May 2017

Rail to Rail/River Active Transportation Corridor Project

Alternative Analysis - Segment B

Alternative Analysis Report

Metro

May 2017

Rail to Rail/River Active Transportation Corridor Project

Alternative Analysis - Segment B

Alternative Analysis Report

Prepared By
Evan Brooks Associates
TransLink Consulting
Kittelson and Associates
AECOM

Metro

Table of Contents

6 Recommendations and Next Steps

Tables

Figures

Appendicies

Abbreviations

AA	Alternatives Analysis
ATC	Active Transportation Corridor
BNSF	Burlington Northern Santa Fe
Caltrans	California Department of Transportation
DBB	Design Bid Build
FTA	Federal Transit Administration
GCCOG	Gateway Cities Council Governments
LACTC	Los Angeles County Transportation Commission
LAUS	Los Angeles Union Station
LA River	Los Angeles River
LRTP	Long Range Transportation Plan
Metro	Los Angeles County Metropolitan Transportation Authority
NTP	Notice to Proceed
O&M	Operation and Maintenance
O&M	Rail to River: Segment B Operations and Maintenance Plan
PA	Preferred Alternative
ROM	Rough Order of Magnitude
ROW	Right-of-Way
SCAG	Southern California Association of Governments
SCE	Southern California Edison
UPRR	Union Pacific Railroad

1. Introduction

Introduction

In 1992, the Los Angeles County Transportation Commission (LACTC) purchased a portion of the Harbor Subdivision Transit Corridor (Harbor Subdivision) right-of-way (ROW) which included approximately 26.4 miles of Burlington Northern Santa Fe Railroad (BNSF) railway between Los Angeles Union Station (LAUS) and the Port area in Los Angeles County (Port of Long Beach and Port of LA).[1] In November 2009, the Los Angeles County Metropolitan Transportation Authority (Metro) adopted the Harbor Subdivision Alternatives Analysis/Conceptual Engineering Report (Harbor Subdivision AA), which studied potential public transit modes along the corridor. Comprehensively studying over 85 square miles through 13 jurisdictions, the Harbor Subdivision AA recommended a phased approach to providing passenger rail services on the corridor. As part of Metro's 2009 Long Range Transportation Plan (LRTP) Supplement 1 Strategic Plan, the Metro Board approved a recommendation to include the Metro-owned Local North Segment in South Los Angeles (Crenshaw Boulevard to Downtown Los Angeles) as a promising, regionally significant transit project corridor that could be implemented if additional funding becomes available. In September 2012, a feasibility study was initiated to determine intermediate uses of the Harbor Subdivision that would not preclude future transit use.

The Rail to River Intermediate Active Transportation Corridor Feasibility Study (Feasibility Study) was completed in October 2014 and assessed the viability, benefits and rough order of magnitude (ROM) cost considerations to develop an intermediate active transportation corridor along the 8.3 miles of the Metro-owned Local North Segment of the Harbor Subdivision (see Figure 1-1). The study area included the Harbor Subdivision from the Redondo Junction near Washington Boulevard (near the Los Angeles River(LA River)) south on the ROW, extending west along Slauson Avenue and Florence Boulevard to the Crenshaw/LAX Transit Corridor Project's West Boulevard Station.

Given the multi-jurisdictional collaboration needed and the active rail operations, the Feasibility Study recommended a phased approach in the next stage of project development. Phase 1 included advanced design/environmental review for the Western Segment of the corridor (Segment A), and Phase 2 included a more detailed Alternatives Analysis (AA) study of the Eastern Segment alignment options (Segment B). High level ROM capital and operational and maintenance (O&M) costs were developed in the Feasibility Study based on early conceptual designs (up to 15 percent design). In 2015, Segment A received funding for the next phase of development including up to 30 percent design. Segment B recommendations for the AA study included determining an appropriate connection from Segment A to the LA River in preparation for future grant funding.

1.1 Purpose of the Study

As part of the Rail to Rail/River Active Transportation Corridor Project (Rail to Rail/River ATC), Metro initiated this AA study to evaluate potential active transportation facilities that would provide connections from the Metro Blue Line Slauson Station at Long Beach Avenue to the LA River. This study will also identify a preferred alternative (PA) for the Rail to Rail/River ATC and provide recommendations to the Metro Board for further study and/or implementation. This segment of the Rail to Rail/River ATC (herein known as Segment B) will provide new active transportation choices for local communities and regional connections for Los Angeles County.

In parallel with this effort, environmental review/clearance and design is being conducted of the Rail to Rail Active Transportation Corridor which runs from the Metro Crenshaw/LAX Fairview Heights Station to the Metro Blue Line Slauson Station (herein known as Segment A). Although Segment A is currently advancing into design and implementation, Segment B will undergo this planning evaluation first, with design and implementation as later tasks.

The alternatives evaluated as part of this study were initially developed as part of the Feasibility Study. The AA process evaluates the alternatives through a screening process then refines the alternatives through estimated costs, implementation plans and schedules, and stakeholder input to determine a PA. The final AA study includes comparative information on the alternatives, input received by stakeholders, and recommendations on alternatives to be screened from further study at this time, as well as alternatives that should be further analyzed in greater detail. The final AA also informs decision makers so they can consider the PA for further study and design as part of a future environmental review/clearance process.

1 In 1992, Metro's predecessor was the Los Angeles County Transportation Commission and BNSF was known as Atchison, Topeka, and Santa Fe Railroad (ATSF).

Figure 1-1: Harbor Subdivision

1.2 Study Area Attributes and Demographics

In The Rail to Rail/River ATC study area is located in south Los Angeles County generally north of Gage Avenue, east of Long Beach Avenue (Metro Blue Line), south of 26th Street, and west of the LA River (see Figure 1-2), and contains approximately 2.5 square miles.

Figure 1-3 through Figure 1-7 provides study area attributes and demographics including population and employment density, general land use patterns and activity centers, bicycle and pedestrian collisions, existing/planned bicycle facilities and bus stops.

Figure 1-2: Rail to Rail/River ATC Study Area

Figure 1-3: Population Densities

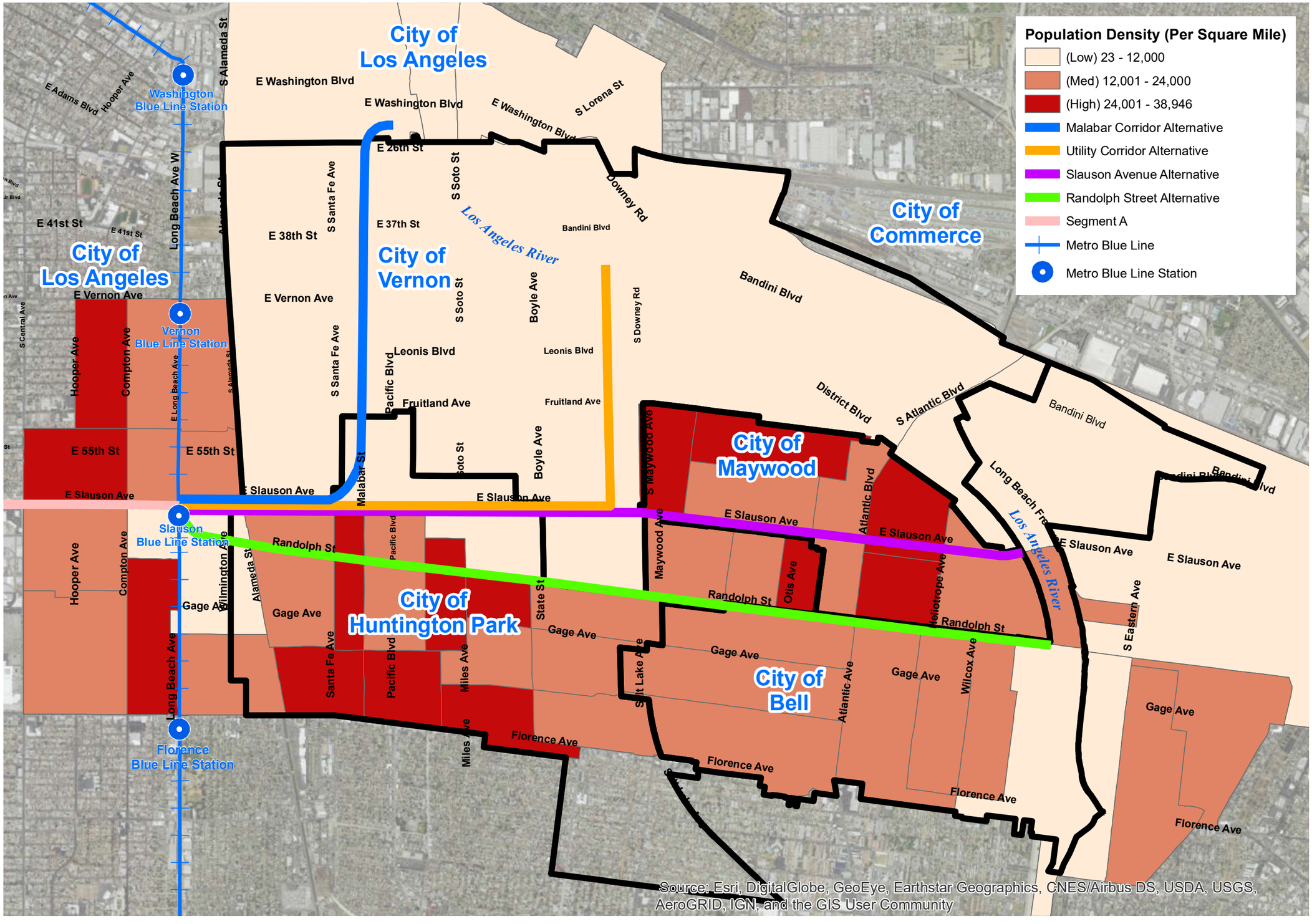


Figure 1-4: Employment Densities

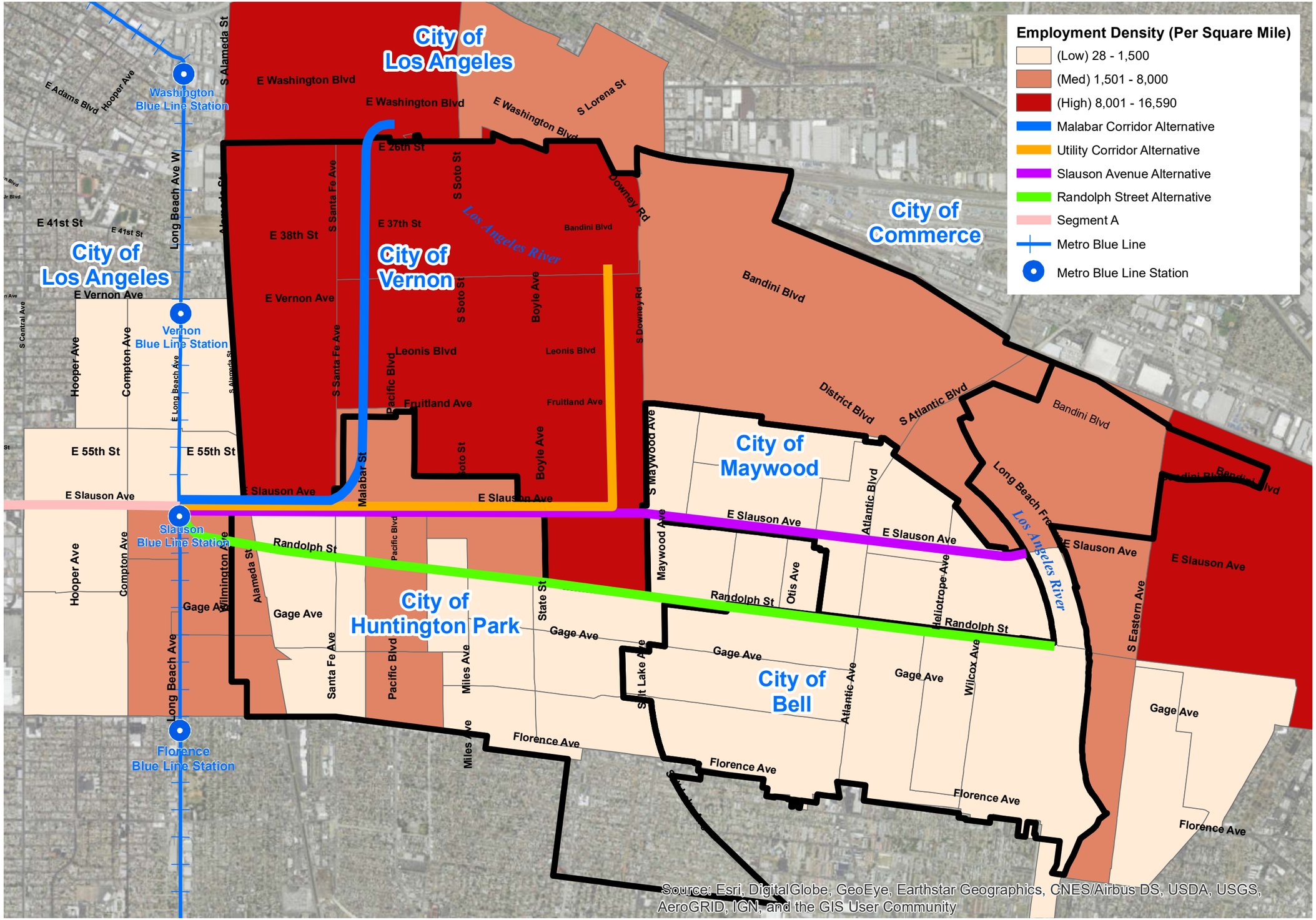


Figure 1-5: Land Use Patterns and Major Activity Centers

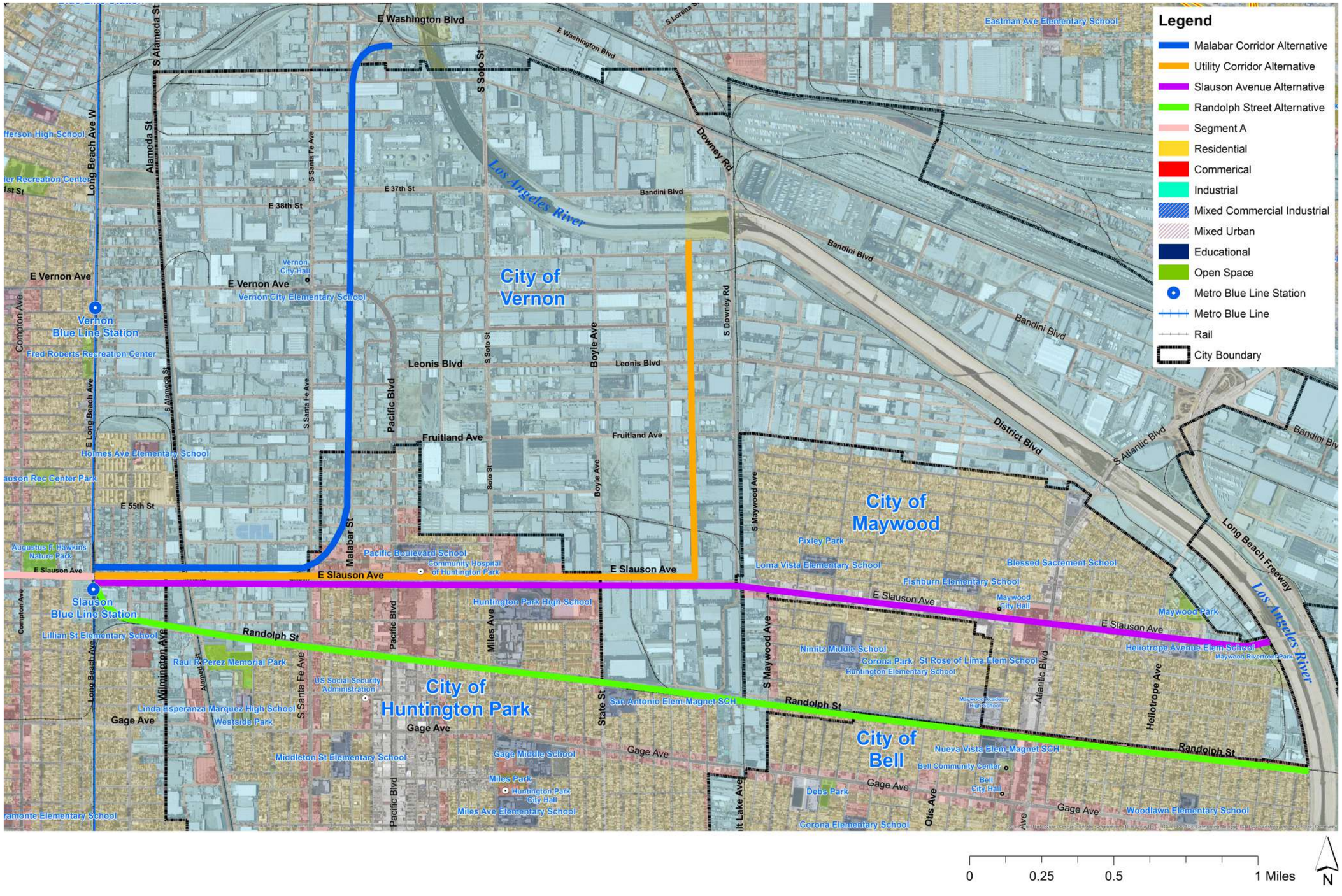
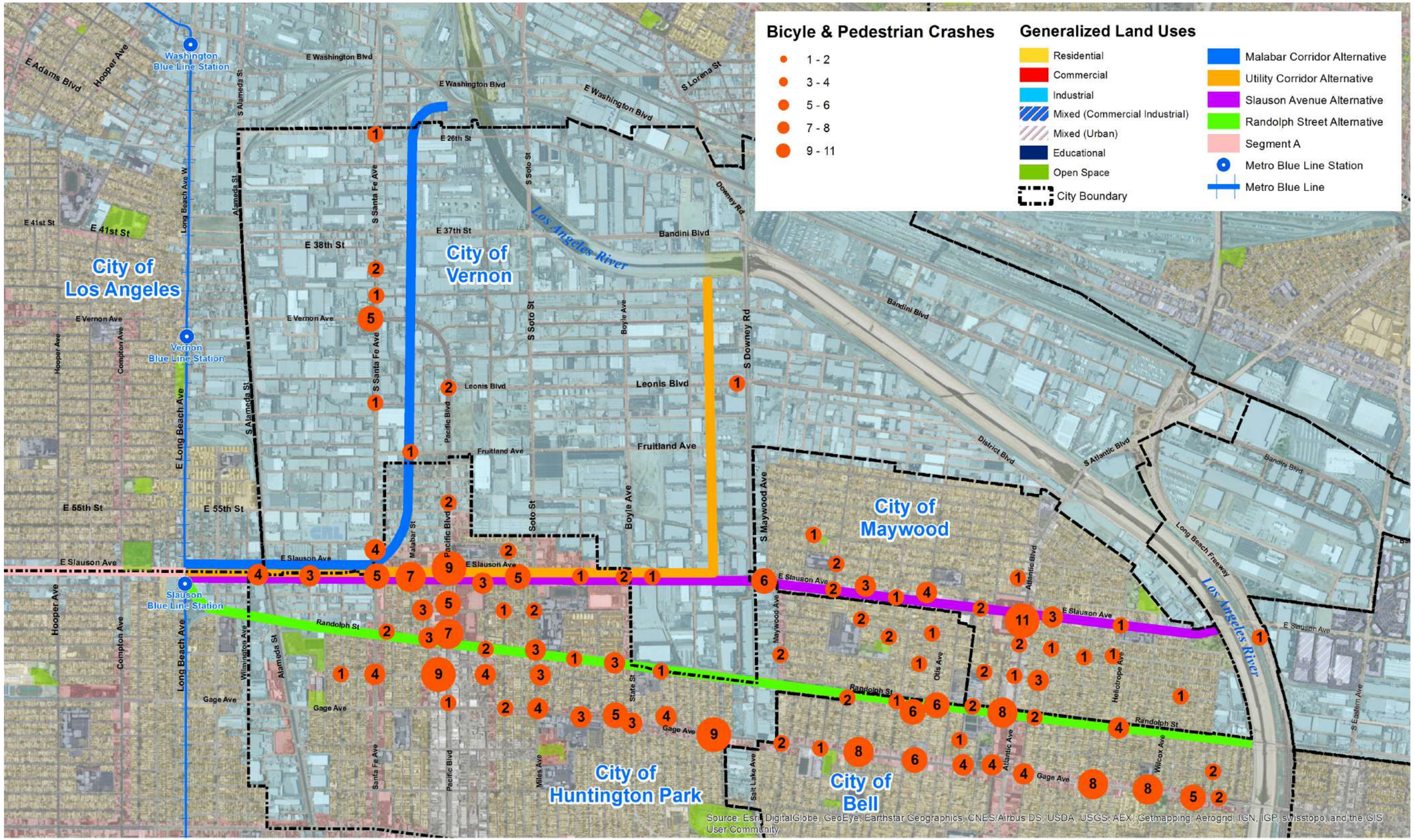
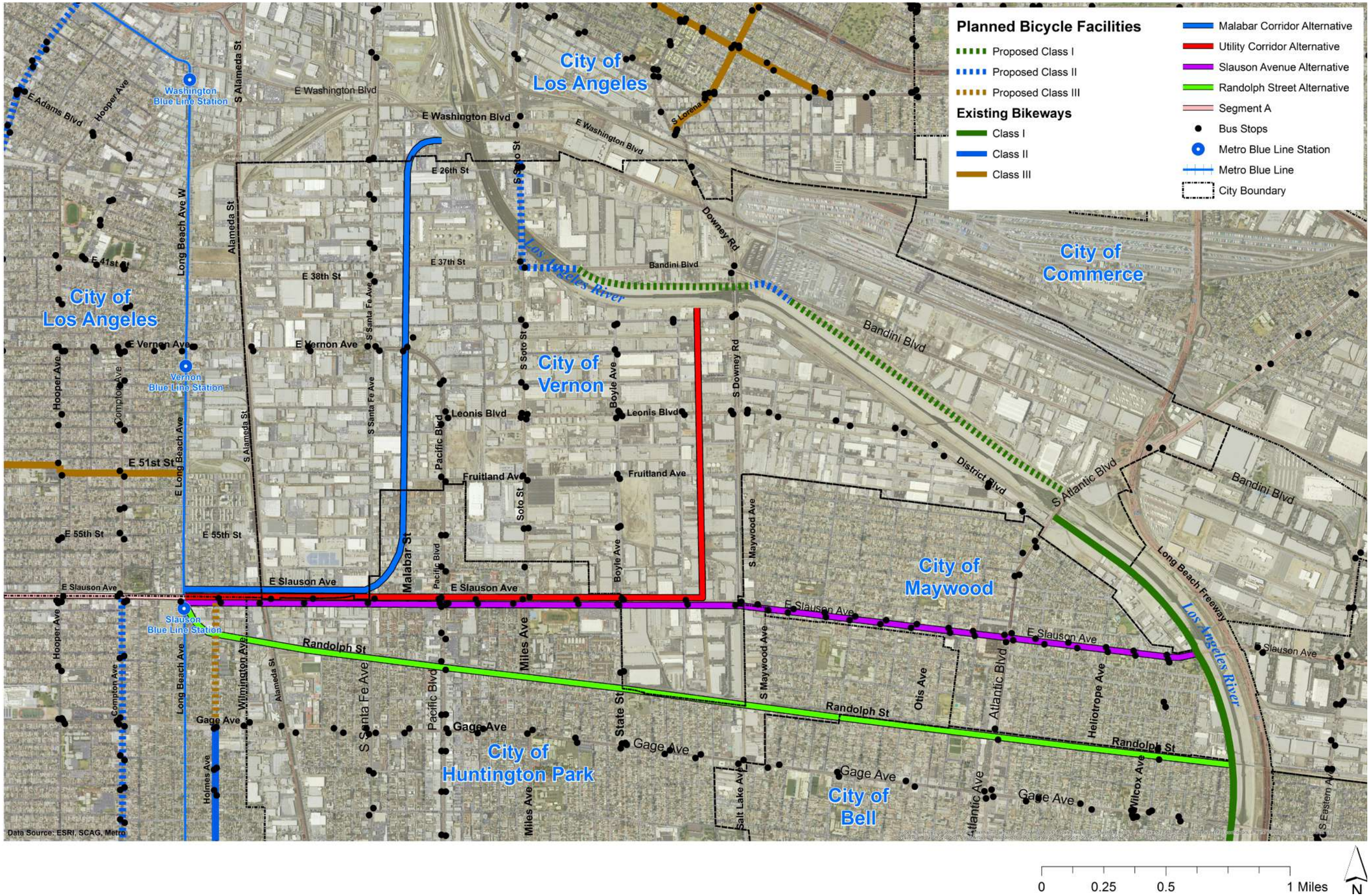


Figure 1-6: Bicycle and Pedestrian Collisions (2011-2015)



Data Source: Kittelson & Associates, Inc., ESRI, SCAG, Metro

Figure 1-7: Existing and Planned Bicycle Facilities and Bus Stops



1.3 Purpose and Need Statement

The project seeks to provide safe and secure local active transportation travel options and enhance mobility and regional connectivity by completing the Rail to Rail/River Active Transportation Corridor.

The purpose and need statement is a reflection of the conditions and attributes of the study area that will inform the AA evaluation process. The statement is based on study area attributes and incorporates comments and input gathered from stakeholders and community members. This statement justifies the need for the project.

The study area includes several jurisdictions with existing and ongoing policies and programs that encourage and support active transportation. This reflects the need for comprehensive coordination with local jurisdictions along the corridor as well as consistency with LA County and Metro's active transportation policies. Existing population and employment densities indicate a concentrated need for transportation alternatives for both local and regional commuter travel. A review of the land use patterns and major activity centers in the study area indicate high densities of residential origins within the Cities of Bell, Huntington Park, Los Angeles, and Maywood; and high densities of industrial destinations within the City of Vernon. The study area also has major activity centers that would serve active transportation users including job centers, public and private educational uses, recreational facilities, and civic uses. Within the existing transportation network, there is a need to address bicycle and pedestrian use, as the study area includes truck-designated streets, major arterials, heavily utilized on- and off-street parking, as well as several loading/unloading areas. There are also high concentrations of pedestrian and bicycle accidents and incidents in the study area, thus indicating the need for safe and secure active transportation facilities. There is also a need to provide active transportation options for regional connectivity, as the Segment B study area alternatives serve to link the Metro Blue Line to the LA River with seamless connectivity to the future Rail to Rail - Segment A (see Figures 1-3 though Figures 1-7).

If unaddressed, the study area's transportation needs, issues, and challenges described above will continue to affect future populations and employment growth, active transportation safety and security, increased dependence on auto travel, regional disconnection and overall environmental considerations. The following needs are summarized for the project based on stakeholder input and study area attributes:

- Addresses regional and local active transportation policies including increased access and improved safety and mobility
- Provides safer access for bicyclists and pedestrians to the surrounding communities and job centers
- Provides safe and secure active transportation facilities in a heavily used auto and truck-oriented corridor
- Increases regional travel options
- Completes regional bicycle connections for Metro's Active Transportation Corridor from Rail to Rail/River

Therefore, the purpose and need statement is the following:

The project seeks to provide safe and secure local active transportation travel options and enhance mobility and regional connectivity by completing the Rail to Rail/River Active Transportation Corridor.

The overall goals of the project are to enhance mobility in the study area by providing access to major destinations, minimize transportation impacts, be cost effective and easily implementable, and address local communities' needs and safety. During the AA evaluation process, each of these project goals are further described as project objectives that are the basis of the screening criteria. This process is detailed in Section 3.1 Screening Process of this report.

2. Definition of Alternatives

Definition of Alternatives

The following section describes the four alternatives for the Rail to Rail/River ATC Segment B project, which includes: Malabar Corridor, Utility Corridor, Slauson Avenue, and Randolph Street. They are all regionally significant corridors defined as four alternative transportation alignments through the study area each originating at the Metro Blue Line Slauson Station then continuing to different destinations at or near the LA River. Table 2.1 provides an overall summary of the four alternatives' attributes and general characteristics. Figure 2-1 shows a map of all four alternative alignments. The Rail to River Intermediate Active Transportation Corridor Feasibility Study (Feasibility Study) was completed in October 2014 and assessed the viability, benefits and cost considerations to develop an intermediate active transportation corridor along the 8.3 miles of the Metro-owned Local North Segment of the Harbor Subdivision (see Figure 1-1). The study area included the Harbor Subdivision from the Redondo Junction near Washington Boulevard (near the Los Angeles River(LA River)) south on the ROW, extending west along Slauson Avenue and Florence Boulevard to the Crenshaw/LAX Transit Corridor Project's West Boulevard Station.

Alternative	Proposed Bike Facility Type(s)	Alignment Length	General Description[1]	Major Destinations
Malabar Corridor	Class I	2.8 miles	Runs along Metro ROW east on Slauson Ave then north after Santa Fe Ave continuing in the Metro ROW parallel to Malabar Street	2 Elementary Schools Vernon City Hall/ Police Department Light and Heavy Industrial
Utility Corridor	Class I and Class II	3.3 miles	Runs along Metro ROW east on Slauson Avenue until Santa Fe Avenue where it transitions east to a Class III, then north along a utility corridor that is parallel to Downey Road	2 Elementary Schools 1 High School Community Hospital of Huntington Park St Francis Medical Clinic Commercial centers along Slauson Ave
Slauson Avenue	Class I and Class II or Class III	4.1 miles	Runs along Metro ROW east on Slauson Avenue until Santa Fe Avenue where it transitions east to a Class II or III	5 Parks 7 Elementary Schools 1 Middle School 1 High School Community Hospital of Huntington Park Commercial centers fronting Slauson Ave Residential areas east of Maywood Ave
Randolph Street	Class I or Class II/IV	4.3 miles	Runs along rail ROW southeast to Randolph Street where it continues east as a Class I or Class II parallel to the rail ROW	5 Parks 12 Elementary Schools 4 High Schools 2 Middle Schools Mission Hospital of Huntington Park US Social Security Administration High Commercial and Residential areas throughout

Table 2-1: Rail to Rail/River Segment B Alternatives' Characteristics

Data source: TransLink Consulting 2016 and Rail to Rail/River Intermediate Active Transportation Corridor Feasibility Study 2014.
Notes: (1) Each alternative would be an extension of the Segment A alignment ending at or near the LA River. Segment A has received funding from the Caltrans Active Transportation Program (ATP) and Transportation Investment Generating Economic Recovery (TIGER VII) and is currently undergoing design development. For comparison purposes, it was assumed that Segment A would connect to Segment B near Santa Fe Avenue for the Malabar Corridor, Utility Corridor, and Slauson Avenue Alternatives. For the Randolph Alternative, it was assumed that Segment A would connect at Long Beach Avenue near the Blue Line Station.

Figure 2-1: Rail to Rail/River Segment B Alternatives

2.1 Malabar Corridor Alternative

The Malabar Corridor Alternative was proposed in the Feasibility Study as a 2.8-mile Class I dedicated bike path and pedestrian track, which would be a continuation of Segment A on the north side Slauson Avenue east along the Metro owned ROW. From the Blue Line Slauson Station, the alignment would continue east then follow the Metro owned ROW north near Santa Fe Avenue. The alignment would continue on the Metro owned ROW north and parallel to Malabar Street. The alignment would end near Washington Boulevard, approximately 800 feet west of the LA River's west bank.

Although this alternative would operate within the Metro owned ROW, the alignment would run through and serve several cities and jurisdictions including Unincorporated LA County, City of Huntington Park, and City of Vernon. Within 0.5 mile of the alignment, the land uses are primarily industrial. Within one mile west of the alignment, there are dense residential areas with commercial activity within the City of Los Angeles (west of Long Beach Avenue). There are also commercial and residential areas along Slauson Avenue within the City of Huntington Park. Several major activity centers within 0.5 miles of the alternative include Vernon City Elementary School, Vernon City Hall/Police Department, Aspire Ollin University Preparatory Academy, Pacific Boulevard School, Community of Hospital of Huntington Park and Pacific Vet Medical Center as well as other educational, civic and recreational centers

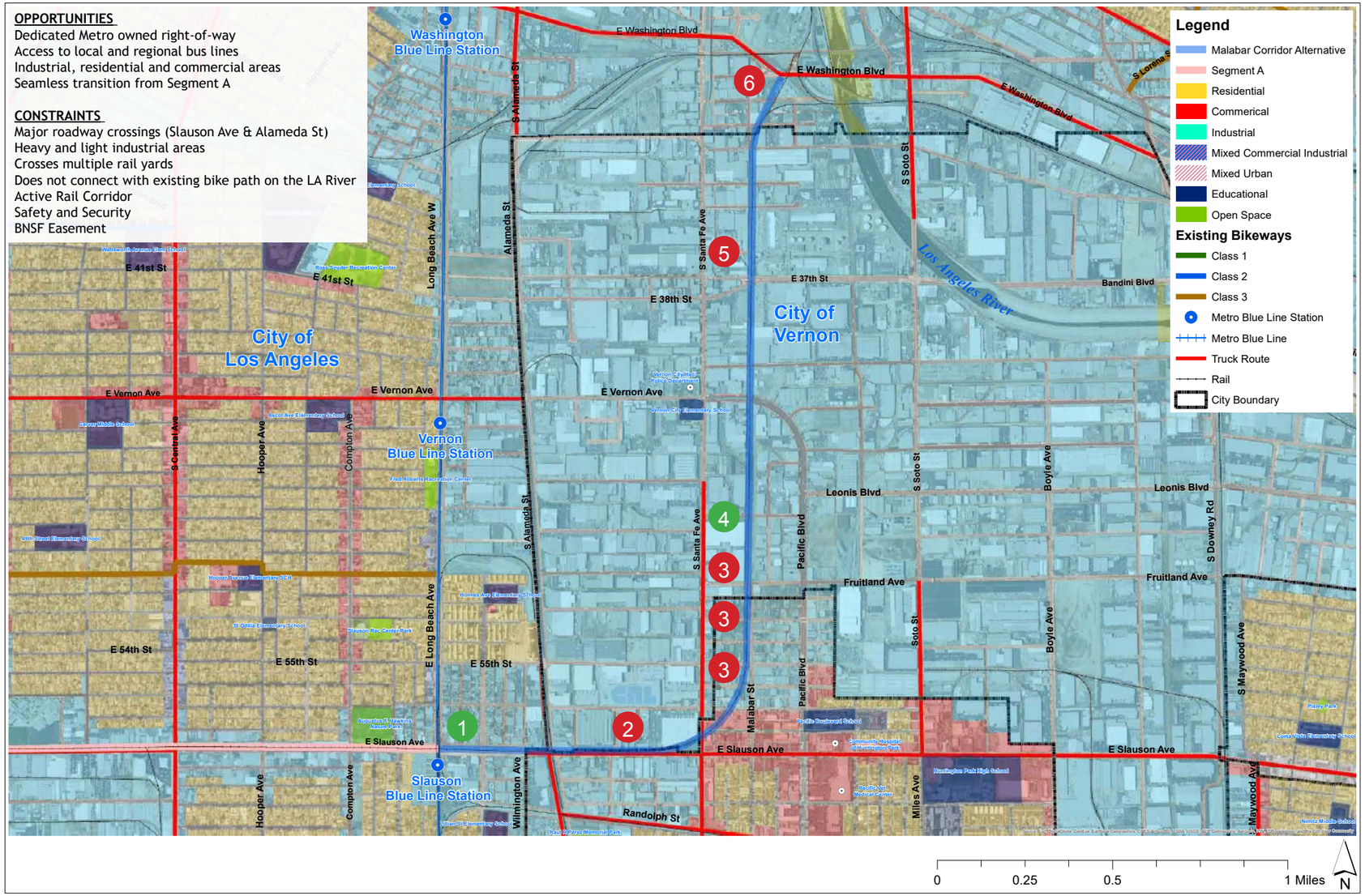
2.1.1 Opportunities

Given the existing conditions in the study area, several opportunities would make this alternative a viable option. These include the ability to serve the industrial workers within the City of Vernon; enhance local access for nearby residential and commercial areas; and provide access to local and regional transit along Santa Fe Avenue, Pacific Boulevard, Soto Street, Leonis Boulevard, and Slauson Avenue. The alignment has wide ROW availability (between 20 and 25 feet in width) on dedicated Metro owned land along Slauson Avenue. The alternative would also be a seamless transition from Segment A and would benefit from the design and engineering plans undertaken by the other segment.

2.1.2 Constraints

Although the Malabar Corridor Alternative has several opportunities, there are constraints that would need to be resolved for this option. The major constraint for Malabar Corridor is that it is currently subject to easement rights from BNSF which has current operations north of the Malabar Yard. At the time of this report, because of the active freight operations, BNSF was not interested in selling the easement. This includes potential conflicts with roadway crossings along the alignment (every 200 to 300 feet between minor streets) and complex intersections that would need specialized design to cross such as 38th/37th Street and Santa Fe Avenue/58th Street. The alignment also passes through active spurs, rail yards, and rail junctions. The active spurs serve local industrial activities between Pacific Boulevard and 30th Street. Malabar Yard is located parallel to the alignment between Fruitland Avenue and Pacific Boulevard, and Redondo Junction is located north of 26th Street at the end of the alignment. There are also major safety and security concerns that would need to be addressed since majority of the alignment passes behind large industrial buildings. Another major constraint is that the alignment would not connect with the LA River given the activities of Redondo Junction. There are also no existing bike facilities along the LA River near the end of the Malabar Alternative. However, a Bike Gap Closure Project along the LA River is currently being studied by Metro near this alternative. Figure 2-2 presents a map of the Malabar Corridor Alternative including relevant land uses, existing bikeways, truck routes and transit connections and the location of opportunities and constraints.

Figure 2-2: Malabar Corridor Opportunity and Constraints Map



Opportunity: Direct continuation of Segment A bikeway.

Constraint: Safety concerns with the bikeway behind buildings

Constraint: Multiple crossings along industrial areas

Opportunity: Wide right-of-way potential

Constraint: Potential conflicts with existing rail yards

Constraint: Bikeway does not connect to LA River

2.2 Utility Corridor Alternative

The Utility Corridor Alternative is a 3.3-mile alignment proposed in the Feasibility Study as a combination of a Class I dedicated bike path/pedestrian track and Class III designated bicycle route. Similar to the Malabar Alternative, this alignment would be a dedicated Class I facility as a continuation of Segment A on Metro owned ROW (the north side Slauson Avenue) for approximately 0.6 miles from the Blue Line Slauson Station. The alignment would run east on the north side of Slauson Avenue until Albany Street where the Metro owned rail ROW turns north (just west of Santa Fe Avenue). At this location, the Class I facility would transition to a Class III facility and operate on both sides of the Slauson Avenue in the direction of traffic. The alignment (as proposed in the Feasibility Study) would continue as a Class III facility for approximately 1.5 miles through the cities of Huntington Park and Vernon, then turn north along a utility corridor (owned and operated by Southern California Edison (SCE)) located between Alcoa Avenue and Downey Road. The alignment would continue north on the utility corridor and end near Vernon Avenue, adjacent to the LA River's south/west bank. Note that for the purposes of the AA, the portion of the Utility Corridor Alternative along Slauson Avenue is analyzed as a potential Class II facility.

Within 0.5 mile of the north side of the alignment, the land uses are primarily industrial. Within 0.5 mile of the south side of the alignment along Slauson Avenue, there are dense residential areas and commercial activities between Santa Fe Avenue and State Street. A block east of the alignment (south of Fruitland Avenue and east of Maywood Avenue) there are dense residential areas within the City of Maywood. Several major activity centers within 0.5 mile of the alignment include Aspire Ollin University Preparatory Academy, Pacific Boulevard Elementary School, Community of Hospital of Huntington Park, Pacific Center Shopping Center, Huntington Park High School, St. Francis Medical Clinic, as well as other educational, civic and recreational centers.

2.2.1 Opportunities

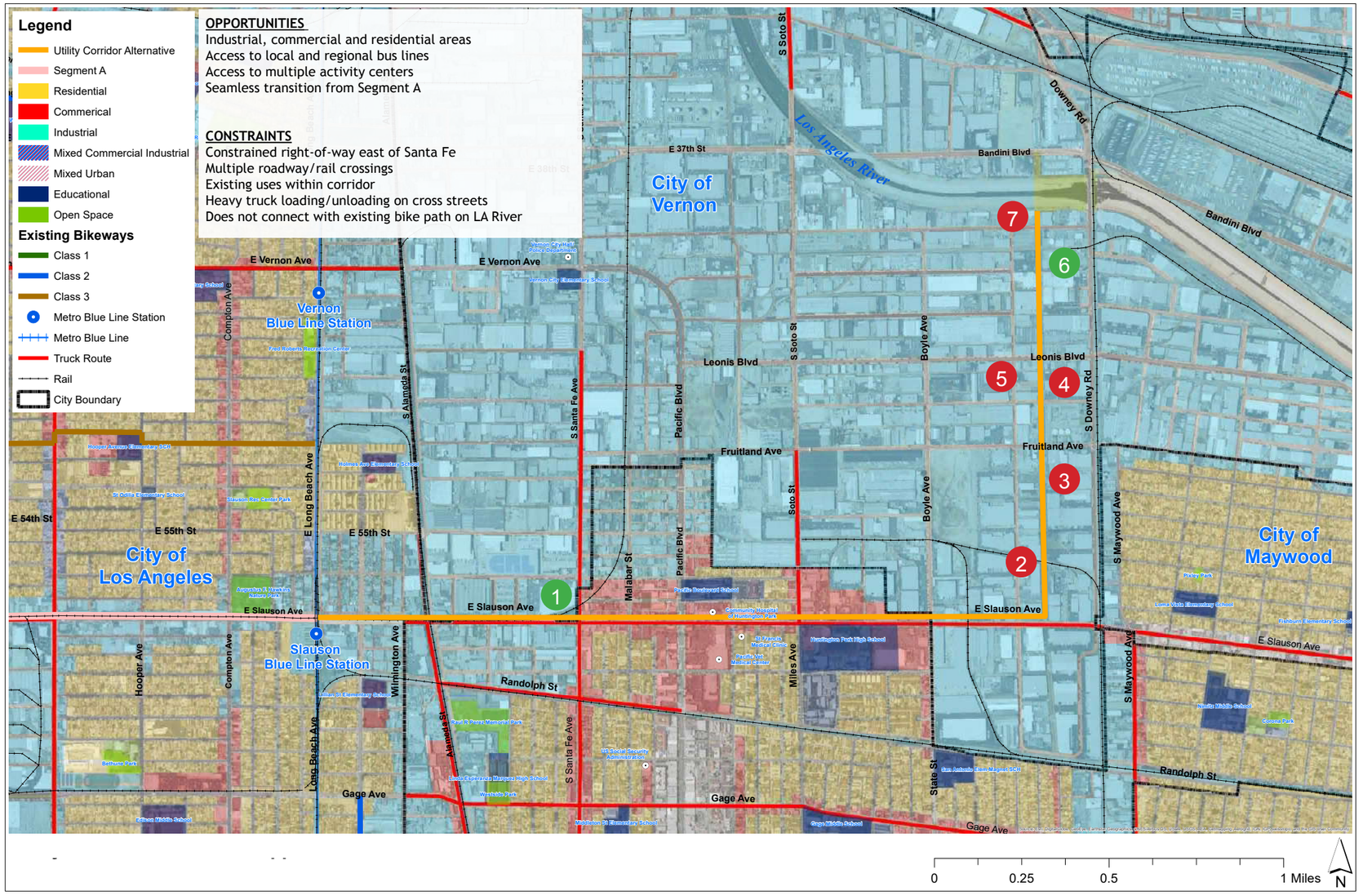
Several opportunities would make this alternative a viable option including the ability to serve industrial workers within the City of Vernon; enhance local access for residential and commercial areas within 0.5 mile of the alignment; and provide access to local and regional transit along Slauson Avenue, Santa Fe Avenue, Pacific Boulevard, Soto Street, Boyle Avenue, Leonis Boulevard, Fruitland Avenue, and Downey Road. The alignment has wide ROW widths availability (between 17 and 20 feet) on dedicated Metro owned land and unoccupied land on the utility corridor. The alternative would also be a seamless transition from Segment A and would benefit from the design and engineering plans undertaken by the other segment. There is also potential to connect to a planned Class I bike facility along the LA River near the end of the Utility Corridor Alternative.

2.2.2 Constraints

Several constraints would need to be resolved for this option. Since the corridor is currently owned and operated by SCE, this alternative would require collaboration and negotiation with this utility company for ROW needs. This includes potential conflicts with several midblock roadway crossings along the alignment at Fruitland Avenue, 50th Street, Leonis Boulevard, and Vernon Avenue. The alignment also passes through several active spurs and east/west rail lines that serve the adjacent industrial uses. There are also occupied plots along the utility corridor that are utilized for parking, storage and loading/unloading truck activities that would need to be relocated for this alternative. There would be transitions constraints to/from Slauson Avenue where the alignment changes from a Class I to a Class III and back to a Class I facility. Another constraint is the alignment does not connect with the existing bicycle facility on the LA River, as the Class I dedicated bike path on the LA River is approximately 1.7 miles southeast from the end of the Utility Corridor Alternative.

Figure 2-3 presents a map of the Utility Corridor Alternative including relevant land uses, existing bikeways, truck routes and transit connections and the location of opportunities and constraints.

Figure 2-3: Utility Corridor Opportunity and Constraints Map



Opportunity: Direct continuation of Segment A bikeway

Constraint: Bike way would cross active rail spurs

Constraint: Existing occupied uses on corridor

Constraint: High amount of truck activities

Constraint: New midblock crossings needed on east-west streets

Opportunity: Potential available Parcels

Constraint: Bikeway does not connect to existing bike path LA River

2.3 Slauson Avenue Alternative

The Slauson Avenue Alternative is a 4.1-mile alignment proposed in the Feasibility Study as a combination of a Class I dedicated bike path/pedestrian track on Metro owned ROW, and a potential Class II striped bicycle lane or Class III designated bicycle route on Slauson Avenue. Similar to the Utility Corridor Alternative, this alignment would be a dedicated Class I facility for approximately 0.6 miles from the Blue Line Slauson Station to Albany Street where the Metro owned rail ROW turns north (just west of Santa Fe Avenue). At this location, the Class I facility would transition to a III facility and operate on both sides of the Slauson Avenue in the direction of traffic. The alignment would continue for approximately 3.5 miles through the cities of Huntington Park, Vernon, and Maywood connecting to the LA River's west bank and the Class I bicycle path. Note that for the purposes of the AA, Slauson Avenue is analyzed as a potential Class II facility east of Santa Fe Avenue.

Within 0.5 mile of the alignment, there are a variety of uses with mostly commercial and residential directly adjacent to Slauson Avenue. There are industrial uses west of Santa Fe Avenue, between Boyle Avenue and Maywood Avenue, and at the end of the alignment near the LA River. There are a high number of major activity centers within 0.5 mile of Slauson Avenue. This includes: eight elementary schools[1], Nimitz Middle School, Huntington Park High School, and South Region High School #8 (currently under construction); five recreational facilities[2]; Community of Hospital of Huntington Park, St. Francis Medical Clinic, and FHCCGLA Maywood Family Medical Center; Pacific Center Shopping Center and Maywood Village Square; as well as other commercial centers fronting Slauson Avenue, and dense residential areas east of Maywood Avenue.

1 Aspire Ollin University Preparatory Academy, Lillian Street Elementary, Pacific Boulevard Elementary, Loma Vista Elementary, Huntington Park Elementary, St. Rose of Lima Elementary, Heliotrope Avenue Elementary, and Blessed Sacrament School

2 Maywood Riverfront Park, Westside Park, Corona Park, Maywood Park, and Pixley Park

2.3.1 Opportunities

Several opportunities would make this alternative a viable option. The high concentration of commercial and residential uses along this alignment would provide new active transportation options for local communities. This alternative would also serve the high number of existing bicycle and pedestrian users observed to be currently using this east/west corridor. In addition to the local and regional transit along Slauson Avenue and the adjacent north/south services, this alignment would also be 0.5 miles north of Metro Line 110 along Gage Avenue. Similar to the Malabar and Utility Corridor Alternatives, this alternative would provide a direct continuation of Segment A. This alternative would also connect to the existing Class I bike facility along the LA River.

2.3.2 Constraints

Several constraints would need to be resolved for this option. This includes potential safety concerns for bicycle and pedestrian users given heavy truck and auto traffic along Slauson Avenue as well as several major north/west cross streets. Slauson Avenue has predominantly narrow roadway ROW (approximately 70 feet in width) including sidewalks, on-street parking, two travel lanes in each direction, and a center turn lane/landscaped median. A Class II bike lane would likely require reconfiguring the existing roadway by removing some of the roadway facilities. There would also be transition constraints on Slauson Avenue where the alignment changes from a Class I to a Class II or III facility.

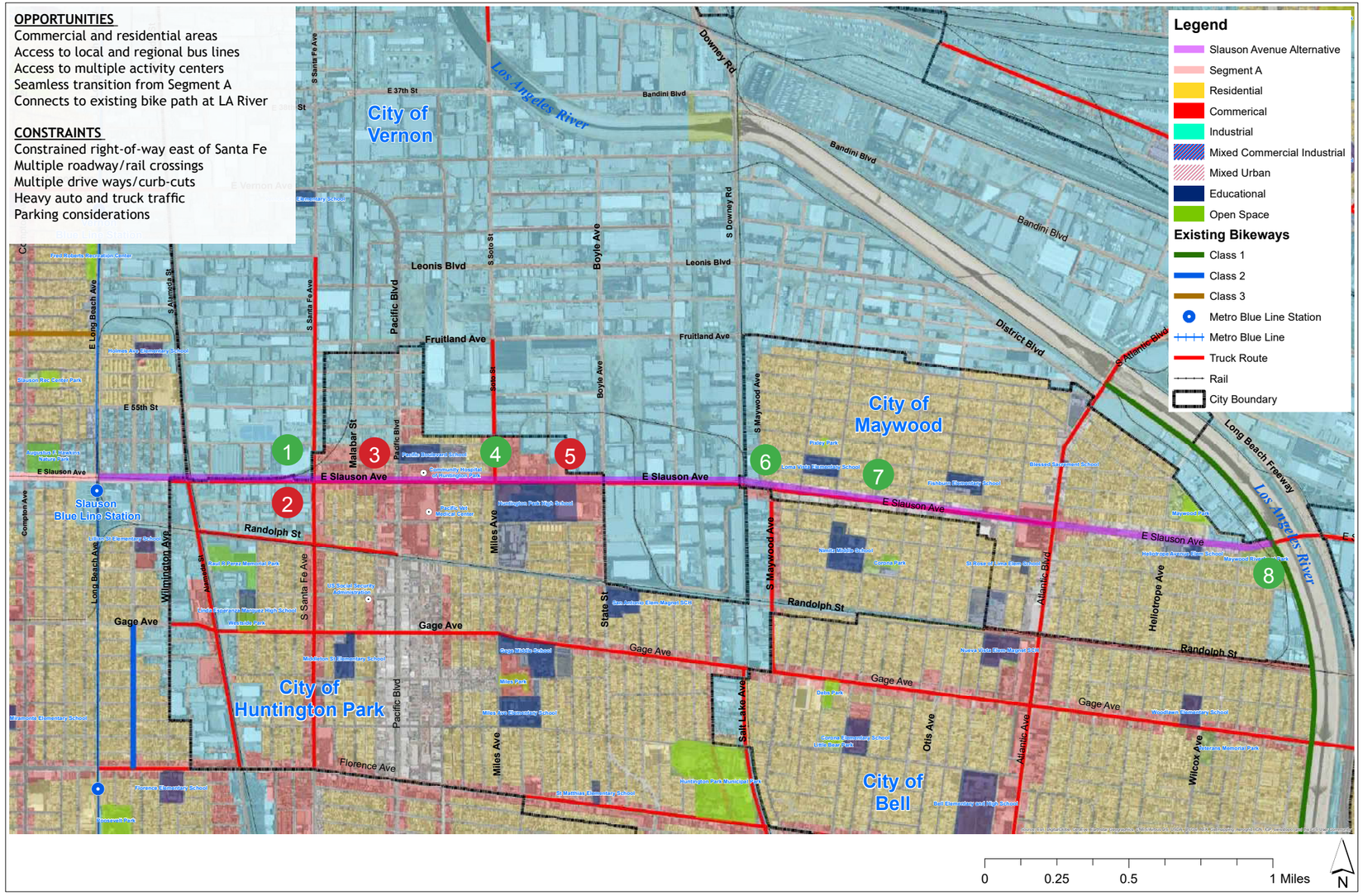
Figure 2-4 presents a map of the Slauson Avenue Alternative including relevant land uses, existing bikeways, truck routes and transit connections and the location of opportunities and constraints.

Figure 2-4: Slauson Avenue Opportunity and Constraints Map

Opportunity: Direct continuation of Segment A bikeway

Constraint: Requires transition onto Slauson Avenue

Constraint: Narrow right-of-way for bikeway



Opportunity: Access to commercial and residential areas and activity centers

Constraint: Major routes for truck traffic

Opportunity: High bike usage

Opportunity: High pedestrian usage

Opportunity: Direct connection to Class I bike path on LA River and Maywood Riverfront Park

2.4 Randolph Street Alternative

The Randolph Street Alternative is a 4.3-mile alignment proposed in the Feasibility Study as a Class I dedicated bike path/pedestrian track on an existing rail ROW which is currently owned and operated by Union Pacific Railroad (UPRR). From the Blue Line Slauson Station, the alignment would transition from Segment A on Metro owned ROW (north side Slauson Avenue), cross Slauson Avenue and follow the rail ROW south of Randolph Street. The alignment would continue on the south side of the rail ROW located in the center of Randolph Street. East of Wilmington Avenue, the Class I facility continues through the cities of Huntington Park, Vernon, Maywood and Bell connecting to the LA River's west bank and the Class I bicycle path.

Within 0.5 mile of the alignment, the uses are primarily residential, with commercial directly adjacent to Randolph Street. There are industrial uses west of Santa Fe Avenue, between Boyle Avenue and Maywood Avenue, and at the end of the alignment near the LA River. There are a large number of neighborhood and community activity centers within 0.5 mile of Randolph Street. This includes: 12 elementary schools[1], five high schools[2], two middle schools[3], and UEI College – Huntington Park and San Antonio Continuation School; five recreational facilities[4]; Mission Hospital of Huntington Park, San Juan Bosco Medical Clinic, Community Hospital of Huntington Park, St. Francis Medical Clinic; Pacific Center Shopping Center and Maywood Village Square; as well as other commercial centers fronting both north side and south sides of Randolph Street.

1 Florence Elementary, Middleton Street Elementary, Pacific Boulevard Elementary, San Antonio Elementary, Miles Avenue Elementary, Corona Elementary, Huntington Park Elementary, Nueva Vista Elementary, Bell Elementary, Woodlawn Elementary, Lillian Elementary, and St. Rose of Lima Elementary

2 Huntington Park High School, South Region High School #8 (currently under construction), Maywood Academy High School, Bell High School, and Linda Esperanza Marquez High School

3 Henry T. Gage Middle School and Nimitz Middle School

4 Raul R. Perez Memorial Park, Westside Park, Municipal Park, Veterans Park, and Corona Park

2.4.1 Opportunities

Several opportunities would make this alternative a viable option. Similar to the Malabar Alternative, this alternative has a wide ROW potential with around 16 feet that could be dedicated to the bicycle/pedestrian facility. This alternative also offers the opportunity to achieve either a Class I or IV, which are more protected facilities than a Class II or III. The high concentration residential and commercial uses along this alignment would provide new active transportation options for local communities. This alternative would serve the high number of existing bicycle and pedestrian users observed using this east/west corridor. This alignment would also be well served by local and regional transit connections near Randolph Street. This alternative would also connect to the existing Class I bike facility along the LA River.

2.4.2 Constraints

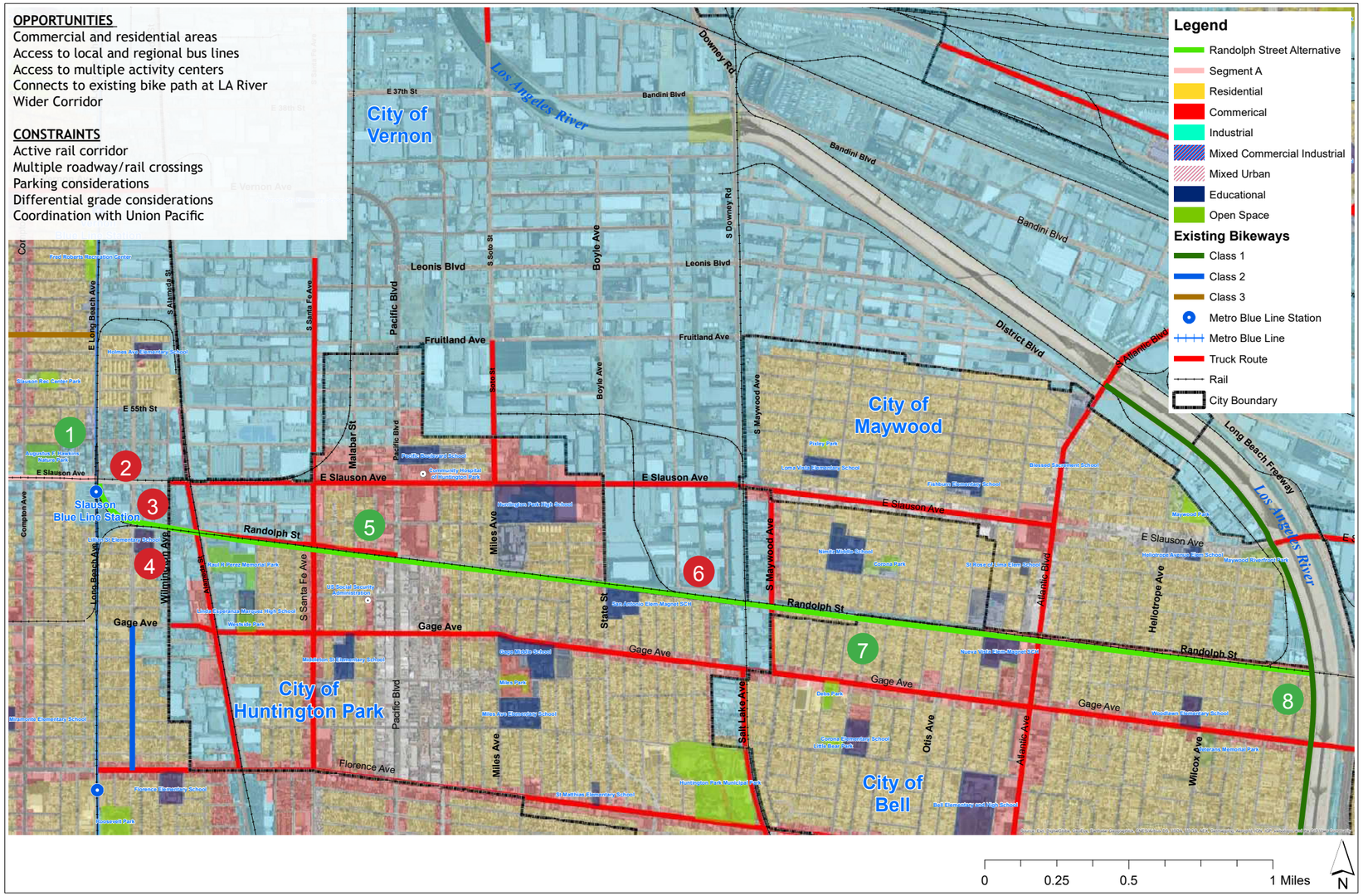
The major constraint for the Randolph Street Alterative is ROW availability. Since the rail line in the center of the roadway is currently considered active[5], an easement or acquisition would be required to develop a bicycle facility. The corridor also currently serves several existing uses on and adjacent to the rail ROW including a truck weigh station, on-street parking, landscaping/trees, and utility cabinets. At the western end of the alignment, this alternative would require a new crossing from Segment A on the north side of Slauson Avenue to the rail ROW. At the eastern end of the alignment, there is a grade differential east of Alamo Avenue where the rail ROW separates from the roadway grade and rises to meet the bridge crossing over the LA River. This would require new connections to adjacent residential streets.

If a Class II or IV facility was provided on Randolph Street, there would be ROW or easement needs to utilize a portion of the roadway (either through removal of parking or traffic lanes). The ROW requirements for a Class II or IV facility would need to be coordinated and approved by the four cities and unincorporated LA County.

Figure 2-5 presents a map of the Randolph Street Alternative including relevant land uses, existing bikeways, truck routes and transit connections and the location of opportunities and constraints.

5 A rail line is considered active if trains have the ability to operate along the corridor. The Surface Transportation Board (STB) can determine a rail line to be abandoned when the railroad has applied for abandonment authorization. The STB issues an order authorizing the abandonment of the line, and the railroad has notified the STB that is has consummated the abandonment authorization.

Figure 2-5: Randolph Street Opportunity and Constraints Map



Opportunity: Potential dedicated right-of-way for bikeway

Constraint: Requires crossing between Segment A and rail right-of-way to Randolph Street

Constraint: Bikeway may need to cross rail line to south side of right-of-way

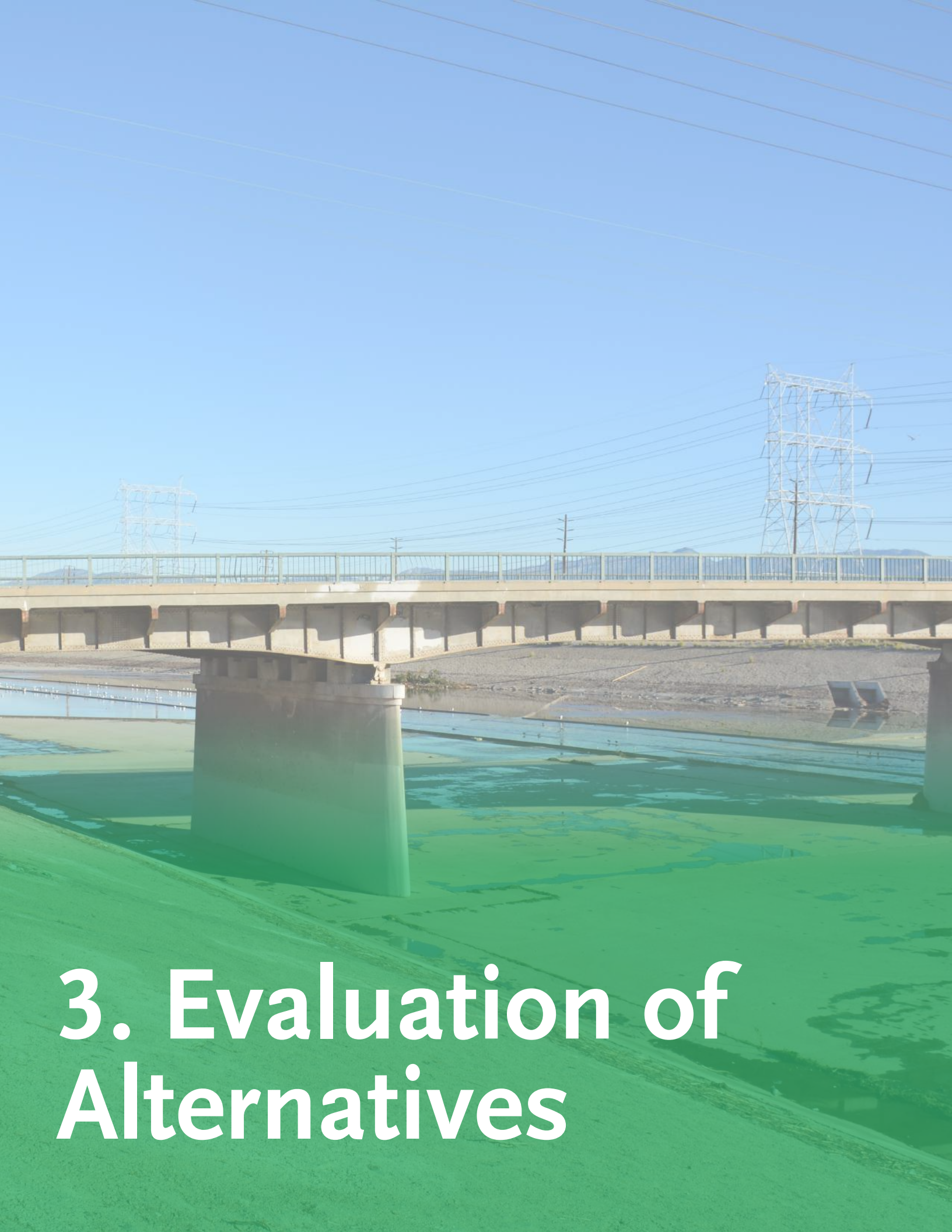
Constraint: Existing uses near rail right-of-way (truck weigh station, existing on-street parking)

Opportunity: Wide right-of-way potential adjacent to rail line

Constraint: Grade separation between roadway and rail right-of-way

Opportunity: Access to commercial and residential areas and activity centers

Opportunity: Direct connection to Class I bike path on LA River



3. Evaluation of Alternatives

Evaluation of Alternatives

The Alternatives Analysis generally follows a six-step process: 1) conduct a feasibility study of alternative concepts; 2) document the needs/purpose for the project; 3) develop goals and objectives; 4) develop the methodology and conduct evaluation of the alternatives; 5) report results; and 6) provide recommendations for a PA. Throughout this process, stakeholders and agency participants are heavily involved through project coordination, meetings, briefings, and by providing input and feedback on the alternatives and screening results. Public and agency participation is critical in the AA process in order to support the PA and provide the necessary information to decision makers. Figure 3-1 presents a flow chart of the AA process used for the Rail to Rail/River ATC Segment B project.

3.1 Goals/Objectives

The goals and objectives of the Rail to Rail/River ATC project were developed through corridor and systems planning studies conducted over the past five years when Metro initiated the study of intermediate uses of the Harbor Subdivision that would not preclude future transit use (see Section 1.1 Study Background above). Based on the planning and community involvement activities conducted as part of Feasibility Study, the goals and objectives are listed in Table 3.1. These goals and objectives were presented and confirmed during the project's technical advisory committee, community advisory committee, and the community outreach meetings held in August 2016.

3.2 Evaluation Criteria

Evaluation criteria were developed to assess how well each alternative satisfies specific goals and objectives established for the project. Criteria used to evaluate the alternatives incorporate Metro and general Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) standards. Table 3.1 provides a detailed list of the evaluation criteria established for each goal and set of objectives. The criteria are used to assess each alternative's potential performance in the AA screening process.

The purpose of providing a comparison ranking is to determine the overall performance of the alternatives based on the goals and objectives of the project. It is typical in the AA planning process to have alternatives perform well for some objectives but less satisfactory for others. This overall summary of an alternative's performance provides a clear understanding of benefits and tradeoffs, so stakeholders and decision makers can interpret the evaluation results/ recommendation and confirm the PA.

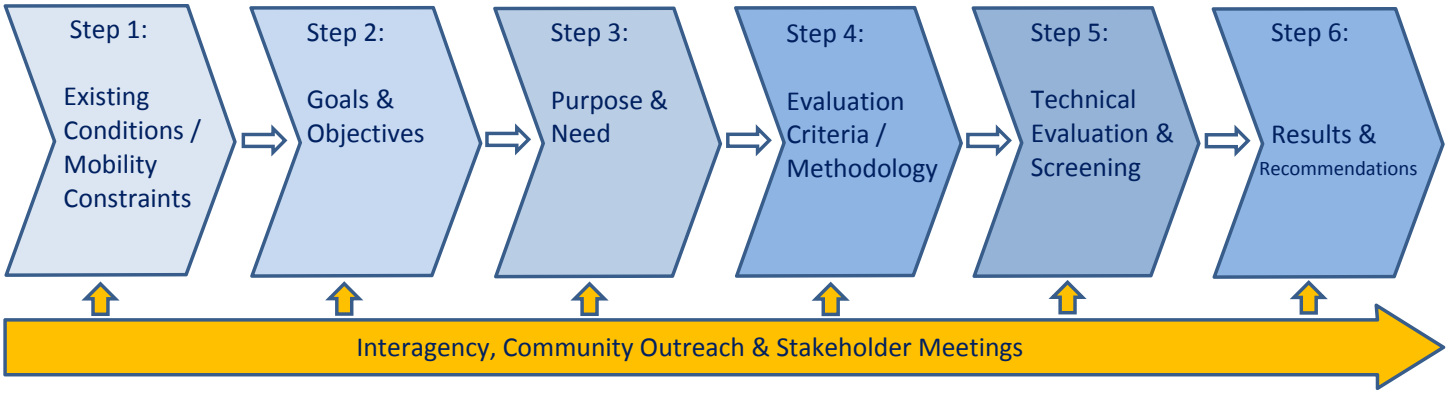


Figure 3-1: Rail to Rail/River ATC - Segment B Alternatives Analysis Process

	Goals	Objectives	Screening Criteria
1	Enhance Mobility / Connectivity	• Support Regional Active Transportation Policies • Provide exclusive and/or designated active transportation facilities • Enhance active transportation mobility for the corridor • Provide direct connections to existing or planned regional facilities • Ability to serve a high number of active transportation users	• Consistency with regional policies for active transportation projects • Type of bicycle and pedestrian facilities • Number of at-grade rail crossings • Number of midblock crossings • Connects with existing and/or planned bicycle facilities • Connects existing pedestrian facilities • Linkage to the LA River • Linkage to existing transit systems (bus/rail) • ATC user potentials
2	Provide Access to Major Destinations	• Provide access to major employment destinations • Provide access for local residents • Provide access for educational centers • Provide access to recreational facilities • Provide access to public service centers • Provide access for low-income/minority communities	• Employment density within 0.5 mile of the corridor • Population density within 0.5 mile of the corridor • Number of active transportation activity centers (educational, recreational facilities, and public service centers) within 0.5 mile of the corridor) • Number of low income and minority households within 0.5 mile of the corridor • Number of 0 or 1 vehicle households
3	Minimize Transportation Impacts	• Minimize impacts to existing roadway operations • Minimize impacts to transit operations and facilities • Minimize reduction of on-street parking spaces • Maintain truck and freight operations	• Effects to daily roadway operations/number of new stop controlled intersections • Conflicts with bus operations • Number of on-street/off-street spaces to be eliminated or relocated • Effects to truck and freight circulation and operations
4	Cost Effective and Ease of Implementation	• Reduce conflicts with existing rail operations • Minimize right-of-way (ROW) easements • Minimize capitol and operational costs • Provides cost effective project that is supported by local cities/jurisdictions	• Number of miles of potential conflicts with active rail operations • Potential acreage needed for right-of-way (ROW) easement • Physical constraints connecting to the LA River • Rough order of magnitude (ROM) capital costs and cost per mile • Required stakeholder and city/jurisdictional coordination
5	Address Local Community Needs	• Provides secure and safe bicycle/pedestrian facilities • Supportive of land use policies and specific plan developments • Consistent with local community plans and projects	• Safety based on physical separation from vehicles • Sense of security based on visibly and attractiveness from a user's perspective • Consistency with local land use designations • Compatibility with local policies, including planned active transportation projects

Table 3-1: Rail to Rail/River ATC Segment B Goals and Objectives

Data source: TransLink Consulting 2016
Notes: Goal and Objectives were presented to the TAC, CAC, and Community Meetings in August 2016

4. Screening of Alternatives

Screening of Alternatives

The evaluation criteria in the screening reflect the specific objectives and goals in as described in Table 3.1. Alternatives are assessed on their potential performance in qualitative and quantitative measures. A "high", "medium", or "low" rating is assigned based on the alternative's ability to meet the project's objective.

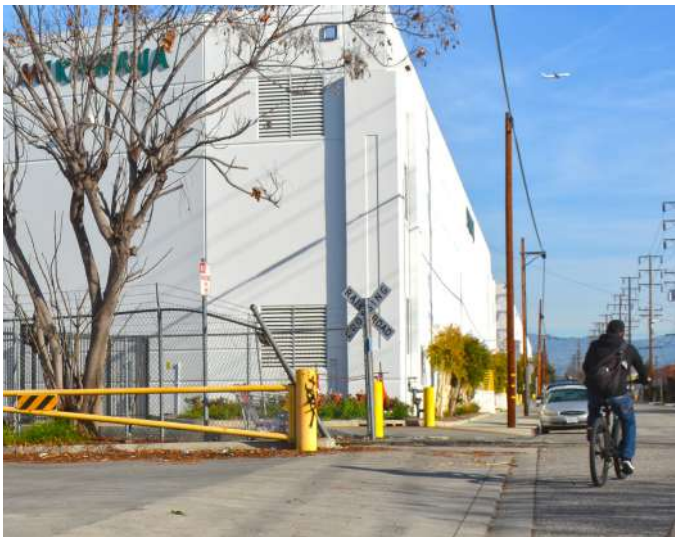
●	High	A high score indicates the alternative highly supports and satisfies the criterion, or has a low potential for negative impacts
◑	Medium	A medium score indicates the alternative moderately supports the criterion, or has a moderate potential for negative impacts
○	Low	Low scores indicates that an alternative does not support or conflicts with the criterion, or has a high potential for negative impacts.

4.1 Goal 1: Enhance Mobility and Connectivity

The purpose of this goal is to enhance mobility and connectivity for the Los Angeles region as well for local communities. There are five primary objectives:

- Support regional active transportation policies
- Provide exclusive and/or designated active transportation facilities
- Enhance active transportation mobility for the corridor
- Provide direct connections to existing or planned regional facilities
- Ability to serve a high number of active transportation users

The evaluation below address these objectives.



4.1.1 Regional Policies

Consistency with regional policies adopted by Southern California Association of Governments (SCAG) and Metro is important for proposed active transportation projects as they help guide and promote connectivity among bicycle and pedestrian facilities, endorse a level of uniformity on first and last mile improvements from transit stations, and ensure information is shared in the promotion of higher active transportation usage. This criterion reviews the potential for contradictions to best practices for active transportation recognized at a regional level. This would also help justify the project to qualify for future federal, state, and regional funding. Relevant regional policies are detailed in Appendix A.

Each alternative is evaluated based on consistency with regional policies, acknowledging if there are conflicts that would need to be resolved before implementation. A comparative discussion is provided in Table 4.1.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - Consistent with most regional policies, some aspects of the alternative would require updates/ refinement to regional policies.	The Malabar Corridor Alterative would support Metro's policies for active transportation projects including goals from the LRTP, Countywide Sustainability Plan, First/Last Mile pathways. However, the current MTA ROW Preservation Guidelines (February 2000) require preservation of ROW for future transit use and prohibits the construction of a bikeway and/or pedestrian path unless it can be demonstrated that it would not need to be relocated or removed for future transportation use . The current MTA ROW Preservation Guidelines would restrict the design of the Malabar Corridor Alternative to limit amenities such as landscaping in order to preserve the ROW for a future transit project. Given the existing ROW width constraints for the Malabar Corridor Alternative, there may not be enough ROW to have an ACT and transit project. Therefore, guideline language would need to be updated to include a provision for ATC in this corridor. As such, this alternative receives a medium ranking.
Utility Corridor Alternative	●	High - Consistent with regional policies	The Utility Corridor Alternative would support Metro's policies for active transportation projects as described above. Since this alternative would not need preservation of rail ROW in the future it would be consistent with the current MTA ROW Preservation Guidelines. Therefore, this alternative receives a high ranking.
Slauson Avenue Alternative	●	High - Consistent with regional policies	The Slauson Avenue Alternative would support Metro's policies for active transportation projects as described above. Since this alternative would not need preservation of rail ROW in the future it would be consistent with the current MTA ROW Preservation Guidelines. Therefore, this alternative receives a high ranking.
Randolph Street Alternative	◑	Medium - Consistent with most regional policies, some aspects of the alternative would require updates/ refinement to policies.	The Randolph Street Alterative would support Metro's policies for active transportation projects including goals as described above. However, the current MTA ROW Preservation Guidelines (February 2000) require preservation of ROW for future transit use and prohibits the construction of a bikeway and/or pedestrian path unless it can be demonstrated that it would not need to be relocated or removed for future transportation use. The current MTA ROW Preservation Guidelines would restrict the design of the Randolph Street Alternative to limit amenities such as landscaping in order to preserve the ROW for a future transit project. Given the existing ROW width constraints for the Randolph Street Alternative, there may not be enough ROW to have an ATC and transit project. Therefore, guideline language would need to be updated to include a provision for ATC in this corridor. As such, this alternative would receive a medium ranking. However, if a Class II or IV facility, this alternative would rank higher since it would not be subject to the ROW Preservation Guidelines.

Table 4.1: Goal 1 Enhance Mobility and Connectivity: Regional Policies

4.1.2 Bicycle/Pedestrian Facility Type

The bicycle facility classification system provides standard guidelines for facilities throughout California and the US. FHWA provides reference to several sources of bicycle and pedestrian facility design including the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO) and the Institute of Transportation Engineers (ITE). Each of these sources refer to Class I, Class II, Class III, and Class IV bicycle facilities (see Figure 4-1). Various bicycle amenity potentials are also presented in Figure 4-2.

For this criterion, alternatives proposed to be on a dedicated ROW with protective barriers for pedestrians and bicycle users (Class I or Class IV) are considered to be the highest preferred active transportation facility. A Class II facility would provide a dedicated ROW for active transportation users, but would not offer a protective barrier so it would be considered a moderate facility type. A Class III facility would have no protective barrier and be considered a lower preferred active transportation facility.

There is no similar classification for pedestrian facilities; as such, pedestrian facilities were assessed based on the ability of the alternative to improve sidewalks and crosswalks as compared to existing conditions (see Figure 4-3).

The evaluation is based on the type of bicycle and pedestrian facility proposed, the distance of the facility type, and whether an upgraded pedestrian facility is included. Alternatives that have a higher class of bicycle facility and improved pedestrian conditions receive a better rating. A comparative qualitative discussion is provided in Table 4.2 below.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - 2.2 mile of Class I and no pedestrian facility.	The Malabar Corridor Alternative would be on a dedicated ROW and the entire alignment of 2.28 miles would be a Class I bicycle facility. The alignment would not have sufficient space for a new pedestrian facility; as such, pedestrians would continue to use existing nearby sidewalks. Overall, Malabar Alternative receives a medium ranking.
Utility Corridor Alternative	◑	Medium - 1.2 mile of Class I and pedestrian facility and 1.5 mile of Class II facility	The Utility Corridor Alternative would have a segment with a Class I facility and a segment with a Class II facility. The segment that runs along Slauson Avenue would be 1.2 miles of an on-street Class II facility, with no new pedestrian facilities. The segment located on the utility ROW will have 1.8 miles of a Class I bicycle facility and a pedestrian path. Since the alternative has equal stretches on different facilities, Utility Corridor Alternative receives a medium ranking.
Slauson Avenue Alternative	○	Low - 3.5 miles of Class II facility and no pedestrian facility.	The Slauson Avenue Alternative would be a 3.5 mile on-street Class II facility, and not provide a dedicated pedestrian facility. Therefore, the Slauson Avenue Alternative receives a low ranking.
Randolph Street Alternative	●	High - 4.3 mile of Class I with pedestrian facility.	The Randolph Street Alternative is on a dedicated ROW and the entire alignment of 4.3 miles of the path would serve as a Class I bicycle facility with a pedestrian path. This alternative receives a high ranking. If a Class IV facility, this alternative would rank medium since it may not be able to provide an improved pedestrian facility for the entire length of the alternative. If a Class II facility, this alternative would rank low as it would not offer a protected barrier between vehicles and bicyclists.

Table 4.2: Goal 1 Enhance Mobility and Connectivity: Bicycle/Pedestrian Facilities

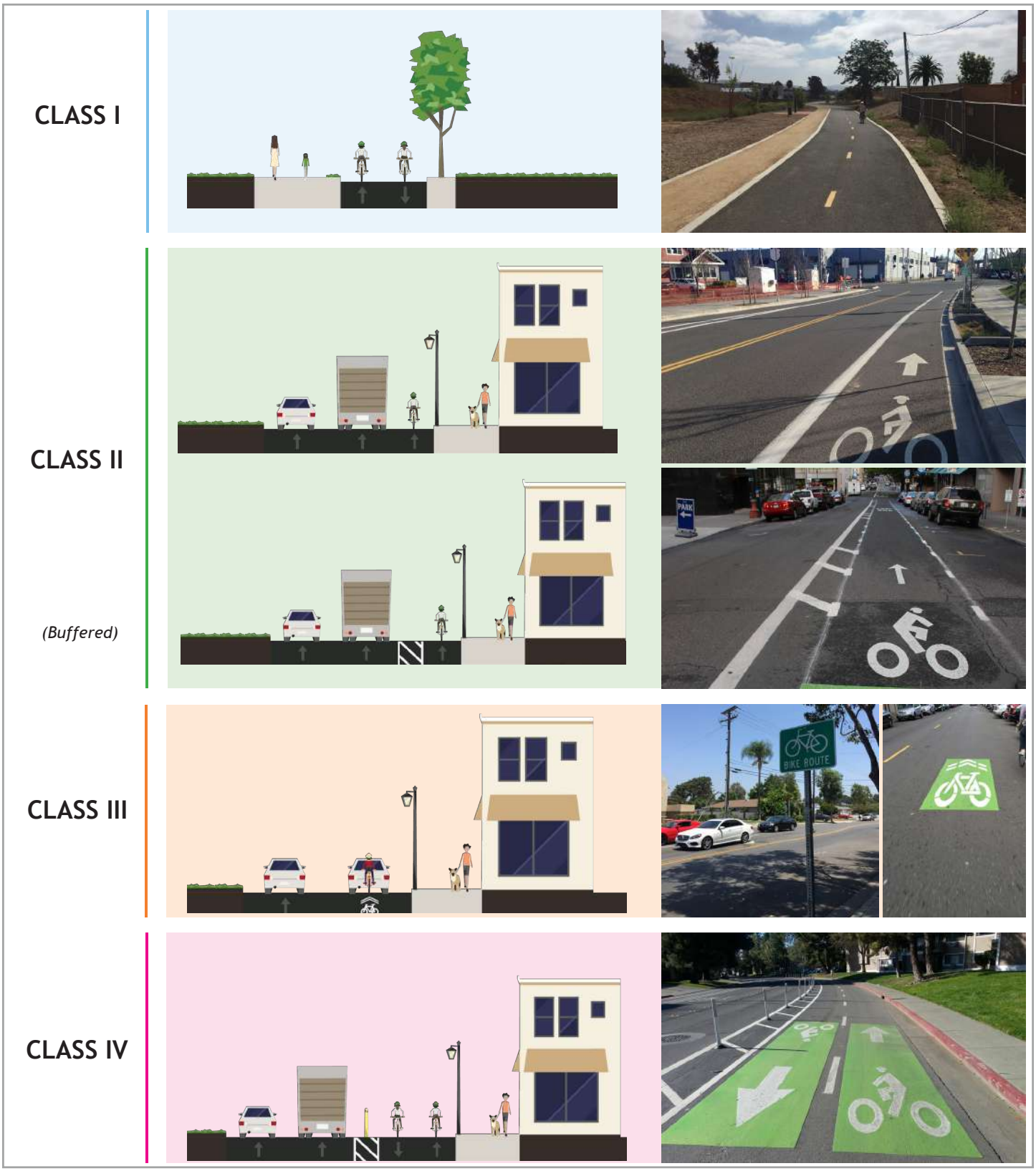


Figure 4-1: Bicycle Facility Types

Data source: Kittelson & Associates, Inc. 2016



Bike Signal

Bike Path Street Crossing

Striping through Intersection

Bike Box

Buffer and Striping

Bike Signage

Bike Racks

Bike Lockers

Rail Crossing

Midblock Crossing

Pedestrian Island

High Visibility Crosswalk

Figure 4-2: Bicycle Amenities and Safety Features

Data source: Kittelson & Associates, Inc. 2016

Multi-language Crossing Information

Pedestrian Signal Information

Pedestrian Warning Devices

Curb Extension and Benches

Buffers

Wayfinding Signage

Decorative Pavers




Rail - Pedestrian Crossings

Figure 4-3: Pedestrian Amenities and Safety Features

Data source: Kittelson & Associates, Inc. 2016

4.1.3 At-Grade Crossings

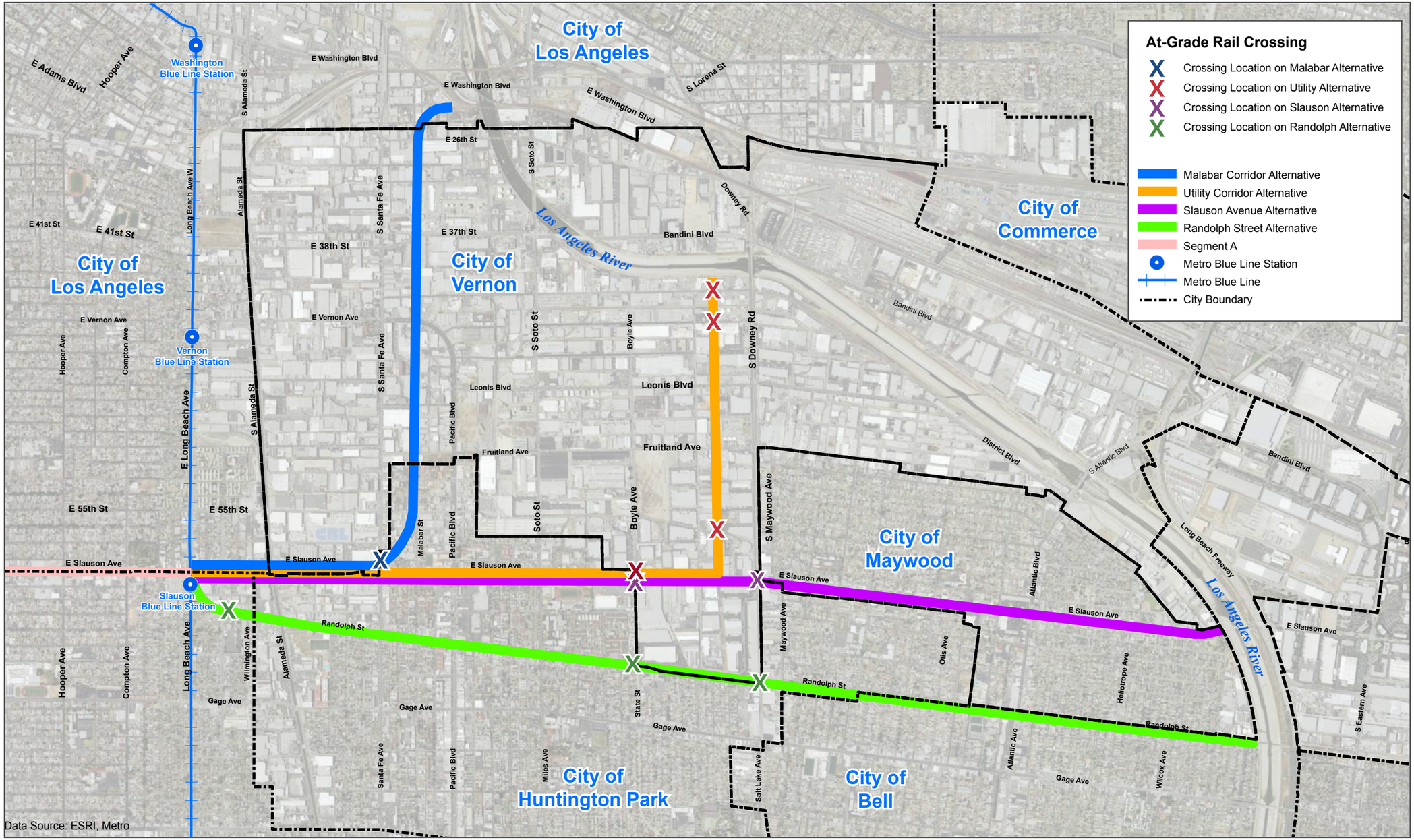
Several rail lines cross the four Segment B Alternatives. At-grade crossings can provide a series of challenges for pedestrians and bicyclists alike. Moving trains on active rail corridors can create dangerous situations for crossing non-motorists with the potential for crashes and conflicts. The physical presence of rail lines also provides a challenge to non-motorists since there is change in elevation to cross the tracks. The gaps between the pavement and tracks can also cause hazards to bicycles, wheelchairs, strollers, and other similar devices. Due to these concerns, the number of at-grade crossings should be minimized.

At-grade crossings are evaluated by the number of at-grade crossings per alternative that would need to be crossed by users traveling along the alignment. A comparative discussion is provided in Table 4.3 below. Figure 4-4 presents a map of potential at-grade crossings for each of the alternatives.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - 1 at-grade rail crossings along alignment.	There is one at-grade crossing along the Malabar Corridor Alternative, where the alignment crosses to the west side of the tracks near Santa Fe Avenue. As such, this alternative receives a medium ranking.
Utility Corridor Alternative	○	Low - 4 at-grade rail crossings along alignment	The Utility Corridor Alternative has four at-grade crossings. One at-grade crossings is located at Slauson Avenue between Boyle Avenue and Alcoa Avenue. The other three are located on the utility ROW stretch of the Utility Corridor. These crossings are between Slauson Avenue and Fruitland Avenue, between Leonis Boulevard and 46th Street, and between East 44th Street and East Vernon Avenue. With four at-grade crossings, this alternative receives a low ranking.
Slauson Avenue Alternative	◑	Medium - 2 at-grade rail crossings along alignment.	There are two at-grade crossings along the Slauson Avenue Alternative; as such, it receives a medium ranking. The first at-grade crossing is located at Slauson Avenue between Boyle Avenue and Alcoa Avenue. The second at-grade crossing is on Slauson Avenue, just east of Downey Road.
Randolph Street Alternative	○	Low - 3 at-grade rail crossings along alignment	The Randolph Street Alternative has three at-grade crossings and receives a low ranking. The first crossing is at Randolph Street and Holmes Avenue where the alternative crosses the tracks toward the median. The other two crossings are at Randolph Street and State Street and on Randolph Street between Bissell Place and Maywood Avenue. If a Class II or IV facility, this alternative would also rank low since it would still need to cross over the tracks at the same locations.

Table 4.3: Goal 1 Enhance Mobility and Connectivity: At-Grade Crossings

Figure 4-4: At-Grade Crossings



4.1.4 Mid-block Crossings

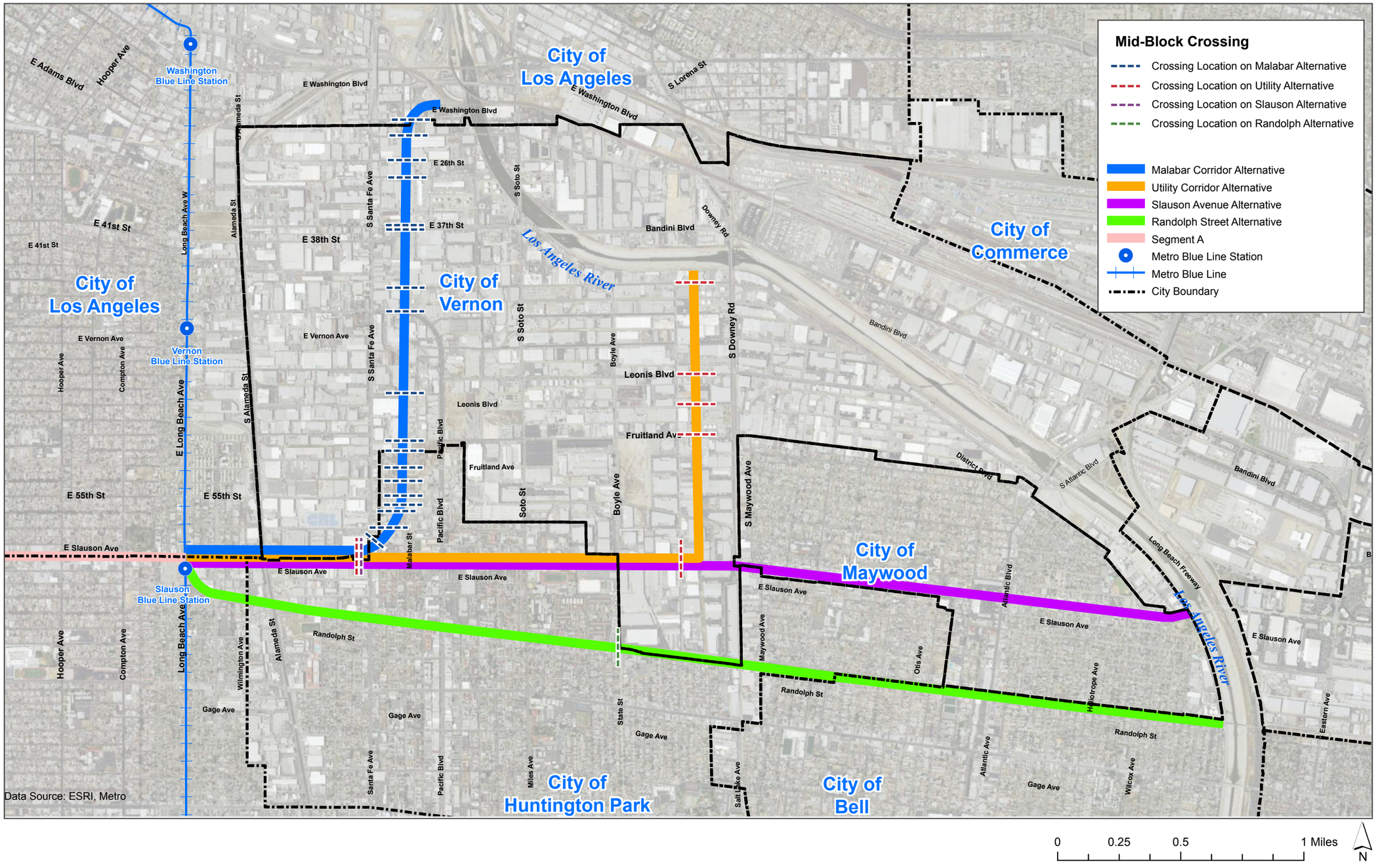
Mid-block crossings are sections of the active transportation corridor that will cross a street at an existing uncontrolled intersection. Without any type of stop control, mid-block crossings pose a risk for crashes between vehicles and crossing bicyclists and pedestrians. As such, at these locations, new control (either stop signs or traffic signals) will need to be installed. Bicyclists and pedestrians will face an additional delay at mid-block crossings since they will need to stop for new safety measures such as a signalized pedestrian crosswalks.

Mid-block crossings are evaluated by the number of crossings per alignment, and those alternatives with fewer crossings receive a higher ranking. A comparative discussion is provided in Table 4.4 below. Figure 4-5 presents a map of potential midblock crossings for each of the alternatives.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low - 18 mid-block crossings are present along alternative.	The Malabar Corridor Alternative has 18 mid-block crossings and receives a low ranking. The majority of these mid-block crossings follow the alternative between 58th Street and 25th Street. The other crossing is located on Santa Fe Avenue, just north of Slauson Avenue, as the alternative curves northward.
Utility Corridor Alternative	◑	Medium - 6 mid-block crossings are present along alternative.	The Utility Corridor Alternative receives a medium ranking as it has six mid-block crossings. One of the crossings is located at Slauson Avenue, just west of Downey Avenue where the alignment turns north. This crossing across Slauson Avenue allows the cyclists on the southern side of Slauson Avenue to access the northern part of the alignment with the Utility Corridor. The other crossings include a crossing just west of Santa Fe Avenue on Slauson Avenue and four crossings on the utility right-of-way from Fruitland Avenue and Vernon Avenue.
Slauson Avenue Alternative	●	High - 1 mid-block crossing along alternative.	The Slauson Avenue Alternative has one mid-block crossing, just west of Santa Fe Avenue. Segment A ends at this location, and the facility would transfer to an on-street facility, requiring a crossing for cyclists to access the bicycle facility on the south side of Slauson Avenue. As such, this alternative receives a high ranking.
Randolph Street Alternative	●	High - 1 mid-block crossing along alternative.	The Randolph Street Alternative has one mid-block crossing located east of the Randolph Street/State Street intersection, where the alternative transitions from the median right of way to the northern side of Randolph Street. Therefore, this alternative receives a high ranking. If a Class II or IV facility, this alternative would also rank high since it would not be subject to any new midblock crossings. All existing crossings on-street are already signalized.

Table 4.4: Goal 1 Enhance Mobility and Connectivity: Mid-block Crossings

Figure 4-5: Mid-block Crossings



4.1.5 Connecting to Existing and Planned Bicycle Facilities

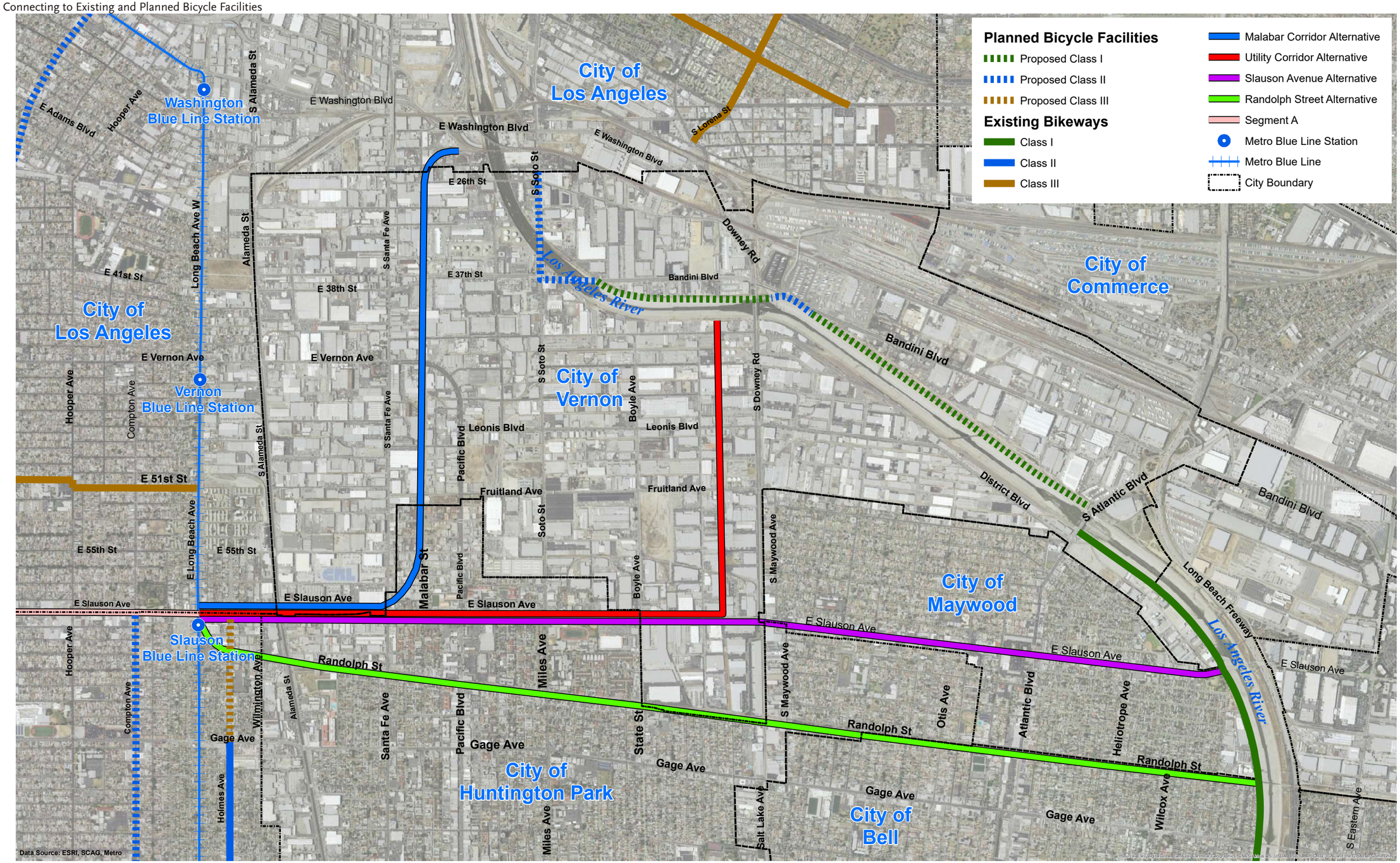
Existing and planned bicycle facilities in the study area are documented in the County of Los Angeles County Bicycle Master Plan (BMP) (2012). For this criterion, the connection between proposed and existing bike paths will be reviewed to acknowledge each alternative's potential for connectivity.

A comparative qualitative discussion is provided in Table 4.5 below. Figure 4-6 presents a map of existing and planned bicycle facilities within the Study Area and illustrates whether the alternatives connect to existing and/or planned bicycle facilities.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low - Does not connect with a planned or existing bicycle facility (excluding Segment A)	The Malabar Corridor Alternative ranks low as it does not connect with planned or existing bicycle facilities (excluding Segment A).
Utility Corridor Alternative	◑	Medium - Connects with a planned Class I or II facility (excluding Segment A)	The Utility Corridor Alternative does not connect with existing bicycle facilities (excluding Segment A); however, there is a potential connection with a planned Class I facility along the LA River (east side of the LA River) identified in the Los Angeles County BMP (2012).
Slauson Avenue Alternative	●	High – Connects with an existing Class I facility	Slauson Avenue Alternative connects to an existing Class I bike path along the LA River (west side of the LA River). Therefore, this alternative receives a high ranking.
Randolph Street Alternative	●	High – Connects with an existing Class I facility	Randolph Street Alternative connects to an existing Class I bike path along the LA River (west side of the LA River). Therefore, this alternative receives a high ranking. If a Class II or IV facility, this alternative would also rank high since it would connect to the same existing bike facilities.

Table 4.5: Goal 1 Enhance Mobility and Connectivity: Connecting to Existing and Planned Bicycle Facilities

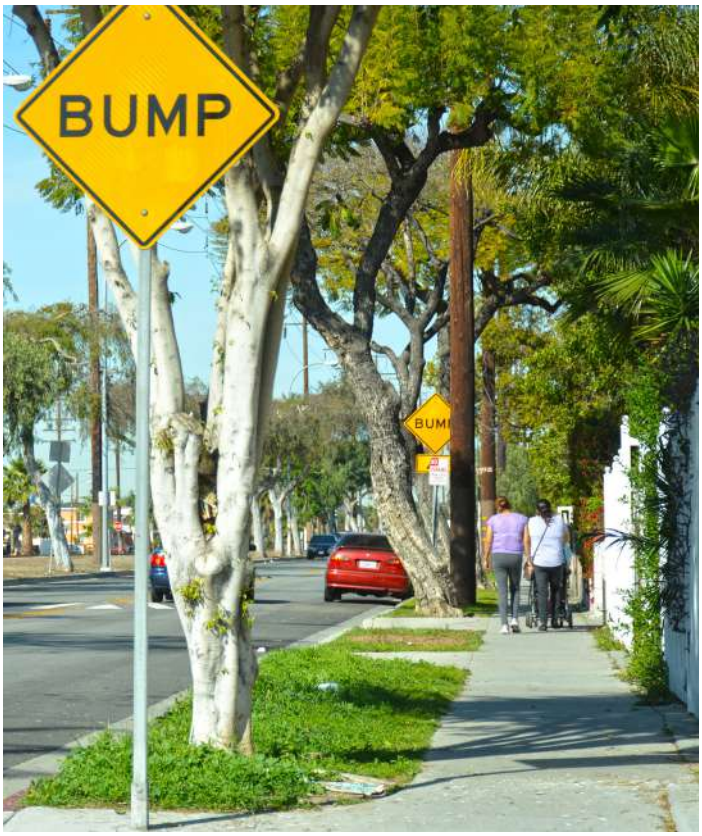
Figure 4-6: Connecting to Existing and Planned Bicycle Facilities



4.1.6 Pedestrian Connectivity

This ATC intends to provide better connectivity for active transportation users throughout the study area. Currently, there are several gaps in sidewalks in the project vicinity, creating an unsafe environment for pedestrians or requiring pedestrians to detour and choose a safer path to reach their destination.

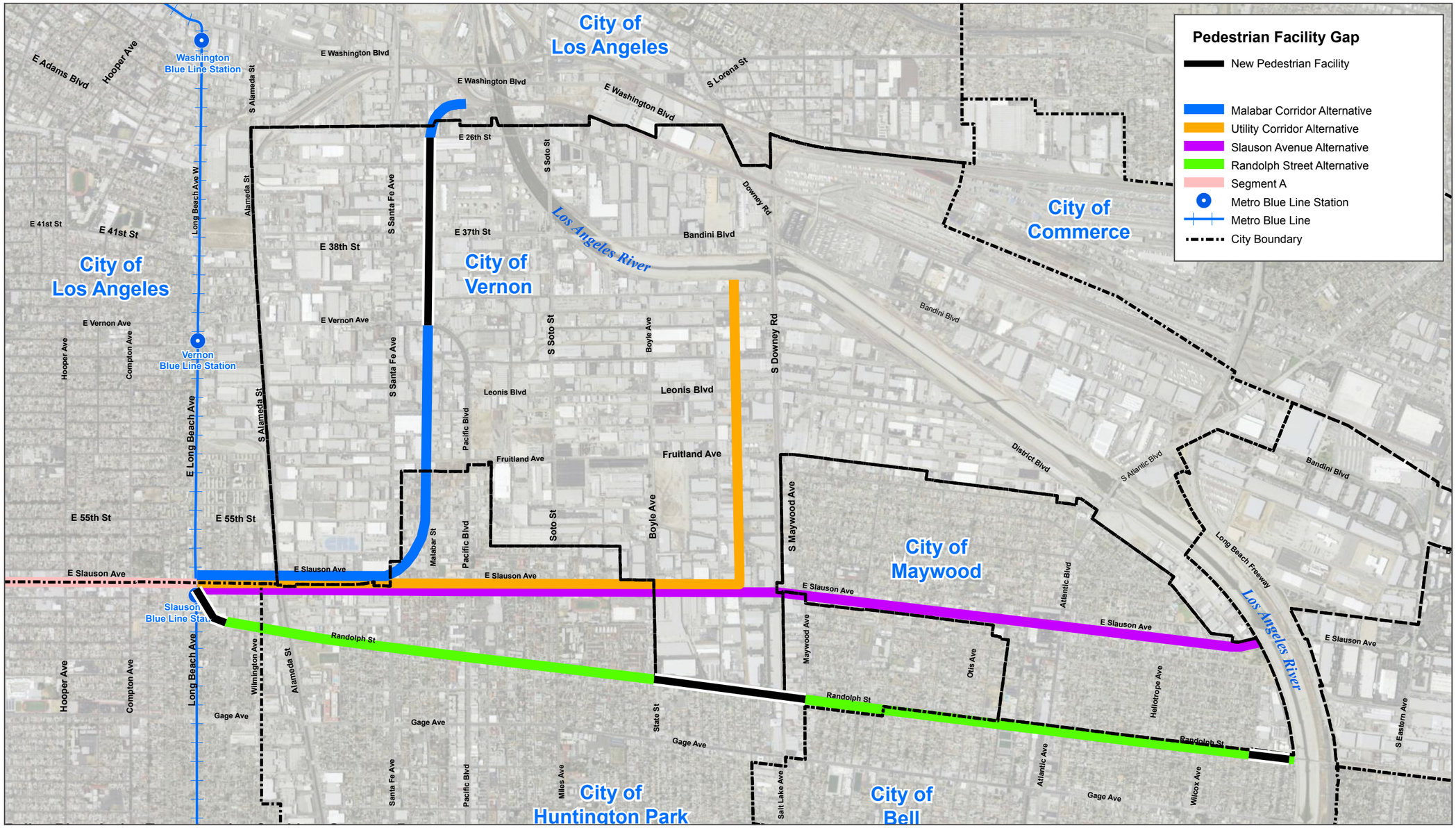
Pedestrian facility connectivity is evaluated based on the length (in feet) of new sidewalk that would be added through each alternative that help close the gap in the current pedestrian network. Table 4.6 below presents a comparative qualitative discussion. Figure 4-7 presents a map of the existing gaps in pedestrian facilities that the alternatives would address.



Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - Adds an estimated 3,700 feet of new sidewalk where gaps currently exist	The Malabar Corridor Alternative would add about 3,700 feet of new sidewalk between Pacific Blvd and East 25th St. This sidewalk is considered a new pedestrian facility since the closest sidewalk is over 500 feet away. Based on the length of the new pedestrian facility, this alternative receives a medium ranking.
Utility Corridor Alternative	○	Low - Adds no new sidewalk where gaps currently exist	Sidewalk already exists along Slauson Avenue. The Utility Corridor Alternative would add an additional pedestrian facility from Slauson Avenue to the LA River along the utility ROW portion of the alternative; this would not be considered a new facility since there is an alternative sidewalk within 500 feet of the Utility Corridor. Therefore, this alternative does not close a gap and receives a low ranking.
Slauson Avenue Alternative	○	Low - Adds no new sidewalk where gaps currently exist	The Slauson Avenue Alternative already has a sidewalk in place, therefore it would not close a gap in the pedestrian network. As such, this alternative receives a low ranking.
Randolph Street Alternative	◑	Medium - Adds an estimated 4,800 feet of new sidewalk where gaps currently exist	The Randolph Street Alternative would add a new pedestrian facility, closing sidewalk gaps at three locations. It would add a pedestrian facility between the Long Beach Blue Line Station and Randolph Street, between Boyle Avenue and Maywood Avenue on the north side of Randolph Street, and between Alamo Avenue and the LA River on Randolph Street – a total of 4,800 feet of new sidewalk. Based on the length of the new pedestrian facility, this alternative receives a medium ranking. If a Class II or IV facility, this alternative may receive a low ranking dependent on whether it is possible to add new sidewalk that is ADA compliant along the gap in the pedestrian network between Boyle Avenue and Maywood Avenue.

Table 4.6: Goal 1 Enhance Mobility and Connectivity: Pedestrian Connectivity

Figure 4-7: Pedestrian Connectivity Gaps



4.1.7 Linkage to the Los Angeles River

One of the major themes of the Purpose and Need Statement is to enhance mobility and regional connectivity by completing the Rail to Rail/River ATC. This criterion reviews each alternative's potential to complete this regional bike connection and provide a link to active transportation along the LA River. Table 4.7 below presents a comparative evaluation of each alternative's ability to directly access the LA River.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low - Would require extensive infrastructure to complete the connection to the LA River	The Malabar Corridor Alternative does not have a direct connection to the LA River. This would require major infrastructure changes to facilitate a connection including crossing several rail lines that converge near the Redondo Junction. As such, it would have a low ranking.
Utility Corridor Alternative	◑	Medium - Adjacent to the LA River and would require some infrastructure to complete the connection	The Utility Corridor Alternative runs adjacent to the LA River, but would require additional infrastructure to provide adequate access to the LA River including grade differentials and crossing a BNSF rail line and storage tracks. Therefore, it would have a low ranking.
Slauson Avenue Alternative	●	High – Direction connection	The Slauson Avenue Alternative would rank high as it provides a direct connection to the LA River.
Randolph Street Alternative	●	High – Direction connection	The Randolph Street Alternative would rank high as it provides a direct connection to the LA River. If a Class II or IV facility, this alternative would also rank high since it would also provide direct connection to the LA River.

Table 4.7: Goal 1 Enhance Mobility and Connectivity: Linkage to the Los Angeles River

4.1.8 Linkage to Transit

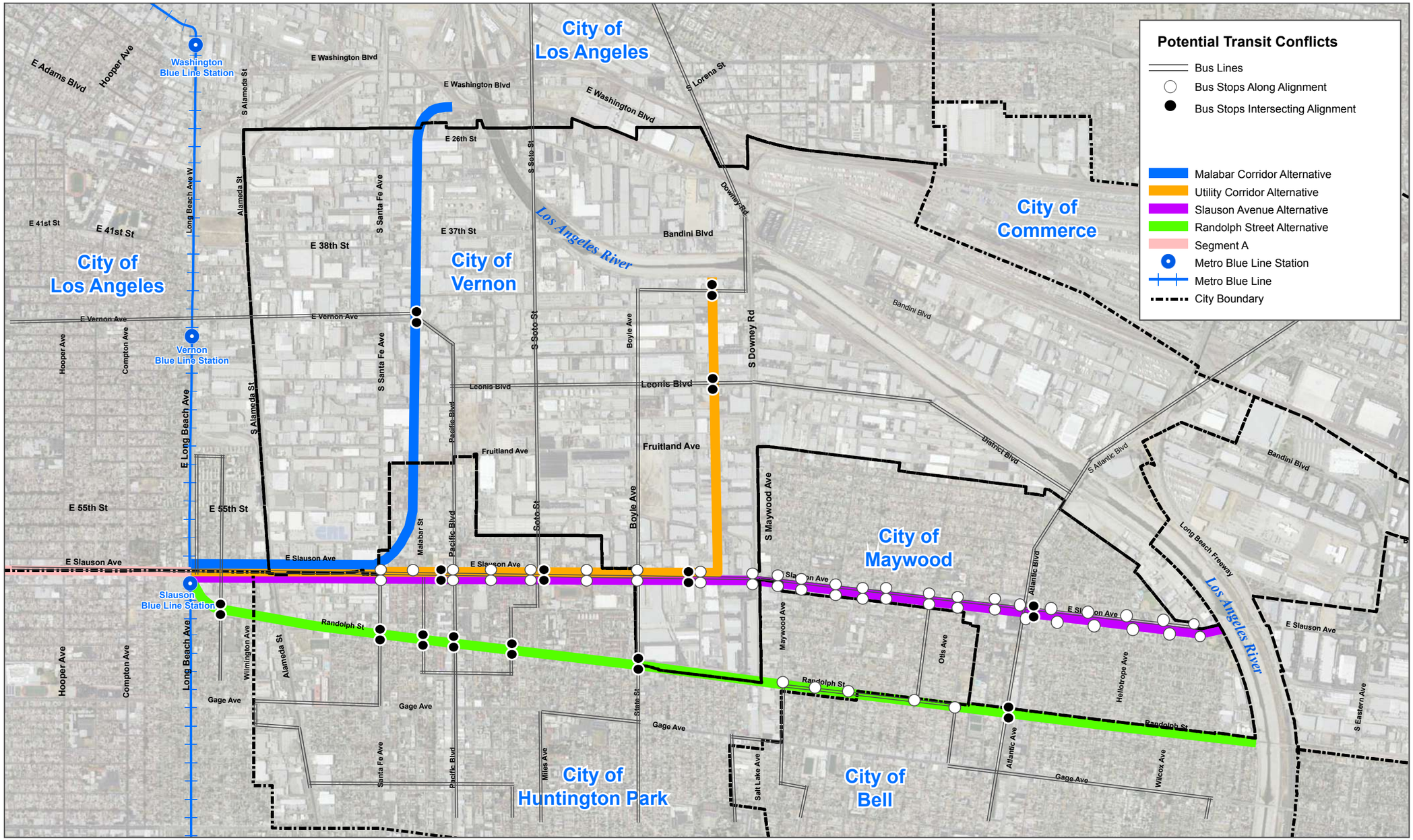
Metro's First/Last Mile Strategic Plan and Planning Guidelines (2014) encourages transit users to "support multi-modal transfer activity"[1]. This criterion reviews each alternative's ability to transfer to/from transit facilities within 0.5 mile including local and regional bus stops, as well as rail transit. The evaluation measures each alternatives' ability to transfer to existing transit local and regional routes by quantifying the total number of bus stops within 0.5 mile. Table 4.8 presents the results for each alternative. Figure 4-8 presents a map of the number of transit facilities near each alternative.

1 Metro's First Last Mile Strategic Plan and Planning Guidelines, March 2014, "Pathway" concept to expand the transit users access shed.

Alternative	Ranking		Discussion
Malabar Alternative	○	Low - 81 bus stops	The Malabar Corridor Alternative would provide access to the lowest number of bus stops (within 0.5 mile) connecting to 19 bus lines.
Utility Corridor Alternative	◑	Medium – 92 bus stops	The Utility Corridor Alternative would provide access to a moderate number of bus stops (92 within 0.5 mile) connecting to 17 bus lines.
Slauson Avenue Alternative	◑	Medium – 110 bus stops	The Slauson Avenue Alternative would provide access to a moderate number of bus stops (110 within 0.5 mile) connecting to 22 bus lines.
Randolph Street Alternative	●	High – 162 bus stops	The Randolph Street Alternative would provide access to the highest number of bus stops (within 0.5 mile) connecting to 19 Bus Lines. If a Class II or IV facility, this alternative would also rank high since it would link to the same number of bus stops.

Table 4.8: Goal 1 Enhance Mobility and Connectivity: Linkage to Transit

Figure 4-8: Connection to Transit Facilities



Data Source: ESRI, Metro

4.1.9 User Potentials

To provide the most immediate benefit, an active transportation facility should follow routes with high existing usage patterns, thereby providing a safer and more convenient connection and accommodating a cross-section of bicyclists and pedestrians in the study area. In addition, the ATC should be able to draw and encourage additional users in the future. The type of facility, proximity to activity centers and residential neighborhoods, volume of adjacent vehicle traffic, and the closing of facility gaps all impact the level of induced demand from a new facility. For example, a buffered bike lane along a low volume road that connect users to various land uses and closes a sidewalk gap would greatly encourage more users to bike or walk. Furthermore, development will occur in the study area and new transportation facilities will be implemented, such as the proposed West Santa Ana Branch light rail line (which may have stations at Pacific/Vernon and Pacific/ Randolph or Leonis/District). Therefore, there is the potential for additional future users from this new transit service that would use the ATC to make first/last-mile connections to their home or place of employment.

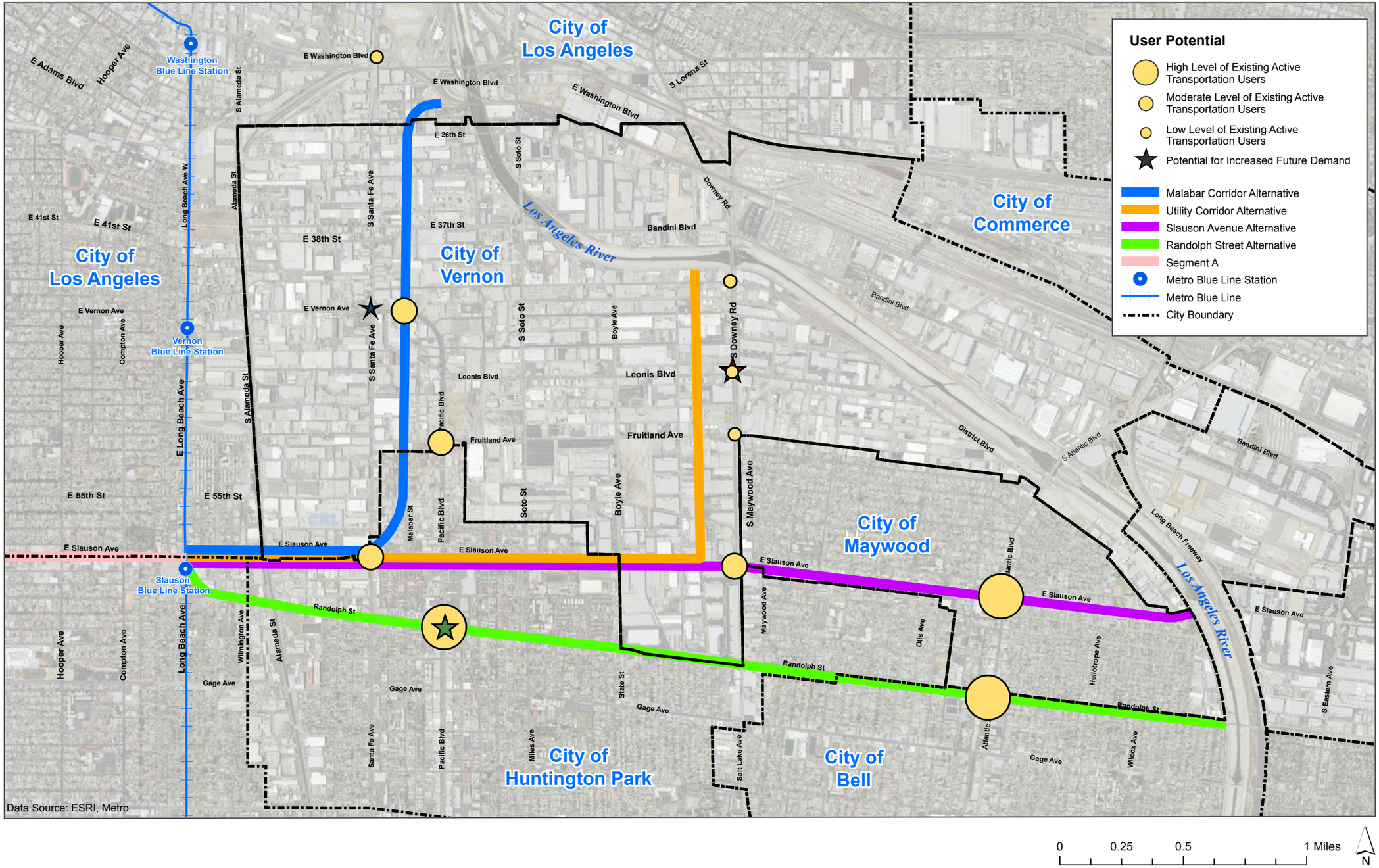
User potential is evaluated based on the current non-motorist usage along the general north/south or east/west corridors that follow each alternative[1], plus an assessment of the potential for future users based on induced demand and due to new development/ transportation facilities in the nearby vicinity. Table 4.9 presents the user potential results for each alternative. Figure 4-9 presents a map illustrating user potentials near each alternative.

1 Source of data for user potentials will include existing bicycle and pedestrian counts as well as proximity to activity centers.

Table 4.9: Goal 1 Enhance Mobility and Connectivity: User Potentials

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - Moderate level of existing users along the alternative in the peak hour and some potential for induced and future demand	The Malabar Corridor Alternative receives a medium ranking for potential users. It has a low amount of existing users, a moderate potential for induced demand and moderate potential for future demand. While the proposed alternative is an off-street Class I facility, closes some sidewalk gaps and has a low amount of vehicular traffic, there is very little nearby residential land uses and low connectivity to activity centers. There is moderate potential for future demand since there is a proposed West Santa Ana Branch station within a two to three blocks of the alternative at Pacific Avenue and Vernon Avenue.
Utility Corridor Alternative	○	Low - Minimal level of existing users along the alternative in the peak hour and low potential for induced and future demand	The Utility Corridor Alternative receives a low ranking for potential users. There is a low amount of existing users, has little potential of induced demand, and has moderate potential for future demand. A portion of the Utility alternative will be a Class I off-street facility and a portion will be a Class II on-street facility. There is some residential land use in the area and it connects to a few activity centers, but it does not close a sidewalk gap and the Class II portions runs along a high vehicle and truck volume roadway (and thus may not attract a high amount of users). There is also moderate potential for future demand since there is a proposed West Santa Ana Branch station within a two to three blocks of the alternative where Leonis Boulevard turns into District Boulevard.
Slauson Avenue Alternative	●	High – Direction connection	The Slauson Avenue Alternative receives a medium ranking for potential users. There is currently a high amount of users along the alternative, but the potential for induced and future demand is only moderate. Given that there is a substantial volume of vehicles and trucks along this alternative and that the facility will be a Class II on-street facility, there is a lower potential for induced demand. At the same time, the alternative is adjacent to many residential land uses and activity centers, which could lead to a higher number of induced users. The West Santa Ana Branch would be located nearby in the future, although there are no proposed stations within two to three blocks of the alternative.
Randolph Street Alternative	●	High – Direction connection	The Randolph Street Alternative receives a high ranking for potential users. There is currently a high amount of users along the alternative and there is high potential for induced and future demand. There is a high potential for induced demand because the proposed facility is a Class I off-street bike lane, located near many residential land uses, provides connection to a moderate level of activity centers, and closes gaps in the sidewalk at several locations. There is a moderate volume of vehicular traffic adjacent to the alternative, but the Class I facility prevents major conflict between users and vehicles. With future projects like the West Santa Ana Branch, there is a potential for additional future demand, since a proposed station would be located along the alternative at Randolph Street and Pacific Boulevard. If a Class II or IV facility, this alternative would also rank high since it would address a similar high number of users.

Figure 4-9: User Potentials



4.1.10 Summary Results Goal 1: Enhance Mobility and Connectivity

Based on the nine criteria evaluated under Goal 1: Enhancing Mobility and Connectivity, the Randolph Street and Slauson Avenue Alternatives received the highest overall rankings. Both alternatives scored high under this Goal given the ability to connect to the existing Class I bike facility on the LA River, ability to provide more connections with transit (bus and rail) facilities, and higher levels of user potentials along the alignment under current and future conditions. The Utility Corridor Alternative scored medium under Goal 1, given the constraints of at-grade and mid-block crossings and the minimal level of existing and future user demand as majority of the alignment is surrounded by industrial areas. The Malabar Corridor Alternative scored lowest of all alternatives under Goal 1, based on several physical constraints to connectivity and mobility including at-grade and midblock crossings, indirect and barriers to connect to the LA River, and a moderate level of users under existing and future demand given the surrounding industrial areas. Table 4.10 presents the summary of results for Goal 1.

If the Randolph Street Alternative was a Class II or IV facility, it would score with similar results as a Class I facility with the exception of: a high versus medium under regional policies, since it would adhere to the MTA ROW Preservation Guidelines; and medium or low versus high as a bicycle/ pedestrian facility since it would not provide as high of a protected barrier between vehicles, bicyclists and pedestrians. Even with these changes in the results, the overall score of "highest" for this goal would be the same.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
1.1 – Regional Policies	◑	Some aspects of the alternative would require updates	●	Consistent with regional policies for active transportation projects	●	Consistent with regional policies for active transportation projects	◑	Some aspects of the alternative would require updates
1.2 – Bicycle/ Pedestrian Facility Type	◑	2.8 mile of Class I, no pedestrian facility	◑	1.8 mile of Class I and pedestrian facility; 1.5 mile of Class II facility	○	0.6 mile of Class I and pedestrian facility; 3.5 Class II facility	●	4.3 mile of Class I with pedestrian facility
1.3 – At-Grade Crossings	◑	1 to 2 at-grade rail crossings	○	4 at-grade rail crossings	◑	2 at-grade rail crossings	○	3 at-grade rail crossings
1.4 – Midblock Crossings	○	18 mid-block crossings	◑	6 mid-block crossings	●	1 mid-block crossing	●	1 mid-block crossing
1.5 – Connecting to Existing/ Planned Bike Facilities	○	Does not connect with planned or existing bicycle facilities	◑	Potential connection with planned Class I facility along LA River	●	Connects to existing Class I bicycle facility along LA River	●	Connects to existing Class I bicycle facility along LA River
1.6- Connecting Pedestrian Facilities	◑	Adds an estimated 3,800 feet of new sidewalk	○	Adds no new sidewalk	○	Adds no new sidewalk	◑	Adds an estimated 4,800 feet of new sidewalk
1.7- Linkage to LA River	○	Would require extensive infrastructure to complete connection to the LA River	◑	Would require some infrastructure to complete connection to the LA River	●	Provides direct connection to the LA River	●	Provides direct connection to the LA River
1.8- Linkage to Transit	○	81 bus stops within 0.5 mile (19 Bus Lines)	◑	92 bus stops within 0.5 mile (17 Bus Lines)	◑	110 bus stops within 0.5 mile (22 Bus Lines)	●	162 bus stops within 0.5 mile (26 Bus Lines)
1.9- User Potentials	◑	Moderate level of existing users and some potential for induced and future demand	○	Minimal level of existing users and low potential for induced and future demand	◑	Moderate level of existing users and some potential for induced and future demand	●	High level of existing users and high potential for induced and future demand
Overall Ranking	○	**Low 2.5**	◑	**Medium 3.5**	●	**High 5.5**	●	**High 7.0**

Table 4.10: Summary Results for Goal 1 Enhance Mobility and Connectivity

4.2 Goal 2: Provide Access to Major Destinations

The purpose of this goal is to have new active transportation access for major employment and residential areas as well as other active transportation destinations. There are six primary objectives:

- Provide access to major employment destinations
- Provide access for local residents
- Provide access for educational centers
- Provide access to recreational facilities
- Provide access to public service centers
- Provide access for low-income/minority communities

These objectives are each addressed below through the evaluation criteria.

4.2.1 Employment Destinations

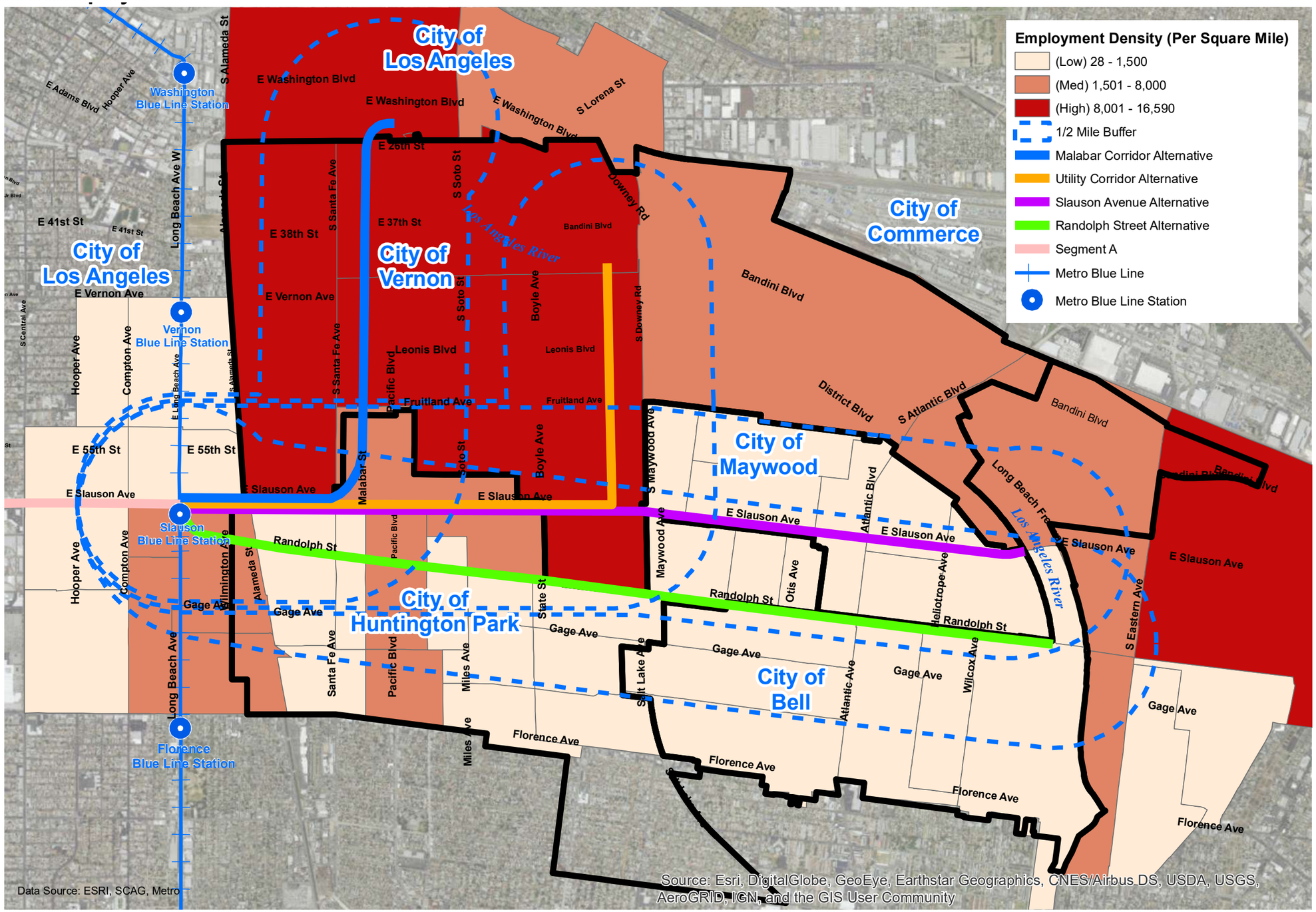
Employment density refers typically to the concentration of jobs within a specific area of land. For this alternatives analysis it is defined as the amount of jobs per square mile. Employment density is mostly concentrated in the center of the study area in the City of Vernon. The proposed active transportation routes that extend through a concentration of the employment area would be preferred over alternatives that extend through fewer employment areas.

Alternatives are evaluated relative to the employment density they serve within a 0.5 miles radii and ranked on a scale of high, medium, or low along. All data was obtained through SCAG's Geotechnical Information System (GIS) website. The comparative numbers provide insight into potential access to areas of existing high employment. Table 4.11 presents the employment density comparison. Figure 4-10 illustrates employment densities within 0.5 miles of each alternative's alignment.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	●	High – approximately 31,000 jobs within 0.5 mile	The Malabar Corridor Alternative would provide access to the highest number jobs (within 0.5 mile) mainly due to the high industrial employment density within the City of Vernon.
Utility Corridor Alternative	●	High – approximately 29,600 jobs within 0.5 mile	The Utility Corridor Alternative would provide access to the second highest number jobs (within 0.5 mile) also due to the high and moderate employment density within the cities of Vernon and Maywood.
Slauson Avenue Alternative	◑	Medium – approximately 26,800 jobs within 0.5 mile	The Slauson Avenue Alternative would provide access to a moderate number jobs (within 0.5 mile) within cities of Vernon, Huntington Park, Maywood and Bell.
Randolph Street Alternative	◑	Medium – approximately 24,000 jobs within 0.5 mile	The Randolph Avenue Alternative would provide access to a moderate number jobs (within 0.5 mile) within cities of Vernon, Huntington Park, Maywood and Bell. If a Class II or IV facility, this alternative would also rank medium since it would provide access to a similar number of jobs.

Table 4.11: Goal 2 Provide Access to Major Destinations – Employment Density

Figure 4-10: Employment Densities within 0.5 Mile of Alternatives



4.2.2 Population Density

Population density refers to the concentration of residents within a specific area of land. In this case, it is the population per square mile. The active transportation routes that are proposed through densely populated areas can increase active transportation use by being more accessible to a larger concentration of residents. Those alternatives that extend through densely populated areas would be preferred over alternatives that extend through less populated areas.

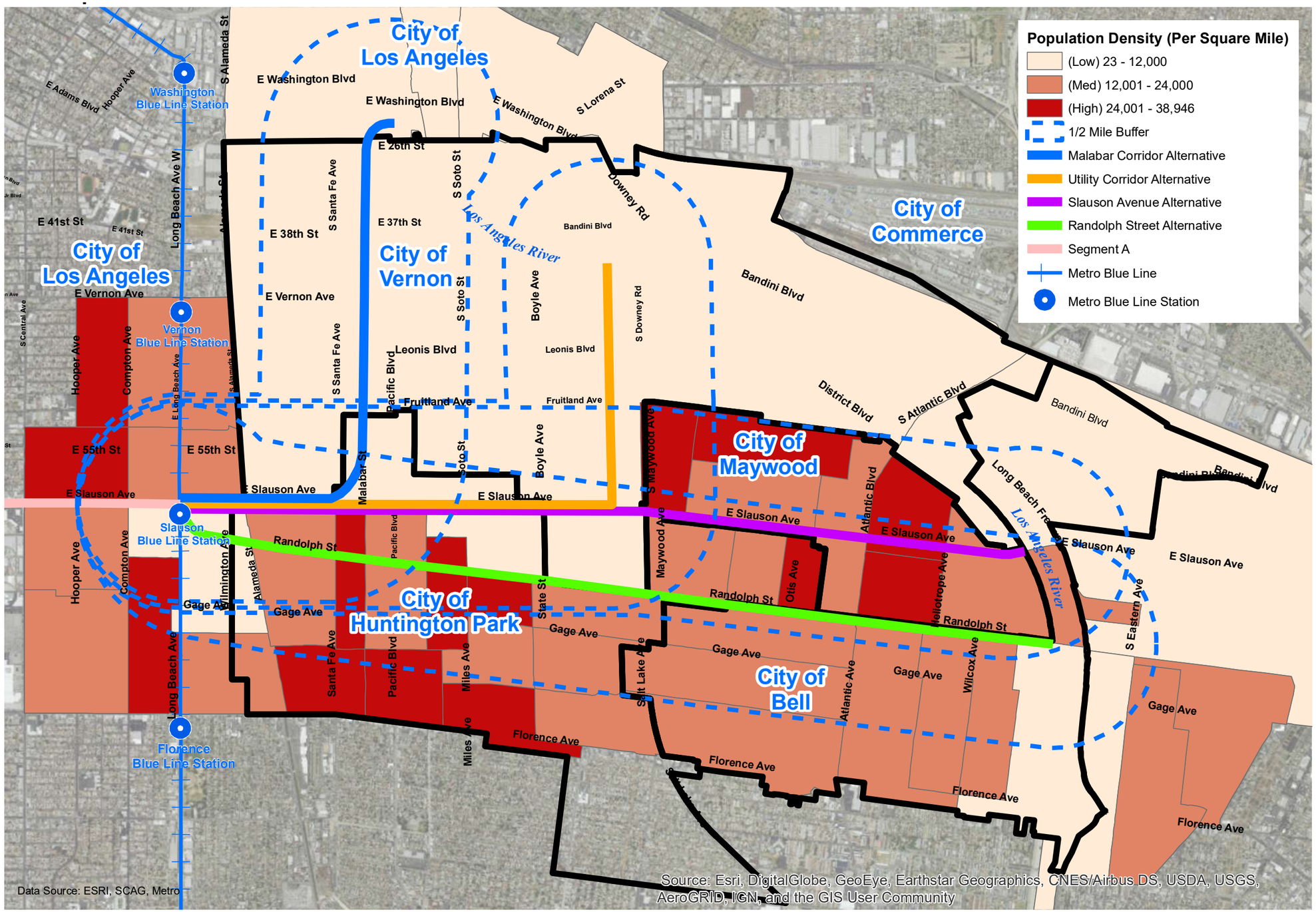
Alternatives are evaluated relative to the population density they serve and ranked on a scale of high, medium, or low. Population density is calculated within a 0.5 miles radii along each of the proposed alternative alignments. All data was obtained through Census 2010 data . The comparative numbers provide insight into existing populations.

Table 4.12 presents the population density comparison for each alternative. Figure 4-11 illustrates population densities within 0.5 miles of each alternative's alignment

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low – Approximately 20,200 residents within 0.5 mile	The Malabar Corridor Alternative would provide access to the lowest number residents (within 0.5 mile) as the alignment is primiarily within the City of Vernon which has less than 150 residents. The alignment would serve some Huntington Park residents living near the Blue Line Station and south of Slauson Avenue.
Utility Corridor Alternative	◑	Medium – Approximately 35,000 residents within 0.5 mile	The Utility Corridor Alternative would provide access to a moderate number residents (within 0.5 mile) as the alignment would serve residents living near the Blue Line Station and south of Slauson Avenue within the cities of Huntington Park and Vernon, as well as small portions of the cities of Maywood and Bell.
Slauson Avenue Alternative	●	High – Approximately 67,000 residents within 0.5 mile.	The Slauson Avenue Alternative would provide access to a high number residents (within 0.5 mile) as the alignment would serve Huntington Park residents living near the Blue Line Station and south of Slauson Avenue as well as the cities of Maywood and Bell.
Randolph Street Alternative	●	High – Approximately 81,700 residents within 0.5 mile	The Randolph Street Alternative would provide access to the highest number residents (within 0.5 mile) as the alignment would serve high density, multi-family residential uses through most of the alignment. This alignment would serve residents in the cities of Huntington Park, Vernon, Maywood and Bell. . If a Class II or IV facility, this alternative would also rank high since it would provide access to a similar number of residents.

Table 4.12: Goal 2 Provide Access to Major Destinations – Population Density

Figure 4-11: Population Densities within 0.5 Mile of Alternatives



4.2.3 Activity Centers

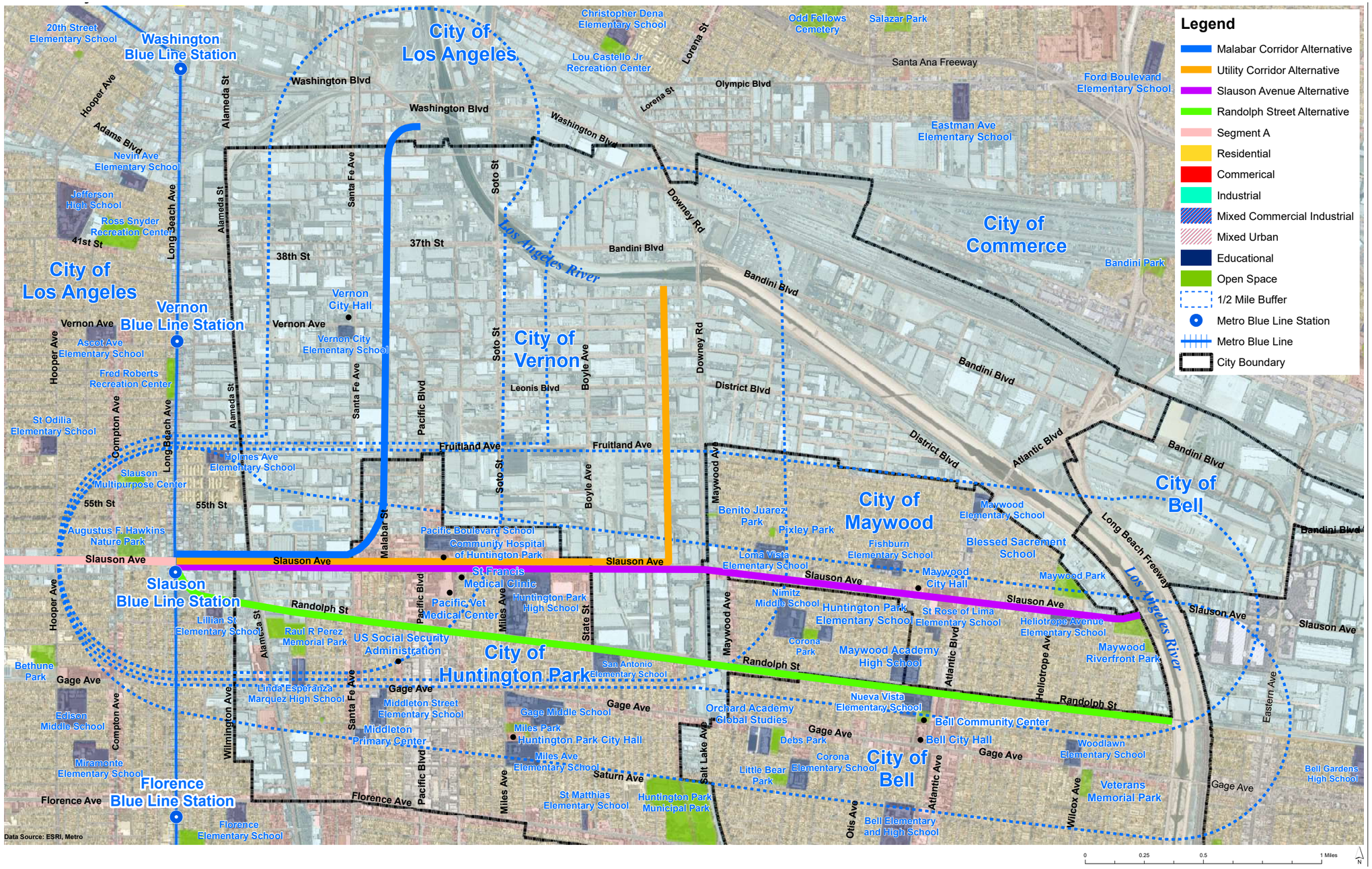
Employment, educational, recreational, and public service centers are major destinations utilized by active transportation users. According to the County of Los Angeles BMP (2012), high demand locations for active transportation users include those near transit hubs, commercial and employment centers, schools and colleges, and other major destinations. Access to major activity centers is evaluated for each alternative based on the proximity of each activity center to the alignment.

Table 4.13 presents the comparative evaluation for each alternative. Figure 4-12 illustrates activity centers within 0.5 miles of each alternative's alignment.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low – 14 activity centers within 0.5 mile	The Malabar Corridor Alternative would provide access to the least number of active transportation activity centers (within 0.5 mile).
Utility Corridor Alternative	○	Low – 17 activity centers within 0.5 mile	The Utility Corridor Alternative would provide access to a low number of active transportation activity centers (within 0.5 mile).
Slauson Avenue Alternative	●	High – 29 activity centers within 0.5 mile.	The Slauson Avenue Alternative would provide access to a high number of active transportation activity centers (within 0.5 mile).
Randolph Street Alternative	●	High – 39 activity centers within 0.5 mile	The Randolph Street Alternative would provide access to a high number of active transportation activity centers (within 0.5 mile). If a Class II or IV facility, this alternative would also rank high since it would provide access to a similar high number of activity centers.

Table 4.13: Goal 2 Provide Access to Major Destinations – Activity Centers

Figure 4-12: Activity Centers



4.2.4 Low-Income and Minority Populations

According to the 2010 Census, population within the study area includes approximately 179,110 residents[1]. Of those residents, approximately 32 percent (57,500 persons) are considered low-income[2]. The study area also includes a very high percentage of minority populations[3]. Approximately 97 percent (174,110 persons) of study area residents identify themselves as an ethnic minority. Alternatives that provide access to the highest number of low income and minority households would increase active transportation opportunities for these environmental justice groups.

1 Source: Census 2010, estimated population in project area census tracts.
2 Low income is defined as living below poverty level.
3 The United States Department of Transportation (USDOT) Order 5610.2(a) on Environmental Justice defines minority groups as Black, Hispanic, Asian American, American Indian and Alaskan Native, and Native Hawaiian or Other Pacific Islander.

Alternatives are evaluated based on the highest number of low income and minority households they would serve. Table 4.14 presents the comparative evaluation for each alternative. Figure 4-13 illustrates concentrations of low-income persons within 0.5 miles of each alternative's alignment. Figure 4-14 illustrates concentrations of minority populations within 0.5 miles of each alternative's alignment.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low – 7,900 low income residents; 21,600 minority persons within 0.5 mile	The Malabar Corridor Alternative would provide access to the least number of low income and minority persons (within 0.5 mile) as most of the surrounding land uses are industrial for this alternative.
Utility Corridor Alternative	◑	Medium – 10,600 low income residents; 30,500 minority persons within 0.5 mile	The Utility Corridor Alternative would provide access to a moderate number of low income and minority persons (within 0.5 mile).
Slauson Avenue Alternative	●	High – 19,900 low income residents; 63,200 minority persons within 0.5 mile	The Slauson Avenue Alternative would provide access to a high number low income and minority persons (within 0.5 mile), as it would serve environmental justice communities within the cities of Vernon, Huntington Park, Maywood and Bell.
Randolph Street Alternative	●	High – 26,100 low income residents; 82,600 minority persons within 0.5 mile	The Randolph Street Alternative would provide access to the highest number of low income and minority persons (within 0.5 mile) as it would serve environmental justice communities within cities of Vernon, Huntington Park, Maywood and Bell. If a Class II or IV facility, this alternative would also rank high since it would provide access to a similar high number of low income and minority persons.

Table 4.14: Goal 2 Provide Access to Major Destinations – Low-Income and Minority Populations

Figure 4-13: Low Income Populations

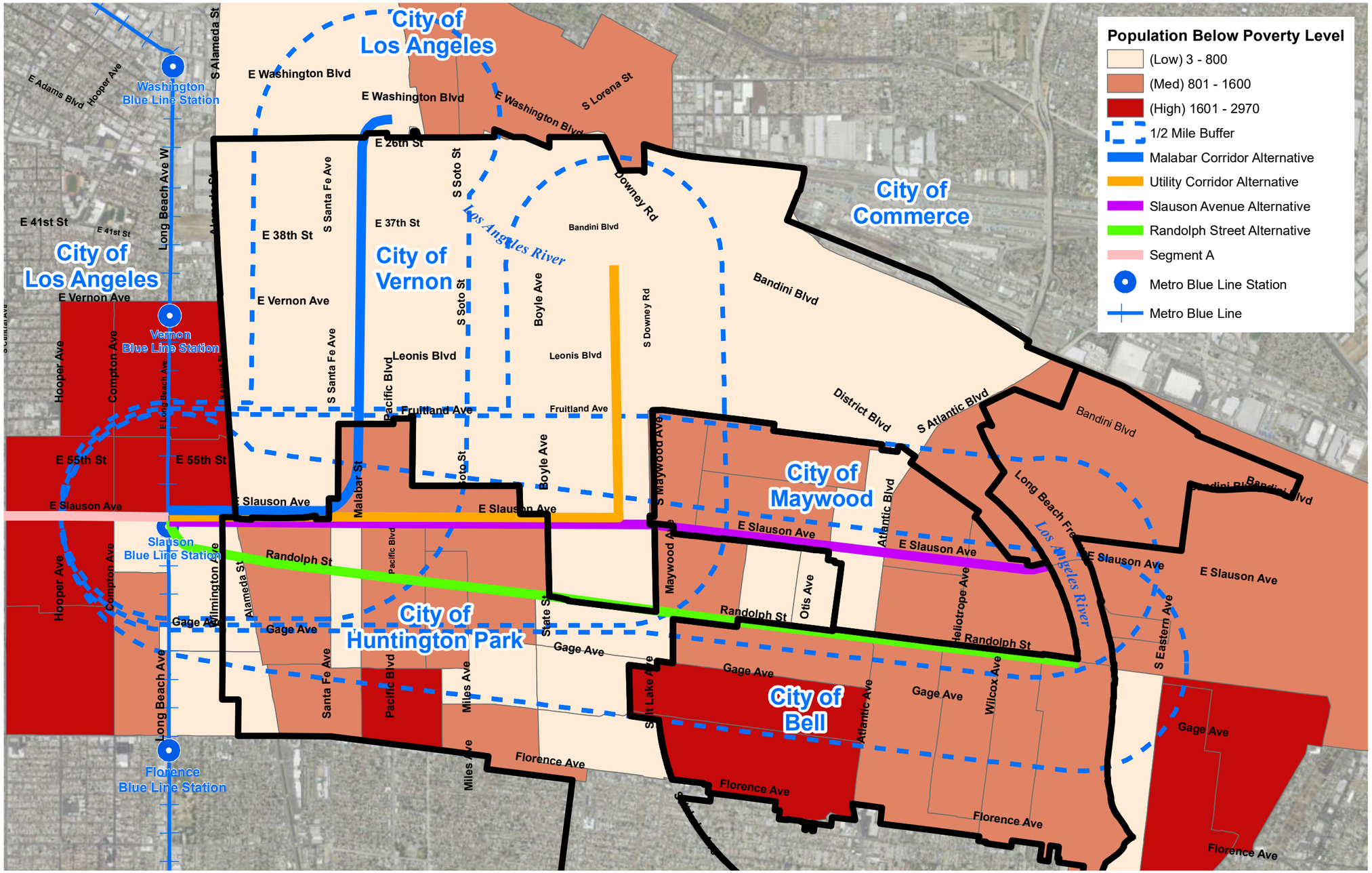
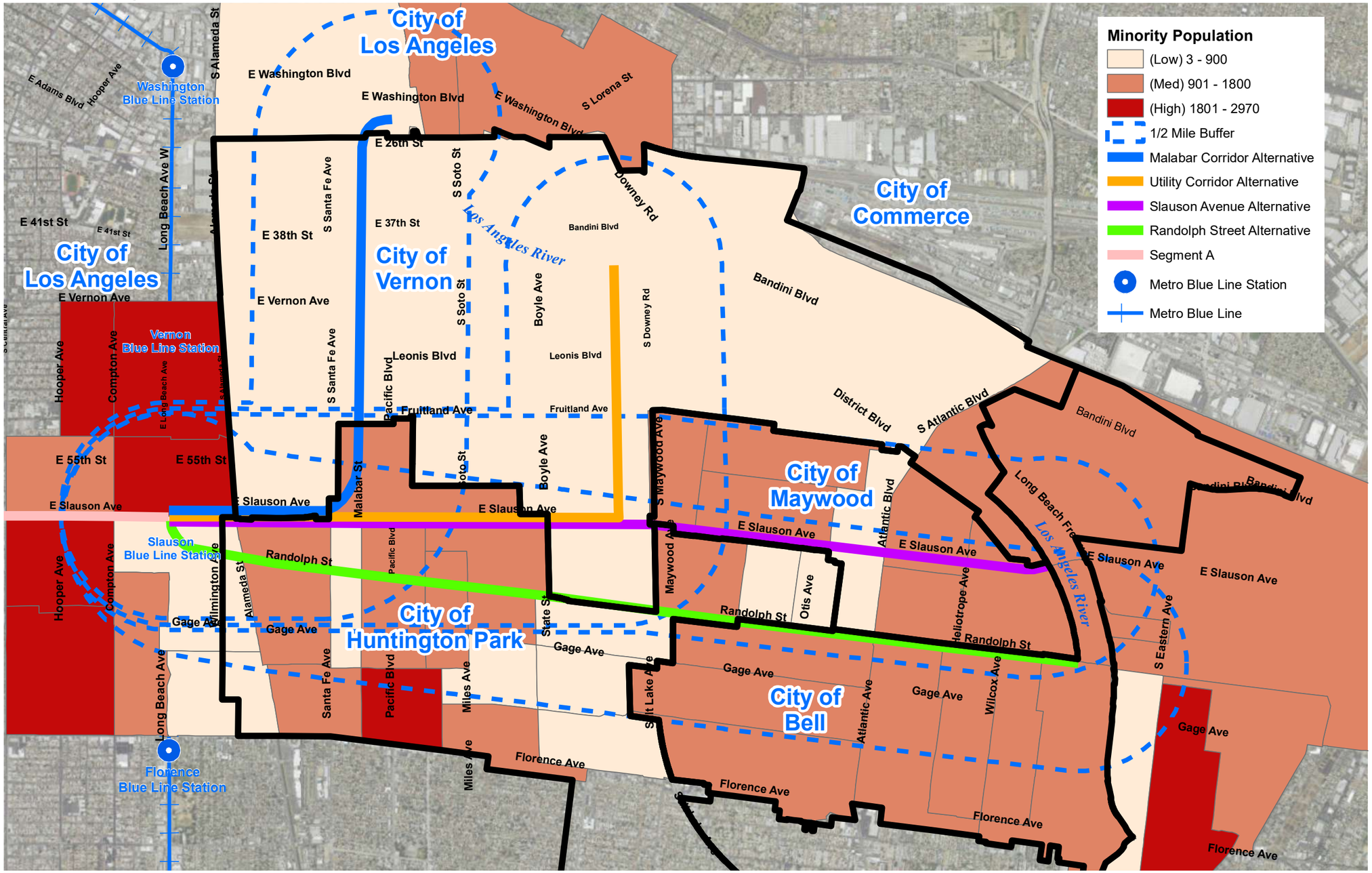


Figure 4-14: Minority Populations



4.2.5 0 or 1 Vehicle Households

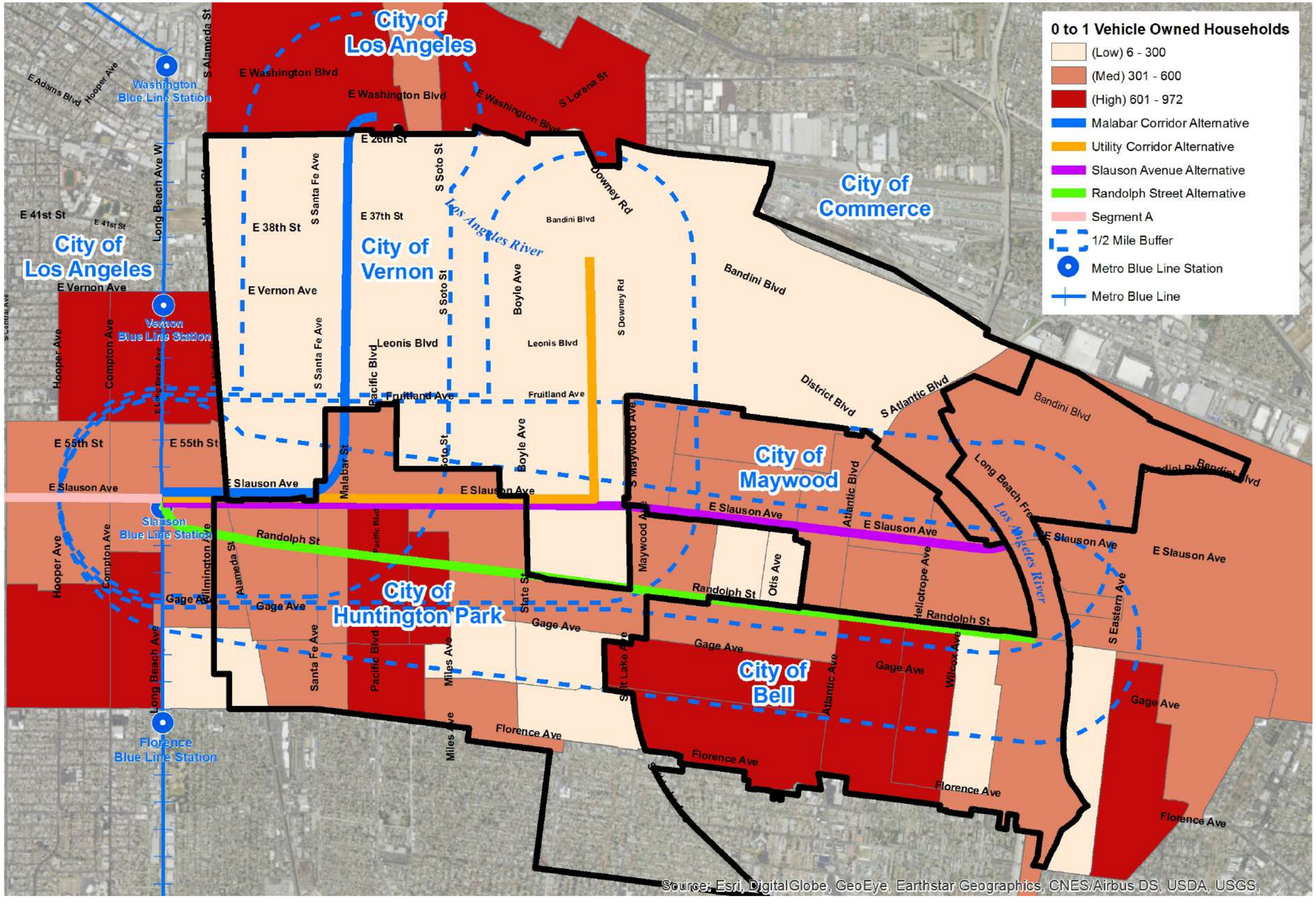
Households that own one or no vehicles are more likely to use alternative modes of transportation to work (including walk, bike, or transit) or work at home. As such, this criterion reviews the number of 0 or 1 vehicle owned households near each alternative as an indication of a potentially higher level of active transportation user demand. Alternatives are evaluated based on the highest number of 0 or 1 vehicle owned households ranked on a scale of high, medium, or low. These households are inventoried within a 0.5 mile along each of the proposed alternative alignments.

Table 4.15 presents the comparative evaluation for each alternative. Figure 4-15 illustrates concentrations of low-income persons within 0.5 miles of each alternative's alignment.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low – 3,100 0 or 1 vehicle households within 0.5 mile	The Malabar Corridor Alternative would provide access to the least number of 0 or 1 vehicle households (within 0.5 mile).
Utility Corridor Alternative	○	Low – 4,000 0 or 1 vehicle households within 0.5 mile	The Utility Corridor Alternative would provide access to a low number of 0 or 1 vehicle households (within 0.5 mile).
Slauson Avenue Alternative	◑	Medium – 7,700 0 or 1 vehicle households within 0.5 mile	The Slauson Avenue Alternative would provide access to a moderate number of 0 or 1 vehicle households.
Randolph Street Alternative	●	High – 10,900 0 or 1 vehicle households within 0.5 mile	The Randolph Street Alternative would provide access to the highest number of 0 or 1 vehicle households (within 0.5 mile). If a Class II or IV facility, this alternative would also rank high since it would provide access to a similar high number of 0 or 1 vehicle households.

Table 4.15: Goal 2 Provide Access to Major Destinations – 0 or 1 Vehicle Households

Figure 4-15: 0 or 1 Vehicle Owned Households



4.2.6 Summary Results Goal 2: Provide Access to Major Destinations

Based on the evaluation results of Goal 2: Access to Major Destinations, the Randolph Street and Slauson Avenue Alternatives received the highest overall rankings. Both alternatives scored high under this Goal given dense residential uses surrounding the alignments and the high number of activity centers these alternatives would provide access to. These alternatives would also provide active transportation options to a high number of low income and minority residents (over 19,900 low income and over 63,200 minority persons within 0.5 mile of the alignment) as well as over 7,700 households with limited vehicle access (0 or 1 vehicle households). Although the Utility Corridor and Malabar Corridor Alternatives would provide new active transportation options to a high number of employees (over 29,600 jobs within 0.5 mile of the alignments), these alternatives would not provide as much access to major ATC origins and destinations as compared to the Randolph Street and Slauson Avenue Alternatives. Table 4.16 presents the summary of results for Goal 2.

If the Randolph Street Alternative was a Class II or IV facility, it would score the same as a Class I facility since it would provide access to the same major destinations along the corridor. Therefore, the overall score of "highest" for this goal would be the same.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
2.1 – Employment	●	Approximately 31,000 jobs within 0.5 mile	●	29,600 jobs within 0.5 mile	◑	Approximately 26,800 jobs within 0.5 mile	◑	Approximately 24,000 jobs within 0.5 mile
2.2 – Population	○	Approximately 20,200 residents within 0.5 mile	◑	Approximately 35,000 residents within 0.5 mile	●	Approximately 67,000 residents within 0.5 mile of the corridor	●	Approximately 81,700 residents within 0.5 mile
2.3 – Activity Centers	○	14 activity centers within 0.5 mile	○	17 activity centers within 0.5 mile	●	29 activity centers within 0.5 mile	●	39 activity centers within 0.5 mile
2.4 – Low Income or Minority Populations	○	7,900 low income residents; 21,600 minority persons living within 0.5 mile	◑	10,600 low income residents; 30,500 minority persons living within 0.5 mile	●	19,900 low income residents; 63,200 minority persons living within 0.5 mile	●	26,100 low income residents; 82,600 minority persons living within 0.5 mile
2.5 – 0 or 1 Vehicle Owned Households	○	3,100 households within 0.5 mile	○	4,000 households within 0.5 mile	◑	7,700 households within 0.5 mile	●	10,900 households within 0.5 mile
Overall Ranking	○	**Low 1.0**	◑	**Medium 2.0**	●	**High 4.0**	●	**High 4.5**

Table 4.16: Summary Results for Goal 2 Provide Access to Major Destinations

4.3 Goal 3: Minimize Transportation Impacts

The purpose of this goal is to minimize the impact to operations of the existing transportation network within the study area that would result from the implementation of the project. This includes effects and potential impacts to transit operations, changes to roadway operations, removal of existing community amenities such as parking, and effects to existing freight and truck operations. There are four primary objectives:

- Minimize impacts to existing roadway operations
- Minimize impacts to transit operations and facilities
- Minimize reduction of parking spaces
- Maintain truck and freight operations

The following criteria address the objectives.

4.3.1 Traffic

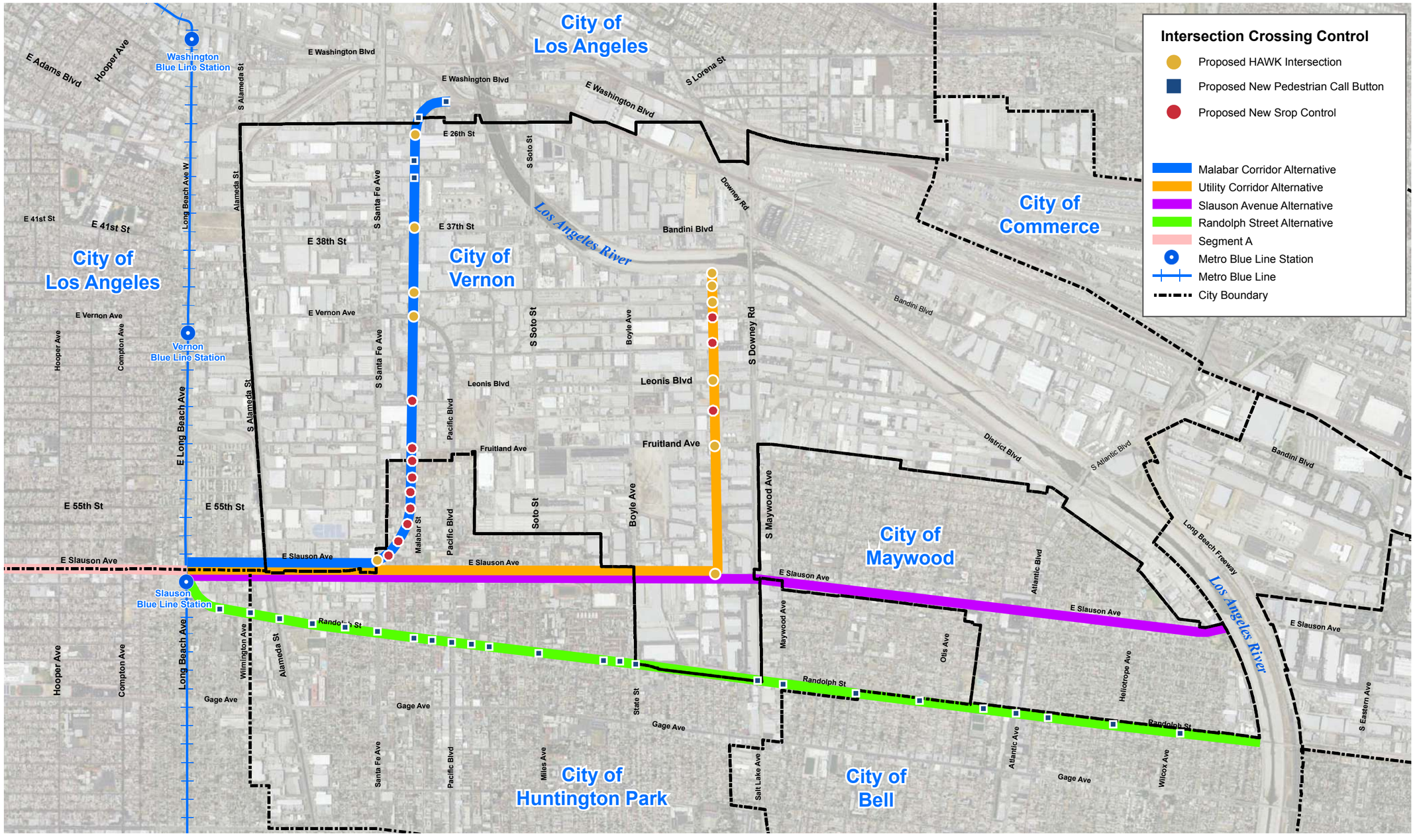
The active transportation corridor recommends changes to intersections to accommodate the alignment and allow for safe pedestrian and bicyclist travel, which has the potential to increase delay for vehicles and trucks. At some mid-block crossings, new signalized crosswalks will be installed that would include high-visibility beacons (referred to as HAWK beacons), which allow pedestrians and cyclists to call for a signal and requires the vehicular traffic to stop as they cross the road. Some signalized intersections will also see a change in signal timing to account for pedestrian clearance and new pedestrian call buttons. The addition of HAWK beacons and changes in signal timing have the potential to increase vehicular delay at these intersections.

Alternatives are rated based on the largest potential delay to traffic conditions. Table 4.17 presents the comparative evaluation for each alternative. Figure 4-16 illustrates location of the signal timing changes and potential new intersection crossings.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low - 5 new controlled intersections and potential changes in signal timing at 4 existing signalized intersections	The Malabar Corridor Alternative proposes the installation of signalized pedestrian crosswalks at five intersections. The alternative also will add pedestrian call buttons at four existing signalized intersections. Therefore, this alternative receives a low ranking.
Utility Corridor Alternative	○	Low - 6 new controlled intersections and minimal potential of changes in signal timing at existing signalized intersections	The Utility Corridor Alternative proposes the installation of signalized pedestrian crosswalks at six intersections along the utility ROW portion of the alternative. Therefore, this alternative receives a low ranking.
Slauson Avenue Alternative	●	High - No new controlled intersections and minimal potential of changes in signal timing at existing intersections	The Slauson Avenue Alternative does not propose changes to the signal timing along this alternative or installation of new controlled intersections since the corridor already has signalized intersections that accommodate pedestrians. Therefore, this alternative receives a high ranking.
Randolph Street Alternative	◑	Medium - No new controlled intersections and potential changes in signal timing at 24 existing signalized intersections	The Randolph Street Alternative does not propose new controlled intersections along the alignment, but does propose pedestrian call buttons at 24 signalized intersections (which may result in minor changes to the intersection signal timing). Therefore, this alternative receives a medium ranking. If a Class II or IV facility, this alternative would also rank medium since it would likely change existing signal timings along Randolph Street to accommodate new users.

Table 4.17: Goal 3 Minimize Transportation Impacts– Traffic

Figure 4-16: Signal Timing and Proposed New Crossings



4.3.2 Transit

On-street bicycle lanes/routes can lead to conflict between bicyclists and buses. In particular, at locations where on-street bicycle facilities are provided along the curb, buses need to cross paths with bicyclists in order to reach designated bus stops. In addition, bicycle lanes are typically discontinued at bus stops, with bicyclists required to either wait for the bus to load and unload passengers, or reroute into the adjacent vehicular travel lane. These configurations can create delay for buses that must yield to cyclists, as well as create the potential for crashes between cyclist, buses, and vehicles in the adjacent travel lane.

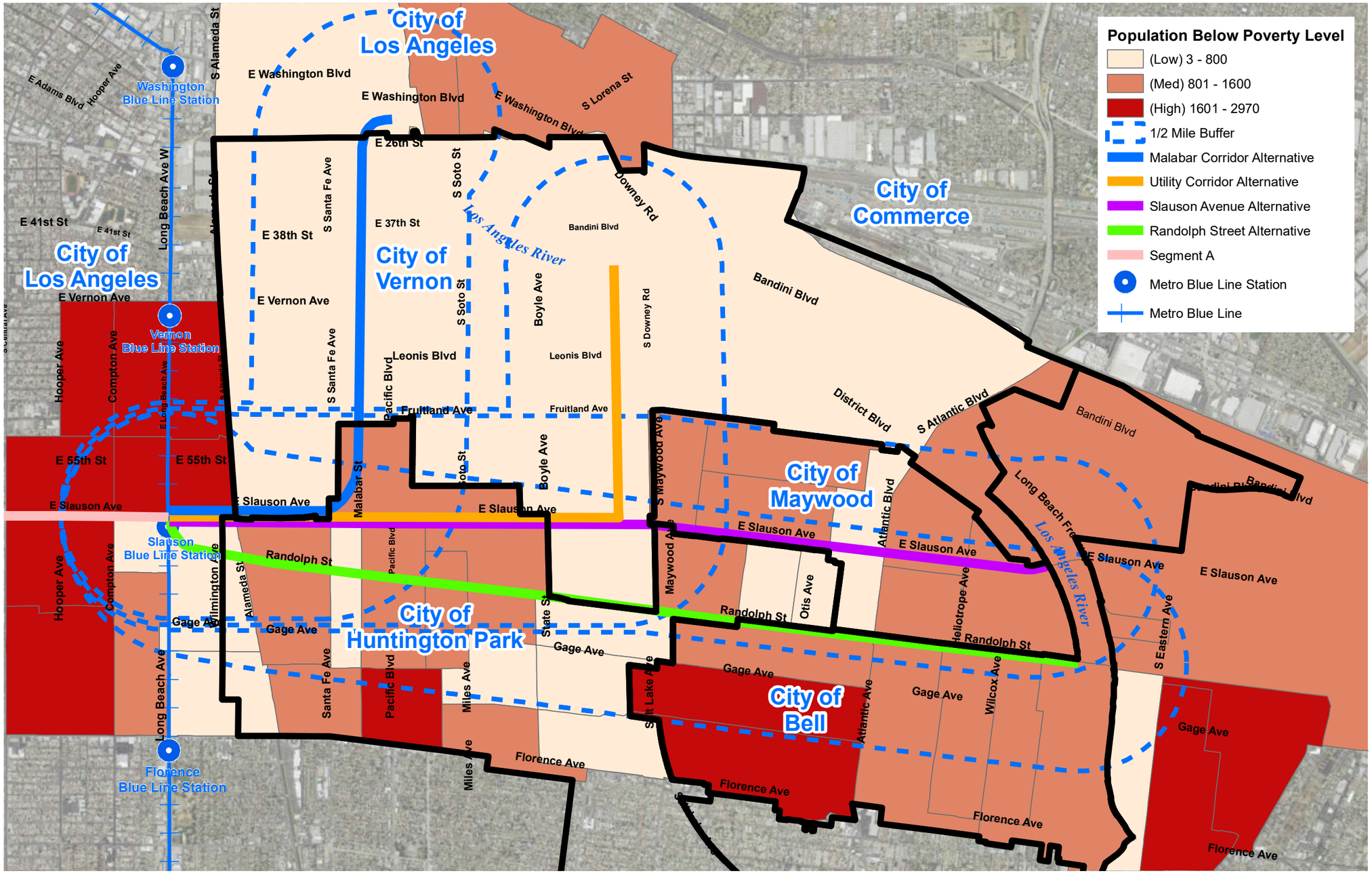
Transit impact is evaluated based on the potential conflict based on the quantity of bus stops and presence of high frequency transit along each alternative[1]. Table 4.18 presents the comparative evaluation for each alternative. Figure 4-17 illustrates location of the transit lines and bus stops along each alternative.

1 Data sources is from ADT counts, and bus stop information provided by Metro and other transit agencies.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	●	High - As no transit service is along the alternative and 2 bus stops are present from intersecting transit lines, there would be minimal potential conflict with transit.	The Malabar Corridor Alternative receives a high ranking. There are no bus lines that run along this alternative and there is only one location at Pacific Avenue and a Railroad-Crossing where bus lines intersect with the alternative. The bus lines that intersect the alternative at this location are Metro 254 and Metro 611.
Utility Corridor Alternative	○	Low - With frequent transit service along Slauson Avenue, and an estimated 19 bus stops present, there would be a high potential for conflicts with transit.	The Utility Corridor Alternative ranks low because there is frequent transit service along the Slauson Avenue portion of the alternative. Metro 108 bus line runs along Slauson Avenue and has 15 minute to 20 minute service frequency. There are 14 bus stops for Metro 108 along the Utility Corridor. The Huntington Park Express (25 minute frequency) runs along the Utility Corridor Alternative, sharing bus stops with Metro 108 for all but one location. There are also seven lines that intersect Slauson Avenue: Metro 60/760, Metro 251/751, Metro 254, Metro 611, Metro 260/762, and the DASH Pueblo Del Rio.
Slauson Avenue Alternative	○	Low - With frequent transit service along Slauson Avenue, and an estimated 45 bus stops present, there would be a high potential for conflicts with transit.	The Slauson Avenue Alternative ranks low because there is frequent transit service along the entire length of the alternative. Metro 108 bus line runs along Slauson Avenue and has 15 minute to 20 minute service frequency. Along the length of the Slauson Avenue Alternative, there are 44 bus stops for Metro 108. In addition, the Huntington Park Express (25 minute frequency) runs along the Slauson Avenue Alternative, sharing bus stops with Metro 108 for all but one location. There are also seven lines that intersect Slauson Avenue: Metro 60/760, Metro 251/751, Metro 254, Metro 611, Metro 260/762, and the DASH Pueblo Del Rio.
Randolph Street Alternative	◑	Medium - With moderate frequent transit service on Randolph Street, and an estimated 19 stops present, there would be a moderate potential for conflicts with transit.	The Randolph Street Alternative receives a medium ranking. There are two lower frequency bus lines (more than 20 minutes) that travel along Randolph Street for 2 stops, but the majority of bus lines intersect the alternative instead of following the alternative. The Huntington Park Express and the City of Bell's La Campana Circulator run along Randolph briefly, while Metro 611, Metro 260 and LADOT DASH Pueblo Del Rio intersect the alternative.

Table 4.18: Goal 3 Minimize Transportation Impacts– Transit

Figure 4-17: Transit Lines and Bus Stops



4.3.3 Parking

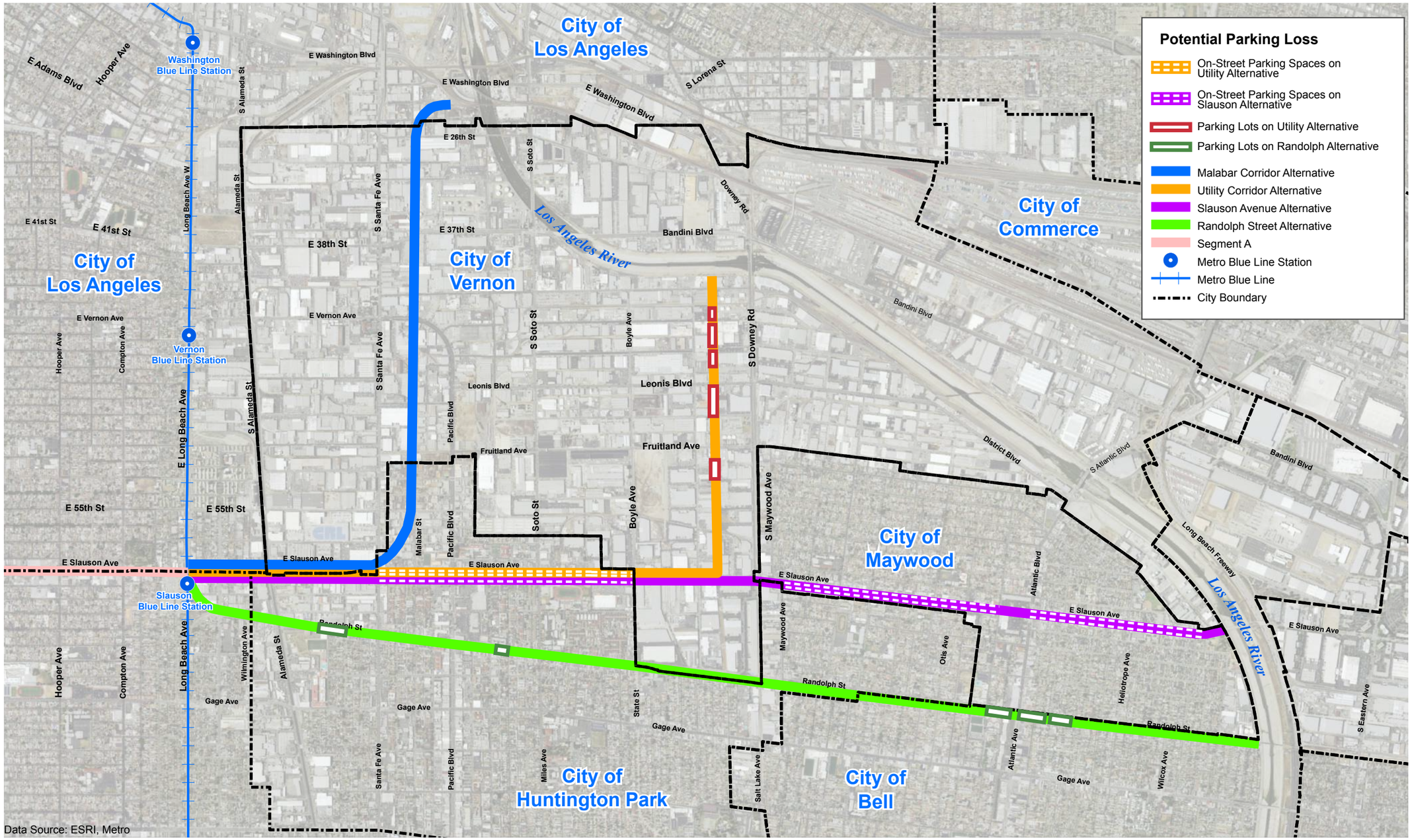
To accommodate the new active transportation corridor, on-street and off-street parking spaces may need to be eliminated. In general, there are four types of parking that may be affected by the project. First, there are on-street parking spaces along commercial streets that are utilized by customers and employees of local businesses that do not have dedicated off-street parking spaces. Second, there are on-street spaces provided within residential areas which are used by residents or visitors to nearby homes. Third, there are public off-street parking spaces, which are located outside the roadway and can be used by all residents, visitors, patrons, and employees in the area. Fourth, there are private off-street parking spaces, which are located outside the roadway and are dedicated or reserved for an adjacent land use or business purpose. All of these types of parking are present along at least one of the alternatives, except for off-street public parking. Loss of parking spaces can affect the livability and vitality of an area, and could potentially result in an economic impact. Therefore, the displacement of parking should be minimized when possible.

Parking is evaluated based on the number of spaces displaced by each alternative. Table 4.19 presents the comparative evaluation for each alternative. Figure 4-18 illustrates location of the potential parking loss for each alternative.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	●	High - Minimal removal of on-street/ off-street parking spaces	The Malabar Corridor Alternative receives a high ranking since it will remove very few, if any, designated parking spaces. There are no parking lots along the alternative, and the majority of the curbs at the mid-block crossing locations currently do not allow for on-street parking since they have been designed as a railroad crossing and already has red painted curbs.
Utility Corridor Alternative	○	Low - Removal of an estimated 190 on-street and 300 off-street parking spaces	The Utility Corridor Alternative receives a low ranking. It follows a portion of Slauson Avenue, and would remove about 191 spaces on Slauson Avenue to accommodate the proposed Class II bicycle lane. The Utility Corridor Alternative will also require the removal of an estimated one on-street parking space at each mid-block crossing along the utility right-of-way in order to provide adequate sight clearance so active transportation corridors users can see oncoming vehicles. There are also five parking lots that will need to be removed along the utility right-of-way. Between the off-street parking and the parking lot spaces, an estimated 490 parking spaces will be removed for the Utility Corridor Alternative.
Slauson Avenue Alternative	○	Low - Removal of an estimated 575 on-street parking spaces	The Slauson Avenue Alternative ranks low. The Slauson Avenue Alternative proposes a Class II bike facility, which will require the removal of an estimated 575 on-street parking spaces along the length of Slauson Avenue.
Randolph Street Alternative	◑	Medium - Removal of an estimated 190 off-street parking spaces	The Randolph Street Alternative will remove about 189 spaces and ranks medium. Since the Randolph Street Alternative may be off-street, it may not impact on-street parking, depending whether a Class I, II, or IV facility can be achieved. The alternative will require the removal of several existing parking lots along the alignment, primarily near Atlantic Avenue and between Alameda Street and Santa Fe Avenue. The total amount of parking spaces is estimated to be about 189 parking spaces between five different parking lots. If a Class II or IV facility, this alternative would rank low since it could potentially affect a high number of parking spaces along Randolph Street.

Table 4.19: Goal 3 Minimize Transportation Impacts– Parking

Figure 4-18: Potential Parking Loss



4.3.4 Trucks and Freight Operations

There are several designated truck routes that traverse through the study area, plus many industrial areas in the project vicinity. These industrial areas generate trucks and heavy vehicles throughout the day and use both local and regional streets to connect with their origin or destination. Trucks require additional right-of-way for maneuvers and access into the industrial buildings, and tend to have slower acceleration and deceleration times and reduced visibility. Therefore, trucks and non-motorists conflict and their contact should be minimized when possible. Trucks also face the same vehicular delay caused by changes to the street and signal network.

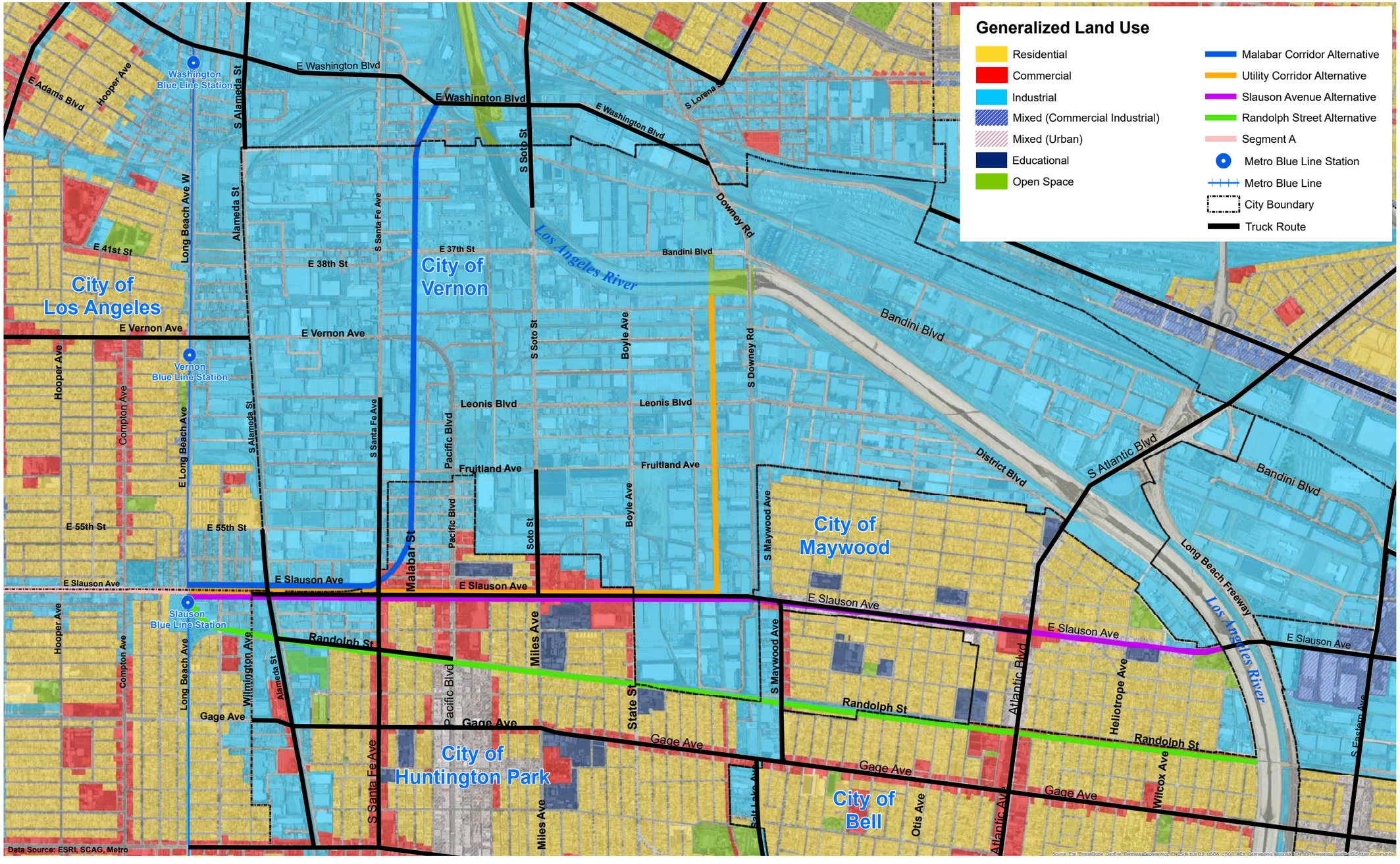
Truck/Freight Operations impact is evaluated based on the length of the designated truck route along each alternative and the amount of adjacent industrial land use that would generate major truck activity areas[1]. Table 4.20 presents the comparative evaluation for each alternative. Figure 4-18 illustrates truck routes throughout the study area.

1 Data sources includes current truck routes from the Countywide Significant Truck Arterial Network, ADT counts, and land use information

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low - Moderate potential of conflicts with designated truck routes and an estimated 90% of adjacent land use is industrial.	The Malabar Corridor Alternative ranks low because it is located in a heavily industrial area. About 90% of the adjacent land use for Malabar Corridor Alternative is industrial. Although the alternative will be an off-street Class I facility, there are several mid-block crossings that can impact the flow of trucks as they maneuver around the area.
Utility Corridor Alternative	○	Low - High potential for conflicts with trucks/freight operations. Multiple designated truck routes cross the alternative and an estimated 70% of adjacent land use is industrial.	The Utility Corridor Alternative ranks low because it is located in a heavily industrial area. About 70% of the adjacent land uses for the Utility Corridor Alternative is industrial. The alternative includes a Class II facility on Slauson Avenue between Santa Fe Avenue and the utility right-of-way, just before Slauson Avenue and Downey Boulevard. This segment will have a high potential for conflicts between trucks and active corridor users, given the percentage of trucks and heavy vehicles on Slauson Avenue (about 26%). Along the utility right-of-way, it is an off-street Class I facility, but has several mid-block crossings that can impact the flow of trucks as they maneuver around the area.
Slauson Avenue Alternative	◑	Medium - Moderate potential for conflicts with trucks/freight operations. Multiple designated truck routes cross and run along the alternative, and an estimated 30% of adjacent land use is industrial.	The Slauson Avenue Alternative receives a medium ranking because about 30% of the adjacent land uses is industrial, but there will be greater potential for conflicts between trucks and corridor users. About 80% of this alternative is a designated truck route and about 26% of vehicles on this road are trucks and heavy vehicles. This alternative is a Class II on-street bicycle facility, which will not share a lane with vehicular traffic, but will be adjacent to travel lanes; therefore, there may be conflicts with turning trucks or at intersections.
Randolph Street Alternative	●	High - Minimal potential conflicts with trucks/freight operations. Few designated truck routes cross and run along the alternative, and an estimate 30% of adjacent land use is industrial.	The Randolph Street Alternative receives a high ranking since it will have minimal conflicts with trucks and about 30% of the adjacent land use is industrial. Only about 15% of the alternative runs along a truck route and about 23% of vehicles are trucks and heavy vehicles. The alternative is off-street so there is physical separation between the trucks and the active corridor users. If a Class II or IV facility, this alternative would rank medium since it would have minimal conflicts with trucks given the surrounding uses, but as a Class II there would be no physical barrier between trucks and the users.

Table 4.20: Goal 3 Minimize Transportation Impacts– Truck and Freight Operations

Figure 4-19: Generalized Land Use and Truck Route Map



4.3.5 Summary Results Goal 3: Minimize Transportation Impacts

Goal 3: Minimize Transportation Impacts is to ensure transportation impacts are considered. For this evaluation, it assesses the likelihood of impacts to the existing transportation network that would result from implementation of the alternatives. Based on the evaluation, the Randolph Street Alternative received the highest overall ranking since it would have minimal conflicts with trucks/freight operations, have moderate conflicts with transit services and stops, have moderate number of parking spaces to be removed, and would not require any new intersection crossings (but would require signal timing changes to existing intersections). Table 4.21 presents the summary of results for Goal 3.

If the Randolph Street Alternative was a Class II or IV facility, it would score with similar results as a Class I facility with the exception of: a low versus medium under parking impacts as these facilities would potentially affect a high number of parking spaces along Randolph Street; and medium versus high under truck and freight operational impacts since it would have minimal conflicts with trucks, but there would be no physical barrier between trucks and users. Even with these changes in the results, the overall score as a Class I or IV facility on Randolph Street would be a "medium" (1.5) for this goal.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
3.1 – Traffic	○	5 new controlled intersections and potential changes in signal timing at 4 existing signalized intersections	○	6 new controlled intersections and minimal potential of changes in signal timing at existing signalized intersections	●	No new controlled intersections and minimal potential of changes in signal timing at existing intersections	◑	No new controlled intersections and potential changes in signal timing at 24 existing signalized intersections
3.2 – Transit	●	Since there is no transit service along alignment and only 2 bus stops are present from intersecting transit lines, there would be minimal potential conflict with transit.	○	With frequent transit service along Slauson Avenue, and an estimated 19 bus stops present, there would be a high potential for conflicts with transit.	○	With frequent transit service along Slauson Avenue, and an estimated 45 bus stops present, there would be a high potential for conflicts with transit.	◑	With moderate frequent transit service on Randolph Street, and an estimated 9 stops present, there would be a moderate potential for conflicts with transit.
3.3 – Parking	●	Minimal removal of on-street/off-street parking spaces	○	Removal of an estimated 250 on-street and 300 off-street parking spaces	○	Removal of an estimated 680 on-street parking spaces	◑	Removal of an estimated 190 off-street parking spaces
3.4 – Trucks/ Freight Operations	○	High potential for conflicts with trucks/freight operations. Several designated truck routes cross the alignment and an estimated 90% of adjacent land use is industrial.	○	High potential for conflicts with trucks/freight operations. Multiple designated truck routes cross the alignment and an estimated 70% of adjacent land use is industrial.	◑	Moderate potential for conflicts with trucks/freight operations. Multiple designated truck routes cross and run along the alignment, and an estimated 30% of adjacent land use is industrial.	●	Minimal potential conflicts with trucks/freight operations. Few designated truck routes cross and run along the alignment, and an estimate 30% of adjacent land use is industrial.
Overall Ranking	◑	**2.0 Medium**	○	**Low 0.0**	◑	**Medium 1.5**	●	**High 2.5**

Table 4.21: Summary Results for Goal 3 Minimize Transportation Impacts

4.4 Goal 4: Cost Effectiveness and Ease of Implementation

The purpose of this goal is to ensure that the project's implementation costs are commensurate with benefits. The goal is also to ensure long-term financial feasibility in order for the project to be maintained and operated in the future. There are four primary objectives:

- Reduce conflicts with existing rail operations
- Minimize right-of-way (ROW) easements
- Minimize capitol and operational costs
- Provide a cost effective project that is supported by local cities/jurisdictions

The following criteria address the objectives.

4.4.1 Conflicting Operations

The Federal Railroad Administration (FRA) states that the U.S. freight rail network includes around 140,000 rail miles operated by Class I railroads (including BNSF Railway and UPRR) in Southern California. The study area includes several rail miles that operate on and adjacent to the four alternatives. In order to develop an active transportation facility on an existing rail ROW, the rail corridor would need to be deemed abandoned[1] or require an easement to operate on a portion of the ROW where width allows both an ATC and rail operations. The abandonment of rail operating on the ROW would require negotiation of easement with BNSF for the Malabar Corridor, Utility Corridor, and Slauson Avenue Alternatives and negotiation of abandonment with UPRR for the Randolph Street Alternative.

Alternatives are rated based on the length of miles that may have potential conflicts with active rail operations. Table 4.22 presents the comparative evaluation for each alternative.

1 A rail line is considered abandoned when the railroad has applied to the STB for abandonment authorization, the STB issues an order authorizing the abandonment of the line, and the railroad has notified the STB that it has consummated the abandonment authorization.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium – 1.5 miles of potential conflicts	The Malabar Corridor Alternative traverses several rail corridors including running in parallel with and crossing BNSF rail lines. In total, approximately 1.5 miles would be in potential conflict with active rail lines.
Utility Corridor Alternative	●	High – No potential conflicts	The Utility Corridor Alternative alignment would primarily follow Metro owned ROW, then traverse north along Southern California Edison (SCE) ROW. Therefore, there would be no potential conflict with active rail operations.
Slauson Avenue Alternative	●	High – No potential conflicts	The Slauson Avenue Alternative alignment would primarily follow Metro owned ROW, then traverse north along SCE ROW. Therefore, there would be no potential conflict with active rail operations.
Randolph Street Alternative	○	Low – 4.3 miles of potential conflicts.	The Randolph Street Alternative as a Class I bike facility would run entirely (east to west) within the existing UPRR active rail line along Randolph Street. The California Public Utilities Commission (CPUC) would also need to authorize any perpendicular crossing to rail spurs. In total, approximately 4.3 miles would be in potential conflict with this UPRR active rail line. A Class IV or II bicycle facility along Randolph Street would not have as many conflicts with active rail operations since it would likely run adjacent to the rail ROW. It would therefore rank high.

Table 4.22: Goal 4 Cost Effective and Ease of Implementation – Conflicting Operations

4.4.2 Right of Way Easements

An easement may be required for the alternatives based on the current owner/operator of the ROW. Based on the general envelop (amount of acreage based on length and width in miles) of ROW needed for an ATC, this criteria reviews the amount of potential easement to develop each alternative. Table 4.23 presents the comparative evaluation of alternatives based on an estimated amount of ROW easement (in acreage) needed for the proposed ATC facility[1].

1 Note that length and width in miles is based on preliminary design concepts developed in the Feasibility Study (2014)

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium – < 3.0 acres of potential ROW easement.	The Malabar Corridor Alternative would require less than 3.0 acres of ROW easement as a proposed Class I facility (17 foot ROW for less than 1.5 miles in length). Although the alignment traverses Metro owned ROW, a potential easement may be needed for a Class I facility adjacent to and north of Malabar Yard. Therefore, it receives a medium rating compared to the other alternative ROW needs.
Utility Corridor Alternative	◑	Medium – 3.71 acres of potential ROW easement.	The Utility Corridor Alternative would require approximately 3.71 acres of ROW easement as a proposed Class I facility (17 foot ROW for 1.8 miles in length). This does not assume any easement needed for the 1.5 miles of Class II bike lanes along the Slauson Avenue portion of the alignment). Therefore, it receives a medium rating compared to the other alternative ROW needs.
Slauson Avenue Alternative	●	High – 1.24 acres of potential ROW easement.	The Slauson Avenue Alternative would require approximately 1.24 acres of ROW easement as a proposed Class I facility (17 foot ROW for 0.6 miles in length). This does not assume any easement needed for the 3.5 miles of Class II bike lanes along the Slauson Avenue portion of the alignment). Therefore, it receives a high rating compared to the other alternative ROW needs.
Randolph Street Alternative	○	Low – 8.86 acres of potential ROW easement.	The Randolph Street Alternative as a Class I bike facility would run entirely (east to west) within the existing UPRR active rail line along Randolph Street. Therefore, this alternative would require approximately 8.86 acres of ROW easement as a proposed Class I facility (17 foot ROW for 4.3 miles in length) and receives a low rating compared to the other alternative ROW needs. If a Class II or IV facility, this alternative would not require easement from UPRR, but would require roadway easement/ROW from the four cities and unincorporated Los Angeles. Therefore this alternative would rank medium as a Class II or IV facility.

Table 4.23: Goal 4 Cost Effective and Ease of Implementation – ROW Easements

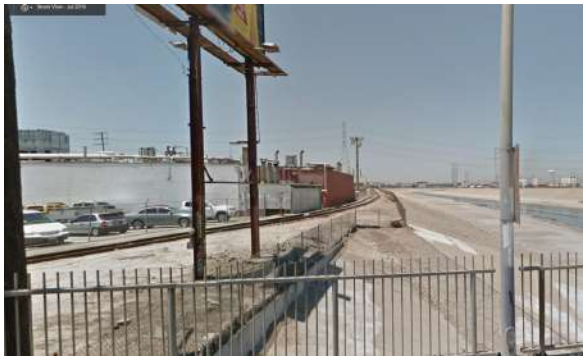
4.4.3 Physical Constraints

To understand the constructability potential of connecting the ATC to the LA River, existing infrastructure barriers need to be taken into account. These include current active use of parcels between the proposed ATC and the LA River; as well as potentially high-cost infrastructure that would need to be reconfigured or removed to access the LA River. This criterion evaluates the alternatives in the context of potential physical constraints connecting to the LA River.

Table 4.24 presents the comparative evaluation for each alternative. Figure 4-20 illustrates the potential physical barriers for each alternative.

Malabar Corridor Alternative – Existing Physical Barriers to the LA River

Slauson Avenue Corridor Alternative – Existing Physical Barriers to the LA River



Utility Corridor Alternative – Existing Physical Barriers to the LA River

Randolph Street Corridor Alternative – Existing Physical Barriers to the LA River (left - South Side of Randolph Street; right - North Side of Randolph Street)

Figure 4-20: Existing Physical Barriers to the LA River

Alternative	Ranking		Discussion
Malabar Alternative	○	Low – Significant physical constraints	The Malabar Corridor Alternative would require significant infrastructure and physical modifications to connect to the LA River including active rail ROW and existing infrastructure.
Utility Corridor Alternative	◑	Medium – Limited physical constraints	The Utility Corridor Alternative would have limited physical constraints to connect to the LA River including crossing of active rail tracks and grade separation to connect to the LA River.
Slauson Avenue Alternative	●	High – No physical constraints	The Slauson Avenue Alternative would have no physical constraints to connect to the LA River as there is an existing at-grade connection.
Randolph Street Alternative	●	High – No physical constraints	The Randolph Street Alternative would have no physical constraints to connect to the LA River as there is an existing connection. However, some modifications may be needed to the current connection to the LA River as there is a substantial grade-differential from the south side of Randolph Street that would need improvement. . If a Class II or IV facility, this alternative would rank medium since it would have some physical barrier to the LA River as a new connection would need to be developed.

Table 4.24: Goal 4 Cost Effective and Ease of Implementation – Physical Constraints

4.4.4 Rough Order of Magnitude Capital Cost and Cost/Mile

Rough Order of Magnitude (ROM) capital cost estimates are developed for each of the four alternatives for comparison purposes. The ROM costs are generally associated with construction scope of work, soft costs, and program cost. The construction scope is quantified from concept drawings as developed in the Feasibility Study at a level of detail comparable to projects at the same level of design. This information is further described and documented in Appendix B including the process and findings of the capital cost estimate. Table 4.25 presents the ROM capital cost and a comparative cost per mile for each alternative.

Rough Order of Magnitude (ROM) capital cost estimates are developed for each of the four alternatives for comparison purposes. The ROM costs are generally associated with construction scope of work, soft costs, and program cost. The construction scope is quantified from the original concept drawings as developed in the Feasibility Study at a level of detail comparable to projects at the same level of design. Updated costs were prepared on the Randolph Street Alternative as a Class I, II, and IV based on a comparison with the information developed for Segment A which is undergoing environmental review and 30% design. This information is further described and documented in Appendix B including the methodology and assumptions of the capital cost estimate. Based on the updated costs for the Randolph Street Alternative, a similar increase was applied to the other alternatives and are presented in Table 4.25 below.

Alternative	Ranking	
Malabar Corridor Alternative	◑	Medium - $24.3M total ROM cost (2017$)
	◑	$8.7M per mile
Utility Corridor Alternative	◑	Medium - $17.4M total ROM cost (2017 $)
	◑	$5.3M per mile
Slauson Avenue Alternative	●	High - $6.1M total ROM cost (2017 $)
	●	$1.5M per mile
Randolph Street Alternative	○	Low - $36.3M total ROM cost (2016 $)
	◑	Medium - $15M Class II facility total ROM cost (2017 $)
	◑	Medium - $19M Class IV facility total ROM cost (2017 $)
	○	$8.2M per mile Class I facility
	◑	$3.7M per mile Class II facility
	◑	$4.7M per mile Class IV facility

Table 4.25: Goal 4 Cost Effective and Ease of Implementation – ROW Capital Cost and Cost/Mile

Note: M= million. Costs were adjusted after public outreach meetings based on more detailed construction, agency and soft cost assumptions (approximately 115% increase) Source: TransLink Consulting, LLC. Total costs do not include ROW costs. Cost details are provided in Appendix B.

4.4.5 Coordination with Cities and Jurisdictions

Each alternative passes through several local jurisdictions including the cities of Huntington Park, Vernon, Maywood, Bell and Unincorporated Los Angeles County. Although these jurisdictions would all benefit from a new ATC in their community, additional coordination and commitment would be required to develop and maintain the project. This criterion considers the amount of agency coordination needed for each alternative. Table 4.26 presents the comparative evaluation for each alternative.

Alternative	Ranking		Discussion
Malabar Alternative	◑	Medium	The Malabar Corridor Alternative would require a moderate amount of coordination with several stakeholders and jurisdictions including BNSF (operating rights), cities of Huntington Park, Vernon, and County of Los Angeles near the Blue Line Station.
Utility Corridor Alternative	○	Low	The Utility Corridor Alternative would require extensive coordination and commitment for easements rights on existing SCE property. This alternative would also require coordination and commitment with the cities of Huntington Park and Vernon, and County of Los Angeles near the Blue Line Station.
Slauson Avenue Alternative	◑	Medium	The Slauson Avenue Alternative would require a moderate amount of coordination and commitment with the cities of Huntington Park, Vernon, and Maywood, and County of Los Angeles near the Blue Line Station.
Randolph Street Alternative	○	Low	The Randolph Street Alternative would require extensive coordination and commitment for easement on the existing UPRR ROW. This alternative would also require coordination and commitment with the cities of Huntington Park, Vernon, Bell, Maywood, and County of Los Angeles near the Blue Line Station. If a Class II or IV facility, this alternative would rank medium since it would still need extensive coordination with the cities and the County of Los Angeles. However, these jurisdictions are all supportive of utilizing Randolph Street as an ATC.

Table 4.26: Goal 4 Cost Effective and Ease of Implementation – Coordination with Cities/Jurisdictions

4.4.6 Summary Results Goal 4: Cost Effective and Ease of Implementation

Goal 4: Cost Effective and Ease of Implementation is to ensure costs and jurisdictional coordination requirements are considered for implementing each of the alternatives. Based on the evaluation, the Slauson Street Alternative received the highest overall ranking since it would have the lowest ROM capital costs as a Class II facility with limited pedestrian improvements, no potential conflicts with active rail operations or barriers to connect with the LA River, and require moderate coordination with neighboring cities. Table 4.27 presents the summary of results for Goal 4.

If the Randolph Street Alternative was a Class II or IV facility, it would score somewhat differently for this goal compared to a Class I facility. Under conflicting operations, it would score high versus low under since it would not have as many conflicts with active rail operations and likely run adjacent to the rail ROW. Under ROW easements, a Class II or IV facility would rank medium versus low since it would not require easement from UPRR, but would still require ROW from the local jurisdictions. Under physical constraints, the alternative would rank medium versus high since it would have some physical barriers to the LA River and a new access would need to be developed. As a Class II or IV facility, the capital costs would be significantly less than a Class I facility (around a 50% to 60% less). The cost savings would also be significantly higher with potential easement needs from UPRR (medium versus low). A Class II or IV facility would also score higher in coordination with cities/jurisdictions (medium versus low) since it would still need extensive coordination with the local jurisdictions. Therefore the overall score as a Class I or IV facility on Randolph Street would be a "medium" (3.5) for this goal.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
4.1 – Conflicting Operations	◑	1.5 miles of potential conflicts with active rail operations	●	No potential conflict with active rail operations	●	No potential conflict with active rail operations	○	4.3 miles of potential conflicts with active rail operations
4.2 – Right-of-Way Easements	◑	< 3.0 acres of ROW easement	◑	3.71 acres of ROW easement	●	1.24 acres of ROW easement	○	8.86 acres of ROW easement
4.3 – Physical Constraints to the LA River	○	Would require significant infrastructure and physical modifications to connect to the LA River	◑	Limited physical constraints to connect to the LA River	●	No physical constraints to connect to the LA River	●	No physical constraints to connect to the LA River
4.4 – ROM Capital and Costs/Mile	◑	$24.3 million ROM cost $8.7 million per mile	◑ ◑	$17.4 million ROM cost $5.3 million per mile	● ●	$6.1 million ROM cost $1.5 million per mile	○ ◑	$36.3 million ROM cost $8.2 million per mile
4.5 – Coordination with Cities/ Jurisdiction	◑	Would require a moderate amount of coordination including: BNSF and neighboring cities	○	Would require extensive commitment for easement rights and coordination with neighboring cities	◑	Would require a moderate amount of coordination with neighboring cities	○	Would require extensive commitment for easement on existing UPRR ROW and coordination with neighboring cities
Overall Ranking	◑	**Medium 2.0**	◑	**Medium 2.5**	●	**High 4.5**	○	**Low 1.5**

Table 4.27: Summary Results for Goal 4 Cost Effective and Ease of Implementation

4.5 Goal 5: Provide Access to Major Destinations

The purpose of this goal is to ensure that the project addresses characteristics of the local communities and responds to the active transportation needs of the surrounding neighborhoods. There are three primary objectives:

- Provides secure and safe bicycle/pedestrian facilities
- Supportive of land use policies and specific plan developments
- Consistent with local community plans and projects

The following criteria address the objectives.

4.5.1 Safety

Given that a substantial number motor vehicles (including passenger vehicles, trucks and transit buses) utilize the roadways in the project vicinity, there is potential for conflicts between active transportation corridor users and motor vehicles. These conflicts could lead to crashes between users, which could result in serious injuries or fatalities to bicyclists and pedestrians. In order to minimize conflicts and prevent crashes, physical separation of the active corridor facility from the roadway is encouraged, and controlled crossings should be implemented when possible. In addition, unsignalized crossings of streets should be minimized, as each crossing location will allow for the potential for conflicts between vehicles and active transportation corridor users.

Safety is evaluated based on the length of the alignment that would have physical separation between pedestrians and bicycles along the corridor and adjacent vehicular travel lanes, and the number of unsignalized street crossings. Table 4.28 presents the comparative evaluation for each alternative.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium - Provides physical separation from motor vehicles and when the alignment crosses paths with motor vehicles, the crossings are stop controlled or uncontrolled.	The entire alternative is a Class I path, which would provide physical separation from motor vehicles. Where the alignment crosses streets midblock, only stop signs would be provided (only a few of them are proposed to receive new HAWK signals), which would have minimal protection for ATC users.
Utility Corridor Alternative	◑	Medium - Portions of the alignment provide physical separation from motor vehicles and some intersections with motor vehicles are marked and actively controlled.	The Utility Corridor Alternative receives a medium ranking because it is a partial Class II on-street bike lane, and a partial Class I off-street path. Along the segment on the utility right-of-way, the alignment would be a Class I facility and provide physical separation from motor vehicles. Along the Slauson Avenue east/west segment, the alignment would be a Class II facility, which would not provide physical separation from motor vehicles. All crossings on Slauson Avenue would be at signalized intersections providing some protection for ATC users on Slauson Avenue, but there are several mid-block crossings along the utility ROW segment that are not currently controlled. It is proposed that there will be HAWK signals installed at these locations.
Slauson Avenue Alternative	◑	Medium - The alignment does not provide physical separation from motor vehicles and intersections with motor vehicles are marked and actively controlled.	The Slauson Avenue Alternative receives a medium ranking. As a Class II facility, the alignment would not provide physical separation from motor vehicles. However, all crossings would be at signalized intersections, which would provide protection for ATC users.
Randolph Street Alternative	●	High - Facility and alignment provides physical separation from motor vehicles and when the alignment intersects or crosses paths with motor vehicles, the majority of crossings are actively controlled.	The Randolph Street Alternative ranks high. As a Class I facility, the alignment would provide physical separation from motor vehicles. Where the alignment crosses streets, the majority of crossings would be at signalized intersections, which would provide protection for ATC users. If a Class II facility, this alternative would rank medium as it would no longer provide a physical separation of bicyclist and vehicles. The alternative would score high as a Class IV facility as it would still provide a physical separation for cyclists.

Table 4.28: Goal 5 Address Community Needs – Safety

4.5.2 Security and Comfort

To encourage its continual use and long-term viability, an active transportation facility needs to provide safe and secure conditions for bicyclists and pedestrians. In particular, this accounts for the potential for criminal activities, appearances (such as litter and graffiti), lighting, access control, visibility ("eyes" on the facility), and other factors that affect the perception of safety along the corridor. These factors also need to address the potential users of the ATC, as each user group – for all ages and abilities – have different needs and standards for their consideration of safe travel.

The security and comfort is qualitatively assessed based on the presence of active land uses, nearby activity levels, and ability to provide pedestrian-scale lighting and amenities. Table 4.29 presents the comparative evaluation of alternatives. Figure 4-19 illustrates the existing land uses surrounding each alternative.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	○	Low	Along the Malabar Corridor Alternative, adjacent land uses and adjacent frontages prevent natural lines of sight and consistent surveillance. Significant investment and time would be needed to convert the adjacent land uses and frontages to create a high level of comfort for a wide range of potential users. The alternative has some lighting at mid-block locations, but there is a low amount of pedestrian/bicycle activity in the area. The built environment prevents natural lines of sight, leading to poor surveillance in the area. The area is currently minimally maintained and would not be inviting as an ATC environment. With the majority of the alignment surrounded by industrial uses and with frontages along the back of the buildings, this would prevent natural lines of sight and consistent surveillance for ATC users.
Utility Corridor Alternative	◑	Medium	The Utility Corridor Alternative alignment does not naturally create consistent open lines of sight along entire path and would require users to tolerate portions of the alignment with limited to no "eyes" on the facility. A moderate level of investment would be needed to change adjacent land use and frontage characteristics to support usage by most user groups. Along the utility right-of-way, the alignment is surrounded by industrial uses and parking/loading facilities or the sides of buildings. This would prevent natural lines of sight and consistent surveillance for ATC users. Along the segment of the alignment along Slauson Avenue, the alignment would be on-street, which has natural surveillance due to high activity levels of the adjacent roadway and sidewalk and has appropriate lighting. These elements would provide a comfortable environment for all user groups along this segment.
Slauson Avenue Alternative	●	High	The Slauson Alternative alignment is located along Slauson Avenue and is within the street as a Class II facility. There would be surveillance due to high activity levels of the adjacent roadway and sidewalk which provides a comfortable environment for all user groups. The Slauson Avenue Alternative has many activity centers, transit lines, and a moderate level of people on the street, providing eyes on the street. It also is well kept and there are street lights on both sides of the Slauson Avenue. The alignment also creates a natural surveillance of people using the facility and has appropriate lighting which provides a comfortable environment for all user groups.
Randolph Street Alternative	●	High	The Randolph Street Alternative alignment is located along Randolph Street, immediately adjacent to the roadway. There would be surveillance due to high activity levels of the roadway and sidewalks along Randolph Street, which provides a comfortable environment for all user groups. The Randolph Street Alternative also has a variety of land uses that create activity on the street, a moderate level of pedestrians and bicyclists, and is well kept. There is lighting on Randolph Street, but not in the median. The alignment also creates a natural surveillance of people using the facility and may appropriate lighting which provides a comfortable environment for all user groups. If a Class II or IV facility, this alternative would also rank high as it would still provide a variety of uses that create activity and natural surveillance of people on the street.

Table 4.29: Goal 5 Address Community Needs – Security and Comfort

4.5.3 Land Use Policies

The study area has concentrations of various land uses including those that are supportive of and encourage active transportation facilities. The land use resources within the study area could also be impacted by an alternative if they are not compatible or would affect existing uses negatively with potential displacement and/or relocation. To acknowledge alternatives that are most supportive to local land use policies, this criteria reviews each alternative's consistency with applicable policies, plans and development activities. Table 4.30 presents the comparative evaluation for each alternative.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium	For the Malabar Corridor Alternative, majority of the surrounding land uses are industrial which would generally be low or moderately supportive of ATC use. However, the City of Vernon has a Commercial Overlay District adjacent to the corridor which allows for retail, commercial, service and restaurant use to support the needs of employees. The City of Huntington Park zones the area south of Slauson Avenue and west adjacent to the Malabar corridor as Manufacturing Planned Development District to serve the economic employment base in the area. Given the moderate commercial and economic employment potentials with the adjacent land uses, this alternative received a medium ranking.
Utility Corridor Alternative	◑	Medium	For the Utility Corridor Alternative, majority of the surrounding land uses is industrial which would generally low or moderately supportive of ATC use. However, given some commercial uses along Slauson Avenue, this alternative would serve some ATC supportive land uses. The City of Vernon's Commercial Overlay District is along Slauson Avenue and the City of Huntington Park zones the area along Slauson Avenue as Commercial General with some Manufacturing Planned Development. These uses would be consistent with an ATC to serve and support the economic employee base and the commercial activity along Slauson Avenue.
Slauson Avenue Alternative	●	High	For this alternative, the surrounding land uses vary along Slauson Avenue including: Manufacturing Planned Development, Commercial General, and High Density Residential (City of Huntington Park); Industrial (City of Vernon); and Mixed-Use, Public/Quasi-Public, Town Center Commercial, Industrial, and Park (City of Maywood). This mix of uses would be highly consistent with an ATC since it would support the commercial and industrial employees, residents, visitors, and other users.
Randolph Street Alternative	●	High	For this alternative, the surrounding land uses vary along Randolph Street include: Manufacturing Planned Development, Open Space, Commercial General, High and Medium Density Residential, Downtown Huntington Park Specific Plan, Commercial Neighborhood/Professional, and Public Facilities (City of Huntington Park); Industrial (City of Vernon); Public/Quasi-Public, Residential, Mixed-Use, and Industrial (City of Maywood); and High Density Multiple-Family Residential and Heavy Commercial (City of Bell). Note that the City of Huntington Park zones Randolph Street itself as a Transportation Zoning District. This mix of uses would be highly consistent with an ATC since it would support employees, residents, visitors, and other potential ATC users. If a Class II or facility, this alternative would also rank high as it would provide similar access to the surrounding uses.

Table 4.30: Goal 5 Address Community Needs – Land Use Policies

4.5.4 Community Plans and Projects

Active transportation policies have been integrated in local cities and jurisdictions as part of their General Plans/ Circulation and Mobility Elements as well as BMPs. Appendix A presents the relevant active transportation policies for the cities of Bell, Huntington Park, Vernon, Maywood, and County of Los Angeles. To support these policies, the cities and LA County have proposed bicycle and pedestrian projects described in their BMPs. This criterion reviews the proposed active transportation projects within the study area that would support the alternatives. Table 4.31 presents a discussion of local community plans and projects.

Alternative	Ranking		Discussion
Malabar Corridor Alternative	◑	Medium	Although the cities of Huntington Park and Vernon do not specifically refer to Malabar Corridor as an ATC, both cities have goals to enhance bicycle use and safety by constructing bikeways defined in their Bicycle Master Plans/General Plans. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.
Utility Corridor Alternative	◑	Medium	Although the cities of Huntington Park and Vernon do not specifically refer to the Utility Corridor as an ATC, both cities have goals to enhance bicycle use and safety by constructing bikeways defined in their Bicycle Master Plans/General Plans. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.
Slauson Avenue Alternative	◑	Medium	Although the cities of Huntington Park and Vernon recognize narrow street limitations such as Slauson Avenue for ATC use, both cities have goals to enhance bicycle use and safety by constructing bikeways defined in their Bicycle Master Plans/General Plans. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.
Randolph Street Alternative	●	High	The cities of Bell and Huntington Park both include in their General Plans and BMPs a proposed bicycle path on Randolph Street. Both Huntington Park and Bell have also committed to use Randolph Street as a potential ATC. Bell has set aside funds for a design study and Huntington Park completed a Feasibility Study for an ATC on Randolph Street in March 2017. The City of Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River. If a Class II or facility, this alternative would also rank high as it would address the plans and projects in the local communities.

Table 4.31: Goal 5 Address Community Needs – Community Plans and Projects

4.5.5 Summary Results Goal 5: Address Community Needs

Goal 5: Address Community Needs ensures that the alternatives respond to the active transportation needs of the surrounding neighborhoods. Based on the evaluation, the Randolph Street Alternative received the highest overall ranking as it provides the best safety, security and comfort for potential ATC users being physically separated from motor vehicles and having the high activity levels on the roadway and sidewalks along Randolph Street. The Randolph Street Alternative addresses local land use policies since Randolph Street is designated as a Transportation Zoning District and would be supported by various land use activities such as open space, high to medium commercial and residential densities. In addition, the cities of Huntington Park and Bell recognizes Randolph Street in their General Plans and BMPs as a proposed bicycle path. Table 4.32 presents the summary of results for Goal 5.

If the Randolph Street Alternative was a Class II or IV facility, it would score somewhat differently for this goal compared to a Class I facility. Under safety, a Class II facility would rank medium versus high because it would no longer provide a physical separation between bicycles and the adjacent travel lanes. Even with this change in the results, the overall score as a Class I or IV facility on Randolph Street would still be "high" (3.5) for this goal.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
5.1 – Safety	◑	Would provide physical separation from vehicles, but would have minimal protection where the alignment crosses streets midblock.	◑	On the north/south segment, would provide physical separation from vehicles and provide high projection where the alignment crosses streets midblock. However, along the east/west segments, would not provide physical separation from vehicles.	◑	Would not provide physical separation from vehicles, but would have signalized crossings at intersections.	●	Would provide physical separation from vehicles. Where the alignment crosses streets, the crossings would be at signalized intersections.
5.2 – Security and Comfort	○	Significant safety amenities would be needed to create a high level of comfort for ATC users.	◑	Significant safety amenities would be needed to create a high level of comfort along the north/south segment. Along the east/west segment there is natural surveillance due to high activity levels on the adjacent roadway and sidewalks.	●	Along Slauson Avenue there is natural surveillance due to high activity levels of the adjacent roadway and sidewalks.	●	Along Randolph Street there is natural surveillance due to high activity levels of the adjacent roadway and sidewalks,
5.3 – Land Use Policies	◑	Although majority of the land uses as industrial, there are portions zoned as Commercial Overlay District and Manufacturing Planned Development. These economic and employment users would be moderately supportive for an ATC facility.	◑	Although majority of the land uses as industrial, the commercial uses along Slauson Avenue would be supportive for an ATC facility.	●	Slauson Avenue has a diversity of uses that would be consistent with an ATC facility including high density residential, mixed use, commercial, industrial, park, and public/quasi-public uses.	●	Randolph Street has a diversity of uses that would be consistent with an ATC facility including medium and high density residential, mixed use, commercial neighborhood, industrial, park, and public/quasi-public uses.
5.4 – Community Plans and Projects	◑	Although the cities of Huntington Park and Vernon do not specifically refer to the Malabar Corridor, both cities have goals to enhance bicycle use and safety by constructing bikeways. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.	◑	Although Huntington Park and Vernon do not specifically refer to the Utility Corridor, both cities have goals to enhance bicycle use and safety by constructing bikeways. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.	◑	Although the cities of Huntington Park and Vernon recognize narrow street limitations of Slauson Avenue for ATC use, both cities have goals to enhance bicycle use and safety by constructing bikeways. Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.	●	The cities of Bell and Huntington Park both include in their General Plans and BMPs a proposed bicycle path on Randolph Street. The City of Vernon also recognizes cooperation with Metro to complete a bicycle path to the LA River.
Overall Ranking	○	**Low 1.5**	◑	**Medium 2.0**	◑	**Medium 3.0**	●	**High 4.0**

Table 4.32: Summary Results for Goal 5 Address Community Needs

5. Stakeholder and Outreach Activities

Stakeholder and Outreach Activities

Stakeholder and agency participation is critical during the Segment B Alternative Analysis (AA) process. During this planning phase, key project information was presented, and productive input and relevant information were gathered from the affected stakeholders and agency participants. Several outreach opportunities were structured throughout the AA process to ensure public involvement and agency coordination. The timing of outreach was appropriately scheduled to move the project forward from goals and objectives to a Final Preferred Alternative (PA).

The public outreach involvement and agency coordination were structured through three, basic outreach groups. Each of these outreach groups provided valuable input collected during a series of planned meetings scheduled throughout the AA process. These groups are as follows:

- Technical Advisory Committee (TAC)

  The TAC consisted of agency departmental staff from the cities of Los Angeles, Huntington Park, Vernon, Bell, Maywood, and the County of Los Angeles. The intent of the TAC was to ensure collaboration and integration of work between agencies.

- Community Advisory Committee (CAC)

  The CAC consisted of organized community and advocacy groups and individuals with a pulse in the community and with interests in active transportation and/or activities within the study area. CAC participants were charged with providing input and transmitting project information to their respective interest groups. It should be noted that the AA process for Segment B took place concurrently with the Design and Environmental Clearance process for Segment A. In support of each effort, a single CAC was developed to provide input on both segments of the project. CAC meetings focusing on Segment B also provided an update on Segment A and vice versa.

- Community Meetings (CM)

  The CMs provided opportunities for the public at large to attend project informational meetings and give input from their local neighborhood perspectives. The CMs were solicited through traditional and not traditional outreach efforts, including: direct mass mailings, email blasts, online and newspaper advertisements, public counter and school outreach, and notification via local bus lines serving the project area.

In addition to these outreach groups, input was also solicited through social media, website, email blasts, local community events, project briefings to elected officials, city councils and commission members, and by way of interagency/technical meetings. The subsections below expand upon the outreach effort during the AA process.

5.1 Technical Advisory Committee Highlights

Three TAC meetings were held as follows:

- Meeting #1 – August 2, 2016; Metro Building Union Station Conference Room, Los Angeles
- Meeting #2 – November 15, 2016; Veterans Memorial Park, City of Bell
- Meeting #3 – January 24, 2017; Raul R. Perez Memorial Park, City of Huntington Park

Table 5.1 below includes a list of public agencies that participated in the three TAC meetings for the project. Representatives gathered as members of their respective agencies to work together to provide input and discuss opportunities and constraints affecting the project area. The table below identifies the active participants who contributed to the AA process.

The Project Team was strategic about convening each TAC meeting and ensured that each meeting resulted in direct input to advance the AA process. Each meeting covered specific topics, which required input from participating agencies. During the first meeting, TAC members were introduced to the evaluation methodology the Team used to rank each of the four alternatives. Participants also had the opportunity to request additional topics that they wanted evaluated. Feedback was also requested on the Purpose and Need for the project, on existing and future planning efforts in the area, as well as to identify areas of concern. The second meeting focused a discussion on the analysis that occurred to determine the rankings results of the four alternatives. The third and final meeting introduced the Randolph Alternative as the Segment B Recommended Alternative. The final TAC meeting also focused on gathering agency feedback on the proposed alternative transition from the Segment A portion of the corridor into Segment B.

The Outreach Team prepared meeting summary reports for each of the TAC meetings; the summary reports, presentations and meeting materials are included under the Final Outreach Report prepared for Metro by the outreach consultant.

Organization	Meeting 1	Meeting 2	Meeting 3
California Department of Transportation, District 7		X	X
City of Bell		X	X
City of Huntington Park		X	
City of Los Angeles	X	X	X
City of Maywood	X		X
City of Vernon	X	X	X
Los Angeles County	X	X	X
Los Angeles County Metropolitan Transportation Authority (METRO)	X	X	X
Office of Mayor Eric Garcetti			X

Table 5.1: TAC List of Participants

Highlights of the input received have been divided into major points, concerns, and supporting comments in Table 5.2, Table 5.3 and Table 5.4.

Meeting Date	Major Points
August 2, 2016	• Interested in how maintenance of the corridor will be handled • Will project be part of the County's traffic signal synchronization • Encouraged coordination with other projects/efforts in the area • Suggested Team consider bus cutouts and increasing accessibility to bus stops on Slauson Av
November 15, 2016	• Noted that Slauson Av is highly constrained by parking and high car and truck traffic • Interest was expressed for proposed mid-block signal treatments • Voiced that engagement of local cities/agencies is critical to identify and confirm planning projects/efforts in the area • Recommended consideration be given to construction impacts on local businesses and the community
January 24, 2017	• Stressed the need for a seamless connection between Segment A and Segment B – Randolph as PA • Continued interest on future operation and maintenance costs • Recommended addressing intersection/crossing options at Alameda and Slauson Av • Emphasized the importance of connectivity to the Los Angeles River, including ADA accessibility • Expressed that collaboration/coordination with Union Pacific is of critical importance

Table 5.2: TAC Major Points

Meeting Date	Concerned Comments
November 15, 2016	• The Slauson Alternative is constrained by parking and traffic • Concern was expressed over potential parking conflicts, particularly on Slauson Ave and Randolph St • Concern was expressed about speed limits on Slauson Ave and Randolph St
January 24, 2017	• Sharrows are not recommended for this project • Improvements are recommended at the crossing at Alameda • Angled parking and bike lanes not an optimal combination

Table 5.3: TAC Concerned Comments

Meeting Date	Supportive Comments
August 2, 2016	• Agreement that agency collaboration is important
November 15, 2016	• City of Huntington park is reviewing options and considering the best type of facility: Class I, IV, then II, III for different segments on Randolph St • Leverage other project funding for this project
January 24, 2017	• Project provides opportunities for collaboration, particularly for Maywood and Bell • Consider permeable surfaces

Table 5.4: TAC Supportive Comments

5.2 Community Advisory Committee Highlights

Three CAC meetings were held as follows:

- Meeting 1 - August 18, 2016
- Meeting 2 - November 17, 2016
- Meeting 3 - February 23, 2017

A list of participants is provided in Table 5.5.

Organization	Meeting 1	Meeting 2	Meeting 3
A Community of Friends		X	
California Greenworks	X		
City of Vernon	X		X
Communities for a Better Environment			X
Community & Neighbors for Ninth District Unity Neighborhood Council	X	X	
Community Health Councils	X	X	
Crenshaw Chamber of Commerce	X		
East Yard Communities for Environmental Justice	X		
Empowerment Congress Central Area Neighborhood Development Council		X	X
Florence-Firestone/Walnut Park Chamber of Commerce	X		
Friends of the LA River	X		
From Lot to Spot	X	X	
Hyde Park Organizational for Partnership Empowerment			X
LA Streets Blog		X	X
Legal Aid Foundation of Los Angeles		X	X
Living Streets Los Angeles		X	
Local Initiatives Support Corporation (LISC) Los Angeles		X	X
Los Angeles Bicycle Advisory Committee			X
Los Angeles County Bicycle Coalition	X	X	X
Los Angeles Neighborhood Initiative	X	X	X
Los Angeles Unified School District		X	X
Los Angeles Unified School District Office of Environmental Health and Safety		X	
Los Angeles Walks	X	X	X
North Area Neighborhood Development Council		X	X
Office of Mayor Eric Garcetti			X
Okazaki & Associates	X		
PLU Committee			X
River LA	X		
Smile South Central	X		
T.R.U.S.T. South LA	X	X	X
The Children's Collective		X	
Tree People		X	
Trust for Public Land	X	X	X
Vernon Chamber of Commerce	X		X
Vermont Village Community Development Corporation	X		

Table 5.5: CAC List of Participants

Table 5.5 includes a list of local organizations from which individuals participated in the various CAC Meetings. Key stakeholders gathered to provide feedback as members of the community and members of their respective organizations to work together to provide constructive criticism and discuss concerns affecting the project area. The following CAC organizations attended CAC meetings focusing on Segment A of the project. Updates on Segment B were also provided at those meetings.

Table 5.6 includes CAC members whom only attended CAC meetings focused on Segment A; however, updates on Segment B were also provided at these meetings.

The Project Team carefully designed each of the CAC meetings to assure participant feedback, which would further the progress of the project. Members in attendance to the first meeting were informed of the Purpose and Need of the project, the project timeline, and goals. Each of the four alternatives were discussed, providing the opportunity for participant input. The second meeting brought attention to the methodology and evaluation of the alternatives, ranking them based-on qualitative and quantitative measures. In the third meeting, Alameda Minor was presented as the favorable alternative transition, the link from Segment A to Segment B. This meeting focused on gathering feedback on the proposed transition.

The Outreach Team prepared meeting summary reports for each of the CAC meetings; the summary reports, presentations and meeting materials are included under the Final Outreach Report prepared for Metro by the outreach consultant.

Highlights of the input received have been divided into major points, concerns, and supporting comments in Table 5.7, Table 5.8 and Table 5.9.

Organization
Augustus F. Hawkins High School
Black Business Association
CD Tech
Friends of Hyde Park Library
LA Neighborhood Land Trust
Los Angeles County Metropolitan Transportation Authority (Metro)
Office of Los Angeles County Supervisor Mark Ridley-Thomas, District 2
The Greater Huntington Park Area Chamber of Commerce

Table 5.6: CAC Organizations

Meeting Date	Major Points
August 18, 2016	• The corridor should address both pedestrian and cycling needs • Alternatives need to connect local community to key destinations, including businesses services • Concerns were expressed over impacts of project improvements on local community • The PA should serve the highest number of stakeholders and provide connectivity • Safety throughout the corridor and at crossings is important • Members stressed the importance of community engagement • There was a recommendation to incorporate sustainable design features to the corridor
November 17, 2016	• Pedestrian facilities should be considered alongside bicycle facilities (not solely a bicycle project) • Costs estimates for the corridor should include bike and pedestrian improvements/amenities • The importance of community engagement was stressed
February 23, 2017	• Ongoing facility maintenance was identified as important • Crosswalk safety at Alameda and Slauson Ave need to be addressed • Continuous safety and security along the corridor at all times is needed • Consider the impact of other project efforts in the area need to be identified

Table 5.7: CAC Major Points

Meeting Date	Concerned Comments
August 18, 2016	• Ensure the safety for corridor users
November 17, 2016	• The project name is misleading and gives the impression that the project is a rail project • Pedestrian improvements should be more graphically reflected on project materials • There was an interest in augmenting community outreach
February 23, 2017	• The intersection of Slauson/Alameda is problematic- fast traffic, in an empty area, and dark at night. • Option 1B: Alameda Street (Class II Bike Lanes) - bike lane is too big and cars may use as driving lane; consider buffered bike lanes

Table 5.8: CAC Concerned Comments

Meeting Date	Supportive Comments
August 18, 2016	• This is not just a "rail to rail" project, it is about connecting people! • Consider amenities and programing to support utilization of corridor • Sustainable design features like storm water filtration can potentially increase funding opportunities • Randolph Alternative is a better option – it has highest residential and commercial concentrations • Capitalize on established community groups to promote project; use online and social media to reach general public
November 17, 2016	• The corridors should be multi-use (not just bike and pedestrian) • The selected corridor can be used for school routes (update Safe Routes plans) • The desire to move project from conceptual analysis to next stage was expressed.

February 23, 2017	• Class IV (protected bike lanes) - opportunity for bike signal and mixing zone at Alameda.
	• Option 1B : Alameda St -Cycle track with parking
	  • Strong option and will connect well with Randolph St Class IV– protected bike lanes
	  • Option supported by proposed intersection crossing improvements at Alameda Minor and Slauson

Table 5.9: CAC Supportive Comments

5.3 Community Meeting Highlights

Six CM meetings - three rounds of two meetings

- Round One: Meetings 1 & 2 – August 24, 2016; Salt Lake Park, City of Huntington Park
- Round Two: Meetings 3 & 4 – December 8, 2016 (included live online broadcast); Bell Community Center, City of Bell
- Round Three: Meetings 5 & 6 – March 23, 2017; Oldtimers Housing Development Corp., City of Huntington Park

Table 5.10 below consists of residents, elected official representatives, community groups, local and county agencies, and non-profit organizations that took part in the Community Meetings throughout this phase of the project. Representatives gathered as members of the community to work together to provide constructive input and discuss concerns affecting the project area. A list of participants is provided in Table 5.9.

The Project Team carefully selected topics for each round of meetings to ensure fruitful discussions and meaningful input. Each round of meetings built upon the next and allowed the Project Team to consider and incorporate input received into the projects development Attendees to the first round of meetings were introduced to the project's Purpose and Need, goals and objectives, and the project timeline. Each of the four alternatives were presented, providing the community with an opportunity to share their impressions, ideas, questions and/or concerns about the proposed alignments. During the second set of meetings, participants focused on the ranking of the alternatives and an overview of the outreach conducted to that point in the AA process. Participants, both in-house and on-line (round two meetings), were able to comment on the project and ask questions. Meetings held as part of round three provided an overview of the final rankings and additional studies on the potential transition alternatives to connect the two project segments. These final Segment B meetings also served to communicate the next steps of the project and offered participants a final opportunity to leave comments and ask questions.

The Outreach Team prepared meeting summary reports for each of the CM's; the summary reports, presentations and meeting materials are included under the Final Outreach Report prepared for Metro by the outreach consultant.

Highlights of the input received have been divided into major points, concerns, and supporting comments in Table 5.11, Table 5.12 and Table 5.13.

Meeting	Attendees	Participants
August 24, 2016	24	Residents, elected official representatives, community groups, local and county agencies, non-profit organizations and media
December 8, 2016	64 (+35 via live webcast)	Residents, s, elected official representatives, community groups, local and county agencies, non-profit organizations, HOAs, neighborhood councils, environmental justice groups, school districts
March 23, 2017	83	Residents, elected official representatives, community groups, local and county agencies, non-profit organizations

Table 5.10: CM List of Participants

Meeting Date	Major Points
August 24, 2016	• Connectivity is critical; connectivity to the Los Angeles River is necessary for a north-south travel alternative • Safety is critical for entire corridor • Create a sense of place and area for the community to gather • Importance of community engagement including schools and agency collaboration • Consider opportunities for public art • Design with bike facility, share use and amenities in-mind
December 8, 2016	• Randolph the most favored alternative • Bike share and cycling amenities requested • Project coordination with Union Pacific, other agencies and with other development plans encouraged for consistency and overall improvement of the region • Cost analysis clarification • Explore additional alternatives, such as a hybrid like Edison
March 23, 2017	• Confusion was expressed about the project title over the assumption that it was a railway project as opposed to a bicycle and pedestrian corridor project • Public is expressly interested in a comprehensive traffic analysis to determine the community impacts • Attendees encouraged collaboration with the Union Pacific Railroad in order to expedite the process and use of the Randolph Alternative • Clarification was made that Union Pacific would still operate the rail spur along Randolph, even if the corridor easement were granted to Metro for use in the Project • Reported that Union Pacific will not negotiate with the Metro Project Team until the Metro Board of Directors has approved the Preferred Alternative • Participants voiced their interest to determine the design, destinations and amenities which would be included in the next phase of project development • Interest was expressed for inclusion and volunteered participation in the next Project phase

Table 5.11: CM Major Points

Meeting Date	Concerned Comments
August 24, 2016	• Cyclist and pedestrian safety are key, consider lighting, patrols and ADA • Rail acquisition/cost may be an obstacle – Randolph Alternative • Concerned with parking impacts • Concern for ongoing maintenance – graffiti currently a problem • Concern for lane widths • Concern for intersections and mid-block crossing due to cross-traffic; limit crossing to improve cycling
December 8, 2016	• Cost of Randolph Alternative should not be a constraint • Impact the existing limited parking • Impacts on local community resulting from project improvements • Continue to design for and provide a place for street vendors • Caution expressed for the repurposed use of the corridor before the entire regional rail network is complete • Concern over the Union Pacific easements and the impact on alternatives • Concern for the removal of existing rail tracks
March 23, 2017	• Concern was expressed for the potential of increased traffic congestion and loss of parking due to Project impacts • Why go through this phase before gaining approval from Union Pacific • Concern voiced for the project's future funding and other set-backs, which may result from the new White House administration's changes in policy • Concern raised that Metro may use the project to justify reductions in local busing operations • Concern was expressed for public safety at rail crossings within the Project area • Interest in learning why Metro does not plan to develop both, the Malabar and Randolph alternatives, since the Malabar right-of-way is already owned by Metro

Table 5.12: CM Concerned Comments

Meeting Date	Supportive Comments
August 24, 2016	• Corridor is good transportation alternative for workers • East-west connection is needed • Park space is needed • Randolph Alternative is the most favored • Future phases should include amenities for all types of users
December 8, 2016	• Randolph provides connectivity to transportation options, jobs, service and retail for underserved communities; safe path to Los Angeles River • Appreciation for proactively providing active transportation options • Strong community support for the Project • Continue effort to connect to other areas in Los Angeles and Orange Counties • Excitement expressed for expanding the bike network and providing health life style choices in the community
March 23, 2017	• Council Member Jhonny Pineda, City of Huntington Park spoke to the project's importance to the area and thanked Metro for their efforts • The project has and will continue to be supported by all five local jurisdictions, including: the cities of Bell, Huntington Park, Maywood and Vernon as well as the County of Los Angeles, due to the unincorporated land within the Project area • Attendees eagerly volunteered to assist the Project Team with shows of support and through participation with expanding outreach to the community • Participants expressed interest in having Metro provide construction or on-going maintenance jobs for the community's youth

Table 5.13: CM Supportive Comments

5.4 Additional Outreach Efforts

5.4.1 Additional Feedback

In an effort to increase community engagement and project awareness, additional outreach was conducted throughout the various communities. This additional input was solicited through a combination of outreach methods including project briefings for elected officials, city councils and commission members, interagency/technical meetings, and local community events. Electronic methods included social media, website and email blasts communications to various groups in the community.

5.4.2 Elected Official Briefings/Meetings

Eighteen Elected Official briefings/meetings were held throughout the development of the project. These briefings/meetings assisted in building project awareness, securing buy-in and support from the various levels of elected officials that serve the project area. They also provided opportunities for consensus building on the best approach and planning to address critical project elements and milestones. These briefings often addressed localized issues within a given jurisdiction and corresponding project segment; however, officials were briefed on the overall status and progress of both Segments A and Segment B. Briefings were generally organized and executed by Metro, but Segment A, Segment B and Outreach Team Members supported the elected outreach, as requested by Metro.

Date	Elected Office	Segment Jurisdiction
07/27/16	Office of Supervisors Mark Ridley-Thomas	A
08/10/16	Office of Council Member Curren D. Price (CD9)	A
08/10/16	Office of Council Member Marqueece Harris-Dawson (CD8)	A
08/19/16	Office of Supervisors Hilda L. Solis	B
11/10/16	Office of Supervisors Hilda L. Solis	B
11/30/16	Office of Supervisors Mark Ridley-Thomas	A
01/03/17	Office of Supervisors Hilda L. Solis	B
01/18/17	Elected Officials Briefing (Federal, State, County, Local)	A & B
02/07/17	City of Vernon City Council	B
02/17/17	Office of Supervisors Hilda L. Solis	B
03/01/17	Office of Council Member Marqueece Harris-Dawson (CD8)	A
03/21/17	Office of Council Member Marqueece Harris-Dawson (CD8)	A
03/21/17	City of Huntington Park City Council	B
03/22/17	City of Bell City Council	B
03/22/17	City of Maywood City Council	B
03/27/17	Elected Officials Briefing (Federal, State, County, Local)	A & B
03/29/17	City of Bell City Council	B
04/06/17	Office of Council Member Marqueece Harris-Dawson (CD8)	A

Table 5.14: Elected Official Briefings/Meetings

5.4.3 Interagency/Technical Meetings

Five Interagency/Technical meetings were held to fostered ongoing coordination and collaboration throughout the AA process. These technical meetings served as data gathering sessions for the Project Team and also allowed the agencies to identify specific opportunities and constraints for the project. These meetings were led by the EBA with support from Metro. Meetings were held with the following jurisdictions.

Date	Meeting
11/17/16	City of Bell – City Management Team
11/22/16	City of Maywood – City Management Team
12/06/16	City of Huntington Park – City Management Team
12/14/16	Vernon LA River – Steering Committee
01/24/17	City of Vernon – LA River Bikeway Steering Committee Meeting

Table 5.15: Intergency/Technical Meetings

5.4.4 Local Community Events

Arellano Associates, EBA and Metro participated in five local community events to increase project awareness and garner community input for the community survey. Each of these events were located within or served the greater project area.

Date	Meeting
10/01/16	Sabor de México Lindo Festival
10/15/16	Taste of Soul
10/22/16	T.R.U.S.T. South LA 10th Anniversary
10/29/16	Peace Chapel Community Harvest Festival
01/14/17	25th Annual Empowerment Congress Summit

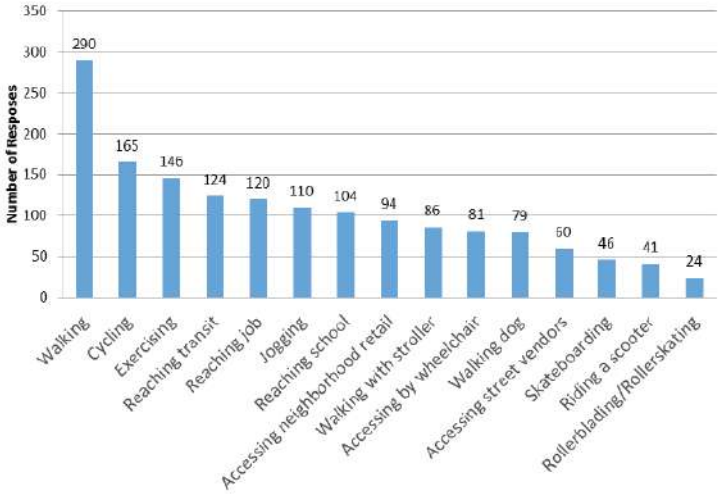
Table 5.16: Local Community Events

5.4.5. Community Survey

As part of the Segment A outreach, a community survey was developed and made available through the entire project area. This brief eight-question survey was prepared to gather a variety of input, including activity types, frequency of use, main concerns, design considerations and desired vision for the corridor. Surveys were implemented in English and Spanish.

While the survey was implemented for Segment A, some of the results are applicable to the entire corridor. Highlights of the results include:

1. Respondent's expressed preference for walking as the highest ranked activity followed by cycling, exercising and reaching transit.
2. Walking and cycling were identified as the most important activities.
3. Over 60 percent of respondents indicated that they would use the corridor every day or a few times a week.
4. More than 65 percent of all respondents cited safety, speed and visibility of cars, cyclists and pedestrians as one of their main concerns. A significant number of respondents also identified security and maintenance as issues that need to be addressed.
5. Safety and security were ranked as the most important design consideration.



5.4.6 Community Meeting Notifications

A variety of notification methods were employed to reach out to the public and encourage participation, including print (direct mail and public counter distribution at schools and other organizations) as well as electronic (e-blasts and social media) meeting notices.

Postcards and Take Ones: Postcards and take ones were used to notify the community meetings. The postcard notice was mailed to both, the key stakeholders in the database and property owners or occupants within 300-foot and 1,000 feet buffer of the alignment. The March 23rd CM notification efforts also included the distribution of take ones on local bus lines, which intersected the project area. Take ones were prepared in English and Spanish and placed in buses a week or two prior to each meeting.

Constant Contact: Electronic announcements of the CMs were prepared and transmitted via e-blasts in Constant Contact. These electronic notices were distributed multiple times before each round of meetings, and prepared in English and in Spanish. E-blast announcements are listed in Table 5.17.

Date	Meeting
8/12/16	CM #1 – Invitation
8/19/16	CM #1 – Reminder #1
8/23/16	CM #1 – Reminder #2
11/23/16	CM #2 - Invitation
12/2/16	CM #2 – Reminder #1
12/7/16	CM #2 – Reminder #2
3/6/17	CM #3 - Invitation
3/16/17	CM #3 – Reminder #1
3/22/17	CM #3 – Reminder #2

Table 5.17: Email Blast Annoucements

Advertisements and Press Releases: In an effort to connect and invite the greater community, local community papers were identified and selected to promote the CMs in their weekly publications. Meeting postings were placed one to two weeks prior to each meeting.

Metro also prepared press releases, which were shared through their media outlets.

Newspaper postings and press releases are listed below:

Date	Meeting
8/18/16	The Wave – East
8/18/16	Eastern Group Publications (English & Spanish)
8/22/16	The Source (Metro online)
12/5/16	The Source (Metro online)
3/13/17	The Source (Metro online)
3/16/17	The Wave – East
3/19/17	La Opinión (Spanish)
3/16/17	CM #3 – Reminder #1
3/22/17	CM #3 – Reminder #2

Table 5.18: Newspaper Postings and Press Releases

Facebook and Next Door Events: Facebook events were used to create an online buzz, and notice those active in social media to attend the segment's December 8th and March 23rd CMs. Metro led this outreach effort, creating the event and monitoring the online activity.

The March 23rd CM included an additional online meeting invitation. The meeting information was posted onto the neighborhood-focused social media site, Next Door. The Outreach Team posted the event, which was targeted to users in the project area neighborhoods.

Extended Outreach and Communications Tool Kits: As part of the notification effort for each of the segment's CMs, the outreach consultant conducted extended outreach and prepared a communications tool kit containing copy-ready text, graphics and links with details about the community meetings. The communications tool kit included content for placement on various websites, newsletters, eblasts and social media platforms. The tool kits were then distributed to all CAC members and a list comprised of community and civic organizations, city facilities, faith-based institutions and local elected offices. Recipients then shared the meeting notice on their various media platforms. Postcard notices were also distributed in bulk to groups who assisted with distribution of the notice at their respective public counters.

Project Helpline: Throughout the project, the Outreach Team has maintained the project helpline and updated the recording before and after each meeting to reflect the last CM information. The recording was made in English and Spanish.

6. Recommendations and Next Steps

Recommendations and Next Steps

The intent of this analysis was to evaluate and screen the proposed ATC alternatives based on the specific goals and objectives established for the Rail to Rail/River ATC Project. The objective of this AA process was to identify a PA for the Rail to Rail/River ATC and provide recommendations to the Metro for further study and/or implementation.

6.1 Summary of Results

Based on the evaluation described in Section 4.0, Table 6.1 presents a summary of the overall rankings based on the five goals established for the Rail to Rail/River Segment B Project.

Objective	Malabar Corridor Alternative		Utility Corridor Alternative		Slauson Avenue Alternative		Randolph Street Alternative	
Goal 1 Mobility/ Connectivity	○	Low	◑	Medium	●	High	●	High
Goal 2 Access to Major Destinations	○	Low	◑	Medium	●	High	●	High
Goal 3 Minimize Transportation Impacts	◑	Medium	○	Low	◑	Medium	●	High
Goal 4 Cost Effective/Ease of Implementation	◑	Medium	◑	Medium	●	High	○	Low
Goal 5 Address Local Communities	○	Low	◑	Medium	◑	Medium	◑	High
Overall Ranking	○	**Lowest**	◑	**Medium/Low**	◑	**Medium/High**	●	**Highest**

Table 6.1: Rail to Rail/River Segment B Alternatives Summary of Rankings

The alternative that ranked the highest based on all five goals is Randolph Street Alternative.

The alternative that ranked the highest based on all five goals is Randolph Street Alternative. This alternative would offer the highest overall performance when considering mobility/ connectivity, access to major destinations, and address local communities' needs. However, this alternative would have significant implementation and cost challenges particularly given existing conflicts with active rail operations, ROW easement needs, as well as high capital costs and annual O&M costs. To select this as a PA for the Rail to Rail/ River ATC, would also require extensive coordination and commitment from UPRR.

As currently configured, the Randolph Street Alternative with pedestrian trail and Class I bicycle facility would need a minimum of 17' ROW. If the UPRR ROW is unavailable, a Class II with protected buffers and/or Class IV bicycle facility on-street for the Randolph Street Alternative may be an option for this corridor.

Below is an overview of general roadway characteristics by segment, for a Class II and/or Class IV bicycle facility for the Randolph Street Alternative from Long Beach Avenue to the LA River.

- Slauson Avenue (Long Beach Avenue to Alameda Street): Class I – Existing 70' ROW (Segment A - north side of Slauson Avenue)
- Alameda Street (Slauson Avenue to Randolph Street): Class II or Class IV– Existing 55' ROW on eastern side of Alameda Street (one lane in each direction; potential reconfiguration of existing sidewalks, landscaping, on-street parking)
- Randolph Street (Alameda Street to Boyle/State Street): Class II or Class IV– Existing 30' to 35' ROW (one lane in each direction with parking; potential reconfiguration of on-street parking)
- Randolph Street (Boyle/State Street to Maywood Avenue): Class II or Class IV– Existing 36' to 40' ROW (one lane in each direction with parking; potential reconfiguration of on-street parking)
- Randolph Street (Maywood Avenue to LA River): Class II or Class IV – Existing 35' to 40' ROW (one lane in each direction on Randolph Street both north and south of rail ROW with parking; potential reconfiguration of on-street parking)

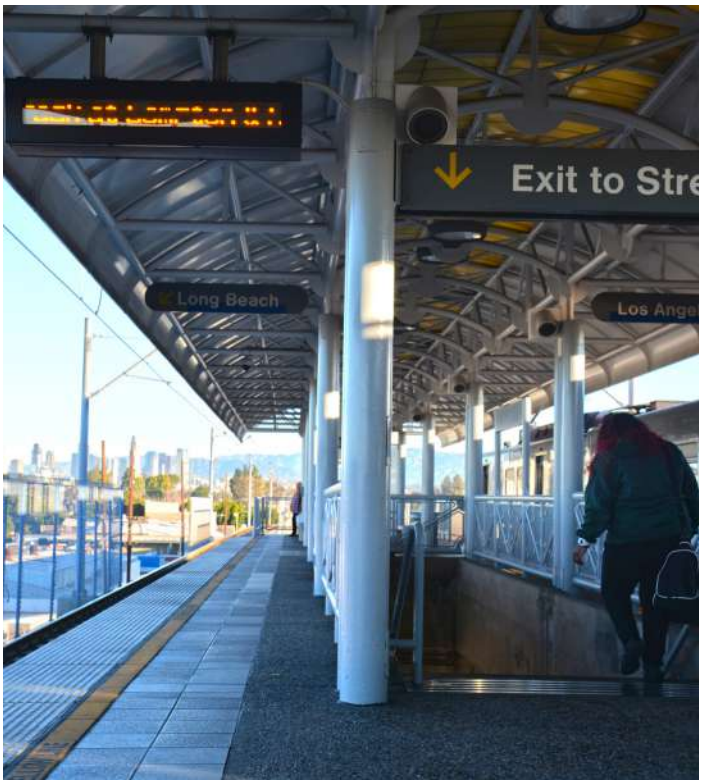
This type of facility would also require significant coordination with unincorporated Los Angeles County and the cities of Maywood, Bell, Huntington Park, and Vernon (from east to west) to convert parking and/or remove one lane in each direction into a bicycle facility.

Although not a Class I facility, this treatment on Randolph Street would result in similar high evaluation results as described above. A Class II/IV treatment may result in lower scores for Objectives 3.1 Traffic Impacts (more signal timings and crossing movements), 3.3 Parking Impacts (removal of additional spaces), and 5.1 Safety (less separation from motor vehicles); however, it would score significantly higher in the overall Goal 4.0 Cost Effectiveness and Ease of Implementation. It is recommended that the next phase of study is to work closely with the cities along the corridor to determine various ATC treatments for the Randolph Street Alternative.

6.2 Connection to Segment A

If the UPRR ROW is unavailable, the Randolph Street Alternative as the recommended PA would connect with Segment A at the intersection of Slauson Avenue and Alameda Street. At this location, Segment A would be a Class I facility on the north side of Slauson Avenue. To connect to Randolph Street, the alignment would transition south on Alameda Street Minor (eastern side)[1] (see Figure 6-1). Currently there is a signalized intersection on Alameda Street Major with a pedestrian crosswalk on the west leg and south leg of the intersection (See Figure 6-2). These two crosswalks could be used to connect Segment A and Segment B at the intersection, or new crosswalks on the east leg and north leg of the intersection could be created with additional safety amenities for pedestrians and bicyclists. At Alameda Street minor and Randolph Street, the connection would utilize existing crosswalks on the east leg and north leg of the intersection which could be upgraded with safety amenities for pedestrians and bicyclists (see Figure 6-3). Figure 6-4 presents potential cross sections of a typical Class IV and Class II facility on Randolph Street. The connection between Segment A and Segment B will need to be further studied and developed as part of the future conceptual design phase.

1 Alameda Street has a Major (west side) and Minor (east side) separated by the Alameda Corridor East (ACE) freight way expressway.



6.3 Next Steps

In conjunction with this screening process estimated costs, implementation plans and schedules, and stakeholder input were developed to further define the Randolph Street Alternative as the PA. The comparative information on the alternatives; input received by stakeholders; and recommendations will inform decision makers so they can recommend the Randolph Street Alternative for further study and design as part of a future environmental review/clearance process.

To help prepare stakeholders for O&M tasks once the ATC is built, a research report entitled Rail to River: Segment B Operations and Maintenance Plan (O&M Plan) was developed that included general O&M considerations and guidance. The O&M Plan was based on other similar O&M plans implemented in LA County and throughout the U.S. for bike facilities and ATCs. The intention of the plan was to be used as a guide for Metro and/or jurisdictions to maintain, operate, and manage the upkeep of the ATC project. The major maintenance and operational items that should be considered for the PA are:

Maintenance

- Sweeping/Blowing/Vacuuming
- Surface Repairs
- Landscaping and Vegetation
- Signage
- Graffiti
- Litter Removal
- Pavement Markings
- Lighting
- Amenities
- Access
- Maintenance Standards and Schedules

Operations

- Facility Management
- Roles and Responsibilities
- Operational Policies
- Public Access and Use
- Hours of Operation
- User Rules and Regulations
- Safety and Secuirty
- Public/Private Collaborative and Cooperative Opportunities
- Private Foundations
- Volunteer and Community Groups
- Adopt-A-Trail
- Non-Profit Organizations

See Appendix C for the detailed O&M Plan.

The O&M Plan informs institutional arrangements, roles and responsibilities, and ongoing operations and maintenance of the ATC. In addition, coordination with Segment A will help in ensure continuous and ongoing O&M standards for the entirety of the Rail to River project. Refinements to the Randolph Street Alternative for future study include the development of more detailed engineering and urban design concepts as currently being conducted for Rail to Rail/River Segment A. Future tasks would include: environmental clearances, conceptual layout, design concepts, detailed traffic analyses, hardscape/landscape, signage and wayfinding, lighting, safety plans, operation and maintenance plans, intersection crossings plans.

In anticipation of future tasks, an initial Project Implementation Schedule was developed (see Appendix D) which included phases of Environmental Phase, Design Phase, Bid Phase, and Construction Phase. The schedule was developed based on several resources including: project description assumptions; previous studies related to both Segments A and B; State and Federal environmental guideline documents; and consultation with Metro. General information provided by Segment A was also used as reference when developing Segment B's Project Implementation Schedule. The implementation approach includes consideration of the environmental path forward, design (conceptual to final), a Design Bid Build (DBB) procurement process, construction phasing, and assumes a Notice To Proceed (NTP) start date of 3/2/2018. In total, the implementation schedule assume a duration of 32 months.

Figure 6-1: Transition from Segment A to Segment B

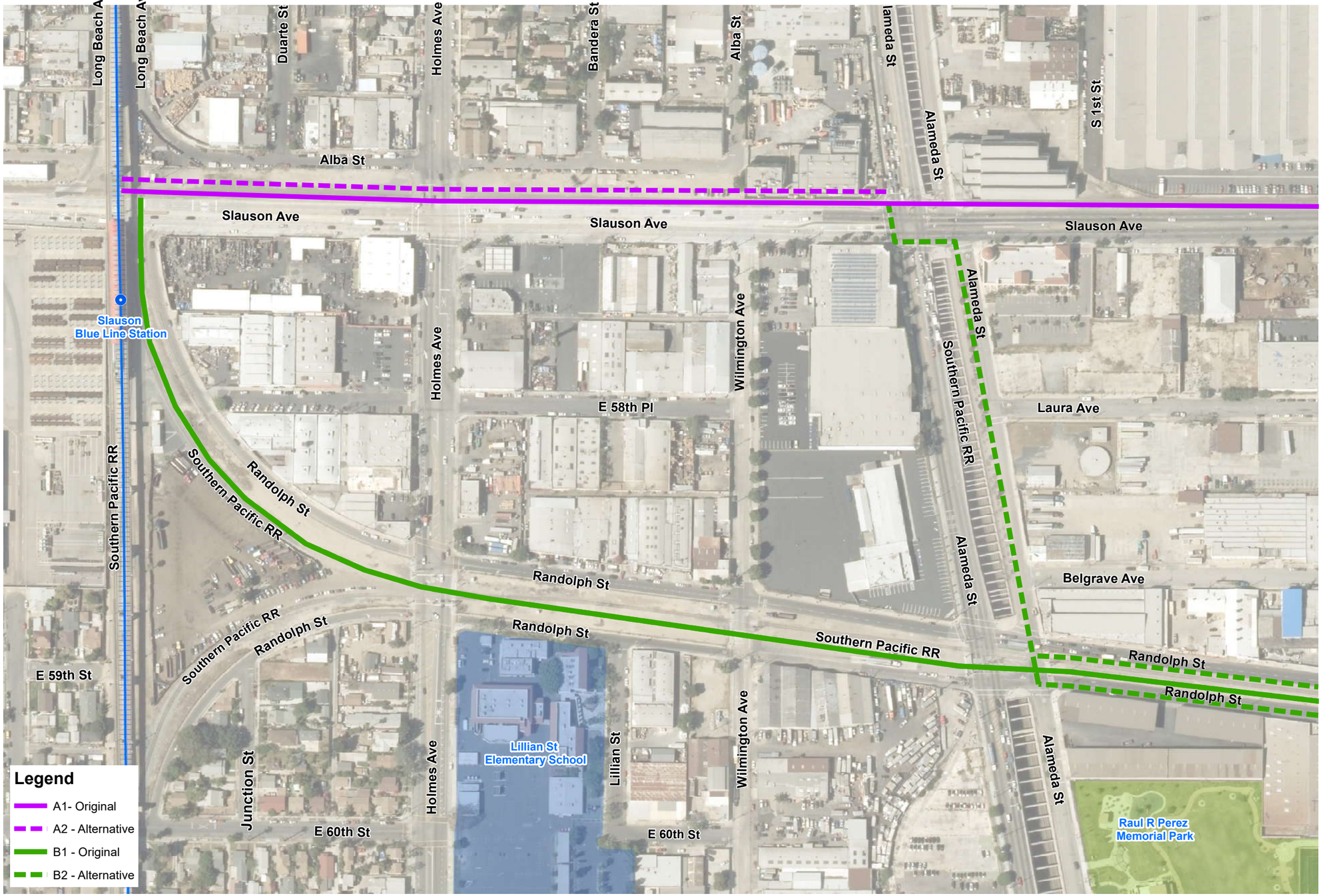


Figure 6-2: Slauson Avenue/Alameda Street Transition

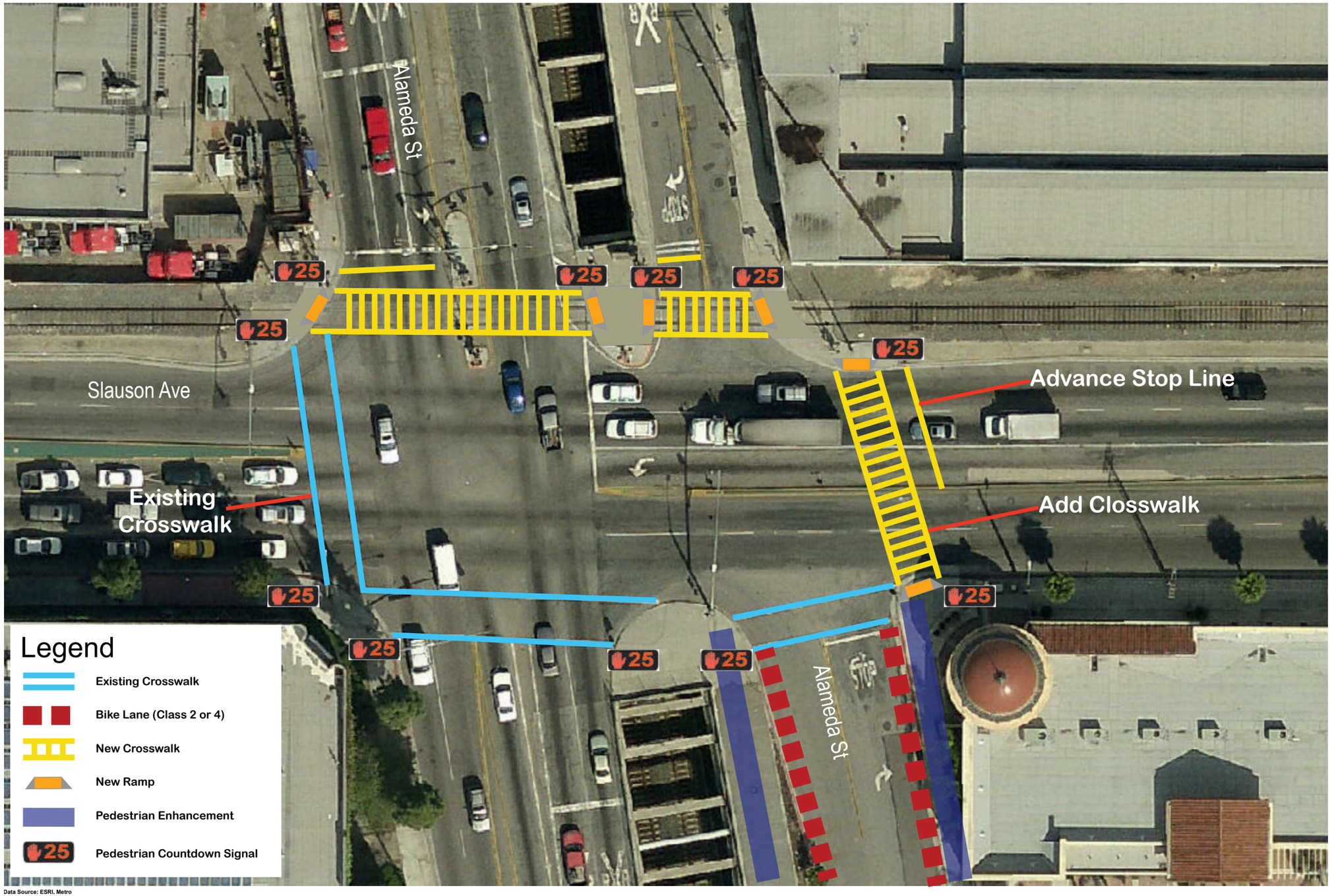


Figure 4-21: Surrounding Land Uses

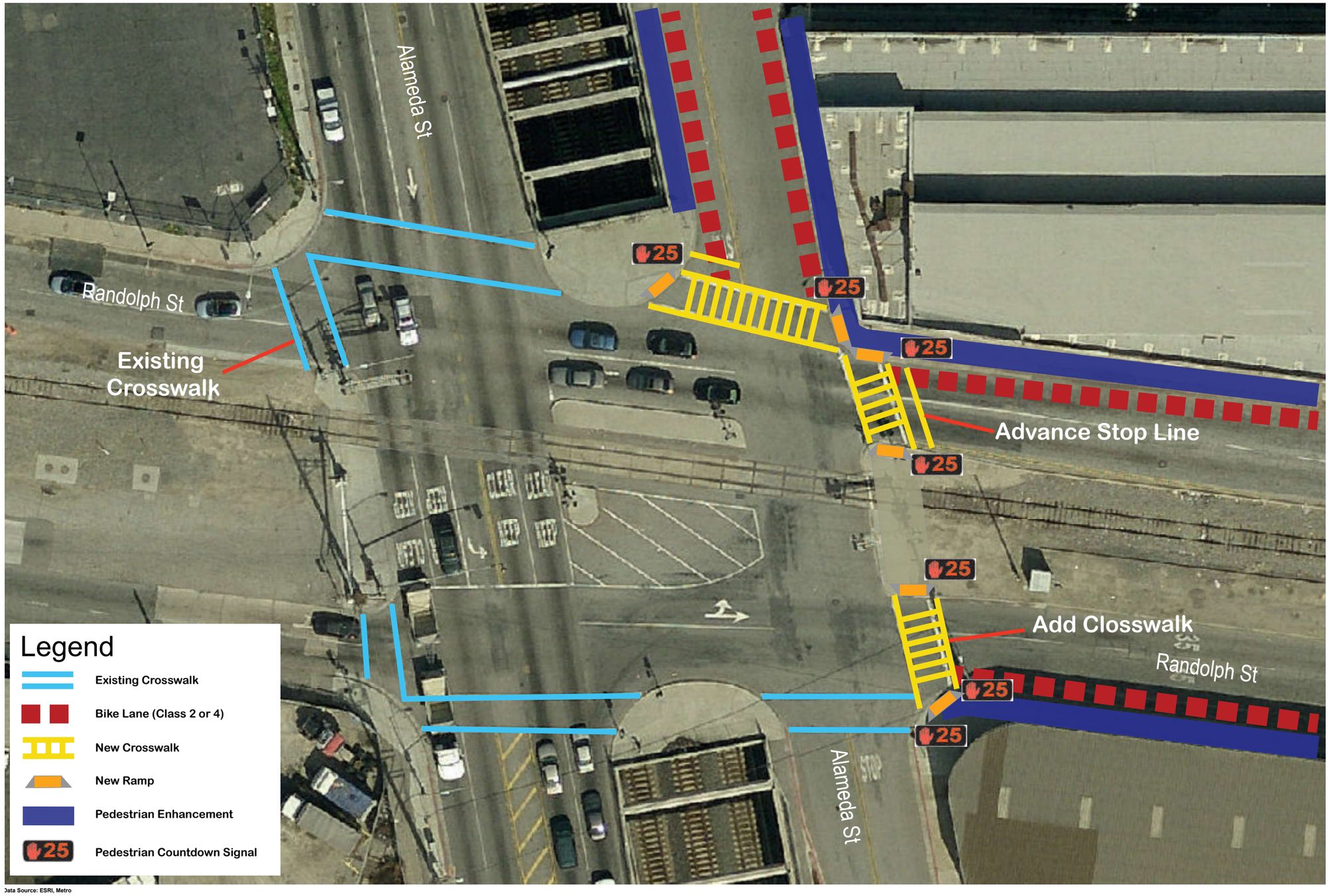
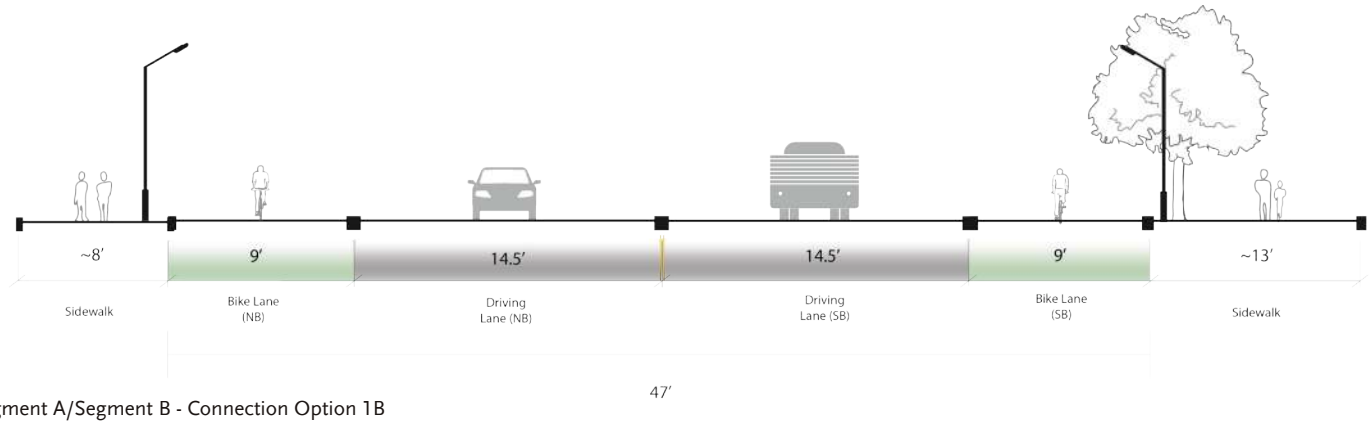
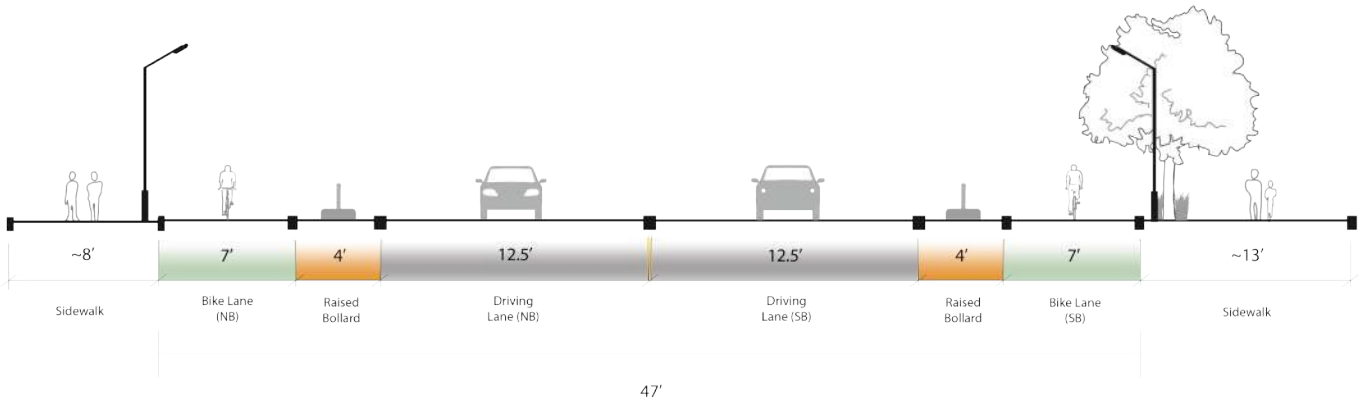


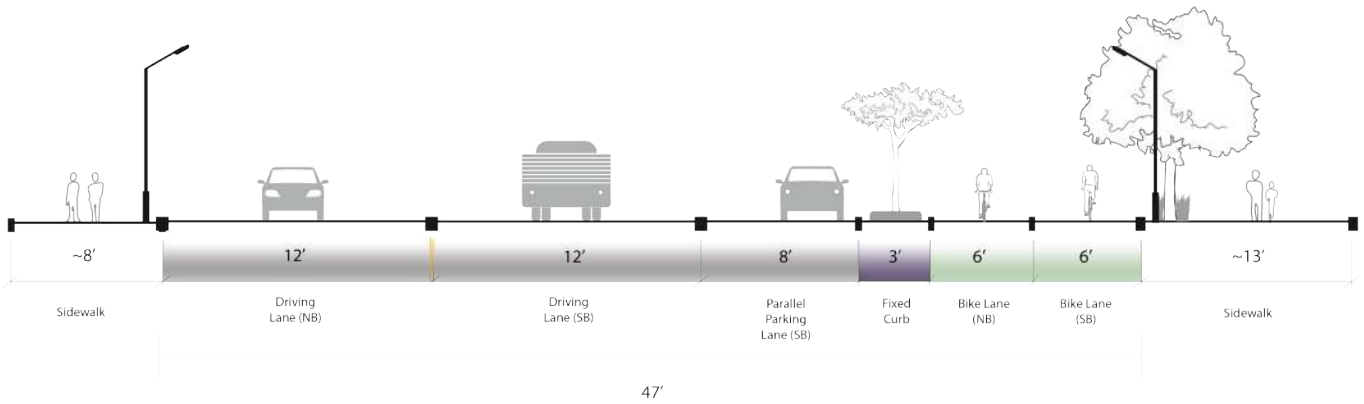
Figure 6-4: Cross Sections of Class II and Class IV



Segment A/Segment B - Connection Option 1B
Class II Bike Lanes



Segment A/Segment B - Connection Option 1B
Protected Class IV Bike Lanes



Segment A/Segment B - Connection Option 1B
Cycle Track with Parking

evan brooks associates

TransLink Consulting LLC

AECOM

Metro®

Rail to River Active Transportation Corridor Project
Alternative Analysis - Segment B

May 2017