and other regional policies. The policy areas covered may include benefit/cost ratios, equity, land use, and connected mobility.
- **Risk Management:** Develop a regional risk management approach to evaluate and monitor risks throughout project lifecycles, from early project development and network coordination through construction.

Stakeholder Engagement

The MTC Programming and Allocations Committee received staff updates and provided direction in April and May 2022 on MAP development. Additionally, the MAP was discussed at the May MTC Policy Advisory Council. Further information on the MAP, including updated information from sponsors and the project evaluation will be presented on Day 2 of the workshop. Staff is seeking further Commission and public input on the MAP. in the coming months.

Key Dates for Public/Partner/Stakeholder Engagement and Input (other opportunities may be added):

March 30	Partnership Board*
April/May/June	Outreach to Partnership Board, Transit Agencies, County Transportation Agencies, Federal and State and Local funding partners
April/May/June	Targeted outreach to transit agencies, funding partners, and stakeholders
April 6	Partnership Transit Finance Working Group
April 13	MTC Programming and Allocations Committee*
May 11	MTC Programming and Allocations Committee*
May 11	MTC Policy Advisory Council*
May 25-26	MTC Commission Workshop*
June 8	MTC Programming and Allocations Committee*
July 13	MTC Programming and Allocations Committee*
September 14 and 28	MAP Recommendations to MTC Programming and Allocations and Commission for Approval*

*Denotes opportunity for public comment

MAP Funding Envelope

Staff are in the process of developing estimates for the Bay Area share of major state and federal funding sources, referred to as the “funding envelope” to use in developing the MAP and prioritizing projects for funding. The estimates are based on the Plan Bay Area 2050 financial forecast, adjusted with assumptions of funding that will be available from the Bipartisan Infrastructure Law and State budget surplus. The envelope also includes \$10.6 billion in anticipate/unspecified funding as a proxy for future new funding streams or programs. The table below summarizes the currently projected funding envelope by transportation mode.

Project Type/Mode	FY 2022 – FY 2035 Funding Forecast
Total	\$37 billion
Transit	\$18.5 billion
Multi-Modal	\$13 billion
Roads/Bridges	\$5 billion
Bike/Ped	\$0.5 billion

Summary of Project Information

In April 2022, MTC collected information from project sponsors about projects eligible to be included in the MAP.

Eligible Tier 1 projects are in the first time period, or “bin”, of Plan Bay Area 2050—to be completed by 2035—and have a total cost of \$250 million or more. The table below shows the number of projects and capital cost that were anticipated to be in this category based on the Plan Bay Area 2050 project list, and the total eligible projects submitted by project sponsors. The table does not include a few projects that were submitted but are not in Plan Bay Area 2050. Still, the funding need for major tier-1 projects is larger than the forecasted funding envelope.

	Anticipated Based on PBA2050 Project Listing	Eligible MAP Project Submittals
Number of Projects	33	65
Total Project Cost	\$33 billion	\$50 billion
Funding Gap	~\$12 billion	\$35 billion

Eligible Tier 2 projects are in the second time period, or “bin”, of Plan Bay Area 2050—to be completed in 2036 or later—and have a total cost of \$1 billion or more. Tier 2 projects are at a minimum several years away from entering construction and are not the focus of the MAP, but may be listed in the MAP for early project phases only. The table below shows the number of projects and capital cost that were anticipated to be in this category based on the Plan Bay Area 2050 project list, and the total eligible projects submitted by project sponsors.

	Anticipated Based on PBA2050 Project Listing	Eligible MAP Project Submittals
Number of Projects	12	18
Total Project Cost	\$59 billion	\$68 billion

Evaluation Process and Criteria

Staff have begun developing an evaluation of the projects to inform sequencing of projects for over subscribed funding programs. The evaluation will consist of scoring across several criteria, including metrics consistent with the five focus areas of Plan Bay Area 2050, which aim to make the Bay Area more affordable, connected, diverse, healthy and vibrant. The proposed evaluation criteria include funding, schedule, project dependency/connectivity metrics as well as PBA 2050 metrics (Benefit-Cost, Equity Score, and Guiding Principles Assessment). Scoring is subject to change with project progression and changes.

Issues:

None identified.

Recommendations:

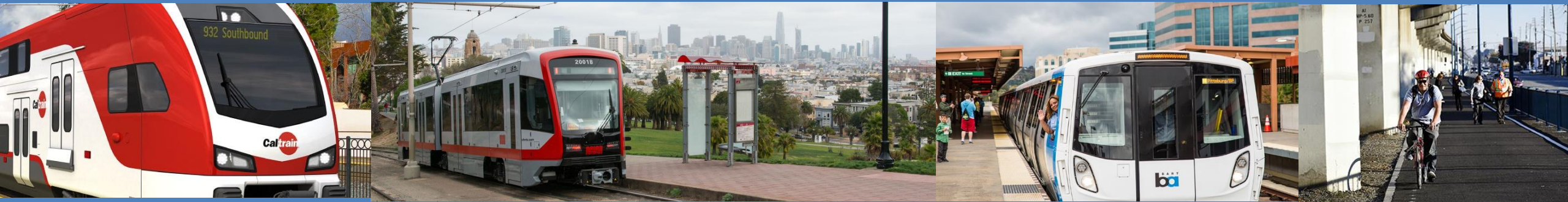
Information

Attachments:

None



Therese W. McMillan



Major Project Advancement Policy

MTC Major Projects Workshop – Day 2 Session 3
May 26, 2022

MAP Components

Funding Strategy

Full funding plans for
MAP projects

Identify and prioritize
discretionary funding requests

Policy Reinforcements

Benefit/cost

Equity

Land use

Connected mobility

Risk Management

Evaluate and monitor risks from
early project development
through construction including
risks related to network
coordination

MAP Funding Envelope

- Based on PBA 2050 Financial Forecast
- Adjusted for recent BIL and State Budget surplus funding assumptions
- Includes \$10.6B in “Anticipated/Unspecified” funding as proxy for future new funding streams/programs

Project Type/Mode	FY 2022 - FY 2035 Funding Forecast
Total	\$37B (\$26B net of Anticipated funding)
Transit	\$18.5B
Multi-Modal	\$13B
Roads/Bridges	\$5B
Bike/Ped	\$0.5B

Tier 1 MAP Project Submittals

- Eligible Tier 1 Projects are in the first time period or “bin” of PBA2050 and have a total cost of \$250M or more
- MAP funding need is significantly larger than forecasted funding envelope when accounting for “Anticipated” funding

	Anticipated Based on PBA2050 Project Listing	Eligible MAP Project Submittals
# of Projects	33	65
Total Project Cost	\$33B	\$50B
Funding Gap	~\$12B	\$36B

Tier 2 MAP Project Submittals

- Eligible Tier 2 projects are in the second time period or “bin” of PBA2050 and have a total cost of \$1B or more
- Tier 2 projects are not expected to enter the construction phase until after 2035 and are therefore not the focus of the MAP
- Tier 2 projects may be listed in the MAP for early project phases only

	Anticipated Based on PBA2050 Project Listing	Eligible MAP Project Submittals
# of Projects	12	18
Total Project Cost	\$59B	\$68B

Evaluation Approach

- Development of proposed evaluation criteria underway
 - Funding commitment levels and magnitude of funding gap – percentage of capital cost secured, remaining need, and screening of proposed operating funding plan
 - Schedule
 - Plan Bay Area 2050 benefit-cost ratios and equity scores – assessed in three distinct futures to identify investments that are resilient to uncertain future conditions
 - Alignment with Plan Bay Area 2050 Guiding Principles – affordable, connected, diverse, healthy and vibrant.
 - Project dependencies impacting network connectivity
 - Potential other criteria tailored to programmatic categories

Draft Evaluation Criteria

- Evaluation will inform sequencing of projects for over-subscribed funding programs in the MAP
- Criteria weighting and scoring methodology still under development
- Scoring is subject to change with project progression / changes

Funding Commitment	Funding Gap Magnitude	Schedule	PBA2050 Benefit-Cost Ratio	PBA2050 Equity Score	PBA2050 Guiding Principles Assessment	Project Dependencies/ Connectivity
More than 75% Committed	Less than \$250M	Construction start date within 5 years	Greater than 1 in at least 2 of 3 futures	Advances equity in at least 2 of 3 futures	0 Guiding Principles flags	0 Dependency/ Connectivity Conflicts
Between 50% and 75% Committed	Between \$250M and \$1B	Construction start date 5-10 years away	Between 0.5-1 in at least 2 of 3 futures	Even equity effects in at least 2 of 3 futures	1 Guiding Principles flag	1 -2 Dependency/ Connectivity Conflicts
Under 50% Committed	Over \$1B	Construction start date over 10 years away	Less than 0.5 in at least 2 of 3 futures	Challenges equity in at least 2 of 3 futures	2 or more Guiding Principles flags	Greater than 2 Dependencies

Draft Framework – Endorsement Table

- Proposed adoption in September 2022 to inform near-term federal and state grant opportunities
- Focus on PBA 2050 Tier 1
 - Named projects greater than \$1 Billion
 - Programmatic Categories to Support Investments and Initiatives less than \$1B
 - Grade Separations
 - Rapid Bus Initiatives
 - Zero Emission Bus Transition
 - Regional Express Lane Network
 - Transportation Modernization
- Identification of PBA 2050 Tier 2 – Project Development Activities
 - Projects or programs greater than \$1B
 - Potential updates based on project development schedules

Draft Framework – Sample Endorsement Table

(in Billions \$)				REGIONAL DISCRETIONARY TARGETS		
PROJECT or Category	Project Cost	Committed Funding	Uncommitted Funding	Federal	State	Other
Tier 1 - Megaprojects				Under Development		
Caltrain Electrification	2.4	2.0	0.4			
BART Core Capacity	3.8	3.3	0.6			
BART to Silicon Valley - Phase 2	7.3	4.3	3.1			
Caltrain Downtown Extension	5.0	0.8	4.2			
Valley Link - Bay Area Segment	1.9	0.7	1.2			
Tier 1 – Programmatic Categories						
Grade Separation Program	5.0	0.5	4.5			
Rapid Bus Program	2.5	0.2	2.3			
Zero Emission Bus Transition Program	5.0	0.0	5.0			
Regional Express Lanes Network	3.3	0.3	3.0			
Other Transportation Modernization	6.5	1.0	5.5			
Other Programs - TBD	TBD	TBD	TBD			
TOTAL TIER 1	50	14	36	19	7	11
TIER 2 - PROJECT PHASES - UNDER DEVELOPMENT	TBD	TBD	TBD			

- Regional discretionary target columns will be expanded to include specific funding categories and may contain estimated amounts or ranges.

Funding Targets – Under Development

- Establish Ambitious but Realistic Targets
 - TIRCP/State Funding second stage
 - Federal BIL Funding
 - Regional and/or Local Transportation Revenue initiatives
- Establish Priority and Sequencing Strategies for Oversubscribed Funding Sources
- Continue Advocacy and Revise as Appropriate

Risk Management – New Thinking

- MTC past practice has included project oversight and policies aimed at prudent investment of regional funds and meeting regional goals
 - e.g. Resolution 3434 and Regional Measure 2 policies and procedures
- Focused efforts have taken a more involved role, usually prompted by a funding or other delivery challenge
 - e.g. SMART IOS Review; Transit Center and DTX Cost Reviews; and Transit Center Cracked Beam Peer Review
- As part of the MAP, staff is proposing to develop a regional risk management approach to evaluate and monitor risks throughout project lifecycles, from early project development and network coordination through construction
- Staff is exploring whether the approach should follow past practice or consider a deeper role and looks forward to Commissioner input

Risk Management – Example Concept

Definitions:

- **Stage Gates** are key points or milestones in the development of a project
- A **stage gate process** identifies key actions that need to be taken at important milestones
- A regional risk management overlay could include implementation of a “**stage gate process**” that identifies key actions that need to be taken at major milestones in order to minimize and mitigate risk
- The stage gates could determine readiness to proceed with funding. Stage gate examples related to risk include:
 - Has the project undergone a **peer review** of cost and design alternatives?
 - Does the project have a reasonable and sustainable **operating plan**?
 - Is there a **stable project governance structure** with required agreements in place?

Policy Reinforcements – Under Development

- Intent of the Policy component of the MAP is to monitor project progress and consistency with policy commitments in Plan Bay Area 2050 and other regional policies such as:
 - Land use / TOC
 - Blue Ribbon Action Plan implementation
 - Participation in equity programs
 - Other
- Project endorsement/funding could be conditioned on alignment with regional policies

Timeline and Engagement Strategy

- **Today:** Commission Workshop (to seek input from public and Commissioner direction)
- Ongoing engagement with transit operators and County Transportation Authorities
- Engagement with federal, state and local funding partners and sponsors. Additional engagement and outreach to be developed.
- **MAP funding framework** expected to be presented for information in **July** and approval in **September**
- Recommendations on **Policy and Risk components** to be presented in **late Fall 2022** and proposed for inclusion in MAP