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**METRO SERVICE COUNCILS  
MARCH, 2012  
Revised**

**SUBJECT: PROPOSED CHANGES TO METRO BUS SERVICE**

**ACTION: APPROVE FINDINGS OF FEBRUARY 2012 PUBLIC HEARINGS AND  
ADOPT THE SERVICE CHANGE PROGRAM FOR JUNE 24, 2012 OR  
LATER IMPLEMENTATION**

**RECOMMENDATION**

- A. Approve findings of each Service Council related Public Hearing conducted during the month of February. **Attachment A** contains a Summary of Public Comments received by each Service Council proposed changes either at the public hearing, email, or postal mail.
  
- B. Adopt Revised Service Change Program as outlined in this report.

**BACKGROUND**

Public hearings were held at each regularly scheduled Metro Service Council meeting in early February 2012 to receive a staff presentation and public comments on proposed service changes to be implemented June 24, 2012 or later. For those who could not attend the public hearings, they were able to contact Customer Relations, email their comments to [servicechanges@metro.net](mailto:servicechanges@metro.net), or mail their comments.

The staff proposals and maps, with any modifications made as a result of the public hearings, are shown in **Attachments B and C**. Staff proposals also include the reallocation of bus sizes as part of the service change (**Attachment D**). Title VI and Environmental Justice Equity Evaluations are contained in **Attachment E** of the proposed major changes.

No disparate or disproportionate adverse impacts from the operation of the Orange Line Extension to Chatsworth were found, nor with the Line 163/363 proposal. There was finding that the proposed reallocation of higher capacity articulated buses to with complementary frequency reductions to maintain seat capacity on Line 40 would have an adverse disparate impact on some riders. However, there is substantial justification

for proceeding with this major service change in order to meet Metro's goals of achieving a balanced operating budget and complying with adopted service standards, and that studied alternatives to this service change would have a more severe adverse effect on Title VI protected populations than the indicated service change.

The Board-approved Metro Service Council Bylaws require that all bus service modifications approved by the Service Councils should be presented to the Metro Board of Directors (Board) for information. The Metro Board also is required to take action on any Title VI and Environmental Justice findings and recommendations pertaining to these service changes.

## **DISCUSSION**

The proposed June 2012 service plan focuses on the following four service categories:

- Opening of the Metro Orange Line extension to Chatsworth Station;
- Reallocating articulated and standard size buses on Lines 40, 710 and 740 to better meet passenger demand with capacity utilization;
- Adjusting Metro Local Routes 163/363, 177, 202, 607 and 620; and,
- Improving service on the Metro Silver Line, including more weekday trips and better headways on weekends.

The following describes the individual proposals contained in each service category:

➤ **Proposed Service Structure for Opening of Metro Orange Line Extension to Chatsworth Station**

The Metro Orange Line extension to Chatsworth Station will open during summer 2012. Four service alternatives were included in the public hearing. Based on public input, staff presented the following proposal to the Service Council and received approval for implementation.

Two separate branch routes will operate during the day, one between North Hollywood and Warner center, and a second between North Hollywood and Chatsworth Station. In addition, a peak hour shuttle service will operate between Chatsworth Station and Warner Center, providing direct service between the two terminal locations by eliminating the need to transfer at Canoga Station. During late evening hours, buses will operate directly to Warner Center and then continue to Chatsworth Station. This configuration provides a one seat ride to Chatsworth Station and maintains current service frequencies to Warner Center as operated today. Weekend service will be provided with two separate branches and also will include a similar late night service as proposed for weekdays.

Each branch would operate every 8 minutes in the peak period, and every 20 minutes in the base period. Service from North Hollywood to the Canoga Station

will still operate every 4 minutes in the peaks and 10 minutes in the base period. The proposed shuttle would operate every 15 minutes in the peak period.

➤ **Reallocate Articulated and Standard Size Buses**

As a function of improving productivity, cost effectiveness, and utilizing existing available capacity, Metro service planning staff regularly reviews the route network to identify proper vehicle allocation based on ridership. The following vehicle assignment modifications were included in the Public Hearing:

- Line 40 (Downtown LA-South Bay Galleria via ML King-Hawthorne)  
Replace standard size buses with articulated buses.
- Line 710 (Wilshire Center – South Bay Galleria via Crenshaw Bl.)  
Replace articulated buses with standard size buses.
- Line 740 (Crenshaw Station – South Bay Galleria via Hawthorne Bl.)  
Replace articulated buses with standard size buses.

➤ **Adjust Metro Local Routes**

A recent Board motion instructed staff to study the lowest performing lines. A major component of the motion included a community outreach effort via establishment of a working group of riders using six ridership routes: Lines 126, 177, 202, 442, 607 and 620. A “Public Workshop on Improving Service” was conducted on November 15 at the Metro Gateway building. For those who could not attend the workshop, they were able to email their suggestions to [servicechanges@metro.net](mailto:servicechanges@metro.net).

Based on the meeting results, listed below are four route changes proposed by riders during the workshop and were included in the February Public Hearings.

- Line 177 (Sierra Madre Gold Line Station - JPL): Discontinue service between Sierra Madre Gold Line Station and Pasadena City College. Travel time savings will allow the addition of one new peak trip.
- Line 202 (Metro Local - Willowbrook - Compton - Wilmington via Alameda St.): Modify route to serve new shopping center on Alameda St. across from Artesia Blue Line Station.
- Line 607 (Metro Local - Windsor Hills - Inglewood Shuttle): Modify route to serve Ladera Center at La Tijera Bl. and Centinela Av.
- Line 620 (Boyle Heights Shuttle): Modify route to 1<sup>st</sup> St. and Mott Av. to serve the Food for Less Market.

At the request of the San Fernando Service Council, it was also proposed to discontinue Limited Line 363 and replace the service with Local Line 162.

➤ **Metro Silver Line Service Improvements**

As planned with the future opening of the ExpressLanes project, funding is available to enhance the Metro Silver Line Metro. Selected peak hour weekday trips will be added, along with new 20 minute (currently 40 minute) Saturday and 30 minute (currently 60 minute) Sunday service.

**FINANCIAL IMPACT**

The proposed changes have been included in the FY12 proposed budget. If not implemented as presented, the financial impact would vary depending on specific changes made to the service adjustments.

**Impact to Budget**

The funding for implementing the proposed changes will come from various Enterprise Funds such as fare revenues, sales tax, and TDA4. The funds are eligible to be used for bus and rail operations. No other sources of funds were considered because the proposed changes will be implemented by reallocating the designated fund for bus operations.

**ALTERNATIVES CONSIDERED**

Metro is currently completing construction of the Metro Orange Line extension to Chatsworth Station. Should no service concept be approved at this time, no service would operate on the completed right-of-way, as the next scheduled service change will not be implemented until December 2012.

The proposed vehicle allocation changes are a function of improving productivity, cost effectiveness, and utilizing existing available capacity. Should articulated buses remain on Line 740 (after the opening of Expo Line) and Line 710, analysis shows these lines would be over served. Line 40, in turn, would experience overloads. Additional service could be added to Line 40; however, this alternative would not be an efficient use of resources.

In November 2011, planning staff conducted a community workshop that focused on six lines with low ridership. The proposed changes to Lines 177, 202, 607 and 620 evolved from this process. The alternative to these changes is to keep the lines as currently routed; however, there is no benefit derived from not implementing the changes.

The ExpressLanes project provides funding to improve service on the successful Silver Line. Currently the morning and afternoon peak periods are experiencing overloads. Ridership on Saturday and Sunday is growing, and late night schedules require

enhancements. The alternative to not implement the proposed changes would be to continue operating the existing service and not take advantage of available funding to improve the service for our patrons.

### **NEXT STEPS**

All of the proposed changes will begin on June 24, 2012 or later.

### **ATTACHMENTS**

- A. Summary of Public Comments
- B. June 2012 Service Proposals
- C. Maps of June 2012 Service Proposals
- D. Proposed Vehicle Size Assignments
- E. Title VI and Environmental Justice Equity Evaluations

**ATTACHMENT A**  
**Summary of Public Comments**

## San Fernando Valley Service Council

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
163/363	West Hills Medical Center-Sun Valley / North Hollywood Station Limited	Discontinue Limited Line 363 / Convert trips to new Local Line 162	2	6		<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>Transit Coalition reiterates support for proposal that was originally slated for December, 2011 implementation.</li> <li>Supports; add midday trips on Line 162.</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>Waits for Line 363 because it's faster but is sympathetic towards patrons that board Line 363 and want to get off at non-limited stops</li> <li>Has been riding Line 363 since 2004 and feels that it provides the best service to North Hollywood Station; patrons along Lankershim wait for this line as opposed to the local line because it is faster.</li> <li>Satisfied with the service to North Hollywood Station</li> <li>Line 162 is NOT limited/rapid service.</li> <li>Passenger for 7 years; Makes more sense to leave line as is; Other lines like 353 and 364 have limited stop service.</li> <li>Uses line to go to North Hollywood Station.</li> </ul>	<p><u>Staff Recommendation</u> Implement as proposed.</p> <p>Patrons will see a net benefit in walk access and travel time since more patrons will be able to access Line 162 and travel directly to the North Hollywood Station.</p>
901 Orange Line Option 1	North Hollywood Station-Warner Center Hub Option 1	Operate direct branch routes: Branch 1: North Hollywood Station - Warner Center Branch 2: North Hollywood Station - Chatsworth.	4		1	<p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>Keep Orange Line on high speed routes and add a Dash service between Warner Center and the Canoga Station to serve Topanga Plaza</li> </ul> <p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>Patrons who need to transfer from Chatsworth to Warner Center at Canoga Station should be able to transfer for free.</li> <li>Takes too long if buses go to Chatsworth via Warner Center.</li> <li>Serves the Orange Line better.</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>	<p><u>Staff Recommendation</u> See Option 3-B. The operation of direct branch routes is incorporated in Option 3-B.</p> <p>The area was formerly served by Dash Warner Center (North and South) but service was canceled due to low productivity.</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
901 Orange Line Option 2	North Hollywood Station-Warner Center Hub	Operate all trips between North Hollywood and Warner Center; Extend alternating trips to Chatsworth Station	2			<b>SUPPORT:</b> <ul style="list-style-type: none"> <li>Board of Neighborhood council Valley Village voted to unanimously support this option as providing the service with the least interruption caused by the need to change buses.</li> <li>Extra 8 to 10 minutes travel time to Warner Center is not a concern.</li> </ul>	<u>Staff Recommendation</u> Option 3-B. The operation of all trips to Warner Center is incorporated in Option 3-B during the late evenings on weekdays and weekends to eliminate transfers and longer waits at Warner Center and Chatsworth.
901 Orange Line Option 3-A	North Hollywood Station-Warner Center Hub	Operate direct branch routes as in Option 1 and New Weekday Shuttle Service <ul style="list-style-type: none"> <li>8" peak</li> <li>12" midday</li> </ul>	4			<b>SUPPORT:</b> <ul style="list-style-type: none"> <li>Need connection to Topanga Plaza</li> <li>Need one-seat ride wherever you go</li> <li>Best option for everyone</li> <li>Easiest option since all passengers have a one seat ride and avoids passenger confusion as to where the line ends; extend all trips to Chatsworth during midday, evenings and weekends to avoid service frequencies of 22 or 40 minutes to Chatsworth; If alternating service is created, suggests the "Pumpkin" line in reference to pumpkins grown at Pierce College.</li> </ul> <b>OPPOSE:</b> <ul style="list-style-type: none"> <li>None</li> </ul>	<u>Staff Recommendation</u> See Option 3-B.  Staff agrees with public comment in Option 3-B that shuttle service levels in this option may be too frequent for passenger demand since actual ridership levels are unknown and there is no parallel service along Canoga Avenue.  Staff will consider using colored headsigns to designate final destinations.
901 Orange Line Option 3-B	North Hollywood Station-Warner Center Hub	Operate direct branch routes as in Option 1 and New Weekday Shuttle Service <ul style="list-style-type: none"> <li>Peak only during hours of MetroLink service</li> </ul>			1	<b>MODIFY:</b> <ul style="list-style-type: none"> <li>Transit Coalition states the need to strike a balance between Option 3-B and 4 to provide enough frequency without over-serving Chatsworth end of the line; consider improving the frequency of connecting services even if not subject of this public hearing; Need station at Saticoy.</li> </ul> <b>SUPPORT:</b> <ul style="list-style-type: none"> <li>None</li> </ul> <b>OPPOSE:</b> <ul style="list-style-type: none"> <li>None</li> </ul>	<u>Staff Recommendation</u> Modify proposal to operate alternating direct branch routes during the peaks, midday and early evening on weekdays and weekends.  Implement weekday shuttle as proposed.  Operate all trips to Warner Center and Chatsworth Station during late evenings when service operates every 20" on the trunk portion of the route.



LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<p><b>901 Orange Line  Option 4</b></p>	<p>North Hollywood Station-Warner Center Hub</p>	<p>Operate direct branch routes as in Option 1; Extend alternating trips from Chatsworth to Warner Center</p>			<p><b>1</b></p>	<p><b>MODIFY:</b></p> <ul style="list-style-type: none"> <li>• Transit Coalition states the need to strike a balance between Option 3-B and 4 to provide enough frequency without over-serving Chatsworth end of the line; Consider improving the frequency of connecting services initially to attract more riders, even if not subject of this public hearing and market these changes; Need station at Saticoy.</li> </ul> <p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p><u>Staff Recommendation</u> Operate Option 3-B, which includes direct service to Warner Center and Chatsworth with a weekday shuttle in the peak periods connecting Warner Center and Chatsworth. During late night periods, buses will operate directly to Warner Center, and then continue north to Chatsworth Station.</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<b>901 Orange Line</b>	North Hollywood Station-Warner Center Hub	Other Comments	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<ul style="list-style-type: none"> <li>One other comment regarding need to improve service on connecting lines, particularly at night and on the weekends</li> <li>There is no service increase or changes on any local routes connecting to the new Orange Line Station. That means there is no 7 to 9 pm service on Nordhoff, Sherman Way, Vanowen and Saticoy.</li> <li>Presentation did not address service during the evenings and late night, as well as on the weekends.</li> <li>Need a station at Saticoy.</li> <li>Question regarding whether or not buses can travel from Warner Center to Chatsworth via the Canoga Station</li> </ul>	<p>Changes to connecting routes are not part of the public hearing. In addition, most of the connecting lines already serve other Orange Lines Stations as follows:</p> <p>Line 152/353 – North Hollywood Line 363 – North Hollywood Line 158 – Woodman Station Line 167 – Valley College Station Line 244 – DeSoto Station Line 245 – Warner Center</p> <p>The provision of weekend service is clarified in staff's final recommendation.</p> <p>Stations are located at major intersections, at higher-density areas and approximately one mile apart to minimize stops and enhance cross valley travel time.</p> <p>A station at Saticoy was not perceived as a primary station location and is not well served by Metro. Metro Line 169, operating along Saticoy Street, operates once an hour on weekdays only.</p> <p>The Canoga Station is being reconfigured so that buses can travel both ways between Chatsworth Station and Warner Center.</p>
			<b>12</b>	<b>6</b>	<b>3</b>	<b>TOTAL COMMENTS: 21</b>	

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<b>OTHER</b>	Various Lines					Three comments received on SFV bus lines that are not part of public hearing.	

## SOUTH BAY SERVICE COUNCIL

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY / OR OTHER	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<b>40</b>	Downtown LA – South Bay Galleria via ML King Bl & Hawthorne Bl	Reduce frequency and assign larger articulated buses to maintain seating capacity.	<b>2</b>	<b>2</b>	<b>1</b>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>Line 40 is heavy; a larger bus is a good idea.</li> </ul> <p><b>OTHER</b></p> <ul style="list-style-type: none"> <li>Identify layover location for Line 40 at south terminal</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>Do not reduce frequency because people rely on this bus and not everybody can take the Rapid. This bus is full so much of the time.</li> <li>Local service on ML King is crucial to connect communities to rails and Rapsids.</li> </ul>	<p>Staff recommends the original service change proposal.</p> <p>Lines 40 and 740 will layover on 182<sup>nd</sup> Street and first northbound pickup will be on Artesia at Kingsdale; Lines 210 and 710 will layover and pickup at the South Bay Galleria Transit Center on Kingsdale Av.</p> <p>Metro will monitor passenger loads on all segments including ML King and will make adjustments to meet passenger demand.</p>
<b>607</b>	Windsor Hills – Inglewood Shuttle	Modify route to serve Ladera Center at La Tijera Bl. & Centinela Av.	<b>2</b>		<b>2</b>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>With relocation of stop at Beach &amp; Centinela to northwest corner</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>Add stops to route segments on Fairview and West Bl.</li> <li>Extend route to Culver City Transit Center at Fox Hills Mall</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>none</li> </ul>	<p>Staff recommends the original service change proposal and proposes to relocate the existing stop 200' south to 950 Beach Av.</p> <p>Stops could potentially be added on Fairview at Gay (with ADA improvements) and on West at Hyde Park.</p> <p>Lines 108/358 and 110 already provide frequent service to Fox Hills Mall</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY / OR OTHER	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
710	Wilshire Center – South Bay Galleria via Crenshaw Bl	Assign standard 40' buses and increase frequency to maintain seating capacity.	3		1	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>with midday service levels improved</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>Keep the articulated buses in peak hours to accommodate heavy load.</li> <li>Restore the route to Hollywood – Vine Station as Line 210 is slow.</li> <li>Stagger Line 210/710 schedules.</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>none</li> </ul>	<p>Staff recommends the original proposal. Midday service will be improved from 30 to every 20 minutes</p> <p>Assigning a mixed fleet is not feasible and will reduce efficiency.</p> <p>Rapid buses were not compatible with Rossmore Av. (we received multiple complaints from a residential area).</p> <p>Schedules can be dovetailed to accomplish this for a given point on the line (usually the peak load point).</p>
740	Expo/Crenshaw Station – South Bay Galleria via ML King Bl & Hawthorne Bl	Assign standard 40' buses and increase frequency to maintain seating capacity.	2	1	1	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>with midday service levels improved</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>keep the articulated buses in peak hours</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>demand does not warrant increased frequency</li> </ul>	<p>Staff recommends the original proposal. Midday service will be improved from 30 to every 20 minutes.</p> <p>Assigning a mixed fleet is not feasible and will reduce efficiency.</p> <p>Comment noted, Metro will continue to monitor demand.</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY / OR OTHER	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
910 Silver Line	El Monte Station – Los Angeles – Artesia Transit Center	Improve frequency on daily and weekend schedules.	4		4	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>Happy with improvements on Harbor Transitway; Silver Line schedules should be coordinated with Lines 450 and 550 especially at night.</li> <li>Saturday/Sunday improvements good especially with Line 550 not providing service on the Harbor Transitway</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>Added peak and weekend service not enough, also need additional service at night. Need rail like frequencies.</li> <li>Install Ticket Vending Machines (TVMs) at stations to speed up boardings.</li> <li>Add new stop on Figueroa at Venice Bl.</li> <li>Segregate the colors (or headsigns) to distinguish short line trips to downtown LA from long trips to Artesia TC.</li> <li>Deploy 60' articulated buses on the Silver Line and run fewer trips to Artesia Transit Center</li> <li>Silver Line should run every 25" on weekends.</li> <li>If the Silver Line operates with better frequencies, Lines 442, 450, and 550 should be discounted north of the Artesia TC and they also excessively duplicate the Metro Silver Line.</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>none</li> </ul>	<p>Staff recommends the original service change proposal. Silver Line schedules will be coordinated with Lines 450 and 550.</p> <p>Silver Line schedules will be monitored for effectiveness in meeting demand, including night service.</p> <p>We will continue to evaluate the benefits/costs for TVMs at Silver Line stations.</p> <p>A new stop at Venice Bl. is not recommended, adjacent stops are only ¼ mile away.</p> <p>Metro Silver Line headsigns display purple for the short line trips and green for the long trips.</p> <p>Metro will continue to look for efficiencies in deployment of the various bus sizes in the fleet.</p> <p>The Silver Line average weekend headway as proposed will be 25" (20" on Saturdays and 30" on Sundays).</p> <p>Lines 442, 450, and 550 will not be discounted on the Harbor Transitway (premium fares apply).</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY / OR OTHER	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
		SUB-TOTAL	13	3	9	TOTAL COMMENTS:	
<b>OTHER</b>							
45/745						Passenger cites need for more service on Sundays, due to wheelchair pass-ups.	
212/312						Discontinue Line 312 and run Line 212 every 10" in the peak hours, peak direction.	
450						Passenger suggests 30" service midday and on weekends.	
757						Improve service by using 60' articulated buses	

## SAN GABRIEL VALLEY SERVICE COUNCIL

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<b>177</b>	JPL _ Pasadena – Sierra Madre Villa Station via California & Foothill	Discontinue portion between SMV Station and Pasadena City College. Add 1 trip to AM and PM periods.	<b>1</b>	<b>0</b>	<b>2</b>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• Patron agrees with proposal.</li> </ul> <p><b>MODIFY:</b></p> <ul style="list-style-type: none"> <li>• End Line at Allen Station instead of Pasadena City College for an easier connection to Gold Line.</li> <li>• Run Line 177 with the NABI 31 LFW buses.</li> </ul>	<b>Staff Recommendation</b> Implement as proposed.
<b>910 Silver Line</b>	El Monte – Los Angeles – Artesia Transit Center	Add trip in AM & PM peak periods. Weekend service will have every trip go through to Artesia Transit Center.	<b>2</b>	<b>0</b>	<b>9</b>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• Patron supports the added frequencies.</li> <li>• Patron supports the proposal.</li> </ul> <p><b>MODIFY:</b></p> <ul style="list-style-type: none"> <li>• Would like to see more service added, especially during peak periods. Possibly establish a limited stop line bypassing the El Monte Busway Stations and go directly to El Monte Station.</li> <li>• Recommended that the Silver Line continue to leave El Monte Station up until 2am, not 1am. Silver Line late night service make connection with the 190 late night.</li> <li>• Silver Line should be treated as a rail line. More frequent service, especially on Saturday and Sundays.</li> <li>• Work with Foothill Transit on duplicative service along the El Monte Busway and double fare at El Monte Station.</li> <li>• Add stop at Figueroa and Venice on Silver Line.</li> <li>• Saturday and Sunday frequencies should be 25 minutes for the entire route. Lines 442, 450X and 550 should be discounted north of the Artesia Transit Center because of duplication.</li> <li>• Replace 45' buses with 60' articulated buses.</li> <li>• Segregate the color of the buses (or at least the headsigns) of the buses going into "Downtown L.A. Only".</li> <li>• Consider running fewer buses from El Monte Station all the way to Artesia Transit Center due to the lack of ridership.</li> </ul>	<b>Staff Recommendation</b> Implement as proposed.
		<b>Total Comments</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>TOTAL NUMBER OF COMMENTS = 14</b>	



**WESTSIDE/CENTRAL SERVICE COUNCIL**

<p><b>40</b></p>	<p>Downtown LA – South Bay Galleria via ML King Bl &amp; Hawthorne Bl</p>	<p>Reduce frequency and assign larger articulated buses to maintain seating capacity.</p>	<p>1</p>	<p>0</p>	<p>1</p>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• Line 40 is heavy; a larger bus is a good idea.</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OTHER</b> Convert Line 40 to articulated bus operation, but do not decrease service to maintain seating capacity.</p>	<p>Staff recommends the original service change proposal.</p> <p>Metro will monitor passenger loads and will make adjustments to meet passenger demand.</p>
<p><b>620</b></p>	<p>Boyle Heights Shuttle</p>	<p>Modify route to 1<sup>st</sup> St &amp; Mott Av to serve Food 4 Less shopping plaza.</p>	<p>0</p>	<p>0</p>	<p>0</p>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p>Staff recommends the original proposal.</p>
<p><b>710</b></p>	<p>Wilshire Center – South Bay Galleria via Crenshaw Bl</p>	<p>Assign standard 40' buses and increase frequency to maintain seating capacity.</p>	<p>2</p>	<p></p>	<p>0</p>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• Increase in service frequency will be good for customers</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p>Staff recommends the original proposal.</p>
<p><b>740</b></p>	<p>Crenshaw EXPO Station – South Bay Galleria via Hawthorne Bl</p>	<p>Assign standard 40' buses and increase frequency to maintain seating capacity.</p>	<p>2</p>	<p>0</p>	<p>0</p>	<p><b>SUPPORT:</b></p> <ul style="list-style-type: none"> <li>• Increase in service frequency will be good for customers</li> </ul> <p><b>MODIFY</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OPPOSE:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>	<p>Staff recommends the original proposal.</p>

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
<b>OTHER</b>							
<b>2-302</b>						Reroute westbound trips via W/B Montana Av to R) Church Ln, L) Sunset Bl, and resume regular route. Discontinue Sepulveda Bl segment due to congestion and low productivity.	
<b>4</b>						Reduce frequency by using 60-foot buses currently on Lines 204 & 207.	
<b>20</b>						Reduce frequency by using 60-foot buses currently on Line 233.	
<b>212-312</b>						Discontinue Limited 312 service and have Local 212 run every 10 min peak hour, peak direction.	
<b>534</b>						Implement new service between Agoura Hills & Malibu to connect with Line 534 to provide faster service from Agoura Hills to Santa Monica.	
<b>603</b>						Renumber as Line 203 and convert to directly operated service.	
<b>717</b>						Shorten Line 780 to Hollywood/Vine Sta and reinstate Line 717 to replace service west of that location, with southern terminus at Culver City Transit Hub.	
<b>720</b>						Reduce Westwood short lines during PM peak, westbound, by sending more trips through to Santa Monica.	
<b>728</b>						Increase frequencies by using more 40 & 45-foot buses.	
<b>757</b>						Reduce frequencies by using 60-foot articulated buses.	
<b>761</b>						Increase frequencies on both routes and use 45-foot buses.	
<b>780</b>						Discontinue service west of Hollywood & Vine and reinstate Line 717.	

**METRO GATEWAY CITIES SERVICE COUNCIL**

LINE NO.	LINE NAME	PUBLIC HEARING SERVICE CHANGE PROPOSAL	SUPPORT	OPPOSE	MODIFY	SUMMARY OF PUBLIC COMMENTS AND ISSUES	STAFF RESPONSE AND FINAL RECOMMENDATION
202	Willowbrook-Compton-Wilmington via Alameda St	Modify route to serve new shopping center on Alameda St, located in the City of Compton across from the Artesia Blue Line Station.	3	0	1	<p><b><u>SUPPORT</u></b></p> <p>Route change is needed to connect the shopping mall with the Metro Blue Line Artesia Station, and other generators like the Crystal Casino the Department of Public Social Services.</p> <p><b><u>MODIFY</u></b></p> <p>Consider serving the Pacific Coast Highway Transitway Station.</p> <p>Consider operating line with NABI 3100 low floor buses.</p>	<p>Implement staff recommendation to serve the shopping center and rail station as described in the public hearing notice.</p> <p>Staff is planning to evaluate the potential impact of restructuring this line in the Wilmington area. The suggestion to serve the Pacific Coast Highway Transitway Station will be included as part of the analyses.</p> <p>Although this suggestion is not directly related to the proposed route change, it is important to point out that low floor buses are routinely operated on this line as a general rule. High floor buses are operated only when low floor buses are not available.</p>

## ATTACHMENT B

Listed below are the service proposals that were considered at the hearings:

### METRO WESTSIDE/CENTRAL

LINE	LINE NAME	SERVICE CHANGE
40	Downtown LA - South Bay Galleria via ML King-Hawthorne	Reduce frequency and assign larger articulated vehicles to maintain seat capacity.
620	Boyle Heights Shuttle	Adjust route to serve 1 <sup>st</sup> St. and Mott Av. Discontinue service to Indiana Gold Line Station.
710	Wilshire Center - South Bay Galleria via Crenshaw Bl.	Assign smaller 40-foot vehicles and increase frequency to maintain seat capacity.
740	Crenshaw Station - South Bay Galleria via Hawthorne Bl.	Assign smaller 40-foot vehicles and increase frequency to maintain seat capacity.

### METRO SAN FERNANDO VALLEY

LINE	LINE NAME	SERVICE CHANGE
901	Metro Orange Line	Extend service to Chatsworth Metrolink Station in Summer 2012. Four different operating concepts were considered for service between North Hollywood and Warner Center, North Hollywood and Chatsworth, and Chatsworth and Warner Center.
163/363	Metro Local and Limited - West Hills Medical Center – Sun Valley/North Hollywood Station via Sherman Way, Lankershim (Limited)	Discontinue Limited Line 363 and replace with new Local Line 162, serving all stops on Sherman Way and Lankershim Bl.

### METRO GATEWAY CITIES

LINE	LINE NAME	SERVICE CHANGE
202	Metro Local - Willowbrook - Compton - Wilmington via Alameda St.	Adjust route to serve new shopping center on Alameda St. across from Artesia Blue Line Station.

### METRO SAN GABRIEL VALLEY

LINE	LINE NAME	SERVICE CHANGE
177	La Canada - Sierra Madre Villa via I-210, California Bl. and Walnut St.	Discontinue service east of Pasadena City College.

<b>Silver Line</b>	El Monte – Los Angeles – Artesia Transit Center	Improve service frequencies on Daily, Saturday and Sunday schedules.
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**METRO SOUTH BAY**

<b>LINE</b>	<b>LINE NAME</b>	<b>SERVICE CHANGE</b>
<b>40</b>	Downtown LA - South Bay Galleria via ML King-Hawthorne	Reduce frequency and assign larger articulated vehicles to maintain seat capacity.
<b>607</b>	Windsor Hills - Inglewood Shuttle	Adjust route to serve Ladera Center at La Tijera Bl. and Centinela Av.
<b>710</b>	Wilshire Center - South Bay Galleria via Crenshaw Bl.	Assign smaller 40-foot vehicles and increase frequency to maintain seat capacity.
<b>740</b>	Crenshaw Station - South Bay Galleria via Hawthorne Bl.	Assign smaller 40-foot vehicles and increase frequency to maintain seat capacity.

## **Attachment C Maps**

**Attachment D**

**Proposed Vehicle Size Assignments**

**JUNE 2012 SERVICE CHANGE PROGRAM**

**LINE 40 – EXISTING WITH  
STANDARD SIZE BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	8	11	13
	SB	10	12	8
SA	NB	14		
	SB	16		
SU	NB	17-18		
	SB	17-18		

**LINE 710 – EXISTING WITH  
ARTICULATED BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	12-15	30	12-15
	SB	11-17	30	15
SA	NB	30		
	SB	30		

**LINE 40 – PROPOSED WITH  
ARTICULATED BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	10-15		
	SB	10-15		
SA	NB	15-20		
	SB	15-20		
SU	NB	15-20		
	SB	15-20		

**LINE 710 – PROPOSED WITH  
STANDARD SIZE BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	8-11	20	8-11
	SB	8-12	20	8-11
SA	NB	20		
	SB	20		

**ATTACHMENT C (CONTINUED)**

**LINE 740 – EXISTING WITH  
ARTICULATED BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	12	27-33	15-16
	SB	18	30	14-17
SA	NB	22-25		
	SB	22-25		

**LINE 740 – PROPOSED WITH  
STANDARD SIZE BUSES**

Headway (in min.)

		AM Peak	Midday	PM Peak
DX	NB	9	19-24	12
	SB	12	22	11-13
SA	NB	15-18		
	SB	15-18		



## Attachment E

### Title VI and Environmental Justice Equity Evaluations

#### EQUITY EVALUATION ORANGE LINE (LINE 901) CHATSWORTH EXTENSION

The Metro Orange Line is approximately 14.5 miles long operating on exclusive guideway, mostly at grade, with the exception of the western most segment between Canoga Station and the Warner Center terminal which operates along city streets. Because the corridor is primarily an exclusive guideway, fare collection has been removed from vehicles. Passengers not possessing pre-paid fare media must purchase their fare from a Ticket Vending Machine, located at station platform entrances, before boarding vehicles. The pricing structure for Orange Line usage is the same as for Metro bus and rail basic fare services. Due to the exclusive guideway and dedicated stations with fare vending equipment, the Orange Line functions like a rubber tired rail line. The Orange Line Extension to Chatsworth adds approximately 4.0 miles running on exclusive guideway at-grade except for an overcrossing just south of Chatsworth Station. The extension is planned for operation in summer 2012.

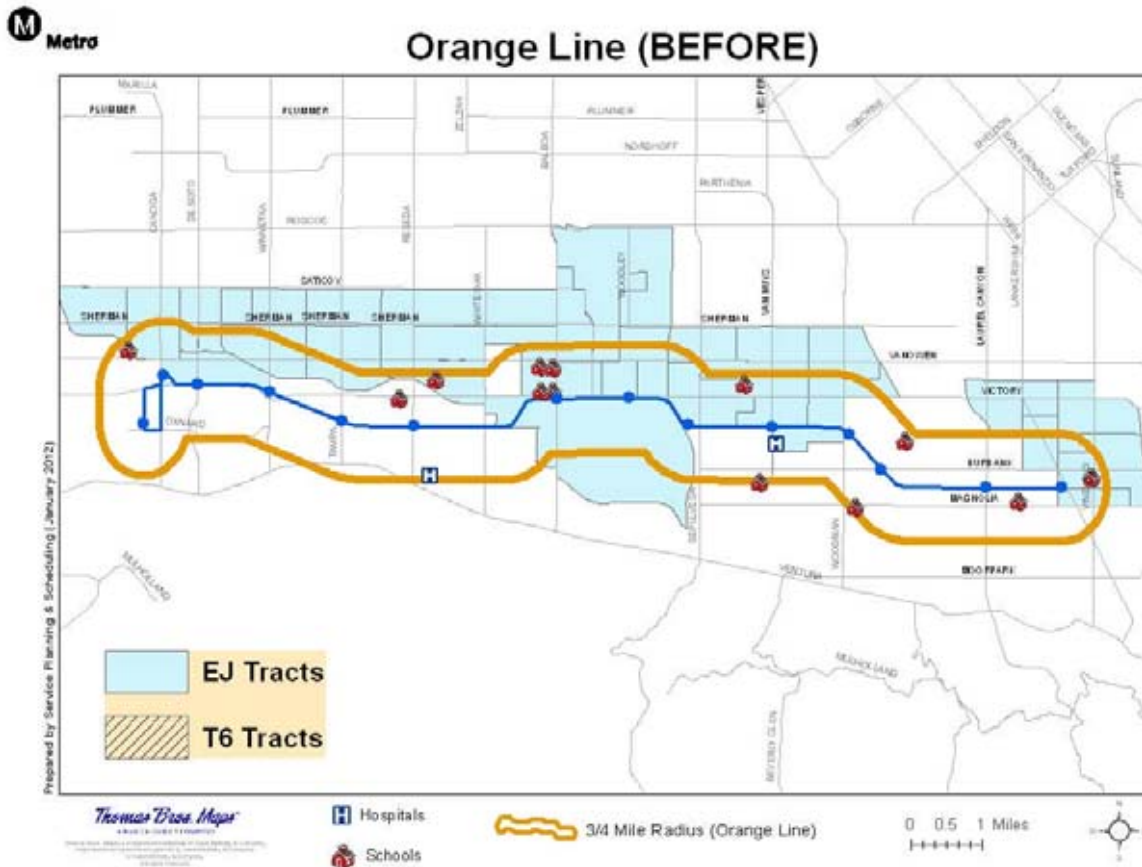


Figure 1

The existing Orange Line corridor and its relation to schools and hospitals, and the demographics of the surrounding population, are shown in Figure 1. Only 13.2% of current ridership boards in minority Census tracts, so the line is not characterized as Title VI sensitive. However, 63.7% of ridership boards in Environmental Justice Census (EJ) tracts, so the line is characterized as EJ-sensitive.

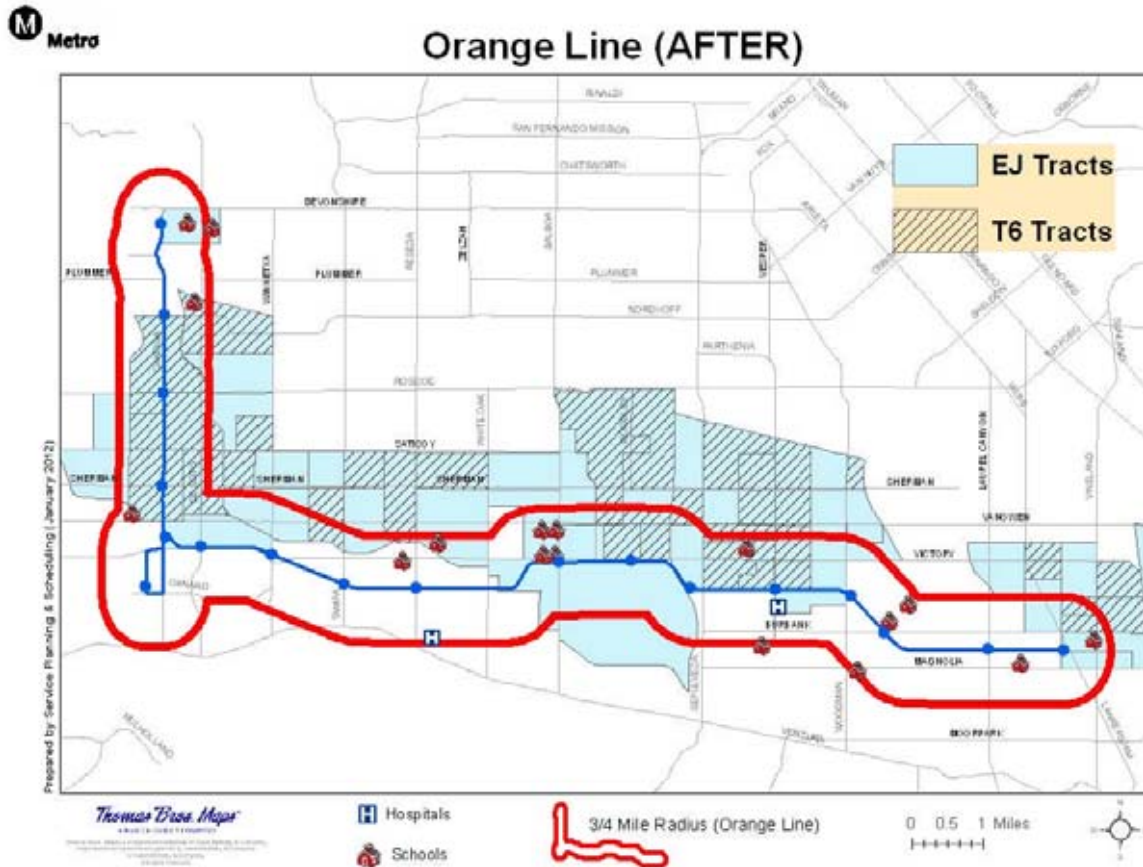


Figure 2

As can be seen in Figure 2, the Orange Line Extension itself should be considered both Title VI and EJ-sensitive by virtue of having three of four added stations in minority Census tracts, and all added stations in EJ tracts.

Metro guidelines for a service equity evaluation consider the impact of a service change upon three attributes of service provision: (1) travel time including wait time; (2) walk access, and (3) cost.

### Travel Time Impacts

Since the Orange Line Extension provides connectivity that did not exist previously with a single service, several representative trips will be evaluated within the corridor. The trips to be evaluated include:

- 1) Warner Center to Chatsworth Station;
- 2) West Hills Medical Center to Chatsworth Station; and,
- 3) Pierce College to Chatsworth Station.

#### Trip 1 – Warner Center to Chatsworth Station

This trip is directly served by the rail line. Planned operation provides for a 15-minute peak and 20-minute off-peak headway, and a 20 minute running time between these terminal points for a total peak trip time of  $(.5 \times 15 + 20)$  27.5 minutes (off-peak would be 30 minutes).

Using Metro's Trip Planner, all trips without the Orange line would use Metro Line 245 via Topanga Canyon Bl to Chatsworth Station. Line 245 runs every 30 minutes peak (60 minutes off-peak) and takes 24 minutes running time in the peak and 29 minutes in the off-peak. Therefore, under the most favorable circumstances this trip would require  $(.5 \times 30 + 24)$  39 minutes in the peak period, and up to 59 minutes in the off-peak. The Orange line extension reduces travel time from 39 minutes to 27.5 minutes, or 29% (from 59 minutes to 30 minutes off-peak, or 49%).

#### Trip 2 – West Hills Medical Center to Chatsworth Station

This trip requires accessing the Orange Line extension via Line 163 to Sherman Way Station and a transfer to the Orange Line to complete the trip. The bus line operates with a 12-minute peak headway (30-minutes off-peak) and takes 12 minutes to get to the Sherman Way Station. Connecting service on the Orange Line extension would operate every 5 minutes in the peak period (20-minutes off-peak) and take 10 minutes to get to Chatsworth Station for a running time of  $(.5 \times 12 + 12 + .5 \times 5 + 10)$  30.5 minutes. In the off-peak this becomes  $(.5 \times 30 + 12 + .5 \times 20 + 10)$  47 minutes.

Without the Orange Line extension riders must take Line 163 to Line 245 on Topanga Canyon Bl. As before, Line 163 operates every 12 minutes peak, and every 30 minutes off-peak, and takes 10 minutes to get to Topanga Canyon Bl. Service on Line 245 operates every 30 minutes peak, and hourly off-peak, with 15 minutes running time to Chatsworth Station. This results in a travel time of  $(.5 \times 12 + 10 + .5 \times 30 + 15)$  46 minutes using alternate bus service  $(.5 \times 30 + 10 + .5 \times 60 + 15)$ , or 70 minutes off-peak). The Orange Line Extension results in travel time reductions of 34% during peak periods, and 33% in the off-peak.

#### Trip 3 – Pierce College to Chatsworth Station

This trip can be made entirely on the Orange Line when the extension becomes available. Service would operate every 8 minutes peak, and 10 minutes off-peak, with running time from Pierce College to Chatsworth Station of 19 minutes. The total travel

time would be  $(.5*8 + 19)$  23 minutes in the peak period  $(.5*10 + 19)$ , or 24 minutes off-peak).

Without the Extension this trip requires riding the Orange Line one stop to Desoto Av and taking Route 244 north on Desoto to Chatsworth Station. The Orange Line operates every 4 minutes for this trip during peak periods and every 12 minutes off-peak taking 3 minutes to make the one station trip. Route 244 operates every 15 minutes peak and hourly off-peak taking 25 minutes to get to Chatsworth. The running time for this trip is  $(.5*4 + 3 + .5*15 + 25)$  37.5 minutes during peak periods, and  $(.5*12 + 3 + .5*60 + 25)$  64 minutes off-peak. The Orange Line Extension saves 39% during peak periods, and 61% at other times.

### **Walk Access Impacts**

The Orange Line Extension will increase walk access to bus services because no existing service will be removed or rerouted. There are currently 50,449 people within one-quarter mile of all Orange Line stations. This will increase to 68,566 people when the Extension opens. Since several Orange Line stations are park/ride stations, a three-mile buffer also was considered for this facility. The number of people who are within three miles of the Orange Line will increase from 871,676 to 928,721 when the Extension opens.

### **Travel Cost Impacts**

The Orange Line Extension will either reduce travel cost (see trip 3 above) by providing direct service, or cost the same as with existing services (see trips 1 & 2 above). There is no instance that we are aware of in which the Orange Line Extension would increase the cost to a patron.

### **Conclusions**

There are no disparate or disproportionate adverse impacts from the planned operation of the Orange Line Extension.

## EQUITY EVALUATION RESIZING OF BUSES ON LINES 40, 710 & 740

This service change would resize the buses assigned to each of these bus lines. Rapid lines 710 and 740 use 32 60-foot buses (plus spares) which would be replaced with 46 40-foot buses. In order to maintain seating capacity the headways on these routes would be reduced to provide more frequent service that is consistent with Rapid bus operational standards (midday service on these routes was as infrequent as every 30 minutes). Line 40 would have its 39 40-foot buses replaced with 28 60-foot buses. Its headway would be widened to maintain constant seating capacity with the resulting service still operating every 11-16 minutes (depending on the time of day) because Line 40 has much greater passenger demand than the two Rapid routes combined.

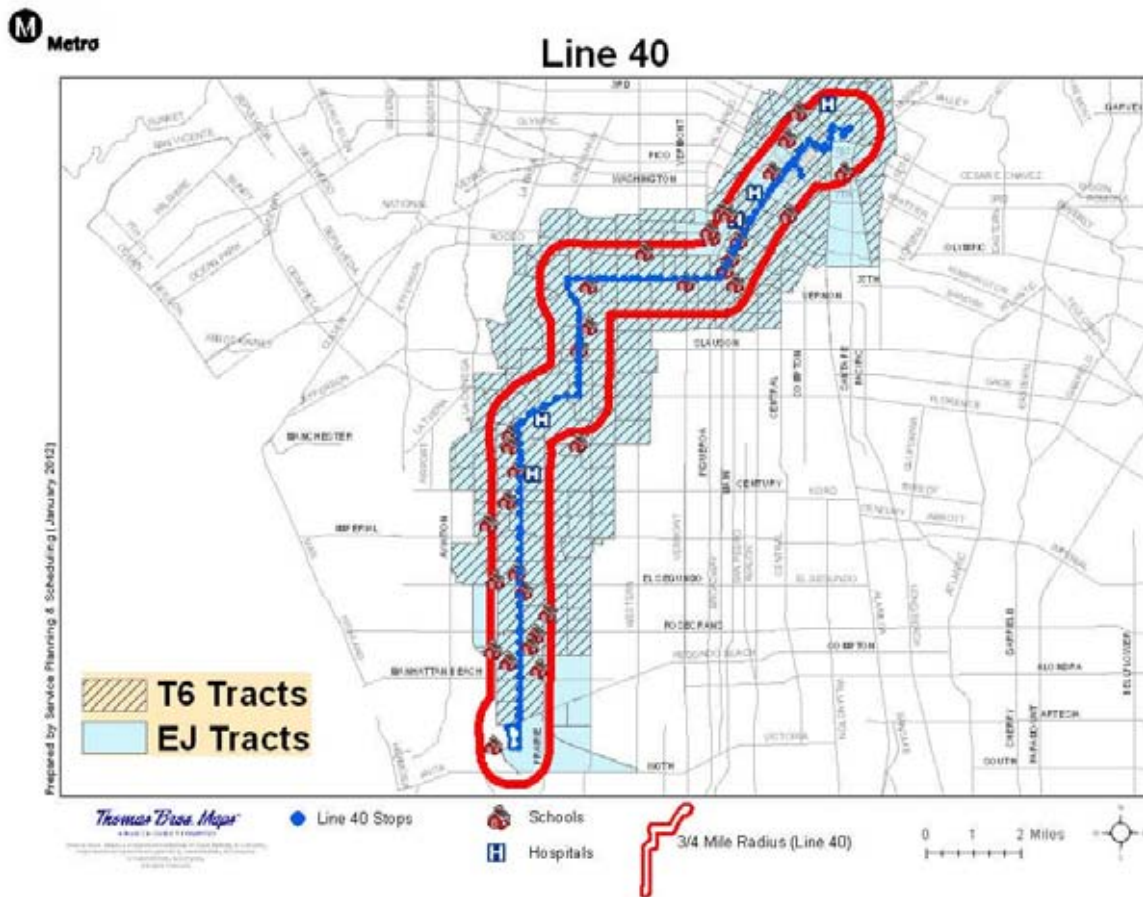


Figure 1

Line 40 (Figure 1) operates seven days a week serving high passenger demand. Despite operating in the same corridor as a Rapid bus line (Line 740) it serves nearly 27,000 weekday riders. The line's ridership consists of 84% of boardings occurring in minority Census tracts and 99% of boardings in EJ tracts making it both Title VI and EJ-sensitive. The northernmost portion of the line when it turns onto Martin Luther King Bl. to its northern terminal operates within the corridor of the Expo light rail line and the Metro Red/Purple lines.

## Line 710

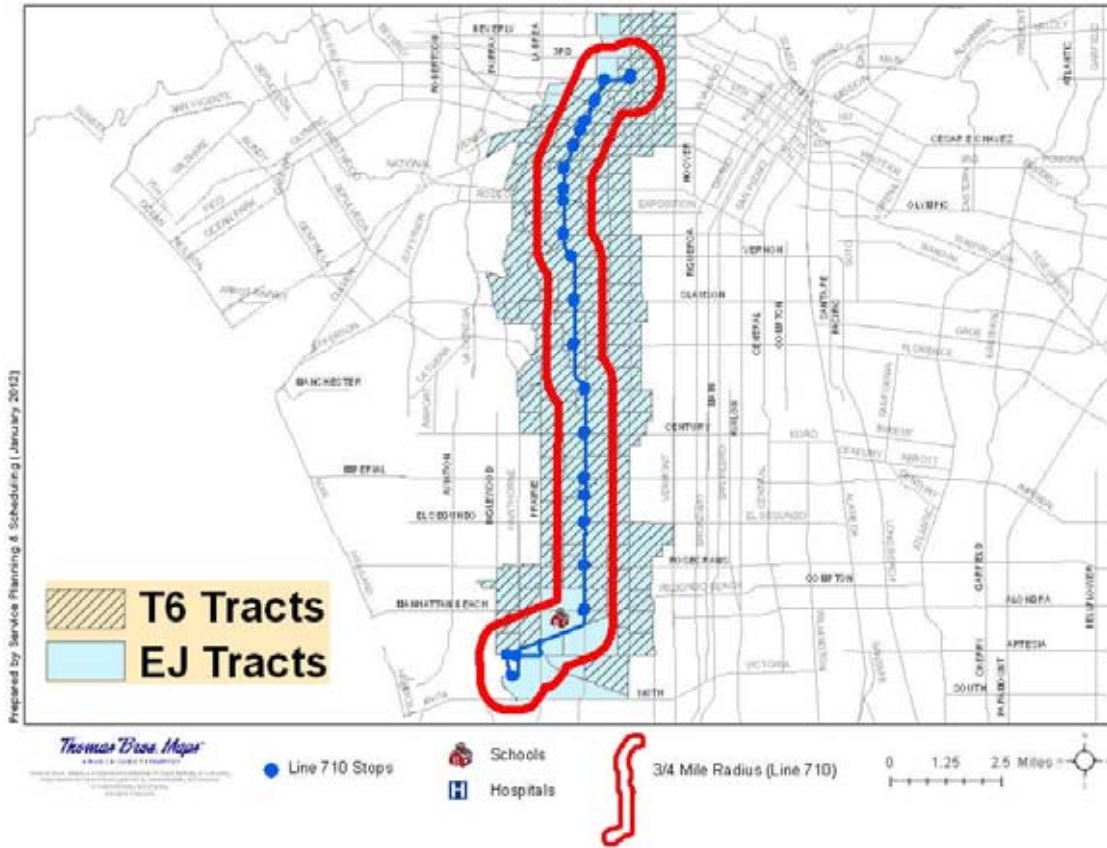


Figure 2

Line 710 (Figure 2) provides weekday and Saturday service to slightly more than 8,000 weekday riders. Local line (Line 210) operates along Crenshaw Bl. serving the same corridor carrying nearly 16,000 daily riders. The line serves a high minority corridor with about 97% of boardings occurring in both minority and EJ-sensitive Census tracts making the line both Title VI and EJ-sensitive.

## Line 740

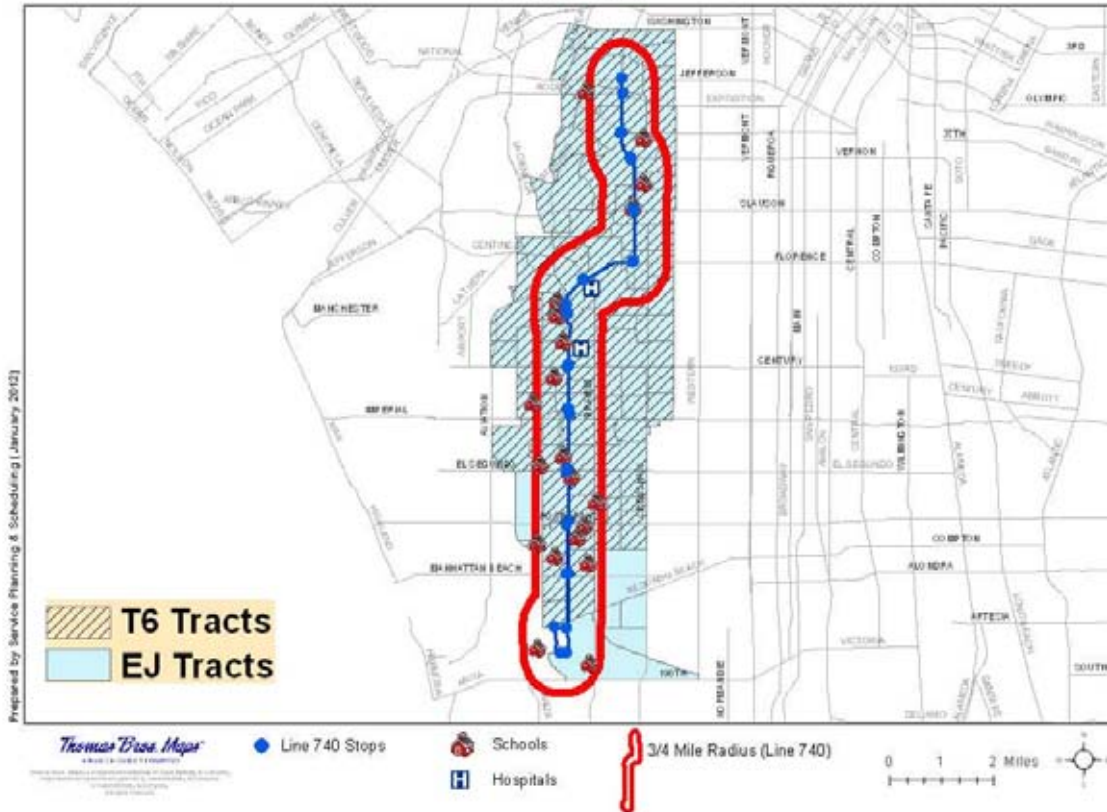


Figure 3

Line 740 (Figure 3) is shown as it will operate after the start of operation of the Expo light rail line (expected in spring 2012). Service will operate weekdays and Saturdays serving nearly 4,700 weekday riders. Over 95% of boardings will occur in minority Census tracts and all boardings will originate from EJ-sensitive tracts making the line both Title VI and EJ-sensitive.

Metro guidelines for a service equity evaluation consider the impact of a service change upon three attributes of service provision: (1) travel time including wait time; (2) walk access, and (3) cost. For this analysis, ridership and service has been adjusted to account for the impacts of the start of Expo light rail operation as this is the condition that will exist when the proposed service change is put into effect.

### Travel Time Impacts

Resizing the buses assigned to a line affects the frequency of service, but other service attributes remain unchanged. The impact of frequency of service changes on travel time is an increase or decrease in the wait time portion of the trip. The impacts of these changes were evaluated assuming that the capacity of the service provided would be maintained, so seats per hour remains constant before and after the changes.

**Table 1 – Line 40**

	BEFORE						AFTER					
	AM Peak	Midday	PM Peak	Evening	SA	SU	AM Peak	Midday	PM Peak	Evening	SA	SU
Boardings	7,100	11,306	6,353	2,091	19,538	17,269	7,100	11,306	6,353	2,091	19,538	17,269
Avg Headway (min)	8	11	10	20	11	12	11	16	14	29	16	17
Avg Passenger Trip Length (mi)	3.89	3.89	3.89	3.89	4.12	4.36	3.89	3.89	3.89	3.89	4.12	4.36
Avg Bus Operating Speed (mph)	11	15	10	12	10	13	11	15	10	12	10	13
Avg Passenger Travel Time (min)	25	21	28	29	30	26	26	23	30	34	32	29
Daily Passenger Minutes	177,274	238,104	178,456	61,580	590,438	451,119	187,924	263,543	191,162	70,467	634,399	494,292
Numeric Change											57,681	43,173
% Change											9%	10%

**Table 2 – Line 710**

	BEFORE					AFTER						
	AM Peak	Midday	PM Peak	Evening	SU	AM Peak	Midday	PM Peak	Evening	SU		
Boardings	2,156	2,884	2,708	407	3,907	2,156	2,884	2,708	407	3,907		
Avg Headway (min)	15	30	14	30	30	13	21	11	21	17		
Avg Passenger Trip Length (mi)	4.74	4.74	4.74	4.74	4.76	4.74	4.74	4.74	4.74	4.76		
Avg Bus Operating Speed (mph)	15	16	13	16	17	15	16	13	16	17		
Avg Passenger Travel Time (min)	27	33	28	33	32	25	28	27	28	25		
Daily Passenger Minutes	57,322	94,523	76,430	13,294	124,243	54,627	81,545	72,368	11,463	98,847		
Numeric Change											-21,567	-25,396
% Change											-9%	-20%

**Table 3 – Line 740**

	BEFORE					AFTER						
	AM Peak	Midday	PM Peak	Evening	SU	AM Peak	Midday	PM Peak	Evening	SU		
Boardings	1,384	1,486	1,625	180	4,274	1,384	1,486	1,625	180	4,274		
Avg Headway (min)	18	30	16	30	24	13	21	11	21	17		
Avg Passenger Trip Length (mi)	5.38	5.38	5.38	5.38	5.21	5.38	5.38	5.38	5.38	5.21		
Avg Bus Operating Speed (mph)	15	17	13	16	15	15	17	13	16	15		
Avg Passenger Travel Time (min)	31	34	32	35	34	28	29	30	31	30		
Daily Passenger Minutes	42,416	50,484	52,115	6,306	143,353	38,610	43,797	48,052	5,496	128,394		
Numeric Change											-15,366	-14,959
% Change											-10%	-10%

**Table 4 – Combined Impacts**

CHANGE IN PASSENGER MINUTES

	AM Peak	Midday	PM Peak	Evening	SA	SU
710	-2,695	-12,978	-4,062	-1,832	-25,396	
740	-3,806	-6,687	-4,063	-810	-14,959	
40	10,650	25,439	12,706	8,887	43,961	43,173
Combined	4,149	5,774	4,581	6,245	3,606	43,173
	20,749					
	2%					10%



As can be seen in Tables 1 & 2, changing to smaller buses on the two Rapid routes reduces headways and travel time. On the other hand, increasing the size of buses on Route 40 (Table 3) widens headways and increases travel time.

There are overall adverse impacts on travel time on weekdays and Sundays with a small (less than one percent) adverse impact on Saturdays. This is a consequence of the much higher patronage served by Line 40. The adverse impacts experienced by its riders affect a much greater number of passengers than the benefits that accrue to the patrons of the two Rapid routes.

### **Walk Access Impacts**

The resizing of buses assigned to these bus lines has no impact on walk access because all stops will continue to be served.

### **Travel Cost Impacts**

There is no impact on travel cost from the studied changes, because there is no change to the routing or pricing associated with the impacted bus routes.

### **Alternatives Considered**

The studied actions resulted in an overall increase in travel time for impacted riders. One way this could be addressed is the operation of more frequent service on Line 40 to offset the adverse impact of wider headways. However, it was found that approximately 11% more service would have to be operated on weekdays to offset the net travel time impact, and this greatly exceeds the net savings estimated for the resizing which amounts to about 3-4% of Line 40 revenue hours. The higher cost of offsetting adverse travel time impacts could be addressed through higher fares, but this would adversely impact all system riders not just those in the studied corridors.

### **Conclusions**

There is a disparate adverse impact from the resizing of buses on the studied bus lines. The action addresses significant agency objectives of maintaining a balanced operating budget and scheduling service in accordance with adopted standards and policies. Each of the studied alternatives resulted in greater adverse impacts to riders. Therefore, the studied action should be approved for implementation.