

# CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

## Executive Summary

## CONSIDERATION OF ALTERNATIVES



Below-grade trench alignment along Aviation Boulevard, adjacent to LAX south runways.

miles. MOS-Century would extend from the Metro Exposition Line to the Aviation/Century Station, at a distance of 7.4 miles, and would include Design Option 6. MOS-Century would also require a bus feeder connection to the Metro Green Line at the southern end. If constructed, either MOS would be consistent with the established financial plan for the Crenshaw/LAX Transit Corridor Project. As stated previously, the Partially-Covered LAX Trench Option has been incorporated into the project definition as an interim solution to the fully covered condition. The Partially-Covered Trench configuration would allow a concrete cap over 1,000 feet of the below grade track with two 500-foot covered sections. Two other design options that may be incorporated into the project definition (based on potential for cost savings and reduction in environmental impacts in one case, and based upon Board action in the other). These options will further be explored through the preliminary

engineering phase and during the procurement of design build contracts.

**Alternate Southwest Portal at Crenshaw/King Station Option.** This option involves an alternate portal at the southwest corner of the Crenshaw Boulevard/Martin Luther King Jr. Boulevard intersection. During the preliminary engineering phase of the project, Metro determined that a providing connection in front of the Broadway building (Walmart) could provide increased access to the regional mall. In addition, potential cost savings and fewer displacements could be achieved through less property acquisition (The portal would be located within the

existing landscaped sidewalk adjacent to the Broadway building and would provide vertical circulation to the underground Crenshaw/King Station). The portal could also be located in the basement of the Broadway building to provide a direct connection to the Baldwin Hills Crenshaw Plaza. This alternate portal is not included within the current project financial plan and would only be implemented if the land were privately funded or if easements to privately-owned land are granted. This station is located at the most heavily developed area of the entire line with a major shopping center near the site. While this design option is not yet incorporated into the project definition, negotiations with the mall owners may yield savings which allow it to be adopted as part of the project definition.

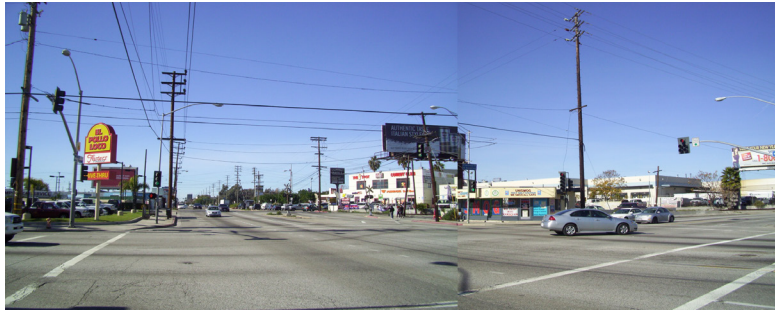
**Below-Grade Crenshaw/Vernon Optional Station.** Since the adoption of the LPA, the Metro Board, at its May 2011 meeting, directed the below-grade Crenshaw/Vernon Station to be considered as an option within the procurement of design-build contracts. While this action did not incorporate the optional station into the project definition, it placed an emphasis on carrying the design forward for the design-build procurement process. It may be implemented if bids for the project

*What is the Harbor Subdivision? The Harbor Subdivision is a freight rail corridor, approximately 26 miles in length, that traverses southwest Los Angeles County from Vernon to Wilmington. In the early 1990s, Metro purchased the portion of the corridor between Redondo Junction and Watson Yard, along with several other rail rights-of-way, to further the development of the region's rapid transit system. Metro has initiated an Alternatives Analysis Study (AA) for the Harbor Subdivision Transit Corridor. The study will examine potential transit service along the Metro-owned Harbor Subdivision.*

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## PROJECT ALIGNMENT



Existing view of the Aviation Boulevard/Manchester Avenue intersection.



Aerial structure across Manchester Avenue.

including this design option fall within the project funding amount.

### Project Alignment

The southern terminus of the alignment would begin at the existing Metro Green Line Aviation Station which is in an aerial configuration, and transition northerly to a below-grade trench configuration, south of 111th Street, as it passes adjacent to the LAX south runways. The baseline configuration of the project near LAX Runway 25L and 25R ends is a cut-and-cover trench that is covered with a reinforced concrete roof. This is based on comments received from the Federal Aviation Administration (FAA) and Los Angeles World Airports (LAWA) on the DEIS/DEIR. There is also an interim option for a depressed partially-covered trench. After clearing the south runways

north of 104th Street, the alignment would transition to an aerial configuration across Century Boulevard.

At Century Boulevard, the LRT alignment would be located on a new bridge constructed west of, and adjacent to, the existing railroad bridge. The alignment would transition to an at-grade configuration north of the Wally Park structure and operate at-grade across Arbor Vitae Street and would transition to an aerial structure across Manchester Avenue. The alignment would transition back to grade level for at-grade crossings at Isis and Hindry Avenues. The LRT alignment would transition to an aerial configuration across La Cienega Boulevard and the I-405 and would return to grade before Oak Street.

The alignment would continue at grade to the east with at-grade crossings at

Oak Street, Cedar Street, Ivy Street, and Eucalyptus Avenue. The alignment would descend to a below-grade trench configuration under La Brea Avenue with an open cut station to the east of La Brea Avenue. The alignment would transition back to grade east of La Brea Avenue until Victoria Avenue. At-grade crossings would occur at Centinela Avenue, West Boulevard and Brynhurst Avenue and an at-grade station would be located to the west of West Boulevard.

West of Victoria Avenue, the alignment would transition to a below-grade tunnel and continue along the Harbor Subdivision until Crenshaw Boulevard where it would continue north under Crenshaw Boulevard until north of 59th Place where it would transition to grade level in through a portal in the middle of the Crenshaw Boulevard median. The alignment is required to be below grade under this segment of Crenshaw Boulevard because the street right-of-way width is 100 feet, which would be insufficient to accommodate an at-grade

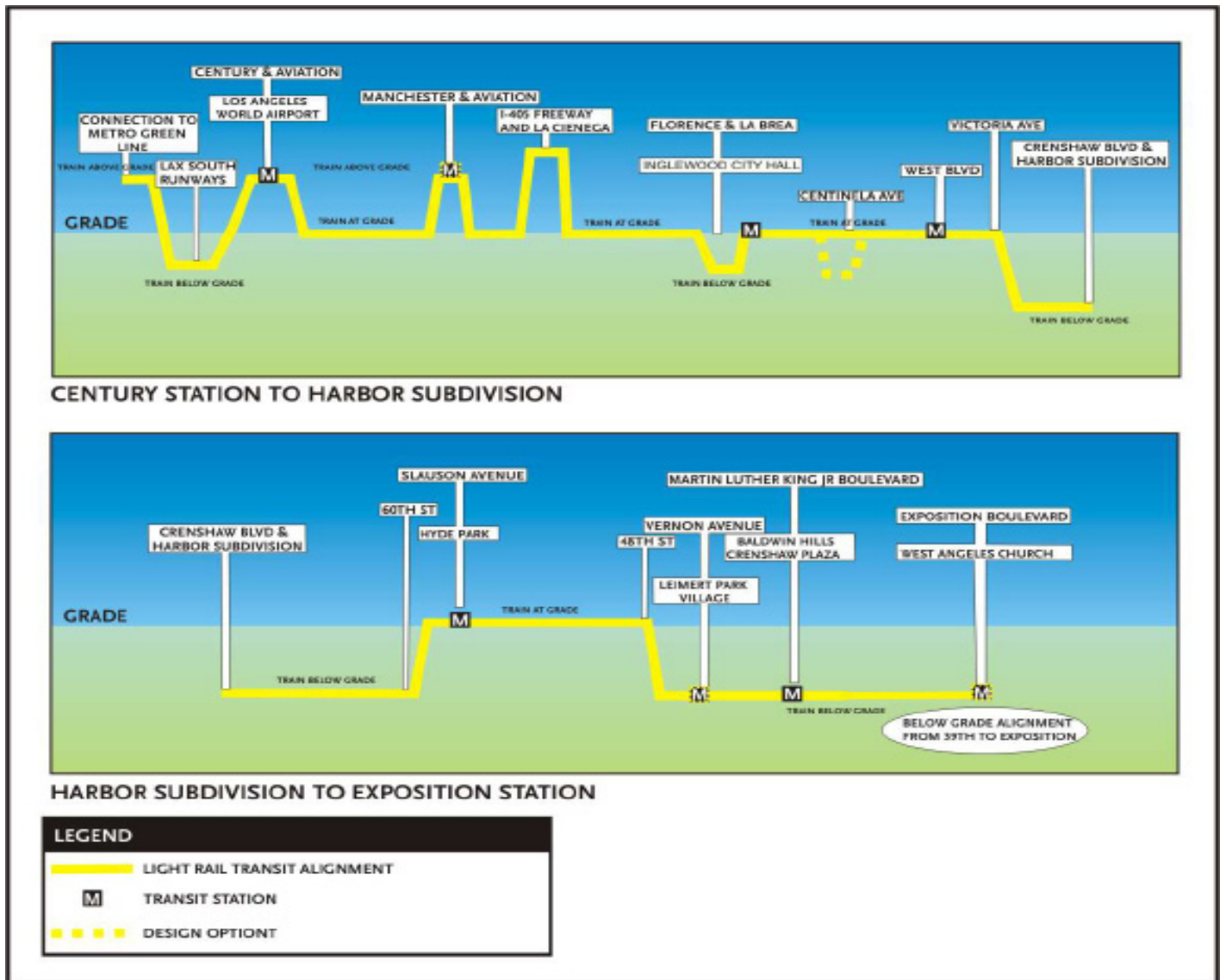


Existing view of Florence Avenue crossing at I-405.



Rendering of aerial structure over I-405.





Vertical Profile of the LPA Alignment.

MOS-Century would follow the same alignment described above, but beginning at the Crenshaw/Exposition Station with the incorporation of Design Option 6 and terminating at the Century Station.

**Stations and Station Parking.** The LPA would include six stations for passenger access and three park-and-ride facilities. The location and size of the park-and-ride

facilities was refined during the advanced conceptual engineering process. Together, these facilities would satisfy the transit corridor’s parking demands.

For transit passengers’ convenience and to control capital, operating, and maintenance costs, the proposed stations, including signage, maps, fixtures, furnishings, lighting, and communication

equipment, would have a consistent design similar to the existing Metro LRT stations. LRT Station types would be either at-grade, aerial, or below grade, and

*LRVs would be equivalent to those Metro operates on the existing Metro Blue, Green and Gold Lines. Each vehicle would be equipped for independent two-way operation, with a driver’s cab at each end and would have equal performance in either direction.*

are comprised of 270 feet long platforms that accommodate LRT trains with up to three cars. The project includes two at-grade stations, one underground station, one trench station, and one above ground (aerial) station.

- Aviation/Century (aerial)
- Florence/La Brea (at grade)
- Florence/West (at grade)
- Crenshaw/Slauson (at grade)
- Crenshaw/King (underground)
- Crenshaw/Exposition (underground with Design Option 6)

All platforms would be fully accessible and comply with the Americans with Disabilities Act (ADA). Outdoor platforms would be well-lighted and include amenities, such as canopies that cover a minimum 30 percent of the platform area, seating, bike lockers, bike racks, trash receptacles, and artwork. The LRT stations would also include signage, safety, and security equipment which would provide real-time information.

**Supporting LRT Facilities.** The LPA construction would include installing trackwork, an overhead contact system (OCS) distributing electricity to light rail vehicles (LRVs), traction power substations (TPSS) located about one mile apart, signaling and communication systems, and a vehicle maintenance and operations facility which would operate 24 hours a day, seven days a week.

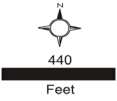
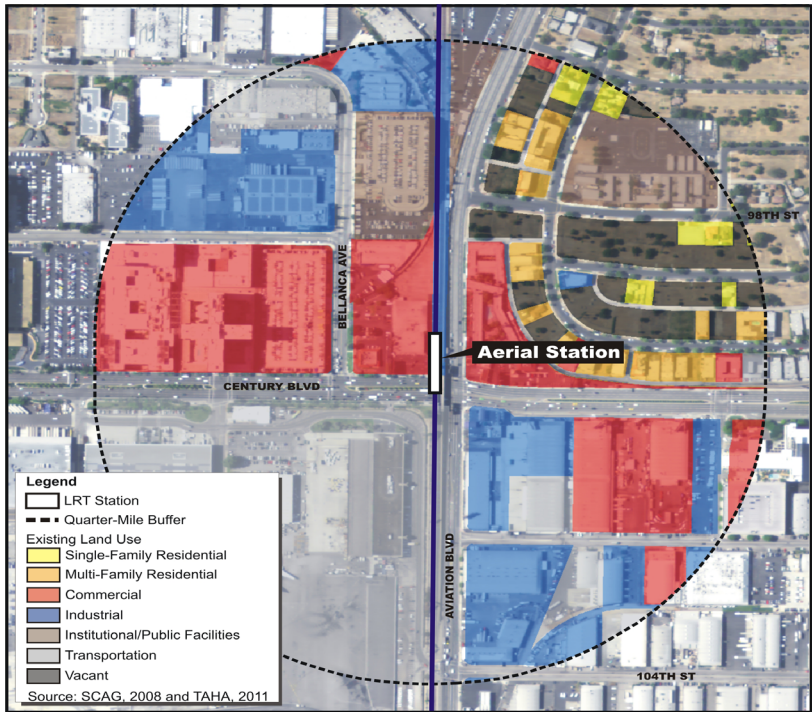
**Systems:** The LRT fixed guideway would consist of continuously welded rails. The rails would be embedded in a concrete

slab or installed on crossties and ballasts. The LRT OCS would consist of steel poles installed along the operating right-of-way to support the electrical power line. The poles would be approximately 25-feet tall and would be installed at 90 to 170 feet intervals. The poles would generally be located in the center of the right-of-way, between the two tracks, wherever possible. In some locations, the poles would be located on both sides of the LRT tracks. The overhead electrical power lines are suspended above the LRT tracks. Electricity for LRT operations would be supplied to the OCS from traction power substations (TPSS), located along the proposed LRT alignment. These electrical substations would be enclosed structures located near the LRT alignment. Development of the substations, in some cases, would require an access roadway for maintenance vehicles. Electrical substations would be required for approximately each mile of single or double-track. Communications and signaling (C&S) buildings house train control and communications for LRT operations in a central facility at each station. Each facility is an enclosure located within the station site area, typically adjacent to a station platform. Positioning of a C&S building must be done to provide clearances for maintenance and servicing, and to maintain sight lines for LRT operations.

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### AVIATION/CENTURY STATION



Aviation and Century, Looking East



Century Looking East, Gateway to LAX



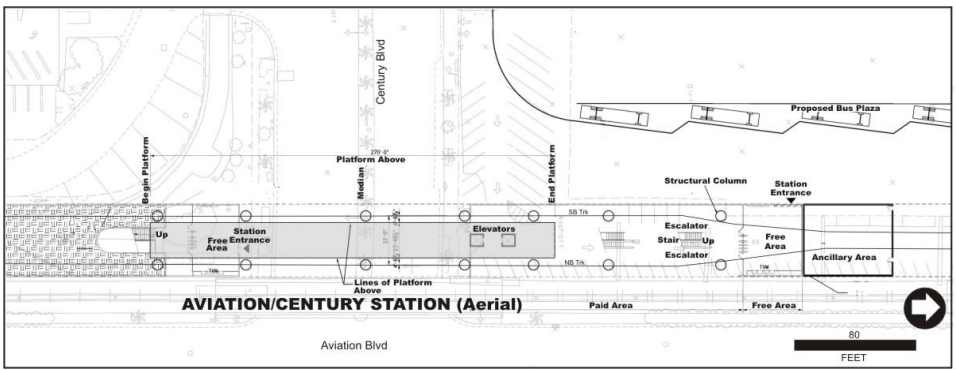
Existing view of Century Boulevard at Aviation Boulevard.



Rendering of the aerial station at Century/Aviation Boulevards.

### Aviation/Century Station

The Aviation/Century Station will serve as a new major gateway between Metro's regional transit system and LAX. The station will be aerial and designed to accommodate a future connection to the LAX People Mover. A bus transfer plaza will be provided on the west of the station to provide multimodal access to the system.



The above figure shows the location of the Aviation/Century Station located at the aerial crossing over Century Boulevard at Aviation Boulevard.

