Corridor Crossings
STRATEGY

Local Policy Makers Group

4.27.2023

AGENDA

- March Recap
- Program Strategy Update
- Construction Approaches and Delivery Methods
- Look Ahead

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Paths

Project Delivery Opportunities

Communicate roles, responsibilities, processes, and standards for individual projects.

Outcome: *Crossings Delivery Guide*

Program Strategy Development

Develop a shared, corridor vision with an incremental and implementable approach for regional benefits.

Balance vision with implementable action plan

Outcome: *Program Vision and Strategy*

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Timeline

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Recap of March Topics

- Illustrated shared strategy development

- Reviewed Project Delivery Opportunities
- Outlined Grade Separation and Closure Considerations
- Presented and solicited feedback on May Mobility & Circulation work sessions

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Meeting Goals and Outcomes

Input and Concurrence on Program Goals

Feedback and Input on Program Delivery Approaches

Preview of Technical Exploration Topics

This icon represents additional information provided in the Appendix for your reference.

This icon represents feedback is requested on content. However, questions and feedback are encouraged throughout presentation.

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Program Strategy Update

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Purpose

The Corridor Crossings Strategy is an effort to **define a systematic corridor-wide approach** to crossings.

The strategy aims to **align stakeholder ambitions into balance with an implementable program,** addressing:

- Funding
- Organization
- Program Delivery

Note: Active grade separation projects will continue in parallel

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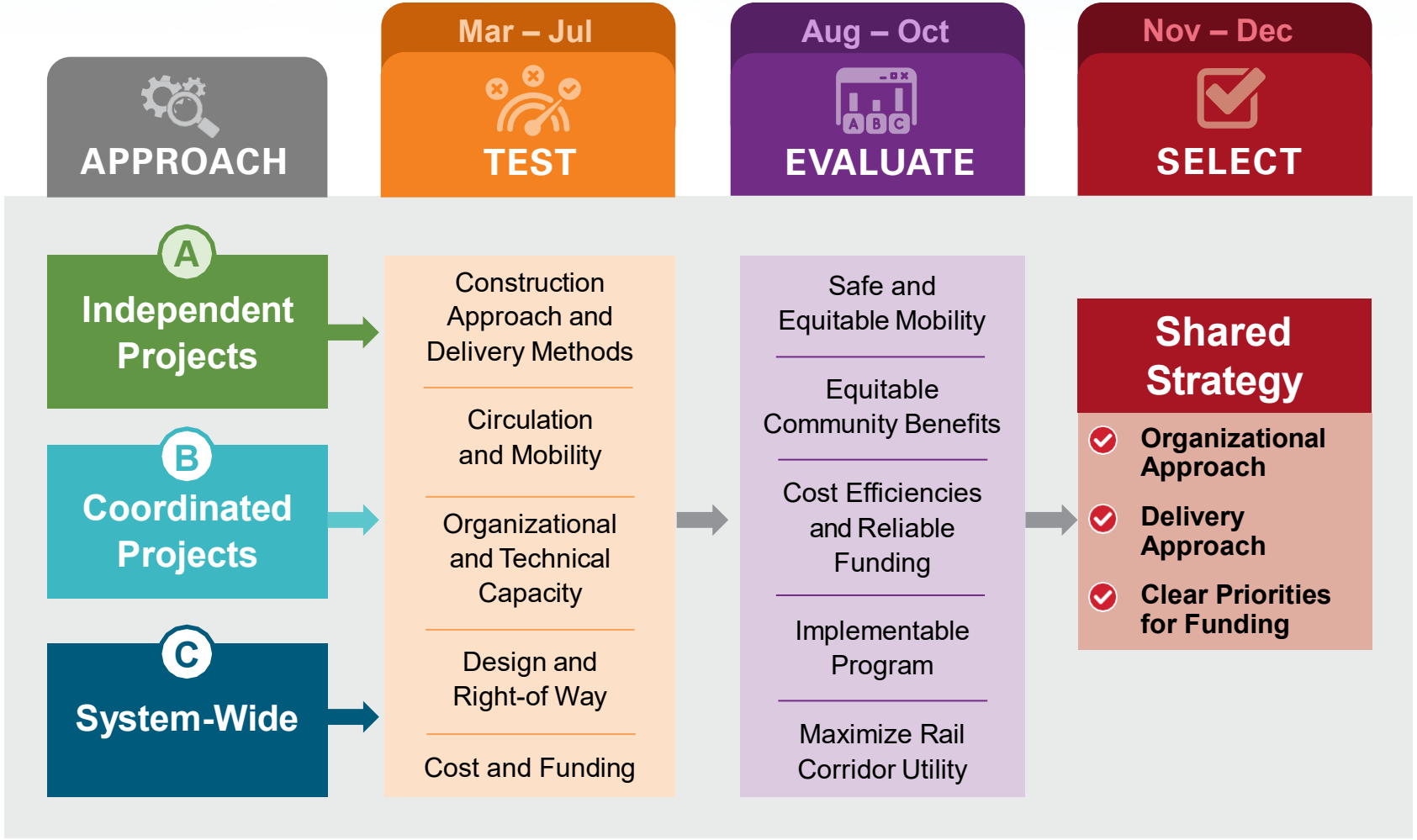
Program Strategy Process



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Program Strategy Goals

Safe and Equitable Mobility

- Eliminate collisions along the corridor
- Improve access and circulation, with priority for walking, biking, transit, goods movement, and emergency response
- Provide mobility choices during construction

Equitable Community Benefits

- Establish a framework for equitable investments
- Foster placemaking
- Improve quality of life and reduce environmental impacts for neighboring communities

Cost Efficiencies & Reliable Funding

- Facilitate design approaches and innovation that enable corridor delivery
- Streamline program delivery methods to reduce overall costs
- Leverage existing committed funding and promote new and stable funding sources

Implementable Program

- Define clear roles for Caltrain and its partners
- Accelerate construction and reap schedule efficiencies
- Establish clear program corridor objectives for delivery
- Organize partnerships for successful program delivery

Maximize Rail Corridor Utility

- Support implementation of adopted service vision
- Sustain service & minimize disruptions during construction
- Promote quality passenger experience and improve reliability
- Leverage value created by grade separations and/or closures

Cost and Funding

April:

- Publish a Funding Program Brochure on CCS website
- Provide updates on upcoming grant programs, award notification timing and relevant application criteria and requirements

May:

- In-person workshop with opportunity to start discussing coordinated funding approach
- Provide updates on upcoming grant programs, award notification timing and relevant application criteria and requirements

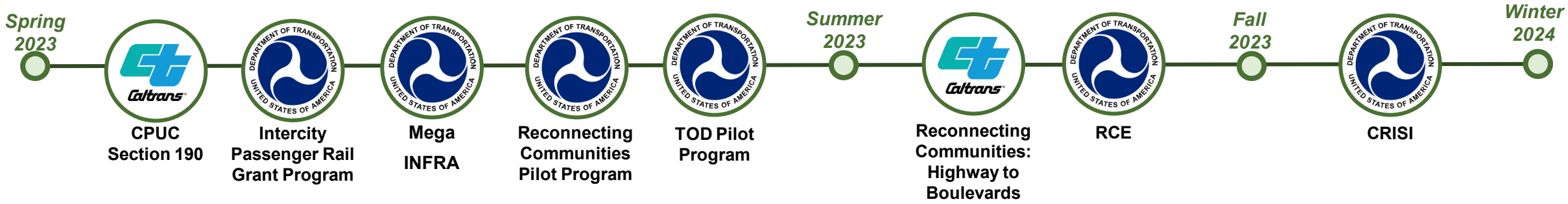
June:

- Discuss options for FY24 coordinated funding approach
- Present the findings from the funding technical exploration topic to inform the long-term strategy

June – December:

- Anticipate announcement on first round of FRA Railroad Crossing Elimination Grants
- Updated corridor level estimate of grade separation costs
- Discussion or any other corridor level grant coordination

Upcoming Notice of Funding Opportunities



Grant	Funding Available	Additional Information
California Public Utilities Commission (CPUC) Section 190	$15M FY22	***Applications due April 1st to be on priority list***
Federal-State Partnership for Intercity Passenger Rail Grant Program	$4.57B FY22*	***April 21, 2023, 5 PM EST*** **Advanced appropriations.*
INFRA Grant Program	$1B FY22 | $5B FY22 - FY26	No minimum size
Mega Grant Program	$1.55B FY22 | $8B FY22 - FY26	$5M min
Reconnecting Communities Pilot Program	$200M FY24 | $1B FY22 – FY 26	Capital/Construction: $5M min / Planning: $2M max
Reconnecting Communities: Highway to Boulevards	$149M disbursement program	Application workshop summer 2023
Railroad Crossing Elimination (RCE) Grant Program	$573M FY22 | $3B FY22 – FY26*	$1M min. *Advanced appropriations.
Transit-Oriented Development (TOD) Pilot Program	$14M FY24 | $68M FY22 - FY26	Maximum award of 80% of project cost
Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grant Program	$1.4B FY22 | $5B FY22 – FY26	No predetermined award size

Highlighted are most likely to fund grade separation projects

Project Criteria/Requirements

Grant	Criteria/Requirements	
California Public Utilities Commission (CPUC) Section 190	• Includes alteration/reconstruction of existing grade separations & construction of new grade separations • All necessary agreements with the affected railroad(s) need to be fully executed by railroad and applicant. • Preconstruction costs expended prior to any allocation may be included	
Federal-State Partnership for Intercity Passenger Rail Grant Program	• Projects that replace, rehabilitate, or repair infrastructure used for providing intercity passenger rail service • Planning or capital projects that improve, expand, or establish new intercity passenger rail service • Similar criteria to RCEP program	
Mega/INFRA Grant Program	• Requires stable and dependable funding or financing and significant need of Federal funding • Ready to begin construction within 18 months from obligation • Applicant has sufficient legal, financial, technical capacity to carry out the project • National or regional economic, mobility, or safety benefits. • INFRA has some additional goals with more funding, but likely smaller awards	
Reconnecting Communities Pilot Program	• Planning or implementation grants • Community- and equity-focused evaluation criteria • Evaluation of project readiness • Applicants to Capital Construction Grants must own the eligible transportation facility or have the owner as an endorsing, joint applicant	
Reconnecting Communities: Highway to Boulevards	• Similar to USDOT program	• ROW owner must be a co-applicant
Railroad Crossing Elimination (RCE) Grant Program	• Includes grade separation, closure, or track relocation • Similar equity criteria to the RCP	• Also considers technical merit and safety
Transit-Oriented Development (TOD) Pilot Program	• Available for planning projects • One application per corridor • Must be an existing FTA grantee that is sponsoring an eligible transit project and partnering with an entity in the corridor with land use authority, **or** have land use authority and is partnering with the transit project sponsor	
Consolidated Rail Infrastructure and Safety Improvements (CRISI) Grant Program	• Wide range of rail capital & planning projects • Similar criteria to RCEP program	

May In-Person Work Sessions

Objectives:

- Discuss how the Caltrain corridor and transportation network interacts today and how they could interact in the future.
- Outline the trade-offs of different corridor improvement scenarios to foster a regional perspective

Agenda:

1. Funding Opportunities Summary
2. Mobility and Circulation Presentation
   - Approach Framework, Analysis, Highlight Castro Street Closure (MV Speaker), Scenarios, and Break Out Exercise
3. Break Out and Report Out
   - Break into segments focused on further exploring existing conditions and discussing trade-offs of closures and grade separation
   - Each group report out on discoveries and takeaways

A virtual option will NOT be provided

DATE

CSCG/PPG
May 17th 10:00 AM – 12:00 PM

LPMG
May 25th 4:00 PM – 6:00 PM

LOCATION

Palo Alto City Hall

Construction and Delivery Methods

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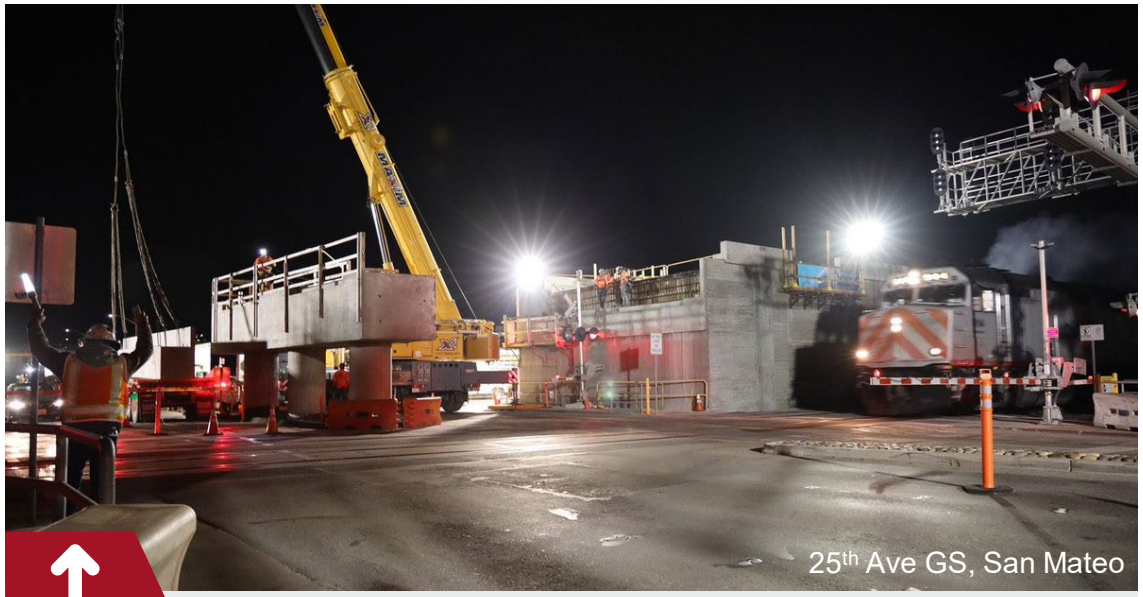
Common Construction Methods



25th Ave GS, San Mateo

Traditional (Ground-Up)

- Straight forward and familiar to contractors
- Typically requires shoofly tracks or relocated mainline
  - Expensive to electrify shoofly tracks

ACE Nogales GS, City of Industry

Top-Down

- Flexibility for construction staging and maintaining traffic
- Eliminates need for temporary walls (shoring)
- Typically requires shoofly tracks or relocated mainline
  - Expensive to electrify shoofly tracks

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Accelerated Construction Methods


Mountain View Transit Center GS

Box Jacking / Placement

Both Methods Offer:

- Structure constructed adjacent to active track, then lifted/jacked into place

- Less familiar; requires specialized contractor
- Maintain train operations during construction


LIRR Grade Separation, NY

Accelerated Bridge Construction

- Reduce project schedule
- Eliminate need for shoofly tracks
- Reduce impact to electrification system

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Multi-Crossing Construction Methods

Olympic GS, Santa Monica

Viaduct

- Typically used for multiple grade separations or longer distances
- Complex staging within active railroad R/W
    - Corridor electrification increases staging complexity
- Increased impact to stations within project limits
- Typically requires shoofly tracks or relocated mainline

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Multi-Crossing Construction Methods

Cut and Cover

- Typically used for multiple grade separations or longer distances
- Complex staging within active railroad R/W
    - Corridor electrification increases staging complexity
- Increased impact to stations within project limits
- Typically requires shoofly tracks or relocated mainline
- Additional challenges related to utilities and drainage

Tunneling

- Typically used for multiple grade separations
- Minimizes impacts to existing train operations, traffic circulation, and right-of-way
- Constrained by OCS (Clearance to existing foundations), stations, and staging area (boring pits)
- Specialty contractor / equipment
- High construction cost

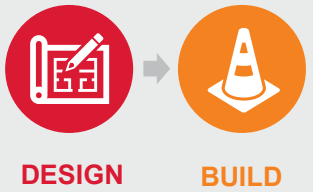
Common Delivery Methods

Conventional Delivery Method

- Design-Bid-Build (DBB)
  - 95% of existing Caltrain Projects

Alternative Delivery Methods

- Design-Build (DB)
  - PCEP
- Design-Build-Operate-Maintain (DBOM)
- Progressive Design Build (PDB)
- Construction Manager/General Contractor (CMGC)
  - Burlingame Broadway Grade Separation
  - Mountain View Transit Center Grade Separation and Access Project
- Public-Private Partnership (P3)
- Public-Public Partnership (PuP)



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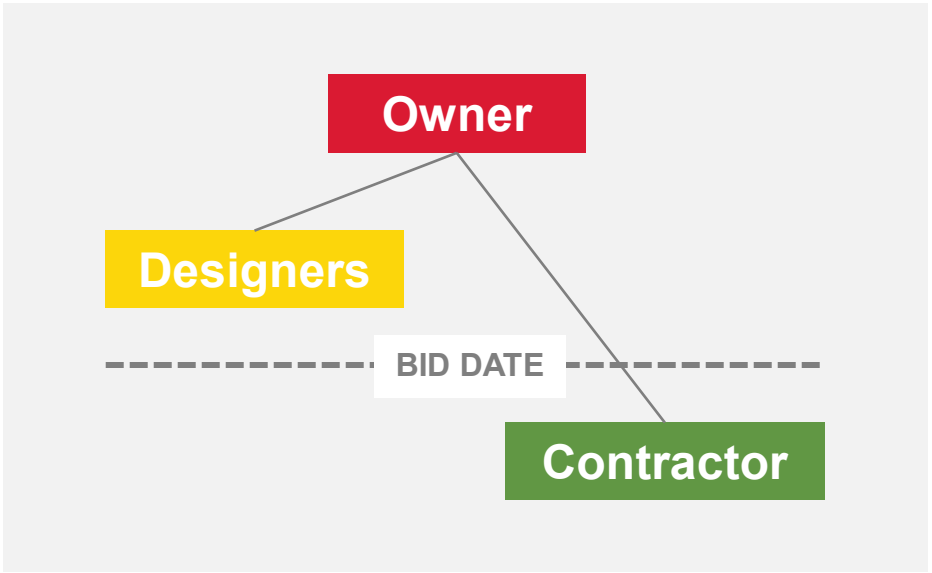
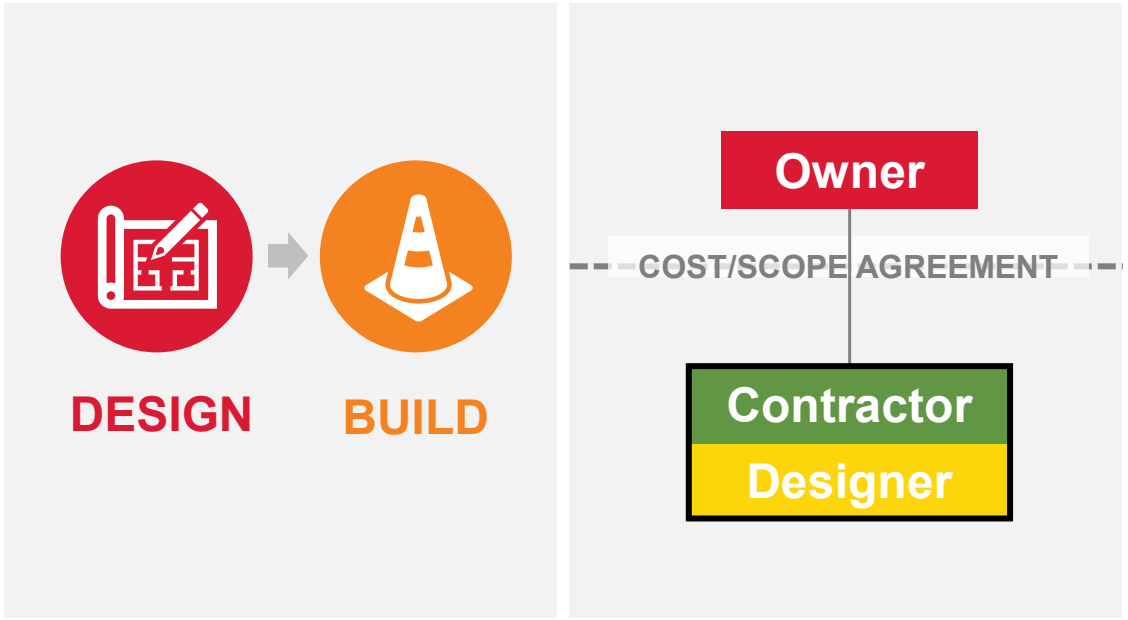
Conventional Delivery Method



Design-Bid-Build

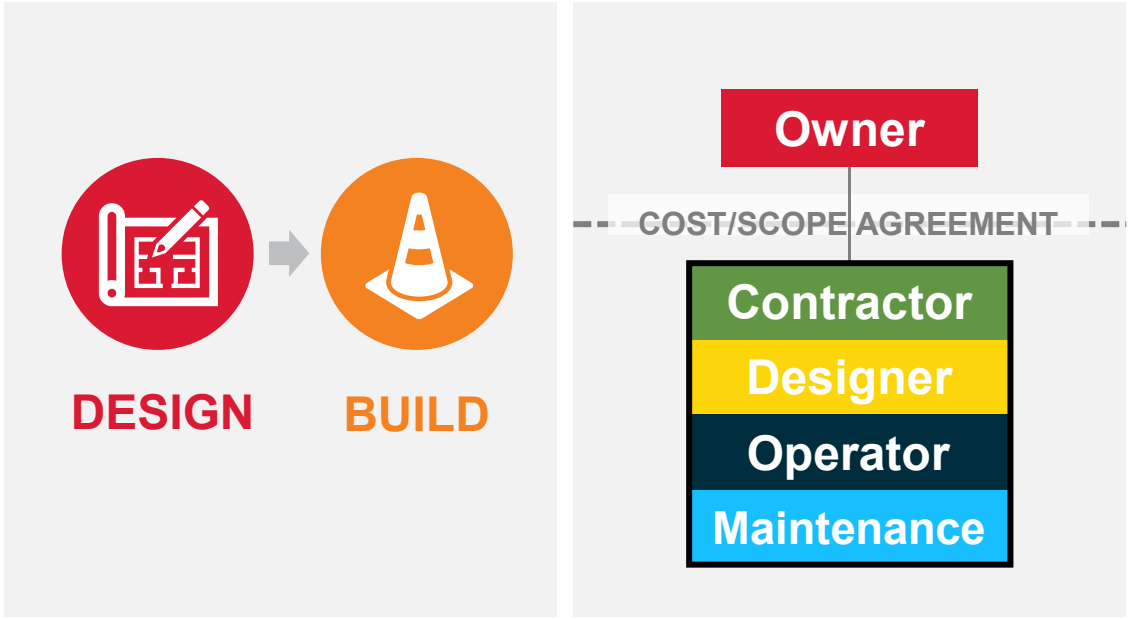
Client holds separate design and construction contracts

Alternative Delivery Methods



Design-Build

Client contracts with a single entity for design and construction



Design-Build-Operate-Maintain

Client contracts with a single entity for design, construction, maintenance, and operations for an agreed upon duration

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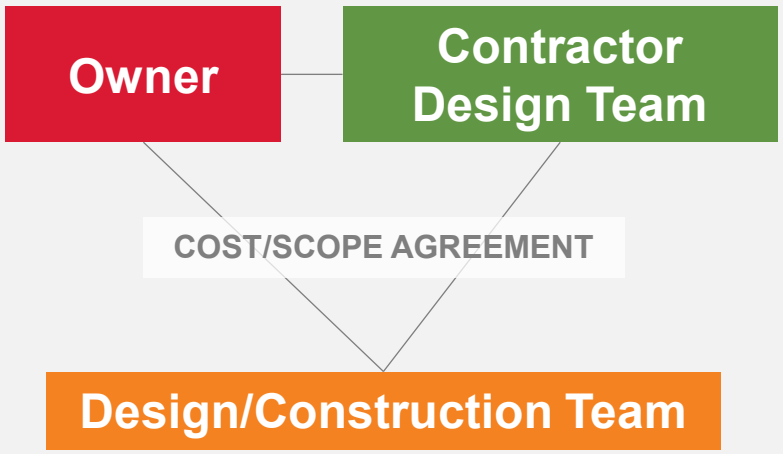
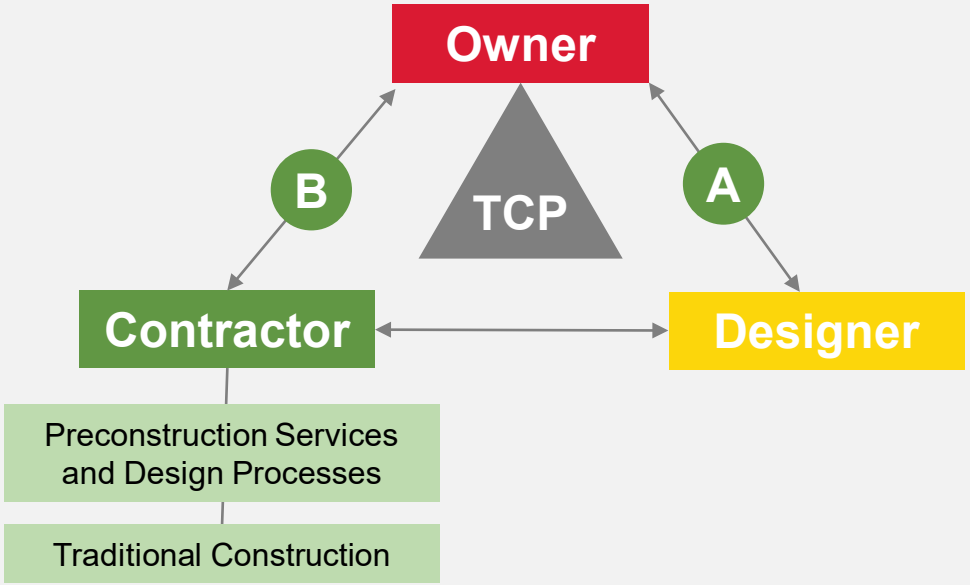
Alternative Delivery Methods



Progressive Design-Build

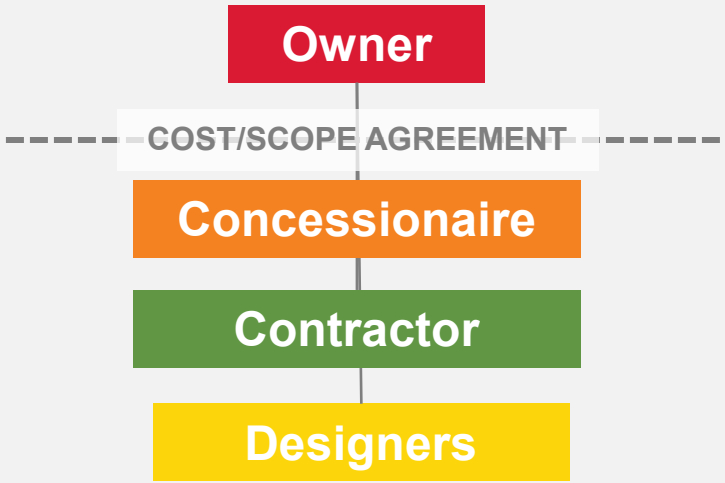
Owner holds one contract
Contractor/Designer are one team



Construction Manager/General Contractor

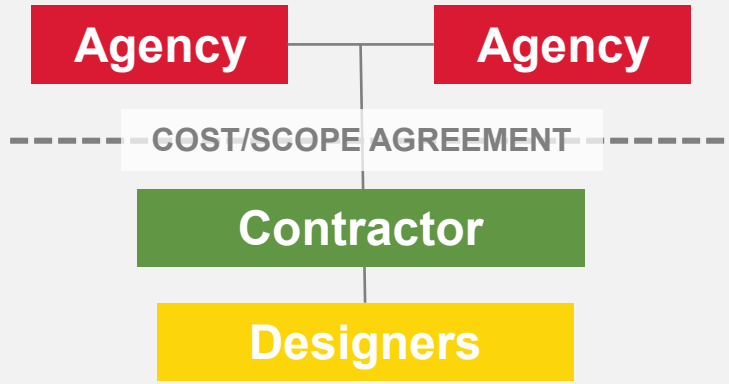
Owner holds Design and Construction contracts (A&B)
All parties agree on Total Contract Price (TCP)

Alternative Delivery Methods



Public-Private Partnership

Cooperation between public and private entities to finance, build, operate, and/or maintain a project



Public-Public Partnership

**Peer relationship forged around common interests.
Two or more public agencies unite to leverage shared capacities**

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Legislative Basis for Alternative Delivery Methods

County Transit Districts

- SamTrans: Authority to pursue only traditional or CMGC (CPUC sec. 103395)
- VTA: Authority to pursue only traditional or CMGC (CPUC sec. 100151)

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- Authority to enter into any contract necessary for its powers (CPUC sec. 160005)
- Opens options for other alternative delivery methods

Local Jurisdictions

- Authority to enter into any contract necessary for its powers (CPUC sec. 180152)

Construction and Delivery Considerations

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Important Considerations

1 Program Strategy Approaches:

2 Perspectives of Key Stakeholders:

- Contractor
- Operations
- Local Communities

3 Project Elements:

- Corridor Electrification
- Geographic Grouping
- Temporary Service Options
- Schedule & Budget

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What are the construction and delivery trade-offs?

Approach A: Independent Projects

- Best suited for single crossings
- Multiple entities/projects coordinating with Caltrain
- Uncertainty in resource allocation decisions and project delivery timelines

Approach B: Coordinated Projects

- Single and multi-crossing construction methods viable
- Economy of scale / Efficient
- Geographic grouping across jurisdictional boundaries

Approach C: System-wide

- Advantages of Approach B, plus:
- Unified funding advocacy
- Simplified procurement accelerates corridor delivery

Key Perspectives

Establish trust and building partnership between:

How do these perspectives change by delivery approach?

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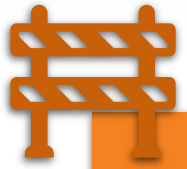
Perspectives of Key Stakeholders



Contractor

- Constant Site Access
- Ample Work Area
- Time is money
- Mitigate impacts to:
  - Utilities
  - Community
  - Environment

Operations

- Maintain Service to customers
  - Temporary service options
- Protect OCS
- Accommodate future needs
- Expedite project delivery

Local Communities

Limit impacts to:

- Transportation
  - Traffic
  - Mobility
  - Access
- Right-of-Way
- Environment
  - Construction Noise
  - Air Quality
  - Work Hours

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What elements impact the construction and delivery approach?

Corridor Electrification

Protect OCS infrastructure to reduce costs and shorten schedule

Geographic Grouping

Grade separate multiple locations with one solution

Temporary Service Options

- Shoofly Tracks
- Single Track
- Bus Bridge

Schedule and Budget

Larger projects open options for bulk ordering, stockpiling of material, and consolidation of lay down areas, reducing project duration and cost

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Construction and Delivery Takeaways

Moving toward **Program Strategy Approaches** B or C helps leverage the advantages/strengths of alternative construction approaches and delivery methods

Construction and delivery methods must be aligned with the perspectives of **Key Stakeholders**

Project Elements influence the decision of construction and delivery methods

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Look Ahead

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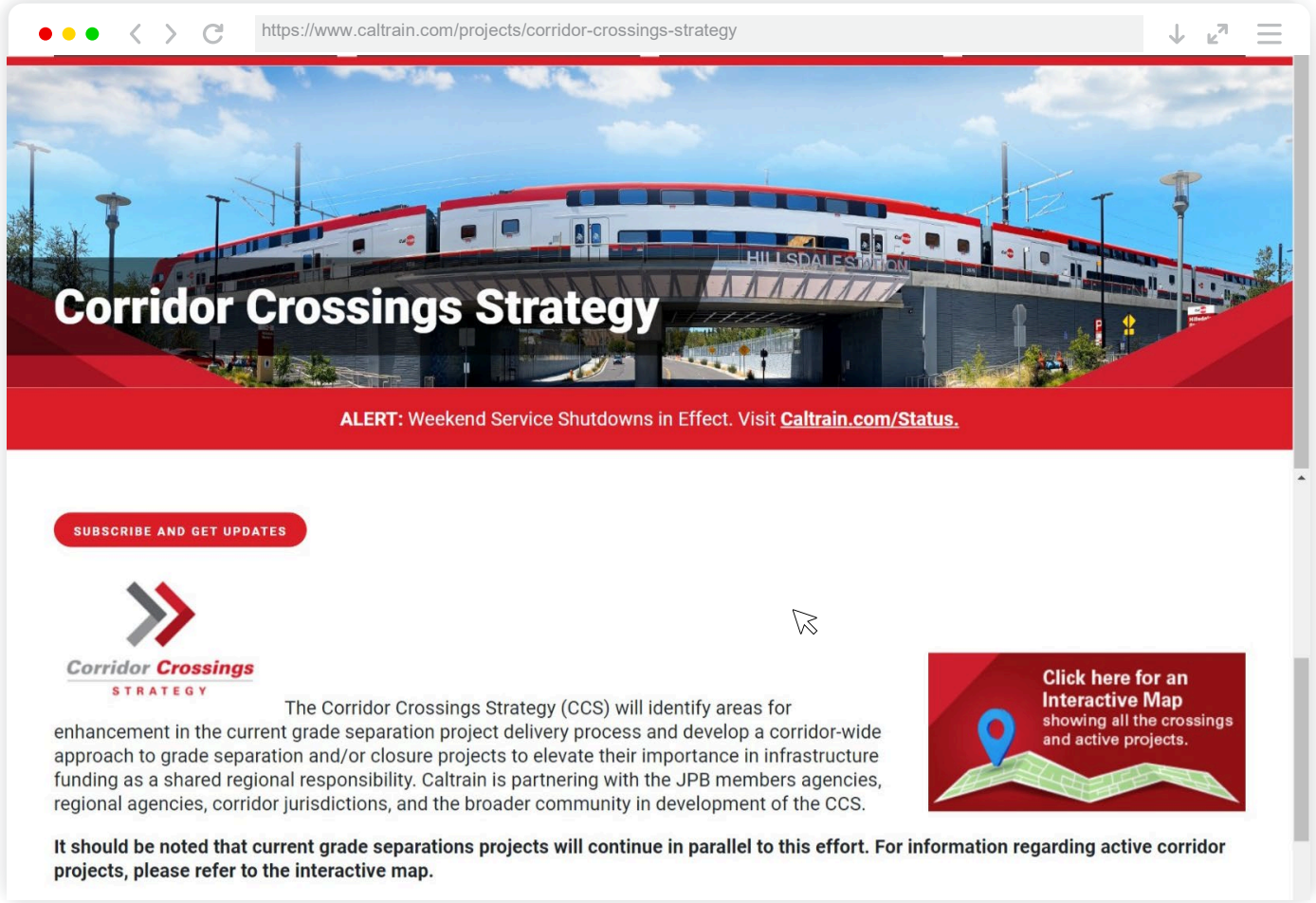
Upcoming Stakeholder Engagement

Stakeholder Group	Name	Timeframe	Content
LPMG	Local Policy Makers Group	May	Mobility, Circulation & Funding Work Session
CSCG	City Staff Coordination Group	May	
AMP	Advocacy and Major Projects (JPB Subcommittee)	May	 Provide Program Introduction, Case Study Summary, and Program Strategy Approach.
JPB	Joint Powers Board	June	
GMG	General Manager Group	July	

Contact Information



Program Website:
https://www.caltrain.com/CCS

Contact Email:
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