



Westside Extension Alternatives Analysis (AA) Study

Initial Screening of Alternatives
Community Update Meetings
May 2008



Metro

Westside Extension Study Area

Westside Extension Transit Corridor Study Area

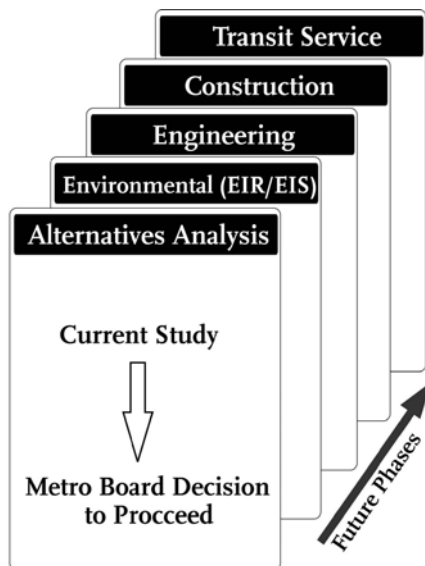


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Alternatives Analysis Process

First step in defining a project

- Evaluation of a wide range of alternatives
- Screening of alternatives against criteria
- Selection of most promising alternative(s) to proceed into further environmental review



Where We Are in the Process



- **Completed:**
 - Early scoping – to garner input to shape study
 - Identification of alternatives
- **Current:**
 - Preliminary performance analysis
 - Screening of alternatives to continue through study
- **Next steps:**
 - Continued analysis & refinement of remaining alternatives
 - Develop recommendations for Metro Board action



Public Involvement To Date

- Nearly 800 attended first 2 rounds of community meetings
- Over 750 comments received in all forms
- Summary of comments received:
 - Overwhelming support for a transit improvement.
 - Wilshire subway alignment is the most favored route and mode.
 - Support also expressed for a subway on both Wilshire and Santa Monica alignments.
 - Wilshire alignment supported before a Santa Monica alignment.
 - Limited support for aerial/monorail, light rail or bus rapid transit modes.
 - Some opposition expressed for all modes as well.



Previously Identified Alternatives

Required:

- No Build
- Transportation Systems Management

17 Build Alternatives:

- Wilshire Subway (3 Alternatives)
- Santa Monica Subway (5 Alternatives)
- Wilshire/Santa Monica Combined Subway (5 Alternatives)
- Aerial Rail (3 Alternatives)
- Bus Rapid Transit (1 Alternative)



All Previously Identified Build Alternatives



Evaluation Criteria

1. Mobility Improvement
2. Transit Supportive Land Use Policies & Conditions
3. Cost Effectiveness
4. Project Feasibility
5. Equity
6. Environmental Considerations
7. Public Acceptance



Highest Performing Alternatives for Further Study

Required

- No Build
- TSM

5 Build Alternatives

- Wilshire Subway (2 Alternatives)
- Combined Wilshire/Santa Monica Subway (2 Alternatives)
- Bus Rapid Transit (1 Alternative)



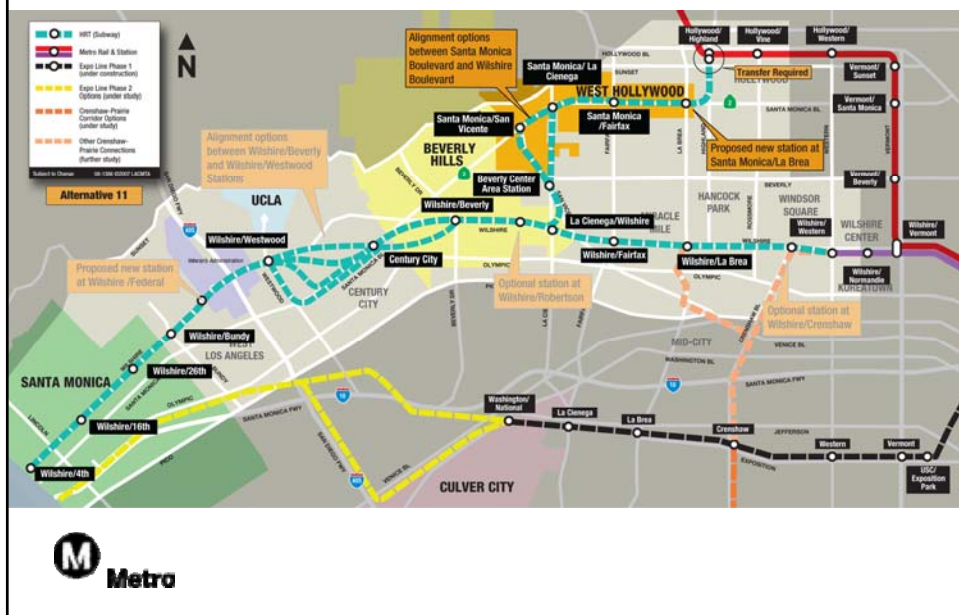
Wilshire Subway (Alternative 1)



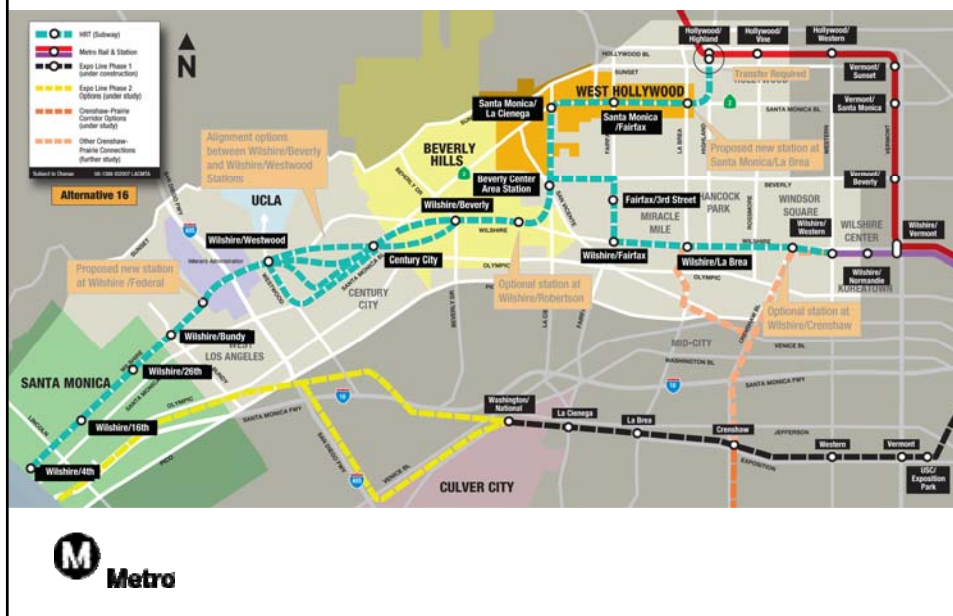
Wilshire Subway (Alternative 14)



Wilshire/Santa Monica Combined Subway (Alternative 11)



Wilshire/Santa Monica Combined Subway (Alternative 16)



Bus Rapid Transit Alternative







How We Got Here – Metrics

- Projected travel demand justifies highest capacity system
- Cost of construction necessitates
 - Highest ridership
 - Most user benefits
 - Most cost effective



Carrying Capacity

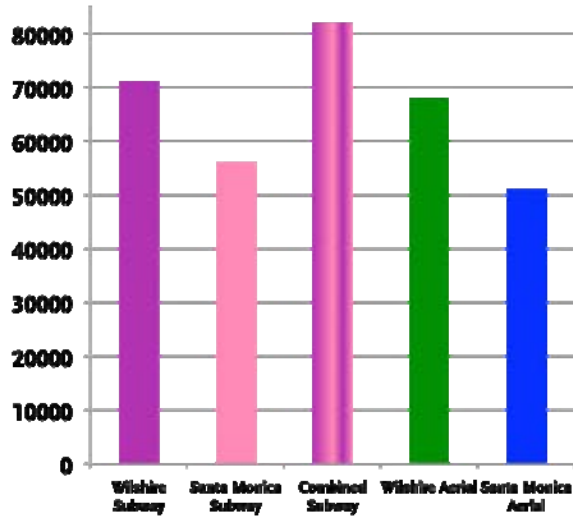
Mode	Actual Operating Characteristics Normalized to 18 vehicles/hour/direction	Systems Sampled
HRT 	Up to 800 passengers/train (6 cars) Top Speed of 70 mph (32 mph average) Up to 14,000 passenger/hour/direction	Metro Red Line Metro Purple Line
LRT 	Up to 425 passengers/train (3 cars) Top Speed of 55-65 mph (24-35 mph average) Up to 7,600 passengers/hour/direction	Metro Blue Line Metro Green Line Metro Gold Line
Monorail 	Up to 350 passengers/ train (6 cars) Top Speed of 40-50 mph (18-30 mph average) Up to 6,300 passengers/hour/direction	Las Vegas Monorail Seattle Monorail Disneyland Monorail Disneyworld Monorail
BRT 	Up to 100 passengers/bus (articulated) To Speed of 35 mph (13-22 mph average) Up to 1,800 passengers/hour/direction	Metro Orange Line Wilshire Metro Rapid

New Station Boardings

- Combined Subway has the most boardings – more stations and transfers at Hollywood/Highland
- Aerial alternatives boardings appear high due to transfers



Higher is Better

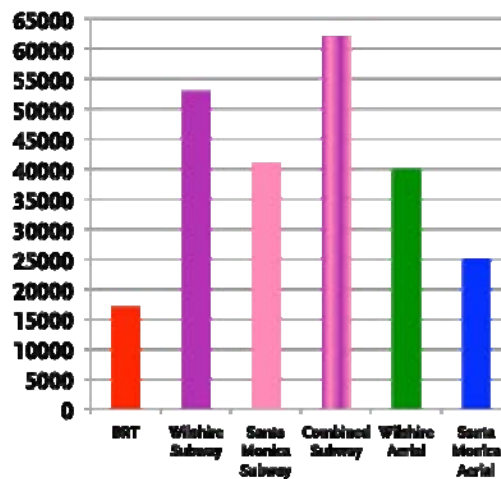


Transit User Benefits (Daily Hours)

- Reflects number of users and travel time savings
- Alternatives with more users and more travel time savings perform better

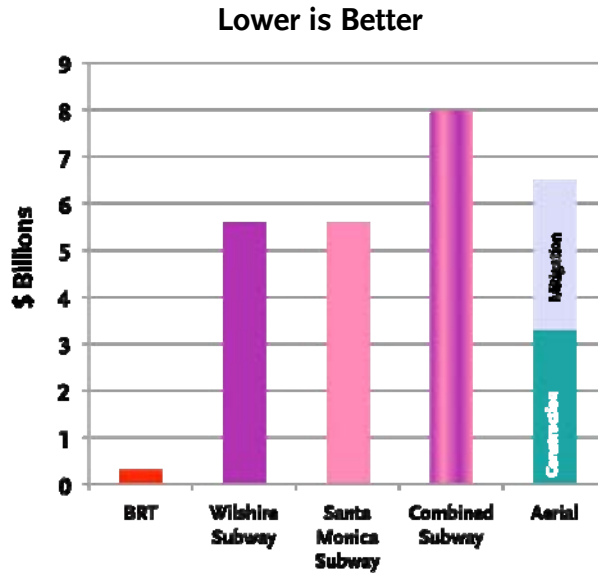


Higher is Better



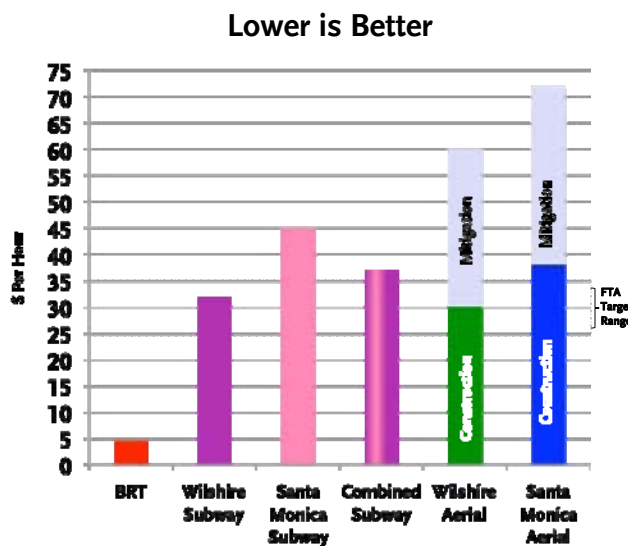
Capital Costs (in 2008 \$)

- Wilshire & Santa Monica Subway alternatives similar in cost
- Aerial costs similar to Combined Subway if full mitigation costs included



Cost Effectiveness

- Wilshire Subway more cost effective than Santa Monica Subway
- Combined Subway not far behind
- Transfer station at Hollywood/Highland increases cost effectiveness



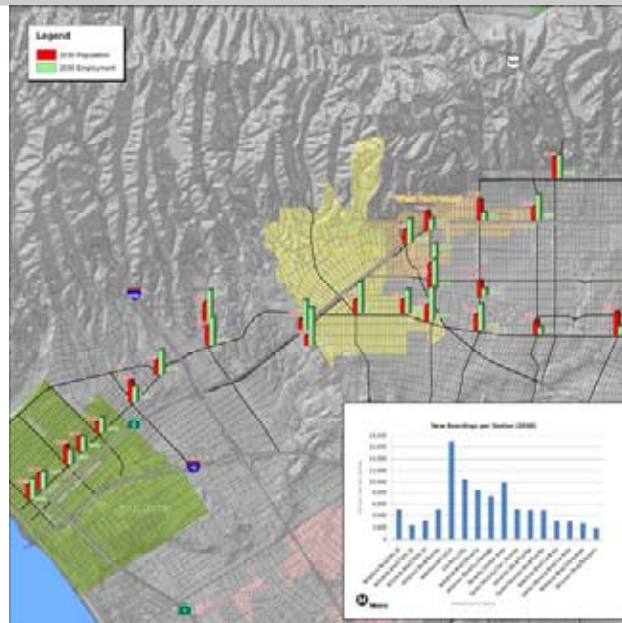
How We Got Here – Urban Fit

In evaluating alternatives, need to:

- First serve areas with greatest density
- Minimize traffic and other environmental impacts
- Enhance surrounding communities/minimize negative community impacts



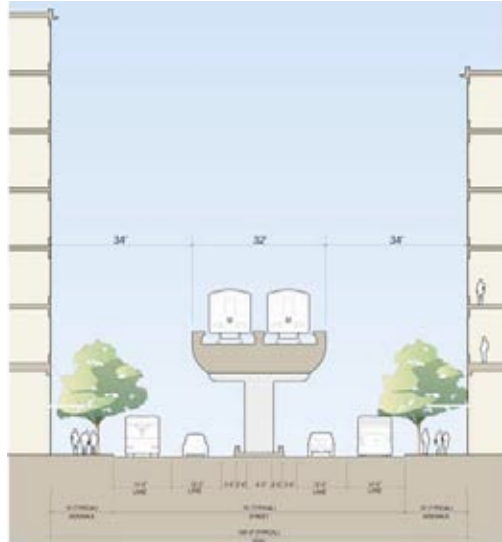
Population and Employment Densities Drive Ridership



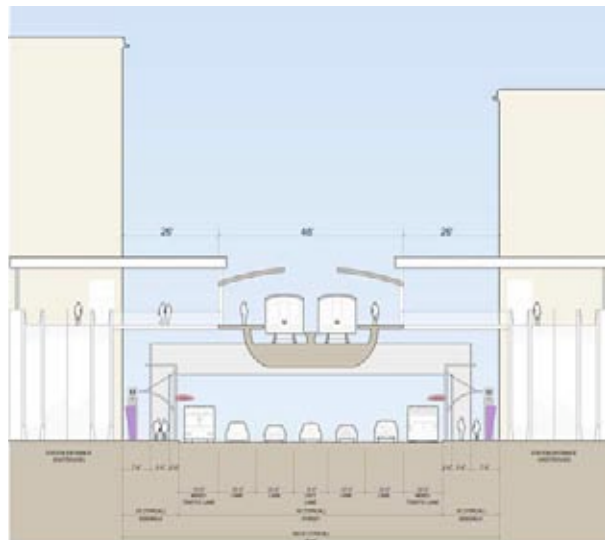
Aerial Rail Issues – Heavy Rail



M Metro

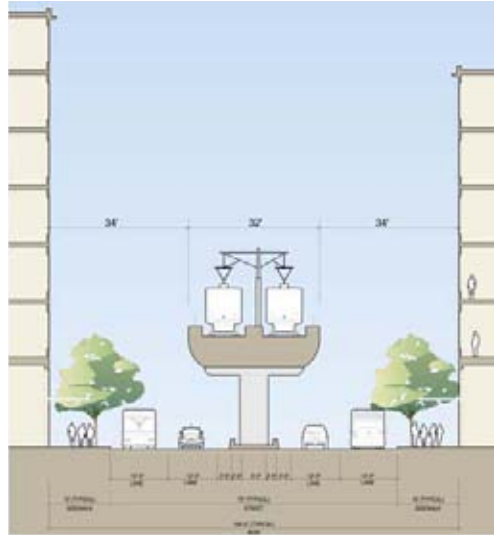


Aerial Rail Issues – Heavy Rail Station

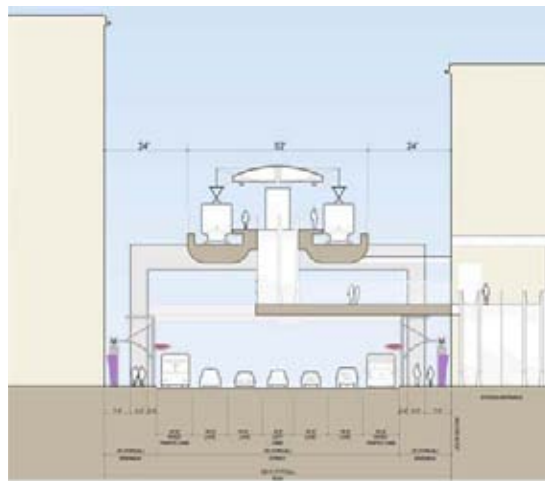


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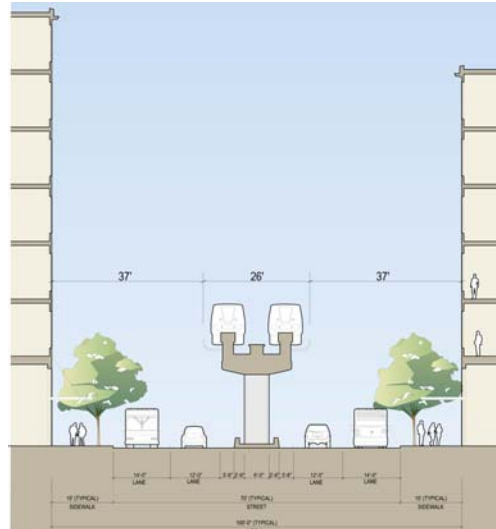
Aerial Rail Issues – Light Rail



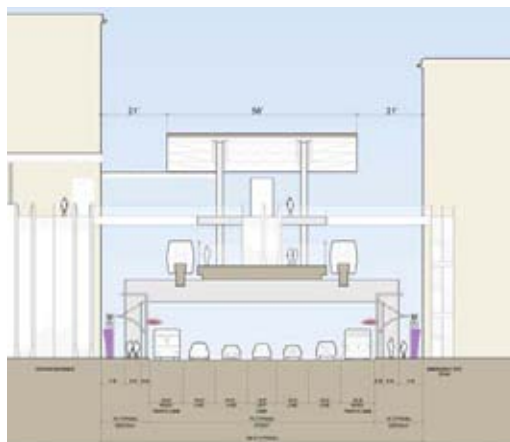
Aerial Rail Issues – Light Rail Station



Aerial Rail Issues – Monorail



Aerial Rail Issues – Monorail Station



Las Vegas Monorail Station



Wilshire/Fairfax Today



Monorail Station Overwhelms Streetscape



M Metro

Wilshire/Fairfax Today



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Monorail Overwhelms Pedestrian Environment



Straddle Bents for Aerial Guideways



Rail Storage and Maintenance Site



Aerial Rail Conclusions

- While there are good U.S. examples of aerial rail, they are not in dense, urban corridors like Wilshire or Santa Monica Boulevards
- Environmental impacts would be considerable and largely eliminate any advantages over subway alternatives
- There are no substantive savings in size or cost from one aerial technology to another




How We Got Here – Public Acceptance

- Overwhelming support for subway mode
- Greater support for Wilshire alignment
- Support for both alignments with Wilshire preferred before Santa Monica



Where Do We Go From Here?



Recommendations	
Summer 2008 Recommendations Will Include	For Further Study
General alignment selection	Specific alignments connecting stations
General station locations	Details of station locations
Issues identified for further study	Connections to other corridor(s)
	

How We Will Develop the Recommendations

- Continued refinement of alternatives against criteria
- Focus on refining
 - Ridership
 - Costs
 - Station boardings
 - Conceptual engineering






Alternatives Analysis Schedule

COMPLETED:	
Early Scoping Meetings	October/November 2007
Definition of Alternatives	January/February 2008
CURRENT:	
Initial Screening of Alternatives and Community Update	May 2008
UPCOMING:	
Completion of AA Study Report and Community Update	Summer 2008
Recommendations to Metro Board	Fall 2008



Upcoming Meeting Dates

- Monday, May 5: Los Angeles County Museum of Art-West
- Tuesday, May 6: Westwood Presbyterian Church
- Thursday, May 8: Santa Monica Public Library
- Monday, May 12: Plummer Park

All meetings take place from 6 to 8 p.m.



Contact Information

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