ADVANCED REGIONAL RAIL INTEGRATED VISION EAST

THE ARRIVE CORRIDOR

FINAL REPORT

SEPTEMBER 11, 2015

Prepared by: Gruen Associates
HR&A Advisors, Inc.
HDR

Governments SANBAG Working Together

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Funding: The preparation of this report has been financed in part through grant funds from the United States Department of Transportation and the State of California Department of Conservation. In addition, the work upon which this publication is based was funded in part through a grant awarded by the Strategic Growth Council under Grant Number 3010-541, and the San Bernardino Associated Governments.

Table Of Contents

Table Of Contents

REFER TO THE FOLLOWING PAGE FOR THE APPENDICES

** *Refer to SANBAG's website* ***http://www.sanbag.ca.gov/planning2/study_arrive.html***

1

Executive Summary

1.1 Purpose and Background

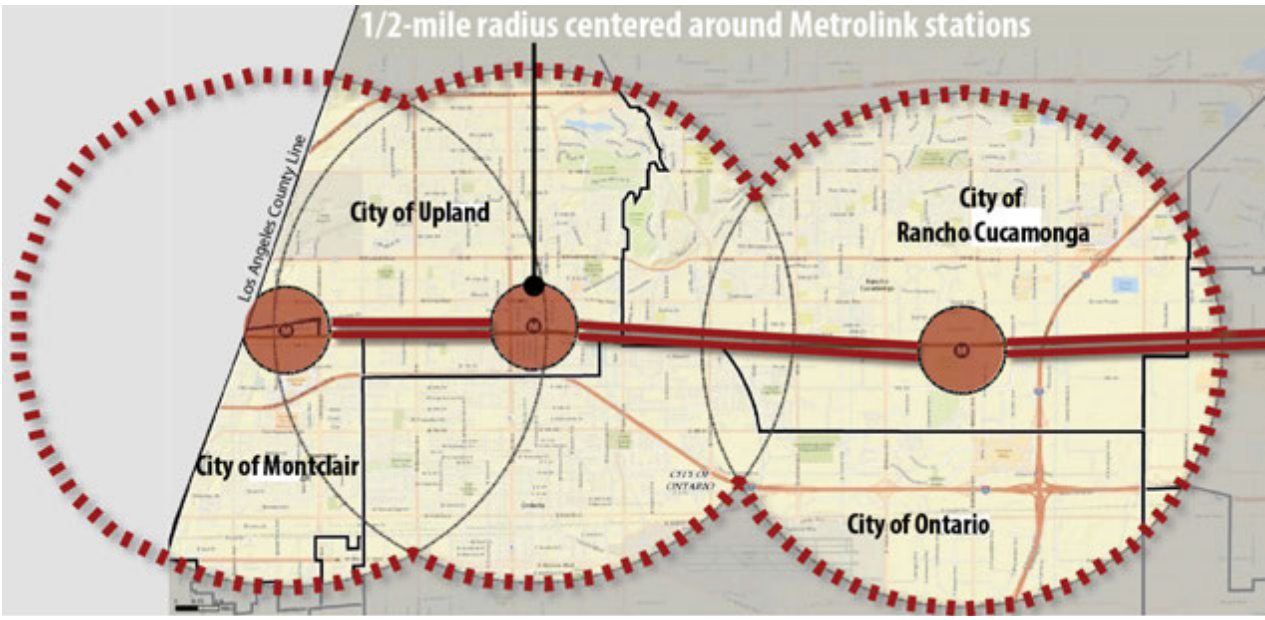


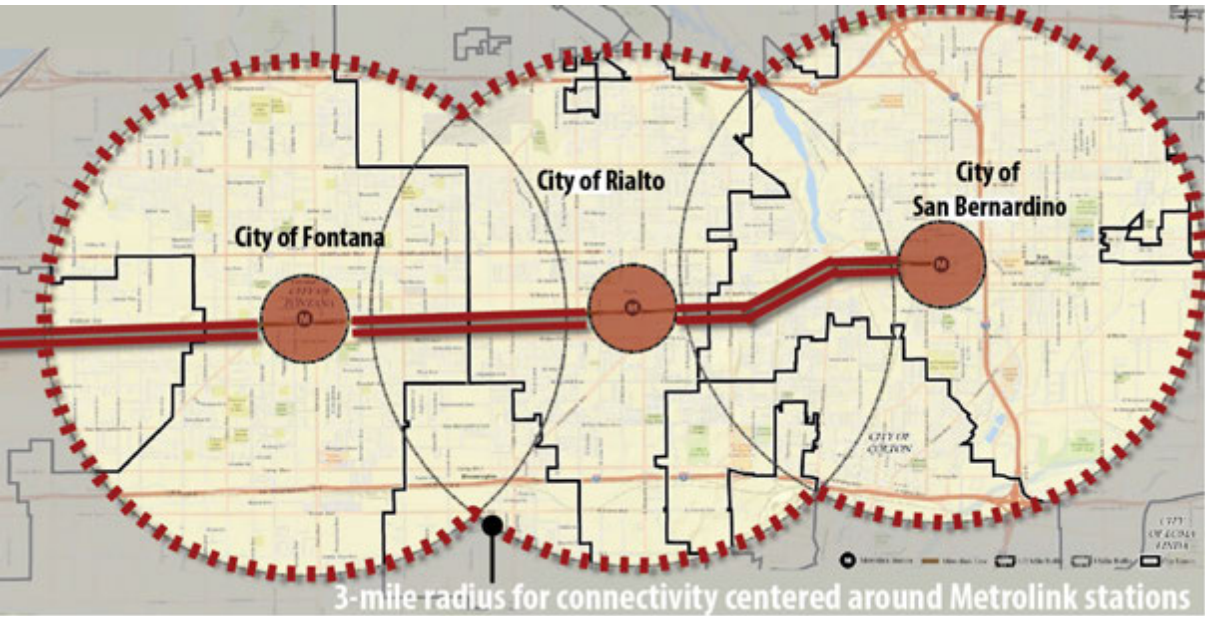
FIGURE 1-1: ***ARRIVE CORRIDOR STUDY AREA***

The Advanced Regional Rail Integrated Vision – East (ARRIVE Corridor) project proposes strategies for transitioning the San Bernardino Metrolink Line, over time, from a traditional commuter rail line to one that promotes transit-oriented development (TOD). Commuter rail differs from light rail in terms of its characteristics and markets served. Commuter rail is most often passenger transit services utilizing diesel or electric propelled trains on tracks that are also utilized by freight and other passenger trains. It generally provides frequent single direction peak-hour service and worktrip-oriented service of long distances with typical station spacing at three to five miles. Light rail by contrast has frequent bi-directional service throughout the day with typical stations at every one to two miles. TOD is typically defined as mixed-use, compact, and walkable development within 1/2-mile of a transit station. The project is a key step in implementing the 2012-2035 SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for San Bernardino County.

1.1.1 Metrolink Commuter Rail – San Bernardino Metrolink Line

Metrolink is Southern California's regional commuter rail system serving over 55 stations in the Counties of Los Angeles, San Bernardino, Orange, Riverside and Ventura. The 60-mile San Bernardino Metrolink Line with 12 stations (not including Los Angeles Union Station), runs east-west through the heavily populated San Bernardino Valley from San Bernardino to downtown Los Angeles, taking approximately 90 minutes in peak directions and connecting a number of cities in between. This project study focuses on the 25-mile segment of Metrolink in San Bernardino County and includes 1/2-mile station areas in Montclair, Upland, Rancho Cucamonga, Fontana, Rialto and San Bernardino. A seventh station in downtown San Bernardino is currently under construction, although it is not a part of this study. The study also considers the 3-mile area around stations in terms of economic analysis, transit connectivity and bicycle circulation to the station and existing activity centers (Figure 1-1).

The San Bernardino Metrolink Line has been highly successful at improving regional mobility, and in 2014 carried approximately 12,000 passengers per weekday. However, even though the San Bernardino Metrolink Line is the busiest line in the system, it is an underutilized transportation asset due to limited bi-directional travel in peak hours and as almost 90% of the riders on the line access the system by car.



Only about 6% walk or bike to the stations, suggesting that land use around the stations is neither proximate enough nor of sufficient density to generate substantial ridership from the area around the stations. For the period of 2014-2015, ridership has decreased which may be attributed to several factors: a reduction in trains on the line due to budget constraints, lower gas prices and fewer passengers in the Inland Empire traveling to downtown Los Angeles to work.

On the positive side, Metrolink has relatively good train frequency for commuter rail with 30-minute peak-hour headways and 60-minute off peak. Multi-modal connections to other portions of the transit network exist as there are transit centers at three of the seven stations on the San Bernardino Metrolink Line and increased TOD activity at the west end of the corridor. Recently-introduced express trains stopping only at San Bernardino, Rancho Cucamonga, Covina and Union Station reduce the San Bernardino to Union Station trip from 90 to 65 minutes.

In 2014, the Los Angeles County Metropolitan Transportation Authority (Metro) and San Bernardino Associated Governments (SANBAG) jointly commissioned the Metrolink San Bernardino Infrastructure Improvement Strategies Study which identified cost-effective infrastructure improvements that would lead to increased average train speed, reduced travel times, enhanced capacity, and enhanced safety. To improve service on the San Bernardino Metrolink Line, two segments were recommended for further study for double tracking, one in San Bernardino County, which is from west of the Rialto Station to just east of the Santa Fe Depot in San Bernardino and another segment in Los Angeles County. A third segment which is located in San Bernardino County on either side of the Upland Station is a third priority although there are major constraints such as narrow right-of-way, which will make implementation costly. This study also recommended improvements for enhancing vehicular and pedestrian safety at the grade crossings. Other recent studies are documented in Section 3.3.1 which indicate potential modifications to the stations and line.

1.1.2 Transit/Land Use Integration and Benefits

Recent research indicates that there is a strong synergy between transit and land use in the 1/2-mile area around transit stations. Predictable transit provides accessibility for those that live and/or work in station areas, offers an alternate choice to using a car and can act as a catalyst for economic development in the areas around each of the transit stations. In turn,

appropriately compact and dense TOD in a walkable environment located in station areas increases ridership on the transit line, promotes healthy lifestyles and increases land values. For example, development for the Hiawatha Rail Line in Minneapolis, Minnesota has produced an average price premium of $15,755 per multi-family properties that have sold since 2004[1]. TODs adjacent to transit allows for a family living in a station area to choose to have fewer or no cars, at a savings of over $9,000 per year per car[2], which can be used for other household expenses. With increased ridership on the transit line, obtaining funding for transit improvements may become more feasible. In addition, there are environmental benefits of lower emissions, reduction of energy consumption, and decreased traffic congestion.

For the ARRIVE Corridor, improvements to Metrolink, its transit connections and additional development of the station areas with transit-supportive uses at greater densities and intensities are essential to creating more thriving, vibrant areas that are walkable and provide mobility options in the region. Due to funding constraints, it may not be feasible in the short-term to implement major improvements to the Metrolink system. To increase ridership, it is critical that the cities encourage transit-supportive development in the station areas and pedestrian, bicycle, and bus access improvements to Metrolink. There is also an opportunity to join together in a corridor-wide collaboration to market TOD along the entire corridor and lobby for funding for major improvements on Metrolink. Simultaneously, pursuing both TOD and Metrolink improvements can result in achieving the vision for the ARRIVE Corridor.

1.1.3 Engagement Process

The project engaged a broad cross-section of transportation, urban planning, environmental and other stakeholders to define the vision, identify barriers and identify implementation strategies both corridor-wide and for individual cities. A Technical Advisory Committee (TAC) included SANBAG, Southern California Association of Governments (SCAG), Omnitrans, Metrolink, local city staff and consultants. The ARRIVE Corridor Team also held individual stakeholder meetings and City manager meetings, convened an Urban Land Institute (ULI) Advisory Services Panel and conducted transit user intercept surveys and meetings.

TOD EXAMPLE IN OREGON

TOD EXAMPLE ON THE GOLD LINE

TOD EXAMPLE IN CULVER CITY

1.1.4 Overall Project Goals and Vision

Project goals for the study include:

- Define an overall vision and implementation strategy for transitioning the San Bernardino Metrolink Line to a fully functional, integrated regional rail/TOD corridor.
- Set the stage for incorporating implementation initiatives into SANBAG, Metrolink and local jurisdictions' plans, policies, and action plans.
- Make the station areas their own destinations, rather than the bedroom community for Downtown Los Angeles.
- Consider how Metrolink capacity and operational improvements might be staged over time to accomplish the vision.

*1 Goetz, Edward G., **The Hiawatha Line: Impacts on Land Use and Residential Value**, February 2010*
*2 American Automobile Association, "**Your Driving Costs Study of 2014**"*

- Determine how to improve access to destinations along the corridor from Metrolink station areas.
- Document the results for continuing reference by SANBAG and local jurisdictions to foster implementation of the corridor vision over time.
- Provide a "lessons learned" document that can be applied to other commuter rail corridors.

Figure 1-2 illustrates the planning process through implementation.

*FIGURE 1-2: **PROCESS LEADING TO IMPLEMENTATION OF THE VISION***

THE SANTA FE DEPOT LOOKING EAST

METROLINK STATION, UPLAND, CA

From the engagement process and the project goals, the following Vision Statement was developed:

"Transition the ARRIVE Corridor, over time, to an integrated TOD/regional rail corridor, serving residents and businesses within active, growing, transit-oriented communities at the station locations and providing a high degree of transit interconnectivity to Valley destinations."

1.1.5 Challenges

The ARRIVE Corridor team and TAC recognized that achieving the vision will not be easy and many challenges and barriers exist such as:

- Relatively infrequent transit service
- Cost of redevelopment
- Market conditions not ripe for vertical development, higher densities and structured parking in some stations
- Loss of financial tools with the dissolution of redevelopment agencies (e.g., land assembly for development)
- Competition from greenfield sites
- Perceived limited development opportunities around some station areas and high degree of parcelization
- Key destinations outside station "catchment area" (e.g. hospitals, malls, Ontario Airport)
- Noise and air quality issues from freight and commuter rail activity
- Fares perceived as too high, especially for short mid-day trips or weekdays
- Difficulty in communicating the value proposition to private developers and capital markets that dense mixed-use/or mixed-income housing projects can be viable and valuable at TOD sites

1.2 Overall Vision Strategy

To achieve these goals, address the challenges and implement the vision statement, the ARRIVE Corridor overall vision strategy includes both a corridor-wide strategy and individual decisions that need to be made by the cities in the context of the corridor-wide game plan (Figure 1-3). For the corridor-wide strategy, it will be critical to keep strengthening the transit and multi-modal network including Metrolink, other planned bus and rail projects and pedestrian and bicycle improvements. To transition the project from commuter rail to regional rail, it will be important to build a critical mass of origins and destinations along the corridor that will foster the need for transit throughout the day in both directions and along the corridor. Improving multi-modal connections for bus, bicycle, and in the long-term, for rail between the stations and peripheral activity centers along with internal station area pedestrian amenities will build ridership and make each station area more walkable and livable. Finally, the corridor-wide strategy includes positioning the entire corridor for investments by the development community.

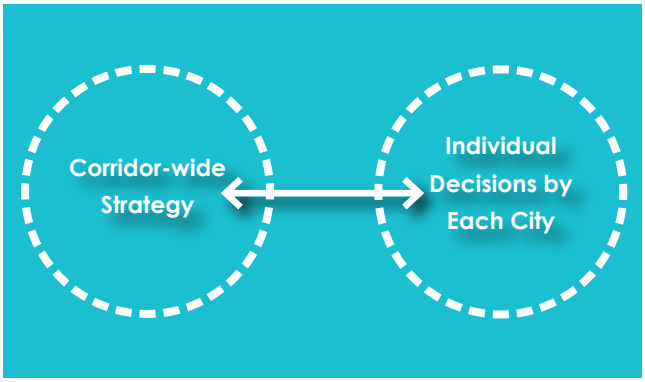


*FIGURE 1-3: **TWO-PRONGED OVERALL VISION STRATEGY***

The individual cities' roles in the overall vision strategy are to:

- Refine or adopt regulatory plans to be conducive to TODs, including a transit-supportive mix of uses, placemaking, and intense development in a walkable environment.
- Streamline the approval process to reduce uncertainty and time frame for development that meets ARRIVE Corridor goals.
- Continue to develop public/private partnerships with developers.
- Continue to provide funding for improvements in the station area, both in collaboration with all Corridor cities and individually.
- Communicate and participate with other agencies and cities to implement corridor-wide strategy.

1.3 Overall Corridor-Wide Vision

To achieve the overall corridor-wide vision, it is critical for the cities to join together for the following reasons:

- Multiple jurisdictions prompting and supporting improvements to Metrolink and entire transit network provides more leverage
- More effective way to achieve transit and land use integration
- Can make more compelling case for investment
  - In seeing the larger opportunity
  - In obtaining grant funding
  - In generating development interest
  - Making the case that station success leads to corridor success (and vice versa)

The overall corridor-wide vision shown in Figure 1-4 includes six components:

- Metrolink Operations Improvements (long-term)
- Metrolink Station Area Physical Character and Infrastructure Enhancement for future TODs (1/2-mile buffer)

- Metrolink Station Accessibility and Mobility Improvements in the 3-mile area from the Corridor
- Champion the Expansion and Operation of the Transit and Multi-Modal Network
- Create a Dynamic Urban Environment through Land Use Tailored to the Individual Stations
- Park-Once Districts

1.3.1 Metrolink Operational Improvements (long-term)

- Double-tracking of two segments to address future demand and capacity
- Increasing train frequency and mid-day trains
- Reducing fare structure for short trips
- Improving air quality through new equipment
- Ticketing Improvements

1.3.2 Metrolink Station Area Physical Character and Infrastructure Enhancements for Future TODs (1/2 mile)

- Railway corridor as a "transit entrance" to the cities
- Adequate land use setback if right of way (ROW) constrained for Metrolink and other improvements
- Landscape/Open Space and sidewalk improvements for a more pedestrian-friendly environment
- Quiet Zones as a valuable improvement for train/neighborhood/future TOD compatibility
- Providing fiber optic utilities to adjacent uses

1.3.3 Metrolink Station Accessibility and Mobility Improvements (3 miles)

- Pedestrian and bicycle accessibility to the Metrolink stations
- Bus service/access to the Metrolink stations (1st and last mile)
- More seamless rail/bus integration

1.3.4 Champion the Expansion and Operation of the Network

- Gold Line Extension from Azusa to Montclair and the Ontario Airport (ONT) possibly in the long-term
- West Valley Connector and ONT connection
- Redlands Rail
- Metrolink improvements mentioned previously

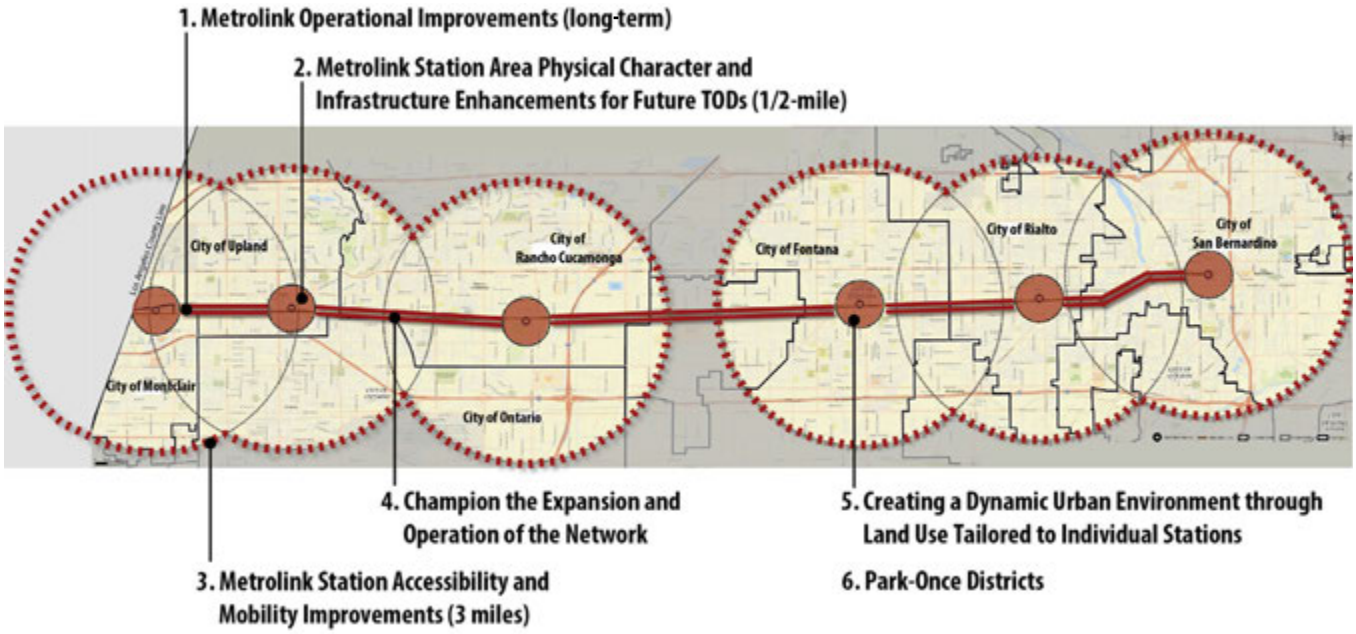


FIGURE 1-4: ***OVERALL CORRIDOR-WIDE VISION***

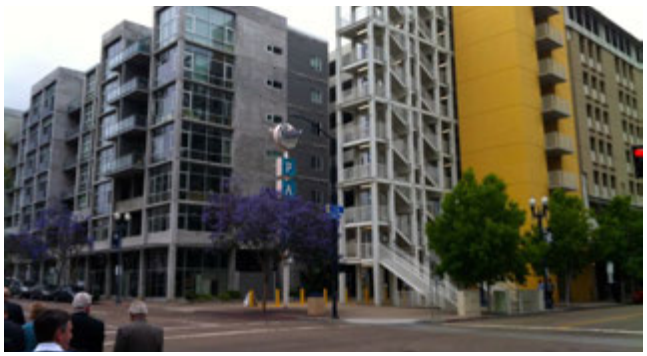
1.3.5 A Dynamic Urban Environment Through Land Use Tailored to Individual Stations

- Branding of stations along the corridor
- Transit-supportive uses
- Higher density/intensity residential and mixed-use compact TOD development at the stations, as appropriate
- Transit-related retail and commercial uses
- Adaptive reuse
- Attract daytime (employment-focused) and evening (leisure-focused) populations

COMPACT TOD DEVELOPMENT IN OAKLAND,C A

1.3.6 Park-Once Districts[3]

- Shared parking allowing for multiple stops but park only once
- Enhancing place-making by freeing up space for development and public gathering



CONCEALED PARK-ONCE STRUCTURE

1.4 Vision Strategies for Individual Cities

1.4.1 Themes and Market Orientation for Station Areas

In marketing the entire Corridor to potential developers, existing and future transit users, stakeholders and community members, the consultant recommends a theme for the future character envisioned for each station area. These themes illustrated in Figure 1-5 identify the uniqueness of each station area and show how these themes complement each other.

- On the west, the **North Montclair Regional Transit Village** is depicted in the North Montclair Downtown Specific Plan (NMDSP) as a transit neighborhood focused on the Montclair Transcenter. This mixed-use transit neighborhood will be combined with the existing and soon to be renovated regional shopping center, Montclair Plaza. Due to the North Montclair Regional Transit Village's location near the Los Angeles and San Bernardino County lines, the North Montclair Regional Transit Village will be a regional destination in both counties accessible from the Metrolink system.
- On the east, the **Santa Fe Depot Employment District** is a node for existing and future employment in its station area compatible with the active and essential Burlington Northern Santa Fe (BNSF) yard activities and the historic Santa Fe Depot. Increases in housing densities in the area are not recommended.
- In between the North Montclair Regional Transit Village and the Santa Fe Depot Employment District, are three downtown districts, Upland, Fontana, and Rialto. Each station area has its own unique character, but all have similar characteristics: 1) the historic heart of each city, 2) new infill development potential and 3) a mix of uses and densities and intensities which are the highest within the cities. The typology for these three station areas represent a **Downtown Transit Village**.
- Rancho Cucamonga's station area is classified as the **Rancho Cucamonga New Transit Community**. As most of the TOD development here will be entirely new and either located on

3 A parking structure or lot shared by a mix of uses in an area and someone visiting or working in the area would park there and walk to multiple activities in an area without moving their vehicle

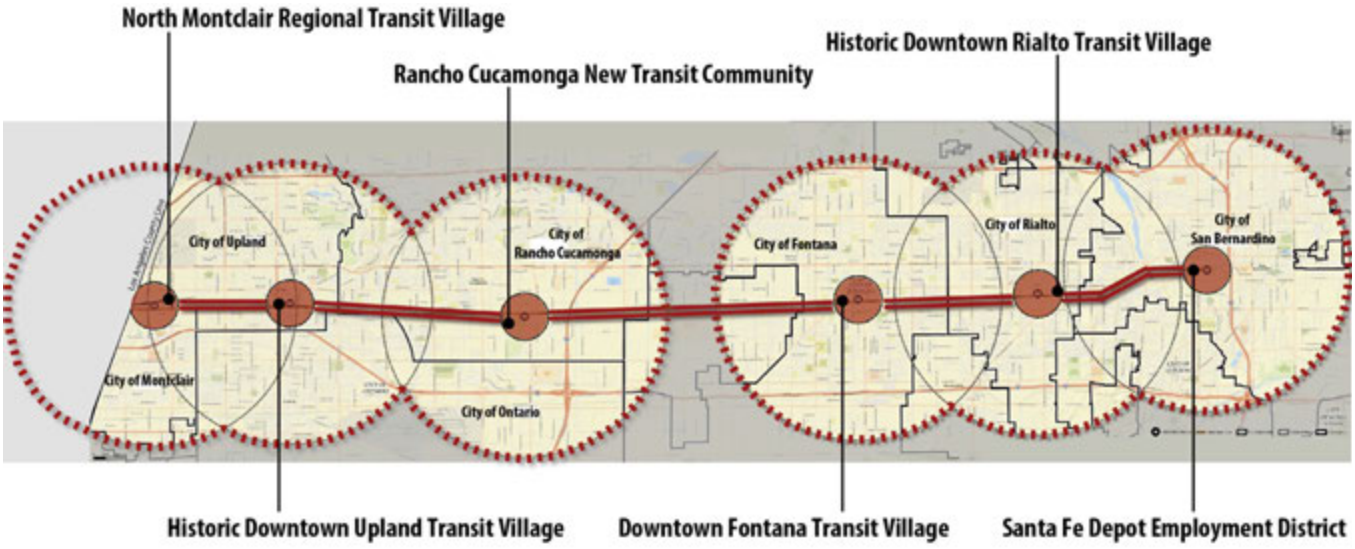


FIGURE 1-5: ***POTENTIAL THEMES TAILORED TO THE CHARACTER OF EACH STATION AREA***

the existing golf course site or on existing surface parking lots, it is considered to be a new mixed-use community of neighborhoods with residential, employment and related amenities made up of small walkable blocks with strong connections between the new uses and the station.

1.4.2 TOD Policies and Plans

All six station areas are envisioned to have the characteristics of a TOD including compact, mixed-use development in a walkable environment connected to transit. Many of the individual cities recognize the value of transit-supportive policies in their General Plan and Specific Plans and include these in their last updates. Refer to the ARRIVE Corridor Briefing Book – August 2014 for a discussion of each city's plans and policies. Fontana and Upland are currently updating their General Plans, and are encouraged to increase densities and intensities in these plans. Rancho Cucamonga will amend their General Plan and Specific Plans to respond to a new major development proposed in the station area. Refer to Section 4.0 of this report for individual city recommendations.

TOD EXAMPLE IN LOS ANGELES

BIKEWAYS IN EUROPE

1.5 IMPLEMENTATION STRATEGY RECOMMENDATIONS

Positioning the ARRIVE Corridor cities to attract investment and higher-intensity transit-oriented development must come hand-in-hand with strengthening Metrolink's operations and infrastructure along the corridor. Cities should work collectively to build a "critical mass" of origins and destinations which will encourage intra-regional ridership and help change perceptions of both station areas and the transit system itself. A series of coordinated short-, medium- and long-term implementation actions can support TOD initiatives and strengthen transit use along the ARRIVE Corridor.

1.5.1 Short-Term Actions (0-5 Years)

Building on the series of TAC meetings and active engagement of Corridor stakeholders, cities should work collectively to maintain implementation momentum by initiating a series of actions over the next five years:

- **Marketing TOD Opportunities (Marketing Board)**
  - An independent, non-profit multi-jurisdictional "Marketing Board" representing the ARRIVE Corridor cities should be established under the auspices of SANBAG to promote station-area development opportunities.
  - The near-term focus should be to embark on a well thought-out marketing campaign to garner development interest along the ARRIVE Corridor and to promote TOD with member cities' leadership.

- **Station Area Improvements**
  - Cities should advance station-area needs, as described in Section 3.3 of this report.
  - Cities should prioritize new station area improvements in their capital plans and incorporate wayfinding signage and other placemaking design in new projects and when making regular repairs and upgrades. Cities should also explore federal and state transportation funding sources to support transportation improvements to the station areas.

- **Implementing Park-Once Districts**
  - Cities should enable shared parking on Metrolink and other parking lots, allowing visitors to make multiple stops within a TOD district without moving their cars and increase parking efficiency to free-up space for infill development and public gathering places.
  - To encourage higher-intensity development, cities should in plans allow for unbundling of parking from commercial and residential uses and off-site parking to fulfill requirements.

1.5.2 Medium-Term Actions (5-10 Years)

Many of the initial actions taken in the first five years will set the stage for more transformative actions. ARRIVE Corridor cities, SANBAG and Metrolink should review objectives and strategies on a regular basis, in response to changing needs, funding sources and performance evaluations. Some suggested medium-term actions which will need to be tailored to future conditions, include:

- **Expanding and Strengthening the Marketing Board**
  - The Marketing Board should lead multi-jurisdictional initiatives to pursue funding for corridor-wide initiatives and coordinate with individual cities' branding/marketing efforts.
  - It should also establish itself as a 'clearinghouse' for TOD developers in the region, and begin to work towards a self-sustaining entity with expanded membership of other TOD-supportive communities and private sector partners.
  - In the short and medium-term, the Marketing Board should refresh and refocus branding and messaging efforts.

- **Metrolink Operational Improvements**
  - Metrolink should work to encourage ridership by increasing service levels and frequency, completing coordination with other local transit agencies, and re-evaluating fare levels to encourage inter-regional ridership.

- **Consider Mechanisms to Monetize Parking**
  - Cities should consider implementing permit or fee-based parking at all lots, based on lot utilization and the success of pilot initiatives.
  - To ensure that revenues are set aside for future parking infrastructure, cities should consider establishing Parking Benefits Districts, as well as rationalizing their portfolios of parking-associated land. This may entail acquiring parcels for parking where economically feasible, and/or leveraging underutilized parking lots to support higher-intensity development.

1.5.3 Long-Term Actions (10+ Years)

With economic conditional improvements expected in the Inland Empire to improve in the next ten years, the ARRIVE Corridor should be well-positioned to aggressively pursue transit improvements and support higher-intensity TOD around station areas. Some actions that may support these pursuits include:

- **Consider Establishing an ARRIVE Corridor Economic Development Corporation (EDC)**
  - As the Marketing Board matures, it may take on a more active role in supporting development, and can potentially evolve into a sub-regional EDC, contingent on continued success and enhanced partnership between the ARRIVE Corridor cities.
  - In addition to the Marketing Board's original functions, as an EDC it might purchase, hold and consolidate land until it can be sold to be developed with TOD, as well as support development through partnerships with additional funding services, such as EB-5 Immigrant Investor Regional Centers and New Market Tax Credit Community Development Entities.

- **Metrolink Infrastructure Improvements**
  - To support intra-regional transit, SANBAG and Metrolink should evaluate building double-tracks "priority segments" to allow more frequent service, upgrade rolling stock and evaluate a transition to Diesel Multiple Unit (DMU) trains. Engineering, planning, environmental and funding for these improvements should start as soon as possible.
  - Meanwhile, with cities' cooperation, SANBAG and Metrolink should aim to reduce at-grade crossings, improving corridor-wide safety and preserve expanded right-of-ways to allow for future, more extensive double-tracking.

- **Building Structured Parking at Stations**
  - Consider consolidating station-area parking into structured facilities to allow efficient, shared parking and encourage transit use.
  - In addition to a Parking Benefits District, cities who plan to build structured parking may consider establishing Parking Authorities, which have wide authorities to support the development of structured parking, including collecting revenue, acquiring property and issuing bonds.

1.5.4 Funding

A wide variety of funding sources can support the short- (0-5 years), medium- (5-10 years) and long-term (10+ years) actions described above. Some funding sources are more restrictive and only applicable to certain actions, while other funding sources could support a range of regional improvements and these sources and uses are described in the funding section of this document. Relevant funding sources include:

- **Cap and Trade Fund Allocations**
- **Value Capture through Enhanced Infrastructure Financing Districts (EIFDs) or Tax Subventions**
- **EB-5 Immigrant Visa Investment**
- **New Markets Tax Credits (NMTCs)**
- **Federal and State Transportation and Funding Sources**
- **Community Facilities Districts (CFDs)**
- **Benefit Assessment Districts and Business Improvement Districts (BIDs)**
- **Parking Districts**
- **Affordable Housing Funding**
- **Parks and Open Space Funding**

THIS PAGE IS LEFT INTENTIONALLY BLANK

2

Introduction and Background

2.1 THE ASSIGNMENT

Metrolink, which began operating in 1992, is Southern California's regional commuter rail system serving over 55 stations running through the Counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura (Figure 2-1). The San Bernardino Metrolink Line (SB Line), the busiest on the system, runs east-west through the San Bernardino Valley connecting communities along its length to downtown Los Angeles. The distance from downtown Los Angeles's Union Station to the San Bernardino Santa Fe Depot, the current eastern terminus, is approximately 60 miles. The eastern 25 miles of the San Bernardino SB Line is in San Bernardino County and has six stations serving the cities of Montclair, Upland, Rancho Cucamonga, Fontana, Rialto and San Bernardino (Figure 2-2).

The SB Line carries approximately 12,000 passengers per day with the majority of the passengers destined to downtown Los Angeles with connections via multiple

FIGURE 2-1: ***THE METROLINK SYSTEM***

Source: *Metrolink*

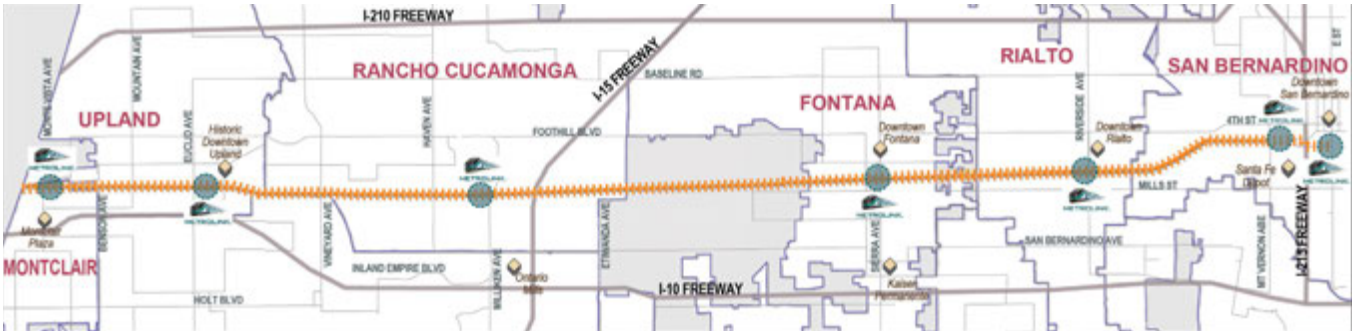


FIGURE 2-2: ***THE SAN BERNARDINO METROLINK LINE***

modes of transit to other areas. Almost 90% of the SB Line passengers access the system by car. Only six percent walk or bike to the station suggesting that land use around the stations does not have transit-supportive uses which are dense or intense enough and/or bus, pedestrian and bicycle connections are not sufficient to generate substantial ridership from station areas.

The ARRIVE Corridor Study aims to develop a land use vision and practical strategies for transitioning the SB Line over time from a traditional commuter rail corridor to a more integrated TOD/regional corridor. The intent is to increase the potential for San Bernardino County stations as significant transit and pedestrian nodes of activities that support ridership of the system and create active, vibrant, mixed-use TODs in each station area.

The assignment is to create an integrated regional rail/land use vision and implementation strategy for the SB Line and help cities derive maximum benefits from the Metrolink asset. The project is a key step in implementing the 2012-2035 SCAG RTP/SCS for San Bernardino County.

The report includes recommendations for making Metrolink a more robust regional rail system that provides more frequent all-day, bi-directional services and includes recommendations for the corridor-wide system as well as recommendations for individual cities with stations.

To provide greater identity for this corridor, the phrase "The ARRIVE Corridor" is being used as the corridor designation. The acronym ARRIVE stands for "Advanced Regional Rail Integrated Vision - East." The term captures the thrust of this initiative: rail service will not merely send more commuters westward to Los Angeles, but will support a series of in-County destinations in their own right. One of the objectives is to increase the number of passengers "arriving" via rail in the County to work, shop, recreate, and do business in the areas around the stations. Project goals for the study include:

- Define an overall vision and implementation strategy for transitioning the SB Line to a fully functional, integrated regional rail/TOD corridor.
- Set the stage for incorporating implementation initiatives into SANBAG, Metrolink and local jurisdictions' plans, policies and action plans.
- Make the station areas their own destinations, rather than the bedroom community for downtown Los Angeles.
- Consider how Metrolink capacity and operational improvements might be staged over time to accomplish the vision.
- Determine how to improve access to destinations and major activity centers within the 3-mile catchment area along the corridor from Metrolink station areas.
- Document the results for continuing reference by SANBAG and local jurisdictions to foster implementation of the corridor vision over time.
- Provide a "lessons learned" document that can be applied to other commuter rail corridors.

This project engages a broad cross-section of transportation, urban planning, economic, environmental and other stakeholders to map out a vision for the corridor, to address the barriers and opportunities and to define the steps for implementation. This will include the types of investments that will be needed, as well as the mechanisms that may need to be put in place to ensure success. The focus is not primarily on land use planning, although a certain amount of land

use planning is necessary. The primary emphasis is on addressing the economic, institutional and environmental barriers to TOD.

The study examines corridor-wide issues as well as opportunities and barriers within each Metrolink station area, and devises implementation approaches for the creation of sustainable communities around each station. The effort is documented in such a way as to extract lessons and principles that can be applied to other commuter rail corridors in the region and State. Each station area has its own character, issues and constraints, and will require unique solutions. However, solutions will have themes, and these solution "themes" should be transferable to many of the other stations on the Metrolink system.

A "system view" is important to the success of this project, as success in sustainable TOD requires a critical mass of both origin and destination trip-making potential. This means going beyond the traditional commuter rail land use paradigm of housing in the suburban station areas and commercial in the downtown core. Jobs, retail opportunities and housing must be represented at multiple station locations to provide regional benefits and must also be present within most individual station areas to benefit and sustain each surrounding local community. Although the density and mix of these activities will vary from one station to another, TOD is more likely to succeed as a system if the activities are not clustered at individual stations as single uses.

2.2 Planning Area and Process

The study area for the project includes the SB Line, 1/2-mile buffer around the station area for land use changes, and an approximately 2.5- to 3-mile buffer area for exploring bicycle improvements and market analysis. Figure 2-3 shows this study area, the stations and major destinations in the area. The 1/2-mile area is typically a ten-minute walking distance from the station and the 3-mile area is the distance a cyclist will ride to the station.

FIGURE 2-3: ***EXISTING TRIP GENERATORS IN THE CORRIDOR***

Source: *SANBAG, Gruen Associates*

2.2.1 Metrolink Lines and Station Areas

The ARRIVE Corridor Briefing Book, dated August 2014 and developed in preparation for the ULI Advisory Services Panel, describes the existing conditions, current planning, opportunities and constraints for the SB Line and each station area. The characteristics of each station area are summarized below:

- The Montclair Transcenter is surrounded by a vast park-and-ride lot and the station area contains commercial, residential and industrial uses. The City of Montclair has an adopted NMDSP, which establishes the framework for creating a TOD around the Transit Center. The Montclair Transcenter also serves as a transit hub with multiple Omnitrans and Foothill Transit bus routes feeding the station.
- The Upland Metrolink Station is located in the midst of downtown Upland and is well connected to the adjacent pedestrian and bicycle network. The station area contains the civic center and older storefront commercial development, which is itself surrounded primarily by low-density residential. The Historic Downtown Upland Specific Plan guides TOD.
- The Rancho Cucamonga Metrolink Station area is dominated by industrial land uses and an existing golf course, although there are areas of medium-density residential development in the southern part of the station area. The station is surrounded by large areas of commuter parking, which are well-utilized during the workday.
- The Fontana Metrolink Station is located in downtown Fontana and is well served by nine bus routes. It is surrounded by a mix of commercial, civic and residential uses. Fontana completed a TOD analysis through SCAG's Compass Blueprint program in the Downtown Overlay District.
- The Rialto Metrolink Station is located within downtown and the station area is characterized by revitalized small-scale commercial, the Civic Center, older residential neighborhoods, industrial and vacant lands.
- The San Bernardino Metrolink Station is a regional transit station serving the greater San Bernardino area. Transit services at the site include Omnitrans local buses and Mountain Area Regional Transit Authority (MARTA) bus service. Amtrak service is available at the adjacent historic Santa Fe Depot.

In addition, the ARRIVE Corridor Team is evaluating opportunities to better connect Metrolink to additional major destinations such as Ontario International Airport, hospitals, malls and other activity centers that are within several miles of the Metrolink corridor.

Table 2-1 presents the weekday boardings by station on the SB Line for the second quarter of Fiscal Years 2014 and 2015. Ridership has decreased in the last year with the largest decrease at the Rancho Cucamonga Metrolink Station. This likely is due to the charging of a parking fee in Rancho Cucamonga that was initiated in June 2014. The City of Rancho Cucamonga indicated that the ridership and parking utilization appears to be increasing back to 2014 levels.

TABLE 2-1: ***WEEKDAY METROLINK AND BUS BOARDINGS BY STATION IN FISCAL YEARS 2015 AND 2014***

Station	Metrolink Boardings FY15,Q2	Metrolink Boardings FY14, Q2	Weekday Bus Boardings (2014)
Los Angeles Union Station	12,407	12,573	NA
Montclair	293	289	896
Upland	502	516	--
Rancho Cucamonga	798	969	22
Fontana	331	425	3,709
Rialto	243	256	21
San Bernardino Santa Fe Depot	712	764	240

Source: www.metrolinktrains.com

Table 2-1 also illustrates bus boardings in 2014. Table 2-2 presents the number of parking spaces and 2014 parking utilization rates at each station.

*TABLE 2-2: **NUMBER OF PARK AND RIDE SPACES AND PARKING UTILIZATION RATE AT EACH STATION***

Station Areas	Number of Park and Ride Spaces	Parking Utilization (2014)	Surface Parking Expansion Planned
Montclair	1,836	58.4%	
Upland	294	96.3%	(1)
Rancho Cucamonga	1,000	96.3%	(1)
Fontana	309	70.2%	
Rialto	208	67.8%	Yes
Santa Fe Depot	777	67.4%	

(1) Parking structures under study to share with development. Source: Metrolink

2.2.2 Sponsors and Consultants

The project is sponsored by SANBAG, SCAG and Caltrans. The project consultant team selected for the project includes Gruen Associates as the prime consultant and responsible for project management, land use planning, urban design, implementation and outreach; HR&A for market analysis, implementation and funding; HDR for rail support; and Lance Schulte, AICP for assistance in Outreach.

2.2.3 Schedule and Scope

The project was initiated in the summer of 2014 and will be completed in the fall of 2015 as shown in Figure 2-3.

Major tasks include:

- An analysis of land use planning, economics, environmental and financial issues
- A market assessment
- Participation in an ULI Advisory Services Panel
- Stakeholder and community outreach
- Evaluation of barriers and opportunities
- A vision for the Corridor and implementation for achieving the vision and overcoming the barriers

2.2.4 Outreach

The stakeholder outreach process included the following:

- TAC consisting of SANBAG, SCAG, Metrolink, Omnitrans, representatives of the six cities with stations, plus the city of Ontario and the consultant team that met frequently throughout the study
- ULI Advisory Services Panel of national experts including developers, planners, financiers, market analysts, economists and architects who provided practical and candid advice
- Individual stakeholder outreach to city managers, city staff, developers and business leaders
- Community outreach to transit users and the public

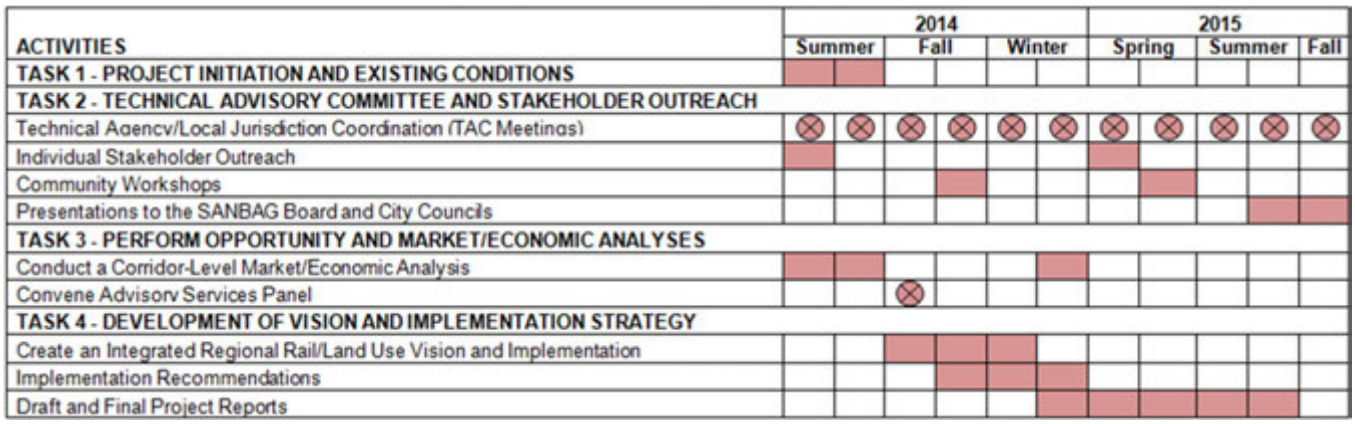
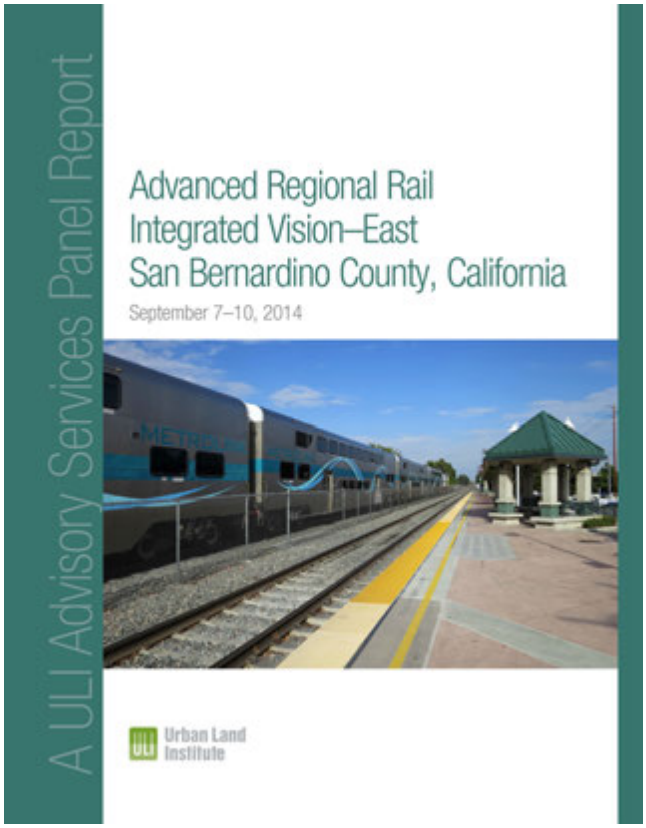


*FIGURE 2-3: **ARRIVE CORRIDOR PROJECT SCHEDULE***

- Planning commission and city council presentations to individual cities

2.2.5 Organization of Report

In preparation for the ULI Advisory Services Panel, the ARRIVE Corridor Briefing Book and a Corridor Market Assessment were prepared. This separate briefing book addresses the sponsors, the assignment, Metrolink rates, schedule and fares, existing conditions in the station areas, relevant plans, barriers and opportunities. Chapter 2.0 of this report summarizes the key conditions related to the overall corridor, the ULI Advisory Services Panel recommendations, and the Transit User Community Survey conducted in April 2015. Chapter 3.0 outlines the overall corridor-wide vision and strategy. Chapter 4.0 summarizes existing conditions, relevant plans, market analysis and opportunities for each individual city in addition to vision and strategy recommendations. Chapter 5.0 outlines the ARRIVE Corridor Implementation recommendations and Chapter 6.0 discusses lessons learned.



ULI REPORT FOR THE ARRIVE CORRIDOR

TEAM MEMBERS INTERACT WITH METROLINK RIDERS DURING A SURVEY

2.3 Challenges and Opportunities Summary

The ARRIVE Corridor Briefing Book describes existing conditions, relevant plans and studies and challenges and opportunities. In addition, a market assessment was completed. This section summarizes challenges and opportunities outlined in these documents.

Since 1990, Southern California has built an extensive network of commuter rail, heavy rail, and light rail lines, including the 512-mile network of Metrolink commuter rail service. However, stations on the SB Line have relatively lower development densities, and there are limitations to further expansion of the number of trains. SANBAG has identified six segments of the SB Line for double tracking, enabling increased train frequencies. SANBAG also partnered with Metro on a demonstration project to identify operational improvements, including the double tracking of selected segments, to increase train frequency and reliability, reduce train travel times and improve safety. In addition, Metrolink is currently being extended to downtown San Bernardino, providing a significant additional destination for eastbound commutes. Redlands Passenger Rail, a 9-mile passenger service from downtown San Bernardino to Redlands, is being developed and could be operational by 2018. Taken together, this will create 32 miles of a rail system in San Bernardino County. San Bernardino County has a significant investment in rail, upon which to build a more robust regional rail operation and transit-supportive land uses. Other rail extensions have been studied including an extension of the Gold Line to Montclair and a connection to the Ontario International Airport.

These activities have set the stage for an overall vision to guide future corridor development, not viewing individual stations in isolation, but as a complete system. At the same time, implementing TOD on a commuter rail corridor poses some significant challenges. Some of the barriers include:

- Relatively infrequent transit service throughout the day and evenings
- Noise and air quality issues from freight and commuter rail activity
- Physical barrier created by the rail line
- Limited undeveloped land around most of the Metrolink stations
- High degree of parcelization
- Economic costs of redevelopment
- Economics are not there yet for higher densities and structured parking
- Inadequate community engagement processes and concerns communities typically have about densification, particularly in suburban settings
- Difficulties convincing private developers and capital markets of mixed use and/or mixed income at higher densities
- Challenges in balancing financial realities and social equity goals, as this is a complex process that requires coordination across all levels
- Significant destinations located just outside the typical “catchment area” for several stations

Some of the opportunities identified by this project include:

- Cities, in general, are supportive of mixed-use TOD at the station areas demonstrated by their plans and policies, although some plans allow for low and moderate densities and intensities. The NMDSP proposes relatively high-density residential (up to 60 dwelling units per acre) in the station area.
- Montclair and Rancho Cucamonga have interest by major private developers for large projects in the station areas and these projects, if developed, could be catalysts to transforming these station areas to more transit-supportive uses.
- Many of the stations (Upland, Fontana and Rialto) are within their older downtown areas, much of the station areas are walkable and have a sense of place that could be enhanced.
- Vacant and underutilized lands are available in many of the station areas.
- The report “SANBAG Improvements to Transit Access for Cyclists and Pedestrians” includes planned improvements to the pedestrian and bicycle environment to make the stations better connected within the station area and to a

3-mile radius of the station area. SANBAG has received grants to implement active transportation improvements.

- Major transit projects within the Metrolink Corridor including the Gold Line Extension to Montclair, Downtown San Bernardino Passenger Rail Project, Redlands Passenger Rail Project, the West Valley Connector Corridor and the Foothill/Boulevard/5th Street Transit Corridor will expand system-wide mobility.

2.4 ULI Advisory Services Panel Recommendations

From September 8 through 10, 2014, a five-member ULI Advisory Services Panel was conducted to generate ideas and recommend practical implementation strategies in support of the overall project objectives. On the last day, recommendations were presented. ULI Advisory Services Panel recommended implementation strategies documented in an ULI report that can be accessed at www.sanbag.ca.gov and are summarized below:

- **"Create place making":** The transit connection at the Metrolink stations is insufficient to overcome the challenges of suburban development patterns, a relatively weak economy, and Metrolink service deficiencies. SANBAG must catalyze action at the city level to foster place making that changes the land use around the stations to produce higher density, more connectivity and greater concentration of interesting uses.

Master Plan Placemaking Vision

- Create an ***Identity and 'There-There'***
- Establish and Enhance the ***Public Realm***
- Improve ***Connectivity*** for a walkable community + Bicycle network with easy access to other modes of transportation
- Balance ***Density*** and the mix of uses
- Improve ***Safety***

Source: *ULI*

PLACE MAKING AT SANTANA ROW, SAN JOSE, CA

Source: *ULI*

- **Address the gap between market and costs:** The market in the San Bernardino Valley is not strong enough to support the costs of higher-density, TOD around the Metrolink stations, especially where those costs include the expense of additional infrastructure to address the placemaking goal. SANBAG needs to direct resources to address that gap between market and costs.

- **Empower the cities:** Although SANBAG can provide leadership and help catalyze change, the cities will be on the front line of implementation. SANBAG needs to help the cities with specific planning processes, infrastructure financing and organizational expertise at crafting the public/ private partnerships necessary for transit-oriented development to occur.

- **Collaborate on implementation:** In addition to empowering the cities, SANBAG needs to foster a more collaborative decision-making ethic on many fronts. Here are some key areas of collaboration:
  - greater outreach and collaboration between the cities and the private sector;
  - partnership with SCAG on funding allocations to transit-oriented development;
  - greater coordination of the multiple transit providers; and
  - greater involvement of the cities in a regional economic development entity."

2.5 Transit Users Summary and Community Input

On April 2, 2015, the Consultant team and SANBAG conducted a survey of transit users on six separate trains as noted in Table 2-3.

TABLE 2-3: ***TRAINS SURVEYED AND NUMBER OF SURVEYS OBTAINED***

Trips	Trains	Number of Surveys (Westbound)	Number of Surveys (Eastbound)
1 (Train 313 - departed from San Bernardino)	6:52a – 7:39a	95	--
2 (Train 302 - departed from Covina)	8:29a – 9:30a	--	17
3 (Train 319 - departed from San Bernardino)	9:50a – 10:24a	53	--
4 (Train 306 - departed from Claremont)	10:55a – 11:40a	--	13
5 (Train 329 - departed from San Bernardino)	3:00p – 3:34p	30	--
6 (Train 316 - departed from Claremont)	4:20p – 5:00p		21
Totals		178	51

Of the total 229 surveys responses received, 178 were on westbound trains and 51 on eastbound trains. The survey included six questions. Refer to the survey questions and full responses in Appendix. Tables 2-4 through 2-8 summarize the results.

- Table 2-4, for the average of all trains, 42.4% drove and parked. This number for the early morning westbound commuter train to Los Angeles Union Station (LAUS) was much higher at 65.3% and much less for morning eastbound trains. Eastbound trains had a higher percentage of those walking and riding the bus; however, the sample was small.

- Table 2-5, most riders on the westbound trains got on in San Bernardino and off at LAUS. For eastbound trains, most riders got on at LAUS and off at San Bernardino. For westbound trains, the second highest origin was Fontana and second

highest destination train was California State University, Los Angeles (CSULA). For eastbound trains, the second highest origin was Rancho Cucamonga and the second highest destination was Fontana.

- Table 2-6 indicates that 76% of those responding to the survey felt that connections from San Bernardino Metrolink Station to/from other modes of transportation was easy and accessible.

- Table 2-7 lists the priorities to implement the corridor-wide vision for the average for all trains; 43.1% of the transit users prioritized "more express trains" followed by "increasing train frequency". Train 1 had a similar result for the first priority.

- Table 2-8 prioritized features contributing to a walkable and more compact TOD in the station area. The table shows in color the three most frequent features checked by transit users by city. All of the transit users in each city wanted more retail and restaurants, and most passengers checked better pedestrian connections and amenities and better bus connections to the station. Transit users checked affordable housing as priorities for Upland and Fontana.

*TABLE 2-4: **QUESTION 1. HOW DID YOU ACCESS THE METROLINK STATION TODAY?***

	Walked %	Bus %	Drove & Parked %	Dropped Off %	Bicycle %
Total All Trains	8.3	16.2	42.4	28.0	--
Train 1 – Westbound 6:52a-7:39a	2.1	3.2	65.3	27.4	--
Train 6 – Eastbound 4:20p-5:00p	14.3	14.3	52.4	9.5	9.5
Train 4 – Eastbound 10:55a-11:40a	7.7	23.1	15.4	46.2	--

*TABLE 2-5: **QUESTIONS 2&3. WHERE DID YOU GET ON AND OFF THE TRAIN? (1ST AND 2ND HIGHEST ANSWERS FOR TOTAL OF ALL TRAINS)***

	Westbound (%)		Eastbound (%)	
	On	Off	On	Off
San Bernardino	43.3			42.0
LAUS		68.0	36.0	
CSULA		10.7		
Fontana	15.7			14.0
Rancho Cucamonga			10.0	

*TABLE 2-6: **QUESTION 4. ARE CONNECTIONS FROM SAN BERNARDINO COUNTY METROLINK STATIONS TO/FROM OTHER MODES OF TRANSPORTATION EASY AND ACCESSIBLE?***

	Yes	No	No Response	Total
Number	175	44	10	229
%	76.0	19.0	4.0	

*TABLE 2-7: **QUESTION 5. BELOW ARE POSSIBLE LONG-TERM CORRIDOR-WIDE VISION IMPROVEMENTS IDENTIFIED TO DATE. HOW WOULD YOU PRIORITIZE FUNDING AND EFFORTS TO IMPLEMENT. RATE EACH 1 TO 5 WITH 1 BEING THE MOST IMPORTANT.***

	Priority 1 – Total %	Train 1 – 6:52a to 7:39a
More Express Trains	43.1%	42.7%
Increasing Train Frequency	32.1%	32.1%
Ticketing Improvements	31.6%	33.7%
Additional Mid-Day & Evening Service	30.6%	29.8%
Improvements to Grade Crossings	21.9%	15.4%
Purchase of New Equipment	20.9%	20.5%

TABLE 2-8: **QUESTION 6. THE FOLLOWING FEATURES CONTRIBUTE TO A WALKABLE ENVIRONMENT AND MORE COMPACT TOD WITHIN A 1/2 MILE AREA AROUND THE STATION. IN YOUR OPINION, INDICATE BY CHECKMARK THE FOUR (4) IMPORTANT FEATURES WHICH SHOULD BE AT EACH OF THE STATION AREAS YOU ARE FAMILIAR WITH?**

	Montclair	Upland	Rancho	Rialto	Fontana	SB	Totals
More Retail and Restaurants							
	33	36	53	39	48	75	284
%	15.1%	14.5%	17.9%	16.1%	17.6%	17.6%	
More Employment Land Uses							
	17	20	14	20	28	42	141
%	7.8%	8.1%	8.1%	8.1%	8.1%	8.1%	
Mix of Housing Types and Higher Densities							
	12	19	22	18	18	28	117
%	5.5%	7.7%	7.4%	7.4%	6.6%	6.6%	
Affordable Housing							
	27	36	34	21	32	40	190
%	12.3%	14.5%	11.5%	8.7%	11.7%	9.4%	
Civic Uses and Public Gathering Spaces							
	27	19	24	22	29	47	168
%	12.3%	7.7%	8.1%	9.1%	10.6%	11.1%	
Better Pedestrian Connections and Amenities							
	28	32	41	32	31	49	213
%	12.8%	12.9%	13.9%	13.2%	11.4%	11.5%	
Bicycle Connections and Amenities							
	20	25	29	29	35	47	185
%	9.1%	10.1%	9.8%	12.0%	12.8%	11.1%	
Better Bus Connections to the Station							
	32	36	47	38	31	60	244
%	14.6%	14.5%	15.9%	15.7%	11.4%	14.1%	
Parking Structures to Free Up Land for Development							
	19	20	28	21	19	34	141
%	8.7%	8.1%	9.5%	8.7%	7.0%	8.0%	
Other: Restrooms							
	0	1	1	0	0	0	2
%	0%	0.4%	0.3%	0%	0%	0%	
Other: Inn or Hotel/Place to Wait							
	1	1	1	0	0	1	4
%	0.5%	0.4%	0.3%	0%	0%	0.2%	
Other: Vending Machines Better Processing							
	0	1	0	0	0	0	1
%	0%	0.4%	0%	0%	0%	0%	
Other: Bus Shelters							
	1	0	0	0	0	0	1
%	0.5%	0%	0%	0%	0%	0%	
Other: Cheaper Fares							
	1	1	1	1	1	1	6
%	0.5%	0.4%	0.3%	0.4%	0.4%	0.2%	
Other: Banks							
	1	1	1	1	1	1	6
%	0.5%	0.4%	0.3%	0.4%	0.4%	0.2%	
Totals	219	248	296	242	273	425	

Yellow indicates top three (3) features mentioned

3

Overall Corridor-Wide Vision and Strategy

3.1 Vision Statement

From the engagement process and the project objectives, the following Vision Statement was developed for the ARRIVE Corridor:

"Transition the ARRIVE Corridor, over time, to an integrated TOD/regional rail corridor, serving residents and businesses within active, growing, transit-oriented communities at the station locations and providing a high degree of transit interconnectivity to Valley destinations."

3.2 Overall Vision Strategy

To transition the ARRIVE Corridor from a commuter rail corridor to a regional rail corridor, it will be critical to continue to make operational, safety and customer service improvements for the SB Line and expand the connecting transit system. Operational improvements and developing more origins and destinations along the corridor in the form of TODs will foster more activities, increase the need for transit on the SB Line throughout the day and contribute to an increase in ridership. Improving connectivity for buses, pedestrians and bicyclists to the Metrolink transit stations will provide a more livable, walkable, station area, and also connect activity centers and destinations which are not within walking distance to the Metrolink station.

The corridor-wide strategy includes both a corridor-wide strategy and individual decisions that need to be made by the cities along the SB Line. The corridor-wide strategy involves multiple stakeholders joining together to be more effective and successful in activities, such as:

- Supporting improvements to the Metrolink line, the entire network, and connecting bus, bike and pedestrian improvements
- Supporting legislation that provides tools and funding to incentivize development and public infrastructure improvements
- Obtaining grant funding
- Positioning the entire corridor for investments through marketing the corridor cities to the development community and elected officials

The individual cities' role in the overall vision strategy utilizes their jurisdictional authority over land use and improvements in the station area consistent with the overall objectives of the project including:

- Refining or adopting regulatory plans and ordinances that are conducive to TOD, including a transit-supportive mix of uses, placemaking activities and design, more intense/dense development in a walkable environment, and reduced flexible TOD parking requirements appropriate for each unique station area
- Streamlining the approval process to reduce uncertainty and shortening the time for approvals of TODs
- Continuing to develop public/private partnerships with TOD developers
- Focusing funding practices within the city for TOD infrastructure at the station
- Participating with other agencies and cities in implementing corridor-wide strategies

3.3 Overall Corridor-Wide Vision

3.3.1 Metrolink Operations Improvements (long-term)

The overall corridor-wide vision, as shown in Figure 3-1 includes six key components. These are discussed below in Sections 3.3.1 through 3.3.6. Refer to Section 3.4 for more detail on TOD.

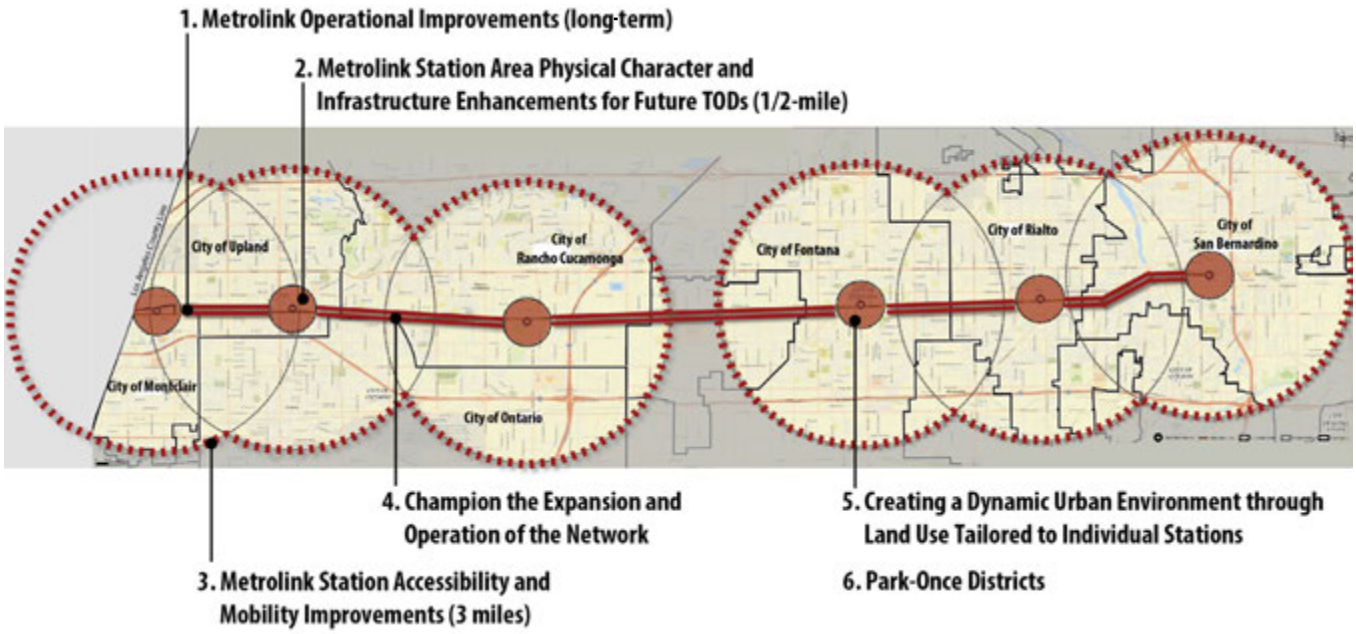


*FIGURE 3-1: **OVERALL CORRIDOR-WIDE VISION***

Many of the potential Metrolink operational improvements are seen as long-term improvements due to funding constraints. Potential investments to improve safety and operations include:

- **Implement Double-Tracking of Priority Segments along the Metrolink Line:** To address future demand and safety, the 2014 Metrolink San Bernardino Line Infrastructure Improvement Strategy Study evaluated a series of alternatives for double tracking along the SB Line and identified the following three segments for future study:
  - CP Lone Hill Avenue to CP White – Segment 1, in Los Angeles County, is recommended for future study and a Request for Proposal (RFP) is anticipated to be issued for environmental clearance.
  - CP Central to CP Archibald – Segment 2, in San Bernardino County through the Upland Metrolink Station area, is the third priority as there are major constraints, such as narrow right-of-way which will make it difficult to implement.
  - CP Lilac to CP Rancho – Segment 3 in San Bernardino County between Rialto and San Bernardino, includes a second main line track which will reduce BNSF freight idling near the Rialto station. It is anticipated that a RFP will be released for this segment. The estimated cost is $70.9 million.

Figure 3-2 shows the location of proposed double tracking segments in San Bernardino County. Double-tracking priorities above vary slightly from the Draft SCRRA Strategic Plan. The segment in Upland

FIGURE 3-2: ***LOCATION OF PROPOSED DOUBLE TRACKING***

around the existing Upland Metrolink Station was further studied by the city of Upland and SANBAG for planning a future use for SANBAG land adjacent to the track with the planning for future platforms, double tracking and a bypass track at the station. At this time, the study indicates that future improvements and public safety would involve either shifting the station further east of 2nd Street or closure of 2nd Street to vehicles with pedestrians and bikes using a new city and station under- or over-crossing at 2nd Street.

- **Improve grade crossings and fencing:** The Infrastructure Improvement Strategy Study also recommended grade crossing and fence improvements. The conceptual grade crossing configurations are subject to change in preliminary engineering. Initial grade crossing improvements in the ARRIVE Corridor portion include crossings of the following streets:

  - Lilac Avenue
  - Willow Avenue
  - Riverside Avenue (Rialto)
  - Sycamore Avenue
  - Acacia Avenue
  - Eucalyptus Avenue
  - Pepper Avenue
  - Rialto Avenue

Proposed safety fencing locations in San Bernardino County are identified in Figure 3-3. Fencing would be implemented in Upland, Fontana, Rialto and San Bernardino.

- **Increase train frequency and mid-day trains:** Substantial funding is necessary to develop a more regional corridor where trains provide frequent service throughout the day in both directions. Since the initiation of the ARRIVE Corridor, Metrolink has reduced the number of weekday trains per day on the SB Line from 42 to 38 due to funding constraints. With this reduction of trains, ridership has decreased. Focusing on building ridership at the station areas and through inter-connectivity to other modes; therefore, is critical. An option to explore in the future is to use Federal Railroad Administration (FRA) compliant diesel multiple units (DMU) on the tracks, especially if these become the selected vehicles for the Redlands Rail Corridor. Refer to www.metrolinktrains.com for SCRRA Engineering Standards for grade crossings and fencing.

FIGURE 3-3: ***LOCATION OF PROPOSED SAFETY FENCING***

- **Reduce fare structure:** Input from stakeholders and transit users indicate that the train fares are too high and are not competitive with bus. To achieve a more regional rail system, consideration should be given to reducing fares, particularly for short trips and mid-day or out of direction travel. Beginning July 1, 2015, Metrolink is offering discounted fares to riders on the Antelope Valley Line as a part of a pilot program. The pilot program received funding from Metro. The pilot program will be for six months and reduces fares on all ticket types by 25%, except the Weekend Day Pass. In addition, there will be a new station-to-station fare (two dollars) for riders traveling one-way, off-peak hours (9 am to 2 pm).

- **Improve air quality and delays through new equipment:** According to SANBAG, Metrolink has purchased ten new Tier 4 locomotives with delivery scheduled for 2017. These Tier 4 new model locomotives reduce particulate matter (PM) emissions by 86% and nitrogen oxides (NOX) emissions by 84%[1]. Also under consideration are the rehabilitation of existing locomotives and additional purchases of equipment, if funding can be secured.

- **Invest in ticketing improvements:** City stakeholders and transit users indicated that improvements are needed to ticketing machines as they are often out of service. Metrolink has a program for replacing or repairing ticket vending machines at the stations, which should be accomplished by the end of 2015. Another consideration is to use new technology such as mobile applications for ticketing and to address time delays. System-wide ticketing system for Metrolink and other transit users should be explored.

- **Continue to include safety features:** Recently, Metrolink completed a positive train control system on the SB Line at a cost of $216 million which relies on computerized tracking and a digital communications system to prevent train collisions. This system has recently been expanded to other lines.

- **Coordinate train scheduling and marketing:** Metrolink continues to coordinate train scheduling and marketing with its partners. While coordinating bus schedules with train schedules often proves to be difficult, Omnitrans should pursue schedule coordination opportunities where reasonable.

- **Add passenger amenities:** Additional amenities will further improve the passenger experience. Amenities identified by transit users include WiFi, food services, vending machines, restrooms, shaded benches and wayfinding for businesses in the area.

3.3.2 Metrolink Station Area Physical Character and Infrastructure Enhancements for Future TODs Within the 1/2-mile Station Area

- **Provide sidewalk enhancements (streetscape), bicycle improvements, open space and placemaking improvements within the station area:** A key ingredient of a TOD is to create a continuous, attractive pedestrian and bicycle network leading to/from the rail station. Adequate sidewalk widths should be provided along a station area grid of streets. Along arterials, sidewalks of 12 ft to 15 ft are typically wide enough for street trees or a parkway and a clear path of travel with pedestrian amenities near the curb. Streetscape improvements and enhancements should be included along each of the streets within the 1/2-mile station area to make the area more walkable and contribute with nearby land uses to a sense of place. Potential streetscape improvements include landscaping, special paving, street furniture, pedestrian lighting, high visibility crosswalks, pedestrian signage and other pedestrian amenities. In addition to the enhanced station area pedestrian network, outdoor open spaces with programmed activities will contribute to “making a place”. These might be plazas or parks for public gathering and social interaction, courtyards defined by buildings with both quiet areas and small recreational areas, and private open spaces such as gardens, patios and decks. New compact mixed use or residential development and their open spaces

1 Metrolink website

and streetscape should be designed not only to complement and serve the development, but also contribute to the overall character and place of the entire district.

- **Treat the rail corridor as a "transit entrance" to the cities:** The rail corridor offers the opportunity to provide a new attractive transit entrance to the cities, and in some locations, improve pedestrian or bicycle access to the transit stations. Currently, land uses and landscaping are varied along the corridor with many unattractive outdoor industrial storage facilities and blank walls with graffiti viewed from the train. ARRIVE Corridor cities could join together to require new development along the Metrolink right-of-way at a minimum to provide a landscaped buffer at the railroad property lines and provide design guidelines for building facades and parking facilities facing the tracks similar to parkway design treatments required along a street. Where feasible, a large setback adjacent to the track for a trail (20-ft to 24-ft wide) should be considered to provide a major pedestrian and bicycle connection to the transit stations.

- **Provide land use and building setbacks:** To add a second or a third track to Metrolink may ultimately require additional right-of-way. Table 3-1 shows rough right-of-way estimates for different types of tracking for cities to use as a rule of thumb for establishing setbacks along the corridor. New buildings should be set back from the rail corridor for landscaping or trails as mentioned above to accommodate future improvements to the rail lines. Setback areas that could be needed for future improvements could contain landscaping and surface parking, and dedications or easements would not be required by the property owners.

- **Consider quiet zones as a valuable improvement for train, neighborhood and future TOD compatibility:** "A quiet zone is a section of the rail line at least 1/2-mile in length that contains one or more consecutive public grade crossings at which locomotive horns are not routinely sounded when trains are approaching the crossings."[2] To minimize horns at intersections, improvements need to be made at roadway intersections crossing the tracks.

*TABLE 3-1: **ESTIMATED RIGHT-OF-WAY REQUIREMENTS FOR IMPROVEMENTS TO METROLINK***

Track Condition	Minimum Width (Right-of-Way)	Desirable Width (Right-of-Way)
Two Tracks		
At Station - One Side Platform	54 feet	55 feet
At Station - Center Platform	61 feet	71 feet
Between Stations	35 feet	45 feet
Three Tracks		
At Station - One Side Platform	69 feet	80 feet
At Station - Center Platform	76 feet	96 feet
With Gold Line Extension (Two Tracks)	90 feet	100 feet

Source: HDR

- **Provide fiber optic utilities to adjacent uses:** According to City of San Bernardino staff, fiber optics are available within portions of the Metrolink ROW. In areas envisioned for creative offices, other employment uses and mixed-uses consideration should be given to providing access for private development to attract businesses to the station area and provide a potential revenue source for improvements to the Metrolink corridor. A separate study would need to be undertaken to determine the extent of the fiber optics potential, ownership of the rights and if these could be an incentive for transit-supportive employment uses.

3.3.3 Metrolink Station Accessibility and Mobility Improvements Within the Station Area and Within the 3-mile Area Along Arterials

- **Enhance pedestrian and bicycle accessibility to the Metrolink stations:** In addition to the sidewalk and bicycle improvements mentioned above, several previous studies addressed pedestrian and bicycle accessibility to the station. Recommendations in these plans should be followed:

2 *U.S. Department of Transportation, Federal Railroad Administration, www.fra.dot.gov/pagep0689*

- SANBAG first adopted the San Bernardino County Non-Motorized Transportation Plan (NMTP) in 2001 and continuously updates the NMTP to reflect current non-motorized network conditions. The NMTP aims to:

    - Improve the quality of life and health of San Bernardino County residents through exercise and connectivity to the "outside world"
    - Increase non-motorized access throughout the County for those who may not (and/or chose to not) have other means of transportation
    - Respond to initiatives to reduce vehicle travel and greenhouse emissions embedded in sustainable communities strategy
    - Improve land use around transit stations and provide pedestrian/bicycle connectivity and amenities that encourage non-motorized transportation in accordance with new Sustainable Community Strategy requirements
    - Enable member jurisdictions to apply for active transportation project funding by satisfying the State of California's requirement of a Bicycle Transportation Plan (BTP) for purposes of Caltrans Bicycle Transportation Account (BTA) funding.

- In 2011, SANBAG undertook an effort to examine the ability of users to access its regional network including the six Metrolink stations along the SB Line, plus additional stations along the E Street sbX Corridor. The Improvement to Transit Access for Cyclists and Pedestrians was completed in 2012 and identified existing barriers to access, informed stakeholders of industry best practices related to improving non-motorized circulation and proposed planning level non-motorized improvements in and around transit stations. The study identified gaps in the regional bicycle network and proposed improvements for bicycle safety and mobility. Closer to the station, the recommendations become more specific and detailed improvements such as new sidewalks, wayfinding, enhanced high visibility, pedestrian crossings, bicycle parking, street trees, lighting and general recommendations to help create a sense of place. Pedestrian improvements were recommended within a 1/2-mile radius and bicycle improvements in a 3-mile distance from the Metrolink stations. Funding for implementation of some of these improvements was obtained by SANBAG through an Active Transportation Program Grant. For more detail, refer to the full report at http://www.sanbag.ca.gov/planning2/study_bike-improvmnts.html.

- **Improving bus service and access to the Metrolink stations:**
    - Omnitrans provides direct access to all the Metrolink stations except for Upland. In addition, Foothill Transit and Riverside Transit Agency (RTA) provide access to Montclair. SANBAG is currently conducting a separate study with the City of Upland. One component of this study explores future TOD land use alternatives to provide more demand for direct bus access to the Upland Metrolink Station. Sufficient TOD land use intensity could potentially support bus access along 2nd Street or 8th Street. A pedestrian/bike under-/over-crossing at 2nd Street could be coordinated with TOD development on SANBAG property.
    - Transit agencies should coordinate with cities to prepare plans for reconfiguration, if appropriate, and for providing for more frequent, efficient and, in some cases, premium bus service to stations. For example, the West Valley Connector would provide improved bus access to the Fontana, Rancho Cucamonga and Pomona Metrolink Stations, as well as connectivity to major destinations, such as Kaiser Permanente, Chaffey College, Victoria Gardens, Ontario Mills, Ontario International Airport and Ontario Convention Center.

3.3.4 Champion the Expansion of the Network

In addition to the 1-mile extension of Metrolink from the Santa Fe Depot to E Street in downtown San Bernardino now under construction, a number of transit initiatives are under consideration throughout the region which should contribute ridership to the SB Line including the following:

- **SANBAG Strategic Plan/Measure I:** The SANBAG Strategic Plan outlined that 20% of Measure I (a voter-approved half-cent tax for transportation improvements in San Bernardino County) revenue would be budgeted toward the local street program which may include express bus/bus rapid transit (BRT) solutions (2% to 10%). It also outlines that corridors be prioritized by a number of factors. The strategic plan indicates that nine BRT corridors are being considered in the Long Range Transit Plan (LRTP), prioritizing Foothill Boulevard East (from Fontana Metrolink Station to Highland), Foothill Boulevard West (from Montclair Metrolink Station to Fontana Metrolink Station, Holt Avenue/4th Street (from Pomona through Ontario to the south Fontana Transcenter), and San Bernardino Avenue (San Bernardino Avenue from south Fontana to the E Street Corridor). Some of the improvements mentioned for Metrolink above are not included in this measure and will involve other funding mechanisms.

- **The Redlands Passenger Rail Project:** This project includes passenger operations along a 9-mile corridor from downtown San Bernardino to the City of Redlands. Phase 1 operations are expected to start in 2018, with trains operating every 30 minutes in peak periods and every hour in non-peak periods. Stops in Phase 1 include downtown San Bernardino, Tippecanoe Avenue (or Waterman Avenue), New York Street, downtown Redlands at Orange Street and the University of Redlands (University Street). Final design is beginning for the Rail project and a separate study on procurement by the individual cities for an environmental document for a Transit Village Plan for stations in the City of Redlands is planned.

- **Gold Line/Foothill Extension to Montclair:** The Gold Line Authority planned an extension of the Gold Line/Foothill Light Rail to the City of Montclair which will support the station area as a destination by providing more frequent service to the Montclair Plaza and Transcenter. In Montclair, the Gold Line Extension will entail additional through tracks and a grade separated pedestrian crossing which requires modification of the Transcenter and the bus transfer area. The Draft Environmental Impact Statement/Report for the full extension was completed in 2012 and funding is being sought for the extension to Montclair.

- **Ontario Airport Rail Access Study:** The purpose of this study was "to provide convenient, reliable, and cost-effective transit service connecting Ontario with the regional rail system for air travelers and airport employees". A series of alternatives were explored and screened against performance criteria resulting in five viable alternatives. One of the conclusions of this study was to defer the selection of a preferred technology until a final alignment has been selected and designed. Ontario International Airport passenger volumes need to increase substantially before a rail connection is warranted.

- **Omnitrans System-wide Transit Corridor Plan and West Valley Connector:** The Omnitrans System-wide Transit Corridor Plan adopted in 2004 is a key document in implementing a vision for future transit in the San Bernardino Valley. The most recently adopted plan calls for BRT in ten major corridors ranked by priority. The first corridor is the E Street sbX, a 16-mile north-south corridor in San Bernardino and Loma Linda which initiated revenue service in 2014 and connects California State University San Bernardino, downtown San Bernardino, the Inland Center Hospitality Lane, Loma Linda University and Medical Center and the Jerry L. Pettis Memorial VA Medical Center in Loma Linda. A recently prepared alternatives analysis for the Holt Boulevard/4th Street/Route 61 Corridor resulted in the Project Development Team (PDT) recommending a 25.2-mile corridor alignment that combines the portion of the Foothill Boulevard Corridor and the Holt Boulevard/Route 61 Corridor with a connection between the two corridors on

Milliken Avenue to serve the Rancho Cucamonga Metrolink Station. This alignment combines two corridors with the highest ridership and services a number of activity centers including Victoria Gardens, Ontario Mills, three Metrolink stations on the San Bernardino Metrolink Line (Fontana, Rancho Cucamonga, and Pomona) Kaiser Hospital and the Ontario International Airport. The project will proceed into preliminary engineering and environmental documentation this fall and full funding for all phases of the project including exclusive lanes in Ontario on Holt Boulevard is being pursued.

- **California High Speed Rail:** The 2012 California High Speed Rail Authority (CAHSRA) Business Plan outlines a phased approach for high-speed rail services to San Diego. Alignments under consideration include routes paralleling the Metrolink corridor in eastern San Bernardino County. Refer to the ARRIVE Corridor Briefing Book for the various alignments.

3.3.5 Create a Dynamic Urban Environment Through Compact Mixture of Land Uses Tailored to Individual Stations

- **Brand Metrolink Stations Along the Corridor:** Currently, each station has its own identity with different shelters, amenities, and improvements which are owned and maintained by each city. Metrolink should consider a stronger Metrolink brand at the stations to depict the San Bernardino Metrolink Line corridor and the system through clear signage and passenger enhancements.

- **Provide a Mix of Transit-Supportive Uses:** Transit-supportive uses at sufficient density to generate high pedestrian activity support multiple trips, foster an active environment throughout the day and increase transit ridership. Transit-supportive uses include retail, restaurants, outdoor cafes, grocery stores, bookstores, neighborhood services, childcare, multi-family residential, affordable housing, offices, entertainment, hotel, medical clinics, recreational facilities, fitness clubs, educational facilities and other uses that cater to the needs of transit users, residents and employers. Table 3-2 provides three views of an ideal mix of uses.

*TABLE 3-2: **THREE VIEWS OF THE IDEAL LAND USE MIX***

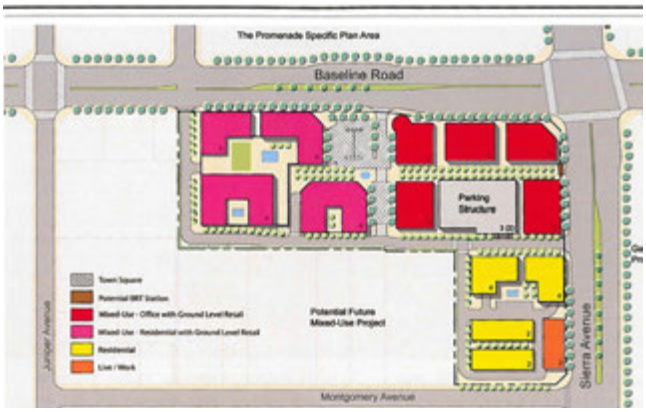
Source	Land Use	Percent of Mix
Alexander, Isikawa, and Silverstein	Housing	26
	Shops and restaurants	7
	Community functions	15
	Hotels	5
	Offices	16
	Manufacturing	12
	Parking	19
Calthorpe	Housing	20-60
	Commercial	30-70
	Public uses	5-15
Ewing	Housing	41
	Commercial	10
	Civic	12
	Recreation/open space	15
	Rights-of-way	22

Source: Alexander, Isikawa, and Silverstein 1977, p. 34; Calthorpe 1993, p. 63; Ewing 1996, p. 21; Ewing, Reid, and Bartholomew, Keith, *Pedestrian & Transportation-Oriented Design*

- **Provide mixed-use, compact development at the stations with transit-supportive residential density as appropriate based on the individual context of each city:** Compact development in the station area with a mix of uses places more people within walking distance of the transit station and promotes walking between uses; thereby, minimizing auto trips. To generate transit ridership and reduce auto dependency, the highest residential densities and employment intensities in each city should be permitted in the 1/2-mile area around the Metrolink stations, especially in the four downtown station areas and around the Rancho Cucamonga Metrolink Station. In station areas, such as the Santa Fe Depot, where residential uses may not be compatible with other uses, residential densities need not be increased; however, employment intensive uses should be emphasized.

- **Phase intensity/density of development:** Cities should consider providing a minimum and desirable density and floor area ratio in station areas. In areas where there is not a strong market for the maximum density, the City should require a phased development plan that illustrates how the project could be intensified at a later date to achieve the desired density, especially on large

TOWN SQUARE CONCEPT FOR FONTANA - PHASE I



TOWN SQUARE CONCEPT FOR FONTANA - PHASE II

FIGURE 3-4: ***PHASE DEVELOPMENT PLAN CONCEPT***

Source: *SANBAG Transportation - Land Use Integration Project (2008)*

sites. A phased development plan could include surface parking initially that could be converted to higher intensity and a parking structure in the future as illustrated in Figure 3-4.

- **Cluster transit-related retail and commercial uses:** As the market is somewhat limited for retail in the Inland Empire, cluster retail and restaurants close to the station along street frontages to support an active pedestrian-oriented environment. Offices and other commercial uses should be designed to reinforce the pedestrian environment with windows, awnings and entrances along the street.

- **Adaptive reuse:** In areas with historic structures, the adaptive reuse of these facilities can add to the attractiveness, complexity and placemaking.

- **Attract daytime (employment-focused) and evening (leisure-focused) populations:** A mix of employment focused uses such as offices, coffee shops, educational and retail should be combined with entertainment, pubs, restaurants and residential to expand the use of the area to 24/7.

Also refer to Section 3.4 which discusses TOD definition and best practices in more detail and individual cities.

3.3.6 Park-Once/Shared Parking Districts and TOD Parking Policies

Parking is expensive to build and can be a barrier to implementing most compact developments. An over supply of parking can lead to reduced affordability and can contribute to congestion. A number of considerations regarding flexible parking requirements should be included in city's plans and policies which are informed by research and best practices from other recent TOD areas and the unique conditions along the ARRIVE Corridor. Goals of TOD and supportive parking policies include:

- Encourage other modes (transit, pedestrian, bicyclists) as alternative choices to the use of automobiles thereby reducing the amount of parking required
- Supply enough, but not too much parking
- Foster the most intensive use of land in the city in the TODs by placing more people in walking, biking and transit distance to the Metrolink stations, and thus minimizing the need to develop expensive parking at standard parking rates
- Encourage a shared use of parking including Park-Once Districts
- Develop over time existing surface park-and-ride lots by consolidating this parking into parking structures

Parking policies in TODs need to be flexible and "one size fits all" requirements should not be applied to all TODs. Dr. Robert Cervero at U.C. Berkeley conducted extensive research on residents of California TODs and their travel behavior. The research indicates "the

design and location of TODs enables a reduction in the number of parking spaces needed". The research summarized in a special report (by Cervero) that TOD can potentially reduce parking for households by approximately 20%, compared to non-transit-related land uses. A wide range of parking reductions (from 12% to 60%) has been found for commercial parking areas.[3] Research has shown that households in TODs tend to be smaller and vehicle ownership for residents is lower than in other areas and this suggests that parking demand in TOD areas should be lower than elsewhere. However, each TOD is somewhat unique and a site-by-site parking needs analysis must be undertaken. The following is a tool box for each city to consider in revising its plans and ordinances related to TODs.

- **Park-Once Districts:** Park-Once Districts require that owners, property owners, and often governmental agencies within a TOD area establish and monitor an off-site management plan to implement and manage the shared use of parking. Typically, a parking structure(s) is shared by a mix of uses in the area and someone visiting, living, or working in the area would park here and walk to all their activities in the area without moving their vehicle; therefore, the "Park-Once" name.

- **Lower required parking ratios for transit-supportive land uses in TODs:** As rail and bus transit are available within walking distance of uses within a TOD, the amount of parking required on-site should be less than other areas of the city that do not have transit. Each city should review their station area parking requirements and compare these with other cities along the corridor and with best practices in TODs from other cities. For example, the City of Montclair in its NMDSP has a minimum parking requirement for residential at 1 space/dwelling unit and for all uses, other than live-work, at 1 parking space/400 gross square feet (GSF) of building area. In contrast, the City of Rialto for multi-family residential requires 2 parking spaces/dwelling unit (one enclosed), plus one additional guest parking space for every four dwelling units, more than double the Montclair requirement. For comparison, multi-family housing parking requirements vary for other cities, such as Portland at 1 parking space/dwelling unit; Seattle at 1 to 1.5 parking spaces/dwelling unit, Long Beach 1 to 2 parking spaces/dwelling unit, plus one guest parking space for four dwelling units. Office and retail parking standards vary, i.e., 1 parking space/1,000 SF for Seattle, 2 parking spaces/1,000 SF for Portland, and 2 – 5 parking spaces/1,000 SF for Long Beach.

- **Shared use of parking:** The TOD and individual projects over time will become more pedestrian, bike and transit-oriented. Shared uses of parking with a management plan should be included in a TOD to minimize traffic congestion, and better utilize parking throughout the day and evening. A shared pool of parking improves the efficiency of parking facilities and allows the sharing of parking spaces when uses have peaks that occur at different times of the day (such as an office building and a restaurant). Some cities allow for a shared parking analysis to be substituted for the required parking ratio with an analysis to project the incremental increase of peak parking demand for a project.

- **Unbundled parking for residential:** To incentivize the use of transit, reduce housing costs, and improve efficient use of parking, residential uses could be required to unbundle parking from leased, and potentially for sale units. This would allow a renter that had no or one car to only rent parking spaces as needed and someone who has the need for more parking could pay for this additional parking separately from the housing rent.

- **Minimum parking space requirements on-site that allow for additional parking off-site:** When parking ratios are low, a developer may want to provide more parking on-site than required due to market concerns, especially in suburban areas. Some developers will provide fewer units than the maximum units with surface parking in order to not build expensive above- or below-grade parking structures to satisfy the developers parking goals. To encourage more dense development in TODs, the cities should consider encouraging developers to provide the maximum density on a site and a minimum amount of parking, such as 1 parking space/dwelling unit for residential. Additional parking that a developer needs to rent a unit could

3 California Department of Transportation

be provided in shared parking facilities or on-street ensuring that over time as the transit and other mode shares grow and the parking demand is less, this shared parking area could be developed.

- **Bundled transit passes:** Bundling of transit passes with the rent or sale of residential uses or employment facilities would support transit uses and reduce parking demand.

- **Parking maximums:** Parking maximums are an alternative to typical minimum parking code standards or ratios and can be considered which would establish limits or caps on parking supply for a development area. The uniqueness of the existing and future parking supply and demand conditions of a station area of a station area must be understood and analyzed to establish a cap.

- **Parking pricing:** The cities could consider variable pricing for on-street meters and off-street non-residential parking as the TOD matures. Parking close to the transit and in peak periods would be a higher cost. Variable pricing can encourage turnover and increase short-term parking availability.

- **In-lieu parking fees:** As a component of a shared use parking analysis, a development could pay fees in lieu of constructing some or all of the required parking. These fees could provide a source of funding the construction, operations, and management of a shared parking structure or lots.

- **Real-time parking availability or intelligent parking programs:** Technology could incorporate real-time parking information into the TOD so visitors would know where to park and potential pricing.

- **Park-and-ride lots:** Currently, each city has park-and-ride lots at the Metrolink station with 2014 utilization rates varying from 58.4% in Montclair to 96.3% in Upland and Rancho Cucamonga. In 2014, Rancho Cucamonga instituted paid parking at its park-and-ride lot and plans to use this revenue for maintenance and has considered using excess revenue to construct a parking structure to be used jointly for Metrolink users and development, thereby freeing up land currently occupied by surface parking for TOD development.

Los Angeles Metro is also considering the use of paid parking at stations with high demand. Each city along the corridor should review the parking utilization of its park-and-ride. A low utilization rate suggests that a development project could be constructed today on the surface parking lot with replacement parking for transit constructed when needed at a later date. High utilization indicates that the cities could review Rancho Cucamonga's experience and consider charging for parking to generate funding for a parking structure in the TOD station areas.

PARKING STRUCTURE IN SANTA MONICA, CA

3.4 Vision Strategies Applicable to All Cities

The Corridor-wide vision includes components that are considered applicable to individual cities. This section describes the overall concepts that apply to all cities. Section 4.0 describes more specific recommendations for each city.

3.4.1 Transit-Oriented Development (TOD)

A key ingredient of the vision statement is to concentrate development near transit, called TOD or Transit Villages. TOD provides the opportunities to shift trips from automobiles to transit and can serve as a catalyst for economic development and community improvements, which focus on the enhanced access provided by transit. The synergy between land use and transportation is a goal of "livable communities", "sustainable communities" or "smart growth".

TOD refers to a vibrant, compact, mixed-use, pedestrian and bicycle-oriented district surrounding a transit station. TODs include transit-supportive uses and often feature retail, a variety of housing types and pedestrian-oriented densities, employment areas and public areas.

Uses vary within a TOD depending on the context. A TOD in a downtown area may have the full spectrum of uses. Other TODs may be more employment-oriented, residential-oriented, or educational-oriented. TODs typically have a radius of 1/2-mile around a transit center, which generally coincides with a ten-minute walk to the transit center and includes relatively high intensity development closest to the transit station gradually reducing outward to be compatible with more transit-oriented uses. TOD building blocks are shown in Figure 3-5.

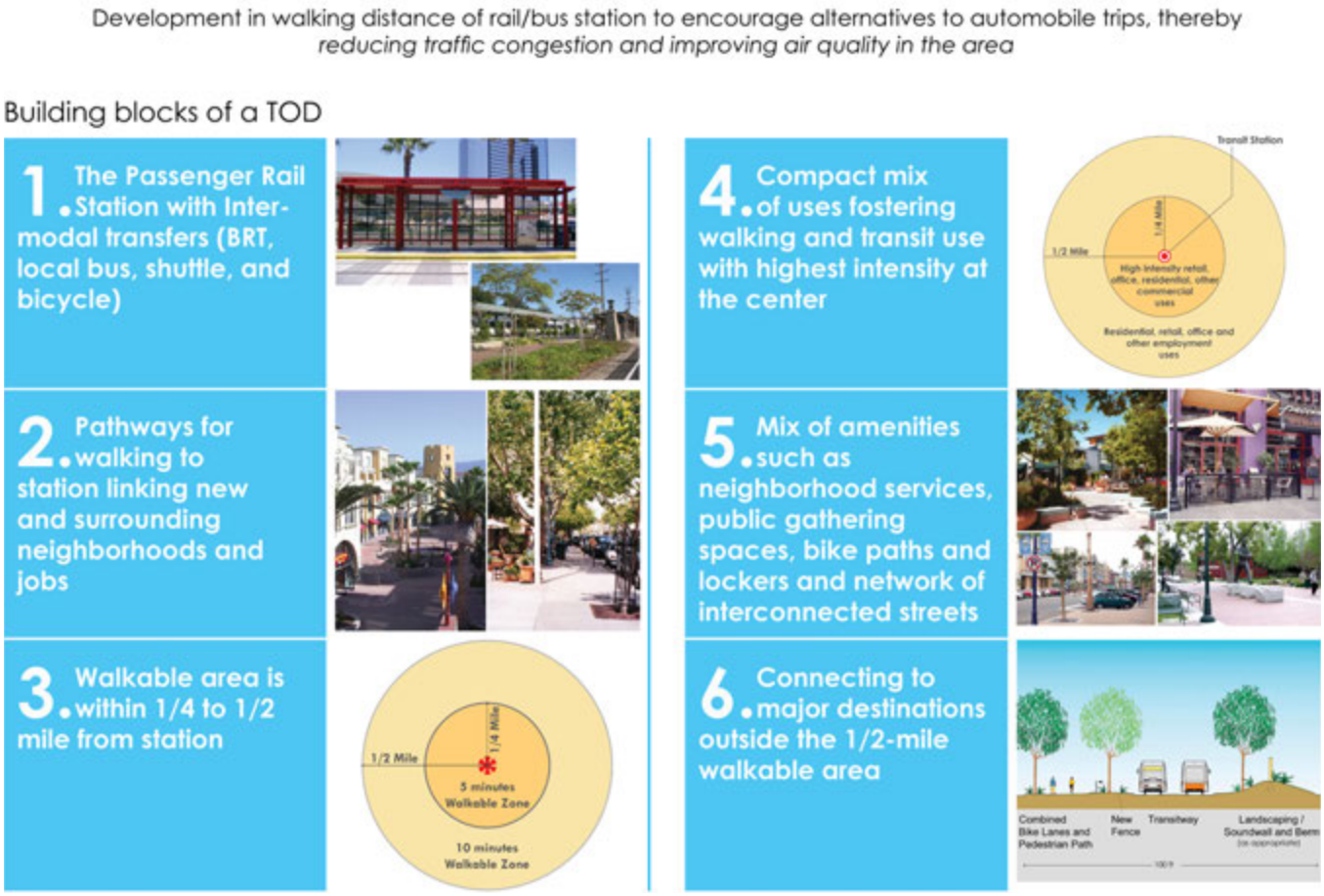


FIGURE 3-5: ***BUILDING BLOCKS OF TRANSIT ORIENTED DEVELOPMENT (TOD) CONCEPT***

Source: *Gruen Associates*

Typical TOD characteristics include the following:

- Occupies land within a 1/2-mile radius of a station, generally encompassing up to 500 acres
- An attractive, functional and accessible transit station with pedestrian and transit amenities as the focus for the TOD area
- An appropriate mix of uses such as office and other employment, retail, entertainment, residential, retail, office and recreational facilities that foster transit usage, walking to the station and opportunities for people to work, shop, live and play
- Higher intensity development
- Inviting public and civic spaces
- Building entrances oriented toward the street with parking behind buildings or underground
- Well-designed and managed parking such as public parking structures, shared parking between uses, appropriate parking requirements, and bike parking facilities to reduce the land devoted to parking
- Pedestrian connections such as sidewalks, pedestrian paths, and private paseos leading to the station and between uses
- A bicycle network consisting of bike paths or designated bike lanes, connecting the transit station with other transit stops, the surrounding area, and citywide network
- An interconnected network of streets where walkways, landscaping, and pedestrian/bicycle amenities receive priority
- Pedestrian-friendly streets with features such as the following:
  - Adequate sidewalk widths for at least two or more people to walk side by side
  - Street trees at the curb in parkways or tree wells, in combination with drought-tolerant landscape, water retention and filtration areas
  - A row of parked cars on the street to provide a buffer between the pedestrians and moving traffic
  - Traffic calming by providing curb extensions to reduce pedestrian crossing distances
  - Pedestrian-oriented signage
  - Pedestrian scale lighting

3.4.2 Benefits of TODs[4]

ECONOMIC

- **Catalyst for economic development:** TODs can act as a catalyst for nearby properties to invest in development and take advantage of the higher land use density, customer base and walkable TOD community.

- **Revitalization:** TODs can be used to redevelop vacant or underutilized properties and declining auto oriented neighborhoods.

- **Increased property and home values:** The financial performance of for sale and rental housing near rail stations across the United States significantly out performs the national housing market. Among all station typologies, TODs are the leading performer.[5]

- **Decreased infrastructure costs:** TODs help reduce infrastructure costs due to compact and infill development that can use existing capacity and does not use as much capacity as auto based development.

- **Revenue for transit systems:** Increased ridership leads to additional revenues for transit service.

- **Reduced household spending and housing affordability:** By reducing auto, parking and travel costs, TODs contribute to an expansion of household net income and community spending. Households that use transit and reduce the need for one car can save over $9,000 per year.[6] When households spend less in transportation costs, they can spend more for housing, education, health care and entertainment.

ENVIRONMENTAL

- **Increased transit ridership and decreased congestion:** By decreasing driving, TODs result in reduced congestion.

- **Improved air quality and energy consumption:** Decreased auto trips lead to lower emissions which results in improved air quality.

*4 Gruen Associates/Parsons/HDR, **Statewide Transit-Oriented Development Study.***
*5 Planetizen, **Transit-Oriented Development Increases Value and Affordability**, December 20, 2014.*
6 American Automobile Association, "Your Driving Costs Study of 2014".

- **Conservation of land and open space:** TODs are compact developments, and therefore, consume less land than lower-intensity, auto-oriented development.

SOCIAL

- **Increased housing and employment choices:** TODs provide a diversity of housing and employment types in conveniently close proximity to the transit station.

- **Greater mobility choices:** By creating activity nodes linked by transit, TODs increase mobility options systemwide providing better access to employment, housing, culture and entertainment throughout the region. Young people, the elderly, those without cars or not wanting to drive also have mobility options.

- **Health benefits:** By providing more opportunities for walking and bicycling and active lifestyles, TODs offer health benefits.

- **Enhanced sense of community:** Bringing more people and businesses closer in a pedestrian environment create an activity hub, TODs enhance community engagement and activity.

- **Enhanced public safety:** Creating more active pedestrian places used throughout the day and night provides "eyes on the street", which helps TODs increase safety.

- **Quality of life:** By reducing the driving time for long automobile commutes, people can recapture this wasted time for other activities.

- **Universal accessibility:** Walkable and transit accessible environments with diversity of housing types increase mobility for those with physical limitations.

3.4.3 Examples of Relevant TODs

TOD uses, density, intensity and design vary depending on the unique character of a TOD area. Below are a few examples of relevant regional TODs.

- **Mission Meridian Village, South Pasadena** - The South Pasadena Metro Gold Line was designed to include a town square with pedestrian amenities and artwork. The Mission Meridian Village, adjacent to the Metro Gold Line in South Pasadena, transformed an older retail and residential area to include 67 condominiums, 5,000 SF of retail space, two levels of subterranean parking containing 280 parking spaces, and a bicycle store and storage facility. It is located within two minutes of the Metro Gold Line Mission Station and is designed in styles in keeping with the surrounding neighborhood, refer to Figure 3-6. As a TOD, Mission Meridian Village has been a success. In 2006, it won both the American Institute of Architects (AIA) Honor Award for Multi-family Residential developments and Congress for New Urbanism Charter Award. This development and the station have stimulated other pedestrian-friendly compatible developments in the area.

FIGURE 3-6: MISSION MERIDIAN VILLAGE, SOUTH PASADENA, CA

Source: *Gruen Associates and www.chalic.com*

- **Village Walk, Claremont, CA** - Village Walk is a transit-oriented development located within an eight-minute walk of the Claremont Metrolink Station. The historic Claremont Metrolink Station (Claremont TransCenter) is served by multiple Foothill Transit bus routes and Amtrak California Thruway Motorcoach. Village Walk is also near Claremont Village, as well as the five Claremont Colleges. Completed in 2006, Phase I and II consist of 186 condominiums, lofts, town homes and duplexes. Village Walk is the main residential component of the City of Claremont's Village Expansion plan. The plan for the area includes the live/work lofts, restaurants, and shops. On the main street of Indian Hill Boulevard and the adjacent blocks, new shops, offices, restaurants, a boutique hotel, a five-screen movie theater, and a public parking structure with retail tenants, as well as a public plaza were constructed (Figure 3-7).

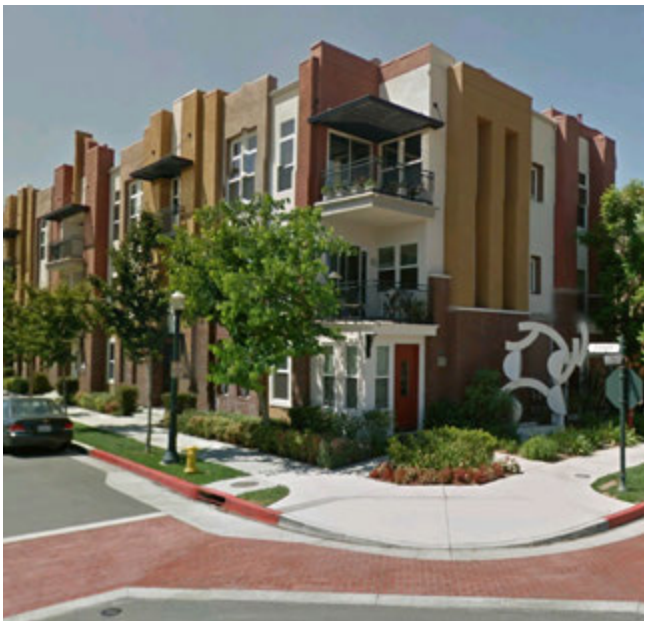


FIGURE 3-7: VILLAGE WALK, CLAREMONT, CA

Source: *City of Calremont website and Wikipedia*

- **SOCO Walk, Fullerton, CA** - SOCO Walk is a recently completed mixed-use development consisting of townhomes, live/work units and lofts located south of the Fullerton Metrolink/Amtrak Station, a key transportation center with a major OCTA bus depot and a new parking structure. SOCO Walk forms the cornerstone of Fullerton's new South of Commonwealth (SOCO) District, which also includes a number of restaurants, lounges and boutiques just north of the railroad tracks. The development includes 120 townhomes, live/work units and lofts with retail. The City built this development in partnership with the Olson Company (Figure 3-8). The SOCO walk is located just south of the Fullerton Transportation Center Specific Plan which contains the Transportation Center and allows for a substantial amount of mixed-use development and structured parking.

FIGURE 3-8: SOCO WALK, FULLERTON, CA

Source: *SCAG Region: Compass Blueprint Case Study Downtown Fullerton*

- **Holly Street Village, Pasadena** - The Holly Street Village located in downtown Pasadena was built in anticipation of the Memorial Park Gold Line Station, which is now in operation. The project includes 374 apartments in 7 buildings, 200,000 SF of parking, and 11,000 SF of offices and retail on the ground floor (Figure 3-9). The light rail station is located at ground level of the main building of the project.

FIGURE 3-9: HOLLY STREET VILLAGE, PASADENA, CA

Source: *San Bernardino County Long Range Transit Plan*

- **Grossmont Trolley Center, La Mesa** - Completed in 2010 in the City of La Mesa, the Grossmont Trolley Station TOD consists of two levels of structured parking on both sides of Grossmont Center Drive, 527 one- and two-bedroom apartments on three and four-levels above the parking, and 3,000 SF of commercial. The TOD is constructed on a seven and one-half acre site adjacent to the existing Grossmont Trolley Station and replaces 600 surface parking spaces. The Grossmont Trolley Station had only a steep staircase connecting the trolley station to the Grossmont Center and a hospital with its active uses located at the top of the bluff south of the station (Figure 3-10). Two elevators were constructed to improve access to the bluff as well as additional transit and pedestrian amenities. A bus court drop-off and pick-up encircles the development and provides access to the replacement parking. The award-winning Fairfield Residential Development follows design standards and guidelines prepared by the City of La Mesa with assistance from Gruen Associates. A portion of the apartments are available to very low- and moderate-income households.

FIGURE 3-10: GROSSMONT TROLLEY CENTER, LA MESA, CA

Source: *Gruen Associates and City of La Mesa*

- **Fruitvale Transit Village, Oakland** - Fruitvale Transit Village is a mixed-use development adjacent to the Fruitvale Bay Area Rapid Transit (BART) District station in Oakland. Fruitvale Village was conceptualized as a need to revitalize the existing neighborhood businesses and a plan to better integrate businesses into transit station development. It includes approximately 40,000 SF of retail and restaurant space, approximately 114,000 SF of office space including a senior center, a health clinic and a library, and 47 units of mixed income housing. These uses are connected through a pedestrian plaza to the Fruitvale BART station. Phase I was completed in 2004. Phase II, divided into three parts, calls for 450 additional units (Figure 3-11).

FIGURE 3-11: FRUITVALE TRANSIT VILLAGE, OAKLAND, CA

Source: *The Unity Council*

- **Del Mar Station, Pasadena CA** - Completed in 2007 in Pasadena on the Metro Gold Line, Del Mar Station is an intense, mixed-use development based on the concept of European historic transit plazas. The 4- to 7-story buildings, organized around a 1-acre plaza and the train station, have 347 apartment units and 11,000 SF of retail use (Figure 3-12).

FIGURE 3-12: DEL MAR STATION, PASADENA , CA

Source: *The New Transit Town, Gruen Associates*

- **Orenco Station, Hillsboro, OR** – Located in Portland's growing high-tech corridor, Orenco Station is situated immediately south of the Intel Ronler Acres plant, a manufacturing and Research and Development facility that employs 16,000 people. In 1999, the National Association of Home Builders named Orenco Station "America's Community of the Year". Started in 1997 on an old nursery site, it is a 1,100 acre new town with a 52-acre village center with mixed-use shops, services and residential. It has a range of housing types and prices (rental units, live-work units, loft units above retail, single family) that includes over 4,300 residential units as well as 200,000 SF retail uses and 800,000 SF of office uses (Figure 3-13). There is a pedestrian access to the MAX light rail station that extends from the town center. The town center has four-story residential with ground floor retail along the main street. Currently, the walk from the Orenco Station to the town center takes approximately seven minutes.

FIGURE 3-13: ORENCO STATION, HILLSBORO, OR

Source: *Planetizen*

- **The Pearl District, Portland, OR** – Much has been made of the success of Portland's Pearl District and it is not unwarranted. Since the first residential units were built in 1994 more than 3,500 lofts, condos and apartments have sprung up in the 85-block area, with many more on the drawing board. The area was transformed from an older commercial/industrial area. The Pearl District's zoning emphasizes multi-use structures with street-level food, service and retail shops, as well as residential and office uses (Figure 3-14). The Portland Streetcar, which runs north and south through the Pearl District every 13 minutes, makes connections with light rail (MAX) as well as the bus transit mall. There is also a strong emphasis on public spaces and parks. Agreements with the City of Portland and property developers have allowed the creation of several parks such as Jamison Square and Tanner Springs Park and also provided tax abatement. Part of the reason that the Pearl District has been so successful is the great diversity of the area and its adjacencies to historic downtown Portland.

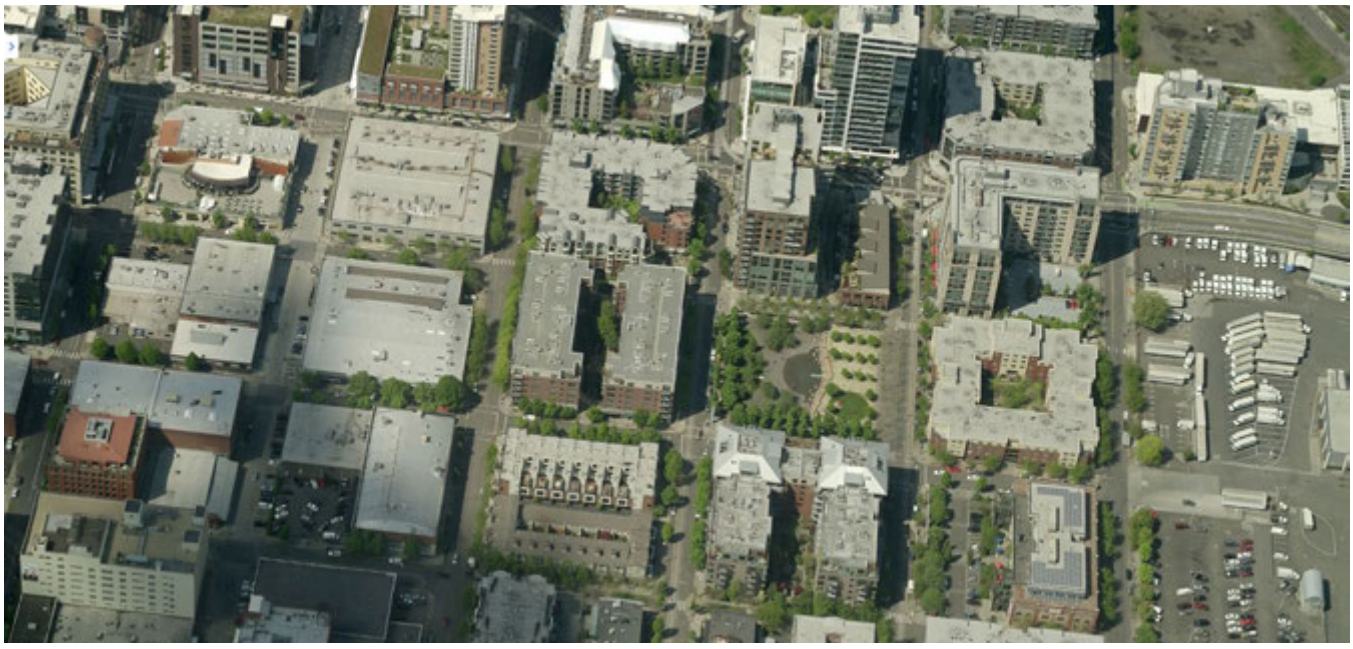
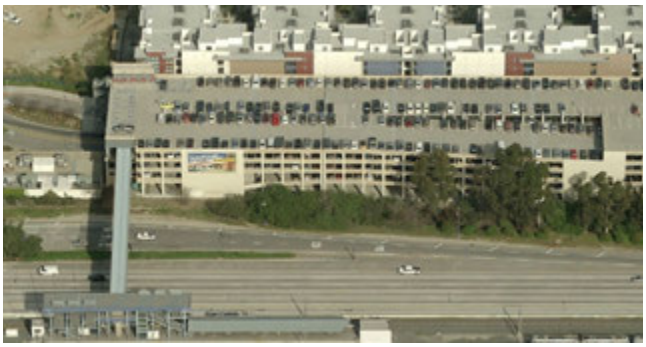


FIGURE 3-14: THE PEARL DISTRICT, PORTLAND, OR

Source: *www.tndwest.com*

- **The Stuart at Sierra Madre Villa Station, East Pasadena, CA** – The 1999 East Pasadena Specific Plan encouraged TOD uses around the then proposed Gold Line light rail station at Sierra Madre Villa and provided development guidelines. The Stuart, located adjacent to the final stop of the Metro Gold Line on 7.5 acres of property, and completed in 2006, is the first phase of the TOD. Part of this 188-unit complex is the former Stuart Pharmaceutical plant and office building that was designed by architect Edward Durell Stone in 1958 and is listed in the U.S. National Register of Historic Places. The Stuart features a direct pathway to the Sierra Madre Gold Line Station and park-and-ride and preserves a portion of the Stuart Pharmaceutical building (Figure 3-15). The second phase of the project will include an additional 322 units.

Table 3-3 on the following page shows densities for TOD mentioned.



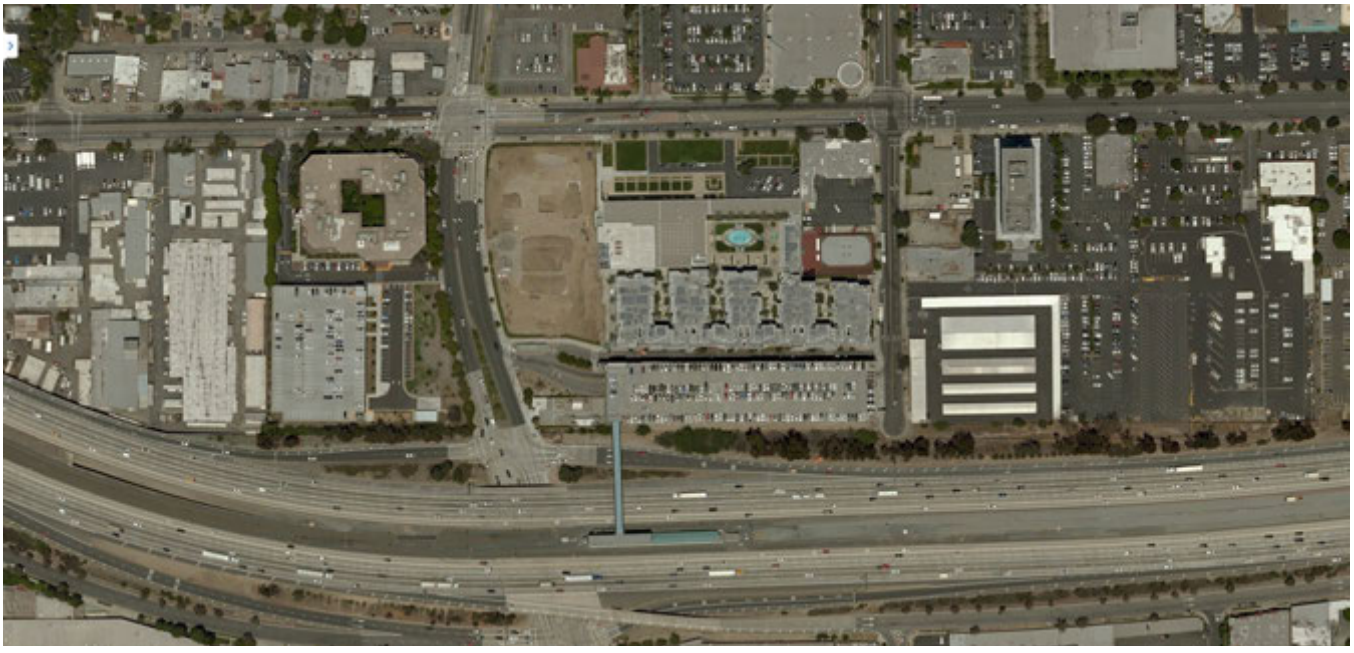


FIGURE 3-15: THE STUART AT SIERRA MADRE VILLA STATION, EAST PASADENA, CA **Source:** *Gruen Associates and Pasadena Star News*

*TABLE 3-3: **EXAMPLES OF TOD DENSITIES***

Project	Estimated Densities (dwelling units/acre)
Mission Meridian Village - South Pasadena, CA	40
Village Walk - Claremont, CA	23
Soco Santa Fe Apartments - Fullerton, CA	80
Soco Walk Condominiums - Fullerton, CA	22
Holly Street Village - Pasadena, CA	87
Grossmont Trolley Center - La Mesa, CA	53
Fruitvale Transit Village - Oakland, CA*	NA
Del Mar Station - Pasadena, CA	100
Orenco Station - Hillsboro, OR*	25
The Pearl District - Portland, OR*	NA (2.0-4.0 Floor area ratio)
The Stewart - Pasadena, CA*	25

*Contains a considerable amount of non-residential within the site reducing the overall density applied to the site

Source: Google, Gruen Associates

3.4.4 Typologies

The Center for Transit-Oriented Development (CTOD) and specific regions and cities have developed typologies to classify neighborhoods, station areas and districts into a few categories or "place types". A "one-size fits all" concept does not apply to all TOD areas as TOD plans, policies, standards, and designs must reflect a city's vision, community values, transit technology, and the uniqueness of the context.

Typologies are used where there are multiple station areas along a transit system and when it is not reasonable to provide policies and guidelines for each separate station area. According to CTOD place types can create an inspirational vision for future land uses in the station area, prioritize the station for investment, identify and organize actions for implementation and measure performance as a range of metrics. For simplicity purposes of planning along the entire Metrolink system place types, defined in Table 3-4, are recommended.

*TABLE 3-4: **POTENTIAL STATION AREA PLACE TYPES AND CHARACTERISTICS***

Place Type or Typologies	Land Use Characteristics	Station Area Examples
Downtown	Mixed use with a full range of commercial, residential, civic, educational and cultural uses.	Union Station, Los Angeles; Village Walk, Claremont; SOCO Walk, downtown Fullerton; Holly Street Village, Pasadena; Upland; Fontana; Rialto; downtown San Bernardino
Regional Center	Contains major regional destination(s) and a mix of other uses.	Hollywood & Highland, Los Angeles; Montclair
New Mixed Use Transit Village	A mix of uses on primarily vacant land or large surface parking areas which has a transit station as the focus which can be totally redeveloped as a TOD.	Orenco Station, Hillsboro, Oregon; Grossmont Trolley Center, La Mesa; Rancho Cucamonga
Employment Center or District	Employment uses are envisioned as dominant and the focus for the area.	Universal City, Los Angeles; San Bernardino Santa Fe Depot
Transit Campus	A mix of uses centered around major educational facility, hospital, or similar destination.	University of Southern California/Exposition Park EXPO LRT Line; Vermont/Sunset
Neighborhood Center	A small-scale neighborhood which is primarily residential with supporting commercial.	Mission Meridian Village, South Pasadena; Del Mar Station, Pasadena

These generic place types could be refined and applied to all the Metrolink stations with metrics to begin to establish land use and urban design characters.

For a sample of general TOD guidelines, refer to Appendix A - Transit-Oriented Development (TOD) Guidelines from Omnitrans Design Guidelines. These guidelines could be used by the cities, as appropriate, in tailoring their plans and policies for each typology.

3.5 Potential Corridor-Wide Implementation Strategies

In addition to transit infrastructure operational strategy recommendations, the following strategies are included for each city's consideration:

INSTITUTIONAL

- Amend city plans (e.g. General Plans, Specific Plans, Housing Element, Development Code etc.), as appropriate, to streamline the development process and/or include in General Plan updates higher density, mixed-use designations to assist in transforming the Metrolink station areas into a more intense, vibrant TOD around each station area.

- Sponsor legislation that can deal with the loss of Redevelopment tools, including land assembly. The cities no longer have a streamlined path when attempting to implement and fund higher density mixed-use TOD projects.

- Participate in a Marketing Board that would attract "non-traditional" LA based and Northern California developers who know how to implement high density mixed-use TOD development, informing them of planned improvements and land availability.

- Collaborate with other agencies/cities as it relates to corridor-wide financing for TOD goals surrounding the Metrolink stations (i.e., multiple agencies working towards similar goals on improving infrastructure, connectivity, and the Metrolink station areas. It was noted that BNSF Railway could be a partner with SANBAG and Rancho Cucamonga in providing fiber optic utilities (owned by BNSF Railway) to adjacent industrial uses).

- Establish a Parking Authority for implementing shared parking strategies such as Park-Once Districts for future development of the station areas.

- Partner with other agencies in addressing innovative first/last mile concepts including mobility hubs, bike share, bike corral and ride share.

FUNDING

- Identify a funding source for better bus access to the Metrolink stations and city activity centers, and partner with bus service providers to maintain the transit centers.

- Identify funding sources for establishing Quiet Zones and integrate the funding mechanisms into city documents.

- Identify funding sources for adaptive reuse for historic structures within the Metrolink station areas and incentivizing more retail uses.

- Identify funding sources for improvements to pedestrian and bicycle access to the Metrolink station areas, such as the efforts by SANBAG.

- Provide short-term funding solutions to be able to make future improvements to the Metrolink station sites, such as installing solar panels in the

surface parking lots to be able to charge a fee for “premium covered parking” – the revenues of which could be used for making physical improvements (e.g., landscaping) and could help fund a future parking structure.

- Recommend that each city update their Development Impact Fees instead of the ULI’s recommendation for charging impact fees for Greenfield development.

- Recommend that multiple cities partner with SANBAG for Cap and Trade funding in order to strengthen leverage – multiple agencies working towards similar goals on improving infrastructure, connectivity, and the Metrolink station areas.

- Focus retail/commercial uses adjacent to the Metrolink stations to be transit related (e.g., daycare centers, cafes, bakery shops, cleaners, etc.)

- Partner with higher education (i.e., local colleges) to explore the financing opportunities with potential infill development in the Metrolink station areas for job creation and training.

- Consider a Land Trust option, especially for the easterly cities of Fontana, Rialto and San Bernardino, to keep properties until developers are ready to implement the City’s vision. Cities have the opportunity to delay selling of properties and in the meantime can improve infrastructure - cities are not required to sell off their redevelopment properties right away.

For more detail of some of these corridor-wide strategies, refer to Section 5.0.

THIS PAGE IS LEFT INTENTIONALLY BLANK

4

Existing Conditions, Opportunities, Vision and Strategies for Individual Cities

Individual cities' roles in implementing the ARRIVE Corridor are to refine and adopt regulating plans conducive to TOD, including a transit-supportive mix of uses, placemaking and more dense and intense development designed along with public realm improvements to create a walkable and connected environment. Individual cities' roles also include collaborating with potential developers that are willing to build TODs, other corridor cities and other agencies for funding and implementing the corridor-wide strategy.

This section summarizes the existing conditions, vision and strategies for individual cities. For more details on existing conditions, barriers and opportunities, refer to the ARRIVE Corridor Briefing Book, Section 3.0, August 2014, and the ARRIVE Corridor Market Study, August 2014. Key infrastructure improvements by city are included at the end of this section.

4.1 THEMES

To be successful, the ARRIVE Corridor should be thought of as a transit corridor with a string of stations in six unique cities, each with their own character (Montclair, Upland, Rancho Cucamonga, Fontana, Rialto and San Bernardino).

The goal is for residents, employees, and visitors to not only use Metrolink for long distance trips, but also for shorter trips between destinations. To envision the entire corridor and market the corridor for potential residents, employees and developers, a theme for each of the station areas is recommended using the typologies in Table 3-1 as a starting point. Figure 4-1 illustrates four themes for the ARRIVE Corridor.

- ***North Montclair Regional Transit Village***: The 1/2-mile area around the Montclair Transcenter contains the North Montclair Downtown Specific Plan area, a mixed-use transit neighborhood combined with the Montclair Plaza, a regional destination. This mixed-use neighborhood would include regional retail, restaurants, entertainment, a variety of moderate to high-density residential housing types, small parks and other transit-supportive uses linked with a grid of pedestrian-friendly streets.

- ***Downtown Transit Village***: Upland, Fontana and Rialto are part of older historic downtown districts and each would have a mix of transit-supportive uses typical of a downtown setting including civic uses, retail, high-intensity employment, residential uses, a variety of housing types, public gathering spaces, other public facilities and a grid of tree-lined pedestrian-friendly streets connecting the various uses to the transit center and each other. The intensity of these areas should be the densest areas of the city and non-transit-supportive uses, such as storage, warehousing, auto-oriented and most manufacturing would not be appropriate. The type of development would likely be infill.

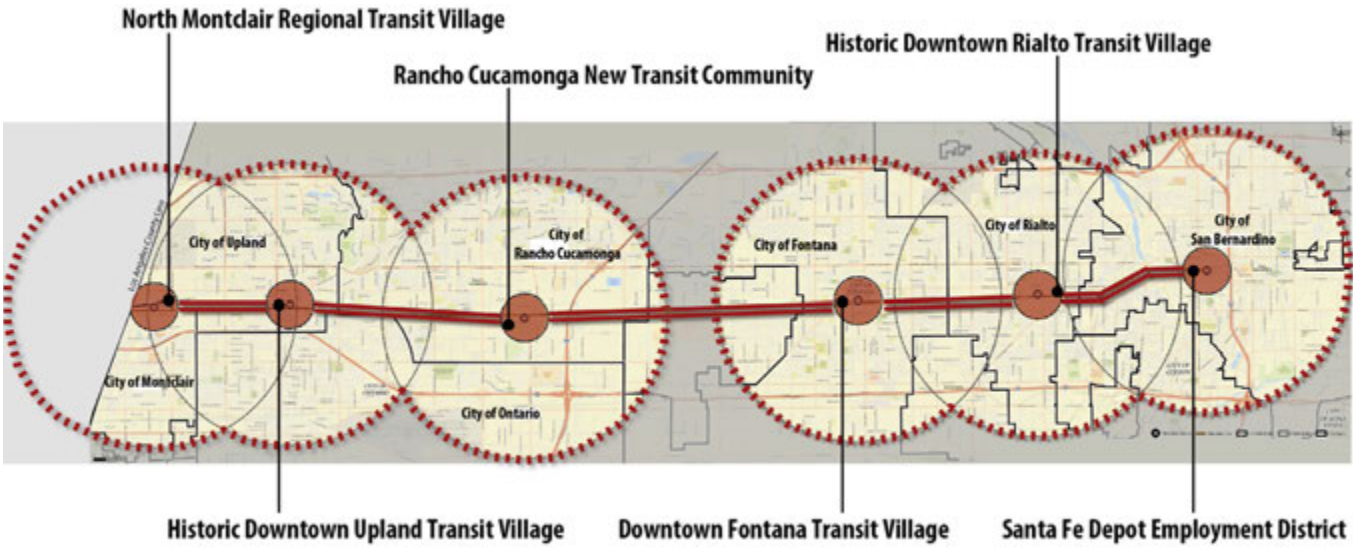


FIGURE 4-1: ***POTENTIAL THEMES FOR THE FUTURE CHARACTER OF THE STATION AREAS***

- ***New Transit Community***: As most of this area will be new transit-supportive development on either the new golf course or the existing parking lots, the theme for Rancho Cucamonga is a New Transit Community. A full mix of uses would be provided with an emphasis on moderate- and high-density residential and employment with supporting retail, recreational and public uses. The large superblocks would be broken down into blocks with strong landscaped pedestrian connections to the station and between the uses. Connecting streets should be designed as complete streets with multiple modes and pedestrian-friendly buildings arranged with entrances on the street. The higher densities would be closer to the station and employment uses integrated with residential.

- ***Employment District***: This district is envisioned to include infill of employment and institutional uses and supporting restaurants/retail closest to the station. There is no major intensification of residential due to environmental concerns related to BNSF Railway operations. The Santa Fe Depot station area would follow this theme.

4.2 Montclair Transcenter Station Area

The theme for the Montclair Transcenter station area is the North Montclair Regional Transit Village, which combines together the transit neighborhood envisioned in the North Montclair Downtown Specific Plan (NMDSP) and a renovated Montclair Plaza.

4.2.1 Background and Planning Context Summary

MONTCLAIR TRANSCENTER

The Montclair Transcenter provides commuter rail service, serves as the western terminus of the Omnitrans fixed-route transit network, and provides connections to Los Angeles and Riverside County transit services. This 17-acre station site is the largest such facility between LAUS and the San Bernardino station. The station site acts as a regional transportation hub, with a regional Metrolink station, an Omnitrans bus facility and a park-&-ride facility, which is owned by the State of California. Montclair and SANBAG jointly own a large site in the middle of the parking lots for a planned childcare facility. The park-&-ride facility, the largest along the Corridor, accommodates 1,836 commuter vehicles. Per the Metrolink parking utilization study, the parking utilization rate in 2014 was at 58.4%. Average weekday Metrolink boardings in Fiscal Year (FY) 2014 was 283.

THE PASEOS IN NORTH MONTCLAIR

As a multimodal regional transportation hub, the Montclair station area is a major stop on the SB Line, and is served by six Foothill Transit, five Omnitrans, and one RTA bus routes. Bus ridership is the second highest of the ARRIVE Corridor station areas. The average Omnitrans weekday ridership is 896; Foothill Transit is 1,365; and RTA is 132. The 1/2-mile station area encompasses three cities: Montclair, Upland and Claremont.

EXISTING LAND USE AND ACCESSIBILITY

The 1/2-mile station area includes commercial, residential and industrial uses, and the Pacific Electric (PE) Trail, a Class I bike facility running between Montclair and Rialto. A large portion of the 1/2-mile station area is devoted to surface parking (park-&-ride lots) north of the Metrolink tracks and vacant land south of Arrow Highway, as shown in Figures 4.2 and 4.3.

- Montclair Plaza is a major regional destination shopping center within the Metrolink station area. The Montclair Plaza and adjoining North Plaza, Montclair Promenade and Montclair Village shopping centers comprise the largest concentration of commercial development in the City with excellent access from I-10. There is no direct pedestrian connection between the Metrolink station and Montclair Plaza, which was recently purchased by the CIM Group. The station area also contains the Montclair Police Department, Montclair Fire Department and an elementary school. Most of the area north of the Montclair Metrolink Station parking area is located within the City of Upland including the flood control basin, as shown in Figure 4.2. Claremont Colleges is

AERIAL PHOTO OF THE PASEOS IN NORTH MONTCLAIR

THE DISTRICT AT ARROW STATION IN NORTH MONTCLAIR

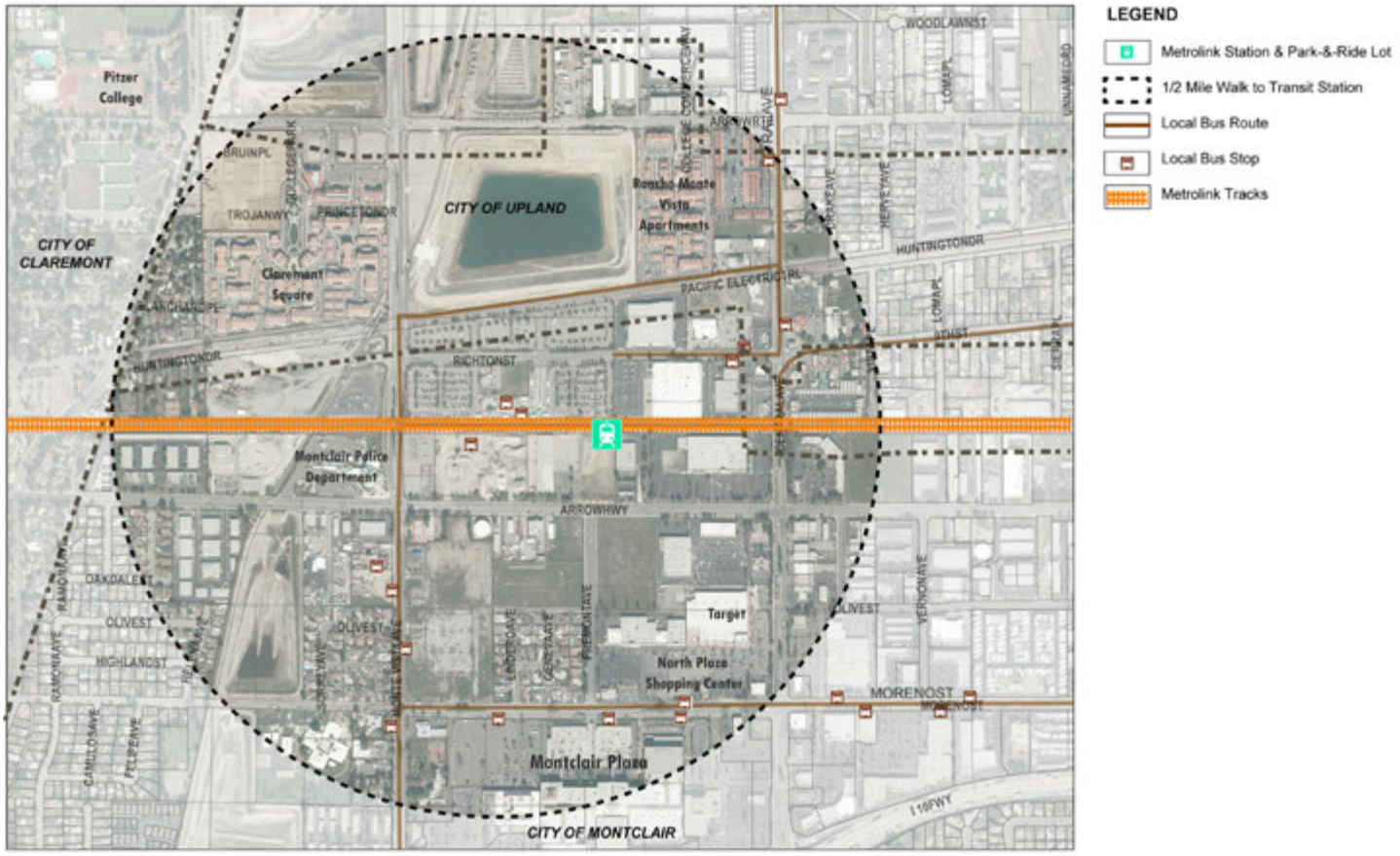


FIGURE 4.2: ***EXISTING STATION AREA AERIAL***

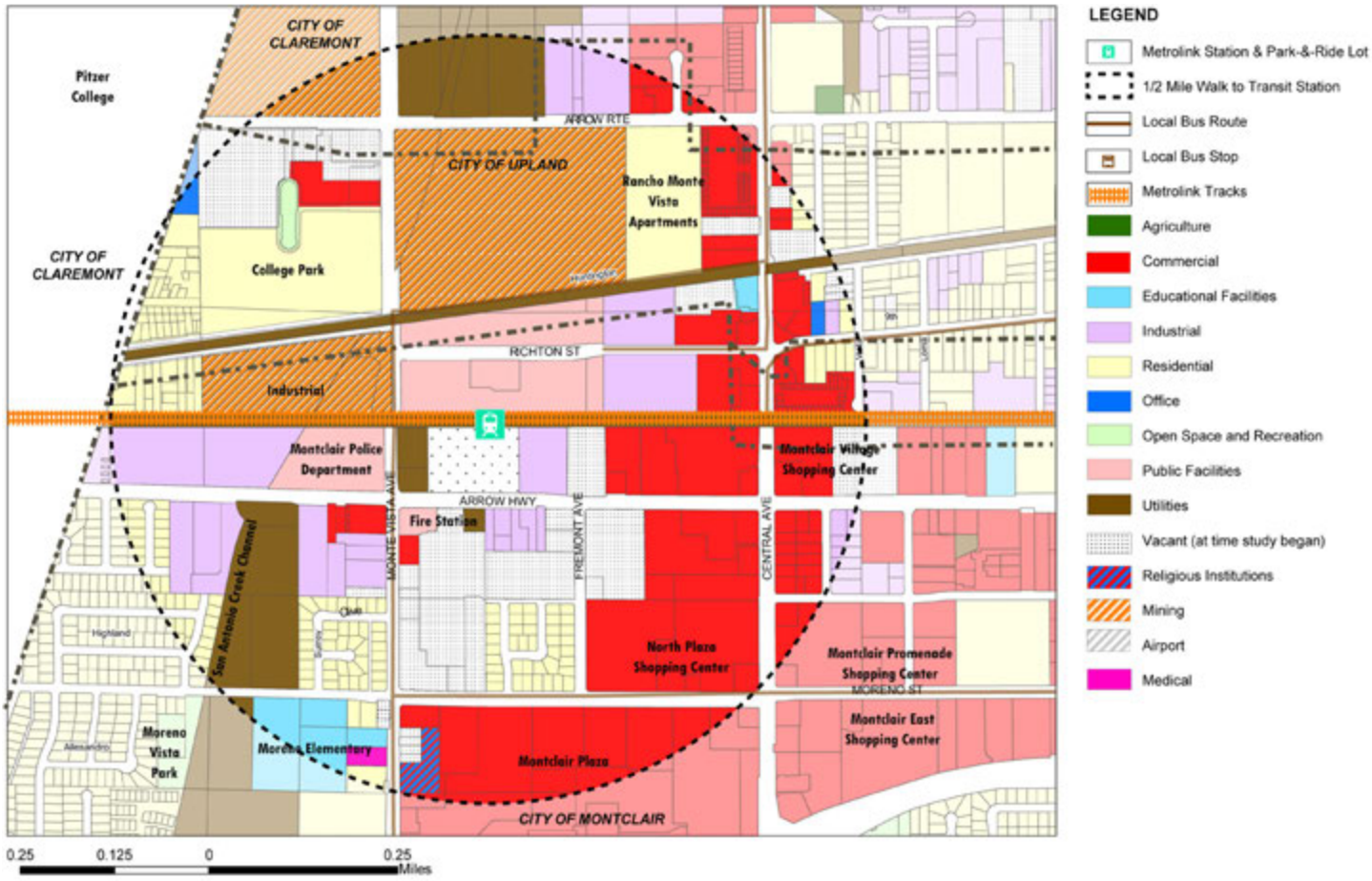


FIGURE 4.3: ***EXISTING LAND USES***

located just outside of the station area. Recently, the Paseos project has been built which includes 385 dwelling units at a density of 25 dwelling units/acre. This high-quality project begins to establish the station area as a place. In addition, the Arrow Station project, containing 99 attached housing units and 30 detached housing units at an overall density of 18.6 units/acre and 2.25 parking spaces/unit, is under construction immediately adjacent to the south side of the Metrolink tracks.

EXISTING OWNERSHIP

Figure 3.12 in the ARRIVE Corridor Briefing Book shows publicly-owned parcels and parcelization within the station area. The surface parking lots north of the Metrolink tracks and the transit facilities are entirely owned by California Department of Transportation (Caltrans) with the exception of a 1.61-acre parcel in the center of the parking lot which is jointly owned by the City of Montclair and SANBAG.

EXISTING PLANS AND STUDIES

The existing conditions portion of the separate ARRIVE Corridor Briefing Book discusses City-adopted plans, policies and programs which contain transit-supportive policies, as well as plans by other agencies. The most relevant plans and a summary of their implications on achieving the vision include:

- **The North Montclair Downtown Specific Plan (NMDSP).** Adopted by the City in 2006, the NMDSP is an excellent example for cities along the San Bernardino Line Metrolink Corridor to use for creating visionary and regulatory documents that promote mixed-use walkable vibrant neighborhoods and placemaking. The Specific Plan Land Use Map and Vision, Figure 4-4, calls for smaller blocks, a grid of streets, strong connections between the transit station, the Montclair Plaza and a variety of housing types at densities appropriate for TODs (30 to 60 dwelling units/acre).

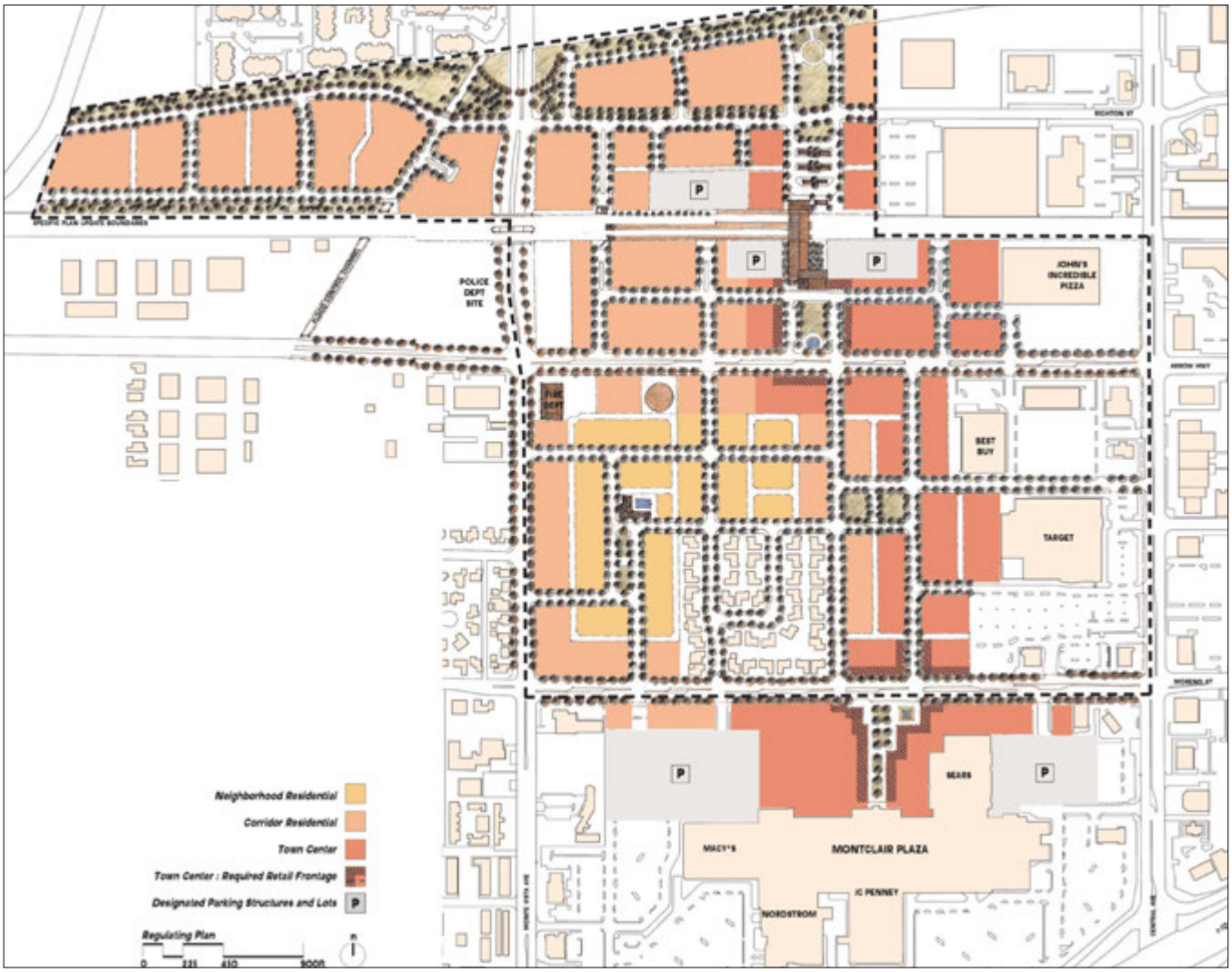


FIGURE 4-4: ***NORTH MONTCLAIR DOWNTOWN SPECIFIC PLAN LAND USE MAP***

POTENTIAL LIVE/WORK EXAMPLE **Source:** *NMDSP*

A DYNAMIC MULTI-MODAL ENVIRONMENT **Source:** *NMDSP*

The Specific Plan was prepared when redevelopment tools were available for financing these infrastructure improvements. Without the redevelopment tools of land assembly and tax increment financing, implementing the infrastructure including a key connection within the NMDSP is a challenge. Critical to the plan is a key connection consisting of a north-south spine starting on the north at the PE Trail, to a relocated bus plaza north of the tracks, to a new overcrossing of the tracks, to a new mixed-use Town Center and ending at the terminus, the Montclair Plaza. This connection is along Fremont Avenue which affects multiple parcels and involves replacement or reconfiguration of the existing parking structure on the north side of Montclair Plaza.

The NMDSP reconfigures the specific plan area with infrastructure improvements including:

- A new bus plaza relocated from its current location
- An overcrossing of the tracks
- New transit station
- New north/south streets
- Public gathering space, transit plaza, and parks
- Three new public parking structures
- New parking structure at Montclair Plaza
- Pedestrian improvements

The NMDSP calls for a Town Center zone at a density of 40 to 60 dwelling units/acre and a Corridor Residential Zone at 30 to 50 dwelling units/acre. Commercial uses are concentrated around the Town Center and near Montclair Plaza.

- **SANBAG Improvement to Transit Access for Cyclists and Pedestrians**. A 2012 study by SANBAG recommended bicycle and pedestrian improvements along the SB Line. SANBAG received an Active Transportation Program Grant to fund these improvements. The following list of projects from the SANBAG Improvement to Transit Access for Cyclists and Pedestrians study and refined in the Active Transportation Program Grant proposal awarded to SANBAG as shown in the Appendix include:

  - Extend PE Trail to Claremont Boulevard.
  - Provide sidewalk on the north side of Richton Street.
  - Provide bike/pedestrian access from PE Trail to Metrolink parking lot.
  - Provide enhanced pedestrian crossing on Richton Street and across bus access.
  - Install bike racks.
  - Provide high visibility crosswalks and signalization along the PE Trail Corridor.
  - Remove one lane of traffic and replace with bike lane and sidewalk on Monte Vista Avenue north of Arrow Highway.
  - Provide pedestrian access from Monte Vista Avenue to platform north of railroad tracks.

- **Metrolink San Bernardino Line Infrastructure Improvement Strategic Study (June 2014).** Station Improvements identified in this study include:

  - Revitalize underutilized existing facility.
  - TOD opportunities for north surface parking lots and on-site open space.
  - Add/upgrade surveillance, messaging and signage systems for Metrolink platforms.

- **Gold Line Extension.** The Metro Gold Line Foothill Extension Construction Authority is planning an extension of the Gold Line from its future terminus at Azusa to Montclair, which would involve the construction of light rail tracks and a platform adjacent to the existing Metrolink platforms.

4.2.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

As presented in Table 4-1, the baseline demand estimates from the ARRIVE Corridor Market Assessment estimates project strong growth in residential demand in the Montclair 1/2-mile station area. Where there is limited demand for net new retail due to the abundance of existing supply, there may still be potential to relocate retail in the station area and reposition retail centers with a more relevant mix of uses.

Refer to the full ARRIVE Corridor Market Assessment for more detail.

OPPORTUNITY SITES FOR DEVELOPMENT

Figure 4-5 identifies a number of potential opportunity sites for high-density housing, mixed-use development, employment uses and other transit-supportive uses. Approximately 62.4 acres of vacant and underutilized land uses are shown in the 1/2-mile area excluding potential opportunity sites in Upland and the Montclair Plaza Regional Center.

Based on the NMDSP and the opportunity sites identified several alternative programmatic scenarios with the following assumptions were considered:

- 52.4 acres of residential @ 30 to 50 dwelling units/acre = 1,572 to 2,620 dwelling units
- 10 acres of non-residential @ 1.0 Floor Area Ratio (FAR) = 435,600 SF

Comparing these alternative land use scenarios to the market assessment in Table 4-1, there is adequately zoned land within the NMDSP and the opportunity sites to respond to the market assessment totals assuming that average densities are approximately 36 to 40 dwelling units/acre. If average densities are lower, the maximum market demand would need to be satisfied west of Monte Vista Avenue, outside Upland, on the Montclair Plaza site, or on sites along Central Avenue.

The market demand estimates for non-residential uses are approximately 240,000 SF, which could be allocated on the approximate ten acres or on the ground floor of mixed-use projects. The floor area ratios and densities assume support by Park Once parking structures shown in the NMDSP or above-grade or below-grade parking provided on site.

4.2.3 City Input

Several meetings were held with City staff and management regarding the implementation of TOD. Input from these meetings include:

- The City supports the extension of the Gold Line from Azusa to the City of Montclair and believes that this is critical for implementing the NMDSP. The City is exploring Cap and Trade funding for the construction of the Gold Line to the Transcenter.

TABLE 4-1: ***MONTCLAIR DEMAND SUMMARY***

Land Use	2014-2020	2020-2035	Totals*
Residential	200-400 dwelling units	700-1,400 dwelling units	900-1,900 dwelling units
Office	0 SF	44,000-107,000 SF	44,000-107,000 SF
Retail	0 SF	69,000 SF	69,000 SF
Industrial	5,000-12,000 SF	22,000-52,000 SF	27,000-64,000 SF

*Totals may not add up due to rounding

Source: HR&A Advisors, Inc.

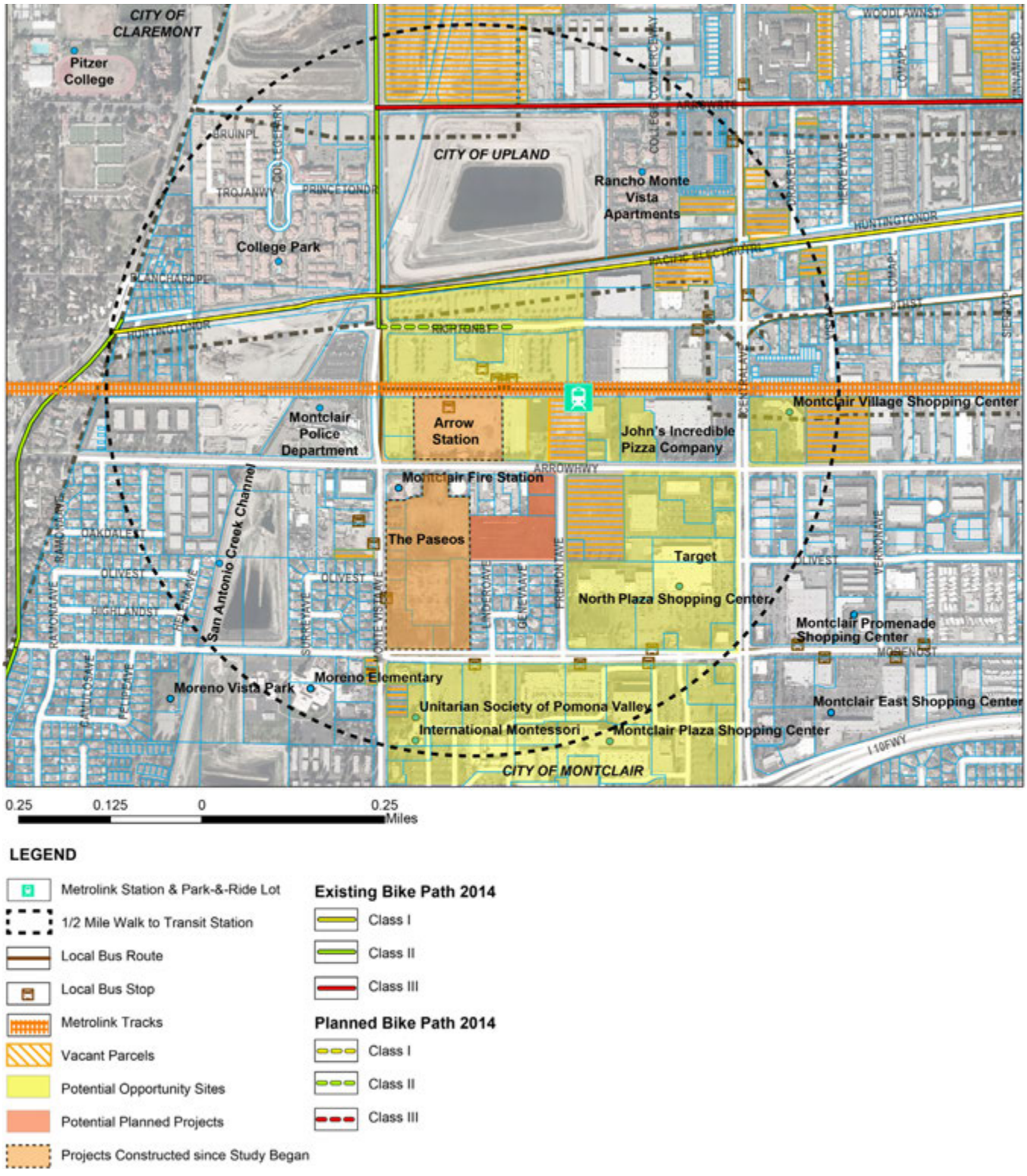


FIGURE 4-5: ***POTENTIAL OPPORTUNITY SITES***

- Based on the Ontario Airport Rail Access Study, there are two rail corridor options for extending the Gold Line to Ontario. The first is to continue the Gold Line on the current Metrolink rail corridor and the other is to introduce a rail corridor along the PE Trail right-of-way. Montclair staff prefers the current Metrolink corridor noting that the Transcenter should be the primary hub for connecting to the Ontario Airport due in part to high ridership for both Metrolink and bus service, and the utilization of freeway Express Lanes. The option for the Gold Line on the PE Trail has no proposal for relocating the Transcenter's Bus Depot and parking.

- The City would prefer a reconfiguration of the bus pick-up/drop-off center that takes up less space such as a bus loop that is integrated with Richton Street as opposed to the current layout at the Transcenter. The City is open to revising the current bus loop to be more efficient for bus operations.

- At Montclair Plaza, there are currently preliminary efforts by the property owner, the CIM Group, in studying the impacts of removing the former Broadway building, and creating better pedestrian connections by enhancing the Moreno Street and Fremont Avenue streetscapes for a lifestyle component.

- The City is planning to make complete street improvements to Arrow Highway (narrowing of road), Fremont Avenue and Moreno Street (landscaping and bicycle routes) and Monte Vista Avenue (elimination of a northbound travel lane in favor of a pedestrian path on the east side of the street that would connect to Metrolink at the south platform). The City is interested in introducing bike lanes for the roadways mentioned above to strengthen connectivity to the Transcenter.

- The City is concerned with establishing a new EIFD due to the need to obtain approval from other taxing agencies, such as the County.

4.2.4 Vision and Implementation Strategies

The NMDSP articulates the vision, land use, and linkage concepts and regulatory tools for a TOD and the City of Montclair is working towards implementing this vision as evidenced by the recent "The Paseos" project. Rather than creating land use strategies as alternatives to the NMDSP, this project focuses on alternative concepts of how to achieve and catalyze the City's vision. This includes refinements that address existing parcel boundaries and new information since the Specific Plan was adopted. The ULI discussed creating value through place, and addressing the gaps between market and costs. Land use concept alternatives and site plans focus on critical key components of the NMDSP. The following key components focus implementation efforts on achieving a thriving TOD and a sense of place include (refer to Figure 4-6):

A Multi-family residential on the Caltrans-owned parking lot adjacent to the existing station along with a gathering space on the property owned by the City of Montclair and SANBAG

B Residential/Live-Work on the south side of the tracks containing a public open space, ultimately a parking structure and over- or under-crossing of the Metrolink tracks connecting to the station north of the tracks

C Completion of the pedestrian and bike-friendly connector along Fremont between the existing transit station north of the Metrolink tracks and Montclair Plaza plus adjoining development along its edges

D Refurbishment of the north side of the shopping center to link with this connector

All of these components should be pursued simultaneously to achieve the plan's vision.

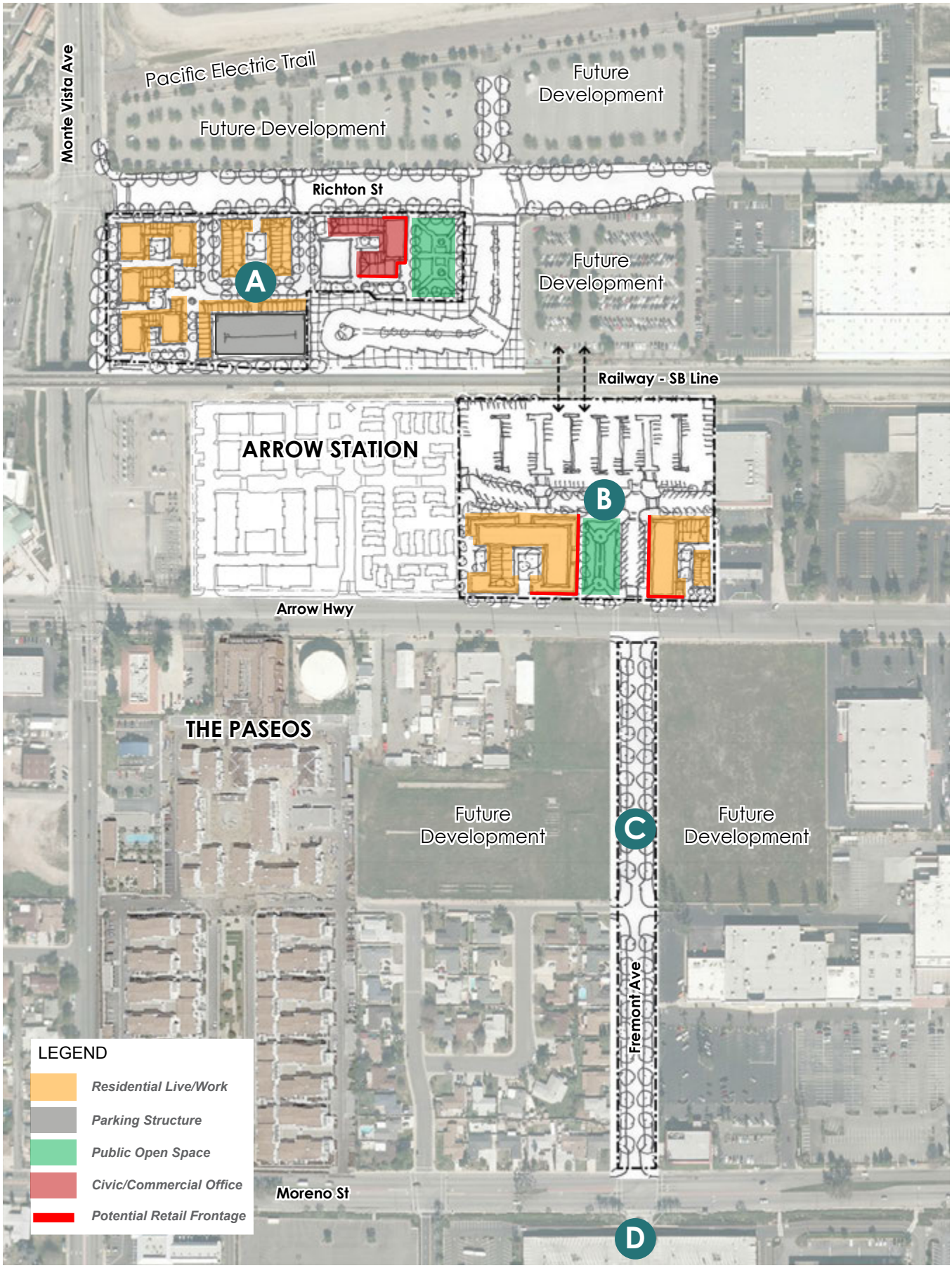


FIGURE 4-6: ***ILLUSTRATIVE SITE PLAN CONCEPTS***

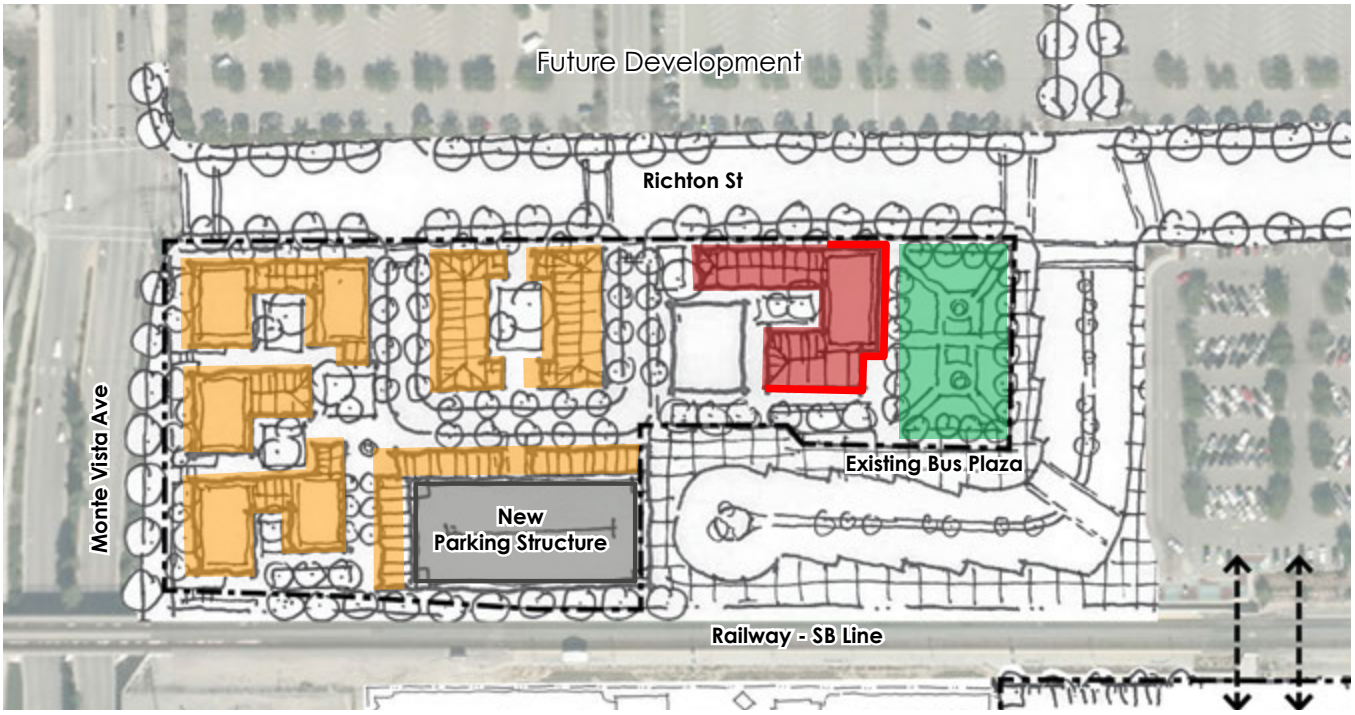


FIGURE 4-7: ***ILLUSTRATIVE SITE PLAN FOR CALTRANS PARKING LOTS AND CITY/SANBAG LAND (ALTERNATIVE A-1)***

LAND USE CONCEPT ALTERNATIVES

Residential Development on Underutilized Caltrans Park-&-Ride Lot (A)

The key objective of the land use concept alternatives on Caltrans property to the north of the Metrolink tracks is to develop a portion of the property (an early phase) adjacent to the existing Metrolink station while creating a strong sense of place and establishing a connection from the Metrolink station to the PE Trail. Both land use alternatives entail cooperation with Caltrans. In order to use a portion of the Caltrans park-&-ride lot for TOD, both alternatives allow the bus transfer center (bus plaza) to remain in its current location until funding is secured for relocating the bus plaza as planned in the NMDSP.

Currently, the Caltrans park-&-ride lot is 58.4% utilized. If approximately 20% or approximately 4 acres is developed for TOD at the maximum density allowed in the NMDSP at 50 dwelling units/acre, 200 dwelling units could be constructed with the minimum NMDSP parking requirement of 1 space/unit on site. This would still leave another 21.6% of the parking lot underutilized, which could provide additional parking for development and available for future demand for park-&-ride.

Alternative A-1 is shown in Figure 4-7. Major features include:

- Locates the 4-acre site, 20% of the park-&-ride lot, between Monte Vista Avenue and the vacant property owned by the City of Montclair and SANBAG. This location is adjacent to the existing new residential to the west across Monte Vista Avenue and provides the opportunity to use the City/SANBAG property for temporary placemaking amenities (food vendors, public art, events, signage, play space and seating) and a public gathering space next to the station.
- Provides a tree-lined pedestrian/bicycle connection through the existing parking lot to the PE Trail as called for in the Transit Access Grant.

Alternative A-2 is shown in Figure 4-8. Major features include:

- Development of a 4-acre parcel directly adjacent to the PE Trail with views over the Upland flood control basin
- A tree-lined pedestrian/bicycle connection to the transit station and use of the City/SANBAG property for temporary placemaking amenities or a new park as a part of the development

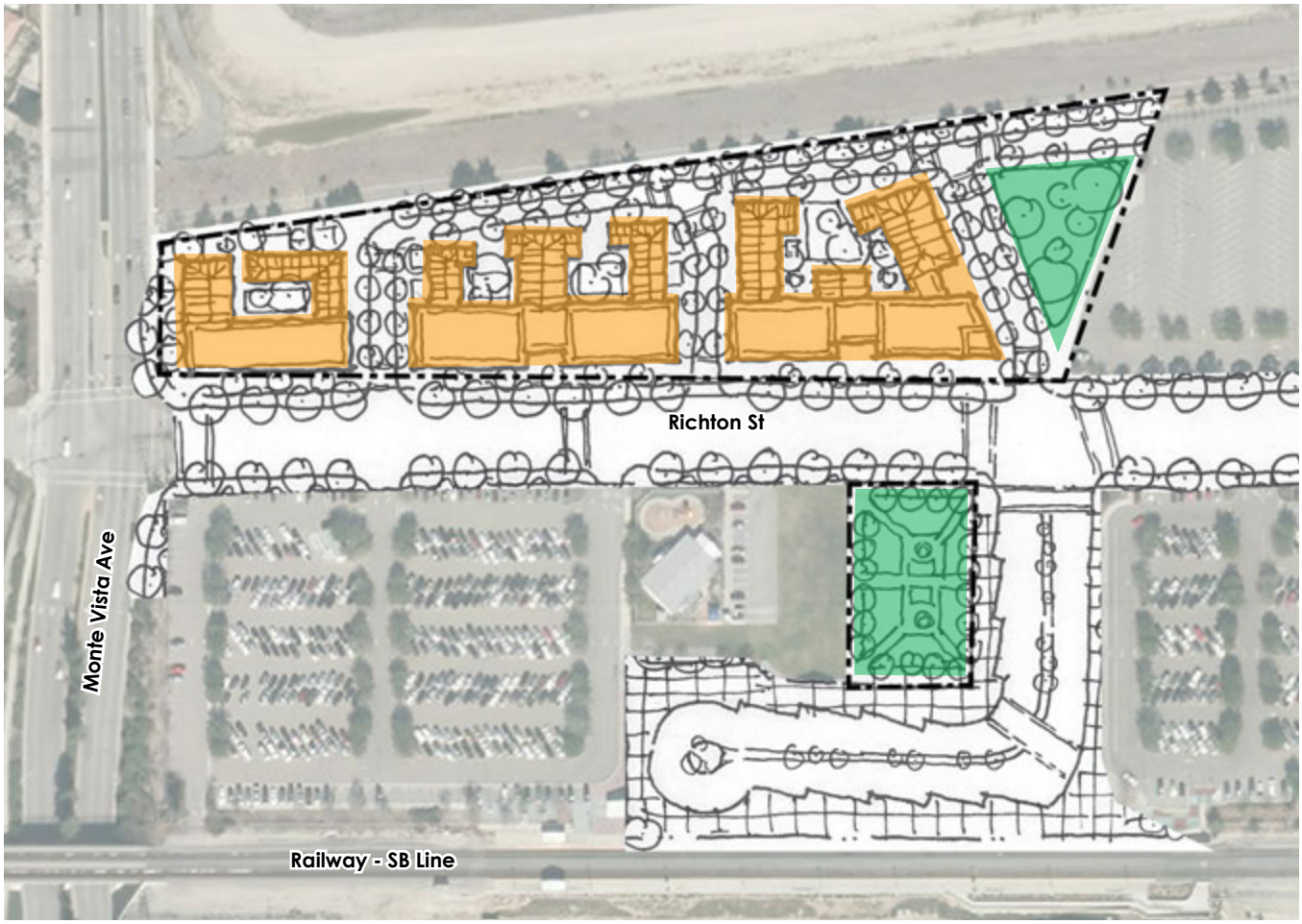
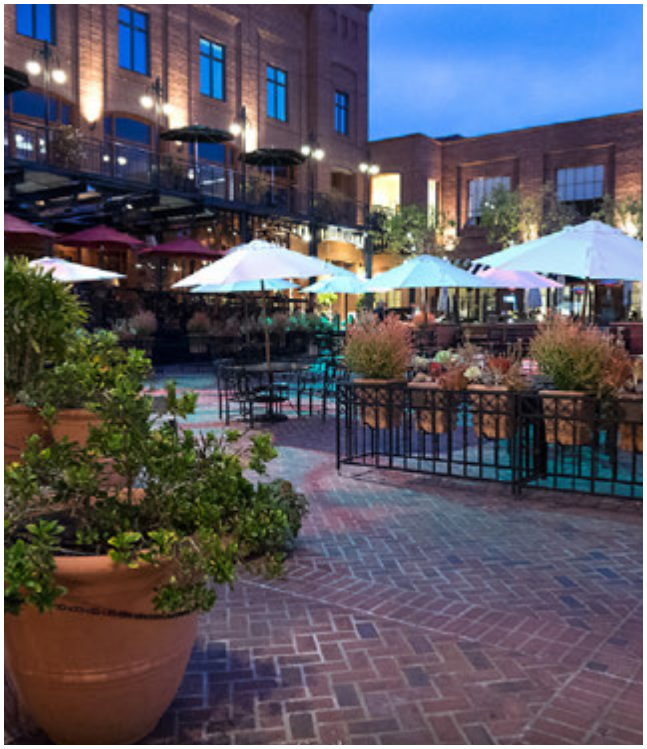


FIGURE 4-8: ***ILLUSTRATIVE SITE PLAN FOR CALTRANS PARKING LOTS ADJACENT TO THE PE TRAIL AND CITY/SANBAG LAND (ALTERNATIVE A-2)***



PLANTING, SEATING, PAVING, UMBRELLAS ANIMATE SPACE
Source: *Bing.com*

LEGEND

- *Residential Live/Work*
- *Parking Structure*
- *Public Open Space*
- *Civic/Commercial Office*
- *Potential Retail Frontage*

Precedents for use of Caltrans Land for TOD

Caltrans-owned land has been used to facilitate TOD in the past[1]. Caltrans has a mandate to dispose of excess land it no longer needs for public right of ways through a public process. Typically land is sold at its fair appraised market value. However, Caltrans property can and has been acquired by cities or other agencies directly, via land swaps and other deals to reduce cost impacts. This may be a useful precedent for ARRIVE cities where Caltrans owns underutilized property adjacent to the Metrolink station. Collaboration efforts with Caltrans to make discounted land available could support TOD and/or higher-density development.

The "Aviation Station" project near Los Angeles International Airport is an example of a TOD that relied on a Caltrans land swap. The mixed-use development was first proposed in 2009 and approved in 2011. The project is located adjacent to the Metro Green Line (LAX Station) and entails roughly 260 condominiums, 20 townhomes, 110 apartments and just under 30,000 square feet of retail. A majority of the land is owned privately but a large Caltrans parcel is proposed to be improved as part of the scope of the project (facilitating a necessary bus terminal relocation and parking facility). The Caltrans parcel will be decertified and transferred to Metro. A portion would be ground-leased (presumably supporting rental units) and the LA City/County boundary will be modified to allow the project to sit entirely in unincorporated territory.

Bus Plaza Alternative to the NMDSP

The more compact bus plaza concept as shown in the NMDSP would have conflicts with pedestrians crossing from the buses to the station. An alternative concept is illustrated in Figure 4-9.

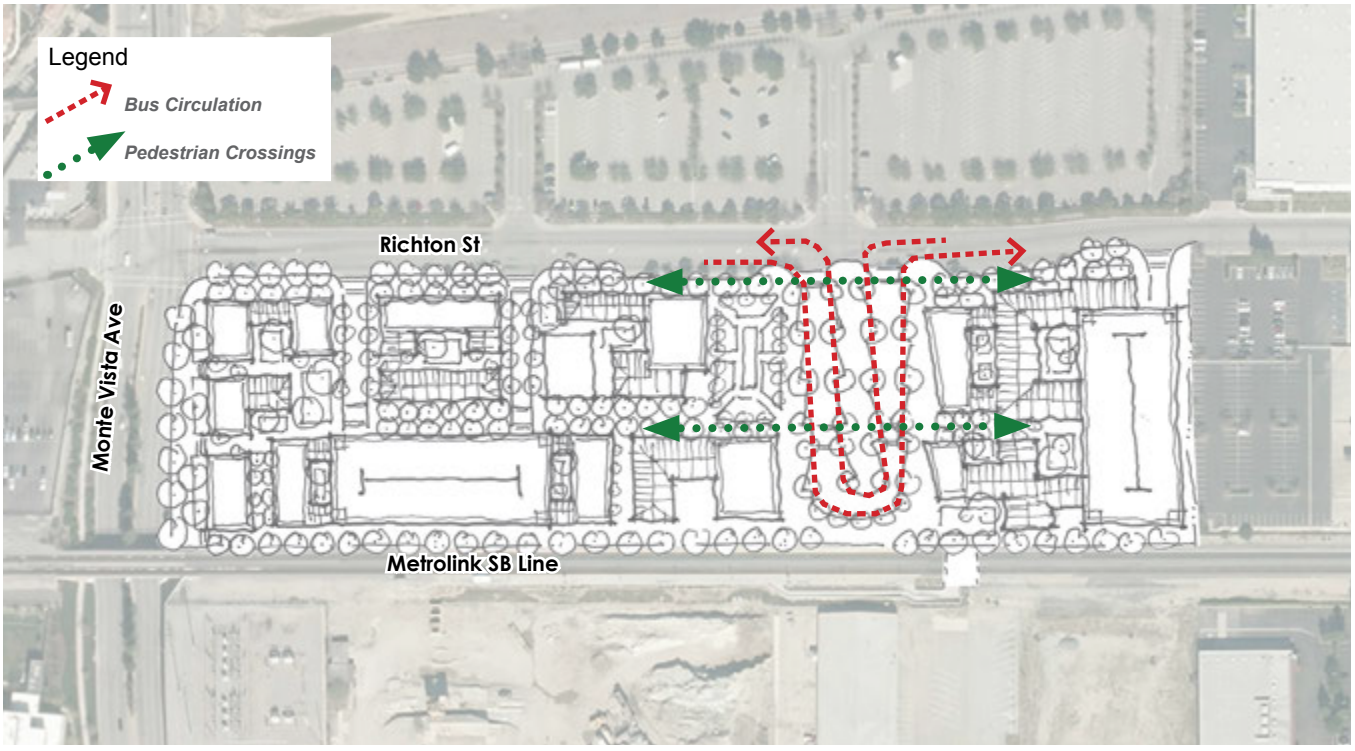


FIGURE 4-9: ***BUS PLAZA ALTERNATIVE TO THE NMDSP***

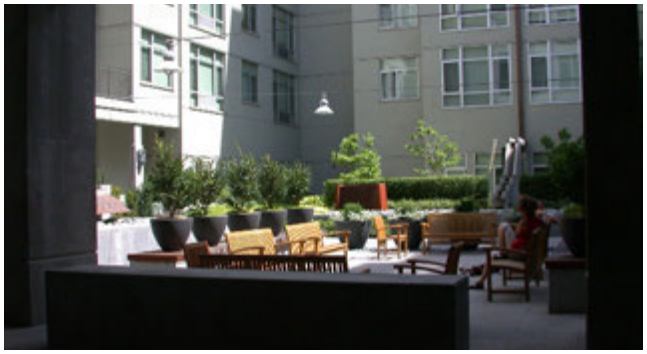
1 Refer to the Hayward Case Study in the Implementation Section

Development and Linkage Concepts South of the Metrolink Tracks (B)

South of the railroad tracks, the key objective is to connect a new development (Arrow Station), a potential future development, the Montclair Plaza and ultimately the transit station across the tracks. Encouraging higher-density development on this site is a challenge, as it is privately owned and the Specific Plan includes an open space, two parking structures and overcrossing of the tracks. Figures 4-10 through 4-12 illustrate concepts for phasing development envisioned in the NMDSP for an approximately 7-acre parcel, which contains the future overcrossing or maintaining the existing undercrossing of the Metrolink tracks. Pro-formas for these alternatives were prepared to understand financial feasibility. Alternative development programs for the site follow.

Alternative B-1 is presented in Figure 4-10.

- 4- to 5-level residential development with live-work units facing a public park. This park would provide a sense of place in early phases
- 41 dwelling units/acre across the entire 7 acres
- 285 dwelling units on site at 1,100 SF/dwelling unit for a total of 385,000 SF
- 285 parking spaces one level below grade of the residential areas (1 space/dwelling unit)



HUMAN-SCALED PRIVATE COURTYARDS

PEDESTRIAN PASSAGES THROUGH COMMERCIAL/RETAIL AREAS

- Initially, a surface lot could be designed on the location of the future west parking structure shown in the NMDSP. The parking structure would be built for transit use when TOD replaces the park-&-ride spaces and would be shared with development on the parcel.
- Extra parking for residential could be rented by residents in this large surface lot if a resident needed more than one space per unit. A total of 1.75 spaces/dwelling unit are provided on the site, plus on-street guest parking.
- The property owner would set aside space for a transit plaza and an over or undercrossing of the track, which would be landscaped until development; funding to be secured later by public entities, such as when the Gold Line is extended.
- One parking structure planned on this site rather than two, which was shown in the NMDSP.

The carrying costs of subterranean parking in Alternative B-1 would require a subsidy of approximately $4.5 million based on the assumptions made in the economic feasibility analysis. (Refer to Appendix C for the economic feasibility analysis.)

Current apartments and townhomes rent levels along the ARRIVE Corridor do not yet support higher-intensity development above roughly 20 to 25 dwelling units/acre, although western cities may reach this point in the near future as the economy continues to strengthen. As seen in this project, a barrier to boosting development intensity is the cost of structured and subterranean parking, which is significantly higher than surface lots.

Alternative B-2, Phase 1, is presented in Figure 4-11. Major features include:

- Project is phased so that all parking initially is surface parking along the tracks with 4- to 5-story residential buildings along Arrow Highway.
- 184 residential units (lofts, apartments and townhomes) are constructed with surface parking at 2 spaces/dwelling unit.
- Entrance to the project is from Fremont Avenue and a public gathering space adjoins this entrance.
- Improvements to the track crossing would be made by others, although an easement would be provided by the private property owner for this.

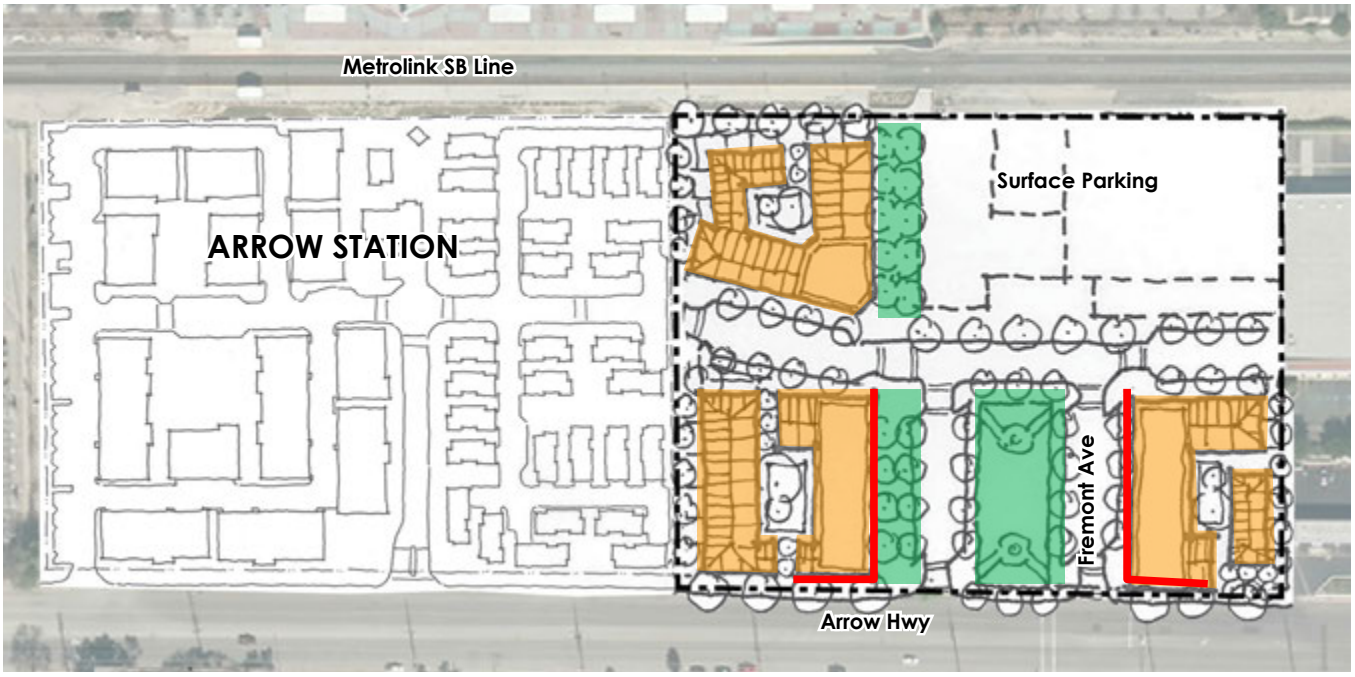


FIGURE 4-10: ***ILLUSTRATIVE SITE PLAN CONCEPT ALTERNATIVE B-1 SOUTH OF THE METROLINK TRACKS***

Figure 4-12 shows Alternative B-1, Phase II, which includes:

- A total of 318 (134 new for Phase II) residential units (lofts, apartments and townhomes)
- Parking at 2 spaces/dwelling unit in new structures adjacent to the track, located along with the new residential on the surface parking lot, plus additional street parking

With reduced parking of 1.5 spaces per unit and parking limited to surface lots in Phase I, which would later be redeveloped, Alternative B-2 would not require a subsidy; however, if the parking ratio remained at 2.0 spaces/dwelling unit, a subsidy of $2.7 million would be needed.

Figure 4-13 illustrates a possible reconfiguration of Fremont Avenue.

VISION STRATEGY RECOMMENDATIONS

<u>Creating a Dynamic Urban Environment (Land Use)</u>

- Consider working with Caltrans to acquire and/or develop some or all of the Metrolink parking lot owned by Caltrans to develop it into a transit-oriented development compatible with the NMDSP. The utilization of the park-&-ride lots in 2014 was only 58.4%. A mixed-use development allowing for housing choices will attract a wide variety of residents i.e., student housing, senior housing, live/work and multi-family housing for both sale and rent. Grossmont Trolley Station in La Mesa, California, used an RFP process for securing a developer on public property and is an excellent built example of utilizing a park-&-ride lot for mixed-use development, while maintaining parking for transit.

- Work with the new owners of the Montclair Plaza to partner in making a direct pedestrian and other non-motorized connections to the Montclair Transcenter and place land uses along these connections to create a sense of place.

- Refine and implement the NMDSP and consider expanding the Specific Plan to other properties to the east, and coordinate this effort with the CIM Group's plans to potentially acquire other properties beyond the station area.

- Continue working with developers in exploring a balance of community amenities and desired densities, when introducing mixed-use projects.

<u>Making the Connections (Connectivity)</u>

- Provide pedestrian connections to the Transcenter from the south as identified in the Specific Plan and other connections per the SANBAG

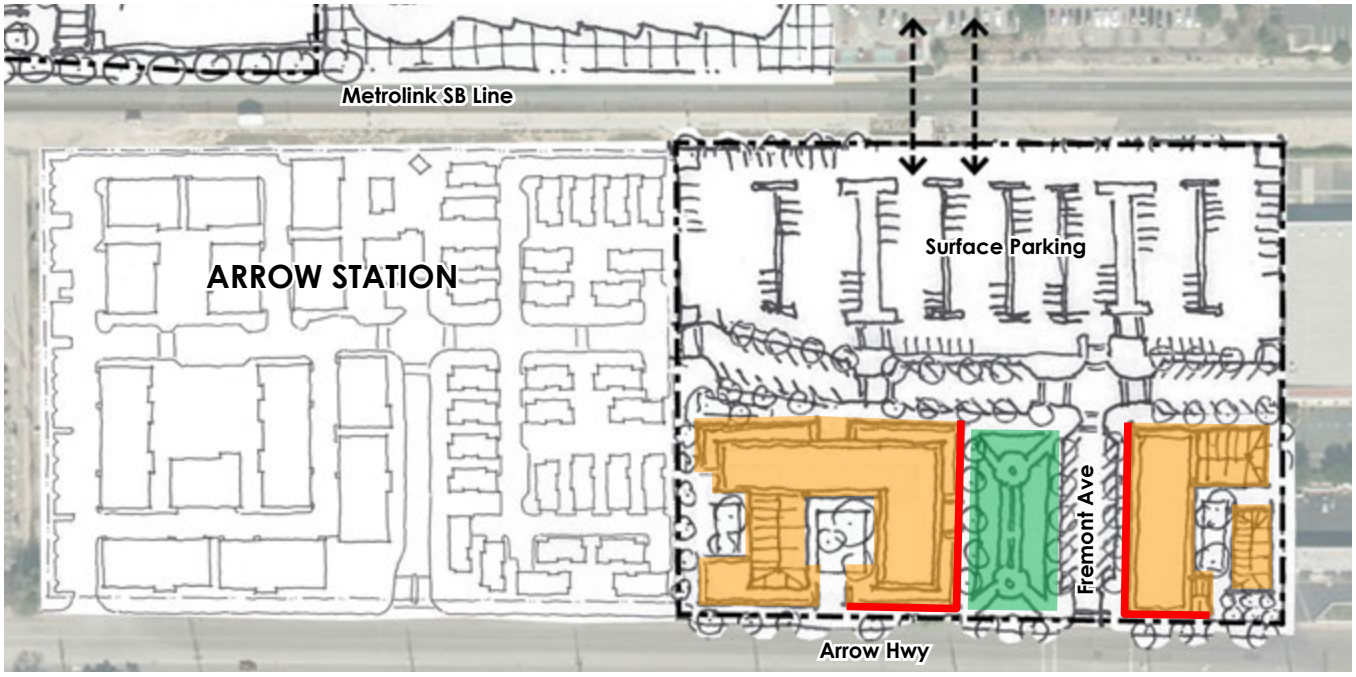


FIGURE 4-11: ***ALTERNATIVE B-2 ILLUSTRATIVE SITE PLAN CONCEPT PHASE 1 SOUTH OF THE METROLINK TRACKS***

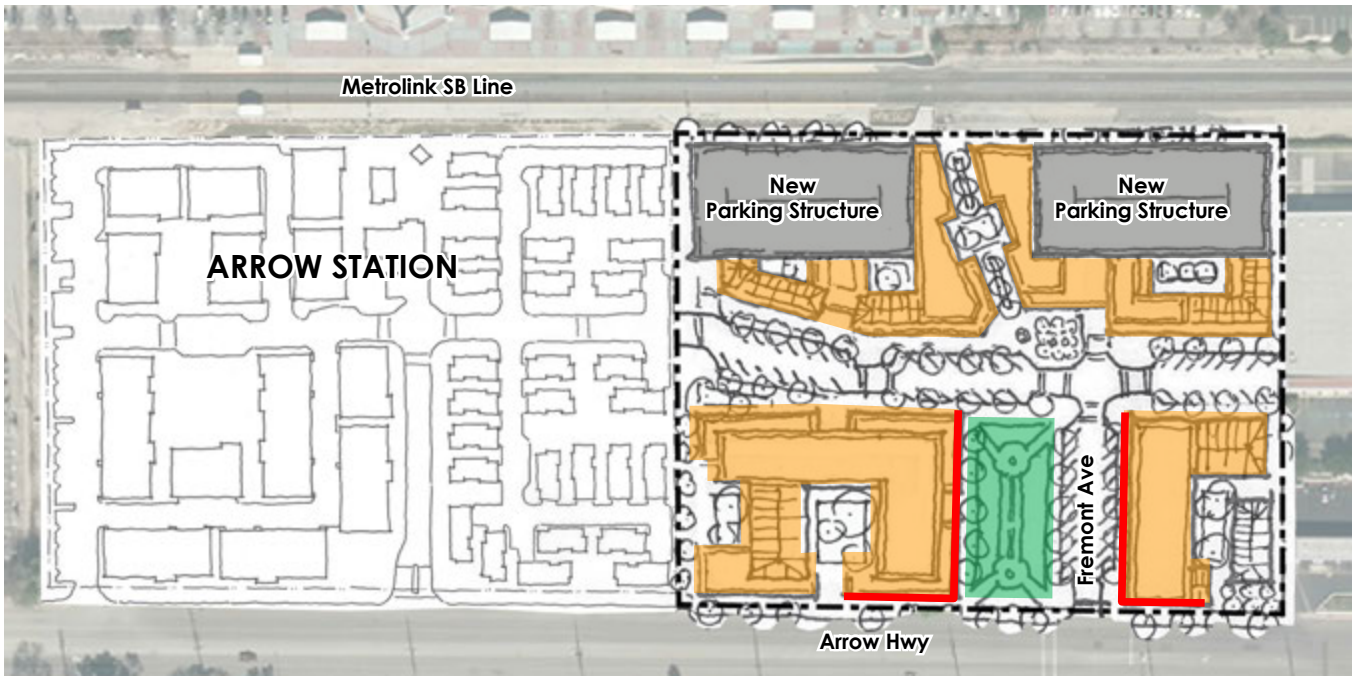


FIGURE 4-12: ***ALTERNATIVE B-2 ILLUSTRATIVE SITE PLAN CONCEPT PHASE 1 AND 2 SOUTH OF THE METROLINK TRACKS***

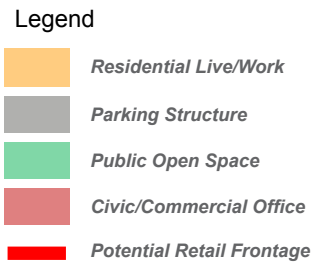


FIGURE 4-13: ***PROPOSED STREET SECTION FOR FREMONT AVENUE***

Improvements to Transit Access for Cyclists and Pedestrians Study. Integrate and coordinate the City's current complete streets improvements to Arrow Highway, Fremont Avenue, Moreno Street, and Monte Vista Avenue with current preliminary efforts by the CIM Group to enhance Moreno Street and Fremont Avenue for a lifestyle component on the north side of Montclair Plaza. The CIM Group, in anticipation of the Gold Line, aims to create better pedestrian connections to the Transcenter and the growing adjacent residential community.

- Provide an enhanced sidewalk on one side of Monte Vista Avenue to the station, possibly in conjunction with the Montclair Plaza improvements.

- Ensure that future development on the park-&-ride lots recommended in the NMDSP allocates adequate space for the existing high bus ridership, future growth in ridership and allows for easy transfer between different modes of transportation.

- Design for kiss-and-rides to allow for easy drop-offs and provide direct pedestrian and bicycle connections from the station to the PE Trail to offer an alternate way to reach the transit station.

- Do not preclude the extension of the Gold Line to the Montclair Transcenter and also provide certainty for potential TOD developers. Refine the Gold Line Foothill Extension Concept Plan, shown in the Briefing Book Appendix, and the NMDSP in more detail to illustrate more clearly the City's vision for the Gold Line. The plan should not only show platform space, connections to the south under the tracks, but also a relocated bus plaza configuration and potential development sites.

- Plan for Montclair's preferred Gold Line Metrolink corridor alignment, which will strengthen the Transcenter as the primary hub for connecting to the Ontario International Airport. The Transcenter's high bus and Metrolink ridership, and the utilization of freeway Express Lanes and HOV lanes by buses going to and from the Transcenter reinforces the Transcenter as a regional transit hub. This location may involve wider right-of-way along the Gold Line Metrolink corridor.

Creating Places

- Program activities/events around the station to activate the station area and market/ educate potential users about the Transcenter. Programming activities can strengthen community bonds and pride, and can influence the local residents in adjacent TOD developments to also follow with activities of their own, such as outdoor movie nights, as is taking place at The Paseos.

- As called for in the NMDSP, encourage development of a transit plaza with active gathering places, used by riders coming and going to the transit station. The transit plaza could be a gateway to the station area and include placemaking features such as programmed activities, landscaping, public art, informational signage and displays celebrating the uniqueness of the community. The plaza can also serve as a location for community events.

- Activate the site owned by SANBAG and the City for public gathering and transit-supportive uses such as food vendors, coffee shops, daycare, public art, temporary events and other service uses creating an early activity center north of the tracks.

- Coordinate with bus service providers Omnitrans, Foothill Transit, and the Metro Gold Line Foothill Extension Construction Authority to reconfigure the bus transfer center to a more efficient design such as a bus loop that is integrated with Richton Street. The Transcenter's goal is to improve its bus operations and minimize the amount of internal space used in favor of a more pedestrian friendly transit plaza.

4.2.5 Station Area Implementation Priorities and Actions

- Attract high-density developments to Montclair.

- Contact Caltrans to outline process and potential incentives for the development of the underutilized Metrolink parking lots.

- Refine/implement the NMDSP and continue coordinating with the CIM Group to develop a direct connection to Fremont Avenue.

- Work with Omnitrans to develop plans for reconfiguring or relocating the bus plaza in conjunction with Gold Line.

- Refine the Gold Line Foothill Engineering Concept Plan and the NMDSP in more detail to illustrate more clearly the City's vision. The plan should show a relocated bus transit center and adequate setbacks from the railroad tracks for potential development sites adjoining the tracks.

- Encourage development of the transit plaza with public gathering spaces.

- Work with shopping center owners to make connections to the transit station along Fremont Avenue.

- Continue funding efforts with Metrolink and SANBAG for the Gold Line Extension to Montclair, enhancements to the undercrossing of the tracks, relocating the bus plaza, and sidewalk improvements along Fremont Avenue.

MIXED-USE OF VARIED DENSITY AND INTENSITY **Source:** *NMDSP*

TEMPORARY POP-UP PARKLET

PUBLIC PLAZAS INTERNAL TO THE BLOCK

Source: *Around Town Pasadena*

4.3 Upland Metrolink Station Area

The theme for the Upland station area is an "Historic Downtown Upland Transit Village", which reinforces the transit neighborhood envisioned in the Historic Downtown Upland Specific Plan.

4.3.1 Background and Planning Context Summary

UPLAND METROLINK STATION

The Upland Metrolink Station is located in downtown Upland, and is well connected to the adjacent pedestrian and bicycle network to the north of the tracks. Near the station are older storefront commercial and industrial development, which are surrounded primarily by low-density residential land uses. Downtown Upland, to the north of the station, has landscaped sidewalks, street furniture and on-street parking in the center of the street. The station includes park-&-ride lots with 294 parking spaces and passenger amenities. The 2014 average weekday Metrolink boardings was 482. According to the Metrolink parking utilization study, the 2014 parking utilization rate was 96.3%.

EXISTING LAND USE AND ACCESSIBILITY

The station area includes several distinct districts that have different characteristics, perform different functions and vary in their development potential. The existing uses along Metrolink tracks include a transitional mix of industrial, commercial, single-family residential and multi-family residential, as shown in Figures 4-14 and 4-15.

There are also a number of small vacant and underutilized properties including publicly-owned parking lots. Shopping is concentrated in the Old Town commercial area; civic uses are concentrated near the Civic Center; and several streets on the east side of downtown (known as the Pleasant View neighborhood) are characterized mostly by historic homes.

The land uses currently found in downtown Upland include commercial, office, institutional (City Hall, school district offices, police and fire stations, and churches), multi- and single-family residential, and parking. South of the Metrolink tracks the area currently consists of single- and multi-family residential uses, neighborhood commercial uses and several vacant lots adjacent to the Metrolink tracks. Recently, a 209-unit, multi-family project began construction south of the tracks.

Pedestrian connectivity in this district is restricted by large blocks, some missing sidewalks, limited landscaping and the lack of a crossing over the tracks between Campus Avenue and 2nd Avenue. The Metrolink station can be accessed by non-motorized users via the PE Trail, which includes east-west cross valley paved walking and jogging paths and is a little over two blocks north of the station. There is an old tunnel under the railroad tracks, and SANBAG with the City have discussed connectivity over the tracks, but no plans or funding are currently available.

EXISTING PLANS AND STUDIES

- **Historic Downtown Upland Specific Plan (2011).** The Historic Downtown Upland Specific Plan (Specific Plan) is a plan to revitalize and preserve the historic heart of Upland. The Historic Downtown Upland Specific Plan encompasses 210 acres of land both north and south of the Metrolink tracks, and it includes far more than the Old Town commercial area that comprises the heart of downtown Upland. This Specific Plan formally organizes the downtown into nine districts, each with a distinct and unique character as shown in Figure 4-16.

- **SANBAG Improvement to Transit Access for Cyclists and Pedestrians (October 2012).** The following list of projects from the SANBAG Improvement to Transit Access for Cyclists and Pedestrians study is defined in the Active Transportation Program Grant proposal awarded to SANBAG as shown in Appendix D:

  - Provide wayfinding signage at Euclid Avenue and "A" Street
  - Provide shared bike lane markings on Class III bike lanes at 8th Street and Campus Avenue

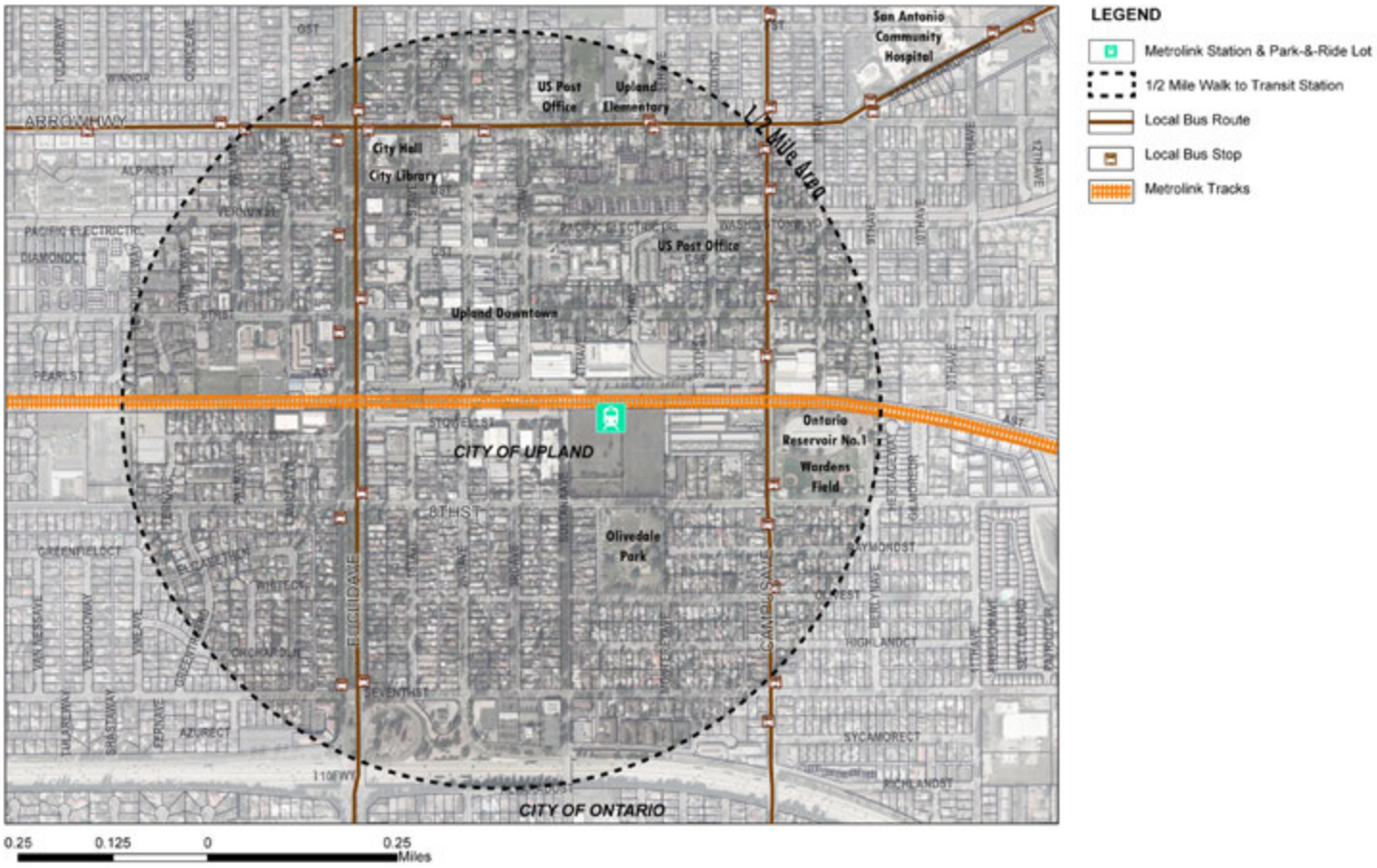


FIGURE 4-14: ***EXISTING STATION AREA AERIAL***

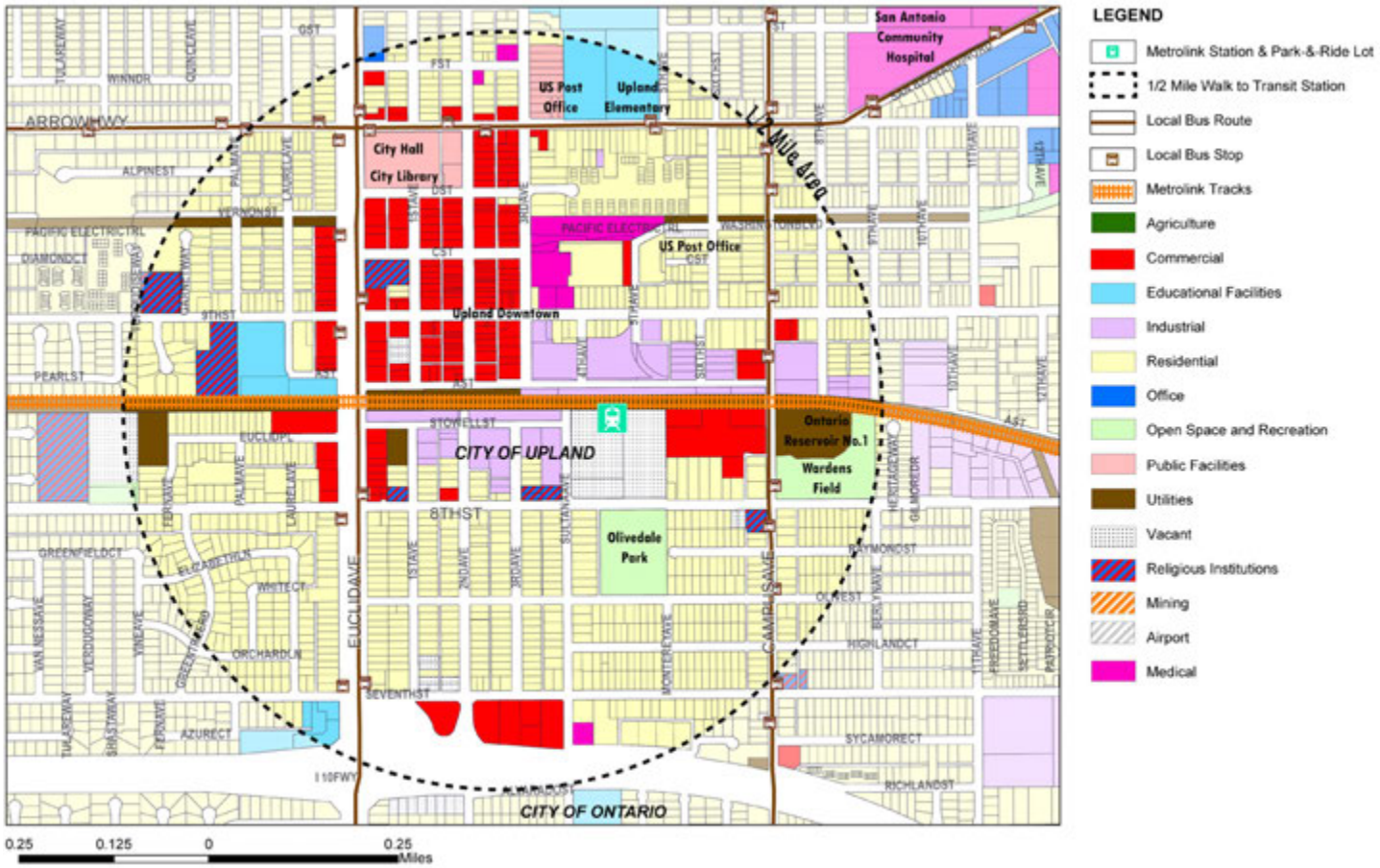


FIGURE 4-15: ***EXISTING LAND USES***

FIGURE 4-16: ***HISTORIC DOWNTOWN UPLAND SPECIFIC PLAN VISION PLAN***

- Provide crosswalk and wayfinding signage on 3rd Avenue north of the Metrolink station
- Provide sidewalk on 1st Avenue south of railroad tracks
- Provide pedestrian automated crossing gates at railroad tracks at Euclid Avenue and "A" Street
- Provide enhanced crosswalks at four intersections along 1st Avenue, 2nd Avenue, and 3rd Avenue
- Remove sidewalk on both sides of streets on 3rd Avenue and 4th Avenue, north of the railroad tracks
- Provide sidewalk along 3rd Avenue, 1st Avenue and Stowell Avenue south of the railroad tracks

- **Metrolink San Bernardino Line Infrastructure Improvement Strategic Study (June 2014).** Station Improvements include:

  - Proposed track
  - Proposed 16' wide platform
  - Potential at-grade pedestrian crossings
  - Pedestrian connection: overpass or underpass
  - Add/upgrade surveillance, messaging and signage systems for Metrolink platforms
  - TOD opportunity south of tracks and east of Sultana Avenue (groundbreaking for a mixed-use project on that site took place in December 2014)
  - Parking expansion opportunity north of "A" Street and west of 6th Avenue

- **The Upland Metrolink Land Use and Constraints Analysis.** This 2014 SANBAG study reviewed the General Plan, Upland Historic Downtown Vision and Specific Plan, and recommends the following may be valuable to consider in an update to the Specific Plan:

  - Future rail corridor right-of-way and configuration needs
  - Rail corridor noise planning and funding
  - Future rail transit service
  - Future bus and rail transit interconnector services and facilities
  - The City's loss of redevelopment authority and funding
  - City pedestrian and bike infrastructure funding
  - Storefront commercial uses for all parking facilities may be barriers to development

especially south of the tracks

- Recommends setbacks of 3 feet to 5 feet from the rail transportation corridor which allows property owners to maintain their property and encourage landscaping for an attractive "front door" to the City from the train

4.3.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

As presented in Table 4-2, the baseline demand estimates from the ARRIVE Corridor Market Assessment estimates project strong growth in residential, industrial, and office demand in the Upland 1/2-mile station area. There is limited demand for net new retail due to the station's location next to Upland's historic core.

Refer to the full ARRIVE Corridor Market Assessment for more detail.

OPPORTUNITY SITES

The 1/2-mile station area has approximately 40.6 acres of vacant and underutilized land, of which 33.6 acres has residential development potential. To satisfy the residential demand according to the market assessment, the residential opportunity sites will need to be built at 15 to 55 dwelling units/acre (the range in the Specific Plan), which will equal 504 to1,848 dwelling units. To satisfy the non-residential demand of 7 acres of vacant and underutilized land at 1.0 FAR will equal 304,920 SF.

All residential opportunity sites combined as shown in Figure 4-17 would need to be developed at 36 dwelling units/acre average to satisfy the market demand estimates. Market demand estimates for non-residential uses total 285,000 SF can be satisfied within the 7 acres of vacant and underutilized land with structured parking.

TABLE 4-2: ***UPLAND DEMAND SUMMARY***

Land Use	2014-2020	2020-2035	Totals*
Residential	200-400 dwelling units	400-700 dwelling units	600-1,200 dwelling units
Office	7,000-13,000 SF	55,000-111,000 SF	62,000-124,000 SF
Retail	940 SF	41,000-95,000 SF	43,000 SF
Industrial	10,000-24,000 SF	22,000-52,000 SF	51,000-119,000 SF

*Totals may not add up due to rounding.

Source: HR&A Advisors, Inc.

OUTDOOR DINING FORECOURT FACING THE STREET

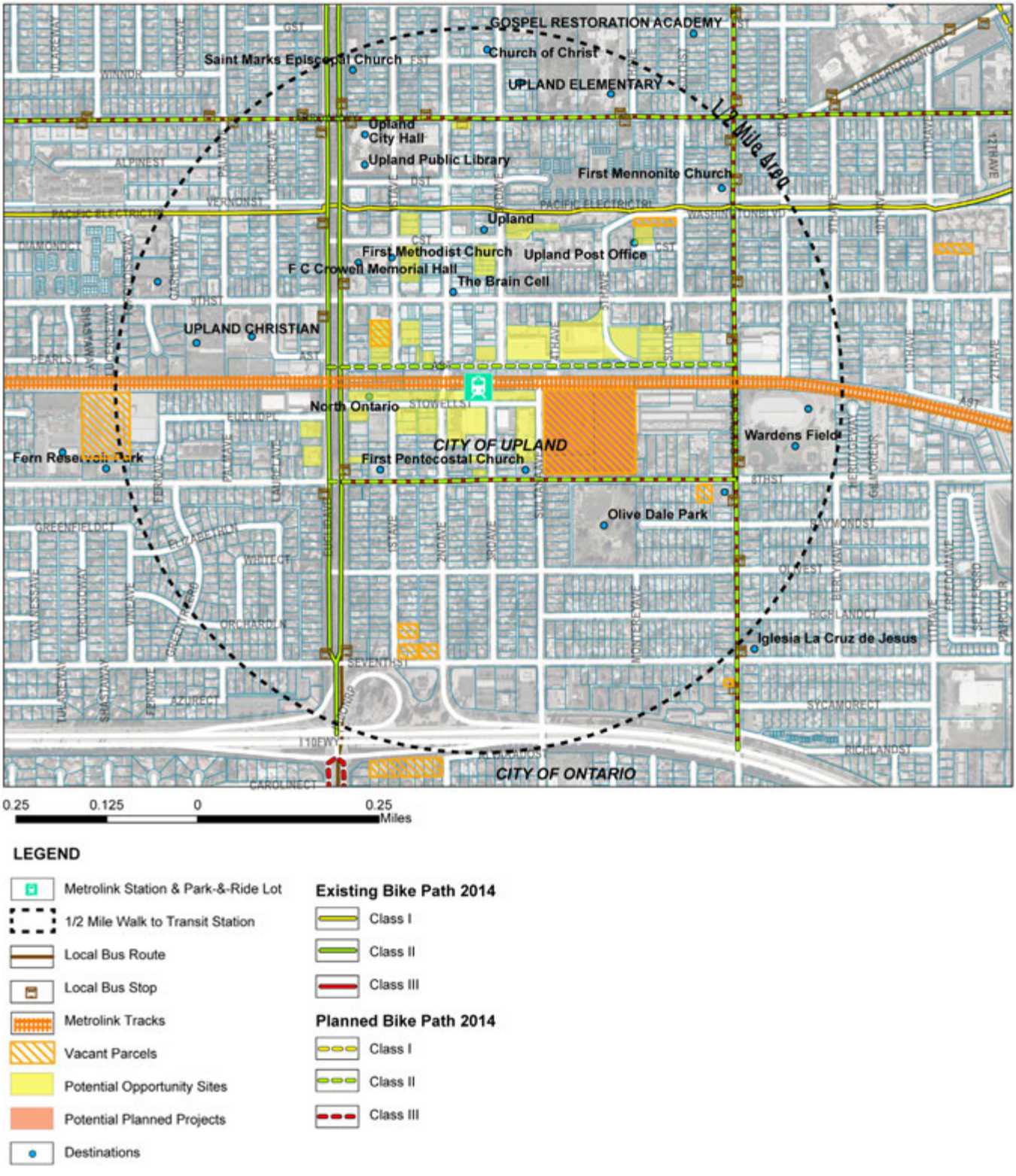


FIGURE 4-17: ***POTENTIAL OPPORTUNITY SITES***

4.3.3 City Input

- December 17, 2014 was the groundbreaking for the Lyons project, a 9-acre site adjacent to the station to the south. This development will be an attached housing project with good pedestrian linkages. It will have a 22 dwelling units/acre density, 209 total dwelling units, and have a 2.5 parking stalls per unit average with two- and three-bedroom units.

- SANBAG funded the Upland Metrolink Land Use and Constraints Analysis for SANBAG (2014) study collaboratively exploring with the City of Upland future station, track and crossing configurations; in conjunction with potential TOD opportunities and uses for adjacent properties south of the tracks owned by SANBAG.

- The City is aware of the Gold Line discussion on the two potential future alignments, one on the current Metrolink corridor and the other along the PE Trail. City staff believes it will be difficult to implement the PE Trail alignment. There has been much discussion regarding a preferred alignment.

- Omnitrans has performed preliminary studies on how to locate bus stops and route bus service to the Metrolink station. It was found that the current curb radii at Euclid Avenue and "A" Street are not sufficient for a standard bus size. As part of the above-mentioned SANBAG study, future bus service is not feasible because the current demand for service is low due to the lack of dense TOD and the bus access to the station has been identified for consideration along 2nd Avenue and 8th Street when sufficient density of TOD is in place to justify services.

- The City is working with historical groups to introduce redevelopment/adaptive reuse of the packing house, nearest the station (north of tracks), for 100 dwelling units.

- The City is planning a Park-Once District with a potential parking structure located at "A" Street and 3rd Avenue.

- The City is interested in affordable housing but has not been able to obtain Cap and Trade funding to implement affordable housing.

- The City is evaluating traditional funding sources to finance future development of 250 residential units, retail, and parking structures in the downtown area. The City would consider EIFDs, but traditional Mello Roos/CFDs are also under consideration.

4.3.4 Vision and Implementation Strategies

GENERAL PLAN UPDATE

The City of Upland recently completed a comprehensive update of its General Plan. Public comments were received during the 135-day public review period which began on Monday, March 9, 2015 and ended on Wednesday, July 22, 2015. This plan should be reviewed to determine if the recommendations outlined below are consistent with the updated plan.

VISION RECOMMENDATIONS, LAND USE ALTERNATIVES, AND CONNECTIVITY

Creating a Dynamic Urban Environment (Land Use)

- Implement the downtown vision, downtown districts and streetscape typologies in the Historic Downtown Upland Specific Plan to bolster ridership, become a new destination along the rail line and provide a larger downtown work force and resident base.

- When updating the General Plan, ensure adequate density and intensities on opportunity sites in the 1/2-mile station area to accommodate market demand, to support transit ridership and to stimulate quality development in a walkable distance from the station. Amendments to the Specific Plan should be coordinated with feedback from various current studies and should include incentivizing more residential uses and adaptive reuse in the historic downtown.

- Develop incentives in the General and Specific Plans above to strengthen the sense of place around the station and along "A" Street, to link north-south downtown streets to the station and to obtain maximum densities/intensities in the opportunity sites identified in the General Plan update.

- Retain and enhance destination government uses, as they can be a critical component to downtown's future success.

- Determine the status of land owned by redevelopment agencies and potential redevelopment opportunities to those lands and industrial sites, including the historic packing houses.

- Prepare a list of incentives and subsidies that encourage a variety of housing types within the station area and create a stronger sense of place such as:

  - Land write-down
  - Discounted transit passes
  - Innovative parking reduction strategies and funding for park-once
  - Affordable housing serving households at lower income levels
  - Infrastructure and connectivity improvement funding

- Continue working with developers in exploring a creative balance of TOD housing types, desired community amenities and uses such as allowing live-work units as opposed to only residential when introducing mixed-use projects.

- Coordinate the repositioning of the uses in the downtown area with the City's long-range property management plan.

Making the Connections (Connectivity)

- Provide a plan and funding for a pedestrian and bicycle crossing of the tracks at 4th Avenue or west of 4th Avenue near the station to expand the catchment area

- Coordinate efforts in resolving infrastructure constraints with transit service providers to improve access, safety and demand for transit and enhance safe pedestrian and bike pathways to and from the station

- Make a stronger connection along "A" Street to 1st, 2nd and 3rd Avenues and older packing houses as they develop including intersection improvements, more active uses, pedestrian/bicycle amenities

DIVERSE MASSING REDUCES SCALE AND ACTIVATES THE STREET

and extending similar wayfinding signage found on Euclid to "A" Street.

- Implement SANBAG Improvement to Transit Access for Cyclists and Pedestrians recommendations, as well as City's/County plan for bicycle improvements on "A" Street, 8th Street, Arrow Highway, and Campus Avenue. Consider additional bicycle connections through downtown from PE Trail to the station either along alleys or the pedestrian streets. There is also a non-signalized mid-block crossing proposed at Euclid Avenue and "A" Street – the City prefers a signalized crossing to ensure pedestrian safety.

Creating Places

- Continue to program activities in the downtown area and extend these to the station area itself, particularly along streets intersecting "A" Street.

- Work with historical groups to redevelop the historic packing houses on "A" Street as unique developments with transit-supportive uses and consider uses such as a food truck or "foodie" restaurants complementing the existing adaptive reuse of other existing structures.

- Continue to monitor and build upon the 9-acre adjacent Lyons housing project. This project being the first residential development of its type in the last 20 years will be a good test for the City to move forward with higher density TOD projects adjacent to the station. Creating good pedestrian linkages, higher densities than the 22 dwelling units/acre for the Lyons project and lower parking requirement than the 2.5 parking spaces per unit average for the Lyons project are critical elements for TOD.

RENOVATED HISTORIC PACKING HOUSING IN ANAHEIM

4.3.5 Station Area Implementation Priorities and Actions

- Encourage developers to build maximum densities in the specific plan to address market demand and place more people within walking distance of transit.

- Implement the Historic Downtown Upland Specific Plan with some modifications such as setbacks from the rail ROW, parking reductions for residential, more flexibility for ground level use in mixed-use and parking area standards.

- Provide improved multi-modal connectivity such as bus/rail interface and a pedestrian/bicycle over- or under-crossing of the tracks.

- Redevelop the historic packing houses on "A" Street and key parking lots as unique developments with transit-supportive uses.

- Connect and coordinate the bus and train service and consider creating conditions to justify locating a future bus stop south of the station identified in the collaborative SANBAG and City studies of future station configurations and potential adjacent TOD.

THE SIDEWALK AS PUBLIC SPACE

- Analyze parking demand and supply for the specific plan buildout, Metrolink ridership growth and loss of existing parking for development.

- Explore funding support for a parking structure at 3rd Avenue and "A" Street.

- Consider City implementation of Quiet Zones including safety improvements to City streets crossing the rail tracks and coordinating these with planned Metrolink station improvements.

4.4 Rancho Cucamonga Metrolink Station Area

The theme for the Rancho Cucamonga station area is the Rancho Cucamonga Transit Community, a new mixed-use development characterized by a cohesive and compact pattern of landscaped pedestrian friendly streets, blocks and buildings supporting adjacent transit and integrating the proposed Empire Lakes project.

4.4.1 Background and Planning Context Summary

RANCHO CUCAMONGA METROLINK STATION

The Rancho Cucamonga Metrolink Station is located just west of Milliken Avenue and has 1,000 park-&-ride spaces. The station is owned by the City of Rancho Cucamonga and is adjacent to the Empire Lakes Golf Course. Omnitrans Route 81 serves the station. The Metrolink station has the highest ridership of the SB Line with 934 daily boardings in 2014. According to the Metrolink parking utilization study, the 2014 parking utilization rate was 96.3%. Rancho Cucamonga recently started charging for parking on the Metrolink station's surface lots, and according to the City after an initial drop-off in parking, utilization has rebounded. The City, due to the successful parking program, is experiencing a revenue surplus and has plans to fund physical improvements to the station area and considering a future parking structure with the parking revenues.

EXISTING LAND USE AND ACCESSIBILITY

The Rancho Cucamonga Metrolink Station area is located in a primarily industrial area with some residential land uses. Block lengths are some of the longest and most challenging for walkability among the station areas and pedestrian access and circulation is further constrained due to large heavily used surface parking lots adjacent to the station. A variety of light industrial, business park, office, manufacturing, heavy industrial and other business uses are located north and east of the station as presented in Figures 4-18 and 4-19.

Along Milliken Avenue, a wide multi-lane, high-speed arterial providing access to the station, is a small struggling retail center that turns its back to Milliken Avenue. Newer higher density transit supportive land uses are located at the northwest and northeast corner of 6th Street and Milliken Avenue with landscaped sidewalks and pedestrian connections to the station.

The Empire Lakes Golf Course occupies approximately 170 acres of the station area. Ingress to the Metrolink station parking and Omnitrans bus facility is along Azusa Court; however, egress heading north is not possible at this location due to a median island in Milliken Avenue. Vehicles must access north Milliken Avenue from 7th Street. There is a new pedestrian underpass at the railroad facilities enabling movement from the south to the north of the tracks.

EXISTING PLANS AND STUDIES

- **Industrial Area Specific Plan Subarea 18 (revised 2003).** This area is bounded on the south by 4th Street, on the east by Milliken Avenue, on the north by the railroad, and on the west by Utica Avenue. The Industrial Area Specific Plan (IASP) Mixed Use area reflects the mixed land use approved under the 1994 Rancho Cucamonga IASP Subarea 18 Specific Plan as shown on Figure 4-20 and Table 4-3. The intent of the Mixed Use designation, per the General Plan as shown in Table 4-3, is to:

  - Promote planning flexibility to achieve more creative and imaginative employment-generating designs
  - Integrate a wider range of retail commercial, service commercial, recreation, and office uses within this industrial area of the City
  - Allow for the sensitive inclusion of high-density residential development that offers high-quality multi-unit condominiums and apartments for employees desiring housing close to work and transit

- **San Bernardino County Non-Motorized Transportation Plan (May 2015).** Rancho Cucamonga has a robust system of bikeways, including numerous Class I, II and III

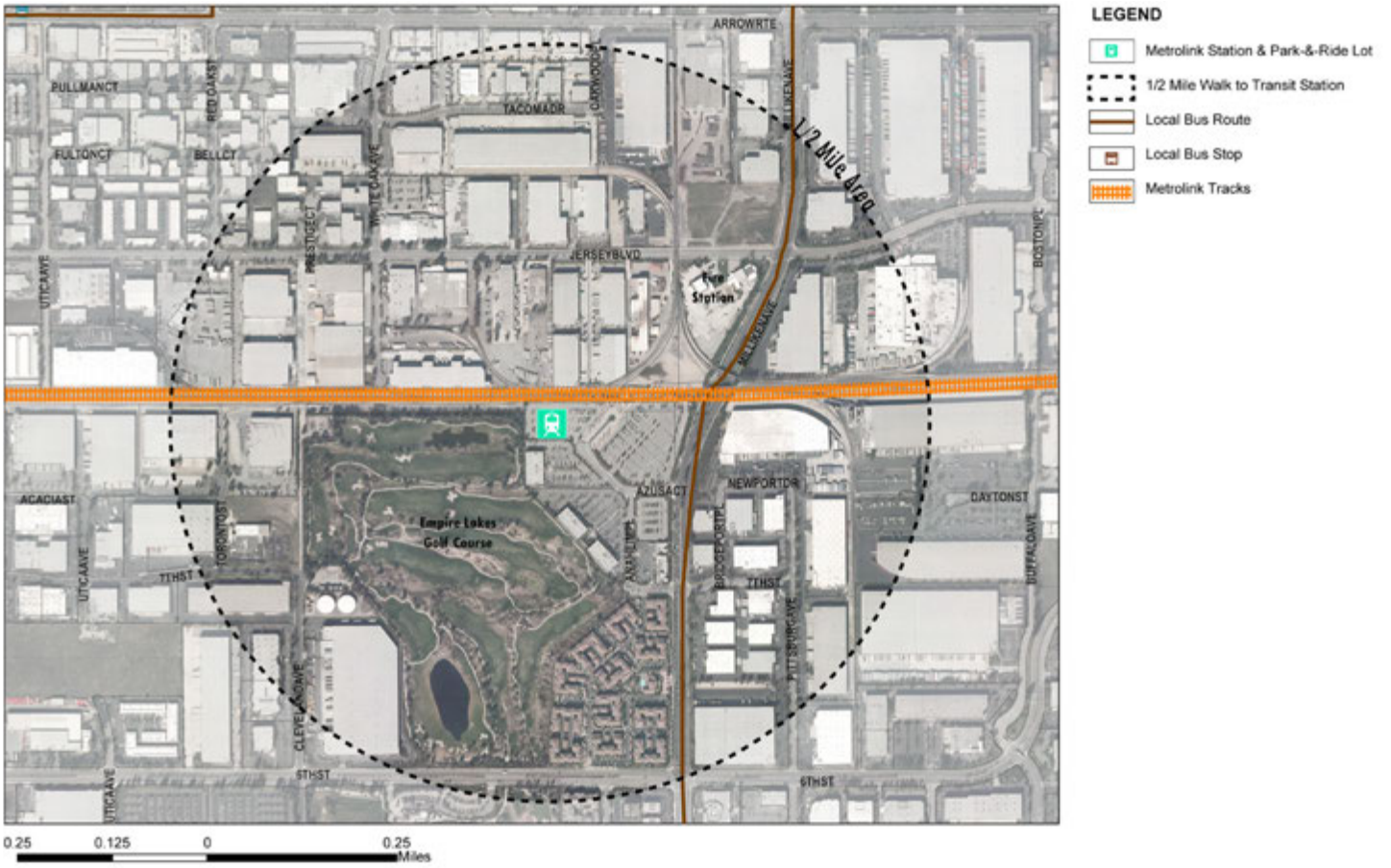


FIGURE 4-18: ***EXISTING STATION AREA AERIAL***

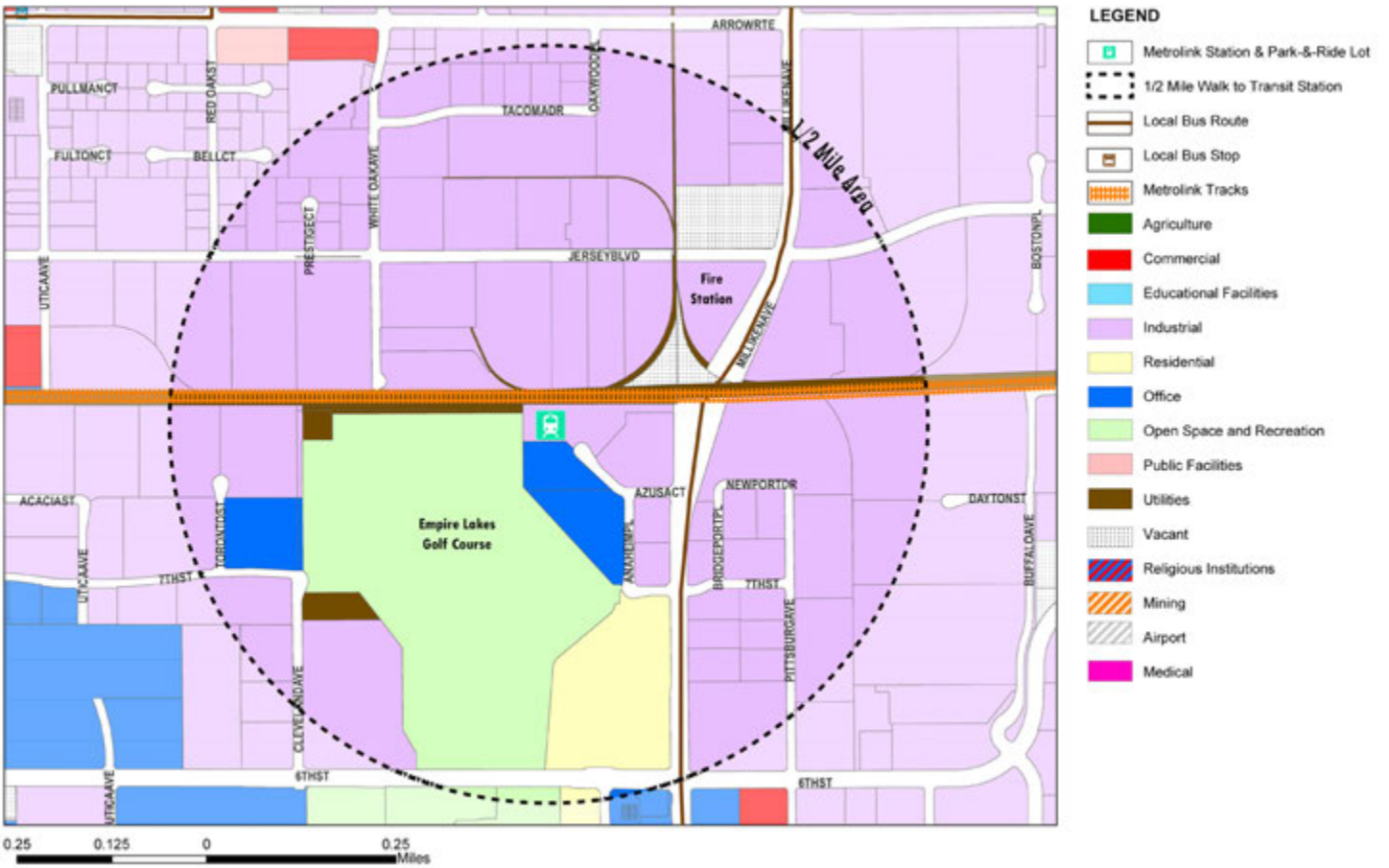


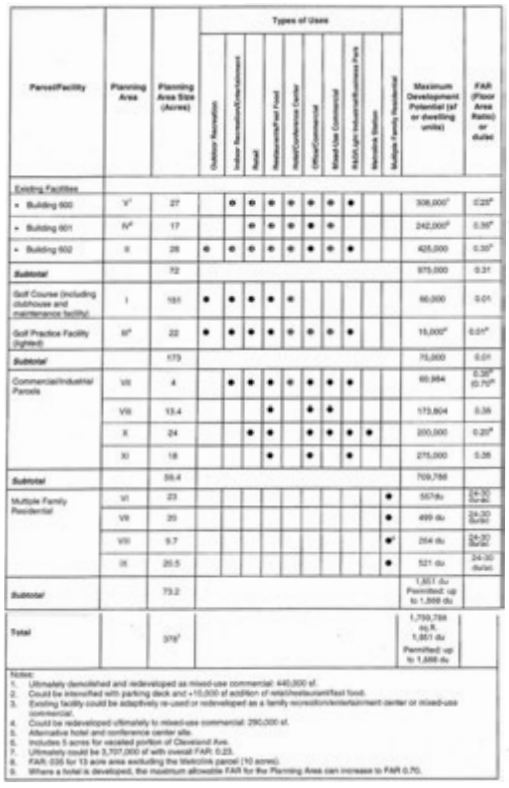
FIGURE 4-19: ***EXISTING LAND USES***

TABLE 4-3: ***MIXED USE: INDUSTRIAL AREA SPECIFIC PLAN/SUBAREA 18***

Land Use	Percent Range	Acreage Range Average Density Dwelling Units (du/acre)	Estimated "Most Case" Acres/Dwelling Units (du)
Commercial – retail, service commercial, tourist commercial, office (commercial and professional)	15%-25%	34-57 acres	40 acres
Office – professional, medical corporate offices	40%-60%	90-136 acres	110.5 acres
Public/Quasi-Public/Recreation	7.5%	16.5 acres	16.5 acres
Residential	11%-22%	25-50 acres @ 27.75 dwelling units/acre[1] 694 to 1,388 dwelling units	50 acres @ 27.75 dwelling units/acre[1] 1,388 dwelling units
ROW – Metrolink Parking	4.5%	10.3 acres	10.3 acres
Totals	100%	227 acres	227 acres

1 Indicates target density, not a range. Actual density may increase up to 27.75 dwelling units/acre as long as the total of 1,388 dwelling units are not exceeded.

Source: Rancho Cucamonga General Plan



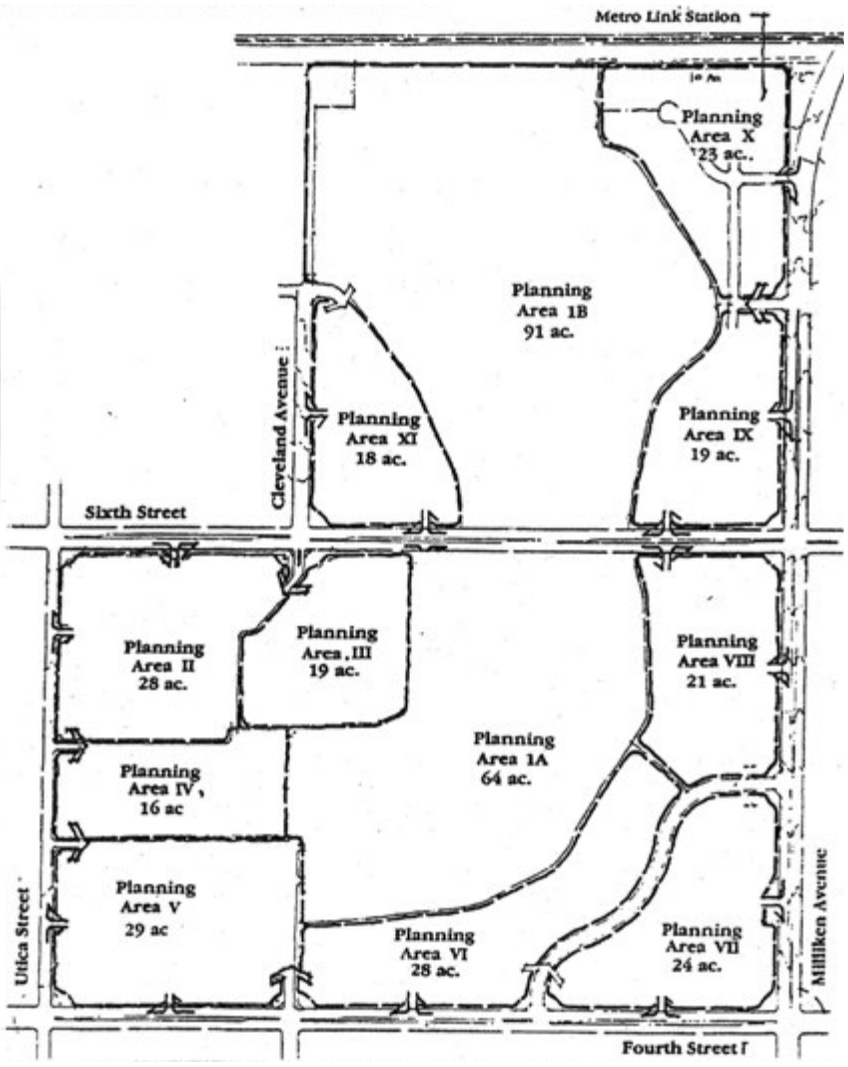


FIGURE 4-20: ***CONCEPTUAL LAND USE DEVELOPMENT SUMAMRY AND PLAN***

facilities. Portions of eight Class I corridors—the PE Trail, Cucamonga Creek Trail, Deer Creek Trail, Terra Vista Greenway, Greenway Park, Demens Creek Trail, Cucamonga Canyon Channel Trail and Day Creek Channel Trail—have been constructed for a total of 19.3 miles, providing a network of right-of-way separated from vehicular traffic and dedicated to non-motorized transportation.

Additionally, 79.8 miles of Class II bike lanes have been striped throughout the City. The bike lanes provide connectivity to the Class I facilities and provide access to commercial, residential, educational and recreational amenities throughout the city. A Class II bike path along Milliken Avenue provides access to the Metrolink station.

- **SANBAG Improvement to Transit Access for Cyclists and Pedestrians (October 2012).** The following projects from the SANBAG Improvement to Transit Access for Cyclists and Pedestrians study have been included in the Active Transportation Program Grant proposal awarded to SANBAG:

  - Provide bike lockers
  - Repair/replace sidewalk at Metrolink station south of railroad tracks
  - Provide pedestrian/bike access to Milliken Avenue
  - Provide a bike lane along Milliken Avenue between 4th Street and 6th Street

- **Metrolink SB Line Infrastructure Improvement Strategic Study (June 2014).**
  Station Improvements include:

  - Add/upgrade surveillance, messaging and signage systems for Metrolink platforms
  - Parking structure opportunity in existing Metrolink surface parking lot, west of Milliken Avenue and north of Azusa Court

- **Metrolink TOD Project (start July 2015).** The Metrolink TOD project would entail entering into a Cooperative Agreement with SANBAG, acting in its authority as the San Bernardino County Transportation Commission, to guide the selection of a developer to entitle, construct and operate a TOD, mixed-use development at the Rancho Cucamonga Metrolink Station.

- **Circulation Master Plan for Bicyclists and Pedestrians (CMP) (May 2015).** The plan, prepared by the City, is intended to complement local and regional planning efforts related to active transportation opportunities and guide strategic investments in infrastructure, programming and education to promote community health and access to multi-modal transportation options, particularly in under-served areas of the City. To assist with the implementation of the healthy community principles in the General Plan, the City applied for and received a grant from the California Endowment to improve health through active transportation planning. A portion of this grant is being used to fund the development of the Circulation Master Plan for Bicyclists and Pedestrians.

4.4.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

As presented in Table 4-4, the baseline demand from the ARRIVE Corridor Market Assessment estimates project strong growth in residential and industrial demand in the Rancho Cucamonga 1/2-mile station area. Where there is limited demand for net new retail due to industrial adjacencies, there may still be potential to relocate retail in the station area and reposition retail centers with a more relevant mix of uses along 7th Street.

Refer to the full ARRIVE Corridor Market Assessment for more detail.

*TABLE 4-4: **RANCHO CUCAMONGA DEMAND SUMMARY***

Land Use	2014-2020	2020-2035	Totals*
Residential	500-1,400 dwelling units	800-2,500 dwelling units	1,300-3,900 dwelling units
Office	0 SF	60,000-130,000 SF	60,000-130,000 SF
Retail	21,000 SF	45,000 SF	106,000 SF
Industrial	30,000-61,000 SF	167,000-334,000 SF	197,000-395,000 SF

*Totals may not add up due to rounding. Source: HR&A Advisors, Inc.

OPPORTUNITY SITES

Figure 4-21 identifies opportunity sites which include the existing Metrolink and private office parking lots and the golf course. There is ample space to accommodate the projected market demand.

- The 1/2-mile station area has approximately 38.4 acres of vacant and underutilized land of which 60% or 23 acres is considered to have residential development potential. To satisfy the residential demand according to the market assessment, the residential opportunity sites (non-golf course sites) if built at 40 to 50 dwelling units/acre would result in 920 to 1,132 residential units.

- The 160-acre golf course, as currently proposed, includes 124.5 acres of residential development at an average density of approximately 28 dwelling units/acre. The total residential units proposed range from 2,500 to 4,000 which would absorb the entire market demand for residential.

- To satisfy the non-residential demand of 631,000 SF, 15.4 acres of vacant and underutilized land at 1.0 FAR will yield 670,824 SF.

4.4.3 City Input

- The City selected a consultant to conduct a TOD feasibility study on properties directly around the existing Metrolink transit station and the potential for a new Metrolink station on Haven Avenue.

- The City expects the Specific Plan for the Empire Lakes project to be mixed-use and include 2,500 to 4,000 residential units and 220,000 SF of non-residential uses. The Specific Plan is anticipated to be available in 2015. The City is interested in supporting future TOD by introducing densities higher than 30 dwelling units/acre and an increase in intensity for more active uses within the surrounding industrial land. 7th Street will be connected between Milliken Avenue and Cleveland Avenue, and there is planned to be a new north-south parkway connecting 7th Street with 6th Street. Transit-center-related commercial (e.g., cafes), along 7th Street, is another primary component in an effort to make a stronger connection between nearby residents and the Metrolink station.

- The City recently completed a Circulation Master Plan for Bicyclists and Pedestrians which includes a connection to the Metrolink station. The final circulation plan recommends a Class I shared bike path from Foothill Boulevard parallel to Milliken Avenue to the transit station.

- The Ontario Airport Rail Access Study presented three options for future rail alignments tied into the Rancho Cucamonga Metrolink Station. The City favors two channel options that do not bisect the Empire Lakes Golf Course property.

- The City is interested in a shared parking strategy (a parking district) which can serve the future development of the station area.

- The City recommends consideration for the use of fiber optic utilities, which currently exist in the SANBAG rail right-of-way, to serve adjacent industrial uses. BNSF maintains the rights to the fiber optics and could partner in this effort.

- The City may incorporate solar panels as a part of the Metrolink TOD project.

- The City's current program of charging for parking at the Metrolink station is performing well. After experiencing an anticipated 10% drop-off in utilization, the station's parking lot utilization rose to 80%. There will be a surplus from the parking revenue which will help fund physical improvements to the station area and consideration of a future parking structure.

- The City may not have a need for a Land Trust but agrees that it makes sense for the eastern ARRIVE Corridor cities to establish one while the western portion of the corridor develops.

- The City is not interested in EIFD funding but is interested in Cap and Trade possibilities. The City prefers that multiple cities partner with SANBAG for Cap and Trade funding in order to strengthen leverage.

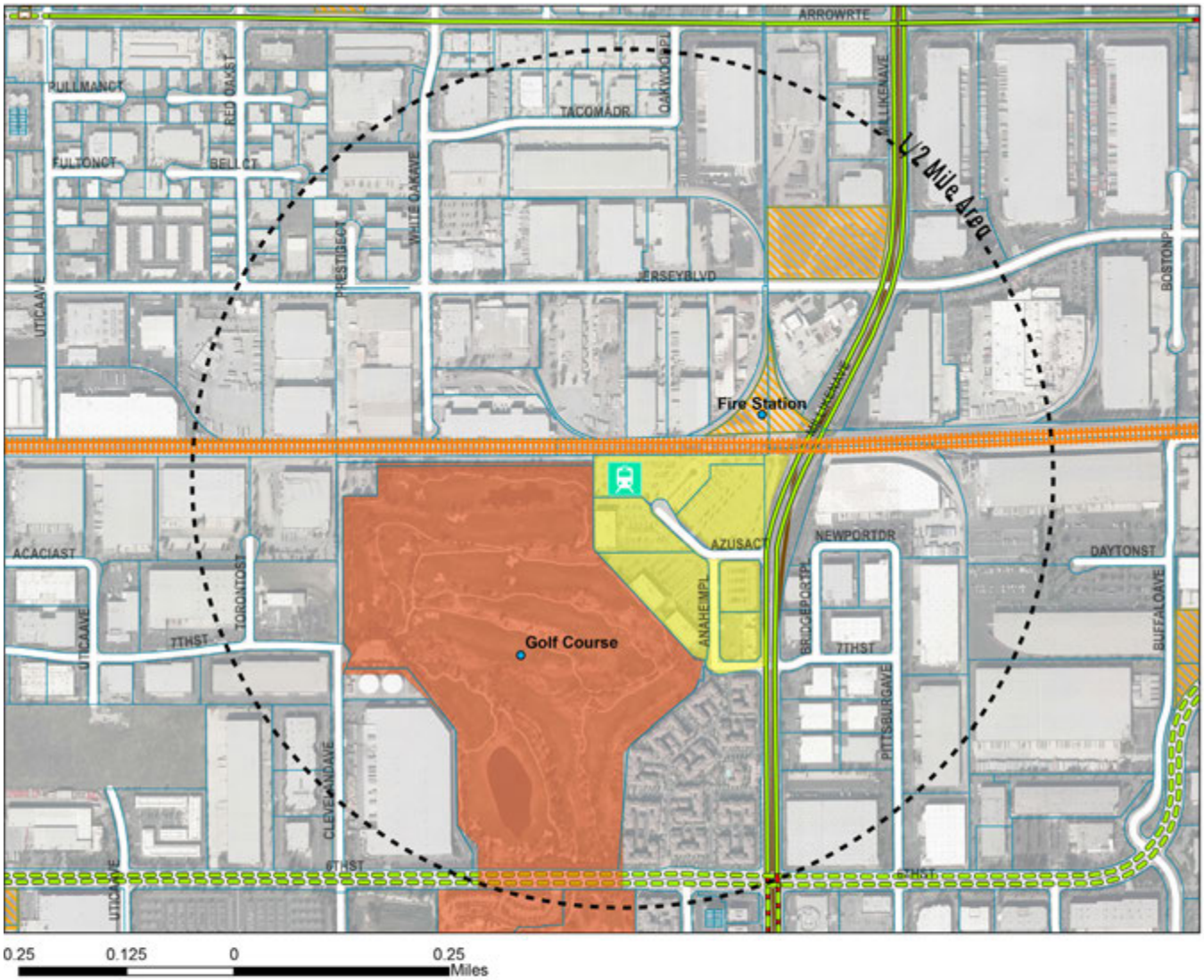


FIGURE 4-21: ***POTENTIAL OPPORTUNITY SITES***

4.4.4 Vision and Implementation Strategies

CONSIDERATION FOR GENERAL PLAN UPDATE IN CONJUNCTION WITH THE EMPIRE LAKES PROJECT

The 2010 General Plan update focused on infill of vacant properties identified as opportunity sites within the business district and the neighborhoods. The importance given to transportation, infrastructure and sustainability in recent years provides a foundation for integrating these planning elements in the General Plan update. Rancho Cucamonga, within the station area, has adequate land for accommodating the market demand with complementary and cohesive land uses such as mixed-use multi-family housing, office and retail. In late April 2015, the Empire Lakes Specific Plan project description was released as part of an Initial Study and Notice of Preparation for an Environmental Impact Report. A public scoping meeting was held in June 2015. The golf course currently designated as open space is proposed for a mixed-use description with placetypes varying from 24 to 80 dwelling units/acre. Empire Lakes net average density is 20.5 to 26.7 dwelling units/acre. In updating the General Plan, the city should consider:

- Increased densities and intensities in the area that surpass what is allowed by the Subarea 18 Specific Plan for transit-supportive uses.
- Consider allowing mixed-use in the areas designated for outdoor recreation (golf course).
- Update the Subarea 18 Specific Plan (Empire Lakes Specific Plan) to allow the highest designations proposed as part of the Empire Lakes Specific Plan in the existing City-owned Metrolink surface parking lots and adjoining private developments adjacent to the transit station. Include land use regulations, building standards, complete street standards and design guidelines.
- Create place when locating new denser development while considering improvements and amenities for both the private and public realms.
- Improve the connectivity (bus, bike, pedestrian) to the transit center and make secondary streets (7th Street) and new proposed streets connecting major corridors as complete streets.
- Provide smaller blocks and connections through Azusa Court, 7th Street and; perhaps, additional new streets to the new development planned on the golf course.

INDUSTRIAL MIXED-USE PEDESTRIAN-FRIENDLY CHARACTER

DIAGONAL PARKING HELPS TO ACTIVATE PUBLIC REALM

WIDE SIDEWALKS ALLOW FOR A MULTIPLE EXPERIENCES

LAND USE ALTERNATIVES

The land use alternatives propose potential redevelopment on the following properties:

- Metrolink station surface parking lots
- Existing retail along Anaheim Place and its surface parking lot
- Existing office buildings surface parking lots

The key objective of the land use alternatives are to provide a mixed-use environment adjacent to the existing Metrolink station while creating a strong sense of place and establishing a connection from the Metrolink station to major corridors, such as Milliken Avenue and Haven Avenue.

Land Use Alternative 1 (refer to Figure 4-22)

Land Use Alternative 1 provides multi-family residential configured around courtyards, limited retail strategically located to enhance place, office, limited underground parking and two above-grade parking structures along the tracks. In this alternative, the open space is distributed throughout the development to provide public realm amenities in a balanced way to all of the uses. The following describes the primary components of Alternative 1:

- Existing parking lots developed for compact mixed-use development with smaller blocks
- Through roadways serving proposed development on the golf course and connecting to Haven Avenue to the west
- Two new parking structures along the railroad ROW; one primarily for transit and the other shared with residential
- A new transit plaza drop-off to the station that acts as a promenade connecting the station to Milliken Avenue
- Over 500 residential units at approximately 44 dwelling units/acre with one level of parking below grade
- 60,000 SF of retail strategically located to enhance and define placemaking (approximately 18,000 SF of struggling retail currently exists)
- 80,000 SF of new office configured adjacent to the existing office building to form a cohesive office "campus" while maintaining connectivity with new streets
- Reduced parking requirements
- A hierarchy of public and private realm amenities such as plazas, pocket parks and semi-private courtyards interconnected and complimented by an enhanced network of new landscaped streets and pedestrian paseos
- Buildings/uses which face Milliken Avenue, Azusa Court, 7th Street, and Anaheim Place to enhance pedestrian activity

Land Use Alternative 2 (refer to Figure 4-23)

Land Use Alternative 2 provides multi-family residential configured around courtyards, limited retail strategically located to enhance place, office, limited underground parking, and two above-grade parking structures. In this alternative, the public gathering space is concentrated around a "town square" near the center of the development to help unify the uses in the public realm. The following describes the primary components of Alternative 2:

- Existing parking lots developed for compact mixed-use development with smaller blocks
- Through roadways serving proposed development on the golf course and connecting to Haven Avenue to the west
- Above-grade transit parking structure near the railroad tracks and drop-off to the station located where current drop-off exists adjacent to railroad ROW
- Pedestrian paseo to the station from Milliken Avenue
- Buildings/uses which face Milliken Avenue, Azusa Court, 7th Street and Anaheim Place to enhance pedestrian activity
- Residential uses concentrated in the northeast corner of the site
- A grocery store anchor across the "town square" to the east

Alternatives for Connectivity and Complete Streets

Cross-sections for Milliken Avenue and 7th Street should be converted to complete streets, to accommodate wide sidewalks, bike lanes when planned, local and BRT buses, street trees, on-street parking, curb extensions and other pedestrian amenities where the ROW allows. Milliken Avenue is a major corridor adjacent to the station which has the opportunity to receive building frontage in the form of multi-family residential and limited retail. 7th Street can

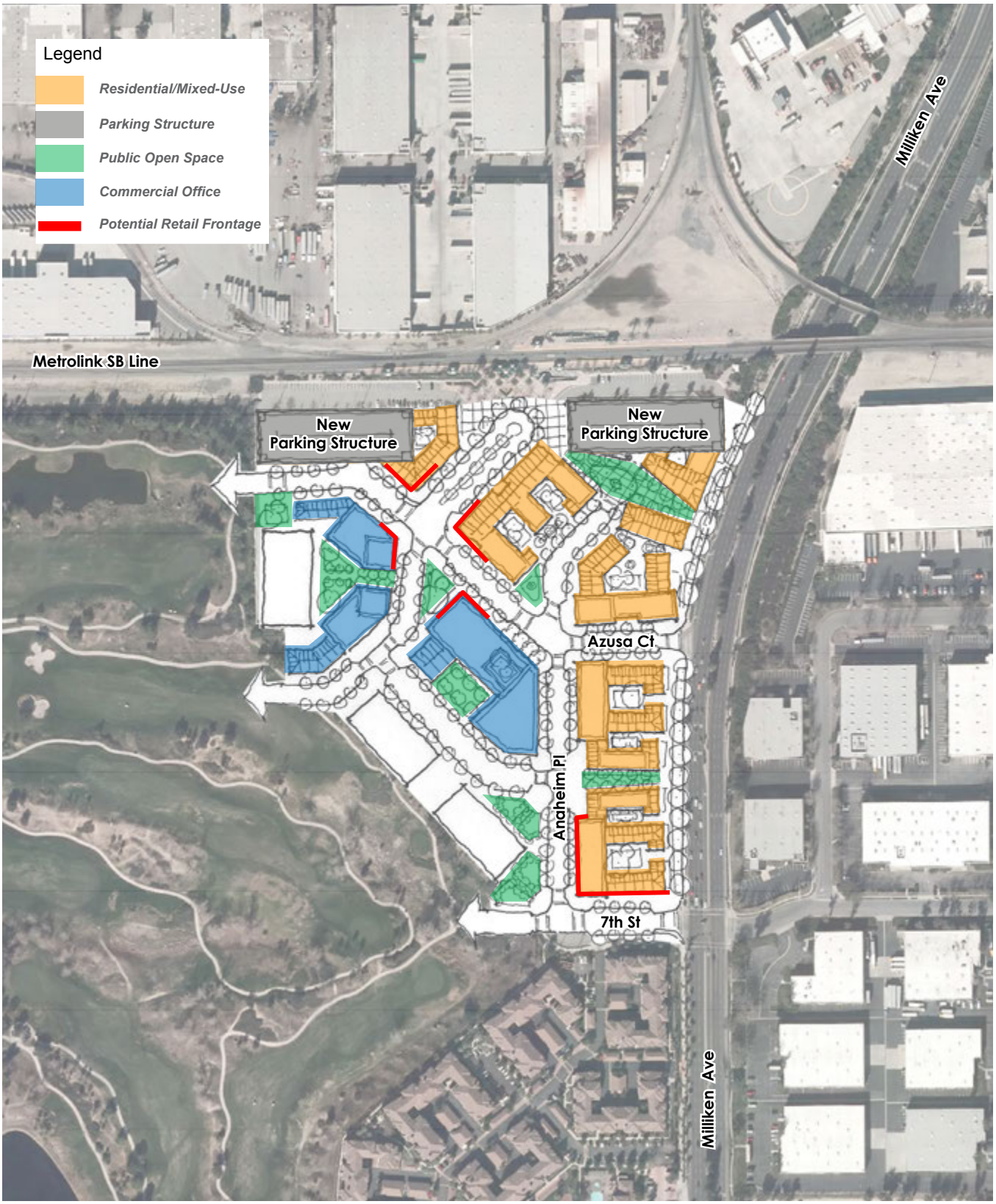


FIGURE 4-22: ***LAND USE ALTERNATIVE 1 ILLUSTRATIVE SITE PLAN CONCEPT***

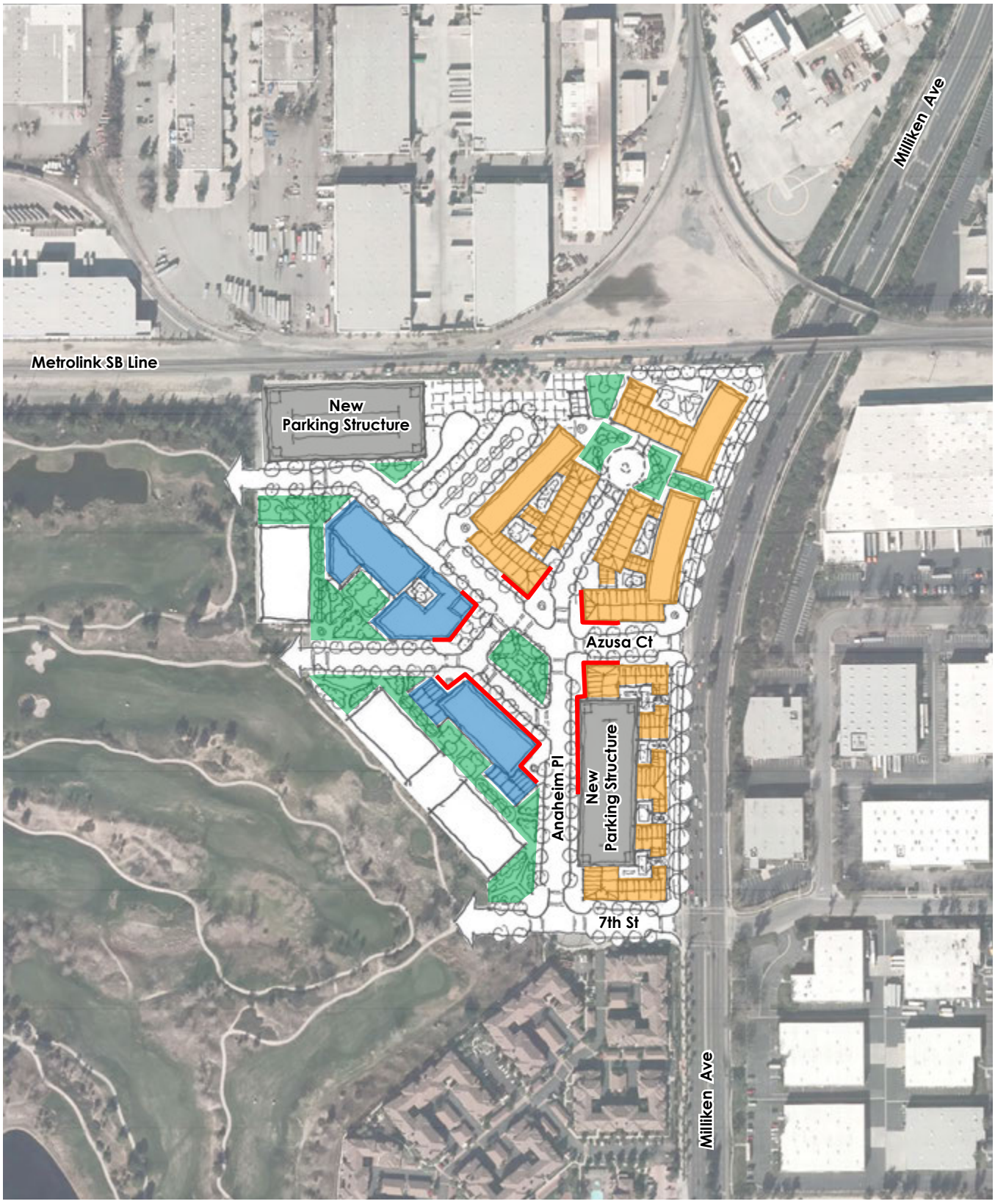


FIGURE 4-23: ***LAND USE ALTERNATIVE ILLUSTRATIVE SITE PLAN CONCEPT***

potentially serve to connect with Haven Avenue to the west and with the future development proposed for the golf course. Increased pedestrian and automobile activity on these and any new roadways should be evaluated for multi-modal opportunities.

VISION RECOMMENDATIONS

Creating a Dynamic Urban Environment (Land Use)

- Redevelop the Empire Lakes Golf Course as a mixed-use community to transform the station area into a true TOD and provide a range of housing types and densities which are higher than the 30 dwelling units/acre permitted in the General Plan to bolster ridership with the opportunity to become a new destination along the rail line and provide a larger downtown work force and resident base.

- Convert the parking lots of existing offices and the Metrolink station into more intense transit-supportive uses with parking structures and direct pedestrian/bike connections to the transit station.

- Subdivide the current super-block pattern into a more cohesive and compact pattern of streets and blocks which supports a mix of uses and building types.

- Intensify or convert some of the current industrial/ business park uses into TOD.

Making the Connections (Connectivity)

- Implement SANBAG Improvements to Transit Access for Cyclists and Pedestrians which includes planned improvements to the pedestrian and bicycle environment to enhance the stations' connectivity.

- Provide a regular pattern of street trees on Azusa Court and Anaheim Place to give the station area a sense of place, enhance circulation and strengthen connectivity to the major arterials.

- Extend 7th Street through the golf course, between Milliken Avenue and Cleveland Avenue, and provide shuttle/bus service to uses along Haven and Foothill Boulevards.

- Provide transit-related commercial along the extended 7th Street. This will support an effort to create a stronger connection between nearby residents and the Metrolink station – retail along Milliken Avenue, adjacent to Azusa Court has struggled over the years with high turnover likely due to limited residential development and a high concentration of industrial uses in the area.

RAIL INTEGRATED WITH THE PUBLIC REALM

- Provide pedestrian/bicycle connections from the planned mixed-use development on the golf course to the station.

- Enhance future connections (e.g., Bicycle Master Plan) to parcels south of 6th Street, adjacent to 4th Street and Haven Avenue, the anticipated focus of future development opportunities.

- Consider support of rapid bus alignment for the West Valley Connector to capture the high ridership potential near the Haven Avenue and Foothill Boulevard intersection (adjacent to Civic Center and Terra Vista Town Center) and/or Victoria Gardens.

- Consider the use of existing fiber optic utilities, currently in the SANBAG rail right-of-way, to serve adjacent industrial uses. Santa Fe railway maintains the rights to the fiber optics and could be a partner in this effort.

- Consider the future rail alignments in the Ontario Airport Rail Access Study that do not cut through the Empire Lakes Golf Course. Connecting directly with the Ontario International Airport will provide additional opportunity for attracting developers to the potential of doing high-density, mixed-use TOD development adjacent to the Metrolink station.

VARIATION IN PUBLIC REALM ENHANCES PLACE - NO SIDEWALKS

- Provide a direct pedestrian connection to and from developments north of the railroad tracks.

- Enhance Milliken Avenue with a signature sculptural statement and/or a gateway marker such as statement Palm trees and enhanced paving to create a dramatic first impression of the entry to the Metrolink station and establish a sense of place.

Creating Places

- Redevelopment of the parking lots adjacent to the Metrolink station and the Empire Lakes Golf Course presents opportunities for creating active public gathering spaces as a focus for a variety of housing types, and for connecting dense residential development and structured parking supporting the station, transit-center-related commercial, retail and nearby employment centers.

- Activate Rancho Cucamonga Court as a destination with food vendors, coffee shops and/or restaurants which can cater to both transit patrons and adjacent commercial/industrial/ residential uses nearby.

- Utilize the City's current program of charging for parking at the Metrolink station, which is performing well, for future site improvements. A surplus from parking revenue can help fund physical improvements to the station area (e.g., landscaping) and can potentially contribute to funding a future parking structure.

PUBLIC GATHERING SPACE AS THE STAGE FOR BUILDINGS

4.4.5 Station Area Implementation Priorities and Actions

- Integrate the proposed Empire Lakes project with the mixed-use development of the station parking lots.

- Plan new development as a more cohesive and compact pattern of streets and blocks that supports a mix of uses and building types.

- Provide transit related commercial along the extended 7th Street and activate Rancho Cucamonga Court as a destination with food vendors, coffee shops and /or restaurants.

- Convert the parking lots of the Metrolink station and existing offices into transit supportive uses and construct parking structure for transit/mixed-use.

- Enhance pedestrian and bicycle connections to the station through grant programs that can implement components identified in SANBAG Improvement to Transit Access for Cyclists and Pedestrians.

- Work with Omnitrans for improved bus service identified as an issue in the transit survey.

4.5 Fontana Metrolink Station Area

The theme for the Fontana station area is Downtown Transit Village. The intent is to reestablish downtown as the heart of the community and a regional destination with retail, entertainment, civic uses and other transit-supportive uses, such as higher density housing. Stronger connections should be made to the transit station, to the PE Trail and key assets in the station area including the Civic Center Complex, Lewis Library, Chaffey College, new mixed-use development and surrounding neighborhoods.

4.5.1 Background and Planning Context Summary

FONTANA METROLINK STATION

The Fontana Metrolink station is within Fontana's downtown. It has 309 free park-&-ride spaces, an Omnitrans transfer center and a small park and is owned and operated by the City of Fontana. The Metrolink station and the adjoining Santa Fe Park serve as a transit plaza for area residents and visitors. Figure 4-24 illustrates the station and its 1/2-mile station area buffer and local bus routes. The 2014 Metrolink average weekday boardings was 418 and parking utilization was 70.2%. The site is one of Omnitrans' highest ridership stations with 3,709 average weekday boardings and is served by nine Omnitrans bus lines.

EXISTING LAND USE AND ACCESSIBILITY

The 1/2-mile station area includes a mix of commercial, civic, educational and residential uses as shown in Figure 4-25. North of the railroad tracks along Sierra Avenue along with the Civic Center, is a library and technology center, newer multi-family senior housing, older smaller scale retail and single-family and multi-family neighborhood. South of the railroad tracks is some multi-family senior housing, industry, residential and commercial along Merrill Avenue.

EXISTING PLANS AND STUDIES

The existing conditions portion of the ARRIVE Corridor Briefing Book discusses City-adopted plans, policies and programs which contain transit-supportive policies, as well as plans by other agencies. The most relevant plans and a summary of their implications on achieving the vision include:

- **Downtown Fontana Transit-Oriented Development Study (June 2010).** The purpose of this project was to draw intelligence from comparable transit stations across the country to understand the critical factors in achieving a truly transit-serving Downtown to create an urban, transit-oriented place.

  The Downtown Fontana TOD Study identifies a number of potential opportunity areas for higher density housing and commercial development. Four sites on the west side of Sierra Avenue were selected for further study: two sites north of Arrow Boulevard, the existing residential neighborhood between Arrow Boulevard and Orange Way and the Metrolink station parking lot as shown in Figure 4-26.

  The study recommended implementing a plan for the downtown area to provide retail, entertainment and amenities targeted to the more-affluent lifestyle segments in the 3- and 5-mile areas around the station.

- **SANBAG Improvements to Transit Access for Cyclists And Pedestrians.** The following list of projects from the SANBAG Improvement to Transit Access for Cyclists and Pedestrians study were included in an Active Transportation Program Grant proposal awarded to SANBAG in 2014 (Appendix D):

  - Install short and long-term bicycle parking
  - Reconfigure crossing and post signs on Juniper Avenue at PE Trail
  - Provide bike route, wayfinding signage, "color" bike trail at conflict zones on Juniper Avenue from Orange Way to Base Line
  - Provide high visibility crosswalks at seven intersections
  - Provide missing sidewalks along various streets

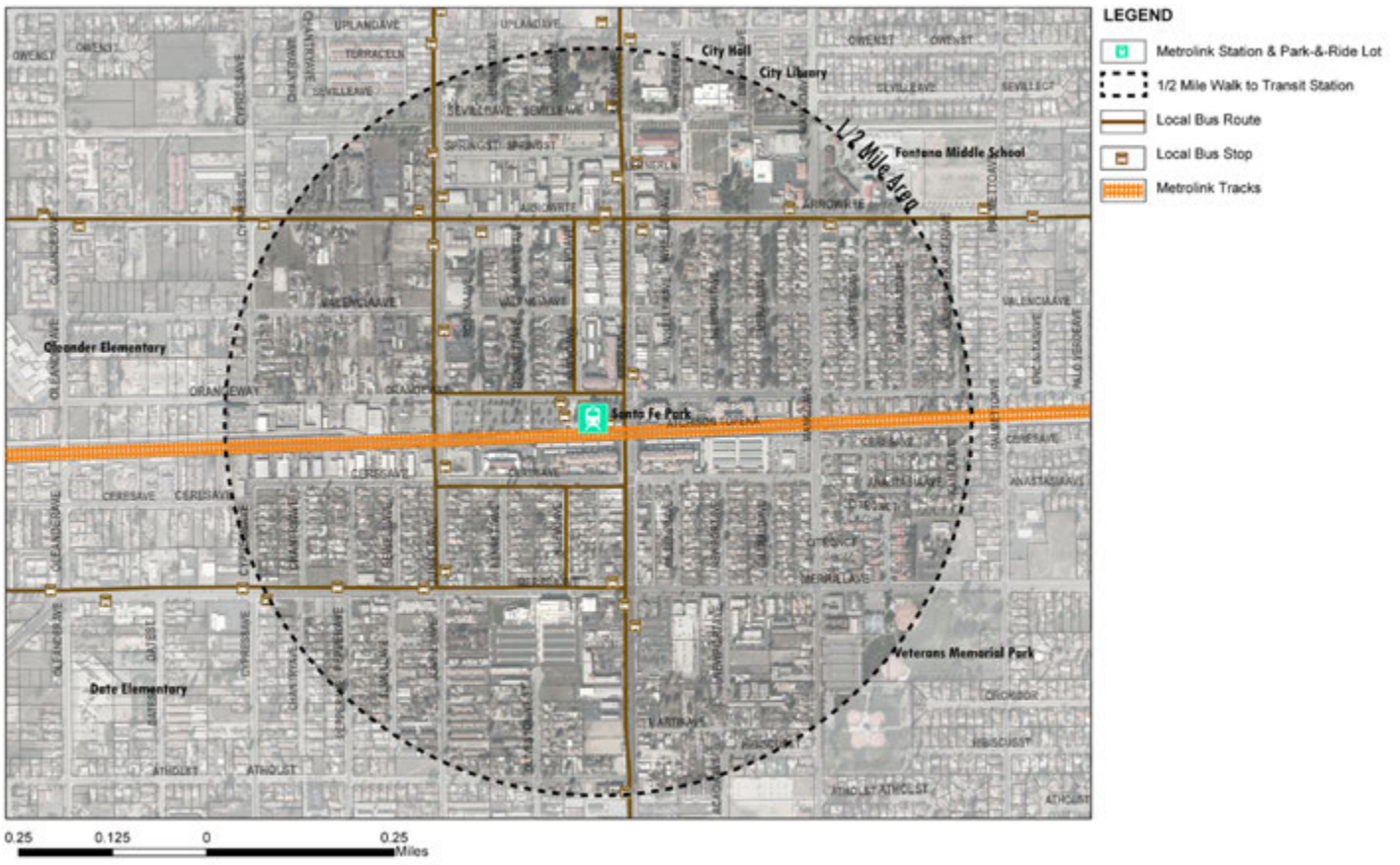


FIGURE 4-24: ***EXISTING STATION AREA AERIAL***

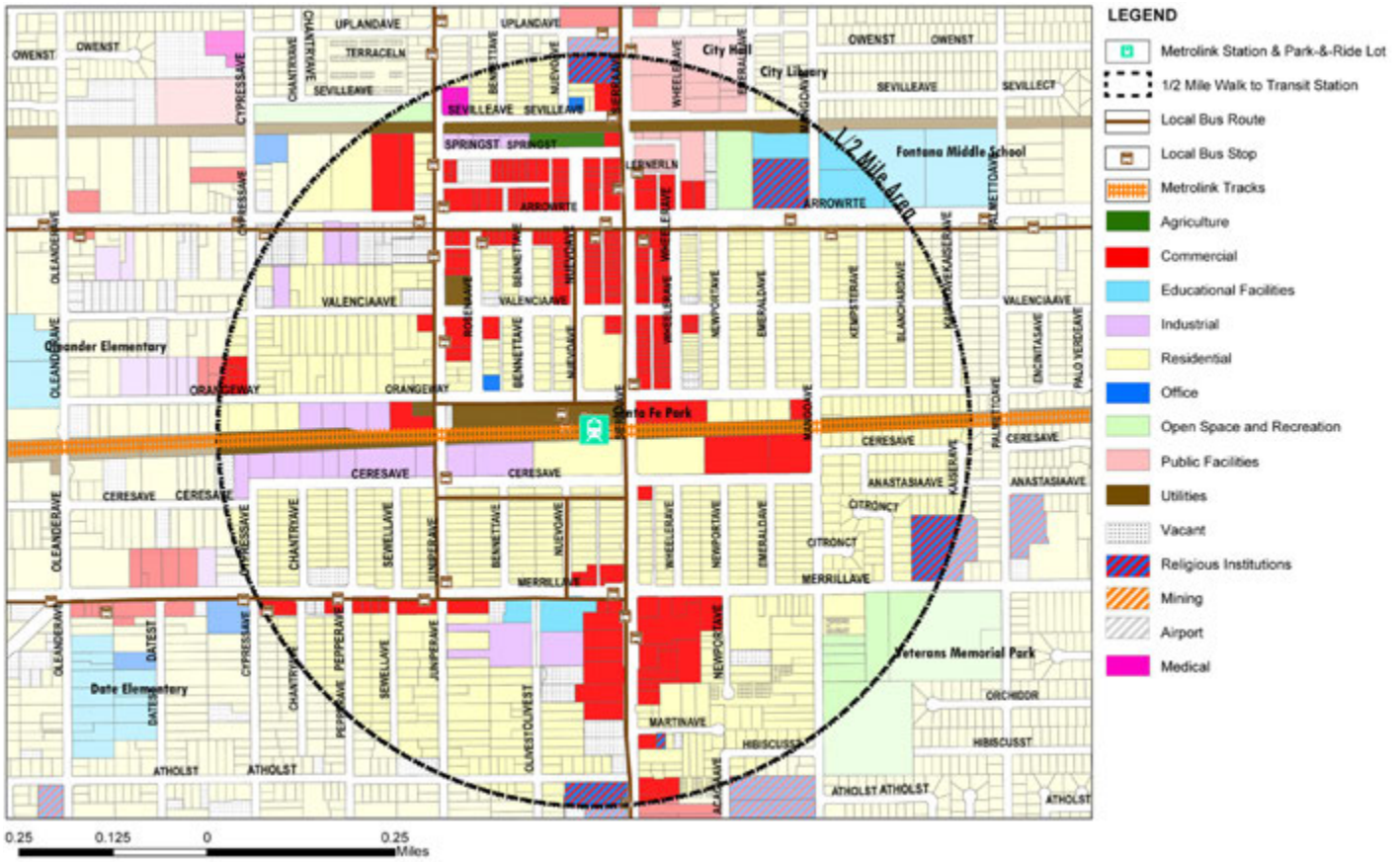


FIGURE 4-25: ***EXISTING LAND USES***

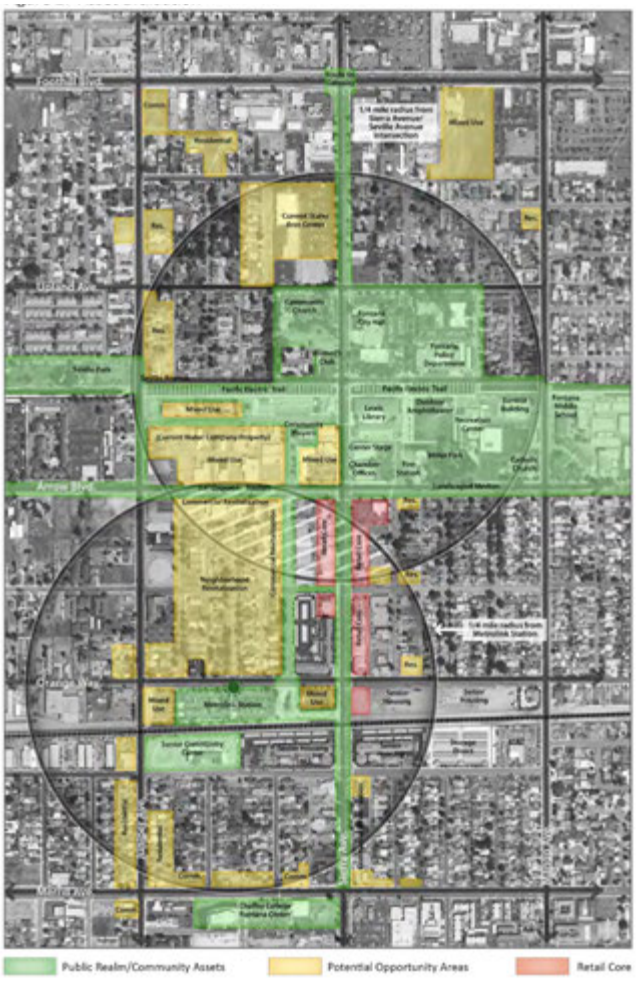


*FIGURE 4-26: **DOWNTOWN FONTANA TOD DEVELOPMENT STUDY***

- Provide wayfinding signage along Juniper Avenue
- Provide buffered bike lanes, wayfinding signage, "color" bike trail at conflict zones on Arrow Boulevard between Palmetto Avenue and Citrus Avenue

- **San Bernardino County Non-Motorized Transportation Plan (Revised November 16, 2013).** Fontana's non-motorized bicycle network has expanded significantly since the last update to the Non-Motorized Transportation Plan. With the completion of the PE Trail, 8.9 miles of Class I bikeways exist in Fontana. The City has striped 27.6 miles of Class II bike lanes, and 4.9 miles of Class I facilities. The bike lanes provide connectivity to commercial, residential, educational and recreational amenities throughout the city.

4.5.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

Although the Fontana station area will compete with new and existing residential development near the I-210 Freeway, given the scarcity of land in the more westerly communities over the mid- to long-term this station area is well positioned to capture a significant amount of new residential growth projected in Table 4-5. The market assessment forecast is 600 to 1,500 residential units and 178,000 to 295,000 SF of non-residential (office, retail, industrial). However, there is not much vacant land for development, less than 15 acres to accommodate the market demand.

OPPORTUNITY SITES

As shown in Figure 4-27, the current General Plan does not have sufficient areas and residential densities to capture the growth:

- Maximum densities allowed are 7 to 24 dwelling units/acre in the Boulevard Overlay which encompasses more than half of the 1/2-mile station area. Densities in the remainder of the station area are 2.1 to 12 dwelling units/acre. These densities are low compared to other communities along the corridor and should be updated during the General Plan Update which is underway.

- There is little vacant land and over 63 acres of residential development would need to be developed at 24 dwelling units/acre to meet

*TABLE 4-5: **FONTANA DEMAND SUMMARY***

Land Use	Current Recapture	2014-2020	2020-2035	Totals*
Residential		200-500 dwelling units	400-1,000 dwelling units	600-1,500 dwelling units
Office		12,000-25,000 SF	43,000-87,000 SF	56,000-113,000 SF
Retail	47,000 SF	6,000 SF	40,000 SF	92,000 SF
Industrial		6,000-18,000 SF	24,000-72,000 SF	30,000-90,000 SF

*Totals may not add up due to rounding.

Source: HR&A Advisors,

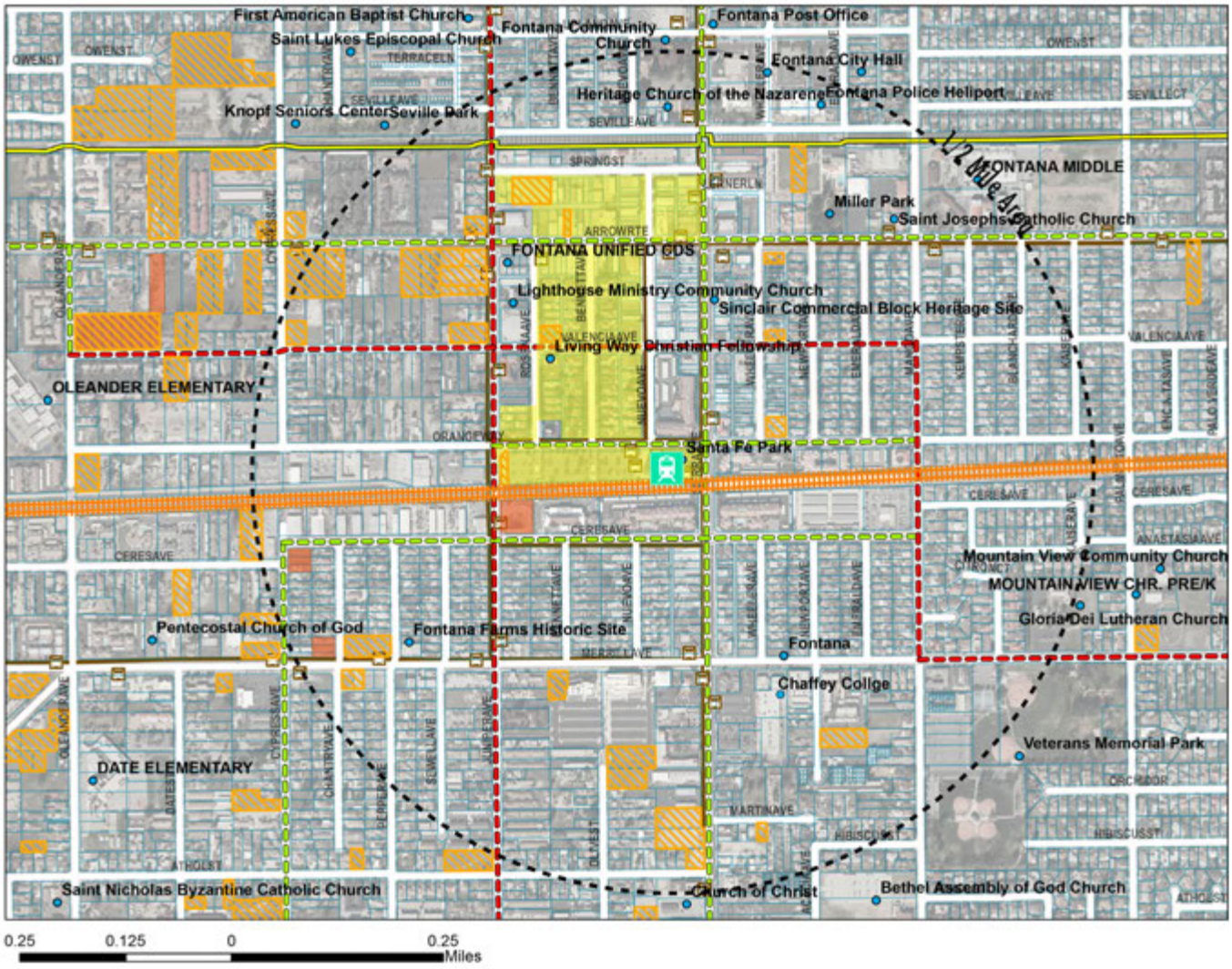


FIGURE 4-27: ***POTENTIAL OPPORTUNITY SITES***

market demand plus 14 acres of additional non-residential land estimated at an FAR of 0.5. The opportunity map identified much less vacant land and opportunity sites than the 63 acres required to meet market demand; therefore, modification of the General Plan should be considered.

- The Boulevard Overlay and regulations are too restrictive and should be streamlined.
- Parking requirements are higher than other downtown districts such as Montclair further making it difficult to implement TOD in the future.
- Cross-sections in the General Plan for Sierra Avenue and Orange Way show narrow sidewalks, which make streets less walkable and difficult to create an active, vibrant shopping district with adequate pedestrian amenities and connections.

4.5.3 City Input

- There was a pre-bid meeting on December 15, 2014 for Fontana's General Plan Update which will take approximately two years. A Downtown Specific Plan will be part of the General Plan Update. It will aim to transform the downtown area into a more intense TOD character.
- The Housing Element was recently approved. The new Housing Element allows up to 50 dwelling units/acre in the downtown area.
- There is no substantial interest from developers for infill development or market rate housing in downtown. As a community, the financial opportunities have not matured for market rate housing. There are opportunities with Chaffey College, the west side of Juniper Avenue (vacant land), and the southwest corner of Orange Way and Sierra Avenue.
- The City maintains the Metrolink area at the station. Omnitrans service along Sierra Avenue is serving the populations well.
- The City staff does not support an EIFD as it is a poor substitution with only 40% of the previous tax increment financing for redevelopment. A sign-off will be necessary with County and taxing agencies.
- The City explored Cap and Trade for affordable housing.
- Approximately $1,500 to $1,800/month rent is necessary for multiple-family residential to work – land values need to increase.

4.5.4 Vision and Implementation Strategies

CONSIDERATION FOR GENERAL PLAN UPDATE

As there is not adequate land for accommodating the market demand, the City should consider designating more sites for multi-family housing and allowing residential and mixed-use within areas currently designated for commercial. In updating the General Plan, the City should consider:

- Raise densities and intensities in the area or identify new sites to accommodate market demand and transit-supportive uses.

NEIGHBORHOOD PARKS PROVIDE CONNECTIVITY

- Consider allowing residential or mixed-use in the areas designated for commercial on Sierra Avenue, Juniper Avenue and Merrill Avenue.
- Include incentives for lot consolidation.
- Create place when locating new denser development considering improvements and amenities for both the private and public realms.
- Improve the connectivity (bus, bike, pedestrian) to the transit center and make secondary streets (Sierra Avenue, Juniper Avenue, Orange Way and Ceres) complete streets.
- Revise the Boulevard Overlay District to not restrict commercial only at the corners. Allow residential to be stacked on top of commercial or eliminate the Overlay District and replace it with new standards and guidelines for a Downtown Transit Village.
- Consider preparing a specific plan with land use regulations, building and circulation standards, and design guidelines with an emphasis on building form.
- Explore land assembly tools such as a Parking Authority.
- Consider Quiet Zones and funding.

LAND USE ALTERNATIVES

Figure 4-28 shows potential opportunity areas for introducing more residential in the form of mixed-use and for multi-family development to address the market demand. There are many other scenarios that could be considered during the General Plan Update. Table 4-6 indicates that densities in the range of 12 to 50 units/acre should be considered to satisfy market demand. This table is only one of many land use alternatives to consider in the General Plan update.

There is adequate land zoned for commercial, retail and office to accommodate if existing development is redeveloped at a higher intensity and if parking requirements are made less restrictive.

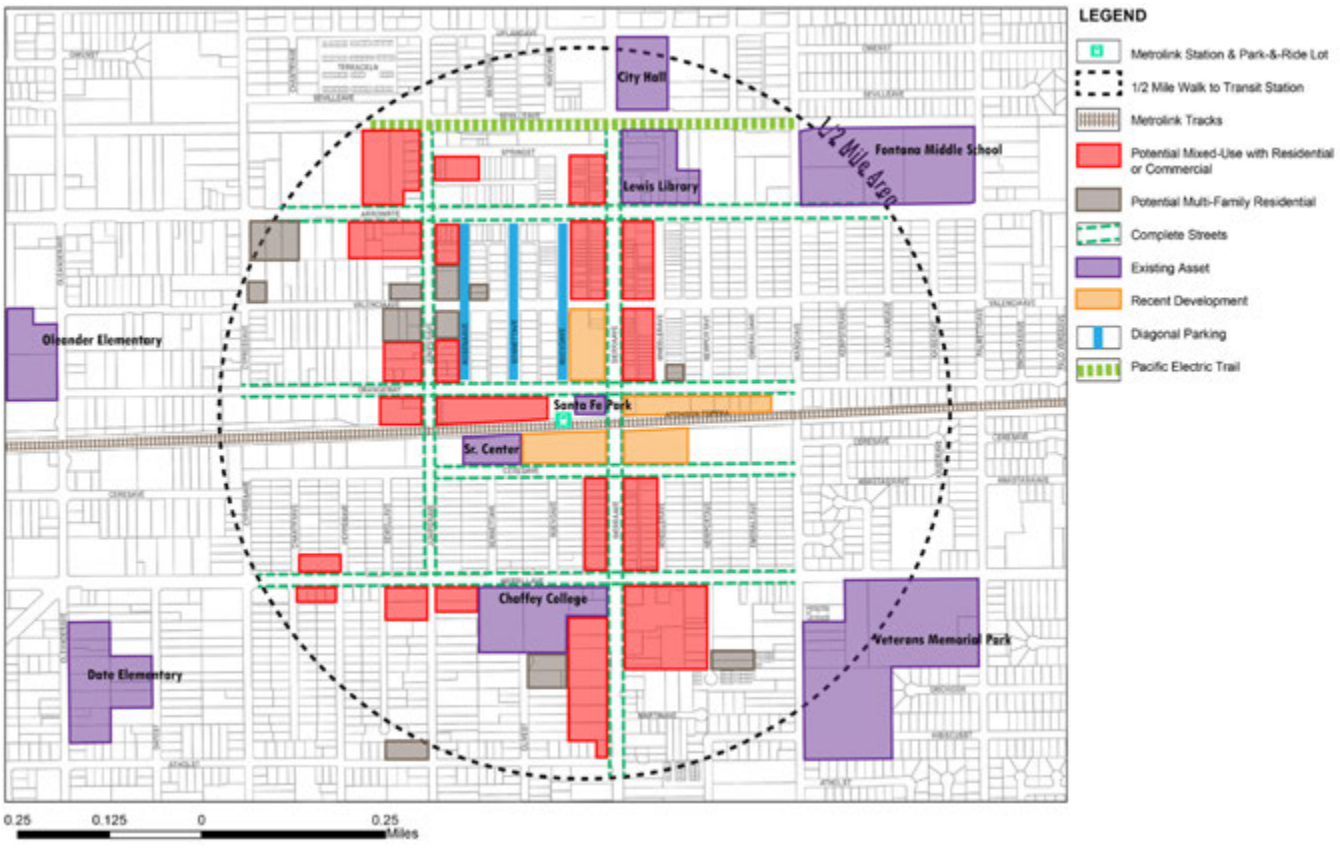


FIGURE 4-28: ***POTENTIAL AREA FOR LAND USE CHANGES***

TABLE 4-6: ***LAND USE ASSUMPTIONS TO BE REFINED IN GENERAL PLAN UPDATE***

Land Use	Dwelling Units
Residential	
• Mixed Use on a portion of the Metrolink parking lot and bus transfer center (3.2 acres @ 40-50 dwelling units/acre)	128 -160
• Vacant lands (15 acres @ 24 – 40 dwelling units/acre)	300 - 600
• Commercial designated areas in the General Plan along Juniper Avenue (10 acres @ 24-40 dwelling units/acre)	240 - 400
• Commercial designated areas on both sides of Sierra Avenue (15 acres @ 24-40 dwelling units/acre)	360 - 600
• Infill in Residential area north of Metrolink (6 acres @ 12-18 dwelling units/acre)	72 - 108
Total	1,100 - 1,868
Non-Residential	
• 178,000 SF @ 0.5 FAR to 1.0 FAR = 4.1 acres to 8.2 acres	
• 295,000 SF @ 0.5 FAR to 1.0 FAR = 6.8 to 13.04 acres	

For illustrative purposes, alternative concepts for intensification were developed for four sites at higher densities than currently allowed in the existing General Plan. These are shown in Figure 4-29 and include:

A Multi-family development on the Metrolink parking lot with a shared structure for development and replacement park-&-ride parking would be provided. Alternative 1 shows Metrolink parking replaced in a parking structure shared with residential and housing at densities of 40 to 50 dwelling units/acre (Figure 4-30).

B A small infill site on Rosena Avenue illustrates the opportunity for multi-family and shared parking at 12 to18 dwelling units/acre (Figure 4-31).

C A small infill site with mixed use could include below grade parking.

D Multi-family development on a vacant site on Arrow Boulevard and Juniper Avenue at 40 to 50 dwelling units/acre. As this is a large site, it could be phased to address various conditions as illustrated for Montclair (Figure 4-32).

HIGH-DENSITY RESIDENTIAL NEXT TO THE GOLD LINE

MULTI-MODAL ENVIRONMENT IN A TRANSIT-SUPPORTIVE AREA

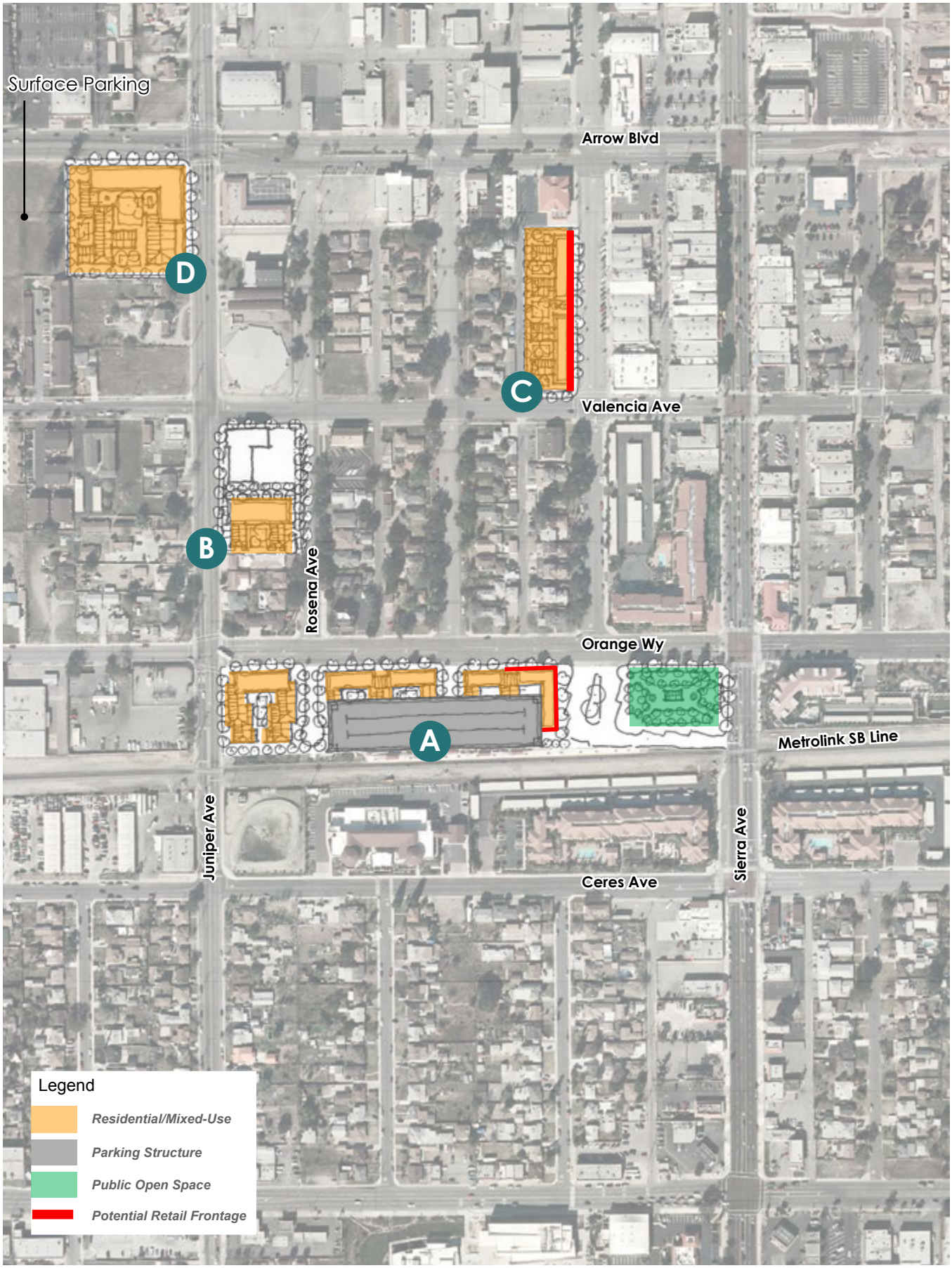


FIGURE 4-29: ***ILLUSTRATIVE SITE PLAN CONCEPTS***

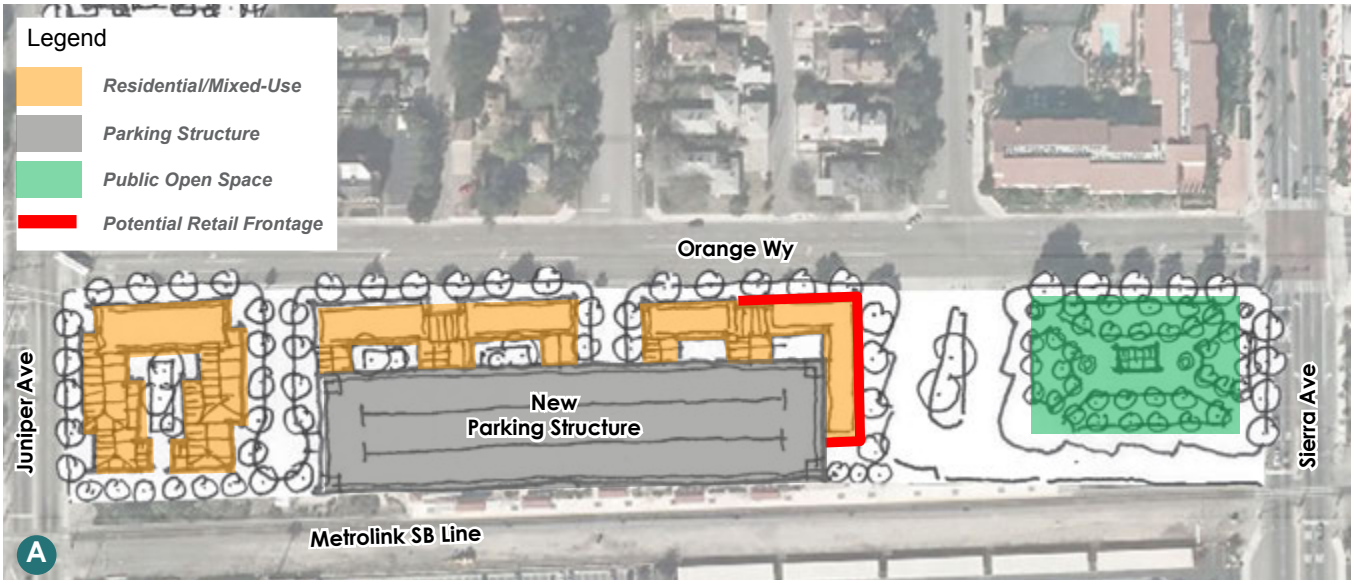


FIGURE 4-30: **ILLUSTRATIVE SITE PLAN CONCEPT FOR MIXED-USE RESIDENTIAL AT THE METROLINK STATION**

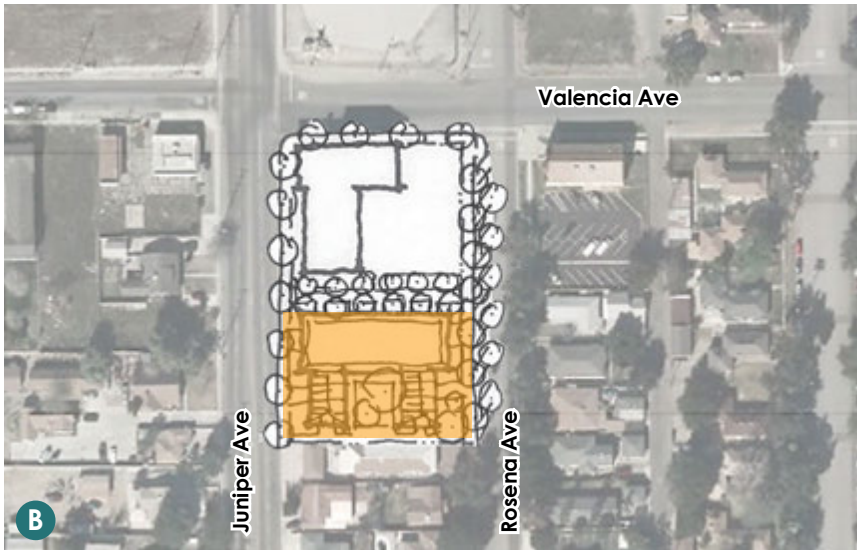


FIGURE 4-31: **ILLUSTRATIVE SITE PLAN CONCEPT FOR A SMALL INFILL SITE**

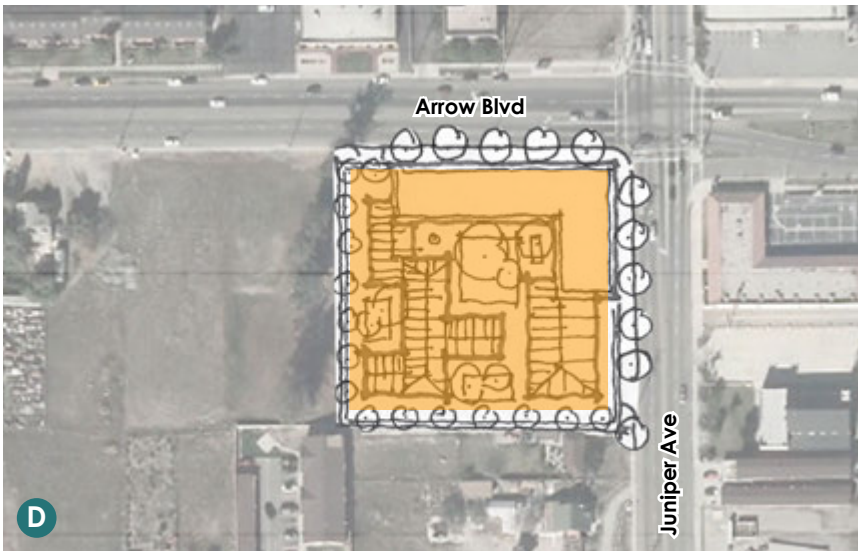
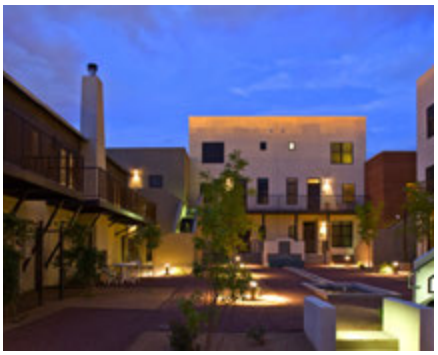


FIGURE 4-32 **ILLUSTRATIVE SITE PLAN CONCEPT FOR MULTI-FAMILY ON A VACANT SITE**

SPLASH PADS TO ACTIVATE A PLAZA
Source: www.shopdesertridge.com



COURTYARD HOUSING
Source: www.designgroupnm.com

KIOSKS ANIMATE ACTIVITY AT A PARK
Source: www.pinterest.com

ALTERNATIVES FOR CONNECTIVITY AND COMPLETE STREETS

Cross-sections in the General Plan for Sierra Avenue, Juniper Avenue, Orange Way, Merrill Avenue, Ceres Avenue and Mango Avenue should be modified to become more complete streets and to accommodate wide sidewalks, bike lanes when planned, local and BRT buses, street trees, on-street parking, curb extensions and other pedestrian amenities. North-south streets, Sierra Avenue and Juniper Avenue should connect the Metrolink transit station with the PE Trail and the new community development to the north and south of the downtown areas.

VISION RECOMMENDATIONS

Creating a Dynamic Urban Environment (Land Use)

- As parking utilization is at 70.2%, consider as an early phase when modest conditions are improved developing the vacant parcel adjacent to Juniper Avenue south of Ceres Avenue and a portion of the Metrolink parking lot into a TOD allowing for a variety of housing choices and attracting a wide variety of residents, i.e., student housing, senior housing, live/work, multi-family housing and single family housing, for both sale and rent.

- Over time, consolidate multiple lots and infill potential opportunity sites and vacant land adjacent to Metrolink station with transit-supportive uses including housing, at a density higher than is currently permitted in the General Plan, as well as retail and employment uses concentrated along Sierra Avenue.

- Utilize an updated Downtown Specific Plan, which will be included in the General Plan Update, and the recently approved Housing Element to add new regulations for development composed of office, residential, live/work space and retail to bolster ridership with the opportunity to become a new destination along the rail line and provide a larger downtown work force and resident base.

Making the Connections (Connectivity)

- Implement SANBAG Improvements to Transit Access for Cyclists and Pedestrians, which includes planned improvements to the pedestrian and bicycle environment to enhance station connectivity within the station area and a 3-mile radius of the station area.

- Provide direct connections from the station to the PE Trail to offer an alternate way to reach the station and improve the pedestrian/bicycle environment along Sierra Avenue.

- Create a stronger connection with the student population at Chaffey College by providing attractive streetscape enhancements on Sierra Avenue, Juniper Avenue and Merrill Avenue (e.g., street furniture, lighting, and street trees).

Creating Places

- Encourage an active transit plaza with active gathering places at Santa Fe Park used by riders coming and going to the transit station and by those living and working in the area. The transit plaza could be a gateway to the station area and include place-making features such as recreational fitness equipment, landscaping, public art, food vendors, informational signage and displays celebrating the uniqueness of the community. The plaza can also serve as a location for community events. As a short-term solution, remove the iron railings dividing the station and Santa Fe Park.

- As vacant land is absorbed around the station area, development should be focused towards infill and consideration should be given to streetscape improvements near the station including Orange Way, which has the potential of becoming a complete street unifying the Metrolink station with the neighborhood to the north, reducing automobile speeds for pedestrian safety and creating a more pedestrian-friendly environment.

- The Fontana Metrolink Station has one of the highest average daily boardings of any site in the Omnitrans service area, at just under 4,000 daily boardings. Frequent headways and strong performing routes serve the station and the multiple routes that terminate there. Coordinate with Omnitrans regarding future expansion, improvements and maintenance to this transfer center.

4.5.5 Station Area Implementation Priorities and Actions

- In the General Plan Update, explore opportunities for the neighborhood north of the station for more intensive infill and diagonal parking on the wide streets and mixed-use along major streets.
- As parking utilization is 70.2%, consider as an early phase to develop vacant land and a portion of the parking lot adjacent to Juniper Avenue into a transit-supportive development.
- Create a stronger connection with the adjacent residential neighborhoods, downtown and the student population at Chaffey College by providing attractive streetscape enhancements.
- Encourage active gathering space at Santa Fe Park with placemaking features such as outdoor recreation equipment, public art, food vendors and signage.
- In the General Plan Update, increase density/ intensity in TOD areas.
- Modify or eliminate the Boulevard Overlay and allocate more land for residential/mixed-use development.
- Consider preparation of an updated Specific Plan with new regulations for office, residential, retail and live/work.
- Implement SANBAG improvements to transit access and direct connections from transit to the PE Trail.
- Jump-start development interest in the station area via a Marketing Board.
- Explore land assembly tools such as a parking authority and the sponsorship of legislation to deal with the loss of redevelopment tools.
- Explore potential to implement Quiet Zones.

LANDSCAPED STREETSCAPES

HIGHER DENSITY HOUSING NEXT TO THE RAILWAY

BIKEWAYS CONNECT ACTIVITY CENTERS

4.6 Rialto Metrolink Station Area

The theme for Rialto is "Historic Downtown Rialto Transit Village". This is a mixed-use community formed around the civic uses, the downtown Main street, the Riverside Avenue shops and restaurants and the Rialto Metrolink Station.

4.6.1 Background and Planning Context Summary

RIALTO METROLINK STATION

The Rialto Metrolink station is located west of Riverside Avenue, the downtown retail street, and is across from Rialto Avenue and the tree-lined Orange Avenue as shown in Figure 4-33. Pedestrian access is directly from Riverside Avenue. Rialto has an attractive enclosed station building at the terminus of Orange Avenue and 208 park-&-ride spaces. It has the lowest ridership for Metrolink on the SB Line (249 average 2014 weekday boardings). The 2014 parking utilization rate was 67.8%. One Omnitrans route serves the station with 21 weekday boardings. An expansion of the number of parking spaces is planned and includes the frontage of Willow Street, which will improve pedestrian connectivity for the neighborhood on both sides of the Metrolink tracks.

EXISTING LAND USES, ASSETS, OWNERSHIP AND OPPORTUNITIES

Riverside Avenue with its attractive, pedestrian-friendly character lined by local commercial businesses is a key asset for this downtown station area. The grid of streets, public facilities in the area including a City Hall, post office, library, police and fire departments, two elementary schools, a middle school and a park are also key assets, although some need improvements.

A large part of the 1/2-mile station area, as shown in Figure 4-34, is older single-family residential with commercial uses concentrated on Riverside Avenue and industrial uses in the south and west of City Hall. The 1/4-mile area most accessible to the transit station primarily around City Hall has multiple small vacant sites ranging from 0.1 to 2.0 acres. Most of the area is zoned in the Specific Plan for non-residential uses although shown in the General Plan as mixed use. Some of these vacant properties were owned by the former Redevelopment Agency.

EXISTING PLANS

- **General Plan and Specific Plan.** The 2010 Rialto General Plan designates the area between Willow Avenue, Olive Avenue, 2nd Street and Bonnie View Drive, plus the parcels on both sides of Riverside Drive from Bonnie View Drive to Merrill Avenue as mixed use. According to the General Plan, the Downtown Mixed-Use designation allows for densities from 6.1 to 60 dwelling units/acre and an FAR of 1.50. The policies in the General Plan support transit-supportive uses, mixed use development and connectivity.

  The current General Plan maps refer to the Central Area Specific Plan and recommends it be updated. Most of the area designated as mixed-use in the General Plan is shown in the Central Area Specific Plan as commercial or industrial type uses without residential incorporated. Between the PE Trail and the Metrolink tracks, only a small amount of residential is designated. The City's website has no record of these plans being updated to reflect mixed-use and higher density development recommended in the General Plan and its Senior Planner indicated that 30 dwelling units/acre is the maximum density allowed in the area. Densities permitted in the residential neighborhoods in the Central District Plan are 21.7 dwelling units/acre or 48 dwelling units/arce with lot consolidation on several sites. In addition, parking for multi-family is high for a TOD at 2 parking spaces/unit, plus 0.25 parking spaces/unit for guest parking.

  For the station area to become a thriving, vibrant and economically viable area, more dense housing and offices on the vacant and underutilized land could create a more active environment and support local businesses on Riverside Avenue.

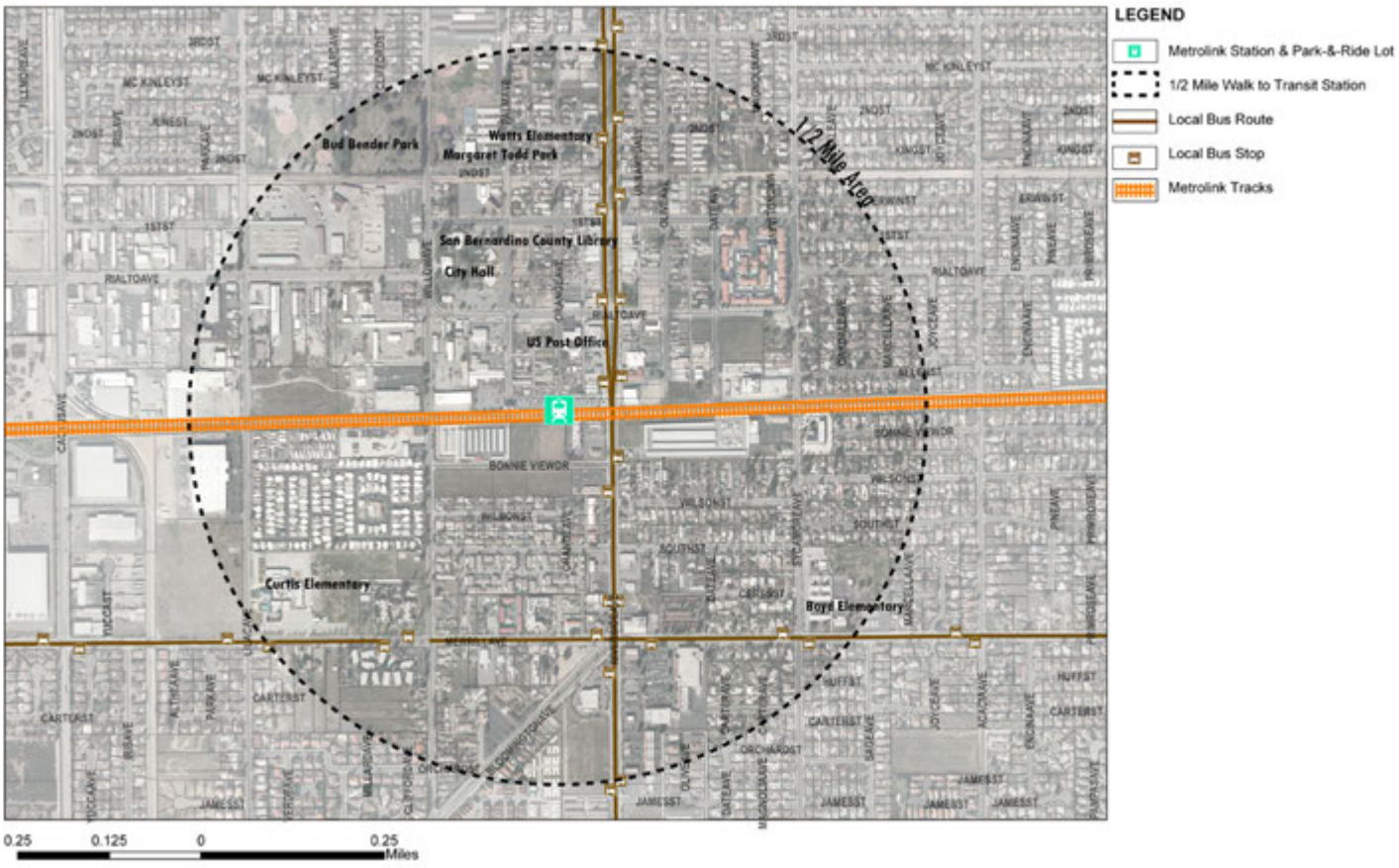


FIGURE 4-33: ***EXISTING STATION AREA AERIAL***

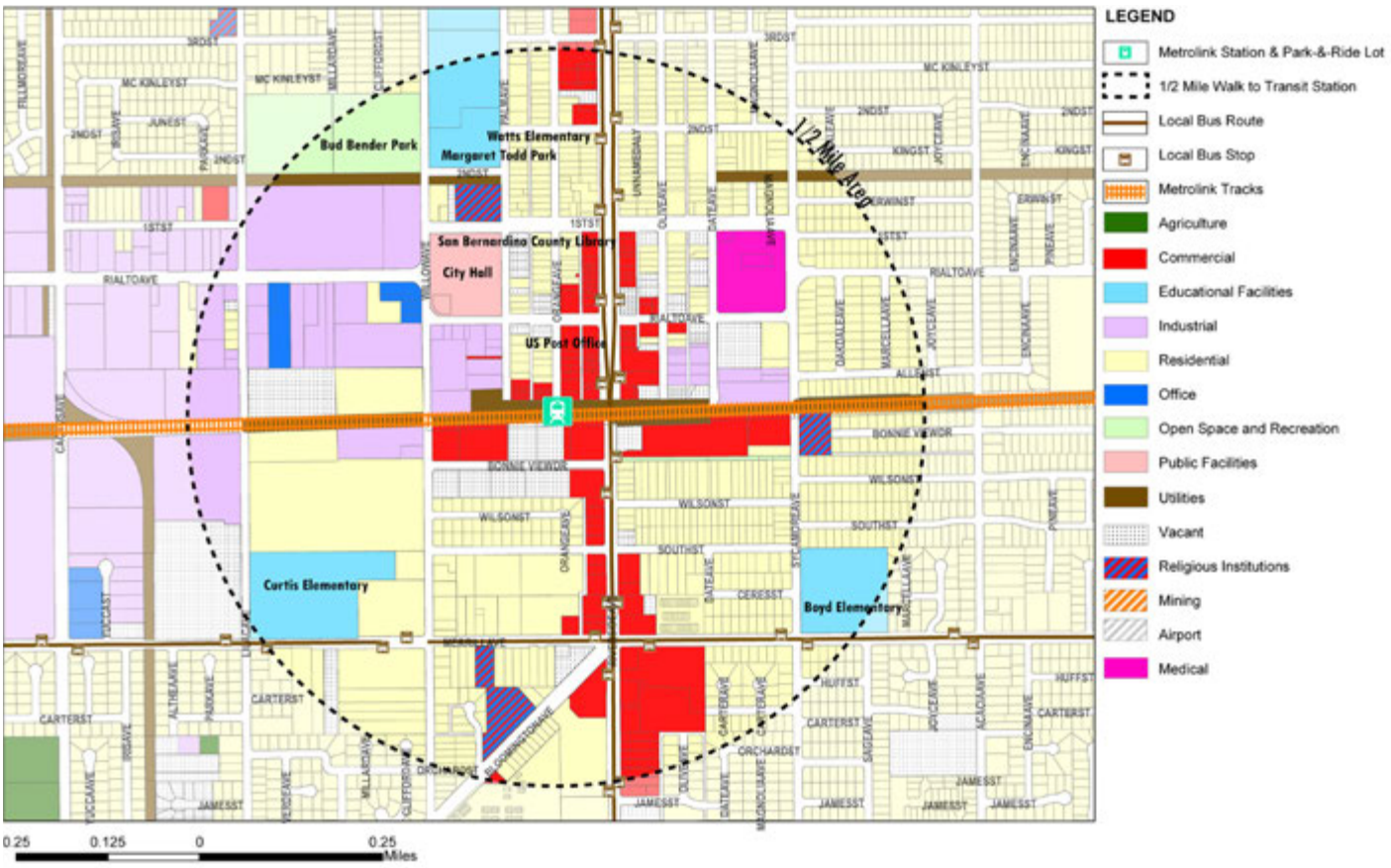


FIGURE 4-34: ***EXISTING STATION AREA AERIAL***

- **SANBAG Improvement to Transit Access for Cyclists and Pedestrians (October 2012).** The following projects from the SANBAG Improvement to Transit Access for Cyclists and Pedestrians study were included in the Active Transportation Program Grant proposal awarded to SANBAG in 2014:

  - Provide sidewalk pedestrian access from Willow Avenue to the Metrolink Station
  - Provide enhanced pedestrian crosswalks on Rialto Avenue
  - Provide short and long-term bike parking
  - Provide wayfinding signage at Rialto Avenue and Palm Avenue
  - Provide bike lanes on Riverside Avenue
  - Provide bike lanes on Rialto Boulevard/Arrow Boulevard between Cactus Avenue and Riverside Avenue
  - Provide buffered bike lanes on Cactus Avenue from Merrill Avenue to the PE Trail

- **SB Line Infrastructure Improvement Strategic Study (June 2014)**
  Station Improvements include:

  - Proposed track
  - Proposed 16' wide platform
  - Potential at-grade pedestrian crossings
  - Planned parking improvements/expansion
  - Pedestrian connection: overpass or underpass
  - Add/upgrade surveillance, messaging and signage systems for Metrolink platform
  - TOD opportunity south of tracks

4.6.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

As presented in Table 4-7 on the following page, the base line demand estimates show that Rialto is expected to capture residential growth in later years once Rancho Cucamonga and Fontana are fully developed. New household growth and limited competitive retail near the station area provide support for new retail in the future.

OPPORTUNITY SITES FOR DEVELOPMENT

Figures 4-35 and 4-36 on the following pages identify the small vacant and underutilized sites with potential for high density housing, mixed-use development, employment and other transit-supportive uses. Approximately 25.5 acres were identified as potential for residential or mixed-use development; however, it is not clear if these are all zoned for residential development. Table 4-8 shows two alternatives for developing all vacant and underutilized properties at 30 dwelling units/acre and at 50 dwelling units/acre.

In addition, there are two larger vacant sites zoned for industrial which can satisfy the industrial demand. These sites could be considered for office and residential in the General Plan.

*TABLE 4-7: **RIALTO DEMAND SUMMARY***

Land Use	Current Recapture	2014-2020	2020-2035	Totals*
Residential		100-200 dwelling units	400-700 dwelling units	500-900 dwelling units
Office		20,000-30,000 SF	71,000-107,000 SF	91,000-137,000 SF
Retail	33,000 SF	15,300 SF	45,100 SF	93,000 SF
Industrial		13,000-26,000 SF	52,000-103,000 SF	65,000-130,000 SF

*Totals may not add up due to rounding.

Source: HR&A Advisors, Inc.

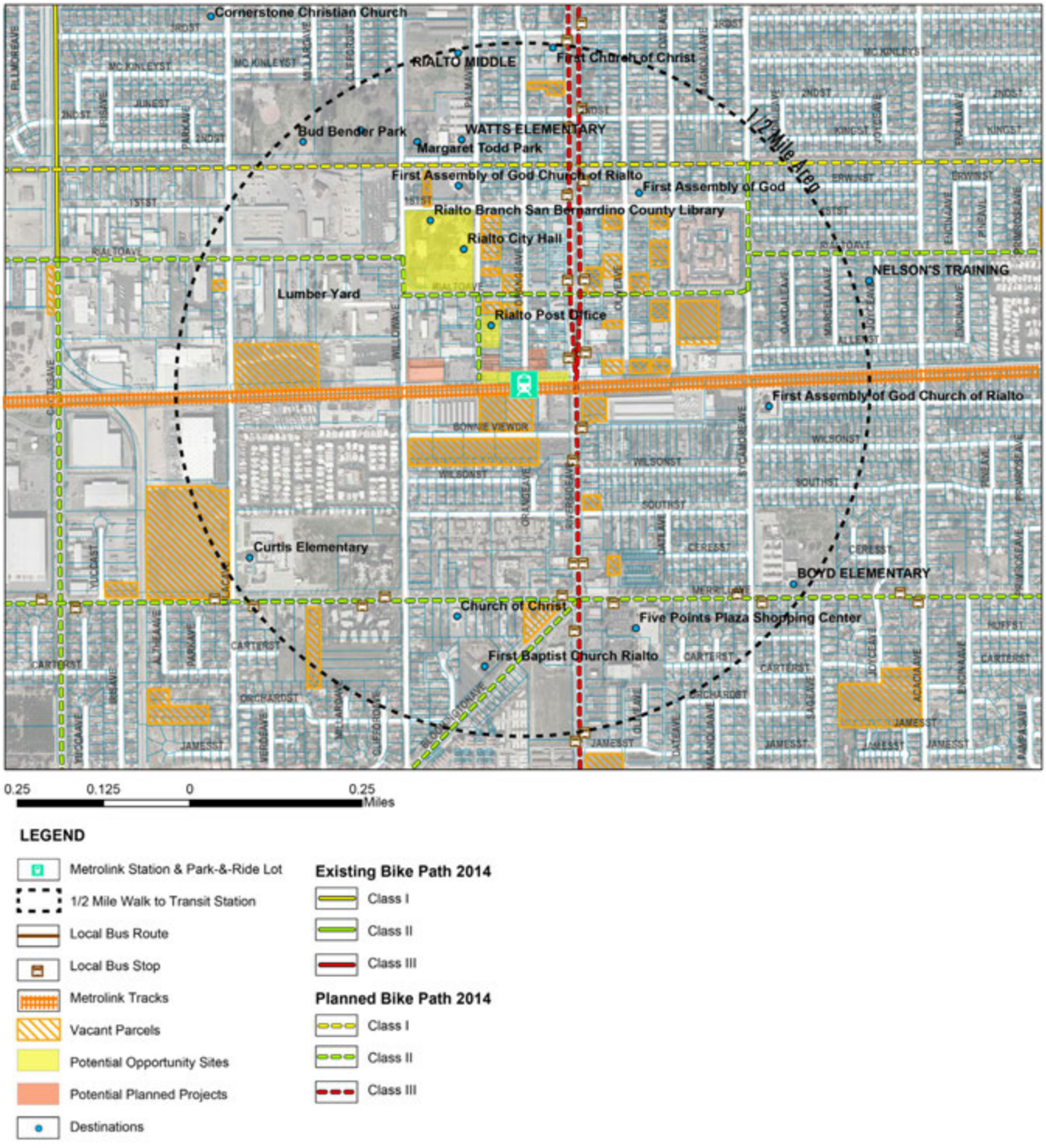


FIGURE 4-35: ***POTENTIAL OPPORTUNITY SITES***

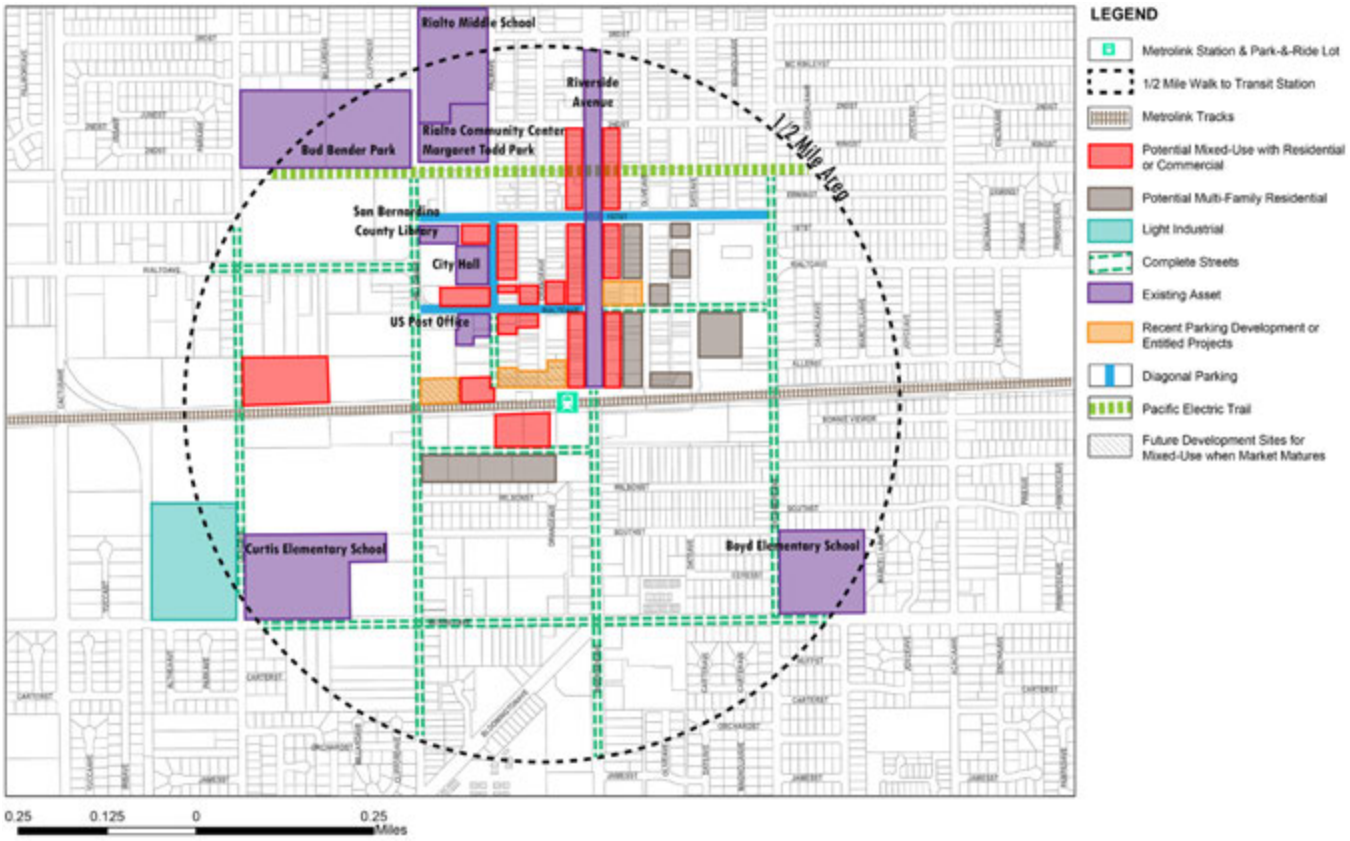


FIGURE 4-36: ***POTENTIAL AREA FOR LAND USE CHANGES***

TABLE 4-8: ***VACANT AND UNDERUTILIZED LAND WITHIN 1/2-MILE OF STATION FOR HIGHER DENSITY RESIDENTIAL***

		Alternative 1 Average 30 dwelling units/acre	Alternative 2 Average 50 dwelling units/acre
A	6.2 acres of larger sites (2 acres)	186	310
B	10.3 acres of multiple small sites (30 dwelling units maximum)	309	309
C	1 acre of civic center	30	60
D	2 acres of Metrolink parking lot	60	100
E	4.5-acre site directly south of Bonnie View Drive @ 20 dwelling units/acre	90	90
	Total	705	909

4.6.3 City Input

- TOD and workforce housing is the vision for the majority of the vacant parcels surrounding the Metrolink Station. The City is planning to use the vacant City-owned land across the street from City Hall as a community gathering space. This was formerly a Redevelopment Agency property and the City was able to maintain ownership for community use.

- The Specific Plan has been amended to allow a TOD overlay zone. This overlay zone will apply to all "core commercial" zones per the Specific Plan. Maximum densities for this TOD overlay zone are 30 dwelling units/acre, even though the General Plan's downtown mixed-use designation, applied to Rialto's historic downtown, is allowed to have an intensity of 6.1 to 60 dwelling units/acre; maximum 1.50 FAR.

- Developers have not yet expressed interest in redeveloping the downtown area. The only project in the pipeline is a potential mixed-use project at Rialto Avenue and Riverside Avenue, which may be affordable housing. This project will have commercial offices at the ground level and senior housing above the ground floor. This project has been entitled but is currently on hold pending funding availability.

- The City is leading the Metrolink Station parking expansion. Pedestrian at-grade crossing issues of the tracks will be rectified within the scope of the parking expansion project.

- New TOD projects will need infrastructure improvements, and Riverside Avenue is planned as a "Major Arterial" with three travel lanes in each direction and no parallel parking (per the General Plan).

- Rialto needs to focus on providing employment.

- The City believes a bridge connecting the vacant properties south of the tracks will strengthen the viability of future TOD opportunities.

- The focus of future development will be industrial west of Linden Avenue and residential/commercial east of Linden Avenue in the Renaissance project.

- One of the major barriers to development and local retail is the lack of daytime population. The only substantial daytime population is City Hall. Specific plans to the north (e.g., Renaissance Specific Plan on the old Rialto Airport site) will provide future employment center opportunities and 8,500 new residential units. The City is looking to attract evening population through the local colleges.

- The City is interested in Cap and Trade as a potential funding opportunity.

4.6.4 Vision and Implementation Strategies

CONSIDERATION FOR GENERAL PLAN UPDATE

The majority of the City's plans have policies promoting activity centers and TOD adjacent to the Rialto Metrolink Station encouraging an intense and complimentary mix of uses that are within walking distance to the station and Civic Center. Yet, inconsistency between plans and the Downtown Vision and Strategic Plan which is not adopted has prevented many of the City's transit supportive visions from being implemented when there is adequate land for accommodating the market demand. In updating the General Plan, the City should consider:

- Provide consistency between the City's plans which will support TOD and allow for the regulatory tools necessary to implement the City's vision for the downtown area as currently outlined in the General Plan's Downtown Mixed-Use designation.

- Prepare a specific plan with land use regulations, building and circulation standards and design guidelines, which will supersede the Central Area Specific Plan.

- Retain City-owned land as future development sites for mixed-use when the market matures, including the sites used for the Metrolink station's parking lot expansion. FTA and Omnitrans may need to be involved with a joint development agreement on the parking lots if FTA funds are used for the expansion.

- Create place adjacent to Civic Center when locating new denser development considering improvements and amenities for both the private and public realms.

- Improve the transit center connectivity (bus, bike and pedestrian) and implement complete streets on secondary streets (Willow Avenue, Merrill Avenue, Rialto Avenue, Palm Avenue and 1st Street).

ALTERNATIVES FOR CONNECTIVITY AND COMPLETE STREETS

Cross-sections in the General Plan for Riverside Avenue, Willow Avenue, Merrill Avenue, Rialto Avenue, Palm Avenue and 1st Street should be modified to become complete streets and to accommodate wide sidewalks, bike lanes, local and BRT buses, street trees, on-street parking, curb extensions and other pedestrian amenities.

VISION RECOMMENDATIONS

Creating a Dynamic Urban Environment (Land Use)

- Utilize the amended Specific Plan's core commercial TOD overlay zone (30 dwelling units/acre) and the General Plan's Downtown Mixed Use designation (6.1 to 60 dwelling units/ac; max 1.5 FAR) to add new developments composed of office, residential, live/work space, retail and industrial to bolster ridership with the opportunity to become a new destination along the rail line providing a larger downtown work force and resident base.

- Retain and enhance government uses, and provide employment-focused development as a critical component to downtown's future success.

- Remove uncertainty related to the Civic Center relocation.

- Determine status of land owned by Redevelopment Agencies and potential changes in industrial sites in the area.

- Develop a list of incentives and subsidies that encourages a variety of housing types and uses within the station area and create a stronger sense of place, such as:

SETBACKS ALLOW FOR ANIMATED PUBLIC REALM EXPERIENCES

RAISED OUTDOOR DINING TERRACES ACTIVATE STREET

DIVERSE AND COMPATIBLE BUILDING TYPOLOGIES

PUBLIC GATHERING SPACE WITH PEDESTRIAN AMENITIES

- Land write-down
- Funding for infrastructure, connectivity improvements and a transit plaza
- Discounted transit passes
- Innovative parking reduction strategies and funding for park-once

- Consolidate parcels to create new development opportunity sites within 1/2-mile of the station area.

- Market vacant properties for TOD.

Making the Connections (Connectivity)

- Implement SANBAG Improvements to Transit Access for Cyclists and Pedestrians, which includes a strong direct pedestrian connection from Willow Avenue.

- Provide strategic street tree plantings and widened sidewalks along Rialto Avenue, 1st Street, Palm Avenue and other streets linking major destinations and activity areas to help draw pedestrians from Riverside Avenue. This would allow visitors to see the City's commitment to the "quality of life" enhancements that will make downtown an attractive place to spend time and live.

- Improve Omnitrans service and frequency to the Metrolink station and along Riverside Avenue which provides connections to bus routes along Foothill Boulevard and other corridors to the south.

- Rectify pedestrian at-grade crossing issues by planning for a pedestrian connection under or over the tracks in conjunction with adjoining development and rail improvements. This is especially critical for strengthening the viability of future TOD development by connecting to vacant properties south of the tracks.

Creating Places

- Plan program activities and implement a plaza at Metrolink station linking it to Riverside Avenue, Orange Avenue and future developments.

- Continue pedestrian atmosphere created along Riverside Avenue to other streets such as Rialto Avenue in the station area and integrate this with each new planned development.

- Expand upon existing design guidelines to obtain quality pedestrian-oriented development providing a sense of place which will attract a diverse daytime and evening population transforming the downtown area into a destination. Attracting potential new residents from specific plans to the north (e.g., the Renaissance Specific Plan), which are planned to be employment centers and will include thousands of residential units and students from local colleges can provide a vibrant downtown atmosphere allowing retail to thrive.

4.6.5 Station Area Implementation Priorities and Actions

- Clarify the uses permitted and the densities/ intensities in the station area and post information on the City's website.

- Market vacant land to potential developers.

- Retain and enhance government uses to attract a diverse daytime and evening population.

- Continue charming pedestrian atmosphere created along Riverside Avenue.

- Utilize an amended Specific Plan core commercial TOD overlay zone to attract new developments along the rail line and provide a larger downtown work force and resident base.

- Provide strategic streetscape enhancements on Rialto Avenue, 1st Street, and Palm Avenue linking station and downtown.

- Provide connection/bridge with vacant property south of the station once funding is obtained.

- Propel development interest in the station area:

  - Consider replacement funding options for the stalled housing project at the corner of Riverside Avenue and Rialto Avenue
  - Marketing Board

- Support the City's community gathering space or re-entitle the lot for development.

HUMAN-SCALED GATHERING SPACE AND BUILDINGS PROVIDE CHARACTER AND A SENSE OF PLACE

WALKABLE ENVIRONMENTS

INTIMATE OPEN SPACE FOR CONNECTIVITY

ALLEYS AS PEDESTRIAN PASEOS

4.7 San Bernardino Metrolink Station Area

The theme for the San Bernardino station area is the "Santa Fe Depot Employment District" which enhances the historic character of the adjacent Santa Fe Depot and supports the industrial activities of the BNSF Intermodal Yard to create unique, employment/training focused development.

4.7.1 Background and Planning Context Summary

SANTA FE DEPOT

The Santa Fe Depot is an historic Spanish Mission Revival-style building. The depot is the current Metrolink terminus for the SB Line and is part of a regional transit hub serving the greater San Bernardino area. The Metrolink station is also served by the Metrolink Inland Empire-Orange County Line. Transit services on the site also include Amtrak, Omnitrans and MARTA local buses, and private shuttle operators. The Santa Fe Depot has the second highest ridership on the SB Line and serves 763 average weekday Metrolink boardings and 240 weekday Omnitrans bus boardings. It has park-&-ride lots and a structured parking with 777 parking spaces. According to the Metrolink parking utilization study, the 2014 parking utilization rate was 67.4%.

EXISTING LAND USE AND ACCESSIBILITY

The 1/2-mile station area includes industrial, commercial, residential, utilities (the BNSF Intermodal Yard and Santa Fe Depot/San Bernardino Metrolink Station), and is bordered by the I-215 Freeway on the east and planned Class II bicycle facilities on Mt. Vernon Avenue to the west, 5th Street to the north, and Rialto Avenue to the south. Figures 4-37 and 4-38 show the existing conditions and uses as characterized below:

- The San Bernardino Metrolink Station is located at the Santa Fe Depot and includes a passenger waiting area, a cafe (currently vacant) and offices on the first floor. SANBAG occupies the second floor of this historic depot.

- A significant portion of the station area is occupied by the adjacent 168-acre BNSF Intermodal Yard. The tracks and yard north of the depot are used for BNSF operations.

- To the south of the depot is the 2nd Street Shopping Center, a recently constructed community shopping center anchored by the Superior grocery store. A few vacant parcels are located along 2nd Street, across from the Superior grocery store, between 1st Street and "K" Street.

- A single-family residential neighborhood with some interspersed cottages and apartments are located primarily south of 2nd Street.

- A few industrial buildings are located at the southeast corner of 2nd Street and "K" Street and southwest corner of 3rd Street and "J" Street.

EXISTING OWNERSHIP

Figure 4-39 shows publicly owned parcels and parcelization within the station area. When redevelopment agencies were eliminated in California, the City of San Bernardino transferred approximately 300 parcels to another non-profit board, which the state has not yet approved. Therefore, this property is in limbo, as the state has currently not allowed the property to be transferred back to the City. In addition to these properties, there are surplus properties which will be available after the Redlands Passenger Rail Project is complete.

EXISTING PLANS AND STUDIES

The existing conditions portion of the ARRIVE Corridor Briefing Book discusses City-adopted plans, policies and programs which contain transit-supportive policies, as well as plans by other agencies. The most relevant plans and a summary of their implications on achieving the vision include:

- **SANBAG Improvement to Transit Access for Cyclists and Pedestrians (October 2012).** A 2012 study by SANBAG recommended bicycle and pedestrian improvements in the vicinity of the Metrolink station. SANBAG received an Active Transportation Program Grant to fund some of the

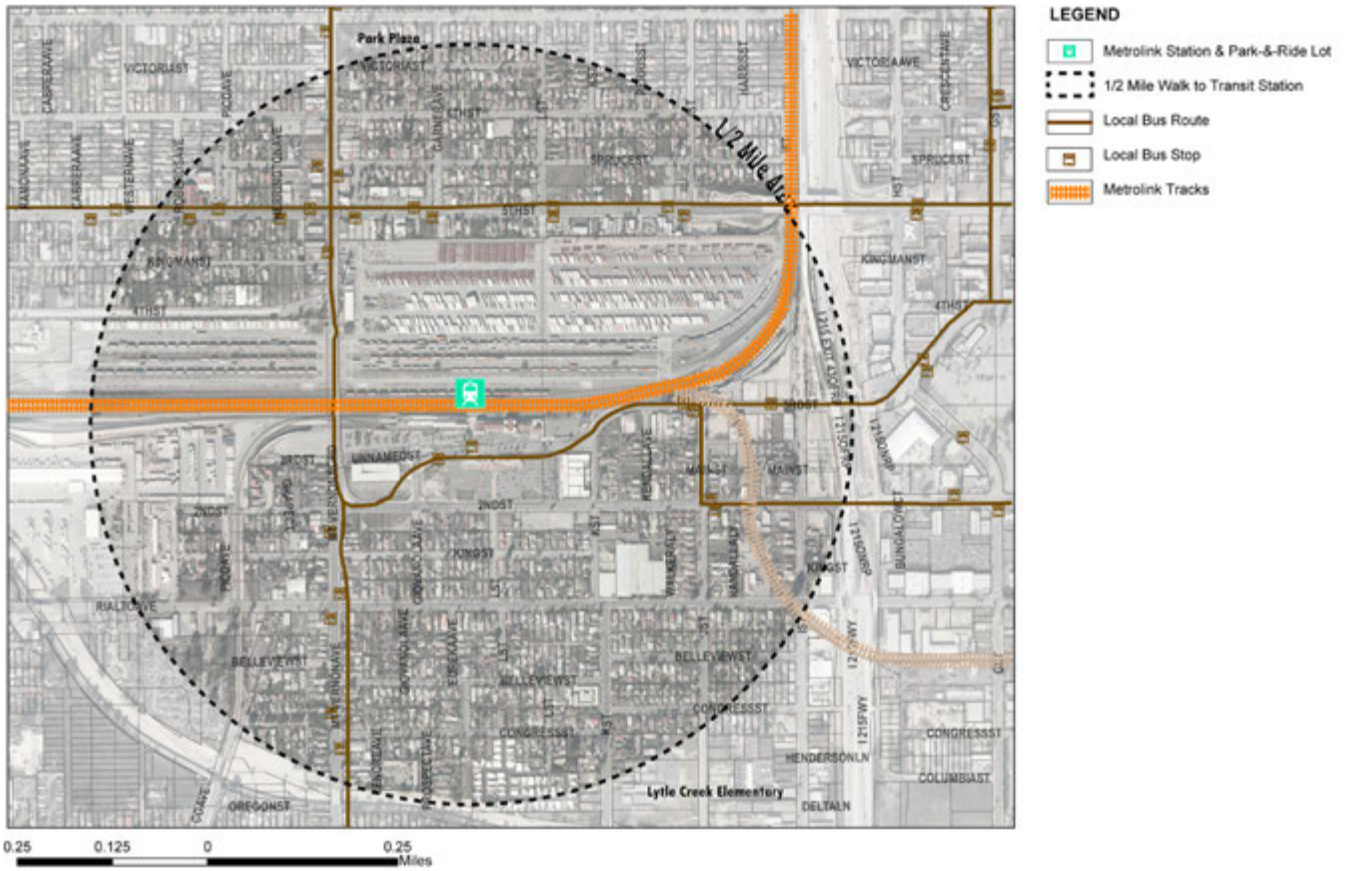


FIGURE 4-37: ***EXISTING STATION AREA AERIAL***

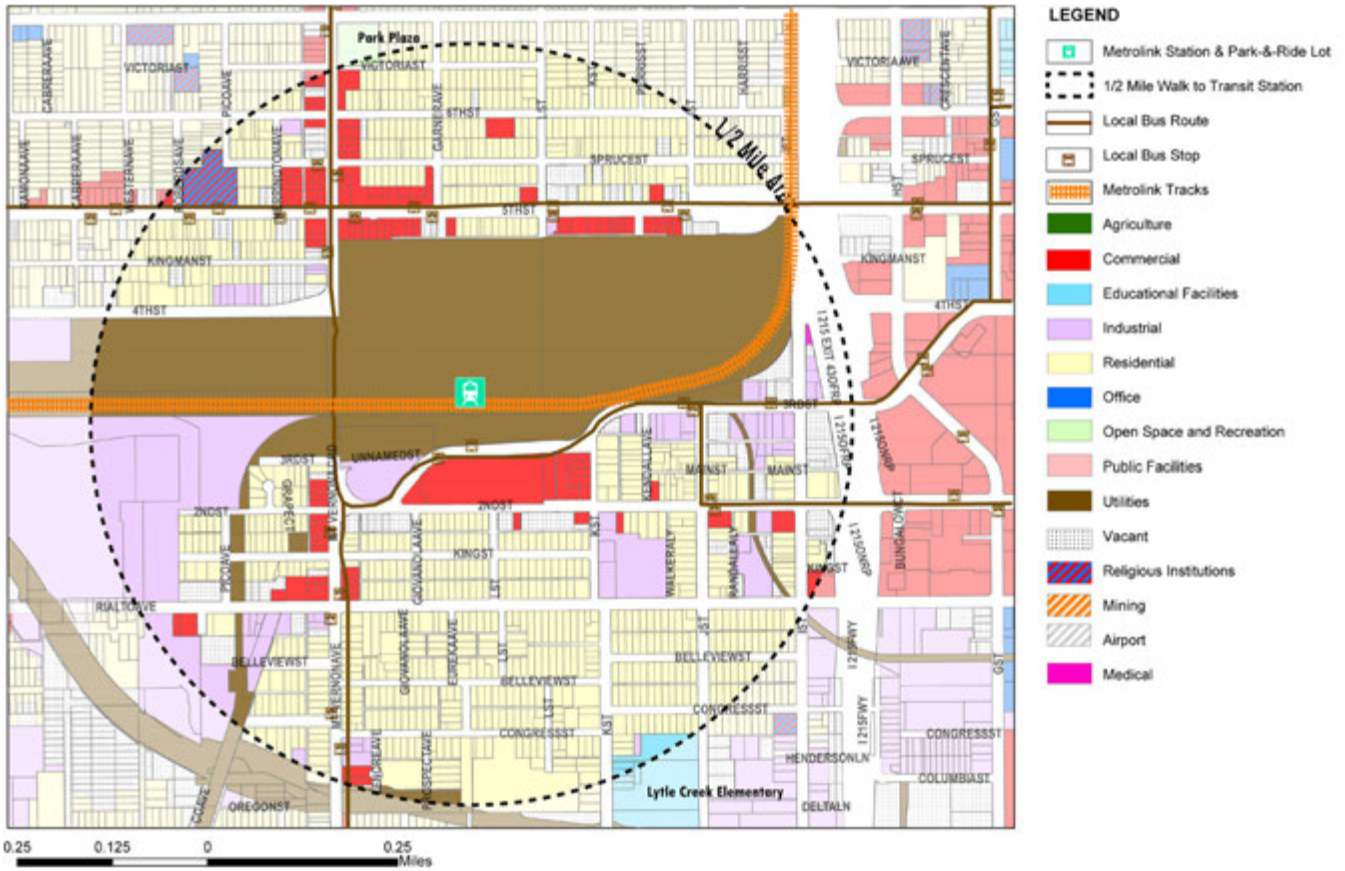


FIGURE 4-38: ***EXISTING STATION AREA AERIAL***

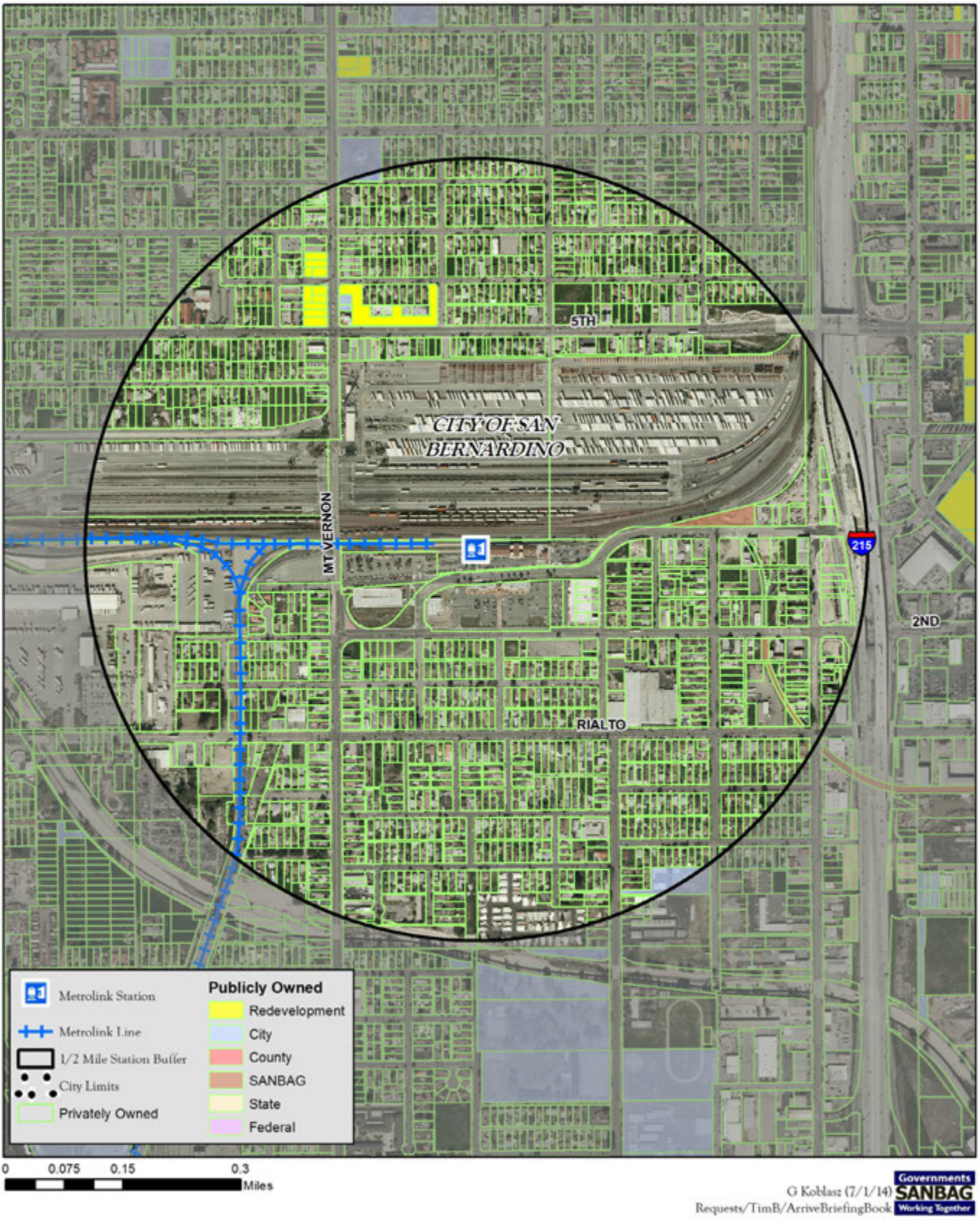


FIGURE 4-39: ***PUBLICLY OWNED PARCELS WITHIN 1/2-MILE OF THE STATION AREA***

recommended improvements. The following projects were included in the grant proposal awarded to SANBAG in 2014 (refer to Appendix D):

- Repair existing uneven pavement along Mt. Vernon Bridge.
- Provide high visibility pedestrian crosswalks at Mt. Vernon Avenue and 2nd Street.
- Provide mid-block crosswalk on 3rd Street with lights and signage.
- Install wayfinding signage for local bus stops on 3rd Street.
- Provide enhanced crosswalk striping in parking lot.
- Provide sidewalk.
- Install short and long-term bicycle parking.
- Provide high visibility crosswalks at Giovanola Avenue and 2nd Street.
- Provide wayfinding signage at "L" Street and 2nd Street.

- **Downtown San Bernardino Passenger Rail Project (2015).** The Downtown San Bernardino Passenger Rail Project is under construction and will extend the SB Line from the historic Santa Fe Depot 1-mile east to the San Bernardino Transit Center also under construction at E Street providing Metrolink access closer to downtown. The transit center will be a multi-modal transportation hub served by Omnitrans local and express bus routes, sbX Bus Rapid Transit and Metrolink. Commuter service will eventually be extended from this point 9 miles further to the east via the future Redlands Passenger Rail Project, connecting the existing Metrolink station with new stations at the University of Redlands, downtown Redlands, ESRI and at Waterman Avenue or Tippecanoe Avenue in San Bernardino.

4.7.2 Market Assessment and Opportunity Sites for TOD

MARKET ASSESSMENT

As presented in Table 4-9, the baseline demand from the ARRIVE Corridor Market Assessment estimates limited growth in residential demand in the San Bernardino 1/2-mile station area due to the BNSF Intermodal Yard and environmental concerns, such as air and noise quality. There is adequate vacant underutilized land (13.5 acres to 27 acres at .5-1.0 FAR) to satisfy market demand for non-residential, industrial uses, in particular, including employment focused job training activities. New residential, retail and office demand will be concentrated, per the City's current efforts, closer to the future transit center in the downtown area.

Refer to the full ARRIVE Corridor Market Assessment for more detail.

TABLE 4-9: ***SAN BERNARDINO DEMAND SUMMARY***

Land Use	2014-2020	2020-2035	Totals*
Residential	60-100 dwelling units	150-300 dwelling units	200-400 dwelling units
Office	0-9,000 SF	0-36,000 SF	0-44,000 SF
Retail	5,300 SF	16,300 SF	37,100 SF
Industrial	47,000-109,000 SF	171,000-399,000 SF	218,000-509,000 SF

*Totals may not add up due to rounding. Source: HR&A Advisors, Inc.

OPPORTUNITY SITES FOR DEVELOPMENT

Figure 4-40 identifies a number of potential opportunity sites of approximately 13.5 to 27 acres (.5 to 1.0 FAR) of vacant and underutilized land to satisfy market demand for non-residential uses in the 1/2-mile area, which can have the potential for the following alternative land use scenarios:

- Employment/training focused development
- Industrial, retail and flex office uses on land vacated for the Downtown San Bernardino Passenger Rail Project and throughout the station area
- Employment training center potentially connected to San Bernardino Valley College or another institution
- Open Space for improved quality of life in the area
- "Pop" up activities near the Depot to attract new transit users, potential employers and employees of BNSF Intermodal Yard

4.7.3 City Input

Several meetings were held with City staff and management regarding the implementation of a transit-oriented district. Input from these meetings include:

- There has been acquisition of adjacent parcels to the Mt. Vernon Avenue Bridge, as part of the Mt. Vernon Avenue Bridge project.
- There is an ongoing effort to market and brand the city. The City is completing a second round of talks with marketing firms. There are over 300 properties that were held by the Redevelopment Agency that the city is attempting to market to potential developers. San Bernardino has the opportunity to delay selling of properties and in the meantime can improve infrastructure.
- City staff is in agreement that additional housing should not be provided around the Santa Fe Depot and station area due to air quality concerns; training facilities and other development is desired.
- The City is more concerned with job creation and is very interested in forming a partnership with BNSF, the unions and the local colleges for job training opportunities in the station area. The City has been very proactive on this front, partnering with Kelly Space & Technology, Inc. in training local youth in IT-related careers including 3D printing and machinery. The San Bernardino Employment Agency also receives state funding to assist with job creation in sustainable careers.
- The City's current development focus areas are the downtown core, California State University, San Bernardino and Hospitality Lane.
- The City would be interested in training its planning staff to achieve more coordinated efforts at the regional level in job retention and creation and addressing the tools lost with the dissolution of redevelopment agencies (see efforts by `the Inland Empire Economic Partnership).
- The City is not focused on potential Cap and Trade funds for affordable housing.
- The City is interested in an EFID.

4.7.4 Vision and Implementation Strategies

VISION STRATEGY RECOMMENDATIONS

Vision Recommendations: Creating a Dynamic Urban Environment (Land Use)

- Simplify and refine the General Plan and the Development Code to support the repositioning of the depot area to be about job creation. Consolidating the zoning categories will streamline the development process and provide developers with the tools they need to introduce the City's desired uses, building types and amenities in the depot's station area.
- Include the depot's station area as a focus area in addition to the City's ongoing efforts in the downtown core, California State University, San Bernardino and Hospitality Lane.
- Plan for a unique mixed-use, employment focused development including industrial users, domestic

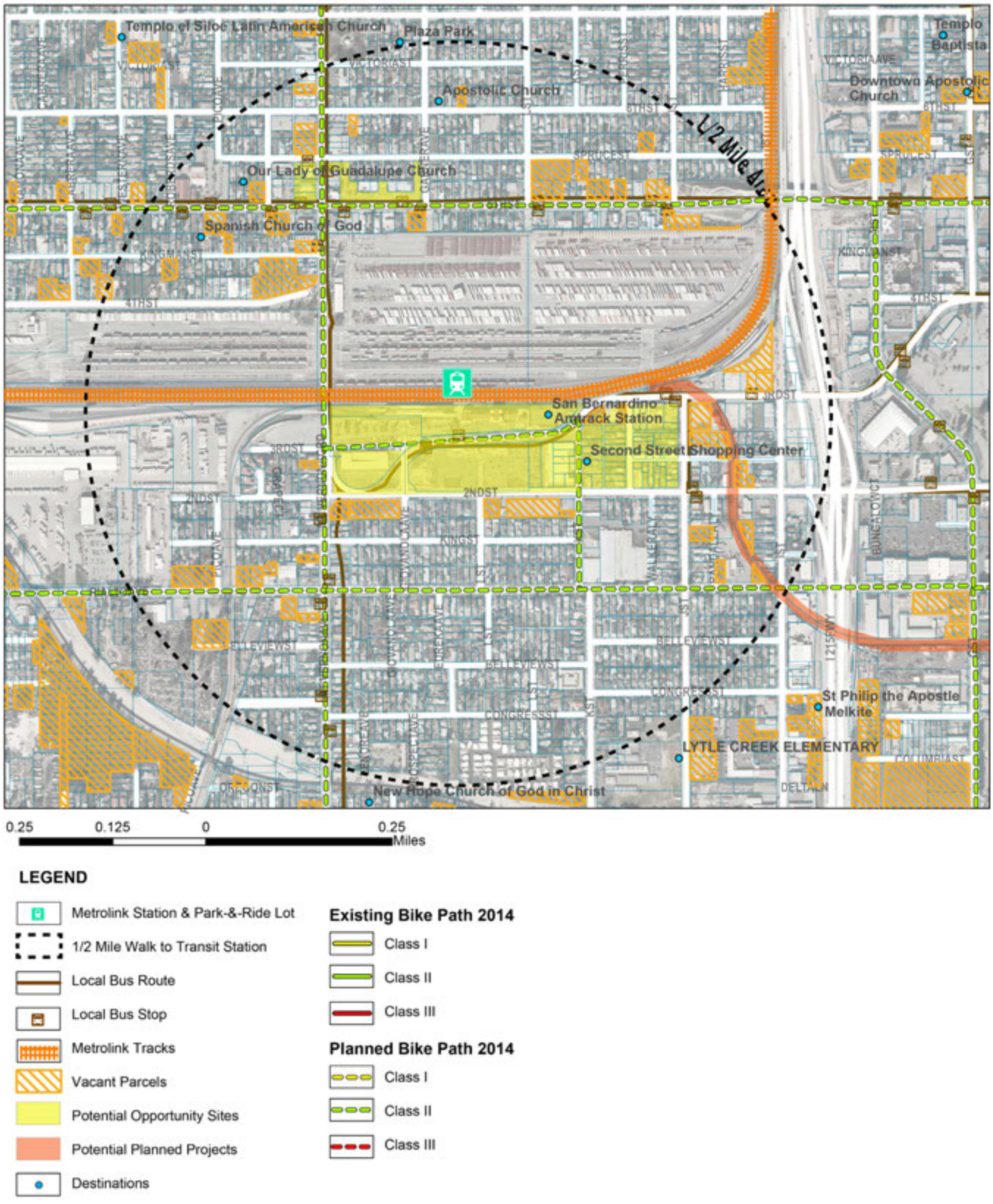


FIGURE 4-40: ***POTENTIAL OPPORTUNITY SITES***

manufacturers, office, institutional and limited retail clustered close to the depot and parking uses. An employment training center or other educational facility, potentially connected with San Bernardino Valley College, should also be considered.

- No increase in residential densities is recommended due to the BNSF Intermodal Yard. Over time pockets of residential isolated by the railroad and industrial use should be designated for industrial.

- Consider open space as a viable option to improve the air quality in the area.

- Provide commercial and industrial uses on the surface parking provided at the depot, and the adjacent 2nd Street Shopping Center, when it is economically feasible for parking structures.

Vision Recommendations: Making the Connections (Connectivity)

- Implement SANBAG Improvement to Transit Access for Cyclists and Pedestrians which includes planned improvements to the pedestrian and bicycle environment to enhance station connectivity.

- Make public realm and connectivity improvements between the Santa Fe Depot area and the single family neighborhoods to the north and south of the depot which are bifurcated by rail activities. With the bridge improvements and Downtown San Bernardino Passenger Rail projects in mind, consideration should also be given to enhancing the streetscapes for Mt. Vernon Avenue, 2nd Street, and Rialto Avenue for improved accessibility.

- Market the extension of Metrolink to the planned San Bernardino Transit Center. The extension will improve access from downtown San Bernardino and all of its destinations such as San Bernardino City Hall, Carousel Mall Shopping Center and San Manuel Stadium.

- Capitalize on the San Bernardino Valley College located within the 3-mile station area for the potential of establishing training sites in the station area connected to the college.

Vision Recommendations: Creating Places

- Integrate community events and unique "pop" up activities near the depot to attract new transit users, potential employers and employees of BNSF Intermodal Yard. The San Bernardino Employment Agency also receives state funding to assist with job creation in sustainable careers which can give the depot area the opportunity to be a training ground for future job growth.

- Create a cluster of cafes, bars, fitness centers and other neighborhood serving uses, grouped near the depot and along both sides of 2nd Street to foster a sense of place and destination for the local residents and employees.

- Provide varied pedestrian experiences of the area that capitalize on grade changes within the Santa Fe Depot station area. Places such as gardens, clustered retail terraces and bicycle hubs on multiple levels would enrich the depot as a destination and strengthen its historic value within a vibrant composition of integrated components.

- Leverage the ongoing effort to market and brand the city to highlight the depot's unique setting to potential developers. As part of the Mt. Vernon Bridge project, adjacent parcels have been acquired and may provide developers and other potential partners (e.g., unions, local colleges and BNSF) with favorable conditions for the introduction of an employment-focused growth and training in the area.

4.7.5 Station Area Implementation Priorities and Actions

- Plan for a unique, employment/training focused development .

- Plan for industrial, retail and flex office on vacant lands near Downtown San Bernardino Passenger Rail Project and on other underutilized sites.

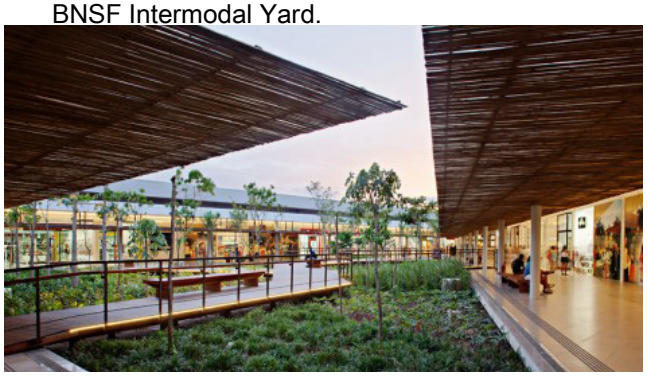
- Consider rezoning isolated housing areas for industrial use.

- Encourage development of an employment training center connected to San Bernardino Valley College.

- Consider open space as an option to improve the area.

- Make public realm and connectivity improvements between the Santa Fe Depot area and adjacent neighborhoods to the north and south.

- Integrate community events and unique “pop” up activities near the depot to attract new transit users, potential employers and employees of the BNSF Intermodal Yard.



LANDSCAPED COURTS WITHIN COMMERCIAL BUILDINGS

COMMUNITY EVENT ANIMATING THE PUBLIC REALM

BUILDINGS AS BACKDROPS FOR PUBLIC GATHERING SPACE

4.8 INFRASTRUCTURE IMPROVEMENTS

Table 4-10 summarizes the potential infrastructure improvements envisioned for each station. Chapter 5.0 discusses funding for several of the key infrastructure elements, which follows. Several cities requested the order of magnitude costs for an overcrossing or an undercrossing of the tracks and for a quiet zone. Typical costs for these follow. Costs are preliminary and subject to change.

TABLE 4-10: ***POTENTIAL INFRASTRUCTURE IMPROVEMENTS PER STATION***

	Montclair	Upland	Rancho Cucamonga	Fontana	Rialto	Santa Fe Depot
Transit-related						
• Double tracking of Metrolink	■				■	
• Bus Plaza Reconfiguration (in conjunction with Gold Line from Azusa to Montclair	■					
• New Bus Service and New Stop at Station		■				
• Overcrossing or Undercrossing of Tracks	■	■		■	■	
• Intersection Improvements for Quiet Zones	■	■		■	■	
TOD-related						
• Park Once Parking Structures	■	■	■	■	■	
• Public Gathering Space/Transit Plaza/Park	■	■	■	■	■	
• Major New Streets with Sidewalks & Landscaping	■		■			
• Pedestrian/Bicycle Improvements						
- New Sidewalks	■	■	■	■	■	■
- High Visibility Crosswalk Improvements	■	■	■	■	■	■
- Bike/Pedestrian Access to Pacific Electric Trail	■					
- Bike Racks/Lockers	■	■	■	■	■	■
- Wayfinding Signage	■	■	■	■	■	■
- Bike Lanes	■		■	■	■	
- Utilities (sewers, water)	■ Monte Vista	■	■	■	Riverside Avenue/ Rialto	■

Source: HDR

4.8.1 Overcrossing and Undercrossing of the Tracks

To connect the Metrolink stations with the station areas south or north of the tracks, over or undercrossing of the tracks are needed by several cities.

ORDER OF MAGNITUDE COST FOR PEDESTRIAN CROSSING

Overcrossing

An overcrossing consists of a pedestrian bridge enabling train riders to cross from one platform to another without using an at-grade pedestrian crossing. An overcrossing is a preferred alternative structure for SCRRA under the agency's Grade Separation Guidelines. The overcrossing will not impact the track structure during construction and thus will not require alteration or removal of the existing track by means of a temporary (shoofly) track during construction. The overcrossing will need to span over the entire right-of-way to maximize SCRRA's use of their property and for future track expansion. Per SCRRA's standards and requirements, the overcrossing where practical will have to be placed in the middle of the station to maximize pedestrian foot traffic and to expedite passenger boarding operations. Depending on the availability of property, the use of elevators may be required to meet ADA requirements. This will increase the cost of the project. During construction, a flagman employed by SCRRA will be assigned to safeguard the public and roadway workers during construction. Table 4-11 illustrates the conceptual cost estimate for a typical overcrossing, with and without the installation of elevators.

Undercrossing

An undercrossing may be constructed; however, an undercrossing requires removal and reinstallation of a portion of the affected track(s) during construction. In some locations, shoofly track(s) may be required in lieu of track removal. This will add significant cost to the project. Undercrossings have requirements similar to the overcrossing in that SCRRA would require the width of the railroad bridge to span the entire right-of-way to maximize their property and for future track expansion. Placement of an undercrossing in the center of the station maximizes pedestrian foot traffic throughput to expedite passenger boarding operations. Depending on the availability of property for ramp-ways, elevators may be required in order to comply with ADA requirements, adding cost. As with overcrossings, a SCRRA-employed flagman will be assigned to safeguard the public and roadway workers during construction. Table 4-12 below illustrates the conceptual cost estimates for the undercrossing, with or without the elevators.

TABLE 4-11: ***PEDESTRIAN OVERCROSSING CONCEPTUAL COST ESTIMATE***

Structure Cost Without Elevators	Flagman Cost	Total Cost
$3,500,000	$208,000 (8 months)	$3,708,000
Structure Cost with Elevators	Flagman Cost	Total Cost
$4,000,000	$208,000 (8 months)	$4,208,000

Source: HDR

TABLE 4-12: ***PEDESTRIAN UNDERPASS CONCEPTUAL COST ESTIMATE***

Structure Cost Without Elevators	Track/Signal Cost	Flagman Cost	Total Cost
$4,500,000	$50,000 (per track)*	$78,000 (3 months)	$4,628,000
Structure Cost With Elevators	Track/Signal Cost	Flagman Cost	Total Cost
$5,000,000	$50,000 (per track)*	$78,000 (3 months)	$5,128,000

*For track removal/reinstallation only – 80 feet of track (typical). Not for shoofly.

Source: HDR

4.8.2 Quiet Zone Study and Cost Estimate Using Upland Station

A quiet zone is a segment of a rail corridor wherein one or more at-grade highway/rail crossings are exempt from the routine sounding of train horns. The process for establishing a quiet zone is outlined in the 49 CFR Parts 222 and 229- Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule (Rule).The Rule allows for a variety of methods for establishing a quiet zone. Most methods rely on a quantitative approach that compares key risk indices. Risk is calculated using highway data, such as speed limit, number of lanes, and traffic counts, as well as railroad data including the number of tracks, train speeds and train counts. These and other factors are entered into the quiet zone calculator on the Federal Railroad Administration (FRA) website that yields benchmark risk indices.

- Quiet Zone Risk Index (QZRI):" the average risk in the proposed quiet zone, taking into consideration the increased risk caused by the lack of train horns and the reductions in risk attributable to the installation of Supplemental Safety Measures (SSMs)" or Alternative Safety Measures (ASMs).

- Risk Index With Horns (RIWH): "represents the average initial amount of risk in the proposed quiet zone with the train horn sounding."

- Supplemental Safety Measures, or SSMs, include new or upgraded features such as exit gates, channelization and permanent closure of a crossing or the use of Wayside Horns.

Alternative Safety Measures (ASMs) are defined in the Rule as "a safety system or procedure, other than an SSM, (which after review and approval by the FRA), is determined to be an effective substitute for the locomotive horn in the prevention of highway-rail casualties at specific highway-rail grade crossings." An example of a commonly used ASM is a raised median that is less than the required minimum length.

RISK CALCULATIONS

Table 4-13 is an example of a risk calculation that was performed for the Upland Station TOD Project.

TABLE 4-13: ***SAMPLE RISK CALCULATION FOR UPLAND STATION***

Crossings/SSM	Campus Avenue	Exit Gates
	Second Avenue	Exit Gates
	Euclid Avenue (SR 83)	Non-Traversable Medians
Risk Values:	**Risk Index Category**	**Risk Index**
	Nationwide Significant Risk Threshold:	14,347 .00
	Risk Index with Horns (RIWH)	50,821.89
	Quiet Zone Risk Index (QZRI)	18,551.38

A QZRI less than RIWH will allow the City to designate the San Bernardino Subdivision a Quiet Zone. Source: HDR

CONCEPTUAL COST ESTIMATE

As required by the SCRRA Quiet Zone Guidelines and Procedures, the City bears all costs for the Quiet Zone implementation and assumes responsibilities for future maintenance costs and liability for the crossing.Estimated costs for each SSM implementation scenario are included in Tables 4-14 and 4-15. Costs are considered to include the following:

- Engineering design
- Right-of-way costs
- Construction cost
- Railroad costs
- Contingency, 20% of all above costs

TABLE 4-14: ***UNIT COSTS FOR SUPPLEMENTAL SAFETY MEASURES***

SSM	SSM Description	Estimated Cost*
6	Four-Quadrant Gates Upgrade from Two Quadrant Gates, with Vehicle Presence Detection, Presumes Pedestrian Gates Required	$1,440,000
13	Non-Traversable Curb Medians with or without Channelization Devices, Presumes Pedestrian Gates Required	$480,000

Source: HDR

TABLE 4-15: ***TOTAL ESTIMATE OF PROJECT COST (UPLAND EXAMPLE)***

SSM	Street	Estimated Cost
6	Campus Avenue	$1,440,000
6	Second Avenue	$1,440,000
13	Euclid Avenue (SR 83)	$480,000
	Total	$3,360,000

Source: HDR

THIS PAGE IS LEFT INTENTIONALLY BLANK

5

ARRIVE CORRIDOR IMPLEMENTATION

5.1 TOD Implementation Objectives

The ARRIVE Corridor cities already have many of the essential components of TOD, as their historic downtowns were built adjacent to the rail line, now served by Metrolink. For most of the past century, Southern California has promoted automobile-focused, suburban-style development, but nationwide both younger residents and aging baby boomers are trending toward more urban-style, walkable neighborhoods near transit. This has been the experience in major cities, but even more strikingly in the popularity of new and revitalized "town centers," with higher-intensity, mixed-use development supported by transit with an authentic "sense of place". A strong and concerted effort to promote TOD opportunities along the ARRIVE Corridor can capitalize on the region's recovery from the Great Recession and the encouraging trends in real estate-related investment nationally. A resurgence of transit supportive, denser, walkable neighborhoods along the ARRIVE Corridor would address the current perceptions of the Inland Empire as an epitome of sprawl development. Key short and long-term TOD objectives for the ARRIVE Corridor should include:

- Implement pedestrian-friendly streetscapes and public realm to create unique station area identities;
- Create "destinations" along the ARRIVE Corridor and position the corridor for higher-intensity development and private investment;
- Support operational improvements to Metrolink and the wider multi-modal transit network; and
- Obtain public/public-private funding to support these and other initiatives.

As described in earlier sections, the idea of "place" is critical to any (re)development effort, whether transit-oriented or otherwise, as consumers by-and-large have begun to prioritize the character of urban environments in making choices about where they live, work and play. This includes an engaging public realm, walkable streets, easy access to amenities and access to employment centers with transit. It is important for each city to develop their station areas with high quality public realm, improved connections to their downtowns and other community assets and attract a mix of transit-supportive uses. Building a "critical mass" of origins and destinations along the ARRIVE Corridor will help position individual cities, as part of a larger transit supported network, to attract investment and encourage higher-intensity development. This can have the additional benefit of supporting Metrolink improvements, building a base of active riders and raising awareness of public transit options. Furthermore, by working collectively, cities may be better positioned to capture public funding by pooling funds to broaden their reach in catalyzing redevelopment.

The following section explores short- (0-5 years), medium- (5-10 years) and long-term (10+ years) implementation actions which can support TOD initiatives and strengthen intra-regional transit use along the ARRIVE Corridor. These proposed actions are supported by a series of brief and in-depth case studies which explore parallel strategies that municipalities have successfully implemented.

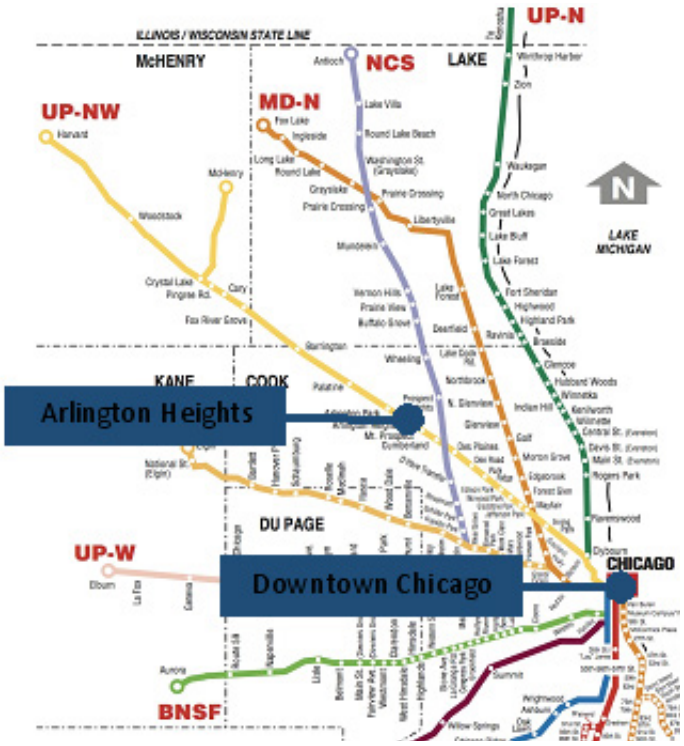
5.2 TOD Case Studies

TOD has a long history, and rail corridors defined development patterns in many East Coast suburbs before World War II. More recently, American cities have embraced TOD around expanded subway, light-rail lines and streetcar lines. Many commuter rail lines, like Metrolink, use historic right-of-ways, connecting the suburban and ex-urban transit-oriented town centers that their predecessor railroads helped spawn in the early 20th Century. Some of these lines have been revived after decades of auto and freeway-supported suburban-style living. Although there are fewer contemporary examples of suburban TOD around heavy-rail commuter rail stations, as compared to urban transit hubs, many projects are in the works in cities as varied as Savage, Maryland; South Orange, New Jersey; and Ogden, Utah. In the case studies below, we explore successful developments around regional rail stations that contributed to the revitalization of two town centers, and briefly discuss two recent ex-urban TODs in Southern California that are indicative of current preferences for transit-oriented, walkable living.

ARLINGTON HEIGHTS, IL (METRA)

Arlington Heights is an upper-middle class suburb of 75,000, located 22-miles northwest of downtown Chicago. Many residents commute to Chicago, either by driving or using the Metra commuter train. The Arlington Heights station is served by the Union Pacific-Northwest line, which opened in 1975 and currently serves roughly 43,000 weekday riders with headways as frequent as 15 to 20 minutes during peak periods. Arlington Heights revitalized its downtown center by directing development adjacent to their new Metra station, using tax-increment financing (TIF) to improve downtown public infrastructure and providing density incentives to developers that built to the TOD standards it set.

Over a 15 year period beginning in 1985, Arlington Heights committed over $45 million dollars to fund improvements, which included new parking garages, expanded green space, improved streetscapes and upgrades to private building facades. They also relocated the Metra station two blocks away to more directly connect with the historic downtown. In addition to the underground garage, Arlington Heights assisted in site assembly and reduced parking standards for developers, provided density bonuses and gap financing and negotiated development agreements that adjusted city subsidy based on target developer returns. Areas around the relocated train station were given grants for façade improvements and business relocation. The downtown zoning increased building height maximums to 140 feet and retail was required at the ground floor.



1985
- TOD policy framework established, first TIF financing district established. This reduced parking requirements and increased the maximum height of buildings to 140 feet within the station area

Late 1980s
- Two mid-rise apartment buildings open with ground level retail, oversized public parking decks, paid for by TIF funds, next to apartment buildings subsidized development costs.

Late 1990s
- Relocation of the Metra station two blocks west to better integrate into downtown fabric. New station featured two restaurants and a newsstand. Station relocation cost $4.7 million.

2000
- Arlington Town Square project opens with 94 condos, 100,000 square feet of ground-floor retail, 26,000 square feet of office space and a six-screen movie complex adjacent to station

2000 onwards
- Metropolis Performing Arts Center (310-seat theatre), 63 condos, 64,000 square feet of retail and office space and 816 parking spaces in a public lot.

LESSONS LEARNED

Early public investments in parking structures, as well as reduced parking standards can support higher-intensity development. Creative gap financing subsidies can further attract development. The public investment stimulated over $225 million in private development, including over 1,350 new dwelling units near the station. Five years after stabilization, the assessed value of property in the station area increased from $10.7 million to $72 million and gross annual receipts from downtown restaurants increased from $7 million to $17 million. In the same period, in just one TIF district, Arlington Heights invested $13.9 million to construct a parking garage, provide gap financing and underwrite land costs. From that TIF district, it earned $1.5 million a year in property taxes on land that previously generated just $65,000 annually.

DOWNTOWN HAYWARD, CA (BART)

Downtown Hayward has a long history of TOD. Much of this has been aided by Redevelopment Agency support and collaboration directly with Bay Area Regional Transit (BART), the major Bay Area transit agency. Hayward has a population of 150,000 and is located approximately 26 miles from Downtown San Francisco. The Downtown Hayward BART station opened in 1972 and currently experiences 15 to 20 minute train headways throughout the day. Development near the BART station revitalized the downtown commercial center with a balance of new commercial, residential and civic land uses.

The 1992 Hayward Core Area Plan established standards for mixed-use development near the BART station, which were codified in the 2002 Hayward General Plan. A catalytic element of this plan included a land swap with BART, financed by the local redevelopment agency. The City swapped a surface parking lot between the Downtown "B" Street retail district and the BART station for a city-owned lot on the other side of the tracks. The site was used to build a new City Hall, public plaza, and 170 apartments which opened in 1998. The city invested in new streetlights, signalized crosswalks, sidewalk landscaping and street furniture along the "B" Street retail corridor which links the station to the downtown core. The City also invested in a shared parking structure to serve City Hall and the downtown shops which it lined with ground-floor retail. In addition, the City provided rebates to local businesses for façade improvements on the "B" Street pedestrian corridor.

Particularly following the opening of the new City Hall, a slew of new commercial and residential development followed in the Station area. Over 700 housing units were developed near the Downtown Hayward BART station from 1995-2006, with another 700+ planned before the recession. A full service supermarket opened in 2002. Cinema Place entertainment complex opened in 2008 and is served by a large city-operated parking garage. More recently, development spread to the South Hayward station. A 750-plus unit, 59,000 SF retail project was approved in 2009 adjacent to the South Hayward station, including the redevelopment of a BART parking lot to market-rate apartments and the construction of a 910-space parking garage, aided by $47 million in Prop 1C grants and $20 million of

San Marcos, CA (Sprinter Line)

A 370-unit TOD recently opened adjacent to the Palomar station, which is served by the Sprinter light rail. Roughly 40,000 SF of commercial space is under construction in that development, and a 416-unit mixed-use development has been approved close by. The regional Metropolitan Planning Organization SANDAG awarded the City of San Marcos a $1 million grant, with an additional $1 million in matching funds pooled jointly by the City and the Developer, to develop a complete street that parallels the Palomar Station and connects these recent developments. Improvements included sidewalk improvements, pedestrian pathways, bike facilities, traffic calming measures, landscaping and street parking.

redevelopment funds. In 2011, subsequent to the dissolution of the Redevelopment agency, the project was split into two phases, with 151 affordable units and 206 market-rate units to be built in Phase I on a combination of private, city-owned and Caltrans land.

LESSONS LEARNED

Similar to Arlington Heights, public investment in parking structures along with the development of civic facilities in Hayward helped catalyze private development at a higher intensity than had historically been seen. Cities should carefully evaluate the development of new civic facilities and their potential synergies with new private development. This may be a near-term opportunity for Rialto.

Carlsbad, CA (Coaster Line)

Two higher density developments opened just before the recession adjacent to Carlsbad's Poinsettia Station, which is served by the Coaster commuter rail. These two projects are the most recent of six communities built by the developer Pacific Benchmark on a 92-acre site adjacent to the Coaster station. In total, the area now includes 660 units of housing, 15% of which are affordable rate units. A 6-acre, mixed-use core directly surrounds the Coaster station including live-work units above-ground level retail and a daycare.

5.3 TOD Implementation Actions

As discussed in earlier sections, to support TOD, each city along the ARRIVE Corridor must make individual station-area improvements, policy adjustments and infrastructure improvements. In addition, Metrolink will need to progressively improve service in terms of both operations and infrastructure to facilitate affordable and convenient intra-regional travel and increase commuter usage. While a slowly-recovering market is the biggest obstacle to immediate high-intensity TOD in the ARRIVE station areas, many other issues can be best addressed collectively by the six cities, with support from SANBAG and Metrolink. A unified platform for cities to work together could change development perceptions, allow cities to collectively tackle infrastructure problems and to pursue resources that can support TOD as the market improves.

Some infrastructure, streetscape and parking-related improvements can be addressed through existing tools, although most would be more effectively tackled with or in addition to a multi-jurisdictional partnership discussed below. The following section covers short- and long-term strategies, highlighting key considerations and exploring in depth the concept and implementation of a multi-jurisdictional alliance.

5.3.1 Short-Term Actions (0-5 Years)

Building on the series of TAC meetings and active engagement of ARRIVE Corridor cities, it is important to maintain momentum by working to initiate a series of actions over the next five years to support TOD. Three short-term implementation actions are described below, each of which may grow and evolve over the medium-or longer-term depending on community response and level of success.

MARKETING TOD OPPORTUNITIES

It is recommended a multi-jurisdictional Marketing Board ("Board") to promote development opportunities along the SB Line and to help transform the line into a fully integrated regional rail corridor actively supporting TOD. As a full-time, staffed entity, the Board could focus on promoting and supporting development in the ARRIVE Corridor member cities, pooling resources to allow a broader reach and more robust effort than would otherwise be possible. The Board would ideally be formed as a 501(c)(3) non-profit, and would be highly flexible in nature. In addition to marketing and advertising TOD opportunities, the Board could assist in pursuing regional TOD funding on an ongoing basis

and may have greater success than individual cities might have working independently.

Some initial responsibilities of the Marketing Board are described below, with a detailed exploration of structure, governance and funding in the pull-out section following. As described later, it is suggested that the member cities support the Board for a minimum of three years, during or after which period the Board should re-evaluate its responsibilities and initiatives.

RESPONSIBILITIES

A Marketing Board would ultimately take on a number of tasks and roles to promote and support development along the ARRIVE Corridor, and could evolve over time based on the needs and successes of its constituent cities. Some initial tasks are described briefly below. In addition to the potential pursuits described below, it will be important for the Board to be entrepreneurial, responding to feedback from interested parties to find new ways to address the overarching goals of the ARRIVE Corridor that may not already have clearly defined actions. Responsibilities should include:

- **Branding/Messaging**. Creating a consistent ARRIVE Corridor brand selling a "live, work, play" lifestyle could encourage higher-intensity development near stations and create awareness among both developers and potential future residents.

- **Outreach**. Communicating the potential positive impact of TOD, using consistent messaging, to both developers and to public stakeholders will be an important role of the Board's dedicated staff. Outreach may also involve training staff, local officials and community leaders, or include pitches to local and regional media organizations.

- **Public Information and Marketing**. Promotional websites, examples of which are explored below, can be powerful tools to aggregate development resources for both developers and potential residents. Digital and printed versions of a "Developer Kit," including market analyses, case studies, potential incentives or programs, as well as answers to common questions could contribute to both attracting developers and encouraging investment in higher-intensity projects. One of these efforts might also include identifying and promoting EB-5 Immigrant Investor centers, which could be a low-cost source of capital for developers.

- **Placemaking**. Implementing unified corridor-wide wayfinding signage and branding, hosting station area developer tours, seasonal events with a regional draw at station areas and supporting cities in place-making efforts could collectively benefit the ARRIVE Corridor cities by building an identity to raise awareness and personal connections.

- **Pursue regional TOD Funding**. As the sole entity representing the six ARRIVE Corridor cities, the Board would take responsibility, in partnership with SANBAG, for pursuing federal, state and regional funding to support TOD implementation. Similar to potential marketing, branding and outreach efforts, Cities are more likely to successfully win grants or other funding when applying collectively.

On the Green Line (Minneapolis and St. Paul, Minnesota)

In anticipation of the opening of the METRO Green Line connecting both cities' downtowns, a group funded by the Metropolitan Council launched a marketing and branding campaign to highlight neighborhoods, restaurants and activities along the corridor. The $1.2 million campaign was a dual effort to both support businesses impacted by construction of the light rail corridor, as well as to ultimately promote ridership on the line. Although the campaign was not developer-focused, the Metropolitan Council estimated that as much as $2.5 billion in new construction and development within a 1/2-mile of the transit line was in the pipeline as of May 2014. This development was supported to large extent by a range of local and municipal programs identified in advance of the Green Line's opening by the Metropolitan Council to support higher-intensity TOD along the corridor.

A Marketing Board for the ARRIVE Corridor: Case Studies of TOD Marketing Initiatives

This section provides case studies of efforts that can be undertaken by the ARRIVE Marketing Board and further describes the Board's organization. A handful of municipalities across the country have recently implemented programs to market TOD opportunities around new or revitalized rail corridors. These efforts have included branding, outreach, digital marketing, advertising and other techniques. Two recent examples are explored in depth below, with two additional marketing and branding case studies included later in this section.

WEST LINE CORRIDOR COLLABORATIVE (DENVER & LAKEWOOD, COLORADO)

The West Line Corridor Collaborative is a non-profit, multi-jurisdictional and multi-agency partnership created in 2011 to "coordinate efforts to attract quality investment and support livable communities" along a newly built light rail corridor. Similar to the ARRIVE Corridor, the West Line parallels a historic corridor and a series of downtowns that have suffered from disinvestment over the latter part of the 20th century. The City of Lakewood has taken additional steps to market TOD opportunities to developers, including a public relations campaign to advertise opportunities and public support for higher-intensity development.

- **Structure and Governance**. The City of Lakewood and City/County of Denver, along with their respective housing authorities, the local transit authority and other interested parties joined together to create the Collaborative to collectively coordinate planning and development along the corridor, especially focusing on affordable housing. Each organization contributes staff time as available. A board with high-level representatives from each member organization meets on a regular basis to share ideas, plan initiatives and work toward specific goals, including expanding both affordable housing and condominium development.

- **Initiatives**. Lakewood's marketing effort, "Embrace the Fax," aggregates development resources and includes promotional videos, events and area tours. The city spent between $30,000 to 40,000 for the campaign, which launched late in 2014. As it is only three to four months old, the City does not yet attribute any projects to the campaign, but indicates that it has already stimulated interest along the corridor. Separately, the Collaborative has begun to pursue collective funding for initiatives and successfully received a grant from the Denver Regional COG to create an implementation plan for a "20-Minute Neighborhood" around a stop on the border between Denver and Lakewood. The Collaborative is planning further corridor-wide marketing efforts targeted to potential residents with emphasis on lower income populations.

- **Lessons for the ARRIVE Corridor**. Although the West Line Collaborative has only made small

moves toward collective marketing, they have made strides in coordinating zoning and pursuing grant funding for specific projects. Lakewood's comprehensive developer-focused TOD marketing could be a model for marketing the ARRIVE Corridor and is indicative of the progress San Bernardino County and the ARRIVE cities can expect if and when the market strengthens to support a similar level of higher-intensity multi-family development as seen in the greater Denver market.

DESTINATION LEANDER (LEANDER, TEXAS)

In response to the construction of the terminal stop of Austin's MetroRail Red Line, the City of Leander developed an extensive branding and marketing campaign called "Destination Leander." The effort is intended to encourage higher-intensity development and promote a better understanding of TOD among local developers, lenders and potential residents. Adopted in September of 2014, it is relatively new, but has already stimulated some interest and helped support city-developer negotiations in an existing deal. Although the majority of the land around Leander's new station will be greenfield development, its ex-urban location at the end of a transit line with commuter rail-type headways shares similarities with the ARRIVE Corridor, and the city's progress should be closely followed.

- **Structure and Governance**. The City of Leander hired an outside firm to prepare branding and marketing materials, with some limited guidance and support from the local transit authority and Leander Chamber of Commerce. Most branding and marketing efforts have been directed by the city manager and his deputies.

- **Initiatives**. Leander's Destination Leander website aggregates maps and documentation of the area around the new rail terminus and a full package of printed marketing materials is available to further promote opportunities around the site. The marketing campaign followed a Tax-Increment Financing bond that was issued in 2006 and has supported infrastructure improvements on an ongoing basis, including incentives to developers to encourage higher-intensity development.

- **Lessons for the ARRIVE Corridor**. Similar to Lakewood's Embrace the Fax site, Destination Leander is a relatively new effort and has not helped secure a significant project to date. However, the city has found that their new branding and marketing materials have aided interactions with potential development partners in delivering a clear, consistent vision of TOD. Although Leander has a strong and growing residential market, developers had not shown significant interest in higher-intensity multi-family until recently and no projects are in the pipeline yet. Similar to the ARRIVE Corridor, train frequencies at the Leander terminus currently range between 30 minutes to an hour, longer intervals than typical anchor stations for higher-intensity TOD projects.

MARKETING BOARD STRUCTURE AND STAFFING

The formation of a staffed Marketing Board representing the ARRIVE Corridor member cities to promote TOD along the ARRIVE Corridor is recommended. The termination of Redevelopment Authorities in California coupled with the impacts of the recent recession have left most cities with minimal capacity for important, but non-critical services, such as economic and community development. An independent full-time staffed board will have the capacity to build and implement the most effective marketing efforts for the ARRIVE Corridor station areas.

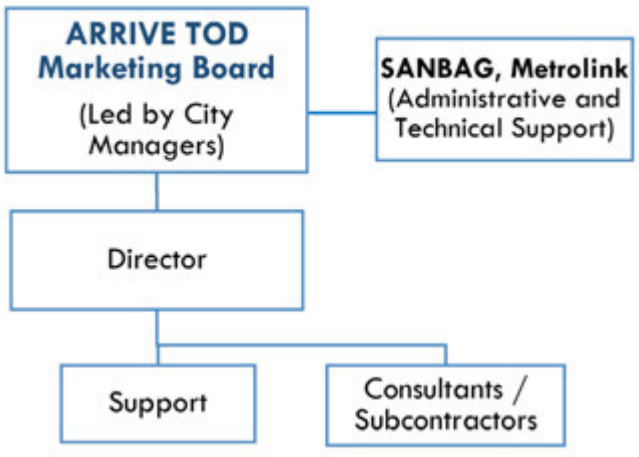
The proposed Board, and especially its Director, should be entrepreneurial in nature; flexible enough to address the complex and evolving real estate market and TOD needs along the ARRIVE Corridor.

STRUCTURE AND GOVERNANCE

Governance

The Board should be made up of one-voting member from each of the ARRIVE Corridor cities[1]. Each ARRIVE Corridor City would be expected to be represented by their city manager. The Marketing Board staff will be responsible for meeting quarterly with the Board to report on progress and obtain feedback on action plans.

With a mission to improve cooperative regional planning and interest in supporting the use of Metrolink and multi-modal transportation systems, SANBAG and Metrolink can assist by facilitating and supporting the operations of the Board, as well as advocating for improved transit.



Organizational Structure

There are a number of alternative organizational structures possible for the Board. It is recommended that officials from the ARRIVE Corridor cities establish a 501(c)(3) non-profit organization. With a limited start-up budget, this 501(c)(3) could be held under the auspices of SANBAG. SANBAG can support the initiative by housing the TOD Marketing Board's offices, contributing to and aggregating the organization's funding from the member cities, and managing the payroll and benefits for Board staff.

Alternatively, the Board can be more loosely established through a letter agreement between the member ARRIVE Corridor cities and SANBAG. The letter agreement would detail each entity's contribution to the Marketing Board. Similar to the non-profit, it is recommended that this Board be staffed and housed in SANBAG, but instead of being employees of SANBAG, the letter agreement can assign the staff as employees of one ARRIVE City who, in turn, collects the membership fees from member cities. The drawbacks of a letter agreement is that the Board would not be its own entity and its actions may be subject to the perception of inequity.

Implementation

The concept of a marketing board has been introduced to the ARRIVE Corridor cities; however, the specific details of the organizational structure, member city responsibilities and member support need to be confirmed and mutually agreed by all participating cities. The convening of a two-day workshop among the ARRIVE Corridor city managers is recommended to further explore the concept and identify a mutually agreeable organizational model. Once there is consensus on the approach, one of the member Cities can utilize its own legal resources to draft a Memorandum of Understanding (MOU) to be agreed to by the other five cities, SANBAG and Metrolink. SANBAG may act as a facilitator for this workshop and the implementation of the MOU which would agree to create the independent, non-profit organization.

Staffing

The Board should be staffed by an experienced, hands-on full-time director, supported by an additional full-time staff member, and an intern, depending on budget allocations. A full-time staff is necessary to plan

1 The purpose of the organization is to promote TOD. For the first three years of this initiative membership should be limited to the ARRIVE Corridor cities. In future years, member cities should consider expanding the Board to include other area cities with a passenger rail or light rail station

and implement any substantive marketing projects and promote the corridor on an ongoing basis. The effectiveness of the Board to interest developers in ARRIVE station areas will be directly related to the abilities of the Director and their staff, thus recruiting the right person with the right mix of development, public-private partnership, and marketing/sales experience will be key to the success of the Board. Necessary experience and characteristics of future staff are further detailed below:

Cleveland Plus (Northeast Ohio)

Cleveland Plus is the Regional Marketing Alliance for Northeast Ohio, led by a non-profit board made up of corporate leaders from across the 18-county region. It runs a marketing campaign to brand the region's assets collectively and partners with Team NEO, a business attraction and expansion service that since 2007 has attracted 55 new company operations, 5,000 new jobs and $193 million in annual payroll to the region. It was created by the Greater Cleveland Chamber of Commerce which provided resources in launching the campaign and whose members continue to support it through corporate sponsorships. Since 2006, when it launched, Cleveland Plus has raised more than $12 million in organizational funding, primarily from contributions from local companies and organizations as well as grants from State of Ohio job development programs. The organization has a staff of two, including a president with communications and branding expertise, as well as a marketing and communications manager. Cleveland Plus funds and supports Team NEO's marketing campaign to attract businesses to the region, including national and international media campaigns. Its annual budget is about $1.5 million, most of which is spent on media campaigns executed by third party firms.

Necessary Experience and Characteristics of Potential Board Staff

"Hands-On" Director

1. Entrepreneurial nature, "self-starter"– Ability to establish the Board and implement a business plan
2. Strong background in private real estate and experience working with developers
3. Creative thinking – Can execute innovative efforts to market the corridor with limited budget
4. Marketing/Communication/Sales experience – Excellent communication skills in engaging with a variety of audiences
5. Public-private partnership experience – Understands the public sector and the intersection of public and private capacities

Support Staff

1. Entrepreneurial nature, "self-starter"
2. Experience working in real estate development or public-private development experience
3. Strong communication skills/marketing experience

Budget

The preliminary operating budget estimate is approximately $300,000/year for a 3-year period, funded by the ARRIVE Cities and partner agencies, to guarantee a robust full-time staff. A budget should be approved by the Board annually but expected member city and partner funding levels for the first three years should be laid out clearly in the MOU. An average annual budget of $300,000 budget in first year should support two full-time staff members, estimated at approximately $200,000, plus programming and operations $100,000. This assumes that the Board will receive some in-kind support from SANBAG on office space and related services.

The Board budget would be funded through contributions from the six ARRIVE Corridor cities and partner organizations. Contributions to the Board might include a breakdown similar to the table shown at right. As mentioned, we suggest funding the Board for the first 3-year period, but the Board should also be encouraged to look for sources of funding for projects and programming, as well as funding for operations.

Entity	Amount
Each of the Six Cities	$30,000 per City
SANBAG/Metrolink	$120,000
Total	$300,000

Resources

For the first three years, the development of a budget with approximately $100,000 set aside for program operations is recommended. Ideally, office space would be provided as a contribution in-kind by SANBAG. Other in-kind donations from ARRIVE Corridor cities (City Attorneys' time, accounting, etc.), particularly in the first three years, will also help ensure the Marketing Board's success.

Additional funding for target projects could come from a number of transportation or other public funding sources, detailed below, foundations, or developers.

BENCHMARKS AND RESPONSIBILITIES

Regularly evaluating Board progress and re-calibrating direction will be essential to the success of the new entity. The Director should meet quarterly with the ARRIVE Corridor Executive Board to report on progress and obtain feedback. Major benchmarks are listed in Table 5-1.

STATION AREA IMPROVEMENTS

For TOD to be successful, users must feel safe and transit should be conveniently accessible by many travel modes. A number of physical interventions can improve the pedestrian experience which will encourage residents to travel by alternate means or walk to nearby amenities. By improving the pedestrian experience, users are much more likely to walk to the station from their homes and linger, supporting area retail, engaging with public spaces and improving perceptions of Metrolink and the ARRIVE Corridor cities. Creating a "sense of place" will be important to the short- and long-term TOD prospects. Short-term actions include the following:

- Evaluate and prioritize needs as described in earlier sections of this study.

- Advance the needs of the station area in individual cities' capital plans and work to implement sidewalk and landscape improvements, plazas, benches and streetlights and incorporate place-making design into regular streetscape repairs.

TABLE 5-1: ***MAJOR ACTIONS/BENCHMARKS FOR THE MARKETING BOARD***

Timeline	Action / Benchmark
Immediate Future	• Convene ARRIVE Corridor cities and other interested parties (October 2015)
	- Determine organizational structure and funding
	- Resolve logistical issues and collaborate to form new entity
	- Agree on overarching principles to guide Marketing Board
	• Sign MOU between ARRIVE Corridor cities, SANBAG and Metrolink agreeing upon the above (March 2016)
	• Establish 501c(3) Non-profit corporation (December 2016)
Year 1	• Hire director and/or staff (2 months)
	• Develop business plan, to be approved by Executive Board (3 months)
	- Engage city managers and other interested parties in approval of business plan and general goals.
	• Develop ARRIVE Corridor TOD web page and education/marketing campaign
	• Develop materials and refine the ARRIVE Corridor branding message
	• Begin public stakeholder outreach to Inland Empire and Corridor stakeholders
	• Initiate developer contacts
	• Host kick-off event – Introduce the ARRIVE Corridor to the Development Community and conduct site tours
	• Monitor TOD Funding Opportunities
	• Monitor electronic and traditional media coverage of TOD opportunities in the Inland Empire

- Explore Measure I allocations, as well as other federal and state funding sources and direct funding where possible to station area improvements.

- Explore funding for bicycle lanes, traffic calming interventions and other complete street infrastructure and work with public agencies to ensure that these are coordinated with any scheduled improvements.

- Explore additional funding for completion of sidewalk networks.

- Use unified wayfinding signage when making repairs and upgrades, especially as part of an overarching branding effort, possibly through the Marketing Board previously described.

IMPLEMENTING PARK-ONCE DISTRICTS

Addressing and consolidating parking will be a critical element of efforts to revitalize the ARRIVE station areas and promote TOD. Each city's parking situation is unique and will need to be addressed independently. Some cities, including Rancho Cucamonga and Upland have already taken steps to revise their parking strategies and have seen initial successes. Although the actions laid out below are intended to be applied across the entire corridor, some cities may move more quickly in implementing more aggressive strategies. All cities should undertake the following short-term actions to reduce parking needs and enable higher volumes of visitor and commuter traffic:

- Evaluate capacity needed for shared parking wherein commuters are the primary daytime users and visitors and residents use parking spaces at night.

- Enable shared parking on Metrolink and other nearby lots, enhancing place-making possibilities by freeing up space for development and public gathering.

- Encourage "park-once" districts, where visitors can make multiple stops within a district without needing to move and repark their car.

5.3.2 Medium-Term Actions (5-10 Years)

Many of the initial actions taken in the first five years would set the stage for more transformative actions in the medium and long-term affecting both Metrolink service and areas surrounding each of the ARRIVE Corridor stations. Member cities, SANBAG and Metrolink should review objectives and strategies on a regular basis, in response to changing needs, funding sources and performance evaluations. Considering the large number of variables that may change over the next five years, the following medium-term actions are proposed as recommended considerations, which should be revised based on feedback from interested parties as needs arise.

EXPAND AND STRENGTHEN MARKETING BOARD

As an independent, non-profit organization, the Board should be flexible enough to quickly and efficiently address new and changing needs of member cities. The Marketing Board's role will evolve in response to both changes in the market and ongoing improvements in both Metrolink and the ARRIVE Corridor cities. Quarterly presentations to the Executive Board, made up of city managers, should be used to evaluate performance and realign initiatives to ensure maximum effectiveness. Ideally, the Marketing Board will take a more active role in the medium-term in supporting development and garnering support for public-private development, while continuing and expanding on its earlier efforts. Some specific new and continued actions the Marketing Board could take include the following:

- Update and strengthen ARRIVE Corridor branding, messaging and developer kits in response to market conditions and progress around station areas.

- Continue outreach to developers and connect developers with specific properties in the station areas. Find/identify public sources of funding to help support development and improvement opportunities.

- Support the creation of city-specific Business Improvement Districts, working in partnership with businesses to make the station areas more attractive.

- Encourage public-private partnership opportunities; expand outreach to educate public stakeholders on post-development possibilities.

- Continue to pursue Regional TOD funding.

- Support public-private partnerships to improve transit service.

- Continue to coordinate with Metrolink, Omnitrans and SANBAG.

- Partner with and promote regional EB-5 Immigrant Investor Centers which could be sources of low-cost capital for developments in certain ARRIVE Corridor cities. See Section 5.4.3 for a description of the EB-5 program.

- Work to reduce Board financial reliance on cities, SANBAG and Metrolink to ensure a sustainable future for the Board.

ACTION/BENCHMARK

- Expand scope and develop new set of benchmarks, including the completion of concrete tasks that may include financing and implementing capital improvements, events or other initiatives.

- Review actual progress toward quality new transit-supportive development in station areas.

- Review improvements in streetscape and urban character of station areas.

- Review improvement of ridership within station areas.

METROLINK OPERATIONAL IMPROVEMENTS

Developing TOD and improving Metrolink ridership and service should occur concurrently. Coordinating both will strengthen overall efforts along the ARRIVE Corridor. Enhancing Metrolink service can increase the desirability of station areas, as well as encourage intra-regional transit between destinations along the ARRIVE Corridor. This section will explore infrastructure improvements later as part of suggested long-term actions, but propose the following medium-term operational actions that can build upon ongoing station area place-making efforts.

- Increase service levels and frequency, improving mobility throughout the day and evening to attract both commuters and leisure riders.

- Review fare structure based on rider feedback and work to reduce perceived barriers to transit. This may include lowering fares for shorter trips, mid-day travel or “out of direction” travel against the flow of commuters.

- Operational adjustments should target intra-regional travel, encouraging residents and visitors to use Metrolink for shorter trips, increasing visits to each station and surrounding area. May require fare reductions for travel within the ARRIVE Corridor or introducing regional passes.

- Implement or expand quiet zones to improve public opinion and quality of life along the ARRIVE Corridor.

- Increase operational funding and work toward securing federal and state support for future infrastructure improvements.

- Coordinate with Omnitrans and others to better coordinate bus service at Metrolink stations.

CORRIDOR-WIDE PARKING REVENUE GENERATION AND PARKING LOT ACQUISITION

As noted earlier, some municipalities have already taken steps to implement progressive parking strategies and have seen initial successes. Generating revenue from parking around station areas may be an important strategy in working toward increasing the intensity of development along the ARRIVE Corridor. It should be noted that not all ARRIVE Corridor cities are at the point in which they can charge for parking in the mid-term. However, all cities should be considering this strategy and should attempt to implement in the next 10+ years. As frequency of the transit service improves and development intensity increases, it may become appropriate to charge for parking.

Rancho Cucamonga has implemented parking fees and expects to generate upwards of $300,000 annually. These fees are needed to maintain the station and may be needed in the future to support the parking needs of higher-intensity development around station areas. Some first steps toward this include:

- Evaluate implementing permit or fee-based parking at all lots along the ARRIVE Corridor with dynamic pricing to balance supply and demand.
  - Revenue could be maximized in the short-term by installing solar panels at surface parking lots with additional fees for covered parking, while lowering station area carbon footprints.
  - This step will be necessary to support future parking improvements and additional station-area density.

- Ensure that funds are set aside for future parking improvements, likely through a city ordinance creating a Parking Benefit District which would allow parking revenue be used to fund local improvements.
  - Each city could use proceeds from the district for the acquisition, construction or maintenance of parking facilities.
  - Funds could be directed toward other actions such as public realm improvements, transit amenities, marketing and security.

- Eastern cities should consider acquiring parcels for parking while land prices are still low, as they could ultimately be leveraged to support higher-intensity development as market demand strengthens. This land can be used for parking in the interim.

Each parking strategy should work towards supporting both increased Metrolink ridership, as well as higher-intensity development around the station areas.

5.3.3 Long-Term Actions (10+ Years)

As the ARRIVE Corridor will look significantly different ten years from now, the ARRIVE cities, SANBAG and Metrolink should review objectives and strategies on a regular basis in response to changing needs, funding sources and performance evaluations. Building on strengths developed over the next ten years, the ARRIVE Corridor should be well-positioned to aggressively pursue transit improvements and support higher-intensity development in station areas. Some actions that may support these pursuits are presented below.

ECONOMIC DEVELOPMENT CORPORATION

As the Marketing Board evolves and matures in tandem with the real estate market, it might take on a more active role in supporting development, especially focusing on issues of affordability and partnering with developers to further increase density to support an active transit corridor. This would be contingent on continued success and enhanced partnership between the ARRIVE Corridor cities. While the demise of Redevelopment Agencies would likely limit the funding capacity of such an organization, a real-estate focused Economic Development Corporation could facilitate community revitalization, and support and enable development opportunities. Some of these actions could include:

Parking Benefit District

A Parking Benefit District is a tool to funnel parking meter and other parking revenues back into the area impacted by the parking revenue scheme rather than dilution through the whole city. Parking Benefit Districts have the ability to assess levies and typically provide a variety of benefits within the district boundaries.

Procedure

The City Council can establish a district by adopting an ordinance which creates a new oversight board or may designate an existing entity, such as a Business Improvement District (BID), or community-focused non-profit to develop a program of expenditures.

Potential Expenditures

In addition to the cost of parking meters or other revenue-collecting improvements, a parking benefit district could:

- Provide shuttle or valet services, lease private spaces for increased capacity and construct additional parking if necessary
- Undertake streetscape and place-making improvements, as well as maintain and market the designated area
- Improve transit, pedestrian and bicycle infrastructure

- Purchase, consolidate and hold affordable land in eastern cities (or elsewhere) until it can be sold to the right developer, likely in conjunction with individual cities' Parking Authorities who may have excess land after consolidating and/or building structures for parking.

- Continue to support development through partnerships with EB-5 Regional Centers and New Market Tax Credit Community Development Entities to support development opportunities with sources of low-cost capital. Explore the creation of an ARRIVE Corridor-specific EB-5 regional center.

- Continue to pursue regional TOD funding for placemaking, transit, development and community revitalization efforts.

- In partnership with local Business Improvement Districts, explore possibilities to promote employment, development and other overarching goals by providing beautification, maintenance and security services as well as financing and executing public capital improvements.

METROLINK INFRASTRUCTURE IMPROVEMENTS

As noted before, stimulating TOD and strengthening transit services are best tackled hand in hand. Simultaneous with the medium-term service actions previously discussed, Metrolink and SANBAG should evaluate potential infrastructure improvements that could dramatically reshape the service offered along the ARRIVE Corridor. Some of these improvements, which are explored in depth in the overall corridor-wide vision are described below:

- Implement double-track "priority segments" of the Metrolink line to allow more frequent and bi-directional service and anticipate more extensive double-tracking by preserving expanded right-of-ways as land is developed along the corridor.

- Improve crossings and fencing along the corridor and work to reduce at-grade crossings to increase frequency and safety of service.

- Work to upgrade rolling stock and evaluate transition to Diesel Multiple Unit (DMU) trains, which have on-board engines and do not require locomotives, supporting intra-regional transit with smaller, scalable trains with shorter headways.

- Add amenities that will improve passenger experience, such as WiFi and food services.

SET UP PARKING AUTHORITIES AND BUILD STRUCTURED PARKING

Similar to a parking benefits district, parking authorities in individual cities can help direct revenue from parking lots and meters in station areas to be used for parking improvements rather than being absorbed into cities' General Funds. However, parking authorities are more specific in that all revenues must be used for parking which can be advantageous for public financing purposes.

- Unbundle parking from commercial and residential developments to allow off-site parking and more efficient shared parking to take advantage of renters or owners that have fewer cars than required by code and encourage greater transit use.

- Develop structured parking using one of several funding sources for parking, including capturing and bonding against parking revenue through a parking benefit district or parking authority.

- Parking authorities are given broad powers to issue bonds supported by parking revenue, assess levies, acquire land, receive appropriations from local jurisdiction and collect and spend parking revenue.

- The creation of a parking authority will have to be followed immediately by concrete actions, as it may be dissolved after four years if it has not acquired land for a parking facility, issued bonds or entered into a contract for the development or operation of a parking facility. Consider synergies with new or anticipated projects to reduce cost burdens on private developers and encourage higher-intensity development.

- Lower required parking ratios for higher-density, transit-supportive land uses in TODs to encourage higher-intensity development and transit use.

- Evaluate parking maximums and parking pricing, especially for meters to encourage turnover for street parking and increase short-term parking availability.

Parking Authority

Procedure

Each city council would need to pass an ordinance that declares the need for a parking authority. An appointed five-person board directs the authority, with regular reporting requirements.

Powers

The authority has the power to:

- Purchase, lease, acquire or otherwise obtain property, including improvements. It has the power of eminent domain (and can accelerate foreclosure).
- Expand, modify and dispose of public parking facilities, and to lease, manage, or operate unused space (up to 25% of surface area) which is not needed for parking purposes.
- Receive, control, and expend money and funds derived from operation, appropriation by the city, assessments levied, and bonds issues by the authority or the city.

Revenue bonds

The authority could request authorization to issue bonds, which would be put up for special election, after which it would not need subsequent voter approval to issue further bonds, and any revenue bonds would not obligate either the city or state. Bondable revenue could include income from parking facilities, from revenue generally, from city, state or federal assistance or from parking meter revenue.

5.4 FUNDING

A wide variety of funding sources can support the short-, medium- and long-term actions described above. While some funding sources are more restrictive and applicable to certain actions, others could support a broad variety of regional improvements. Actions and funding sources are cross-referenced in the matrix in the following section, with each funding source described in detail below.

5.4.1 Cap and Trade Funds

Cap and Trade is a relatively new program which could be pursued by the Marketing Board to execute place-making improvements. It could also be used by individual ARRIVE Corridor cities to support transit infrastructure improvements. The Cap and Trade program limits greenhouse gas emissions in California and permits the trade of rights to produce such emissions, with auction proceeds of state allowances appropriated through the annual budget to a range of programs and projects. Roughly 20% of funding is dedicated to "Affordable Housing and Sustainable Communities," amounting to $130 million in the current 2014-2015 budget and distributed by the California Strategic Growth Council (CSGC). Of this, a significant portion is directed to TOD projects, with priority to projects that benefit disadvantaged communities or reduce emissions.

Private developers are able to apply for funding in partnership with a public agency, which could include one of the ARRIVE Corridor cities, Metrolink or a special district, potentially including on parking authority or other relevant authority. One of the applicants must have site control for the project and demonstrate that the project will lead to a reduction in GHG emissions through fewer vehicle miles travelled. Applications for funding must propose investment involving some capital improvements. Housing capital costs could include construction, rehabilitation, demolition, relocation, preservation, acquisition or other physical improvements, under the condition that 50% of annual project benefits go to support affordable housing, while reducing carbon emissions, which could include transit adjacency. Most of the station areas are in the top 10 or 20% of state-wide disadvantaged communities based on the CalEnviroScreen tool.

Applicants must submit a concept proposal which will be reviewed by the CSGC and the respective Metropolitan Planning Organization (MPO) to rank priority projects. Priority applicants are invited to submit a full application. Scoring criteria include: readiness (15% of total score), greenhouse gas reduction (55% of total score) and relevance to policy objectives (30%). In the last round of funding, only one Inland Empire city applied for funding, which suggests that Cap and Trade may be an untapped resource. While not verified, it has been suggested that future rounds of Cap and Trade funding may prioritize collaborating regions. If this is true, the coordination through the Marketing Board could help to boost an application for the ARRIVE Corridor cities.

5.4.2 Value Capture Through Enhanced Infrastructure Financing Districts (EIFDs) or Tax Subventions

This funding tool could support capital improvements along the ARRIVE Corridor, including subsidizing structured parking which could make higher-density development more feasible. An Enhanced Infrastructure Financing District (EIFD) could capture the incremental tax revenue generated by new development related to fund public capital improvements across multiple jurisdictions. However, EIFDs can only capture tax revenue net of monies payable to school districts or educational funds and with approval from taxing authorities. Obtaining approval from other taxing authorities is extremely challenging and could limit receipts to the city's share of the 1% property tax, which could significantly limit revenue. Cities should work with SANBAG to demonstrate the value of participating in an EIFD to San Bernardino County as part of their support for TOD in the region.

While the potential capacity of tax increment financing under EIFDs is less than under Redevelopment, it can provide resources in station areas that can help

catalyze further growth. If the County sees a benefit and also provides their share of incremental property taxes in ARRIVE station areas, EIFDs funding capacity can be significantly enhanced. To implement an EIFD, 55% of voters voting on the proposition (who are registered to vote within the EIFD boundaries) must vote to approve the EIFD, unless less than 12 persons are registered to vote in the EIFD. In the case in which less than 12 people are registered to vote in the EIFD, a vote is held by landowners with one vote given per acre. Both situations set a lower bar on voter approval than previous IFDs which required the 2/3-majority vote of property owners. EIFD tax increment could be used to repay bonds for up to 45 years from the date of the issuance with the agreement of all taxing entities.

As a new funding tool, no EIFDs have yet been implemented, but a handful of jurisdictions are exploring the use of the tool. For the ARRIVE Corridor, defining a tailored geography surrounding station areas and including publicly owned land could allow the relatively quick and straightforward creation of a district to capture value around station areas. EIFDs could be significantly easier to implement if created around publicly-owned land or industrial parcels with a limited number of registered voters and relatively lower existing properties . Any land would have to be sold to private developers to capture property tax increment which should provide additional income for most taxing entities. Some regions that have begun to explore EIFD funding include:

Bay Area Rapid Transit (BART) Extension

The second phase of a planned BART expansion into Silicon Valley may be funded in part by an EIFD around four proposed stations. It is assumed that the City of San Jose would form the district, with participation by County of Santa Clara and the transit authority. The new district would fund construction by issuing bonds supported by anticipated incremental property tax revenue as well as assessments on area businesses in accordance to the benefits they would be expected to receive.

- **Silicon Valley**. The Santa Clara Valley Transit Authority is investigating the value capture potential of an EIFD around four proposed stations along a future BART extension, involving the participation of multiple jurisdictions, including the City of San Jose and County of Santa Clara.

- **City of Los Angeles**. The Los Angeles City Council unanimously voted in January 2015 to explore EIFD value capture capacity to fund a portion of a proposed $1 billion in infrastructure improvements to the LA River.

- **City of San Diego**. San Diego has floated the idea of including an EIFD on the 2016 ballot to close what is almost a $2 billion gap in funding for infrastructure improvements to streets, water lines, sewers and other public facilities.

5.4.3 EB-5 Immigrant Visa Investment

As discussed previously, a Marketing Board could support, partner with or create an independent regional center to channel foreign investments into cities along the ARRIVE Corridor. The EB-5 program allows foreign nationals to achieve permanent residency with an investment that will create ten new direct or indirect jobs in the United States per investor. These investments typically must be at least $1 million, however in Targeted Employment Areas (TEA) with high unemployment, the minimum qualifying investments are $500,000. EB-5 funding would be particularly well suited to support new hospitality accommodations, educational facilities, medical facilities, or new offices, as these uses would support a number of new jobs. Investment can be pooled into a regional investment center, through which a single project can be supported by multiple EB-5 investments, so long as the investment and employment thresholds are met. The only limit to the amount of money that may be invested is the number of jobs the new development will support and whether the development is attractive enough to generate interest from investors.

The Rialto and San Bernardino station areas are located completely within the Targeted Employment Areas (TEA). In Fontana, the TEA is located about 1/4-mile east of the Metrolink station. The other three stations are not located in or adjacent to TEAs. All six cities are eligible for EB-5 investment; however, most

EB-5 investments, including regional centers are at the TEA $500,000 level. The San Bernardino County Economic Development Agency maintains detailed maps of TEAs and guidance for investors interested in EB-5 investments.

NEW MARKETS TAX CREDITS (NMTC)

A Marketing Board could gain access to the NMTC Program and support TOD around station areas by operating or starting a separate Community Development Entity (CDE). NMTC can support "qualified low-income community investments" which are investments in businesses for which a majority of income is generated from work in a qualified low-income community or a "substantial portion" of services provided or property owned are within a qualified low-income community. Equity investments from individuals or corporations fund a CDE and investors are offered tax credits equal to roughly 40% of the originally invested sum over a seven-year period. This could provide low-cost investment capital around ARRIVE Corridor stations that include low-income census blocks determined by the US Treasury. Individual cities can also pursue NMTC to support their commercial TOD development.

TRANSPORTATION AND FUNDING SOURCES

Federal and state transportation funding sources are a key source of grant funding available to support a variety of transit, mobility and transportation projects. Transportation funding can be used to support streetscape improvements, bus facility improvements, bike lanes and bike trails and public gathering places. Table 5-2 lists federal and state potential transportation funding sources.

In addition to federal and state sources, key regional transportation funding sources include San Bernardino County's Measure I, the 1/2-cent sales tax for transportation improvements. In 2004 this tax was extended by referendum until 2040.

COMMUNITY FACILITIES DISTRICTS (CFD)

CFD's may be a possible financial tool to help finance the infrastructure improvements in the new master plan areas or citywide, if there is an interest from current residents. CFD's are often used for greenfield development that is in the hands of only a few owners, with the 2/3-majority vote requirement, a benefit assessment may be a more expedient funding tool than the CFD.

TABLE 5-2: **POTENTIAL FEDERAL AND STATE TRANSPORTATION FUNDING SOURCES**

Improvement Projects	Federal								State					
	5337 State of Good Repair	5307 Urbanized Area Formula Grants	5339 Bus & Bus Facilities	5310 Mobility for Seniors & Disabled	FHWA Sec 130 Highway-Railway Grade Crossings	TIGER Discretionary Grants	RSTP	CMAQ	Active Transportation Program	Cap and Trade LCTOP Section 99313	Cap and Trade LCTOP Section 99314	Cap and Trade TICRP	Cap and Trade AHSC	
Entity with programming authority	SANBAG	SANBAG	Omnitrans	SANBAG	PUC	USDOT	SANBAG	SANBAG	Caltrans/ SANBAG [3]	SANBAG	Omnitrans	CalSTA	SGC	
Transit Capital														
Double tracking of Metrolink		X				X	X	X				X		XX
Station Facilities & Improvements														
Bus Plaza Reconfiguration	X	X	X	X		X	X	X		S+	S+	X	X	XX
New Bus Stop Shelter/Amenities		X	X	X		X	X	X		S+	S+	X	X	
Overcrossing or Undercrossing of Tracks		X			X	X	X	X [2]				X	X	
Pedestrian Undercrossing Improvements		X			X	X	X		XX				X	
Operations														
New Bus Service		X		X						S+	S+			
TOD Development-related														
Park Once Parking Structures		T					T	T					XX	
Intersection Improvements for Quiet Zones		X											X	
Major New Streets with Sidewalks & Landscaping						X	T		XX				X	
Pedestrian/Bicycle Improvements						X	T		X	XX	XX		X	
Utilities [1]													X	

The above matrix identifies eligibility of specific fund sources based on improvement type but does not indicate availability of funding.

[1] Additional funding for utility relocations may be available based on a project specific review of prior rights.

[2] non-capacity enhancing grade separations only

[3] a portion of ATP funding is programmed by MPOs, with SANBAG input

Legend

X = eligible

XX = eligibility limited to specific scope items, project phases (ie. planning costs now allowed), or station locations along the ARRIVE corridor

T = for transit-related (eg park-and-ride) facilities only

S+ = must increase transit service to be eligible

Acronyms

TICRP	Transit and Intercity Rail Program
AHSC	Affordable Housing & Sustainable Communities
LCTOP	Low-Carbon Transit Operations Program
PTMISEA	Public Transportation Modernization, Improvement, and Service Enhancement Account
TIGER	Transportation Investment Generating Economic Recovery
CMAQ	Congestion Management and Air Quality
BRT	Bus Rapid Transit
S&D	Seniors & Disabled
SGC	Strategic Growth Council
RSTP	Regional Surface Transportation Program
PUC	Public Utilities Commission

Source: HDR

The Mello-Roos Community Facilities Act of 1982 allows any county, city, special district or joint powers authority to establish a Mello-Roos Community Facilities District (CFD). A CFD can be used for the financing of public improvements and services. The CFD requires 2/3-majority vote of residents living within the boundaries of the district. If there are fewer than 12 residents, the vote is conducted of current landowners. Special taxes are charged based on a formula that cannot be directly based on the value of property. Special taxes are charged annually until initial bonded indebtedness is repaid and, after bonds are paid off, a CFD may continue to charge a fee to maintain improvements and services.

5.4.4 Benefit Assessment Districts

Municipalities, counties, and special districts can levy benefit assessments on properties directly benefiting from financed services or improvements, above and beyond citywide general benefits. Benefit assessment districts must be approved by a majority of property owners (weighted by their share of the assessment) and each district includes a benefit formula in which each parcel in the service area is assessed according

Old Pasadena Parking Benefit District and Business Improvement District

These two districts are considered two of the major drivers of Old Town Pasadena's renaissance in the 1990's. The business and property owners within the BID set the spending priorities to help clean up the area and update street furniture, trees, tree grates, and historic lighting, while revenue generated from street meter parking supported bonds to make transformative improvements to the area and allow for continued maintenance.

				County						City/County					
Prop 1B PTMISEA Population Share	Prop 1B PTMISEA Operator Share	Prop 1B Transit Security Population Share	Prop 1B Transit Security Operator Share	Regional Improvement Program	State Transit Assistance	Local Transportation Funds	Measure I Rail	Measure I S&D	Measure I BRT	Measure I Local Streets	Enhanced Infrastructure Financing Districts	Measure I Arterial	Developer Impact Fees	Utility Enterprise Funds	General Fund
SANBAG	Omnitrans	SANBAG	Omnitrans	SANBAG	SANBAG	SANBAG	SANBAG	SANBAG	SANBAG	City/County	City/County	City/County	City/County	City/County	City/County
XX	XX	XX	XX	X	X	X	X	XX			X				
XX	XX	XX	XX	X	X	X		XX			X				XX
XX	XX	XX	XX	X	X	X		XX	X (if express or BRT)		X				XX
XX	XX	XX	XX	X	X	X	X	XX			X				
XX	XX	XX	XX	X	X	X		XX			X				XX
						X							X		X
T	T	T	T	T	T	T		T			X				X
XX	XX	XX	XX	X	X	X	XX	XX		XX	X	XX			XX
				X	X	X				XX	X	XX	XX		X
				X	X	X				XX	X	XX	XX		X
										XX	X	XX	XX	X	X

to the benefit it receives. Parking authorities and parking benefits districts are similarly able to levy assessments to support improvements with similar requirements as those noted above.

The ARRIVE Corridor cities should pursue available transportation funding to support and maintain the recommended streetscape and other infrastructure improvements in key corridors. Each city may also want to consider the development of a landscape improvement benefit district along key corridors. A benefit assessment district may aid the city in the initiation and ongoing maintenance of the area.

5.4.5 Business Improvement District (BID)

Supported with a stable income, business improvement districts (BIDs) can better help to focus marketing, branding, programming and public realm maintenance efforts than other organizations that must also focus on fundraising. A BID can be a useful collaborative public and private forum for property owners and the City to work together. In the long term, ARRIVE Corridor cities may want to establish individual BIDs to further revitalization efforts in their downtowns and station areas.

A property owner BID is a public/private entity that is directed by businesses and property owners to provide improvements within a specific district. The BID is funded through special assessments paid by property owners within the district, often based on the size of the property and location. The purpose of the BID is to provide special services beyond standard municipal services within their district boundaries. BIDs typically provide services such as maintenance and cleaning for sidewalks, parks and open space as well as private security and can provide improvements such as parking facilities, parks, fountains, benches, trash cans, street lighting and decorations.

AFFORDABLE HOUSING FUNDING

ARRIVE Corridor cities should consider leveraging affordable housing assistance to support catalytic mixed-use projects in station areas. While many cities may already enjoy affordable rental housing, affordable housing funding remains one of the main stable sources of ongoing funding for development in California. Affordable housing grants and equity can help to subsidize the higher-density development ARRIVE Corridor cities would like to attract in the station areas.

Low-income housing tax credits (LIHTC) at 4% and 9% combined with state funds are one of the major sources of affordable housing funding. LIHTC at 9% generates the most equity and requires less local funds but are extremely competitive. There is less intense competition for 4% LIHTC which also entitle projects access to tax-exempt bond authority. As described in the Cap and Trade section, the majority of projects invited to submit final proposals for the $130 million CSGC funds are for affordable housing projects.

5.4.6 Parks

There are a number of resources that can help support park and recreation funding. Some sources are focused towards low-income communities and most sources could help improve station areas or provide gap funding for developers who incorporate public open space in their projects. Some public and private sources include:

- The California Endowment, a private foundation focused on health, provides grants through their Building Healthy Communities initiative for parks, bike paths and recreation facilities.

- The State of California's Strategic Growth Council's Urban Greening Grant Awards, supported by Proposition 84 funding, provides funding for a broad range of projects that create, expand or improve green areas in urban communities. Locally, the City of Ontario was awarded roughly $1 million in 2014 for improvements to their Museum of History and Art's gardens.

- The Trust for Public Land, a non-profit organization that supports the establishment and preservation of open space, with a significant focus on urban environments.

5.4.7 Matrix of Actions, Responsible Parties and Key Funding Sources

Table 5-3 includes summary matrices of Responsible Parties and Key Funding Sources recommended for short-term, medium-term and long-term actions.

*TABLE 5-3: **MATRIX OF ACTIONS, RESPONSIBLE PARTIES AND KEY FUNDING SOURCES***
SHORT-TERM ACTIONS (0-5 YEARS)

Strategy	Key Actions	Responsible Parties	Potential Funding Sources
Marketing TOD Opportunities	Form Marketing Board as non-profit	Collective cities, Marketing Board Director	City contributions, Metrolink, SANBAG
	ARRIVE branding/messaging		
	Outreach (developers, public stakeholders)		
	Public information & marketing ("Developer Kit")		
	Place-Making (corridor-wide public realm improvements)		
	Pursue regional TOD funding		
Station Area Public Realm Improvements	Sidewalk and streetscape improvements	Individual cities, Metrolink, Public Agencies	Federal and State funds, Redevelopment "Boomerang" Funds, EIFD/CFD
	Signage and branding		
	Develop streetscape standards		
Metrolink Operational Improvements	Ticketing improvements	SANBAG/Metrolink	Metrolink
	Scheduling improvements in cooperation with other transit agencies		
	Pursue funding for transformative infrastructure improvements		
Shared Parking	Implement shared parking between Metrolink & surrounding Uses	Individual Cities, Metrolink	N/A
	Encourage "Park-Once" districts		

TABLE 5-3: ***MATRIX OF ACTIONS, RESPONSIBLE PARTIES AND KEY FUNDING SOURCES MEDIUM-TERM ACTIONS (5-10 YEARS)***

Strategy	Key Actions	Responsible Parties	Potential Funding Sources
Expand and Strengthen Marketing Board	Update and strengthen ARRIVE Corridor branding, messaging and developer kits	Collective Cities, Marketing Board Director	City contributions, SANBAG, Metrolink Cap and Trade, EB-5
	Continue outreach and explore public sources of funding, as well as public-private development opportunities		
	Support the creation of local BIDs		
	Partner with EB-5 Regional Center		
	Work toward financial self-sustainability		
Metrolink Operational Improvements	Increase service/frequency	SANBAG/Metrolink	Metrolink, Cap and Trade, federal and state funds
	Reduce or adjust fare structure		
	Pursue major infrastructural improvements		
Generate Corridor-Wide Parking Revenues	Pursue pilot strategies for permit or fee-based parking at all lots across the ARRIVE corridor.	Individual Cities	Self-funding, city contributions, Cap and Trade
	Create Parking Benefit Districts (or special funds) in individual cities		
	Evaluate unbundling parking from residential development		

TABLE 5-3: ***MATRIX OF ACTIONS, RESPONSIBLE PARTIES AND KEY FUNDING SOURCES LONG-TERM ACTIONS (10+ YEARS)***

Strategy	Key Actions	Responsible Parties	Potential Funding Sources
Support TOD with Economic Development Corporation **(Potential Evolution of Marketing Board)**	Acquire, consolidate, leverage and dispose of land to support desired development, in conjunction with Parking Authorities	Economic Development Corporation/Marketing Board	Self-funding, Cap and Trade, EB-5, NMTC
	Support development in partnership with EB-5 Regional Centers, New Market Tax Credits or public funding.		
	Continue to pursue regional TOD funding		
	Support individual BIDs to achieve common goals.		
Improve ARRIVE Corridor Metrolink Infrastructure	Double-Track where possible	SANBAG/Metrolink	Metrolink, Cap and Trade, federal and state funds
	Improve crossings and fencing		
	Implement DMU Service to support intra-regional Transit		
Consolidate Parking	Develop parking structures to support higher-intensity development	Individual cities, Parking Authorities	Self-funding
	Lower parking requirements for new development and evaluate parking maximums		
	Consider establishing Parking Authorities		

THIS PAGE IS LEFT INTENTIONALLY BLANK

6

LESSONS LEARNED

In addition to the discussion of the case studies in Section 5.0, Lessons Learned from the ARRIVE Corridor project include:

- To achieve TOD densities and intensities in suburban commuter rail corridors, the gap between the market's willingness to build TOD and construction costs needs to be addressed.
- City Managers of the cities along the Corridor are willing to collaborate to achieve TOD station area goals and improve the regional and corridor-wide transit system.
- The engagement/coordination process used for this project could be improved by more meetings with individual cities, fewer Technical Advisory Committee (TAC) meetings and community outreach more focused on transit users.
- SCAG, SANBAG, and other public agencies' assistance to the cities on the ARRIVE Corridor provides for an environment of cooperation, an exchange of ideas and educational materials for developers, elected officials and others in the community.
- The ARRIVE Corridor Report, a framework for incorporating implementation by SANBAG, SCAG, the transit agencies and the cities into their plans and policies, could be a model framework for other similar corridor projects. It also should be considered as a living document with periodic input from public agencies and the cities as new related studies, plans and projects are prepared or implemented.

6.1 Market and Construction Costs Gap

To achieve TOD densities and intensities in suburban commuter rail corridors, the gap between market's willingness to build TOD and construction costs needs to be addressed.

In downtown Los Angeles, Pasadena, cities on the San Bernardino Metrolink Line (SB Line) to the west of the ARRIVE Corridor and parts of Orange County where land values and rents are higher than the Inland Empire, developers are building residential and mixed-use projects at relatively high densities (50 to 120 units/acre or more) with parking below ground or in podium structures. Developers today in the Inland Empire are building 20 to 25 dwelling units/acre with surface parking at a ratio of 2 spaces/dwelling units, plus guest parking.

A economic feasibility study prepared for alternative projects on private property in Montclair demonstrates that the economics for the Inland Empire are not yet ready for TOD residential densities of 40 to 60 dwelling units/acre with parking at 2 spaces/dwelling unit, unless there is a subsidy or major rent increases in the station area. From this analysis and discussions with developers, the gap in construction cost and market rents is driven by the need to build structured parking for densities above 25 to 30 dwelling units/acre. Innovative economic solutions are necessary to achieve the goals of placing more people within walking distance of a more intense and vibrant transit station. The strategies to achieve these goals include:

- **Public-private partnerships** where the City or another public agency provides a subsidy for higher density housing (40 to 60 dwelling units/acre) to close the gap and catalyze development. This could include building a shared parking structure to assist the developer in providing for

the high cost of structured parking. Cities could also provide a land write down or lease for public parking lots to the developers to build the project and structured parking.

- **Phasing policies** for larger sites that require a developer to construct buildings on a portion of the site with surface parking on the remainder of the site. When the market matures, the developer would have the entitlement to construct another building and structured parking on the surface parking lot, intensifying development over time.

- **Plan amendments** to cities' plans to allow for reduction in parking standards for projects that include higher densities and/or mixed-use around the rail transit stations.

6.2 Collaboration for Achieving TOD Station Area Goals and Transit System Improvements

City Managers of the cities along the Corridor are willing to collaborate to achieve TOD station area goals and improve the regional and corridor-wide transit system.

The City Managers representing the Corridor cities indicated that to accomplish the goals of the ARRIVE Corridor; it is desirable for upper management of the cities to join together as a group to advocate for system-wide transit improvements and to promote TOD around the stations to developers. This collaborative could also lobby at the regional and state levels for transportation funding and new tools for implementation of TODs in the station areas.

The Marketing Board for the SB Line, recommended in Chapter 5.0, could be a pilot or demonstration project. When successful, the Marketing Board could be expanded to other cities on the SB Line and ultimately to other Metrolink lines. One of the components of the Corridor-wide Vision is Metrolink operational improvements, including consideration for fare reduction.

Recently, Metrolink identified the Antelope Valley line as a demonstration project for fare reduction, particularly for short distances between stations. If successful in increasing ridership along the line, these fare reduction strategies should be applied elsewhere in the system, including the SB Line.

6.3 Engagement/Coordination Process

The engagement/coordination process was effective, but could be improved by more meetings with individual cities, fewer TAC meetings and community outreach more focused on potential transit users.

Engagement is essential in preparing a vision plan that involves multiple cities and recommendations for system-wide improvements to the transit line and TOD concepts for the separate cities. This engagement/coordination needs to occur both in joint city/public agencies meetings (in the ARRIVE Corridor called a TAC) and individual City meetings. The scope of work called for 11 TAC meetings, one each month and a few meetings with City staff at individual cities. The TAC meetings were effective in the beginning to address the overall vision and recommendations for the transit corridor, reviewing existing conditions, market assessment, preparing for the ULI Advisory Services Panel and early concepts for each city. However, when detailed recommendations need to be

tailored to each city, individual meetings at each city are much more effective for the following reasons: 1) more detail can be discussed with each City regarding their policies without making all the other cities listen to the details; 2) more City staff in various disciplines attend when meetings are held at the City's offices than a TAC meeting where only one person may attend; 3) senior staff and management more likely to attend the meetings in their city; and 4) City staff are more likely to continue to update the team with recent information and plans.

The scope for a similar project prepared for another Metrolink line should be revised to include TAC meetings once a month in the beginning, transitioning to every two to three months. More individual meetings then should be held more frequently in each city.

The ULI Advisory Services Panel, which was held after the ARRIVE Corridor existing conditions and the market analysis were completed by the Consultant team, was useful in educating stakeholders and providing an overview of issues and recommendations. As stated in the ULI Advisory Services Panel report, the panel mentioned the lack of developer input as stakeholders. More direct assistance from ULI in contacting and obtaining participation of developers as stakeholders would be helpful in other similar studies.

The community outreach process called for two community-wide meetings along the corridor. As six different cities were involved along the 25-mile corridor, SANBAG, TAC and the Consultant team discussed that holding one community meeting for all six cities to attend would make it difficult to attract community members from each city. Therefore, the first community meeting was replaced with a one-day survey conducted on Metrolink trains by team members. Responses from 229 transit users from various cities were received providing focused input to the project. The second community meeting will be an open house scheduled at the Santa Fe Depot to correspond with a SANBAG Board meeting capturing community members from various cities and those interested in transit. More use of social media should also be considered to obtain community input.

6.4 Public Agency Assistance

SCAG, SANBAG, and other public agencies' assistance to the cities on the ARRIVE Corridor provides for an environment of cooperation, an exchange of ideas and educational materials for developers, elected officials and others in the community.

The materials prepared for the ARRIVE Corridor Briefing Book, describe the existing conditions and plans for the corridor and station areas, the market assessment, the ULI Advisory Services Panel's recommendations and the ARRIVE Corridor Report are informational documents. These documents begin the TOD conversation with the development community, elected officials, and others in the community. In addition, there is a wealth of information available today on TOD, complete streets, the first/last mile connections and active transportation available as other educational tools. These resources coupled with the Marketing Board can be used by the developer, community, elected officials and cities in updating their plans to be more transit-supportive and streamlined for TOD.

The market study was comprehensive and useful in providing the cities potential uses and forecasts that could be compared to land use plan capacity in each station area. An economic feasibility analysis was prepared for a site in a community in the west, as each station area is unique and economics varies from west to east. In the future, SCAG and SANBAG should consider assistance to cities in the east in preparing feasibility analysis for development.

6.5 Framework Plan With Periodic Updates

The ARRIVE Corridor Report, a framework for incorporating implementation by SANBAG, SCAG, the transit agencies and the cities into their plans and policies, could be a model framework for other similar corridor projects. It also should be considered as a living document with periodic input from public agencies and the cities as new related studies, plans and projects are prepared or implemented.

SCAG, SANBAG, Metrolink, Omnitrans and the cities participated in the formulation of the overall corridor-wide vision, vision strategies for cities and the implementation strategy recommendations. These visions and strategies should be considered as a framework for the corridor and similar Metrolink or other commuter rail corridor stations. The ARRIVE Corridor was informed by studies, plans and other information available at the time of preparation of the report. The ARRIVE Corridor's market, land uses and mobility will be constantly changing as new development and improvements are made to Metrolink and the station areas. In addition, Metrolink has a new CEO who will likely propose new operational and improvement plans and implementation strategies beyond those included in the ARRIVE Corridor.

SANBAG and other public agencies with the cities' assistance need to monitor and compile major changes and updates to plan, policies and development to assist the Marketing Board in being current on the status of each station area and the Metrolink improvements. SANBAG or another designated agency could be the clearinghouse for these updates until the Marketing Board is in operation.

THIS PAGE IS LEFT INTENTIONALLY BLANK

ACKNOWLEDGMENTS

TECHNICAL ADVISORY COMMITTEE (TAC)

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG)
Stephen G. Fox, Project Manager
Arnold San Miguel, San Bernardino County Regional Agency Affairs Officer

SAN BERNARDINO ASSOCIATED GOVERNMENTS (SANBAG)
Dr. Ray Wolfe, Executive Director
Steve Smith, PE, Director of Planning
Tim Byrne, PE, Chief of Planning
Nessa Williams, Management Analyst

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA)/METROLINK
Roderick Diaz, Director, Planning and Development
Ron Mathieu, Senior Public Projects Specialist

OMNITRANS
Anna Jaiswal, AICP, Development Planning Manager

CITY OF FONTANA
Ken Hunt, City Manager
Debbie Brazil, Deputy City Manager
James Troyer, Director of Community Development
Catherine Lin, AICP, Associate Planner
Rina Leung, Assistant Planner
Monique Molina, Administrative Analyst

CITY OF MONTCLAIR
Edward Starr, City Manager
Marilyn Staats, Deputy City Manager
Steve Lustro, AICP, Community Development Director
Mike Hudson, Public Works Director/City Engineer

CITY OF ONTARIO
Scott Murphy, Planning Director
Cathy Wahlstrom, Principal Planner

CITY OF RANCHO CUCAMONGA
John Gillison, City Manager
Linda Daniels, Assistant City Manager
Candyce Burnett, Planning Director
Jeff Bloom, Economic Development Director
Mayuko Nakajima, Assistant Planner
Tom Grahn, Associate Planner

CITY OF RIALTO
Gina Gibson, Planning Manager
John Dutrey, Project Manager
Daniel Rosas, Assistant Planner

CITY OF SAN BERNARDINO
Bill Manis, Deputy City Manager
Mark Persico, AICP, Director of Community Development

CITY OF UPLAND
Rod Butler, City Manager
Jeff Zwack, Development Services Director
Rosemary Hoerning, PE, PLS, MPA, Director of Public Works
Bob Critchfield, PE, Principal Engineer
Melecio Picazo, Assistant Planner
Tonya Pace, Contract Planner

GRUEN ASSOCIATES, Prime Consultant
Larry Schlossberg, AIA, AICP, LEED AP BD+C, Partner-in-Charge
Elaine V. Carbrey, AIA, AICP, Project Manager
Orlando Gonzalez, Sr. Urban Designer
Adam Maleitzke, AICP, Sr. Planner

HR&A ADVISORS, INC.
Amitabh Barthakur, Partner
Judith Taylor, AICP, Principal
Thomas Jansen, Analyst

HDR ENGINEERING CONSULTANTS, INC.
Gerard Reminiskey, GISD, Sr. Project Manager
Adam Christian, Sr. Technical Advisor
Sharon Greene, Sr. Financing Advisor
Joseph McNeely, PE, Project Manager Rail/Transit
Freddy Cheng, Sr. Engineering Rail/Transit

LANCE SCHULTE, AICP
Lance Schulte, AICP

OTHER ADVISORS

URBAN LAND INSTITUTE (ULI)
Beth Silverman, Director, Education & Advisory Services Group
Tom Eitler, Vice President, Advisory Services
Gayle Berens, Sr. Vice President, Education & Advisory Services Group
Daniel Lobo, Director Awards

APPENDIX A

TRANSIT USERS SURVEY
APRIL 2, 2015

SAN BERNARDINO ASSOCIATED GOVERNMENTS
GRUEN ASSOCIATES

ARRIVE Corridor Questionnaire - 4/2/15
Trip #1, Train 313 - Westbound

Boarded @ SB - 652am
Arrived @ Covina - 739am

95 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Other	No Response	Totals
	2	3	62	26			2	95
%	2.11	3.16	65.26	27.37			2.11	

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train			
	%	No of Commuters		%	Totals	**Legend**
SB	**36.84**	35	LAUS	**68.42**	65	RC = Rancho Cucamonga
Fontana	**10.53**	10	CSULA	**13.68**	13	SB = San Bernardino
Rialto	**6.32**	6	Upland	**1.05**	1	LAUS - Los Angeles Union Station
RC	**14.74**	14	Montclair	**1.05**	1	CSULA - California State University L.A.
Upland	**11.58**	11	Claremont	**1.05**	1	
Claremont	**1.05**	1	Pomona N	**2.11**	2	
Montclair	**8.42**	8	Covina	**2.11**	2	
Pomona N	**1.05**	1	Baldwin Park	**6.32**	6	
Covina	**9.47**	9	El Monte	**2.11**	2	
		95	Glendale	**1.05**	1	
			Burbank Airpt	**1.05**	1	
					95	

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response		Total
	69	19	7		95
%	**73**	**20**	**7**		

How can this be improved and which station in particular?

Need train to Victorville - 2
Need more transportation services
Need station in Long Beach / Seal Beach
No issues
Fontana station shuttle to Victorville connection always late, runs every 2 hrs
Extend further east (e.g., Redlands)
Synchronize train arrivals with bus connections, always waiting long
Keep clean
Coming from Loma Linda, don't know if bus goes to SB station. Would be good to have.
Closer bus connection at Upland station; frequency align with Metrolink times
Too many transfers
Fontana has bus station works well; Rancho Cucamonga (RC) only 1 bus serves station
Bus from Redlands to Rialto not effective, causing me to drive
East parking too far; half of west parking available, why can't I get pass?
Fix ticket machines in Covina and CSULA
No shuttle service from San Dimas
SB-Baldwin Park - Internal train will help reduce the ransport problem

More times available from Riverside to SB station
More express trains
Need buses east from SB station
Provide shuttle services times with train schedule (like Orange County)
Have bus stop closer (RC)
Not many buses (RC) need more pm buses
More bus connections & closer & more parking (Upland)
Machines often broken
1st and last mile connection is hard (RC)

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	25	13	23	11	12	7	84
%	**29.76**	**15.48**	**27.38**	**13.10**	**14.29**		
Increasing train frequency							
	26	16	15	16	8	5	81
%	**32.10**	**19.75**	**18.52**	**19.75**	**9.88**		
More express trains (faster service)							
	35	15	11	8	13	6	82
%	**42.68**	**18.29**	**13.41**	**9.76**	**15.85**		
Purchase new equipment to reduce emissions and noise							
	17	12	15	20	19	4	83
%	**20.48**	**14.46**	**18.07**	**24.10**	**22.89**		
Ticketing improvements							
	28	16	20	6	13	6	83
%	**33.73**	**19.28**	**24.10**	**7.23**	**15.66**		
Improvements to grade crossings							
	9	11	13	7	19	2	59
%	**15.25**	**18.64**	**22.03**	**11.86**	**32.20**		

Other: Lower fare
Other: On time departure
Other: Good train maintenance / Less breakdowns - 2
Other: Safety improvements on track for pedestrians
Other: Purchase equipment to reduce waiting time when mechanical problem
Other: Put more rail, reduce single rail section
Other: Upgrade ticket machine at Fontana station/always broke
Other: RC Ticket machines always down/not accepting payment, ticket printing poor - 2
Other: Fewer late trains
Other: Stop breaking down and waiting for other trains to pass
Other: Need the 12;20pm train back!
Other: Restrooms facilities in San Bernardino
Other: Bar Car/beverages/concessions
Other: Trains delayed due to maintenance problems constantly

Other: Montclair Ticket machines breaksdown often
Other: You are 20 yrs behind on all projects what does it mattter!
Other: Never been to these stations - 3
Other: checking the train tickets more often
Other: Adding 1 more service to LAUS 830am; more frequency at night
Other: Covina ticket machines malfunctions often, miss train
Other: Poorly written questionnaire
Other: Shuttle service for drop-off locations (similar to Orange County - 2
Other: Parking (SB)
Other: Express track to stop in El Monte
Other: Train frequency to RC in pm hours
Other: Inform passengers of delays better
Other: Don't keep passengers ont tracks longer than 1/2 hr arrange for buses to transport
Other: Weekends more frequency

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB		Totals
More retail and restaurants								
	12	14	20	11	14	21		92
%	**15.58**	**14.58**	**17.70**	**15.07**	**17.07**	**17.80**		
More employment land uses								
	6	4	4	7	8	10		39
%	**7.79**	**4.17**	**3.54**	**9.59**	**9.76**	**8.47**		
Mix of housing types and higher densities								
	3	8	8	2	4	4		29
%	**3.90**	**8.33**	**7.08**	**2.74**	**4.88**	**3.39**		
Affordable housing								
	9	13	11	5	11	10		59
%	**11.69**	**13.54**	**9.73**	**6.85**	**13.41**	**8.47**		
Civic uses and public gathering spaces								
	8	6	9	8	10	12		53
%	**10.39**	**6.25**	**7.96**	**10.96**	**12.20**	**10.17**		
Better pedestrian connections and amenities								
	13	14	21	11	10	17		86
%	**16.88**	**14.58**	**18.58**	**15.07**	**12.20**	**14.41**		
Bicycle connections and amenities								
	6	11	9	9	9	14		58
%	**7.79**	**11.46**	**7.96**	**12.33**	**10.98**	**11.86**		
Better bus connections to the station								
	12	18	20	13	8	20		91
%	**15.58**	**18.75**	**17.70**	**17.81**	**9.76**	**16.95**		

ARRIVE Corridor Questionnaire - 4/2/15
Trip #1, Train 313 - Westbound

Boarded @ SB - 652am
Arrived @ Covina - 739am

	Montclair	Upland	RC	Rialto	Fontana	SB		Totals
Parking structures to free up land for development								
	7	6	10	7	8	9		47
%	**9.09**	**6.25**	**8.85**	**9.59**	**9.76**	**7.63**		
Other: Restrooms								
		1						1
%		**1.04**						
Other: Inn or Hotel / place to wait								
	1	1	1			1		4
%	**1.30**	**1.04**	**0.88**	**0.00**	**0.00**	**0.85**		
Totals	**77**	**96**	**113**	**73**	**82**	**118**		

Other: Questionnaires usually preceed rate increases for train or parking.
Other: More TVMs emergency buttons on each car of train
Other: Parking lot security (a lot of break ins - SB)
Other: Free parking Metrolink already expensive (RC - $4.50 effec 7/1/14)
Other: More security parking area (Fontana)
Other: Wants an inviting station - Rialto is cold & sterile(?), not inviting
Other: Conductor 18 yrs - don't charge for parking (RC), patrons feel getting nickled & dimed for public transportation
Other: Remove wall, add other access points (SB)
Other: More & closer parking (Upland)

ARRIVE Corridor Questionnaire - 4/2/15
Trip #2, Train 302 - Eastbound

Boarded @ Covina - 829am
Arrived @ SB - 930am

17 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Other	No Response	Totals
	1	7		5	3		1	17
%	5.88	41.18		29.41	17.65		5.88	

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train		
	%	No of Commuters		%	Totals
LAUS	**50.00**	8	SB	**50.00**	8
Covina	**18.75**	3	Upland	**6.25**	1
El Monte	**12.50**	2	Fontana	**25.00**	4
Montclair	**6.25**	1	RC	**18.75**	3
Baldwin Park	**12.50**	2			
		16			16

No indication 1

Legend
RC = Rancho Cucamonga
SB = San Bernardino
LAUS - Los Angeles Union Station
CSULA - California State University L.A.

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response	Total
	12	3	2	17
%	**71**	**18**	**12**	

How can this be improved and which station in particular?

Vending Machines
More Omnibuses, more often - 2 responded
Faster trains
No security in evenings
One-sided to LA only
Lots of train delays
More transfers from SB to LA - 2 responded
More trains to Riverside station
More wayfinding for businesses
Stop in San Diego

ARRIVE Corridor Questionnaire - 4/2/15
Trip #2, Train 302 - Eastbound

Boarded @ Covina - 829am
Arrived @ SB - 930am

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	3	2	1	2	0	2	8
%	**37.50**	**25.00**	**12.50**	**25.00**	**0.00**		
Increasing train frequency							
	3	2	3	0	1	2	9
%	**33.33**	**22.22**	**33.33**	**0.00**	**11.11**		
More express trains (faster service)							
	4	1	1	0	1	1	7
%	**57.14**	**14.29**	**14.29**	**0.00**	**14.29**		
Purchase new equipment to reduce emissions and noise							
	1	2	1	1	2	1	7
%	**14.29**	**28.57**	**14.29**	**14.29**	**28.57**		
Ticketing improvements							
	3	0	3	1	0	1	7
%	**42.86**	**0.00**	**42.86**	**14.29**	**0.00**		
Improvements to grade crossings							
	4	1	1	1	1	2	8
%	**50.00**	**12.50**	**12.50**	**12.50**	**12.50**		

Other: 24-hr late nights

Other Need assistance/help if trains stops in between stops, sudden unknown delays

ARRIVE Corridor Questionnaire - 4/2/15
Trip #2, Train 302 - Eastbound

Boarded @ Covina - 829am
Arrived @ SB - 930am

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB		Totals
More retail and restaurants								
	2	2	4	2	2	5		17
%	**12.50**	**10.53**	**19.05**	**13.33**	**13.33**	**21.74**		
More employment land uses								
	2	4	2	4	3	4		19
%	**12.50**	**21.05**	**9.52**	**26.67**	**20.00**	**17.39**		
Mix of housing types and higher densities								
	1	1	1	2	1	1		7
%	**6.25**	**5.26**	**4.76**	**13.33**	**6.67**	**4.35**		
Affordable housing								
	2	3	1	2	2	2		12
%	**12.50**	**15.79**	**4.76**	**13.33**	**13.33**	**8.70**		
Civic uses and public gathering spaces								
	2	0	2	1	1	2		8
%	**12.50**	**0.00**	**9.52**	**6.67**	**6.67**	**8.70**		
Better pedestrian connections and amenities								
	3	2	2	0	1	1		9
%	**18.75**	**10.53**	**9.52**	**0.00**	**6.67**	**4.35**		
Bicycle connections and amenities								
	1	3	4	2	2	4		16
%	**6.25**	**15.79**	**19.05**	**13.33**	**13.33**	**17.39**		
Better bus connections to the station								
	0	2	3	1	3	2		11
%	**0.00**	**10.53**	**14.29**	**6.67**	**20.00**	**8.70**		
Parking structures to free up land for development								
	3	2	1	1	0	2		9
%	**18.75**	**10.53**	**4.76**	**6.67**	**0.00**	**8.70**		
Other: Restrooms								
		0	1					1
%	**0.00**	**0.00**	**4.76**	**0.00**	**0.00**	**0.00**		
Totals	**16**	**19**	**21**	**15**	**15**	**23**		

ARRIVE Corridor Questionnaire - 4/2/15 **Boarded @ SB - 950am**
Trip #3, Train 319 - Westbound **Arrived @ Claremont - 1024am**

53 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Other	No Response	Totals
	6	14	17	15	1			53
%	11.32	26.42	32.08	28.30			0.00	

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train			
	%	No of Commuters		%	Totals	**Legend**
SB	**50.94**	27	LAUS	**67.92**	36	RC = Rancho Cucamonga
Rialto	**16.98**	9	Pomona N	**5.66**	3	SB = San Bernardino
Fontana	**16.98**	9	CSULA	**7.55**	4	LAUS - Los Angeles Union Station
RC	**11.32**	6	El Monte	**9.43**	5	CSULA - California State University L.A.
Upland	**3.77**	2	Covina	**3.77**	2	
			SF/Sylmar	**1.89**	1	
			Montclair	**1.89**	1	
			Claremont	**1.89**	1	
		53			53	

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response		Total
	47	6	0		53
%	**89**	**11**	**0**		

How can this be improved and which station in particular?

More bus arrivals (RC)
More than 6 connections daily to Riverside
Buses to have similar schedules as trains to connect
Charge $10/day roundtrip
Toilet Access and restroom Maintenance (Fontana)
Ticket dispensers - repair immediately & more
Ticket dispensers break down a lot (Upland)
More benches in shaded area (SB)
City shuttles or more buses for area (SB) - 2
Fare too much for family of 6, would travel more if less - 2
Bus stop at Arrow & Palemetto in Fontana
Remove parking restrictions both immediate sides of station (Upland)
Long waits on weekends

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	13	7	10	4	5	2	39
%	**33.33**	**17.95**	**25.64**	**10.26**	**12.82**		
Increasing train frequency							
	13	8	8	5	6	1	40
%	**32.50**	**20.00**	**20.00**	**12.50**	**15.00**		
More express trains (faster service)							
	18	4	13	3	5	3	43
%	**41.86**	**9.30**	**30.23**	**6.98**	**11.63**		
Purchase new equipment to reduce emissions and noise							
	8	8	8	6	9	0	39
%	**20.51**	**20.51**	**20.51**	**15.38**	**23.08**		
Ticketing improvements							
	13	7	8	4	13	4	45
%	**28.89**	**15.56**	**17.78**	**8.89**	**28.89**		
Improvements to grade crossings							
	8	2	8	5	4	1	27
%	**29.63**	**7.41**	**29.63**	**18.52**	**14.81**		

Other: Lower fare for children

Other: Good train maintenance / less breakdowns

Other: Shade

Other: App to notify commuters when next train is coming (i.e., nextbus.com)

Other: Put in High Desert

Other Bring back late night service

Other: More power outlets for electronic devices, mobile devices - 4 responded

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB		Totals
More retail and restaurants								
	10	11	14	13	14	22		84
%	**18.18**	**20.75**	**19.44**	**21.31**	**20.90**	**17.74**		
More employment land uses								
	5	4	4	1	7	13		34
%	**9.09**	**7.55**	**5.56**	**1.64**	**10.45**	**10.48**		
Mix of housing types and higher densities								
	3	3	7	6	6	9		34
%	**5.45**	**5.66**	**9.72**	**9.84**	**8.96**	**7.26**		
Affordable housing								
	8	8	11	5	7	12		51
%	**14.55**	**15.09**	**15.28**	**8.20**	**10.45**	**9.68**		
Civic uses and public gathering spaces								
	7	5	7	6	7	17		49
%	**12.73**	**9.43**	**9.72**	**9.84**	**10.45**	**13.71**		
Better pedestrian connections and amenities								
	4	6	5	8	7	15		45
%	**7.27**	**11.32**	**6.94**	**13.11**	**10.45**	**12.10**		
Bicycle connections and amenities								
	6	6	8	8	8	11		47
%	**10.91**	**11.32**	**11.11**	**13.11**	**11.94**	**8.87**		
Better bus connections to the station								
	8	6	10	8	7	16		55
%	**14.55**	**11.32**	**13.89**	**13.11**	**10.45**	**12.90**		
Parking structures to free up land for development								
	4	3	6	6	4	9		32
%	**7.27**	**5.66**	**8.33**	**9.84**	**5.97**	**7.26**		
Other: Vending Machines Better Processing								
		1						1
%	**0.00**	**1.89**	**0.00**	**0.00**	**0.00**	**0.00**		
Totals	**55**	**53**	**72**	**61**	**67**	**124**		

Other: WiFi (SB)

Other: Charging outlets (SB)

Other: More handicap parking (RC)

ARRIVE Corridor Questionnaire - 4/2/15
Trip #4, Train 306 - Eastbound

Boarded @ Claremont - 1055am
Arrived @ SB - 1140am

13 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Other	No Response	Totals
	1	3	2	6	1			13
%	7.69	23.08	15.38	46.15			0.00	

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train			
	%	No of Commuters		%	Totals	**Legend**
LAUS	**69.23**	9	SB	**69.23**	9	RC = Rancho Cucamonga
Baldwin Park	**7.69**	1	RC	**7.69**	1	SB = San Bernardino
Irvine	**7.69**	1	Upland	**7.69**	1	LAUS - Los Angeles Union Station
Anaheim	**7.69**	1	Long Beach	**7.69**	1	CSULA - California State University L.A.
Fontana	**7.69**	1	CSULA	**7.69**	1	
		13			13	

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response		Total
	10	2	1		13
%	**77**	**15**	**8**		

How can this be improved and which station in particular?

More frequent trains

Transporation towards Riverside, earlier and more hours operation for Inland Empire train station

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	2	1	1	2	5	0	11
%	**18.18**	**9.09**	**9.09**	**18.18**	**45.45**		
Increasing train frequency							
	1	2	2	1	6	0	12
%	**8.33**	**16.67**	**16.67**	**8.33**	**50.00**		
More express trains (faster service)							
	4	2	1	0	4	1	11
%	**36.36**	**18.18**	**9.09**	**0.00**	**36.36**		
Purchase new equipment to reduce emissions and noise							
	2	1	1	2	3	0	9
%	**22.22**	**11.11**	**11.11**	**22.22**	**33.33**		
Ticketing improvements							
	2	0	1	5	4	1	12
%	**16.67**	**0.00**	**8.33**	**41.67**	**33.33**		
Improvements to grade crossings							
	3	2	1	0	4	1	10
%	**30.00**	**20.00**	**10.00**	**0.00**	**40.00**		
Totals	**14**	**8**	**7**	**10**	**26**	**3**	

Other: Purchase ticket on train
Other: Mobile App for ticketing - 2 responded
Other: More trains leaving and arriving (CSULA)
Other: Ticket machines always working
Other: Monthly pass very expensive

ARRIVE Corridor Questionnaire - 4/2/15
Trip #4, Train 306 - Eastbound

Boarded @ Claremont - 1055am
Arrived @ SB - 1140am

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB			
More retail and restaurants									
	0	2	2	3	3	10		20	
%	**0.00**	**14.29**	**20.00**	**16.67**	**27.27**	**16.39**			
More employment land uses									
	1	1	1	2	1	6		12	
%	**9.09**	**7.14**	**10.00**	**11.11**	**9.09**	**9.84**			
Mix of housing types and higher densities									
	2	2	1	2	1	7		15	
%	**18.18**	**14.29**	**10.00**	**11.11**	**9.09**	**11.48**			
Affordable housing									
	2	2	1	2	1	6		14	
%	**18.18**	**14.29**	**10.00**	**11.11**	**9.09**	**9.84**			
Civic uses and public gathering spaces									
	1	2	1	2	1	6		13	
%	**9.09**	**14.29**	**10.00**	**11.11**	**9.09**	**9.84**			
Better pedestrian connections and amenities									
	1	3	2	3	1	7		17	
%	**9.09**	**21.43**	**20.00**	**16.67**	**9.09**	**11.48**			
Bicycle connections and amenities									
	1	1	0	2	1	6		11	
%	**9.09**	**7.14**	**0.00**	**11.11**	**9.09**	**9.84**			
Better bus connections to the station									
	1	1	1	2	1	8		14	
%	**9.09**	**7.14**	**10.00**	**11.11**	**9.09**	**13.11**			
Parking structures to free up land for development									
	1	0	1	0	1	5		8	
%	**9.09**	**0.00**	**10.00**	**0.00**	**9.09**	**8.20**			
Other: Bus Shelters									
	1						1	1	
%	**9.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**			
Totals	**11**	**14**	**10**	**18**	**11**	**61**			

ARRIVE Corridor Questionnaire - 4/2/15
Trip #5, Train 329 - Westbound

Boarded @ SB - 300pm
Arrived @ Claremont - 334pm

30 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Power Chair	No Response	Totals *
	6	7	5	10	3	1		32
%	18.75	21.88	15.63	31.25	9.38	3.13		

***** Total includes 2 surveys that checked 2 boxes - 1 walk/bicycle and 1 bus/droppped off.

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train			
	%	No of Commuters		%	Totals	**Legend**
SB	**50.00**	15	LAUS	**66.67**	20	RC = Rancho Cucamonga
Rialto	**6.67**	2	Claremont	**3.33**	1	SB = San Bernardino
RC	**10.00**	3	Montclair	**6.67**	2	LAUS - Los Angeles Union Station
Fontana	**30.00**	9	Upland	**3.33**	1	CSULA - California State University L.A.
Upland	**3.33**	1	Covina	**3.33**	1	
			CSULA	**6.67**	2	
			El Monte	**6.67**	2	
			Van Nuys	**3.33**	1	
		30			30	

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response		Total *
	23	7	2		32
%	**72**	**22**	**6**		

***** 2 surveys responded yes & no.

How can this be improved and which station in particular?

Have 2pm train for weekdays like you have on weekends, long period waiting - 2 responded
Add a couple of minutes for delay since bus transportation is later sometimes
Sunline Transit Agency, Omnitrans & RTA need to come together at hubs and train stations
Rilato station limited accessibility for bus service
RC bus service not timely
By building a corridor
There are options at LAUS
Vending machines - 2 responded
No comment
More buses to L.A.
Pay as you board using ATM (like in Korea)
To Perris
No knowledge of other forms of transportation
Bathrooms at stations

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	13	4	6	1	3	2	27
%	**48.15**	**14.81**	**22.22**	**3.70**	**11.11**		
Increasing train frequency							
	12	4	6	2	1	1	25
%	**48.00**	**16.00**	**24.00**	**8.00**	**4.00**		
More express trains (faster service)							
	14	1	7	2	6	1	30
%	**46.67**	**3.33**	**23.33**	**6.67**	**20.00**		
Purchase new equipment to reduce emissions and noise							
	6	1	7	6	7	1	27
%	**22.22**	**3.70**	**25.93**	**22.22**	**25.93**		
Ticketing improvements							
	8	3	4	4	6	0	25
%	**32.00**	**12.00**	**16.00**	**16.00**	**24.00**		
Improvements to grade crossings							
	5	1	4	2	10	0	22
%	**22.73**	**4.55**	**18.18**	**9.09**	**45.45**		

Other: Roundtrip train to Palm Springs to Union Station
Other: Cleaner restrooms
Other: Food on train (vending machines) - 2 responded
Other: Actual worker on train to clean restrooms - rated 1
Other: WiFi on trains
Other: More trains that connec from other stations than LAUS
Other: Recyling old chairs like MTA
Other: Add loops to trains to lock bikes so can sit any where
Other: More room on survey to write
Other: Service from/to Northridge, stop on weekends - rated 1
Other: Cheaper fare for working people and students

ARRIVE Corridor Questionnaire - 4/2/15
Trip #5, Train 329 - Westbound

Boarded @ SB - 300pm
Arrived @ Claremont - 334pm

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB		
More retail and restaurants								
	6	6	5	7	12	11		47
%	**13.95**	**11.76**	**12.50**	**14.58**	**16.67**	**15.49**		
More employment land uses								
	3	6	2	5	8	7		31
%	**6.98**	**11.76**	**5.00**	**10.42**	**11.11**	**9.86**		
Mix of housing types and higher densities								
	2	2	1	4	4	6		19
%	**4.65**	**3.92**	**2.50**	**8.33**	**5.56**	**8.45**		
Affordable housing								
	5	8	6	6	9	9		43
%	**11.63**	**15.69**	**15.00**	**12.50**	**12.50**	**12.68**		
Civic uses and public gathering spaces								
	6	3	3	2	7	5		26
%	**13.95**	**5.88**	**7.50**	**4.17**	**9.72**	**7.04**		
Better pedestrian connections and amenities								
	5	6	7	6	8	6		38
%	**11.63**	**11.76**	**17.50**	**12.50**	**11.11**	**8.45**		
Bicycle connections and amenities								
	4	4	3	4	11	8		34
%	**9.30**	**7.84**	**7.50**	**8.33**	**15.28**	**11.27**		
Better bus connections to the station								
	8	9	7	9	8	11		52
%	**18.60**	**17.65**	**17.50**	**18.75**	**11.11**	**15.49**		
Parking structures to free up land for development								
	3	6	5	4	4	7		29
%	**6.98**	**11.76**	**12.50**	**8.33**	**5.56**	**9.86**		
Other: Cheaper Fares								
	1	1	1	1	1	1		5
%	**2.33**	**1.96**	**2.50**	**2.08**	**1.39**	**1.41**		
Totals	**43**	**51**	**40**	**48**	**72**	**71**		

More housekeeping, keep bathrooms more sanitized
WiFi on trains

ARRIVE Corridor Questionnaire - 4/2/15 **Boarded @ Claremont - 420pm (11 min late)**
Trip #6, Train 316 - Eastbound **Arrived @ SB - 500pm (late)**

21 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Other	No Response	Totals
	3	3	11	2	2			21
%	14.29	14.29	52.38	9.52	9.52			

Questions 2&3. Where did you get on the train / off the train?

On Train			Off Train			
	%	No of Commuters		%	Totals	**Legend**
CSULA	**9.52**	2	SB	**19.05**	4	RC = Rancho Cucamonga
Claremont	**4.76**	1	Fontana	**14.29**	3	SB = San Bernardino
El Monte	**4.76**	1	El Monte	**4.76**	1	LAUS - Los Angeles Union Station
Fontana	**14.29**	3	LAUS	**19.05**	4	CSULA - California State University L.A.
Hlywd-Hilnd	**4.76**	1	CSULA	**23.81**	5	Hllywd-Hilnd - Hollywood-Highland
LAUS	**4.76**	1	Rialto	**4.76**	1	
Princessa	**4.76**	1	Baldwin Park	**4.76**	1	
RC	**23.81**	5	Claremont		2	
Rialto	**14.29**	3				
SB		3				
		21			21	

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response		Total
	14	7			21
%	**67**	**33**			

How can this be improved and which station in particular?

Times for 12pm need to be added
24-hr parking (SB & RC)
App for time delays
Less stops
Cut back on delays do 2 passing routes
Prices too high and monthly pass strange system
More cars (seats) during year (peak season vs. summer - less students)
Ticket machines constantly broken (Fontana)
More buses to stations (RC / SB)
Add railway, extend tracks to Phoenix or Cabazon
More ticket vending machines (CSULA - Fontana)
Better bus service to Redlands
It's fine for me
Have never used any other means of transportation but think there are a lot of connections

ARRIVE Corridor Questionnaire - 4/2/15 **Boarded @ Claremont - 420pm (11 min late)**

Trip #6, Train 316 - Eastbound **Arrived @ SB - 500pm (late)**

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	0	2	2	3	7	0	14
%	**0.00**	**14.29**	**14.29**	**21.43**	**50.00**		
Increasing train frequency							
	5	2	5	1	4	0	17
%	**29.41**	**11.76**	**29.41**	**5.88**	**23.53**		
More express trains (faster service)							
	6	2	4	2	1	0	15
%	**40.00**	**13.33**	**26.67**	**13.33**	**6.67**		
Purchase new equipment to reduce emissions and noise							
	4	3	6	0	2	0	15
%	**26.67**	**20.00**	**40.00**	**0.00**	**13.33**		
Ticketing improvements							
	5	2	2	3	3	0	15
%	**33.33**	**13.33**	**13.33**	**20.00**	**20.00**		
Improvements to grade crossings							
	1	3	5	1	1	0	11
%	**9.09**	**27.27**	**45.45**	**9.09**	**9.09**		

Other: WiFi - 3 rating

Other More Outlets - 4 rating

Other: Extend trcks to Yucaipa, Cabazon, Palm Springs - 5 rating

Other - Quiet Car Enforcement - 2 rating

Other: Quicker ticket machine options

ARRIVE Corridor Questionnaire - 4/2/15 **Boarded @ Claremont - 420pm (11 min late)**

Trip #6, Train 316 - Eastbound **Arrived @ SB - 500pm (late)**

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB			
More retail and restaurants									
	3	1	8	3	3	6		24	
%	**15.79**	**5.88**	**20.00**	**11.11**	**11.54**	**21.43**			
More employment land uses									
	0	1	1	1	1	2		6	
%	**0.00**	**5.88**	**2.50**	**3.70**	**3.85**	**7.14**			
Mix of housing types and higher densities									
	1	3	4	2	2	1		13	
%	**5.26**	**17.65**	**10.00**	**7.41**	**7.69**	**3.57**			
Affordable housing									
	1	2	4	1	2	1		11	
%	**5.26**	**11.76**	**10.00**	**3.70**	**7.69**	**3.57**			
Civic uses and public gathering spaces									
	3	3	2	3	3	5		19	
%	**15.79**	**17.65**	**5.00**	**11.11**	**11.54**	**17.86**			
Better pedestrian connections and amenities									
	2	1	4	4	4	3		18	
%	**10.53**	**5.88**	**10.00**	**14.81**	**15.38**	**10.71**			
Bicycle connections and amenities									
	2	0	5	4	4	4		19	
%	**10.53**	**0.00**	**12.50**	**14.81**	**15.38**	**14.29**			
Better bus connections to the station									
	3	2	6	5	4	3		23	
%	**15.79**	**11.76**	**15.00**	**18.52**	**15.38**	**10.71**			
Parking structures to free up land for development									
	3	3	5	3	2	2		18	
%	**15.79**	**17.65**	**12.50**	**11.11**	**7.69**	**7.14**			
Other: Banks									
	1	1	1	1	1	1		5	
%	**5.26**	**5.88**	**2.50**	**3.70**	**3.85**	**3.57**			
Totals	**19**	**17**	**40**	**27**	**26**	**28**			

ARRIVE Corridor Questionnaire - 4/2/15
Trips #1 through #6 totals

229 surveys

Question 1. How did you access the Metrolink station today?

	Walked	Bus	Drove & Parked	Dropped off	Bicycle	Power Chair	No Response	Totals
	19	37	97	64	10	1	1	229
%	8.30	16.16	42.36	27.95			0.44	

Questions 2&3. Where did you get on the train / off the train?

Westbound

On Train			Off Train		
Station	**%**	**No.**	**Station**	**%**	**No.**
SB	**43.26**	77	LAUS	**67.98**	121
Fontana	**15.73**	28	CSULA	**10.67**	19
Rialto	**9.55**	17	Upland	**1.12**	2
RC	**12.92**	23	Montclair	**2.25**	4
Upland	**7.87**	14	Claremont	**1.69**	3
Claremont	**0.56**	1	Pomona N	**2.81**	5
Montclair	**4.49**	8	Covina	**2.81**	5
Pomona N	**0.56**	1	Baldwin Park	**3.37**	6
Covina	**5.06**	9	El Monte	**5.06**	9
			Glendale	**0.56**	1
			Burbank Airpt	**0.56**	1
			SF/Sylmar	**0.56**	1
			Van Nuys	**0.56**	1
		178		**100.00**	178

Eastbound

On Train			Off Train		
Station	**%**	**No.**	**Station**	**%**	**No.**
LAUS	**36.00**	18	SB	**42.00**	21
Covina	**6.00**	3	Upland	**4.00**	2
El Monte	**6.00**	3	Fontana	**14.00**	7
Montclair	**2.00**	1	RC	**8.00**	4
Baldwin Park	**6.00**	3	Long Beach	**2.00**	1
Irvine	**2.00**	1	CSULA	**12.00**	6
Anaheim	**2.00**	1	El Monte	**2.00**	1
Fontana	**8.00**	4	LAUS	**8.00**	4
CSULA	**4.00**	2	Rialto	**2.00**	1
Claremont	**2.00**	1	Baldwin Park	**2.00**	1
Hlywd/Hghlnd	**2.00**	1	Claremont	**4.00**	2
Princessa	**2.00**	1			
RC	**10.00**	5			
Rialto	**6.00**	3			
SB	**6.00**	3			
		50			50

Legend

RC = Rancho Cucamonga
SB = San Bernardino
LAUS - Los Angeles Union Station
CSULA - California State University L.A.
Hllywd-Hilnd - Hollywood-Highland

Question 4. Are connections from San Bernardino County Metrolink Stations to/from other modes of transportation easy and accessible?

	Yes	No	No Response	Total
	175	44	10	229
%	**76**	**19**	**4**	

How can this be improved and which station in particular?

Trip #1

Need train to Victorville - 2
Need more transportation services
Need station in Long Beach / Seal Beach
No issues
Fontana station shuttle to Victorville connection always late, runs every 2 hrs
Extend further east (e.g., Redlands)
Synchronize train arrivals with bus connections, always waiting long
Keep clean
Coming from Loma Linda, don't know if bus goes to SB station. Would be good to have.
Closer bus connection at Upland station; frequency align with Metrolink times
Too many transfers
Fontana has bus station works well; Rancho Cucamonga (RC) only 1 bus serves station
Bus from Redlands to Rialto not effective, causing me to drive
East parking too far; half of west parking available, why can't I get pass?
Fix ticket machines in Covina and CSULA
No shuttle service from San Dimas
SB-Baldwin Park - Internal train will help reduce the ransport problem
More times available from Riverside to SB station
More express trains
Need buses east from SB station
Provide shuttle services times with train schedule (like Orange County)
Have bus stop closer (RC)
Not many buses (RC) need more pm buses
More bus connections & closer & more parking (Upland)
Machines often broken
1st and last mile connection is hard (RC)

Trip #2

Vending Machines
More Omnibuses, more often - 2 responded
Faster trains
No security in evenings
One-sided to LA only
Lots of train delays
More transfers from SB to LA - 2 responded
More trains to Riverside station
More wayfinding for businesses
Stop in San Diego

Trip #3

More bus arrivals (RC)
More than 6 connections daily to Riverside
Buses to have similar schedules as trains to connect
Charge $10/day roundtrip
Toilet Access and restroom Maintenance (Fontana)
Ticket dispensers - repair immediately & more
Ticket dispensers break down a lot (Upland)
More benches in shaded area (SB)
City shuttles or more buses for area (SB) - 2
Fare too much for family of 6, would travel more if less - 2
Bus stop at Arrow & Palemetto in Fontana
Remove parking restrictions both immediate sides of station (Upland)

Long waits on weekends	
More frequent trains	**Trip #4**
Transporation towards Riverside, earlier and more hours operation for Inland Empire train station	
Have 2pm train for weekdays like you have on weekends, long period waiting - 2 responded	**Trip #5**
Add a couple of minutes for delay since bus transportation is later sometimes	
Sunline Transit Agency, Omnitrans & RTA need to come together at hubs and train stations	
Rilato station limited accessibility for bus service	
RC bus service not timely	
By building a corridor	
There are options at LAUS	
Vending machines - 2 responded	
No comment	
More buses to L.A.	
Pay as you board using ATM (like in Korea)	
To Perris	
No knowledge of other forms of transportation	
Bathrooms at stations	
Times for 12pm need to be added	**Trip #6**
24-hr parking (SB & RC)	
App for time delays	
Less stops	
Cut back on delays do 2 passing routes	
Prices too high and monthly pass strange system	
More cars (seats) during year (peak season vs. summer - less students)	
Ticket machines constantly broken (Fontana)	
More buses to stations (RC / SB)	
Add railway, extend tracks to Phoenix or Cabazon	
More ticket vending machines (CSULA - Fontana)	
Better bus service to Redlands	
It's fine for me	
Have never used any other means of transportation but think there are a lot of connections	

ARRIVE Corridor Questionnaire - 4/2/15
Trips #1 through #6 totals

Question 5. Below are possible long-term Corridor-wide Vision Improvements identified to date. How would you prioritize funding and efforts to implement. Rate each 1 to 5 with 1 being the most important (added ck'd items to no. 1)

	1	2	3	4	5	ck'd	Totals
Additional mid-day and evening service							
	56	29	43	23	32	7	183
%	**30.60**	**15.85**	**23.50**	**12.57**	**17.49**		
Increasing train frequency							
	60	34	39	28	26	5	187
%	**32.09**	**18.18**	**20.86**	**14.97**	**13.90**		
More express trains (faster service)							
	81	25	37	15	30	6	188
%	**43.09**	**13.30**	**19.68**	**7.98**	**15.96**		
Purchase new equipment to reduce emissions and noise							
	38	28	38	35	42	4	181
%	**20.99**	**15.47**	**20.99**	**19.34**	**23.20**		
Ticketing improvements							
	59	28	38	23	39	6	187
%	**31.55**	**14.97**	**20.32**	**12.30**	**20.86**		
Improvements to grade crossings							
	30	20	32	16	39	2	137
%	**21.90**	**14.60**	**23.36**	**11.68**	**28.47**		

Trip #1

Other: Lower fare
Other: On time departure
Other: Good train maintenance / Less breakdowns - 2 responded
Other: Safety improvements on track for pedestrians
Other: Purchase equipment to reduce waiting time when mechanical problem
Other: Put more rail, reduce single rail section
Other: Upgrade ticket machine at Fontana station/always broke
Other: RC Ticket machines always down/not accepting payment, ticket printing poor - 2 responded
Other: Fewer late trains
Other: Stop breaking down and waiting for other trains to pass
Other: Need the 12;20pm train back!
Other: Restrooms facilities in San Bernardino
Other: Bar Car/beverages/concessions
Other: Trains delayed due to maintenance problems constantly
Other: Montclair Ticket machines breaksdown often
Other: You are 20 yrs behind on all projects what does it mattter!
Other: Never been to these stations - 3 responded
Other: checking the train tickets more often
Other: Adding 1 more service to LAUS 830am; more frequency at night
Other: Covina ticket machines malfunctions often, miss train
Other: Poorly written questionnaire
Other: Shuttle service for drop-off locations (similar to Orange County - 2 responded

Other: Parking (SB)
Other: Express track to stop in El Monte
Other: Train frequency to RC in pm hours
Other: Inform passengers of delays better
Other: Don't keep passengers ont tracks longer than 1/2 hr arrange for buses to transport
Other: Weekends more frequency

Other: 24-hr late nights **Trip #2**
Other Need assistance/help if trains stops in between stops, sudden unknown delays

Other: Lower fare for children **Trip #3**
Other: Good train maintenance / less breakdowns
Other: Shade
Other: App to notify commuters when next train is coming (i.e., nextbus.com)
Other: Put in High Desert
Other Bring back late night service
Other: More power outlets for electronic devices, mobile devices - 4 responded

Other: Purchase ticket on train **Trip #4**
Other: Mobile App for ticketing - 2 responded
Other: More trains leaving and arriving (CSULA)
Other: Ticket machines always working
Other: Monthly pass very expensive

Other: Roundtrip train to Palm Springs to Union Station **Trip #5**
Other: Cleaner restrooms
Other: Food on train (vending machines) - 2 responded
Other: Actual worker on train to clean restrooms - 1 rating
Other: WiFi on trains
Other: More trains that connec from other stations than LAUS
Other: Recyling old chairs like MTA
Other: Add loops to trains to lock bikes so can sit any where
Other: More room on survey to write
Other: Service from/to Northridge, stop on weekends - 1 rating
Other: Cheaper fare for working people and students

Other: WiFi - 3 rating **Trip #6**
Other More Outlets - 4 rating
Other: Extend trcks to Yucaipa, Cabazon, Palm Springs - 5 rating
Other - Quiet Car Enforcement - 2 rating
Other: Quicker ticket machine options

ARRIVE Corridor Questionnaire - 4/2/15
Trips #1 through #6 totals

Question 6. The following features contribute to a walkable environment and more compact TOD within a 1/2 mile area around the station. In your opinion, indicate by checkmark the four (4) most important features which should be at each of the station areas you are familiar with?

	Montclair	Upland	RC	Rialto	Fontana	SB	Totals
More retail and restaurants							
	33	36	53	39	48	75	284
%	**15.07**	**14.52**	**17.91**	**16.12**	**17.58**	**17.65**	
More employment land uses							
	17	20	14	20	28	42	141
%	**7.76**	**8.06**	**4.73**	**8.26**	**10.26**	**9.88**	
Mix of housing types and higher densities							
	12	19	22	18	18	28	117
%	**5.48**	**7.66**	**7.43**	**7.44**	**6.59**	**6.59**	
Affordable housing							
	27	36	34	21	32	40	190
%	**12.33**	**14.52**	**11.49**	**8.68**	**11.72**	**9.41**	
Civic uses and public gathering spaces							
	27	19	24	22	29	47	168
%	**12.33**	**7.66**	**8.11**	**9.09**	**10.62**	**11.06**	
Better pedestrian connections and amenities							
	28	32	41	32	31	49	213
%	**12.79**	**12.90**	**13.85**	**13.22**	**11.36**	**11.53**	
Bicycle connections and amenities							
	20	25	29	29	35	47	185
%	**9.13**	**10.08**	**9.80**	**11.98**	**12.82**	**11.06**	
Better bus connections to the station							
	32	36	47	38	31	60	244
%	**14.61**	**14.52**	**15.88**	**15.70**	**11.36**	**14.12**	
Parking structures to free up land for development							
	19	20	28	21	19	34	141
%	**8.68**	**8.06**	**9.46**	**8.68**	**6.96**	**8.00**	
Other: Restrooms							
		1	1				2
%	**0.00**	**0.40**	**0.34**	**0.00**	**0.00**	**0.00**	
Other: Inn or Hotel / place to wait							
	1	1	1			1	4
%	**0.46**	**0.40**	**0.34**	**0.00**	**0.00**	**0.24**	
Other: Vending Machines Better Processing							
		1					1
%	**0.00**	**0.40**	**0.00**	**0.00**	**0.00**	**0.00**	
Other: Bus Shelters							
	1						1 1
%	**0.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Other: Cheaper Fares							
	1	1	1	1	1	1	5
%	**0.46**	**0.40**	**0.34**	**0.41**	**0.37**	**0.24**	
Other: Banks							
	1	1	1	1	1	1	5
%	**0.46**	**0.40**	**0.34**	**0.41**	**0.37**	**0.24**	
Totals	**219**	**248**	**296**	**242**	**273**	**425**	

Other: Questionnaires usually preceed rate increases for train or parking.

Other: More TVMs emergency buttons on each car of train
Other: Parking lot security (a lot of break ins - SB)
Other: Free parking Metrolink already expensive (RC - $4.50 effec 7/1/14)
Other: More security parking area (Fontana)
Other: Wants an inviting station - Rialto is cold & sterile(?), not inviting
Other: Conductor 18 yrs - don't charge for parking (RC), patrons feel getting nickled & dimed for public transportation
Other: Remove wall, add other access points (SB)
Other: More & closer parking (Upland)

Trip #3

Other: WiFi (SB)
Other: Charging outlets (SB)
Other: More handicap parking (RC)

Trip #5

Other: More housekeeping, keep bathrooms more sanitized
Other: WiFi on trains

APPENDIX B

GENERAL TOD GUIDELINES
MARCH 15, 2013

PREPARED BY
OMNITRANS/PARSONS TRANSPORTATION GROUP
GRUEN ASSOCIATES

18.5 General TOD Guidelines

General TOD guidelines would apply to all TODs and should be considered flexible depending on the uses and unique conditions in a specific area. Many of the guidelines may already be a part of a city's general plan and zoning. The general TOD guidelines aim to ensure development which is supportive of transit, walkable, aesthetically pleasing, attentive to detail, human-scale and sensitive to existing and surrounding development. The general TOD guidelines are organized as follows:

- A Mixture of Land Uses and Compact Development;
- Prototypical Building Types;
- A Pedestrian/Bicycle-Friendly Environment and Facilities;
- Well-designed Parking and Access;
- Architectural Design Character and Massing;
- Outdoor Open Space Network
- Building Entries and Service Access
- Building and Site Access
- Signage; and
- Sustainable Development.

18.5.1 A Mixture of Land Uses and Compact Development

- **Transit supportive uses:** Transit supportive land uses that generate high-pedestrian activity support multiple trips, foster 24/7 environment and increase transit ridership should be provided in each station area. These include uses such as movie theaters, restaurants and outdoor cafes, bookstores, floral shops, newsstands, childcare, offices, high-density residential and other retail, employment and institutional uses that cater to the needs of residents, employees and transit stop users, as shown in Figures 18-30 and 18-31.

Figure 18-30: A mix of transit supportive uses, Portland Downtown

Figure 18-31: Nicolette Mall an example of a walkable urban center in the Twin Cities. Source: Google.com.

- **Economic development and job creation:** Employment intensive businesses that benefit from being within walking distance of transit should be identified and promoted.

  Over time support the conversion of heavy-industrial uses within a TOD to more employment intensive uses, mixed use and other transit supportive uses. Relocation of these heavy-industrial uses, storage uses, and automobile oriented uses to other parts of the city should be addressed.

- **Mix of uses:** A mixture of land uses, appropriate for a TOD and supporting facilities, is encouraged to foster walking within the development to the transit stations and to the surrounding land uses. These may include uses such as residential, retail, restaurant, offices, entertainment uses, hotel, public facilities, open spaces and other employment uses (Figure 18-32). There is no one size fits all for TODs.

Figure 18-32: A former industrial building in San Diego has been converted and expanded into a mixed-use destination.

The mixture of land uses may vary depending on existing conditions in the station area and the major development concept/theme envisioned for an area. For example, some TODs may emphasize employment and regional retail with higher-density housing, such as in a downtown area and some TODs may be more neighborhood-oriented with moderate density housing and neighborhood retail and restaurants focused on a pedestrian gathering space.

- **Compact Development:** Compact development with a mix of uses places more people in walking distance of the station and fosters walking between uses minimizing some auto trips. To generate transit ridership and reduce automobile dependency, highest residential densities and floor area ratios permitted in the City should be allowed within ½ mile of a transit station. In a downtown area this may mean multi-story buildings. In a more suburban location, this may mean townhomes near the stations and small lot single-family homes further from the station. To encourage property owners, developers and city decision makers to support compact development and provide a customer base for commercial uses, minimum densities should be required, as well as incentives for achieving maximum preferred densities.

  - Cities should include minimum and desired densities and floor area ratios. In areas without strong economic conditions, projects may comply with minimum densities and floor area ratios by providing to the City a phased development plan that shows how increased density could be achieved such as later converting surface parking into more intensive uses.

  - Incentives per state law may be provided such as the 25% increase beyond the City's highest density, if public benefits are provided and other incentives are

provided such as reduced parking, streamlined processing and streamlined CEQA.

18.5.2 Prototypical Building Types

The ½ mile TOD area occupies over 500 acres, providing infill and new development opportunities for many types of uses and building types interspersed with viable existing uses. Development within the TOD are may take the form of separate uses such as duplexes, bungalow cottages, 4- to 6-plexes, townhomes, multifamily housing, offices and retail shopping areas and also new prototypical development such as mixed-use development which combines residential with one or more of the following uses: offices, retail, entertainment, restaurants, community facilities or similar non-residential uses. Mixed-use projects may be arranged vertically (typically ground-floor retail or restaurant with residential above) or horizontally (typically commercial uses on a portion of the property lined by pedestrian connections to residential uses such as part of a unified development).

Although other uses may also be found, as mentioned previously., the following Figure 18-33 illustrates a range of building types typically found in TODs.

- Middle-density housing including duplexes, bungalow cottages, 4- to 6-plexes, townhomes and garden courtyard apartments typically varying from 14 to 24 units/dwelling units/acre;
- Higher-density housing including courtyard apartments or condominiums, and other multi-family residential varying from 20 to 60 units/acre and above;
- Live-work units typically including one- to two-story residential over ground level office and parking;
- Mixed use which means the combination of commercial development combined with residential development either in a vertical configuration (residential over ground level retail/restaurants) or horizontal configuration (residential and commercial development adjoin each other in the same development);
- Retail/restaurant uses clustered in a main street configuration or in a town center with a highly walkable environment;
- Entertainment and hospitality uses such as auditoriums, theater, cinemas, bowling alley, skating rinks, comedy clubs, music clubs, and hotels;
- Employment intensive offices such as professional, government, knowledge based, research and development, and call centers;
- Employment intensive manufacturing and production such as small high-value products assembly, clothing, etc.;
- Cultural or institutional facilities such as artist and crafts studios, galleries, libraries, museums, churches;
- Healthcare facilities; and
- Recreational facilities including parks, community gathering facilities, and sports fields.

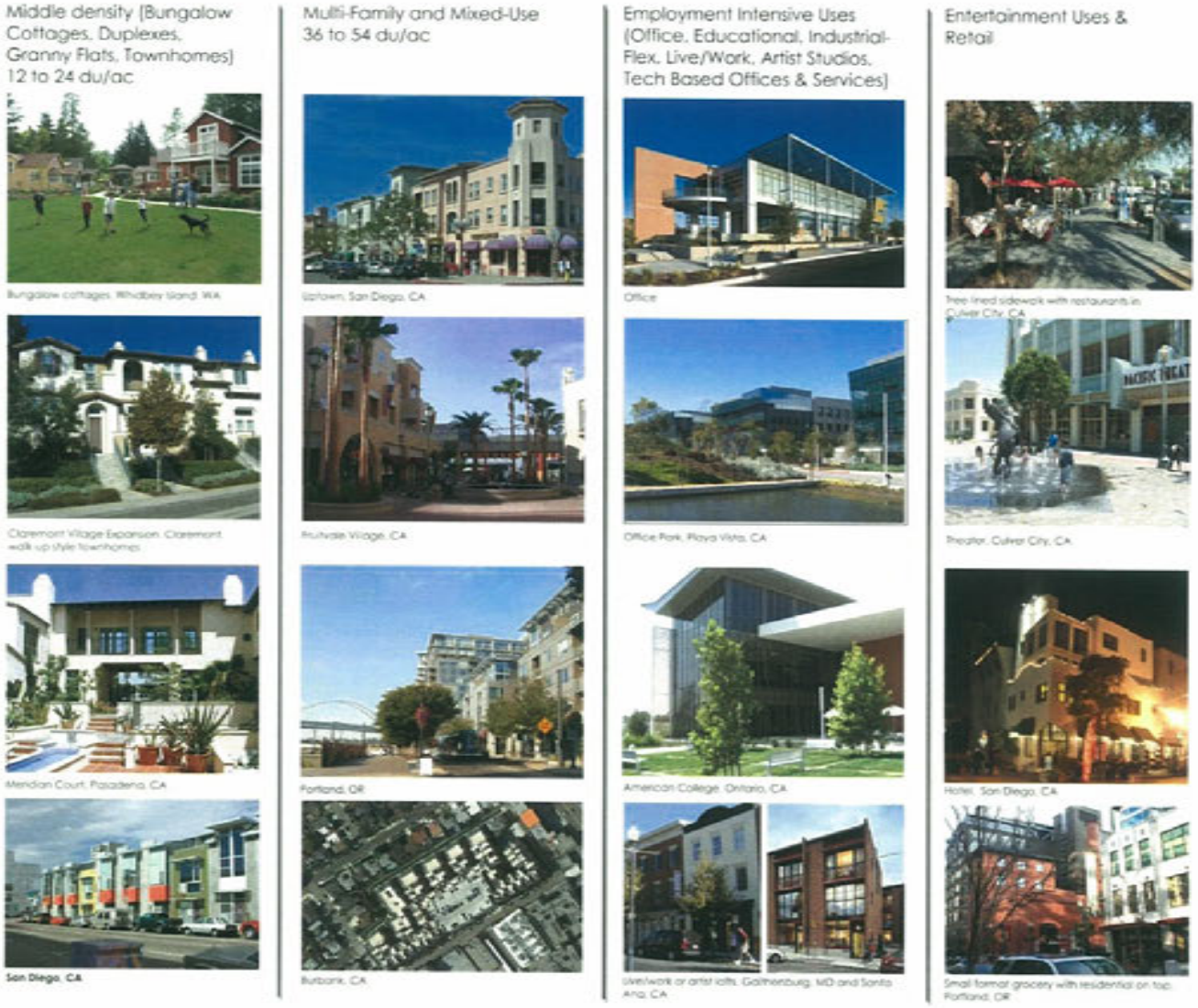


Figure 18-33: Residential/Mixed-Use Building Types

18.5.3 A Pedestrian/Bicycle-Friendly Environment and Facilities

- **Continuous pedestrian and bicycle network leading to the transit station**: A major component of any TOD is the creation of connections and linkages from the TOD neighborhood to the transit station. Within the ½-mile TOD area, a plan for and implementation of a continuous, attractive landscaped pedestrian network should be provided linking the mix of land uses to the transit station. A bicycle network consisting of multi-purpose paths for pedestrian and bicycles, bike paths or designated bike lanes should also be included within three miles of transit station.

- **Adequate sidewalk width**: Adequate sidewalk width should be provided to accommodate pedestrians in street rights-of-way. Devices such as curb nubs or "bump outs" and sidewalk easements on private property are methods to provide adequate sidewalk width in constrained right-of-way condition. Sidewalks and parkways 12' to 15' are desirable as they are wide enough for street trees at the curbs, pedestrian amenities, and width for at least two people pass each other and street trees and amenities. Sidewalks or curb parkway width on arterials should not be less than 10'.

- **Public and private streetscape improvements**: Along each of the streets in a TOD streetscape enhancements should be included to make the area more walkable. These enhancements include landscaping of sidewalk areas along the curb, street furniture, special paving, gateway improvements, pedestrian lighting, pedestrian signage, seating, local bus stops, landscaped medians, water features, decorative crosswalks, and other amenities.

- **Safety for pedestrians and bicyclists**: Transit stations design should be integrated with the surrounding urban fabric by providing adequate pedestrian amenities, public open space, and well lit interconnected walkways and bike paths. More pedestrian and bicycle activity should be provided to encorage more eyes on the station area to enhance a sense of safety for all users. Safe and secure facilities, such as restrooms and bike racks, should not be isolated and located far from the station entry.

- **Buffer**: Pedestrian pathways and sidewalks should be buffered from moving traffic by providing street trees along the curbside or a row of parked cars on the street.

- **Outdoor dining:** Outdoor dining may occur on a portion of the paved sidewalk or in adjacent private area, as shown in Figure 18-34.

Figure 18-34: Outdoor dining adjacent to a comfortable pedestrian environment

- **Amenities**: At transit stations and along arterials leading to the stations, provide pedestrian amenities appropriate to ridership at the station such as sufficient lighting, street furniture, decorative crosswalks with signalization (Figures 18-35 & 18-36), pedestrian signage, and seating along sidewalks. At intersections of major streets include pedestrian amenities such as colored concrete, decorative or high visibility crosswalks, embedded lights, and signalized intensities.

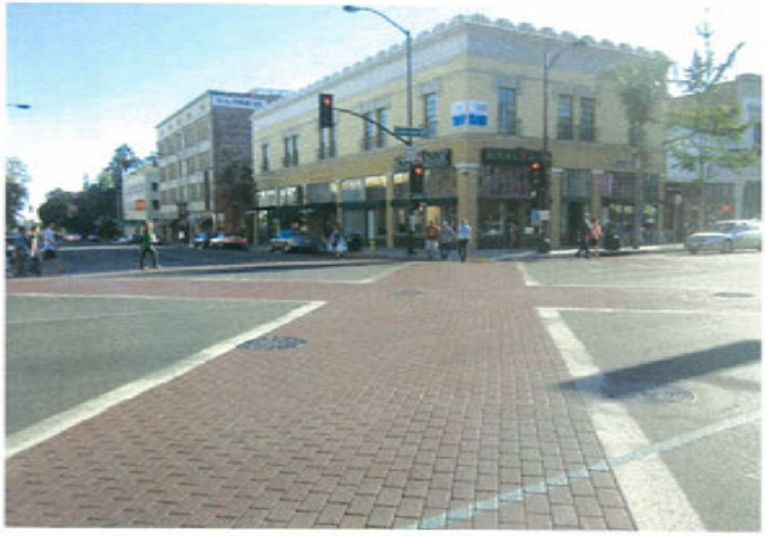


Figure 18-35: Diagonal crosswalks increase accessibility, and connectivity.

- **Pedestrian-scaled blocks**: To foster a walkable environment, a regularized grid and short pedestrian scaled blocks of 400' to 600' or less are the preferred patterns. Large automobile oriented blocks should be scaled down to make them more walkable by providing public access through them, organizing development around open spaces, and pedestrian-scaled access ways, such as paseos.
- **Ground level uses**: Pedestrian-oriented uses should be located at the ground level of buildings fronting the sidewalks, where feasible, see Figures 18-37 - 18-39.
- **Wayfinding**: TODs should provide wayfinding signage, visual cues, and public art to communicate the activities in the TOD and the linkages to transit and these activities.
- **Pedestrian pathways under and over freeways and railroad lines:** In San Bernardino County, many of the 1/2-mile area around the proposed BRT or light rail lines stations encompass freeways and railroads which are barriers to pedestrian movement. Attractive, well-lit pedestrian and bicycle paths should be designed along major arterials over and under the barriers providing access from one part of a TOD to another part.

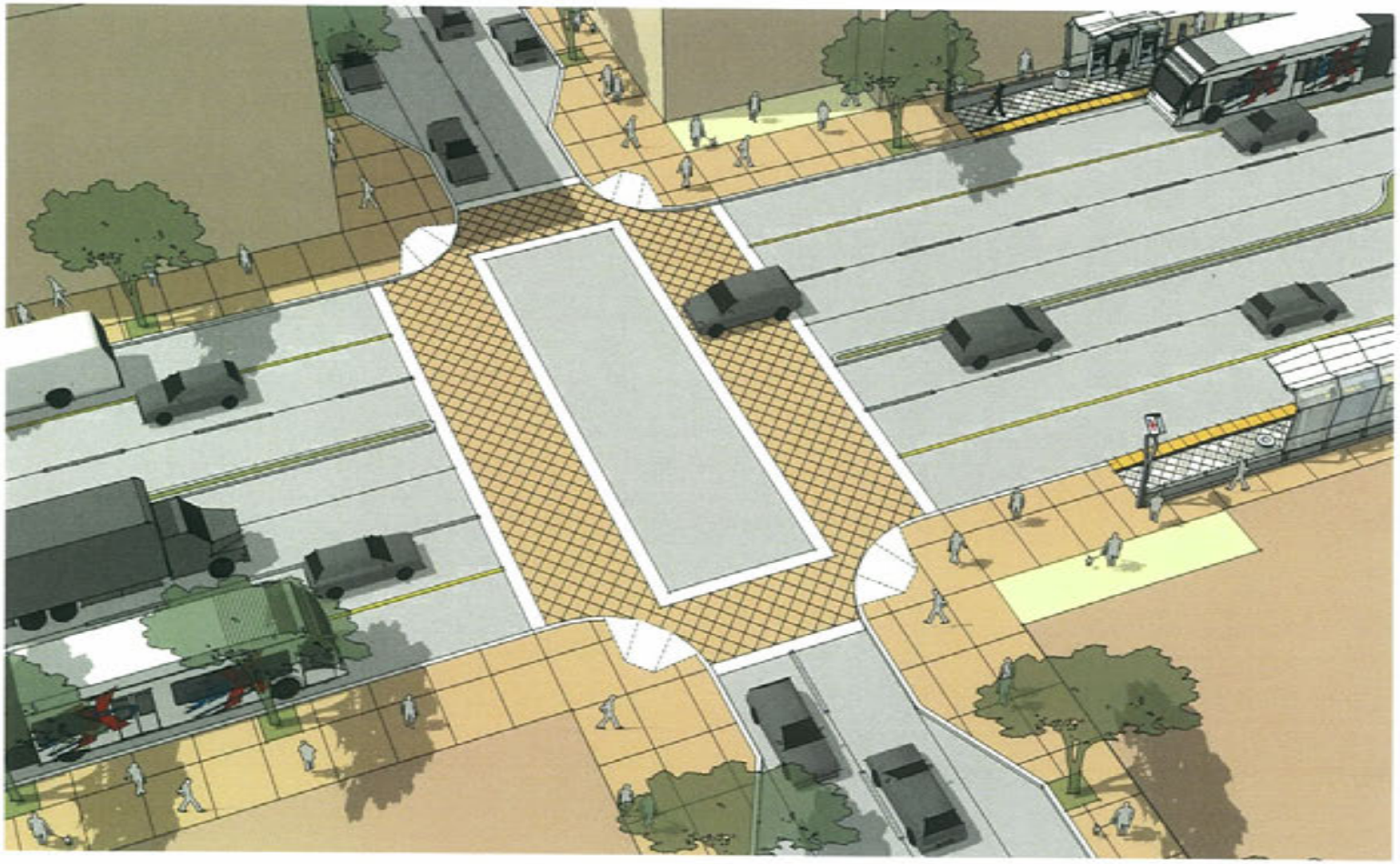


Figure 18-36: Decorative crosswalks create pedestrian awareness and caution drivers entering a pedestrian area.

Figure 18-37: Wide sidewalks with ample space for pedestrians in Downtown Culver City

Figure 18-38: Streetscape enhancements such as landscaping of sidewalk areas, landscaped medians and other amenities.

Figure 18-39: Bus shelter in Santa Monica with amenities such as sufficient lighting and seating.

18.5.4 Well-designed Parking and Access

- **Amount of parking:** As transit is available in walking distance of uses within a TOD, the amount of on-site parking required for development should be less than for other areas of the city. Each City should consider reduced parking standards in TOD areas. In addition to a reduction in required parking, City standards may include provisions for shared parking, unbundled parking, in-lieu parking fees, provisions for transit passes or other mechanisms.

- **Location of parking:** To emphasize the pedestrian realm, on-site parking is discouraged adjacent to the sidewalk along major streets but instead should be located underground or at the rear of the parcels with convenient pedestrian access to non-residential and residential uses. On-street parking, where appropriate, is encouraged to buffer pedestrians along the sidewalk, as well as shared parking access/structures, see Figure 18-40.

Figure 18-40: Public parking located at the rear of the parcels with convenient pedestrian access and parking.

- **Screening of parking:** Existing or new parking spaces in lots which face a street should be screened from view from the street by a hedge or a low masonry wall and vines. Parking garages should be designed with generous landscaping and canopy trees surrounding them.

- **Parking access:** When available, access to parking should be from side streets and from alleys. To minimize traffic congestion and breaks in the pedestrian realm multiple parking access points along major streets are discouraged. Joint use or combined driveways are encouraged. The width of driveway area cuts should be minimized, see Figure 18-41.

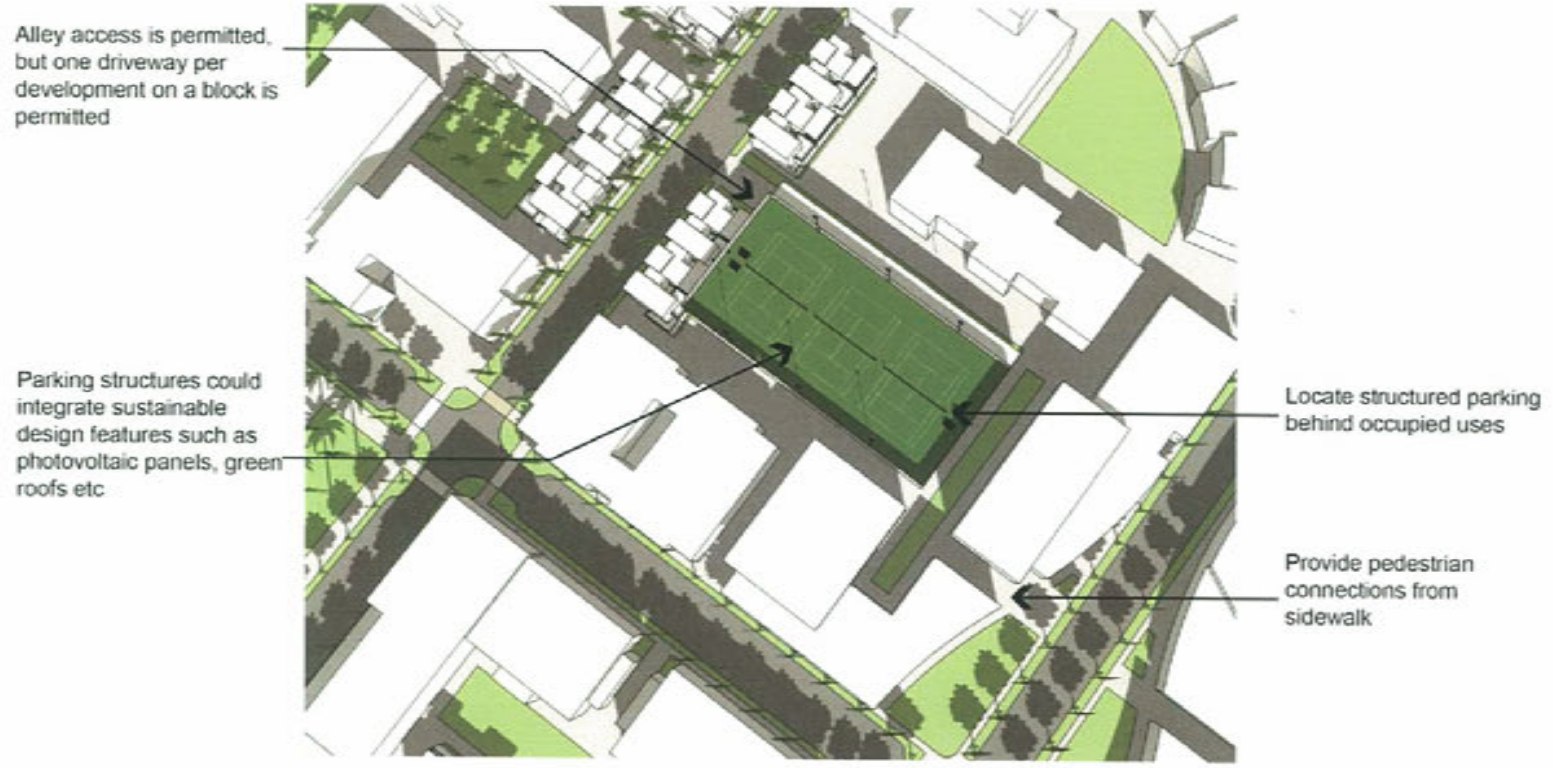


Figure 18-41: Guidelines for Parking Design in a TOD

- **Parking garage design:** The design of parking structures should be compatible with the design of the main building. Wrapping an above ground parking structure with residential units, retail, or office is encouraged to screen parking from public view. An above-grade parking structure should not have sloping floors visible from adjacent streets.
- **Safety and security:** Safety and security of the people using the facility are of paramount importance. Therefore, parking structures design should consider open, glass stairwells and glass-backed elevators and should eliminate potential hiding places. Energy efficient lighting should be provided to improve safety. A balance between daylighting, interior lighting and exterior control should be addressed to provide adequate lighting. Lights should be vandal resistant and easy to maintain. Security devices such as video, audio and emergency buttons that call into the booth or local police station should also be provided.
- **Parking structures located away from street frontage:** Above ground parking structures should not front on major streets unless there is no feasible alternative. If parking structures are located on a major street, the ground floor should be devoted to pedestrian-friendly retail, service and restaurant uses with visual interest.
- **Interconnected parking:** Where possible, link the new parking with that of adjacent development to facilitate vehicular and pedestrian movements, especially when streets are congested.
- **Shared use of parking:** Shared parking with a management plan should be included in a new TOD to minimize traffic congestion and parking demand.
- **Drop-off and valet:** Spaces for drop-off, kiss-and-ride, and valet parking should be provided in major projects.
- **Street Layouts:** To provide dispersed access to transit from TOD uses and a more walkable pedestrian environment a grid network of local through streets with sidewalks is preferred over a system of superblocks and cul-de-sacs.
- **Street width:** In order to slow traffic and make wider pedestrian linkages consider a modification in the lane widths of streets and an increase in pedestrian sidewalk widths, where appropriate.
- **Safety devices:** To make an area safer for pedestrians include devices such as "Z" crossings of major streets, median refuge areas for pedestrians, beeping crosswalk signals (Figure 18-42), countdown timers, and embedded flashing devices in crosswalks at non-signalized intersections.

Figure 18-42: High visibility crosswalks provide pedestrians safety

- **Bike lane streets, bike boulevards, and amenities:** Plan for an integrated bike network within the TOD and connections to the County bike network. This may include bike lane streets with bike lanes on either side of travel lanes, two-way buffered bike lanes, or bike boulevards, sharrows, bike boxes at intersections, and bike storage, and repair at major activity centers.
- **Traffic Calming:** To channel traffic to the arterial streets and minimize impacts on the community, traffic calming techniques such as curb extensions, chokers, speed bumps, and raised crosswalks should be used, Figure 18-43.

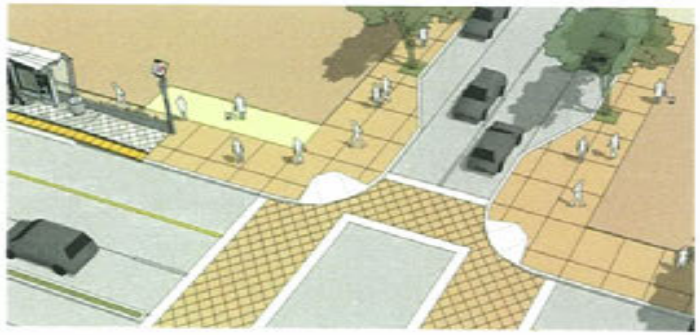


Figure 18-43: A curb extension (nub) is a traffic calming technique used to slow the speed of traffic

18.5.5 Architectural Design Character and Massing

- **Tailor designs to reflect uniqueness of an area:** TODs should vary in design character based on the land use and urban design theme envisioned unique characteristics of a specific geographic location and sensitive existing features and context.
- **Visual interest at street level:** The form of buildings and architectural details should be designed to create visual interest for pedestrians at the street level using techniques such as staggering the frontage of the building, recessing doors and windows, providing varied display windows, providing awnings and canopies for weather protection and shade, and visually extending interior spaces outside through paving and glazing. In addition, clear glass rather than dark tinted glass or reflective glass should be incorporated along ground level frontages to increase a buildings visual and physical interaction with those on the sidewalk and create a safer and more vibrant pedestrian environment, see Figure 18-44.

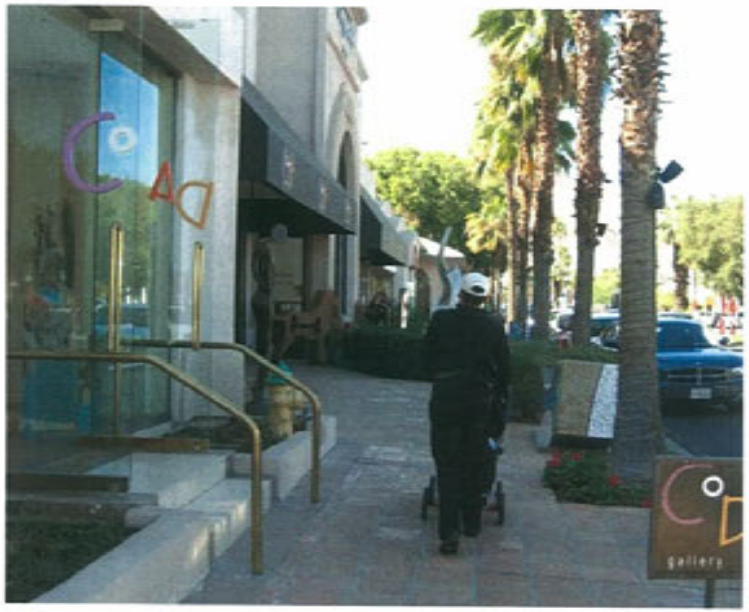


Figure 18-44: Clear glass display windows, awnings, and architectural articulation at the street level

- **Articulated building facades and massing**: To create visual interest and to avoid large bulky façades and blank walls, buildings massing should be articulated in form using techniques such as some stepping back of upper floors, stepped terraces, changes in plane, recessed windows, bay windows, balconies, trellises, which create shadow lines, varied roof lines and changes in color (Figure 18-45).

Figure 18-45: Buildings and architectural details with visual interest for pedestrians at street level

- **Equal design treatment on facades:** Buildings should be designed to be attractive in all directions. Where the rear or sides of the building are visible from streets and alleys these facades should receive equal design treatment to the main façade.

- **Building location to emphasize each street as an urban space:** Building placement and design should consider its relationship to the street:

  - One of the most important elements in creating vital economic development and walkable TODs is to implement "build to-line standards" or a "building frontage line" along streets to establish a continuous "street wall" adjacent to the pedestrian realm. Buildings would be located close to the building frontage line with its building entries facing the sidewalks. Setbacks from the street wall should be limited to courtyards, outdoor dining spaces, and public plazas. Parking should not be located between the pedestrian realm and building façade but should be in the rear of buildings or underground, see Figure 18-46.

Figure 18-46: Building design which fits into the pedestrian environment

  - Uses on the ground level and outdoor activities should be selected to activate the street.

- **Building heights:** Building heights should vary within the TOD with taller structures near the station, along wider streets and as focal points.

- **Ground floor uses and design:** The ground floor is typically the lowest level within a building that is accessible from and within 3' above or 2' below grade. In areas designated for mixed-use, ground floor retail, restaurants, and other pedestrian-friendly uses are preferable at the ground floor along the pedestrian realm. The pedestrian realm is generally a 12'-30' area located between the face of the curb of a street and the face of the building. It includes parkways, sidewalks, and any landscaped areas, and can include public or private areas. However, recognizing that there may not be a market for the entire ground floor of multiple blocks for the uses, residential use on the ground floor may be permitted with the following guidelines:

    - Residential located on the ground floor of facing the pedestrian realm should be designed with articulated facades, including features such as awnings, elevated steps, stoops and entrances, recessed windows, patios, windows treated for privacy and pedestrian interest and landscaping.

    - The more public areas of the residential units, such as lobbies, exercise rooms, living rooms, or dining areas, should face the street while more private areas, such as bedrooms, should be located in the rear or upper floors.

    - Pedestrian-oriented commercial uses should be concentrated near major streets (Figure 18-47).

Figure 18-47: A mixed use project in a San Diego neighborhood with a coffee shop, corner plaza and a human-scale pedestrian-friendly environment.

- **Variety in building facades and urban forum:** Building forum and facades should vary from building to building and from project to project to create interest along the street and a vibrant area.

- **Materials and colors:** Materials and colors should be selected to unify the building appearance and fit into the pedestrian realm context. For example, avoid chain link fences, imitation rock/stone veneer and extensive use of wood siding, heavily textured stucco walls, adobe, or slump stone masonry.

- **Contemporary, pedestrian-friendly design:** Buildings shall be designed to be visually attractive and fit with the vision of a pedestrian-friendly, vibrant streetscape. For example, contemporary glass storefronts inserted into an older building if sensitive to the building key

architectural features are encouraged subject to the unique character envisioned by each community for each TOD.

- **Building shaped at corners:** A building should reflect the corner of an important pedestrian intersection or a focal point by using a variety of techniques such as strong vertical mass or a tower at the corner, a diagonal setback at the intersection, a corner plaza at the intersection, and/or a recessed building entrance at the corner.
- **Lighting:** Lighting is encouraged to accent facades at night and provide security and wayfinding for public and private open spaces. Avoid lighting that interferes with residential uses.
- **Awnings:** Awnings are encouraged for sun protection for a distinctive identify and for visual interest along the pedestrian center. Awnings should be mounted so as to respect the architecture and character of a building and its function. Awnings should project over doors and windows and not blank walls. Open ended awnings are preferred over closed in awnings. Creative steel, canvas, and glass awnings with signage incorporated are encouraged.
- **Energy efficient designs:** Buildings design and site planning shall consider passive solar and ventilation techniques, as well as specification of "green" materials.

18.5.6 Outdoor Open Space Network

- **A network of open spaces:** In addition to the pedestrian network along sidewalks, well-proportioned outdoor open spaces such as landscaped sidewalks, paseos, plazas, terraces, courtyards, gardens, and decks should be incorporated into TODs and connected together, where possible, forming an open space network, Figure 18-48.

Figure 18-48: Well defined courtyards and quiet areas for day and night time use

- **Location and character of common open spaces:** Common recreational areas of private development should be centrally located and preferably be designed as courtyards, plazas and outdoor rooms. The location and character of an outdoor space should consider its function, the size of the project, and the surrounding environment Figure 18-49.

Figure 18-49: Public gathering space created by building setback

  - Plazas are for public gathering and social interaction and should be designed with visibility from the sidewalk, to address the solar orientation, and to include pedestrian amenities such as ample seating, eating places, plants, trees, fountains, sculptures and other public art. Small plazas are appropriate at corners and adjacent to transit stops to provide additional space for waiting near the intersection. Plazas should be designed at or near the grade of the sidewalks and designed not to interrupt the street wall. Outdoor dining and other uses that activate the space should be located adjacent to or be a part of a plaza.

    Courtyards should be well defined by buildings and/or landscape elements and provide quiet areas for residents of a project as well as active recreational uses such as places for children's playgrounds, pools, spas, and fountains. Courtyards are typical of traditional Southern California architecture and provide opportunities for residential windows to face internal and attractive spaces away from the busy traffic on the streets and provide opportunities for pedestrian amenities and public art.

  - Gardens, patios, terraces, and decks are opportunities for smaller open space areas. These should be landscaped and appropriately planted to provide outdoor spaces for individual use.

- **Pedestrian/bicycle connections through private development to the pedestrian realm:** To connect the sidewalk to building entries and parking in the rear, pedestrian/bicycle connections adjacent to a building are encouraged, especially at or near mid-block. These connections could include public/private paseos, alley enhancements, private trees or trails and may require dedications in easements to facilitate a connected network, see Figure 18-50.

- **Human-scale walkway design:** Decorative materials and generous landscaping should be provided on pedestrian

walkways through and adjacent to new projects which are complimentary or of the same design as the treatment of the pedestrian realm.

Figure 18-50: Encourage pedestrian connections through buildings to the pedestrian realm

- **Special features:** To encourage social interaction, activate a public space and provide a unique identity for an area, special features such as public art and water elements are encouraged, see Figure 18-51. Water could introduce a sense of relaxation and mask traffic noise.
- **Lighting:** Lighting should be used to guide pedestrians through an open space, to eliminate hidden areas, and to accent special features without interfering with the adjacent residential uses.

Figure 18-51: Special features such as water elements activate a public space

18.5.7 Building Entries and Service Access

- **Building entries oriented to street frontage:** To promote active pedestrian-friendly streets each individual tenant or business establishment and residential lobbies should be oriented to and be accessible from the major street frontage and directly from the public sidewalk. This will also ensure safety of pedestrians by encouraging "eyes on the street."
- **Entries emphasized:** Sidewalk pedestrian entries to shops and residential lobbies should be prominently highlighted with features such as two-story height entries, unique awnings, overhangs, trellises or other distinctive features. Shop and major building entries may be recessed to create a gracious entry provided that the recess enhances the street wall or a plaza along the street frontage.

- **Service areas concealed:** Where possible, service areas should be located at the rear of the building unless these areas can be concealed within the interior of the building design. Loading docks, service/storage areas and mechanical equipment should be screened from public streets and neighborhoods.

18.5.8 Compatibility with Surrounding Development and Between Uses on the Site

- **Privacy between land uses:** The building and site designs should address privacy between residential units and other non-residential uses on the site and on adjacent properties. Some of the considerations to include in City guidelines to address TODs adjacent to a single-family zone include:
  - Transitioning building height from the maximum permitted building height to a lower height, when directly adjacent to the single-family zone. However, the height would not need to match the single-family height or transition at all when a single-family adjacent zone is at higher elevation than the TOD development.
  - To provide privacy for adjacent single-family, windows in mixed-use projects directly facing single-family zones within 15' of the property line, should be designed either translucent, louvered, offset from existing single-family windows, located at least 5' above the floor of each level or another solution achieving this intent.
  - Mixed-use projects should be designed to minimize motor vehicle circulation through local single-family neighborhood streets.
  - Guest parking areas should be located and designed to be convenient in order to minimize parking in residential neighborhoods
  - Facades and garages that face existing single-family should be designed to be comparable with the setbacks and scale of the existing development.
- **Private development to complement the public realm:** The design of the structures and landscaping should complement the street pedestrian realm with plazas, pocket parks, public gathering spaces and street furniture.
- **Public spaces distinguished from private spaces:** The design should provide visual and physical cues that demark the public space from the private space.
- **Passageways for light and air:** To integrate new buildings with the surrounding area they are encouraged to provide passageways that allow for light and air to adjacent buildings and that connect to the pedestrian realm (Figure 18-52).
- **Noise mitigation adjacent to arterials:** Noise insulation techniques such as double pane or laminated glass should be used in residential units adjacent to heavily traveled corridors.

18.5.9 Building and Site Access

- **Access from side streets and alleys:** Vehicular access should be provided from the side streets, adjacent alleys, and parallel streets. Traffic calming techniques should be provided to minimize intrusion of traffic into adjacent neighborhoods.

Figure 18-52: Passageways provide opportunities for light and air.

- **Pedestrian amenities at street crossings:** Pedestrian crossings at arterials should include items such as curb extensions at intersections, decorative crosswalk paving, shortened turning radii for cars, complementary plant materials and pedestrian lighting, public art and bus shelters (Figure 18-53).

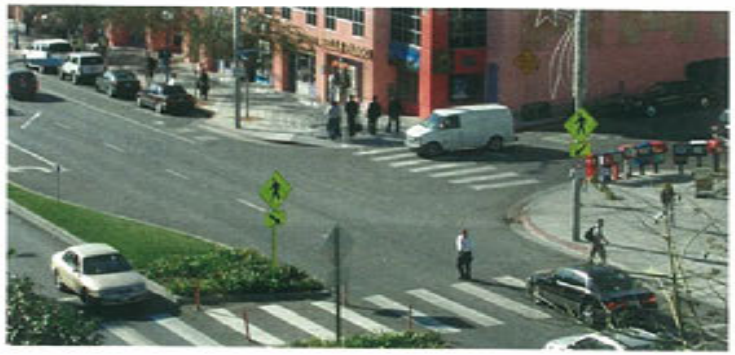


Figure 18-53: Curb extension and crosswalk paving at street crossings add to a pedestrian-friendly environment.

18.5.10 Signage

Clear distinctive signage: Signage should be pedestrian-oriented, distinctive, clear, and uniformly and consistently applied (Figure 18-54). For mixed-use projects, signage may operate at several scales: identification of individual stores, restaurants, entertainment centers and offices; identification of a group of such businesses and identification of residential units.

Figure 18-54: Project signage should be distinctive and clear

18.5.11 Sustainable Development

Constructing transit and creating transit-oriented developments supports economic and environmental sustainability as discussed previously under benefits of TOD. In designing TOD projects, sustainable features should be incorporated. The following are some sustainable guidelines to consider:

- Buildings should be designed utilizing passive daylight strategies including building shaping, building overhangs and louvers and other shading devices, spectrally-sensitive glazing, photo voltaic panels, appropriate placed landscaping for shading effects, light color and reflective roofing, and solar massing strategies to reduce solar gain.
- Use healthy, long lasting, local and recycled materials.
- Plan for water conservation, storage, and reuse by including features such as low flow appliances and fixtures, reuse of grey water for landscaping and permeable surfaces, drought-tolerant plants, bioswales, rain gardens, storm water retention ponds, outdoor recreational spaces, tree canopies, and green roofs.
- Emphasize connectivity to the transit stations, complete streets, and reduced parking to minimize amount of paved surfaces and walkability
- Consider alternative energy sources such as wind power and efficient HVAC systems, natural ventilation, and other energy producing equipment

APPENDIX C

SCENARIO FEASIBILITY ANALYSIS FOR MONTCLAIR
MAY 8, 2015

PREPARED BY
HR&A ADVISORS, INC.

Montclair Concept Feasibility Analysis

As seen in recent multifamily development in the Inland Empire, including in Montclair, current apartment and townhome rent levels do not yet support higher-intensity development above roughly 20-25 DUs/acre. A significant barrier to boosting development intensity is the cost of structured and subterranean parking, which is significantly higher than surface lots. Land sales in Montclair have begun to approach $40 per square foot and we believe $38 psf to be a benchmark market rate in evaluating the proposed concepts at Montclair's Metrolink station.

Our review of the initial concept, which included subterranean parking, found a significant financing gap, resulting in land values of only approximately $23 per square foot and requiring a subsidy of almost $4.6 million. A phased concept including significant public ream improvements and retail fronting both 8th Street and a new public park would be significantly more feasible, with an initial phase supported by surface parking and a later phase built on that surface lot.

This first phase, including 184 units – a combination of lofts, apartments and townhouses – reflects present market conditions, achieving a density of roughly 25 DUs/Acre and alone would support a residual land value upwards of $40 per square foot across the entire site. A later phase, would replace the surface parking lots with two medium-sized parking structures (or alternatively one large structure) and two additional multi-family residential buildings with a total of 134 units, resulting in a density of roughly 45 DUs/Acre across the entire site. The structures would support all residential uses across the site, along with on-street parking.

For this second phase to be feasible, there are a number of key conditions that have to be achieved:

- The new apartments must be able to achieve significant real rent growth above current levels (higher than inflation) – our analysis relies on growth of at least 5% (roughly 1% annually) on top of inflation by 2021, assuming some units in the first phase see lower growth and units in the second phase see higher growth bolstered by public realm improvements, station-area 'place making' investments, and potential addition of residential adjacent projects that are in the pipeline.
- Structured and on-street parking would support a ratio of roughly 1.5 spaces per unit, less than the 2 spaces per unit provided in the first phase. It remains to be seen whether market preferences in the Inland Empire evolve to permit both the noted rent premiums and lower parking levels. We have not surveyed developers to evaluate whether project financing is feasible at a parking ratio below 2:1.
- This analysis is sensitive to the residential cap rates, a valuation measure that is used to calculate the final project value as a multiple of annual net operating (rental) income. Cap rates have been trending lower (meaning higher project value) across Los Angeles and the Inland Empire and reflect, in addition to risk and interest rates, the attractiveness of a project and location to an investor. Station area improvements, place-making efforts and municipal commitment to investing in the area would only make this conceptual project more attractive, potentially lowering the cap rate and increasing project value and ultimately the supportable land value.

Taking into account the above limiting conditions and assumptions, the residual land value of this two-phase scenario is estimated to be approximately $41 per square foot, which could make it attractive to a market-rate developer. A more likely near-term scenario, with 2 parking spaces per unit, would require a subsidy of around $2.7 million, or approximately $2 million if additional funding was secured to cover capital costs associated with a new park. As the parking structures proposed would be separate from the multifamily residential buildings, they could be good targets for transit funding in a shared parking scenario. Increasing structured parking capacity could also allow Montclair to consolidate Metrolink parking and to explore ways to make the current Caltrans surface lots available for future development.

The financing gap in the initial concept would be harder to close, as subterranean parking (within a residential building) would be very difficult to fund using public sources.

While Montclair has one of the stronger real estate markets of the ARRIVE Corridor cities, this development scenario illustrates the potential for higher-intensity multifamily development for all cities that can achieved by adopting innovative phasing and parking strategies. The cost of providing urban parking standards in new multi-family projects is a key factor impacting their financial feasibility. This is often overcome by a public-private partnership, whereby the public sector provides an enabling policy framework to unbundle on-site parking requirements and provides gap financing to support off-site parking via parking structures.

However, in the absence of traditional financing tools such as Tax Increment Financing via Redevelopment, financing the additional cost of structured parking will be a key hurdle to making this type of urban-style development financially feasible, and supporting gap financing will require other creative means. For example, parking structures that are physically separate from multifamily buildings and shared for other uses could be targets for a wide range of public transportation funding which would reduce the financial burden on cities and developers alike.

As explored later in this document in the Implementation section, cities should start exploring strategies to monetize and consolidate parking facilities over time, with the goal of funding improvements and financing structured parking facilities that could be used by Metrolink commuters, future residents and visitors. Low-cost policy initiatives like unbundling parking (reducing on-site parking requirements), allowing shared parking and monitoring parking lot utilization will be the first steps toward more transformative parking improvements that will support transit-oriented development and help revitalize station areas.

Strong near-term efforts by ARRIVE Corridor cities to build structured parking can provide a range of benefits over time, including allowing for higher-intensity development, freeing up surface lots for development, and supporting Metrolink ridership increases plus one-stop parking for visitors when resident parking utilization declines as attitudes toward TOD evolve.

APPENDIX D

PRELIMINARY
SANBAG METROLINK STATION ACCESSIBILITY IMPROVEMENT PROJECT
June 29, 2015

PREPARED BY
PARSONS BRINCKERHOFF

Figure 2: Montclair Metrolink Proposed Pedestrian and Bicycle Network Improvements

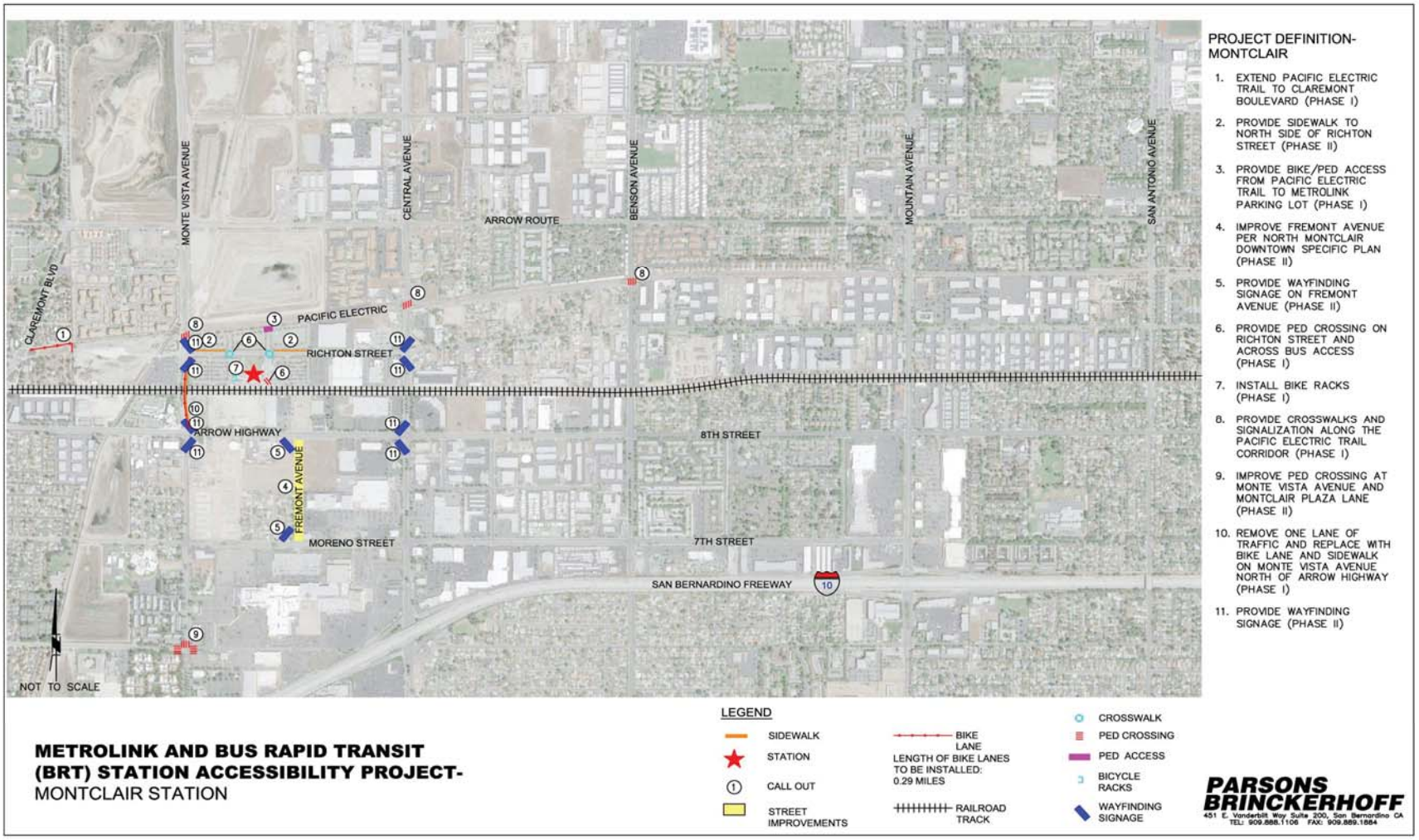


Figure 3: Upland Metrolink Station Proposed Pedestrian and Bicycle Network Improvements

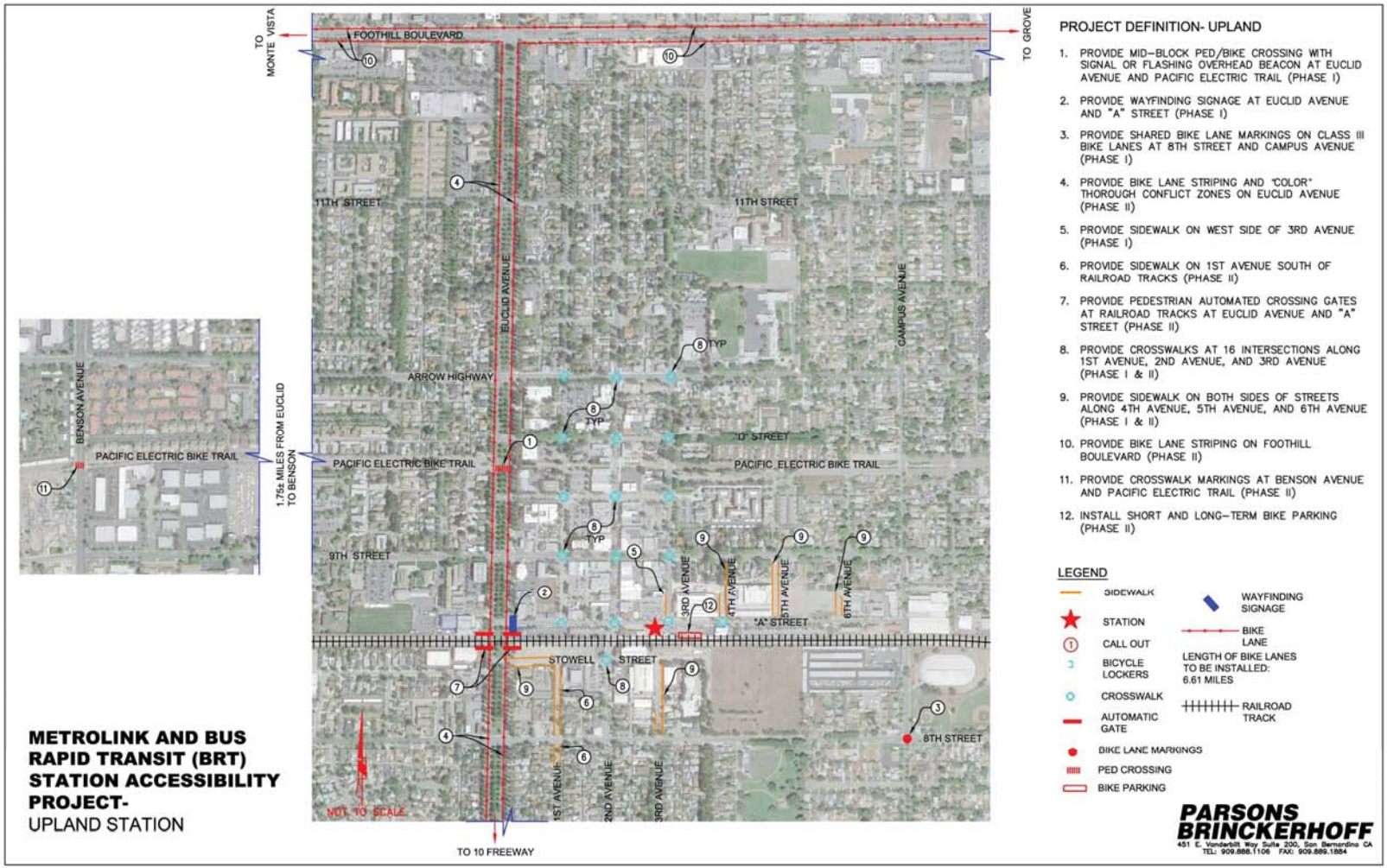


Figure 4: Rancho Cucamonga Metrolink Station Proposed Pedestrian and Bicycle Network Improvements

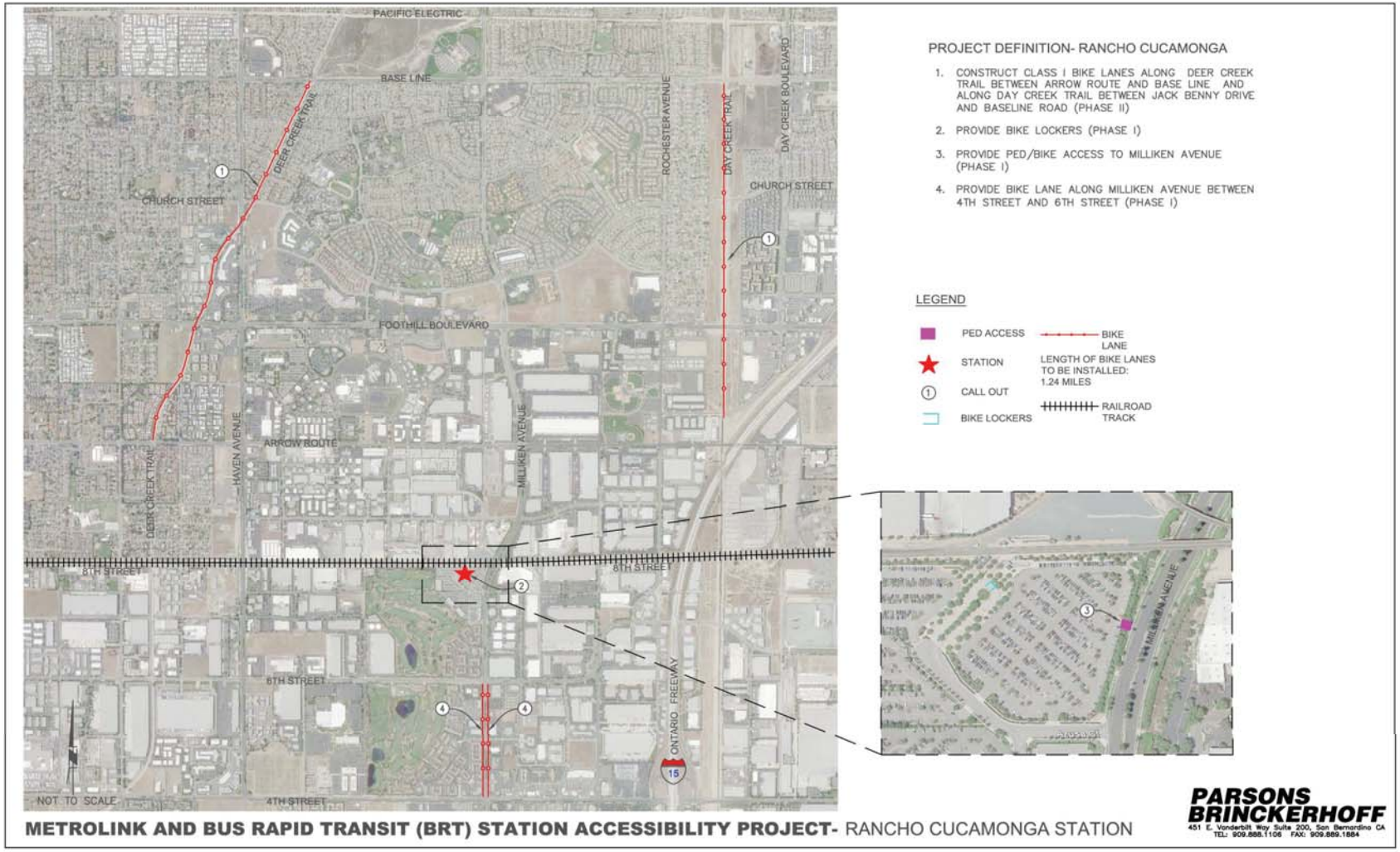


Figure 5: Fontana Metrolink Station Proposed Pedestrian and Bicycle Network Improvements

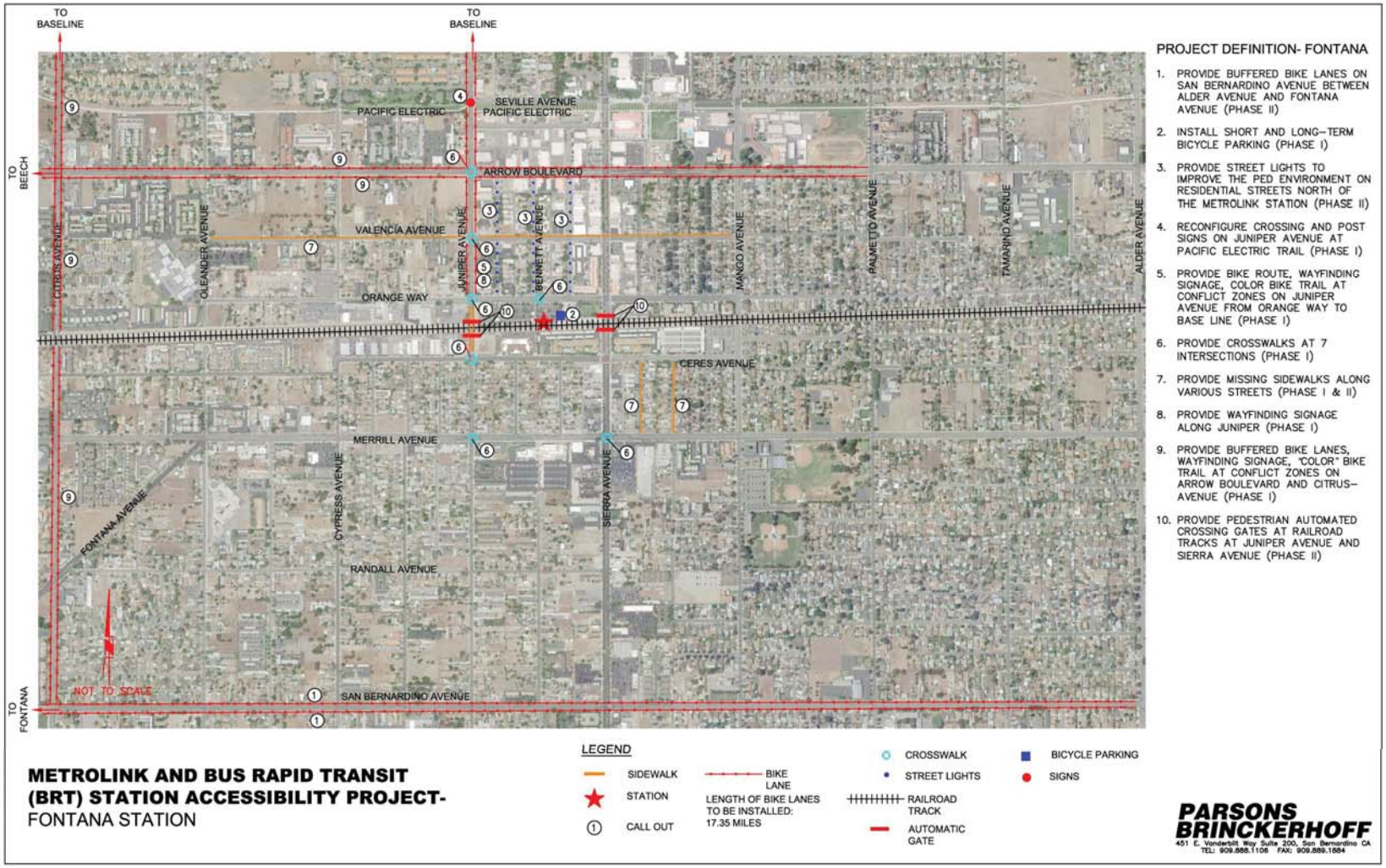


Figure 6: Rialto Metrolink Station Proposed Pedestrian and Bicycle Network Improvements

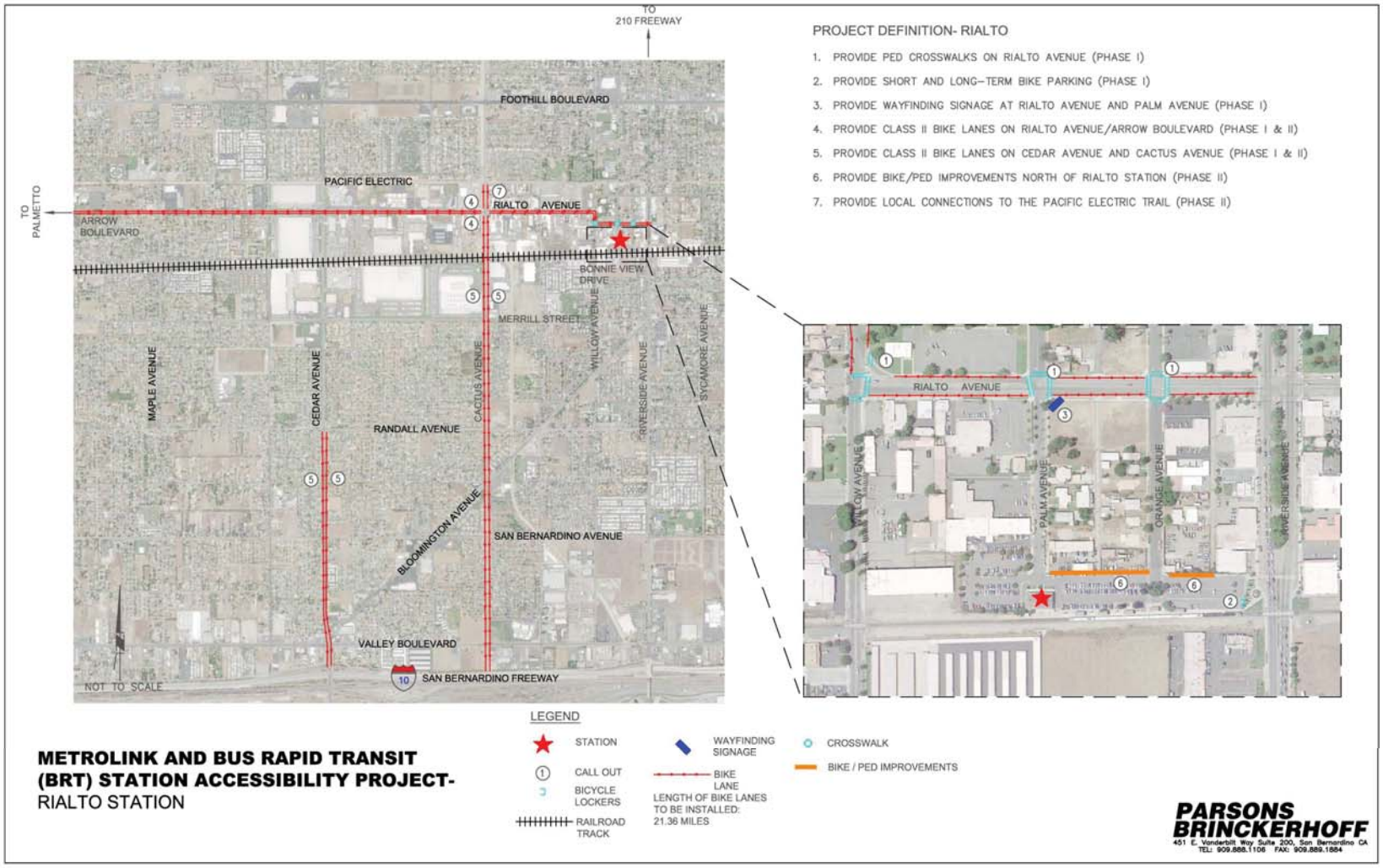


Figure 7: San Bernardino Metrolink Station Proposed Pedestrian and Bicycle Network Improvements

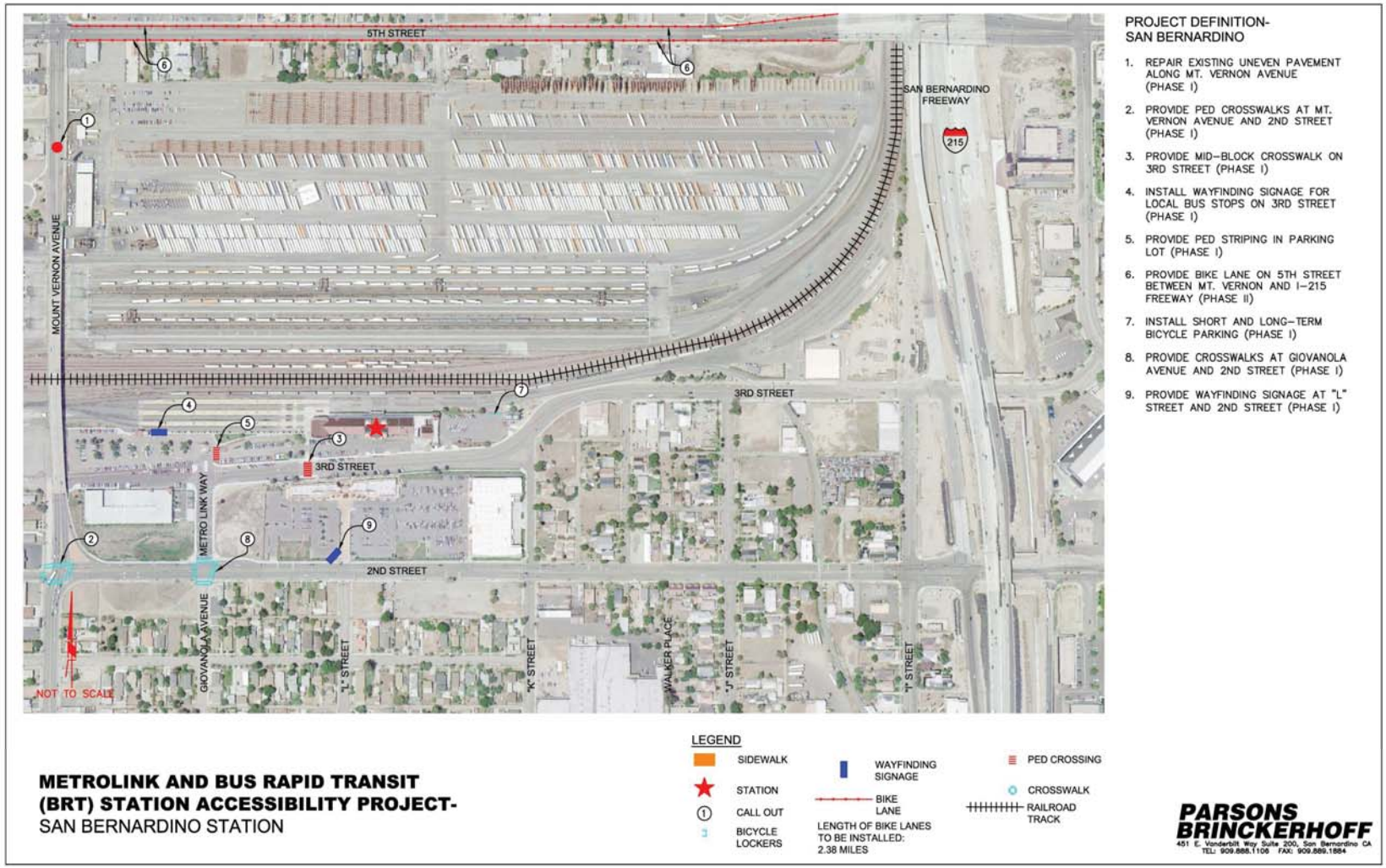
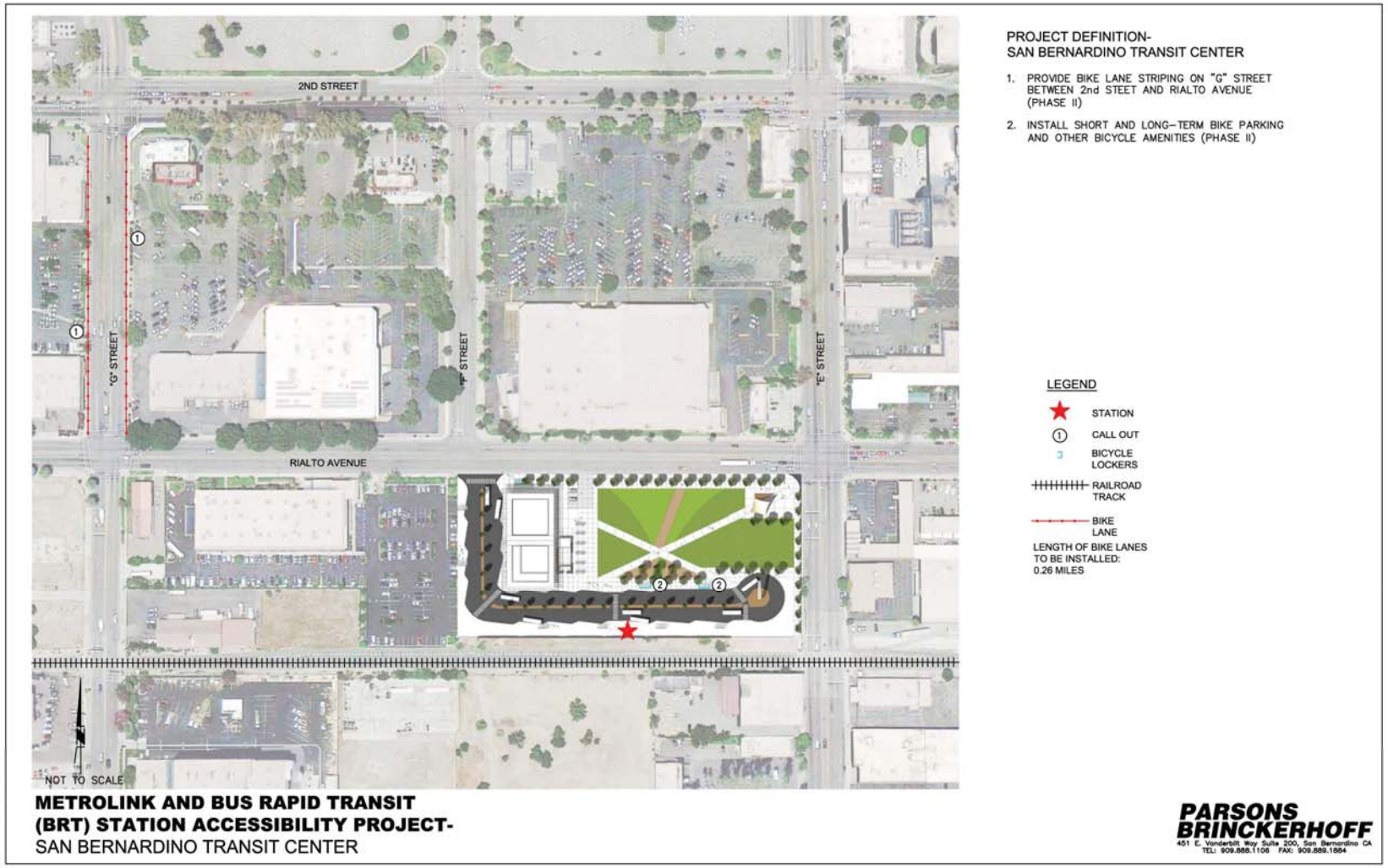


Figure-8: San Bernardino Transit Center Proposed Pedestrian and Bicycle Network Improvements



APPENDIX E

EVALUATION OF LAND USE CONCEPTS
September 3, 2015

PREPARED BY
GRUEN ASSOCIATES

APPENDIX E: EVALUATION OF LAND USE CONCEPTS

Land use concept alternatives prepared for each city in Chapter 4.0 were evaluated using the following criteria which forms a checklist:

- Consistent with a TOD Supportive General Plan and Specific Plan or a similar regulatory plan
- Support for land use changes by City management and staff
- Market support
- Key publically supported infrastructure
- 1st phase at scale to create critical mass
- Transit ridership enhancement
- Fiscal and economic benefits to the City, both individually and corridor-wide
- Public and private actions required
- Potential champions of land use concepts
- Connectivity enhancements and placemaking

Montclair

For Montclair, all A and B alternative concepts are consistent with the current City General Plan, the NMDSP, and the land uses and amount of development within Table 4-1: Montclair Demand Summary. For all concepts, only minor land use changes to the NMDSP would be necessary to achieve these alternatives. Alternatives A-1 and A-2 are located on Caltrans property on land that is currently not needed for park-&-ride; therefore, alternatives assumed replacement parking should not be necessary to include in a development program. Both alternatives are of sufficient critical mass to transform the area and enhance ridership; however, A-1 would provide more connectivity to the transit station and the City/SANBAG-owned parcel containing the daycare center. Also, A-1 would more likely be financially feasible and provide more economic benefits as an above-grade parking structure is included versus a below-grade and podium structure on A-2.

Both B-1 and B-2 alternatives which have housing at the NMDSP densities are dependent on a reasonable price or lease for the land owned by Caltrans and a phased approach to relocating the bus plaza. The NMDSP vision allows the entire Caltrans parking lot to be developed over time; and, both B alternatives should be feasible in the long term, along with other development. Both alternatives also connect internally with the new Arrow Station development.

Alternative B-2, the phased alternative with 1.5 parking spaces per unit would more likely support placemaking, the park, and transit connectivity in the NMDSP without a major subsidy from the City. B-2, Phase 1 as described would have enough critical mass to transform the area especially since the project is located adjacent to the newly constructed Arrow Station. Both B-1 and B-2 are at maximum densities permitted in the NMDSP which would enhance ridership along the Metrolink line, create a sense of place and activate connectivity along Fremont Avenue to Montclair Plaza. However, a critical component is funding for a more direct connection across the tracks from this project to the Metrolink station. The A and B alternatives have support from the City and a private developer is considering similar concepts to those shown in B alternatives.

Upland

The ARRIVE Corridor identified that there is adequate land on infill sites available for satisfying the market demand in Table 4-2: Upland Demand Summary at densities (15 to 55 dwelling units/acre) consistent with the Historic Downtown Upland Specific Plan. Average densities will need to be 40 dwelling units/acre to satisfy market demand. The City is currently updating their General Plan, which will be going to City Council in the fall of 2015. According to City staff, the update does not affect densities specified in the Specific Plan.

A separate study, the Upland Metrolink Land Use Constraints Analysis is being conducted by the City of Upland for SANBAG to address TOD opportunities in the station area and focusing on SANBAG-owned properties. This study identified alternative concepts and potential changes to the General Plan/Specific Plan.

Development of these infill sites close to the maximum densities will enhance ridership and provide economic benefits to the City. The City is exploring funding sources to finance parking structures in the downtown area and connectivity enhancements such as bus service and pedestrian enhancements.

Rancho Cucamonga

Both land use concepts Alternatives 1 and 2 are consistent with the General Plan and Empire Lakes Specific Plan relative to mixed use. To achieve higher densities of 50 dwelling units per acre or more, will require General Plan and Specific Plan amendments. The City has released a Request for Proposal (RFP) for mixed use including high-density residential and proposes development on the portion of the area occupied by Alternatives 1 and 2 demonstrating support for land use changes. The Market Analysis in Table 4-4: Rancho Cucamonga Demand Summary illustrates a residential demand up to 3,900 dwelling units. The alternatives combined with the maximum number of units proposed on the Empire Lakes golf course would exceed the market analysis. Both alternatives are at sufficient size to create critical mass and would enhance transit ridership. To be financially feasible at this time both alternatives may need City assistance to fund replacement parking in a structure and/or land write down. The major difference in these alternatives is that Alternative 1 is easier to phase as the new parking structures are entirely on city land, north of Azusa Court. Development on the private parking lots, may occur at a later date when development is feasible.

Fontana

Fontana has recently started updating their General Plan. The current General Plan does not include adequate densities and intensities to meet potential market demand in the station area. To meet market demand, as shown in Table 4-5: Fontana Demand Summary, in a station area with little vacant land, Land Use Alternatives A through D developed for Fontana focused on introducing more mixed use and multi-family development in the station area. Sites were identified as potential areas to consider for land use changes in the General Plan Update and examples of alternative concepts for intensification were illustrated.

Once the General Plan is updated to allow for intensification and some reductions in parking requirements due to transit, projects will be infill and most likely will require public and private partnerships for development. Site D, a relative large vacant site would have the most potential in the short term as it could be phased initially with surface parking and relative dense development on half the site and surface parking on the remainder of the site support development. Later, the surface parking could be converted to structured parking and more development. This phased concept was illustrated and analyzed for Montclair. An intensification of development in the area would enhance ridership and create a synergy that will activate the station area. The support for these alternatives concepts will need to be demonstrated during the planning process for the General Plan update.

Rialto

Rialto will need to modify their Central Area Specific Plan or replace it with another implementation mechanism to implement mixed use shown in the City's General Plan and the Downtown Vison and Specific Plan. The land use alternatives illustrate potential areas and alternative densities for mixed use and residential developments to achieve the estimated market demand in the long term, as shown in Table 4-7: Rialto Demand Summary. Without these changes in the regulatory documents and a clear

indicator on the City's website of the regulatory plan the City may not be able to attract development on its vacant lands north of the railroad tracks near the transit station.

Placing more people near transit would enhance ridership and stimulate the Civic Center area with Alternative 2 proving more potential than Alternative 1. Incorporating placemaking elements in both alternatives including strengthening the connections from the area around City Hall to the City assets, such as Riverside Avenue will improve the economic potential of the area. Projects will likely require public private partnerships to be economically feasible in the short term. It is not clear that there is support for development in the area or for the recommended land use changes.

San Bernardino

The Market Assessment, as shown in Table 4-9: San Bernardino Demand Summary, indicated strong market potential for industrial in the project area which is consistent with the BNSF operations in the area. City staff have indicated a desire to simplify and refine its Development Code to support the repositioning of the Depot Station area for job creation and rezoning isolated housing areas for industrial uses. Potential opportunity sites identified, especially those associated with the extension of the Downtown San Bernardino Passenger Rail Project (2015) provide long-term opportunities for job creation. The Downtown San Bernardino Station area, which will have more intense residential and development combined with Depot station area together will enhance ridership potential and enrich two distinct station areas of unique character. A number of public infrastructure projects planned for the area would improve connectivity.