Exposition Metro Line Construction Authority

Exposition Corridor Transit Project Phase 2

Final Environmental Impact Report

Technical Background Report

FINAL

Ridership Results

Version 0.4

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Prepared for:

Exposition Metro Line Construction Authority

By:

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1.0 INTRODUCTION

This document summarizes the results of the patronage forecasting effort for the Exposition Corridor Transit Project Phase 2 (Expo Phase 2) Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR). The forecasts were prepared using the interim version of the Los Angeles County Metropolitan Transportation Authority's Transportation Analysis Model, described in the Ridership Methodology Technical Report under separate cover. The ridership forecasts are based on methods that are generally consistent with current Federal planning regulations, particularly those of the Federal Transit Administration (FTA) related to the transit New Starts program since Section 5309 New Starts funding was considered at the time of the study. This report incorporates work from the following Exposition Corridor Transit Project Phase 2 project tasks:

- Aggregate Ridership Forecasts
- Ridership Estimates and Performance Measures
- SUMMIT Analysis
- Model Documentation Report

2.0 ALTERNATIVES EVALUATED

Six alternatives were evaluated in the ridership analysis for the Expo Phase 2 DEIS/DEIR: the No-Build Alternative, the Transportation Systems Management (TSM) Alternative, and four Light Rail Transit (LRT) Build Alternatives. This section describes the service planning assumptions for each of the alternatives evaluated in the ridership analysis. A detailed description of alternatives considered in the DEIS/DEIR is provided in the Alternatives Considered Technical Report.

2.1 No Build Alternative

The No-Build Alternative consists of the existing transit services as well as improvements explicitly committed to be constructed by the year 2030 as defined in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP).[1] Assumptions for transit services considered as part of the No-Build Alternative are summarized below.

2.1.1 Fixed Guideway Service Assumptions

Table 2.2-1 (No-Build Alternative—Fixed Guideway Assumptions for Year 2030) details the fixed guideway assumptions included in the No-Build Alternative. The Expo Phase 1 LRT and the Gold Line Eastside LRT Extension, which are currently under construction, are also assumed as well as the Wilshire BRT.

[1] 2008 Regional Transportation Plan: Making the Connections, adopted May 2008.

Table 2.1-1 No-Build Alternative—Fixed Guideway Assumptions for Year 2030

Line	Endpoints	Peak Headway (minutes)	Off-Peak Headway (minutes)
Metro Rail			
Purple	Union Station to Wilshire/Western	10	10
Red	Union Station to North Hollywood	5	10
Blue*	7th/Flower to Downtown Long Beach	5	10
Expo Phase 1	7th/Flower to Venice/Robertson	5	10
Gold	Atlantic to Sierra Madre Villa	5	10
Green	105/605 to Marine	5	10
Metro Liner BRT			
Orange	North Hollywood to Warner Center	5	10

SOURCE: LACMTA Countywide Modeling, June 28, 2007 and updated June 3, 2008

*10-minute peak headways between 7th/Metro and Willow and between 7th/Metro and Pacific equates to combined 5-minute trunk headways between 7th/Metro and Willow.

2.1.2 Bus Service

The No-Build Alternative assumes there will be connections between the applicable local bus services and Expo Phase 1 stations. Further, it assumed that bus routes currently terminating at the West Los Angeles Transit Center located at Washington/Fairfax will continue to serve that location while also connecting to the Expo Phase 1 stations at either La Cienega or Culver City.

The No-Build Alternative also assumes full implementation of the Metro Rapid Bus program, which includes 28 routes across the county, as well as planned peak-only rapid bus lanes along Wilshire Boulevard between Western Avenue and Centinela Avenue. Rapid bus routes in the study area include Lincoln Boulevard, Sepulveda Boulevard, Beverly Boulevard, Santa Monica Boulevard, Wilshire Boulevard, Olympic Boulevard, and Pico Boulevard.

The remainder of the bus network is based on the June 2007 service patterns of Metro, LADOT, Culver City, and Santa Monica Big Blue Bus, as well as committed enhancements to those services anticipated by 2030. Figure 2.1-1 (No-Build Alternative—Study Area Routes) shows a map of the study area routes assumed in the No-Build Alternative.

2.1.3 Highway and Roadway Improvements

The No-Build Alternative assumes that a number of highway and roadway improvements, which are currently in planning or under construction, will be in place. These include the: I-405 Freeway Carpool Lanes northbound and southbound between the I-10 Freeway and SR-90, and southbound between Waterford and the I-10 Freeway; the I-10/Robertson Boulevard Interchange; and the Overland Bridge Widening over the I-10 Freeway.

Source: Metro, 2008.

Figure 2.2-1 No-Build Alternative—Study Area Routes

2.2 TSM Alternative

The Transportation System Management (TSM) Alternative identifies transit improvements above and beyond the No-Build Alternative with the goal of improving transit services as much as possible without making major capital investment in new infrastructure, and specifically without constructing the Expo Phase 2 project.

The TSM alternative would involve three basic components: addition of a rapid bus route connecting downtown Culver City with downtown Santa Monica; associated service improvements on selected north/south routes to feed stations along the new rapid bus route; and service improvements on selected routes connecting Westside communities to the Expo Phase 1 terminus.

2.2.1 Rapid Bus Service

The new rapid bus route would roughly parallel the routing of the LRT Build Alternatives between Culver City and Santa Monica. The rapid bus would operate on headways of five minutes during the peak periods and ten minutes during the midday. The route would begin at the Expo Phase 1 terminus and travel north on Robertson Boulevard, west on National Boulevard, north on Westwood Boulevard, west on Olympic Boulevard, and north on 4th Street in Santa Monica. The route would loop around Broadway, Ocean Avenue, Santa Monica Boulevard, and back to 4th Street on its return to Culver City. Stops would be at roughly half-mile intervals.

2.2.2 Feeder Service and other Service Improvements

Improvements would be made on several north/south bus routes to feed stations along the new rapid bus route. Improvements would be made to transit services along Robertson Boulevard, Culver Boulevard, Sepulveda Boulevard, 14th Street, 20th Street, and Lincoln Boulevard. These service improvements would improve connections between the Expo Phase 1 terminus/Expo 2 Rapid Bus and various Westside communities such as Culver City, West Hollywood, Palms, West L.A., Westwood/UCLA, Santa Monica, Mar Vista, and Marina del Rey.

Figure 2.2-1 (TSM Alternative [Changes to No-Build]—Study Area Routes) shows a map of the changes to the study area routes associated with the TSM Alternative. Table 2.2-1 (2030 TSM Alternative [Compared to 2030 No-Build]—Study Area Routes) lists the study area routes and the corresponding headways and highlights the changes as compared to the No-Build Alternative.

2.2.3 Highway and Roadway Improvements

There are no highway or roadway improvements included in the TSM Alternative.

Source: Metro, 2008; DMJM Harris, 2008.

Figure 2.2-1 TSM Alternative (Changes to No-Build)—Study Area Routes

Table 2.2-1 2030 TSM Alternative (Compared to 2030 No-Build)—Study Area Routes

Line No.	Description	2030 No-Build (peak headway, off-peak headway [min])	2030 TSM (peak headway, off-peak headway [min])
Metro Rail			
EXPO	7th/Flower to Venice/Robertson	5, 10	5, 10
Metro Rapid (Line numbers for future routes subject to change)			
701	*Expo 2 (Venice/Robertson–4th/Broadway)*	*NA*	*5, 10*
703	*Lincoln Blvd (4th/Wilshire–Aviation Green Line)*	*10 NB/15 SB, 0*	*10 NB/15 SB, 30*
704	Santa Monica Blvd (Ocean/Santa Monica–Hill/Pico)	7, 15	7, 15
706	Sepulveda (UCLA–Aviation Green Line)	5 NB/10 SB, 20	5 NB/10 SB, 20
707 (730)	Pico (Ocean/Colorado–Wilshire/Western)	10, 10	10, 10
714	Beverly (Santa Monica/Canon–Pico/Grand)	10, 0	10, 0
720	Wilshire (Ocean/Colorado–Whittier/Goodrich)	2.5, 5	2.5, 5
728	W. Olympic (Union Stn–Ave of the Stars/SM Blvd)	6, 12	6, 12
MTA Local, Limited, and Express Bus Routes			
28	Olympic Bl, Olympic/Fairfax–Temple/Spring	6, 7.5	6, 7.5
33	Venice Bl, Main/Sunset–Union Stn	7.5, 15	7.5, 15
333	Venice Blvd Ltd, 2nd/Santa Monica–6th/Main	7.5, 15	7.5, 15
220	*Robertson Bl, Santa Monica/San Vicente–Venice/Robertson*	*40, 40*	*30, 30*
534	Malibu Express, Trancas Canyon–WLA TC	15 WB/30 EB, 30	15 WB/30 EB, 30
City of Los Angeles Department of Transportation (LADOT)			
431	Sepulveda/Montana–Union Station	45 EB, 0	45 EB, 0
437	Venice (Wash/Pac)–Marina del Rey–LACBD (Temple)	30 EB, 0	30 EB, 0
Culver City Municipal Bus Lines			
1	Washington Bl	12, 15	12, 15
2	Sunkist Park	60, 60	60, 60
3	Crosstown (Century City–Fox Hills)	20, 20	20, 20
4	Fox Hills Mall–Jefferson Blvd–WLA TC	30, 30	30, 30
5	Braddock Dr	90, 0	90, 0
6	LAX–Sepulveda Bl–UCLA	12, 30	12, 30
7	*Culver Bl*	*40, 40*	*30, 30*
8	Playa Vista–LAX Limited (Playa Vista, Jefferson, Lincoln, LAX)	30, 30	30, 30

Table 2.2-1 2030 TSM Alternative (Compared to 2030 No-Build)—Study Area Routes

Line No.	Description	2030 No-Build (peak headway, off-peak headway [min])	2030 TSM (peak headway, off-peak headway [min])
Santa Monica Municipal Bus Lines			
1	UCLA–Santa Monica Bl–Venice	10, 10	10, 10
	UCLA–Santa Monica Bl–20th–SMC	30, 30	30, 30
2	UCLA–Wilshire Bl–Venice–Walgrove Ave	15, 20	15, 20
3	LAX–Lincoln Bl–UCLA	10, 30	10, 30
	LAX–4th/Santa Monica Bl	12 SB, 30	12 SB, 30
4	SM Civic Ctr–San Vicente Bl–Olympic/Westwood	30, 30	30, 30
5	6th/Wilshire–Olympic Bl–Pico/Rimpau	20, 30	20, 30
	Olympic/Sawtelle–Pico/Rimpau, WB	60, 0 WB	60, 0 WB
6	SMC–Palms–Venice/Robertson (formerly SMC)	30 WB, 60	30 WB, 60
7	Pico Bl, SM to Pico/Rimpau	7.5, 10	7.5, 10
8	4th/Wilshire–Ocean Park Bl–Westwood Bl–UCLA	15, 15	15, 15
9	SM–Temescal Canyon–Sunset Bl	30, 30	30, 30
10	Santa Monica–Union Stn	15, 30	15, 30
	Marine/Main–Union Stn	60 EB, 0	60 EB, 0
12	Pico/Robertson–Palms–UCLA	15, 15	15, 15
Super 12	*Westwood & Palms Limited*	*12 NB, 0*	*12 NB/30 SB, 30*
13	Westside Pavilion–Pico/Rimpau	30, 0 WB	30, 0 WB
14	*Culver City–Brentwood Village–Sepulveda/Moraga*	*12, 30*	*10, 20*
Crosstown	*miniBlue Crosstown: 14th/20th St Loop (formerly SM11)*	*15, 15 clockwise*	*15, 15 both directions*
Sunset	miniBlue Sunset: SMC Campus Connector–Airport/Centinela, Ocean Park, 20th–Colorado–Stewart–Pico loop	15, 15	15, 15

Routes with differences between No-Build and TSM are italicized.
EB = eastbound; WB = westbound; NB = northbound; SB = southbound

2.3 LRT Build Alternatives

For Expo Phase 2, various light rail transit (LRT) Build Alternatives were carried through screening and further defined for the DEIS/DEIR. These alternatives would begin at the

terminus of Expo Phase 1 in Culver City and would terminate in downtown Santa Monica in the vicinity of the intersection of 4th Street and Colorado Avenue. Figure 2.3-1 (LRT 1: Expo ROW–Olympic Alternative [Changes to No-Build]—Study Area Routes) through Figure 2.3-4 (LRT 4: Venice/Sepulveda–Colorado Alternative [Changes to No-Build]—Study Area Routes) show maps of the changes to the study area routes associated with the LRT Build Alternatives.

Depending upon the alternative, the alignments between Culver City and would terminate in downtown Santa Monica would vary as follows:

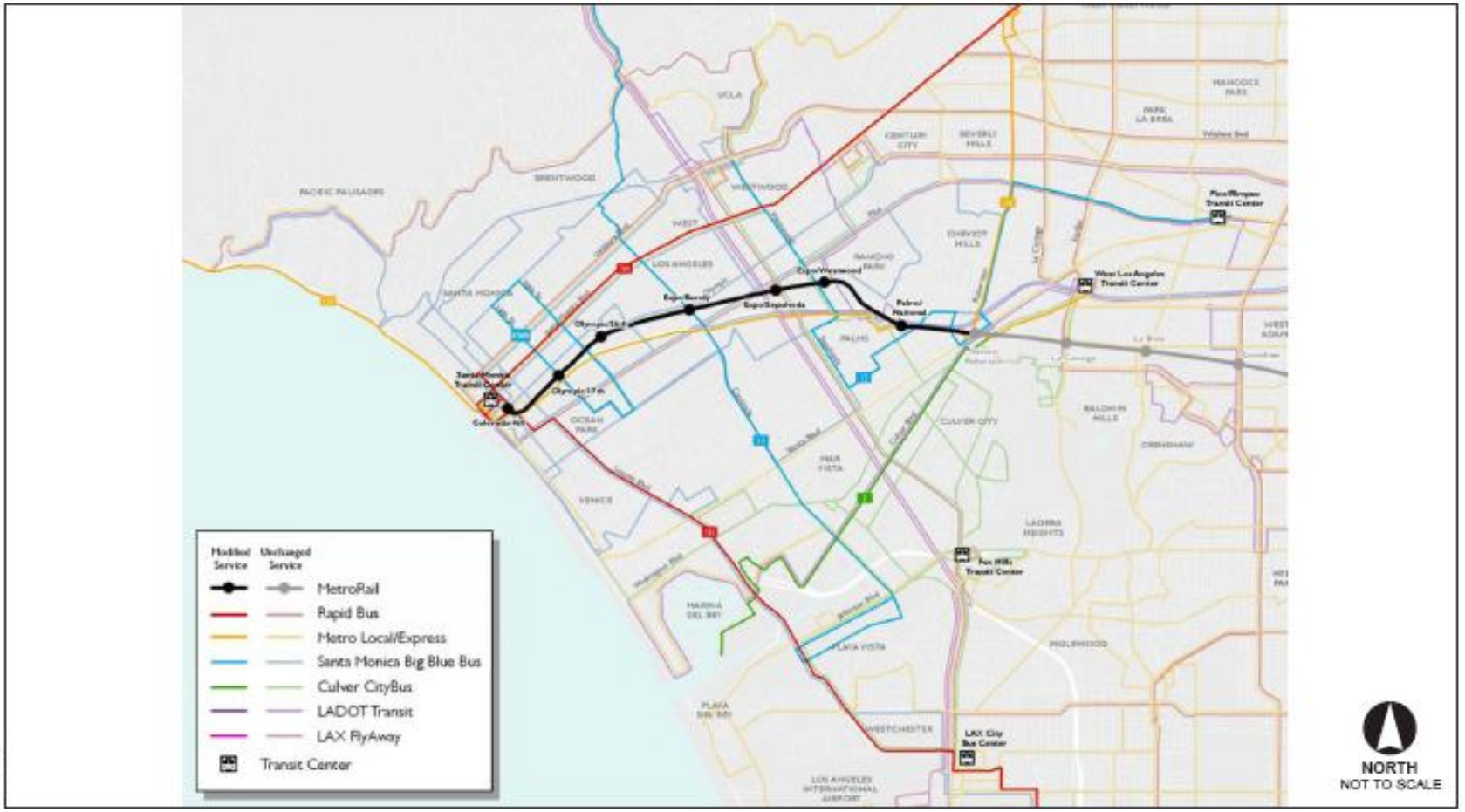
- LRT Alternative 1: Expo Right of Way (ROW)–Olympic Alternative (LRT 1: Expo ROW–Olympic Alternative) would utilize approximately five miles of the existing Exposition ROW from the Expo Phase 1 Terminus until reaching the intersection with Olympic Boulevard in Santa Monica. From that point, the alignment would follow Olympic Boulevard to the proposed terminus station.
- LRT Alternative 2: Expo ROW–Colorado Alternative (LRT 2: Expo ROW–Colorado Alternative) would also utilize the existing Exposition ROW from the Expo Phase 1 Terminus until reaching the intersection with Olympic Boulevard in Santa Monica. From that point, the alignment would continue within the Exposition ROW to west of 19th Street, then diverge from the ROW and enter onto Colorado Avenue east of 17th Street and follow the center of Colorado Avenue to the proposed terminus.
- LRT Alternative 3: Venice/Sepulveda–Olympic Alternative (LRT 3: Venice/Sepulveda–Olympic Alternative) would divert from the Exposition ROW at the Expo Phase 1 Terminus and follow Venice Boulevard and Sepulveda Boulevard until reaching the intersection with the Exposition ROW. The alignment would then continue westward along the Exposition ROW and Olympic Boulevard identical to the LRT 1: ROW-Olympic Alternative.
- LRT Alternative 4: Venice/Sepulveda–Colorado Alternative (LRT 4: Venice/Sepulveda–Colorado Alternative) would divert from the Exposition ROW at the Expo Phase 1 Terminus and follow Venice Boulevard and Sepulveda Boulevard until reaching the intersection with the Exposition ROW. The alignment would then continue westward along the Exposition ROW and Colorado Avenue identical to the LRT 2: ROW-Colorado Alternative.

2.3.1 Operating Plans

LRT Service

For the LRT Alternatives, initial revenue/non-revenue hours would be from approximately 4:00 a.m. to 2:00 a.m. daily. As noted in Table 2.3-1 (LRT Alternatives—Service Headways), service headways would average five minutes for weekday peak periods and between 10 and 20 minutes for off-peak periods.

For the LRT 1: Expo ROW–Olympic Alternative, the estimated one-way travel time from the Expo Phase 1 terminus at Venice/Robertson Station in Culver City to the Expo Phase 2 terminus station in Santa Monica is 18.2 minutes, which equates to a 21.8 mph average operating speed. For the LRT 2: Expo ROW–Colorado Alternative, the estimated one-way travel time is 19.5 minutes, or an average operating speed of 20.3 mph.

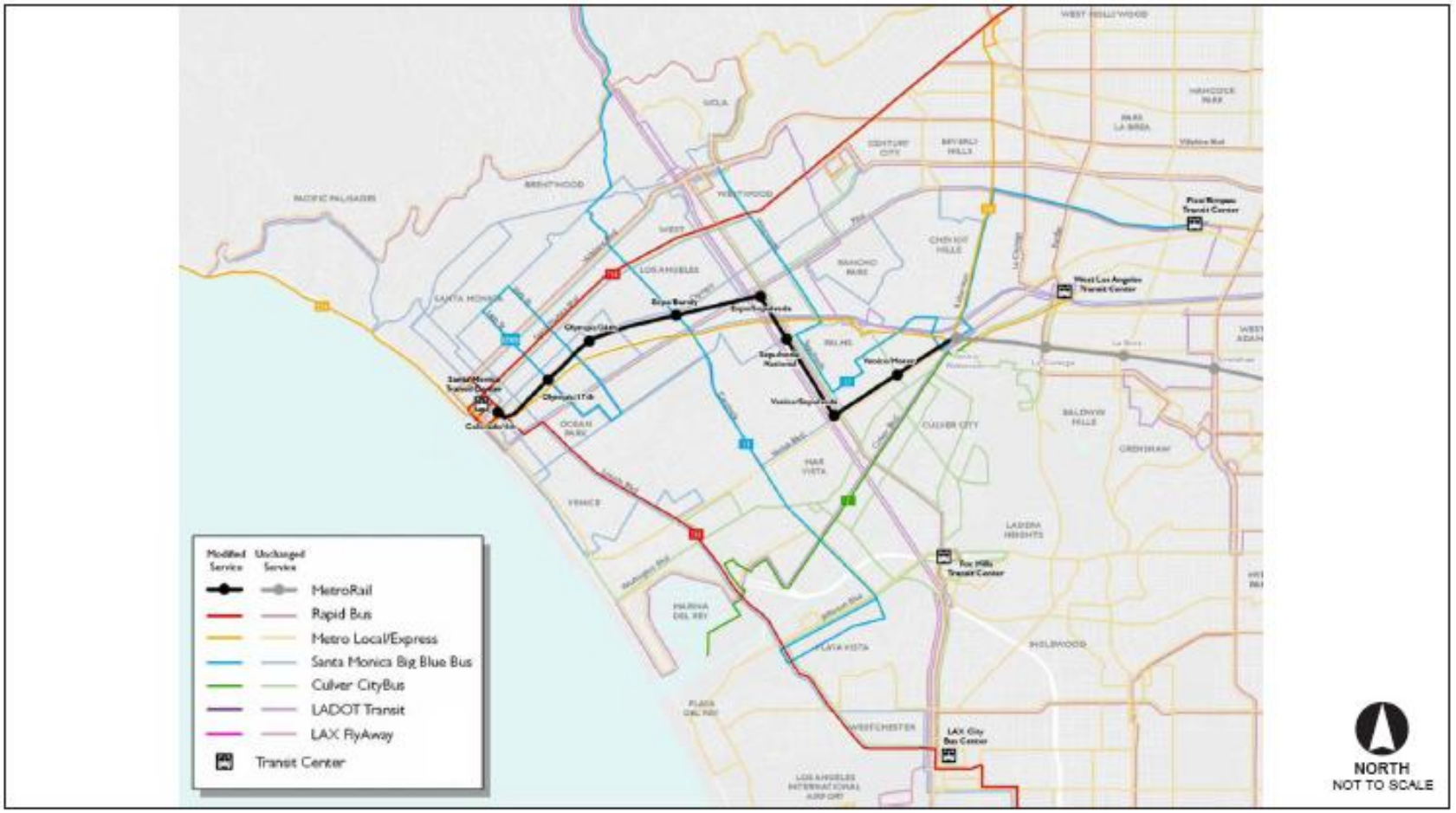


Source: Metro, 2008; DMJM Harris, 2008.

Figure 2.3-1 LRT 1: Expo ROW–Olympic Alternative (Changes to No-Build Alternative)—Study Area Routes

Source: Metro, 2008; DMJM Harris, 2008.

Figure 2.3-2 LRT 2: Expo ROW–Colorado Alternative (Changes to No-Build Alternative)—Study Area Routes



Source: Metro, 2008; DMJM Harris, 2008.

Figure 2.3-3 LRT 3: Venice/Sepulveda–Olympic Alternative (Changes to No-Build Alternative)—Study Area Routes

Source: Metro, 2008; DMJM Harris, 2008.

Figure 2.3-4 LRT 4: Venice/Sepulveda–Colorado Alternative (Changes to No-Build Alternative)—Study Area Routes

Table 2.3-1 LRT Alternatives—Service Headways

Time Period	Hours	Service Headways (minutes)
Weekdays		
Early Morning	4:00 a.m. to 6: 00 a.m.	15
AM Peak	6:00 a.m. to 9:00 a.m.	5
Midday	9:00 a.m. to 3:00 p.m.	10
PM Peak	3:00 p.m. to 5:30 p.m.	5
Early Evening	5:30 p.m. to 7:00 p.m.	10
Late Evening	7:00 p.m. to 12:30 a.m.	20
Saturdays		
Morning	4:00 a.m. to 10:00 a.m.	15
Midday	10:00 a.m. to 7:00 p.m.	10–15
Late Evening	7:00 p.m. to 12:30 a.m.	20
Sundays/Holidays		
Morning	4:00 a.m. to 10:00 a.m.	15–20
Midday	10:00 a.m. to 7:00 p.m.	10–15
Late Evening	7:00 p.m. to 12:30 a.m.	20

For the LRT 3: Venice/Sepulveda-Olympic Alternative, the estimated one-way travel time between the same beginning and end points is 22.1 minutes, which equates to a 20.4 mph average operating speed. For the LRT 4: Venice/Sepulveda-Colorado Alternative, the estimated one-way travel time is 23.4 minutes, or an average operating speed of 19.2 mph.

Bus Service

The characteristics of the supporting bus service for the LRT Build Alternatives would be the same as for the TSM Alternative. However, changes would be made to provide transit connections to the terminus station in Santa Monica and to other stations along the chosen alternative. The changes to the transit network associated with each of the LRT Build Alternatives are described below. Table 2.3-2 (2030 LRT-Build Alternatives (Compared to 2030 No-Build and 2030 TSM)—Study Area Routes) lists the study area routes and the corresponding headways and highlights the changes associated with the LRT Build Alternatives as compared to the No-Build and TSM Alternatives.

Table 2.3-2 2030 LRT-Build Alternatives (Compared to 2030 No-Build and TSM Alternatives)—Study Area Routes

Line No.	Description	2030 No-Build peak headway, off-peak headway (min)	2030 TSM peak headway, off-peak headway (min)	2030 LRT Build Alternatives peak headway, off-peak headway (min)
Metro Rail				
EXPO	*7th/Flower to Venice/Robertson*	*5, 10*	*5, 10*	*5, 10*
Metro Rapid (Line numbers for future routes subject to change)				
701	Expo 2 (Venice/Robertson–4th/Broadway)	NA	5, 10	NA
703	*Lincoln Blvd (4th/Wilshire–Aviation Green Line)*	*10 NB/15 SB, 0*	*10 NB/15 SB, 30*	*10 NB/15 SB, 30*
704	*Santa Monica Blvd (Ocean/Santa Monica–Hill/Pico)*	*7, 15*	*7, 15*	*7, 15*
706	Sepulveda (UCLA–Aviation Green Line)	5 NB/10 SB, 20	5 NB/10 SB, 20	5 NB/10 SB, 20
707 (730)	Pico (Ocean/Colorado–Wilshire/Western)	10, 10	10, 10	10, 10
714	Beverly (Santa Monica/Canon–Pico/Grand)	15, 0	10, 0	10, 0
720	Wilshire (Ocean/Colorado–Whittier/Goodrich)	2.5, 5	2.5, 5	2.5, 5
728	W. Olympic (Union Stn–Ave of the Stars/Santa Monica Blvd)	6, 12	6, 12	6, 12
MTA Local, Limited, and Express Bus Routes				
28	Olympic Bl, Olympic/Fairfax–Temple/Spring	6, 7.5	6, 7.5	6, 7.5
33	Venice Bl, Main/Sunset–Union Stn	7.5, 15	7.5, 15	7.5, 15
333	Venice Blvd Ltd, 2nd/Santa Monica–6th/Main	7.5, 15	7.5, 15	7.5, 15
220	*Robertson Bl, Santa Monica/San Vicente–Venice/Robertson*	*40, 40*	*30, 30*	*30, 30*
534	*Malibu Express, Trancas Canyon–WLA TC*	*15 WB/30 EB, 30*	*15 WB/30 EB, 30*	*15 WB/30 EB, 30*
City of Los Angeles Department of Transportation (LADOT)				
431	Sepulveda/Montana–Union Station	45 EB, 0	45 EB, 0	45 EB, 0
437	Venice (Wash/Pac)–Marina del Rey–LACBD (Temple)	30 EB, 0	30 EB, 0	30 EB, 0

Table 2.3-2 2030 LRT-Build Alternatives (Compared to 2030 No-Build and TSM Alternatives)—Study Area Routes

Line No.	Description	2030 No-Build peak headway, off-peak headway (min)	2030 TSM peak headway, off-peak headway (min)	2030 LRT Build Alternatives peak headway, off-peak headway (min)
Culver City Municipal Bus Lines				
1	Washington Bl	12, 15	12, 15	12, 15
2	Sunkist Park	60, 60	60, 60	60, 60
3	Crosstown (Century City–Fox Hills)	20, 20	20, 20	20, 20
4	Fox Hills Mall–Jefferson Blvd–WLA TC	30, 30	30, 30	30, 30
5	Braddock Dr	90, 0	90, 0	90, 0
6	LAX–Sepulveda Bl–UCLA	12, 30	12, 30	12, 30
7	*Culver Bl*	*40, 40*	*30, 30*	*30, 30*
8	Playa Vista–LAX Limited (Playa Vista, Jefferson, Lincoln, LAX)	30, 30	30, 30	30, 30
Santa Monica Municipal Bus Lines				
1	UCLA–Santa Monica Bl–Venice	10, 10	10, 10	10, 10
	UCLA–Santa Monica Bl–20th–SMC	30, 30	30, 30	30, 30
2	UCLA–Wilshire Bl–Venice–Walgrove Ave	15, 20	15, 20	15, 20
3	LAX–Lincoln Bl–UCLA	10, 30	10, 30	10, 30
	LAX–4th/Santa Monica Bl	12 SB, 30	12 SB, 30	12 SB, 30
4	SM Civic Ctr–San Vicente Bl–Olympic/Westwood	30, 30	30, 30	30, 30
5	6th/Wilshire–Olympic Bl–Pico/Rimpau	20, 30	20, 30	20, 30
	Olympic/Sawtelle–Pico/Rimpau, WB	60, 0 WB	60, 0 WB	60, 0 WB
6	SMC–Palms–Venice/Robertson (formerly SMC)	30 WB, 60	30 WB, 60	30 WB, 60

Table 2.3-2 2030 LRT-Build Alternatives (Compared to 2030 No-Build and TSM Alternatives)—Study Area Routes

Line No.	Description	2030 No-Build peak headway, off-peak headway (min)	2030 TSM peak headway, off-peak headway (min)	2030 LRT Build Alternatives peak headway, off-peak headway (min)
7	Pico Bl, Santa Monica to Pico/Rimpau	7.5, 10	7.5, 10	7.5, 10
8	4th/Wilshire–Ocean Park Bl–Westwood Bl–UCLA	15, 15	15, 15	15, 15
9	Santa Monica–Temescal Canyon–Sunset Bl	30, 30	30, 30	30, 30
10	Santa Monica–Union Stn	15, 30	15, 30	15, 30
	Marine/Main–Union Stn	60 EB, 0	60 EB, 0	60 EB, 0
12	Pico/Robertson–Palms–UCLA	15, 15	15, 15	15, 15
Super 12	*Westwood & Palms Limited*	*12 NB, 0*	*12 NB/30 SB, 30*	*12 NB/30 SB, 30*
13	Westside Pavilion–Pico/Rimpau	30, 0 WB	30, 0 WB	30, 0 WB
14	*Culver City–Brentwood Village–Sepulveda/Moraga*	*12, 30*	*10, 20*	*10, 20*
Crosstown	*miniBlue Crosstown: 14th/20th St Loop (formerly SM11)*	*15, 15 clockwise*	*15, 15 both directions*	*15, 15 both directions*
Sunset	miniBlue Sunset: SMC Campus Connector–Airport/Centinela, Ocean Park, 20th–Colorado–Stewart–Pico loop	15, 15	15, 15	15, 15

Routes in TSM and LRT Build Alternatives that are different than No-Build are italicized.
EB = eastbound; WB = westbound; NB = northbound; SB = southbound

3.0 TRAVEL DEMAND EVALUATION

This chapter documents the results of the travel demand forecasting process. The following measure results are presented:

- Section 3.1 Ridership Forecasting Results;
- Section 3.2 Federal Transit Administration Evaluation Measures;
- Section 3.3 Transit-mode Share; and
- Section 3.4 Aggregate Rail Ridership Forecasting (ARRF) model.

3.1 Ridership Forecasting Results

An important measure in characterizing the efficiency and utility of a transit alternative is transit ridership. A transit alternative that attracts more new riders will do more to reduce the number of vehicles operating on highways and local streets and will improve the mobility of both the new and existing transit riders as well as the remaining highway users. Transit ridership covers a broad range of statistics that depict the ability of a project to attract riders and the ability of the bus and rail system to serve the traveling public. Key statistics include:

- *Linked Transit Trips*. A linked transit trip represents a traveler using one or more transit vehicles during the journey from trip origin to trip destination. A commuter driving to a train station and taking the train downtown counts as one linked transit trip. A traveler walking from home to a feeder bus who then transfers to another bus or train also counts as a single linked transit trip. This statistic is directly related to the system's ability to attract customers from the automobile and every new linked transit trip is one less automobile person trip. Another desirable aspect of this statistic is that it is unaffected by system changes that induce extra transfers which would increase other ridership measures (described below). The biggest disadvantage of linked transit trips is that it is intrinsically a system-wide statistics and cannot be related to the performance of a particular route or service. Estimates of linked transit trips are directly estimated by the mode choice model and therefore are directly related to market share.
- *Unlinked Transit Trips* (boardings). Unlinked transit trips (also known as boardings) represent the number of times a traveler boards a new transit vehicle. With this statistic, a commuter driving to a train station and taking the train downtown counts as one unlinked transit trip. A traveler walking from home to a feeder bus who then transfers to another bus or train counts as a two unlinked transit trips. This statistic has the disadvantage that an alternative that adds an extra transfer adds an extra unlinked trip. This effect can result in cases where the inconvenience of the extra transfer can reduce the market share and linked trips while showing an increase in unlinked trips. The advantage of this statistic, however, is that can be measured at the route or station level and provides the most intuitive understanding of whether a project is able to attract ridership.
- *Project Boardings*. Project boardings are a subset of the unlinked transit trips statistic and represent those boardings making use of a new project. For a stand- alone fixed guideway system project boardings are equal to the number of boardings forecast for

that service. For projects that are extensions of a pre-existing service (e.g., the various LRT options), boardings are equal to the number of boardings at each new station plus the number of travelers who are on-board the trains as they leave the last existing station and travel towards the first new station.

- *Station Boardings*. Station boardings are the number of boardings occurring at each station and can also show the modes of access and egress (e.g., walk, bus, park-and-ride or kiss-and-ride). This statistic provides information on the locations where the project appears to attract demand. It is also useful in understanding the impacts that each station may have on the surrounding community.
- *Transportation System User Benefits*. User Benefits is a system-wide measure of the benefits that are derived by travelers related to the implementation of the project. This statistic is expressed as person-hours of equivalent in-vehicle time savings when the project is compared to the TSM alternative. Although the key benefit of a new fixed guideway project is expected to be faster running times (i.e., in-vehicle time), fixed guideway projects may also include improved access, egress, frequencies and costs and all of these elements are embedded in the User Benefit measure. User Benefits are a key component of the Federal Transit Administration's Cost Effectiveness Index which is part of the process that FTA uses to evaluate potential projects for Federal funding.

The remainder of this section documents the projected ridership impacts of each of the alternatives discussed in Chapter 3 according to these different statistics.

3.1.1 Linked Trips by Mode

Average weekday linked transit trips are a measure of the impact of a project on the transit system's ability to attract market share. These forecasts include the effect that increased regional population and employment, other planned transportation investments and each of the different projects will have on regional transit demand. A region-wide summary is presented in Table 3.1-1 (2030 Weekday Regional Linked Transit Trips by Alternative)

The first key result from these tables is that region-wide linked transit trips are expected to grow from 1.25 million in 2005 to 1.53 million in the 2030 No-Build Alternative, an increase of 22 percent. This increase is driven by the region-wide population and employment growth of approximately 30 percent that results in a similar amount increased trip-making. The fact that the increase in transit trip-making between 2005 and 2030 is less than the increase in all travel is a result of the fact that population growth is highest in the outer portions of the region where transit share is lower. The majority of present day and expected future transit ridership is in older, more urbanized portions of the area where growth is expected to range between 17 and 22 percent from 2005 to 2030. The fact that transit travel is growing at the same or faster rate than the overall growth in the more urbanized portions of the region is an outgrowth of both plans for expanded transit and increased levels of highway congestion.

The next key outcome is that the planned improvements in the TSM Alternative result in approximately 3,400 additional daily linked transit trips in 2030 as compared to the No-Build alternative. Most of this growth occurs in the study area or other nearby locations. The remainder of the table presents the impacts associated with each of the build projects. As compared to the TSM Alternative, the different build projects attract between 10,300 and 11,000 additional weekday linked transit trips in the Year 2030. While the difference in incremental linked trips is only about 700, the "Venice/Sepulveda" alternatives attract the fewer number of

incremental linked trips due, most likely, to the different station locations on that alignment segment

Table 3.1-1 2030 Weekday Regional Linked Transit Trips by Alternative

Alternative	Weekday Linked Regional Transit Trips	Incremental Trips Compared to 2005	Incremental Trips Compared to 2030 No-Build	Incremental Trips Compared to 2030 TSM
Year 2005 Existing	1,251,349	0		
Year 2030 No-Build	1,528,323	276,974	0	
Year 2030 TSM	1,531,723	280,374	3,400	0
Year 2030 LRT1	1,542,727	291,378	14,404	11,004
Year 2030 LRT2	1,542,709	291,360	14,386	10,986
Year 2030 LRT3	1,541,975	290,626	13,652	10,252
Year 2030 LRT4	1,542,055	290,706	13,732	10,332

3.1.2 Year 2030 Average Weekday Project Boardings

Average weekday project boardings are a measure of the number of trips that will use a project on an average weekday. This number is equal to the number of persons boarding at any new project station plus anyone already onboard a train that enters the new section of track. Year 2030 project boardings are presented in Figure 3.1-1 (2030 Average Weekday Daily Project Boardings).

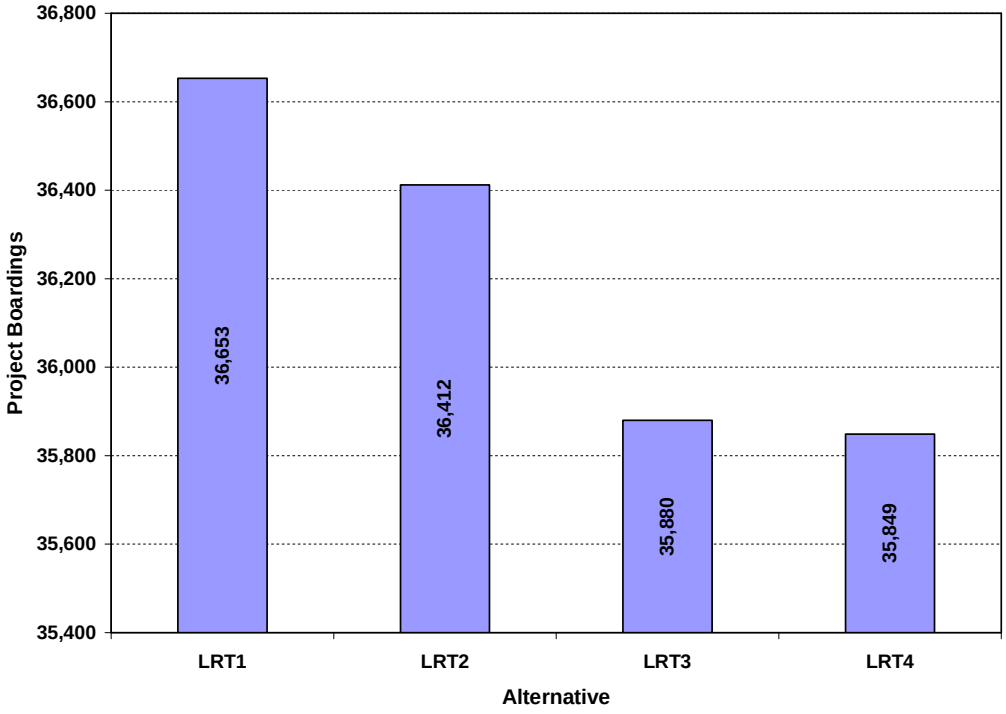


Figure 3.1-1 2030 Average Weekday Daily Project Boardings

Overall, the Build alternatives attract average weekday transit boardings (project boardings) that are approximately three times as many as the number of incremental linked trips reported in Section 4.1.1. This suggests that the majority of riders using any of the alternatives are existing transit trips who are attracted to the project by the increased level of service that the alternatives offer. As was the case with the linked transit trip forecasts, the "Right of Way" alternatives have more project boardings than the "Venice/Sepulveda" alternatives.

3.1.3 Station Boardings

Station boardings are the number of riders that board transit at each station. Figure 3.1-2 (2030 Average Weekday Boardings by Alternative) presents the number of Expo station boardings for each of the three phases associated with the project.

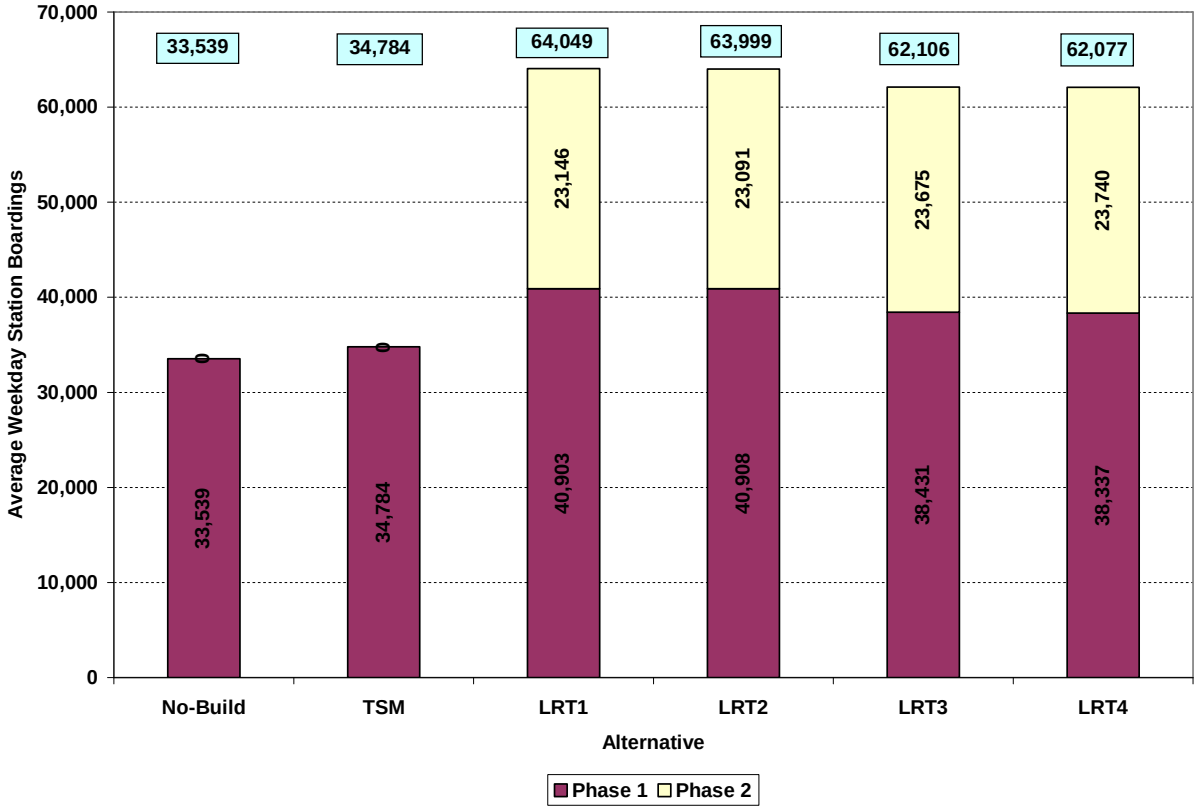


Figure 3.1-2 2030 Average Weekday Boardings by Alternative

Of the alternatives, the LRT 1: Expo ROW-Olympic Alternative would see the greatest increase in average weekday transit boardings with additional 30,000 boardings over the No-Build Alternative and 29,200 boardings over the TSM Alternative. The LRT 1: Expo ROW-Olympic Alternative is projected to have the highest 2030 average weekday transit boardings on Phase 1 at 40,900, probably due to the destination opportunities due to the Phase 2 "Right of Way" station locations.

On Phase 2, the LRT 4: Venice/Sepulveda-Colorado Alternative is forecast to have the most average weekday transit boardings at 23,740 2030 weekday Phase 2 boardings. The slightly more Phase 2 boardings are most likely to due to riders finding stations in Phase 2 "Venice/Sepulveda" alignment instead of Phase 1 stations in the "Right of Way" alternatives.

Table 3.1-2 (2015 Average Weekday Station Boardings and Times – No Build Alternative) through Table 3.1-7 (2015 Average Weekday Station Boardings and Times – LRT 4: Venice/Sepulveda-Colorado Avenue) show station boardings and times for the existing and proposed transit stations on each of the Expo Phase 2 alternatives for the year 2015. Table 3.1-8 (2030 Average Weekday Station Boardings and Times – No Build Alternative) through Table 3.1-13 (2030 Average Weekday Station Boardings and Times – LRT 4: Venice/Sepulveda-Colorado Avenue) show station boardings and times for the existing and proposed transit stations on each of the Expo Phase 2 alternatives for the year 2030.

Table 3.1-14 (2015 Station Boardings by Mode of Access – No Build Alternative) through Table 3.1-19 (2015 Station Boardings by Mode of Access – LRT 4: Venice/Sepulveda-Colorado Alternative) show station boardings by mode of access for each alternative for 2015. Table 3.1-20 (2030 Station Boardings by Mode of Access – No Build Alternative) through Table 3.1-25 (2030 Station Boardings by Mode of Access – LRT 4: Venice/Sepulveda-Colorado Alternative) show station boardings by mode of access for each alternative for 2015. All tables are based on transit assignment results using trip tables in production-attraction format.

3.2 Federal Transit Administration Evaluation Measures

Table 3.2-1 (2015 Project Boardings and User Benefits) and Table 3.2-2 (2030 Project Boardings and User Benefits) show the performance of each project in terms of the measures used by the Federal Transit Administration (FTA) to describe and evaluate projects. These measures include project boardings and Transportation System User Benefits, and characteristics of the User Benefits such as benefits per customer. The measures are used because Section 5309 New Starts funding was considered at the time of the study.

Project boardings are the number of riders that get on or off the proposed Expo Phase 2 extension. It includes riders that board at the proposed new stations plus transfers between the existing end-of-line station and the first proposed new station. In 2015 and 2030, the LRT 1: Expo ROW-Olympic Alternative is projected to have the most project boardings at approximately 28,200 and 36,700, respectively. The LRT 4: Venice/Sepulveda-Colorado Avenue Alternative would have the least project boardings in 2015 and 2030, at about 27,250 and 35,850, respectively.

User benefits are defined as the weighted travel time savings for all users of each of the project alternatives. In 2015 and 2030, the LRT 1: Expo ROW-Olympic Alternative is forecast to have the greatest user benefits at about 20 to 21 minutes per project boarding. The LRT 3: Venice/Sepulveda-Olympic Avenue Alternative is forecast to have the least user benefits in 2015 and 2030 at about 19 minutes per project boarding.

The percentage of benefits that are coverage related and the percentage of capped benefits are part of the FTA Quality Control process. Both measures are well within FTA guidance.

Table 3.1-2 2015 Average Weekday Station Boardings and Times – No-Build Alternative

Station Name	Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
7th St/Metro Center	0.7	2.0	2,367	450	2,817	-	-	3,181	301	3,482	5,548	751	**6,298**
Pico	0.9	3.9	546	215	761	0.7	2.0	1,028	148	1,176	1,574	363	**1,936**
23rd Street	0.6	3.0	1,010	178	1,188	0.9	3.9	655	79	734	1,664	257	**1,921**
Jefferson	0.9	3.2	881	253	1,134	0.6	3.0	653	154	806	1,534	407	**1,940**
Vermont	1.0	3.3	919	332	1,251	0.9	3.2	827	235	1,062	1,746	566	**2,312**
Western	1.6	3.6	779	215	994	1.0	3.3	638	81	719	1,417	296	**1,713**
Crenshaw	1.2	2.4	847	169	1,015	1.6	3.6	903	117	1,020	1,749	286	**2,035**
La Brea	1.0	2.0	602	97	699	1.2	2.4	785	90	875	1,386	187	**1,573**
La Cienega	1.0	2.4	535	102	636	1.0	2.0	843	138	981	1,378	239	**1,617**
Venice/Robertson	-	-	863	131	994	1.0	2.4	2,674	240	2,914	3,537	370	**3,907**
Total	**8.9**	**25.7**	**9,347**	**2,139**	**11,486**	**8.9**	**25.7**	**12,184**	**1,581**	**13,765**	**21,531**	**3,720**	**25,251**

Table 3.1-3 2015 Average Weekday Station Boardings and Times – TSM Alternative

Station Name	Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
7th St/Metro Center	0.7	2.0	2,377	451	2,828	-	-	3,348	299	3,647	5,725	750	**6,474**
Pico	0.9	3.9	543	214	757	0.7	2.0	1,034	148	1,182	1,577	362	**1,939**
23rd Street	0.6	2.9	1,013	180	1,192	0.9	3.9	668	79	747	1,681	258	**1,939**
Jefferson	0.9	3.2	882	253	1,135	0.6	2.9	670	152	822	1,551	405	**1,956**
Vermont	1.0	3.3	918	332	1,250	0.9	3.2	849	236	1,085	1,767	568	**2,335**
Western	1.6	3.5	781	215	996	1.0	3.3	664	84	748	1,445	299	**1,743**
Crenshaw	1.2	2.4	851	168	1,019	1.6	3.5	944	113	1,057	1,794	281	**2,075**
La Brea	1.0	2.0	605	98	702	1.2	2.4	823	90	913	1,428	188	**1,615**
La Cienega	1.0	2.4	532	98	630	1.0	2.0	882	142	1,024	1,414	240	**1,653**
Venice/Robertson	-	-	900	131	1,030	1.0	2.4	3,036	254	3,290	3,936	384	**4,320**
Total	**8.9**	**25.6**	**9,398**	**2,138**	**11,536**	**8.9**	**25.6**	**12,916**	**1,595**	**14,511**	**22,314**	**3,733**	**26,047**

Table 3.1-4 2015 Average Weekday Station Boardings and Times – LRT 1: Expo ROW–Olympic Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Peak**	**Off-Peak**	**Daily**
Phase I	7th St/Metro Center	0.7	2.0	2,541	484	3,025	-	-	6,405	492	6,897	8,946	976	**9,922**
	Pico	0.9	3.9	563	219	782	0.7	2.0	1,136	161	1,297	1,699	380	**2,079**
	23rd Street	0.6	2.9	1,085	185	1,270	0.9	3.9	1,273	116	1,389	2,358	301	**2,658**
	Jefferson	0.9	3.2	884	254	1,138	0.6	2.9	844	179	1,023	1,728	433	**2,161**
	Vermont	1.0	3.3	944	337	1,281	0.9	3.2	1,073	285	1,358	2,017	622	**2,639**
	Western	1.6	3.5	787	217	1,004	1.0	3.3	963	145	1,108	1,750	362	**2,112**
	Crenshaw	1.2	2.4	873	174	1,047	1.6	3.5	1,397	217	1,614	2,270	391	**2,661**
	La Brea	1.0	2.0	637	101	737	1.2	2.4	1,173	153	1,326	1,810	254	**2,063**
	La Cienega	1.0	2.4	450	84	534	1.0	2.0	799	153	952	1,249	237	**1,486**
	Venice/Robertson	0.9	2.0	724	115	838	1.0	2.4	2,003	249	2,252	2,727	363	**3,090**
Phase 2	National/Palms	1.4	4.2	360	62	422	0.9	2.0	828	150	978	1,187	212	**1,399**
	Expo/Westwood	0.6	1.7	629	179	808	1.4	4.2	2,819	374	3,193	3,447	553	**4,000**
	Expo/Sepulveda	1.1	2.3	799	180	979	0.6	1.7	2,579	289	2,868	3,378	469	**3,847**
	Expo/Bundy	1.1	2.9	604	111	715	1.1	2.3	1,257	171	1,427	1,861	281	**2,142**
	Olympic/26th St.	0.7	2.6	278	72	350	1.1	2.9	1,116	145	1,261	1,393	217	**1,610**
	Olympic/17th St.	0.8	2.6	309	102	411	0.7	2.6	1,446	340	1,786	1,755	442	**2,196**
	Colorado/4th St.	-	-	478	146	624	0.8	2.6	1,709	228	1,937	2,187	374	**2,561**
	Total	**15.5**	**43.9**	**12,941**	**3,020**	**15,961**	**15.5**	**43.9**	**28,817**	**3,844**	**32,661**	**41,758**	**6,864**	**48,622**

Project Boardings: 28,153

Table 3.1-5 2015 Station Boardings and Times – LRT 2: Expo ROW–Colorado Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Peak**	**Off-Peak**	**Daily**
Phase I	7th St/Metro Center	0.7	2.0	2,547	486	3,033	-	-	6,362	490	6,851	8,909	975	**9,884**
	Pico	0.9	3.9	564	219	783	0.7	2.0	1,137	160	1,296	1,700	379	**2,079**
	23rd Street	0.6	2.9	1,088	184	1,272	0.9	3.9	1,250	114	1,364	2,338	298	**2,635**
	Jefferson	0.9	3.2	884	255	1,139	0.6	2.9	842	180	1,021	1,726	434	**2,160**
	Vermont	1.0	3.3	945	337	1,281	0.9	3.2	1,070	286	1,355	2,014	622	**2,636**
	Western	1.6	3.5	789	217	1,006	1.0	3.3	958	143	1,101	1,747	360	**2,107**
	Crenshaw	1.2	2.4	873	175	1,048	1.6	3.5	1,391	217	1,608	2,264	391	**2,655**
	La Brea	1.0	2.0	638	100	738	1.2	2.4	1,168	152	1,320	1,805	252	**2,057**
	La Cienega	1.0	2.4	451	84	535	1.0	2.0	798	152	949	1,248	236	**1,484**
	Venice/Robertson	0.9	2.0	731	116	847	1.0	2.4	2,059	250	2,309	2,790	366	**3,156**
Phase 2	National/Palms	1.4	4.2	369	63	432	0.9	2.0	813	150	963	1,182	212	**1,394**
	Expo/Westwood	0.6	1.7	626	178	804	1.4	4.2	2,817	371	3,188	3,443	549	**3,991**
	Expo/Sepulveda	1.1	2.3	789	182	971	0.6	1.7	2,553	290	2,843	3,342	472	**3,814**
	Expo/Bundy	1.1	2.9	599	108	707	1.1	2.3	1,247	168	1,415	1,846	276	**2,122**
	Olympic/26th St.	0.8	3.3	288	71	359	1.1	2.9	1,113	143	1,256	1,400	214	**1,614**
	Colorado/17th St.	0.9	3.3	464	135	599	0.8	3.3	1,538	368	1,906	2,002	502	**2,504**
	Colorado/2nd St	-	-	415	127	541	0.9	3.3	1,489	226	1,715	1,904	353	**2,256**
	Total	**15.7**	**45.3**	**13,056**	**3,033**	**16,089**	**15.7**	**45.3**	**28,601**	**3,854**	**32,455**	**41,657**	**6,887**	**48,544**

Project Boardings: 27,946

Table 3.1-6 2015 Station Boardings and Times – LRT 3: Venice/Sepulveda–Olympic Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Peak**	**Off-Peak**	**Daily**
Phase I	7th St/Metro Center	0.7	2.0	2,559	486	3,045	-	-	5,885	465	6,350	8,444	951	**9,395**
	Pico	0.9	3.9	565	218	783	0.7	2.0	1,115	160	1,275	1,680	378	**2,057**
	23rd Street	0.6	2.9	1,087	183	1,270	0.9	3.9	1,112	106	1,218	2,199	289	**2,488**
	Jefferson	0.9	3.2	888	255	1,143	0.6	2.9	819	174	993	1,707	429	**2,136**
	Vermont	1.0	3.3	946	337	1,283	0.9	3.2	1,038	274	1,311	1,984	611	**2,594**
	Western	1.6	3.5	789	217	1,006	1.0	3.3	915	131	1,046	1,703	348	**2,051**
	Crenshaw	1.2	2.4	870	174	1,043	1.6	3.5	1,307	194	1,501	2,177	368	**2,544**
	La Brea	1.0	2.0	630	100	730	1.2	2.4	1,121	139	1,260	1,751	239	**1,990**
	La Cienega	1.0	2.4	468	84	552	1.0	2.0	773	131	904	1,241	215	**1,456**
	Venice/Robertson	1.3	3.8	567	103	670	1.0	2.4	1,356	188	1,544	1,923	291	**2,214**
Phase 2	Venice/Motor	0.6	2.1	435	79	513	1.3	3.8	891	155	1,046	1,326	234	**1,559**
	Venice/Sepulveda	1.3	3.4	533	69	601	0.6	2.1	1,669	152	1,821	2,202	220	**2,422**
	Sepulveda/National	0.7	2.4	385	122	507	1.3	3.4	904	287	1,191	1,289	409	**1,698**
	Expo/Sepulveda	1.0	2.3	807	144	950	0.7	2.4	3,568	271	3,839	4,374	415	**4,789**
	Expo/Bundy	1.1	2.9	563	104	667	1.0	2.3	1,046	175	1,220	1,609	278	**1,887**
	Olympic/26-th St.	0.7	2.6	268	73	341	1.1	2.9	1,052	146	1,198	1,320	219	**1,538**
	Olympic/17-th St.	0.8	2.6	281	93	374	0.7	2.6	1,392	313	1,705	1,673	406	**2,078**
	Colorado/4th St.	-	-	421	131	552	0.8	2.6	1,436	215	1,650	1,857	345	**2,202**
	Total	**16.4**	**47.7**	**13,058**	**2,968**	**16,026**	**16.4**	**47.7**	**27,395**	**3,672**	**31,067**	**40,453**	**6,640**	**47,093**

Project Boardings: 27,507

Table 3.1-7 2015 Station Boardings and Times – LRT 4: Venice/Sepulveda–Colorado Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Dist (mi)**	**Time (min)**	**Peak**	**Off-Peak**	**Daily**	**Peak**	**Off-Peak**	**Daily**
Phase I	7th St/Metro Center	0.7	2.0	2,569	486	3,055	-	-	5,843	465	6,308	8,412	950	**9,362**
	Pico	0.9	3.9	566	218	784	0.7	2.0	1,113	160	1,273	1,679	378	**2,057**
	23rd Street	0.6	2.9	1,088	186	1,273	0.9	3.9	1,065	106	1,170	2,152	291	**2,443**
	Jefferson	0.9	3.2	890	254	1,143	0.6	2.9	817	174	991	1,707	427	**2,134**
	Vermont	1.0	3.3	947	337	1,284	0.9	3.2	1,037	273	1,310	1,984	610	**2,593**
	Western	1.6	3.5	789	217	1,006	1.0	3.3	912	132	1,043	1,701	348	**2,049**
	Crenshaw	1.2	2.4	873	174	1,047	1.6	3.5	1,303	194	1,497	2,176	368	**2,543**
	La Brea	1.0	2.0	631	100	731	1.2	2.4	1,111	141	1,251	1,741	241	**1,982**
	La Cienega	1.0	2.4	474	85	559	1.0	2.0	779	130	909	1,253	215	**1,468**
	Venice/Robertson	1.3	3.8	567	102	669	1.0	2.4	1,349	188	1,537	1,916	290	**2,206**
Phase 2	Venice/Motor	0.6	2.1	444	78	522	1.3	3.8	899	156	1,055	1,343	234	**1,577**
	Venice/Sepulveda	1.3	3.4	538	70	607	0.6	2.1	1,678	146	1,824	2,216	216	**2,431**
	Sepulveda/National	0.7	2.4	390	123	512	1.3	3.4	899	288	1,187	1,288	411	**1,699**
	Expo/Sepulveda	1.0	2.3	796	145	941	0.7	2.4	3,558	271	3,829	4,354	416	**4,770**
	Expo/Bundy	1.1	2.9	557	102	658	1.0	2.3	1,033	170	1,203	1,590	271	**1,861**
	Olympic/26th St.	0.8	3.3	276	68	343	1.1	2.9	1,049	138	1,187	1,324	206	**1,530**
	Colorado/17th St.	0.9	3.3	427	126	552	0.8	3.3	1,473	346	1,818	1,899	471	**2,370**
	Colorado/2nd St.	-	-	352	115	466	0.9	3.3	1,288	216	1,504	1,640	331	**1,970**
	Total	**16.6**	**49.1**	**13,169**	**2,980**	**16,149**	**16.6**	**49.1**	**27,202**	**3,690**	**30,892**	**40,371**	**6,670**	**47,041**

Project Boardings: 27,450

Table 3.1-8 2015 Station Boardings by Mode of Access – No Build Alternative

	By Access						By Egress						Boardings					
Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
7th St/Metro Center	357	289	0	36	6,281	6,963	1,509	398	-	-	3,726	5,633	933	343	0	18	5,004	6,298
Pico	609	277	0	48	0	933	1,658	1,281	-	-	0	2,939	1,134	779	0	24	0	1,936
23rd Street	1,029	802	0	85	0	1,916	1,217	709	-	-	0	1,926	1,123	756	0	43	0	1,921
Jefferson	836	1,141	0	105	0	2,082	1,585	213	-	-	0	1,798	1,210	677	0	53	0	1,940
Vermont	1,069	1,009	0	111	0	2,189	2,016	419	-	-	0	2,435	1,542	714	0	56	0	2,312
Western	1,349	1,122	0	137	0	2,608	278	540	-	-	0	818	814	831	0	69	0	1,713
Crenshaw	737	1,643	374	119	0	2,873	317	879	-	-	0	1,196	527	1,261	187	60	0	2,035
La Brea	1,187	791	0	129	0	2,107	473	566	-	-	0	1,039	830	679	0	65	0	1,573
La Cienega	345	475	618	155	0	1,593	360	1,280	-	-	0	1,640	352	878	309	78	0	1,617
Venice/Robertson	424	1,067	410	86	0	1,987	873	4,954	-	-	0	5,827	649	3,010	205	43	0	3,907
Total	**7,941**	**8,616**	**1,402**	**1,011**	**6,281**	**25,251**	**10,285**	**11,240**	**-**	**-**	**3,726**	**25,251**	**9,113**	**9,928**	**701**	**505**	**5,004**	**25,251**

Table 3.1-9 2015 Station Boardings by Mode of Access – TSM Alternative

	By Access						By Egress						Boardings					
Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
7th St/Metro Center	366	295	0	37	6,595	7,293	1,517	398	-	-	3,740	5,655	941	347	0	18	5,167	6,474
Pico	621	283	0	48	0	952	1,659	1,266	-	-	0	2,925	1,140	775	0	24	0	1,939
23rd Street	1,043	817	0	86	0	1,946	1,215	716	-	-	0	1,931	1,129	767	0	43	0	1,939
Jefferson	850	1,161	0	106	0	2,117	1,580	215	-	-	0	1,795	1,215	688	0	53	0	1,956
Vermont	1,085	1,033	0	115	0	2,233	2,014	422	-	-	0	2,436	1,549	728	0	58	0	2,335
Western	1,374	1,148	0	140	0	2,662	279	545	-	-	0	824	826	847	0	70	0	1,743
Crenshaw	757	1,691	381	120	0	2,949	317	884	-	-	0	1,201	537	1,288	191	60	0	2,075
La Brea	1,217	819	0	133	0	2,169	470	591	-	-	0	1,061	844	705	0	67	0	1,615
La Cienega	356	496	651	163	0	1,666	364	1,276	-	-	0	1,640	360	886	325	82	0	1,653
Venice/Robertson	415	1,167	395	83	0	2,060	884	5,695	-	-	0	6,579	650	3,431	197	41	0	4,320
Total	**8,084**	**8,910**	**1,427**	**1,032**	**6,595**	**26,047**	**10,298**	**12,009**	**-**	**-**	**3,740**	**26,047**	**9,191**	**10,459**	**713**	**516**	**5,167**	**26,047**

Table 3.1-10 2015 Station Boardings by Mode of Access – LRT 1: Expo ROW–Olympic Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	557	473	0	59	12,705	13,793	1,650	443	-	-	3,957	6,050	1,103	458	0	29	8,331	9,922
	Pico	747	367	0	58	0	1,172	1,764	1,221	-	-	0	2,985	1,256	794	0	29	0	2,079
	23rd Street	2,129	963	0	108	0	3,200	1,290	826	-	-	0	2,116	1,709	895	0	54	0	2,658
	Jefferson	956	1,389	0	147	0	2,492	1,607	222	-	-	0	1,829	1,282	805	0	74	0	2,161
	Vermont	1,238	1,356	0	163	0	2,758	2,038	482	-	-	0	2,520	1,638	919	0	82	0	2,639
	Western	1,612	1,575	0	190	0	3,378	284	561	-	-	0	845	948	1,068	0	95	0	2,112
	Crenshaw	945	2,487	414	172	0	4,019	333	969	-	-	0	1,302	639	1,728	207	86	0	2,661
	La Brea	1,596	1,236	0	183	0	3,015	488	623	-	-	0	1,111	1,042	930	0	92	0	2,063
	La Cienega	496	480	404	154	0	1,534	418	1,019	-	-	0	1,437	457	749	202	77	0	1,486
	Venice/Robertson	948	1,840	317	137	0	3,242	1,111	1,826	-	-	0	2,937	1,029	1,833	158	68	0	3,090
Phase 2	National/Palms	1,591	234	0	151	0	1,975	530	293	-	-	0	823	1,060	264	0	75	0	1,399
	Expo/Westwood	351	744	334	93	0	1,523	964	5,513	-	-	0	6,477	658	3,129	167	47	0	4,000
	Expo/Sepulveda	561	990	280	98	0	1,929	1,972	3,793	-	-	0	5,765	1,266	2,391	140	49	0	3,847
	Expo/Bundy	868	453	312	91	0	1,724	1,556	1,003	-	-	0	2,559	1,212	728	156	46	0	2,142
	Olympic/26th St.	574	93	0	95	0	762	2,451	7	-	-	0	2,458	1,513	50	0	48	0	1,610
	Olympic/17th St.	639	123	0	96	0	858	2,741	793	-	-	0	3,534	1,690	458	0	48	0	2,196
	Colorado/4th St.	222	722	246	58	0	1,248	2,298	1,576	-	-	0	3,874	1,260	1,149	123	29	0	2,561
	Total	**16,029**	**15,527**	**2,308**	**2,054**	**12,705**	**48,622**	**23,497**	**21,168**	**-**	**-**	**3,957**	**48,622**	**19,763**	**18,347**	**1,154**	**1,027**	**8,331**	**48,622**

Table 3.1-11 2015 Station Boardings by Mode of Access – LRT 2: Expo ROW–Colorado Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	555	471	0	59	12,618	13,702	1,654	444	-	-	3,967	6,065	1,104	458	0	29	8,292	9,884
	Pico	745	366	0	58	0	1,169	1,766	1,222	-	-	0	2,988	1,256	794	0	29	0	2,079
	23rd Street	2,079	962	0	108	0	3,149	1,292	829	-	-	0	2,121	1,686	895	0	54	0	2,635
	Jefferson	954	1,387	0	147	0	2,488	1,608	223	-	-	0	1,831	1,281	805	0	74	0	2,160
	Vermont	1,238	1,353	0	161	0	2,752	2,037	483	-	-	0	2,520	1,638	918	0	81	0	2,636
	Western	1,610	1,570	0	189	0	3,369	283	561	-	-	0	844	947	1,065	0	95	0	2,107
	Crenshaw	943	2,479	413	170	0	4,005	334	971	-	-	0	1,305	639	1,725	207	85	0	2,655
	La Brea	1,589	1,228	0	183	0	3,000	488	626	-	-	0	1,114	1,038	927	0	92	0	2,057
	La Cienega	493	472	404	154	0	1,524	421	1,022	-	-	0	1,443	457	747	202	77	0	1,484
	Venice/Robertson	943	1,844	310	136	0	3,233	1,103	1,975	-	-	0	3,078	1,023	1,910	155	68	0	3,156
Phase 2	National/Palms	1,582	233	0	151	0	1,966	529	293	-	-	0	822	1,056	263	0	75	0	1,394
	Expo/Westwood	350	759	311	93	0	1,513	963	5,506	-	-	0	6,469	657	3,132	156	47	0	3,991
	Expo/Sepulveda	558	925	262	99	0	1,844	1,982	3,801	-	-	0	5,783	1,270	2,363	131	49	0	3,814
	Expo/Bundy	862	453	252	90	0	1,657	1,556	1,030	-	-	0	2,586	1,209	741	126	45	0	2,122
	Olympic/26th St.	575	76	0	90	0	741	2,485	2	-	-	0	2,487	1,530	39	0	45	0	1,614
	Colorado/17th St.	775	201	288	86	0	1,350	2,839	819	-	-	0	3,658	1,807	510	144	43	0	2,504
	Colorado/2nd St	200	702	134	46	0	1,082	2,211	1,219	-	-	0	3,430	1,206	960	67	23	0	2,256
	Total	**16,050**	**15,481**	**2,375**	**2,020**	**12,618**	**48,544**	**23,552**	**21,025**	**-**	**-**	**3,967**	**48,544**	**19,801**	**18,253**	**1,188**	**1,010**	**8,292**	**48,544**

Table 3.1-12 2015 Station Boardings by Mode of Access – LRT 3: Venice/Sepulveda–Olympic Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	530	443	0	55	11,671	12,699	1,639	440	-	-	4,012	6,090	1,084	441	0	27	7,841	9,395
	Pico	721	348	0	56	0	1,125	1,766	1,223	-	-	0	2,989	1,243	786	0	28	0	2,057
	23rd Street	1,827	934	0	102	0	2,863	1,318	794	-	-	0	2,112	1,573	864	0	51	0	2,488
	Jefferson	946	1,353	0	136	0	2,435	1,614	223	-	-	0	1,837	1,280	788	0	68	0	2,136
	Vermont	1,221	1,299	0	151	0	2,671	2,038	479	-	-	0	2,517	1,630	889	0	76	0	2,594
	Western	1,585	1,497	0	179	0	3,261	283	558	-	-	0	841	934	1,028	0	90	0	2,051
	Crenshaw	919	2,330	401	156	0	3,807	331	950	-	-	0	1,281	625	1,640	201	78	0	2,544
	La Brea	1,543	1,163	0	163	0	2,869	494	616	-	-	0	1,110	1,019	889	0	82	0	1,990
	La Cienega	469	433	378	126	0	1,405	415	1,091	-	-	0	1,506	442	762	189	63	0	1,456
	Venice/Robertson	1,022	1,012	299	101	0	2,434	1,068	925	-	-	0	1,993	1,045	969	150	51	0	2,214
Phase II	Venice/Motor	1,129	792	0	123	0	2,044	494	580	-	-	0	1,074	812	686	0	61	0	1,559
	Venice/Sepulveda	627	1,203	0	150	0	1,980	847	2,016	-	-	0	2,863	737	1,609	0	75	0	2,422
	Sepulveda/National	725	537	316	88	0	1,667	509	1,219	-	-	0	1,728	617	878	158	44	0	1,698
	Expo/Sepulveda	473	750	260	84	0	1,568	1,770	6,239	-	-	0	8,009	1,122	3,495	130	42	0	4,789
	Expo/Bundy	860	332	300	87	0	1,579	1,467	727	-	-	0	2,194	1,163	530	150	44	0	1,887
	Olympic/26th St.	564	102	0	90	0	756	2,307	13	-	-	0	2,320	1,435	58	0	45	0	1,538
	Olympic/17th St.	634	101	0	92	0	827	2,612	717	-	-	0	3,329	1,623	409	0	46	0	2,078
	Colorado/4th St.	217	606	227	53	0	1,103	2,087	1,213	-	-	0	3,300	1,152	909	114	27	0	2,202
	Total	**16,012**	**15,235**	**2,182**	**1,993**	**11,671**	**47,093**	**23,059**	**20,022**	**-**	**-**	**4,012**	**47,093**	**19,536**	**17,629**	**1,091**	**997**	**7,841**	**47,093**

Table 3.1-13 2015 Station Boardings by Mode of Access – LRT 4: Venice/Sepulveda–Colorado Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	528	442	0	55	11,590	12,615	1,643	441	-	-	4,024	6,109	1,086	442	0	27	7,807	9,362
	Pico	720	348	0	56	0	1,124	1,766	1,223	-	-	0	2,989	1,243	785	0	28	0	2,057
	23rd Street	1,735	934	0	102	0	2,771	1,319	796	-	-	0	2,115	1,527	865	0	51	0	2,443
	Jefferson	946	1,350	0	136	0	2,432	1,612	223	-	-	0	1,835	1,279	786	0	68	0	2,134
	Vermont	1,221	1,297	0	150	0	2,668	2,038	480	-	-	0	2,518	1,629	889	0	75	0	2,593
	Western	1,583	1,492	0	178	0	3,254	284	559	-	-	0	843	934	1,026	0	89	0	2,049
	Crenshaw	918	2,323	400	156	0	3,797	333	956	-	-	0	1,289	625	1,639	200	78	0	2,543
	La Brea	1,539	1,157	0	161	0	2,857	492	614	-	-	0	1,106	1,015	885	0	81	0	1,982
	La Cienega	468	430	376	125	0	1,400	420	1,115	-	-	0	1,535	444	773	188	63	0	1,468
	Venice/Robertson	1,018	1,013	294	101	0	2,426	1,063	923	-	-	0	1,986	1,040	968	147	51	0	2,206
Phase 2	Venice/Motor	1,127	835	0	123	0	2,085	491	578	-	-	0	1,069	809	706	0	61	0	1,577
	Venice/Sepulveda	624	1,171	0	148	0	1,943	849	2,070	-	-	0	2,919	736	1,621	0	74	0	2,431
	Sepulveda/National	723	550	299	88	0	1,660	513	1,224	-	-	0	1,737	618	887	150	44	0	1,699
	Expo/Sepulveda	475	734	238	84	0	1,530	1,781	6,229	-	-	0	8,010	1,128	3,481	119	42	0	4,770
	Expo/Bundy	852	335	242	84	0	1,513	1,465	743	-	-	0	2,208	1,159	539	121	42	0	1,861
	Olympic/26th St.	567	75	0	85	0	727	2,332	0	-	-	0	2,332	1,449	38	0	43	0	1,530
	Colorado/17th St.	771	183	273	80	0	1,307	2,672	761	-	-	0	3,433	1,722	472	137	40	0	2,370
	Colorado/2nd St.	197	566	124	45	0	932	1,992	1,016	-	-	0	3,008	1,094	791	62	23	0	1,970
	Total	**16,012**	**15,234**	**2,246**	**1,958**	**11,590**	**47,041**	**23,064**	**19,953**	**-**	**-**	**4,024**	**47,041**	**19,538**	**17,594**	**1,123**	**979**	**7,807**	**47,041**

Table 3.1-14 2030 Average Weekday Station Boardings and Times – No-Build Alternative

Station Name	Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
7th St/Metro Center	0.7	2.0	2,678	1,281	3,958	-	-	3,694	706	4,399	6,371	1,986	**8,357**
Pico	0.9	3.9	613	426	1,039	0.7	2.0	1,197	282	1,478	1,810	708	**2,517**
23rd Street	0.6	3.0	1,157	461	1,617	0.9	3.9	731	212	943	1,888	673	**2,560**
Jefferson	0.9	3.2	1,001	511	1,511	0.6	3.0	747	302	1,049	1,748	812	**2,560**
Vermont	1.0	3.3	1,063	626	1,689	0.9	3.2	970	444	1,414	2,033	1,069	**3,102**
Western	1.6	3.6	890	450	1,340	1.0	3.3	736	237	973	1,626	687	**2,313**
Crenshaw	1.2	2.4	942	434	1,376	1.6	3.6	1,027	324	1,351	1,969	757	**2,726**
La Brea	1.0	2.0	682	237	919	1.2	2.4	897	235	1,132	1,579	472	**2,051**
La Cienega	1.0	2.4	589	312	901	1.0	2.0	939	393	1,332	1,528	704	**2,232**
Venice/Robertson	-	-	928	445	1,373	1.0	2.4	3,084	666	3,750	4,012	1,111	**5,123**
Total	**8.9**	**25.7**	**10,541**	**5,180**	**15,721**	**8.9**	**25.7**	**14,020**	**3,798**	**17,818**	**24,561**	**8,978**	**33,539**

Project Boardings: 0

Table 3.1-15 2030 Average Weekday Station Boardings and Times – TSM Alternative

Station Name	Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
7th St/Metro Center	0.7	2.0	2,689	1,287	3,976	-	-	3,969	714	4,683	6,658	2,000	**8,658**
Pico	0.9	3.9	610	425	1,035	0.7	2.0	1,203	285	1,488	1,813	710	**2,522**
23rd Street	0.6	2.9	1,161	462	1,623	0.9	3.9	754	214	968	1,915	676	**2,591**
Jefferson	0.9	3.2	1,003	511	1,514	0.6	2.9	765	305	1,070	1,768	816	**2,584**
Vermont	1.0	3.3	1,064	627	1,691	0.9	3.2	1,000	456	1,455	2,063	1,083	**3,146**
Western	1.6	3.5	892	452	1,344	1.0	3.3	767	243	1,010	1,659	695	**2,354**
Crenshaw	1.2	2.4	947	434	1,381	1.6	3.5	1,075	338	1,412	2,022	771	**2,793**
La Brea	1.0	2.0	685	237	922	1.2	2.4	951	240	1,191	1,636	477	**2,113**
La Cienega	1.0	2.4	587	302	888	1.0	2.0	981	409	1,389	1,567	710	**2,277**
Venice/Robertson	-	-	968	449	1,417	1.0	2.4	3,583	750	4,332	4,551	1,198	**5,749**
Total	**8.9**	**25.6**	**10,603**	**5,184**	**15,787**	**8.9**	**25.6**	**15,046**	**3,951**	**18,997**	**25,649**	**9,135**	**34,784**

Project Boardings: 0

Table 3.1-16 2030 Average Weekday Station Boardings and Times – LRT 1: Expo ROW–Olympic Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
Phase I	7th St/Metro Center	0.7	2.0	2,870	1,400	4,270	-	-	7,562	1,203	8,764	10,432	2,602	**13,034**
	Pico	0.9	3.9	633	440	1,072	0.7	2.0	1,318	320	1,637	1,950	759	**2,709**
	23rd Street	0.6	2.9	1,238	492	1,730	0.9	3.9	1,452	349	1,801	2,690	841	**3,531**
	Jefferson	0.9	3.2	1,005	519	1,524	0.6	2.9	962	382	1,344	1,966	901	**2,867**
	Vermont	1.0	3.3	1,088	649	1,737	0.9	3.2	1,256	579	1,834	2,343	1,228	**3,571**
	Western	1.6	3.5	900	462	1,362	1.0	3.3	1,111	390	1,500	2,011	851	**2,862**
	Crenshaw	1.2	2.4	977	460	1,437	1.6	3.5	1,577	528	2,105	2,554	988	**3,541**
	La Brea	1.0	2.0	716	247	963	1.2	2.4	1,335	362	1,696	2,051	608	**2,659**
	La Cienega	1.0	2.4	501	250	751	1.0	2.0	903	382	1,285	1,404	632	**2,036**
	Venice/Robertson	0.9	2.0	786	371	1,157	1.0	2.4	2,281	658	2,939	3,067	1,029	**4,095**
Phase 2	National/Palms	1.4	4.2	395	176	571	0.9	2.0	937	354	1,291	1,332	530	**1,861**
	Expo/Westwood	0.6	1.7	667	505	1,172	1.4	4.2	3,172	894	4,066	3,839	1,399	**5,237**
	Expo/Sepulveda	1.1	2.3	845	518	1,363	0.6	1.7	3,006	728	3,734	3,850	1,246	**5,096**
	Expo/Bundy	1.1	2.9	644	336	980	1.1	2.3	1,434	450	1,883	2,077	786	**2,863**
	Olympic/26th St.	0.7	2.6	300	144	443	1.1	2.9	1,261	410	1,670	1,560	553	**2,113**
	Olympic/17th St.	0.8	2.6	331	187	518	0.7	2.6	1,582	544	2,126	1,913	731	**2,643**
	Colorado/4th St.	-	-	522	330	852	0.8	2.6	1,925	556	2,481	2,447	886	**3,333**
	Total	**15.5**	**43.9**	**14,414**	**7,482**	**21,896**	**15.5**	**43.9**	**33,068**	**9,084**	**42,152**	**47,482**	**16,566**	**64,048**

Project Boardings: 36,653

Table 3.1-17 2030 Station Boardings and Times – LRT 2: Expo ROW–Colorado Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
Phase I	7th St/Metro Center	0.7	2.0	2,875	1,405	4,280	-	-	7,504	1,196	8,700	10,379	2,601	**12,980**
	Pico	0.9	3.9	635	438	1,073	0.7	2.0	1,316	319	1,634	1,950	757	**2,707**
	23rd Street	0.6	2.9	1,241	493	1,734	0.9	3.9	1,442	346	1,788	2,682	839	**3,521**
	Jefferson	0.9	3.2	1,004	521	1,525	0.6	2.9	959	384	1,343	1,963	904	**2,867**
	Vermont	1.0	3.3	1,089	649	1,738	0.9	3.2	1,251	577	1,828	2,340	1,226	**3,566**
	Western	1.6	3.5	900	463	1,363	1.0	3.3	1,106	388	1,493	2,006	850	**2,856**
	Crenshaw	1.2	2.4	977	460	1,437	1.6	3.5	1,571	530	2,101	2,548	990	**3,538**
	La Brea	1.0	2.0	719	247	965	1.2	2.4	1,330	360	1,690	2,048	607	**2,655**
	La Cienega	1.0	2.4	500	250	750	1.0	2.0	898	378	1,275	1,398	627	**2,025**
	Venice/Robertson	0.9	2.0	797	373	1,169	1.0	2.4	2,373	654	3,027	3,169	1,027	**4,196**
Phase 2	National/Palms	1.4	4.2	405	177	582	0.9	2.0	918	356	1,274	1,323	533	**1,856**
	Expo/Westwood	0.6	1.7	667	497	1,164	1.4	4.2	3,165	885	4,050	3,832	1,382	**5,213**
	Expo/Sepulveda	1.1	2.3	856	521	1,377	0.6	1.7	2,991	729	3,720	3,847	1,250	**5,097**
	Expo/Bundy	1.1	2.9	642	325	967	1.1	2.3	1,412	433	1,845	2,054	758	**2,811**
	Olympic/26th St.	0.8	3.3	308	142	449	1.1	2.9	1,264	404	1,667	1,571	545	**2,116**
	Colorado/17th St.	0.9	3.3	488	314	802	0.8	3.3	1,664	628	2,291	2,152	942	**3,093**
	Colorado/2nd St	-	-	449	260	708	0.9	3.3	1,664	534	2,198	2,112	794	**2,906**
	Total	**15.7**	**45.3**	**14,548**	**7,531**	**22,079**	**15.7**	**45.3**	**32,822**	**9,097**	**41,919**	**47,370**	**16,628**	**63,998**

Project Boardings: 36,412

Table 3.1-18 2030 Station Boardings and Times – LRT 3: Venice/Sepulveda–Olympic Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
Phase I	7th St/Metro Center	0.7	2.0	2,885	1,390	4,275	-	-	6,973	1,130	8,103	9,858	2,519	**12,377**
	Pico	0.9	3.9	635	437	1,071	0.7	2.0	1,291	312	1,603	1,926	749	**2,674**
	23rd Street	0.6	2.9	1,240	493	1,733	0.9	3.9	1,257	321	1,578	2,497	814	**3,310**
	Jefferson	0.9	3.2	1,009	516	1,525	0.6	2.9	936	367	1,303	1,945	883	**2,828**
	Vermont	1.0	3.3	1,090	645	1,735	0.9	3.2	1,213	555	1,768	2,303	1,200	**3,503**
	Western	1.6	3.5	901	462	1,363	1.0	3.3	1,057	364	1,421	1,958	826	**2,784**
	Crenshaw	1.2	2.4	974	452	1,426	1.6	3.5	1,496	488	1,983	2,469	940	**3,409**
	La Brea	1.0	2.0	711	245	956	1.2	2.4	1,279	339	1,618	1,990	584	**2,574**
	La Cienega	1.0	2.4	518	249	767	1.0	2.0	886	344	1,230	1,404	593	**1,996**
	Venice/Robertson	1.3	3.8	629	309	937	1.0	2.4	1,549	492	2,041	2,177	801	**2,978**
Phase 2	Venice/Motor	0.6	2.1	472	208	680	1.3	3.8	996	370	1,366	1,467	578	**2,045**
	Venice/Sepulveda	1.3	3.4	570	251	821	0.6	2.1	2,025	447	2,472	2,595	697	**3,292**
	Sepulveda/National	0.7	2.4	414	344	758	1.3	3.4	974	636	1,609	1,388	979	**2,367**
	Expo/Sepulveda	1.0	2.3	870	457	1,326	0.7	2.4	4,110	699	4,809	4,979	1,156	**6,135**
	Expo/Bundy	1.1	2.9	605	315	920	1.0	2.3	1,132	437	1,569	1,737	752	**2,489**
	Olympic/26th St.	0.7	2.6	290	144	434	1.1	2.9	1,183	410	1,593	1,473	554	**2,026**
	Olympic/17th St.	0.8	2.6	302	166	467	0.7	2.6	1,503	500	2,002	1,804	665	**2,469**
	Colorado/4th St.	-	-	457	293	749	0.8	2.6	1,584	520	2,104	2,041	813	**2,853**
	Total	**16.4**	**47.7**	**14,568**	**7,370**	**21,938**	**16.4**	**47.7**	**31,439**	**8,728**	**40,167**	**46,007**	**16,098**	**62,105**

Project Boardings: 35,880

Table 3.1-19 2030 Station Boardings and Times – LRT 4: Venice/Sepulveda–Colorado Alternative

		Eastbound (Read Up)		Eastbound Boardings			Westbound (Read Down)		Westbound Boardings			Total Boardings		
	Station Name	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Dist (mi)	Time (min)	Peak	Off-Peak	Daily	Peak	Off-Peak	Daily
Phase I	7th St/Metro Center	0.7	2.0	2,897	1,395	4,292	-	-	6,930	1,125	8,055	9,827	2,520	**12,347**
	Pico	0.9	3.9	635	437	1,071	0.7	2.0	1,291	311	1,602	1,926	748	**2,673**
	23rd Street	0.6	2.9	1,243	491	1,733	0.9	3.9	1,211	322	1,533	2,454	812	**3,266**
	Jefferson	0.9	3.2	1,008	516	1,524	0.6	2.9	932	367	1,299	1,940	883	**2,823**
	Vermont	1.0	3.3	1,091	646	1,737	0.9	3.2	1,213	553	1,766	2,303	1,199	**3,502**
	Western	1.6	3.5	902	461	1,362	1.0	3.3	1,055	363	1,418	1,956	824	**2,780**
	Crenshaw	1.2	2.4	978	451	1,429	1.6	3.5	1,489	488	1,976	2,467	939	**3,405**
	La Brea	1.0	2.0	713	246	959	1.2	2.4	1,271	338	1,609	1,984	584	**2,568**
	La Cienega	1.0	2.4	521	250	771	1.0	2.0	886	344	1,230	1,407	593	**2,000**
	Venice/Robertson	1.3	3.8	628	307	935	1.0	2.4	1,547	494	2,041	2,174	801	**2,975**
Phase 2	Venice/Motor	0.6	2.1	478	208	685	1.3	3.8	997	368	1,365	1,474	576	**2,050**
	Venice/Sepulveda	1.3	3.4	580	250	829	0.6	2.1	2,040	442	2,481	2,619	691	**3,310**
	Sepulveda/National	0.7	2.4	419	340	759	1.3	3.4	966	630	1,596	1,384	970	**2,354**
	Expo/Sepulveda	1.0	2.3	874	452	1,325	0.7	2.4	4,093	695	4,788	4,966	1,147	**6,113**
	Expo/Bundy	1.1	2.9	603	304	907	1.0	2.3	1,112	424	1,536	1,715	728	**2,443**
	Olympic/26th St.	0.8	3.3	299	133	432	1.1	2.9	1,184	388	1,572	1,482	521	**2,003**
	Colorado/17th St.	0.9	3.3	453	291	744	0.8	3.3	1,573	596	2,168	2,025	887	**2,912**
	Colorado/2nd St.	-	-	386	234	620	0.9	3.3	1,427	511	1,938	1,813	745	**2,557**
	Total	**16.6**	**49.1**	**14,702**	**7,408**	**22,110**	**16.6**	**49.1**	**31,211**	**8,756**	**39,967**	**45,913**	**16,164**	**62,077**

Project Boardings: 35,849

Table 3.1-20 2030 Station Boardings by Mode of Access – No Build Alternative

	By Access						By Egress						Boardings					
Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
7th St/Metro Center	409	444	0	39	7,906	8,798	2,225	504	-	-	5,187	7,916	1,317	474	0	20	6,546	8,357
Pico	816	388	0	57	0	1,261	2,160	1,613	-	-	0	3,773	1,488	1,001	0	28	0	2,517
23rd Street	1,338	1,135	0	102	0	2,575	1,569	976	-	-	0	2,545	1,453	1,055	0	51	0	2,560
Jefferson	1,064	1,633	0	123	0	2,820	2,004	295	-	-	0	2,299	1,534	964	0	61	0	2,560
Vermont	1,475	1,498	0	131	0	3,104	2,494	606	-	-	0	3,100	1,985	1,052	0	66	0	3,102
Western	1,837	1,541	0	160	0	3,538	363	724	-	-	0	1,087	1,100	1,133	0	80	0	2,313
Crenshaw	976	2,200	513	135	0	3,824	427	1,201	-	-	0	1,628	701	1,701	256	68	0	2,726
La Brea	1,588	992	0	149	0	2,729	663	709	-	-	0	1,372	1,126	850	0	75	0	2,051
La Cienega	455	630	879	179	0	2,144	502	1,818	-	-	0	2,320	479	1,224	440	90	0	2,232
Venice/Robertson	553	1,381	700	112	0	2,746	1,179	6,320	-	-	0	7,499	866	3,851	350	56	0	5,123
Total	**10,511**	**11,842**	**2,092**	**1,188**	**7,906**	**33,539**	**13,587**	**14,765**	**-**	**-**	**5,187**	**33,539**	**12,049**	**13,304**	**1,046**	**594**	**6,546**	**33,539**

Table 3.1-21 2030 Station Boardings by Mode of Access – TSM Alternative

	By Access						By Egress						Boardings					
Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
7th St/Metro Center	425	460	0	41	8,440	9,365	2,238	505	-	-	5,209	7,951	1,331	482	0	21	6,824	8,658
Pico	833	397	0	57	0	1,287	2,161	1,596	-	-	0	3,757	1,497	996	0	29	0	2,522
23rd Street	1,354	1,157	0	103	0	2,614	1,583	985	-	-	0	2,568	1,468	1,071	0	52	0	2,591
Jefferson	1,084	1,665	0	124	0	2,873	2,000	294	-	-	0	2,294	1,542	980	0	62	0	2,584
Vermont	1,501	1,540	0	135	0	3,176	2,503	612	-	-	0	3,115	2,002	1,076	0	68	0	3,146
Western	1,873	1,583	0	163	0	3,619	362	726	-	-	0	1,088	1,118	1,154	0	82	0	2,354
Crenshaw	1,001	2,277	521	139	0	3,938	430	1,217	-	-	0	1,647	715	1,747	260	70	0	2,793
La Brea	1,631	1,028	0	155	0	2,815	666	744	-	-	0	1,410	1,149	886	0	78	0	2,113
La Cienega	473	665	934	192	0	2,264	505	1,785	-	-	0	2,290	489	1,225	467	96	0	2,277
Venice/Robertson	541	1,511	676	105	0	2,833	1,190	7,474	-	-	0	8,664	865	4,493	338	53	0	5,749
Total	**10,715**	**12,283**	**2,131**	**1,215**	**8,440**	**34,784**	**13,637**	**15,938**	**-**	**-**	**5,209**	**34,784**	**12,176**	**14,111**	**1,065**	**608**	**6,824**	**34,784**

Table 3.1-22 2030 Station Boardings by Mode of Access – LRT 1: Expo ROW–Olympic Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	651	730	0	65	16,082	17,528	2,435	562	-	-	5,542	8,539	1,543	646	0	32	10,812	13,034
	Pico	1,000	508	0	69	0	1,577	2,308	1,533	-	-	0	3,841	1,654	1,021	0	35	0	2,709
	23rd Street	2,757	1,351	0	125	0	4,233	1,696	1,133	-	-	0	2,829	2,226	1,242	0	63	0	3,531
	Jefferson	1,225	1,993	0	170	0	3,388	2,036	310	-	-	0	2,346	1,631	1,152	0	85	0	2,867
	Vermont	1,720	2,011	0	192	0	3,923	2,522	696	-	-	0	3,218	2,121	1,353	0	96	0	3,571
	Western	2,201	2,150	0	223	0	4,575	374	774	-	-	0	1,148	1,288	1,462	0	112	0	2,862
	Crenshaw	1,245	3,280	559	197	0	5,281	449	1,352	-	-	0	1,801	847	2,316	279	99	0	3,541
	La Brea	2,125	1,521	0	204	0	3,850	688	779	-	-	0	1,467	1,406	1,150	0	102	0	2,659
	La Cienega	660	663	566	179	0	2,068	589	1,414	-	-	0	2,003	625	1,038	283	90	0	2,036
	Venice/Robertson	1,219	2,278	469	164	0	4,130	1,523	2,537	-	-	0	4,060	1,371	2,407	235	82	0	4,095
Phase 2	National/Palms	2,068	326	0	178	0	2,572	701	449	-	-	0	1,150	1,384	388	0	89	0	1,861
	Expo/Westwood	417	1,035	572	112	0	2,136	1,260	7,078	-	-	0	8,338	839	4,056	286	56	0	5,237
	Expo/Sepulveda	675	1,227	709	122	0	2,732	2,560	4,900	-	-	0	7,460	1,617	3,063	354	61	0	5,096
	Expo/Bundy	1,053	510	675	111	0	2,349	1,993	1,383	-	-	0	3,376	1,523	946	337	56	0	2,863
	Olympic/26th St.	693	129	0	112	0	934	3,283	9	-	-	0	3,292	1,988	69	0	56	0	2,113
	Olympic/17th St.	774	179	0	115	0	1,068	3,274	944	-	-	0	4,218	2,024	562	0	57	0	2,643
	Colorado/4th St.	257	950	427	70	0	1,704	2,962	2,000	-	-	0	4,962	1,609	1,475	214	35	0	3,333
	Total	**20,741**	**20,840**	**3,976**	**2,409**	**16,082**	**64,048**	**30,652**	**27,854**	**-**	**-**	**5,542**	**64,048**	**25,696**	**24,347**	**1,988**	**1,205**	**10,812**	**64,048**

Table 3.1-23 2030 Station Boardings by Mode of Access – LRT 2: Expo ROW–Colorado Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	674	755	0	67	15,904	17,400	2,441	564	-	-	5,555	8,560	1,557	660	0	34	10,729	12,980
	Pico	997	506	0	69	0	1,572	2,308	1,533	-	-	0	3,841	1,652	1,019	0	35	0	2,707
	23rd Street	2,732	1,349	0	125	0	4,206	1,698	1,138	-	-	0	2,836	2,215	1,243	0	63	0	3,521
	Jefferson	1,223	1,989	0	169	0	3,381	2,043	310	-	-	0	2,353	1,633	1,150	0	84	0	2,867
	Vermont	1,717	2,005	0	192	0	3,914	2,520	697	-	-	0	3,217	2,119	1,351	0	96	0	3,566
	Western	2,198	2,143	0	222	0	4,562	373	776	-	-	0	1,149	1,285	1,459	0	111	0	2,856
	Crenshaw	1,242	3,266	558	197	0	5,264	451	1,360	-	-	0	1,811	847	2,313	279	99	0	3,538
	La Brea	2,115	1,512	0	204	0	3,831	691	787	-	-	0	1,478	1,403	1,150	0	102	0	2,655
	La Cienega	657	654	565	178	0	2,055	587	1,407	-	-	0	1,994	622	1,031	283	89	0	2,025
	Venice/Robertson	1,214	2,267	459	164	0	4,105	1,516	2,770	-	-	0	4,286	1,365	2,519	230	82	0	4,196
Phase 2	National/Palms	2,058	325	0	177	0	2,560	702	449	-	-	0	1,151	1,380	387	0	89	0	1,856
	Expo/Westwood	416	1,032	525	112	0	2,085	1,261	7,080	-	-	0	8,341	838	4,056	262	56	0	5,213
	Expo/Sepulveda	669	1,230	667	121	0	2,687	2,578	4,928	-	-	0	7,506	1,623	3,079	334	60	0	5,097
	Expo/Bundy	1,046	512	575	111	0	2,244	1,982	1,396	-	-	0	3,378	1,514	954	288	56	0	2,811
	Olympic/26th St.	692	98	0	108	0	898	3,333	1	-	-	0	3,334	2,012	50	0	54	0	2,116
	Colorado/17th St.	943	274	500	101	0	1,818	3,397	971	-	-	0	4,368	2,170	623	250	51	0	3,093
	Colorado/2nd St	224	903	231	58	0	1,416	2,862	1,533	-	-	0	4,395	1,543	1,218	116	29	0	2,906
	Total	**20,817**	**20,820**	**4,081**	**2,376**	**15,904**	**63,998**	**30,741**	**27,702**	**-**	**-**	**5,555**	**63,998**	**25,779**	**24,261**	**2,041**	**1,188**	**10,729**	**63,998**

Table 3.1-24 2030 Station Boardings by Mode of Access – LRT 3: Venice/Sepulveda–Olympic Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	619	687	0	62	14,838	16,205	2,412	556	-	-	5,581	8,549	1,515	621	0	31	10,210	12,377
	Pico	964	483	0	67	0	1,514	2,295	1,539	-	-	0	3,834	1,630	1,011	0	33	0	2,674
	23rd Street	2,363	1,311	0	121	0	3,795	1,737	1,088	-	-	0	2,825	2,050	1,200	0	61	0	3,310
	Jefferson	1,213	1,936	0	160	0	3,309	2,038	308	-	-	0	2,346	1,625	1,122	0	80	0	2,828
	Vermont	1,695	1,925	0	178	0	3,798	2,521	687	-	-	0	3,208	2,108	1,306	0	89	0	3,503
	Western	2,163	2,046	0	209	0	4,418	376	773	-	-	0	1,149	1,269	1,410	0	105	0	2,784
	Crenshaw	1,216	3,094	546	182	0	5,038	449	1,330	-	-	0	1,779	833	2,212	273	91	0	3,409
	La Brea	2,067	1,442	0	184	0	3,693	690	764	-	-	0	1,454	1,379	1,103	0	92	0	2,574
	La Cienega	626	597	535	148	0	1,905	586	1,501	-	-	0	2,087	606	1,049	267	74	0	1,996
	Venice/Robertson	1,318	1,334	453	123	0	3,228	1,463	1,264	-	-	0	2,727	1,391	1,299	226	62	0	2,978
Phase 2	Venice/Motor	1,447	1,044	0	150	0	2,641	637	812	-	-	0	1,449	1,042	928	0	75	0	2,045
	Venice/Sepulveda	773	1,484	0	176	0	2,433	1,264	2,887	-	-	0	4,151	1,019	2,185	0	88	0	3,292
	Sepulveda/National	883	666	488	106	0	2,143	661	1,929	-	-	0	2,590	772	1,298	244	53	0	2,367
	Expo/Sepulveda	572	1,017	651	104	0	2,345	2,246	7,678	-	-	0	9,924	1,409	4,348	326	52	0	6,135
	Expo/Bundy	1,042	385	654	105	0	2,186	1,878	913	-	-	0	2,791	1,460	649	327	53	0	2,489
	Olympic/26-th St.	681	153	0	109	0	942	3,074	36	-	-	0	3,110	1,877	94	0	54	0	2,026
	Olympic/17-th St.	767	136	0	111	0	1,014	3,072	852	-	-	0	3,924	1,920	494	0	55	0	2,469
	Colorado/4th St.	252	784	398	64	0	1,498	2,730	1,478	-	-	0	4,208	1,491	1,131	199	32	0	2,853
	Total	**20,661**	**20,523**	**3,724**	**2,359**	**14,838**	**62,105**	**30,130**	**26,394**	**-**	**-**	**5,581**	**62,105**	**25,395**	**23,459**	**1,862**	**1,180**	**10,210**	**62,105**

Table 3.1-25 2030 Station Boardings by Mode of Access – LRT 4: Venice/Sepulveda–Colorado Alternative

		By Access						By Egress						Boardings					
	Station Name	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**	**Walk**	**Bus**	**PNR**	**KNR**	**Rail**	**Total**
Phase I	7th St/Metro Center	617	685	0	62	14,745	16,109	2,420	558	-	-	5,605	8,584	1,519	622	0	31	10,175	12,347
	Pico	963	481	0	67	0	1,511	2,296	1,539	-	-	0	3,835	1,630	1,010	0	33	0	2,673
	23rd Street	2,275	1,310	0	121	0	3,706	1,734	1,091	-	-	0	2,825	2,005	1,201	0	61	0	3,266
	Jefferson	1,213	1,935	0	159	0	3,307	2,031	308	-	-	0	2,339	1,622	1,122	0	79	0	2,823
	Vermont	1,695	1,921	0	177	0	3,793	2,522	689	-	-	0	3,211	2,108	1,305	0	89	0	3,502
	Western	2,162	2,040	0	208	0	4,411	374	774	-	-	0	1,148	1,268	1,407	0	104	0	2,780
	Crenshaw	1,213	3,086	545	180	0	5,024	450	1,336	-	-	0	1,786	832	2,211	272	90	0	3,405
	La Brea	2,060	1,435	0	184	0	3,679	691	765	-	-	0	1,456	1,375	1,100	0	92	0	2,568
	La Cienega	624	595	533	148	0	1,901	586	1,513	-	-	0	2,099	605	1,054	267	74	0	2,000
	Venice/Robertson	1,316	1,332	441	123	0	3,211	1,468	1,271	-	-	0	2,739	1,392	1,301	220	62	0	2,975
Phase 2	Venice/Motor	1,442	1,062	0	150	0	2,654	635	810	-	-	0	1,445	1,038	936	0	75	0	2,050
	Venice/Sepulveda	770	1,459	0	175	0	2,404	1,269	2,947	-	-	0	4,216	1,019	2,203	0	87	0	3,310
	Sepulveda/National	882	674	456	105	0	2,117	661	1,930	-	-	0	2,591	772	1,302	228	53	0	2,354
	Expo/Sepulveda	570	1,027	599	103	0	2,299	2,256	7,670	-	-	0	9,926	1,413	4,348	300	52	0	6,113
	Expo/Bundy	1,034	389	558	104	0	2,084	1,877	924	-	-	0	2,801	1,455	656	279	52	0	2,443
	Olympic/26th St.	682	97	0	104	0	883	3,123	0	-	-	0	3,123	1,903	48	0	52	0	2,003
	Colorado/17th St.	933	236	479	97	0	1,745	3,161	917	-	-	0	4,078	2,047	577	240	49	0	2,912
	Colorado/2nd St.	222	747	219	51	0	1,239	2,599	1,276	-	-	0	3,875	1,410	1,012	109	26	0	2,557
	Total	**20,671**	**20,513**	**3,830**	**2,318**	**14,745**	**62,077**	**30,154**	**26,318**	**-**	**-**	**5,605**	**62,077**	**25,412**	**23,416**	**1,915**	**1,159**	**10,175**	**62,077**

Table 3.2-1 2015 Project Boardings and User Benefits

Alternative	TSM					LRT 1: Expo ROW-Olympic Avenue					LRT 2: Expo ROW-Colorado Avenue				
Daily Line Boardings	**26,047**					**48,622**					**48,544**				
Project Boardings	**-**					**28,153**					**27,946**				
	HBW	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**
New Riders	-	-	-	-	2,677	-	-	-	-	8,557	-	-	-	-	8,530
User Benefits (hours)	1,121	1,047	439	295	2,901	4,161	3,243	1,120	1,339	9,863	4,126	3,284	1,114	1,291	9,814
User Benefits per Project Boarding (min)	-	-	-	-	-	-	-	-	-	21.0	-	-	-	-	21.1
% of benefits that are coverage related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% of benefits capped prices	-0.2%	-4.7%	-0.7%	-1.6%	-2.1%	-0.3%	-0.5%	-0.5%	-0.5%	-0.3%	-0.3%	-0.7%	-0.5%	-0.5%	-0.3%

Alternative	LRT 3: Venice/Sepulveda-Olympic Avenue					LRT 4: Venice/Sepulveda-Colorado Avenue				
Daily Line Boardings	**47,093**					**47,041**				
Project Boardings	**27,507**					**27,450**				
	HBW	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**
New Riders	-	-	-	-	7,881	-	-	-	-	7,947
User Benefits (hours)	3,738	3,058	1,023	957	8,776	3,725	3,130	1,022	954	8,832
User Benefits per Project Boarding (min)	-	-	-	-	19.1	-	-	-	-	19.3
% of benefits that are coverage related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% of benefits capped prices	-0.3%	-2.0%	-0.6%	-0.6%	-0.9%	-0.3%	-2.1%	-0.6%	-0.6%	-1.0%

Table 3.2-2 2030 Project Boardings and User Benefits

Alternative	TSM					LRT 1: Expo ROW-Olympic Avenue					LRT 2: Expo ROW-Colorado Avenue				
Daily Line Boardings	**34,784**					**64,048**					**63,998**				
Project Boardings	**-**					**36,653**					**36,412**				
	HBW	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**
New Riders	-	-	-	-	3,396	-	-	-	-	11,011	-	-	-	-	10,981
User Benefits (hours)	1,673	1,188	481	302	3,644	6,123	3,596	1,223	1,530	12,471	6,090	3,616	1,217	1,474	12,397
User Benefits per Project Boarding (min)	-	-	-	-	-	-	-	-	-	20.4	-	-	-	-	20.4
% of benefits that are coverage related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% of benefits capped prices	-0.2%	-4.9%	-0.8%	-1.5%	-1.9%	-0.3%	0.5%	0.6%	0.6%	-0.3%	-0.3%	-0.7%	0.7%	-0.6%	-0.4%

Alternative	LRT 3: Venice/Sepulveda-Olympic Avenue					LRT 4: Venice/Sepulveda-Colorado Avenue				
Daily Line Boardings	**62,105**					**62,077**				
Project Boardings	**35,880**					**35,849**				
	HBW	**HBO**	**NHB**	**HBU**	**Total**	**HBW**	**HBO**	**NHB**	**HBU**	**Total**
New Riders	-	-	-	-	10,251	-	-	-	-	10,320
User Benefits (hours)	5,565	3,366	1,122	1,116	11,169	5,556	3,432	1,121	1,101	11,211
User Benefits per Project Boarding (min)	-	-	-	-	18.7	-	-	-	-	18.8
% of benefits that are coverage related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% of benefits capped prices	-0.7%	-2.1%	-0.6%	-0.7%	-1.1%	-0.7%	2.2%	0.6%	0.6%	-1.2%

NOTE: User Benefits for TSM are with regard to Project No Build. Build alternatives are with regard to TSM.

HBW: Home Based Work; HBO: Home Based Other; NHB: Non-home Based; HBU: Home Based University

3.3 Transit Mode Share

The estimated change in transit mode share shows the percentage of total trips taken by transit for each alternative in the study area. The study area is shown in Figure 3.3-1. It comprises districts 19 through 21. In all cases, the proposed Expo Phase 2 results in an increased transit mode share. Though each alternative shows an overall improvement, there is a slight variation by alternative. Of the build alternatives, LRT 1: Expo ROW-Olympic Alternative and LRT 2: Expo ROW-Colorado Alternative show the lowest transit mode share at 11.93 and 11.92 percent, respectively. LRT 3: Venice/Sepulveda-Olympic Alternative and LRT 4: Venice Sepulveda-Colorado Alternative show the highest transit mode share at 11.97 and 11.96 percent, respectively. Table 3.3-1 presents the transit mode share for each alternative.

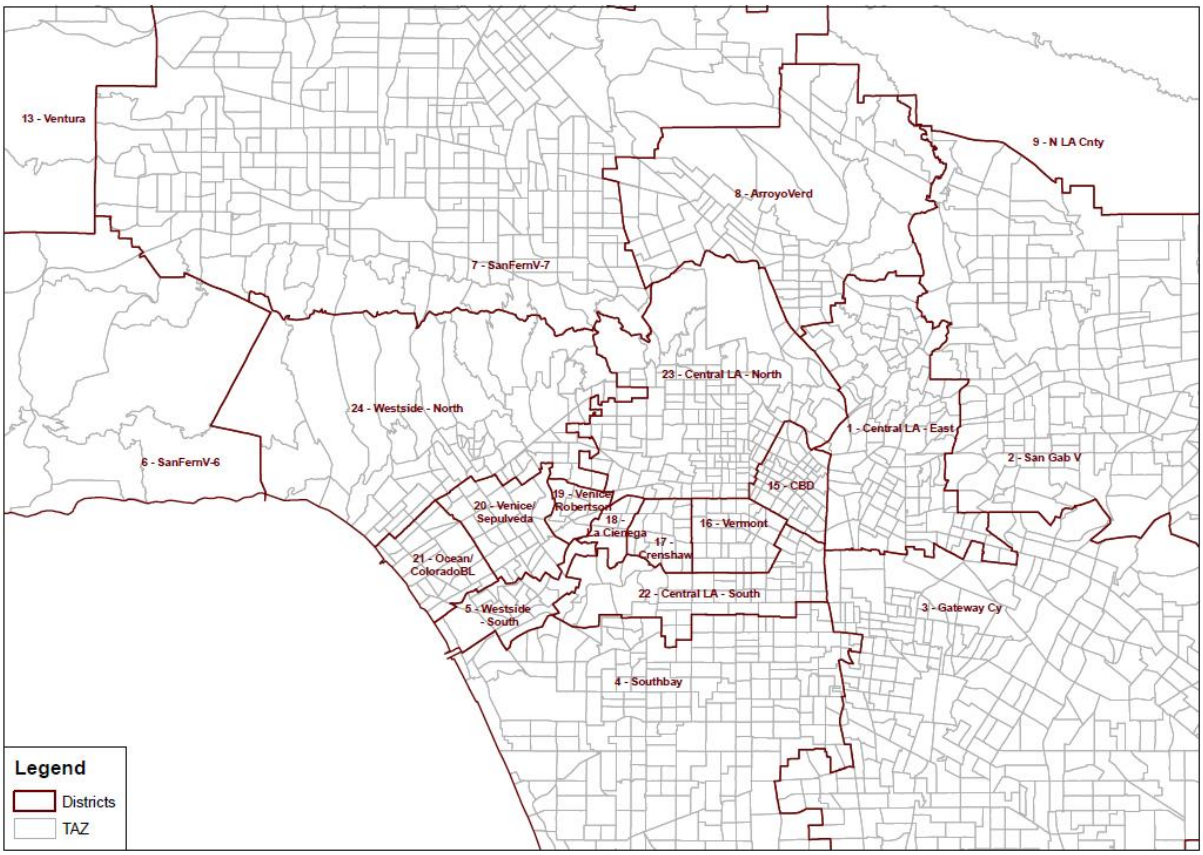


Figure 3.3-1 Expo Study Area Travel Districts

Table 3.3-1 2030 Transit Mode Share

Alternative	Person Trips	Transit Trips	Mode Share
No-Build	412,947	43,829	10.6137%
TSM	412,947	45,294	10.9685%
LRT1	412,947	49,261	11.9291%
LRT 2	412,947	49,222	11.9197%
LRT 3	412,947	49,414	11.9662%
LRT 4	412,947	49,395	11.9616%

3.4 Aggregate Ridership Forecasts

The preceding sections have presented ridership forecasting results obtained from the Metro Transportation Analysis Model. This tool is based on experience with transit ridership in the Los Angeles area that has been developed over a period of many years. Like any forecasting model, however, the estimates of ridership and benefits are subject to considerable uncertainty regarding many factors including future population growth, future trip-making rates, and traveler response to new modes being provided as part of this project.

As a means for understanding whether or not the forecasted trips are reasonable, the Federal Transit Administration requires alternate forecasting techniques be applied to test the degree to which rail forecasts conform to nationwide experience for other, similar projects.

One technique for generating alternative estimates of ridership is FTA's Aggregate Rail Ridership Forecasting (ARRF) Model. This model relates nationwide LRT ridership for 11 existing LRT lines currently in operation to Year 2000 Census Transportation Planning Package Journey-to-Work flows occurring in the rail corridor

Key findings are reported in Table 3.4-1. As this table shows, both the Metro Transportation Analysis Model and the Aggregate Model generate ridership of approximately 20,000 to 24,000 trips per day on the existing Gold Line and approximately 46,000 to 63,000 trips per day on the existing Blue Line. Actual 2005 ridership on the Gold Line was observed at 18,000 riders per day and about 70,000 riders per day on the Blue Line.

By the Year 2030, both the Metro Transportation Analysis Model and the Aggregate Rail Ridership project considerable growth in Gold Line ridership with the Metro Model estimating 34,000 daily trips and the Aggregate Model estimating 36,000 trips. One possible explanation of the difference is that the Metro Model includes a representation of the effect of increased highway congestion on transit usage while the Aggregate Model does not.

Ridership increases associated with each of the build alternatives shows that the Metro Model predicts that the various LRT extensions will add between 29,000 and 31,000 riders. The Aggregate Model shows that Expo Phase 2 will add between 27,000 and 29,000 riders.

Although the Metro and Aggregate Models are not in complete alignment on the ridership of the different alternatives, it appears that the Aggregate Model is in agreement regarding the likely order of magnitude of ridership gains associated with the Expo Phase 2 project, which provides an important check on the reasonableness of the forecast results.

Table 3.4-1 Comparison of Metro Transportation Analysis Model Ridership Results to Aggregate Rail Ridership Forecasting Model Results

Year	Scenario	Observed Ridership	Metro Transportation Analysis Model		Aggregate Rail Ridership Forecasting Model	
			Modeled Trips	Additional Boardings Due to Project	Modeled Trips	Additional Boardings Due to Project
2005	Existing Gold Line	17,800	19,900		23,800	
2005	Existing Blue Line	70,200	62,800		46,200	
2030	Expo Phase 1		33,550	0	36,100	0
2030	Expo Phase 1 + LRT 1		64,050	30,500	62,900	26,800
2030	Expo Phase 1 + LRT 3		62,100	28,550	65,250	29,150
2030	Expo Phase 1 + LRT 2		64,000	30,450	63,150	27,050
2030	Expo Phase 1 + LRT 4		62,050	28,500	65,550	29,450

NOTE: Aggregate Model based on 2000 CTPP grown by 20% to account for socioeconomic growth