Transit Project Funding and Delivery

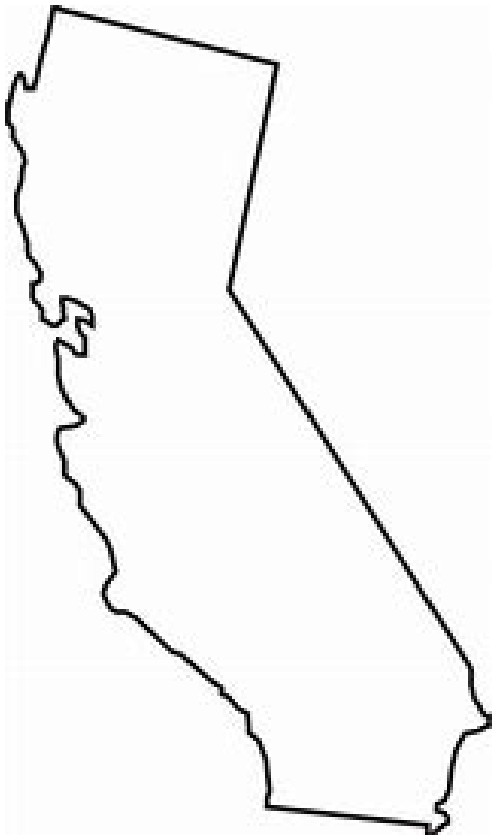
September 30, 2019

CTC Transit Workshop

Transit Funding (SANDAG)

- Transit Funding Overview
  - State
  - Federal
- Transit Asset Management and Safety
- Section 5309 Capital Investment Program Overview
  - Types of Capital Investment Grants
  - Funding
  - Rating Requirements
  - Full Funding Grant Agreement
- Multimodal Project Participation
  - I-5 North Coast Corridor
- FRA

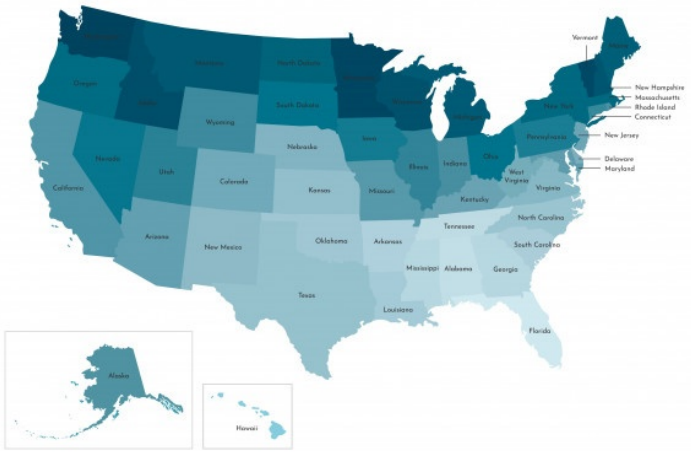
State Transit Funding



- State Rail Assistance (SRA)
- Transit and Intercity Rail Capital Program (TIRCP)
- Solutions for Congested Corridors Program (SCC)
- Local Partnership Program (LPP)
- State Transportation Improvement Program (STIP)
- State Transit Assistance (STA)
- Transportation Development Act (TDA)

Federal Transit Funding

- Section 5307 Urbanized Area Formula
- Section 5337 State of Good Repair
- Section 5339 Bus and Bus Facilities
- Section 5309 Capital Investment Grants (New Starts/Small Starts)
- Section 5310 Elderly & Individuals with Disabilities
- Section 5311 Non-Urbanized Formula



- FRA Consolidated Rail Infrastructure and Safety Improvements (CRISI)
- FHWA RSTP and CMAQ

Performance Measures

- Transit Asset Management Requirements (TAM Final Rule 49 USC 625)
  - Rolling Stock
  - Equipment
  - Facilities
  - Infrastructure
- Safety Requirements
  - State Safety Oversight Program
    - Rail transit systems safety for passengers and workers
  - Public Transportation Agency Safety Plans (PTASP) (Final Rule July 19, 2018 – Applies to Section 5307 recipients)
    - Implement Safety Management Systems (SMS)
    - Safety Performance Targets

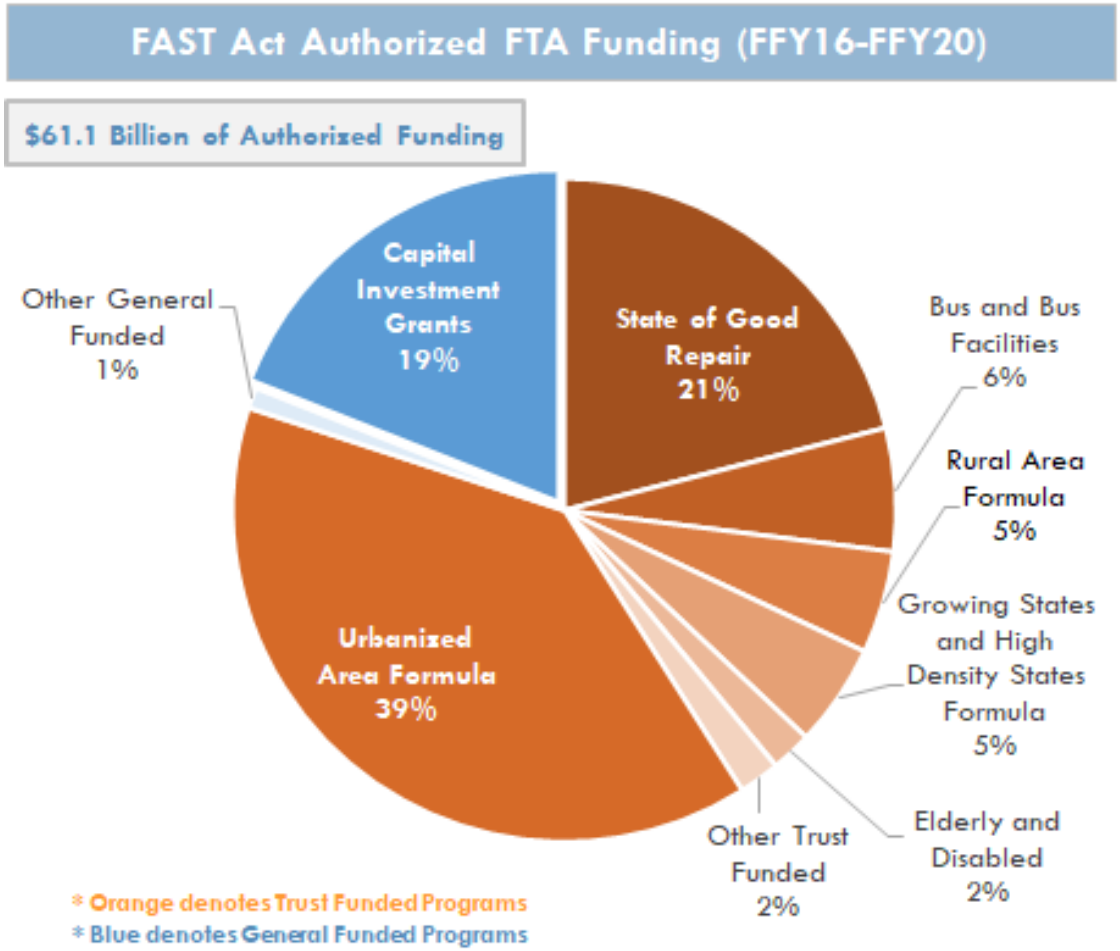
Capital Investment Program Overview

- The Capital Investment Grant ("CIG") Program (49 U.S.C. 5309) is a discretionary grant program administered by the Federal Transit Administration ("FTA") for heavy rail, commuter rail, light rail, streetcars, and bus rapid transit projects
  - The CIG Program has existed in some form or fashion since 1964
  - The Program is based on competitive and multi-year process project sponsors must complete
  - The FAST Act reauthorized the program at approximately $2.3 billion annually through FFY2020
- The FTA's Capital Investment Grant Program includes four types of grants

New Starts Grant	Small Starts Grant	Core Capacity Grant	Program of Interrelated Projects
▪ Grants used for new fixed guideway or extension of existing system ▪ Projects either (i) have anticipated total capital cost of $300 million or (ii) request $100 million (or more) in total CIG funds	▪ Grants used for new fixed guideway or extension of existing system ▪ Projects must both (i) have an anticipated total cost of less than $300 million and (ii) request less than $100 million in CIG funds	▪ Grants used for substantial corridor-based investment in existing fixed-guideway corridors that are at capacity today or will be in five years ▪ Proposed project must increase capacity by 10% or more	▪ Grants comprised of any combination of two or more New Starts, Small Starts, or Core Capacity projects ▪ Projects must have logical connectivity to one another and all must begin construction within a reasonable timeframe

Source: Series 2019 POS, Federal Transit Program (beginning page 27)

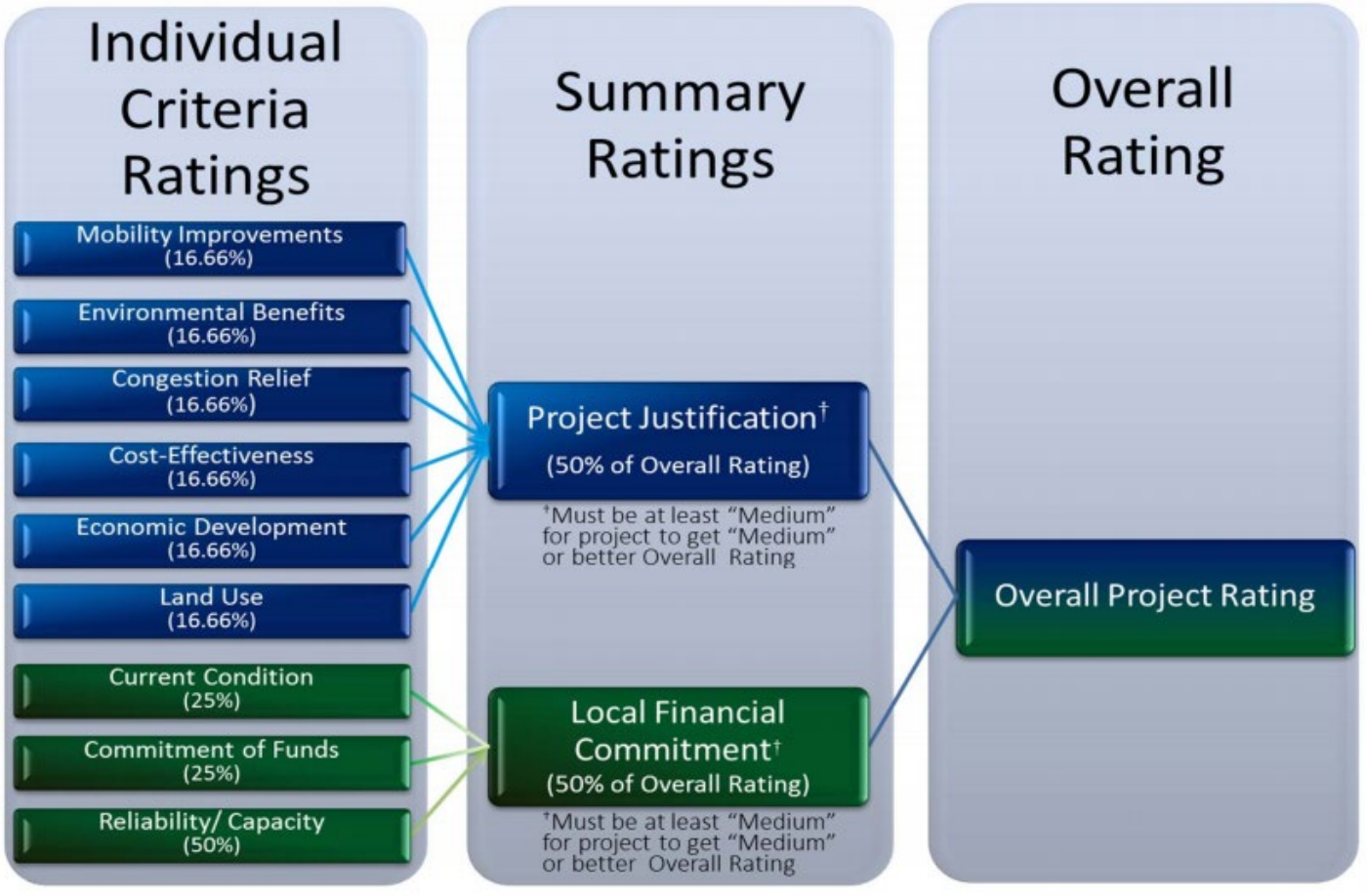
Capital Investment Program Overview



Source: FTA; Annual Reports on Funding Recommendations https://www.transit.dot.gov/FAST

Capital Investment Program Overview

New and Small Starts Project Evaluation and Rating - Medium or Better



https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Final_Policy_Guidance_outreach_slides_-_August_2013_FINAL.pdf

Capital Investment Program Overview

Full Funding Grant Agreement (FFGA)

- Lays out both the total federal contribution and the requirements to receive that contribution
- An FFGA allows the FTA to contractually commit to the full amount of Federal assistance that will be available to a project over a period of many years (subject to annual Congressional appropriation)
- The grantee is required to complete its project on time, within budget, and in compliance with all applicable Federal requirements
- FTA retains oversight of a project during construction through their process of reviewing all expenditures that are submitted to FTA and by reimbursing expenditures that were made in accordance with the FFGA
- The FTA has formal and informal procedures in place to help sponsors avoid breach of the FFGA, including (i) monthly reporting, (ii) ongoing FTA oversight, and (iii) specific procedures for notifying project sponsors of a breach and providing time for corrective action

Multimodal Project Participation

Projects requiring approval of more than one USDOT operating administration (redefined under FAST Act)

Project Coordination – Lead Agencies

- Identify participating agencies no later than 45 days after the NOI or the initiation of an EA (§ 1304(d))
- Establish coordination plan no later than 90 days after the NOI or initiation of an EA, which must include a schedule for completing the environmental review process. (§ 1304(g)(1))
- Develop a checklist in consultation with participating agencies, to identify natural, cultural and historic resources in project area. (§ 1304(e)(5))
- Develop an environmental document sufficient to satisfy the requirements for any Federal approval, action, or permit required for the project. (§ 1304(d))
- Consider and respond to comments received from participating agencies on matters within the special expertise or jurisdiction of those agencies. (§ 1304(c))

Multimodal Project Participation

Projects requiring approval of more than one USDOT operating administration (redefined under FAST Act)

Project Coordination - Participating Agencies

- For all Federal permits and reviews for a project, to the maximum extent practicable and consistent with Federal law, rely on a single NEPA document prepared under the leadership of the lead agency.

- Provide comments, responses, studies, or methodologies on those areas within the special expertise or jurisdiction of the agency; and use the process to address any environmental issues of concern to the agency.

- https://www.environment.fhwa.dot.gov/legislation/authorizations/fastact/qa_23USC_1304.aspx

I-5 NCC

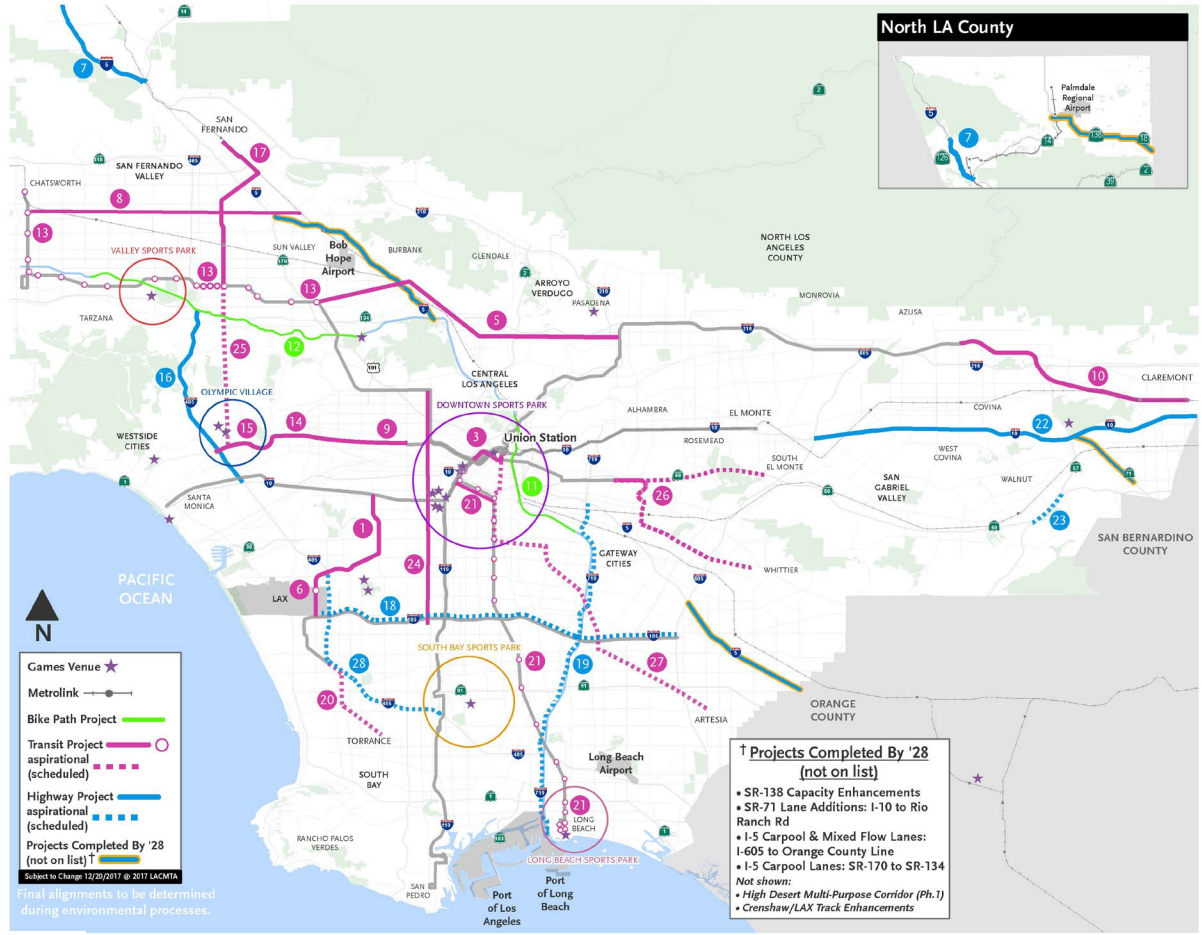
Multimodal CMGC Contract

- Rail/Highway/Bike-Ped/Railroad Crossing
- FTA - LOSSAN Double Tracking
- FRA – Chesterfield Grade Crossing
- FHWA - San Elijo Lagoon Highway Bridge & HOV

Project Delivery

Twenty-Eight by '28

DRAFT TWENTY-EIGHT BY '28 PROJECT LIST— TRANSPORTATION INVESTMENT GUIDE IN TANDEM WITH THE 2028 OLYMPICS AND PARALYMPIC GAMES



Transit Projects

1. Crenshaw/LAX Line
3. Regional Connector
5. Orange and Red Lines to Gold Line Transit Connector (North Hollywood to Pasadena)
6. Airport Metro Connector Station
8. North San Fernando Valley
9. Purple Line Extension Section 1
10. Gold Line Foothill Extension to Claremont (with ability to extend to Montclair)
13. Orange Line Travel Time and Safety Improvements
14. Purple Line Extension Section 2
15. Purple Line Extension Section 3
17. East San Fernando Valley
20. South Bay Light Rail Extension*
21. Blue Line Signal and Washington/Flower Junction Improvements**
24. Vermont Transit Corridor
25. Sepulveda Transit Corridor*
26. Gold Line Eastside Ext. to Whittier or South El Monte*
27. West Santa Ana Branch*

Highway Projects

7. I-5 North County Capacity Enhancements
16. Sepulveda Pass ExpressLanes
18. I-105 ExpressLanes*
19. I-710 South Corridor Early Action*
22. I-10 Express Lanes I-605 to San Bernardino Line**
23. SR-57/SR-60 Interchange Improvements*
28. I-405 South Bay Curve Improvements*

Bike Path Projects

11. LA River Waterway & System Bike Path
12. LA River Bike Path and Mobility Hub - San Fernando Valley

Not shown: MicroTransit**, New Bus Rapid Transit Corridors (Phase 1)

* aspirational project (scheduled)
** non-Measure R nor Measure M project

Metro

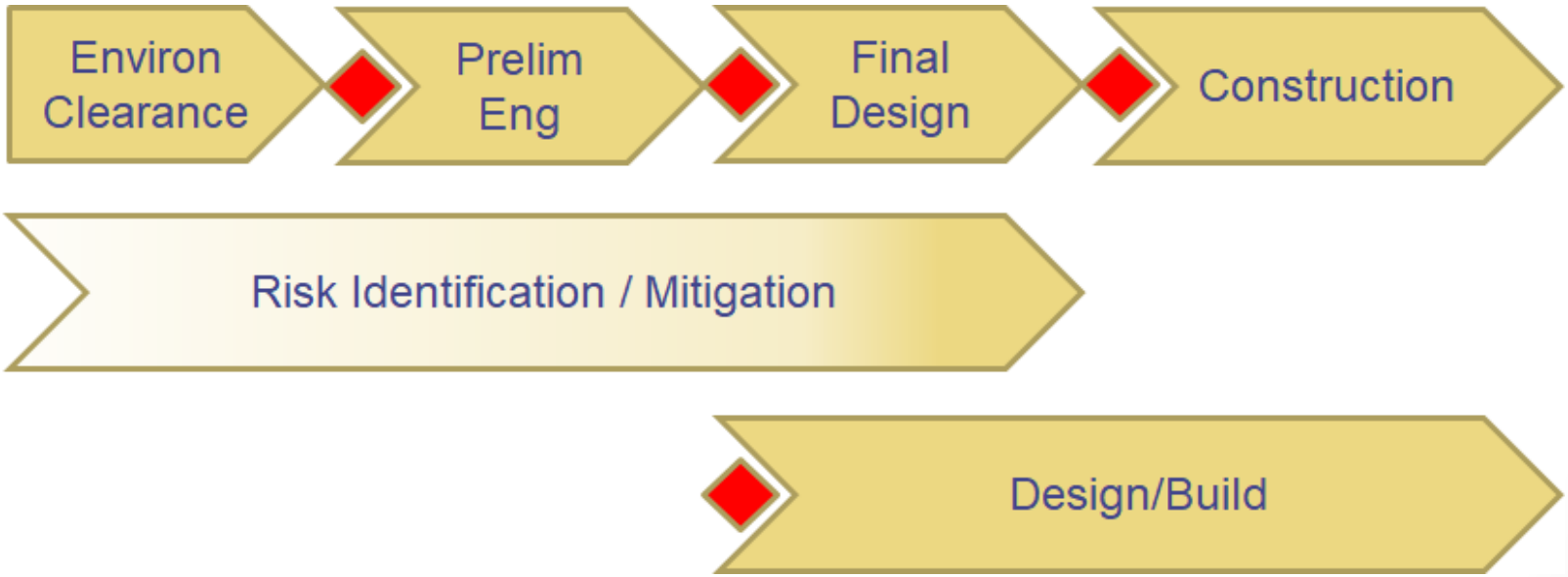
Risk Advertisement

- Saves time
  - Allows concurrent advertisement and allocation/obligation
- Allowed by Federal Transit Administration
- Standard Operating Procedure for L.A. Metro transit project procurement
  - Transit procurements average 15 months

Crenshaw/LAX Transit Project

Design-Build Delivery Method

- Reduces risk to project owner



- Saves time (one procurement)
- Reduces conflicts during construction

Project Delivery Parameters

- A. Size/Budget
- B. Project Type
- C. Complexity
- D. Design Control
- E. Schedule
- F. Stakeholders/Third Parties
- G. Utility Relocations
- H. Right-of-Way Impacts
- I. Permitting
- J. Value Engineering/Innovation
- K. Cost Type
- L. Risk Management
- M. Resource Availability
- N. Environmental Impacts

Selecting a Delivery Method

Project Parameter	Discussion	Pts	Scoring Methodology
A. Size/Budget	Larger projects generally lend themselves to DB, but not always. Mega Projects with a desirable financing and/or Operations & Maintenance option, are candidates for other Alternative delivery methods like DBOM or P3.	0	$1 - $99 million (small)
		1	$100 - $499 million (medium)
		2	$500 - $999 million (large)
		3	$1 billion or greater (mega)
B. Project Type	Characteristics of the project type are generally related to horizontal versus vertical work elements, as well as the complexity of structural elements. Subsurface scope increases complexity; vertical scope generally requires more subcontractors and coordination.	0	Horizontal, all surface work
		1	Horizontal, w/ subsurface work
		2	Complex Horizontal or Basic Vertical.
		3	Vertical, w/ complex systems or structural elements
C. Complexity	Subjective assessment that essentially addresses the ease with which Metro may resolve complex design and construction issues prior to contractor involvement. Typically, traditional DBB favors projects where Metro can resolve complex issues beforehand. Complicating factors can be: technical complexity, hazardous material abatement, dewatering requirements, access issues, and potential litigation or political issues. Generally, DBB is better suited to brownfield projects and DB is better suited to greenfield projects.	0	No complicating factors involved (“greenfield” is clean and unoccupied project site)
		1	Any 1 complicating factor
		2	Any 2 complicating factors
		3	Any 3 or more factors (“brownfield” includes pre-existing hazards and/or occupants on project site)

Timely Use of Funds

- A balancing act between:
  - Expediting delivery and public benefits
  - Focusing on project benefits, budget adherence, and successful delivery
- Varies between agencies
- Under Section 13 (c)) of the Federal Transit Act, grants may be held up for claims or litigation involving labor rights
  - with extensive or unpredictable length
- Flexibility is key

Fleet Expansion/Replacement

- L.A. Metro must buy 200 buses per year on average to maintain fleet size, age and performance
- This large, ongoing expense requires a patchwork of funding
- Challenges in procurement planning include:
  - Shifts or unpredictability in funding availability
  - Evolving technology

Bus Acquisition

Thank you

Metro

Transit Project Delivery (VTA)

- Segmenting Transit Megaprojects
- Complicated Corridors
- Managing Different Project Delivery Eco-systems
  - Overlapping Project Definitions
  - FTA vs FHWA vs State, with local conventions!
- FTA Project Management Oversight

VTA's BART Silicon Valley Extension

Phase I Extension

- 10-mile extension opening end 2019
- 2 stations: Milpitas & Berryessa/North San Jose
- Anticipated opening year ridership: 22,500 per average weekday
- $2.42 billion

Phase II Extension

- 6-mile extension (5-mile tunnel)
- 4 stations (Alum Rock/28th Street, Downtown San Jose, Diridon, Santa Clara)
- Newhall Yard Maintenance Facility
- Anticipated opening year ridership: 33,000 per average weekday
- 2030 Passenger Service
- $5.58 billion*

*Pre-Risk Assessed $, excludes finance costs

Short History of BART to San Jose

- 30 years of studies
- 2000 Plan & Sales Tax Measure
- TCRP Grant from State
- 16 mile Project from Fremont to Santa Clara
- Entry into New Starts
- 2002 - Dot-com Crash
- Withdrawal from New Starts
- 2008 - recession & sales tax for operations
- 2010 – project officially divided into two segments
- Re-entry into New Starts
- 2013 - Phase 1 Full Funding Grant Agreement (FFGA) &FTA Project Management Oversight
- 2016 additional sales tax measure passed
- TIRCP Grants for Phase 2
- 2019 FTA accepts Phase 2 for Expedited Project Delivery (EPD)

Segmenting a Mega Transit Project by Location and Activity

Four Overlapping Delivery Efforts

1. Preliminary Engineering for 16-mile project
2. Corridor Establishment
3. Phase 1 : Warm Springs To Berressa
4. Phase 2 : Berryessa To San Jose/Santa Clara

Corridor Establishment

- Rail corridor acquisition
  - Utility relocation
  - Freight rail relocation
  - Railroad grade separations
  - Environmental Mitigations
    - Mission Warren Truck Transfer (MWT)
      - 6 partner agencies
      - Federal, State, Local fund sources
      - FTA and FHWA environmental clearances
      - Multiple construction contracts

Phase 1 Warm Springs to Berryessa: Partitions within a Segment

- 10 mile segment (WSX to Berryessa)
  - Two stations
  - Parking structures
  - Vehicle acquisition
  - Contributions to BART maintenance facilities and core system upgrades
- Multiple contract packages and delivery methods
  - Track, Signal and Way: Design - Build
  - Parking Garages : Design – Build
  - Campus: Design – Bid - Build
- Funding
  - 2000 Measure A
  - TRCP
  - Federal New Starts (FFGA)
  - STIP
  - Prop 1B State Local Partnership Program

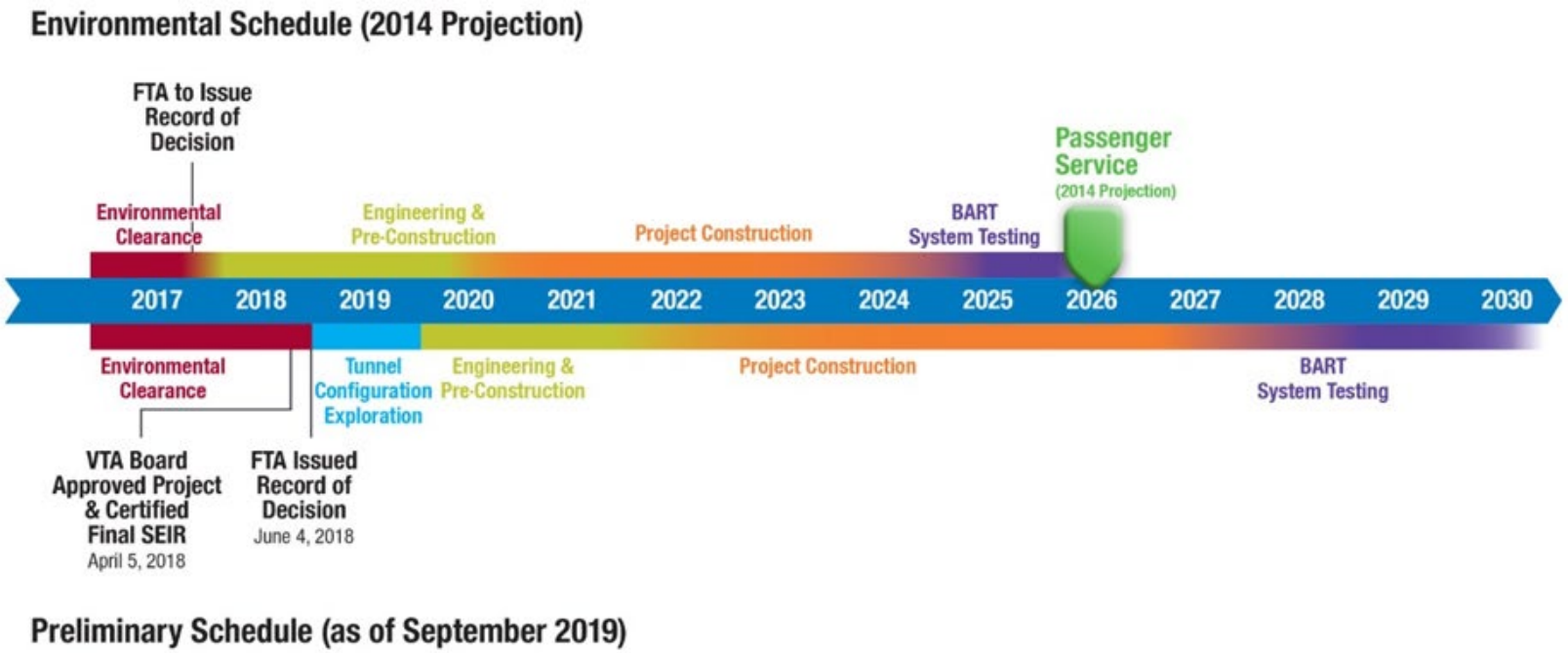
Phase 2: Berryessa to San Jose/Santa Clara – The Next Set of Challenges

- 6 mile segment (Berryessa to Santa Clara)
  - Four stations
  - Deep, wide tunnel under US 101 and through downtown San Jose
- ROD issued 2018
- FTA Expedited Project Delivery program (EPD) 2019

- Funding Plan
- Two Santa Clara salestax measures
  - TIRCP
  - Federal Capital Improvement Program grant (CIG)
  - STIP

Early Stages of Phase 2 Delivery

Schedule Progression



VTA's PMOC Experience

- Technical Capacity & Capability reviews
  - Validates organization's strength
  - Provides recommendations to address organization's weak points
- Complements grantee resources, especially for small projects
- Independent review of grantee's process and procedures
- Brings industry experience
- Acts as a moderator in risk assessment
- Cold-eye review of cost and schedule information