

8-4.9 NOISE AND VIBRATION

This section summarizes the analysis of potential noise and vibration impacts that would result from the three Rapid Bus alternatives: RB-3, RB-5, and RB-Network.

The potential noise impacts include:

1. Bus operations. The major noise sources on a typical bus include tire-roadway interaction, which increases with speed, and the engine exhaust, which generally has a higher source height for buses used in Los Angeles than elsewhere in the United States. Additional bus noise sources include ancillary systems such as engine cooling fans (generally located on the roadway side of the vehicle) and air conditioning systems (generally located near the top or rear of the vehicle).
2. Construction noise. Construction noise is a temporary impact that does not have any long-term effects. For the three Rapid Bus alternatives, the construction activities and equipment are expected to be similar to those required for typical road construction. The potential noise impacts from construction activities are discussed in Section 8-5.9.

Section 8-4.9.1 describes the existing noise conditions. Assessment methodology and criteria are discussed in Section 8-4.9.2. A summary of projected noise impacts from the Rapid Bus alternatives is presented in Section 8-4.9.3, and appropriate mitigation measures are summarized in Section 8-4.9.4. Vibration is discussed in Section 8-4.9.5.

8-4.9.1 Setting

The study area for the three Rapid Bus alternatives extends west from the North Hollywood Metro Red Line Station to the Warner Center Transit Hub, north to the Chatsworth Metrolink Station and east to the Sylmar/San Fernando Metrolink Station. Noise-sensitive land uses in the study area include a considerable number of single-family and multi-family residences, along with parks, schools, day-care centers, and religious institutions. The existing noise environments in these areas vary depending on their proximity to major traffic arteries.

Estimating existing noise exposure is an important step in the noise impact assessment since, as discussed in Section 4-9.2(c) of the Final EIR, the thresholds for noise impact are based on the existing levels of noise exposure. The terms used to describe noise are defined in Section 4-9.1 of the Final EIR.

The existing (year 2001) noise levels along the bus routes are dominated by motor vehicle traffic, with the highest noise levels at locations near major arterials and the freeways. Sufficient information on existing conditions was collected so that the existing Ldn could be estimated for residential areas along the proposed Rapid Bus routes based upon the traffic conditions. As part of this process, the routes have been divided into road segments, and traffic conditions have been assigned so that the existing noise from street traffic could be estimated. This estimate could be low where non-street traffic noise is dominating such as near the Van Nuys Airport, Burbank-Glendale-Pasadena Airport, Whiteman Airport, or near the I-405, I-5, and SR-170 freeways where aircraft or freeway noise would contribute significantly to the noise environment.



8-4.9.1.1 RB-3 Alternative

a. Sherman Way Rapid Bus Route

The area between De Soto Avenue and Tampa Avenue is mainly single-family and multi-family residential with commercial areas near the major intersections. Between Tampa Avenue and Lindley Avenue, there are only multi-family units. Between Lindley Avenue and Hayvenhurst Avenue, the residential area is mainly single-family. From Hayvenhurst Avenue to the eastern end of the route is predominantly multi-family land uses. Average daily traffic volumes (ADT) used in the modeling of existing noise varied from 21,000 to 51,000 vehicles per day. Estimated existing Sherman Way traffic noise levels at the front of residential structures range from Ldn 65 to Ldn 70 dBA.

b. Vanowen Street Rapid Bus Route

The area between Topanga Canyon Boulevard and west of De Soto Avenue is mainly non-residential. Except for intersections with major north-south arterials, the remaining land use on both sides of the street is predominantly residential. ADT varied from 9,000 to 24,000 vehicles per day. Estimated existing Vanowen Street traffic noise levels at the front of residential structures range from Ldn 64 to Ldn 66 dBA.

c. Victory Boulevard Rapid Bus Route

The area between Topanga Canyon Boulevard and west of Winnetka Avenue is mainly non-residential. Except for intersections with major north-south arterials and the area between Whitsett Avenue and Colfax Avenue, the remaining land use on both sides of the street is predominantly residential. ADT varied from 18,000 to 50,000 vehicles per day. Estimated existing Victory Boulevard traffic noise levels at the front of residential structures range from Ldn 65 to Ldn 70 dBA.

All three RB-3 Rapid Bus routes are connected to the North Hollywood Metro Red Line Station via Lankershim Boulevard. Lankershim Boulevard is a busy arterial with predominantly commercial land use.

8-4.9.1.2 RB-5 Alternative

a. Sherman Way Rapid Bus Route

See Section 8-4.9.1.1(a), above.

b. Victory Boulevard Rapid Bus Route

See Section 8-4-9.1.1(c) above.

c. Oxnard Street Rapid Bus Route

Oxnard Street has a number of single- and multi-family residential units along both sides between Hazeltine Avenue and Lankershim Boulevard. ADT varied from 9,000 to 23,000

vehicles per day. Estimated existing Oxnard Street traffic noise levels at the front of residential structures range from Ldn 59 to Ldn 67 dBA.

d. Burbank Boulevard Rapid Bus Route

Burbank Boulevard has a number of single- and multi-family residential units along both sides between Reseda Boulevard and Lankershim Boulevard. ADTs used in the modeling of existing noise levels varied from 7,000 to 36,000 vehicles per day. Estimated existing Burbank Boulevard traffic noise levels at the front of residential structures range from Ldn 61 to Ldn 71 dBA.

e. Chandler Boulevard Rapid Bus Route

Both the north and south sides of Chandler Boulevard between Van Nuys Boulevard and Whitsett Avenue have primarily residential land uses. Existing noise exposure was characterized in Section 4-9.1 of the Final EIR as from Ldn 64 dBA near Coldwater Canyon Avenue to Ldn 67 dBA near SR-170. ADTs of 9,000 vehicles per day were assumed in the traffic noise model. Modeled existing Chandler Boulevard traffic noise levels at the front of residential structures range from Ldn 64 to Ldn 65 dBA.

8-4.9.1.3 RB-Network Alternative

a. Devonshire Street Rapid Bus Route

The area between De Soto Avenue and Van Nuys Boulevard is mainly single-family residential with commercial areas near the major intersections of Reseda Boulevard, Zelzah Avenue, Balboa Boulevard, Haskell Avenue, and Sepulveda Boulevard. ADTs used in the modeling of the existing traffic noise varied along the route from 6,000 to 29,000 vehicles per day. Estimated existing Devonshire Street noise levels at the front of residential structures range from Ldn 61 to Ldn 68 dBA.

b. Roscoe Boulevard Rapid Bus Route

The areas between Topanga Canyon Boulevard and Balboa Boulevard and between Burnett Avenue and Lankershim Boulevard are mainly single- and multi-family residential. There are commercial areas near the major intersections of De Soto Avenue, Winnetka Avenue, Tampa Avenue, Reseda Boulevard, White Oak Avenue, Woodman Avenue, between Balboa Boulevard and Hayvenhurst Avenue, and between Haskell Avenue and Burnett Avenue. ADTs used in the modeling of the existing traffic noise varied along the route from 10,000 to 54,000 vehicles per day. Modeled existing Roscoe Boulevard noise levels at the front of residential structures range from Ldn 65 to Ldn 75 dBA.

c. Victory Boulevard Rapid Bus Route

See Section 8-4.9.1.1(c), above.



d. Topanga Canyon Boulevard Rapid Bus Route

The areas between Oxnard Boulevard and Sherman Way and between Plummer Street and Lassen Street are mainly commercial areas. Between Sherman Way and Plummer Street are mainly single- and multi-family residential. ADTs used in the modeling of existing noise varied from 32,000 to 48,000 vehicles per day. Modeled existing Topanga Canyon Boulevard noise levels at the front of residential structures range from Ldn 69 to Ldn 71 dBA.

e. Reseda Boulevard Rapid Bus Route

Reseda Boulevard is predominantly commercial with pockets of multi-family residential areas between SR-101 and Kitridge Street, between Saticoy Street and Roscoe Boulevard, and between Plummer Street and Devonshire Street. ADTs used in the modeling of existing noise varied from 17,000 to 38,000 vehicles per day. Modeled existing Reseda Boulevard noise levels at the front of residential structures range from Ldn 68 to Ldn 70 dBA.

f. Sepulveda Boulevard Rapid Bus Route

Sepulveda Boulevard is predominantly commercial with single- and multi-family residential structures scattered along the route. There are concentrations of single-family residences between Victory Boulevard and Vanowen Street, between Saticoy Street and Lenark Street, and between Devonshire Street and Chatsworth Street. ADTs used in the modeling of existing traffic noise levels varied from 10,000 to 27,000 vehicles per day. Modeled existing Sepulveda Boulevard noise levels at the front of residential structures range from Ldn 60 to Ldn 69 dBA.

g. Van Nuys Boulevard Rapid Bus Route

Van Nuys Boulevard is predominantly commercial south of Parthenia Street. Between Parthenia Street and Woodman Avenue there is a mix of commercial and multi-family buildings. North of Woodman Avenue the land use becomes more residential with single- and multi-family residential structures scattered along the route. ADTs used in the modeling of the existing traffic noise levels varied from 1,400 to 39,000 vehicles per day. Estimated existing Van Nuys Boulevard noise levels at the front of residential structures range from Ldn 63 to Ldn 72 dBA.

h. Laurel Canyon Boulevard Rapid Bus Route

Laurel Canyon Boulevard is predominantly single- and multi-family residential with pockets of commercial areas. Commercial areas include between Oxnard Street and Archwood Street and between Roscoe Boulevard and Webb Avenue. ADTs used in the modeling of traffic existing noise levels along Laurel Canyon Boulevard varied from 3,000 to 40,000 vehicles per day. Modeled existing Laurel Canyon Boulevard noise levels at the front of residential structures range from Ldn 60 to Ldn 71 dBA.



i. San Fernando Road Rapid Bus Route

San Fernando Road is fronted predominantly with commercial and industrial land uses. ADTs used in the modeling of the existing traffic noise levels varied from 5,000 to 25,000 vehicles per day. Modeled existing traffic noise levels range from Ldn 67 to Ldn 72 dBA. Because of the proximity to industrial facilities, Whiteman Airport, Burbank-Glendale-Pasadena Airport, the Metrolink rail line, and freeways, the actual noise environment may be higher than noise levels from traffic on San Fernando Road.

8-4.9.2 Impact Analysis Methodology and Evaluation Criteria

8-4.9.2.1 Approach

The general approach used to assess the noise impacts is described in Section 4-9.2(a) of the Final EIR. In order to determine the existing noise environment, the year 2000 traffic (cars, trucks, and buses) on the Rapid Bus Alternative streets were modeled. The same model was used to estimate the Rapid Bus noise.

8-4.9.2.2 Noise Model

The general approach to noise modeling is described in Section 4-9.2(b) of the Final EIR. The national average for a bus cruising at 30 mph at a distance of 50 feet results in the maximum noise level of 74 dBA and the Sound Exposure Level (SEL) of 79.5 dBA. Measurements of the MTA Compressed Natural Gas (CNG) buses showed that the MTA CNG buses are about 3 dB louder than the national average bus. The noisier MTA CNG bus noise is used to model the three Rapid Bus alternatives, consistent with the earlier BRT analysis.

Since the Rapid Buses would share the street with other vehicles, bus speeds would be limited to the posted speed or the traffic conditions, whichever is less. Typically, bus and traffic speeds used in the modeling were between 25 and 35 mph, depending upon the roadway. The following Rapid Bus service is assumed:

Table 8-4.9-1: Rapid Bus Service	
Period	Buses per hour per direction
am peak: 6 am - 9 am	6
pm peak: 3 pm - 6 pm	6
Midday: 9 am – 3 pm	5
Evening: 6 pm - 10 pm	5
Night: 10 pm – 5 am	0

Source: MTA

8-4.9.2.3 Noise Impact Criteria

Noise impacts for this analysis is based on the criteria defined in the FTA guidance manual, as described in Section 4-9.2(c) of the Final EIR. Impacts that are designated “severe” would be considered “significant” under CEQA. Impacts that are designated as “moderate” would be less-than-significant under CEQA.

8-4.9.3 Impacts

8-4.9.3.1 RB-3 Alternative

Table 8-4.9.2 (Noise Impact Assessment for RB-3 Alternative) gives a breakdown of the results by street segment, including existing ADT, noise projections for existing traffic, Rapid Bus traffic and future traffic with the Rapid Bus, as well as the projected number of moderate and severe impacts. Under the RB-3 Alternative, increased bus noise will contribute to the existing traffic noise conditions on these major arterial routes. Without mitigation, moderate impacts to 132 single-family residences and 66 multi-family residences are projected. No impacts to institutional land uses such as schools, libraries, or churches were identified. No significant noise impact under CEQA would occur for the RB-3 Alternative.

Table 8-4.9-2: Noise Impact Assessment for RB-3 Alternative

ROUTE			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
SHERMAN WAY							
Topanga Canyon	Owensmouth	22400	65	61	67	No	No
Owensmouth	Canoga	22400	65	61	66	No	No
Canoga	De Soto	22700	65	61	66	No	No
De Soto	Mason	30500	66	61	67	No	No
Mason	Winnetka	30500	66	61	67	No	No
Winnetka	Corbin	40700	67	61	68	No	No
Corbin	Tampa	40700	68	61	69	No	No
Tampa	Wilbur	29200	67	61	68	No	No
Wilbur	Reseda	28300	65	60	67	No	No
Reseda	Lindley	31700	65	59	66	No	No
Lindley	White Oak	34900	67	60	68	No	No
White Oak	Louise	36900	68	61	69	No	No
Louise	Balboa	39300	68	64	70	Yes	No

Table 8-4.9-2: Noise Impact Assessment for RB-3 Alternative

ROUTE			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
SHERMAN WAY (Cont.)							
Balboa	Hayvenhurst	29900	68	61	69	No	No
Hayvenhurst	Woodley	51100	70	59	70	No	No
Woodley	I-405	48200	70	60	71	No	No
I-405	Sepulveda	33800	69	61	69	No	No
Sepulveda	Kester	33100	69	61	69	No	No
Kester	Van Nuys	38400	68	60	69	No	No
Van Nuys	Hazeltine	31100	69	61	69	No	No
Hazeltine	Woodman	35000	69	61	70	No	No
Woodman	Fulton	41300	70	60	70	No	No
Fulton	Coldwater Canyon	29300	69	62	70	No	No
Coldwater Canyon	Whitsett	33300	69	61	70	No	No
Whitsett	Laurel Canyon	42100	69	62	70	No	No
Laurel Canyon	Colfax	21600	68	62	69	No	No
VANOWEN STREET							
Owensmouth	Canoga	16100	65	61	66	No	No
Canoga	De Soto	16100	65	61	66	Yes	No
De Soto	Mason	14000	65	61	67	Yes	No
Mason	Winnetka	8900	64	61	65	No	No
Winnetka	Corbin	15700	66	61	67	No	No
Corbin	Tampa	13800	65	61	66	Yes	No
Tampa	Wilbur	17600	64	60	66	No	No
Wilbur	Reseda	17400	65	61	67	No	No
Reseda	Lindley	17500	65	61	67	No	No
Lindley	White Oak	22500	66	61	68	No	No
White Oak	Louise	18500	65	61	67	No	No
Louise	Balboa	20400	65	61	67	No	No
Balboa	Hayvenhurst	21100	66	61	67	No	No
Hayvenhurst	Woodley	23600	66	61	67	No	No



Table 8-4.9-2: Noise Impact Assessment for RB-3 Alternative

ROUTE			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
VANOWEN STREET (Cont.)							
Woodley	I-405	24100	66	61	67	No	No
I-405	Sepulveda	21100	66	61	67	No	No
Sepulveda	Kester	21600	66	61	67	No	No
Kester	Van Nuys	23100	66	61	67	No	No
Van Nuys	Hazeltine	22200	66	61	67	No	No
Hazeltine	Woodman	19700	65	61	67	No	No
Woodman	Fulton	16500	65	61	66	No	No
Fulton	Coldwater Canyon	22000	66	61	67	No	No
Coldwater Canyon	Whitsett	21200	66	61	67	No	No
Whitsett	Laurel Canyon	19300	65	61	67	No	No
Laurel Canyon	Lankershim	13600	64	61	66	Yes	No
VICTORY BOULEVARD							
Topanga Canyon	Owensmouth	32000	68	61	68	No	No
Owensmouth	Canoga	32000	68	61	69	No	No
Canoga	De Soto	31900	68	61	69	No	No
De Soto	Mason	18400	66	62	67	No	No
Mason	Winnetka	18400	66	62	67	No	No
Winnetka	Corbin	26300	67	61	68	No	No
Corbin	Tampa	25100	66	62	68	No	No
Tampa	Wilbur	29400	65	59	66	No	No
Wilbur	Reseda	29200	67	61	68	No	No
Reseda	Lindley	29900	67	62	68	No	No
Lindley	White Oak	34900	68	62	69	No	No
White Oak	Louise	32400	65	60	66	No	No
Louise	Balboa	39700	69	61	69	No	No
Balboa	Hayvenhurst	39800	67	60	67	No	No
Hayvenhurst	Woodley	48400	69	61	70	No	No
Woodley	I-405	44300	70	61	70	No	No
I-405	Sepulveda	43300	70	62	70	No	No



Table 8-4.9-2: Noise Impact Assessment for RB-3 Alternative

ROUTE			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
VICTORY BOULEVARD (Cont.)							
Sepulveda	Kester	38200	68	62	69	No	No
Kester	Van Nuys	43700	69	61	70	No	No
Van Nuys	Hazeltine	39000	68	62	69	No	No
Hazeltine	Woodman	41000	68	61	69	No	No
Woodman	Fulton	40400	69	62	70	No	No
Fulton	Coldwater Canyon	44500	69	61	70	No	No
Coldwater Canyon	Whitsett	49200	68	60	69	No	No
Whitsett	Laurel Canyon	41500	69	62	70	No	No
Laurel Canyon	Colfax	24500	67	62	68	No	No
Colfax	Lankershim	21900	67	62	68	No	No

(1) Impact assessment based upon comparison of noise from Rapid Bus with thresholds of moderate "impact" and "severe impact" defined in Table 4-48 of the Final EIR.

(2) "Future Ldn" was computed by combining "Existing" and "Rapid Bus" Ldn values.

(3) ADT (average daily traffic) and average speeds were provided by Meyer, Mohaddes Associates, Inc.

Source: Acentech Inc., 2004

8-4.9.3.2 RB-5 Alternative

Table 8-4.9-3 (Noise Impact Assessment for RB-5 Alternative) gives a breakdown of the results by street segment, including existing ADT, noise projections for existing traffic, Rapid Bus traffic, and future traffic with the Rapid Bus, as well as the projected number of moderate and severe impacts. Under the RB-5 Alternative, increased bus noise would contribute to the existing traffic noise conditions on these major arterial routes. Without mitigation, moderate noise impacts are projected for 503 single-family residences and 317 multi-family residences. Severe impacts were identified for 18 single-family residences and 12 multi-family residences. No impacts to institutional land uses such as schools, libraries, or churches were identified. Low existing nighttime traffic volumes were estimated for the Colfax Avenue to Lankershim Boulevard segment on Burbank Boulevard, which resulted in low existing noise levels, and a lower threshold of significance for this segment. A significant noise impact under CEQA is anticipated for 18 single-family residences and 12 multi-family residences for the Colfax Avenue to Lankershim Boulevard segment on Burbank Boulevard for the RB-5 Alternative.



Table 8-4.9-3: Noise Impact Assessment for RB-5 Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
SHERMAN WAY (see Table 8-4.9.2 for Topanga Canyon to Colfax)							
Colfax	Tujunga	16500	66	62	68	Yes	No
Tujunga	Vineland	10400	64	62	66	Yes	No
VICTORY BOULEVARD (see Table 8-4.9.2)							
OXNARD STREET							
Sepulveda ⁴	Kester	11700	59	57	61	No	No
Kester	Van Nuys	10600	65	62	67	No	No
Van Nuys	Hazeltine	9500	64	62	67	No	No
Hazeltine	Woodman	12400	65	62	67	Yes	No
Woodman	Fulton	9500	64	62	66	Yes	No
Fulton	Coldwater Canyon	15700	65	62	67	Yes	No
Coldwater Canyon	Whitsett	20100	66	62	67	Yes	No
Whitsett	Laurel Canyon	13100	64	62	66	Yes	No
Laurel Canyon	Colfax	22900	67	61	68	No	No
Colfax	Lankershim	20800	67	62	68	No	No
BURBANK BOULEVARD							
Lindley	White Oak	22000	68	63	69	No	No
White Oak	Louise	17300	67	63	68	Yes	No
Louise	Balboa	18500	67	63	69	No	No
Balboa	Woodley	33300	69	63	70	No	No
Woodley	I-405	22700	68	63	69	No	No
I-405	Sepulveda	22700	68	63	69	No	No
Sepulveda	Kester	35600	69	62	70	No	No
Kester	Van Nuys	32400	70	63	70	No	No
Van Nuys	Hazeltine	23000	71	63	71	No	No
Hazeltine	Woodman	21800	68	63	69	No	No
Woodman	Fulton	23300	68	63	69	No	No
Fulton	Coldwater Canyon	17500	67	63	69	Yes	No
Coldwater Canyon	Whitsett	22700	68	63	69	Yes	No



Table 8-4.9-3: Noise Impact Assessment for RB-5 Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
BURBANK BOULEVARD (Cont.)							
Whitsett	Laurel Canyon	20800	68	63	69	Yes	No
Laurel Canyon	Colfax	19200	67	63	69	Yes	No
Colfax	Lankershim	7900	61	65	67	Yes	Yes
Lankershim	Red Line Station	6900	65	65	68	No	No
CHANDLER BOULEVARD							
Van Nuys	Hazeltine	9000	64	63	67	Yes	No
Hazeltine	Woodman	9000	64	63	67	Yes	No
Woodman	Fulton	9000	64	63	67	Yes	No
Fulton	Coldwater Canyon	9000	65	64	68	Yes	No
Coldwater Canyon	Whitsett	9000	65	63	67	Yes	No
Whitsett	Laurel Canyon	9000	65	63	67	Yes	No
Laurel Canyon	Colfax	9000	64	63	67	Yes	No
Colfax	Red Line Station	9000	64	63	67	Yes	No
<p>(1) Impact assessment based upon comparison of noise from Rapid Bus with thresholds of moderate “impact” and “severe impact” defined in Table 4–48 of the Final EIR. When the model indicates that impacts to residences might occur, but there are no residential units, a “No” is assigned.</p> <p>(2) “Future Ldn” was computed by combining “Existing” and “Rapid Bus” Ldn values.</p> <p>(3) ADT (average daily traffic) and average speeds were provided by Meyer, Mohaddes Associates, Inc.</p> <p>(4) Residential area is protected by property wall from street noise.</p>							

Source: Acentech Inc., 2004

8-4.9.3.3 RB-Network Alternative

Table 8-4.9-4 (Noise Impact Assessment for RB-Network Alternative) gives a breakdown of the results by street segment, including existing ADT, noise projections for existing traffic, Rapid Bus traffic and future traffic with the Rapid Bus, as well as the projected number of moderate and severe impacts. Under the RB-Network Alternative, increased bus noise would contribute to the existing traffic noise conditions on these major arterial routes. Without mitigation, moderate noise impacts are projected for 651 single-family residences and 202 multi-family residences. No impacts to institutional land uses such as schools, libraries, or churches were identified. No significant noise impact under CEQA is projected for the RB-Network Alternative.



Table 8-4.9-4: Noise Impact Assessment for RB-Network Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
TOPANGA CANYON BOULEVARD							
Victory	Vanowen	47600	71	58	72	No	No
Vanowen	Sherman Way	34500	70	60	70	No	No
Sherman Way	Saticoy	38100	70	59	70	No	No
Saticoy	Strathern	38300	70	59	71	No	No
Strathern	Roscoe	42000	70	59	71	No	No
Roscoe	Parthenia	32600	69	59	69	No	No
Parthenia	Nordhoff	43700	70	59	70	No	No
Nordhoff	Plummer	32500	69	60	70	No	No
Plummer	Lassen	32500	69	60	70	No	No
RESEDA BOULEVARD							
Ventura	US 101	17500	68	63	69	No	No
US 101	Oxnard	35000	70	61	71	No	No
Oxnard	Victory	36200	70	62	71	No	No
Victory	Vanowen	37300	70	62	71	No	No
Vanowen	Sherman Way	32500	70	62	70	No	No
Sherman Way	Saticoy	33700	70	62	71	No	No
Saticoy	Strathern	32300	70	62	70	No	No
Strathern	Roscoe	37700	70	62	71	No	No
Roscoe	Parthenia	33500	70	62	70	No	No
Parthenia	Nordhoff	33500	70	62	70	No	No
Nordhoff	Plummer	31800	70	62	70	No	No
Plummer	Lassen	24100	68	63	69	No	No
Lassen	Devonshire	27600	70	63	71	No	No
SEPULVEDA BOULEVARD							
Ventura	US-101	25300	66	61	67	No	No
US-101	Magnolia	23100	67	63	69	Yes	No
Magnolia	Burbank	17200	65	62	67	Yes	No
Burbank	Oxnard	22600	69	63	70	No	No
Oxnard	Victory	23000	68	63	69	No	No



Table 8-4.9-4: Noise Impact Assessment for RB-Network Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
SEPULVEDA BOULEVARD (Cont.)							
Victory	Vanowen	21400	66	61	68	No	No
Vanowen	Sherman Way	25300	67	62	68	No	No
Sherman Way	Saticoy	16900	65	62	67	Yes	No
Saticoy	Roscoe	27000	65	60	67	No	No
Roscoe	Parthenia	14500	66	64	68	Yes	No
Parthenia	Nordhoff	24100	67	63	68	No	No
Nordhoff	Plummer	16400	66	63	68	No	No
Plummer	Lassen	17500	66	63	68	No	No
Lassen	Devonshire	15400	60	57	62	No	No
Devonshire	Chatsworth	10400	65	63	67	Yes	No
VAN NUYS BOULEVARD							
Ventura	US-101	38900	71	63	72	No	No
US-101	Magnolia	31400	71	63	72	No	No
Magnolia	Burbank	33200	71	64	72	No	No
Burbank	Oxnard	25900	71	64	72	No	No
Oxnard	Victory	26500	71	64	71	No	No
Victory	Vanowen	23600	71	65	72	No	No
Vanowen	Sherman Way	26800	71	65	72	No	No
Sherman Way	Saticoy	26000	71	65	72	No	No
Saticoy	Roscoe	34200	72	65	72	No	No
Roscoe	Parthenia	31200	72	65	73	No	No
Parthenia	Nordhoff	30900	69	62	70	No	No
Nordhoff	Plummer	20000	68	63	69	Yes	No
Plummer	Woodman	25600	67	62	69	No	No
Woodman	Canterbury	26200	69	63	70	No	No
Canterbury	Arleta	30800	68	63	69	No	No
Arleta	I-5	29700	67	62	68	No	No
I-5	Laurel Canyon	22100	67	63	69	No	No
Laurel Canyon	Telfair	16300	67	63	68	Yes	No



Table 8-4.9-4: Noise Impact Assessment for RB-Network Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
VAN NUYS BOULEVARD (Cont.)							
Telfair	San Fernando	16300	67	63	69	No	No
San Fernando	Glenoaks	3700	64	63	67	Yes	No
Glenoaks	Foothill	1400	63	83	66	Yes	No
LAUREL CANYON BOULEVARD							
Ventura	Moorpark	36700	71	64	72	No	No
Moorpark	Riverside	39800	71	64	72	No	No
Riverside	Magnolia	26200	69	64	70	Yes	No
Magnolia	Burbank	30800	70	64	71	No	No
Burbank	Oxnard	25200	69	64	70	Yes	No
Oxnard	Victory	25400	69	64	70	No	No
Victory	Vanowen	22800	69	64	70	No	No
Vanowen	Sherman Way	17300	67	64	69	Yes	No
Sherman Way	Saticoy	9300	65	64	68	No	No
Saticoy	Strathern	17100	67	64	69	Yes	No
Strathern	Roscoe	12200	60	58	62	No	No
Roscoe	Webb	3620	63	64	66	Yes	No
Webb	Sheldon	3600	60	61	64	Yes	No
Sheldon	Branford	9800	64	61	66	No	No
Branford	Osborne	9800	64	61	66	No	No
Osborne	Bella	10300	63	61	65	No	No
Bella	Van Nuys	7200	63	61	65	Yes	No
DEVONSHIRE STREET							
Canoga	Desoto	19800	65	61	67	No	No
Desoto	Mason	13600	64	61	66	Yes	No
Mason	Winnetka	15700	64	61	66	Yes	No
Winnetka	Corbin	21500	66	61	67	No	No
Corbin	Tampa	26400	67	61	68	No	No
Tampa	Wilbur	25400	66	61	68	No	No
Wilbur	Reseda	25600	65	59	66	No	No



Table 8-4.9-4: Noise Impact Assessment for RB-Network Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
DEVONSHIRE STREET (Cont.)							
Reseda	Lindley	27500	67	61	68	No	No
Lindley	Zelzah	25300	67	61	68	No	No
Zelzah	Louise	28200	67	61	68	No	No
Louise	Balboa	28200	67	61	68	No	No
Balboa	Havenhurst	24500	67	61	68	No	No
Havenhurst	Woodley	24500	67	61	68	No	No
Woodley	Haskell	26600	68	61	68	No	No
Haskell	Sepulveda	26400	67	61	68	No	No
Sepulveda	Woodman	13600	64	61	66	Yes	No
Woodman	Arleta	6800	61	61	64	Yes	No
Arleta	Van Nuys	9200	63	61	65	Yes	No
ROSCOE BOULEVARD							
Topanga Canyon	Canoga	29200	69	62	70	No	No
Canoga	De Soto	26900	68	62	69	No	No
De Soto	Mason	39100	71	63	71	No	No
Mason	Winnetka	41900	71	63	72	No	No
Winnetka	Corbin	42800	70	63	71	No	No
Corbin	Tampa	51300	71	63	72	No	No
Tampa	Wilbur	48800	71	63	72	No	No
Wilbur	Reseda	38200	70	63	71	No	No
Reseda	Lindley	44700	75	67	76	Yes	No
Lindley	White Oak	19300	68	63	69	No	No
White Oak	Louise	44400	68	61	69	No	No
Louise	Balboa	53600	69	60	70	No	No
Balboa	Hayvenhurst	46700	71	63	71	No	No
Hayvenhurst	Woodley	46700	71	63	71	No	No
Woodley	I-405	52200	72	63	72	No	No
I-405	Sepulveda	53400	72	62	72	No	No
Sepulveda	Van Nuys	28700	70	63	71	No	No



Table 8-4.9-4: Noise Impact Assessment for RB-Network Alternative

Route			Ldn, dBA ²			Residential Impacts ¹	
Start	End	ADT ³	Existing	Rapid Bus	Future	Moderate	Severe
ROSCOE BOULEVARD (Cont.)							
Van Nuys	Hazeltine	42200	71	63	72	No	No
Hazeltine	Woodman	45600	71	63	72	No	No
Woodman	Coldwater Canyon	50800	72	63	72	No	No
Coldwater Canyon	Whitsett	39800	70	64	71	No	No
Whitsett	Laurel Canyon	19000	67	63	69	Yes	No
Laurel Canyon	Lankershim	12700	66	63	68	Yes	No
Lankershim	San Fernando	10900	65	63	67	No	No
VICTORY BOULEVARD (see Table 8-4.9-2)							
SAN FERNANDO ROAD							
Vanowen	San Fernando	24500	72	65	72	No	No
Hollywood Way	Vineland/Sunland	5800	67	65	69	No	No
Vineland/Sunland	Roscoe	9900	68	65	70	No	No
Roscoe	Lankershim	5200	67	65	69	No	No
Lankershim	Sheldon	13700	69	65	70	No	No
Sheldon	Osborne	15600	70	65	71	No	No
Osborne	Bella	13600	69	65	71	No	No
Bella	Van Nuys	15600	69	65	71	No	No
Van Nuys	Paxton	14300	69	65	70	No	No
Paxton	Brand	7500	67	65	69	Yes	No
Brand	Mission/Maclay	19000	69	65	71	No	No
Mission/Maclay	Hubbard	18400	70	65	71	No	No
Hubbard	San Fernando	13000	69	65	71	No	No

(1) Impact assessment based upon comparison of noise from Rapid Bus with thresholds of moderate "impact" and "severe impact" defined in Table 4-48 of the Final EIR.

(2) "Future Ldn" was computed by combining "Existing" and "Rapid Bus" Ldn values.

(3) ADT (average daily traffic) and average speeds were provided by Meyer, Mohaddes Associates, Inc.

Source: Acentech Inc., 2004



8-4.9.4 Mitigation Measures

8-4.9.4.1 RB-3 Alternative

No significant noise impact would occur for the RB-3 Alternative, therefore, noise mitigation measures are not required.

8-4.9.4.2 RB-5 Alternative

Significant noise impacts are projected for the RB-5 Alternative. Mitigation approaches would be similar to those identified in Section 4-9.4.3 of the Final EIR and summarized below.

R-N&V-1: Quieter Vehicles: Existing MTA Metro Rapid CNG buses were found to generate about 3 dB more than the national average. Using buses that are as quiet as the national average would mitigate the noise impacts to less-than-significant.

R-N&V-2: Sound Barriers: In some limited locations where backyards face the Rapid Bus street, barriers could be used to effectively reduce noise from not only the Rapid Buses, but also existing traffic noise.

R-N&V-3: Sound Insulation: Improving the sound isolation of the structure can help reduce interior noise.

8-4.9.4.3 RB-Network Alternative

No significant noise impact would occur for the RB-Network Alternative; therefore, noise mitigation measures are not required.

8-4.9.5 Vibration

The three Rapid Bus alternatives would be limited to rubber-tire bus operations. Rubber-tire vehicles rarely create ground-borne vibration problems unless they are operating extremely close to vibration-sensitive buildings, and there is a discontinuity, pothole, or bump in the roadway. The three Rapid Bus alternatives are on streets that currently support local bus service, with the exception of a portion of Chandler Boulevard west of Whitsett Street. Since the Rapid Buses will be traveling on existing streets at the same speeds as existing traffic, vibration impacts would not occur.

