# Appendix E2-2 LAX SPECIFIC PLAN AMENDMENT STUDY REPORT

## SPAS Alternatives Ground Transportation System Elements

July 2012

Prepared by:

Los Angeles World Airports One World Way Los Angeles, California 90045

## **Table of Contents**

1.	Eleme	ents Common to SPAS Alternatives 1, 2, 8, and 9			
	1.1	The Realignment of Sky Way Leading to and from the CTA	. 1		
	1.2	98th Street Intermodal Transportation Facility	. 1		
	1.3	CTA Parking	. 2		
	1.4	Parking Lot C	. 2		
	1.5	Parking Lot D/"Jenny Lot"	. 2		
	1.6	Other LAWA Parking Lots			
	1.7	Park One			
	1.8	Transit (Non-LAWA Background Transportation Project)			
	1.9	Curbside for Midfield Satellite Concourse Passenger Processor	. 3		
	1.10	Commercial Vehicle Circulation within the CTA			
2.		ents Unique to SPAS Alternatives 1 and 2 – Busway/No CONRAC			
	2.1	Busway between Manchester Square and the CTA			
	2.2	Public Parking			
	2.3	Employee Parking			
	2.4	Displaced Rent-a-Car Facilities			
3.		ents Unique to SPAS Alternatives 8 and 9 - CONRAC in Manchester Square			
	3.1	CONRAC			
	3.2	Public Parking			
	3.3	Employee Parking			
	3.4	Displaced Rent-a-Car Facilities			
4.		ents Unique to SPAS Alternative 8 – Busway/CONRAC	. 7		
	4.1	Busway between CONRAC and CTA			
	4.2	Public Parking			
	4.3	Employee Parking			
5.		ents Unique to SPAS Alternative 9 – Automated People Mover/CONRAC			
	5.1	Automated People Mover			
		5.1.1 Alignment			
		5.1.2 Stations			
		5.1.3 Maintenance Facility			
		5.1.4 Operation			
	5.2	Public Parking			
	5.3	Employee Parking			
6.		SPAS Alternative 4 – CONRAC Only – No Yellow Light Projects			
	6.1	CONRAC			
	6.2	Public Parking			
	6.3	Employee Parking			
	6.4	Displaced Rent-a-Car Facilities			
	6.5	CTA Parking			
	6.6	Transit (Non-LAWA Background Transportation Project)			
	6.7	Curbside for Midfield Satellite Concourse Passenger Processor			
	6.8	Commercial Vehicle Circulation within the CTA	11		

# 1. ELEMENTS COMMON TO SPAS ALTERNATIVES 1, 2, 8, AND 9

## 1.1 The Realignment of Sky Way Leading to and from the CTA

Currently, Sky Way connects traffic from the 96th Street Bridge and southbound Sepulveda Boulevard into the Central Terminal Area (CTA). Traffic exiting the CTA on the lower level can also use Sky Way to reach the 96th Street Bridge and Sepulveda Boulevard. Emergency vehicles on the upper level are allowed to use Sky Way to exit the CTA. For both the upper and lower level roadways, Sky Way intersects World Way North at traffic signals immediately east of Terminal 1. Under Alternatives 1, 2, 8, and 9, Sky Way would be realigned to the east, in what is currently the eastern half of Park One (a surface parking lot). However, only movements inbound to the CTA would remain. Traffic from southbound Sepulveda Boulevard and from westbound 96th Street Bridge would continue to have connectivity to either the lower or upper level roadways of the realigned Sky Way. Outbound traffic would use World Way South or Center Way to exit the CTA.

The new roadway to the lower level would be designed to provide one lane from southbound Sepulveda Boulevard and one lane from westbound 96th Street Bridge. The new Sky Way roadway would be widened to four lanes as it approaches World Way. A new signalized intersection would be constructed approximately 600 feet east of the current signal near Terminal 1. The right two lanes would be designated for traffic turning into the inner roadway (near the terminals) while the left two lanes would be designated for traffic turning into the main roadway of World Way.

The new roadway to the upper level would be designed to provide one lane from southbound Sepulveda Boulevard and one lane from westbound 96th Street Bridge. The new Sky Way roadway would be widened to three lanes as it approaches World Way. A new signalized intersection would be constructed approximately 700 feet east of the current signal near Terminal 1.

The current traffic signal near Terminal 1 on the lower level would continue to operate. However, since the north leg of the roadway would no longer exist, the signal would operate with two phases (westbound through and northbound left movements only) rather than a three-phase signal. The current traffic signal near Terminal 1 on the upper level roadway would be removed.

If required, the relocated Sky Way Alverstone Avenue and Davidson Avenue, located north of 96th Street and west of Sepulveda Boulevard, would be eliminated. The service road north of and parallel to World Way North, aka "Little Century," would be widened to provide two moving lanes of westbound traffic between Sepulveda Boulevard and Terminal 1. Additional width for commercial vehicle staging or passenger pick up may also be provided. roadways (upper and lower) could be designed with security checkpoints prior to traffic reaching World Way.

The traffic movement from southbound Sepulveda Boulevard to eastbound 96th Street Bridge would continue to be accommodated, primarily for those drivers heading to rental car facilities, long-term parking lots, and the proposed 98th Street Intermodal Transportation Facility (ITF).

Alverstone Avenue and Davidson Avenue, located north of 96th Street and west of Sepulveda Boulevard, would be eliminated. The service road north of and parallel to World Way North, aka "Little Century," would be widened to provide two moving lanes of westbound traffic between Sepulveda Boulevard and Terminal 1. Additional width for commercial vehicle staging or passenger pick up may also be provided.

#### 1.2 98th Street Intermodal Transportation Facility

The proposed 98th Street ITF would be a multi-level facility located between 96th Street and 98th Street, west of Airport Boulevard. At approximately 14 acres (single level), the ITF would provide a variety of transportation activities, including a yet-to-be determined number of public parking spaces. Airport users

could use the ITF for remote passenger pick up and drop off. In addition, arriving passengers would travel to the ITF to board a door-to-door shuttle or scheduled bus such as the LAX FlyAway. Departing passengers using door-to-door shuttles or scheduled buses would continue to be dropped off directly at their terminal.

The ITF would likely include three levels of structured parking with a total of approximately 4,900 spaces. There would also be a plaza area for the busway/Automated People Mover (APM) station, waiting areas for passengers using the FlyAways and shared ride vans, and commercial support spaces to offer waiting passengers and their friends and family desired amenities such as food and beverages or other conveniences to encourage use of this facility. These functions may be on a separate level from the public parking.

The specific access/egress points have yet to be determined, but there would likely be driveways on 96th Street, 98th Street, and Airport Boulevard. Separate driveways for private vehicles and commercial vehicles would likely be provided. For safety or queuing considerations, some of the driveways might be limited to right-turn in/right-turn out.

#### 1.3 CTA Parking

As part of the Midfield Satellite Concourse (MSC) Passenger Processor project (not a SPAS-related project), parking structures P2B (658 spaces) and P5 (878 spaces) in the CTA may be demolished. Some replacement structured parking may be constructed as part of the MSC Passenger Processor project.

It is expected that the CTA parking would continue to be used almost exclusively by short-term and daily parkers. In addition, approximately 950 employee parking spaces would be provided in the CTA. Future pricing strategies could alter parking demand within the CTA.

A redesigned common-use exit plaza would serve customers parking in either P-3 or P-4. As part of the MSC Passenger Processor project, traffic exiting P-3 and P-4, after leaving the exit plaza, would be redirected to a down ramp. The ramp would lead to a two-lane roadway below the MSC Passenger Processor building and associated roadways. The roadway would ramp up to meet a three-lane eastbound Center Way, north of the Central Utility Plant. From there, traffic would exit the CTA as it does currently.

The new roadways for the MSC Passenger Processor (see below) would eliminate the easterly driveway to parking structure P3 on the lower level. All traffic entering parking structure P3 on the lower level would be required to use the existing west driveway, which may be redesigned to facilitate an additional ticket dispenser lane.

#### 1.4 Parking Lot C

Under Alternatives 1, 2, 8, and 9, Parking Lot C would continue to accommodate approximately 7,300 long-term public parking spaces. Shuttles from Lot C would use the 96th Street Bridge and the relocated Sky Way to enter the CTA. When departing the CTA, shuttles would exit from the lower level toward eastbound Century Boulevard, negotiate the loop to northbound Sepulveda Boulevard, turn right onto eastbound 96th Street and left into Lot C.

#### 1.5 Parking Lot D/"Jenny Lot"

Parking Lot D, reopened as an airport employee parking lot in November 2011, would continue to accommodate approximately 1,944 airport employee parking spaces.

Commonly referred to as the Jenny Lot (or, alternatively, the "Former Hertz Lot"), this property, bounded on the west by Jenny Street, on the south by Westchester Parkway, on the east by Airport Boulevard, and on the north by the Carl E. Nielsen Youth Park/Interceptor Street/Yorktown Avenue, is planned to be redeveloped as an airport employee surface parking lot (2,400 parking spaces) in 2013. Under the Alternatives 1, 2, 8, and 9, this parking lot would continue to accommodate approximately 2,400 airport

employee surface parking spaces. This property does not include the existing U.S. Post Office, located at the northwest corner of Airport Boulevard and Westchester Parkway/Arbor Vitae Street, which is assumed to remain in operation.

The bus entrance for Lot D and the Jenny Lot would be on Jenny Street. Driveways for employees would be on Westchester Parkway, Airport Boulevard, and Jenny Street.

Employees would be single bused to their place of work under Alternatives 1, 2, and 8. Under Alternative 9, CTA employees would be bused to the APM station at the ITF where they would access the APM to the CTA and their place of work.

#### 1.6 Other LAWA Parking Lots

Existing Parking Lot A (109 spaces) and F (1,905 spaces) would be unchanged by the SPAS alternatives. Parking Lot E is planned to be closed once the Jenny Lot opens in 2013.

#### 1.7 Park One

The existing Park One surface lot, which currently provides 2,728 parking spaces, would no longer operate. The western portion of the lot would be converted to airside and terminal uses. The eastern portion of the lot would accommodate the relocated Sky Way roadway, the guideway for the busway or APM, the taxi holding lot, and a commercial vehicle holding lot for limousines and/or charter buses. Driveways for the commercial vehicle holding lots would be located on Sepulveda Boulevard and on the service road along the south side of the property (aka "Little Century"). It is assumed that the airport passengers currently using Park One would be redistributed to existing LAWA and private parking facilities. The assumptions regarding redistribution of these parkers are based on the current percentages of overall parkers who use LAWA facilities versus private parking facilities.

# 1.8 Transit (Non-LAWA Background Transportation Project)

Metro is currently designing the Crenshaw/LAX light rail project, which will connect the future Exposition Boulevard light rail line with the Metro Green Line. Metro's Crenshaw/LAX project includes a new light rail station along the west side of Aviation Boulevard, either at/over Century Boulevard or nearer to (the extension of) 98th Street. This station will be shared with Green Line trains, which would terminate at this station. In the long term, the Green Line may be extended to the north or west of this station. It is assumed that by the SPAS horizon year (2025), Metro will relocate the current 96th Street Metro Bus Station, which is located between Vicksburg Avenue and Jenny Street, to a new bus center located adjacent to the future light rail station, in the property bounded by Bellanca Avenue, 98th Street, Aviation Boulevard, and Century Boulevard.

## 1.9 Curbside for Midfield Satellite Concourse Passenger Processor

As a project separate from SPAS, the MSC Passenger Processor building is assumed to be constructed in the area east of parking structures P3 and P4. Parking structures P2B and P5 may be demolished as part of the MSC Passenger Processor project. Some replacement parking may be constructed as part of the MSC Passenger Processor project.

The existing two-directional arrival roadway of West Way would be replaced with two southbound streets, one immediately east of the MSC Passenger Processor building and one immediately west of the building. The roadway east of the MSC Passenger Processor building would be for private vehicles only. There would be a pick up area of sufficient width for double loading, along with two adjacent through lanes. A new traffic signal would be constructed at the intersection of this new roadway and World Way South to facilitate two lanes of left-turning traffic from this roadway onto eastbound World Way South. An

existing pedestrian traffic signal on World Way South would be relocated to the west and incorporated as part of this new signal.

The roadway west of the MSC Passenger Processor building would have one pick up lane for limousines and taxis (adjacent to the building) and one pick up lane for shuttles on the far side of the roadway. Loading of the taxis and limousines would take place on the left side of these vehicles. There would be two moving lanes of traffic between the two loading areas. A new traffic signal would be constructed at the intersection of this new roadway and World Way South to facilitate two lanes of left-turning traffic from this roadway onto eastbound World Way South. An existing pedestrian traffic signal on World Way South would be relocated to the east and incorporated as part of this new signal.

The existing northbound traffic on West Way, which is traffic recirculating back to World Way North, would be displaced to East Way.

On the upper level, there would be a relocated West Way roadway east of the MSC Passenger Processor building. The roadway would be one-way southbound. There would be an unloading area of sufficient width for dual stacking, and two moving lanes of traffic. As with existing conditions, there would be a traffic signal at the intersection of this roadway with World Way South. The intersection would facilitate the movement of three lanes of southbound traffic to eastbound World Way South.

The existing ramps located between parking structures P3 and P4, which connect the lower and upper level roadways, would be eliminated. As the only means for vehicles to access the upper level from the lower level within the CTA, in the future vehicles needing to move from the lower level to the upper level would need to exit the CTA and re-enter.

#### 1.10 Commercial Vehicle Circulation within the CTA

With the addition of arrivals and departures level curbfront at the MSC Passenger Processor building, commercial vehicles would be unable to pick up or drop off passengers in front of both the Tom Bradley International Terminal (TBIT) and the MSC Passenger Processor building in a single circuit of the CTA. Therefore, it is to be assumed that commercial vehicles that need to pick up passengers on the lower level or drop off passengers on the upper level would have at least two routes. These routes would depend on the passenger demand at each terminal throughout the day. There is a possibility that a third route may be necessary for some modes depending on demand. Factors such as vehicle sizes, maximum occupancy, and headways would ultimately determine the number of routes.

Some of the existing commercial vehicle zones may be reallocated as part of this routing. The LAWA circulator shuttle ("A" Bus), would continue to circle the lower level roadway World Way as it does currently. Passengers from the MSC Passenger Processor building would be directed to use one of the shuttle stops along World Way if they wish to use this bus to travel to another terminal. The LAWA shuttle to Lot C would make two circuits providing service to all terminals.

### 2. ELEMENTS UNIQUE TO SPAS ALTERNATIVES 1 AND 2 – BUSWAY/NO CONRAC

#### 2.1 Busway between Manchester Square and the CTA

Under these alternatives, a grade-separated busway would be constructed between Manchester Square and the CTA, primarily using the 98th Street corridor. While the exact alignment has yet to be determined, it is likely that raised median islands would be constructed within the 98th Street right-of-way to house the support columns for the elevated busway. The cross section of the elevated busway would

Manchester Square is the name commonly given to the property bounded by Century Boulevard on the south, Aviation Boulevard on the west, Arbor Vitae Street on the north, and La Cienega Boulevard on the east.

be 36 feet wide, sufficient to accommodate one lane of traffic in each direction plus shoulders to accommodate vehicle breakdowns.

In Manchester Square, buses would operate at-grade to pick up and drop off passengers and employees from the surface parking lots. From at-grade in Manchester Square, the busway would ascend a ramp to a bridge crossing over Aviation Boulevard and the Metro Crenshaw/LAX light rail line. The busway would continue along the 98th Street corridor and stop at the ITF, likely on the second or third level of that facility. At the ITF, there would be the ability for buses to access or exit the busway either through the ITF itself and an internal ramp system or via on- and off-ramps. From the ITF, the aerial busway would continue along the 98th Street corridor, crossing over Sepulveda Boulevard into the current Park One property. The busway would cross over the relocated Sky Way and run parallel to that roadway as it intersects with World Way North. By crossing Sky Way, the buses would be on the terminal side of World Way North as traffic enters the CTA. The busway would be designed to allow for the future addition of a ramp down to access the arrivals level to provide flexibility should any of the buses utilizing the busway be limited to the arrivals level only.

Once the elevated busway enters the CTA, buses would be required to use mixed flow lanes on the upper level roadway. Bus service would be provided in various routes, each serving specific groups of terminals. Buses would circle the upper level roadway to both drop off and pick up passengers at their terminals. Once passengers are dropped off and picked up at the route's final terminal, buses would transition to the lower level roadway using the existing ramp that encircles the LAWA Administration East building. Buses would continue on mixed flow lanes on eastbound Center Way, through the intersection of Center Way and World Way South, and then turn right onto the ramp that leads to northbound Sepulveda Boulevard. Buses would travel on Sepulveda Boulevard in mixed flow, and then turn right onto 96th Street. East of Vicksburg Avenue, buses would turn right onto a bus-only roadway and ascending ramp to the second or third floor of the ITF. Buses would continue on this elevated busway along the 98th Street corridor until it crosses over the Metro Crenshaw/LAX light rail line and Aviation Boulevard. The busway would then descend to the at-grade parking facility at Manchester Square.

#### 2.2 Public Parking

As part of the MSC Passenger Processor project, parking structures P2B and P5 in the CTA may be demolished. In addition to the remaining public parking spaces provided in parking structures P1, P2A, P3, P4, P6, and P7 in the CTA and the surface parking Lot C, approximately 4,200 long-term surface parking spaces would be constructed in Manchester Square. People parking in Manchester Square would board a shuttle operating internally within the lot, which would then bring them to the CTA via the busway. If needed and/or as capacity allows, the bus would stop at the ITF to pick up additional passengers heading to the CTA.

#### 2.3 Employee Parking

From Lot D and the Jenny Lot, employee shuttles would travel via surface streets to the elevated busway with a stop at the ITF if needed and/or as capacity allows. On the return trip, the employee shuttles would use surface streets to return to Lot D and the Jenny Lot.

An additional 3,500 employee surface parking spaces would be constructed in Manchester Square. These employees would board a shuttle operating internally to the lot, which would then bring them to the CTA via the busway. If needed and/or as capacity allows, the bus would stop at the ITF to pick up additional passengers heading to the CTA.

#### 2.4 Displaced Rent-a-Car Facilities

The existing Budget Rent-a-Car facility at 98th Street and Airport Boulevard would be displaced for construction of the ITF. However, Alternatives 1 and 2 do not include a Consolidated Rental Car Facility (CONRAC), which would accommodate Budget's operations. While Budget would make a business decision as to where to relocate, for purposes of the SPAS traffic study, it is assumed that the Budget

operation would be relocated to LAWA property on 111th Street west of La Cienega Boulevard (the current employee Lot E).

It should be noted that, separate from SPAS, Metro is proceeding with the Crenshaw/LAX light rail project. The project proposes to create a maintenance facility which would displace the existing Dollar Rent-a-Car facility on Arbor Vitae Street west of Bellanca Avenue. For purposes of the SPAS traffic study, it is assumed that the Dollar Rent-a-Car facility is also relocated to the existing Lot E property.

## 3. ELEMENTS UNIQUE TO SPAS ALTERNATIVES 8 AND 9 – CONRAC IN MANCHESTER SQUARE

#### 3.1 CONRAC

A CONRAC would be constructed in a portion of Manchester Square. As indicated previously, Manchester Square is the name commonly given to the property bounded by Century Boulevard on the south, Aviation Boulevard on the west, Arbor Vitae Street on the north, and La Cienega Boulevard on the east. However, there are commercial and multi-family properties along the north side of Century Boulevard that are not included in the SPAS alternatives.

Preliminary concepts for the CONRAC include a three-level ready/return vehicle area with a customer service area on level 4, as well as a three-level quick turn-around (QTA) area. The CONRAC is expected to provide approximately 5,800 ready/return stalls and 1,000 QTA stalls in a structured parking facility. The structured portion of the CONRAC would encompass a total of approximately 63 acres, which includes 45 acres for the ready/return car facility, 5 acres for the customer service area and 13 acres for the QTA facilities.

The CONRAC is expected to have a projected total demand of approximately 11,000 spaces for the staging and storing of vehicles. While the CONRAC would be designed to accommodate the total demand for staging of vehicles in surface parking areas, some longer-term storage of rental car vehicles is expected to take place at the existing individual rental car operator sites. (For Budget and Avis rent-acar, which would be displaced from their current locations under Alternatives 8 and 9, and for Dollar rent-a-car, which is being displaced by Metro's Crenshaw/LAX light rail project, it is assumed that a portion of their vehicle storage would take place in new leaseholds on LAWA property in the current Lot E employee lot). Similarly, it is assumed that heavy vehicle maintenance would not be accommodated on the Manchester Square site. Therefore, it is assumed that rent-a-car companies would choose to retain all or a portion of their existing sites for vehicle maintenance and storage. It is assumed that a certain amount of trip activity would take place between the CONRAC and the existing, individual rental car properties; or in the cases of Budget, Avis, and Dollar, between the CONRAC and their new leaseholds in existing Lot E.

Access to and from the CONRAC would be from multiple locations. To accommodate traffic between the southbound I-405 and the CONRAC, a westbound leg of the signalized intersection at La Cienega Boulevard and the I-405 southbound ramps north of Century Boulevard would be constructed. A new northbound leg of the signalized intersection at Century Boulevard and Concourse Way would also be constructed to accommodate CONRAC access. A third signalized entry/exit on Aviation Boulevard between Century Boulevard and Arbor Vitae Street is also likely, but its exact location would depend on the alignment of the CONRAC.

#### 3.2 Public Parking

As part of the MSC Passenger Processor project, parking structures P2B and P5 in the CTA may be demolished. In addition to the remaining public parking spaces provided in parking structures P1, P2A, P3, P4, P6, and P7 in the CTA and the surface parking Lot C, approximately 4,200 public parking spaces would be constructed in the portion of Manchester Square not being used for the CONRAC or APM

maintenance yard. While this parking is assumed to be long-term surface parking, structured parking is possible if space requirements dictate. Since the alignment of the CONRAC within Manchester Square has not been decided, it is not possible to determine the specific access and egress points for this public parking facility, but separate access/egress points from those used by CONRAC users would be provided.

#### 3.3 Employee Parking

In addition to the surface parking lots designated for employees at Lot D and the Jenny Lot, the current Avis Rent-a-Car leasehold bounded by Jenny Street, Westchester Parkway, Airport Boulevard, and 96th Street would be redeveloped as an airport employee parking lot with approximately 2,750 spaces. Currently, the Jenny Lot is leased to rent-a-car companies for vehicle storage and to Destination Shuttle Services for their hotel shuttle operation. These private companies would need to make individual business decisions as to where their operations would relocate to in advance of the construction of the employee parking lot. Employees who are not accommodated in either the Lot D or Jenny Lot could park in Lot F, at the southeast corner of Avion Drive and Century Boulevard or choose to park in a private facility.

#### 3.4 Displaced Rent-a-Car Facilities

The existing Budget Rent-a-Car facility at 98th Street and Airport Boulevard would be displaced for construction of the ITF. In addition, independent from SPAS, Metro is proceeding with the Crenshaw/LAX light rail project, whose proposed maintenance facility would displace the existing Dollar Rent-a-Car facility on Arbor Vitae Street west of Bellanca Avenue. These facilities are assumed to be relocated to the CONRAC under Alternatives 8 and 9.

# 4. ELEMENTS UNIQUE TO SPAS ALTERNATIVE 8 – BUSWAY/CONRAC

#### 4.1 Busway between CONRAC and CTA

Under Alternative 8, a grade-separated busway would be constructed between the CONRAC/Public Parking in Manchester Square and the CTA, primarily using the 98th Street corridor. While the exact alignment has yet to be determined, it is likely that raised median islands would be constructed within the 98th Street right-of-way to house the support columns for the elevated busway. The cross section of the elevated busway would be 36 feet wide, sufficient to accommodate one lane of traffic in each direction plus shoulders to accommodate vehicle breakdowns.

In Manchester Square, buses would operate at-grade to pick up and drop off passengers from the proposed surface parking lot located north of the CONRAC. Other buses would pick up customers at the proposed CONRAC, likely at the second or third level of that facility. All buses would cross over Aviation Boulevard and the Metro Crenshaw/LAX light rail line on an elevated busway. The busway would continue along the 98th Street corridor. Depending on capacity and demand, buses would stop at the ITF, likely on the second or third level of that facility. At the ITF, there would be the ability for other buses to access the busway either through the ITF itself and an internal on-ramp or via on-and off-ramps. From the ITF, the aerial busway would continue along the 98th Street corridor, crossing over Sepulveda Boulevard into the current Park One property. The busway would cross over the relocated Sky Way and run parallel to that roadway as it intersects with World Way North. By crossing Sky Way, the buses would be on the terminal side of World Way North as traffic enters the CTA. The busway would be designed to allow for the future addition of a ramp down to access the arrivals level to provide flexibility should any of the buses utilizing the busway be limited to the arrivals level only.

Once the elevated busway enters the CTA, buses would be required to use mixed flow lanes on the upper level roadway. Bus service would be provided in various routes, each serving specific groups of terminals. Buses would circle the upper level roadway to both drop off and pick up passengers at their

terminals. Once passengers are dropped off and picked up at the route's final terminal, the buses would transition to the lower level roadway using the existing ramp that encircles the LAWA Administration East building. Buses would continue in mixed flow on eastbound Center Way, through the intersection of Center Way and World Way South, and then turn right onto the ramp that leads to northbound Sepulveda Boulevard. Buses would travel on Sepulveda Boulevard in mixed flow, and then turn right onto 96th Street. East of Vicksburg Avenue, buses would turn right onto a bus-only roadway and ascending ramp to the second or third floor of the ITF. Buses would continue on this elevated busway along the 98th Street corridor until it crosses over the Metro Crenshaw/LAX light rail line and Aviation Boulevard. Once it enters Manchester Square, the busway would branch off to service two locations: one branch would allow for buses going to the CONRAC and a second route would descend a ramp to serve the at-grade parking facility at Manchester Square.

#### 4.2 Public Parking

People parking in Manchester Square would board a shuttle operating internally within the lot, which would then bring them to the CTA via the busway. If needed and/or as capacity allows, the bus would stop at the ITF to pick up additional passengers heading to the CTA.

#### 4.3 Employee Parking

From the three employee parking surface lots, employee shuttles would travel via surface streets to the elevated busway with a stop at the ITF if needed and/or as capacity allows. On the return trip, the employee shuttles would use surface streets to return to these lots.

# 5. ELEMENTS UNIQUE TO SPAS ALTERNATIVE 9 – AUTOMATED PEOPLE MOVER/CONRAC

#### 5.1 Automated People Mover

#### 5.1.1 Alignment

An elevated APM would be constructed between Manchester Square and the CTA, primarily using the 98th Street corridor. While the exact alignment and height] has yet to be determined, it is likely that raised median islands would be constructed within the 98th Street right-of-way to house the support columns for the elevated guideway. Switches at the end stations would be used for the APM to operate with a pinched loop design.

Within the CTA, the APM would be located above the upper level roadway. Pedestrian bridges over the upper level roadway may be constructed to connect passengers to the terminals.

The operational fixed guideway length is estimated at between 25,000 and 26,000 feet. The required cross section of the elevated portion of an APM is estimated at 30 feet, although a cross section of 36 feet would be required if a busway is constructed as the first phase of an ultimate APM facility.

#### 5.1.2 Stations

The number of APM stations in the CTA has yet to be determined. It may be that one station would be located across from the proposed multi-story building between Terminals 1 and 2, while another would serve the proposed MSC Passenger Processor building, and a third would serve the terminals on the south side of the CTA. There would be a station at the ITF. Another APM station would provide connectivity to the future Metro Crenshaw/LAX and Green Line station at Aviation and Century Boulevards. Because that light rail station is in the early stages of design by Metro, the specific means of connecting the APM with the light rail station cannot be determined at this time. If the light rail station is near 98th Street, it is likely that an APM station would be located one level directly above the light rail station. If the light rail station is located closer to or straddling Century Boulevard, a pedestrian bridge

may provide the connection to the APM. This APM station may also serve the CONRAC, or there may be a separate APM station for the CONRAC in Manchester Square. There may be an additional APM station or stations within Manchester Square to serve the proposed public parking facilities north of the CONRAC.

The station platforms would be approximately 200 feet in length.

#### 5.1.3 <u>Maintenance Facility</u>

The APM is expected to require a maintenance facility with an access guideway of approximately 6,000 feet. The maintenance facility itself would be approximately 92,000 square feet (2.1 acres) and would likely be located in Manchester Square.

#### 5.1.4 **Operation**

The APM would be fully automated (driverless). The pinched-loop system would operate with a round trip time of approximately 19 minutes. The system would operate 24 hours a day. During peak periods (12 hours per day), the APM system would operate with 9 four-car trains at headways of 2.1 minutes. This configuration provides a capacity of 2,383 passengers per hour per direction (pphpd), assuming 21 passengers per car.

The six-hour off-peak operation assumes 6 four-car trains with 3.2 minutes headways to provide a capacity 1,589 pphpd. During the remaining six-hour night period operation, 4 four-car trains at 4.8 minute headways would provide a capacity of 1,059 pphpd.

#### 5.2 Public Parking

Internal shuttles would transport long-term parkers to an APM station within Manchester Square.

#### 5.3 Employee Parking

Employees in all three of the employee parking surface lots would be shuttled to the ITF to board the APM to the CTA.

# 6. SPAS ALTERNATIVE 4 – CONRAC ONLY – NO YELLOW LIGHT PROJECTS

#### 6.1 CONRAC

The CONRAC would be constructed within the area between Sepulveda Boulevard and Airport Boulevard, north of 98th Street and south of Will Rogers Street/Nielsen Youth Park/Yorktown Avenue. This area includes the existing Public Parking Lot C, the employee parking Lot D, the Jenny Lot, the Avis Rent-a-Car leasehold, as well as properties not currently owned by LAWA. The United States Post Office at the northwest corner of Airport Boulevard and Westchester Parkway would remain. It is assumed that the post office would continue to operate as it does currently. Consolidated buses would operate between the CONRAC and the CTA in mixed flow lanes on city streets.

#### 6.2 Public Parking

Long-term public parking displaced from Lot C (a facility that would be used by the proposed CONRAC) would be accommodated in a parking structure built on LAWA property on the east side of Aviation Boulevard between 111th Street and Imperial Highway (aka, Continental City). Driveway access/egress would be located along Imperial Highway, Aviation Boulevard, and 111th Street. Buses would transport people parking at this facility to and from the CTA using mixed flow lanes on city streets.

#### 6.3 Employee Parking

Employees would park in the existing surface parking Lot E, north of 111th Street and west of La Cienega Boulevard. This lot would be modified to incorporate the existing parking lot north of Lot E which has most recently been used for construction employee parking. Buses would transport employees parking at Lot E to and from the CTA using mixed flow lanes on city streets. Additional employee parking, if needed, could be accommodated in Parking Structure F, located at the southeast corner of Avion Drive and Century Boulevard.

#### 6.4 Displaced Rent-a-Car Facilities

The existing Avis Rent-a-Car facility at Airport Boulevard and Westchester Parkway and the Budget Rent-a-Car facility at 98th Street and Airport Boulevard would be displaced for construction of the CONRAC. In addition, independent from SPAS, Metro is proceeding with the Crenshaw/LAX light rail project, whose proposed maintenance facility would displace the existing Dollar Rent-a-Car facility on Arbor Vitae Street west of Bellanca Avenue. These facilities are assumed to be relocated to the CONRAC under Alternative 4

#### 6.5 CTA Parking

As part of the MSC Passenger Processor project (not a SPAS-related project), parking structures P2B (658 spaces) and P5 (878 spaces) in the CTA may be demolished. It is expected that the CTA parking would continue to be used almost exclusively by short-term and daily parkers. In addition, approximately 950 employee parking spaces would be provided in the CTA. Future pricing strategies could alter parking demand within the CTA.

A redesigned common-use exit plaza would serve customers parking in either P-3 or P-4. As part of the MSC Passenger Processor project, traffic exiting P-3 and P-4, after leaving the exit plaza, would be redirected to a down ramp. The ramp would lead to a two-lane roadway below the MSC Passenger Processor building and associated roadways. The roadway would ramp up to meet a three-lane eastbound Center Way, north of the Central Utility Plant. From there, traffic would exit the CTA as it does currently.

The new roadways for the MSC Passenger Processor would eliminate the easterly driveway to parking structure P3 on the lower level. All traffic entering parking structure P3 on the lower level would be required to use the existing west driveway, which may be redesigned to facilitate an additional ticket dispenser lane.

## 6.6 Transit (Non-LAWA Background Transportation Project)

Metro is currently designing the Crenshaw/LAX light rail project, which will connect the future Exposition Boulevard light rail line with the Green Line. Metro's Crenshaw/LAX project includes a new light rail station along the west side of Aviation Boulevard, either at/over Century Boulevard or nearer to (the extension of) 98th Street. This station will be shared with Green Line trains, which would terminate at this station. In the long term, the Green Line may be extended to the north or west of this station. It is assumed that by the SPAS horizon year (2025), Metro will relocate the current 96th Street Metro Bus Station, which is located between Vicksburg Avenue and Jenny Street, to a new bus center located adjacent to the future light rail station, in the property bounded by Bellanca Avenue, 98th Street, Aviation Boulevard, and Century Boulevard.

## 6.7 Curbside for Midfield Satellite Concourse Passenger Processor

As a project separate from SPAS, the MSC Passenger Processor building is assumed to be constructed

in the area east of parking structures P3 and P4. Parking structures P2B and P5 may be demolished as part of this project. Some replacement parking may be constructed as part of the MSC Passenger Processor project.

The existing two-directional arrival roadway of West Way would be replaced with two southbound streets, one immediately east of the MSC Passenger Processor building and one immediately west of the building. The roadway east of the MSC Passenger Processor building would be for private vehicles only. There would be a pick up area of sufficient width for double loading, along with two adjacent through lanes. A new traffic signal would be constructed at the intersection of this new roadway and World Way South to facilitate two lanes of left-turning traffic from this roadway onto eastbound World Way South. An existing pedestrian traffic signal on World Way South would be relocated to the west and incorporated as part of this new signal.

The roadway west of the MSC Passenger Processor building would have one pick up lane for limousines and taxis (adjacent to the building) and one pick up lane for shuttles on the far side of the roadway. Loading of the taxis and limousines would take place on the left side of these vehicles. There would be two moving lanes of traffic between the two loading areas. A new traffic signal would be constructed at the intersection of this new roadway and World Way South to facilitate two lanes of left-turning traffic from this roadway onto eastbound World Way South. An existing pedestrian traffic signal on World Way South would be relocated to the east and incorporated as part of this new signal.

The existing northbound traffic on West Way, which is traffic recirculating back to World Way North, would be displaced to East Way.

On the upper level, there would be a relocated West Way roadway east of the MSC Passenger Processor building. The roadway would be one-way southbound. There would be an unloading area of sufficient width for dual stacking, and two moving lanes of traffic. As with existing conditions, there would be a traffic signal at the intersection of this roadway with World Way South. The intersection would facilitate the movement of three lanes of southbound traffic to eastbound World Way South.

The existing ramps located between parking structures P3 and P4, which connect the lower and upper level roadways, would be eliminated. As the only means for vehicles to access the upper level from the lower level within the CTA, in the future vehicles needing to move from the lower level to the upper level would need to exit the CTA and re-enter.

#### 6.8 Commercial Vehicle Circulation within the CTA

With the addition of arrivals and departures level curbfront at the MSC Passenger Processor building, commercial vehicles would be unable to pick up or drop off passengers in front of both TBIT and the MSC Passenger Processor building in a single circuit of the CTA. Therefore, it is to be assumed that commercial vehicles that need to pick up passengers on the lower level or drop off passengers on the upper level would have at least two routes. These routes would depend on the passenger demand at each terminal throughout the day. There is a possibility that a third route may be necessary for some modes depending on demand. Factors such as vehicle sizes, maximum occupancy, and headways would ultimately determine the number of routes.

Some of the existing commercial vehicle zones may be reallocated as part of this routing. The LAWA circulator shuttle ("A" Bus), would continue to circle the lower level roadway World Way as it does currently. Passengers from the MSC Passenger Processor building would be directed to use one of the shuttle stops along World Way if they wish to use this bus to travel to another terminal. The LAWA shuttle to Lot C would make two circuits providing service to all terminals.

# Appendix E2-2 – SPAS Alternatives Ground Transportation System Elements This page intentionally left blank.