Agenda Item #46
Elevate 2020 SD Draft Scenarios

MTS Board of Directors

December 12, 2019

Expenditure Plan Development Update

- Consultants continue to analyze the projects based on various metrics (ridership, GhG reductions, cost per new rider, etc)
- Need to develop a package of projects for financial modeling
- **Packages for initial Board feedback today**
  - **Take package out for public input and polling**
  - **Present refined/final plan to the board by April**

Basis for Initial Packaging

- Results of public participation
  - CAC, working groups, focus groups, Board discussion, community meetings, Vision Builder, stakeholders
- Planning process to determine the best network, given revenue limitations
- Met with SANDAG regarding Purple Line and Blue Line Express
  - It is developing a new vision for Purple Line and Blue Line Express, different from past RTPs
  - To collaborate on finding the best South Bay solution, SANDAG suggests our measure includes money for planning and environmental
  - New RTP is unlikely to include both Purple and Blue Line Express
  - Blue Line Express needs tunnel under Downtown

Two Scenarios Developed

- For today's discussion, MTS developed two scenarios (still refining)

- Both require a **50-year** measure, or we have to eliminate more projects
  - $7.5 Billion revenue added in Years 41-50

Two Scenarios Developed

- Both include:
  - Youth opportunity pass (18 and under)
  - Trolley frequency improvements (Blue, Orange, Green)
  - Trolley to the Airport
  - Express bus services and transit lanes on the 805 and 52
  - BRT from Mid Coast Trolley Extension to the beach
  - Sorrento Valley Skyway
  - BRT from Iris to SDSU (precursor to SANDAG's Purple Line replacement)
  - Grants to Cities (access and mobility grants)
  - Mobility on Demand
  - Security
  - Grade separations

Two Scenarios Developed

- Projects *not included* in either proposed scenario:
  - Full Purple Line Trolley (San Ysidro to Sorrento)
  - Blue Line Trolley Express
  - Balboa to Beach Skyway
  - Waterways

Scenario 1

- Includes the Purple Line Trolley from E Street Transit Center (Blue Line) in Chula Vista to Kearny Mesa
- No funding for I-5 and SR 56 Express Bus and Transit Lanes
  - I - 805 & SR 52 included
- Includes only 50% of the recommended service frequency, span improvements and new local routes recommended to develop the network
- Includes 10 of 18 recommended route upgrades to BRT
- Doesn’t include alternatives to Blue Line Express

Scenario 2

- Includes all Bus and Rapid improvements
  - Improvements to ~80% of all bus routes
  - 18 *Rapids*, including to beaches
  - Delivers highest ridership results
  - Span and Frequency poll well
  - Provides improved service to entire service territory
- Includes all four freeways (I-5, I-805, SR-52, SR-56) for high-speed transit
- Only non-bus guideway projects are Airport Trolley and Sorrento Skyway
- Provides $30 million in funding for initial studies and environmental for South Bay rail
- Replaces Blue Line Express with I-5 Rapid service/transit lane, 5-minute trolley headway(proposed), overnight bus service, 100% grade separation at Palomar

Development Timeline

- Winter 2019: Board action to proceed
  - Initial polling and focus groups to test public appetite
- Spring 2019: Advisory and Working Groups convened
  - Early project ideas identified (sourced from RTP and others)
  - Desire to move forward with all projects at start
- Summer-Fall 2019: Public outreach & project refinement
  - Hundreds of outreach events
  - Defining projects for cost estimation and metrics evaluation
- Fall 2019: Project modeling & concept plan
  - Follow-up outreach & focus groups

Today's Presentation

- Two draft scenarios that balance project costs with anticipated revenues
- Starting point to receive Board feedback
- Complement to SANDAG's Regional Plan efforts
  - Concept is transit-focused and not intended to replace RTP's broader mission of addressing all regional travel demands
  - Elevate 2020 SD advances transit projects important to MTS and our riders
  - SANDAG will continue to work on other transit and transportation projects with MTS input and support
- Scenarios represent initial staff recommendations based on data, public feedback, and network value
- Program of projects will be refined over next 2-3 months

Plan Development

- All of original project ideas were evaluated
  - Every project has support, champions that wanted to see full evaluation
- Evaluation included development of metrics matrix for Board consideration
- Projects costs include:
  - hard costs (construction, vehicles, etc.)
  - adjustable costs (service levels, annual operations, grants, etc.)
  - capital replacement costs

Plan Development

Goals of the scenarios presented today:

- Improve MTS system by speeding service, increasing transit coverage, and filling existing network gaps
- Projects of high value to existing users and encouraging new riders
- Reduce transportation time and cost burden for vulnerable populations
- Include projects that appeal to a wide variety of riders and non-riders
- Offer benefits to all of MTS' communities and jurisdictions
- Financial balance of revenues and expenditures

Plan Development

- Presentation today will discuss all evaluated projects and their status in the draft scenarios
- Project Team:
  - Outreach: Civilian
  - Financial Modeling: PFM
  - Planning: TMD
  - Ridership/GHG Estimations: Transpo Group
- Recommendations based on outreach, metrics, costs, benefits, and **network value**
- **Costs include capital, capital replacement, and operating costs through 2070**

Project Metrics

- Metrics included:
  - **Base statistics**
  - **Elevate Values**
  - **Equity Metrics**
- Handout shows how each project performs in all the metric categories.

Base Statistics
Annual Ridership
Capital Cost
Capital Cost/Annual Rider
Annual Revenue Miles
Annual Revenue Hours
Annual Operating Cost
Annual Operating Cost/Annual Rider
Annual Greenhouse Gas Reductions
Values Metrics
VALUE: Providing better access to jobs, educational opportunities, esp. for disadvantaged communities.
Connects high residential concentration with high employment area.
Connects high residential concentration with a major college or university.
Connects Cal Enviroscreen DAC (per SB 535) with high employment concentration area.
Percentage of project mileage within Cal Enviroscreen DAC (per SB 535).
VALUE: Providing fast and dependable service for riders.
Project base headway.
VALUE: Making transit time-competitive with the auto.
Project in-service speed.
VALUE: Improving access for seniors and people with disabilities.
Improves comfort of using the system for seniors and disabled.
Connects high residential concentration with a regional medical facility.
VALUE: Utilizing existing infrastructure to make immediate improvements.
Estimated first year of service.
VALUE: Seek out opportunities for longer-term, high-investment infrastructure improvements.
Includes permanent fixed guideway infrastructure.
Expands geography of fixed guideway transit network.
Equity Metrics
Characteristics of population within walking distance of project stop/station.
% Minority
% Non-Minority
% Low-Income
% Non-Low-Income (>200% of Poverty Level)
% Senior (65+)
% Non-Senior (Under 65)
% Youth (Under 19)
% Non-Youth (19+)

Improved Bus/Trolley Network

Concept Project: Increase frequencies and/or extend spans of service on most MTS Bus and Trolley routes; extend local coverage in some areas without current service.

Improved Bus/Trolley Network

Findings:

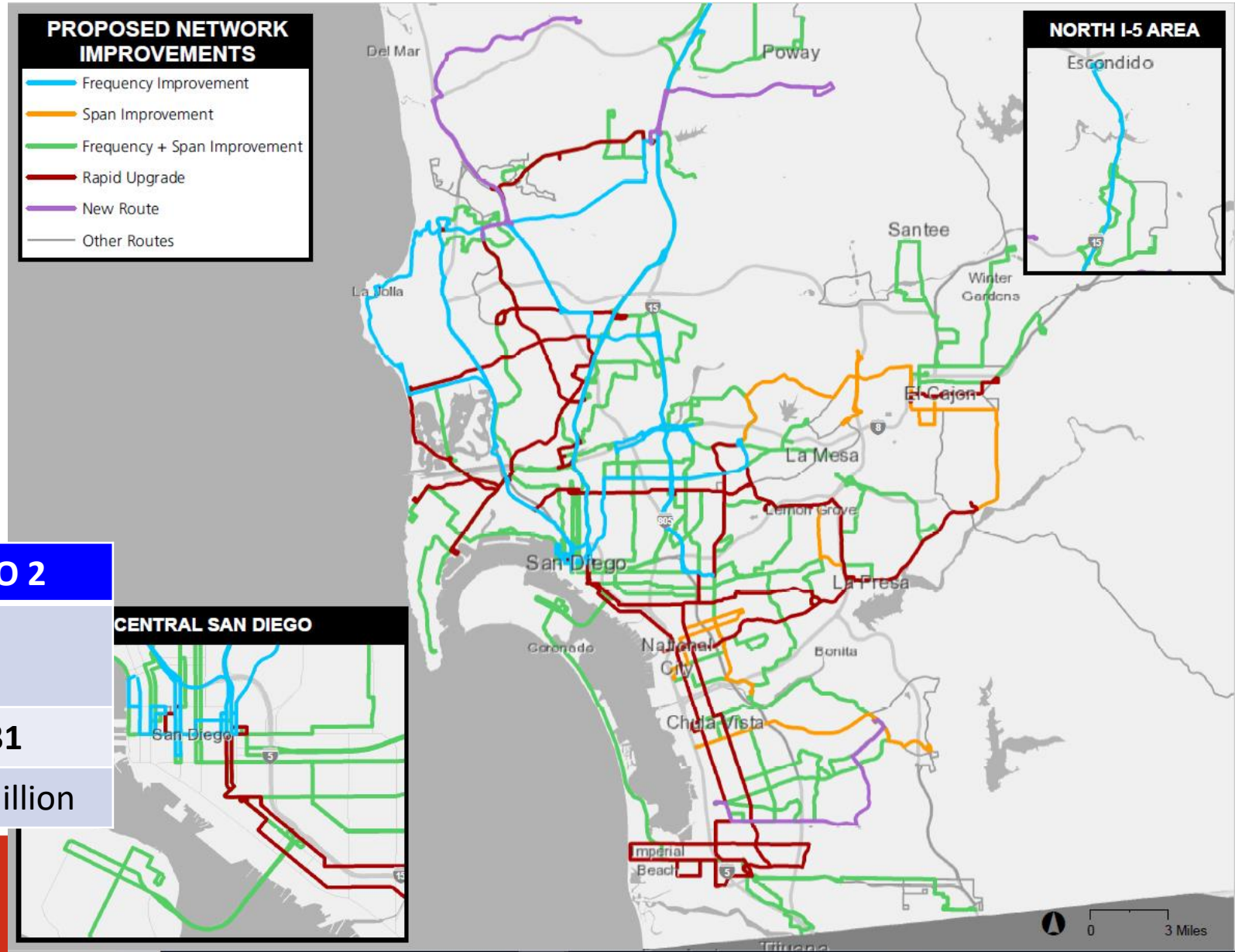
- Very popular: in most polls and outreach, improvement of frequencies and spans is among the highest ranked projects.
- Highest estimated ridership impact.
- Covers wide geography and helps most riders.
- Implementation can begin in a short time frame.
- Project needs to retain flexibility to keep up with routine changes to base network.
- Requires new bus maintenance facility to accommodate larger fleet.
- High cost due to project scope and on-going operations & bus replacement costs.

Improved Bus/Trolley Network

Proposal:

- Include improved service network including frequencies and span increases on most MTS Bus and Trolley routes.
- Include new bus division to support increased fleet.
- In Scenario 1, implement 50% of planned increases.
- Actual changes to be re-evaluated before implementation per MTS Board Policy 42 to keep up with network evolution.

PROPOSED	SCENARIO 1	SCENARIO 2
2050 Weekday Ridership Increase	**~60,000**	**120,030**
In-Service	**2020-2031**	**2020-2031**
Funding	$2,921 million	$5,682 million



New Rapid Services

Concept Project: Upgrade 18 of MTS' core network and busiest bus routes to Rapid service.

- High- and low-investment segments
- Transit priority measures
- Improved station infrastructure
- Consolidated stops

- Plus:
  - Upgrade 2 existing Rapids
  - Implement 1 new Rapid

New Rapid Services

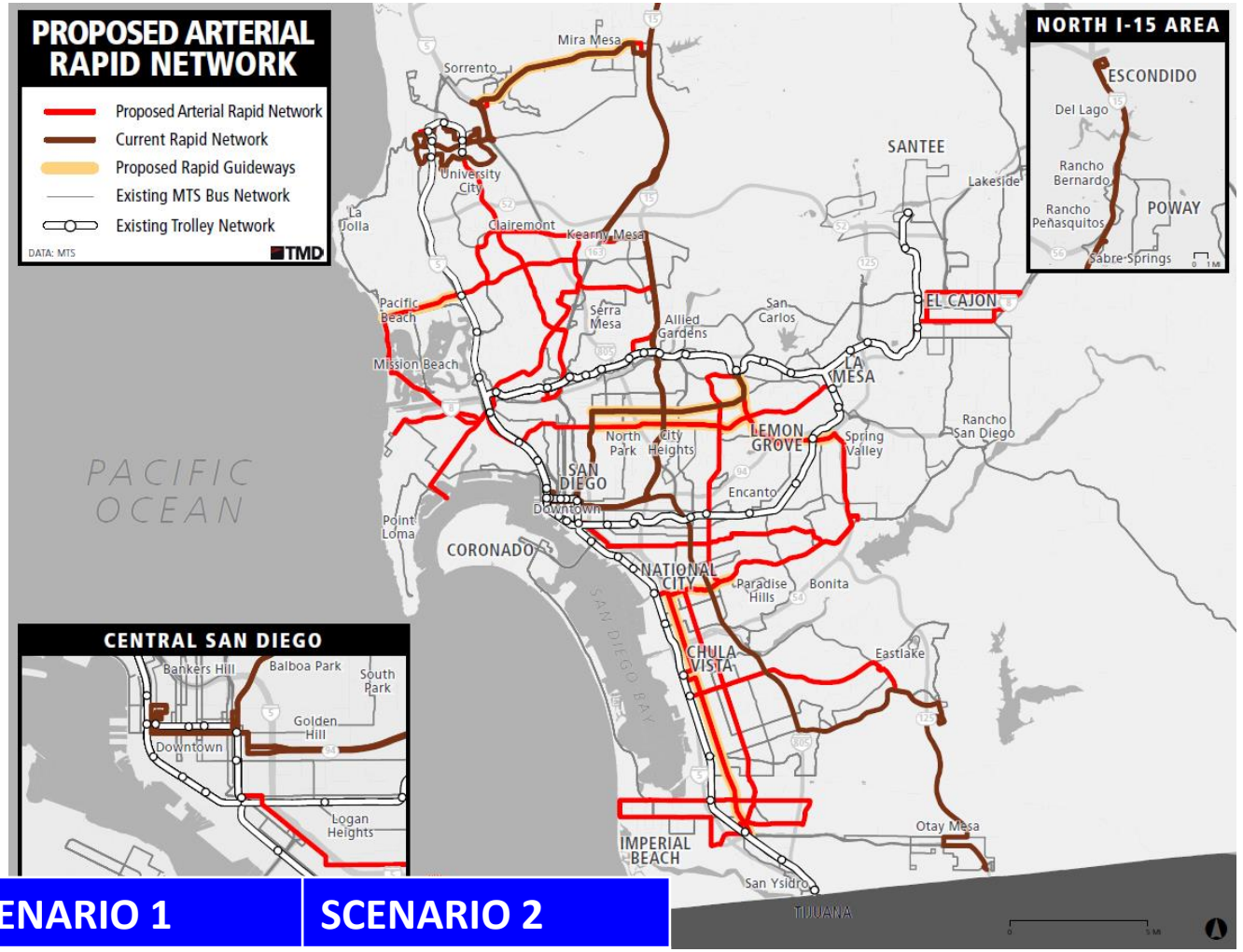
Findings:

- ‘Rapid’ has very positive brand response among riders and non-riders.
- High estimated ridership impact.
- Consolidated stations required for faster travel times, but reduce some local access.
- High cost due to capital upgrades and on-going operations.
- Potential investment levels vary due to available right-of-way, local community and jurisdiction reaction.

New Rapid Services

Proposal:

- Scenario 1: Include Rapid conversions for **ten** high-ridership, core network urban routes. For remaining 8 routes, including in local network improvements project.
- Scenario 2: Include Rapid conversions for 18 high-ridership, core network urban routes.
  - Upgrade 2 existing Rapids
  - Implement 1 new Rapid
- Work with local cities and communities to ensure upgrades add value, or move resources to different corridor.



PROPOSED	SCENARIO 1	SCENARIO 2
2050 Weekday Ridership Increase	**14,968**	**26,942**
In-Service	**2028-2035**	**2028-2039**
Funding	$2,829 million	$5,026 million

Purple Line

Concept Project: Purple Line = infrastructure and operating costs for a new Trolley Line along I-805 corridor between San Ysidro and Kearny Mesa (as in 2017 SANDAG study). Connects Blue, Orange, and Green Lines. MTS also evaluated two ‘early-action’ alternatives:

- E Street-Mission Valley
- E Street-Kearny Mesa

Purple Line

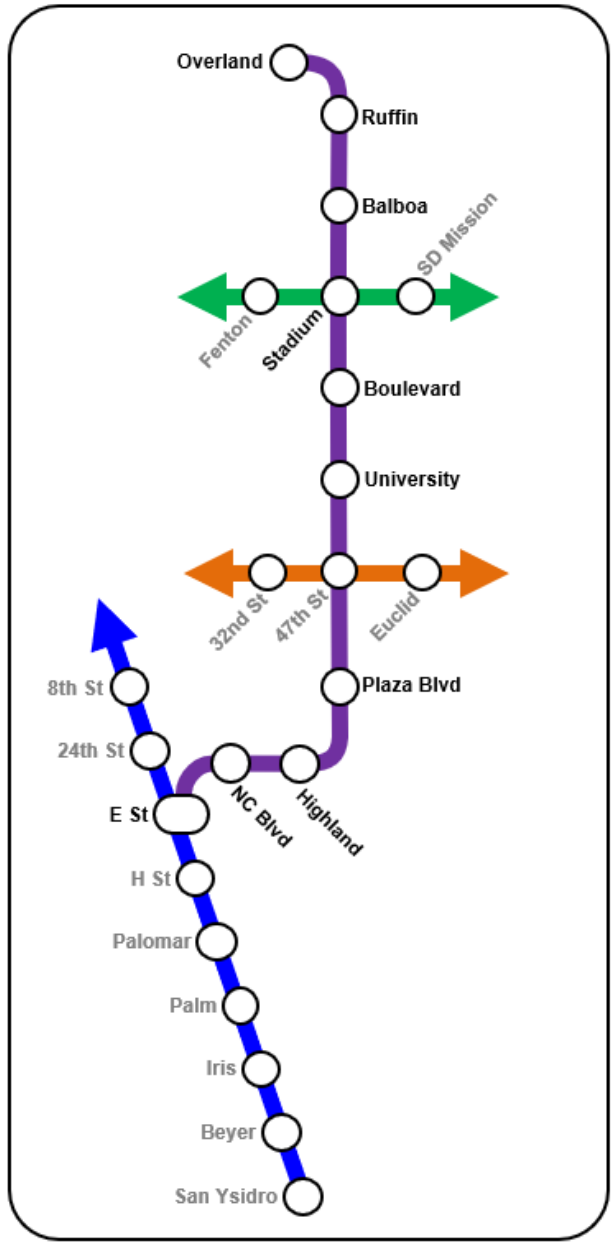
Findings:

- Full line would use substantial percentage of overall ballot measure revenue.
- I-805 corridor south of SR-54 is relatively low-density and suburban, reducing access & ridership potential.
- Tying the Purple Line to the Blue Line at E Street (via Sweetwater River) would extend benefits to current Blue Line riders – saving time on journeys to Mid-City, Mission Valley, and Kearny Mesa.
- SDSU West development is a large market opportunity.
- Kearny Mesa segment would connect South Bay, Southeast, and Mid-City to northern job centers.
- Purple Line is in current RTP, but SANDAG has indicated that the next RTP will likely recommend significant changes to alignment and technology.

Purple Line

Proposal:

- Scenario 1 includes a Phase I Purple Line segment between E Street T.C. and Kearny Mesa (7 miles shorter than full line).
  - Includes connection to the Blue Line in Chula Vista, three new stations in National City, connection with Orange Line at 47th Street, two stations in City Heights, connection with Green Line in Mission Valley, and three destination stations in Kearny Mesa.
  - Some Purple Line trips could be extended to San Ysidro via the Blue Line (not included in this cost proposal).
  - Could later be extended south via 805 to San Ysidro or north towards UTC/beyond with separate funding.
- Both scenarios 1 & 2 fund a study of the greater South Bay north-south movement and environmental analysis of resulting project(s) with the **goal of a high-speed option from the border towards Sorrento Valley.**



PROPOSED	SCENARIO 1	SCENARIO 2
2050 Weekday Ridership Increase	**7,792**	**n/a**
In-Service	**2045**	**n/a**
Funding	$8,152 million	$35 million (study)

Blue Line Express

Concept Project: Infrastructure and operating costs for operating express trains along the Blue Line. Options could include passing tracks at local stations, or a new, parallel LRT line.

Blue Line Express

Findings:

- Project needs a detailed feasibility and engineering analysis; details are uncertain.
- Passing tracks have operational challenges and minimal travel time benefits.
- Parallel line has more notable time savings but very high cost (similar to new LRT extension).
- Other options could provide similar passenger benefits at lower cost.

Blue Line Express

Proposal:

- Both scenarios 1 & 2 fund a study of the greater South Bay north-south movement and environmental analysis of resulting project(s).
- Fund other projects that achieve similar or greater passenger and community benefits along the South Bay segment of the Blue Line:
  - Increased Blue Line frequency
  - 24-Hour Blue Line corridor bus service
  - Grade separations in South Bay (100% at Palomar)

PROJECT	
2050 Weekday Ridership Increase	**5,016**
In-Service	**2043**
Funding	$35 million (study)

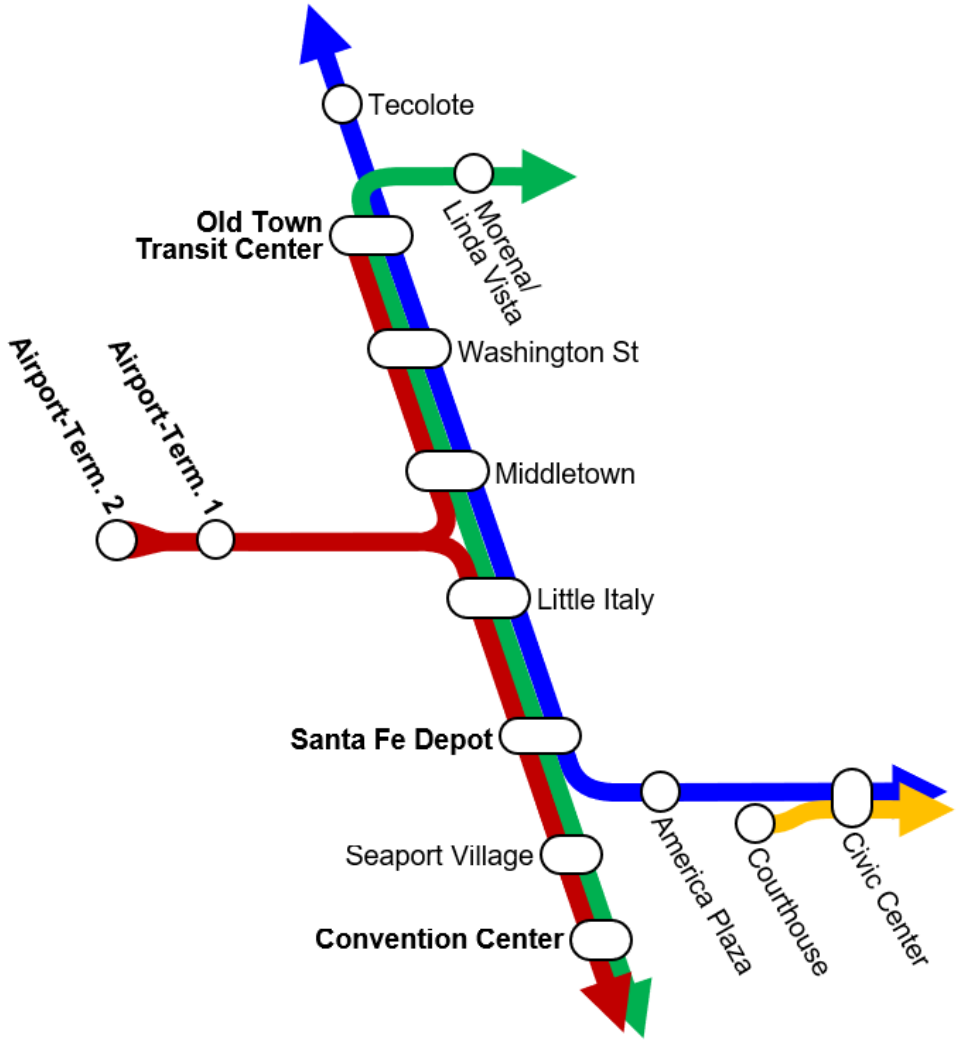
Airport Trolley Extension

Concept Project: Infrastructure and operating costs for Trolley extension to San Diego Airport, served by a new line between 12th & Imperial and Old Town.

Airport Trolley Extension

Findings:

- Engineering challenges and cost have precluded this project in the past.
- Very popular: in most polls and outreach, the Airport Trolley is one of the most desired new capital transit project among the public.
- Common perception of a missing link in MTS network.
- Complements SDIA's plans for terminal expansion.
- Could be designed for future westward extension.
- One of the four options SANDAG is studying for a rail airport connection.

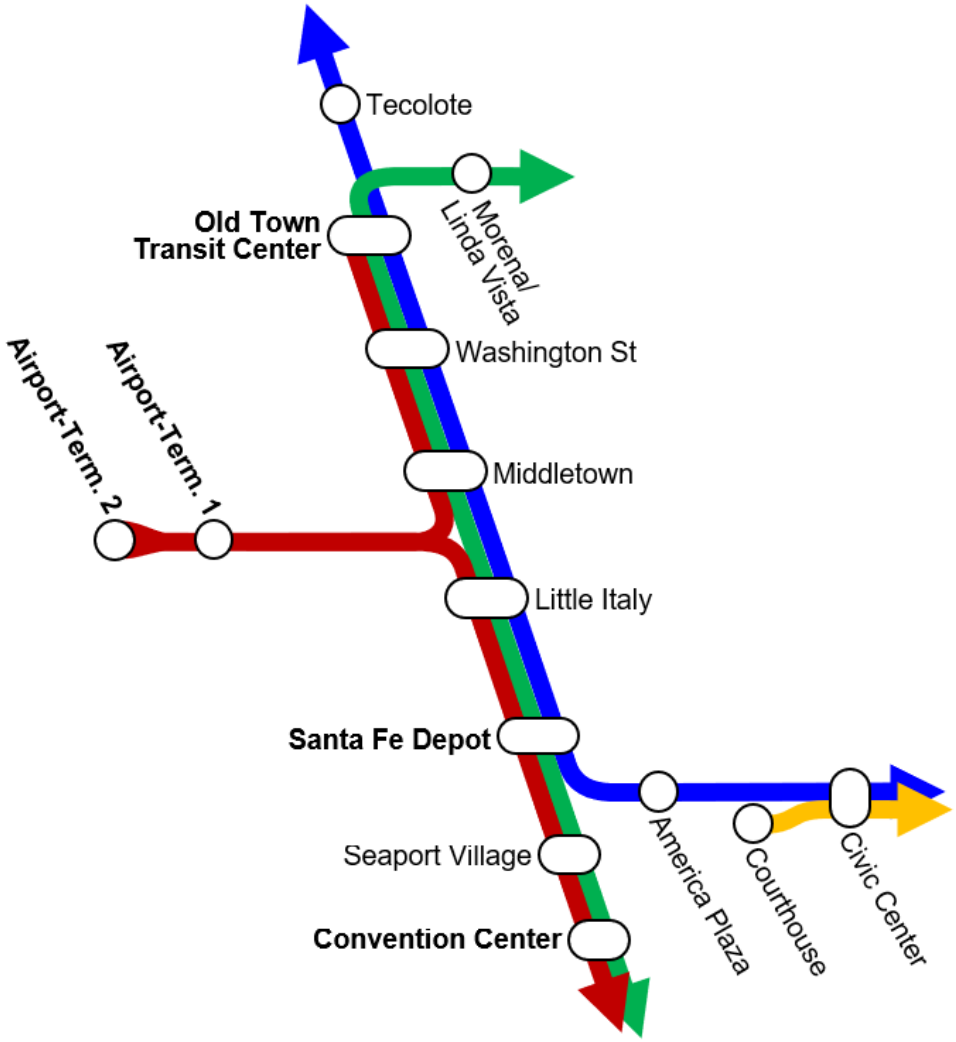


Airport Trolley Extension

Proposal:

- Include extension of Trolley network to San Diego Airport
- Include LRT grade separations between Downtown and Old Town due to frequencies (3 Trolley lines, Coaster, Amtrak)

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	**3,844**
In-Service	**2028**
LRT Capital/Operations	$1,448 million
Grade Separations	$375 million
Total Funding	**$1,823 million**



Freeway Transit Lanes

Concept Project: Utilize existing freeway right-of-way to add transit lanes, allowing a faster implementation timeline than other fixed guideway such as rail.

Freeway Transit Lanes

Findings:

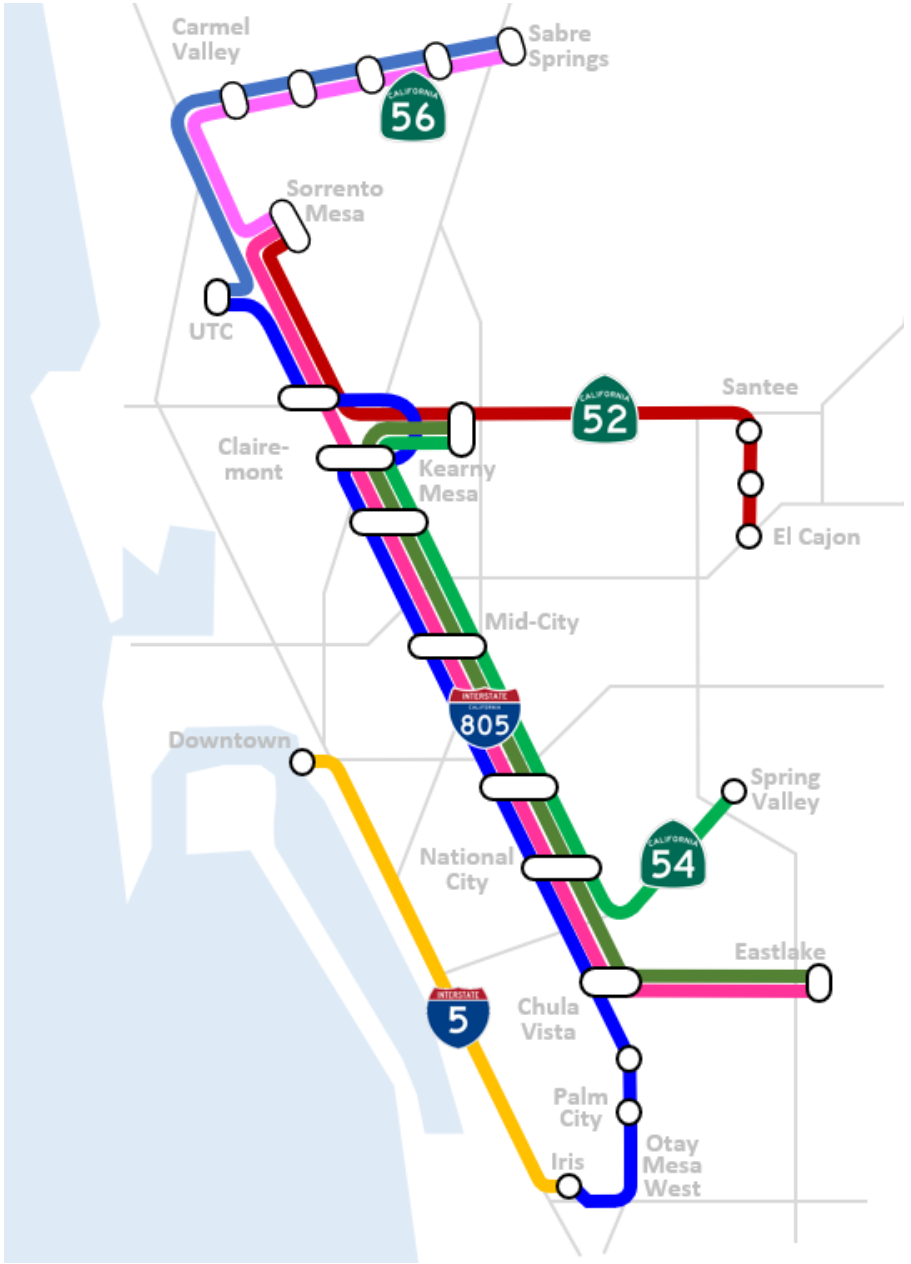
- Most congested commute corridors include I-5, I-805, SR-52, and SR-56.
- I-805 is the primary north-south corridor connecting residents and jobs and has among the highest congestion delays in the region.
- SR-52 and SR-56 impacted by traffic with no adjacent transit alternative.
- I-5 could offer capacity and travel time relief for impacted Blue Line.
- Available right-of-way varies by freeway and segment, so potential solutions differ.
- Improvements require CalTrans planning & environmental processes
- CalTrans is a willing and supportive partner and is collaborating with MTS

Freeway Transit Lanes

Proposal:

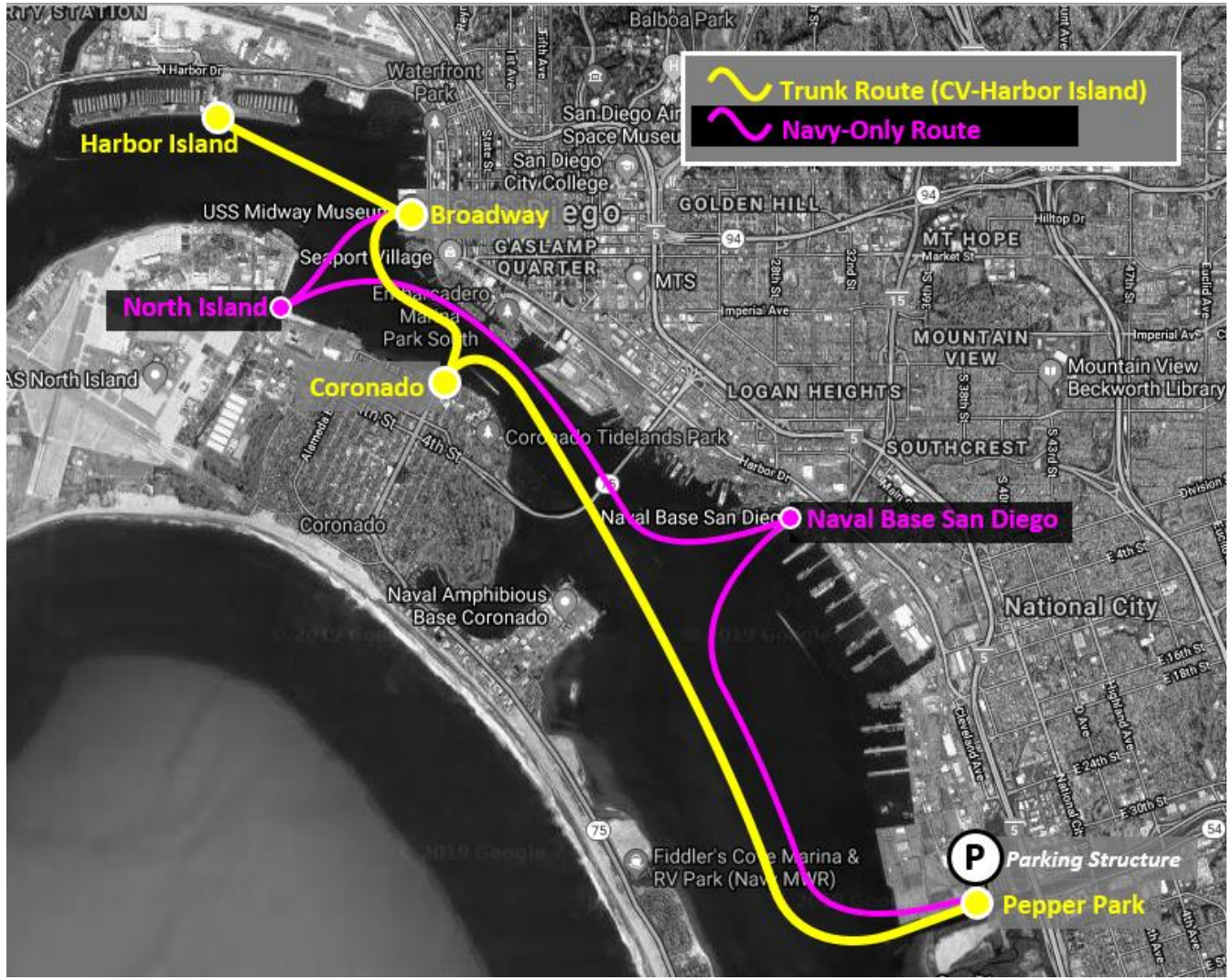
- Scenario 1 includes I-805 and SR-52 corridors:
  - I-805 currently has a gap in the HOV lanes between SR-94 and SR-52. This gap would be filled by converting the left shoulder into a transit-only lane.
  - SR-52 has a wide median where a reversible, single-lane transit guideway would be installed. Requires construction of several bridges.
- Scenario 2 adds I-5 and SR-56 corridors.
  - I-5 between Iris Ave. and Downtown San Diego would utilize zippers to convert the non-peak direction #1 lane into a contraflow peak-direction transit lanes. Extension south to San Ysidro and north beyond downtown would be studied.
  - SR-56 has a wide median where a reversible, single-lane transit guideway would be installed. Requires construction of several bridges.

PROPOSED	SCENARIO 1	SCENARIO 2
2050 Weekday Ridership Increase	**9,450**	**16,424**
In-Service	**2028-2033**	**2028-2036**
Funding	$3,127 million	$4,856 million



Waterways

Concept Project: Two ferry routes along San Diego Bay, one a public ferry between Chula Vista and Harbor Island, and the other a Navy route linking bases along the bay.



Waterways

Findings:

- Implementation could be fairly fast since no guideway needed.
- Capital costs relatively low.
- No-wake zones in bay limit ferry speeds, especially south of Sweetwater Channel.
- South Bay marinas far from activity centers.
- Multiple stops make ferries uncompetitive with auto or Trolley.
- Not highly ranked in public outreach.
- Operating costs for ferries very high
- Low ridership projected for a civilian route.
- Navy ferry has best opportunity for success and traffic relief.
    - Pilot projects are recommended to better determine demands and refine operations. Navy demand can be cyclical and evolving.

Waterways

Proposal:

- Continue to partner with the US Navy, Port of San Diego, City of Coronado, and other stakeholders to develop potential future projects that increase mobility around San Diego Bay and relieve traffic congestion, especially around Naval bases.
- Seek alternate funding sources for implementation of pilot and permanent projects.

PROJECT	
2050 Weekday Ridership Increase	**3,823**
Cost (2025 Start)	$1,698 million
Funding	$0

Grade Separations

Concept Project: Replace at-grade rail crossings with grade-separated crossings by raising or lowering the road and/or tracks. The RTP includes twelve MTS-area projects.

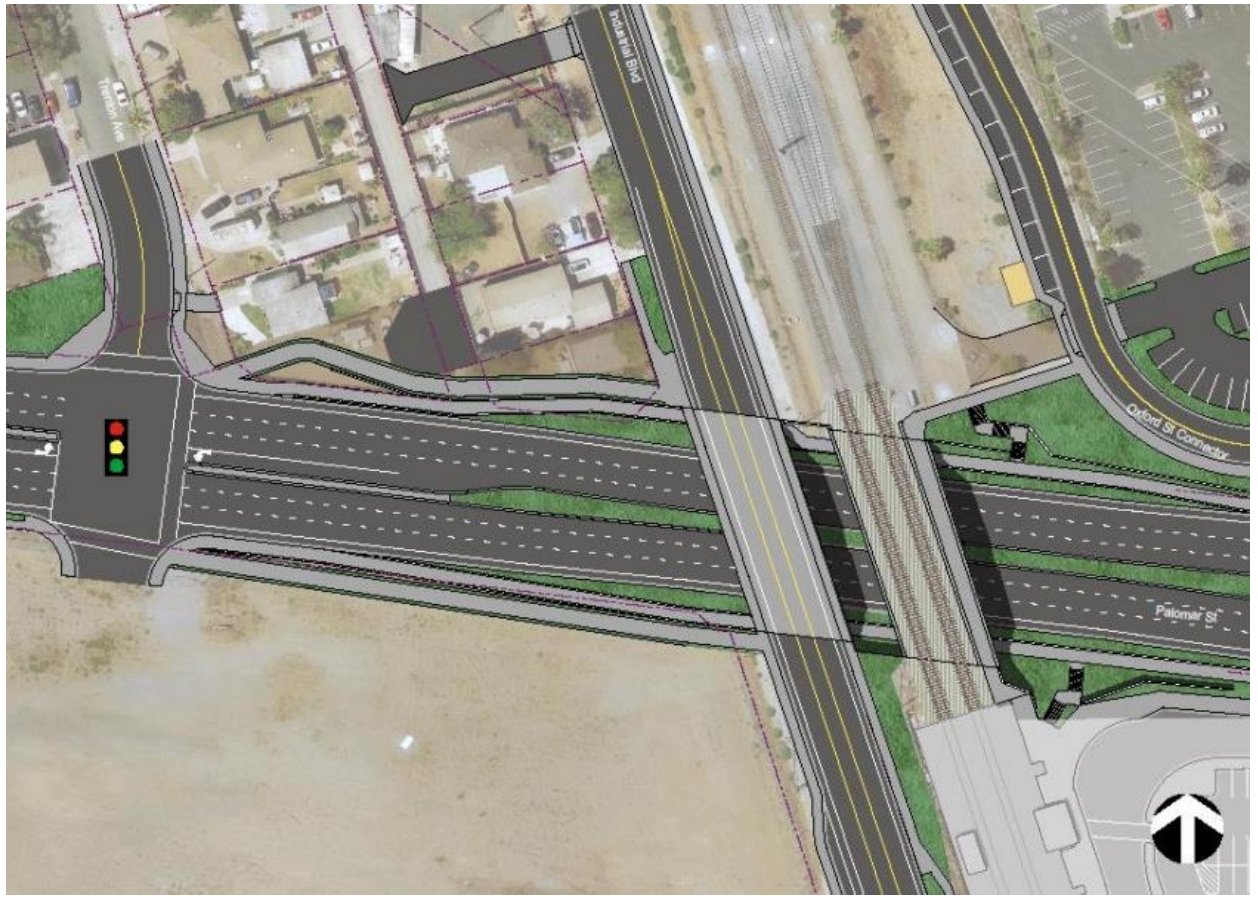
- 11 include Trolley; one is COASTER/Amtrak only
- 2 additional RTP grade separations are included within Airport Trolley project

RTP Rank	Location	City
1	Palomar St.	Chula Vista
2	Broadway/Lemon Grove Av.	Lemon Grove
3	Ash St.	San Diego
4	H St.	Chula Vista
5	Washington St.	San Diego
6	E St.	Chula Vista
7	Broadway	San Diego
7	Taylor St.	San Diego
9	Euclid Av.	San Diego
10	28th St.	San Diego
11	32nd St.	San Diego
14	Sorrento Valley Rd.	San Diego
15	Allison Av./University Av.	La Mesa
18	Severin Dr.	La Mesa

Grade Separations

Findings:

- A road network improvement with transit benefits:
  - Reduces delay/variability for buses approaching or crossing tracks (i.e. Rt. 10 at Washington St., Rt. 709 on H St., etc.)
  - Reductions in Trolley delays from cautionary slowing, trackway obstructions, and broken gates
- Very popular among cities and motorists
- Becomes more important as rail frequencies increase
  - Trolley service at 7.5 minute headway results in up to 16 gate activations per hour.
  - Gate activations close street for approx. 60 seconds each (longer if adjacent to station)



Grade Separations

Proposal:

- Include funding specifically for grade separations to fund up to 50% of project costs.
  - Downtown-Old Town grade separations would be 100% funded as part of the Airport Trolley project.
- High priority projects could be funded 100%
- Eligible projects would be identified in the RTP.

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	**n/a**
In-Service	**2034-2041**
Funding	$800 million

RTP Rank	Location	City
1	Palomar St.	Chula Vista
2	Broadway/Lemon Grove Av.	Lemon Grove
3	Ash St.	San Diego
4	H St.	Chula Vista
5	Washington St.	San Diego
6	E St.	Chula Vista
7	Broadway	San Diego
7	Taylor St.	San Diego
9	Euclid Av.	San Diego
10	28th St.	San Diego
11	32nd St.	San Diego
14	Sorrento Valley Rd.	San Diego
15	Allison Av./University Av.	La Mesa
18	Severin Dr.	La Mesa

Sorrento Valley Skyway

Concept Project: Infrastructure and operating costs for a gondola skyway line connecting the Mid-Coast Trolley extension and Sorrento Mesa. Includes two transit hubs in Sorrento Mesa with last-mile services.

Sorrento Valley Skyway

Findings:

- Sorrento Mesa is second largest Tier 1 employment zone in San Diego region.
- Mid-Coast Trolley gets close but not there; large demand anticipated.
- Sorrento Mesa very difficult to connect with Mid Coast due to physical and environmental barriers.
- Guideway (rail/road) very expensive due to topography.
- Skyway would be orders-of-magnitude less expensive and faster to implement.
- Last-mile connections remain challenging in Sorrento Mesa (with any fixed-route project).

Sorrento Valley Skyway

Proposal:

- Include funding for the Sorrento Valley Skyway project as envisioned in the concept.
- Project includes three stations, two mobility hubs, and a last mile shuttle system in Sorrento Mesa.

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	**3,628**
In-Service	**2025**
Funding	$539 million

Balboa-Beach Guideway

Concept Project: Infrastructure and operating costs for a fixed-guideway project between the future Balboa Ave. Trolley Station and the beach (Mission Blvd.).

Balboa-Beach Guideway

Findings:

- Most communities and groups valued better access to the beach for locals and visitors.
- Guideway (rail or road) across heavy rail and I-5 challenging and expensive.
- Congested and narrow, constrained ROW complicate at-grade options (streetcar, BRT).
- Skyway cables bridge over physical barriers, but with visual impacts (towers, cables).
- Project needs an updated feasibility study and detailed engineering review.

Balboa-Beach Guideway

Proposal:

- Pursue conversion of east-west local bus service along the Grand Ave. corridor to Rapid.
- Neither scenario proposes specific guideway funding aside from Rapid Bus.

PROJECT	
2050 Weekday Ridership Increase	**3,264**
Cost (2028 Start)	$673 million
Funding	**$0**

Fare Discounting/Youth Opportunity Passes

Concept Project: Reduce riders' cost burden by one or more of the following:

- Additional discounts for seniors, disabled and/or youth
- Reduce fares and pass prices for all riders
- Offer free passes to youth (18 and under) or riders 24 and under

Fare Discounting/Youth Opportunity Passes

Findings:

- Youth Opportunity Passes highly ranked at some outreach events.
- Will impact MTS' farebox recovery.
- Fares are the only major revenue source MTS controls; reductions in fare levels make MTS more vulnerable to reductions in subsidies (state & federal funds, etc.)
- Costs for additional overhead and operations hard to quantify in advance; depends on when and where resulting ridership increases. (not included in cost estimate)

Fare Discounting/Youth Opportunity Passes

Proposal:

- Include funding for a Youth Opportunity Pass for riders 18 and under.
- Short implementation timeframe.

PROPOSED	SCENARIOS 1 & 2
2025 Weekday Ridership Increase	**7,419**
Total Funding	**$850 million**

Mobility-on-Demand

Concept Project: Utilize innovative on-demand transit programs and strategies to extend the reach of transit to areas where (or times when) fixed route transit is unviable.

- Several large, populated, suburban areas in MTS jurisdiction where MTS has little or no presence.
- Not cost-effective to extend fixed-route transit to all areas, but there is some demand in most.
  - Workers commuting in via transit.
  - Commuters accessing the transit network.
  - Seniors and disabled who cannot drive or don't want to.
  - Students who do not drive or cannot afford to.

Mobility-on-Demand

Findings:

- Inexpensive compared to fixed-route transit, though capacity is much lower.
- Mobility-on-Demand has evolved since MTS operated DART and Flex services due to technology.
- Many options available now:
  - App-based microtransit
  - Flexible shuttle routes
  - Taxi/TNC vouchers
  - Traditional Dial-a-Ride
- Appropriate mode will depend on area and travel demands

Mobility-on-Demand

Proposal:

Set aside $5 million/year (FY20$) funding to be used for mobility-on-demand services in areas within MTS' urbanized zone that cannot be sustainable served by fixed-route transit.

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	3,500
In-Service	2024
Funding	$505 million

Fleet Electrification

Concept Project: Use Elevate revenues to offset costs of bus fleet electrification, currently required by 2040.

Fleet Electrification

Findings:

- Costs for fleet conversion include:
  - Higher bus purchase costs (currently nearly 2x CNG buses); differential expected to come down through volume over time
  - Facility costs for chargers, power infrastructure upgrades
  - Energy (SD electricity is highest in nation, currently 2x CNG rate)
- Future unknowns in energy rates.
- At current level of tech, a 100% fleet conversion would require more buses to operate the same schedules.
  - Battery tech expected to improve

Fleet Electrification

Proposal:

- Use other capital funds for purchase of ZEBs and construction of required infrastructure.
- Without Elevate as a successful ballot measure, those funds would need to be located and programmed anyway.
- Fleets for Elevate projects priced at electric cost; no funds included in Elevate to convert existing fleet.

PROJECT	
2050 Weekday Ridership Increase	**-0-**
Cost (2023 Start)	$370 million (includes facility upgrades, first round of replacements for existing fleet)
Funding	$0

Added Security Measures

Concept Project: Include funding for security-related infrastructure and operations based on Board direction/revised policies

- Reimagined security in line with contemporary policing standards
- Potentially address a program for persons experiencing homelessness

Added Security Measures

Findings:

- Security concerns ranked high among priorities in outreach.
- Transit personnel request additional security resources for personal safety on the job.
- Board interest in new security policies in line with best policing practices.
- Major increases in service levels will require some corresponding increases in security efforts.
- Funds could support additional security personnel and ambassadors; also infrastructure such as lighting and cameras.
- Added personnel could support efficiency efforts such as all-door boarding.

Added Security Measures

Proposal:

- Include additional operational funding corresponding to increase in overall MTS operations budget (approx. 50%), to be spent at Board's direction.

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	**n/a**
Funding	$576 million

Grant Programs

Concept Project: Grant program to local jurisdictions to fund transit-supportive projects including:

- active transportation
- access-to-transit
- ‘safe routes to schools’
- Transit priority measures

Grant Programs

Findings:

- Most jurisdictions have backlog or potential new, unfunded active transportation projects
  - Pedestrian/sidewalk infrastructure
  - Biking
- Climate Action Plans
- Better pedestrian infrastructure can increase transit ridership – every passenger is a pedestrian to and from transit
- Bus routes heavily impacted by school drop-off/pick-up traffic
  - Increasing student bike/ped mode split helps transit reliability

Grant Programs

Proposal:

- Add an Elevate Transit-Supportive Infrastructure Grant Program with the following project types eligible:
  - Active transportation
  - Access-to-transit
  - ‘Safe routes to schools’
  - Traffic studies for transit improvements
  - Capital for transit priority elements
    (TSP, queue jumps, bus lanes, etc.)
  - Mobility Hub infrastructure
- Fund up to $2 million annually (FY20$)

PROPOSED	SCENARIOS 1 & 2
2050 Weekday Ridership Increase	**n/a**
Funding	$182 million

Mobility Hubs

Concept Project: Construct mobility hubs at major stations and transfer points, with features suited to the local community including:

- Bus bays for MTS services
- Bicycle stations/lockers
- EV charging/parking
- Scooter/bikeshare facilities
- Microtransit/taxi/app-hailing zones

Mobility Hubs

Findings:

- Most MTS transit centers already include at least some mobility hub elements.
- Mobility Hub features can be designed into any new stations as part of the larger capital project.
- Many grant programs exist for the types of upgrades seen with mobility hubs.
- SANDAG already has a robust program for identifying and adding mobility hubs.
- Long-term costs hard to estimate due to variances among sites and features.

Mobility Hubs

Proposal:

- Design mobility hub features into new stations as part of capital construction projects.
- Include funding to local jurisdictions by grant programs for mobility features, active transportation, and access-to-transit projects. These could include mobility hubs.

PROJECT	
2050 Weekday Ridership Increase	**-0-**
Funding	$0

Summary

Proposal:

- 13 projects fully or partially funded in each scenario.
- Primary differences are that the Purple Line segment in Scenario 1 precludes 50% of bus network and Rapid improvements, I-5 and SR-56 freeway projects.
- Scenarios designed to balance potential ridership, geographic coverage, equity and environmental benefits, and feedback from outreach and polling.
- Difference in total costs between the scenarios are due to debt service differences; final program of projects would be 100% balanced.

Next Steps

- Board discussion and direction
  - Narrow focus to one scenario
- Outreach in January-February
- Another polling cycle in January
- Further refinement of scenario
  - Incorporate feedback from outreach, Elevate subcommittees, and polling
  - Fine-tune cost and ridership estimates
- Model overall network ridership with a single scenario
- Final program of projects for Board consideration in March/April

Discussion