Los Angeles County
Metropolitan Transportation Authority

Metro Orange Line Enhancements San Fernando Valley/San Gabriel Valley High Capacity Transit Corridor

Board Staff Briefing
April 9, 2015

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Background

- July 2014 Board Direction
  - Develop and fund feasibility studies to:
    - Enhance Metro Orange Line service, including potential conversion to Light Rail Transit (LRT)
    - Connect San Fernando and San Gabriel Valleys through a High Capacity Transit Corridor
- Case Studies provide high level analysis of:
  - General physical configuration
  - Adjacent land uses
  - Ridership and travel time
  - General Cost - capital and operating
  - Issues and constraints

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Metro Orange Line Enhancements

- Nearing capacity in eastern section during peak hours
  - North Hollywood
  - Van Nuys
  - Reseda
- Two alternatives studied:
  - Enhancements to existing BRT service, including:
    - Increasing speeds through intersections
    - Grade separations at key intersections
    - Higher bus capacity
    - Short line service
  - Convert Metro Orange Line to Rail
    - New construction needed, including:
      - Grade crossing improvements/separations
      - Tracks and station platforms
      - Maintenance Facility
    - Replacement on-street bus service needed during construction

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Metro Orange Line Enhancements

Alternative	Alternative 1 – Improved BRT	Alternative 2 – Conversion to Rail
Existing Travel Time	56 – 59 min	
Projected Travel Time	44 – 49 min	41 – 44 min
Potential Travel Time Improvements	10 – 12 min	15 min
Existing Capacity*	1,300	
Projected Capacity	1,900 – 2,600	3,300 – 7,500
Potential Capacity Improvement over Existing	50% – 100%	150% – 480%
Rough Order of Magnitude (ROM) Capital Cost (2015 $)	$230M – $350M	$1.2B – $1.6B
ROM Annual Operations & Maintenance Cost (2015 $)	$20M – $29M	$46M – $69M

*Capacity = passengers per hour per direction

- Capacity and travel time improvements can be realized with BRT upgrades

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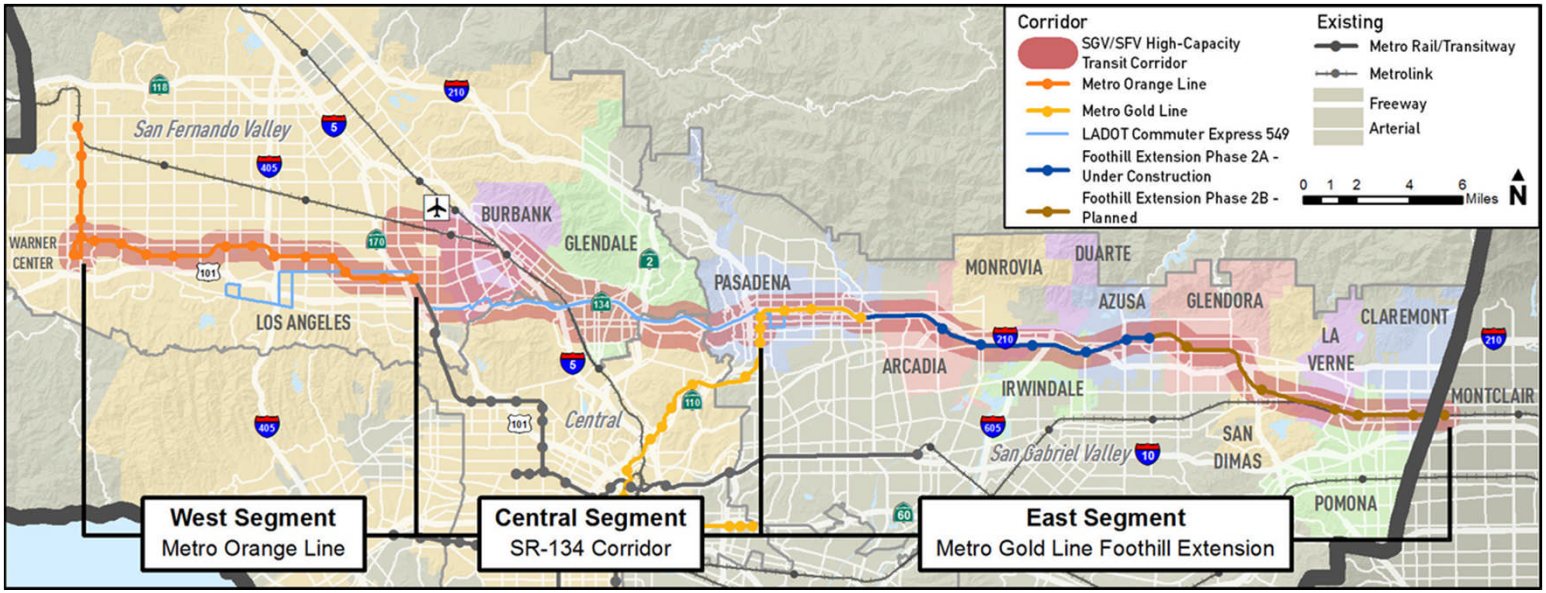
San Fernando Valley/San Gabriel Valley (SFV/SGV) High Capacity Transit Corridor



- Approximately 60-mile corridor from Warner Center to Montclair
- Two alternatives studied:
  - BRT from North Hollywood to Pasadena, transfer to Metro Gold Line
    - Add BRT ramps to SR-134 HOV lanes
    - New median busway stations on SR-134
  - LRT service from Warner Center to Montclair
    - Mix of aerial, at-grade and below grade alignment
    - Transfer to Metro Gold Line

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SFV/SGV High Capacity Transit Corridor

Alternative	West Segment	Central Segment	East Segment
Existing Conditions			
	28,000[1]	420[1]	43,000[1]
Alternative 1 – BRT Service from North Hollywood to Pasadena			
Projected Ridership	28,000+[2] (50% - 100% capacity increase)	1,100-1,700[3]	65,000-77,000[4]
Alternative 2 –LRT service from Warner Center to Montclair			
Forecasted Ridership	28,000+[2] (150% - 480% capacity increase)	20,000-30,000[3]	65,000-77,000[4]

[1] Includes boardings at all stations along the existing route
[2] West segment ridership has not yet been estimated – projected capacity increase shown for reference
[3] Central segment ridership forecast in Bob Hope Airport Ground Access Study
[4] East segment ridership forecast by Foothill Authority

	Alternative 1 BRT (58 miles)	Alternative 2 LRT (61 miles)
Existing Conditions Travel Time (Warner Center to Montclair)	170 – 215 min	
Projected Travel Time	113 – 139 min	126 – 136 min
Potential Travel Time Improvements	57 – 76 min	44 – 79 min
Rough Order of Magnitude (ROM) Capital Cost (2015 $)	$1,200M - $1,900M	$4,600M - $8,000M
ROM Annual Operations & Maintenance Cost (2015 $)	$110M - $160M	$160M – $250M

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SFV/SGV High Capacity Transit Corridor Findings

- One-seat ride from Warner Center to Montclair may not be feasible
- Transfer to Metro Gold Line required in Pasadena
- Recommendation to start with BRT to build-up ridership

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