



Santa Clarita Vision Plan

HIGH QUALITY TRANSIT AREA
PILOT PROJECT

Southern California
Association of Governments

March 2019



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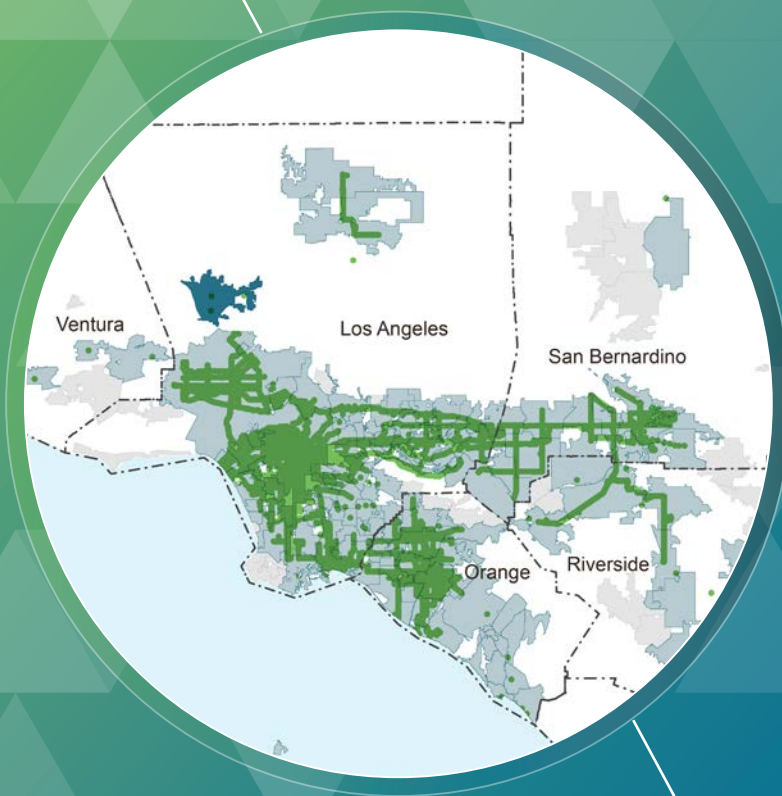
Part 1

Executive Summary

The Executive Summary provides background on the HQTA Pilot Program, the structure of the Vision Plan, and a brief summary of the project goals and proposed developments.

High Quality Transit Area (HQTA) Analysis Pilot Program

Santa Clarita HQTA - 2048 Vision



High Quality Transit Area (HQTA) Analysis Pilot Program

EXECUTIVE SUMMARY

Pilot Program Overview

The High Quality Transit Area (HQTA) Analysis program was created by SCAG in 2017 to help implement the goals and objectives of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The 2016 RTP/SCS, the 30-year plan for the Southern California Region, forecasts that 46% of future household growth will be located in HQTAs, which comprise just 3% of land area. HQTAs are areas within easy walking distance to current or anticipated transit service with 15-minute or better service. The three main goals of the HQTA Analysis program are as follows:

- Implement the RTP/SCS for future job and housing growth near high quality transit through actionable transit-oriented development (TOD) projects
- Promote higher-density development and active transportation within HQTAs
- Reduce Greenhouse Gases (GHG) and Vehicle Miles Traveled (VMT) by 21% over 2005 levels

Benefits of Transit-Oriented Development

Transit-Oriented Development (TOD) is a vibrant, mixed-use form of urban development that clusters a variety of housing types, employment opportunities, and community amenities at or near major transit stations. Integrated clusters of TODs establish a multi-modal network of public and private realm improvements that allow residents to walk, bike, or take transit to major attractions, which results in several environmental, economic, and social benefits:

Environment

- Increased transit ridership
- Reduced VMT
- Improved air quality through reduced GHG emissions
- Conservation of land and open space

Social

- Increased housing and employment choices
- Greater mobility choices
- Health benefits
- Enhanced sense of community
- Enhanced public safety
- Increased quality of life

Economic

- Catalyst for economic development
- Redevelopment of vacant and underutilized properties
- Increased property value
- Decreased infrastructure costs
- Revenue for transit systems
- Reduced household spending on transportation
- Increase in affordable housing

What is a Vision Plan?

The Vision Plan for each HQTA Pilot Project is an illustrative tool that provides city staff, elected officials, and community stakeholders with a high-level analysis of the HQTA's existing conditions, TOD opportunity sites, and potential public realm improvements that could catalyze future development activity. The plans include a long-term buildout scenario and a phasing and financial strategy for identified priority projects. HQTA Vision Plans are not regulatory documents and do not need to be adopted. Pilot Project Cities will use the Vision Plans to start discussions with SCAG and community stakeholders in future efforts to update adopted general and specific plans. The main sections of this Vision Plan are as follows:

Part 2: Station Area Profile

The Station Area Profile describes the current planning, urban design, socioeconomic, and transportation context within the Santa Clarita HQTA Study Area. The Profile also includes a summary of previous planning efforts.

Part 3: Outreach

Outreach efforts included public meetings and reoccurring correspondence with City of Santa Clarita staff members.

Part 4: Opportunities & Constraints Analysis

This analysis includes a summary of urban design, land use, and mobility constraints and identifies potential investments that will support walking, biking, and the use of transit.

Part 5: Vision

The Vision presents a 30-year vision for a transit-supportive Santa Clarita HQTA. It includes a redevelopment strategy, specific infrastructure investments, active transportation projects, and placemaking amenities that will help to make the area more livable, walkable, and accessible to transit.

Part 6: Implementation Plan

Policies, programs, initiatives, and partnerships will be key to the success of the plan. In addition, a customized financial strategy is included that targets funding streams to specific projects outlined in the Vision Plan. SCAG will partner with the City to help secure funding for the projects. A Metrics Worksheet establishes a baseline and long-term targets for growth in jobs, housing, the modal shift to non-motorized forms of transportation, and other key metrics that will be tracked by SCAG and the City over the next several years.

HQTA Toolkit (Appendix)

The development strategy and priority projects outlined in the Vision Plan are tied to the HQTA Toolkit, which will give the City a range of options for meeting the goals and objectives set forth in the Vision Plan. The Toolkit includes transportation investments with cost estimates, TOD precedent projects, open space typologies, and other components of an innovative HQTA.

Santa Clarita HQT A - 2048 Vision

EXECUTIVE SUMMARY

Key Opportunities

- The Pilot Project Area consists of parcels owned by two separate entities. The limited number of owners makes site development relatively easy.
- Santa Clarita has seen a steady growth of biotech and a sustained demand for housing.
- Vista Canyon is a similar, recently approved project at the Via Princessa Station, another Santa Clarita Metrolink Station, that will test the local market.
- Large parking lots for Metrolink could be redeveloped if parking replaced in structures.



For illustrative and visioning purposes only; the ultimate buildout will be determined through a specific plan update, further discussions with property owners, and interested developers.

Vision Plan Goals

#1: Linear circulation and/or open space elements that unify the parcels which comprise the HQT A Pilot Project Area

#2: Establish a new model of a lively self-contained urban village for young workers and multi-generational households

#3: Capitalize on Santa Clarita's thriving biomedical industry, tech industry, and large student population with a transit-adjacent innovation hub

Goal #4: Create a 21st Century employment cluster that allows employees to live and work within walking distance of a Metrolink Station

#5: Incorporate modern technology and best practices to ensure longterm environmental sustainability

Major Development Areas (MDA)

Major Development Areas contain clusters of complementary priority projects. An MDA phasing strategy is provided in Part 6 (Implementation).

- MD 1** Saugus Residential
- MD 2** Saugus Mixed-use
- MD 3** Transit Core

Priority Projects

Priority projects are targeted infrastructure or public realm improvements that could catalyze development and private investment in the Pilot Project Area. Funding sources for each priority project type and a priority project phasing strategy are provided in Part 6 (Implementation).

Bicycle Projects

- B 1** Center Boulevard Multi-use Path
- B 2** Bike Hub

Pedestrian/Greening Projects

- PG 1** Transit Plaza
- PG 2** Center Boulevard Rambla
- PG 3** Transit Promenade
- PG 4** Speedway Parks
- PG 5** Speedway Promenade
- PG 6** Railway Green

Corridor Projects

- C 1** Soledad Canyon Road
- C 2** Commuter Way
- C 3** Center Boulevard

Parking and Transit Projects

- PT 1** Shared Parking Structures
- PT 2** Pick-up / Drop-off Zone
- PT 3** EV Charging Stations

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Part 2

Station Area Profile

The Station Area Profile is a summary of the existing physical and socioeconomic conditions, as well as previously completed plans for the Pilot Project Area.

Overview

- Santa Clarita High Quality Transit Area
- Santa Clarita Metrolink Station

Socioeconomic Profile

- Demographic Profile
- Employment Profile
- Employment Trends

Previous Planning Efforts

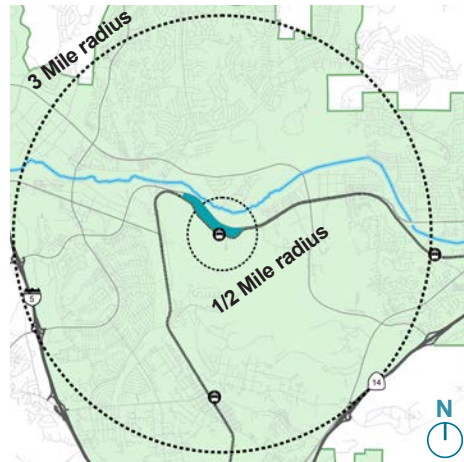
- Porta Bella Specific Plan (1995)
- City of Santa Clarita General Plan (2011)
- Santa Clarita Non-Motorized Transportation Plan (2014)
- Soledad Canyon Road Corridor Plan (2015)



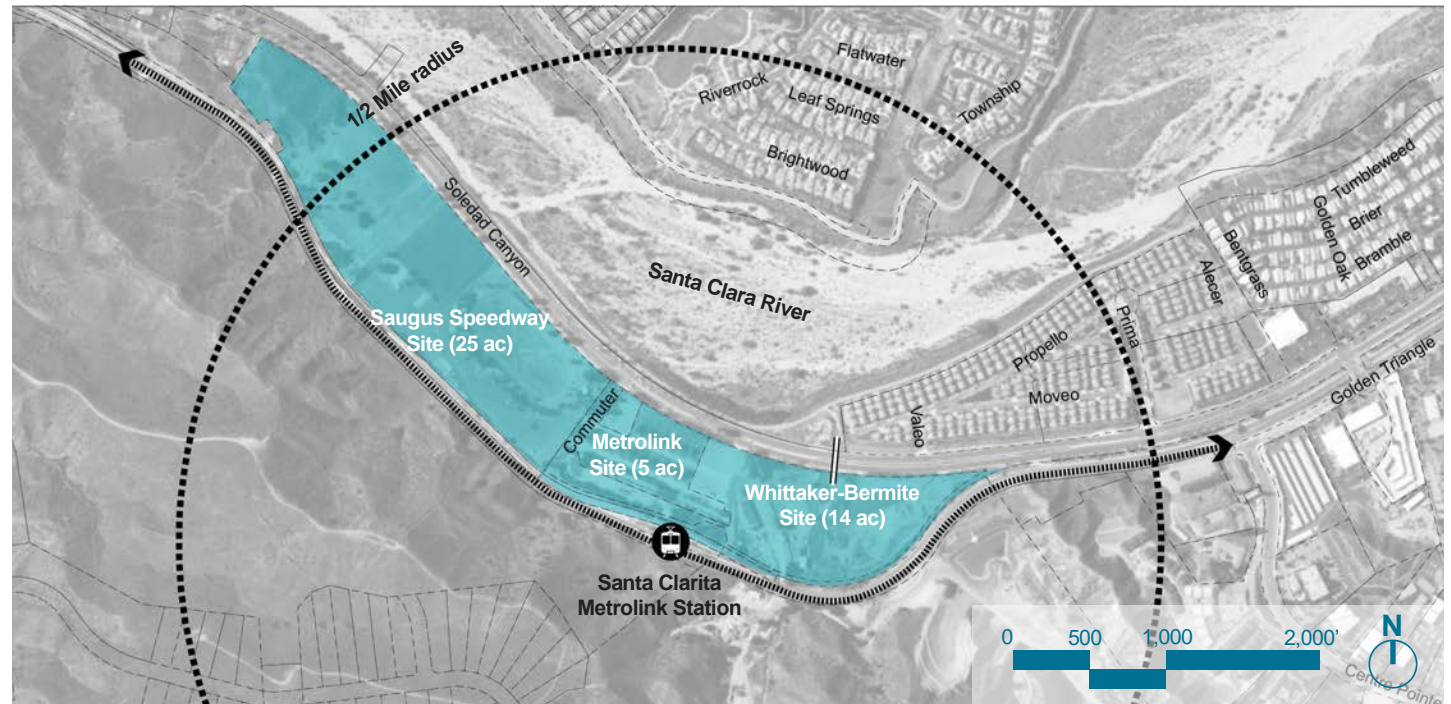
Santa Clarita High Quality Transit Area

The City of Santa Clarita's High Quality Transit Area (HQT) is located in a hillside environment somewhat removed from the core of Downtown Santa Clarita along Soledad Canyon Road and across from the Santa Clara River. Existing uses within the 1/2 mile radius of the Metrolink Station are primarily single-family residential. The Newhall Metrolink Station, by comparison, is located within 3 miles of the Santa Clarita Metrolink Station and is within a considerably more dense urban environment. The only road to access the Santa Clarita Metrolink Station is Soledad Canyon Road. Just north of Soledad Canyon Road is the Chuck Pontius Commuter Rail Trail and the Santa Clara River.

The Pilot Project Area is comprised of three major sites: the privately owned Saugus Speedway Site, the privately owned and publicly operated Metrolink Site, and the privately owned Whittaker-Bermite Site. The Saugus Speedway Site is currently used as a swap meet. The Metrolink Site is leased by the City as a 400-stall commuter parking lot. The Whittaker-Bermite site is undergoing an environmental remediation process.



- Metrolink Station and Corridor
- Pilot Project Area
- City of Santa Clarita Boundary
- Parcel Lines
- 1/2 Mile Radius: Typical comfortable walkable distance, not considering barriers



Santa Clarita Metrolink Station

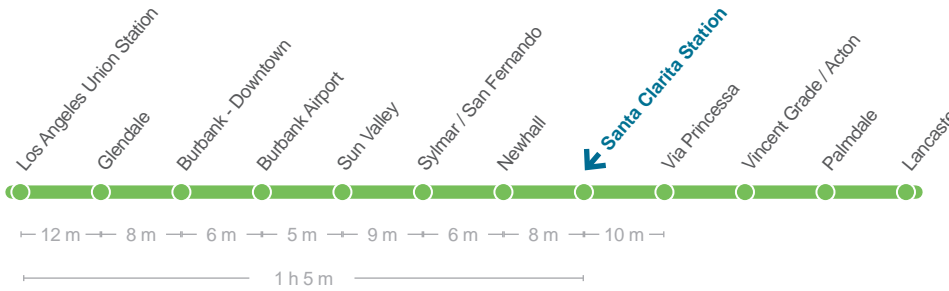
OVERVIEW

The Santa Clarita Station is serviced by Metrolink (Green Line). There are six bus stops serviced by Santa Clarita Transit located at the station or across the street along Commuter Way. Among the seven bus lines with stops at the Metrolink station are two commuter express lines that connect to Downtown Los Angeles at Union Station: Route 799 and Route 794.

The Metrolink Station has a 473 stall surface parking lot north of the platform. On weekdays between 4:00 a.m. and 9:00 a.m. there are 6 inbound trains from Santa Clarita Metrolink Station to Los Angeles Union Station (LAUS).

Metrolink: Antelope Valley Line*

* Travel times are based on Metrolink timetables at peak weekday traffic hour



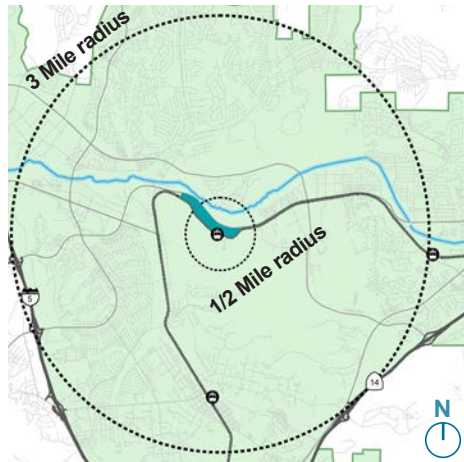
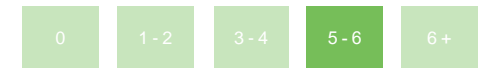
Service Type



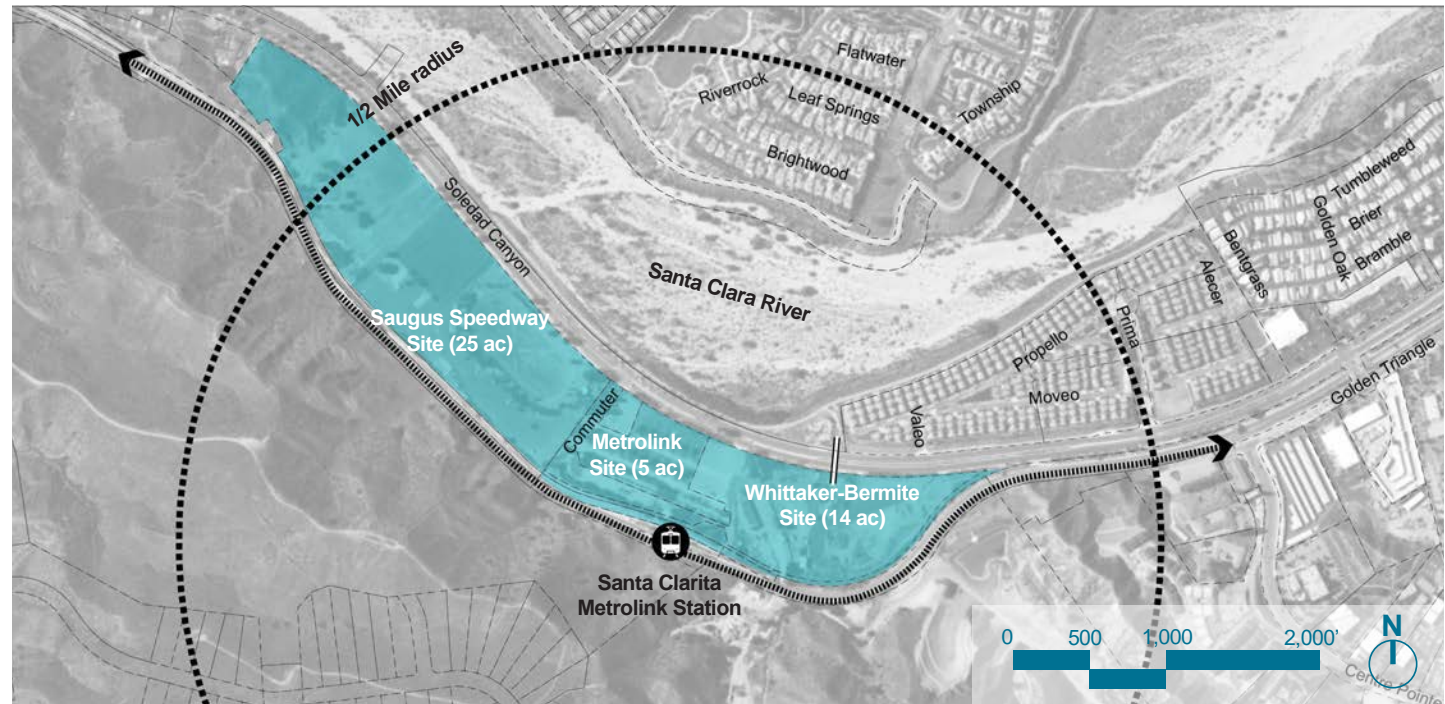
Average Peak Period Frequency (minutes)



Transit Routes within 1/2 mile



- Metrolink Station and Corridor
- Pilot Project Area
- City of Santa Clarita Boundary
- Parcel Lines
- 1/2 Mile Radius: Typical comfortable walkable distance, not considering barriers



Demographic Profile

The Study Area*** along with the City and the County have gained jobs between 2010 and 2015.

The Study Area has grown the fastest between 2010 and 2015, followed by the City and then the Los Angeles County.

Job growth in the City has outpaced the region, particularly driven by growth in the Education and Healthcare industries, followed by the Production, Distribution and Repair (PD&R) related industries. In addition

The City has gained a nominal number of jobs in Government, Retail, and Entertainment sector.

DEMOGRAPHICS (2017)	Study Area***	City of Santa Clarita	Los Angeles County
Total Population	9,247	186,809	10,275,545
Pop. Density (Per Sq. Mile)	1,260	3,420	323
Annual Growth Rate			
Historic (2010-2017)	4.01%	0.83%	0.65%
Projected (2017-2027)	1.14%	2.91%	0.74%
Total Households	3,591	62,192	3,362,080
Average HH Size	2.57	3.02	3.04
Annual Growth Rate			
Historic (2010-2017)	3.57%	0.63%	0.52%
Projected (2017-2027)	1.22%	2.95%	0.83%
Median Age	41.6	36.1	35.6
0-17 years	25%	25%	23%
18-64 Years	63%	64%	65%
64 Years and Over	13%	12%	12%
Jobs per Household*	2.7	1.1	1.3
Unemployment Rate**	3.8%	4.3%	4.8%
Median Household Income	\$72,716	\$88,465	\$59,613

* HR&A Advisors, Inc.

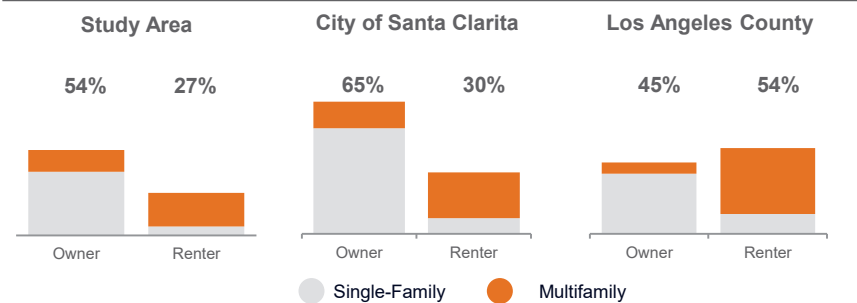
**Percentage of population 16 years and over in the labor force.

*** Study Area is defined as a 5-minute drivetime from the Santa Clarita Metrolink station and is not the typical half-mile radius around the station.

Sources: Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008, Dept. of Finance E5 2007.

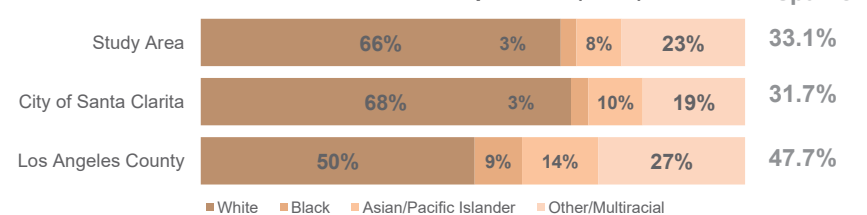
SOCIOECONOMIC PROFILE

HOUSING TENURE (2016)

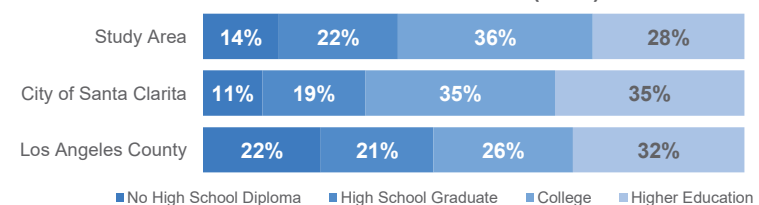


MOBILITY (2016)	Study Area	City of Santa Clarita	Los Angeles County
Average Commute Time (in mins.)	NA	33	30
Cars per Household*	NA	1.0	0.2
Public Transit Users	NA	3%	7%
Solo Drivers	NA	77%	74%
Others	NA	20%	20%

Racial and Ethnic Composition (2017)



Educational Attainment (2017)



Employment Profile

The City of Santa Clarita is a thriving education and medical hub and has nearly 1.5% of Los Angeles County's worker population.

Some of the largest healthcare employers include Henry Mayo Newhall Hospital and Kaiser Permanente. The College of Canyons and Newhall School District are the largest education-related employers in Santa Clarita.

Job growth in the City is likely to outpace that of the County over the next ten years but growth in the Study Area is likely to be at slower pace than the City.

Residents living in Santa Clarita travel as far as downtown Los Angeles for work and the City is often perceived as a bedroom community for employees working in City of Los Angeles.

The residents are also heavily car-dependent and only 3% use public transit.

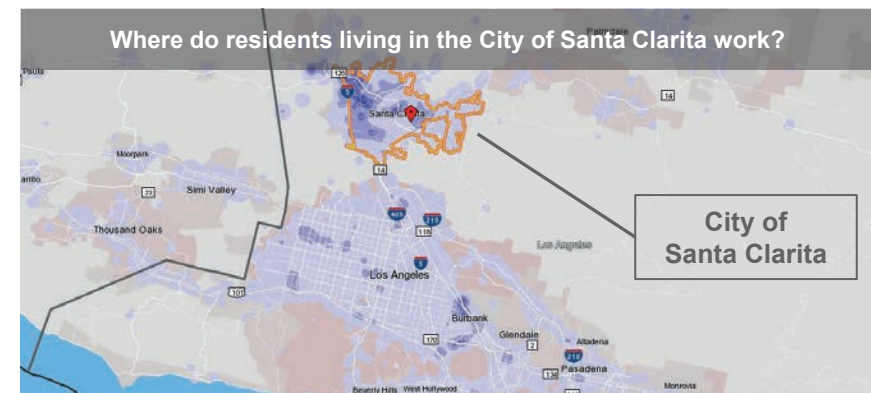
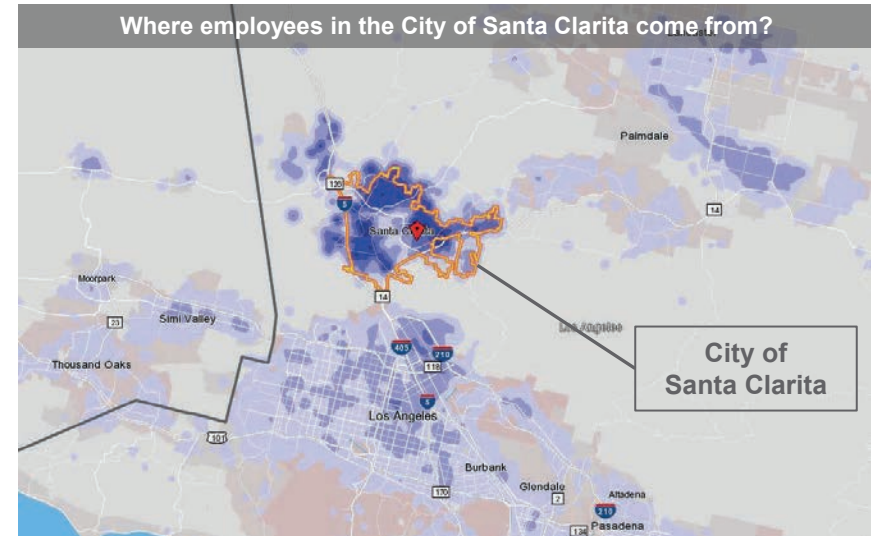
EMPLOYMENT (2015)	Study Area	City of Santa Clarita	Los Angeles County
Total Worker Population	9,609	68,856	4,443,133
Job Density (per sq. mile)	1,309	1,108	935
Annual Growth Rate			
Historic (2010-2015)	9.0%	3.3%	1.5%
Projected (2017-2027)	1.2%	2.4%	0.5%
Average Earnings per Job*	\$63,036	\$63,311	\$73,871
Top Three Industry Clusters			
	Retail 26%	Education & Medical 24%	Education & Medical 24%
	Government 20%	PD&R 21%	Knowledge-based 21%
	Education & Medical 17%	Government 15%	PD&R 18%

* Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Approximated by zip code.

Sources: LEHD, Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008.

Santa Clarita Vision Plan

SOCIOECONOMIC PROFILE



Employment Industry Cluster Classification

The classification is based on Center for Transit-Oriented Development 2010 Report.

- **Natural Resources** includes agriculture and mining;
- **Production, Distribution, and Repair ("PD&R")** includes manufacturing, wholesale trade, transportation and warehousing;
- **Knowledge-based** includes information, finance and insurance, real estate, scientific, professional, and technical services, and management of companies;
- **Entertainment** includes arts, entertainment, and recreation, and accommodation and food services,
- **Government** includes utilities, administration and other services.

Employment Trends

The Study Area along with the City and the County have gained jobs between 2010 and 2015. The Study Area has grown the fastest between 2010 and 2015, followed by the City and then the Los Angeles County. Job growth in the City has outpaced the region, particularly driven by growth in the Education and Healthcare industries, followed by the Production, Distribution and Repair (PD&R) related industries. In addition the City has gained a nominal number of jobs in Government, Retail, and Entertainment sector.

HQTA Opportunities

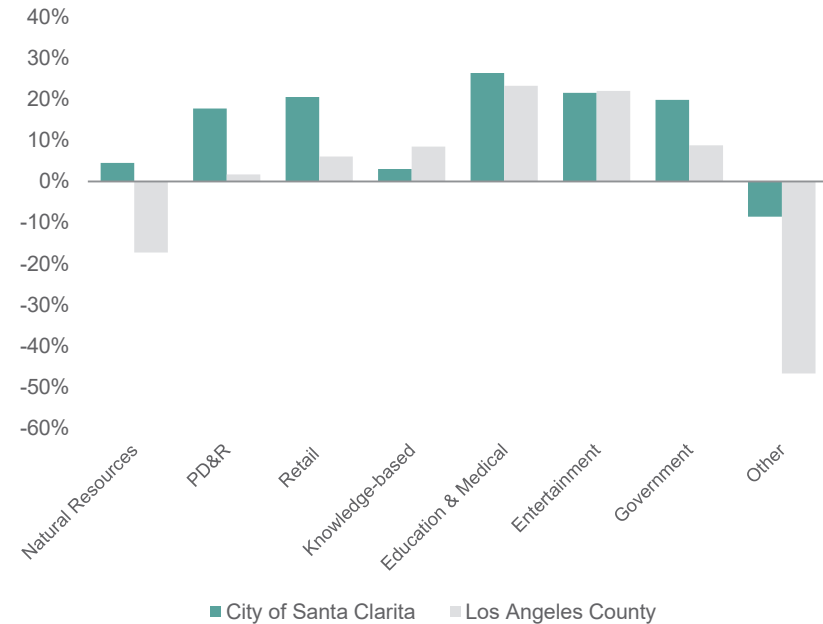
- The Pilot Project Area includes a 25-acre Saugus Speedway infill site, which is the parcel immediately west of the Metrolink Station.
- Santa Clarita's thriving economy and employment hub, along with the Study Area's proximity to activity centers in Santa Clarita and other attractions offers this area unique development opportunities.
- The City is also witnessing significant new development in both office and industrial real estate. Some of the largest medical groups such as Kaiser Permanente and UCLA Medical have moved to the City.
- The Santa Clarita Valley Economic Development Corporation is positive of the future growth prospects of the City and anticipates continued growth in high-paying jobs and reduction in unemployment rates. All these factors can bring in added opportunities for the HQTA.

SOCIOECONOMIC PROFILE

EMPLOYMENT TRENDS	Study Area	City of Santa Clarita	Los Angeles County
Employment Growth in Industry Clusters (2010-2015)			
Natural Resources	0	1	(2,021)
Production, Distribution, and Repair	120	2,140	13,222
Retail	953	1,549	25,036
Knowledge-based	285	222	71,889
Education and Medical	490	3,508	197,156
Entertainment	777	1,484	90,691
Government	634	1,742	48,442
Other	113	(229)	(134,617)
Net Gain of Jobs (2010-2015)	3,372	10,417	309,798

Negative numbers in parenthesis

Percentage Change in Employment by Industry Clusters (2010-2015)



Porta Bella Specific Plan (1995)

The Porta Bella Specific Plan, adopted in 1995, covers the Metrolink Site, the Whittaker-Bermite Site, and additional parcels south of the Pilot Project Area; the Speedway Site is not within the Specific Plan's boundaries. The Specific Plan identifies its study area as having a classic Californian hillside community character, and sets forth a series of policies to maintain that character. The Plan divides the Porta Bella community into multiple districts with the HQTAs Pilot Project Area within the Soledad Commercial District. It identifies the lands fronting Soledad Canyon Road as a prime location for offices and mixed-use commercial developments. The intended residential type is multi-family near the Metrolink station with pedestrian access to the station provided via a people mover and/or an escalator, supplemented a sports club and other recreational uses.

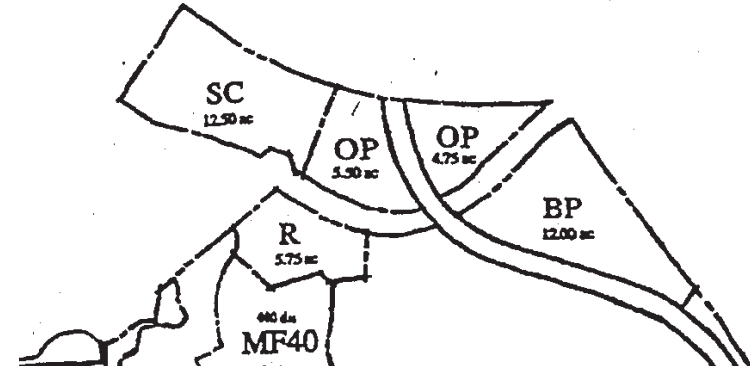
Soledad Commercial District Map



- | | |
|--------------------------------|-----------------------------------|
| 1. RAIL STATION AND COMMERCIAL | 4. SPORTS CLUB/GOLF DRIVING RANGE |
| 2. OFFICE/BUSINESS PARK | 5. PEOPLE MOVER/ESCALATOR |
| 3. MULTI-FAMILY RESIDENTIAL | |

PREVIOUS PLANNING EFFORTS

Land Use Designation Map



Land Use Designation	Map Designation	Density Range	Land Use Area (Acres)	Target # of Units	% of Total Dwellings	% of Total Area
Open Space	OS	na	406.95	na	na	40.9%
Parks & Recreation	P, R	na	41.75	na	na	4.2%
Subtotal of Open Space, Parks & Rec.			448.70			45.1%
Elementary School	ES	na	10.00	na	na	1.0%
Master Streets	na	na	56.00	na	na	5.6%
Subtotal of School & Master Streets			66.00			6.6%
Single-Family Residential						
SF 10,000	SF 10,000	2-4 du/a	63.15	144	4.9%	6.3%
SF 8,000	SF 8,000	3-5 du/a	41.75	127	4.4%	4.2%
SF 6,000	SF 6,000	4-6 du/a	87.50	326	11.2%	8.8%
SF 4,000	SF 4,000	6-8 du/a	35.40	211	7.2%	3.6%
SF Paired	SF P	6-8 du/a	72.00	436	15.0%	7.2%
Subtotal of Single-Family			299.80	1,244	42.7%	30.1%
Multi-Family Residential						
MF 10	MF 10	8-12 du/a	17.50	175	6.0%	1.8%
MF 12	MF 12	10-14 du/a	21.50	222	7.6%	2.2%
MF 18	MF 18	16-20 du/a	13.70	204	7.0%	1.4%
MF 22	MF 22	20-22 du/a	14.30	259	8.9%	1.4%
MF 40	MF 40	38-42 du/a	18.50	532	18.3%	1.9%
Town Center	TC	12-18 du/a	na	275	9.4%	na
Subtotal of Multi-family			85.50	1,667	57.3%	8.6%
Commercial						
Town Center	TC	na	24.75	na	na	2.5%
Soledad Comm.	SC	na	12.50	na	na	1.3%
Neighborhood	NC	na	8.50	na	na	0.9%
Office Park	OP	na	19.00	na	na	1.9%
Business Park	BP	na	27.25	na	na	2.7%
Institutional	I	na	4.00	na	na	0.4%
Subtotal of Commercial			96.00			9.6%
Total of Project Area			996.00	2,911	100.0%	100.0%

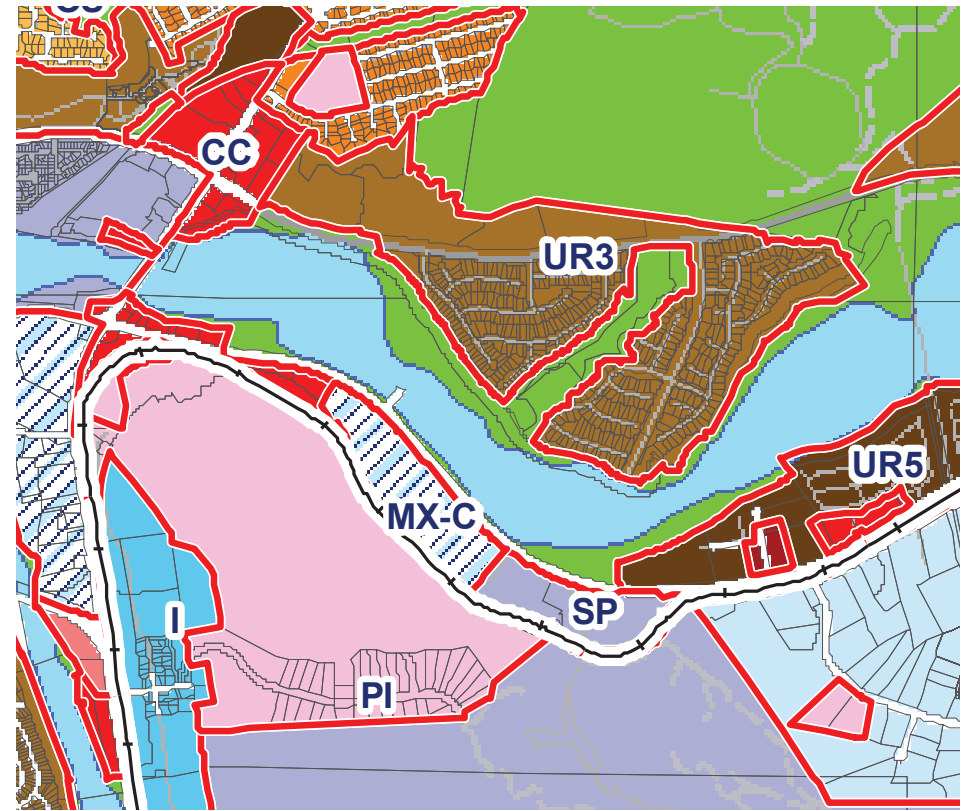
City of Santa Clarita General Plan (2011)

The General Plan, also referred to as One Valley One Vision (OVOV), was adopted in 2011. The General Plan indicates that the Saugus Speedway Site is designated as mixed-use (MX-C) while the Metrolink Site is to be regulated according to the 1995 Porta Bella Specific Plan (SP). The MX-C designation allows commercial retail, office, and service uses intermingled with higher density residential uses in order to reduce vehicle trips.

As part of the Environmental Impact Report (EIR) process for the General Plan, a Valley-wide Traffic Study was conducted, which determined the estimated development threshold which could be supported by the traffic infrastructure. These thresholds are listed in the table at right. The traffic study uses three land use designations for the parcels comprising the Pilot Project Area: Commercial Retail, Commercial Office, and Multi-Family (MF) Residential.

PREVIOUS PLANNING EFFORTS

General Plan Map



Land Use and Trip Generation Comparison – 2004 and OVOV Buildout

Zone	Land Use Category	2004 Amount	GP Buildout Amount
Metrolink Site (referred to as TAZ 240 in OVOV Traffic Study)	3 Commercial Retail	0 sq. ft.	181,000 sq. ft.
Saugus Speedway Site (referred to as TAZ 250 in OVOV Traffic Study)	2 MF Residential	0 dwelling units	450 dwelling units
	3 Commercial Retail	0 sq. ft.	448,660 sq. ft.
	4 Commercial Office	0 sq. ft.	300,000 sq. ft.

Santa Clarita Non-Motorized Transportation Plan (2014)

PREVIOUS PLANNING EFFORTS

The 2014 Santa Clarita Non-Motorized Transportation Plan aimed to increase pedestrian and cyclist amenities throughout the city. Few recommendations were made near the HQT. Most notably, an extension of the Chuck Pontius Commuter-Rail Trail, improved signage at the station, and enhanced roadway striping for more visible sidewalks and bike paths within the station site. The image below summarizes the plan's recommendations for the Santa Clarita Metrolink Station site.

Santa Clarita Metrolink Station Recommended Improvements



Soledad Canyon Road Corridor Plan (2015)

The 2011 General Plan established a goal of creating a “Valley of Villages” and identified the Soledad Canyon Road Corridor as a village. The Soledad Canyon Road Corridor Plan was adopted in 2015 to further define the goals and standards for the corridor in accordance with the Santa Clarita General Plan. The Soledad Canyon Corridor planning area is located within the City of Santa Clarita in the community of Canyon Country on Soledad Canyon Road between the Santa Clara River and east of Solamint Road. This boundary is approximately three miles east of the HQTAs Pilot Project Area. The plan establishes a series of development standards in pursuit of the following goals:

Goals

- Ensure that development is of human scale, pedestrian-oriented, and designed to create attractive streetscapes and pedestrian spaces
- Moderate vehicular traffic by providing for a mixture of land uses, pedestrian-oriented development, compact community form, safe and effective traffic circulation, and appropriate parking facilities
- Provide standards for the orderly growth and development of the Soledad Canyon Road Corridor that will assist in protecting and enhancing the community identity
- Ensure that proposed development and new land uses conserve energy and natural resources
- Facilitate the development and redevelopment of walkable, complete neighborhoods
- Provide for compatibility between different types of development and land uses through effective urban and architectural design

PREVIOUS PLANNING EFFORTS

Corridor Boundary Map

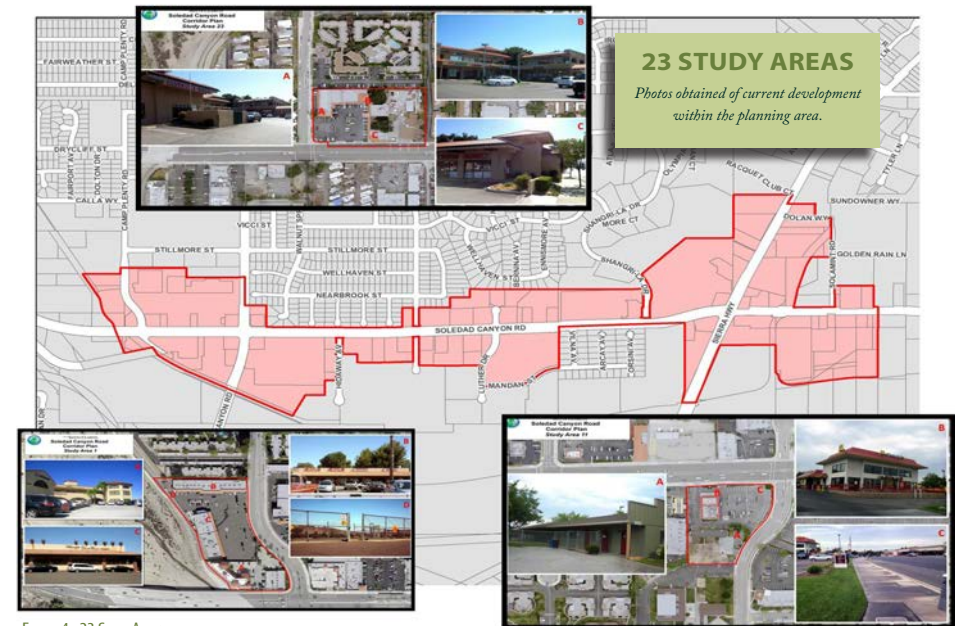


EXHIBIT 4: 23 STUDY AREAS

Part 3 Outreach

Input from key stakeholders was an essential component of the research and analysis presented in Part 4 (Opportunities and Constraints), and ultimately Part 5 (Vision).

Stakeholder / City Input
HQTA City Stakeholder Meeting - 4/26/2018
Coordination with Owners of Saugus Speedway Site



HQTA City Stakeholder Meeting - 4/26/2018

STAKEHOLDER / CITY INPUT

This meeting was the first outreach meeting for the SCAG HQTA Pilot Project within the City of Santa Clarita. The purpose of this meeting was to bring together City of Santa Clarita, SCAG, and the consultant team to discuss coordination and direction of the project. The meeting consisted of introductory comments from the City of Santa Clarita and SCAG followed by a presentation by the consultant team to facilitate discussion of multiple topics. Topics of discussion included project goals, the vision plan process and work plan, stakeholder/community outreach, project area, existing conditions, data requests, and the schedule. In addition, the consultant team presented an existing conditions analysis and socioeconomic profile of the Study Area to stimulate a discussion of issues. The following is a summary of the main discussion items.

HQTA Pilot Project

- The Consultant Team introduced the HQTA project, goals and components. There are five pilot projects in five cities. For each pilot project, the consultant team is preparing an existing condition analysis, demographic profile, and opportunities constraints analysis, a vision plan, and funding strategies. In addition, a tool kit is being prepared.
- The 2016 Regional Transportation Plan is being updated with a focus on HQTAs, with 15 minutes or better transit service. Projects will include high density TOD and active transportation.

Saugus Speedway Site

- Staff stated that a number of developers have looked at the former Saugus Speedway Site in the last 18 months. Most propose close to 100% housing. The City would like some retail and other commercial uses.

Metrolink/Transit Service

- The Metrolink Site has a high usage of parking and there is space in the dirt area for more parking. Currently there is no charge for parking at Metrolink Sites. There is talk about charging for parking at the hospital and Old Town Newhall. Currently parking overnight is permitted for up to 72 hours at the Metrolink Site.
- SCAG representative mentioned that innovative pilot programs such as a voucher for Uber (Monrovia) or dockless bike share should be included in the vision plan.
- Bike lockers are 80% used.
- There is a transfer station on McBean Parkway and Valencia. As an incentive for transit there is a discount for the 2nd transfer.
 - Shuttle is \$1.00 a ride or \$30/month.
 - Fare on Metrolink is \$15 to downtown LA.

Long Range Planning

- The Porta Bella Specific Plan is still valid. The Specific Plan includes 996 acres and contains the Metrolink Site. The development agreement may still be valid. It is likely after the Whitaker-Bermite Site clean-up is completed a new visionary effort will happen.
- Santa Clarita encourages owner occupied products rather than rental. Townhouses and detached single family encouraged.
- The Housing Element should be reviewed for affordable housing which identifies sites suitable for housing. City staff thought that a portion of the Saugus Speedway Site is indicated as affordable housing.
- The tallest building in Santa Clarita is 6-7 stories.
- For Green Infrastructure refer to GreenSantaClarita.com. Pace has been hired for green street efforts and ground water recharge.

Socioeconomic Profile

- Demographic Analysis
 - Instead of ½ mile area a drive time of 5 minutes was used for the Study Area.
 - Population is 10,000 in Study Area and almost same number of jobs.
 - In general people who live in Study Area, don't work in the Study Area.
 - Metrics for Study Area similar to city wide metrics.
 - 30% renters
 - Income around \$90,000 in the City and \$72,000 in Study Area.
 - There is a mix of jobs with retail pulling the average income down.
 - 24% ED & Med jobs
- Potential for leveraging regional Magic Mountain connections by considering uses such as hotels. Larger market will be residential but plan should look at providing some employment and identifying interventions needed to do this. The area could have live/work campus potential.

Transportation, Parking, and Public Realm

- A bike share program will be implemented end of June
 - Dockless pilot program with 100 bikes first year.
 - 5 hotels will have stations. Additional stations to be located at other sites of major activity.
 - There will be corrals to contain bikes at Metrolink.

HQTA City Stakeholder Meeting (cont.)

- Soledad Canyon carries 48,000 vehicles per day. It is relatively free flow at the site from 7am to 7pm but more congested to the east. The General Plan should be checked for future right-of-way to see if widening will be required. Signals may need to be upgraded. City staff believes the future row is 124' and that it is not a truck route. Santa Clarita Parkway would likely have a jug handle intersection with Soledad Canyon similar to Valley Center Drive.
- A transportation plan is underway which started a few weeks ago. It needs to be determined how Newhall Ranch will impact Metrolink boarding at the station.
- A non-motorized plan was completed 4 years ago.
 - 90 – 95% of the trail system is recreational; higher commuter use near Metrolink
 - 500 – 600 riders on trail east of site
 - Other side of Santa Clarita River more recreational
 - 3% commuters on Metrolink
 - Almost no gaps in paseo system

Land Use and Economic Development

- Uses to consider on the Saugus Speedway Site are offices, retail, and business park. The site should not just contain commuter uses but also destination uses. Town Center should be considered.
- In Santa Clarita, there are 5 to 6 hotel projects under construction or entitled. There is not a convention center but the Hyatt Hotel has facilities and other hotels are encouraged to include these. There is a planned convention facility on eastside of town at the golf facility.
- There is a business incubator at downtown Newhall which is 5,000-6,000 sq. ft.
- The Santa Clarita Valley is constantly recruiting new businesses. The Economic Development Team should be a Stakeholder.
- Recently Sand Canyon development was well received by the community. The project included townhouses, single family, and assisted care. During the Whittaker-Bermite clean-up outreach some members of the community were not supportive.

STAKEHOLDER / CITY INPUT

Coordination with Owners of Saugus Speedway Site

The "Saugus Speedway Site" is the 25 acre parcel (APN 2836-011-018) immediately west of the Metrolink parking lot. The City has committed to on-going coordination with the owners of the Saugus Speedway Site since if developed in coordination with Metrolink commuter parking site, the sites represent a significant opportunity for transit-supportive development. While the current owners were not directly engaged during the HQTA process, the Vision Plan establishes the framework for discussions that will take place between the City, property owners, and other key stakeholders as a TOD vision is realized.



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Part 4

Opportunities and Constraints Analysis

The opportunities and constraints are viewed through the lens of High Quality Transit Areas and the principles of transit-oriented communities.

Mobility

Land Use & Redevelopment

Urban Design



Constraints

MOBILITY

Physical Barrier: The Santa Clara River, adjacent hills to the Metrolink Station, and the railroad are all major physical barriers that isolate the site from nearby residential neighborhoods and commercial districts.

Pedestrian and Bicycle Safety: These intersections cause hazardous traffic congestion for bicyclists and pedestrians with increased risk of vehicle collisions. These intersections also have poor visibility for pedestrians and bicyclists due to high vehicular speeds.

Superblock: Blocks that are over 300 feet long in at least one dimension are not pedestrian friendly, as it often takes much longer for one to reach their destination on-foot.

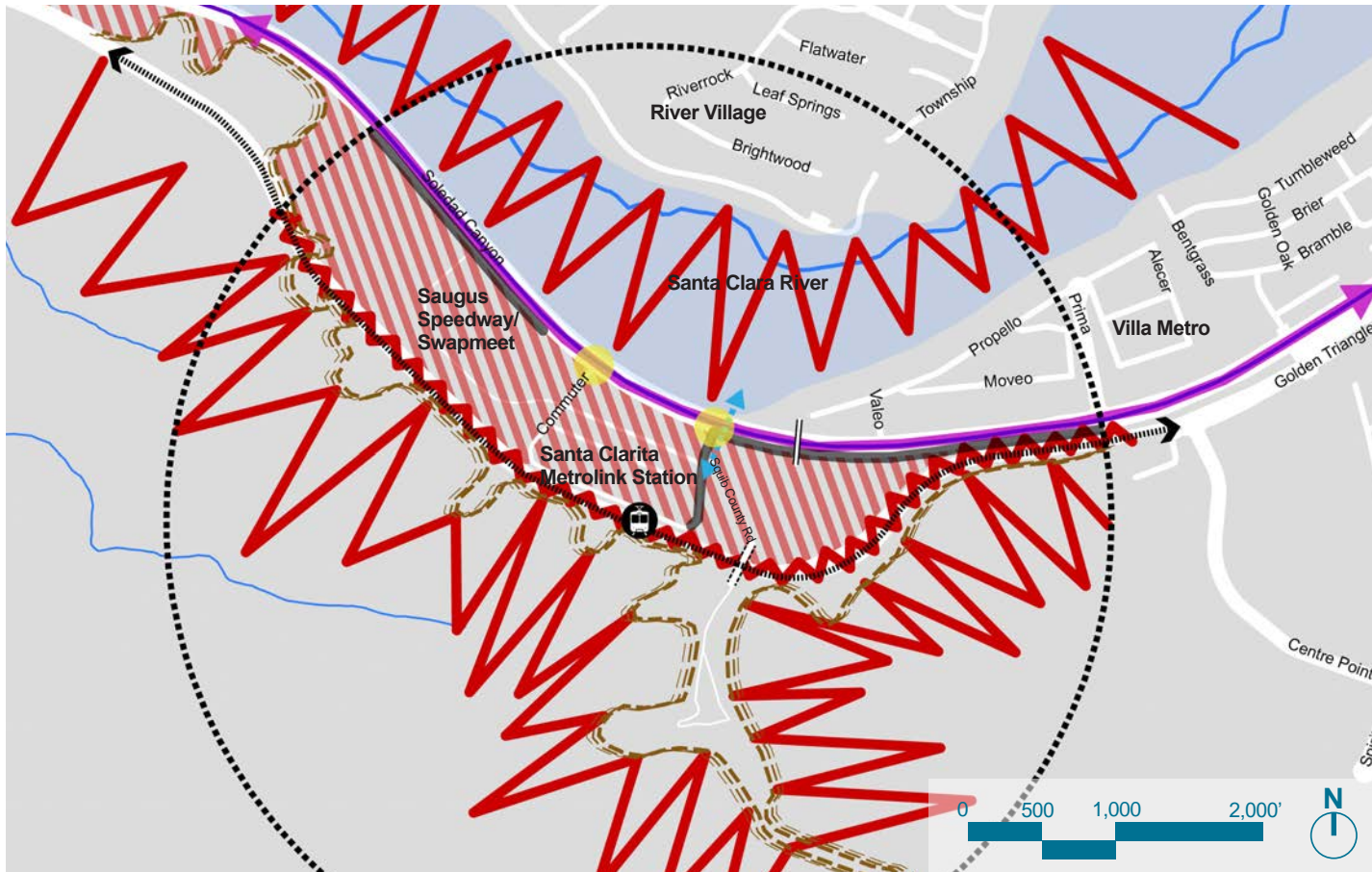
Sidewalk Gaps: Inconsistent sidewalks prevent pedestrians from reaching their destination on foot.

High Traffic-Volume Corridors: Soledad Canyon Road is unpleasant for pedestrians and bicycles to travel along and acts as a barrier to cross (physical and psychological) as priority has been given to vehicles over other modes.

Limited Connectivity Across Rail Corridor: An underpass exists but is not for public use

Limited Connectivity Across Soledad Canyon Road: There is no pedestrian crossing at Squib County Road where a multi-use path connects to the residential development directly across from the Metrolink Station.

Existing Hillside Topography: The natural topography of the area considerably limits the potential for vehicle, pedestrian, or bicycle connections south of the site.



Opportunities

MOBILITY

Street Grid: Though there is an absence of street grid with limited hierarchy of street types (arterial to local) and alternative routes to destinations, there is an opportunity to provide a perpendicular visual guide to the rail corridor and the Metrolink Station.

Connected Bicycle Network: These bicycle facilities were identified in the Santa Clarita Non-Motorized Transportation Plan (2014). Class I Bike Paths exist along Soledad Canyon Rd and Santa Clara River Trail. A Class IV Protected Bike Lane exists on Commuter Way. There is potential to have protected/buffered bicycle facilities along the south side of Soledad Canyon Road.

Multi-Modal Connectivity: Multiple locations for multi-modal connections perpendicular to the rail corridor, establishing a street grid for future development.

Metrolink Line: The Antelope Valley Line connects the site to several activity centers.

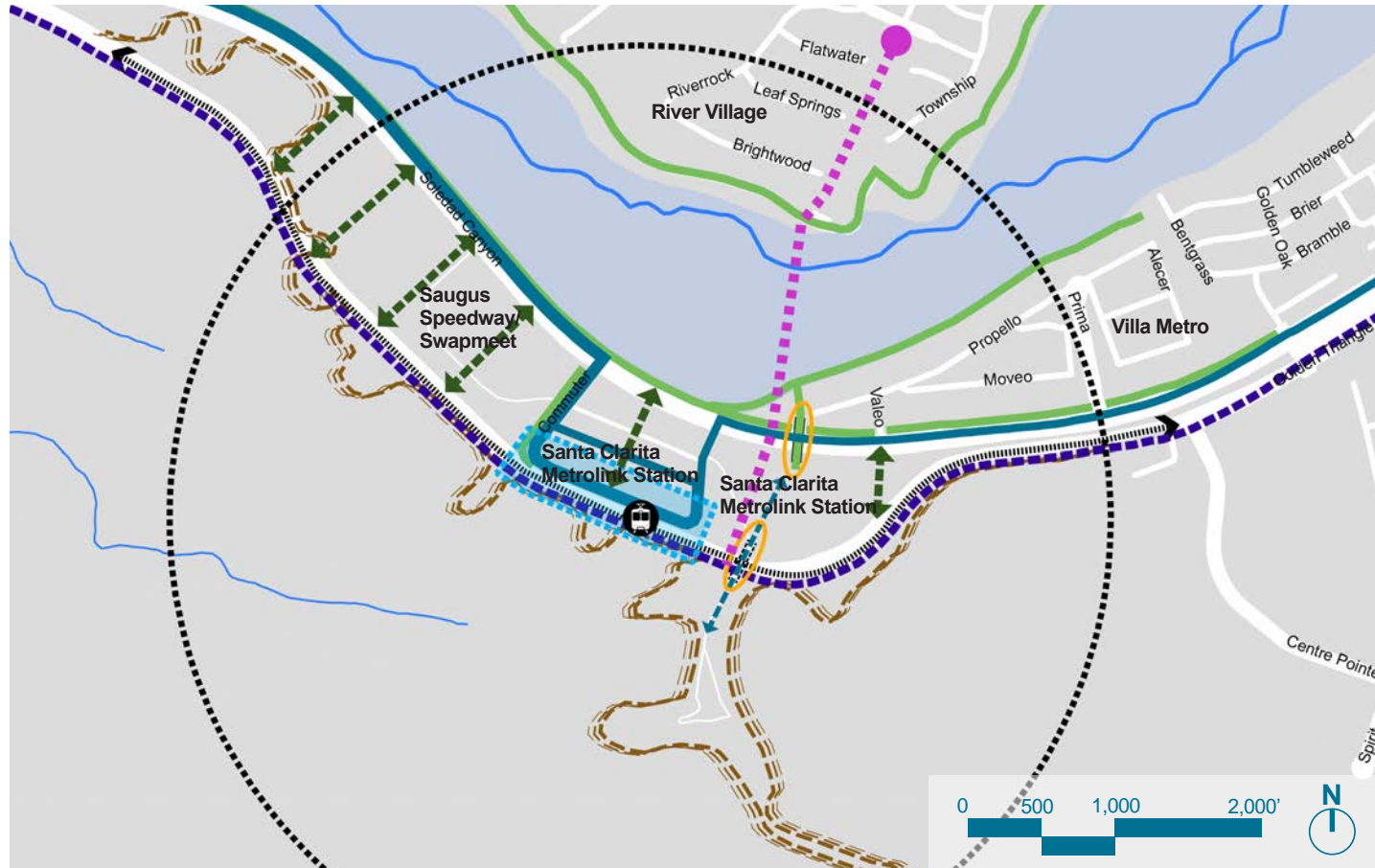
Transit Priority Corridors: Soledad Canyon Road has the potential for transit amenities (bus shelter) and priority (bus-only lanes) that raises the convenience and dignity of public transit over personal vehicle travel modes.

Transit Connectivity / Integration: Site for the potential development of a mobility hub at Metrolink Station (joint development opportunity).

Rail Corridor Crossings: Location of crossings connecting to land south of the rail line.

Pedestrian Bridges: These bridges allow pedestrians to safely cross the railroad and Soledad Canyon Road without interfering with traffic.

Santa Clarita Parkway Extension: An extension of Santa Clarita Parkway has been proposed to cross the Santa Clara river and connect to the Pilot Project Area.

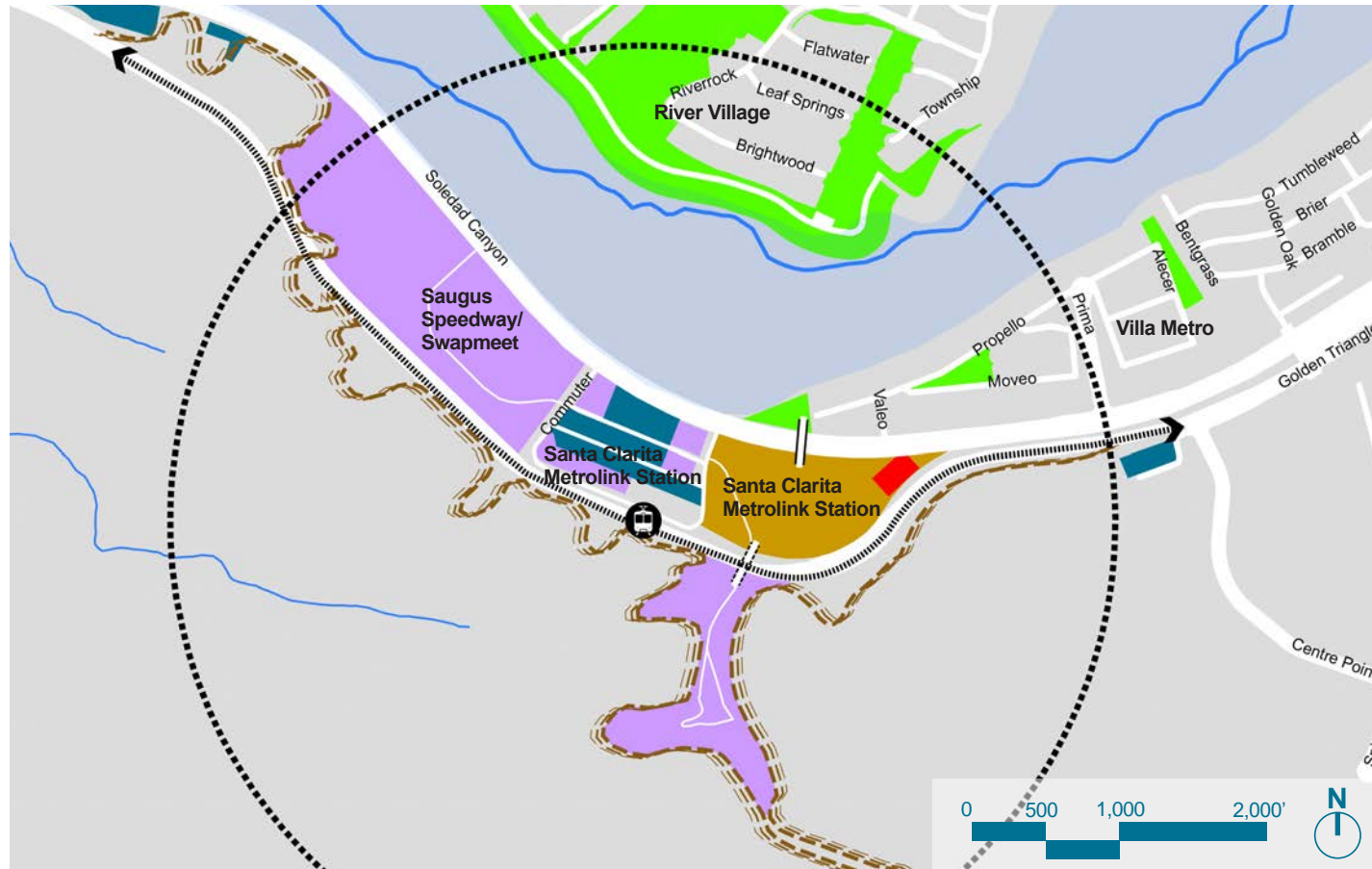


Constraints

LAND USE

- Underutilized Industrial and Transportation Uses:** The surface parking lot is an inefficient method of providing the necessary parking spaces for the Metrolink station and future developments as it reduces the amount of land available for redevelopment.
- Utilities:** This site is an unidentified maintenance facility. There is potential for the layout to be changed to could allow for more flexibility in design improvements.
- Vacant Land:** Large parcels primarily made up of the Saugus Speedway/Swapmeet site in the Pilot Project Area, land at the Metrolink Station site adjacent to the surface parking lots, and land south of the rail corridor connected via an existing underpass. Vacant land reduces economic value of surrounding properties. The site remains relatively free of permanent structures and fails to attract visitors outside of Swapmeet operation days (twice a week).

- Non-complementary Uses:** The Whittaker-Bermite Site's active environmental remediation limits future development.
- Existing Hillside Topography:** The natural topography of the area restricts the scope of the Pilot Project Area and considerably limits the potential for future development. Developing on not level land can require costly terrain adjustments.



Opportunities

LAND USE

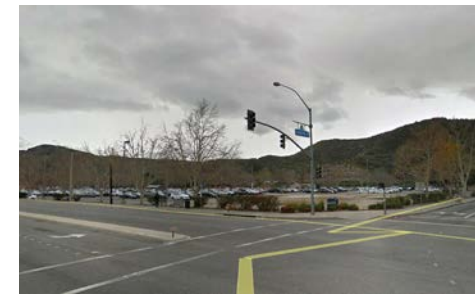
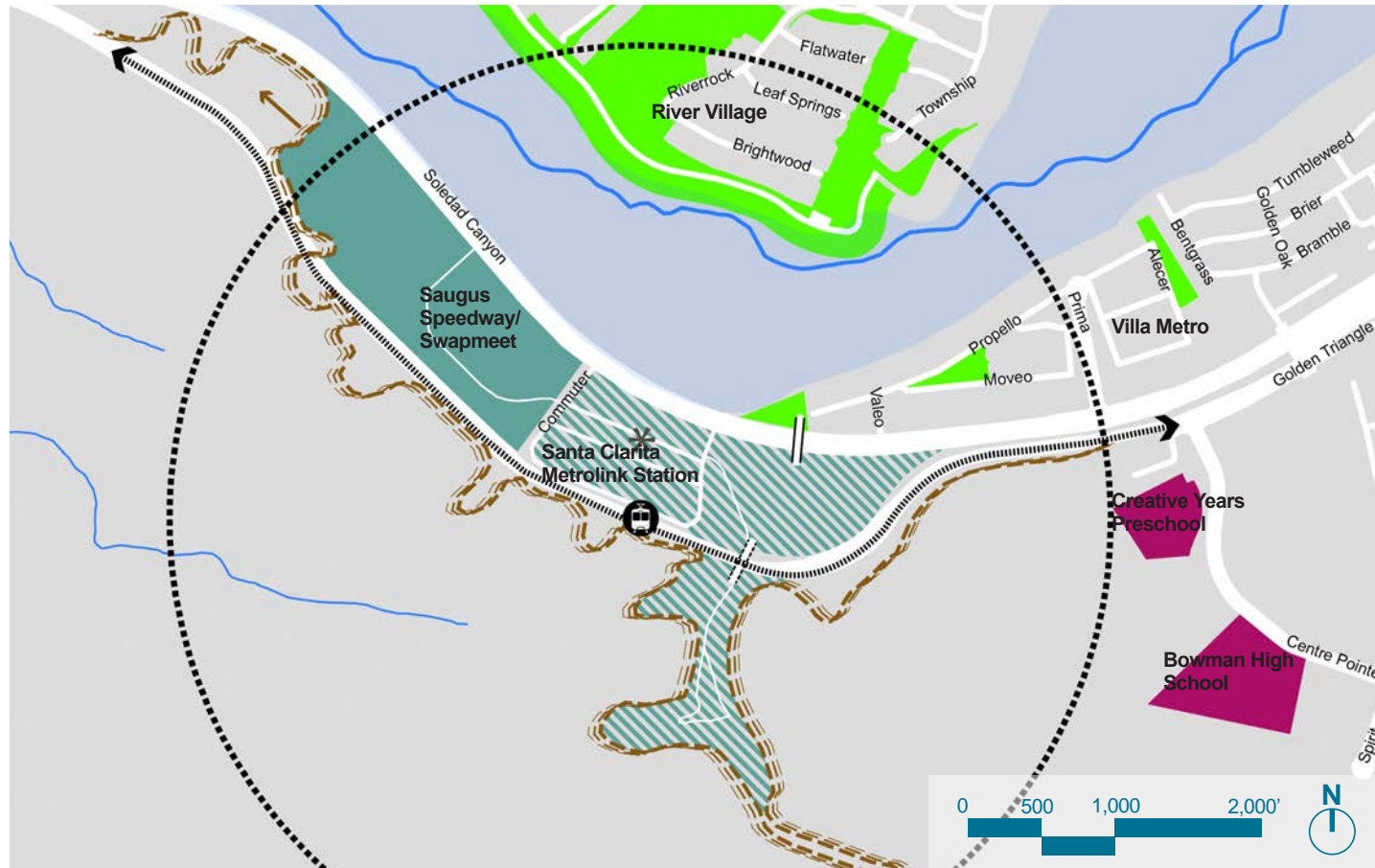
*** Major Redevelopment Opportunities (asterisk indicates Catalytic Projects):** The Saugus Speedway Site is considered a major redevelopment opportunity because it is a large, relatively flat vacant parcel under one ownership which should aid redevelopment proposals. Development opportunities should plan for establishing the street grid through properties where applicable.

Secondary Redevelopment Opportunities: The area east of the Saugus Speedway, including the Metrolink Site, is considered a secondary site because of complex parcel ownership and potential environmental contamination.

Park / Open Space: Existing parks provide neighborhood anchors and could be elevated in importance and use.

Community Institutions: Churches, schools, local shops and markets, and other organizations that increase the social capital of the neighborhood. Preserving existing neighborhood-serving uses will benefit the community.

Existing Hillside Topography



Opportunities

LAND USE

Commercial & Residential

- Mixed-Use Retail & Commercial Office
- Rowhouses
- Multi-family



Soledad Canyon Rd:

- Multi Modal
- Redevelopment Opportunities
- Picturesque Natural Topography



Community Institutions:

- Civic Center
- Metrolink Station



Constraints

URBAN DESIGN

Reduction of the Urban Fabric: There are no continuous street facades and consistent walkable urban fabric. The vacant and underutilized land including the vehicle-oriented Soledad Canyon Rd detracts from the attractiveness, and potential of the Pilot Project Area to be more pedestrian and bicycle friendly.

Superblock: These blocks have dimensions longer than 300' in at least one direction and lack the regular visual relief of facades that could create a more appealing urban design.

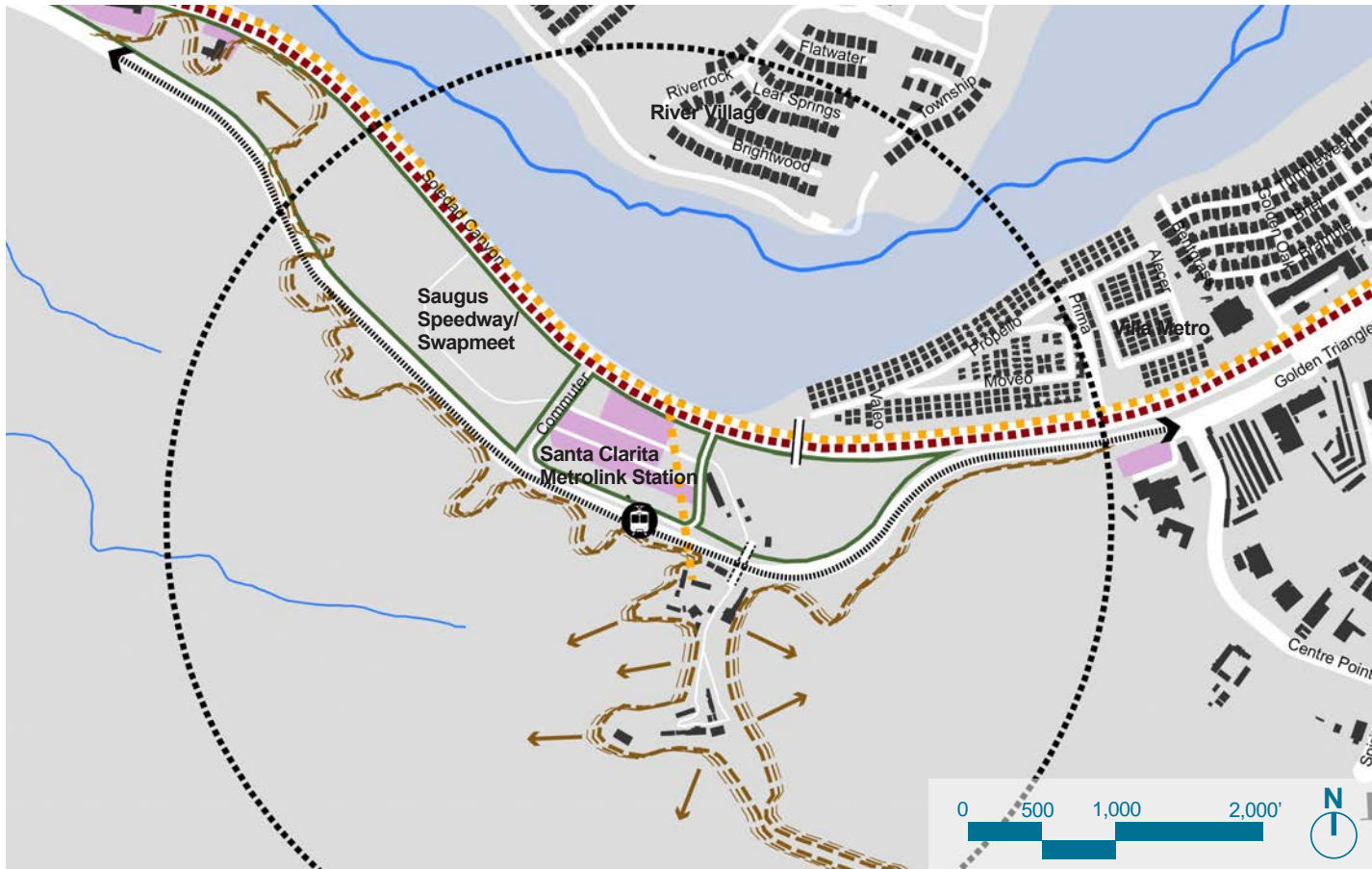
Power Lines: Power lines detract from the aesthetic of the site and limit the spatial orientation of new development unless replaced with costly underground utilities.

Surface Parking: The largest concentration of surface parking is located at the Metrolink Station. There is also surface parking on the privately owned Saugus Speedway Site which may be utilized primarily for the swapmeet on Tuesdays, Saturdays and Sundays.

Existing Building Figure - Ground: Strongest consistency of urban form occurs in the primarily single family residential developments of River Village and Villa Metro to the north and east of the Metrolink Station. There is no consistency of urban fabric along Soledad Canyon Rd adjacent to the Metrolink Station with the Santa Clara River to the north and the Saugus Speedway Site to south. There may be historic structures south of the rail corridor connected via an existing underpass but it is unclear whether they are contributing in any significant way.

Corridor Constraint: Corridors identified as barriers to potential adjacent walkable environments of the Metrolink Station due to an over-saturation of vehicular capacity diminishing the pedestrian realm.

Existing Hillside Topography: The uneven terrain limits development potential.

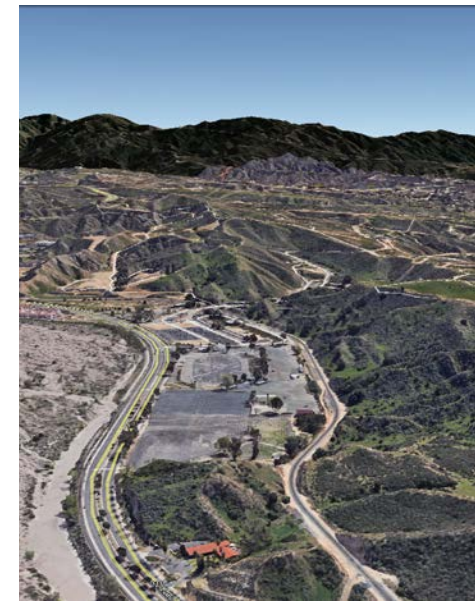
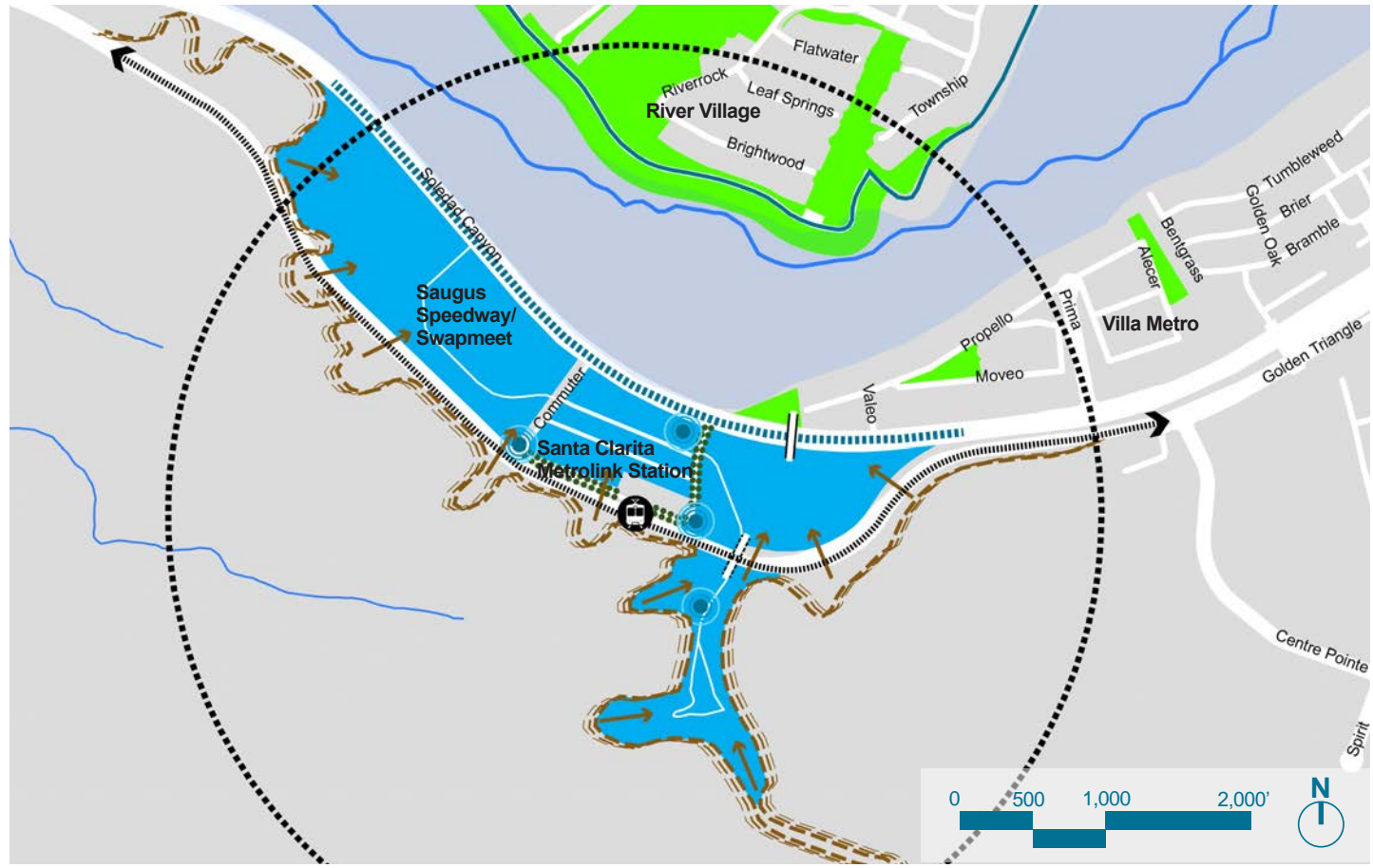


Opportunities

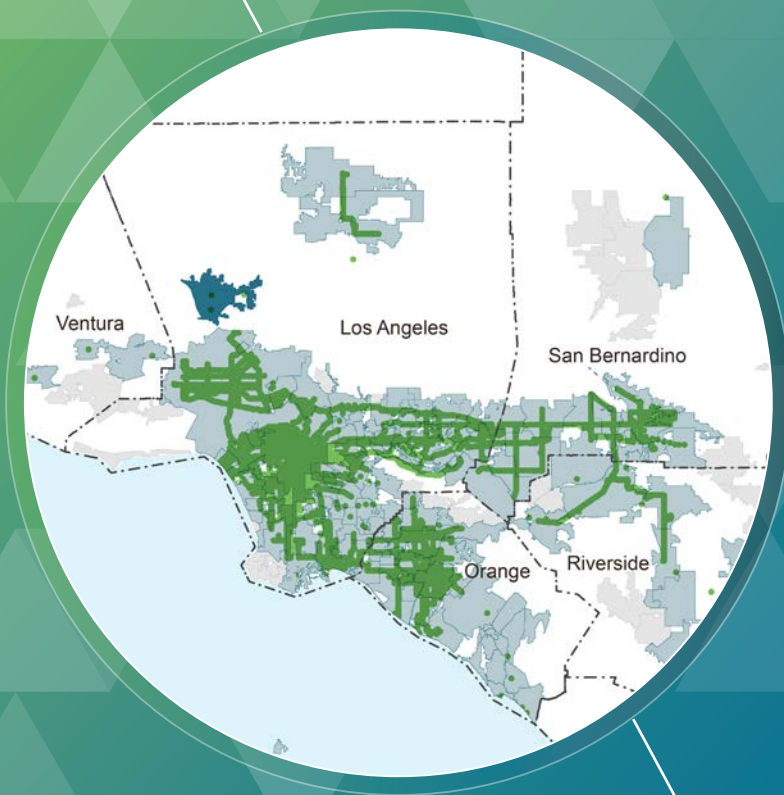
URBAN DESIGN

- Redevelopment Opportunities:** Opportunities for development on individual properties and redevelopment on public and private surface parking lots such as the Metrolink Station surface lots. The Saugus Speedway/Swapmeet site, and private sites east and south of the Metrolink Station will also complement future TOD potential of the Metrolink Station area.
- Greening / Environmental Benefits:** There is potential to add street trees and bioswales in the street tree gaps along Commuter Way and Squib County Rd. New streets would also benefit from new street trees.
- Open Space / Parks:** Open space as catalysts for creating neighborhood centers

- Vista Terminus:** Points where streets end and shifts in the street grid provide opportunities for visual nodes such as architecturally significant / taller buildings, landmarks and/or open space. These vista terminus can indicate edges of or entrances into the Pilot Project Area to foster a more defined sense of place.
- Soledad Canyon Road:** Traffic calming to enhance walkability/pedestrian realm could improve connections to the local trail along the river.
- Existing Hillside Topography:** The area's natural topography could inspire creative approaches to new pedestrian connections, site and building design, and open space amenities.



Part 5 Vision



A - Overview

- Vision Plan Goals
- Framework Plan
- Pilot Project Area - 2018
- Pilot Project Area - 2048 Potential Buildout
- Priority Projects

B - Land Use Strategy

- Buildout Assumptions & Considerations
- Regulatory Framework Analysis
- Opportunity Sites
- Regulating Concept Plan
- District Profiles

C - Infrastructure & Public Realm Strategy

- Network Plans and Projects
- Key Improvements
- Corridor Plans

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Part 5

Vision

A - OVERVIEW



Vision Plan Goals

Framework Plan

Pilot Project Area - 2018

Pilot Project Area - 2048 Potential Buildout

Priority Projects

Vision Plan Goals

The Santa Clarita HQTAs Vision Plan re-purposes underutilized land while preserving the Santa Clara River Basin and surrounding natural areas to create a sustainable, active, center for employment, hospitality, retail, and residences. To ensure the appropriate balance of walking, biking, and the use of transit, the plan is founded on the five goals described below. These goals were developed through a synthesis of adopted City initiatives, city staff discussions, and the opportunities and constraints analysis outlined in Parts 2 through 4 of the Santa Clarita Vision Plan. A phasing plan, tailored financial strategies for priority projects, and analysis of expected outcomes are presented in Part 6 (Implementation Plan).

Goal #1: Linear circulation and/or open space elements that unify parcels which comprise the HQTAs Pilot Project Area

This Vision Plan introduces open space and circulation unifying elements for the separate parcels in the HQTAs. A network of new streets and pedestrian paths, including a “complete street” center boulevard, will divide the HQTAs into subareas, each with their own unique character. Each new block will maintain its connection to the scenic hillscape to the south as pedestrian plazas and paths establish north/south view corridors from the hills to the Santa Clara River Basin. The new pedestrian and bike connections will intersect at a network of public parks designed to harken back to the original Speedway.

Goal #2: Establish a new model of a lively self-contained urban village for young workers and multi-generational households

The natural topography of the area surrounding the HQTAs limit the potential for connections to other retail and employment centers. Therefore, it is vital for the HQTAs to provide its residents and workers with the necessary retail, open space, and other amenities in a self-contained urban village, effectively minimizing daily trips by car. Striking a balance between these uses will generate round-the-clock activity in the area. This Vision Plan aims to provide Santa Clarita an active, lively new town center with a more urban experience to allow residents to take advantage of high quality schools, low property values, and other Santa Clarita advantages in a walkable village while providing access to job centers and entertainment opportunities.

Goal #3: Capitalize on Santa Clarita’s thriving biomedical industry, tech industry, and large student population with a transit-adjacent innovation hub

Foster incubators, startups, conventions, etc. all with direct rail connections to the Hollywood Burbank Airport, future high speed rail and other transit lines, and Downtown Los Angeles. A hotel with convention and ballroom space supporting retail such as a print center, coffee shops, and other local businesses will provide an attractive and convenient environment for workers.



Metrolink platform and amenities along Commuter Way

Goal #4: Create a 21st Century employment cluster that allows employees to live and work within walking distance of a Metrolink Station

This Vision Plan aims to provide the area with the amenities it needs to attract prospective major employers in cutting-edge industries. New office buildings are designed to be versatile enough to accommodate a variety of tenants, oriented around retail and open space for office employees. Additionally, the Vision Plan introduces a varied housing stock so that single employees and employees with families alike can live within a half-mile of their jobs.

Goal #5: Incorporate modern technology and best practices to ensure longterm environmental sustainability

In creating a self-sufficient community, the Santa Clarita HQTAs has enormous potential to implement technologies and policies that will make the new developments not only energy efficient, but environmentally sustainable as well. This Vision Plan encourages buildings that are eligible for LEED accreditation, storm water management infrastructure, a dockless scooter program to supplement the City’s bikeshare program, and more.

Framework Plan

OVERVIEW

The Vision Plan enhances the HQTAs sense of place through development, streetscape, and infrastructure improvements in two unique opportunity sites: the Saugus Mixed-use District and the Transit Core District. These investments will boost ridership, create livable, walkable neighborhoods, and reduce congestion and greenhouse gas emissions.

In addition to the existing streets on site, a network of new roadways and pedestrian paths will allow for better interior circulation for each district.



Santa Clarita HQT Gateway

Saugus Mixed-use District: The Saugus Speedway Site is envisioned as a dense, vibrant urban core to spur development of the adjacent Transit Core District. The district will provide a mix of office space and retail, supplemented by multi-family housing. The buildings will be oriented around parks, pedestrian paths, and new multi-modal streets to maintain an appropriate balance of buildings and open space.

Transit Core District: The site of the current Metrolink Station's parking lot will provide biomedical office space, hospitality space, and retail for new and existing residents of Santa Clarita.

Area for Further Discussion: The land just east of the Metrolink Site is an area that requires additional study of the site's toxicity and environmental remediation efforts in conjunction with updating the Porta Bella Specific Plan.

Soledad Canyon Road: The primary road in the district will see improved intersections with additional and more visible crosswalks, sidewalk extensions, and traffic calming elements.

Commuter Way: Commuter Way will remain the primary access road to the Metrolink Station and will gain enhanced pedestrian infrastructure.

Center Boulevard: This is a new east-west complete street that will divide the Saugus Speedway superblock and provide easterly connections to the platform.

Additional new roads: Proposed to facilitate ingress and egress to the Pilot Project Area.

Santa Clarita Vision Plan

Pilot Project Area - 2018

OVERVIEW



Pilot Project Area - 2048 Vision

OVERVIEW

The Land Use Strategy details an illustrative development buildout scenario that takes into account adopted land use regulations and parking requirements, and modifies densities and typologies when necessary to achieve SCAG's TOD goals for HQTAs. This 30-year Vision Plan presents a buildout scenario that allows for flexibility and recognizes that a number of factors will affect type and location of future developments. The ultimate buildout will be determined through a specific plan update and further discussions with property owners and interested developers.

Cumulative Land Use Mix and Buildout Potential

Districts are areas within the Pilot Project Area that are envisioned in the buildout scenario to contain similar building densities and typologies. The districts for this Vision Plan are listed below; the buildout scenario land use totals are summarized at right.

- Saugus Mixed-use District**
- Transit Core District**

Residential Units	510
Residential Sq. Footage	704,180 sq. ft.
Office Square Footage	635,260 sq. ft.
Retail Square Footage	506,320 sq. ft.
Parking	2,230 stalls

* These numbers represent the square footage and units proposed by this Vision Plan by the year 2048.

Major Development Areas (MDA)

Major Development Areas contain clusters of complementary priority projects which may catalyze the development envisioned by the buildout scenario. An MDA phasing strategy is provided in Part 6 (Implementation).

- MD 1** Saugus Residential
- MD 2** Saugus Mixed-use
- MD 3** Transit Core



Priority Projects

OVERVIEW

Corridor Projects

- C 1** Soledad Canyon Road
- C 2** Commuter Way
- C 3** Center Boulevard

Bicycle Projects

- B 1** Center Boulevard Multi-use Path
- B 2** Bike Hub

Pedestrian/Greening Projects

- PG 1** Transit Plaza
- PG 2** Center Boulevard Rambla
- PG 3** Transit Promenade
- PG 4** Speedway Parks
- PG 5** Speedway Promenade
- PG 6** Railway Green

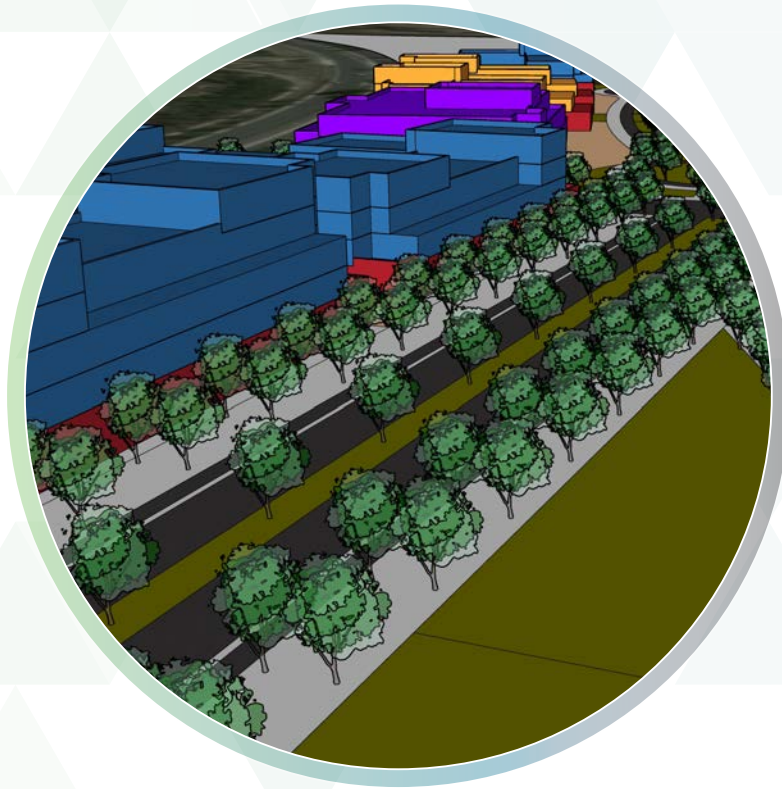
Parking and Transit Projects

- PT 1** Shared Parking Structures
- PT 2** Pick-up / Drop-off Zone
- PT 3** EV Charging Stations (commuter parking garages)



Part 5 Vision

B - LAND USE STRATEGY



Development Opportunity Sites

Buildout Assumptions & Considerations

Regulating Concept Plan

 Saugus Mixed-use District

 Transit Core District

Development Opportunity Sites

LAND USE STRATEGY

This Vision Plan takes a holistic view of the Pilot Project Area by incorporating planned development projects and projects that are under construction with additional lots that would add substantial value to the Pilot Project Area if redeveloped.

Areas Not Considered Opportunity Sites

These lots would require drastic shifts in market or other conditions to support redevelopment, and as such are not considered suitable for redevelopment in the immediate future.



View of a vacant lot and Metrolink surface parking lots on the south side of Soledad Canyon Road



View of the Saugus Speedway Site adjacent to the Metrolink Station

Primary Opportunity Sites

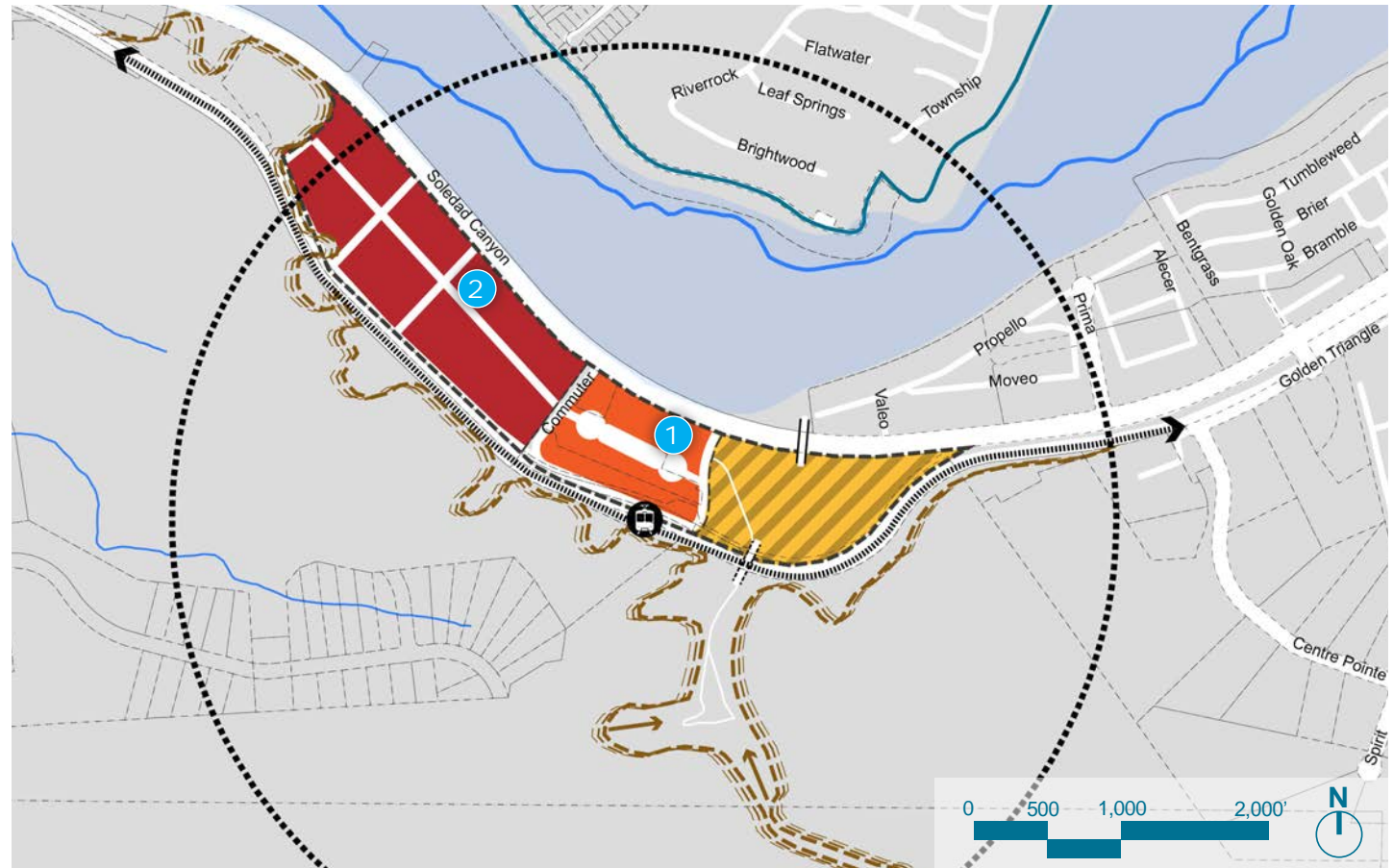
Primary sites will see the majority of development in the near future. These lots are to be utilized for large-scale, catalytic projects. This lot is under private ownership, which may pose some challenges to develop, but as it is the single largest parcel in the area, is relatively flat, and is free of permanent structures, development is most feasible on this land in the near future.

Secondary Opportunity Sites

These sites also have potential for large, dense developments, but are relatively encumbered compared to primary sites. The Metrolink property has complex property ownership established through easements and ground leases, which will make seeking approval for future developments difficult. However, due to its proximity to the station it is in the City's best interest to pursue development on the site.

Tertiary Opportunity Sites

The parcel east of the Metrolink parking lot is large and will have direct access to the parkway, but is currently undergoing environmental remediation.



Buildout Assumptions & Considerations

LAND USE STRATEGY

Absent recent market information and uncertainty about the availability of HQTA land for redevelopment, the Consultant Team considered a number of factors in developing the land use strategy for the Pilot Project Area. The five main factors that determined the buildout assumptions were as follows:

1. Existing Regulatory Framework (see Part 2: Station Area Profile)
2. Environmental Contamination
3. Site Ownership
4. Recent Local Precedents
5. Stakeholder/City Input (see Part 3: Outreach)



2018 aerial imagery of Subject Area; Source: Google Earth

1. Existing Regulatory Framework

The Santa Clarita General Plan (2011) and Porta Bella Specific Plan (1995) are still in effect and are summarized in the table at right (see 'Previous Planning Efforts' profiles in Part 2: Station Area Profile). The City, however, has expressed interest in updating the Porta Bella Specific Plan in the near future to facilitate more TOD.

Conclusion

The target square footages would require either: mixed-use buildings with two stories of retail space and offices above with stand-alone residential, or all mixed-use buildings with retail occupying every ground-floor and either offices or residential occupying the floors above. Both options would require commercial in the interior of the site, away from the major arterial Soledad Canyon Road. Second-floor retail is often difficult to lease reliably. The land use target mix also promotes housing densities that are relatively low when compared to average densities of typical TOD station areas, and would generate commercial-housing ratio that may not be viable for this market.


Santa Clarita General Plan (2011) and One Valley One Vision (OVOV) Valley-wide Traffic Study (2010)								
	Saugus Speedway Site				Metrolink Site			
Effective Until	Max FAR	Residential Density / Units	Commercial Square Footage	Office Square Footage	Max FAR	Residential Density / Units	Commercial Square Footage	Office Square Footage
2031	1.0	11-30 du/acre 450 du total	448,660 sq. ft.	300,000 sq. ft.	1.0	N/A	181,000 sq. ft.	unspecified

Porta Bella Specific Plan (1995)								
	Saugus Speedway Site				Metrolink Site			
Effective Until	Max FAR	Residential Density / Units	Commercial Square Footage	Office Square Footage	Max FAR	Residential Density / Units	Commercial Square Footage	Office Square Footage
until amended	N/A	N/A	N/A	N/A	unspecified	0 du/acre	no maximum	no maximum

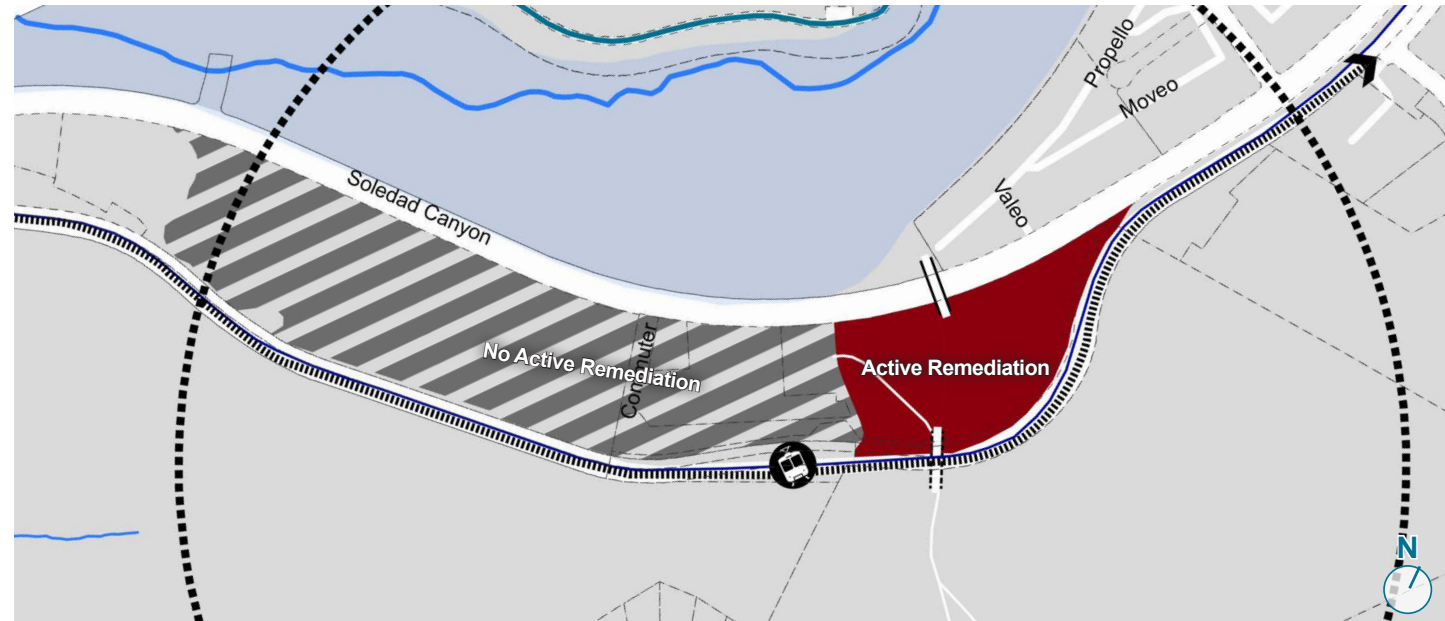
Buildout Assumptions & Considerations (cont.)

LAND USE STRATEGY


2. Environmental Contamination

 The Whittaker-Bermite site is contaminated with perchlorate and other chemicals. The site, as well as other parcels south of the Pilot Project Area along the hillslope are currently undergoing remediation.

 It is unclear if any contamination exists on the Metrolink Site or the Saugus Speedway Site. Phase I environmental assessment with soil testing of these areas is recommended as part of the Specific Plan update to identify which portions of the HQT A Pilot Project Area are most suitable for commercial or residential development.



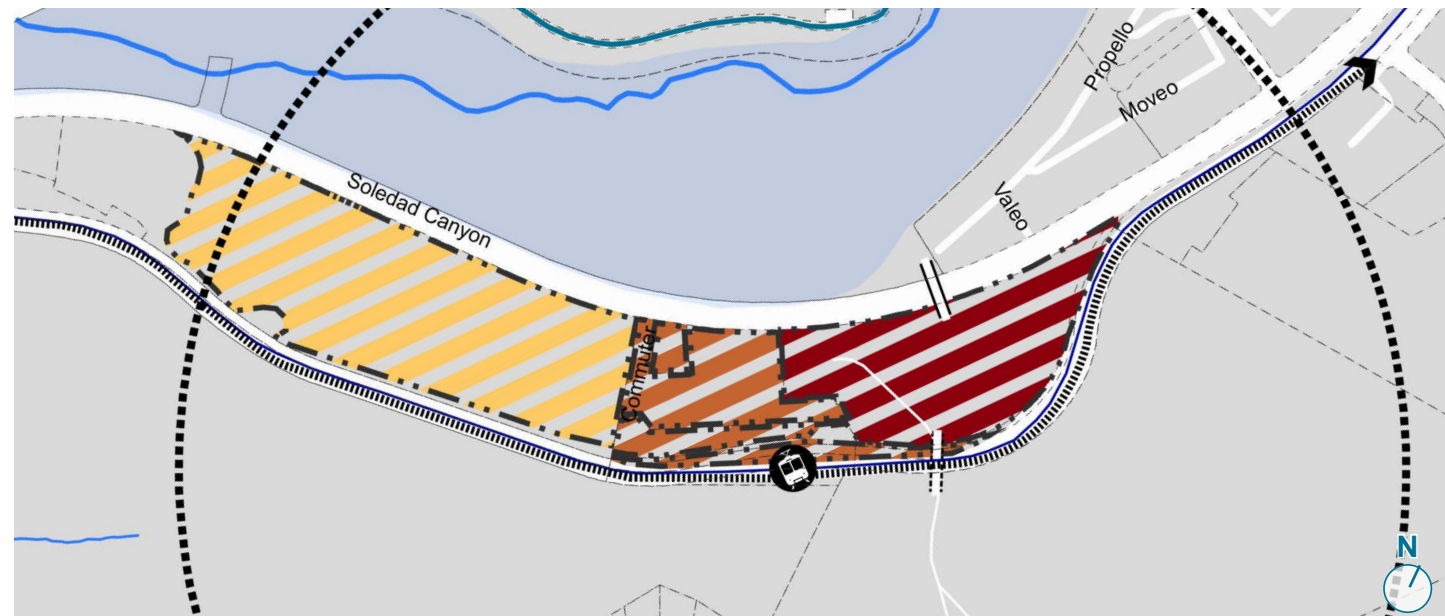
3. Site Ownership

 The Saugus Speedway parcel is owned by one private entity.

 The Metrolink parking lot parcel is owned by the Whittaker Corporation. The City has a ground lease to operate the Metrolink parking lot. This Vision recommends that the City acquire the site to catalyze development next to the Metrolink platform.

 The Whittaker-Bermite parcel is under private ownership (Whittaker Corporation) and has no easements.

The Metrolink and Whittaker-Bermite parcels are not readily available for redevelopment in the near term given ownership and potential contamination concerns.



Buildout Assumptions & Considerations (cont.)

LAND USE STRATEGY

4. Recent Precedents

Vista Canyon Specific Plan (2010)

The Vista Canyon Specific Plan (VC Plan) was adopted in 2010. This plan is centered around the recently reconstructed Via Princessa Metrolink station, and is thus comparable in terms of transit proximity, level of transit service, and current market demand for higher density and mixed-use TOD in Santa Clarita. The planned area is 185 acres, and over half of this area has been preserved as open space, trails, and parks.

The VC Plan calls for “main street” retail and office mixed-use buildings near the station with attached and detached townhomes to the east. Heights typically range from 3- to 5-stories closest to the station where uses are most dense.



Vista Canyon Main Street; Source: vistacanyon.com



Vista Canyon Mixed-use office building; Source: vistacanyon.com



Vista Canyon Land Use Plan; Source: vistacanyon.com

Effective Until	Acres	Density	Residential Density / Units	Commercial Square Footage	Office Square Footage
until amended	185 acres gross / 90 acres developed	12 units per acre	1,100 du	304,000 sf	646,000

Newhall Ranch Specific Plan (2005)

The General Plan identifies the Newhall Ranch Specific Plan (2005) as the prototype for other districts in the Valley that are clustered around transit centers. The plan is a form-based code, which is a type of regulatory document that sets standards relating to the form and physical character of the public and private realm. This differs from traditional specific plans, like the Vista Canyon Specific Plan, which regulate land use more directly. As such, no maximum square footages are provided by use.



Newhall Ranch envisioned neighborhood; source: theranchontheriver.com

Buildout Assumptions & Considerations (cont.)

LAND USE STRATEGY

Proposed Land Use and Phasing Strategy

Phase 1A: Saugus Speedway West (■■■■)

- This parcel is solely comprised of residential buildings including multi-family courtyard housing, low-rise apartments, and attached single-family townhomes.
- Placing the majority of housing on this block keeps residents as far from the areas undergoing environmental remediation as possible.

Phase 1B: Saugus Speedway East (■■■■)

- Office, retail, and residential mixed-use buildings are oriented in smaller, more pedestrian-friendly blocks.
- Parking will be provided via a combination of shared structured and surface parking.

Phase 1C: Metrolink Parking Lot (■■■■)

- A hotel on the Metrolink parcel will provide the activity and customers necessary to support this level of retail.
- Additional housing provided on this site will address the regional housing crisis and new residents will have convenient access to the station.



Illustrative model of 2048 HQTAs Vision Plan land use densities showing major development phases

Proposed Cumulative Buildout Assumptions

These are the land use mixes proposed in the buildout scenario on the following pages of this Vision. The mix differs from currently adopted land use mix requirements in order to better follow TOD best practices and to realize the HQTAs Pilot Program's goals. A market study and updates to the General Plan and Specific Plan are required to facilitate the proposed mix.

	Residential Units	Retail/Hotel Square Footage	Office Square Footage	Civic Square Footage
Notes/Assumptions	113% of General Plan/OVOV target buildout. Residential uses arranged in low-rise apartments, courtyard-style apartments, and attached townhomes.	80% of General Plan/OVOV target buildout. Reduced retail square footage to strike a better balance of uses on-site, and to ensure only ground-floor and street-adjacent retail. New business hotel and conference center added to compliment the office uses.	212% of General Plan/OVOV target buildout. Additional office space provided to accommodate larger office tenants.	New civic use added to the Metrolink parcel to serve the new residents of the HQTAs. Facilities may be used as a school, government, or recreational building.
Phase 1a	360 units	0 sq. ft.	0 sq. ft.	0 sq. ft.
Phase 1b	80 units	237,410 sq. ft.	400,170 sq. ft.	0 sq. ft.
Phase 1c	70 units	268,910 sq. ft.	235,090 sq. ft.	123,380 sq. ft.
TOTAL	510 units	506,320 sq. ft.	635,260 sq. ft.	123,380 sq. ft.

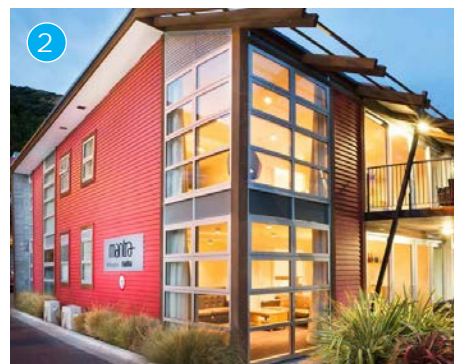
Regulating Concept Plan

LAND USE STRATEGY

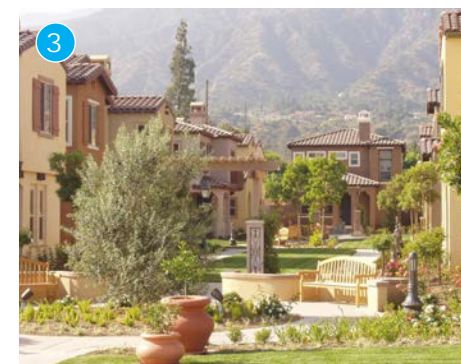
The Regulating Concept Plan identifies the proposed height, density, intensity, and development guidelines for key redevelopment projects in the Pilot Project Area. Each of the building types below, keyed to the plan at right, has a more complete profile in the attached HQTA Toolkit that shows a target range of building mass and intensities. Additional building types or different configurations of the illustrative plan not listed below may be appropriate, as long as the massing, design, and density targets listed below are satisfied.





Mid-Rise Podium with Retail Wrapped around the Podium and Facing the Street; Source: zumper.com



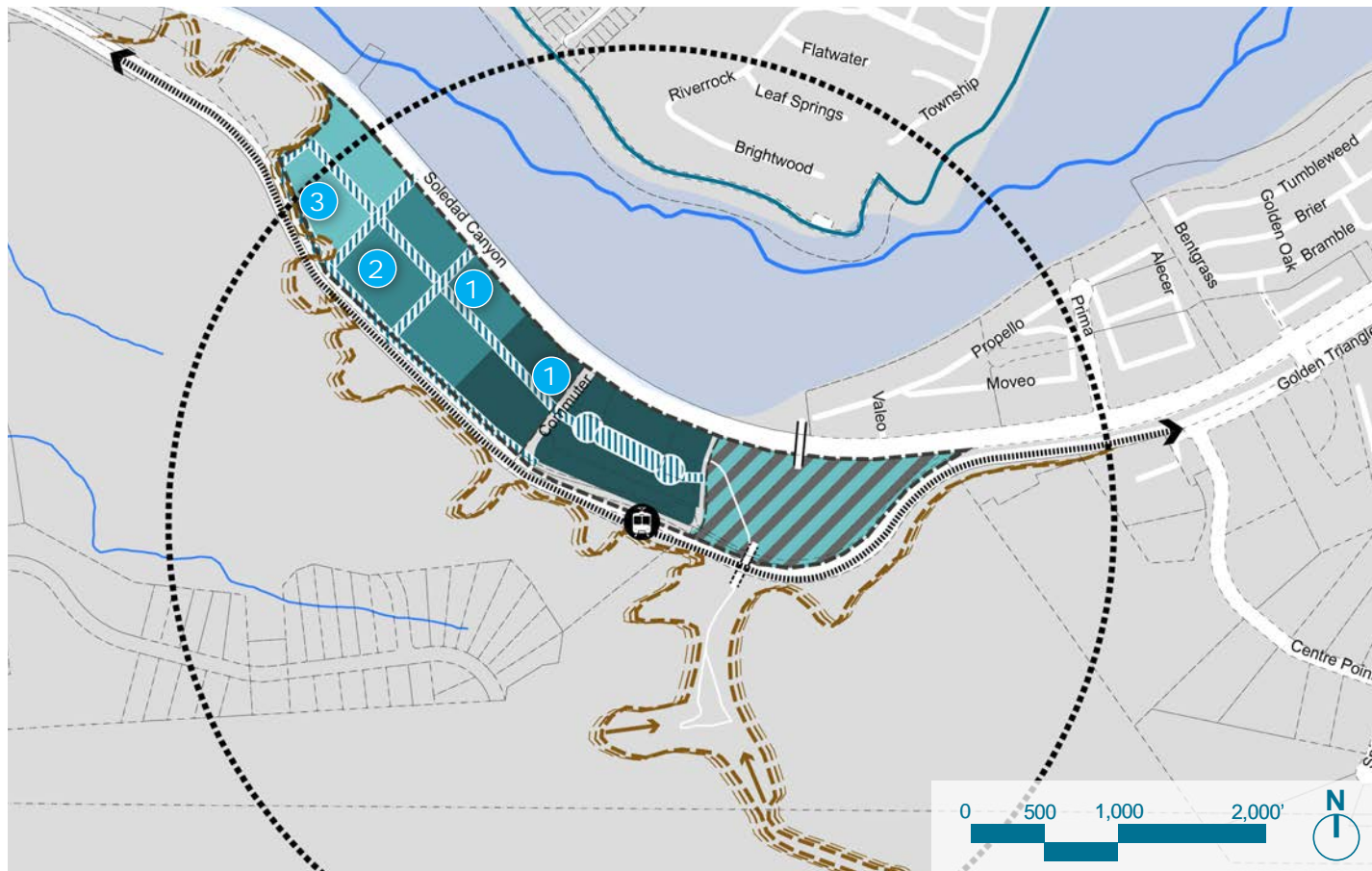
Attached Townhouses and Live/Work; Source: elementescapes.co.nz



Detached Single-Family Residential Organized around a Public/Private Green

-  New Streets
-  Area where it is uncertain if contamination precludes some/any redevelopment

Appropriate Building Types	Bldg. Height (stories)	Toolkit Page
View the Toolkit to learn more about the following building types. PDF: click to navigate.		
Podium Mid-Rise Office / Retail	5-10	II-C-D-2
Flex/ Hybrid	4-6	II-C-C-3
Commercial Block/ Liner	1-3	II-C-C-3
Courtyard Apartments	up to 3	II-C-C-2
Townhouse/ Small Lot Subdivision	up to 3	II-C-B-2



Saugus Mixed-use District

LAND USE STRATEGY

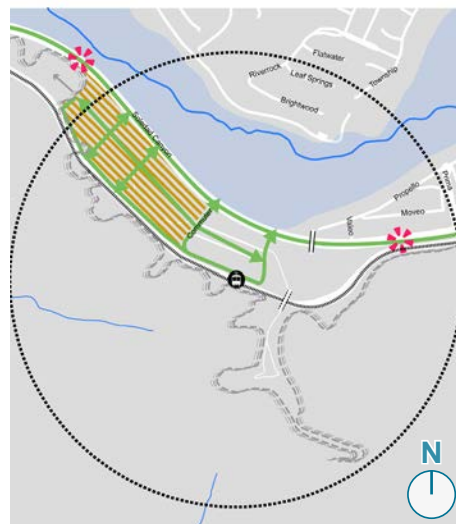
Illustrative Plan

The Saugus Mixed-use District proposes a variety of housing typologies for the western portion (Phase 1A), a mixed-use employment hub on the eastern portion, and pedestrian and cyclist connections from the western hillside to the Metrolink Station. A network of new streets and pathways divides the large parcel comprising the Saugus Speedway into walkable blocks with ample park space. New blocks are recommended not to exceed 330' x 600' as framed by streets, but additional pedestrian/bicycle circulation should be introduced on each block.



Key Elements

- 1 Development along the Metrolink rail line and the western hillside will be setback behind a buffer (i.e. a berm or landscaping) to provide a visual and sound barrier for the adjacent development projects.
- 2 A network of new streets to enhance direct internal circulation to key destinations within the TOD area.
- 3 Mixed-use low-rise buildings oriented around plazas and parks.



- New Buildings
- Parking Structure
- Public Open Space (Hardscape and/or Softscape)
- Private/Semi-Public Open Space



Attached multi-family residential; Source: Gruen Associates



Multi-family apartments with private interior courtyard

Saugus Mixed-use District

The design of public green spaces are informed by the footprint of the historic Saugus Speedway. The main public park in this district along a mountain view corridor and facing Center Boulevard will maintain the arc of the Speedway's footprint. The other public greens in the district have a similar semi-circle shape to create a unique but unifying element across the district.



Townhomes in San Francisco, CA; Source: five88sf.com



Higher-density multi-family in Montclair, CA; Source: Westsiderentals.com

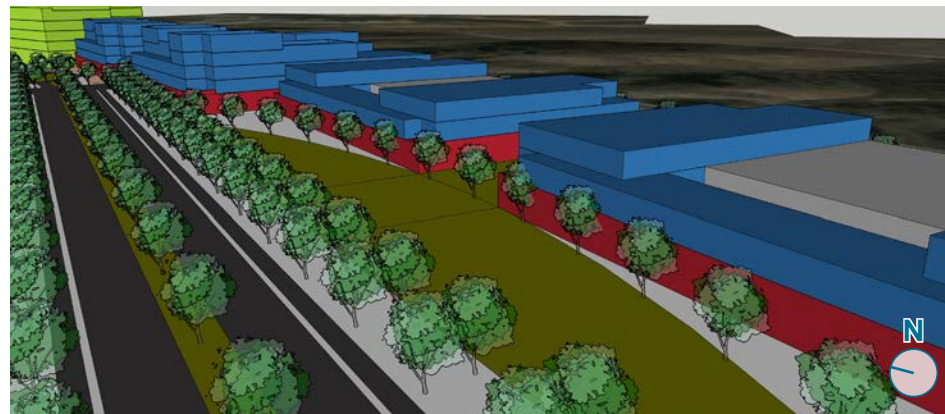


Mixed use retail and office building in Boulder, CO; Source: Nicholas Partnership

LAND USE STRATEGY



Detached single-family housing oriented around a public green space



Mixed-use office and retail buildings oriented towards a public park at the site of the former Speedway



Mixed-use office and retail buildings oriented around a public park at the site of the former Speedway

Saugus Mixed-use District

LAND USE STRATEGY

Land Use Mix and Targets

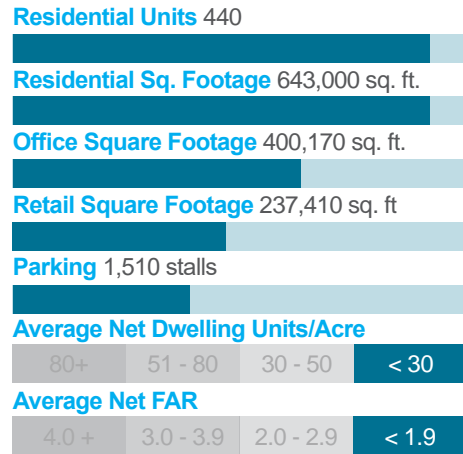
The portion of the Saugus Mixed-use District that occupies western half of the Saugus Speedway footprint will be residential.

Building typologies are to resemble existing hillside residential developments in Santa Clarita and courtyard style apartments,

The remainder of the district is envisioned to be a mix of office and retail uses.

Potential Buildout Land Use Mix*

* These numbers represent the square footage and units proposed by this Vision by the year 2048



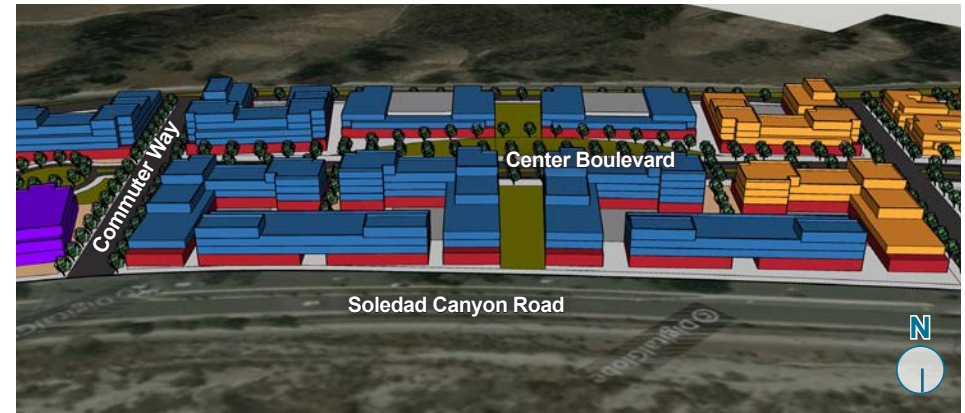
- Multi-Family Residential
- Retail
- Office
- Civic/School
- Hotel/Hospitality
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space



A multi-use pathway adjacent the railroad tracks in Solana Beach, CA; Source: Schmidt Design Group.



Retail and office along Commuter Way



Mixed-use buildings with ground-floor retail along Soledad Canyon Road



Multi-family residential along Soledad Canyon Road

Transit Core District

LAND USE STRATEGY

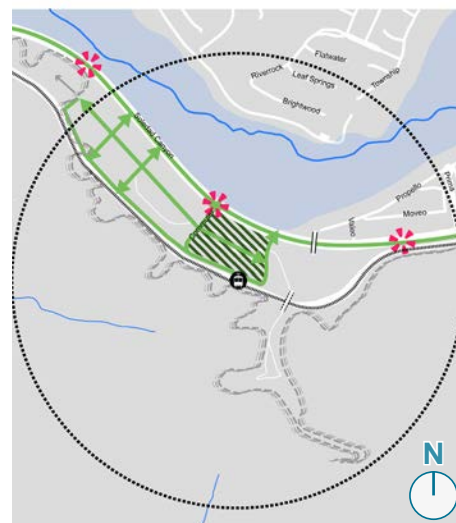
Illustrative Plan

The densest development will occur in this area near the Metrolink Station and the site will become progressively less dense on the western portion furthest from the station.



Key Elements

- 1 A pickup and drop off area for visitors to the Metrolink Station will be located along the south side of the Center Boulevard split.
- 2 Central public green space located along view corridors that preserve sight lines to the natural hillscape and the river basin.
- 3 Mixed-use hotel and office towers with shared parking structures near the station to provide the hospitality services as well as conference space that are lacking in the area.



- New Buildings
- Parking Structure
- Public Open Space (Hardscape and/or Softscape)
- Private/Semi-Public Open Space



Mid-rise building with underground parking



Public park overlooking mid-rise apartments

Transit Core District

Center Boulevard will continue eastward from the western end of the HQTA to Commuter Way where the street may become two separated one-way roads divided by a public green and plaza space. The one-way counter-clockwise loop will be a temporary pickup and drop-off parking zone for Metrolink passengers. This area will be connected to the platform via a pedestrian paseo.



The Sixty Hotel in Beverly Hills, CA; Source: hotels.com



View of new hotel and office towers from the Metrolink platform



5-story residential in San Francisco, CA; Source: five88sf.com



Roundabout and civic use on the Metrolink parking lot site



A mixed-use building in Portland, OR



View of new hotel and office towers from across the street (Center Boulevard)

Transit Core District

LAND USE STRATEGY

Land Use Mix and Targets

Buildings in the Transit Core District fronting Soledad Canyon Road will include mixed-use retail and residential. A building for a new school or other civic use is proposed to service new residents in the HQTAs. Buildings fronting the Metrolink Station will be a mix of ground-floor retail office and hotel buildings.

The hotel should be located on a mixed-use block near the Station. For planning purposes, the hotel will have roughly 210 guestrooms v approximately 150,000 sq. ft. These buildings will provide office suites and convention and meeting space for the thriving biomedical industry. The envisioned retail on the ground floor will be transit-supportive and restaurants to service office workers and hotel guests. The upper floors of these buildings will be office spaces.

Hotels are not identified as an allowed use on the Metrolink Site per the 2011 General Plan. An update to the Porta Bella Specific Plan will need to accommodate hotels and conference facilities to realize this vision.

Potential Buildout Land Use Mix*

* These numbers represent the square footage and units proposed by this Vision by the year 2048

Residential Units 70

Residential Sq. Footage 61,180 sq. ft.

Office Square Footage 235,090 sq. ft.

Retail Square Footage 268,910 sq. ft.

Parking 1,370 stalls

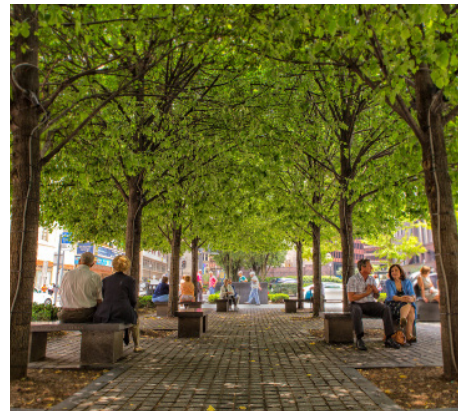
Average Net Dwelling Units/Acre

80+	51 - 80	30 - 50	< 30
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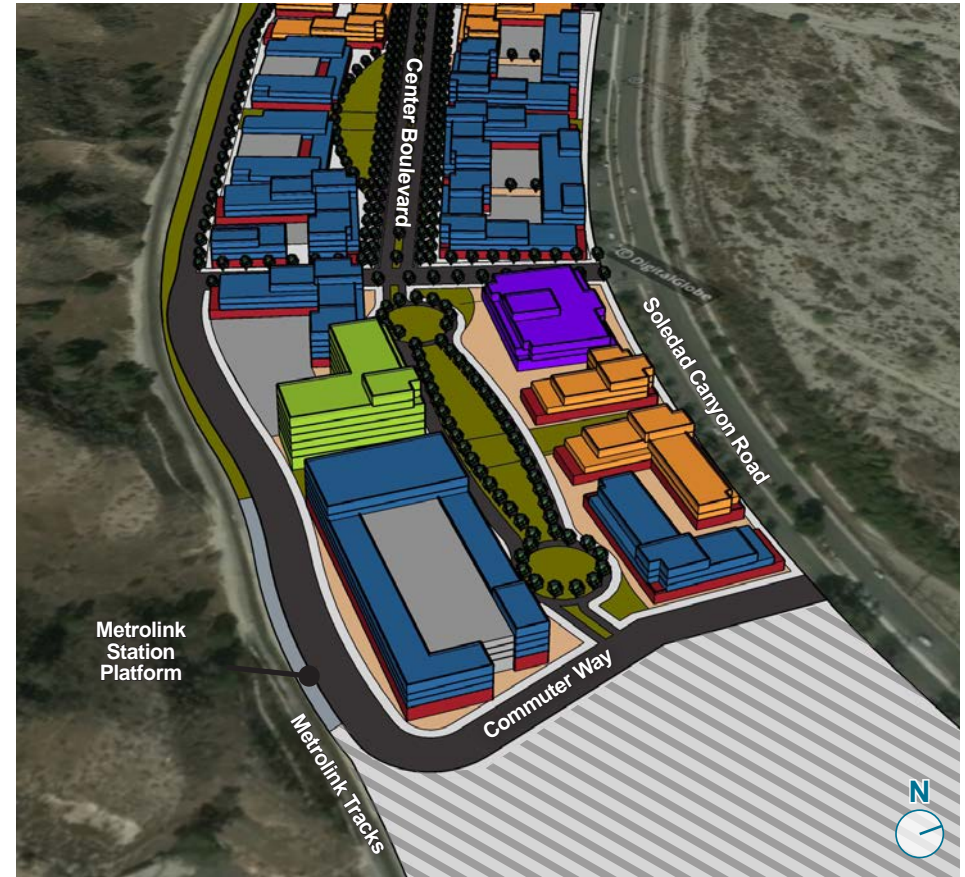
Average Net FAR

4.0 +	3.0 - 3.9	2.0 - 2.9	< 1.9
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- Multi-Family Residential
- Retail
- Office
- Civic/School
- Hotel/Hospitality
- Parking Structure
- Public Open Space
- Private/Semi-Public Open Space



A double-alley of trees enhances connectivity



New mixed use office, retail, and hotel at the Metrolink Station



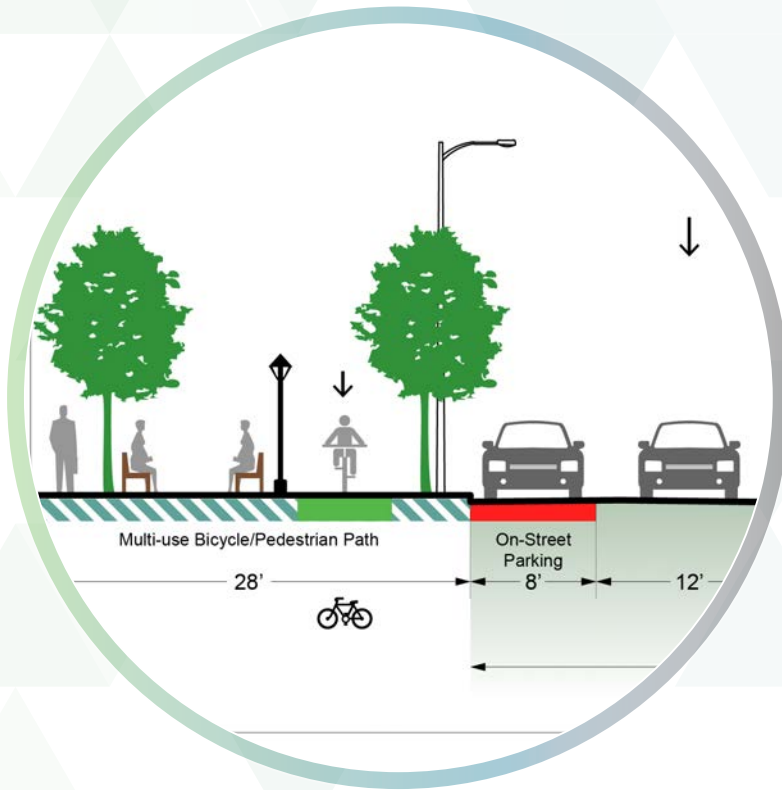
New apartments fronting Soledad Canyon Road

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Part 5

Vision

C - INFRASTRUCTURE AND PUBLIC REALM STRATEGY



Priority Projects

Bicycle Network

Pedestrian/Greening Network

Parking and Transportation Network

Key Improvements

- ◀ C1 ▶ Soledad Canyon Road
- ◀ C2 ▶ Commuter Way
- ◀ C3 ▶ Center Boulevard

Priority Projects

INFRASTRUCTURE & PUBLIC REALM STRATEGY

Corridor Projects

- C 1** Soledad Canyon Road
- C 2** Commuter Way
- C 3** Center Boulevard

Bicycle Projects

- B 1** Center Boulevard Multi-use Path
- B 2** Bike Hub

Pedestrian/Greening Projects

- PG 1** Transit Plaza
- PG 2** Center Boulevard Rambla
- PG 3** Transit Promenade
- PG 4** Speedway Parks
- PG 5** Speedway Promenade
- PG 6** Railway Green

Parking and Transit Projects

- PT 1** Shared Parking Structures
- PT 2** Pick-up / Drop-off Zone
- PT 3** EV Charging Stations (commuter parking garages)



Bicycle Network

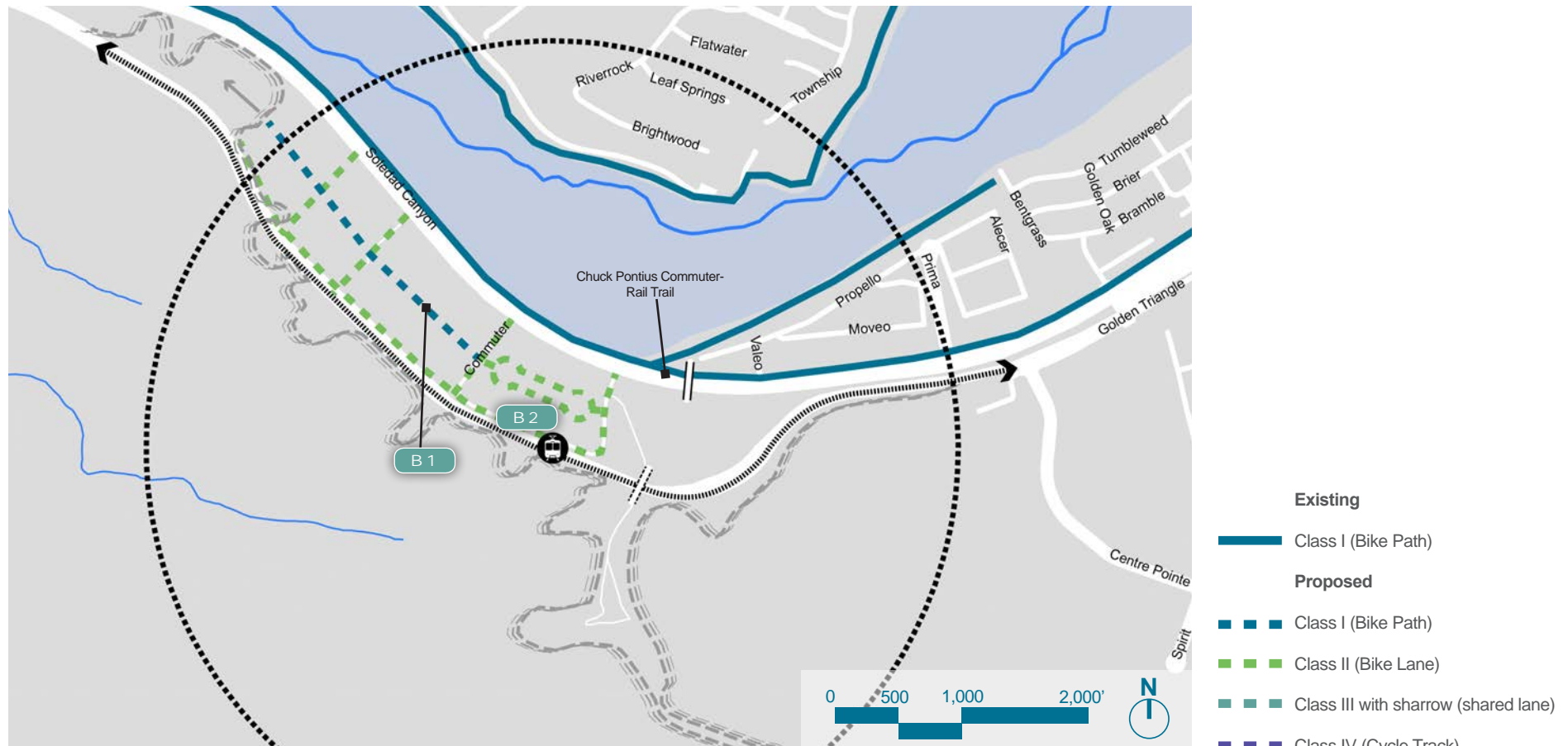
The Vision Plan proposes bicycle improvements to create a connected network of protected bicycle facilities that serve many destinations and multiple neighborhoods surrounding the Pilot Project Area. A connected network of bicycle facilities will provide more benefits such as higher bicycle ridership and improved safety than a few (potentially unconnected) individual projects while creating a district that is easier, and more enjoyable to bike and walk than drive.

The network envisioned by this Vision Plan will connect to the Chuck Pontius Commuter-Rail Trail. Bicycle tracks along a new street, Center Boulevard, will provide primary east-west bicycle circulation in the HQT. Additional streets will also have bicycle lanes to connect to Soledad Canyon Road's existing bike path.

INFRASTRUCTURE & PUBLIC REALM STRATEGY

Priority Projects

- B 1 Center Boulevard Multi-use Path**
The new boulevard (Center) that bisects the Saugus Speedway parcel will have multi-use paths for pedestrians and cyclists on either side of the street.
- B 2 Bike Hub**
Bike facilities located at the Transit Promenade will include fix-it stations, bike storage, and bike rentals.



Pedestrian / Greening Network

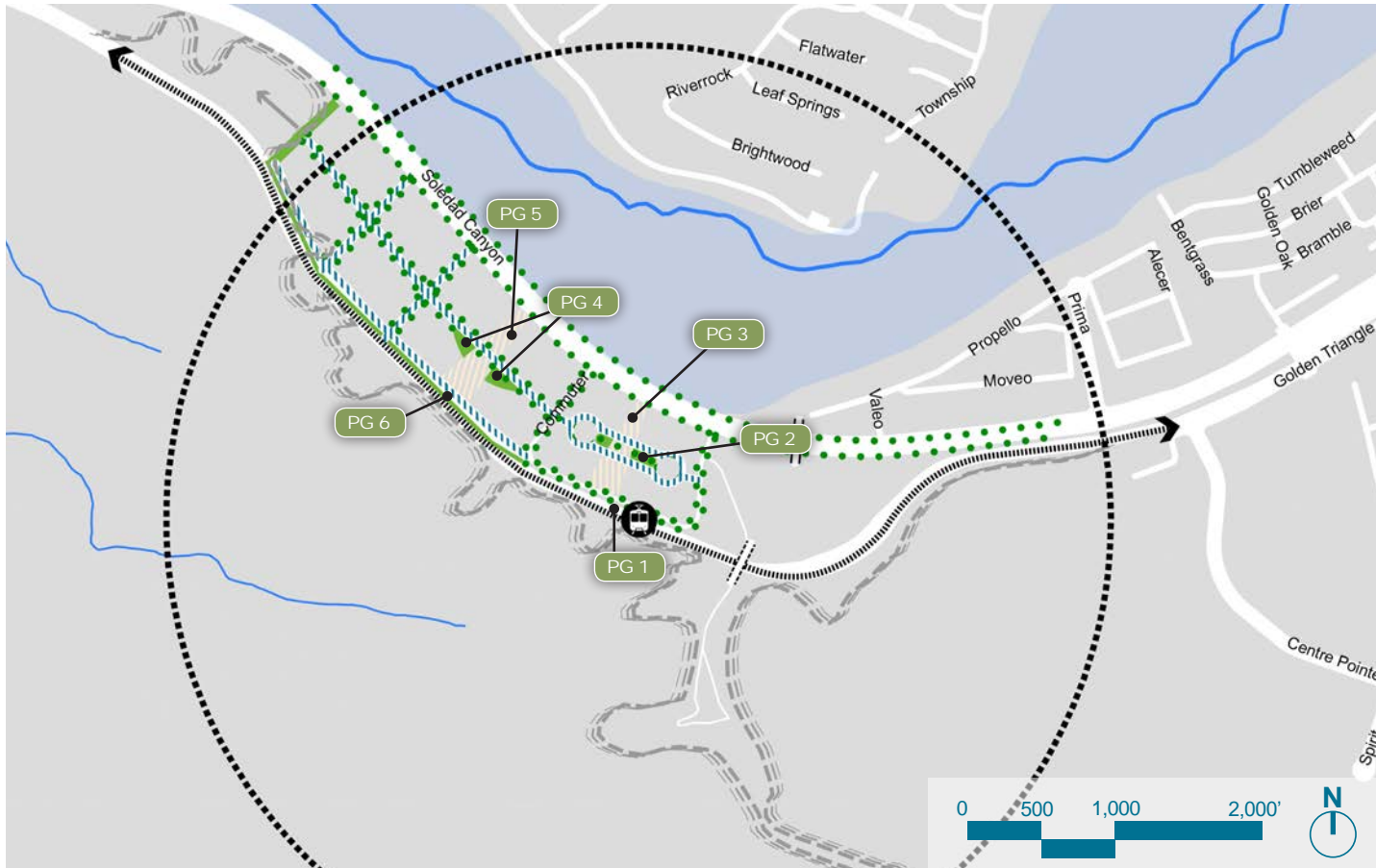
INFRASTRUCTURE & PUBLIC REALM STRATEGY

Landscape, open space, and pedestrian improvements of the Vision Plan not only complement, but should be associated with envisioned bicycle improvements.

This Vision Plan capitalizes on the HQTAs adjacency to Santa Clarita's natural hillscape and the existing Santa Clara River Basin. Four north-south view corridors are established to preserved sight lines to these natural resources. Public plazas will define these view corridors to provide passive and active recreational space. Additionally, public and private parks will line new attached and detached housing units on the northeast portion of the site.

Priority Projects

- PG 1 Transit Plaza
- PG 2 Center Boulevard Rambla
- PG 3 Transit Promenade
- PG 4 Speedway Parks
- PG 5 Speedway Promenade
- PG 6 Railway Green



- Street Trees
- New Public Park
- ▨ New Public Plaza / View Corridor
- ▨ New Streets

Parking and Transportation Network

Transit connectivity, adequate and circulation, and commuter parking are critical for the HQTA.

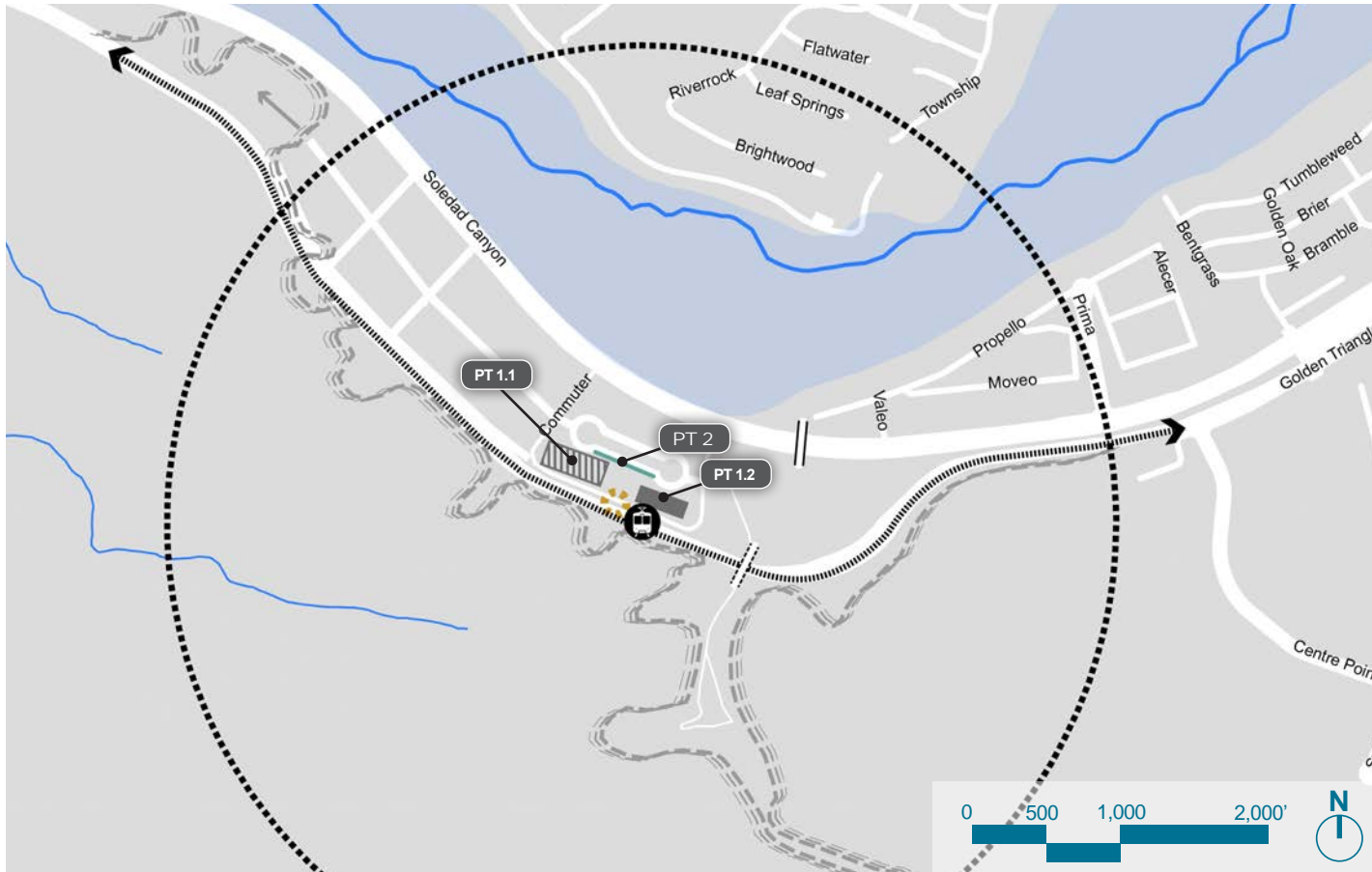
Several new public and private shared parking structures are proposed to support the envisioned development density for the Pilot Project Area. The table at right details the parking capacity at the two new public structures. These new public parking structures include a 1:1 replacement of 427 existing commuter parking spaces plus 466 additional parking spaces for commuters and adjacent development on the Metrolink Site south of Center Boulevard. Parking for the other developments illustrated in this Vision Plan are to be provided in privately owned and operated structures and lots. For all parking calculations, estimated parking demand was determined using TOD-compatible ratios (1 space per residential unit, 1 space per 600 sq. ft. of non-residential uses).

INFRASTRUCTURE & PUBLIC REALM STRATEGY

Parking Structure	Floors	Parking Capacity
1.1	1 (underground)	367
1.2	4	526

Priority Projects

- PT 1 Shared Parking Structures**
There are two proposed public parking structures, detailed in the table at left. The final size, configuration, and determination of above-grade vs. below-grade structure will depend on the future adjacent development.
- PT 2 Pick-up / Drop-off Zone**
The east-bound side of Center Boulevard will have a curb-side pick-up and drop-off zone on the Metrolink parking lot parcel to facilitate commuter transfers.



C1 Soledad Canyon Road

Soledad Canyon Road is the only street by which the Pilot Project Area can be accessed from other areas in Santa Clarita. As such, recommendations for Soledad Canyon Road are modest to preserve the street’s level of service capability. This Vision does, however, recommend a new signalized intersection west of the existing Commuter Way intersection to reduce congestion at Commuter Way caused by the development on the Saugus Speedway site proposed in the buildout scenario.

Community Amenity Zone: Privately-owned and built improvements for pedestrian amenities such as an extended sidewalk, shade trees, benches, trash receptacles, pedestrian lighting, and signage. The City will need to create easements or dedications to facilitate these improvements.

Monument Wayfinding Signage: Monument signage should be placed at key entry points along the landscaped median strip.

Refuge Islands: Addition of a mid-block crossing point with a pedestrian refuge island at the median.

Pedestrian Push Button: Addition of a crosswalk connecting the new intersection on the western end of the site. This intersection will not be signalized, therefore a pedestrian push button is necessary to allow convenient crossings to the trail.

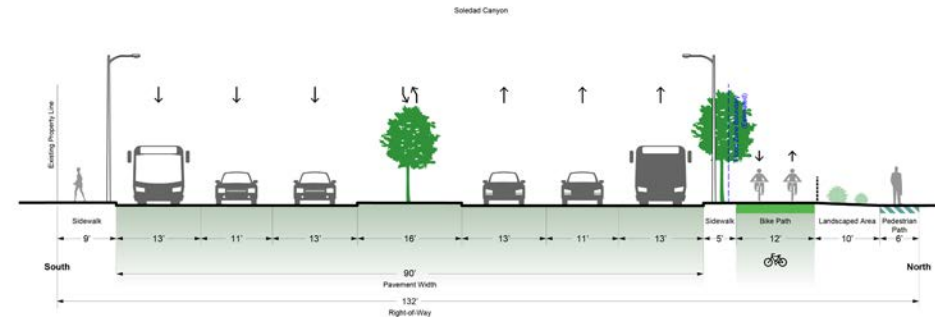
Signalized Intersection: Addition of a signalized intersection on the Saugus Speedway Site with accompanying crosswalks.

Greenway / Street Trees / Bioswale: Addition of street trees along Soledad Canyon Road where there are gaps, primarily on the south side of the street.



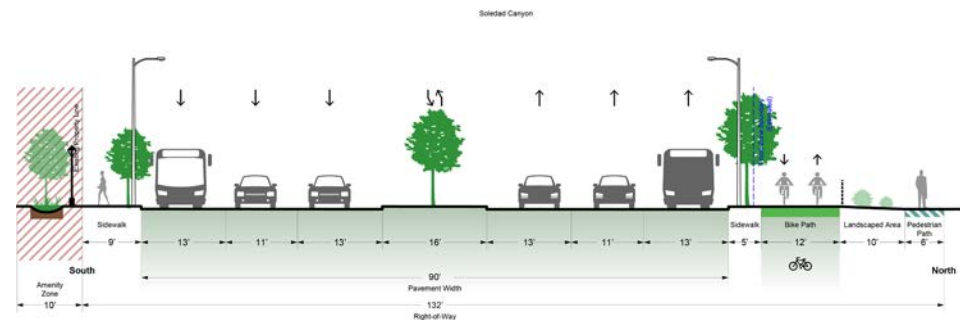
INFRASTRUCTURE & PUBLIC REALM STRATEGY

Existing - Typical Section*



* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

Proposed - Typical Section**



** All cross sections to be refined through public/city input.

C 2 Commuter Way

Commuter Way will see sidewalk and roadway improvements to allow for greater pedestrian, bike, and vehicular access to the Metrolink Station. Additionally, lane re-striping will allow for a bicycle lane adjacent to the on-street parking.

Community Amenity Zone: Privately-owned and built improvements for pedestrian amenities such as an extended sidewalk, shade trees, benches, trash receptacles, pedestrian lighting, and signage. The City will need to create easements or dedications to facilitate these improvements.

Lane Width Reduction: Existing travel lane widths can be reduced to 12' wide on outer lanes and 10' wide on inner lanes.

Bicycle Lane: Addition of a bicycle lane on side of Commuter Way opposite the Metrolink platform.

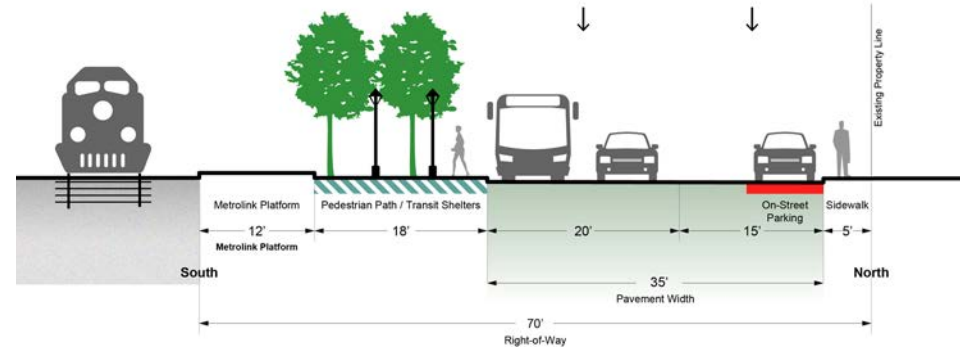
Curb Extensions: Curb extensions located at the Commuter Way / Center Boulevard intersection.

Greenway / Street Trees: Introduce shade trees and parkways along the entire length of Commuter Way where there are gaps.

Enhanced Bus Shelter: Improved street furniture and signage at the Santa Clarita Metrolink Station. **OPTION:** Lane re-striping to convert exterior lane to a bus-only lane adjacent to the Metrolink Station.

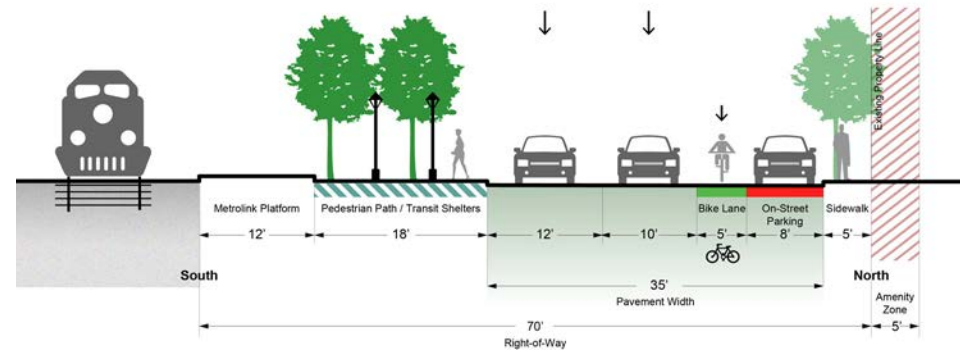
INFRASTRUCTURE & PUBLIC REALM STRATEGY

Existing - Typical Section*

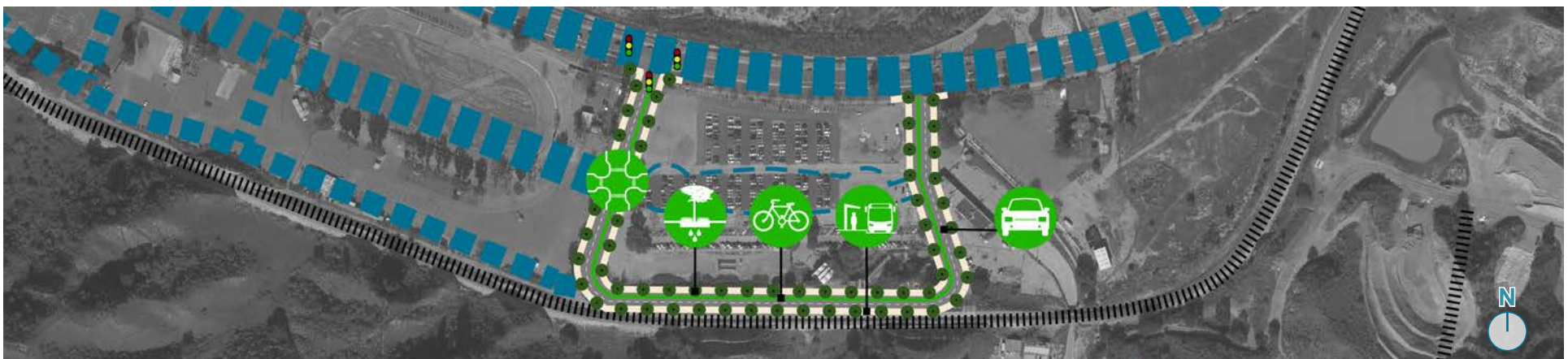


* Dimensions were estimated from aerial imagery. Official dimensions will require a street survey. Source: Google Maps.

Proposed - Typical Section**



** All cross sections to be refined through public/city input.



C 3 Center Boulevard

Center Boulevard will be a new street that connects both ends of the Pilot Project Area in the east-west direction. The boulevard will be a two-lane roadway with protected bicycle lanes, a landscaped turning lane/median, and large pedestrian boardwalks.

INFRASTRUCTURE & PUBLIC REALM STRATEGY



Street with landscaped median near dense buildings; Source: Forbes.com



Rosemead Boulevard, Temple City, CA



Signalized Intersection: Addition of a signalized intersection at the center north/south street with accompanying crosswalks.



Bicycle Lanes: A Class I multi-use path for pedestrians and cyclists is proposed on each side of Center Boulevard in place of a typical sidewalk.

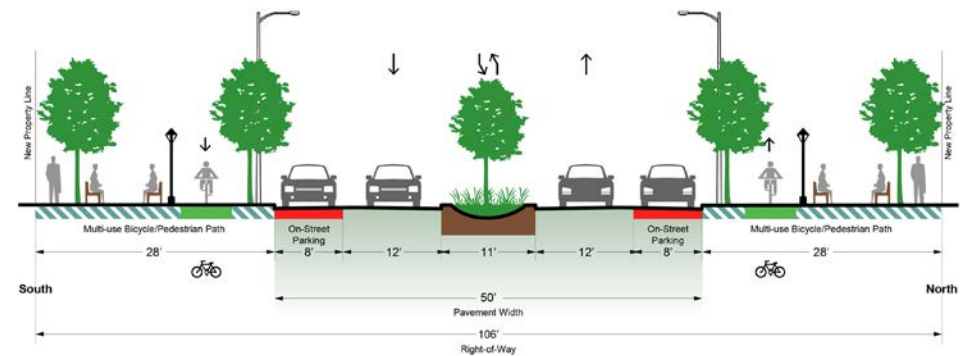


Curb Extension: Curb extensions at the Commuter Way and the western-most new street intersections will increase pedestrian safety around the newly proposed paseos.



Greenway / Street Trees: Introduce shade trees, parkways, bio-retention and infiltration devices along the median and a double row of street trees on both sidewalks to filter stormwater and provide shade.

Proposed - Typical Section**



** All cross sections to be refined through public/city input.



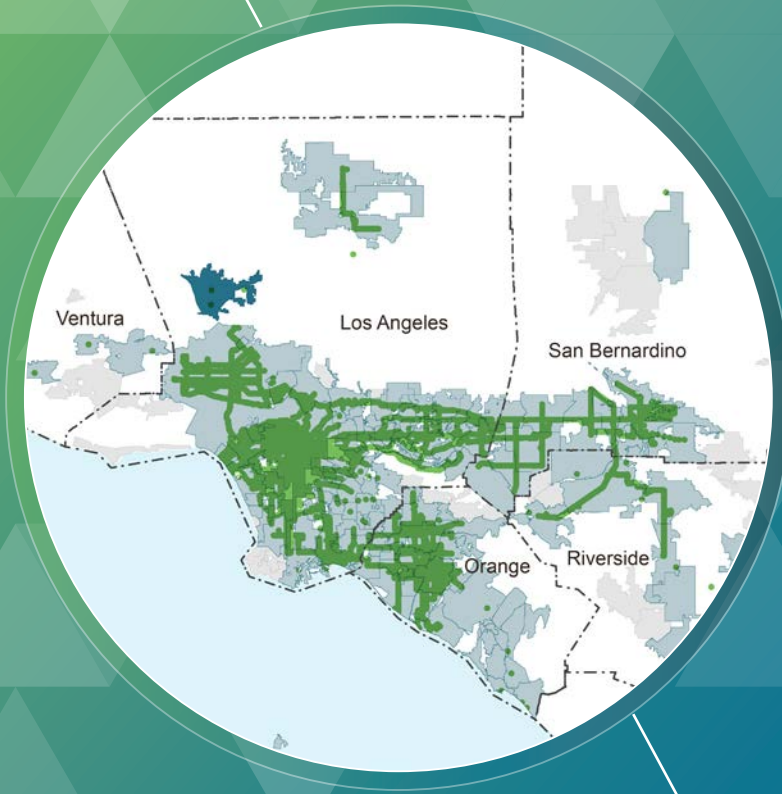
Part 6

Implementation Plan

Policies, programs, initiatives, and partnerships will be key to the success of the plan. A customized financial strategy is included that targets funding streams to specific priority projects outlined in the Vision Plan. In addition, the Vision Plan's full buildout is c

Phasing and Financial Strategy

Metrics



Overview

PHASING AND FINANCIAL STRATEGY

Phasing and Financial Strategy

Priority projects have been organized by Major Development Area (MDA). Projects that fall within multiple MDAs are summarized following the MDA profiles.

Phasing Strategy

The Implementation Plan generally identifies the order by which priority projects, grouped by MDA, can be approached between 2018 and 2048.

Cost Estimates

All order of magnitude cost estimates are conceptual and assume no modifications to utilities or escalation beyond 2018. Costs of Amenity Zones and other private property improvements have not been estimated.

Major street reconstruction cost estimates used an average per-mile cost of similar precedents. Other cost estimates used average unit costs for project elements in similar precedent projects.

Metrics

The Implementation Plan uses the SCAG 2016 RTP/SCS to establish baseline conditions and evaluates the impact of the Pilot Project Buildout through a series of metrics.

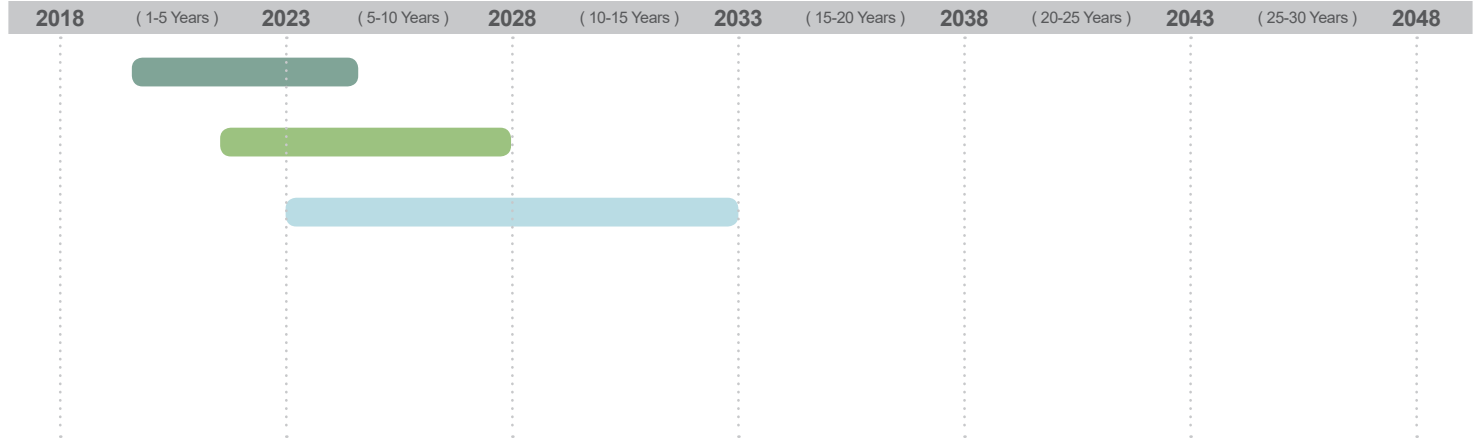


Prioritization of Major Development Areas and Associated Priority Projects

PHASING AND FINANCIAL STRATEGY

Major Development Areas

- MD 1 Saugus Residential
- MD 2 Saugus Mixed-use
- MD 3 Transit Core



Priority Santa Clarita Funding Sources

Based on the list of priority projects identified in the Vision Plan, this section identifies priority funding sources and value capture mechanisms, customized for Santa Clarita's HQTAs.

The priority funding list is drawn from a larger master list of funding sources, which is included in the HQTA toolkit. The master list contains additional information about each of the sources, including an overview of the funding source, eligibility criteria, description of the application process, and key considerations.

For the Vision Plan and its implementation strategy, the priority funding sources list, shown below, has been crafted to prioritize the resources that would be most applicable to projects identified within the Vision Plan based on ease of access to the funding resources, level of potential competition for the resources, and restrictive covenants associated with the resources.

Major Development Projects Funding Sources

- ER** Joint Development
- ER** Public-Private Partnerships (P3)
- ER** CDBG – Community Development
- AF** Low-Income Housing Tax Credits
- AF** Affordable Housing and Sustainable Communities (AHSC)

Bicycle and Pedestrian Funding Sources

- BP** Active Transportation Program (ATP)
- BP** Local Returns Program (LA County)
- BP** Measure M ATP
- BP** Transportation Development Act (Article 3)
- BP** Surface Transportation Block Grant
- BP** Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Urban Greening & Environmental Funding Sources

- UG** Urban and Community Forestry Program
- UG** Urban Greening Grant Program
- UG** Infill Infrastructure Grant Program (IIG)

Parking and Transit Funding Sources

- PT** Prop C – Transit Centers, Park-n-Ride
- PT** SB-325 – Transit Assistance
- PT** Transit and Intercity Rail Capital Program
- PT** Infrastructure State Revolving Fund
- PT** Transportation Infrastructure Finance and Innovation Act

PHASING AND FINANCIAL STRATEGY

Funding sources have also been presented by implementation phase. It may be helpful to strategically pursue funding for multiple projects at once by implementation phase. There are also a number of value capture sources that could be used on a district-wide basis to support multiple projects within each phase or across implementation phases.

It should be noted that the funding sources presented here represent those resources the City could potentially utilize to support implementation at this time. However, the City should carefully consider its ability to mobilize these funds based on its existing capital plans, citywide budget, and other existing funding commitments. Additional funding sources will be available in the future and should be added to the list by SCAG and the City.

District-wide Value Capture Mechanisms

- VC** TIF/ EIFD
- VC** Parking Fees/ Congestion Pricing
- VC** Community Facilities/ Special Assessment District
- VC** Community Revitalization and Investment Authorities
- VC** Developer Impact Fee
- VC** Bond/Debt Financing

MD 1 Saugus Residential MDA Priority Projects

The Saugus Residential MDA will be a lower density community on the west end of the Pilot Project Area. The area will have public paseos and small parks to provide residents with quality open space.

PHASING AND FINANCIAL STRATEGY



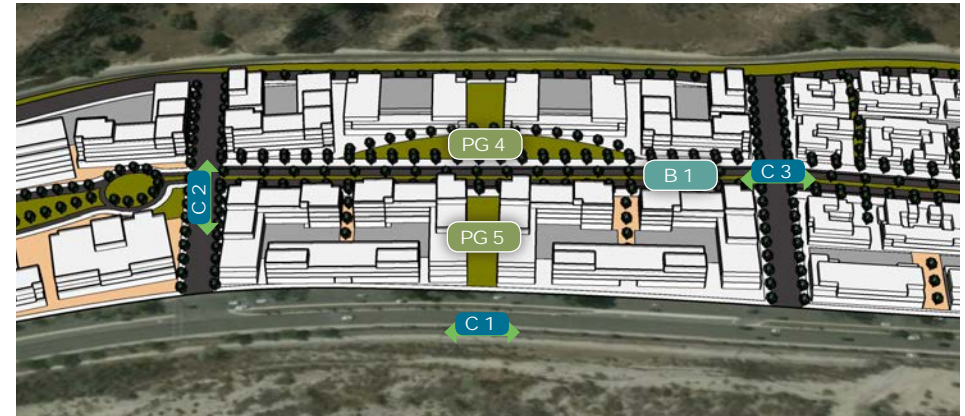
Priority Projects within MD 1	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
<p>PG 6 Railway Green A linear park with the railroad tracks as its backdrop, the Railway Green stretches across the southern edge of the site connecting the Metrolink Station area to the residential western portion.</p>	<p>Start: 2020 → End: 2025</p>	<ul style="list-style-type: none"> City of Santa Clarita 	<p>Further study required to estimate cost.</p>	<p>N/A</p>	<ul style="list-style-type: none"> UG Urban and Community Forestry Program UG Urban Greening Grant Program UG Infill Infrastructure Grant Program (IIG)
<p>Other Associated Projects (see page 68 for more detail)</p> <ul style="list-style-type: none"> C 1 Soledad Canyon Road Corridor Improvements C 3 Center Boulevard Corridor Improvements 					

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

MD 2 Saugus Mixed-use MDA Priority Projects

PHASING AND FINANCIAL STRATEGY

Adjacent to the Metrolink Station and proposed Transit Core is the Saugus Mixed-use Major Development Area. Seen as a transition between the high-density Transit Core and the lower-density Saugus Residential, commercial office, civic, and medium-density residential make up this area



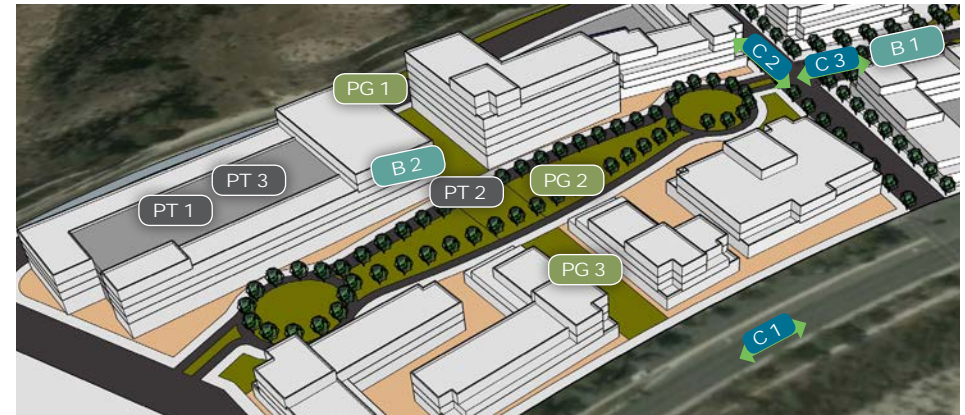
Priority Projects within MD 2	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
<p>PG 4 Speedway Plaza Park A public park bridging modeled after the historic Saugus Speedway to offer an opportunity for a vibrant mixed-use environment for gathering, dining and recreation.</p>	<p>Start: 2022 → End: 2027</p>	<ul style="list-style-type: none"> City of Santa Clarita Private Developers 	<p>More detailed design documentation is required to provide accurate cost estimates</p>	N/A	<ul style="list-style-type: none"> UG Urban and Community Forestry Program UG Urban Greening Grant Program VC Developer Impact Fee
<p>PG 5 Speedway Promenade The Speedway Promenade bisects the Saugus Mixed-use MDA and complements the Speedway Plaza Park by providing a direct pedestrian connection from Soledad Canyon Road. The promenade offers a prominent view corridor to Soledad Canyon on the south and the Santa Clara River to the north.</p>	<p>Start: 2022 → End: 2027</p>	<ul style="list-style-type: none"> City of Santa Clarita Private Developers 	<p>More detailed design documentation is required to provide accurate cost estimates</p>	N/A	<ul style="list-style-type: none"> BP Active Transportation Program (ATP) BP Surface Transportation Block Grant PT Infrastructure State Revolving Fund VC TIF/ EIFD
<p>Other Associated Projects (see page 68 for more detail)</p> <ul style="list-style-type: none"> C 1 Soledad Canyon Road Corridor Improvements C 2 Commuter Way Corridor Improvements C 3 Center Boulevard Corridor Improvements B 1 Center Boulevard Multi-use Path 					

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

MD 3 Transit Core MDA Priority Projects

PHASING AND FINANCIAL STRATEGY

The first phase of the proposed vision will take place in the Transit Core Major Development Area which is a mixed-use pedestrian-friendly environment with transit-supportive uses such as commercial office and retail, residential and hospitality.



Priority Projects within MD 3	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
PG 1 Transit Plaza: Transit-supportive amenities such as bike racks, a bike hub, fix-it stations, small retailers, and passive recreation space will be at the center of the Transit Plaza.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers	<i>More detailed design documentation is required to provide accurate cost estimates</i>	N/A	(BP) Measure M ATP (BP) Transportation Development Act (Article 3) (PT) Prop C – Transit Centers, Park-n-Ride (PT) SB-325 – Transit Assistance (PT) Transit and Intercity Rail Capital Program
PG 2 Center Boulevard Rambla: Center Boulevard will have a rambla with park amenities and retail kiosks.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers			(PT) Infrastructure State Revolving Fund
PG 3 Transit Promenade: A pedestrian promenade connects Soledad Canyon Road with the Metrolink Station.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers			(PT) Transportation Infrastructure Finance and Innovation Act
B 2 Bike Hub: Bike facilities will be incorporated into structures adjacent to the Metrolink station.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers	\$13.10M - \$19.65M	Precedent: Bikestation in Washington D.C.(2010)	(VC) TIF/ EIFD (VC) Parking Fees/ Congestion Pricing
PT 1 & PT 3 Shared Public Parking Structures & EV Charging Stations: Two new shared public structures near the Metrolink Station with electric vehicle charging stations.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers	\$26.79M - \$35.72M	893 stalls in 2 structures at \$30,000 - \$40,000 per stall. Cost does not include charging stations.	
PT 2 Pick-up / Drop-off Zone: Center Boulevard will have a pick-up and drop-off zone for Metrolink riders.	Start 2023 → End 2033	• City of Santa Clarita • Private Developers	<i>More detailed design documentation is required to provide accurate cost estimates</i>	N/A	
Other Associated Projects (see page 68 for more detail)					
(C 1) Soledad Canyon Road Corridor Improvements, (C 2) Commuter Way Corridor Improvements, (C 3) Center Boulevard Corridor Improvements, (B 1) Center Boulevard Multi-use Path					

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

Priority Projects in Multiple Major Development Areas

PHASING AND FINANCIAL STRATEGY

Priority Projects	General Timeline	Stakeholders	Cost Estimate*	Cost Estimate Assumptions	Potential Funding Sources
C 1 Soledad Canyon Road Corridor Improvements Monument Wayfinding Signage, Pedestrian Push Button, Signalized Intersection, Pedestrian Refuge, Greenway / Street Trees / Bioswale	Start 2020 → End 2025	<ul style="list-style-type: none"> City of Santa Clarita 	\$3.03M - \$5.95M	Minor interventions along length of Solded Canyon Road adjacent to Pilot Project Area	<ul style="list-style-type: none"> BP Active Transportation Program (ATP) BP Local Returns Program (LA County)
C 2 Commuter Way Corridor Improvements Lane Width Reduction, Bicycle Lanes, Curb Extensions, Greenway / Street Trees / Bioswale, Enhanced Bus Shelters	Start 2020 → End 2025	<ul style="list-style-type: none"> City of Santa Clarita 	\$530,000 - \$831,000	Moderate interventions along entire length of Commuter Way	<ul style="list-style-type: none"> BP Measure M ATP BP Transportation Development Act (Article 3)
C 3 Center Boulevard Corridor Improvements Signalized Intersection, Bicycle Lanes, Curb Extensions, Greenway / Street Trees	Start 2022 → End 2027	<ul style="list-style-type: none"> City of Santa Clarita Private Developers 	\$6.10M - \$8.32M	Construction of a new street approximately 0.55 miles long	<ul style="list-style-type: none"> BP Surface Transportation Block Grant BP Congestion Mitigation and Air Quality Improvement Program (CMAQ)
B 1 Center Boulevard Multi-use Path Bicycle lanes, pedestrian lighting, landscaping, and seating on either side of Center Boulevard	Start 2022 → End 2027	<ul style="list-style-type: none"> City of Santa Clarita Private Developers 	<i>Cost of project included in cost estimation for Project C 3</i>		<ul style="list-style-type: none"> PT Infrastructure State Revolving Fund PT Transportation Infrastructure Finance and Innovation Act VC TIF/ EIFD VC Parking Fees/ Congestion Pricing

* All rough order of magnitude cost estimates are conceptual and assume no modifications to utilities or cost escalation beyond 2018. The cost of Amenity Zones and other private property improvements have not been included.

Metrics Overview

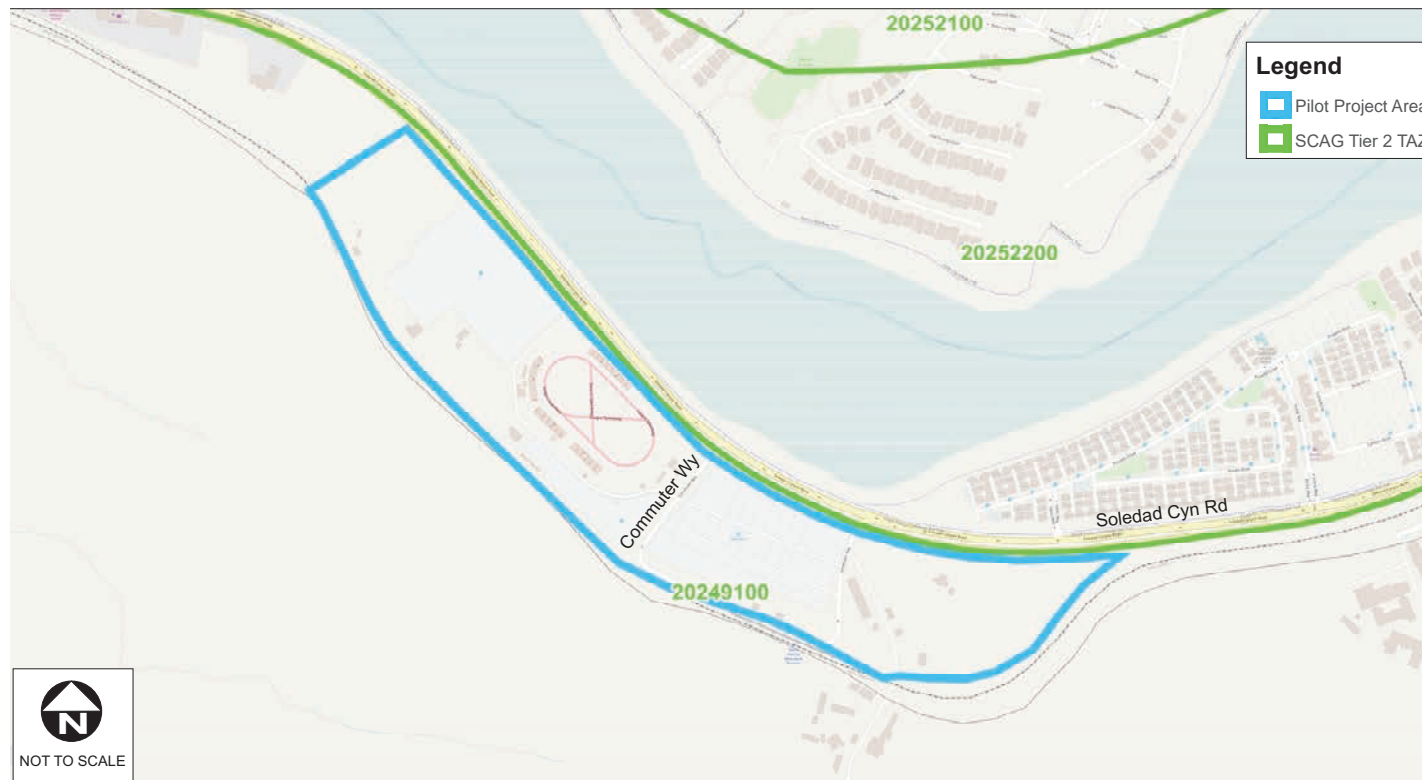
METRICS

The Santa Clarita HQTAPilot Project Vision Plan is made up of two districts: Saugus Mixed-use District and Transit Core District. The districts consist of or overlap with one SCAG Model TAZ's (Tier 2 level).

The current 2040 SCAG Model scenario Socio-economic data (SED) is considered as the “No Build” (i.e., business as usual) condition for the purposes of evaluating the effectiveness of the HQTAPilot Project Vision Plan on transportation metrics. The HQTAPilot Project Vision Plan land use was converted to SED (households, population, employment) for use in the model, using industry standard factors. Residential dwelling units were used to calculate the estimated population, and office and retail square footage was used to calculate employment. The Vision Plan SED was then proportionally added to the appropriate TAZ's based on the district, thus creating a 2040 With Vision Plan scenario, considered the “Build” scenario.

The following pages compare the No Build scenario to the HQTAPilot Project Vision Plan using the following metrics: vehicular delay (in hours), transit mode share (in % of total travel trips), public transit usage, vehicular miles traveled (VMT), and vehicular hours traveled (VHT).

SCAG 2016 Tier 2 TAZ Boundaries



Source: Iteris, SCAG 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS)

Vision Plan Outcomes

As described, with the increased density resulting from buildout of the Vision Plans in the Santa Clarita HQTAPilot Project Area, several long-range transportation benefits enumerated in the 2016 RTP/SCS have the potential to be achieved.

A comparison of the 2040 “Build” versus “No Build” model results show the following anticipated projections for the HQTAPilot Project with full buildout of the Vision Plan:



in non-freeway vehicular delay (per capita)



in transit mode share (as a percentage of total travel trips)






in vehicular miles traveled (VMT) (per capita)



in vehicular hours traveled (VHT) (per capita)

SCAG Model Output Data

Socio Economic Data (input)

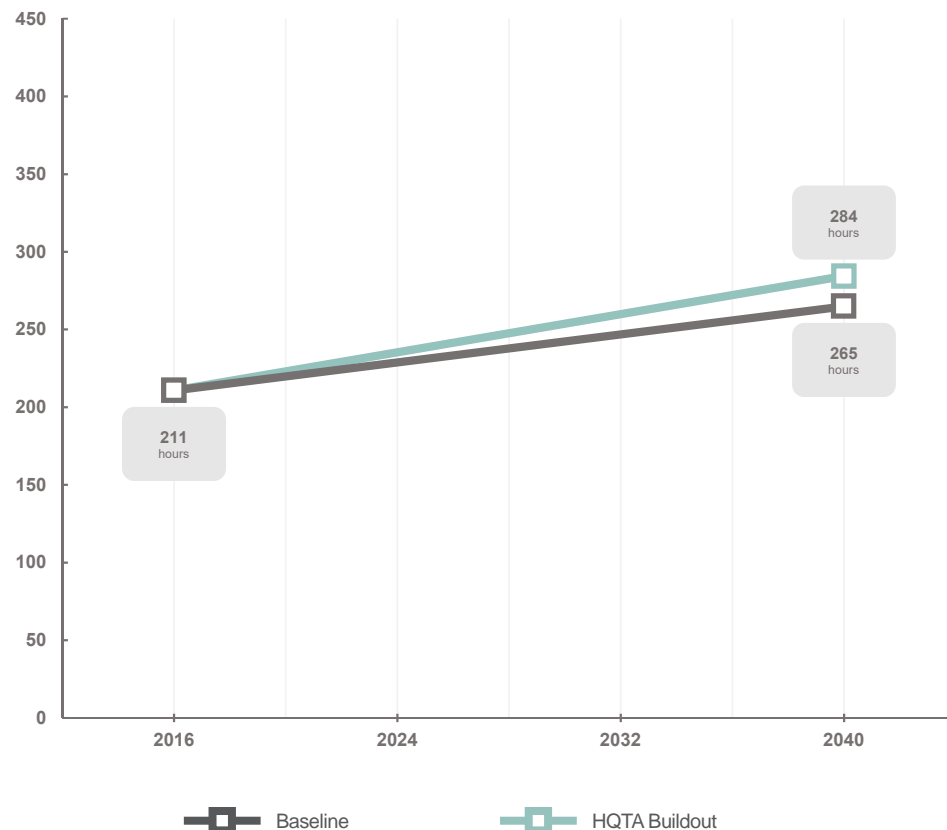
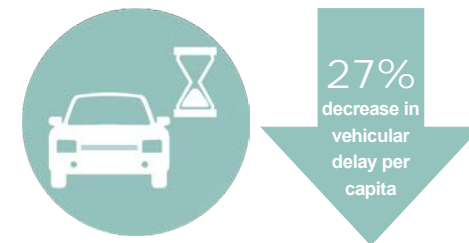
	 Households	 Population	 Retail Employment	 Non-Retail Employment
2016	377	1,148	1,610	11,584
2040 (No Build)	1,097	3,081	1,111	11,746
2040 (Vision Plan)	1,607	4,509	2,124	13,844

Additional Factors which may Affect Outcomes

The estimates provided in the Implementation Plan are estimates, and actual numbers may increase or decrease due to a variety of factors. Additional investments in transit infrastructure, for instance, may increase public transit usage and decrease vehicular miles traveled.

Non-freeway Vehicular Delay

Non-freeway vehicular delay is measured in total hours, limited to the Pilot Project Area. The Santa Clarita Pilot Project Area can potentially achieve a 7% increase in non-freeway vehicular delay in hours total, but a 27% decrease in non-freeway vehicular delay per capita by the year 2040 compared to baseline delay projections.

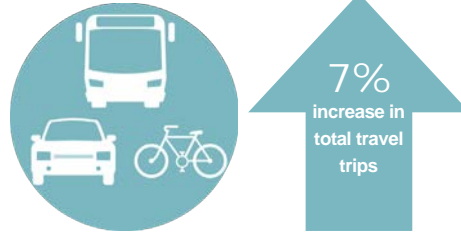


METRICS

SCAG Model Output Data

Transit Mode Share

Transit usage estimates are limited to the Pilot Project Area boundary. The Santa Clarita Pilot Project Area can potentially achieve a 7% increase in the proportion of travel trips by public transit to other modes by the year 2040 compared to baseline transit usage projections.

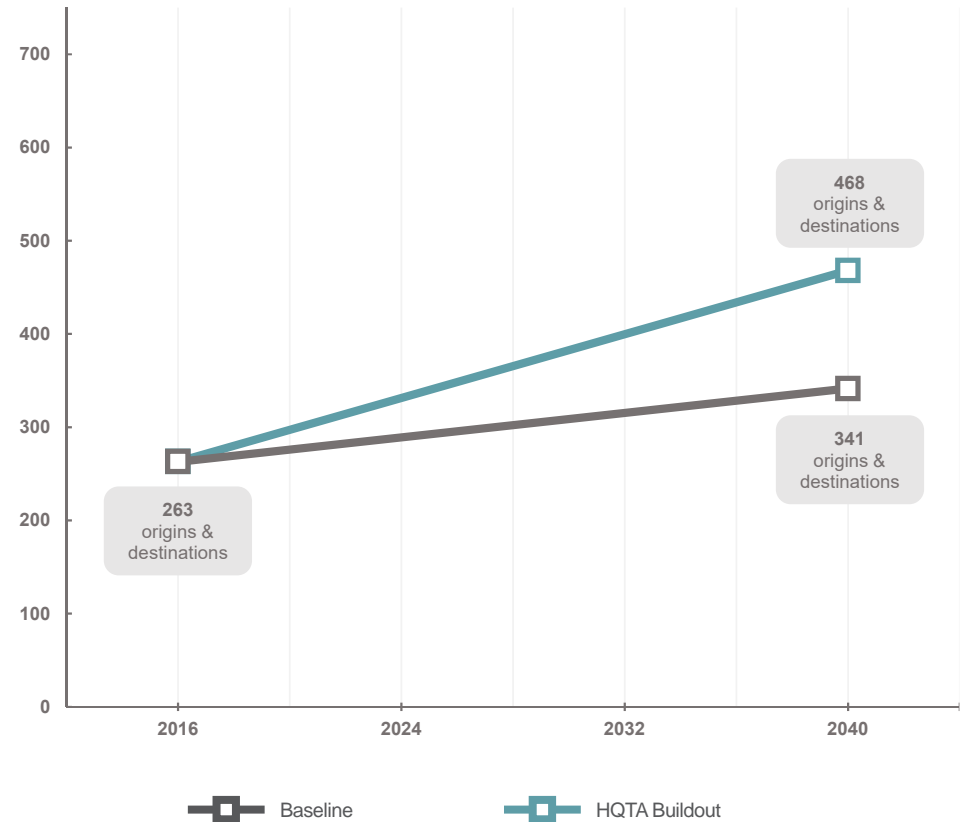
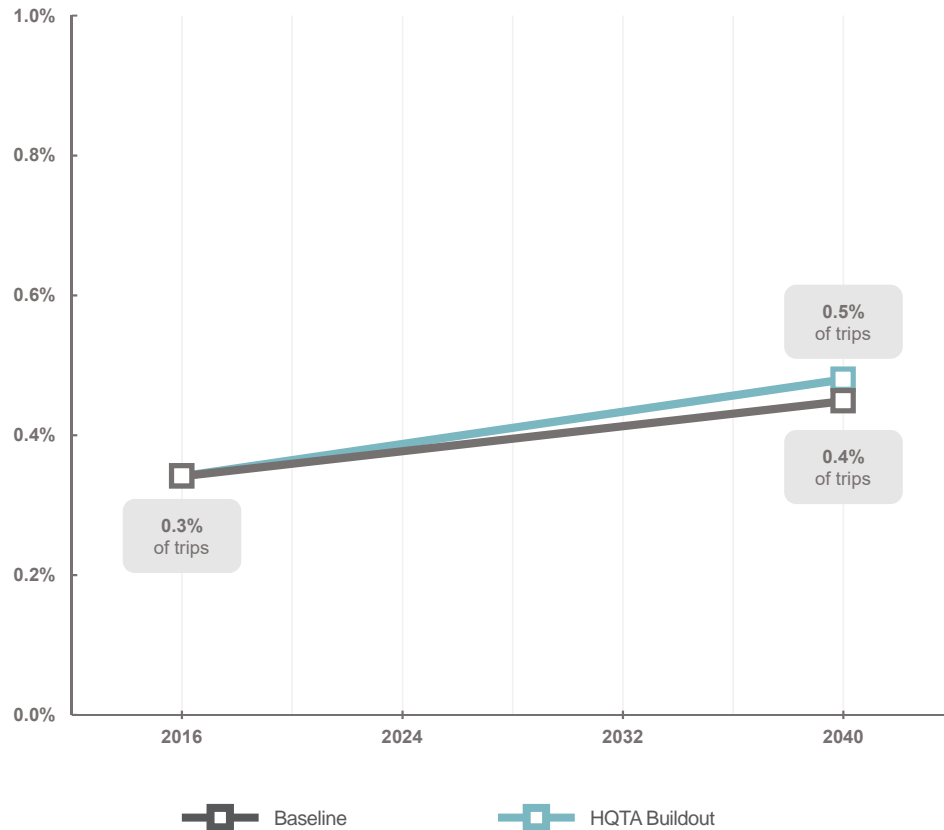


Public Transit Usage

Transit usage estimates are limited to the Pilot Project Area boundary. The Santa Clarita Pilot Project Area can potentially achieve a 47% increase in public transit origins and destinations by the year 2040 compared to baseline transit usage projections.



METRICS

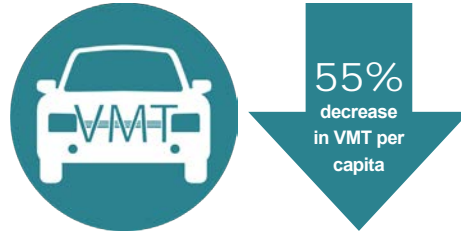


SCAG Model Output Data

METRICS

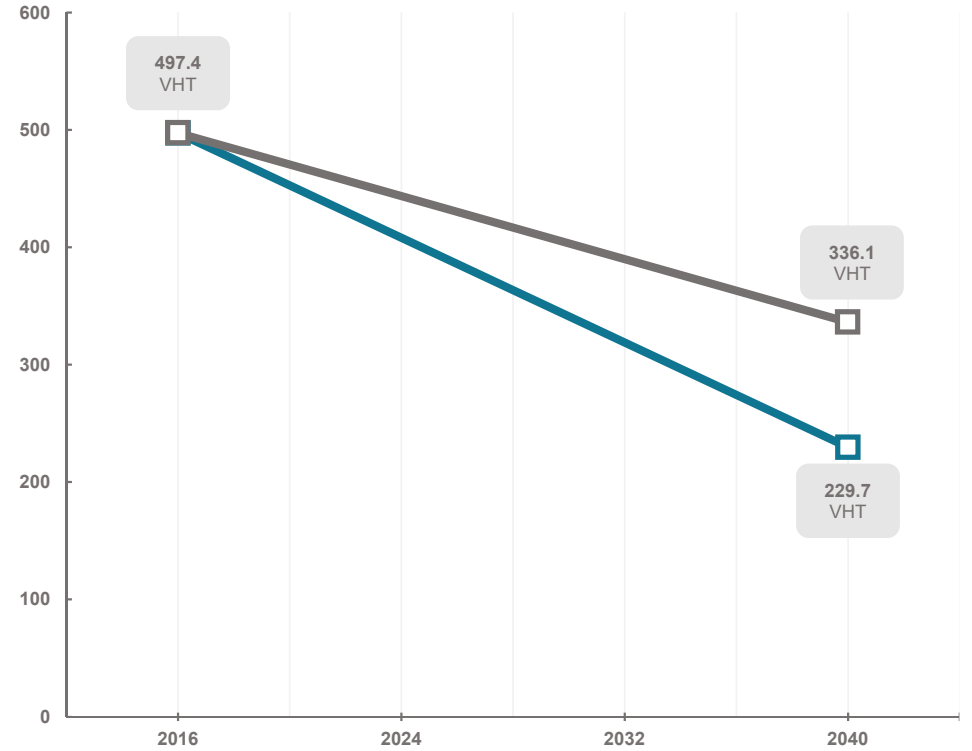
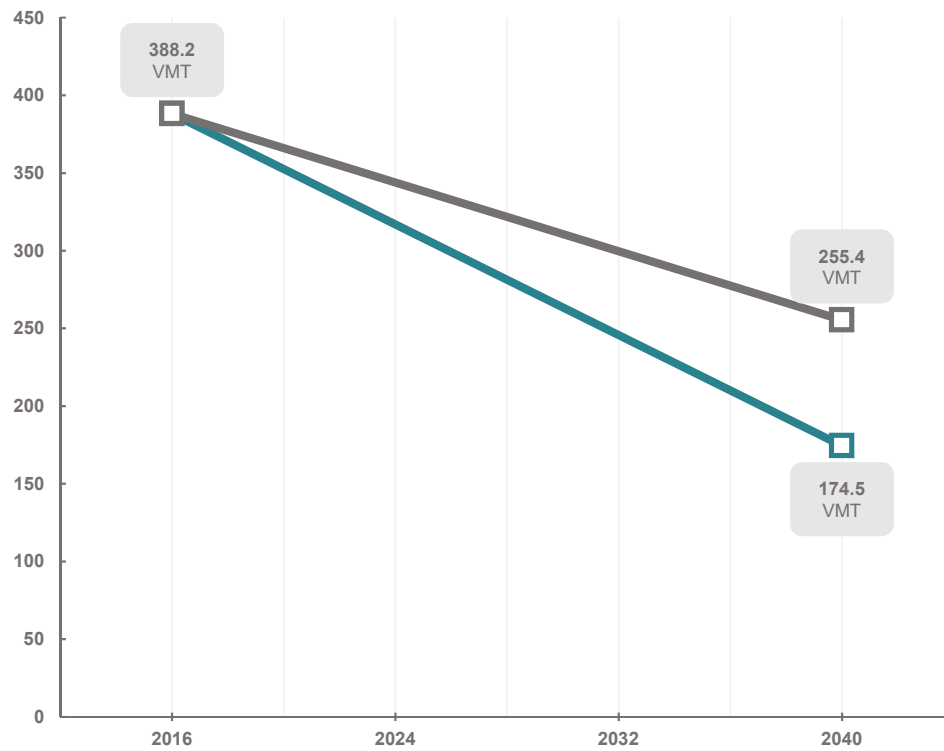
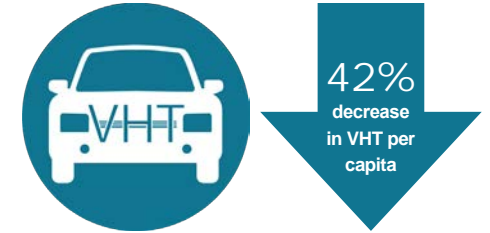
Vehicular Miles Traveled (VMT)

VMT is measured in miles per capita. The Santa Clarita Pilot Project Area can potentially achieve a 55% decrease in vehicle miles traveled per capita by the year 2040 compared to baseline VMT projections.



Vehicular Hours Traveled (VHT)

VHT is measured in miles per capita. The Santa Clarita Pilot Project Area can potentially achieve a 42% decrease in vehicle hours traveled per capita by the year 2040 compared to baseline VHT projections.



Baseline

HQTA Buildout

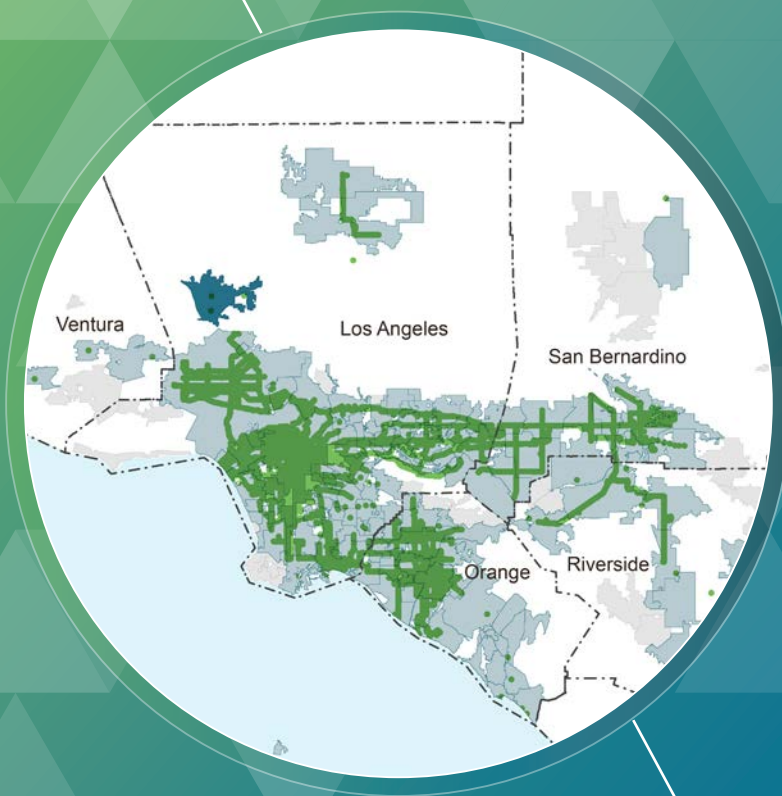
Baseline

HQTA Buildout

Appendix

A - Existing Conditions Inventory

B - HQTA Toolkit



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Appendix A

Existing Conditions

Inventory



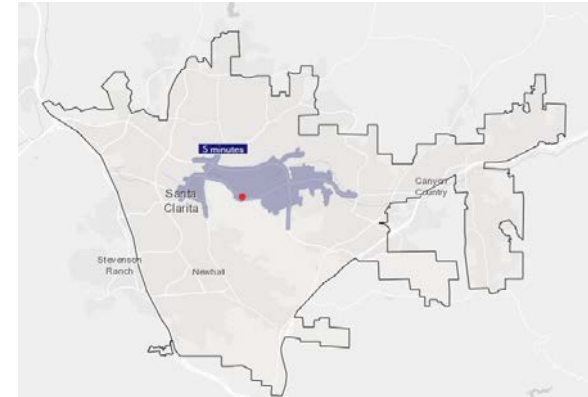
Introduction

EXISTING CONDITIONS INVENTORY

SANTA CLARITA – MetroLink Station

THE STUDY AREA

- The Study Area includes **a five-minute drivetime from the Santa Clarita MetroLink station**, which includes the 35-acre Saugus Speedway Pilot Project site and:
 - Walmart Supercenter-anchored shopping center to the west;
 - Westfield Valencia Town Center to the east;
 - planned communities primarily across the Santa Clara River floodplain;
 - light industrial and R+D spaces along the Reuther Ave, Centre Pointe Parkway, and north of the Soledad Canyon road; and
 - Santa Clarita Aquatics Center along Golden Valley road.



City of Santa Clarita

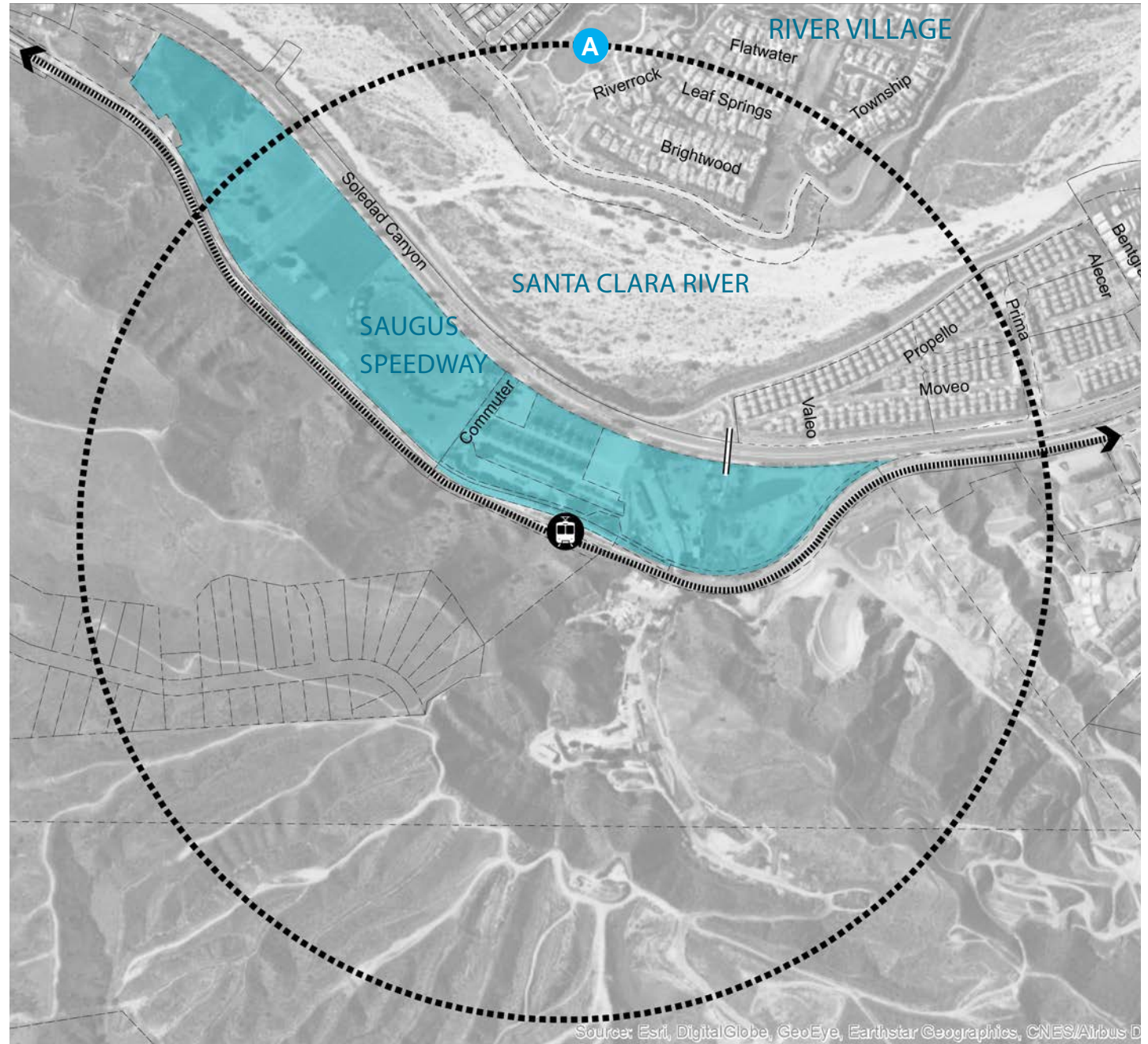
Source: ESRI



Project Area

EXISTING CONDITIONS INVENTORY

A Duane R. Harte Park



 Metrolink Route and Station

 1/2 mile area

 Study Area

 Speedway / Metrolink Sites

0 500 1,000 2,000'

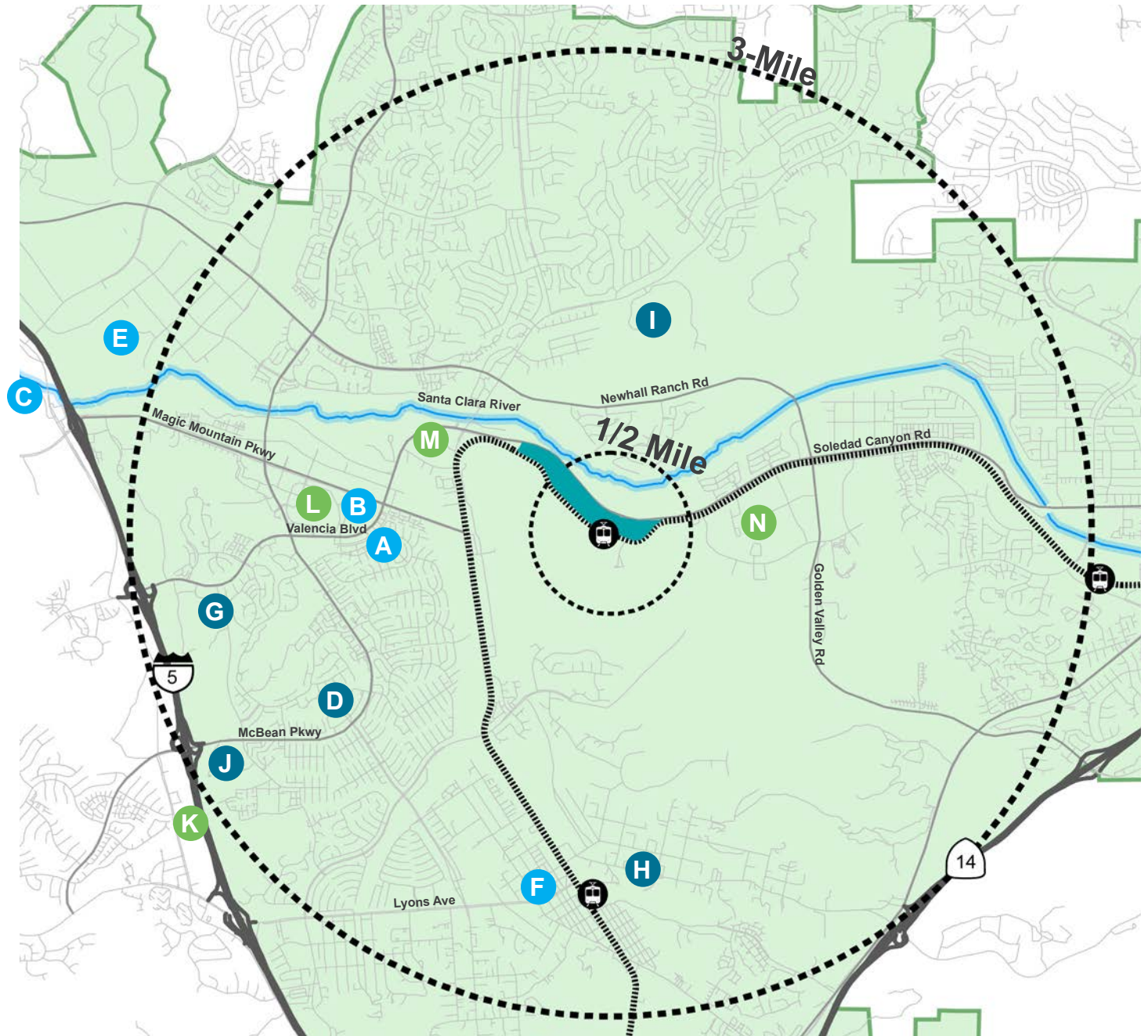


Source: ESRI

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus D

Activity Centers

- A** Santa Clarita City Hall
- B** Los Angeles County Civic Center
- C** Six Flags Magic Mountain
- D** Old Town Newhall
- E** Valencia Industrial Park
- F** Henry Mayo Memorial Hospital
- G** College of the Canyons
- H** The Master's College/University
- I** Central Park
- J** CalArts
- K** Westfield Valencia Town Center
- L** Valencia Marketplace
- M** Valencia Mart Shopping Center
- N** Other Shopping Ctr Centers



Source: ESRI and Google Maps

SANTA CLARITA – MetroLink Station

DEMOGRAPHIC PROFILE

- City of Santa Clarita constitutes **1.3% of the land area** of Los Angeles County and accounts for about **1.8% of its population**.
- The Study Area comprises of nearly 5.0% of the population of the City, and has a lower population density than the City.
- **Population growth is expected to significantly outpace** that of the County over the next ten years.
- City of Santa Clarita is predominantly white, has a higher percentage of **college educated population**, and **higher median income** than the Los Angeles County.
- The Study Area has a slightly **higher median age** than the City and County, but has similar educational levels and household income as the City.
- City and the Study area have significantly **higher homeownership** rates compared to the County.

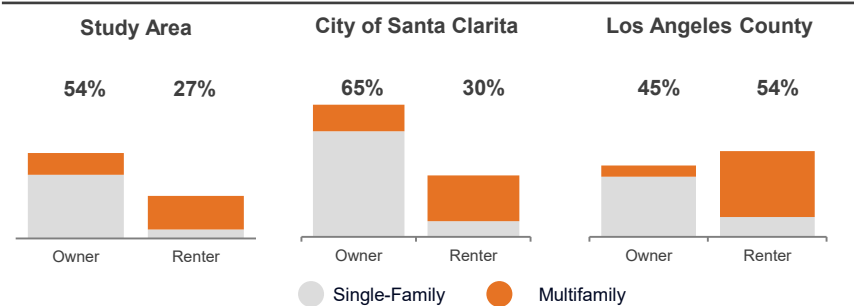
DEMOGRAPHICS (2017)	Study Area***	City of Santa Clarita	Los Angeles County
Total Population	9,247	186,809	10,275,545
Pop. Density (Per Sq. Mile)	1,260	3,420	323
Annual Growth Rate			
Historic (2010-2017)	4.01%	0.83%	0.65%
Projected (2017-2027)	1.14%	2.91%	0.74%
Total Households	3,591	62,192	3,362,080
Average HH Size	2.57	3.02	3.04
Annual Growth Rate			
Historic (2010-2017)	3.57%	0.63%	0.52%
Projected (2017-2027)	1.22%	2.95%	0.83%
Median Age	41.6	36.1	35.6
0-17 years	25%	25%	23%
18-64 Years	63%	64%	65%
64 Years and Over	13%	12%	12%
Jobs per Household*	2.7	1.1	1.3
Unemployment Rate**	3.8%	4.3%	4.8%
Median Household Income	\$72,716	\$88,465	\$59,613

* HR&A Advisors, Inc.

**Percentage of population 16 years and over in the labor force.

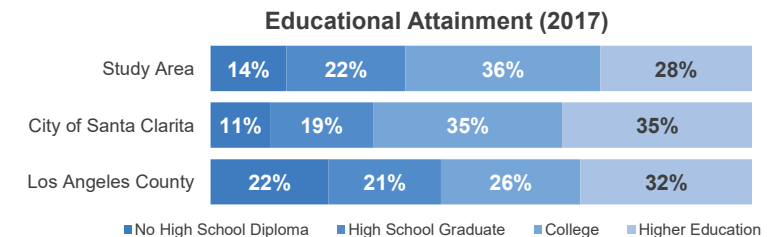
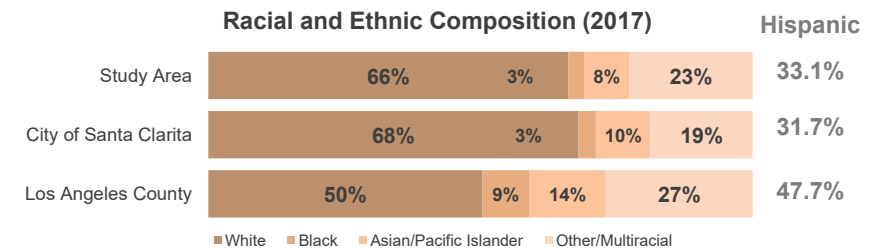
Sources: Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008, Dept. of Finance E5 2007.

HOUSING TENURE (2016)



MOBILITY (2016)

	Study Area	City of Santa Clarita	Los Angeles County
Average Commute Time (in mins.)	NA	33	30
Cars per Household*	NA	1.0	0.2
Public Transit Users	NA	3%	7%
Solo Drivers	NA	77%	74%
Others	NA	20%	20%



*** Study Area is defined as a 5-minute drivetime from the Santa Clarita MetroLink station and is not the typical half-mile radius around the station.

SANTA CLARITA – MetroLink Station

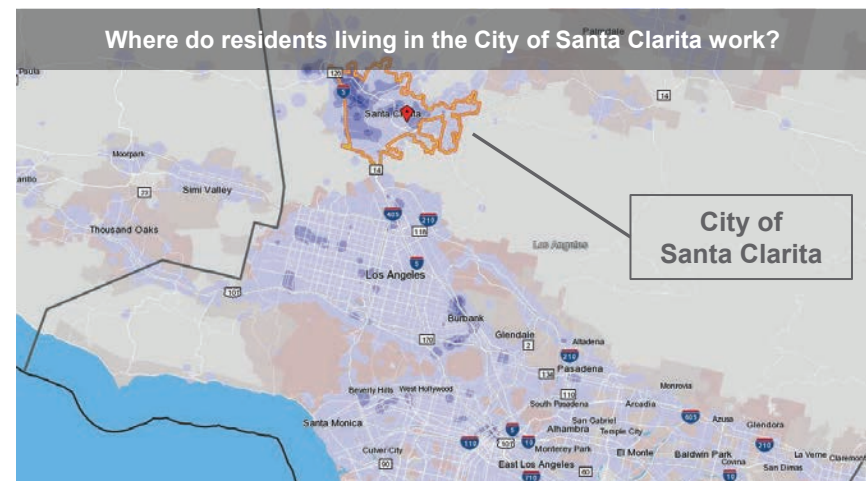
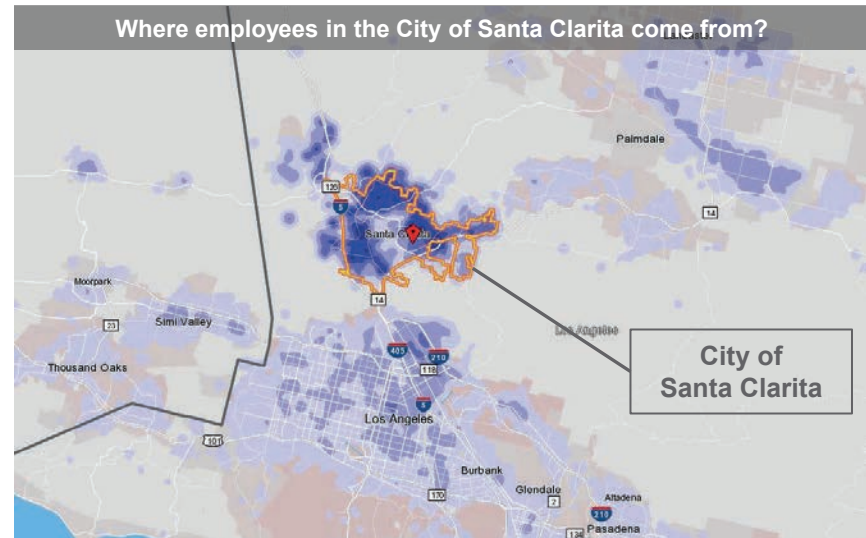
EMPLOYMENT PROFILE

- The City of Santa Clarita is a **thriving education and medical hub** and has nearly 1.5% of Los Angeles County’s worker population.
- Some of the largest healthcare employers include Henry Mayo Newhall Hospital and Kaiser Permanente. The College of Canyons and Newhall School District are the largest education-related employers in Santa Clarita.
- **Job growth in the City is likely to outpace that of the County** over the next ten years but growth in the Study Area is likely to be at slower pace than the City.
- Residents living in Santa Clarita travel as far as downtown Los Angeles for work and the City is **often perceived as a bedroom community for employees** working in City of Los Angeles.
- The residents are also **heavily car-dependent** and only 3% use public transit.

EMPLOYMENT (2015)	Study Area	City of Santa Clarita	Los Angeles County
Total Worker Population	9,609	68,856	4,443,133
Job Density (per sq. mile)	1,309	1,108	935
Annual Growth Rate			
Historic (2010-2015)	9.0%	3.3%	1.5%
Projected (2017-2027)	1.2%	2.4%	0.5%
Average Earnings per Job*	\$63,036	\$63,311	\$73,871
Top Three Industry Clusters			
	Retail 26%	Education & Medical 24%	Education & Medical 24%
	Government 20%	PD&R 21%	Knowledge-based 21%
	Education & Medical 17%	Government 15%	PD&R 18%

* Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Approximated by zip code.

Sources: LEHD, Social Explorer, ACS 2015 5-year estimates, SCAG Growth Forecast 2012, SCAG TAZ Forecast 2008.



*EMPLOYMENT INDUSTRY CLUSTER CLASSIFICATION

The classification is based on Center for Transit-Oriented Development 2010 Report. **Natural Resources** includes agriculture and mining; **Production, Distribution, and Repair (“PD&R”)** includes manufacturing, wholesale trade, transportation and warehousing; **Knowledge-based** includes information, finance and insurance, real estate, scientific, professional, and technical services, and management of companies; **Entertainment** includes arts, entertainment, and recreation, and accommodation and food services; **Government** includes utilities, construction, public administration and other administrative and support services, **Other** includes other services (excluding public administration).

Employment Trends

EXISTING CONDITIONS INVENTORY

SANTA CLARITA – MetroLink Station

EMPLOYMENT TRENDS

- The Study Area along with the City and the County have gained jobs between 2010 and 2015.
- **The Study Area has grown the fastest between 2010 and 2015**, followed by the City and then the Los Angeles County.
- Job growth in the City has outpaced the region, particularly driven by growth in the **Education and Healthcare industries**, followed by the Production, Distribution and Repair (PD&R) related industries. In addition
- The City has gained a nominal number of jobs in Government, Retail, and Entertainment sector.

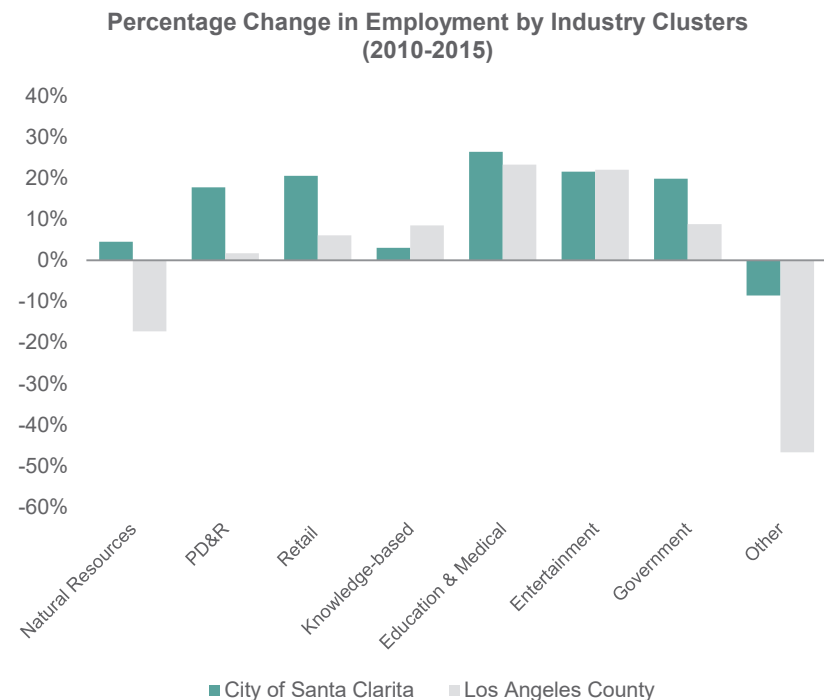
HQTA OPPORTUNITIES

- The Study includes a 35-acre Saugus Speedway **infill site**, which is MetroLink station-adjacent.
- Santa Clarita's **thriving economy and employment hub**, along with the Study Area's proximity to downtown Santa Clarita and other attractions offers this area unique development opportunities.
- The City is also witnessing **significant new development** in both office and industrial real estate. Some of the largest medical groups such as Kaiser Permanente and UCLA Medical have moved to the City.
- The Santa Clarita Valley Economic Development Corporation is positive of the **future growth prospects of the City** and anticipates continued growth in high-paying jobs and reduction in unemployment rates. All these factors can bring in added opportunities for the HQTA.

Sources: LEHD

EMPLOYMENT TRENDS	Study Area	City of Santa Clarita	Los Angeles County
Employment Growth in Industry Clusters (2010-2015)			
Natural Resources	0	1	(2,021)
Production, Distribution, and Repair	120	2,140	13,222
Retail	953	1,549	25,036
Knowledge-based	285	222	71,889
Education and Medical	490	3,508	197,156
Entertainment	777	1,484	90,691
Government	634	1,742	48,442
Other	113	(229)	(134,617)
Net Gain of Jobs (2010-2015)	3,372	10,417	309,798

Negative numbers in parenthesis



Public Transportation

- No routes with 15 minute or less headways during entire peak AM/PM commute hours
- No HSR Station in Santa Clarita

Metrolink

 **Commuter Rail**
Santa Clarita Line

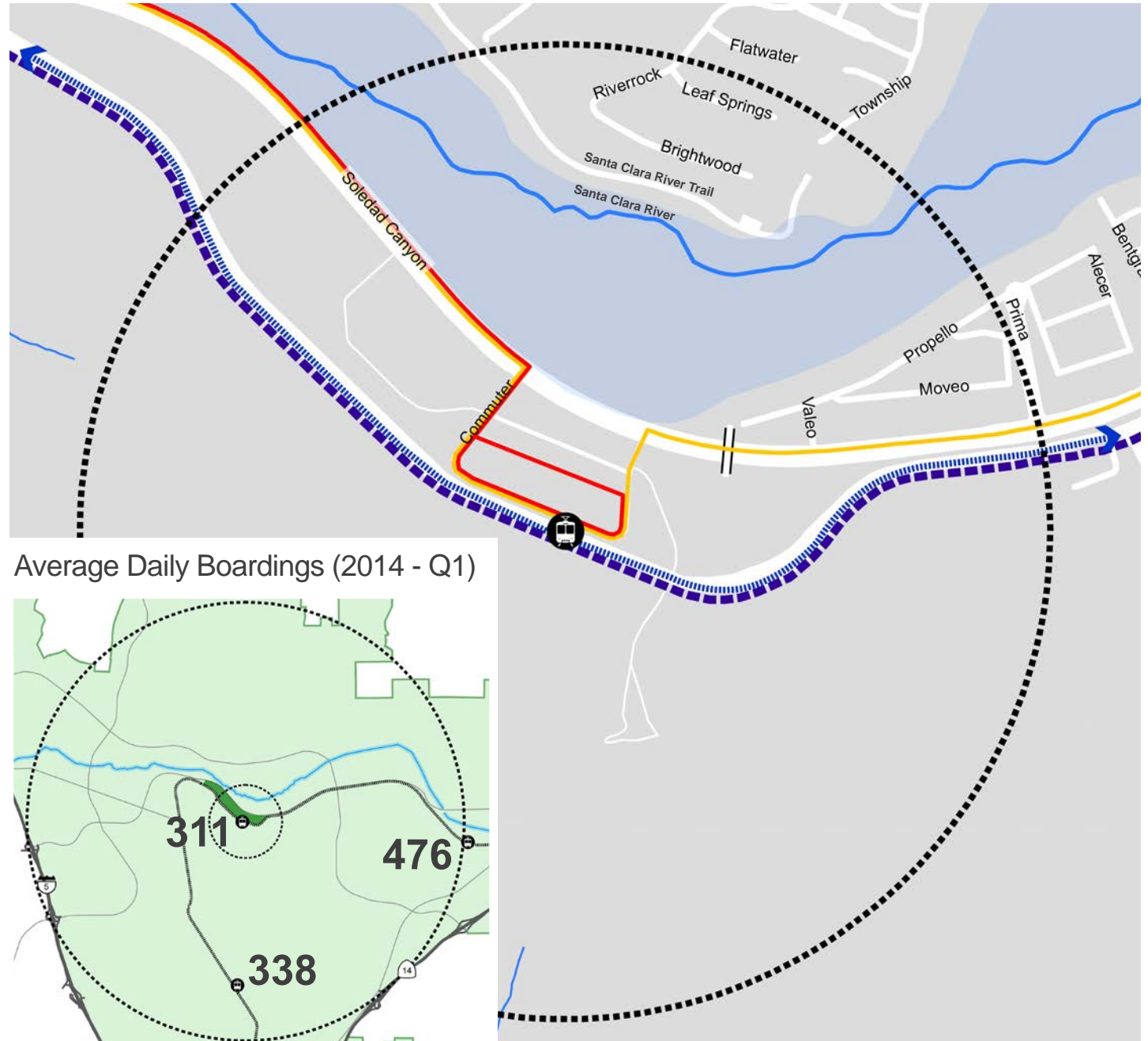
Santa Clarita Transit

 **Local Bus**
5, 6, 501, 502

 **Commuter Bus**
796, 797, 799

Proposed

 **High Speed Rail**



Source: SCAG; Santa Clarita Transit; Metrolink

Public Transportation - Santa Clarita Transit

EXISTING CONDITIONS INVENTORY

	Bus Type	Peak Hour Frequency (min)	Destinations
5 / 6	Local	<ul style="list-style-type: none"> • 15 - 20 min overlapping • 30 - 40 min individually 	<ul style="list-style-type: none"> • Stevenson Ranch • Shadow Pines
501	Station Link Service <ul style="list-style-type: none"> • Weekday only 	<ul style="list-style-type: none"> • 1 hour • 6:00 am - 8:30am and 4:00pm - 6:15pm 	<ul style="list-style-type: none"> • Magic Mountain • Metrolink Station
502	Station Link Service <ul style="list-style-type: none"> • Weekday only 	<ul style="list-style-type: none"> • 1 hour • 6:00 am - 9:00am and 4:00pm - 6:45pm 	<ul style="list-style-type: none"> • Valencia Commerce Center • Metrolink Station
796	Commuter Express <ul style="list-style-type: none"> • Weekday only 	<ul style="list-style-type: none"> • 25 min • 5:00 am - 6:53am and 3:35pm - 6:20pm 	<ul style="list-style-type: none"> • Chatsworth • Canoga Park • Warner Center
797	Commuter Express <ul style="list-style-type: none"> • Weekday only 	<ul style="list-style-type: none"> • 15 min • 5:14 am - 6:45am and 3:45pm - 7:45pm 	<ul style="list-style-type: none"> • UCLA • Westwood • Century City
799	Commuter Express <ul style="list-style-type: none"> • Weekday only 	<ul style="list-style-type: none"> • 15 - 20 min • 4:55 am - 6:51am and 3:22pm - 6:45pm 	<ul style="list-style-type: none"> • Union Station • Downtown Los Angeles

Public Transportation - Santa Clarita Metrolink Station

EXISTING CONDITIONS INVENTORY

Amenities

- Bike Racks / Lockers
- Restroom
- Public Phones

Metrolink Parking:

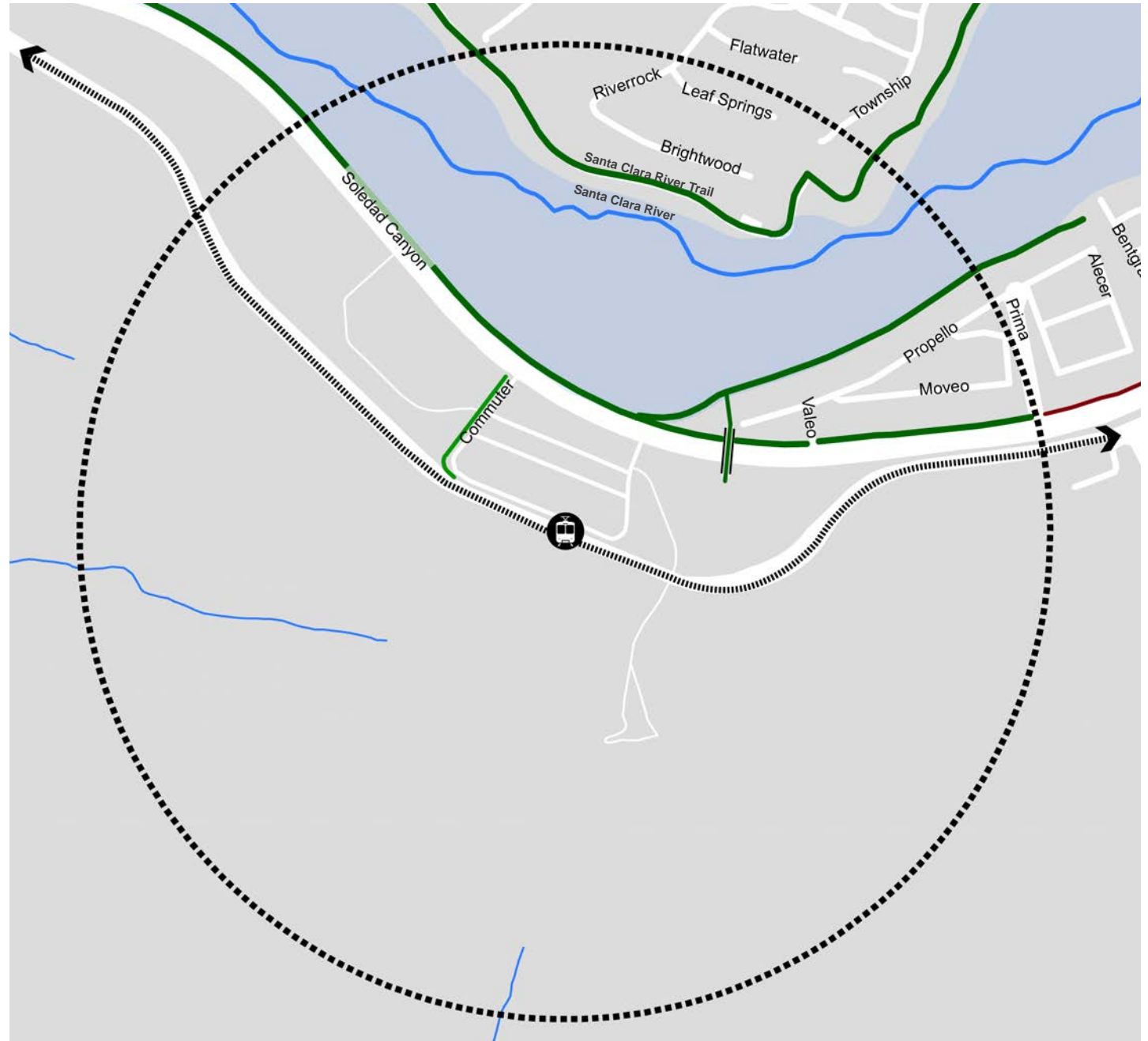
- 473 spaces / 10 handicapped spaces
- Free parking
- Overnight allowed
- Parking Utilization?



Bicycle Facilities

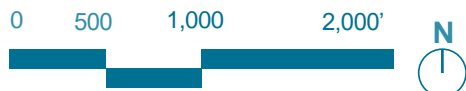
EXISTING CONDITIONS INVENTORY

- Santa Clara River Trail
- Bicycle Counts for Soledad Trail (one-week span in May)
 1. Average Daily Ride: 185
 2. Average Weekend Ride: 255



Existing

- Class I - Bike Path
- Class IV - Protected Bike Lane

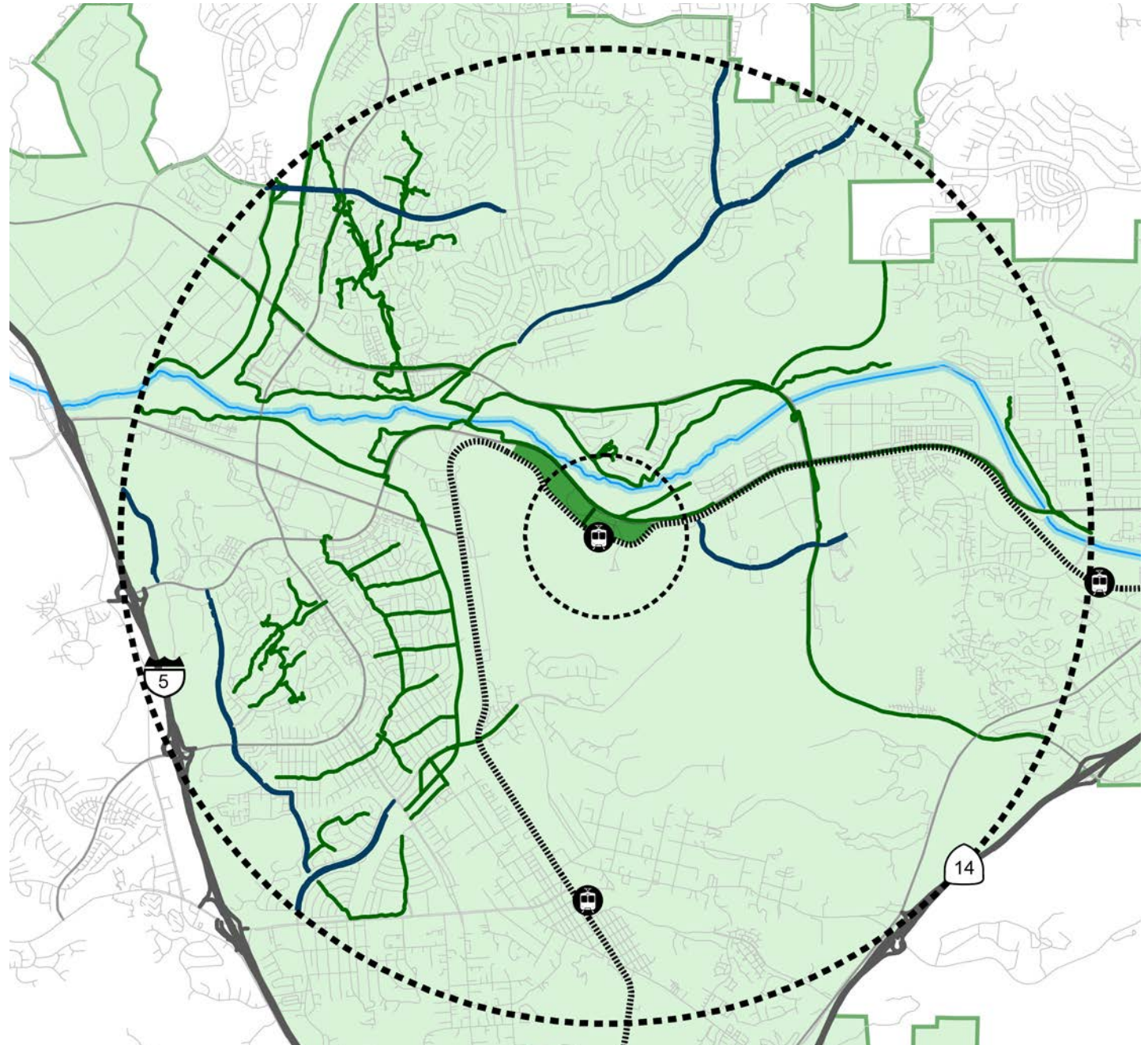


Source: City of Santa Clarita Non-Motorized Transportation Plan, 2014

Bicycle Network and Pedestrian Network

EXISTING CONDITIONS INVENTORY

- Bicycle and pedestrian network reaches most destinations and residential areas within the City
- How to make bicycling easier and more convenient than driving?
- Create a bicycle destination at the Metrolink Station



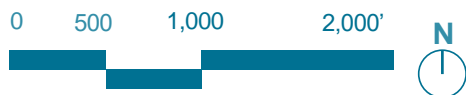
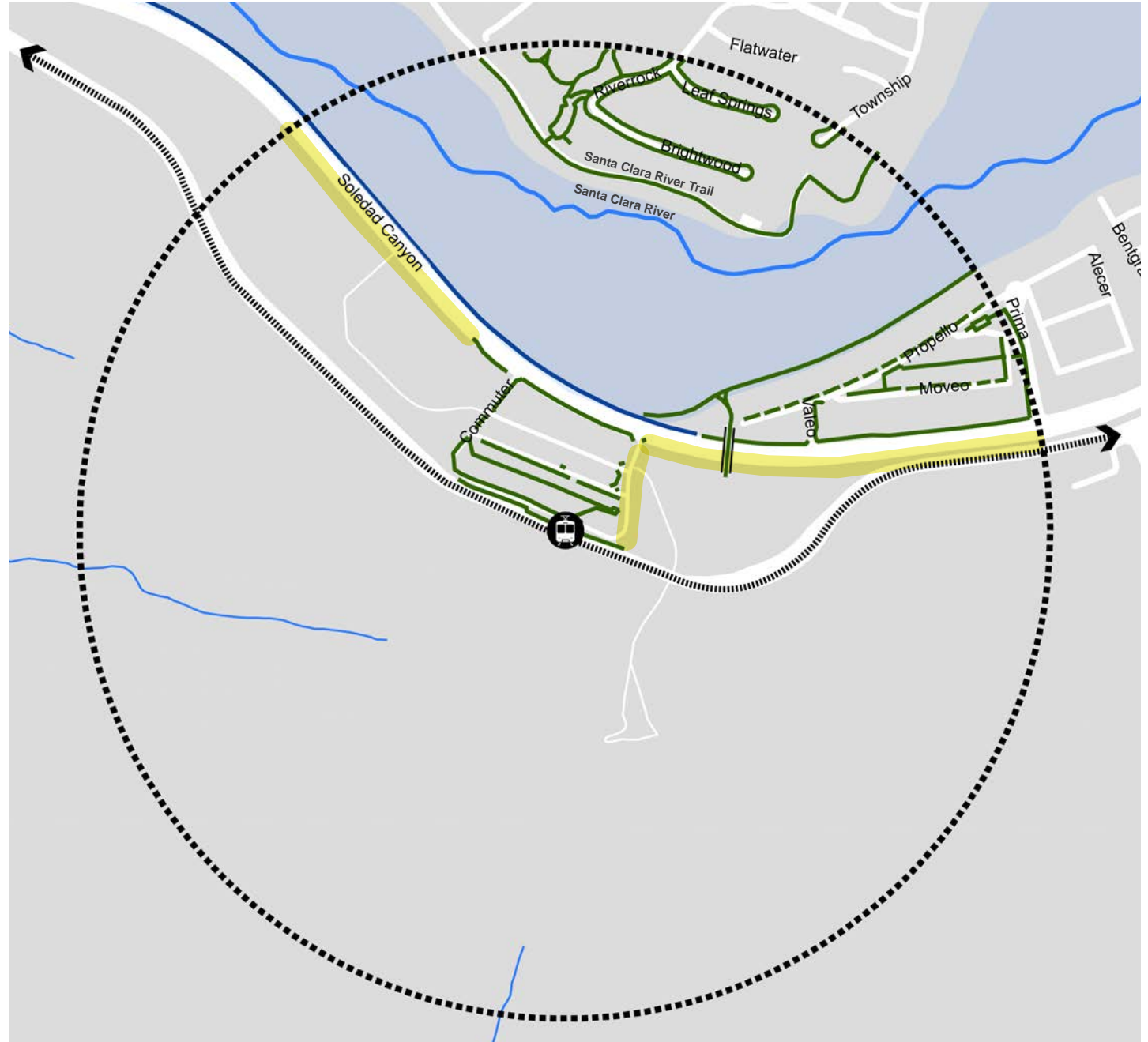
- On-Street
- Off-Street

Source: City of Santa Clarita

Sidewalks

EXISTING CONDITIONS INVENTORY

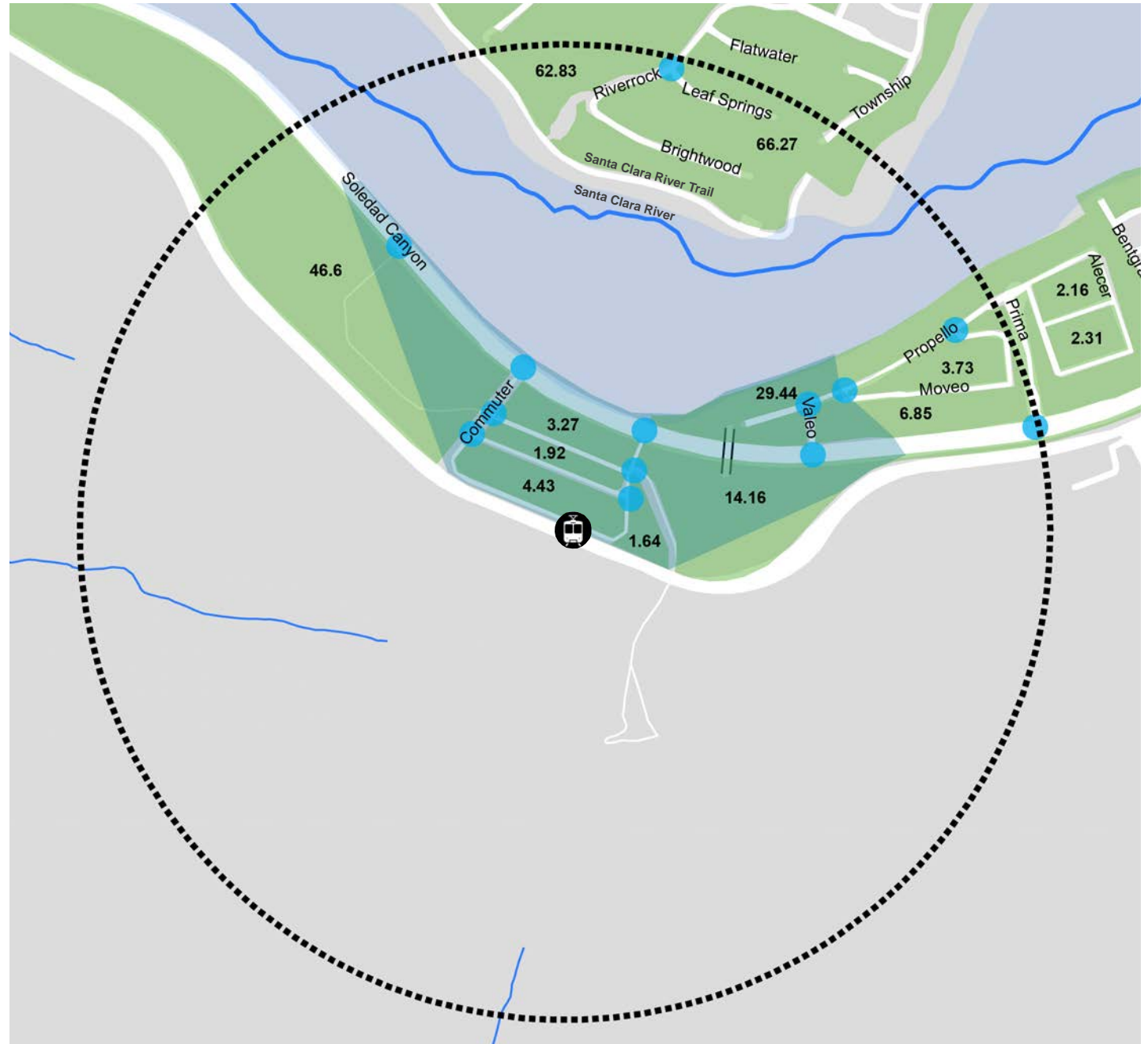
- Expand shared pedestrian and bicycle path?
- Sidewalk gaps on south side of Soledad Canyon



Source: Google Maps

Walkshed and Connectivity

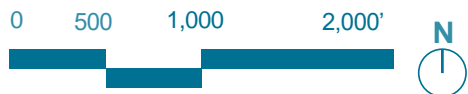
- Number of Intersections: **13**
- Average Block Size: **18.9 acres**



10-minute Walkshed

Block

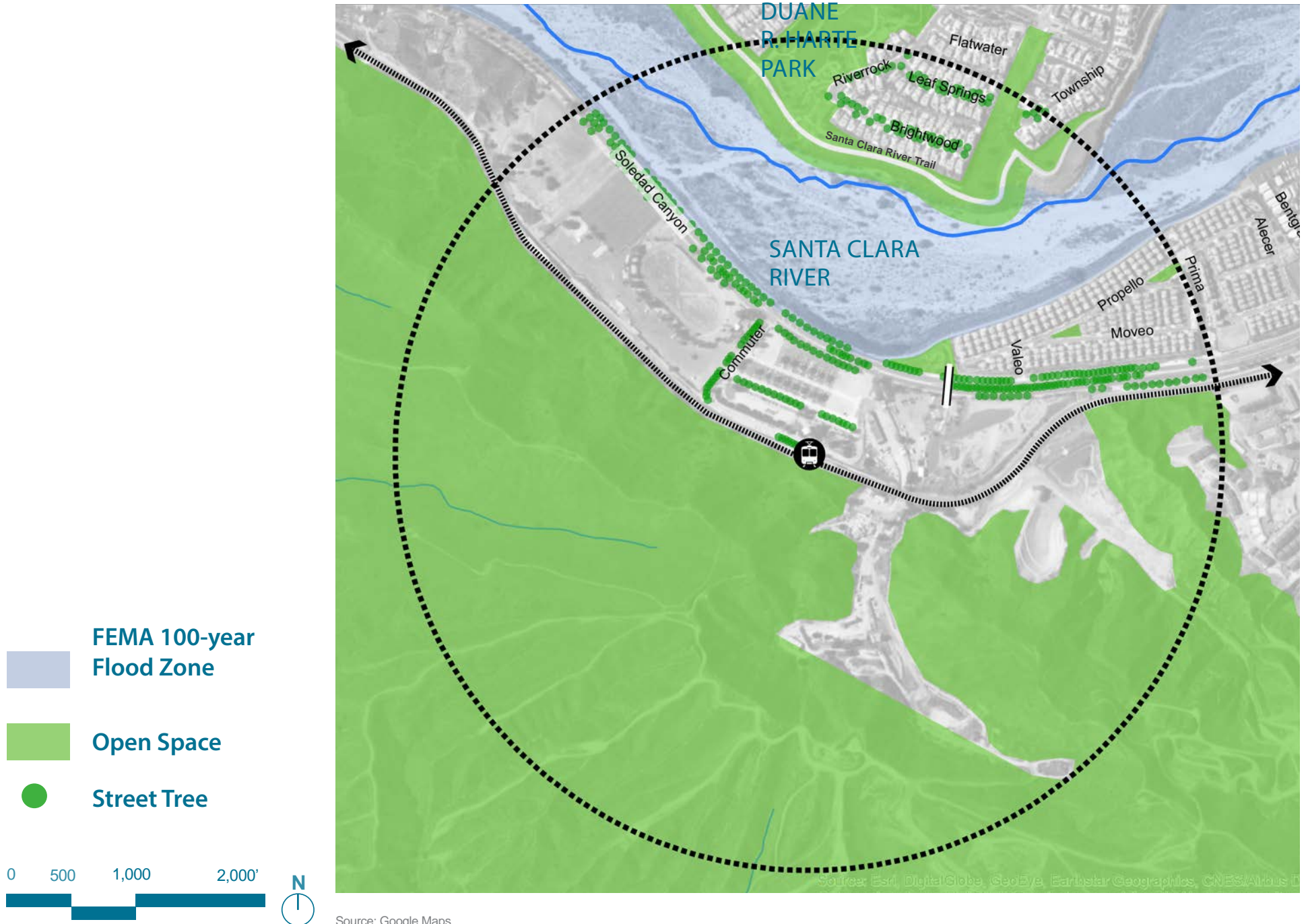
Intersection



Source: ESRI

Open Space and Street Trees

EXISTING CONDITIONS INVENTORY

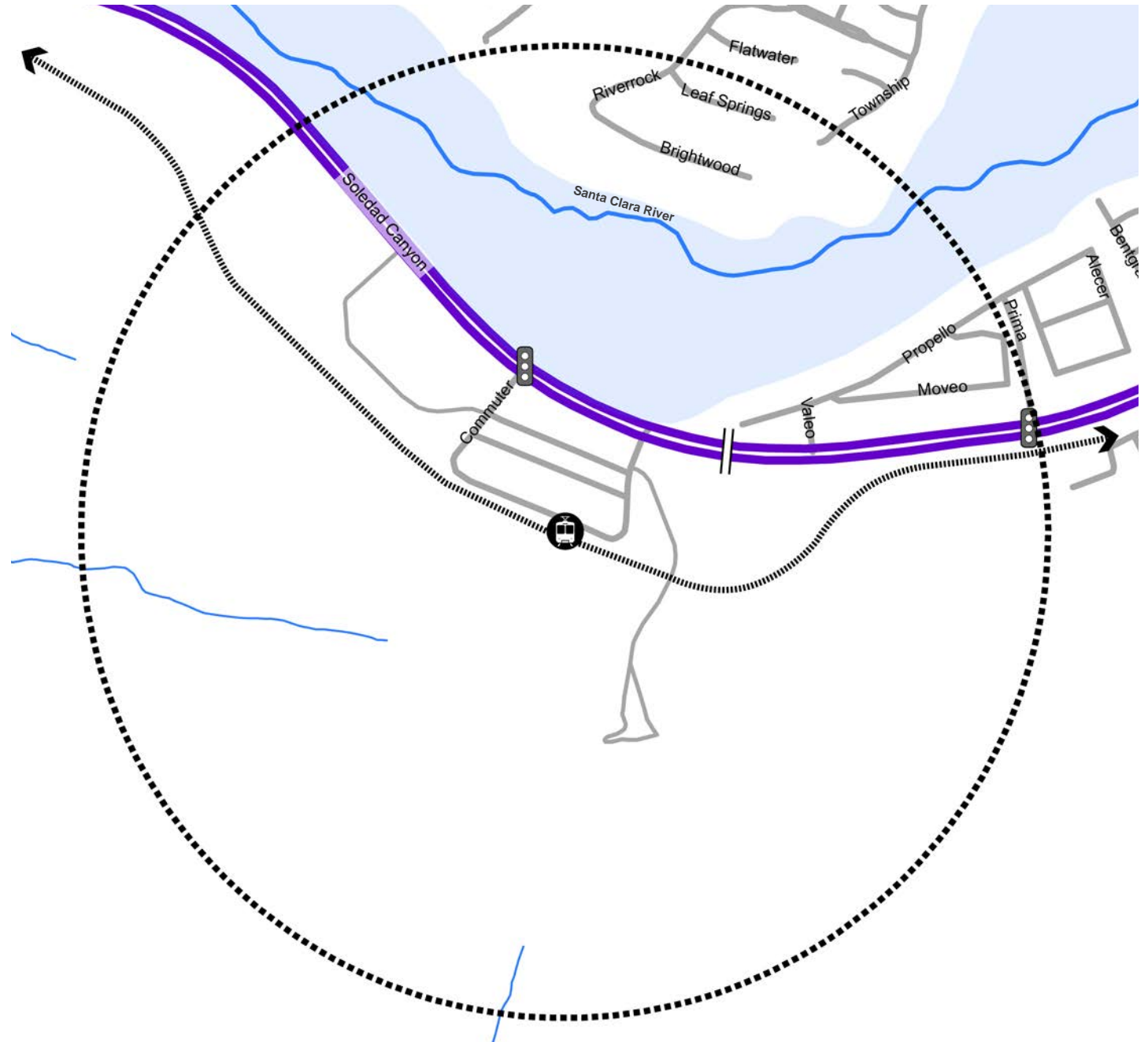







Source: Google Maps

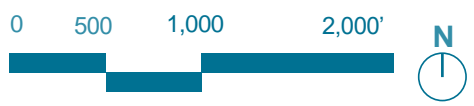
Street Classification and Traffic Signals

EXISTING CONDITIONS INVENTORY

- Limited street network surrounding and connections to station



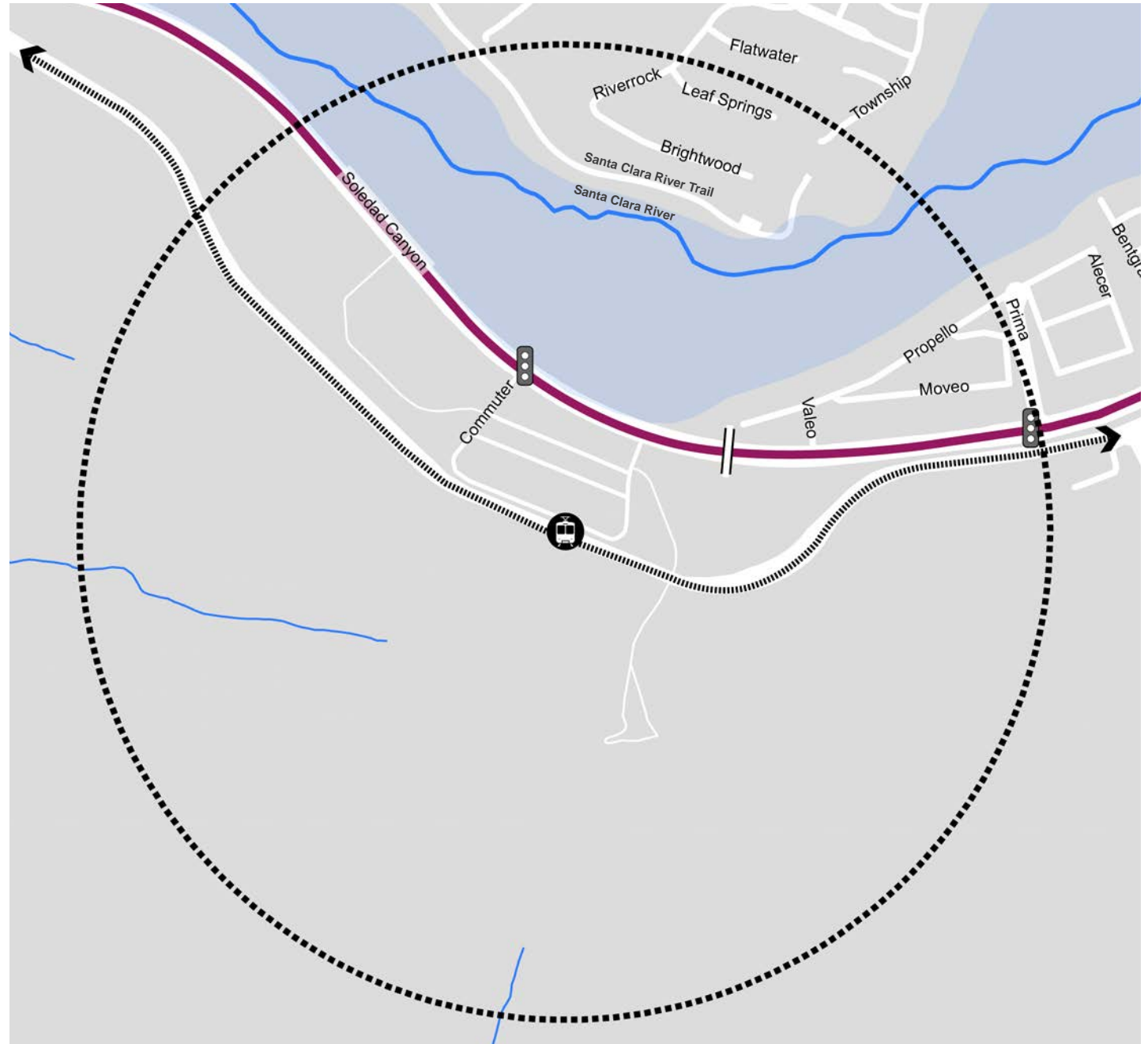
-  Street signal
-  Rail crossing signal
-  Major Highway
-  Local Street
-  Pedestrian Bridge



Source: City of Santa Clarita General Plan (Classification), Google Maps (Signals)

Traffic Volumes

- Average Daily Traffic Volumes



 Street signal

 45 k

0 500 1,000 2,000'



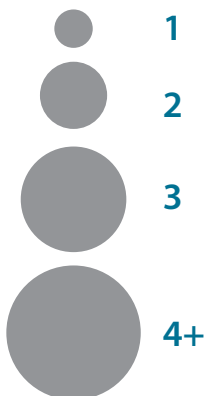
Source: One Valley One Vision Draft Program EIR, 2010

Vehicle - Bicycle / Pedestrian Collisions

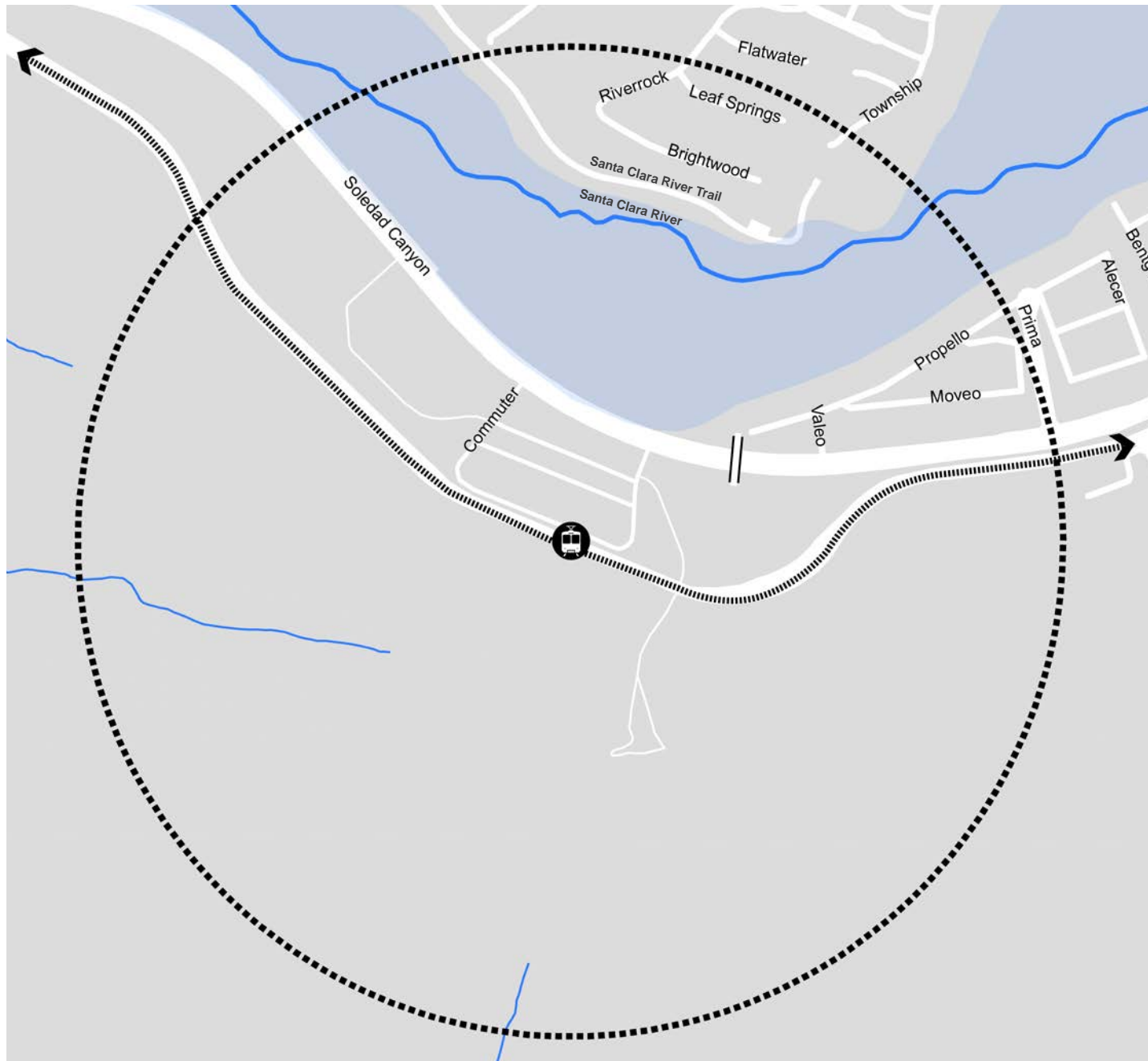
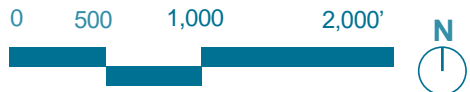
EXISTING CONDITIONS INVENTORY

- No Collisions within 1/2 mile of Station

Number of Crashes



- Bicycle - Fatal
- Bicycle - Injury
- Pedestrian - Fatal
- Pedestrian - Injury



Source: SWIRTS

Rail Lines and Truck Routes

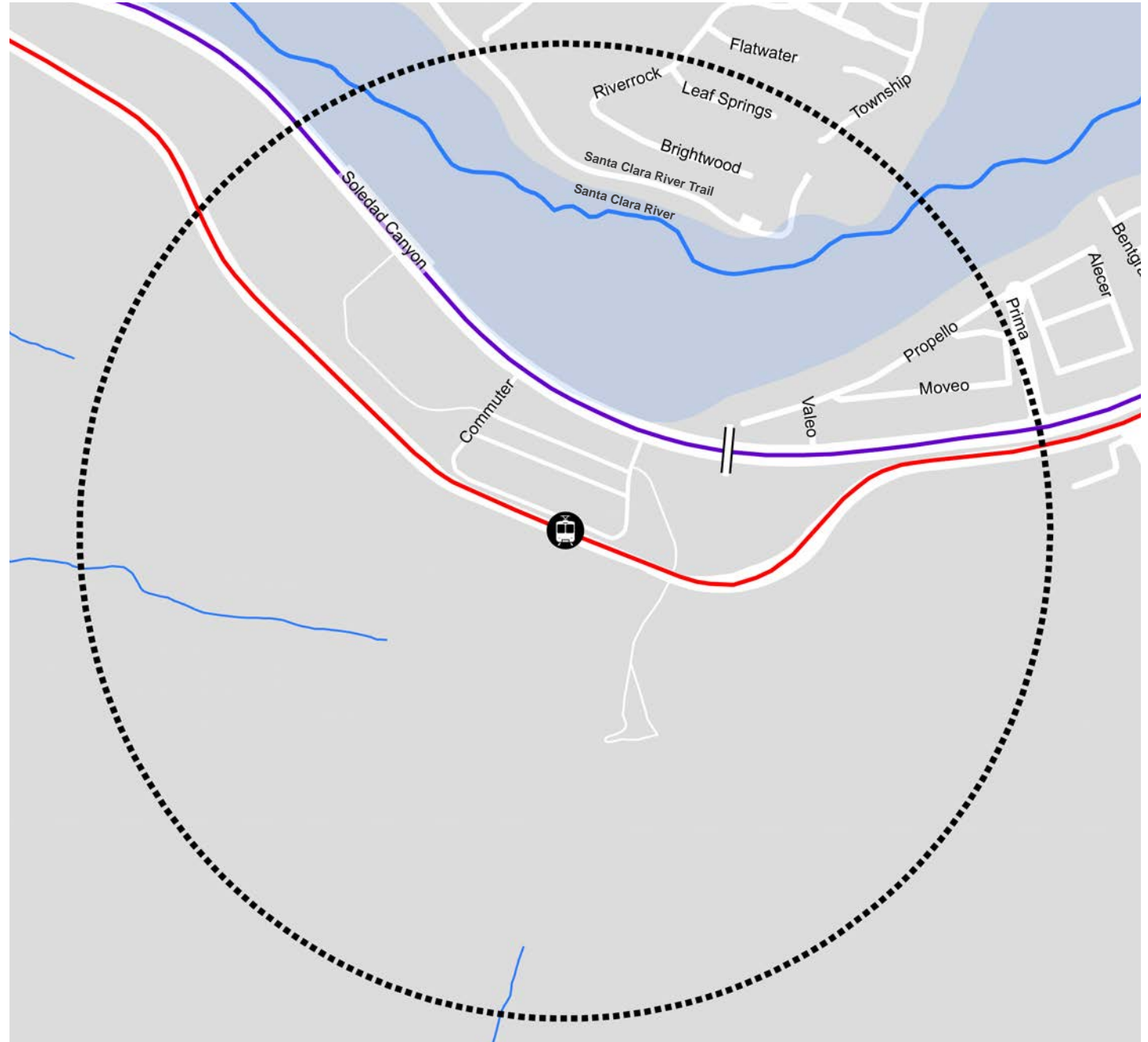
EXISTING CONDITIONS INVENTORY

Truck Route

- Soledad Canyon Road

Rail Line

- Single track
- Potential second track?
- HSR and Metrolink sharing tracks?



== Pedestrian Bridge

— Rail line

— Truck Route

0 500 1,000 2,000'

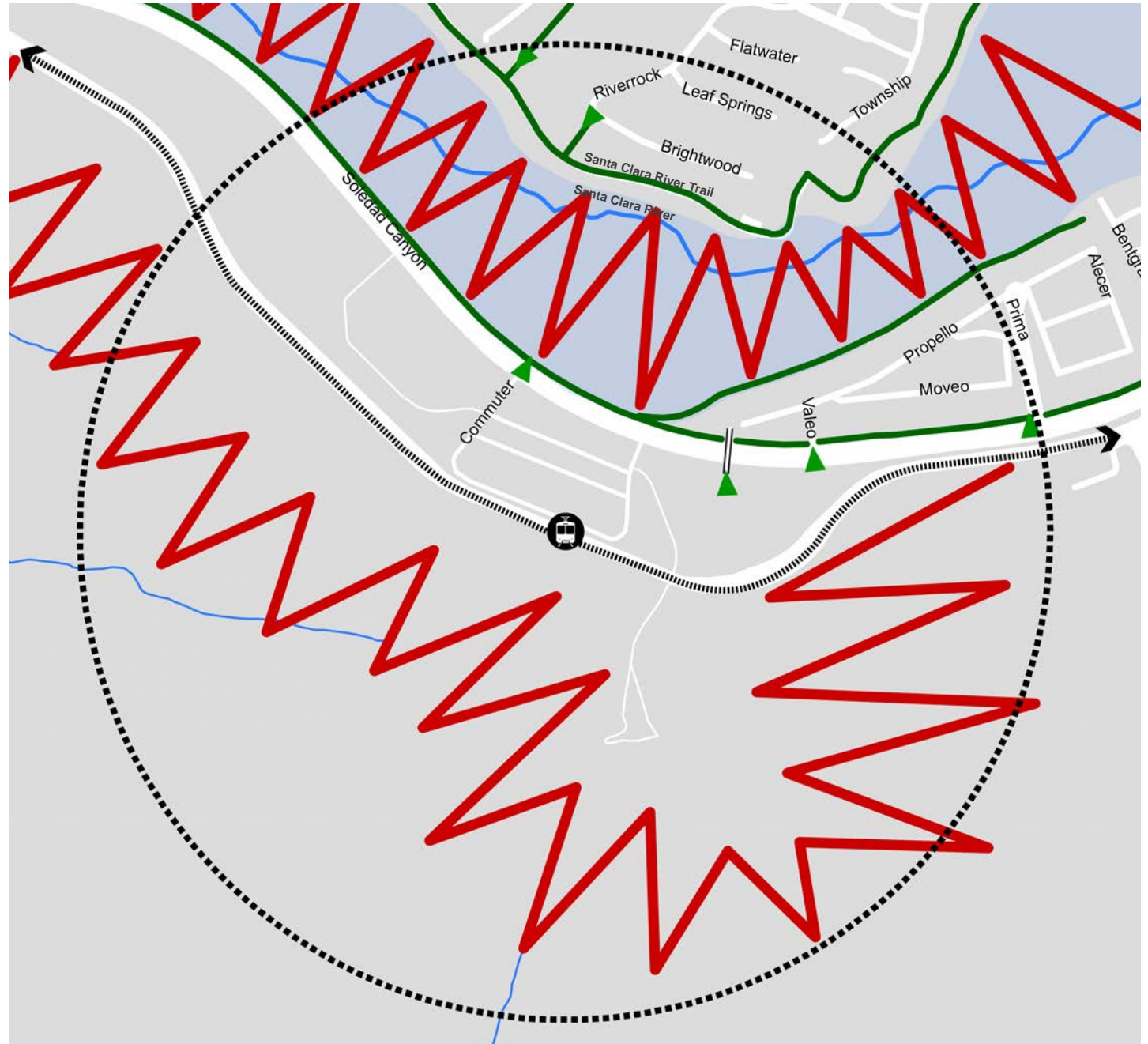


Source: ESRI, City of Santa Clarita General Plan

Access and Barriers

Barriers:

- Santa Clara River
- Mountains to the south of rail corridor



- ▲ Trail Network Access
- Trail Network
- ⚡ Barrier

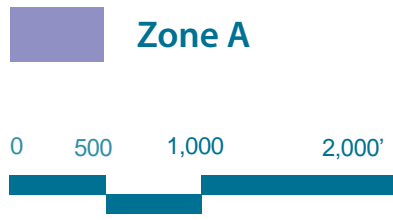
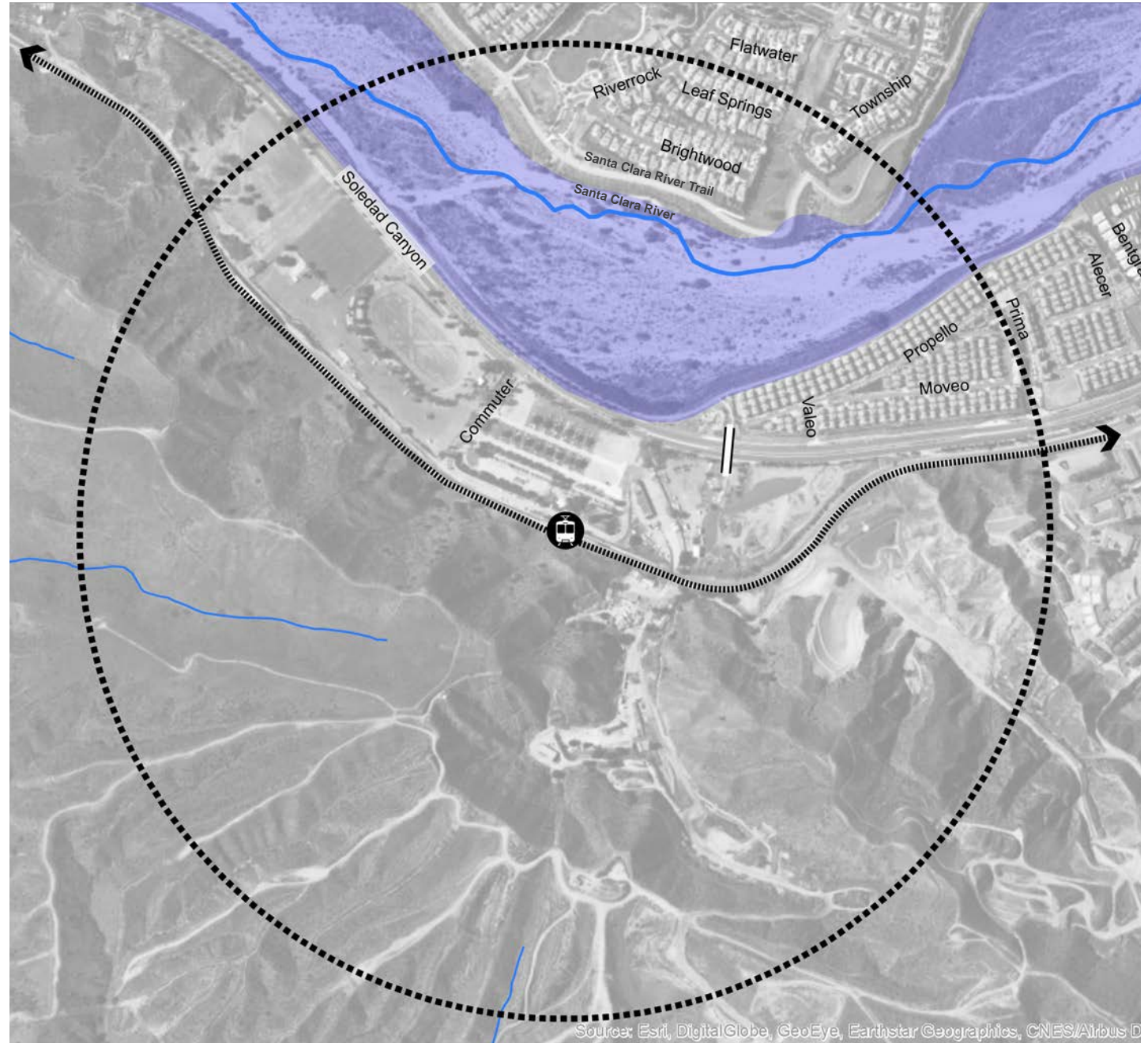
0 500 1,000 2,000'



Source: Google Maps

Flood Zones

- FEMA 100-year Flood Zone
- Zone A from FEMA, “detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.”

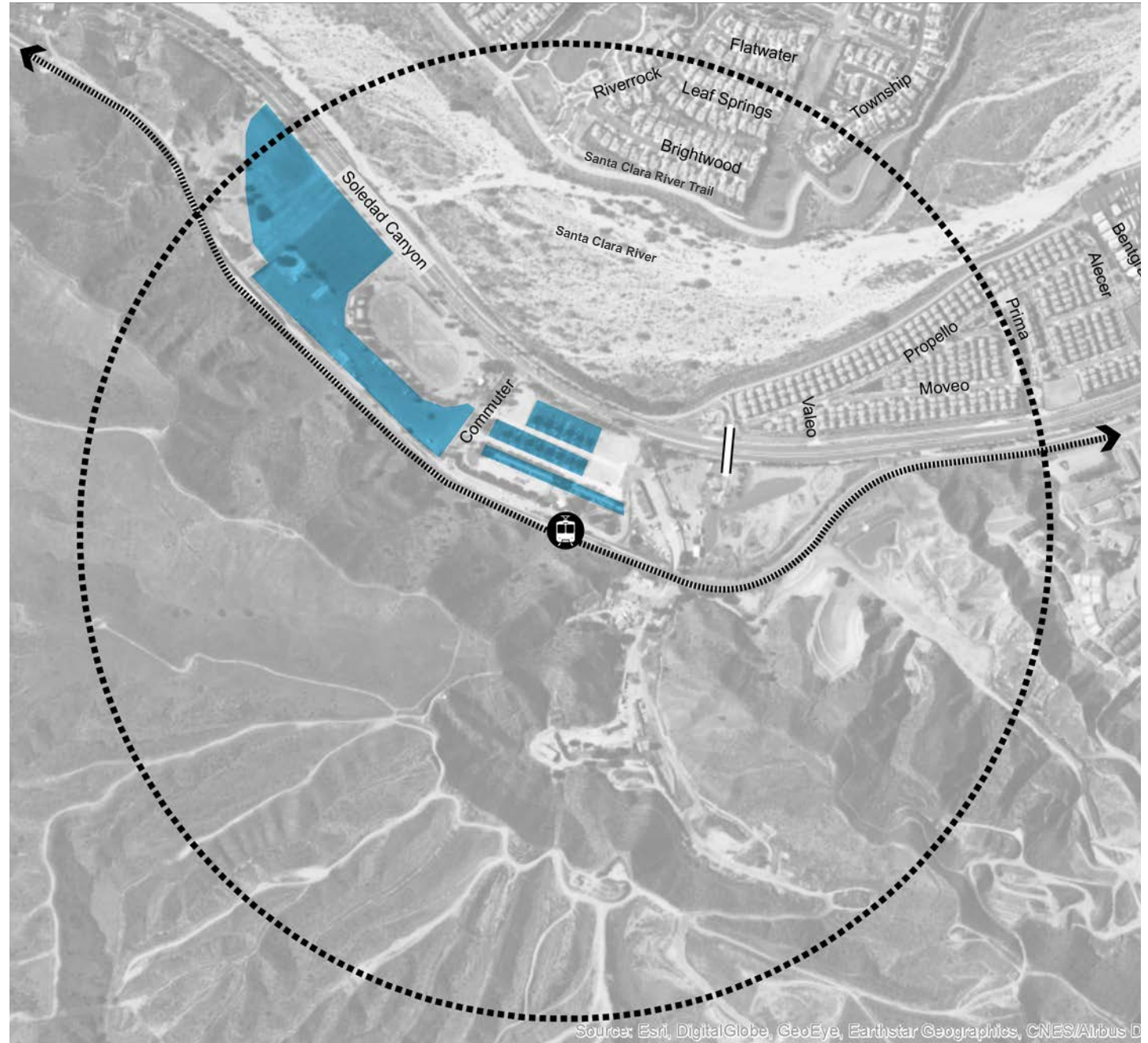


Source: SCAG

Parking

Metrolink Parking:

- 473 spaces / 10 handicapped spaces
- Free parking
- Overnight allowed



 Surface

0 500 1,000 2,000'

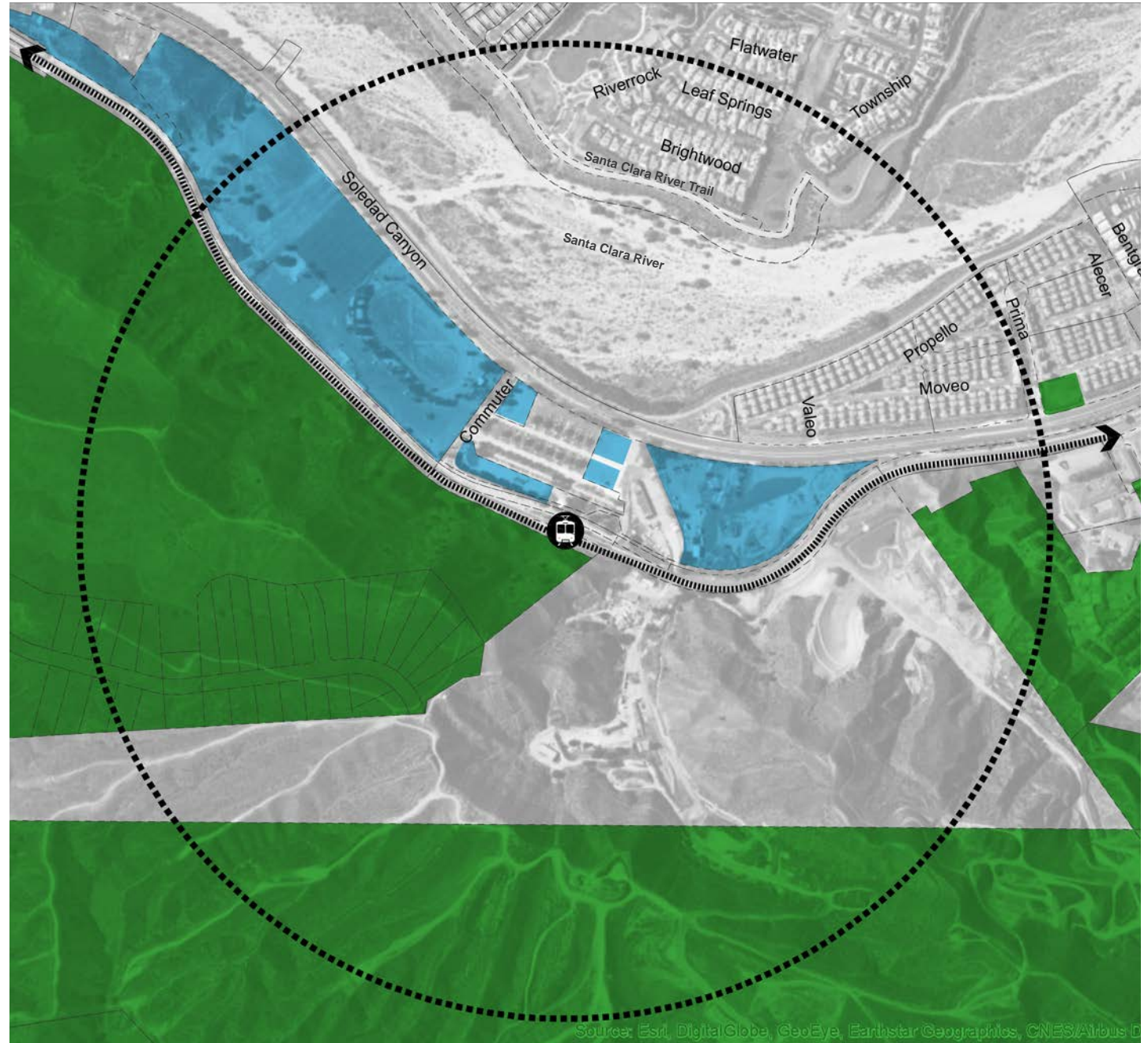


Source: Google Maps

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus D

Vacant and Publicly-Owned

- Metrolink site ownership?



- Publicly-owned
- Vacant (SCAG)
- Vacant (Aerial)

0 500 1,000 2,000'



Source: Google Maps, SCAG

Potential Development Opportunities

- Metrolink site for potential joint development - Use as catalyst for development of Speedway site
- Long-term development of Speedway Site
- Potential to leverage start-up and biotech activity in Santa Clarita to create office/retail hub, supporting multi-family residential at station
- Could be attractive to young families who want a walkable urban community, but value the high quality schools and natural beauty of Santa Clarita.
- Existing areas without development should be preserved or returned to natural areas
- Assemble adjacent land?



Station



Metrolink Corridor

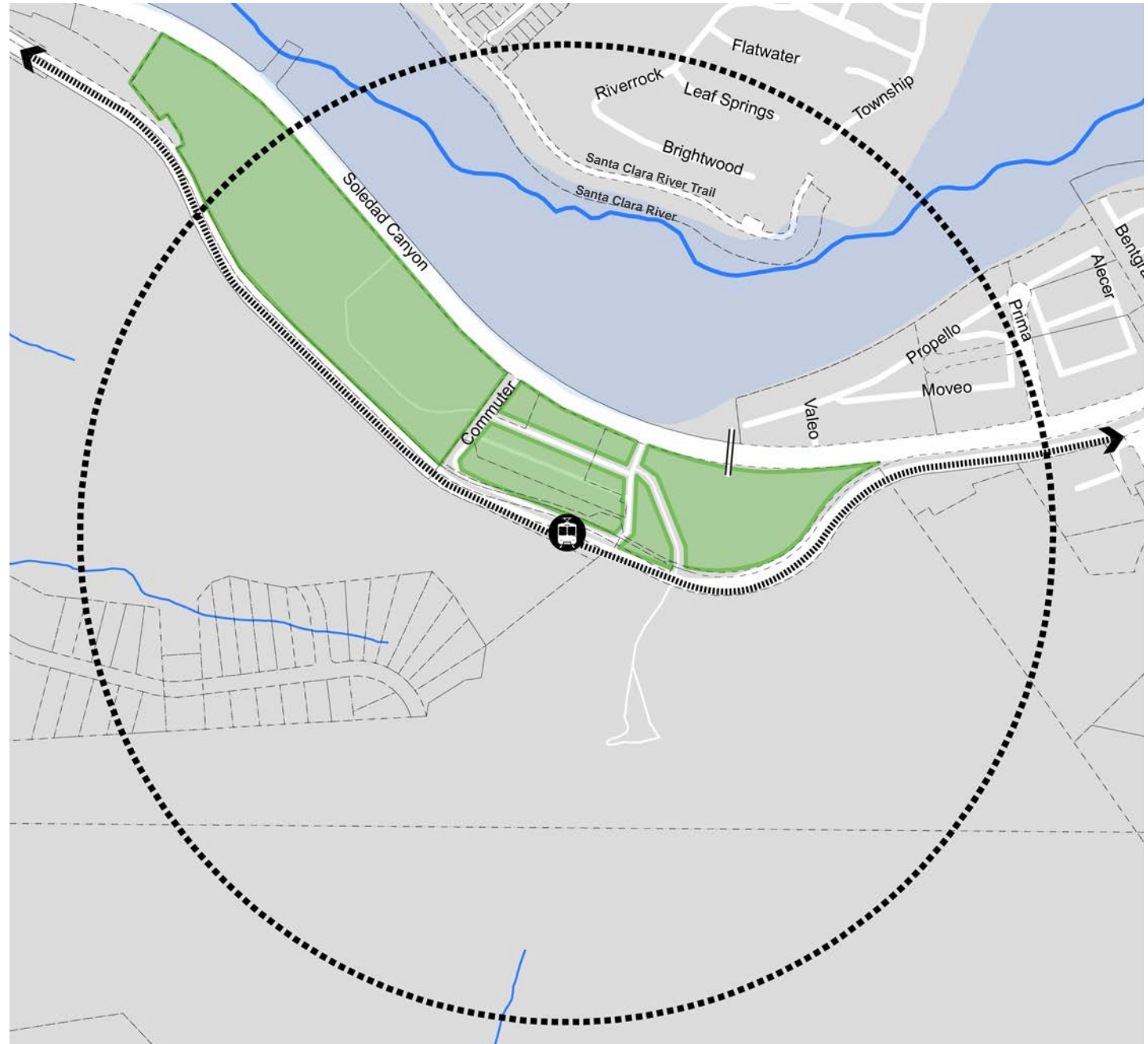


Parcel



Potential Development Site

0 500 1,000 2,000'

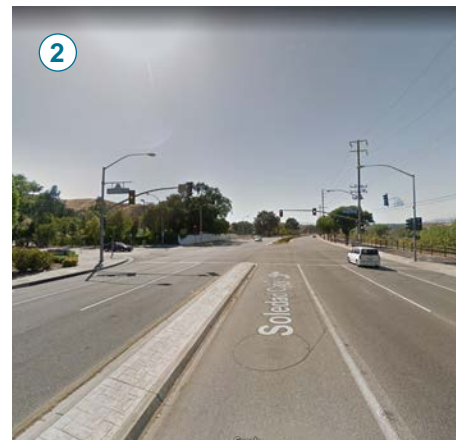
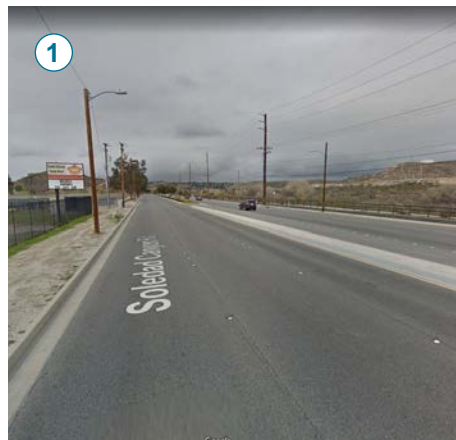
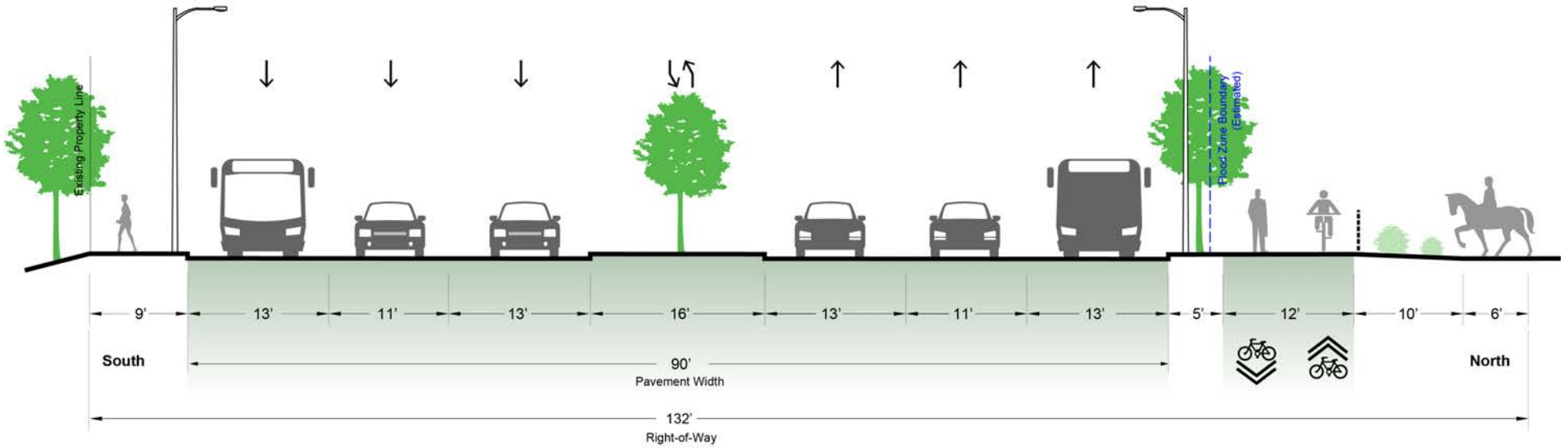


Source: Google Maps

Soledad Canyon Road

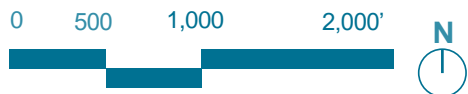
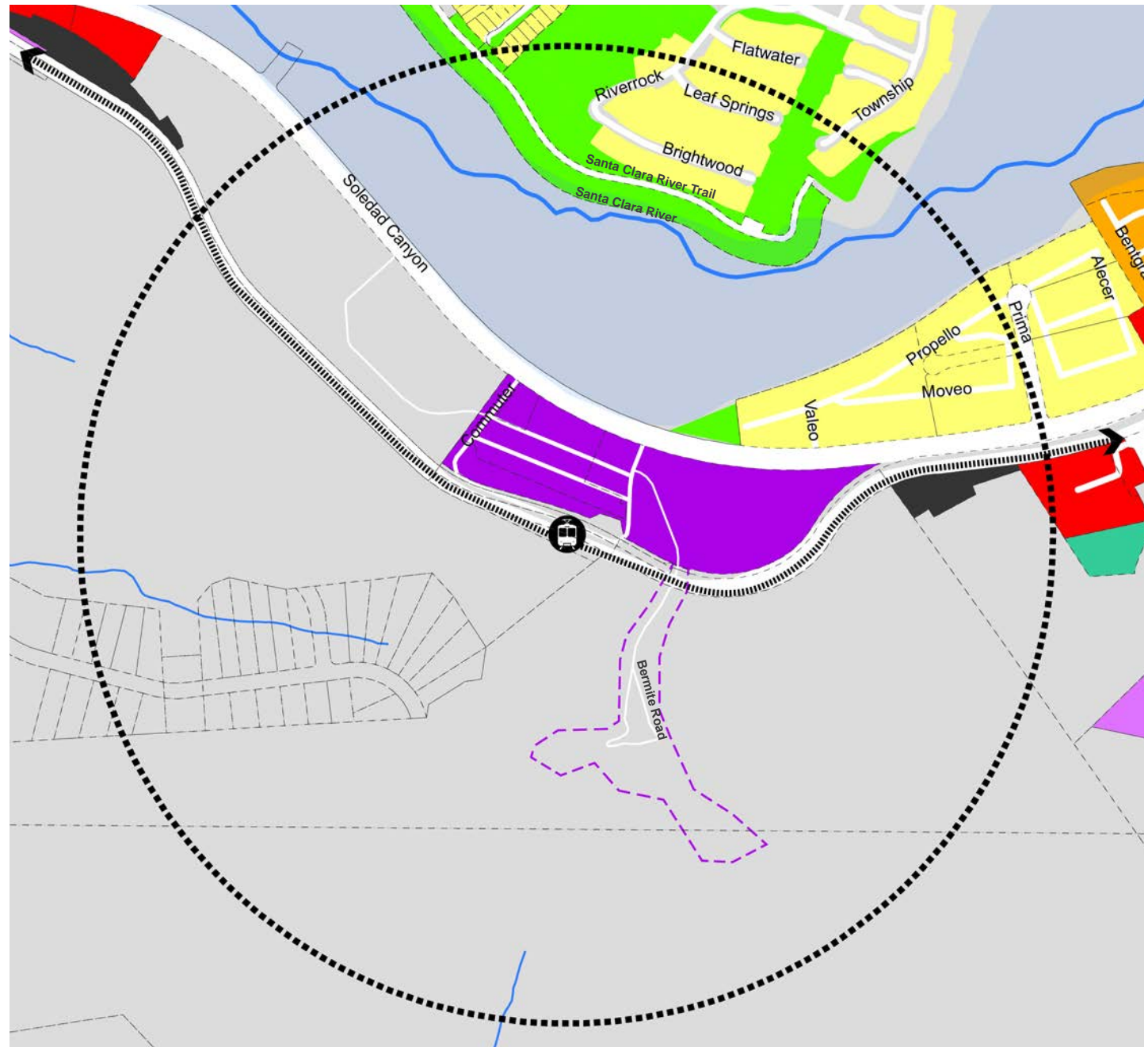
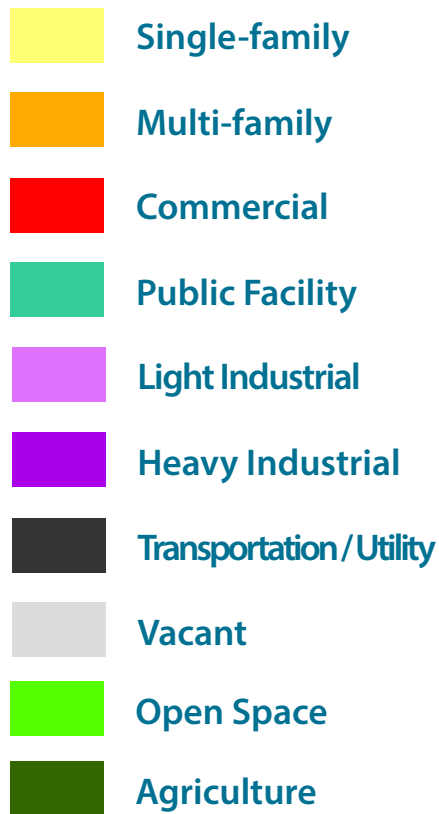
EXISTING CONDITIONS INVENTORY

Section A - A'



Existing Land Use





























- Bermite Road property use?



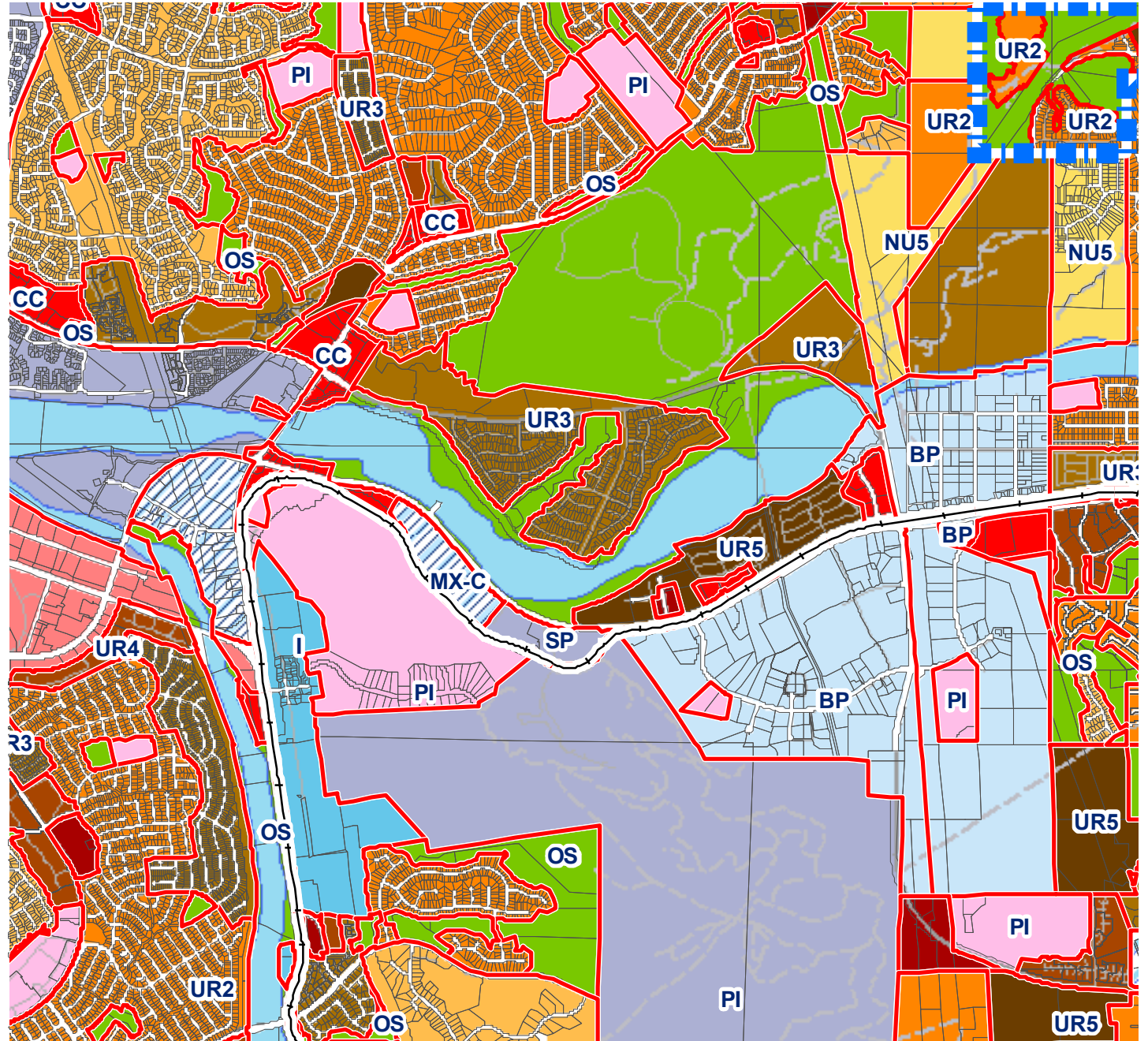
Source: SCAG, 2012; updated based on Google Earth Imagery, 2018.

General Plan Land Use

EXISTING CONDITIONS INVENTORY

-  Santa Clarita Boundary
- County Draft General Plan**
-  County Draft General Plan
-  County Line
-  CSD
-  Water Ways
- Draft General Plan**
- Mixed Use**
-  MX-C
-  MX-N
- Commercial**
-  CC
-  CN
-  CR
- Industrial**
-  BP
-  I
- Open Space**
-  O-NF
-  OS
-  OS-BLM
- Specific Plan**
-  NL SP; SP
- Rural Residential**
-  NU1/RR1 = 0.05 du/a
-  NU2/RR2 = 0.1 du/a
-  NU3/RR3 = 0.2 du/a
-  NU4/RR4 = 0.5 du/a
-  NU5/RR5 = 1.0 du/a
- Urban Residential**
-  UR1 = 2.0 du/a
-  UR2 = 5.0 du/a
-  UR3 = 11.0 du/a
-  UR4 = min. 10 du/a - max 18.0 du/a
-  UR5 = min. 19 du/a - max. 30.0 du/a
- Other**
-  PI - Public/Institutional
-  TC - Transportation Corridor

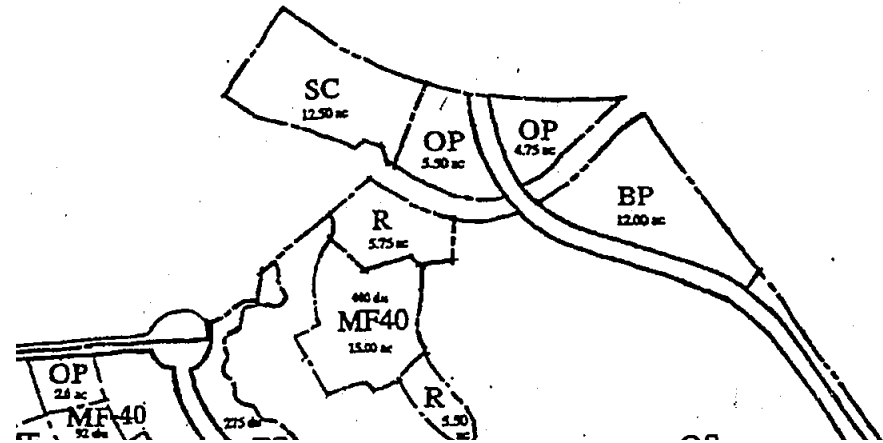
Map: CA State Plane, Zone 5, NAD83, Feet.



Source: City of Santa Clarita General Plan (June 2011)

Porta Bella Specific Plan (1995)

EXISTING CONDITIONS INVENTORY



KEY

1. RAIL STATION AND COMMERCIAL
2. OFFICE/BUSINESS PARK
3. MULTI-FAMILY RESIDENTIAL
4. SPORTS CLUB/GOLF DRIVING RANGE
5. PEOPLE MOVER/ESCALATOR

Land Use Designation	Map Designation	Density Range	Land Use Area (Acres)	Target # of Units	% of Total Dwellings	% of Total Area
Open Space	OS	na	406.95	na	na	40.9%
Parks & Recreation	P, R	na	41.75	na	na	4.2%
Subtotal of Open Space, Parks & Rec.			448.70			45.1%
Elementary School	ES	na	10.00	na	na	1.0%
Master Streets	na	na	56.00	na	na	5.6%
Subtotal of School & Master Streets			66.00			6.6%
Single-Family Residential						
SF 10,000	SF 10,000	2-4 du/a	63.15	144	4.9%	6.3%
SF 8,000	SF 8,000	3-5 du/a	41.75	127	4.4%	4.2%
SF 6,000	SF 6,000	4-6 du/a	87.50	326	11.2%	8.8%
SF 4,000	SF 4,000	6-8 du/a	35.40	211	7.2%	3.6%
SF Paired	SF P	6-8 du/a	72.00	436	15.0%	7.2%
Subtotal of Single-Family			299.80	1,244	42.7%	30.1%
Multi-Family Residential						
MF 10	MF 10	8-12 du/a	17.50	175	6.0%	1.8%
MF 12	MF 12	10-14 du/a	21.50	222	7.6%	2.2%
MF 18	MF 18	16-20 du/a	13.70	204	7.0%	1.4%
MF 22	MF 22	20-22 du/a	14.30	259	8.9%	1.4%
MF 40	MF 40	38-42 du/a	18.50	532	18.3%	1.9%
Town Center	TC	12-18 du/a	na	275	9.4%	na
Subtotal of Multi-family			85.50	1,667	57.3%	8.6%
Commercial						
Town Center	TC	na	24.75	na	na	2.5%
Soledad Comm.	SC	na	12.50	na	na	1.3%
Neighborhood	NC	na	8.50	na	na	0.9%
Office Park	OP	na	19.00	na	na	1.9%
Business Park	BP	na	27.25	na	na	2.7%
Institutional	I	na	4.00	na	na	0.4%
Subtotal of Commercial			96.00			9.6%
Total of Project Area			996.00	2,911	100.0%	100.0%

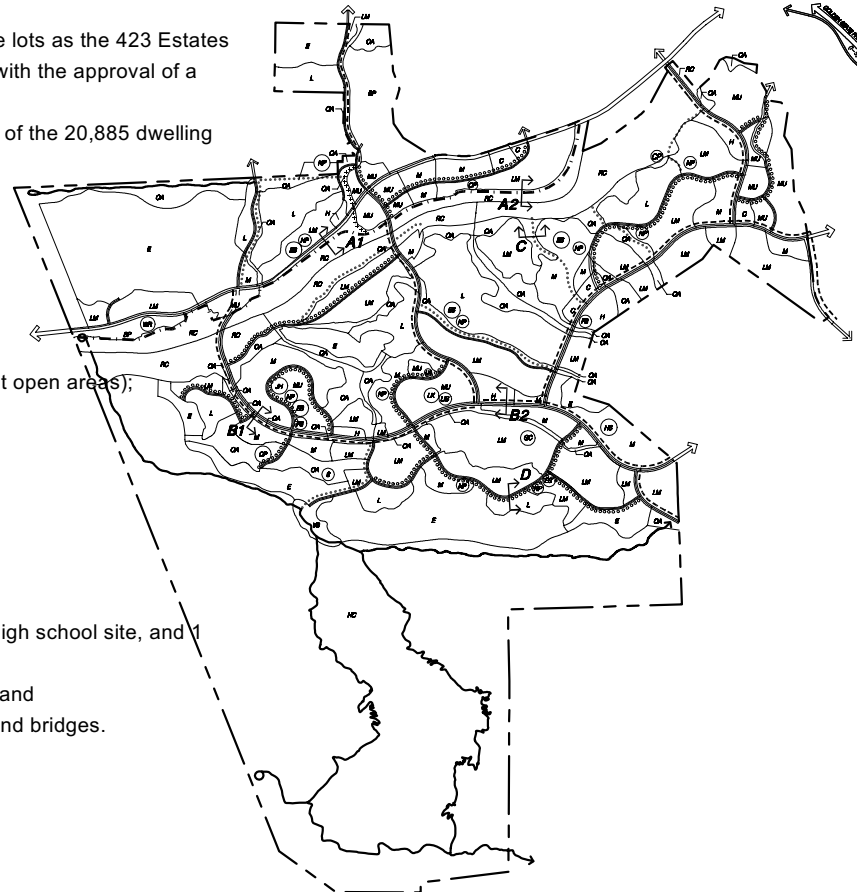
Newhall Ranch

EXISTING CONDITIONS INVENTORY

- Expected transit ridership on Metrolink to Los Angeles?
- Connections to bicycle trail network?



- 20,885 dwelling units;
- 423 *Second Units* eligible for construction on the same lots as the 423 Estates included in the 20,885 dwelling units indicated above with the approval of a CUP;
- 629 acres of Mixed-Use development, including 4,101 of the 20,885 dwelling units indicated above;
- 67 acres of Commercial uses;
- 249 acres of Business Park land use;
- 37 acres of Visitor-Serving uses;
- 1,010 acres of *Open Area*, including
 - 141 acres of Community Parks, and
 - 869 acres in other open areas;
- 5,159 acres in *Special Management Areas* (permanent open areas);
- 50 acres in 10 neighborhood parks;
- a 15-acre lake;
- a public trail system;
- an 18-hole golf course;
- 2 fire stations;
- 1 public library;
- 1 electrical substation;
- the reservation of 5 elementary school sites, 1 junior high school site, and 1 high school site;
- a 6.8-million gallon per day Water Reclamation Plant; and
- other associated community facilities, such as roads and bridges.



NEWHALL RANCH.
 SPECIFIC PLAN
 Prepared For: Newhall Ranch Company

LEGEND

- REGIONAL RIVER TRAIL
- COMMUNITY TRAIL
- EQUESTRIAN TRAIL COMPONENT OF COMMUNITY TRAIL
- LOCAL TRAIL
- PATHWAY
- UNIMPROVED TRAIL

TRAIL SECTIONS

- SECTIONS A1 & A2 EXHIBIT 2.4-6
- SECTIONS B1 & B2 EXHIBIT 2.4-7
- SECTIONS C & D EXHIBIT 2.4-8

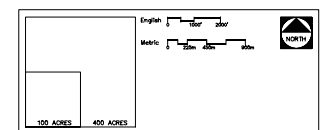


EXHIBIT 2.4-5
MASTER TRAILS PLAN

TOD Examples

EXISTING CONDITIONS INVENTORY





HQTA Toolkit

HIGH QUALITY TRANSIT AREA
PILOT PROJECT

Southern California
Association of Governments

March 2019



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Director of Planning
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Elaine Carbrey, AIA, AICP, Associate Partner
Kamille Parks, Urban Designer/Planner

HR&A (Economics)

Amitabh Barthakur, Principal
Judith Taylor, Principal
Riddhi Chakraborty, Analyst

Iteris (Transportation)

Viggen Davidian, PE, Vice President
Deepak Kaushik, PE, Senior Transportation
Engineer

HQTA Toolkit

HIGH QUALITY TRANSIT AREA PILOT PROJECT

Southern California Association of Governments

March 2019



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Additionally, the contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of SCAG or DOT. This report does not constitute a standard, specification, or regulation.

In this Toolkit

The HQTA Toolkit is designed to implement Transit-Oriented Development (TOD) within the Region’s HQTAs. An outline for the Toolkit is presented below:

PART 1 Introduction

The HQTA Pilot Project offers technical assistance and planning services to station areas that have a high potential for transit-supportive development patterns and future growth.

PART 2 Toolkit

The Toolkit includes contemporary best practices for TODs, open space, and complete street projects that are tailored to the desired place types for a HQTA. Those toolkit options are organized as follows:

PART 3 Additional Resources

Federal, regional, and local funding sources for complete street, open space and placemaking, and TOD projects are provided in addition to other resources Cities may find useful in evaluating their own HQTAs.

Purpose and Introduction to HQTAs

pg. I-2



A - Complete Streets

pg. II-A-1



A - Funding Sources

pg. III-A-1



SCAG Region Issues, Goals, and Objectives

pg. I-4



B - Open Space / Placemaking

pg. II-B-1



B - Additional Resources

pg. III-B-1

Benefits and Components of TODs

pg. I-6



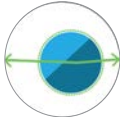
C - Building Types & Precedents

pg. II-C-1



HQTA Place Types

pg. I-9



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Introduction

Implementation of the Station Area Vision is accomplished through specific physical improvements. The HQTAToolkit provides a collection of individual elements (infrastructure and policy) based on contemporary best practices that can be combined to improve the public realm for people who walk, bicycle, and take public transit.

How to Use this Toolkit

Purpose

Issues, Goals, and Objectives for the SCAG Region

Benefits and Components of TODs

HQTA Place Types



Purpose

Vision

In the 2016 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), the Southern California Association of Governments (SCAG) established a vision for future investment in the communities of the Southern California region: **to develop sustainable communities where people enjoy increased mobility, greater economic opportunity, and a higher quality of life.** This vision was developed through years of community planning, incorporating all the diverse physical forms and individual perspectives of the region. The core physical elements of that vision include:

- Compact and walkable communities, seamlessly connected with public transportation, that allow people to live active and healthy lifestyles;
- Well maintained transportation networks that effectively utilize public tax dollars;
- Sustainable, multi-modal transportation system that improves air quality and reduces the region’s climate change contribution; and,
- Housing supply that is sufficient to meet the needs of a growing population, affordable, and provides equal economic opportunity to diverse neighborhoods across the region.

Implementing the Vision within High Quality Transit Areas

At the heart of this vision is to concentrate transit-oriented development (TOD) within High Quality Transit Areas (HQTAs). A HQTA is defined as an area along transit corridors or near major transit stations that have, or will have in place, 15 minute service, or better, during peak commuting hours; SCAG identified these areas through the development of the 2016/2040 RTP/SCS. Between 2016 and 2040, 46 percent of new housing and 55 percent of new employment within the six county SCAG region is expected to be developed within HQTAs. Though well-served by transit, an HQTA may not necessarily be a transit-oriented community (TOC). TOCs are based on the principles of TODs, but place greater emphasis on significant changes in land use patterns, socioeconomic outcomes, and travel patterns at the neighborhood scale. To achieve the regional vision, communities must make infrastructure investments that support walkable, compact communities that integrate land use and transportation planning for a better functioning built environment.

These investments in active transportation and higher density development should be made through sensitive design that responds to existing physical conditions of the surrounding context - focusing TOD investments to make areas more walkable while complementing existing community character. Sensitive designed TODs can preserve existing development patterns and neighborhood character while providing a balance of modes and housing choices.

Purpose of the Toolkit

In 2017, SCAG launched the first round of the HQTA Pilot Project. The Pilot Project offers technical assistance and planning services to station areas that have a high potential for transit-supportive development patterns and future growth. Once Station Area Vision Plans are created, SCAG will work with Pilot Project jurisdictions to track the progress towards meeting a variety of regional objectives, such as lower greenhouse gas emissions and increased transit ridership.

Generally, this Toolkit is a tool for guiding the development of Station Area Vision Plans and their implementation. It includes strategies and investments for people who walk, bike, and take public transportation, while balancing considerations for drivers and other modes. Specifically, this document provides a range of physical investments and strategies to construct, and measure the impacts of well-designed TODs. The individual physical elements addressed by this document are identified in a typical

half-mile station area diagram shown on the following page.

This Toolkit is meant to be used as a resource for SCAG, municipalities, and individual developers to build quality TOD within the region’s HQTAs in order to address a number of regional issues and achieve a number of regional goals and objectives; these issues, goals, and objectives are enumerated on the following pages.

The HQTA Toolkit is a “living document” and is designed to be regularly updated with additional TOD amenity precedents over time.



High Quality Transit Areas

The first step in planning for TOD is to determine the location and limits of the HQTAs. A HQTAs is defined in the RTP/SCS generally as a walkable transit village or corridor, within one half-mile of a well-served transit stop or a transit corridor with 15-minute or better service frequency (headways) during peak commute hours. This definition of a HQTAs is based on the following Senate Bill (SB) 375 language, which provides the legal framework for funding of active transportation, TOD, and other infrastructure projects oriented towards reducing GHGs:

Major Transit Stop: A site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

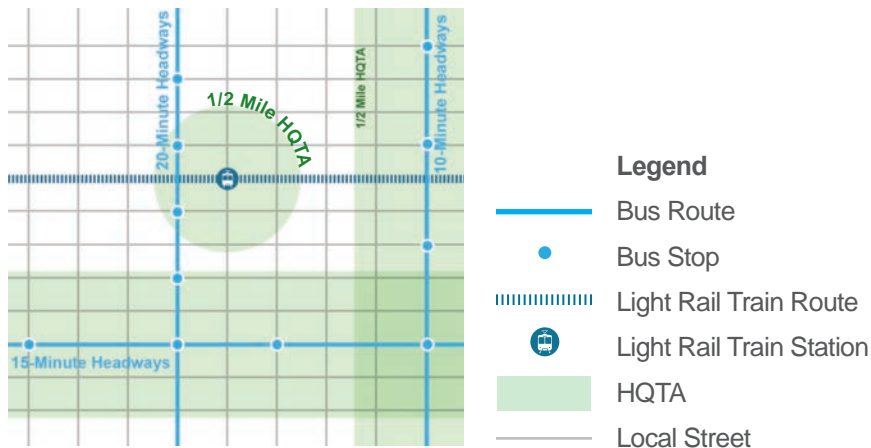
High Quality Transit Corridor (HQTAs): A corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The figure below shows hypothetical HQTAs based on the SB 375 language for various transit route frequencies.

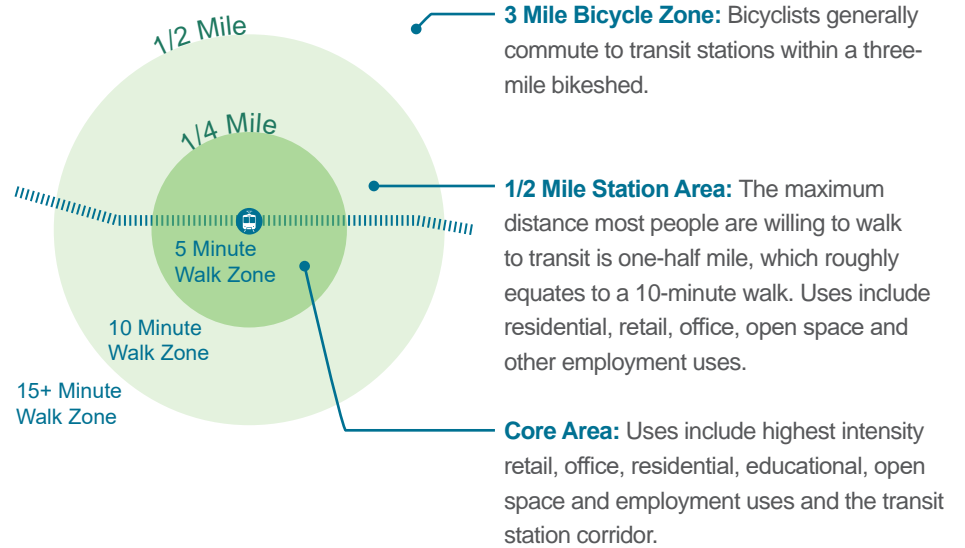
Within the HQTAs, there are individual zones that have implications for TOD planning. The HQTAs station/stop is surrounded by relatively high-intensity development, with intensity of development gradually reducing outwards to be compatible with lower-density uses as shown in the figure at right top.

The figure at right shows the location of all HQTAs within the SCAG region by 2040, which is based on the expected build-out of scheduled public transportation projects.

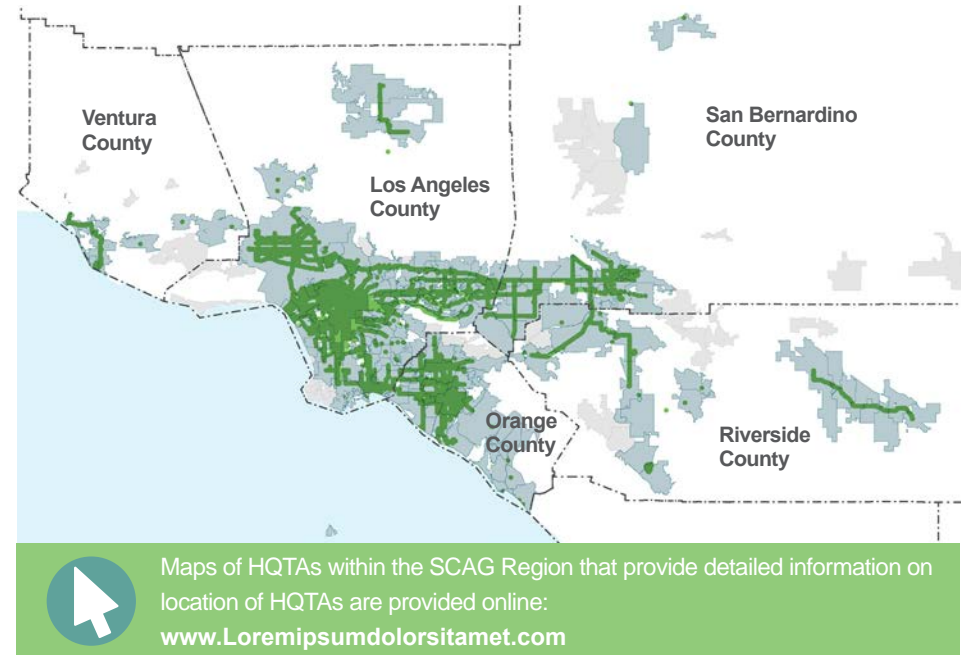
Qualifying HQTAs based on Transit Frequencies



HQTAs Zones



Location of HQTAs in the SCAG Region



Note: Per the 2016/2040 RTP/SCS, there are no HQTAs identified for Imperial County.

Issues in the SCAG Region

The vision set forth in the RTP/SCS addresses major issues facing the SCAG Region today:

- Environmental justice
- Affordability
- Population growth and displacement
- Air quality
- Economic development
- Transportation access and safety
- Goods movement
- Public health
- Climate change

All these issues facing the Region are interconnected. They are the consequence of past investments in sprawling development and auto-centric transportation infrastructure when land use and transportation planning were isolated disciplines. In hindsight, the auto-centric development patterns were made without consideration for the potential impacts to air quality, public health,

neighborhood fabric, and other factors. The new vision for the SCAG Region, centered on TODs within HQTAs integrates transit-supportive land uses with a variety of transportation options. A new urban development pattern applies the context and technologies of the 21st Century to produce walkable, affordable, healthy, sustainable, safe, and equitable communities.

Geographic Scales of TOD Planning

While major issues are perceived regionally, it is the individual parcels, blocks, and neighborhoods that produce the physical conditions that influence regional outcomes; they form the individual tiles of the regional mosaic. The same applies for the goals and objectives of the region. TODs occur at the individual scale where localized issues can match or be contrary to regional trends, but they are not isolated from its context. Understanding the value of how studying every scale impacts the success of TOD is

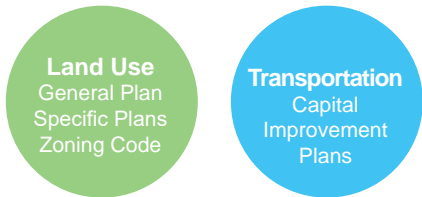
demonstrated through research from Center for Transit-Oriented Development (CTOD),

“Planning for TOD occurs at the scale of the region, the corridor, the station area, and the land parcel, and these separate levels of planning should be coordinated to achieve the most successful outcomes. Planning at the regional scale serves to integrate regional goals, such as decreasing traffic congestion and improving public health, with regional contexts, such as a consideration of population growth and the location of major employment centers. Planning for TOD most often takes place at the station area level, and this is where it’s easiest to understand local benefits such as reduced transportation costs for residents, and the creation of a sense of place and community. Development projects are planned at the scale of the [individual] land parcel.”

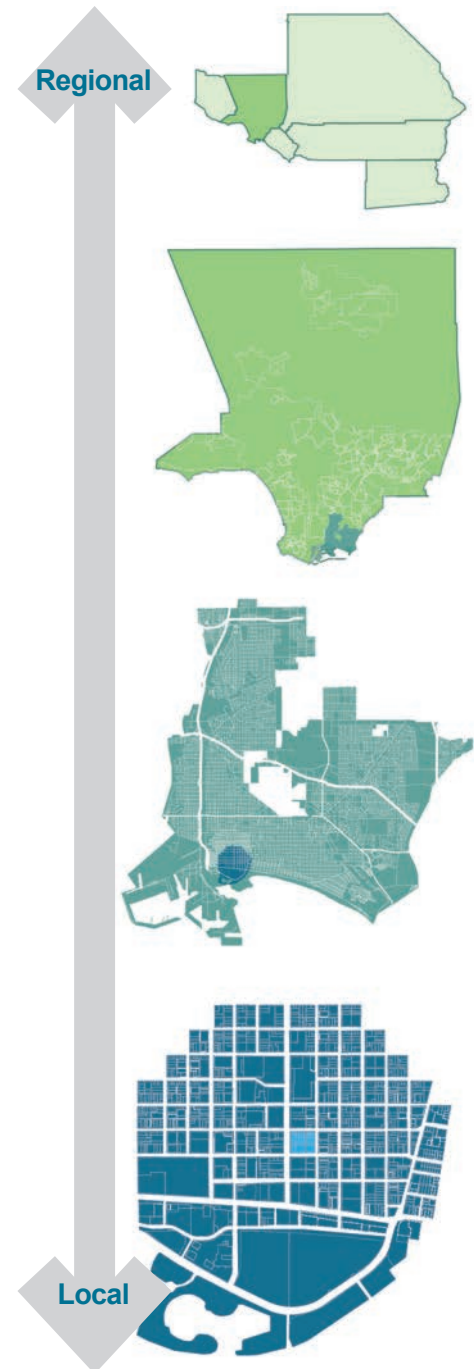
This Toolkit will provide the tools to implement individual projects both public and private that improve both local and regional livability.



Traditional Planning



New Approach to Planning



Goals and Objectives for the SCAG Region

Goals

The following are the broad goals of the 2016/2040 RTP/SCS designed to address the primary issues facing the SCAG Region, which also apply to this Toolkit:

- Align plan investments and policies with improving regional economic development
- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability
- Preserve and ensure a sustainable regional transportation system
- Maximize productivity
- Protect the environment and health of the region’s residents by improving air quality and encouraging active transportation
- Actively encourage and create incentives for energy efficiency
- Encourage land use and growth patterns that facilitate transit and active transportation
- Maximize security of the regional transportation system



Objectives and Metrics

The Pilot Project Vision Plans, guided by the strategies and investments contained in the Toolkit will help achieve the following 2016/2040 RTP/SCS objectives:

- 8 percent reduction in GHG emissions per capita by 2020, 18 percent reduction by 2035, and a 21 percent reduction by 2040 - compared to 2005 levels
- Improve regional air quality
- 4 percent increase in commute trips made by carpooling, active transportation (walking and biking) and public transit from current single occupant vehicle trips
- 7 percent reduction of vehicle miles traveled (VMT) per capita
- 17 percent reduction of vehicle hours (VHT) per capita for automobiles and light/medium duty trucks
- 1/3 increase in daily travel by public transit
- 39 percent reduction of delay on roadways per capita
- Create more than 351,000 jobs annually
- Reduce the amount of undeveloped (greenfield) lands by 23 percent
- Reduce the regional obesity rate from 26.3 percent to 25.6 percent in areas with land use changes

Once the Vision Plans are developed, SCAG will work with pilot project jurisdictions to track the progress of pilot projects towards meeting regional objectives through a set of metrics. Pilot projects that successfully reduce GHGs or meet other objectives will be held up as models for other station areas with similar characteristics. Taken together, successful pilot projects will help to address the major issues facing the SCAG Region today.

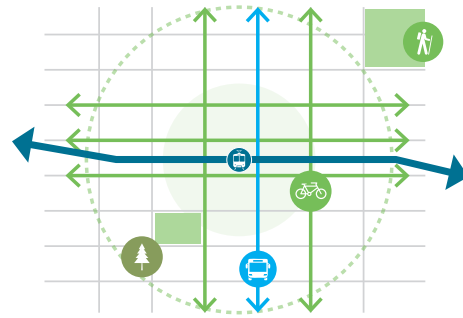
Benefits of TODs

Transit-Oriented Development (TOD) is a form of urban development that is different than urban development that occurred during the sprawl that ensued after WWII. The postwar population boom led to a sprawling development pattern that was enabled by the construction of freeways and inefficient infrastructure and land use investments. TOD can accommodate inevitable future population and job growth that addresses the issues we face today, and focuses that new urban development in HQTAs that preserve and improve the quality of existing communities.

A new population boom offers the opportunity to reshape how the region grows. According to estimates by SCAG, Los Angeles County alone will add up to 1 million new residents by 2030. TODs are equipped to accommodate future growth while largely preserving existing neighborhood character.

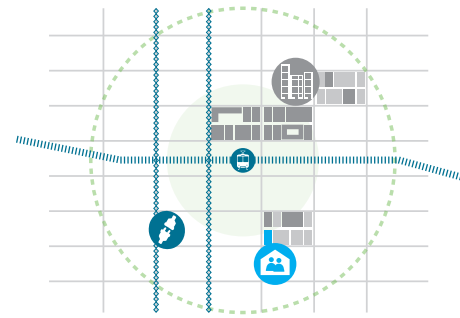
The illustration at right lists the numerous benefits of TODs, which have been grouped into the categories of environment, economic, and social.

ENVIRONMENT



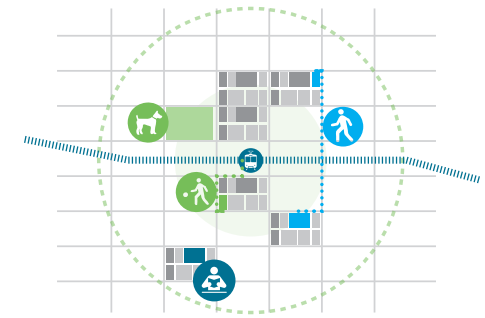
- Increased transit ridership
- Reduced VMT
- Reduced GHG
- Improved Air Quality
- Conservation of land and open space

ECONOMIC



- Catalyst for economic development
- Redevelopment of vacant and underutilized properties
- Increased property value
- Decreased infrastructure costs
- Revenue for transit systems
- Reduced household spending on transportation
- Increase in affordable housing

SOCIAL



- Increased housing and employment choices
- Greater mobility choices
- Health benefits
- Enhanced sense of community
- Enhanced public safety
- Increased quality of life

Components of TODs



A typical HQTAs should include a mixture of housing, office, retail and/or other commercial development and amenities integrated into a walkable neighborhood and located within a half-mile of quality public transportation.

- 1 Mix of Land Uses / Higher Densities and Intensities**
GOAL: Encourage transit-supportive uses at higher densities and intensities in walking distance to transit stations/stops
 Design for flexibility to allow for future conversion to other uses
 Provide for convenience retail that serves transit commuters
- 2 Street Design / Active Transportation**
GOAL: Balance the provision of pedestrian, cyclist, transit, and single-occupancy vehicles (SOVs) infrastructure by promoting “complete streets”
 Design amenities for all modes (shelters, storage, etc.)
 Design streets with pedestrian and cyclist safety in mind
 Employ traffic-calming devices to reduce collisions
- 3 Buildings / Urban Design**
GOAL: Promote attractive, pedestrian-friendly buildings that contribute to the character of a district and have active ground floor uses
 Promote building articulation and variety
 Use a diverse palette of materials
 Locate parking behind buildings and retail along streets
 Design for flexibility to allow for future conversion to other uses
- 4 Parking: Strategies**
GOAL: Reduce reliance upon SOVs by managing the supply and demand of parking
 Shared, district-wide parking
 Reduced parking supply
 Reliance upon multiple modes to address mobility needs
 Appropriately-priced parking to manage demand
 Car-share, transit and cycling incentive programs
- 5 Open Space: / Placemaking**
GOAL: Design for active and passive recreational opportunities
 Privately-owned, publicly-accessible public spaces (POPs)
 Publicly-owned civic spaces for passive + active recreation
 Public spaces of a wide variety of types and programming

TOD Performance Metrics

Baseline conditions for each HQTAs are established using the most recent version of the SCAG model (2016 RTP/SCS). Evaluation of the Pilot Project Buildout conditions includes modification to the SCAG model's Transportation Analysis Zones (TAZs) to represent the land use forecast to be built.

Each analysis of the Pilot Project Buildout proposed by the HQTAs Vision Plan used the **number of jobs, housing units, and population** to estimate the following metrics:

Vehicle Miles Traveled (VMT) per capita is a measurement of the number of vehicle trips multiplied by the distance of those trips (in terms of miles traveled). The total VMT (generated by the TAZ's within the HQTAs) is divided by the population within the HQTAs area to determine the VMT per capita. Data from all TAZ's within, or overlapping with, the HQTAs boundaries is included in the calculation.

Vehicle Hours Traveled (VHT) per capita is a measurement of the number of vehicle

trips multiplied by the duration of those trips (in terms of hours traveled). The total VHT (generated by the TAZ's within the HQTAs) is divided by the population within the HQTAs area to determine the VHT per capita. Data from all TAZ's within, or overlapping with, the HQTAs boundaries is included in the calculation.

Travel mode share within the HQTAs is calculated by obtaining the total origins and destinations (auto and transit) for each zone within the HQTAs, and calculating the travel

mode share based on raw model output data.

Public transit usage is calculated as the number of daily transit trips within the HQTAs.

Vehicular delay is calculated as the total daily vehicle delay on all roadway links within the HQTAs.

Number of Jobs



Transit-oriented communities have active local businesses and attract new economic development.

Housing Units




A higher density of housing units along transit routes increases residents' access to alternative modes of travel.

Population




Cities with population densities concentrated along transit routes are healthier, more economically stable, and produce less carbon emissions.

Vehicular Delay




A reduction in vehicular delay can reduce GHG emissions from idling cars.

Travel Mode Share




Streets designed for all modes of travel can reduce occurrences and severity of traffic collisions.

Public Transit Usage




An increase in public transit ridership reduces the number of single-occupancy vehicles on the road and provides revenue for cities.

Vehicular Miles Traveled (VMT)



A reduction in VMT eases traffic congestion, promotes active transportation, and reduces GHG emissions.

Vehicular Hours Traveled (VHT)



A reduction in VHT promotes mental health in commuters by reducing commute fatigue.

HQTA Place Types

During the generation of growth scenarios for the 2016 RTP/SCS, SCAG developed a set of 35 place types that are based on observations of station areas in California and throughout the United States. Each place type is embedded with assumptions for density/intensity, land use type and mix, built form, and connectivity, each of which can be quantified and compared across many different stations. Place types are organized into “urban,” “compact,” and “standard.”

These place types recognize the rich diversity and wide variety of communities in the SCAG region. The goal of the HQTA program is not to replicate the same TOD model for each community, but rather to build upon the unique attributes of each city. Through this approach, each community can identify its strengths and opportunities to create compact, livable, walkable communities. Communities can refer to these place types as they define the current conditions and desired qualities of their HQTA.

Progress towards meeting these goals will be tracked through a series of targets and metrics identified in each Vision Plan. These targets include density, connectivity, primary mode of travel, and greenhouse gas reductions, among others. Of the 35 place types identified by SCAG, 17 meet or exceed density thresholds that will promote the use of high quality transit. These are listed in **bold** below. A more complete profile of each of the 17 place types is presented on the following pages. A summary table of metrics for each place type can be found in the “Additional Resources” section of this Toolkit.

Urban

- **Urban Mixed Use**
- **Urban Residential**
- **Urban Commercial**
- **City Mixed Use**
- **City Residential**
- **City Commercial**

Compact

- **Town Mixed Use**
- **Town Residential**
- **Town Commercial**
- **Village Mixed Use**
- **Village Residential**
- **Village Commercial**
- Neighborhood Residential
- Neighborhood Low

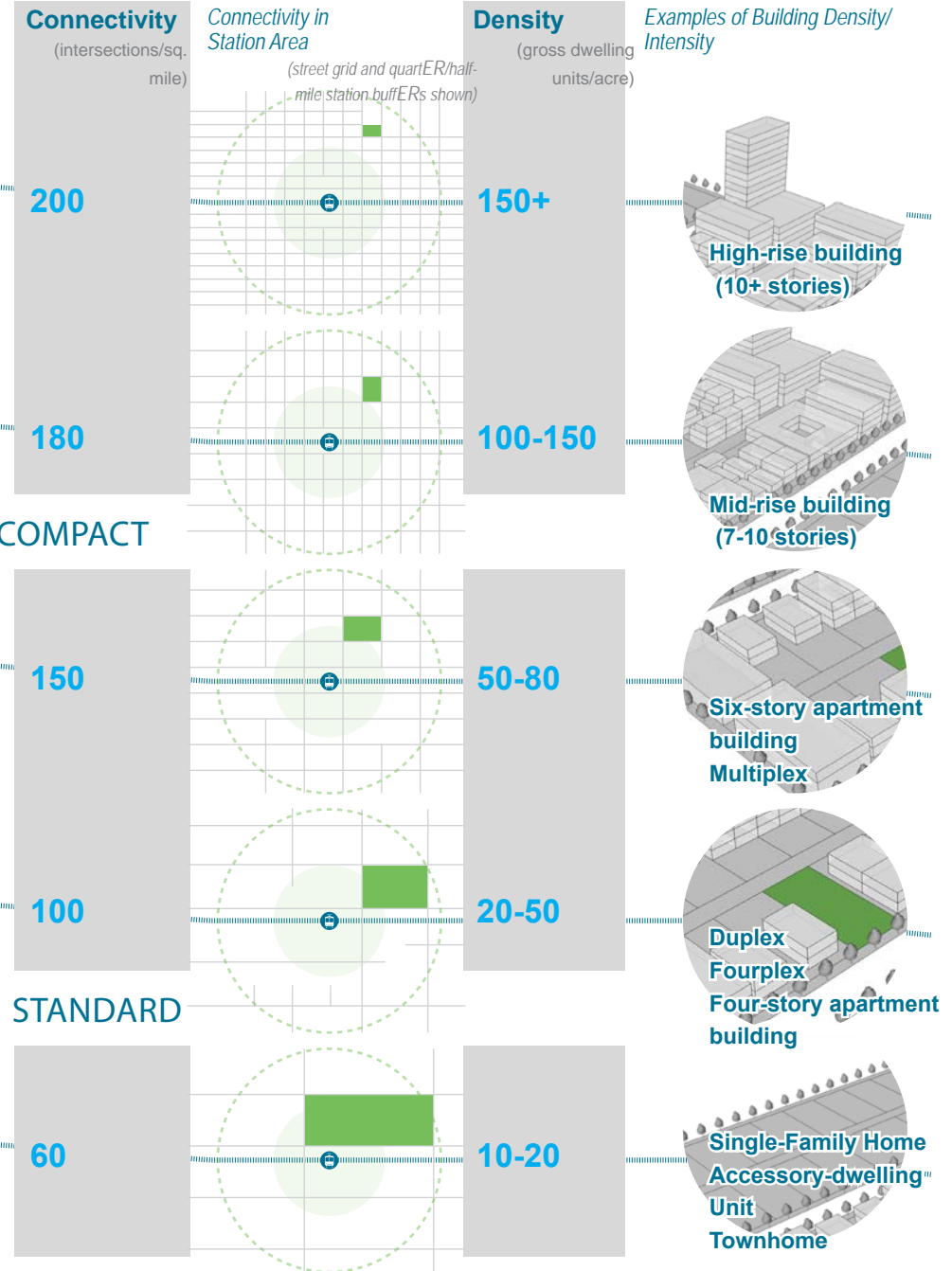
Other

- **Campus / University**
- Institutional

Standard

- **Office Focus**
- Mixed Office and R&D
- Office / Industrial
- Industrial Focus
- Low-Density Employment Park
- **High Intensity Activity Center**
- Mid Intensity Activity Center
- Low Intensity Retail-Centered Neighborhood
- Retail: Strip Mall / Big Box
- **Industrial / Office / Residential Mix High**
- Industrial / Office / Residential Mix Low
- **Suburban Multi-family**
- Suburban Mixed Use Residential
- Residential Subdivision
- Large Lot Residential Area
- Rural Residential
- Rural Ranchettes
- Rural Employment
- Open Space

URBAN



HQTA Place Types

Urban Mixed Use



Land Use Mix		Residential Mix	
Residential	18%	SF Large Lot	0%
Employment	16%	SF Small Lot	0%
Mixed Use	45%	Townhome	0%
Open Space/Civic	21%	Multifamily	100%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	80%
Average Floors	23	Retail	20%
Floors Range	15 – 100	Industrial	0%
Total Net FAR	9.0		
Gross Density Range (per acre)		Average Density (per acre)	
Household	40-500+	Household	85
Employee	50-500+	Employee	266

Description
Urban Mixed Use districts are exemplified by a variety of intense uses and building types. Typical buildings are between 10 and 40+ stories tall, with offices and/or residential uses and ground-floor retail space. Parking is usually structured below or above ground. Workers, residents, and visitors are well served by transit, and can walk or bicycle for many of their transportation needs.


City Mixed Use



Land Use Mix		Residential Mix	
Residential	28%	SF Large Lot	0%
Employment	17%	SF Small Lot	0%
Mixed Use	35%	Townhome	3%
Open Space/Civic	20%	Multifamily	97%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	60%
Average Floors	7	Retail	40%
Floors Range	3 – 40	Industrial	0%
Total Net FAR	3.4		
Gross Density Range (per acre)		Average Density (per acre)	
Household	10-75	Household	44
Employee	25-165	Employee	85

Description
City Mixed Use areas are transit-oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground.

Urban Residential



Land Use Mix		Residential Mix	
Residential	64%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	12%	Townhome	0%
Open Space/Civic	21%	Multifamily	100%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	22%
Average Floors	18	Retail	78%
Floors Range	5 – 60	Industrial	0%
Total Net FAR	9.0		
Gross Density Range (per acre)		Average Density (per acre)	
Household	75-500+	Household	131
Employee	0-50+	Employee	44

Description
The most intense residential-focused type, Urban Residential areas are typically found within or adjacent to major downtowns. They include high- and mid-rise residential towers, with some ground-floor retail space. Parking usually structured below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs.

City Residential



Land Use Mix		Residential Mix	
Residential	65%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	11%	Townhome	3%
Open Space/Civic	20%	Multifamily	97%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	40%
Average Floors	7	Retail	60%
Floors Range	5 – 40	Industrial	0%
Total Net FAR	2.9		
Gross Density Range (per acre)		Average Density (per acre)	
Household	35-75	Household	58
Employee	0-17	Employee	14

Description
An dense residential-focused type, City Residential is dominated by mid- and high-rise residential towers, with some ground-floor retail space. Parking is usually structured, below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs.

Urban Commercial



Land Use Mix		Residential Mix	
Residential	1%	SF Large Lot	0%
Employment	4%	SF Small Lot	0%
Mixed Use	12%	Townhome	0%
Open Space/Civic	21%	Multifamily	100%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	93%
Average Floors	15	Retail	7%
Floors Range	15 – 100	Industrial	0%
Total Net FAR	6.0		
Gross Density Range (per acre)		Average Density (per acre)	
Household	0-40	Household	8
Employee	250-500+	Employee	402

Description
Urban Commercial areas are typically found within major Central Business Districts. They are exemplified by mid- and high-rise office towers. Typical buildings are between 15 and 40+ stories tall, with ground-floor retail space, and offices on the floors above. Parking is usually structured below or above ground; workers tend to arrive by transit, foot or bicycle in large numbers.

City Commercial



Land Use Mix		Residential Mix	
Residential	1%	SF Large Lot	0%
Employment	82%	SF Small Lot	0%
Mixed Use	4%	Townhome	0%
Open Space/Civic	14%	Multifamily	100%
Built Environment		Employment Mix	
Intersections per mi ²	200	Office	77%
Average Floors	7	Retail	23%
Floors Range	5 – 40	Industrial	0%
Total Net FAR	3.1		
Gross Density Range (per acre)		Average Density (per acre)	
Household	0-10	Household	4
Employee	90-250	Employee	200

Description
The central business districts of most cities contain areas exemplary of City Commercial, with many mid- and high-rise office towers and government buildings. Typical structures are between 4 and 40 stories tall, with ground-floor retail space, and offices on the floors above. Parking is usually structured, though many workers arrive by transit, foot, or bicycle.

HQTA Place Types

Town Mixed Use



Land Use Mix	Residential Mix
Residential 26%	SF Large Lot 0%
Employment 20%	SF Small Lot 0%
Mixed Use 29%	Townhome 0%
Open Space/Civic 25%	MultiFamily 100%

Built Environment	Employment Mix
Intersections per mi ² 200	Office 75%
Average Floors 4	Retail 25%
Floors Range 2-8	Industrial 0%
Total Net FAR 1.9	

Gross Density Range (per acre)	Average Density (per acre)
Household 7-35	Household 21
Employee 25-70	Employee 50

Description
Town Mixed Use areas are walkable mixed-use neighborhoods, such as the mixed-use core of a small city or transit oriented development, with a variety of uses and building types. Typical buildings are between 3 and 8 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured, above or below ground.

Village Mixed Use



Land Use Mix	Residential Mix
Residential 43%	SF Large Lot 15%
Employment 14%	SF Small Lot 15%
Mixed Use 14%	Townhome 29%
Open Space/Civic 28%	MultiFamily 41%

Built Environment	Employment Mix
Intersections per mi ² 220	Office 42%
Average Floors 3	Retail 58%
Floors Range 2-6	Industrial 0%
Total Net FAR 1.0	

Gross Density Range (per acre)	Average Density (per acre)
Household 5-12	Household 10
Employee 5-40	Employee 14

Description
Village Mixed Use areas are the walkable and transit accessible mixed-use cores of traditional neighborhoods. Typical buildings are between 2 and 6 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is typically structured, tucked under, or placed behind buildings so that it does not detract from the pedestrian environment.

Town Residential



Land Use Mix	Residential Mix
Residential 68%	SF Large Lot 0%
Employment 0%	SF Small Lot 0%
Mixed Use 10%	Townhome 47%
Open Space/Civic 22%	MultiFamily 53%

Built Environment	Employment Mix
Intersections per mi ² 220	Office 47%
Average Floors 3	Retail 53%
Floors Range 2-8	Industrial 0%
Total Net FAR 1.2	

Gross Density Range (per acre)	Average Density (per acre)
Household 12-35	Household 18
Employee 0-25	Employee 12

Description
Containing a mix of townhomes, condominiums and apartments (and occasionally small-lot single family homes), Town Residential is characterized by dense residential neighborhoods interspersed with occasional retail areas. Typical buildings are 2-5 stories tall, with limited off-street parking; residents tend to use transit, walking and bicycling for many of their transportation needs.

Village Residential



Land Use Mix	Residential Mix
Residential 74%	SF Large Lot 26%
Employment 0%	SF Small Lot 26%
Mixed Use 1%	Townhome 49%
Open Space/Civic 26%	MultiFamily 0%

Built Environment	Employment Mix
Intersections per mi ² 180	Office 100%
Average Floors 3	Retail 0%
Floors Range 2-5	Industrial 0%
Total Net FAR 0.9	

Gross Density Range (per acre)	Average Density (per acre)
Household 8-12	Household 10
Employee 0-5	Employee 2

Description
Containing a mix of single-family homes on small lots and townhomes, Village Residential is characterized by traditional neighborhoods, designed to be supportive of transit service, walking and bicycling. Typical buildings are 2-3 stories tall, with small yards and an active focus on the public realm.

Town Commercial



Land Use Mix	Residential Mix
Residential 1%	SF Large Lot 0%
Employment 69%	SF Small Lot 0%
Mixed Use 17%	Townhome 0%
Open Space/Civic 14%	MultiFamily 100%

Built Environment	Employment Mix
Intersections per mi ² 200	Office 68%
Average Floors 3	Retail 32%
Floors Range 2-8	Industrial 0%
Total Net FAR 1.8	

Gross Density Range (per acre)	Average Density (per acre)
Household 0-7	Household 5
Employee 60-90	Employee 75

Description
Equivalent to the center of a traditional town, or a more employment-focused transit-oriented development, Town Commercial contains a mix of commercial buildings set in a walkable context. Typical structures are between 2 and 8 stories tall, with ground-floor retail, and offices, services, and some residential uses on upper floors.

Village Commercial



Land Use Mix	Residential Mix
Residential 0%	SF Large Lot 0%
Employment 61%	SF Small Lot 0%
Mixed Use 7%	Townhome 0%
Open Space/Civic 32%	MultiFamily 100%


Built Environment	Employment Mix
Intersections per mi ² 230	Office 49%
Average Floors 2	Retail 51%
Floors Range 0	Industrial 0%
Total Net FAR 1.2	

Gross Density Range (per acre)	Average Density (per acre)
Household 0-5	Household 2
Employee 1-60	Employee 40

Description
Equivalent to the center of a small town or district, or a lower-intensity employment-focused transit-oriented development, Village Commercial contains a mix of buildings set in a walkable context. Typical structures are between 2 and 5 stories tall, with some ground-floor retail, and offices, services, and some residential on upper floors.

HQTA Place Types

Suburban Multifamily



Land Use Mix	Residential Mix
Residential 87%	SF Large Lot 0%
Employment 0%	SF Small Lot 0%
Mixed Use 0%	Townhome 11%
Open Space/Civic 13%	MultiFamily 89%
Built Environment	Employment Mix
Intersections per mi ² 90	Office 85%
Average Floors 3	Retail 15%
Floors Range 2-5	Industrial 0%
Total Net FAR 1.2	
Gross Density Range (per acre)	Average Density (per acre)
Household 18-150+	Household 32
Employee 0-6	Employee 2

Description
Predominantly containing apartments, condos, and town homes, Suburban Multifamily represents developments that may have internal walking paths but are set in an automobile-oriented context. While densities can be high enough to support bus transit, residents are likely to drive for most trips. Typical buildings are 2-5 stories tall, surrounded by surface parking lots.

High Intensity Activity Center



Land Use Mix	Residential Mix
Residential 14%	SF Large Lot 0%
Employment 37%	SF Small Lot 0%
Mixed Use 41%	Townhome 6%
Open Space/Civic 8%	MultiFamily 94%
Built Environment	Employment Mix
Intersections per mi ² 130	Office 20%
Average Floors 5	Retail 80%
Floors Range 5 - 40	Industrial 0%
Total Net FAR 2.5	
Gross Density Range (per acre)	Average Density (per acre)
Household 0.5-200+	Household 24
Employee 3-250+	Employee 69

Description
High Intensity Activity Centers include a mix of moderate to intense densities of retail, office, and residential uses. They are often anchored by major regional retail centers or office parks, and while they can contain a robust mix of uses, they are most often oriented within an auto-oriented and non-walkable street and land use pattern. Parking can be structured and/or provided on surface lots.

Industrial/Office/Residential Mixed High



Land Use Mix	Residential Mix
Residential 58%	SF Large Lot 0%
Employment 36%	SF Small Lot 0%
Mixed Use 0%	Townhome 4%
Open Space/Civic 6%	MultiFamily 96%
Built Environment	Employment Mix
Intersections per mi ² 60	Office 73%
Average Floors 4	Retail 16%
Floors Range 1 - 17	Industrial 11%
Total Net FAR 2	
Gross Density Range (per acre)	Average Density (per acre)
Household 18-200+	Household 45
Employee 3-250+	Employee 42

Description
Industrial/Office/Residential Mixed High is characterized by a wide-ranging, intensely developed mix of uses located in close proximity and set in an automobile-oriented context. Building heights can range from 1 to 15+ stories, and uses can include but are not limited to industrial, warehouses, offices, residential, and retail.

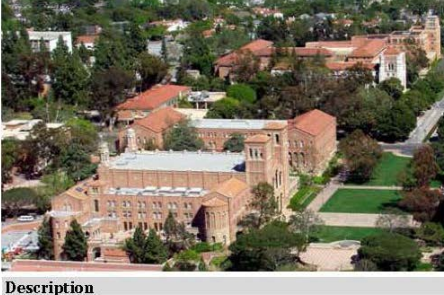
Office Focus



Land Use Mix	Residential Mix
Residential 0%	SF Large Lot 0%
Employment 82%	SF Small Lot 0%
Mixed Use 0%	Townhome 0%
Open Space/Civic 18%	MultiFamily 0%
Built Environment	Employment Mix
Intersections per mi ² 45	Office 93%
Average Floors 4	Retail 2%
Floors Range 2 - 9	Industrial 5%
Total Net FAR 1.1	
Gross Density Range (per acre)	Average Density (per acre)
Household 0	Household 0
Employee 35-150+	Employee 65

Description
Representing the most intense auto-oriented single-use office areas, Office Focus is characterized by mid and high-rise office towers. Typical buildings are between 2 and 9 stories tall. Parking can be either structured or provided on surface lots. Workers tend to arrive by auto, though densities are high enough to support suburban transit service.

Campus/University



Land Use Mix	Residential Mix
Residential 32%	SF Large Lot 0%
Employment 2%	SF Small Lot 0%
Mixed Use 0%	Townhome 0%
Open Space/Civic 67%	MultiFamily 100%
Built Environment	Employment Mix
Intersections per mi ² 150	Office 64%
Average Floors 8	Retail 36%
Floors Range 3 - 17	Industrial 0%
Total Net FAR 1.7	
Gross Density Range (per acre)	Average Density (per acre)
Household 1-50	Household 31
Employee 10-100	Employee 22

Description
College/University areas tend to be internally walkable, though they can be located in either a walkable or auto-oriented context. Buildings can range from 1 to 20+ stories, depending on the design of the campus. Parking may be plentiful or restricted; housing may be provided on-site in large amounts, or students may commute from homes in other locations.

Source: 2016 RTP/SCS

Toolkit

Implementation of the Station Area Vision is accomplished through specific physical improvements. The HQTAToolkit provides a collection of individual elements (infrastructure and policy) based on contemporary best practices that can be combined to improve the public realm for people who walk, bicycle, and take public transit.

A - Complete Streets

B - Placemaking

C - Building Types & Precedents



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Toolkit

A - COMPLETE STREETS

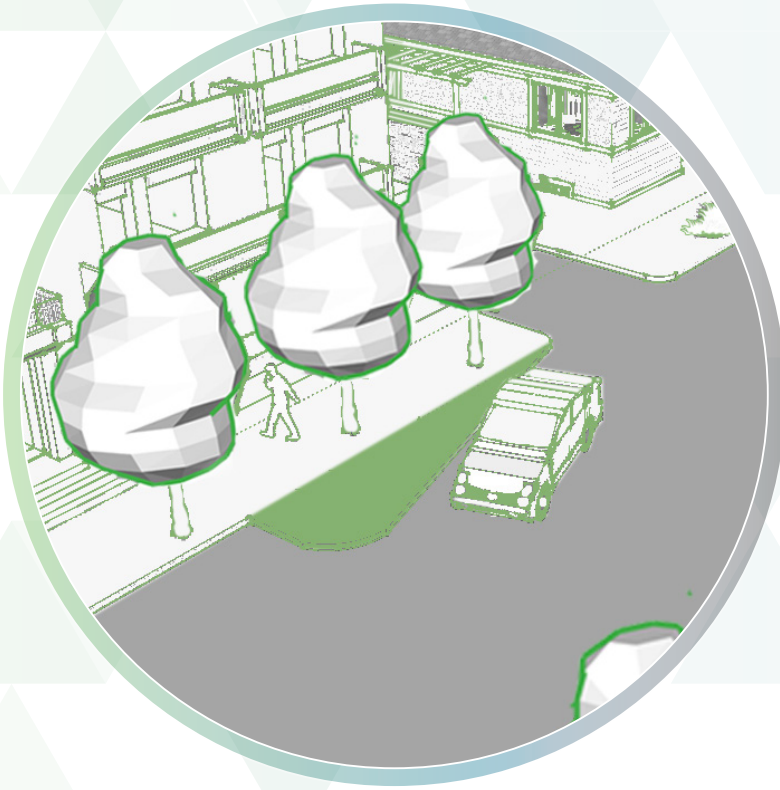
Street Design

Intersections

Infrastructure

Amenities

Other



Complete Streets

Complete streets are designed and constructed to serve all users of streets regardless of age or ability or whether they are driving, walking, bicycling, or taking transit.¹ In many areas of the SCAG region, vehicular travel lanes have been given priority within the public right-of-way over other forms of transportation leaving little space for sidewalks, bicycle paths, and transit. In HQTAs within the constrained street right-of-way, the challenge is to create a network of complete streets where tree-lined walkways, bicycle paths, pedestrian/ bicycle amenities and transit connections are balanced with the requirements of automobiles. The two diagrams illustrate an example of transforming a major corridor into a more walkable, bicycle friendly, and transit-supportive street.

Benefits

- Safety – Designing streets that consider safe travel for all modes can reduce occurrences and severity of vehicular collisions with pedestrian and bicycles.
- Health – Promotes a healthy lifestyle by encouraging physical activity.
- Greenhouse Gas Emission reduction – Developing an integrated land use and transportation pattern in a HQTA can reduce VMT and greenhouse gas emissions.
- Economic Development – Multi-modal transportation networks can improve economic activity of local business and attract new economic development.

Street Design

- Lane Width and Re-purposing
- Transit Lanes
- Bicycle Lanes and Paths
- Sidewalks
- Bus Bulbs
- Speed Table

Intersections

- Traffic Circle
- Diverter
- Median Refuge Island
- Curb Extension
- Protected Bicycle Intersection
- Enhanced crosswalk
- High-intensity Activated Crosswalk (HAWK) Beacon
- Scramble Crosswalk
- Curb Ramp

Infrastructure

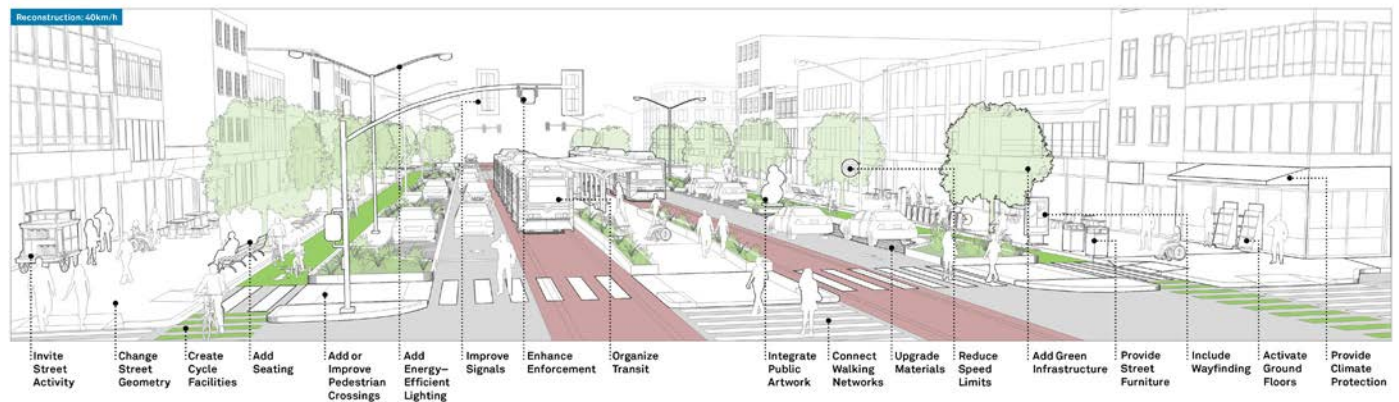
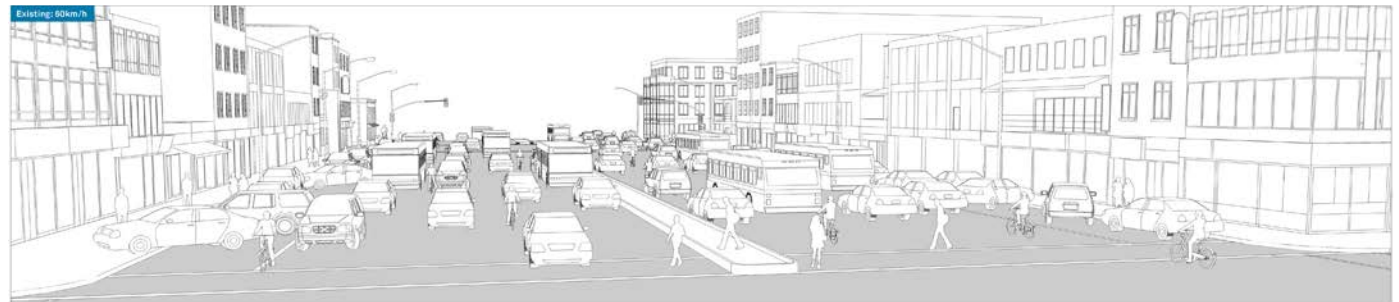
- Chicane
- Street trees
- Treelet
- Greenway Planters / Bioswales
- Permeable Paving
- Lighting

Amenities

- Wayfinding
- Street Furniture
- Transit Shelter

Other

- Demonstration Projects



¹State of California OPR, General Plan Guidelines: Complete Streets and the Circulation Element, 2010.

Source: NACTO

Complete Streets

ROUGH ORDER OF MAGNITUDE (ROM) COST ESTIMATES FOR COMPLETE STREET AMENITIES (2019)

The table at right lists an estimated cost range for the complete street elements profiled in the HQT A Toolkit. These estimates can be used as cities develop more detailed complete street plans as priority projects move forward.

Costs for contingencies (design and construction), general contractors, contractor overhead and project, bonds and insurance, and escalation are factors which may increase the cost estimates provided at right. These factors vary by city, and should be added to the estimates on a case-by-case basis.

The Toolkit is a living document meant to be updated over time. These cost estimates should be updated periodically to reflect the average costs for the complete street amenities described herein.

Complete Street Treatments		Lower Limit (\$)	Upper Limit (\$)	Unit
Street Design	Street Reconstruction to achieve transit lanes or protected bike lanes, new curbs, wider sidewalks, new street/pedestrian lighting, street trees, street furniture, storm water management	\$15,000,000	\$28,000,000	/ mile
	Transit Lanes (re-stripping only, no new curb, no color)	\$25	\$30	LF
	Bicycle Lanes (re-stripping only, no new curb)	\$25	\$30	LF
	Sidewalks (new paving)	\$25	\$80	SF
	Bus Bulbs (at intersection)	\$25,000	\$32,000	each
	Speed Table	\$50,000	\$100,000	each
Intersections	Raised Crosswalk	\$8,000	\$15,000	each
	Traffic Circle	\$50,000	\$100,000	each
	Diverter	\$25,000	\$50,000	each
	Median Refuge Island	\$15,000	\$30,000	each
	Curb Extension (each corner)	\$12,000	\$16,000	each
	Curb Extension: Mid-block	\$7,000	\$12,000	each
	Protected Bicycle Intersection	\$75,000	\$150,000	each
	Enhanced Crosswalk	\$2,500	\$5,000	each
	High-intensity Activated Crosswalk (HAWK) Beacon	\$50,000	\$150,000	each
	Scramble Crosswalk	\$15	\$20	SF
	Curb Ramp	\$3,000	\$5,300	each
Infrastructure	Chicane	\$10,000	\$25,000	each
	Street Trees: General	\$1,500	\$2,500	each
	Street Trees: Palms	\$4,000	\$5,000	each
	Treelet	\$3,000	\$10,000	each
	Greenway Planter / Bioswale	\$50	\$60	SF
	Permeable Paving	\$25	\$50	each
	Lighting: Street (30' tall)	\$30,000	\$50,000	each
	Lighting: Pedestrian (15' tall)	\$5,000	\$6,000	each
	Wayfinding Signage (excludes monument signage)	\$2,000	\$3,000	each
Amenities	Street Furniture: Benches	\$1,200	\$3,200	each
	Street Furniture: Waste Receptacle	\$1,500	\$2,500	each
	Street Furniture: Bicycle Racks	\$600	\$1,800	each
	Street Furniture: Bicycle Fix-it Station	\$3,500	\$4,000	each
	Transit Shelter (new custom)	\$25,000	\$50,000	each
	Demonstration Projects: Bollards	\$6,000	\$2,500	each
	Demonstration Projects: Planters	\$3,000	\$4,000	each

Complete Streets

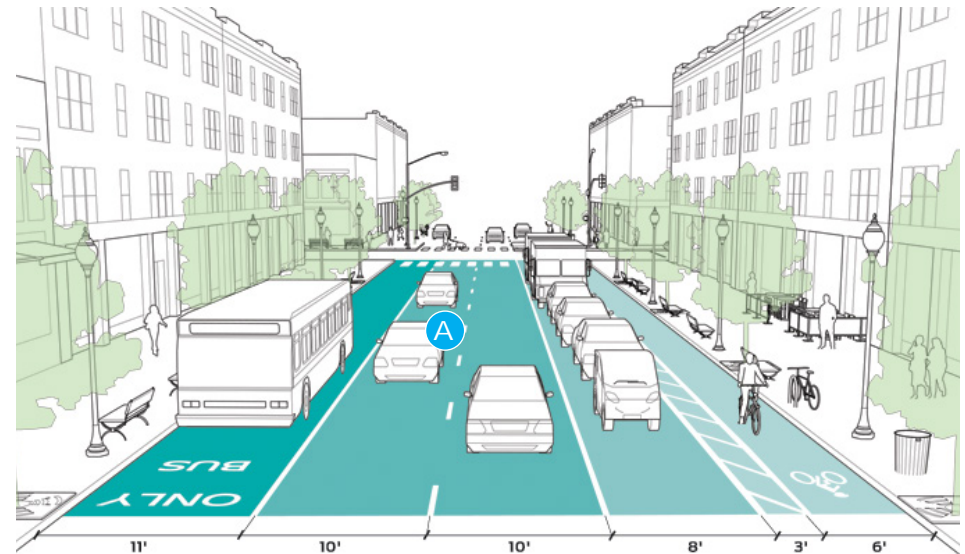
LANE WIDTH AND REPURPOSING

- Amenities
- Infrastructure
- Intersections
- Street Design

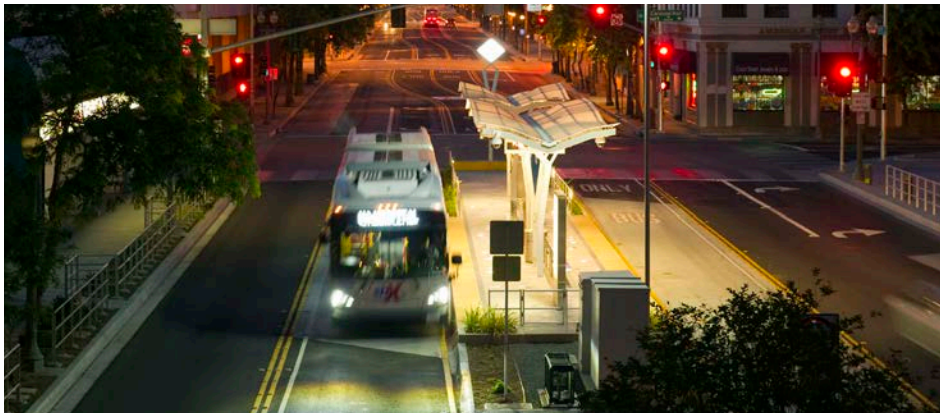
In HQTAs reducing the width of vehicular travel lanes will allow more space to be devoted to other mobility modes including pedestrian. In addition, narrowing lane widths act as traffic calming by reducing vehicular speeds which can decrease pedestrian-auto collisions. Repurposing a vehicular travel lane to a bus only lane can increase the number of people being moved along the street in less space. The example shown illustrates a street with four vehicle lanes of 12' to 13' width repurposed for two vehicular travel lanes, a bus only lane, a parking lane, and a one way buffered bike lane. There are many ways streets can be reconfigured to accommodate multiple transportation modes. The key is to determine for each street which modes are to be given priority if there is not space for all. Many cities define in their plans which streets should have transit priority, pedestrian priority, vehicle enhanced or be bike enhanced streets and apply these categories to address constrained right-of-way conditions.

Best Design Practices / Guidelines

- A In constrained conditions, vehicular roadway lane widths may be reduced to 10', parking lanes to 7' to 8', exclusive bus lanes to 12' to 13', one way bike lanes from 5' to 7', and two way bike lanes to 12' including shoulders.



Source: NACTO



SbX with its bus-only lanes in downtown San Bernardino, CA

Complete Streets

TRANSIT LANES

Amenities

Infrastructure

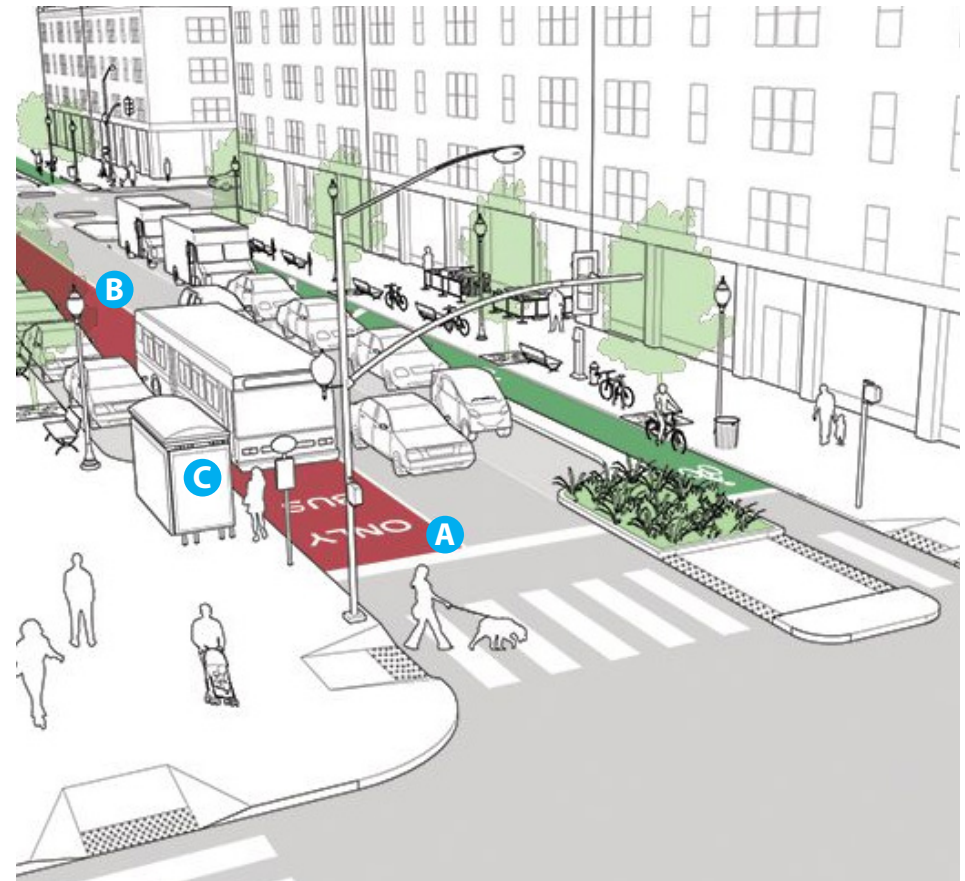
Intersections

Street Design

Transit on a complete street may include 1) a bus that shares a vehicular lane, 2) a peak-hour bus lane that prohibits curbside parking in peak hours, 3) a bus only lane, (either curb side or in the median), 4) a street car, or 5) a rail line. Peak hour bus lanes or exclusive bus only lanes shown in the illustrations increase the efficiency of transit especially on congested streets. On exclusive bus only lanes high ridership buses with transit signal priority at intersections move more quickly than adjoining traffic. Mixed traffic is only allowed to enter or cross a bus only lanes to turn at an intersection or park at designated parking areas. Bus only lanes may be used by emergency vehicles.

Best Design Practices

- A** Exclusive (dedicated) bus lanes width varies from 12' to 13' depending on transit agency requirements and street constraints.
- B** Exclusive bus lanes require physical barriers to separate bus lanes from mixed flow traffic which could be concrete barriers, bollards, delineators, or other devices.
- C** Well designed and branded transit shelters with ample space for waiting, protection from the sun, rain and wind, adequate lighting, variable message signs, seating, trash, receptacles will contribute positively to the passenger experience and the streetscape environment.



Source: NACTO



Georgia Avenue, Washington D.C.



34th Street, New York

Complete Streets

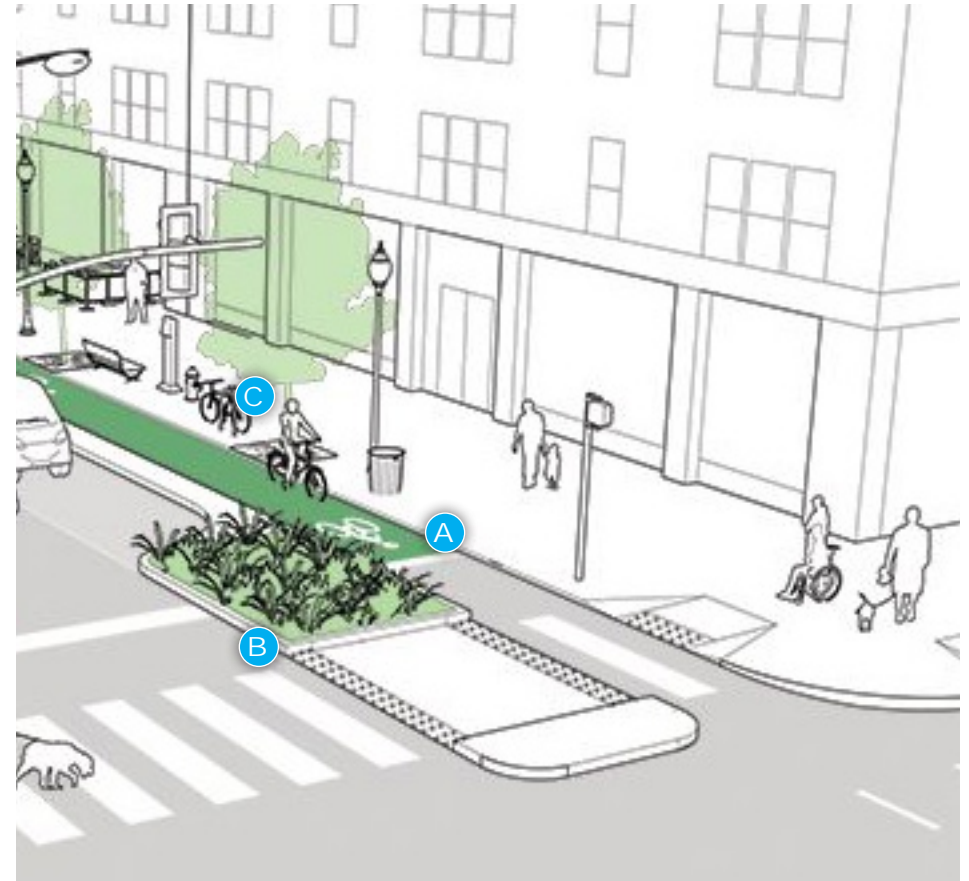
BICYCLE LANES AND PATHS

- Amenities
- Infrastructure
- Intersections
- Street Design

Providing a robust bicycle network within 3 miles of a HQTAs transit station/stop will assist in the first last mile connections to the transit station/stops and provide an alternative to the automobile for those living, working and playing within the HQTAs area. Options to consider in providing safe, dedicated bicycle lanes/path in the HQTAs include: 1) bicycle lanes (class II) are striped lanes located adjacent to the curb or to parked cars. 2) a bicycle path (class III) is a two way path usually on one side of a street or in a separate right-of-way 3) protected bike lanes or cycle tracks(class IV) contain a buffer or physical separation between the bike lane and parked cars or vehicular travel lanes as shown in the illustration.

Best Design Practices / Guidelines

- A** Bike lanes are a minimum of 5' width; 7' width desirable.
- B** Protected bike lane – Buffers could be wide striping in the pavement, a raised concrete curb or median, bollards or landscaping. The buffer should be a minimum of 3' if adjacent to parked cars and will need to be broken at driveways and at intersections.
- C** Along the bike lane/bike path there needs to be adequate bicycle parking which could include bike racks, bicycle lockers, bike corrals, bike bulbs and shared bike stations.



Source: NACTO



Class IV bike path, the Bowery, New York



Class IV bike path, Rosemead Blvd, Temple City, CA

Complete Streets

SIDEWALKS

Amenities

Infrastructure

Intersections

Street Design

A continuous, attractive landscaped pedestrian network provided in a HQTAs area will connect a dynamic mix of uses with transit facilities. Adequate sidewalk width and pedestrian amenities will help create a walkable environment throughout the entire HQTAs area. In addition to having travel lanes, devices such as “bump outs” or curb extensions are methods to provide more sidewalk width in constrained right-of-way conditions. These curb extensions may be used for bus stops, additional landscaping, outdoor dining and other amenities.

Best Design Practices / Guidelines

- A** Sidewalks typically can be classified into the following three zones. 1) an amenity zone next to the curb, 2) a pedestrian zone for access and, 3) a frontage zone. The amenity zone, sometimes called the parkway typically includes street lights, street trees, landscaping, signage, bike racks, trash receptacles, local bus stops with transit shelters, seating, and utilities. It could contain storm water treatment, parking meters, public art, and outdoor dining. The pedestrian zone includes enough walking area to accommodate the number of people walking abreast depending on the land use and must meet ADA requirements. The frontage zone is adjacent to the property line and its width will vary depending on the adjacent land use. In a retail area it may contain outdoor dining, planter boxes, railings, seating, and other amenities.
- B** Sidewalks and parkways of 12’ to 15’ or more are desirable as they are wide enough for street trees, pedestrian amenities, and allow at least two people to pass another. Sidewalks/parkways should not be less than 10’.
- C** Paving patterns will vary per City requirements for construction and maintenance and could include standard gray concrete, colored concrete, decorative paving, permeable paving, and others.
- D** To create a lively active pedestrian environment, the building entrances should be located with access directly from the sidewalk. The ground level frontage of the building facing the sidewalk should provide visual interest with clear glass windows that support the pedestrian environment.



Culver City, CA



Tokyo, Japan



West Hollywood, CA



Chicago, IL

Complete Streets

BUS BULB

Amenities

Infrastructure

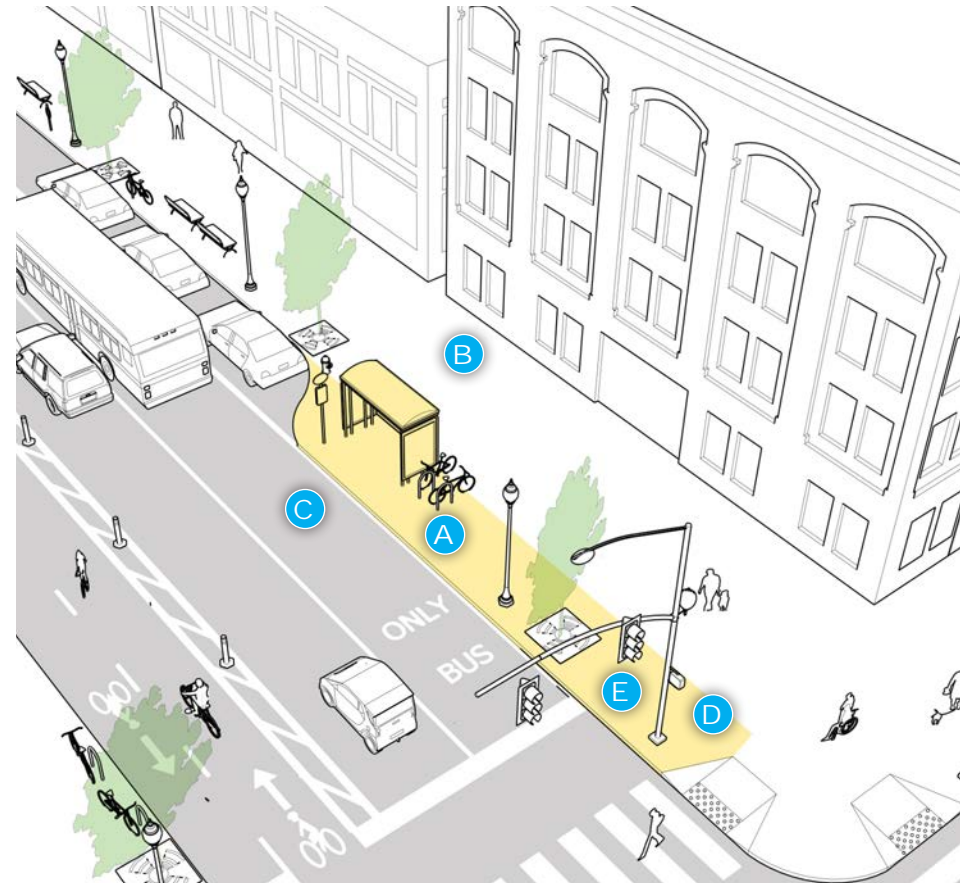
Intersections

Street Design

A bus bulb is a curb extension that allows buses to stop in a vehicular travel lane increasing transit efficiency as the bus stopped at the curb does not need to wait to pull into moving traffic. Bus bulbs create more space adjacent to the sidewalk for pedestrian and transit amenities.

Best Design Practices / Guidelines

- A** Bus bulbs are typically located on multi-lane arterials with curb side parking allowing for an extension of the sidewalk at intersections and for vehicles to pass stopped buses in adjoining lanes.
- B** Bus bulbs are used in constrained sidewalk conditions where there is limited space for a transit shelter and other amenities.
- C** Bus bulbs may be used in high bus ridership corridors for premium service such as Rapid or Bus Rapid Transit.
- D** Far side bus bulbs are preferred over near side bus bulbs to avoid right turn interference.
- E** The length of bus bulbs vary depending on the type (local or articulated) and the number of buses at a stop. The length of the bus bulb is often constrained by driveways and other physical conditions. For conceptual design guidance a minimum length of 60' to 140' and a width of 8' should be considered and longer if more than one bus will be stopping at the same time.



Source: NACTO



Dexter Avenue, Seattle, WA

Complete Streets

SPEED TABLE

Amenities	Infrastructure	Intersections	Street Design
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Speed tables are traffic calming devices that raise the pavement several inches to reduce traffic speed and improve safety for pedestrians and bicycles crossing a roadway.

Best Design Practices / Guidelines

- A** Speed tables have a flat surface with sloped ramps for vehicles.
- B** To shorten the distance of crossing a street, speed tables are typically located in conjunction with a curb extension and with the flat surface at the level of the curb.



Source: NACTO



Speedway, IN

Complete Streets

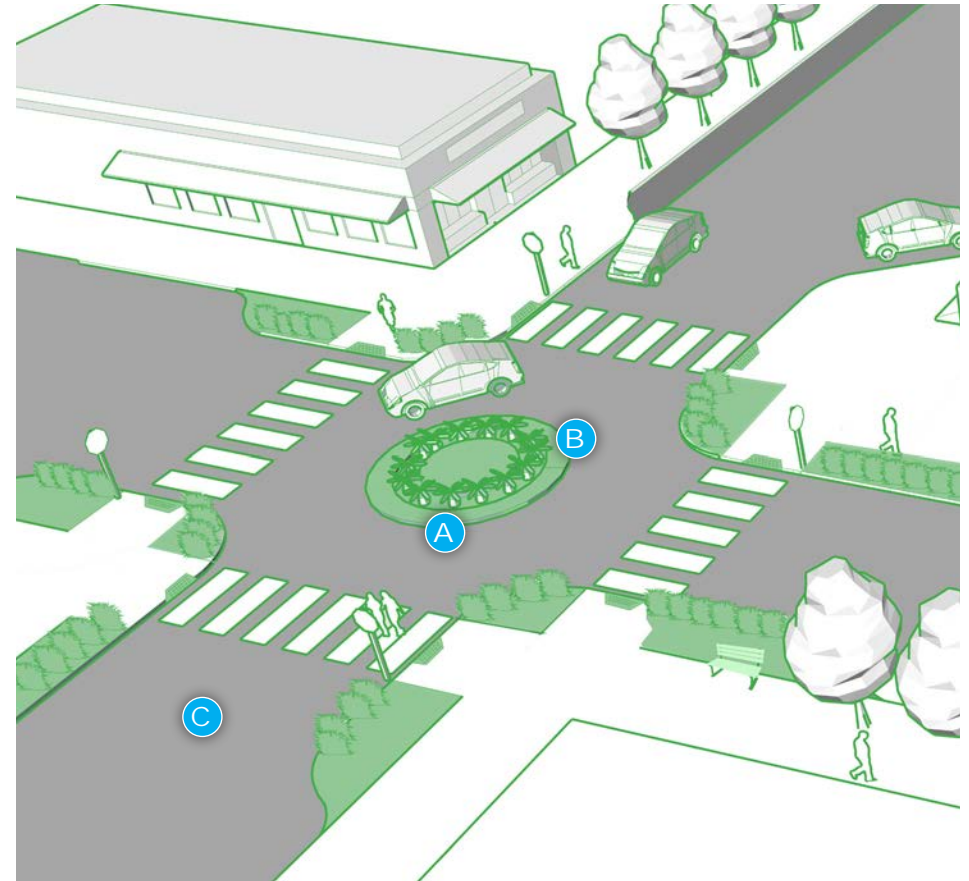
TRAFFIC CIRCLE

- Amenities
- Infrastructure
- Intersections
- Street Design

Traffic circles are circular islands in the center of intersections that control the flow of traffic. Drivers that enter the traffic circle must travel in a counter clockwise direction around the island to get to the other side. Intersections with traffic circles can be signalized, stop-controlled, or yield-controlled. Traffic circles slow the flow of vehicular traffic into intersections, which creates a more safe and comfortable environment for bicyclists and pedestrians. Studies have shown traffic circles improve air quality and roadway circulation by eliminating the stop-and-start movements associated with a four-way stop.

Best Design Practices / Guidelines

- A** Use permeable materials and low water landscaping within the traffic circle for storm water management and create an attractive image.
- B** Use signs and reflective paint on the curb to improve visibility.
- C** Design speeds for vehicular movement, around the traffic circle should be 10 to 15 mph.



Source: Gruen Associates



Vista Bike Boulevard, Long Beach, CA

Complete Streets

DIVERTER

Amenities

Infrastructure

Intersections

Street Design

A traffic diverter is a roadway design feature which is placed upon a street or roadway in order to prohibit vehicular traffic from entering into, or from any street. Traffic diverters can be low cost and be large planters, signs, dirt filled concrete drums, curbs, curb extensions and more permanent installations. A raised median diverter allows through traffic for bicycles while directing drivers onto an arterial street more appropriate for car traffic. Diverters also make the crossing much easier and safer for pedestrians. Diverters may include drought-resistant landscaping that can, integrate them into the feel and fabric of the surrounding neighborhood.

Best Design Practices / Guidelines

- A** Use signs within the diverter and reflective point on the curb to improve diverter visibility.
- B** Use permeable materials and low water landscaping within the diverter for storm water management and aesthetics.
- C** Bicycles can freely pass through the diverter. Enhanced cross walks and a “Z” pedestrian crossing can improve pedestrian safety.



Source: Gruen Associates

Complete Streets

MEDIAN REFUGE ISLAND

Amenities

Infrastructure

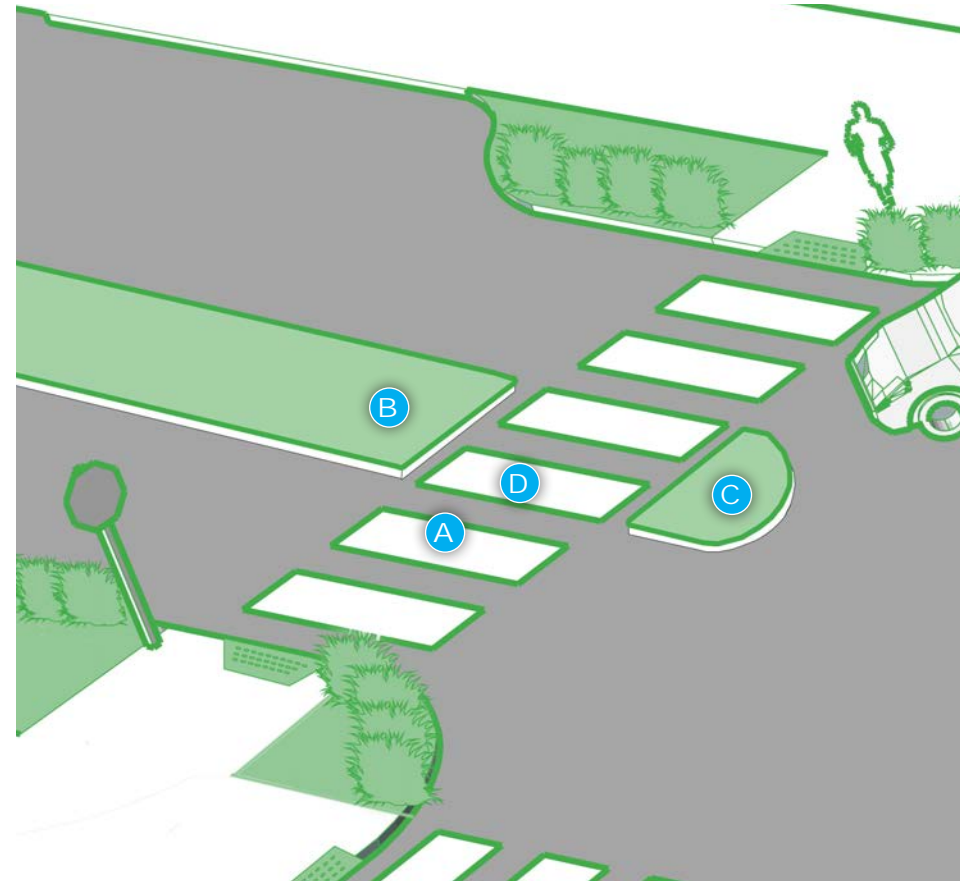
Intersections

Street Design

Median refuge islands can provide a protected space for pedestrians or bicyclists crossing the street. Medians are elevated barricades that divide the roadway down the center. A refuge island can provide additional protection for pedestrians and bicyclists along busy corridors by allowing them to navigate only one direction of traffic at a time. They are especially recommended for wide streets and arterials that pedestrians may have trouble crossing before the end of the signal phase.

Best Design Practices / Guidelines

- A** Median refuge should accommodate pedestrians with disabilities and provide all pedestrians with a clear path of travel.
- B** The minimum width is 6 feet, a preferred width of 10', and a length of 12' or the length of the crosswalk which ever is wider.
- C** Signage and reflective material should identify the refuge island.
- D** Provide detectable paving for visually impaired users to indicate the line between the travel lanes and the pedestrian refuge.



Source: Gruen Associates



Arlington, VA

Complete Streets

CURB EXTENSION

Amenities

Infrastructure

Intersections

Street Design

A curb extension is a portion of the sidewalk that is extended into the street or parking lane and typically occurs at intersections. This reduces the distance that pedestrians need to walk to cross the street, makes pedestrians more visible to motor vehicles, and causes drivers to reduce speeds by narrowing the roadway. Curb extensions offer space for amenities such as street furniture, bike racks, public art, transit shelters and landscaping. Curb extensions must be installed with curb ramps that comply with ADA standards. Curb extensions are typically installed at corners but they can be used at mid-block crossings as well.

Best Design Practices / Guidelines

- A** A curb extension should not obstruct sight lines and allow motorists to clearly see pedestrians and bicyclist. Well designed curb extensions could include low height landscaping, bioswale planting, bike parking, or seating.
- B** To avoid conflict with bike lanes curb extensions often occupy a portion of a curb side parking lane.
- C** A curb extension could modify the storm water flow and the street may need to be redesigned by providing curb breaks into a bioswale, relocating catch basins or an ADA compliant grated channel to divert stormwater to existing catch basins.



Source: Gruen Associates



Long Beach, CA

Complete Streets

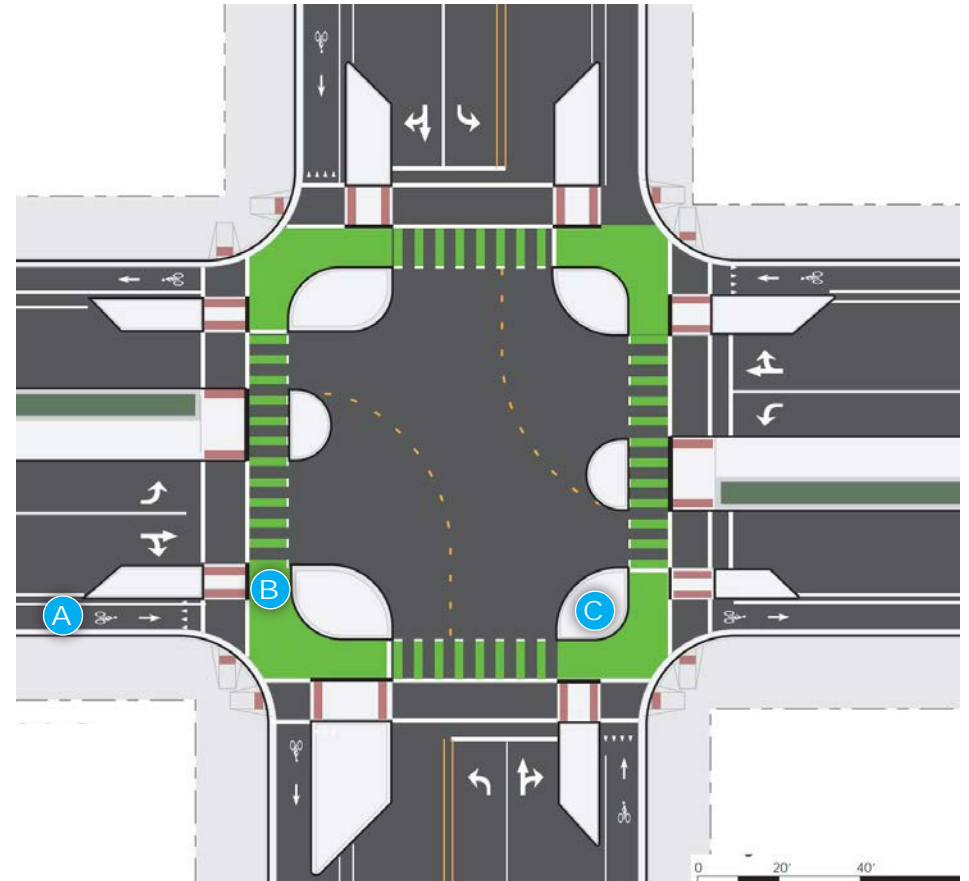
PROTECTED BICYCLE INTERSECTION

- Amenities
- Infrastructure
- Intersections
- Street Design

A protected bicycle intersection utilizes curb extensions to add a barrier between a bicycle lane and vehicle travel lanes at an intersection. Like other curb extensions, this makes cyclists and pedestrians more visible to motor vehicles. This arrangement provides greater safety for cyclists at intersections by preventing motorists from intersecting with cyclists when making a right turn and providing turning cyclists with an area to queue without interfering with either cyclist or motorists traffic. Protected bicycle intersections offer less space for pedestrian amenities as other forms of curb extensions.

Best Design Practices / Guidelines

- A** A protected bicycle intersection can be implemented in configurations with shared travel lanes or bicycle-only lanes. Roads with shared traffic lanes will have dedicated bicycle lanes at intersections to accommodate protected intersections.
- B** Well-designed protected bicycle intersections provide sufficient space for at least one cyclist to queue in the protected area. Queuing space can be maximized by widening the inside radius of the corner safety island.
- C** A protected bicycle intersection can include low height landscaping in raised corner safety islands.



Source: ALTA



San Francisco, CA

Complete Streets

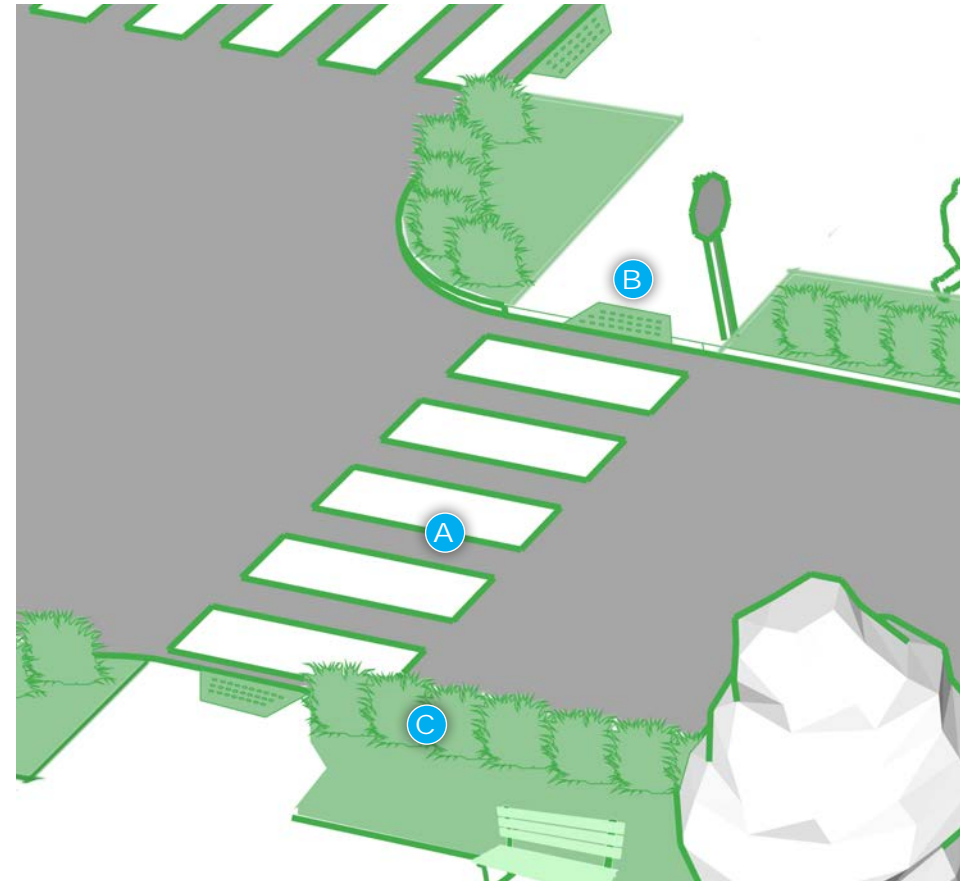
ENHANCED CROSSWALK

- Amenities
- Infrastructure
- Intersections
- Street Design

Installing crosswalks at controlled and mid-block help pedestrians to identify ideal locations at which to cross a street. Marked crosswalks also indicate to motorists where pedestrians have right-of-way and where to yield. Crosswalks should be highly visible to both drivers and pedestrians and can be installed with basic striping or decorative pavers. Crosswalks can also be supplemented with in-pavement flashing lights, elevated “table crosswalks,” or freestanding beacons to increase visibility, which is particularly important for mid-block crossings.

Best Design Practices / Guidelines

- A** A continental crosswalk has wide highly visible longitudinal strips paired with a stop line setback from the crosswalk.
- B** Curb ramps shall be designed to align with cross walks.
- C** Vertical elements such as street trees should not block visibility of pedestrians in the crosswalk.



Source: Gruen Associates



Chicago, IL

Complete Streets

HIGH-INTENSITY ACTIVATED CROSSWALK (HAWK) BEACON

Amenities

Infrastructure

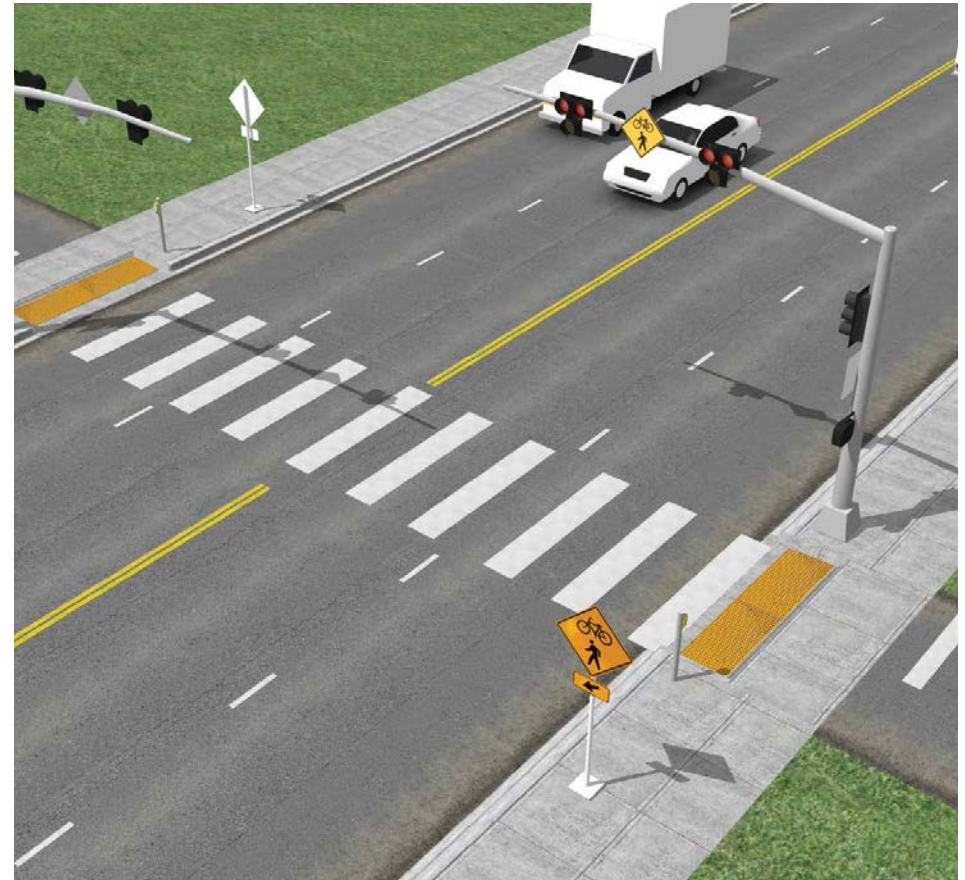
Intersections

Street Design

HAWK pedestrian signals, beacons, and push buttons promote intersection safety. Pushing the pedestrian button alerts the signal system of the presence of a pedestrian requesting a “walk” signal. In some cases, such as at a mid-block crossing, the pedestrian must press the button to receive a “walk” sign. At signalized intersections, the pushing of the button will reduce the pedestrian’s wait time for crossing the street.

Best Design Practices / Guidelines

- A Push buttons should incorporate tones for the visually impaired.
- B Push buttons are appropriate for arterial streets, congested streets and in areas with a high concentration of seniors as they can allocate more time for pedestrian crossing.



Source: NACTO



Complete Streets

SCRAMBLE CROSSWALK

Amenities

Infrastructure

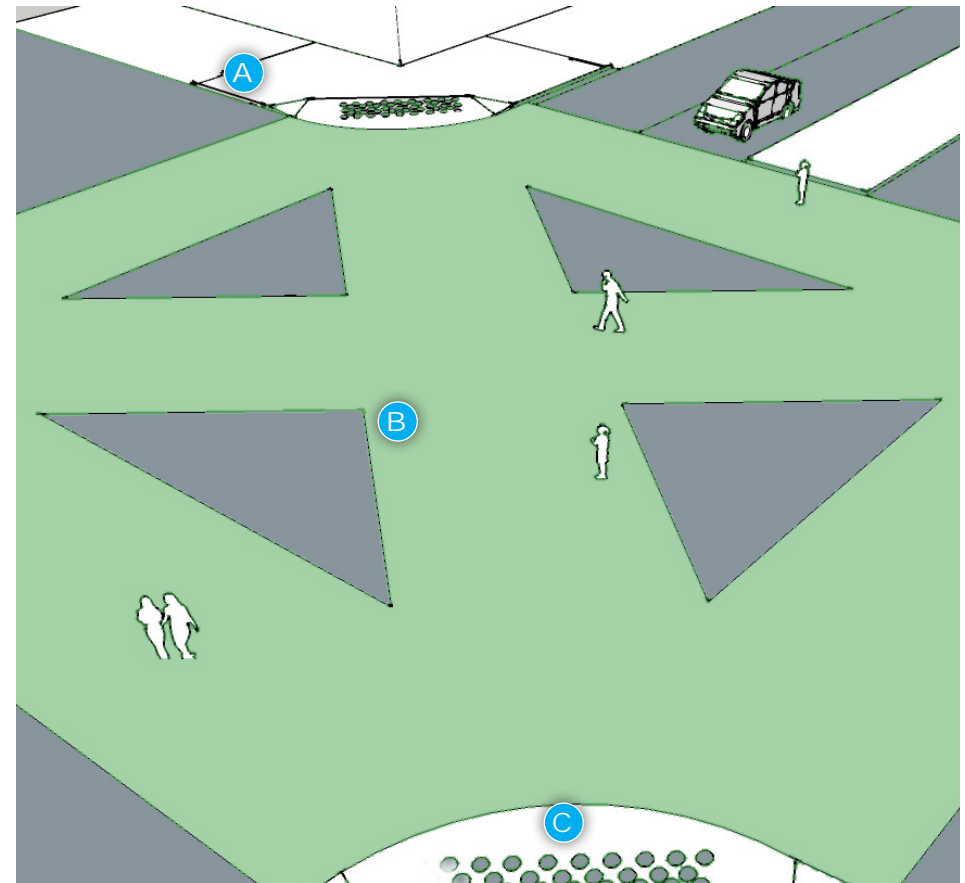
Intersections

Street Design

When activated, scramble crosswalks signalization temporarily stops traffic to allow pedestrians to cross at an intersection in any direction. The crossings can be striped with paint or pavers and can be used to direct pedestrian movement. Scramble crosswalks are advantageous in areas with high pedestrian traffic, as they more efficiently allow pedestrians to cross directly to their desired corner even diagonally, as opposed to having to wait for successive crossing signals.

Best Design Practices / Guidelines

- A** Scramble intersections have “pedestrian only” phase in signal light cycles during which vehicles are prohibited from entering an intersection including right turns.
- B** “Continental” crosswalks or decorative concrete unit pavers may be used at scramble intersections. Continental crosswalks include wide bands perpendicular to the direction of travel.
- C** Curb ramps and tactile warning strips should be provided at curbs to meet ADA requirements.



Source: Gruen Associates



Pasadena, CA

Complete Streets

CURB RAMP

Amenities

Infrastructure

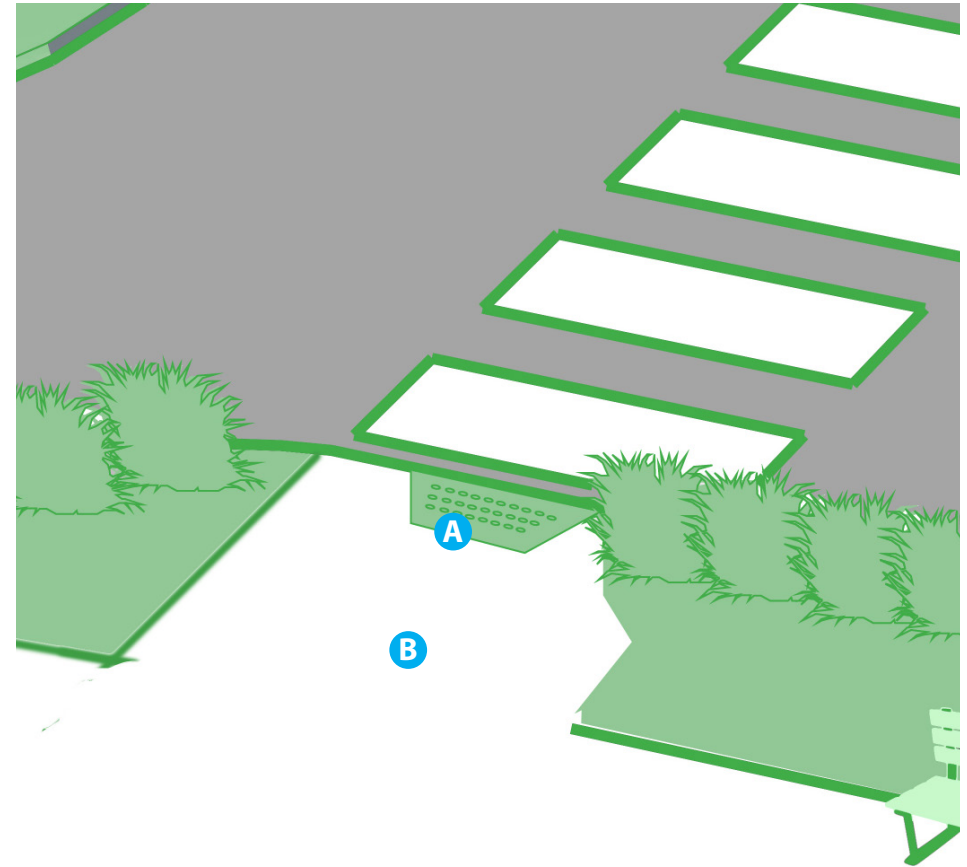
Intersections

Street Design

Curb ramps allow persons in wheelchairs, with walkers, with strollers, and with other disabilities convenient access to the sidewalk from the street. The Americans with Disabilities Act (ADA) requires curb ramps to be installed at all locations where pedestrians cross. Curb ramps for each crossing approach are preferred rather than one curb cut per corner so that visually impaired persons have better orientation. Warning strips should be installed on all ramps.

Best Design Practices / Guidelines

- A** All curb ramps should have ADA - approved ramps with detectable warning surface (min. width 24") in yellow.
- B** At least 48" of landing should be provided behind the curb ramp.



Source: Gruen Associates



Long Beach, CA

Complete Streets

CHICANE

Amenities

Infrastructure

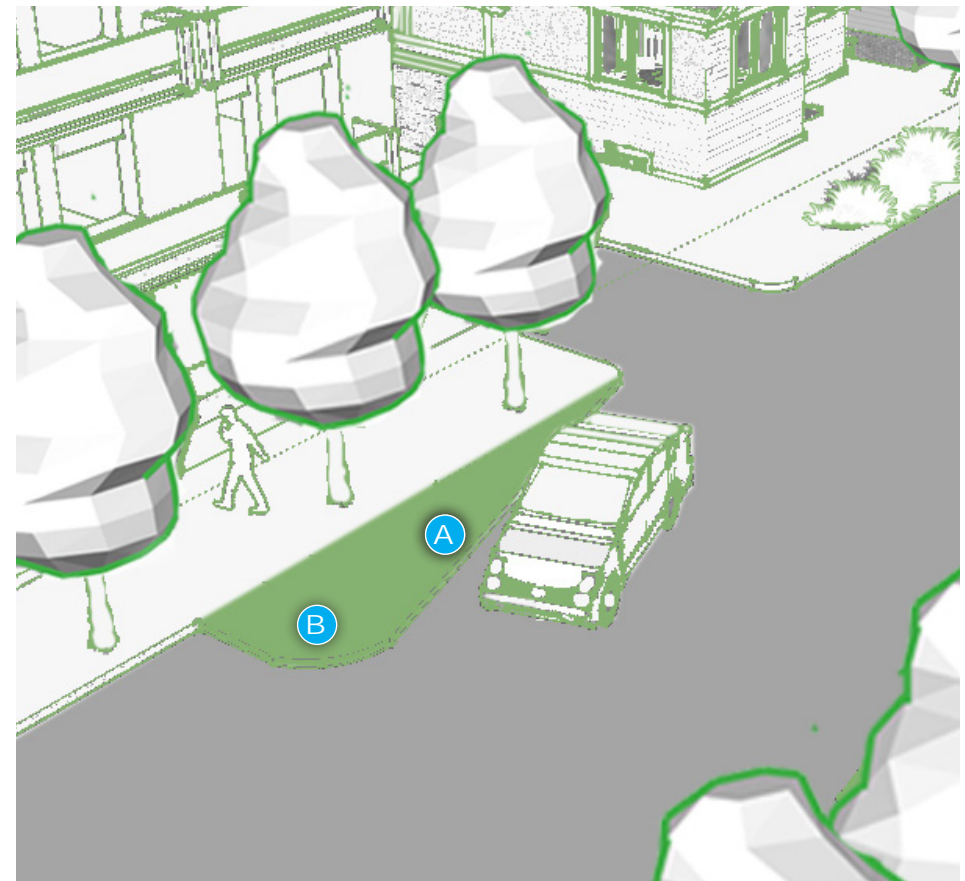
Intersections

Street Design

Chicanes reduce vehicle speeds by visually narrowing the roadway and requiring vehicles to shift their positions horizontally. Chicane and chokers are curb extensions that alternate from one side of the street to the other and calm traffic. If supplemented with landscaping, bike parking, seating and other amenities, chicanes can also create a more pleasant walking environment and a buffer between the sidewalk and the street. The City of Seattle found an 18-35% reduction in travel speeds and a 32-45% decrease in average daily traffic (ADT) volumes at locations with chicanes.

Best Design Practices / Guidelines

- A** A chicane may require special striping of the street and signage reflective paint on the curb to ensure drivers are aware of the serpentine roadway.
- B** Landscaping and storm water infiltration in the chicane contributes to a pleasant walking environment and can aid in wayfinding for drivers.



Source: Gruen Associates



Austin, TX

Complete Streets

STREET TREES

Amenities

Infrastructure

Intersections

Street Design

Street trees will enhance the walkability, comfort and attractiveness of the HQTA pilot area streets. Street trees provide visual interest, unity and shade protection from the hot sun. Landscaping of parkways and tree wells compliment and support street trees and assist in storm water management. Street trees reduce the heat island effect, reduce storm water runoff, improve air quality by absorbing greenhouse gases, and can provide wild life habitat and food.

Best Design Practices / Guidelines

- A** Street trees and landscaping in the amenity zone should be specified to achieve a strong visual image that fits in the neighborhood, to respond to the area's climate, for low water requirements, for resistance to disease, for compatibility with soil and drainage conditions, and to avoid invasive roots that will uplift sidewalks.
- B** If streets are wide, tall canopy trees should be selected to create a strong visual impact and smaller trees may be selected for local small scaled street.
- C** Typical street trees should be spaced 30' - 35" apart while avoiding interference with street lighting, utilities and visibility of approaches to intersections and driveways.



Culver City, CA



West Hollywood, CA



Bethesda, MD

Complete Streets

TREELET

Amenities

Infrastructure

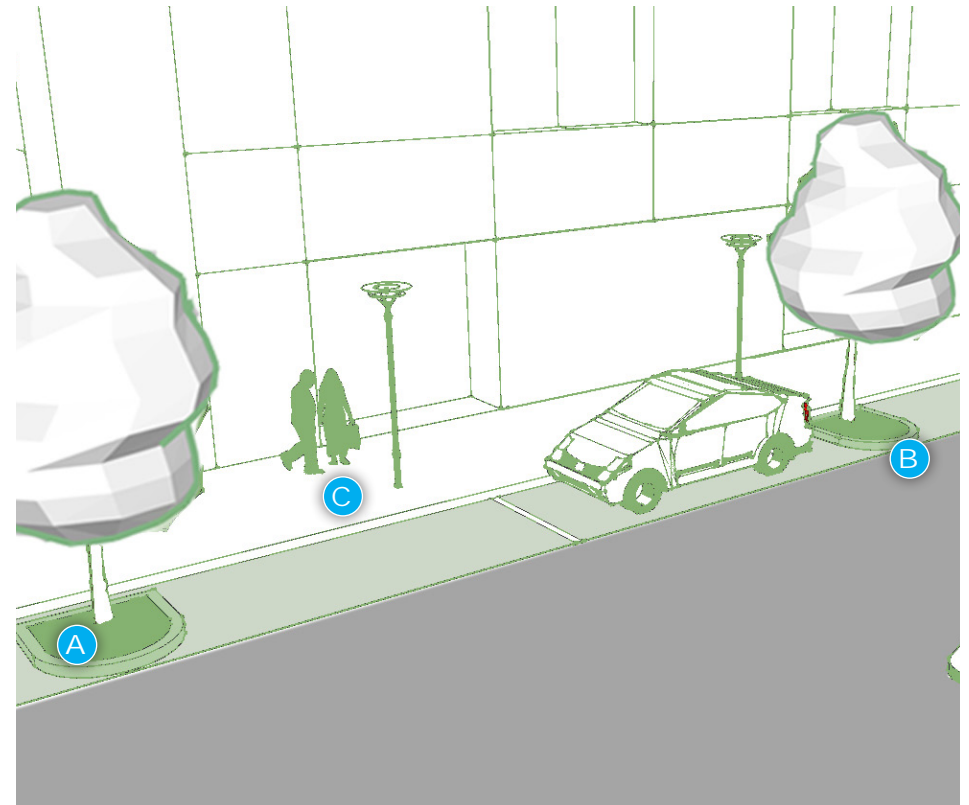
Intersections

Street Design

A treelet is a curbed tree well that is extended into the parking lane between on-street parking spaces. Treelets are typically used as an alternative to planting strips and tree wells in business districts and other areas where the existing sidewalk width is narrow and it is important to maintain the maximum width to accommodate pedestrian volumes and accessibility. Treelets can often be accommodated between existing parking spaces and typically do not impact the number of parking spaces along the street. A tree pit is saw-cut out of the street and a curb extension is built outside the gutter dimensions to prevent conflicts with existing drainage infrastructure.

Best Design Practices / Guidelines

- A** Treelet island length and widths vary with on-street parking conditions and existing utilities.
- B** Treelets should not obstruct sight lines of drivers viewing pedestrians. Parallel parking lengths should meet city standards.



Source: Gruen Associates



Long Beach, CA

Complete Streets

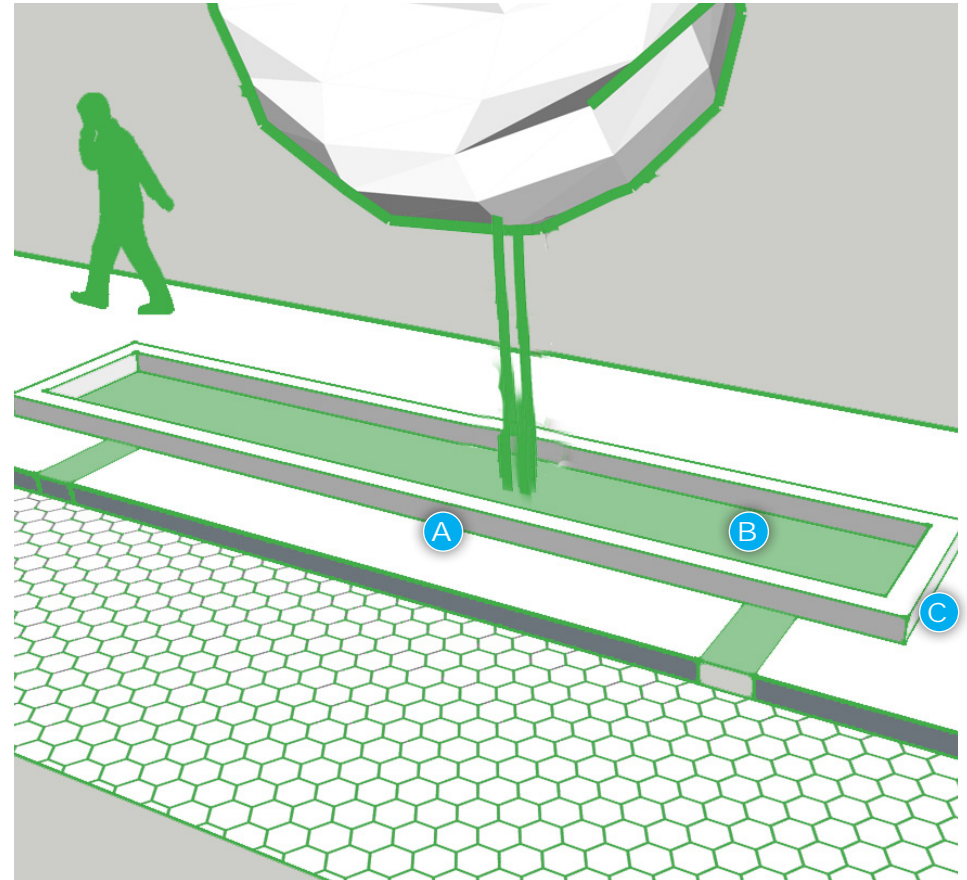
GREENWAY PLANTER / BIOSWALE

- Amenities
- Infrastructure**
- Intersections
- Street Design

Greenway planters/bioswales meet an increasing demand to mitigate storm water pollution from our streets and impermeable surfaces in our urban areas. Bioswale parkways between the street and sidewalk collect and filter stormwater run off from streets. Curb cut-outs direct street runoff into the permeable soils and native plants or grasses to help reduce the flow of water and to filter out pollutants such as sediment, trash, and heavy metals. Drainage pipes installed beneath the soil carry the filtered water to the storm drain system.

Best Design Practices / Guidelines

- A** Greenway planters or bioswales may be designed in many ways and individual cities are starting to develop standards for green streets that filter storm water. The illustration is one example of a greenway planter where the curb is broken to allow storm water in the gutter to flow into a bioswale planter in the sidewalk area.
- B** If there is not curbside parking, place the greenway planter next to the curb. If there is curbside parking, place an accessible area between the curb and the greenway planter.
- C** Allow for accessible breaks in the greenway planters periodically.



Source: Gruen Associates



Hope Street and 11th Street, Los Angeles, CA



Bioswale, Boston, MA

Complete Streets

PERMEABLE PAVING

Amenities

Infrastructure

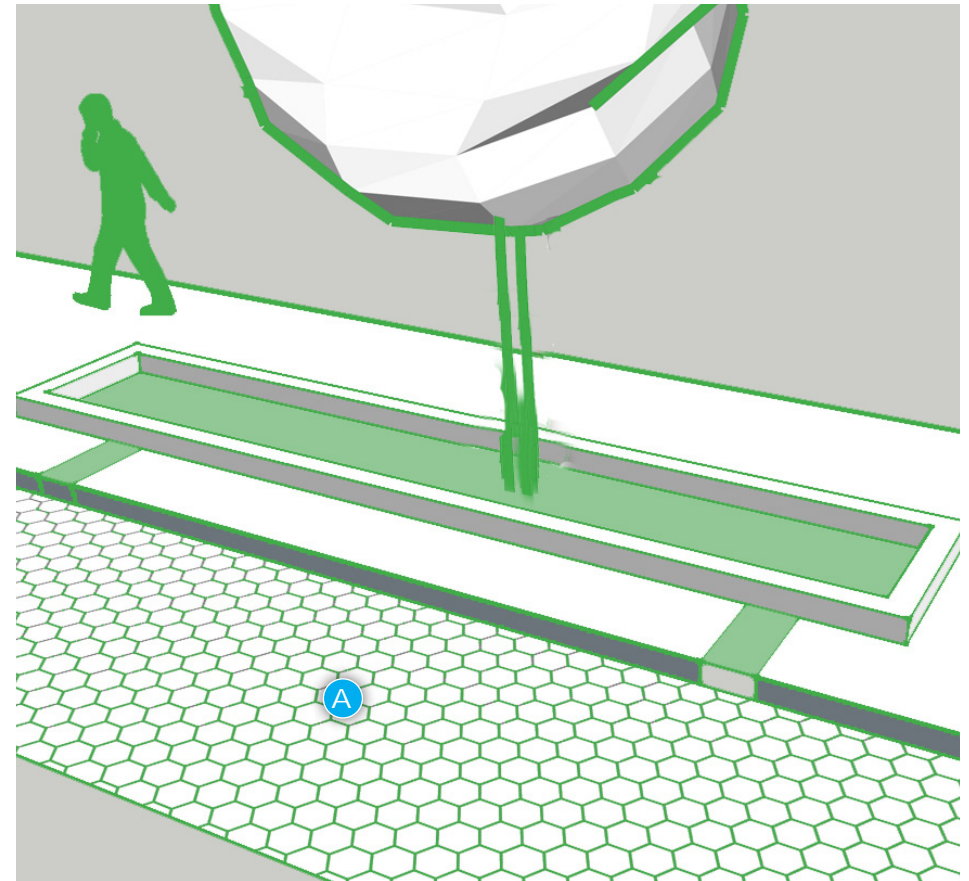
Intersections

Street Design

Permeable pavement allows stormwater runoff to seep through and into the soil below where the water is filtered and eventually directs to the existing aquifer. Permeable pavement is an alternative to typical concrete and asphalt paving and offers a range of utility, strength and sustainable properties. These materials include permeable concrete, asphalt, clay brick interlocking unit pavers, open grid pavers, gravel pavers or decomposed granite. Joints usually include aggregate.

Best Design Practices / Guidelines

- A** Permeable paving may be used in the street, in parking lots and in sidewalks, especially in the amenity zone. Soil tests are needed to establish soil characteristics and to determine proper aggregate materials so water filters properly through the system. Maintenance is required to keep debris from clogging joints.



Source: Gruen Associates



Source: NACTO

Complete Streets

LIGHTING

Amenities

Infrastructure

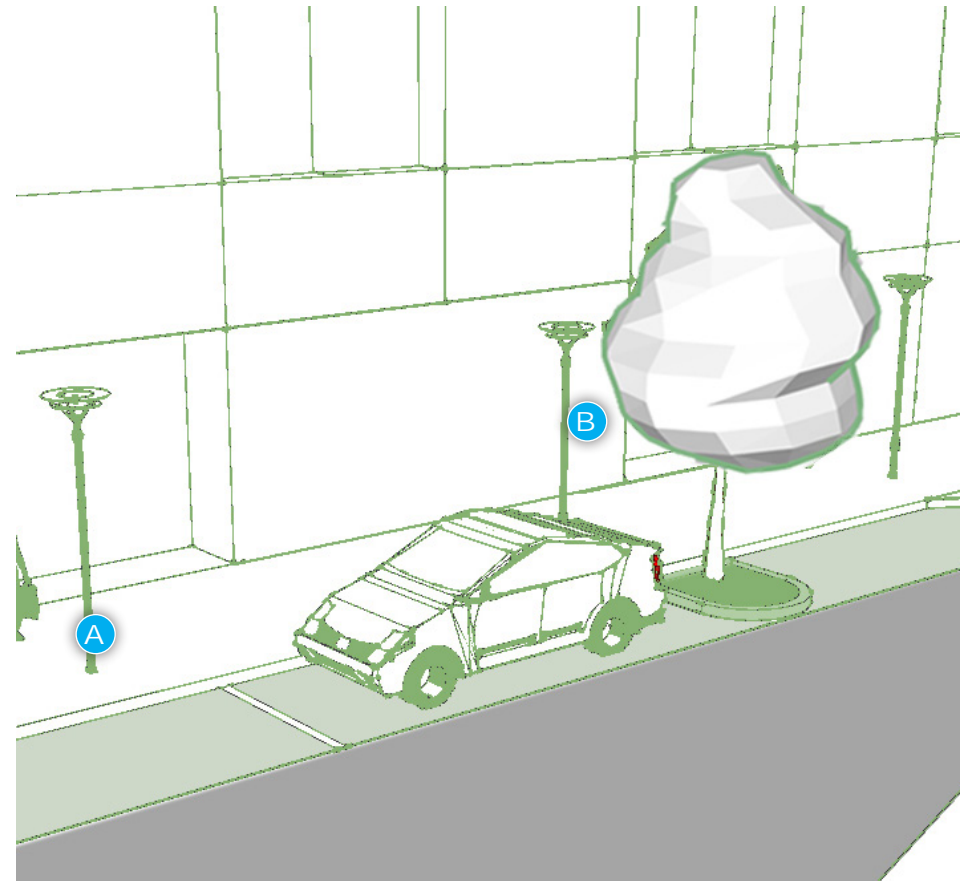
Intersections

Street Design

Street lighting improves streetscapes by improving security and visibility for both bicyclists and pedestrians. Street lights should be installed on both sides of the street and the level of lighting should be consistent throughout the segment. To accompany city standard street lights, which are tall and often spaced over 100' apart, pedestrian scale lighting is shorter in height, more frequent and creates a more aesthetically pleasing, comfortable and safe environment to walk and stroll. Pedestrian-scaled lighting along bike paths and at bus stops also add to the safety and security of those arriving within the HQTAs. Intersections often require additional lighting to allow motorists to see pedestrians crossing. In addition, when operation and maintenance funds are available specialty lighting of trees and digital signage can add to the vitality of the area.

Best Design Practices / Guidelines

- A** Lighting should have energy efficient fixtures such as LED which provides even, uniform distribution of light enhancing visibility and safety.
- B** Pedestrian-scaled lighting can be located between street lights, interspersed with street trees in the amenities zone or if sidewalks are wide enough at the back of the sidewalks to maximize the number of street trees.



Source: Gruen Associates



Uptown Transit Hub, Cincinnati, OH

Complete Streets

WAYFINDING

- Amenities
- Infrastructure
- Intersections
- Street Design

Wayfinding improvements can help visitors navigate to major destinations, public facilities, and transit connections. Wayfinding signage can be divided into three categories: **1) Identification signs** that mark important destinations such as buildings, activity centers, and public facilities. **2) Informational signage** that provides more background information on a point of interest and often uses maps. **3) Directional signage** that shows the optimal route between key destinations. A successful wayfinding strategy should make use of all three types of signage. As part of this strategy, cities should develop directional signage for transit stations and informational signage for major destinations.

Best Design Practices / Guidelines

- A** Graphic designers should develop a comprehensive signage system that is clear and concise for each of the type of signage.
- B** Directional and informative signage should use a consistent color palette, fonts, materials and graphics and be scaled for its purpose.



Source: Gruen Associates



Manufaktura Square, Łódź Poland



Zeughaus Museum, Berlin, Germany

Complete Streets

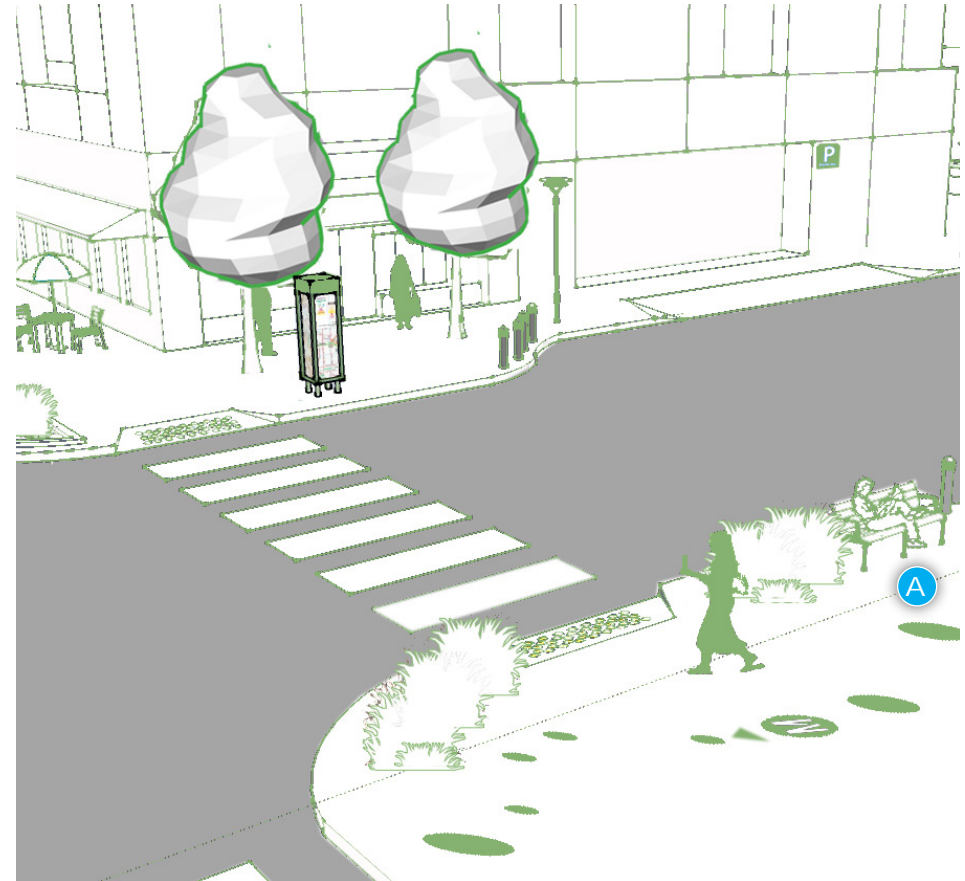
STREET FURNITURE

- Amenities
- Infrastructure
- Intersections
- Street Design

Street furniture on sidewalks acts as a buffer between pedestrians and vehicular traffic and contributes to an active vital, walkable environment. Benches, water receptacles, and bicycle racks are recommended types of street furniture because they address needs that a pedestrian may have, such as a place to rest. Street furniture should be placed outside of the walking zone as to not create a hazard to pedestrians.

Best Design Practices / Guidelines

- A** Except at bus shelters and when space allows, benches should face or be perpendicular to the sidewalk creating a seating node. Waste receptacles should be placed near nodes of activity and spaced frequently along the streetscape. Considerations should be given to providing waste receptacles for recycling. Bicycle racks should be located near transit stops, major destinations and bike paths. Outdoor dining on private property and in the frontage zone should be encouraged where adequate space exists.



Source: Gruen Associates



Concrete Bench by Escofet



Caudal Drinking Fountain by Santa & Cole



Grand Park, Los Angeles, CA



Outdoor Litter Bins by Crystal

Complete Streets

TRANSIT SHELTER

- Amenities
- Infrastructure
- Intersections
- Street Design

Providing a shelter at all transit stops and stations allows commuters protection from sun and from inclement weather. Shelters should be established outside of the pedestrian walking zone and with sufficient room for bus wheelchair lifts to load and unload passengers. If there is not adequate space to install a dedicated shelter, at a minimum a bench and signage should be provided.

Best Design Practices

- A** Transit shelters should provide protection from the elements, adequate lighting, seating, a 5'x8' passenger loading area at the front door of the bus, accessibility to the bus and the sidewalk, and information signage.
- B** Benches or seats should be provided at all transit stops and stations for commuters to rest while waiting for the bus or train. Elderly and disabled passengers often have difficulty standing for long periods. Seating should be installed within close proximity of transit stops and stations and under the provided shelter if feasible.
- C** At a minimum, all transit stops and stations should provide signage displaying the route number. Providing timetables and maps are recommended to increase convenience for commuters with transfers and those that are less familiar with the network, such as a bicyclist with a flat tire in an unfamiliar location. For major transit stations and terminals, providing passengers with real time information on arriving transit vehicles is a valuable customer service improvement.



sbX Transit Shelter, San Bernardino, CA



Transit Stop, Temple City, CA



CTA Transit Shelter, Chicago, IL

Complete Streets

DEMONSTRATION OR PILOT PROJECT

- Amenities
- Infrastructure
- Intersections
- Street Design

Demonstration projects are temporary, low-cost public realm improvements that serve to introduce new pedestrian safety techniques to the general public. During the pre-design phase for projects, cities and partners should consider installing temporary elements such as curb extensions, plastic bollards, or striping. These improvements typically last no longer than one-two years. These temporary projects can help to demonstrate the benefits of pedestrian and bicycle improvements to the general public, as well as potential funders as the City seeks financial support through public and private grants, and sponsorship opportunities.

Best Design Practices / Guidelines

- A Flexible Bollards:** Can be used to define pedestrian-only zones, curb extensions, cycle tracks, and other areas where cars are not permitted.
- B Striping:** Used to define areas where curbs will eventually be installed, new lanes of traffic, parking stalls, crosswalks.
- C Planters:** Temporary planters can bring shade and refuge to sidewalks, plazas, and pocket parks. Temporary painting can be used to create colorful plazas and pocket parks.
- D Surface Painting:** They can also be used to delineate important zones such as parking stalls, cycle tracks pedestrian areas, or medians.



Lincoln Hub, Chicago, IL

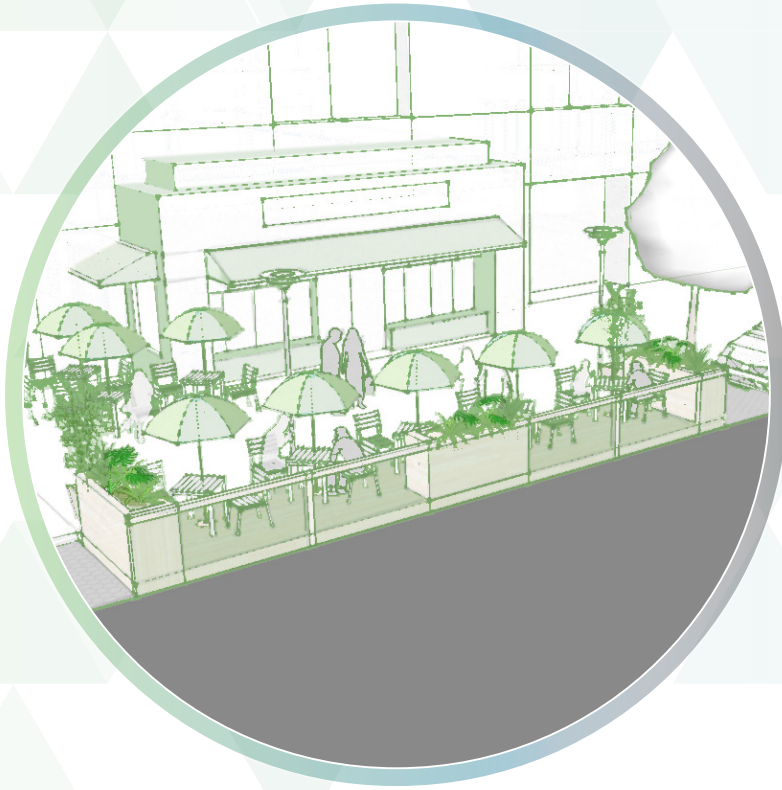


Sunset Triangle Park, Los Angeles, CA

Part II

Toolkit

B - OPEN SPACE / PLACEMAKING



Parklet

Pocket Park

Paseo

Parkway / Linear Park

Reclaimed Street / Pedestrian Mall

Neighborhood Park

Plazas / Town Square










Open Space / Placemaking

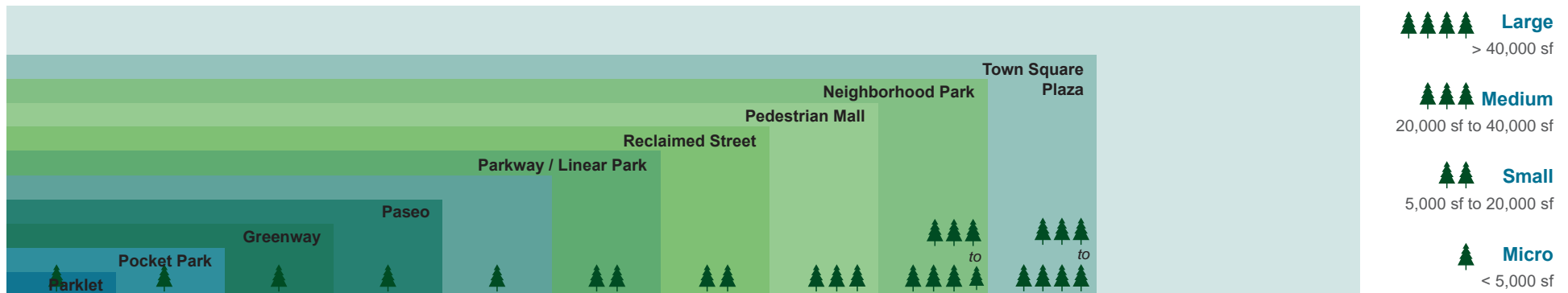
A key ingredient in creating a dynamic, urban TOD environment which is connected by transit and active transportation is to create attractive and functional places that people want to be. Placemaking includes providing public gathering and open spaces which are linked to transit and transit supportive housing, educational, institutional, and commercial uses. These open spaces vary in size and function, some are programmed for events to activate an area, some may be adjacent to a transit station or civic building and others may be entirely for recreation. The illustrations show some of the types of open space appropriate for a HQTA area.



Santana Row, San Jose, CA

Source: ULI

-  **Active Transportation Connection**
-  **Sport and Active Recreation**
Sport Fields, Swings, Exercise, etc.
-  **Culture, Education, and Passive Recreation**
-  **Stormwater Management / Landscape**
Bioswale
-  **Habitat and Open Space**
Habitat Corridor Links, Natural Landscape
-  **Safety and Visibility**
Eyes on the Street, Convenient Access
-  **Retail and Commercial Features**
Space for / Proximity to
-  **Event Space**
Temporary Stage, Amphitheater
-  **Pet Areas**
Dog Park, Dog Run



Open Space / Placemaking

PARKLET

Parklets connect curb side lanes and curb extensions into viable community spaces for recreation, seating and outdoor dining. By connecting one or two parking spaces into gathering spaces, the sidewalk is extended for public use and enhances the neighborhood. San Francisco, Boston, Los Angeles, Long Beach, all have Parklet programs. In Long Beach, the City has a pilot program with local restaurants to create these spaces. On Broadway and Spring Street in downtown Los Angeles, there are many parklets.

Best Design Practices / Guidelines

- A** Parklets should not encroach into the walking path and should be flush with the sidewalk.
- B** Parklets should not interfere with the storm water drainage of the street and electrical wires should not be exposed.
- C** A buffer should be provided from the parklet of at least 2 ft from the travel lanes.
- D** If there are multiple parklets on a street, the programming of the activities should vary between public uses and public/private uses, such as outdoor dining connected to restaurants.



Source: Gruen Associates



La Vague, Montreal, Canada



Spring Street, Los Angeles, CA



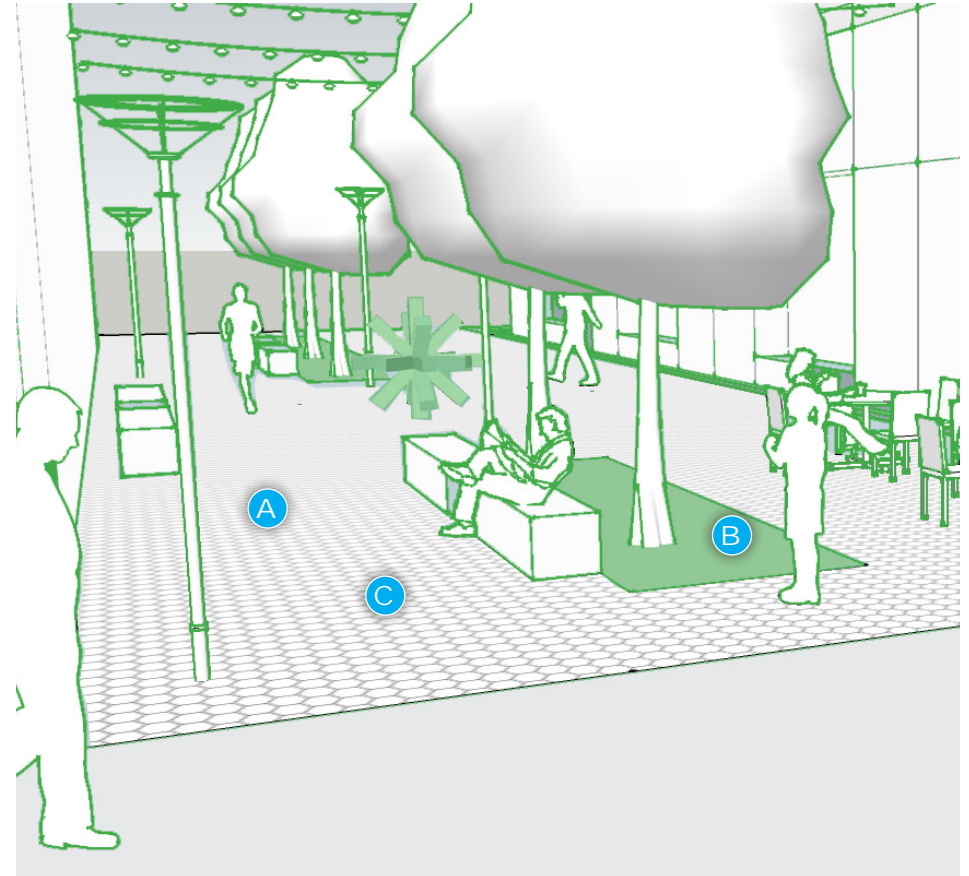
Open Space / Placemaking

POCKET PARK

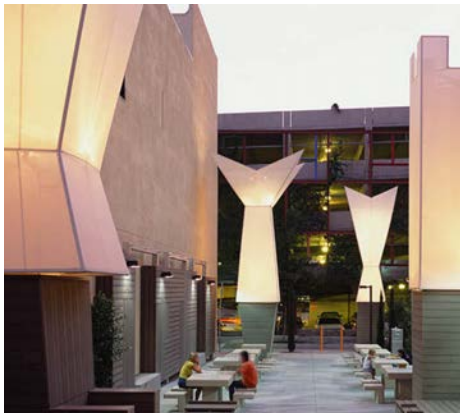
Pocket parks offer small areas for sitting, dining and recreation, and could be located on public or private property. They could occupy underutilized or leftover public right-of-way or small lots owned by the City. Private property pocket parks could be a parking lot no longer used or an easement designated for public uses or connectivity. A variety of social and recreational functions could take place in the pocket parks and certain pocket parks could be designed for a unique use, such as a dog park. Potential elements include lighting, permeable or decorative paving, fitness equipment, tables for games and dining; seating, planting, trees, water features to mask noise, public art, wayfinding, space for and hook-ups for food trucks, play equipment, and community information signage.

Best Design Practices / Guidelines

- A** Design of parks should accommodate a diversity of users although some depending on size could be devoted to specialty users, such as a children’s playground or a dog park.
- B** Sustainable features, such as bioswales, permeable paving, LED lighting, solar lighting, drought-tolerant landscaping, and canopy trees for shade should be incorporated.
- C** Select sites that consider the orientation of the sun and the opportunity to integrate with viable transit-oriented uses and public art.



Source: Gruen Associates



Chess Park, Glendale, CA



Greenacre Park, New York, NY



Open Space / Placemaking

PASEO

A paseo is a landscaped public place containing a path designed for walking and strolling and could also be for biking. Paseos could be a mid-block pedestrian connection or part of a larger trail system connecting neighborhoods, parks, schools, and city sidewalks.

Best Design Practices / Guidelines

- A** Paseos are wider than normal sidewalks as they contain a wide pathway (15' to 20') with landscaping on either side of the pathway. Typically they contain pedestrian scaled lighting, an occasional bench for resting, trash receptacle, artwork, and could contain pet waste bag dispensers.
- B** Pathways could be serpentine or straight and in some communities are grade separated from major streets.
- C** For security and to create an active edge, portions of buildings and local streets should front on the paseo rather than continuous walls and fences.



Pearl District, Portland, OR



Old Town Pasadena, CA



Valencia, CA



Paseo Nuevo, Santa Barbara, CA



Arts District, Los Angeles, CA



Mercantile Alley, Pasadena, CA



Open Space / Placemaking

PARKWAY / LINEAR PARK

A parkway / linear park is a wide landscaped area parallel to a public street curb, a rail line, or a busway and used by pedestrians, bicyclists, joggers and other social, health and recreational opportunities. A linear park may also be in a wide landscaped median of a public street.

Best Design Practices / Guidelines

- A** As linear paths adjacent to a rail or busway must limit the number of crossings of the transportation facility, pedestrian/vehicular and bicycle crossings should be designed to provide safe, attractive, and pathways for all modes and incorporate wayfinding signage to identify the location of these crossings. If housing is adjacent, quiet zones may be considered.
- B** Pedestrian and bicycle pathways should cross at signalized perpendicular street intersections with consideration for separate striping for pedestrians and bicyclists.
- C** Connecting pathways should meander through canopy trees for shade and colorful planting with active recreational and passive places dispersed as appropriate.
- D** The character of linear parks could vary from the “zen like” low maintenance drought tolerant landscaping with bioswales of the Metro Orange Line Extension to the more vibrant colorful planting, water features and art in the Marina Linear Park in downtown San Diego to the active market space atmosphere of the Ramblas in Barcelona.



Marina Linear Park, San Diego, CA



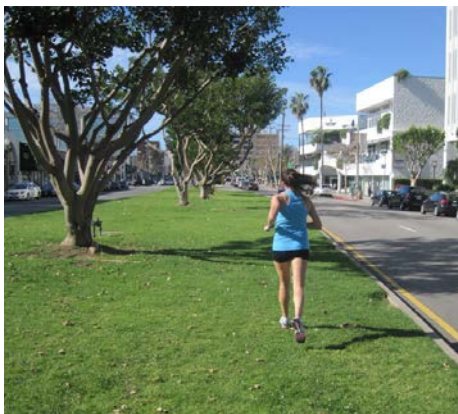
Orange Line Busway, Chatsworth, CA



Ramblas, Barcelona, Spain



Los Angeles River Bike Path



San Vicente Boulevard, Los Angeles, CA



Havnegade Harbour Promenade, Copenhagen



Open Space / Placemaking

RECLAIMED STREET / PEDESTRIAN MALL

Providing a sense of place and history involves creating great urban spaces but also preserving, where appropriate, landmarks and historic buildings adjacent to these spaces. The focus of a HQTAs could be a traffic free street reclaimed for pedestrians, active transportation, and transit, often called a pedestrian mall, with dense retail, office, and residential interspersed with the areas historic fabric.

Best Design Practices / Guidelines

- A** Pedestrian malls could be considered for small towns where they may operate as the main street, or in cities with a strong market for retail, restaurants and entertainment uses such a tourist destinations and university settings.
- B** For economic viability, pedestrian malls should be clustered on 1-4 blocks, should have frequent programming of events and be designed with consistent textured pavings, street furniture, outdoor dining, wayfinding signage, art work, and dramatic lighting.
- C** For flexibility and fire life safety, consideration should be given to incorporating a two lane vehicular path that can be open and closed depending on events and anticipated crowds. This roadway space could be designed curbless with bollards.
- D** Active ground level uses with large clear windows and entrances from the pedestrian mall is essential.



Sunset Triangle, Los Angeles, CA



Former Georges-Pompidou Expressway, Paris



16th Street Mall, Denver, CO



Third Street Promenade, Santa Monica, CA



Church Street, Burlington, VT



Charlottesville, VA



Open Space / Placemaking

NEIGHBORHOOD PARK

A neighborhood park is typically family oriented with children’s playgrounds, community gardens, picnicking, and could include swimming, tennis, or basketball courts as well as passive landscaped areas. The neighborhood park could be public or private. If private it may be a part of a housing or mixed use development.

Best Practices / Design Guidelines

- A** Each neighborhood park’s uses and design should respond to the individual needs and character of a neighborhood.
- B** If on private property the park should be designed to intuitively welcome the public by its visibility and lack of barriers from the sidewalks and streets.



Gladys Jean Wesson Park, Los Angeles, CA



Waterfront Park, Seattle, WA



Madison Park, New York, NY



Pearl District Park, Portland, OR



Spring Street Park, Downtown Los Angeles, CA



Tongva Park, Santa Monica, CA



Open Space / Placemaking

PLAZAS / TOWN SQUARE

Historically, a plaza was a grand space adjacent to a public building such as a cathedral, a library, or a civic building. Traditionally plazas contained features including a fountain, space for large events such as parades, performance space like a band shell, sculpture, sitting areas, cafes, and landscaping. A large portion of these plazas were paved. Today urban plazas are public open spaces for gathering next to the street which vary considerably in size, use and character. Representative plazas for HQTAs include:

- A town square which is similar to the traditional plaza mentioned alone and could be the focal point of the HQTAs especially if combined with a transit plaza. A wide range of activities could be planned from outdoor cafes, playgrounds, art installations, performances, seasonal activities such as temporary ice skating as well as trees and landscaping for storm water management.
- A transit plaza is an open space adjacent to a transit center and should serve rail or multiple bus lines or both. As this is a space that people will move through as well as stopping and waiting, pedestrian and passenger amenities are appropriate including vendors for newspapers, flower stands and coffee.
- A street plaza is a small public open space immediately adjacent to a sidewalk or an extension of the sidewalk. It may be used for people watching, sitting waiting for the bus, and for eating lunch.
- A plaza open space in front of a major building operates as a gateway or entrance to the building and may be privately owned but open to the public.

Best Design Practices / Guidelines

- A** Each plaza should contain amenities comfortable for people to use and be planned with enough flexibility to respond to the seasons and time of day.
- B** Plazas should be distinct places which are visible and easily accessible to people from the public street and connected to the pedestrian and bicycle network in the HQTAs.
- C** The town square/transit plaza should be easy walking distance of the most dense portions of the HQTAs, preferable in the core and appeal to diverse multi-generations.
- D** Amenities to consider for the town square plaza include arbors, trellises, sun terraces, decks, art installations, concert and performance spaces, formal seating areas, secondary sitting areas such as seating walls and steps, lighting, focal points, outdoor dining areas, recreational activities, bicycle hubs, shared vehicles, fountains, play areas, way finding signs and kiosks, trees and landscaping with a variety of color and forms.



South Pasadena Transit Plaza



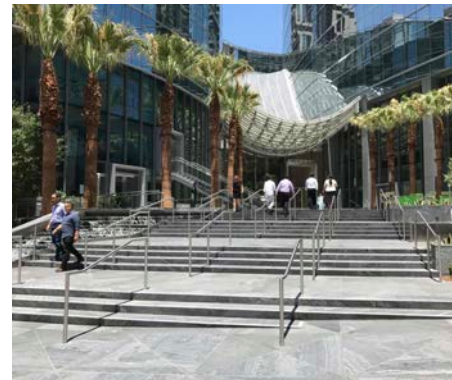
Del Mar Gold Line Plaza, Pasadena, CA



Bryant Park, New York, NY



City Hall Park, Philadelphia, PA



Wilshire-Grand Plaza, Downtown Los Angeles



Platform, Culver City, CA



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Toolkit

C - BUILDING TYPES & PRECEDENTS

Building Types

A - Detached Residence

B - Attached Residence

C - Multiplex

D - Mid/Hi-Rise Tower

TOD Precedents



Building Types

Meeting residential and job density targets that support transit ridership and walkable communities can be achieved through a wide variety of building types. The HQTAs Toolkit recognizes the diversity of building stock throughout Southern California by organizing building types into the six typologies listed below. The typologies are informed by the following considerations:

- Primary means of access to units and habitable spaces
(from courtyard, intERnal hall)
- Orientation to street, intERnal open spaces
- Construction type
(Wood-frame construction, concrete block, etc.)
- Parking configuration
(surface lot, undERground, podium, on-street, partial excavation)

Each Vision Plan includes a draft Regulating Concept Plan that generally specifies the typologies that are appropriate for each district. As the HQTAs areas are developed, building types from each typology can be selected, allowing for a great degree of architectural flexibility while enabling cities to meet the density/intensity targets set forth in each Vision Plan.

Typologies

A Detached Residence

Building Types

- 1 Accessory Dwelling Unit (ADU)
- 2 Shopfront House
- 3 Bungalow Courtyard
- 4 Rosewalk

B Attached Residence

- 1 Attached Townhouse
- 2 Hybrid Courtyard
- 3 Duplex
- 4 Live/Work Lofts
- 5 Small Lot Subdivision

C Multiplex

- 1 Triplex/Fourplex
- 2 Stacked Flats
- 3 Flex Apartment/Mixed Use
- 4 LinER Structure

D Mid/Hi-Rise Tower

- 1 Mid-Rise Tower
- 2 High Rise Tower

The following pages include:

Typologies

A profile of each typology, including the general density/intensity range, mix of land uses, parking and circulation assumptions, and key design considerations

Building Types

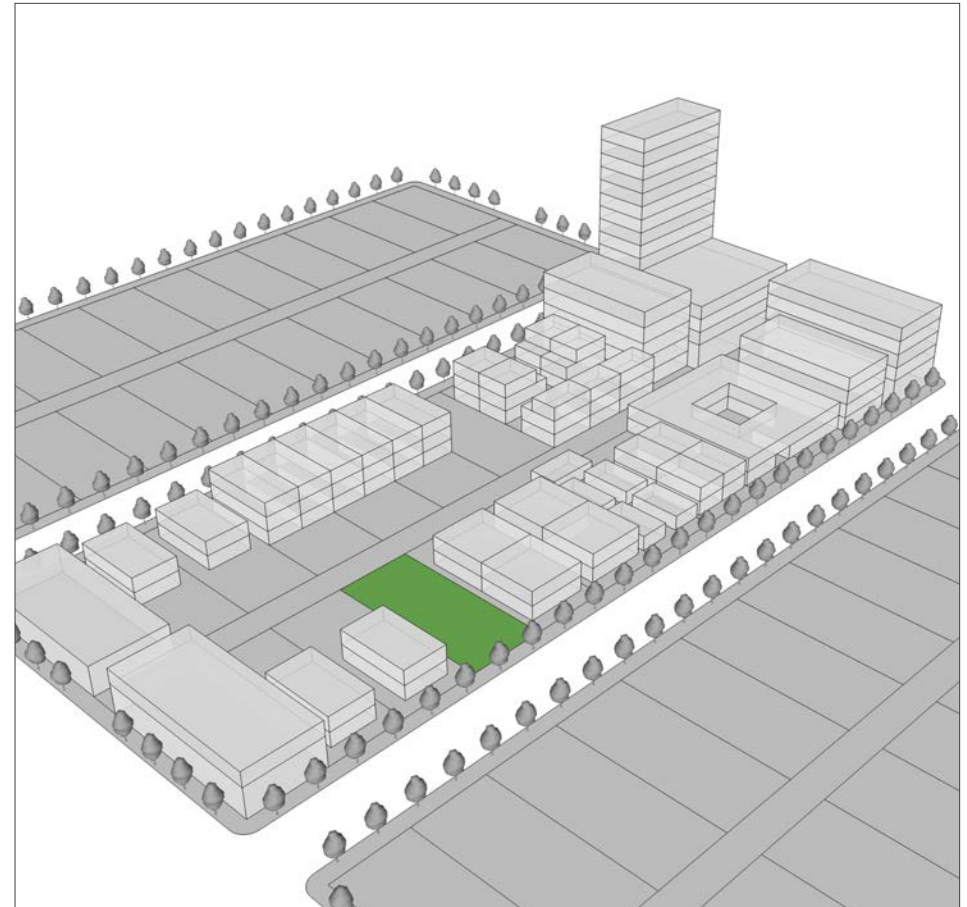
Specific building types for each typology with precedent imagery and diagrams

Transit-Oriented Development Precedents

Profiles of built TOD projects from throughout California and the United States

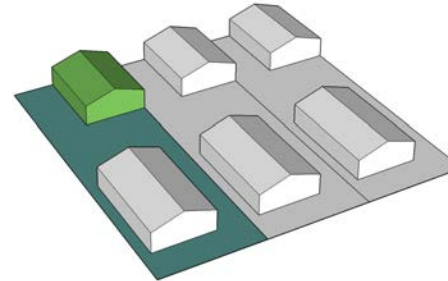
A summary table of TOD precedent attributes can be found in the “Additional Resources” section of this Toolkit.

As future rounds of the HQTAs program move forward, this Toolkit will be continuously updated with additional building types and precedents that reflect creative and innovative ways to build livable, transit-supportive communities.

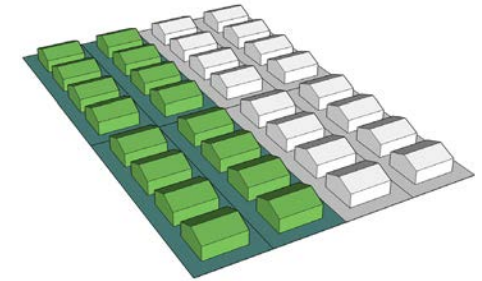


A B C D Typology: Detached Residence

The detached residence parti is one of the most common residential building types existing within the SCAG region. Typical for a single-family residence, the form is best characterized as a detached dwelling unit with a front, rear, and side yard. However, the detached parti can also include multiple dwelling units per property, while employing a building form that can match or complement single-family homes, thus still retaining the existing residential character.



Accessory Dwelling Unit (ADU)



Rosewalk

Typical Lot Size: 50' x 150'/7,500 sf/0.18 acres

Number of Units: 2 - 4

Density Range: 10 - 20 du / acre

FAR: < 1.0

Number of Floors: 1 - 2

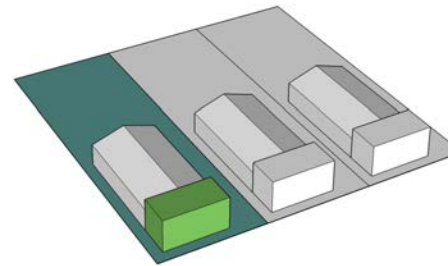
Parking: Assumption: 0-1 space per unit

Unit Size: studio - 2 bedrooms / 600 - 1,000 sf

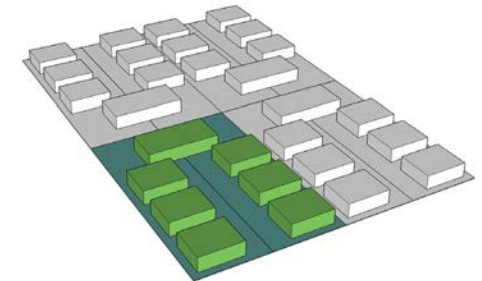
Residential: / Commercial: Mix:

Residential - 100%

Commercial - 0%



Shopfront House



Bungalow Courtyard

Design Considerations

Front Setback: +/- 5' from established front yard line

Side Setback: 15% of lot width (e.g. 50' x 20% = 7.5')

Lot Coverage: 50% - 75%

Ground Floor Transparency: 20%

A B C D Typology: Detached Residence

1 ACCESSORY DWELLING UNIT

Accessory dwelling units are permitted statewide in California since the passage of SB 229 and AB 494 in 2017 and 2018. The bills allow owners of single or multi-family residences to build a secondary unit on their property with minimal restrictions from local zoning ordinances. Units can be free-standing or located above a garage or other structure. Provisions allow for the addition of a studio or 1-bedroom unit of up to 1,200 square feet with bathroom and kitchen facilities, among other conditions.

▼ **Vehicle Access:** Garages or carports can be accessed from an alley or existing streetside curb cut.

▼ **Parking:** No additional parking is required per recent California legislation.

▲ **Pedestrian / Bicycle Access:** Owners are encouraged to provide convenient storage for bicycles, scooters, or other non-motorized forms of transport. Pedestrian access to ADUs can be shared with an existing driveway or provided from the alley.

For additional information:

www.hcd.ca.gov/policy-research/docs/SummaryChangesADULaws.pdf



Piedmont, California



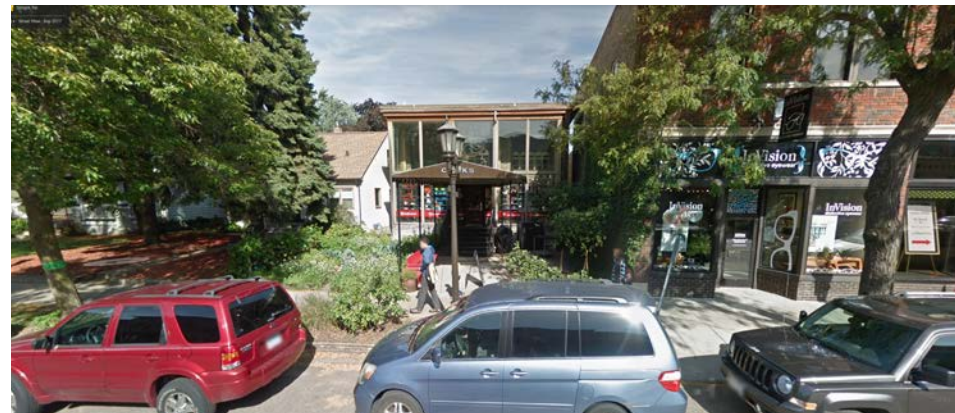
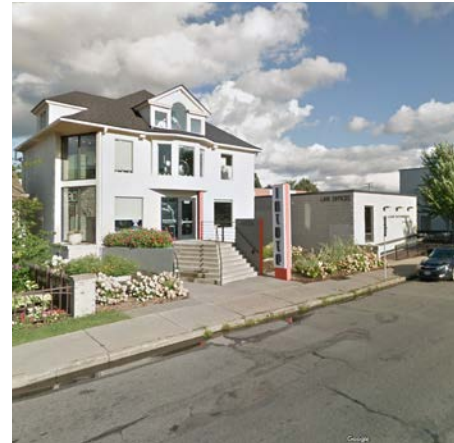
2 SHOPFRONT HOUSE

Shopfront houses are commercial structures that can be added to existing single-family homes. They are typically found along arterials and lower-density commercial corridors that include a mix of single-family homes and retail. The shopfront house can be an effective way to enliven the street scene while providing neighborhood-serving retail, new stores and boutiques, and coffee shops, among other uses.

▼ **Vehicle Access:** Vehicles typically access shopfronts from an alley.

▼ **Parking:** If alley access is provided, conventional spaces for customers and tandem spaces for employees can be provided. On-street parking is encouraged.

▲ **Pedestrian / Bicycle Access:** Pedestrians and cyclists access shopfronts from the sidewalk.



upper: Minneapolis, Minnesota/lower: Saint Paul, Minnesota

A B C D Typology: Detached Residence

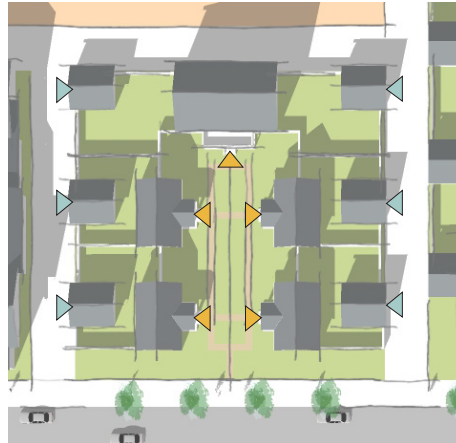
3 BUNGALOW COURTYARD

Bungalow courtyards emerged in Pasadena in the early 20th century as a way to provide amenities typically offered in a single family home in a more affordable complex. As its name implies, units are organized around a common courtyard and designed in the low-density (1-2 story) bungalow design. Multiple units can be clustered together (duplex, triplex, etc.) to achieve even higher densities.

▼ **Vehicle Access:** Vehicles can access units from driveways along the side lot line or alley.

▲ **Parking:** Parking can be provided in a common suite of garages or carports in the rear of the complex. Alternatively, each unit may include its own single-stall garage.

▲ **Pedestrian / Bicycle Access:** Pedestrians access units from the courtyard. Secure bicycle storage should be provided in each garage stall.



Gartz Court, Pasadena



Redlands, California

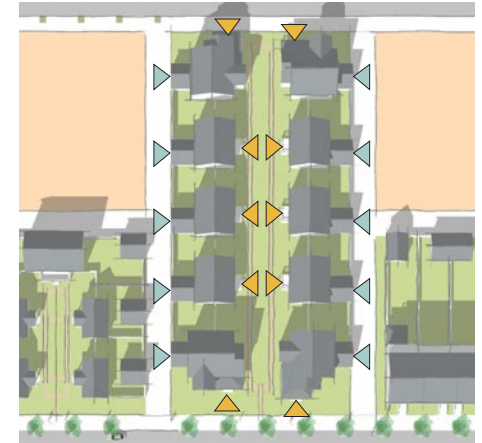
4 ROSEWALK

Rosewalks are similar to bungalow courtyards, but the common amenity space takes the form of a narrow mall. Additionally, the mall typically extends across the whole block in a linear arrangement (from street to street). Given space constraints, garages are typically attached to the rear of each unit. Rosewalks achieve slightly higher densities than bungalow courtyards and provide for public pedestrian access and excellent circulation throughout the neighborhood.

▼ **Vehicle Access:** Driveways are provided along the side lot line.

▲ **Parking:** Parking garages are typically attached to the rear of each unit.

▲ **Pedestrian / Bicycle Access:** Units are accessed from the mall, while bike storage should be provided at the rear of each unit.



Venice, CA



Manhattan Beach, CA

A B C D Typology: Attached Residence

Attached residences often take the form of townhomes, which are two to three-story units that are primarily accessed from the primary street. Parking is typically located in tuck-under garages at the rear of the residence or in a common lot or garage. Units may take the form of a duplex, with two units, or several units in a row that share party walls. Small-lot subdivisions, similar in scale and density to townhomes, have become popular in the City of Los Angeles, where an ordinance has permitted owners of some R-1 single lots further subdivide the property and sell fee-simple units individually. Contrary to townhomes, small-lot subdivisions are owned individually, do not share a party wall (they are separated by a few inches) and are not a part of an association, which can lower the monthly payment for homeowners.

These residences can be found in a variety of communities throughout Southern California and add slightly more density to a neighborhood than the typical single-family detached home while maintaining an area’s existing character.

Typical Lot Size: 50’ x 150’/7,500 sf/0.18 acres

Number of Units: 2 - 4

Density Range: 15- 30 du / acre

FAR: < 1.0

Number of Floors: 2 - 3

Parking: Assumption: 1-2 spaces per unit

Unit Size: 1 - 3 bedrooms / 900 - 1,400 sf

Residential: / Commercial: Mix:



Design Considerations

Front Setback: +/- 0-5’ from established front yard line

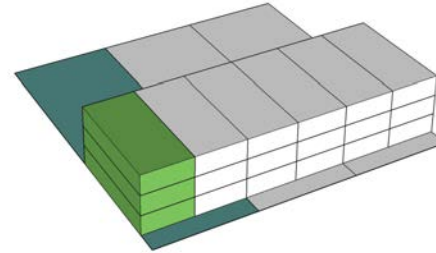
Side Setback: 0% of lot width

Lot Coverage: 50% - 75%

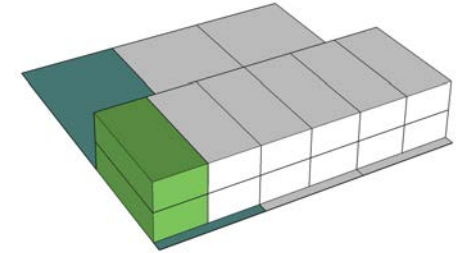
Ground Floor Transparency: 50%

Frontage Elements:

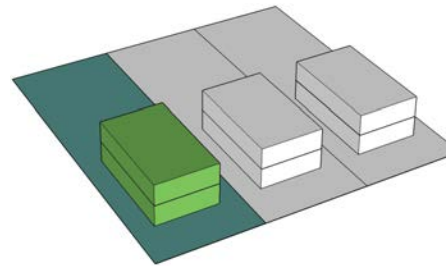
- Arcade
- Balcony
- Forecourt
- Porch
- Awning
- Canopy
- Plaza
- Stoop



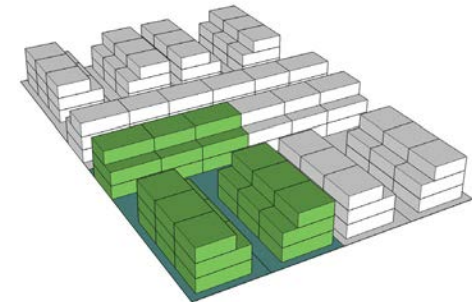
Attached Townhouse



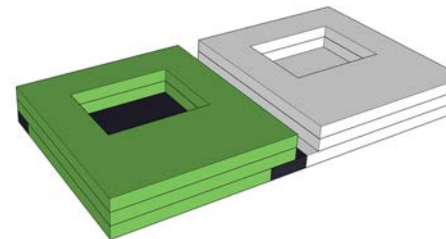
Live/Work



Duplex



Small-Lot Subdivision



Hybrid Courtyard

A B C D Typology: Attached Residence

1 ATTACHED TOWNHOUSE

Attached townhomes offer many of the same benefits of single-family at higher residential densities. Units are typically 1-2 stories with up to three bedrooms and are typically no more than 30-40' wide. This unit size allows for higher densities (20-25 units/acre) when compared with single-family homes (7 units/acre). Attached units can include private backyards and feature minimal sidewalk setbacks. To facilitate pedestrian circulation, at least one public walkway should be provided at or near the center of each block.

▼ **Vehicle Access:** Guests arriving by car park on-street, while townhome owners access each garage from a shared alley.

▶ **Parking:** Up to two stalls can be provided in a detached, private garage that is located off the alley. On-street parking should be provided for guests.

▲ **Pedestrian / Bicycle Access:** Pedestrians access units from the sidewalk and secure bicycle parking should be provided in each private garage.



2 HYBRID COURTYARD

Like the bungalow courtyard, hybrid courtyards share a common, central amenity space that is shared among residents and tenants. Hybrid courtyards, however, include a mix of higher density (2-4 story) attached multi-family buildings and/or a mixed-use (retail/office or retail/residential) building that is oriented to the primary street. This building type achieves high densities (40-50 units/acre) and a desirable mix of uses using Type V construction, which is less expensive to build.

▼ **Vehicle Access:** Access is provided from an alley or through a driveway along the side lot line.

▶ **Parking:** Parking is provided in a shared lot at the rear or in a garage below the complex.

▲ **Pedestrian / Bicycle Access:** Ground-floor residential units are accessed from the courtyard, while upper units can be reached from a stairwell and hall. Commercial suites include street-facing entrances.



Washington D.C.



SL70 - Silver Lake, Los Angeles



Mission Meridian Village, South Pasadena

A B C D Typology: Attached Residence

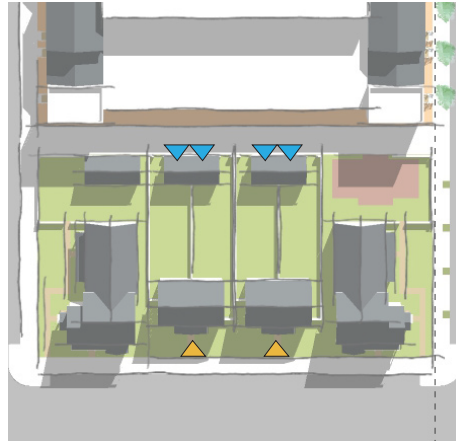
3 DUPLEX

A structure that consists of two side-by-side or stacked dwelling units, both facing the street and within a single building; with the appearance of a single-family home, it is appropriately scaled to fit within primarily single-family neighborhoods or medium-density neighborhoods.

▼ **Vehicle Access:** Vehicle access is preferred from an alley. If no alley is present, a driveway for single car width along one edge of the lot is acceptable.

▶ **Parking:** Surface parking is located behind the building, or located along an alley, and should be hidden from the street. On-street parking should also be utilized to reduce amount of on-site parking.

▲ **Pedestrian / Bicycle Access:** Pedestrian access can be from the front of the building, or from the side driveway. Side yard duplex should have entrances fronting both streets.



4 LIVE/WORK LOFTS

Live-work lofts are a unit type that can be integrated into duplexes, detached/attached townhomes, and small lot projects. These units are typically two-or three stories, face the primary street, and include second and/or third-levels that open to the main living space below. Living spaces may be converted to workspace for small retail or office operations, artist studios, or other low volume commercial uses. They help to activate the street in areas where traditional retail is not feasible.

▼ **Vehicle Access:** Commercial patrons park on-street and access units from the sidewalk.

▶ **Parking:** Garages can be provided in shared complexes or as tuck-under stalls facing the alley.

▲ **Pedestrian / Bicycle Access:** Pedestrians and cyclists can access units from the sidewalk. Convenient bicycle parking (typically a pole or rack) should be provided for guests.



Los Angeles



Los Angeles



La Esquina, San Diego



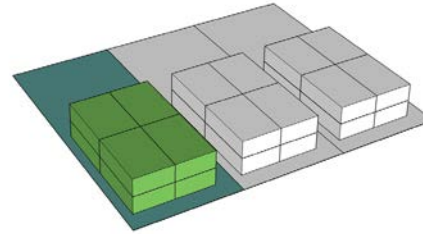
City Place, Santa Ana

- A
- B
- C
- D

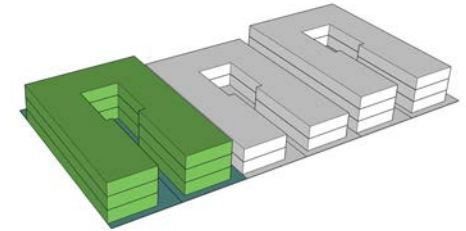
Typology: Multiplex

Multiplexes encompass a wide range of building and unit types. Units may be organized into clusters of 3-4, or part of multi-family buildings that include up to 100+ units. Parking may be located in small surface lots in the rear of a complex, on-street, or within podium (above-grade) or below-grade garages to maximize the density/intensity of development. Multiplexes may also have commercial frontage along the primary and/or secondary streets, greatly enhancing the walkability and vibrancy of the streetscape by adding interest and activity.

Liner structures are single-loaded (units located along only one side of a corridor) and are used to screen the blank facades of free-standing or podium parking structures. Units at-grade can be configured as live-work units or loft-style residential units with entrances facing the primary street.



Triplex/Fourplex



Courtyard

Typical Lot Size: 50' x 150' / 7,500 sf / 0.18 acres

Number of Units: 4 - 100+

Density Range: 50 - 125 du / acre

FAR: 1.0 - 5.0

Number of Floors: 2 - 7

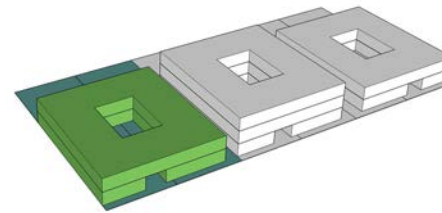
Parking: Assumption: 1 space per unit

Unit Size: studio - 3 bedrooms / 900 - 1,400 sf

Residential: / Commercial: Mix:

Residential - 75% - 100%

Commercial - 0% - 25%



Flex Apartment/Mixed Use



Liner Structure

Design Considerations

Front Setback: +/- 5' from established front yard line

Side Setback: 0% - 15% of lot width (e.g. 50' x 20% = 7.5')

Lot Coverage: 50% - 75%

Ground Floor Transparency: 50 - 75%

A B **C** D **Typology: Multiplex**

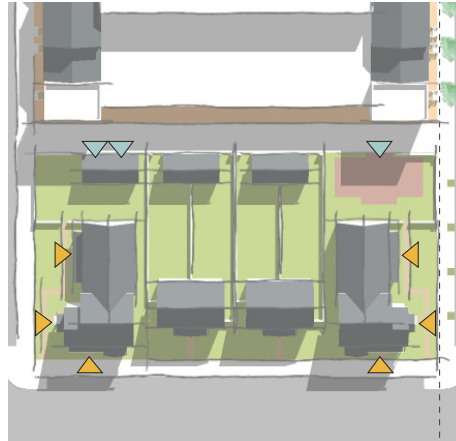
1 TRIPLEX/FOURPLEX

Triplexes and fourplexes are similar in concept to the duplex, but can be configured in a variety of ways to achieve higher density structures that come in combinations of three or four units. A common entrance may lead to three or four units, or individual entrances may be located along the front and/or sides of each building.

▼ **Vehicle Access:** Vehicles can access shared lots or garages from the street or alley.

▲ **Parking:** Shared lots or garages can be provided, although some units may not include any dedicated parking. On-street parking should be made available.

▲ **Pedestrian / Bicycle Access:** Pedestrians and cyclists access units from the sides and front of each complex. Bicycle parking should be provided in common garages or racks near the alley.



Los Angeles



Angelino Heights, Los Angeles

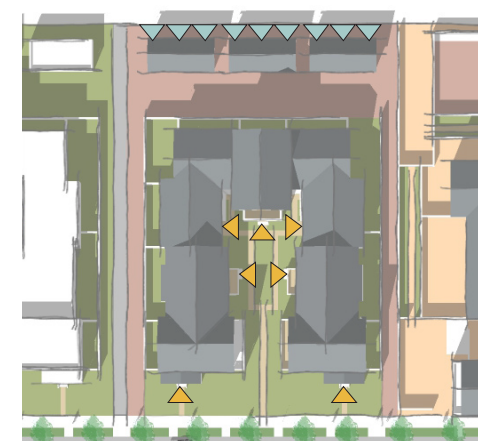
2 COURTYARD

Courtyards are similar to bungalow courtyards (see earlier description) but units are fully attached and arranged in higher densities (2-3 stories). This arrangement yields more units per acre, but does not include private backyards. Instead, social interaction among residents is encouraged through a well-designed and maintained common courtyard.

▼ **Vehicle Access:** Vehicles access to the complex is typically through a driveway along the side lot line.

▲ **Parking:** Parking is provided in carports or garages at the rear of the building. Residents park and walk through arcades to access courtyards and units.

▲ **Pedestrian / Bicycle Access:** Pedestrian/cyclist access to each unit is provided from the courtyard.



Mission Meridian Village, South Pasadena



Harper Court, Los Angeles

A B C D Typology: Multiplex

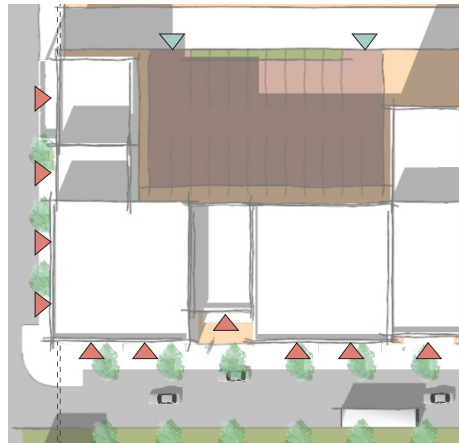
3 FLEX APARTMENT/MIXED USE

Flex apartments are a general, catch-all term for the most common building type used in TOD construction. These are multi-family structures between 3 and 7 stories in height, and may be built using Type V or modified Type III construction types, depending on the type and presence of retail. Buildings may be all-residential or include a mix of street-facing retail or commercial units. Densities of 50-100 units/acre are possible depending on the density.

▼ **Vehicle Access:** Vehicles access the complex from curb cuts located at the ends or rear of the building.

▲ **Parking:** Parking for residents and customers is located behind the building, in upper level podiums, or in below-grade garages.

▲ **Pedestrian / Bicycle Access:** Retail suites include street-facing entrances, while residents access units from a separate, private entrance that leads to stairwells/elevators and common corridors.

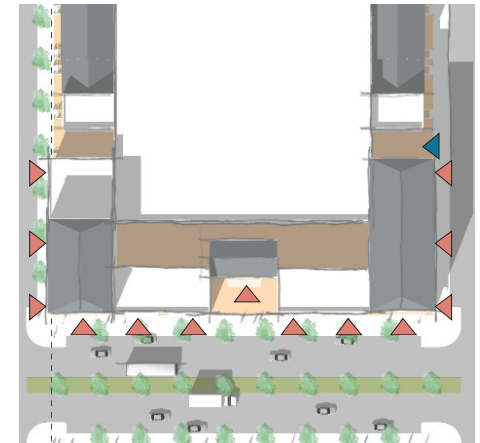
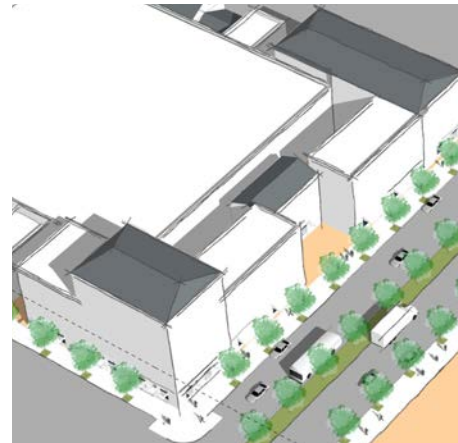


4 LINER STRUCTURE

Liner structures are single-loaded (units located along only one side of a corridor) and are used to screen the blank facades of free-standing or podium parking structures. Units at-grade can be configured as live-work units or loft-style residential units with entrances facing the primary street.

▼ **Vehicle Access:** Vehicles park in a podium parking structure with entrances located around the block.

▲ **Parking:** Liner buildings typically wrap above-grade parking structures. Retail customers park on the lower levels and walk through arcades to access street-fronting retail, while residents can park on the upper levels and access units directly from the garage.



SoMa, San Francisco



124 N. 6th St., Williamsburg Virginia



Boulder, Colorado

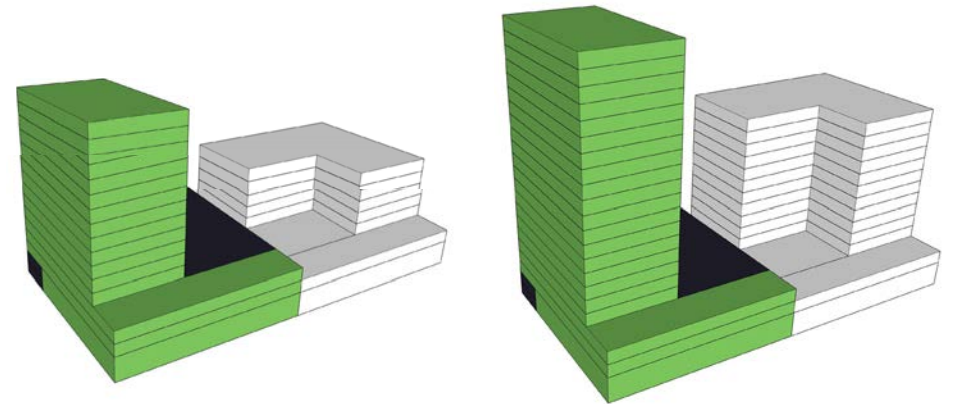


Dallas, Texas

A B C D Typology: Mid/Hi-Rise Tower

Once the market for multi-family residential or commercial units matures, mid-rise or high-rise towers may become feasible. Due to their cost, these structures often require either high per-square foot rent or sales prices or a significant subsidy to make them profitable for developers. Parking is located in above-grade podium structures (construction costs of roughly \$25,000/stall) or in more expensive below-grade garages (approximately \$40,000 or more to construct).

Towers should be sensitively designed at the ground level to avoid creating imposing blank walls. Strategies include recessing structures at floors 3-5 and locating retail, live-work, outdoor cafes and pocket parks, and other active uses at the ground level. Sunlight, wind, and the existing neighborhood context and density are additional key design factors to consider.



Mid-Rise Tower

High-Rise Tower

Typical Lot Size: 100' x 100'/10,900+ sf/0.25+ acres

Number of Units: 100+

Density Range: 100+ du / acre

FAR: 6.0+

Number of Floors: 8+

Parking: Assumption: 1 space per unit

Unit Size: 1 - 3bedrooms / 900 - 1,200 sf

Residential: / Commercial: Mix:

Residential - 0 - 100%

Commercial - 0 - 100%

Design Considerations

Front Setback: 0"-20' from established front yard line (setbacks acceptable only if plazas, parks, or cafes are included).

Side Setback: 0% of lot width

Lot Coverage: 50% - 75%

Ground Floor Transparency: 75+%

A B C D Typology: Mid/Hi-Rise Tower

1 MID-RISE TOWER

Mid-rise towers are higher density (7-10 story) structures that are organized around a common set of elevators and stairwells. Several residential units can be located on a single floor plate in a number of configurations, from studio to four bedroom units. Parking is provided in above-grade podiums or in garages below-grade. An amenity deck that includes a terrace, barbecue, pools, gyms, and other features is typically included and maintained by the landlord or association.

▼ **Vehicle Access:** Access is provided from curb cuts located from an alley or from an adjacent street if permitted by individual cities.

▲ **Parking:** Parking is located in upper-level podium structures or in below-grade garages.

▲ **Pedestrian / Bicycle Access:** Privately-owned pocket parks and plazas should be provided to encourage social activity and provide for convenient pedestrian/cyclist access and parking.

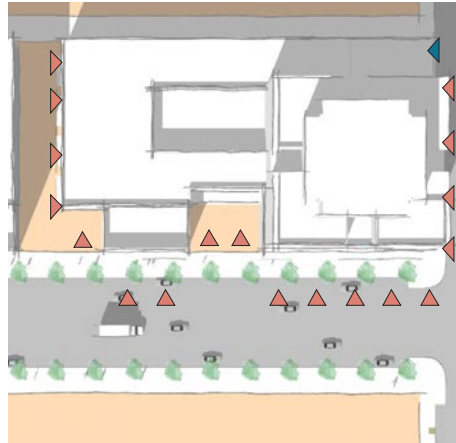
2 HIGH-RISE TOWER

While mid-rise towers achieve significant densities (100-150 units/acre), high-rise towers can be in excess of 10, 20, 30 or more stories. In most other respects, high-rise towers are similar. A diverse mix of residential, office, retail, or hotel can be included in a high rise tower, with separate entrances provided for each use. High-rise towers are feasible in select few, highly desirable markets (typically central business districts). Existing office towers may also be converted to a mix of uses.

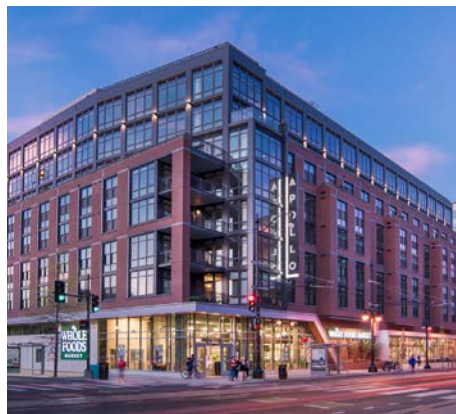
▼ **Vehicle Access:** See mid-rise tower description.

▲ **Parking:** See mid-rise tower description.

▲ **Pedestrian / Bicycle Access:** See mid-rise tower description.



Onyx, Los Angeles



The Apollo, Washington D.C.



Atelier - Downtown Los Angeles



TOD Precedents

Projects		Project Attributes											
		Place Type	City	Year Completed / Expected	Building Type	Transit Mode	Distance to Transit	Acres	Number of Floors: (max)	Number of Units:	du / acre	Retail / Commercial sf	Estimated Total Development Costs
Urban	820 Olive Street	Mixed Use	Los Angeles	2018	High Rise	Local Rail	1,800	0.87	59	516	593	4,500 sf	
	Ballpark Village	Mixed Use	San Diego	2018	High Rise, Podium Mid Rise	Local Rail	250	3.7	37	713	193	45,000 sf	\$250,000,000
	Middough Arts Center	Commercial	Cleveland	2012	Loft Building (AR)	BRT	400	1.5	5	0	0	300,000 sf	\$41,500,000
	Wilshire / Vermont	Mixed Use	Los Angeles	2007	Podium Block	Local Rail	50	3.24	7	449	139	35,000 sf	\$136,000,000
	The Pearl	Mixed Use	Silver Spring	2016	Podium Tower	Local Rail	1,200		14	284		30,000 sf	
	The Blairs	Mixed Use	Silver Spring	2025	Master Plan Development	Local Rail	1,200	27		2,800	104	450,000 sf	
	YUL	Mixed Use	Montreal	2020	High Rise, Townhouse	Local Rail	600	2.27	38	890	392		\$300,000,000
	The Current	Mixed Use	Long Beach	2016	High Rise	Local Rail	2,100	0.8	17	223	279	6,750 sf	\$70,000,000
	45 Marion Street	Residential	Boston	2016	Stacked Units	Local Rail	1,200	0.4	6	65	163	0 sf	
Town	11405 Chandler Boulevard	Mixed Use	Los Angeles	2017	Podium Mid Rise	Local Rail / BRT	500	0.6	7	82	137	1,000 sf	
	1647 - 55 N. Milwaukee	Mixed Use	Chicago	2016	Stacked Units	Local Rail	600	0.3	5	36	120	7,400 sf	
	Market Station	Mixed Use	Kansas City	2015	Podium Block	BRT / Streetcar	1,600	4.46	5	137	31	4,500 sf	
	Mercer Commons	Mixed Use	Cincinnati	2014	Loft Building, Townhouse	Streetcar	600	1.1	4	95	86	14,500 sf	\$49,000,000
	Mercer III Townhouse	Mixed Use	Cincinnati	2016	Townhouse	Streetcar	700	0.4	4	12	30	0 sf	\$5,500,000
	8 House	Mixed Use	Copenhagen	2010	Podium Block	Local Rail	1,000	7	10	476	68	107,000 sf	
	Ivy Station	Mixed Use	Culver City	2019	Podium Mid Rise	Local Rail	100	5.2	6	200	38	246,000 sf	\$300,000,000
	La Esquina	Mixed Use	San Diego	2012	Live / Work	Local Rail	2,700	0.25	2	7	28	500 sf	
	Linkt Apartments	Mixed Use	Chicago	2017	Stacked Units	Local Rail	500	0.35	5	47	134	3,000 sf	
	East Liberty Transit Center	Mixed Use	Pittsburgh	2016	Podium Mid Rise	BRT	300	6	5	360	60	43,000	\$90,000,000
	Del Mar Station	Residential	Pasadena	2007	Podium Block	Local Rail	50	3.4	7	347	102	11,000 sf	\$77,000,000
	SoCo Walk	Residential	Fullerton	2006	Townhouse, Live / Work	Commuter Rail	100	5.9	3	120	20	Yes	
	Depot at Santiago	Residential	Santa Ana	2018	Stacked Units	Commuter Rail	800	1.35	4	70	52	9,000 sf	\$34,000,000
	Terraces at Santiago	Residential	Santa Ana	2013	Courtyard Apartment	Commuter Rail	2,500	0.85	3	36	42	0 sf	
Centrum Wicker Park	Residential	Chicago	2016	Podium Mid Rise	Local Rail	500	0.5	6	60	120	13,000 sf		

TOD Precedents

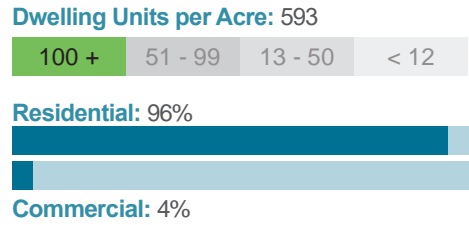
Projects		Project Attributes											
		Place Type	City	Year Completed / Expected	Building Type	Transit Mode	Distance to Transit	Acres	Number of Floors: (max)	Number of Units:	du / acre	Retail / Commercial sf	Estimated Total Development Costs
Town	The Row	Residential	Chicago	2017	Townhouse	Local Rail	1,100	0.8	3	24	30	0 sf	
	Mode Logan Square	Residential	Chicago	2017	Stacked Units	Local Rail	1,100	0.95	4	78	82	6,100 sf	
	Residences @ 245 Sumner	Residential	Boston	2017	Stacked Units	Local Rail	600	0.4	4	34	85	2,250 sf	\$8,000,000
	169 Calle Amsterdam	Residential	Mexico City	2014	Stacked Units	BRT / Local Rail	1,800	0.14	5	15	107	0 sf	
	Kroyer Square	Residential	Copenhagen	2016	Stacked Units	Local Rail	2,400	2.12	5	105	50	Yes	
Village / Suburban	Mission Meridian Village	Mixed Use	South Pasadena	2006	Duplex, Courtyard, Loft	Local Rail	200	1.65	3	67	41	5,000 sf	
	Village Walk	Mixed Use	Claremont	2006	Townhouse	Commuter Rail	2,300	8	3	186	23	0 sf	
	Highland Park	Mixed Use	Buffalo	2022	Master Plan Development	Local Rail	1,600	27	4	717	27	Yes	
	118 Flats	Mixed Use	Cleveland	2013	Townhouse	BRT	200	0.38	3	20	53	0 sf	\$4,000,000
	Takoma Central	Mixed Use	Takoma	2015	Podium Block	Local Rail	600	1.29	5	150	116	10,000 sf	
	Fruitvale Transit Village	Commercial	Oakland	2004	Podium Mid Rise	Local Rail	100	3.6	4	47	13	154,000 sf	
	Victory Building	Commercial	Cleveland	2013	Loft Building	BRT	50	3.24	4	0	0	161,000 sf	\$26,000,000
	Midtown Tech Park	Commercial	Cleveland	2011	Flex Building	BRT	50	6	2	0	0	128,000	
	Metro Village	Residential	Takoma	2017	Podium Block	Local Rail	1,000	1.13	5	150	133	0 sf	
	Residences @ Thayer	Residential	Silver Spring	2014	Stacked Units	Local Rail	2,300	0.5	4	52	104	0 sf	
	Metro Gateway	Suburban Multifamily	Riverside	2017	Stacked Units	Commuter Rail	600	4.26	4	187	44	0 sf	
	Paseos at Montclair North	High Intensity Activity Center	Montclair	2013	Townhouse	Commuter Rail	2,000	15.4	3	385	25	0 sf	
	Grossmont Trolley Center	High Intensity Activity Center	La Mesa	2010	Podium Block	Local Rail	100	9.9	6	527	53	3,000 sf	
	South Bay Town Center	High Intensity Activity Center	Boston	2018	Podium Block, Podium Mid Rise	Local Rail	2,500	10.15	6	475	47	120,000 sf	
	Solaire Wheaton	High Intensity Activity Center	Wheaton	2013	Podium Block	Local Rail	1,200						
Campus	Greenbridge Commons	Campus / University	Cleveland	2011	Stacked Units	BRT	700	1.1	4	70	64	0 sf	\$11,000,000
	Euclid Commons	Campus / University	Cleveland	2012	Stacked Units	BRT		2.8	4	163	58	0 sf	

TOD Precedents

820 OLIVE Downtown, Los Angeles, California

Year Expected: 2018

- Size: 0.87 acre
- Number of Floors (min/max): 7 / 50
- Number of Units: 516
- Retail / Commercial: 4,500 sf
- Office: 0 sf
- Hotel Rooms: 0
- Parking: 600 subterranean



Project Features

Open Space: Roof patio



Context

- Place Type Context: Urban Mixed-Use
- Transit Mode: Local Rail
- Transit Line(s): Metro: Blue, Red, Purple, Expo
- Distance to Station / Stop: 1,800'
- Development Type: Single lot infill
- Building Type(s): High-Rise

TOD Precedents

BALLPARK VILLAGE Downtown, San Diego, California

Year Expected: 2018

Size: 3.7 acres

Number of Floors (min/max): 6/37

Number of Units: 713

Retail / Commercial: 45,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 991 subterranean

Dwelling Units per Acre: 193



FAR: 2.2



Residential: 36%

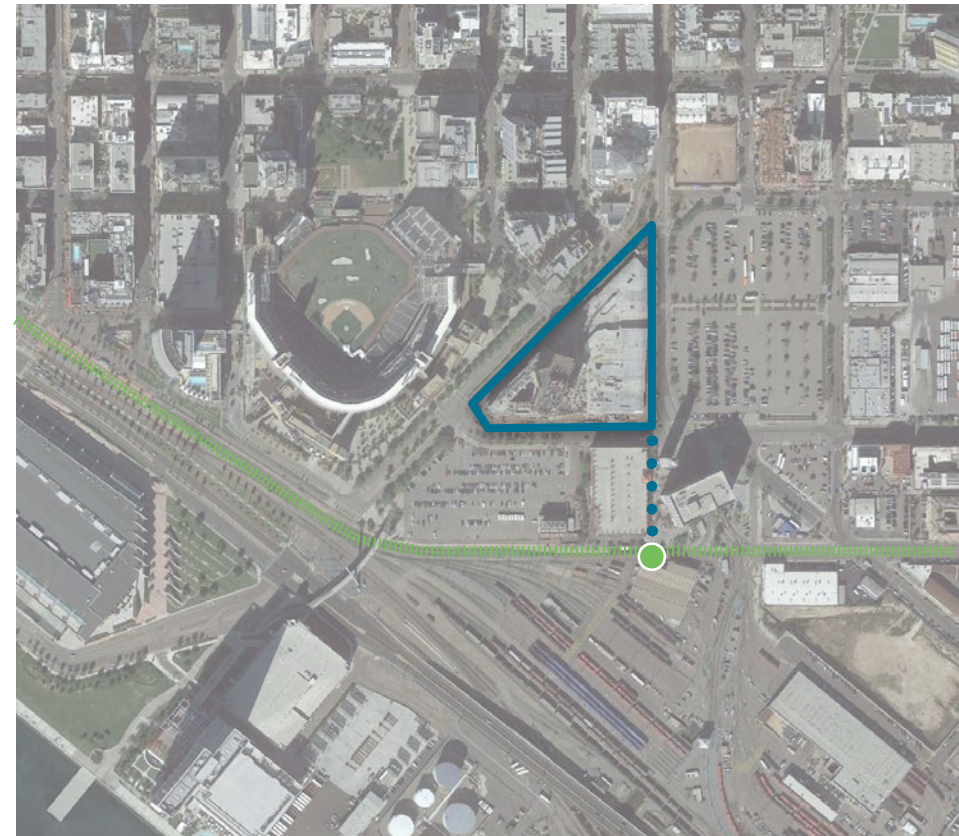


Commercial: 64%

Project Features

Open Space: Central plaza, paseo

Project Cost: \$250 million



Context

Place Type Context: Urban Mixed-Use

Transit Mode: Local Rail

Transit Line(s): MTS: Green, Blue, Orange

Distance to Station / Stop: 250'

Development Type: Multi-building development block

Building Type(s): High Rise, Mid Rise Podium

TOD Precedents

MIDDOUGH ARTS CENTER Cleveland, Ohio

Year Completed: 2012

Size: 1.5 acres
Number of Floors (min/max): 5
Number of Units: 0
Retail / Commercial: 300,000 sf
Office: 0 sf
Hotel Rooms: 0
Parking: 0 on site

Dwelling Units per Acre: 0

100 +	51 - 99	13 - 50	< 12
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FAR: 4.6

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1
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Residential: 0%

Commercial: 100%

Project Features

Open Space: None

Project Cost / Funding Sources: \$41.5 million / CDA Investment: \$5 million NMTC allocation from CNMIF II



Context

Place Type Context: Urban Commercial
Transit Mode: BRT
Transit Line(s): RTA: Health-line
Distance to Station / Stop: 400'
Development Type: Adaptive Reuse
Building Type(s): Loft Building

TOD Precedents

WILSHIRE / VERMONT Koreatown, Los Angeles, California

Year Completed: 2007

Size: 3.24 acres

Number of Floors (min/max): 7

Number of Units: 449

Retail / Commercial: 35,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 139



Residential: 86%



Commercial: 14%

Project Features

Open Space: Central Plaza, paseo

Project Cost / Funding Sources: \$136 million

Special Considerations: Metro / private joint development. Metro station part of project.



Context

Place Type Context: City Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: Red, Purple / 720, 754

Distance to Station / Stop: 50'

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

THE BLAIRS Silver Spring, Maryland

Year Expected: 2025

Size: 27 acres

Number of Units: 2,800

Retail / Commercial: 450,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 104

100 +	51 - 99	13 - 50	< 12
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SCAG Region	California	United States	International
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Project Features

Open Space: Multiple plazas, central lawn, multiple paseos, private courtyards



Context

Place Type Context: City Mixed-Use

Transit Mode: Commuter / Local Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 500'

Development Type: Master Plan Development

Building Type(s): Podium Mid Rise, Podium Tower, High Rise

TOD Precedents

THE PEARL Silver Spring, Maryland

Year Completed: 2018

Size: 1.5 acres

Number of Floors (min/max): 3/14

Number of Units: 284

Retail / Commercial: 30,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 177

Dwelling Units per Acre: 174

100 +	51 - 99	13 - 50	< 12
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Project Features

Open Space: Plaza



Context

Place Type Context: City Mixed-Use

Transit Mode: Local / Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 1,200'

Development Type: Phase I of Master Plan

Building Type(s): Podium Tower

TOD Precedents

YUL
Montreal, Canada

Year Expected: 2020 (2017 Phase I)

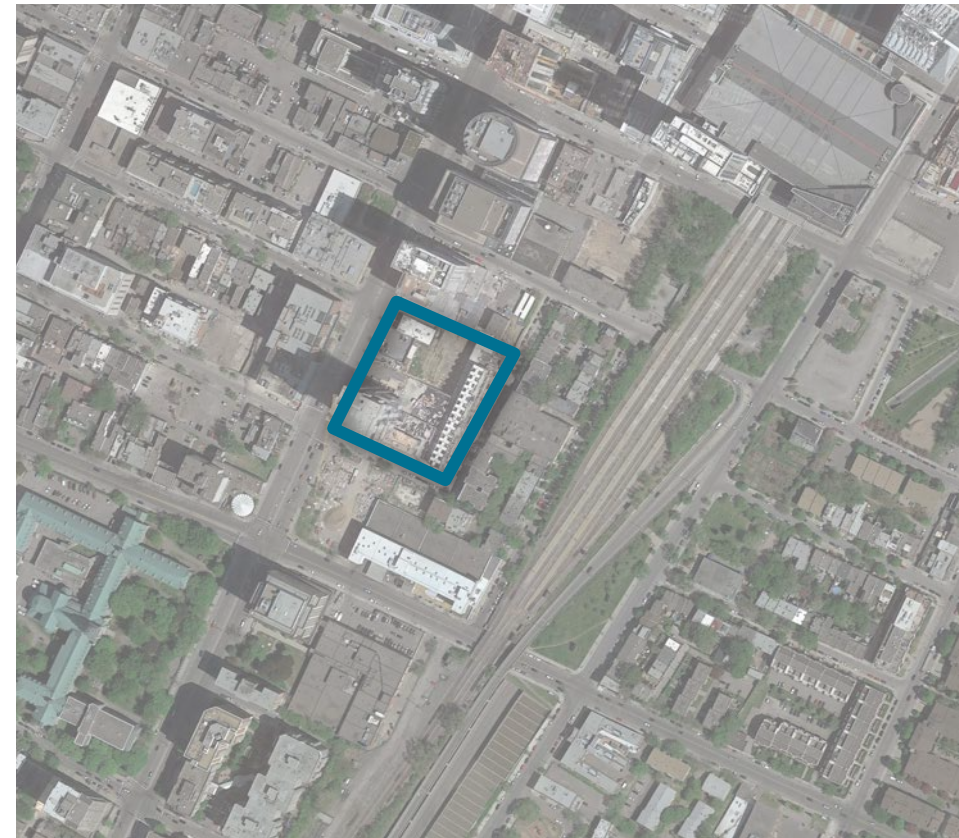
Size: 2.27 acres
Number of Floors (min/max): 3/38
Number of Units: 890
Office: 0 sf
Hotel Rooms: 0

Dwelling Units per Acre: 392

100 +	51 - 99	13 - 50	< 12
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Project Features

Open Space: 23,000 sf garden, roof amenities
Project Cost / Funding Sources: \$300 million



Context

- Place Type Context:** City Mixed-Use
- Transit Mode:** Local Rail
- Transit Line(s):** Metro: Orange
- Distance to Station / Stop:** 600'
- Development Type:** Multi-building development block
- Building Type(s):** High Rise, Townhouse

TOD Precedents

THE CURRENT Downtown, Long Beach, California

Year Completed: 2016

Size: 0.8 acre

Number of Floors (min/max): 17

Number of Units: 223

Retail / Commercial: 6,750 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 279

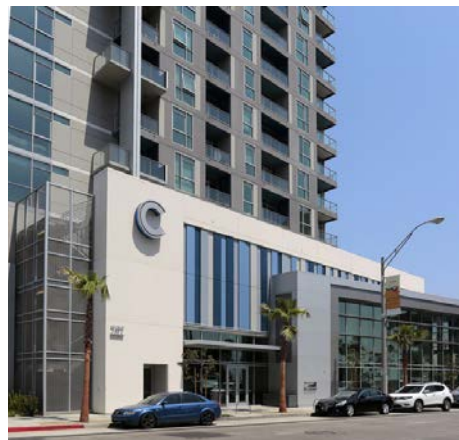
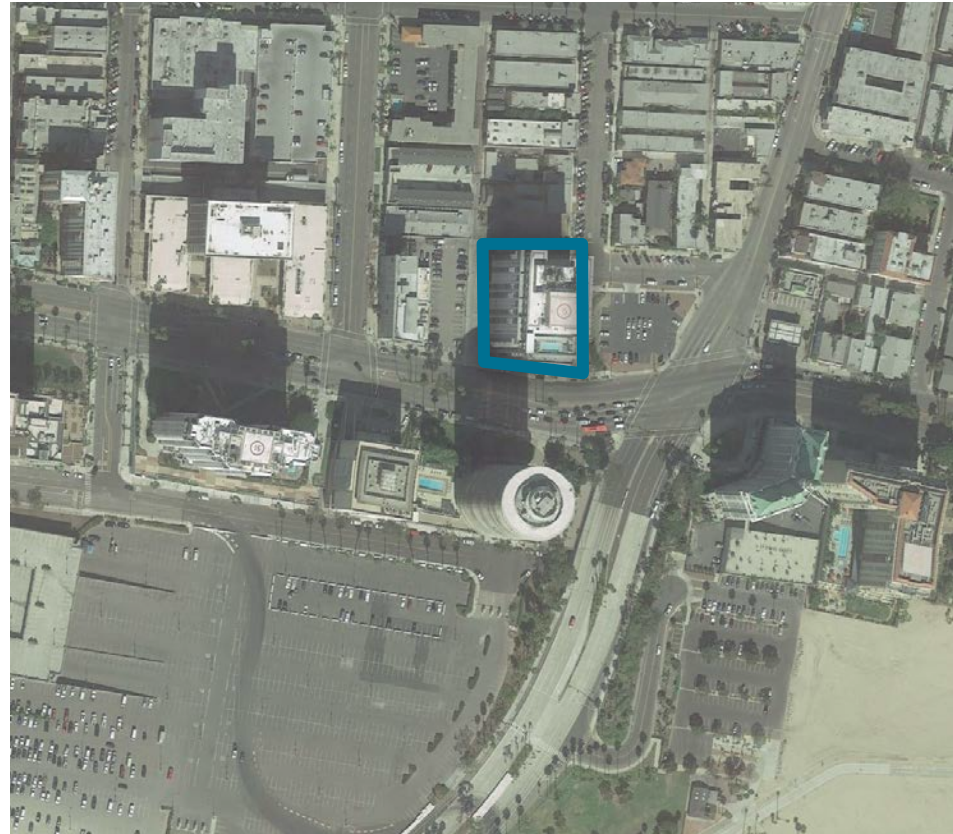
100 +	51 - 99	13 - 50	< 12
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Project Features

Open Space: Plaza

Project Cost: \$70 million

SCAG Region California United States International



Context

Place Type Context: City Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 2,100'

Development Type: Multi-lot infill

Building Type(s): High Rise

TOD Precedents

45 MARION STREET Boston, Massachusetts

Year Completed: 2016

Size: 0.4 acre

Number of Floors (min/max): 6

Number of Units: 65

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 21

Dwelling Units per Acre: 163



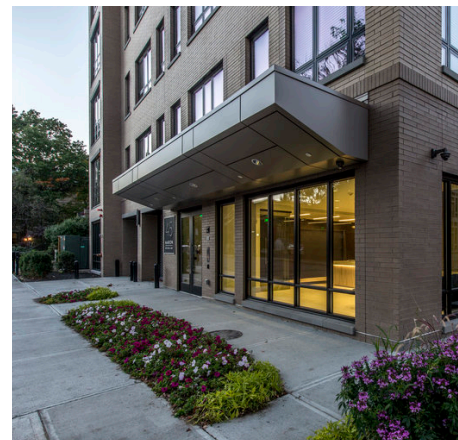
Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Special Considerations:: Affordable housing project.



Context

Place Type Context: City Residential

Transit Mode: Local Rail

Transit Line(s): MBTA: C

Distance to Station / Stop: 1,200'

Development Type: Single lot infill

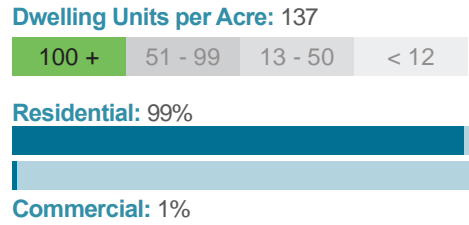
Building Type(s): Stacked Units

TOD Precedents

11405 CHANDLER
North Hollywood, Los Angeles, California

Year Completed: 2017

Size: 0.6 acre
Number of Floors (min/max): 7
Number of Units: 82
Retail / Commercial: 1,000 sf
Office: 0 sf
Hotel Rooms: 0



Project Features

Open Space: None

SCAG Region California United States International



Context

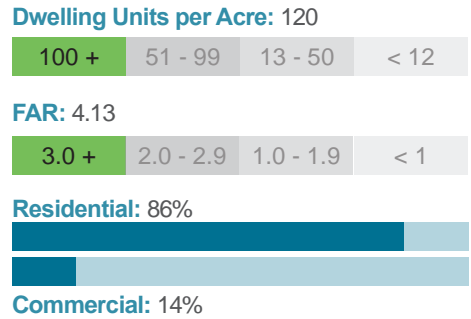
Place Type Context: Town Mixed Use
Transit Mode: BRT / Local Rail
Transit Line(s): Metro: Orange / Red
Distance to Station / Stop: 500' / 900'
Development Type: Single lot infill
Building Type(s): Podium Mid Rise

TOD Precedents

1645 N MILWAUKEE Chicago, Illinois

Year Completed: 2016

- Size: 0.3 acre
- Number of Floors (min/max): 5
- Number of Units: 36
- Retail / Commercial: 7,400 sf
- Office: 0 sf
- Hotel Rooms: 0
- Parking: 11



Project Features

Open Space: None

Special Considerations: Retained facade of existing historic building as part of development.



Context

- Place Type Context: Town Mixed-Use
- Transit Mode: Local Rail
- Transit Line(s): CTA: Blue
- Distance to Station / Stop: 600'
- Development Type: Multi-lot infill
- Building Type(s): Stacked Units

TOD Precedents

MARKET STATION

Kansas City, Missouri

Year Completed: 2015

SCAG Region California **United States** International

Size: 4.46 acres

Number of Floors (min/max): 5

Number of Units: 137

Retail / Commercial: 4,500 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 400

Dwelling Units per Acre: 31

100 + 51 - 99 **13 - 50** < 12

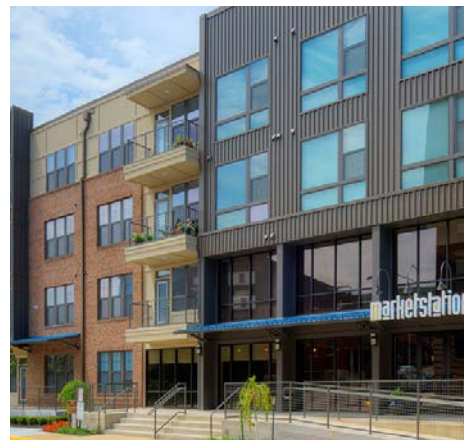
Residential: 99%

Commercial: 1%

Project Features

Open Space: Private courtyard

Funding Sources: \$2 million loan from the Kansas City Council in 2013 through a direct housing assistance program associated with the streetcar development



Context

Place Type Context: Town Mixed-Use

Transit Mode: BRT / Streetcar

Transit Line(s): KCATA: Main MAX / Streetcar

Distance to Station / Stop: 600'

Development Type: Development Block

Building Type(s): Podium Block

TOD Precedents

MERCER COMMONS Cincinnati, Ohio

Year Completed: 2014

Size: 1.1 acres

Number of Floors (min/max): 3/4

Number of Units: 95

Retail / Commercial: 14,500 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 340

Dwelling Units per Acre: 86

100 + **51 - 99** 13 - 50 < 12

Project Features

Open Space: None

Project Cost: \$49 million

Special Considerations: Publicly-accessible parking structure

SCAG Region California **United States** International



Context

Place Type Context: Town Mixed-Use

Transit Mode: Streetcar

Transit Line(s): Cincinnati Bell Connector

Distance to Station / Stop: 600'

Development Type: Multi-lot infill

Building Type(s): Loft Building, Parking Structure, Townhouse

TOD Precedents

MERCER III TOWNHOMES Cincinnati, Ohio

Year Completed: 2016

Size: 0.4 acre

Number of Floors (min/max): 3/4

Number of Units: 12

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 30

100 + 51 - 99 **13 - 50** < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: None

Project Cost: \$5.5 million



Context

Place Type Context: Town Mixed-Use

Transit Mode: Streetcar

Transit Line(s): Cincinnati Bell Connector

Distance to Station / Stop: 600'

Development Type: Multi-lot infill

Building Type(s): Townhouse

TOD Precedents

8 HOUSE Copenhagen, Denmark

Year Completed: 2010

Size: 7 acres

Number of Floors (min/max): 10

Number of Units: 476

Retail / Commercial: 107,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 340

Dwelling Units per Acre: 68

100 + 51 - 99 13 - 50 < 12

Project Features

Open Space: Plaza, courtyard, elevated walkway

Special Considerations: Building facade terraced to achieve maximum sunlight exposure.

SCAG Region California United States **International**



II-C-E-17

Context

Place Type Context: Town Mixed-Use

Transit Mode: Local Rail

Transit Line(s): Metro: M1

Distance to Station / Stop: 1,000'

Development Type: Development Block

Building Type(s): Podium Block

TOD Precedents

IVY STATION Culver City, California

Year Expected: 2019

Size: 5.2 acres

Number of Floors (min/max): 5/6

Number of Units: 200

Retail / Commercial: 36,000 sf

Office: 210,000 sf

Hotel Rooms: 148

Parking: 1,500 subterranean

Dwelling Units per Acre: 38



FAR: 2.2



Residential: 36%



Commercial: 64%

Project Features

Open Space: Multiple plazas, central lawn, private courtyards

Project Cost: \$300 million

Special Considerations: Parking below-grade for development and transit.



Context

Place Type Context: Town Commercial

Transit Mode: Local Rail

Transit Line(s): Metro: Expo

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Mid Rise Podium

TOD Precedents

LA ESQUINA Barrio Logan, San Diego, California

Year Completed: 2012

- Size: 0.25 acre
- Number of Floors (min/max): 2
- Number of Units: 7
- Retail / Commercial: 500 sf
- Office: 0 sf
- Hotel Rooms: 0
- Parking: surface

Dwelling Units per Acre: 28

100 +	51 - 99	13 - 50	< 12
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FAR: 0.37

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1
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Residential: 88%

Commercial: 12%

Project Features

Open Space: Shared Paseo



Context

- Place Type Context: Town Commercial
- Transit Mode: Local Rail
- Transit Line(s): MTS: Blue
- Distance to Station / Stop: 2,700'
- Development Type: Single lot infill
- Building Type(s): Live / Work

TOD Precedents

LINKT APARTMENTS

Chicago, Illinois

Year Completed: 2017

Size: 0.35 acre

Number of Floors (min/max): 5

Number of Units: 47

Retail / Commercial: 3,000 sf

Office: 0 sf

Hotel Rooms: 0

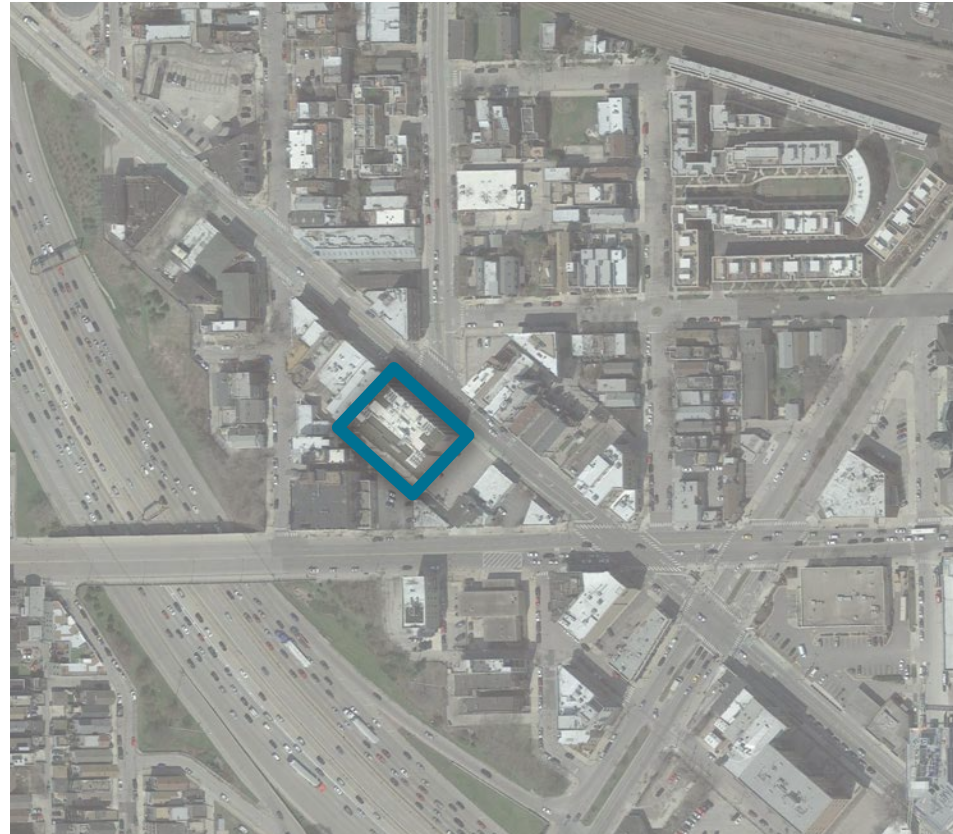
Dwelling Units per Acre: 134

100 + 51 - 99 13 - 50 < 12

Project Features

Open Space: None

SCAG Region California **United States** International



Context

Place Type Context: Town Commercial

Transit Mode: Local Rail

Transit Line(s): CTA: Blue

Distance to Station / Stop: 500'

Development Type: Multi-lot infill development

Building Type(s): Stacked Units

TOD Precedents

EAST LIBERTY TRANSIT CENTER Pittsburgh, Pennsylvania

Year Completed: 2016

Size: 6.0 acres

Dwelling Units per Acre: 30

Number of Floors (min/max): 5

100 + 51 - 99 **13 - 50** < 12

Number of Units: 360

Retail / Commercial: 43,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 554

Project Features

Open Space: Plaza, paseo

Project Cost: \$90 million



Context

Place Type Context: Town Commercial

Transit Mode: BRT

Transit Line(s): Port Authority: Martin Luther King Jr. Busway

Distance to Station / Stop: 300'

Development Type: Multi-building development block

Building Type(s): Podium Mid Rise

TOD Precedents

DEL MAR STATION Pasadena, California

Year Completed: 2007

SCAG Region California United States International

- Size:** 3.4 acres
- Number of Floors (min/max):** 4/7
- Number of Units:** 347
- Retail / Commercial:** 11,000 sf
- Office:** 0 sf
- Hotel Rooms:** 0
- Parking:** 1,200 subterranean

Dwelling Units per Acre: 102

100 +	51 - 99	13 - 50	< 12
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Project Features

- Open Space:** Plaza, paseo
- Project Cost:** \$77 million



- Context**
- Place Type Context:** Town Residential
 - Transit Mode:** Local Rail
 - Transit Line(s):** Metro: Gold
 - Distance to Station / Stop:** 50'
 - Development Type:** Multi-building development block
 - Building Type(s):** Podium Block

TOD Precedents

SOCO WALK Fullerton, California

Year Completed: 2006

Size: 5.9 acres

Number of Floors (min/max): 3

Number of Units: 120

Retail / Commercial: xx sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 20

100 + 51 - 99 **13 - 50** < 12

Project Features

Open Space: Plaza, paseo

SCAG Region California United States International



Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Townhouse, Live / Work

TOD Precedents

DEPOT AT SANTIAGO Santa Ana, California

Year Completed: 2018

Size: 1.35 acres

Number of Floors (min/max): 4

Number of Units: 70

Retail / Commercial: 10,900 sf

Office: 4,400 sf community space

Hotel Rooms: 0

Parking: 157 subterranean / 41 commercial

Dwelling Units per Acre: 52

100 + **51 - 99** 13 - 50 < 12

Project Features

Open Space: Central plaza

Project Cost / Funding Sources: \$34 million

Special Considerations: 100 percent affordable housing.

SCAG Region California United States International



Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 800'

Development Type: Development block

Building Type(s): Stacked Units

TOD Precedents

TERRACES AT SANTIAGO

Santa Ana, California

Year Completed: 2013

Size: 0.85 acres

Number of Floors (min/max): 2/3

Number of Units: 36

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 42

100 + 51 - 99 **13 - 50** < 12

SCAG Region California United States International



Project Features

Open Space: Central courtyard, playground



II-C-E-25

Context

Place Type Context: Town Residential

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Orange County

Distance to Station / Stop: 2,500'

Development Type: Multi-building development block

Building Type(s): Courtyard Apartments

TOD Precedents

CENTRUM WICKER PARK Chicago, Illinois

Year Completed: 2016

Size: 0.5 acre

Number of Floors (min/max): 6

Number of Units: 60

Retail / Commercial: 13,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 24 subterranean

Dwelling Units per Acre: 120

100 + **51 - 99** 13 - 50 < 12

Project Features

Open Space: Plaza (phase II)

SCAG Region California **United States** International



Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 800'

Development Type: Multi-lot infill

Building Type(s): Podium Mid Rise

TOD Precedents

THE ROW WICKER PARK Chicago, Illinois

Year Completed: 2017

Size: 0.8 acre
Number of Floors (min/max): 3
Number of Units: 24
Retail / Commercial: 0 sf
Office: 0 sf
Hotel Rooms: 0
Parking: 48

Dwelling Units per Acre: 30

100 + 51 - 99 **13 - 50** < 12

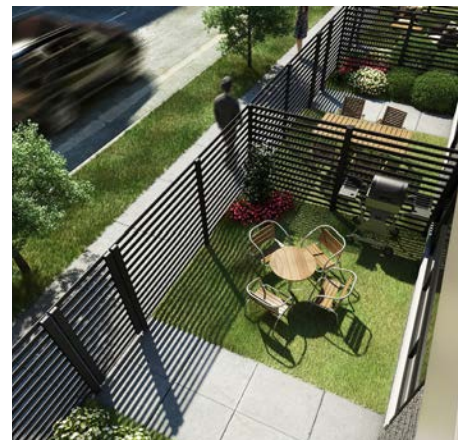
Residential: 100%

Commercial: 0%

Project Features

Open Space: Private front balcony

SCAG Region California **United States** International



Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 1,100'

Development Type: Development block

Building Type(s): Townhouse

TOD Precedents

MODE LOGAN SQUARE Chicago, Illinois

Year Completed: 2017

Size: 0.95 acre

Number of Floors (min/max): 4

Number of Units: 78

Retail / Commercial: 6,100 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 45 subterranean

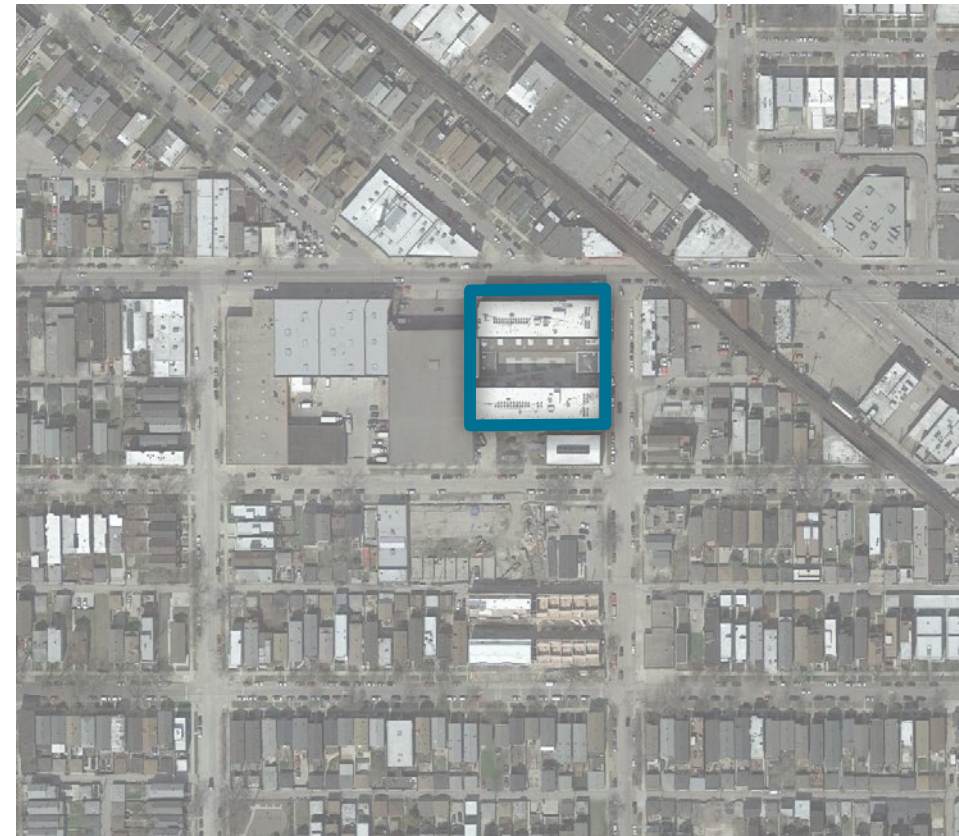
Dwelling Units per Acre: 82

100 + 51 - 99 13 - 50 < 12

Project Features

Open Space: Central courtyard

SCAG Region California **United States** International



Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: Blue

Distance to Station / Stop: 1,000'

Development Type: Single lot infill

Building Type(s): Podium Mid Rise

TOD Precedents

RESIDENCES AT 245 SUMNER Boston, Massachusetts

Year Completed: 2017

Size: 0.4 acre

Number of Floors (min/max): 4

Number of Units: 34

Retail / Commercial: 2,250 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 34

Dwelling Units per Acre: 85



FAR: 2.88



Residential: 96%

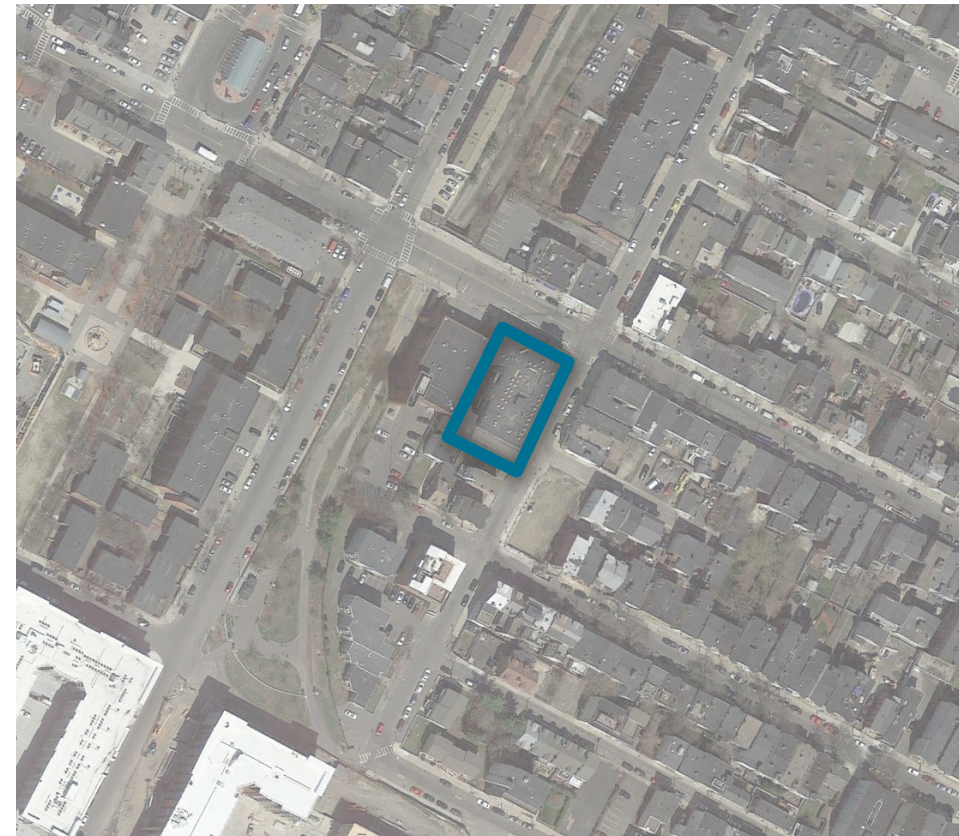


Commercial: 4%

Project Features

Open Space: None

Project Cost / Funding Sources: \$8 million



Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): MBTA: Blue

Distance to Station / Stop: 600'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

169 CALLE AMSTERDAM Mexico City, Mexico

Year Completed: 2014

Size: 0.14 acre

Number of Floors (min/max): 5

Number of Units: 15

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 2 levels subterranean

Dwelling Units per Acre: 107



Residential: 90%



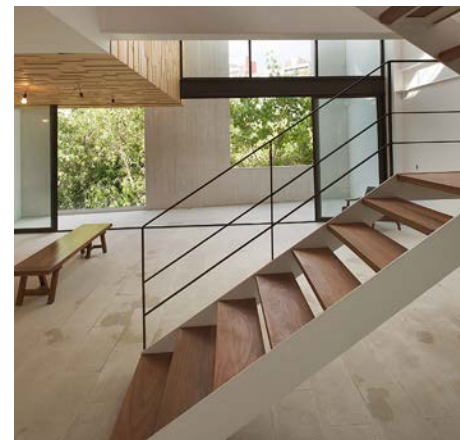
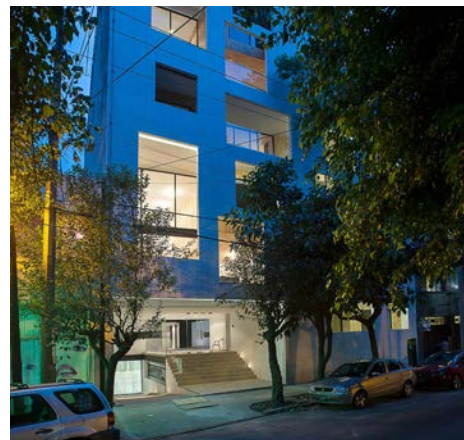
Commercial: 10%

Project Features

Open Space: Courtyard

Special Considerations: Located within a historic preservation district

SCAG Region California United States International



Context

Place Type Context: Town Residential

Transit Mode: BRT / Local Rail

Transit Line(s): Metrobus: Linea 1 / Metro: Linea 9

Distance to Station / Stop: 1,800' / 2,150'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

KROYER SQUARE Copenhagen, Denmark

Year Completed: 2016

Size: 2.12 acres

Number of Floors (min/max): 5

Number of Units: 105

Retail / Commercial: ground floor

Office: 0 sf

Hotel Rooms: 0

Parking: None

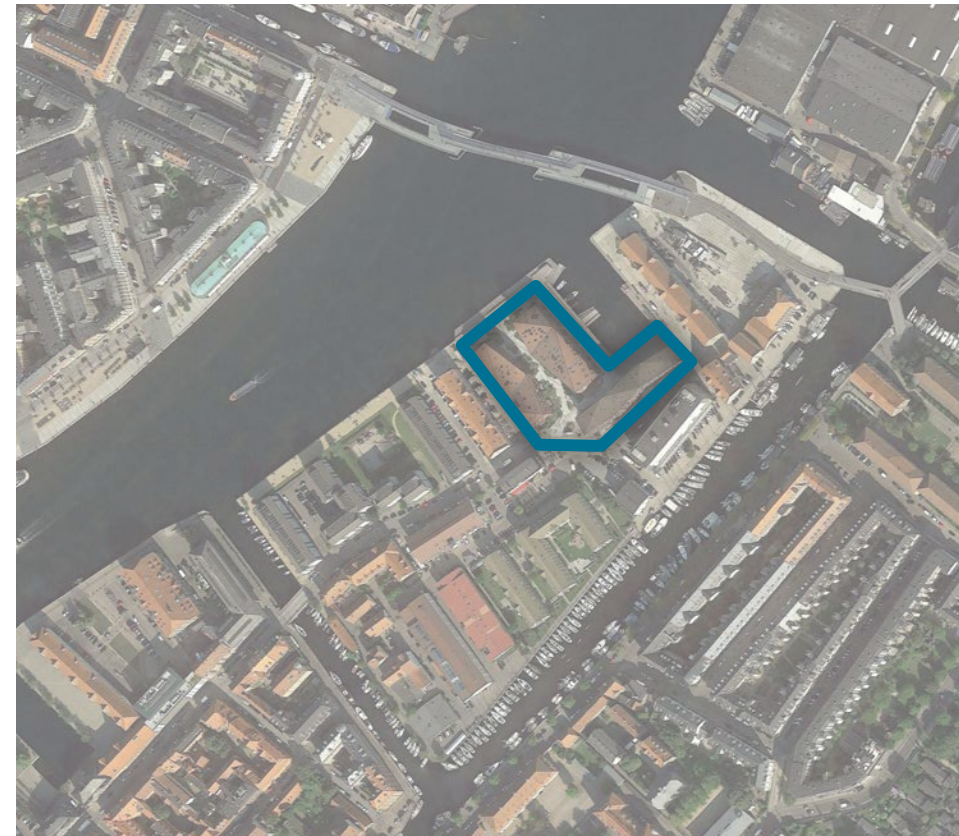
Dwelling Units per Acre: 50

100 + 51 - 99 **13 - 50** < 12

Project Features

Open Space: Multiple plazas

SCAG Region California United States **International**



Context

Place Type Context: Town Residential

Transit Mode: Local Rail

Transit Line(s): Metro: M1

Distance to Station / Stop: 2,400'

Development Type: Multi-building development block

Building Type(s): Stacked Units

TOD Precedents

MISSION MERIDIAN VILLAGE South Pasadena, California

Year Completed: 2006

Size: 1.65 acres

Dwelling Units per Acre: 41

100 + 51 - 99 **13 - 50** < 12

Number of Floors (min/max): 2 / 3

Number of Units: 67

Retail / Commercial: 5,000 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 280

Project Features

Open Space: None

SCAG Region California International



Context

Place Type Context: Village Mixed Use

Transit Mode: Local Rail

Transit Line(s): Metro: Gold

Distance to Station / Stop: 200'

Development Type: Multi-building development block

Building Type(s): Courtyard apartments, commercial block, duplex, (single-family homes)

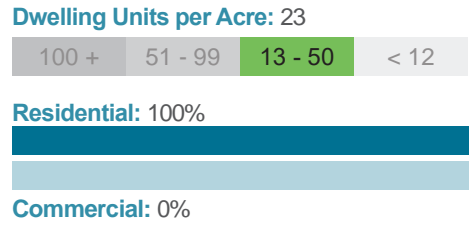
TOD Precedents

VILLAGE WALK Claremont, California

Year Completed: 2006

SCAG Region California United States International

Size: 8 acres
Number of Floors (min/max): 3
Number of Units: 186
Retail / Commercial: 0 sf
Office: 0 sf



Project Features

Open Space: Pocket Park



Context

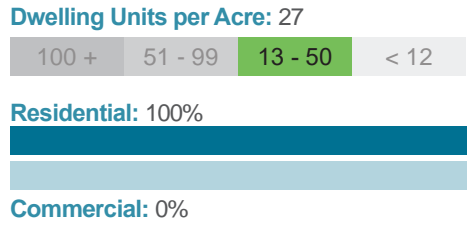
Place Type Context: Village Mixed Use
Transit Mode: Local Rail
Transit Line(s): Metro: Gold
Distance to Station / Stop: 200'
Development Type: Multi-building development block
Building Type(s): Courtyard apartments, commercial block, duplex, (single-family homes)

TOD Precedents

HIGHLAND PARK Buffalo, New York

Year Expected: 2022 (Phase 1 2018)

Size: 27 acres
Number of Floors (min/max): 4
Number of Units: 717
Retail / Commercial: yes
Office: 0 sf
Hotel Rooms: 0



Project Features

Open Space: Central lawn, pocket parks, plazas, paseo



Context

- Place Type Context:** Village Mixed Use
- Transit Mode:** Local Rail
- Transit Line(s):** NFTA: Main Street
- Distance to Station / Stop:** 1,600'
- Development Type:** Master Plan development
- Building Type(s):** Townhouse, multiplex, fourplex, duplex

TOD Precedents

118 FLATS Cleveland, Ohio

Year Completed: 2013

- Size: 0.38 acre
- Number of Floors (min/max): 3
- Number of Units: 20
- Retail / Commercial: 0 sf
- Office: 0 sf
- Hotel Rooms: 0
- Parking: 20

Dwelling Units per Acre: 53



Residential: 100%



Commercial: 0%

Project Features

- Open Space: None
- Project Cost / Funding Sources: \$4 million



Context

- Place Type Context: Village Mixed Use
- Transit Mode: BRT
- Transit Line(s): RTA: Health-line
- Distance to Station / Stop: 200'
- Development Type: Single lot infill
- Building Type(s): Townhouse

TOD Precedents

TAKOMA CENTRAL Takoma, Maryland

Year Completed: 2015

Size: 1.13 acres

Number of Floors (min/max): 5

Number of Units: 150

Retail / Commercial: 10,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 116



Residential: 90%



Commercial: 10%

Project Features

Open Space: Courtyard



Context

Place Type Context: Village Mixed Use

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 600'

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

GREENBRIDGE COMMONS Cleveland, Ohio

Year Completed:

- SCAG Region
- California
- United States**
- International

Size: 1.1 acres

Number of Floors (min/max): 4

Number of Units: 70

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 22

Dwelling Units per Acre: 64



Residential: 100%



Commercial: 0%

Project Features

Open Space: None

Project Cost / Funding Sources: \$11 million

Special Considerations: Supportive housing



Context

Place Type Context: Village Mixed Use

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 700'

Development Type: Single lot infill

Building Type(s): Stacked units

TOD Precedents

FRUITVALE TRANSIT VILLAGE Oakland, California

Year Completed: 2004

Size: 3.6 acres

Number of Floors (min/max): 3 / 4

Number of Units: 47

Retail / Commercial: 40,000 sf

Office: 114,000 sf

Hotel Rooms: 0

Dwelling Units per Acre: 13



Residential: 70%



Commercial: 30%

Project Features

Open Space: Central Plaza



Context

Place Type Context: Village Commercial

Transit Mode: Local Rail

Transit Line(s): BART: Blue, Yellow, Green

Distance to Station / Stop: 100'

Development Type: Multi-building development block

Building Type(s): Podium Mid Rise

TOD Precedents

VICTORY BUILDING Cleveland, Ohio

Year Completed: 2013

Size: 3.24 acres

Number of Floors (min/max): 4

Number of Units: 0

Retail / Commercial: 11,000 sf

Office: 150,000 sf

Hotel Rooms: 0

Parking: 225

Dwelling Units per Acre: 0



FAR: 1.2



Residential: 80%

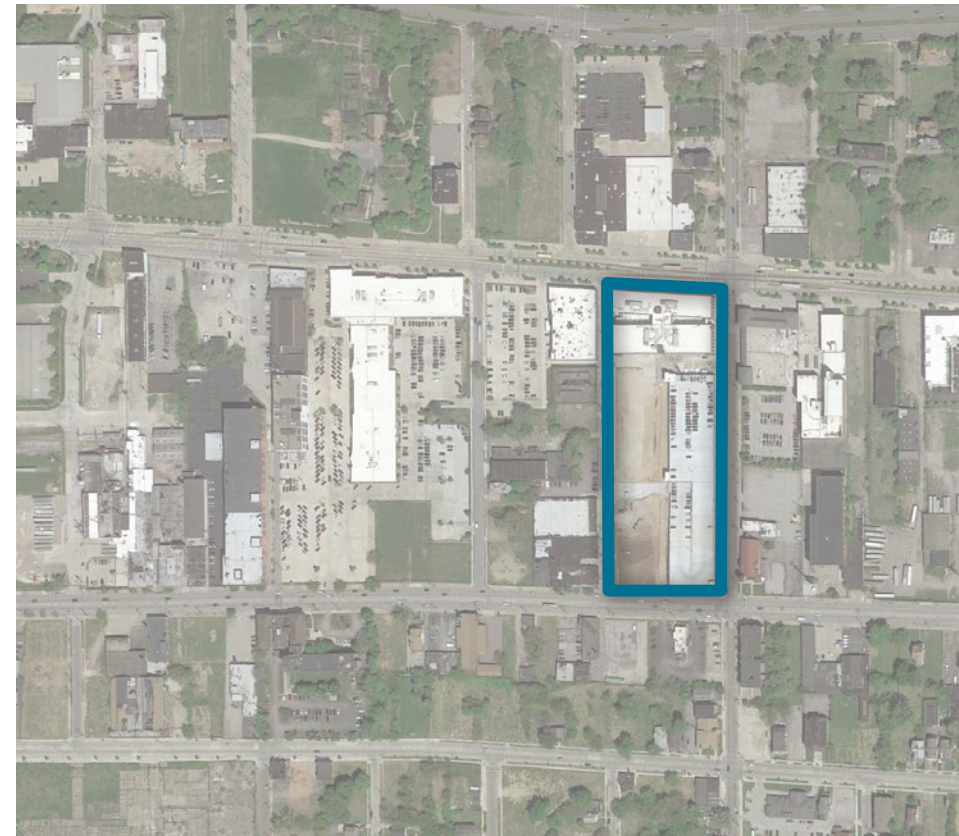


Commercial: 20%

Project Features

Open Space: None

Project Cost / Funding Sources: \$26 million / \$1 million Job Ready Site grant by the State of Ohio as well as a \$4.2 million State Historic Tax Credit award



II-C-E-39

Context

Place Type Context: Village Commercial

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 50'

Development Type: Adaptive Reuse

Building Type(s): Loft Building

TOD Precedents

MIDTOWN TECH PARK Cleveland, Ohio

Year Completed: 2011

Size: 6 acres

Number of Floors (min/max): 2

Number of Units: 0

Retail / Commercial: 0 sf

Office: 128,000 sf

Hotel Rooms: 0

Dwelling Units per Acre: 0

100 +	51 - 99	13 - 50	< 12
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FAR: 0.5

3.0 +	2.0 - 2.9	1.0 - 1.9	< 1
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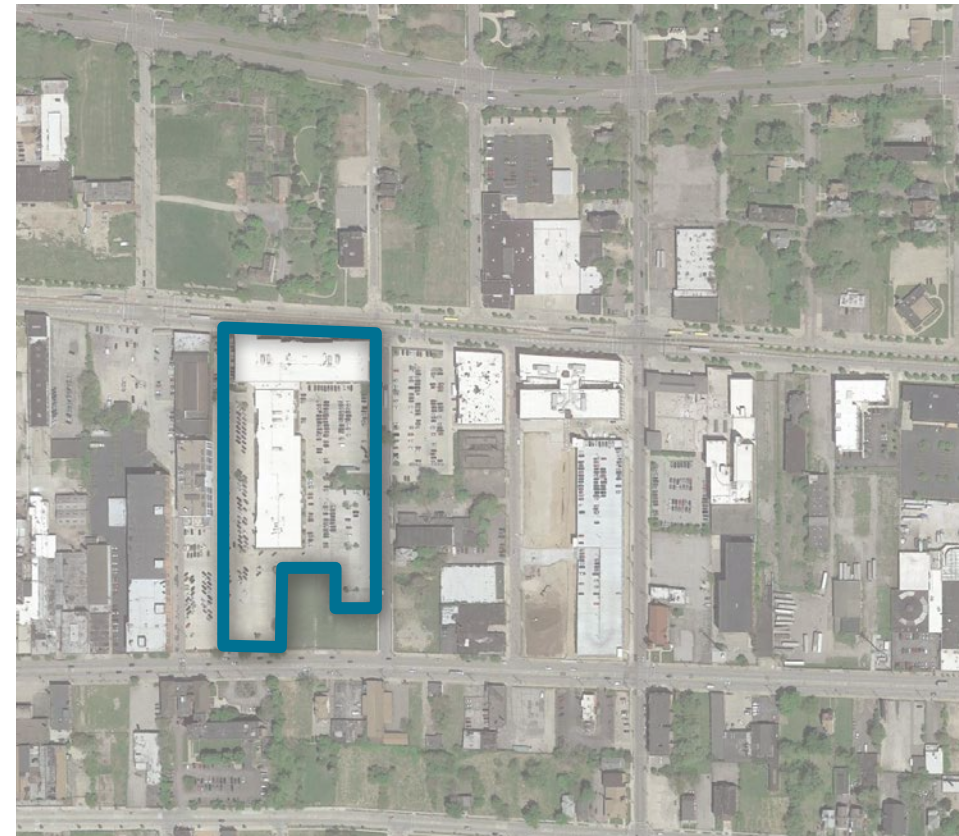
Residential: 0%



Commercial: 100%

Project Features

Open Space: None



Context

Place Type Context: Village Commercial

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 50'

Development Type: Development block

Building Type(s): Flex Building

TOD Precedents

METRO VILLAGE Takoma, Maryland

Year Completed: 2017

Size: 1.13 acres

Number of Floors (min/max): 5

Number of Units: 150

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 39

Dwelling Units per Acre: 133



Residential: 100%

Commercial: 0%

Project Features

Open Space: Plaza, Courtyard

Special Considerations: 80% income-restricted as part of the Low Income Housing Tax Credit (LIHTC) Program, 120 of which will be affordable for residents making 60 percent or less than the Area Median Income (AMI)



II-C-E-41

Context

Place Type Context: Village Residential

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 800'

Development Type: Infill development

Building Type(s): Podium Mid Rise

TOD Precedents

RESIDENCES AT THAYER Silver Spring, Maryland

Year Completed: 2014

Size: 0.5 acres

Number of Floors (min/max): 4

Number of Units: 52

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 20

Dwelling Units per Acre: 104



Residential: 100%

Commercial: 0%

Project Features

Open Space: Plaza

Funding Sources: \$11.9 million from the Maryland Department of Housing and Community Development and \$4.5 million from the Montgomery County Housing Initiative Fund.



Context

Place Type Context: Village Residential

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 2,300'

Development Type: Single lot infill

Building Type(s): Stacked Units

TOD Precedents

METRO GATEWAY Riverside, California

Year Completed: 2017

Size: 4.26 acres

Number of Floors (min/max): 4

Number of Units: 187

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 300

Dwelling Units per Acre: 44

100 + 51 - 99 **13 - 50** < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Courtyard

SCAG Region California United States International



Context

Place Type Context: Suburban Multi-family

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: Inland Empire, 91

Distance to Station / Stop: 600'

Development Type: Development block

Building Type(s): Stacked Units

TOD Precedents

PASEOS AT MONTCLAIR NORTH Montclair, California

Year Completed: 2013

Size: 15.4 acres

Number of Floors (min/max): 3

Number of Units: 385

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Parking: 722

Dwelling Units per Acre: 25

100 + 51 - 99 **13 - 50** < 12

Residential: 100%

Commercial: 0%

Project Features

Open Space: Central park, paseo

Project Cost / Funding Sources: \$25.7 million / Canyon-Johnson Urban Funds provided a \$25.7 million equity investment

SCAG Region California United States International



Context

Place Type Context: High Intensity Activity Center

Transit Mode: Commuter Rail

Transit Line(s): Metrolink: San Bernardino

Distance to Station / Stop: 2,000'

Development Type: Planned development

Building Type(s): Townhouse

TOD Precedents

GROSSMONT TROLLEY CENTER

Year Completed: 2010

La Mesa, California

Size: 9.9 acres

Number of Floors (min/max): 5/6

Number of Units: 527

Retail / Commercial: 3,000 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 53



Residential: 99%



Commercial: 1%

Project Features

Open Space: Plaza, private courtyards

SCAG Region California United States International



Context

Place Type Context: High Intensity Activity Center

Transit Mode: Local Rail

Transit Line(s): MTS: Green, Orange

Distance to Station / Stop: 100'

Development Type: Multi-block development

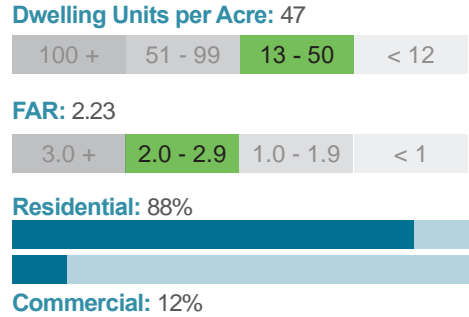
Building Type(s): Podium Block

TOD Precedents

SOUTH BAY TOWN CENTER Boston, Massachusetts

Year Expected: 2018

- Size: 10.2 acres
- Number of Floors (min/max): 6
- Number of Units: 475
- Retail / Commercial: 120,000 sf
- Office: 0 sf
- Hotel Rooms: 130
- Parking: 1,095



Project Features

Open Space: Plaza, paseo, pocket park



Context

- Place Type Context:** High Intensity Activity Center
- Transit Mode:** Commuter Rail / Local Rail
- Transit Line(s):** MBTA: Fairmount, Franklin / Red
- Distance to Station / Stop:** 1,000' / 2,400'
- Development Type:** Big box retail center redevelopment
- Building Type(s):** Podium Block, Podium Mid Rise

TOD Precedents

SOLAIRE WHEATON Wheaton, Maryland

Year Completed: 2015

Size: 1.5 acres

Number of Floors (min/max): 6

Number of Units: 232

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 154



Residential: 100%



Commercial: 0%

Project Features

Open Space: Courtyard

Special Considerations: LEED Silver; 7,000 sf of amenity space



II-C-E-47

Context

Place Type Context: High Intensity Activity Center

Transit Mode: Local/Commuter Rail

Transit Line(s): WMATA: Red

Distance to Station / Stop: 1,200'

Development Type: Development block

Building Type(s): Podium Block

TOD Precedents

EUCLID COMMONS Cleveland, Ohio

Year Completed: 2012

Size: 2.8 acres

Number of Floors (min/max): 4

Number of Units: 163

Retail / Commercial: 0 sf

Office: 0 sf

Hotel Rooms: 0

Dwelling Units per Acre: 58

100 + 51 - 99 13 - 50 < 12

FAR: 1.9

3.0 + 2.0 - 2.9 1.0 - 1.9 < 1

Residential: 100%

Commercial: 0%

Project Features

Open Space: Courtyard

Project Cost / Funding Sources: \$33.6 million

Special Considerations: Student housing; LEED Silver

SCAG Region California United States International



Context

Place Type Context: Campus / University

Transit Mode: BRT

Transit Line(s): RTA: Health-line

Distance to Station / Stop: 100'

Development Type: Development block

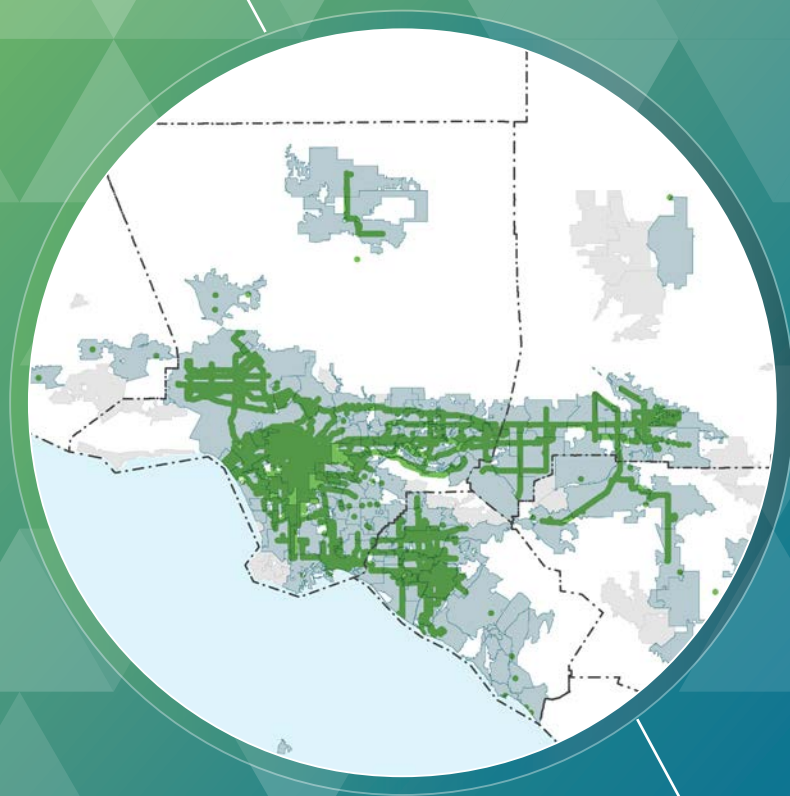
Building Type(s): Stacked Units

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Additional Resources

Funding Sources

Additional Resources

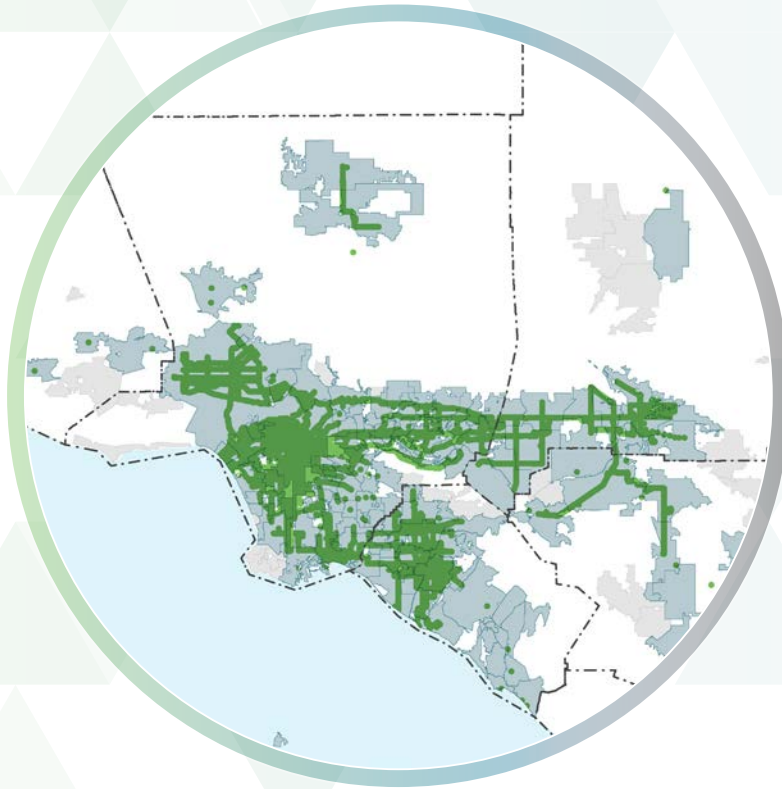


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Part III

Additional Resources

A - FUNDING SOURCES



Funding Source Categories

Summary of Funding Sources

Bicycle/Pedestrian Project Funding Sources

Urban Greening/Environmental Project Funding Sources

Parking and Transit Infrastructure Funding Sources

Major Developments Funding Sources - Economic Revitalization

Major Developments Funding Sources - Affordable Housing

District-wide Value Capture Mechanisms

Funding Source Categories

There is a wide variety of public and private funding sources and strategies that can be used to realize the TOD goals expressed in each HQTAs Vision Plan. The following pages include a list of some of these sources, grouped by the categories listed below:

- BP** Bicycle and Pedestrian
- UG** Urban Greening & Environmental
- PT** Parking and Transit Infrastructure
- ER** Major Developments (Economic Revitalization)
- AF** Major Developments (Affordable Housing)
- VC** District-wide Value Capture Mechanisms

For each Vision Plan, a tailored financial strategy with targeted funding sources is included to enable pilot project jurisdictions to focus on a specific set of sources. It is important to note that these funding sources can and often do change over time; funding programs may be canceled, new funding sources may become available, and funding availability may be decreased. There may also be new federal, state, and local resources available to cities in the coming years that could also be leveraged to implemented in each Vision Plan.

As future rounds of the HQTAs program move forward, this Toolkit will be continuously updated with additional funding sources.

Summary of Funding Sources

Sources of Funding	Applicant	Disbursement Agency	Source	Funding Type	Process
Bicycle/Pedestrian Project Funding Sources					
BP Active Transportation Program (ATP)	Cities	Metropolitan Planning Orgs. (MPO)	CalTrans	Grant	Call for Projects
BP Measure M - Metro Active Transportation Program	Cities	LA Metro	Sales Tax	Discretionary Funds	Competitive
BP Local Returns Program (LA County)	Cities	LA Metro	Sales Tax	Grant	Formula
BP Transportation Development Act (Article 3)	Transit Agencies/City	LA Metro	Retail Sales Tax	Grant	Formula
BP Bicycle and Pedestrian Facilities Program SB-821	Local Jurisdictions	RCTC	LFT Funds	Grant	Call for Projects
BP Measure I - Local Streets	Cities	SBCTA	Sales Tax	Grant	Formula
BP Safe Routes to School	Cities/Counties	CalTrans	State+Federal	Grant	Competitive
BP Sustainable Transportation Planning Grant Program	Cities	MPOs	CalTrans	Planning Grant	Competitive
BP Surface Transportation Block Grant (FAST Act)	Cities	MPOs	FHWA	Grant	Formula
BP Congestions Mitigation and Air Quality Improvement Program (CMAQ)	Cities	MPOs	FHWA	Grant	Formula
Urban Greening/Environmental Project Funding Sources					
UG CalFIRE CCI Grants - Urban and Community Forestry Program	Cities	Dept. of Forestry and Fire Protection	CCI	Grant	Competitive
UG California Urban Greening Grant Program	Cities, Counties, others	California Natural Resources Agency	CCI	Grant	Competitive
UG Congestions Mitigation and Air Quality Improvement Program (CMAQ)	Cities	MPOs or State	FHWA	Grant	Formula
UG Community Development Block Grant (CDBG)	Cities/Developers	Cal. Dept. of Housing & Comm. Dev. (CAHCD)	US-HUD	Grant	Competitive
UG Affordable Housing and Sustainable Communities (AHSC) Program	Developers	CAHCD	Cap&Trade	Loan/Grant	Competitive
UG Infill Infrastructure Grant Program (IIG)	Developers	Cities	CAHCD	Grant	Competitive
Parking and Transit Infrastructure Funding Sources					
PT Proposition C - Transit Centers, Park-n-Ride	Developers	LA Metro	Sales Tax	Grant	Call for Projects
PT FTA Section - 5310, 5316, 5317 Programs	Transit Agencies/Cities	LA Metro	FTA	Grant	Competitive
PT BEYOND Framework Funds Program	Member Agencies	WRCOG		Grant	Formula
PT Local Transit Funds (LTF) Transportation Development Act (TDA) SB 325	Cities	Cities and counties	CalTrans	Grant	Discretionary
PT Cap and Trade - Transit and Intercity Rail Capital Program	Cities	MPOs, municipalities, counties	CalTrans	Grant	Call for Projects
PT Cap and Trade - Low Carbon Transit Operations Program (LCTOP)	Cities	Transit Agencies	CalTrans	Grant	Competitive
PT Buses and Bus Facilities Grant Program - 5339	Cities	Transit Agencies (Bus)	FTA	Grant	Formula/Competitive
PT Urbanized Area Formula Grants - 5307	Cities	MPOs and Transit Agencies	FTA	Capital/Planning Grant	Formula
PT California Infrastructure State Revolving Loan Fund (I-Bank)	Cities	Several (see details)	State of Cal	Financing	Rolling Applications
PT Transportation Infrastructure Finance and Innovation Act (TIFIA)	Cities	Several (see details)	USDOT	Financing/Guarantee	Rolling applications
PT Pilot Program for TOD Planning funded by CIG program	Cities	Cities, Local Govt., and Transit Ag.	FTA	Planning Grant	Competitive
PT Capital Investment Grant (Small Starts) - 5309	Cities	Transit Agencies	FTA	Grant	Discretionary

Summary of Funding Sources

Sources of Funding	Applicant	Disbursement Agency	Source	Funding Type	Process
Major Developments Funding Sources - Economic Revitalization					
ER New Markets Tax Credit	Developer	Local Community Development Entities (CDEs)	US-Treasury	Financing	Competitive
ER Community Development Block Grant (CDBG)	Developers	Cities and Counties	US-HUD	Grant	Formula
ER CDBG - Section 108 Loan Guarantee Program	Cities	Local or State Government	US-HUD	Guarantee	Competitive
ER Historical Preservation Tools - Historic Rehabilitation Tax Credit	Developer	Cities	US Parks	Financing	Rolling Applications
ER California Infrastructure State Revolving Loan Fund (I-Bank)	Cities	Several (see details)	State of Cal	Financing	Rolling Applications
ER California Organized Investment Network (COIN)	Cities	Insurance companies	CA -Insurance	Financing	Rolling Applications
ER Choice Neighborhood	Cities/Developers	Local Government	US-HUD	Planning/Capital Grant	Competitive
ER LA County - TOD Planning Grant Program	Cities	LA Metro		Planning Grant	Call for Projects
ER EB-5 Immigration Visa Investment	Developer	Local Jurisdiction	USCIS	Financing	Rolling Applications
ER Public- Private Partnerships (P3)	Cities/Developers			Financing	
ER Joint Development Program	Cities/Developers	LA Metro		Financing	Competitive
Major Developments Funding Sources - Affordable Housing					
AF Low Income Housing Tax Credit (LIHTC) Program	Developers	California Tax Credit Allocation Authority (CTCAC)	US-Treasury	Financing	Competitive
AF Affordable Housing and Sustainable Communities (AHSC) Program	Developers	CAHCD	Cap&Trade	Loan/Grant	Competitive
AF HOME Investment Partnerships Program	Cities/Developers	CAHCD	US-HUD	Grant/Low-int Loan	Competitive
AF National Housing Trust Fund	Cities/Developers	CAHCD	US-HUD	Soft Loans	Competitive
AF Infill Infrastructure Grant Program (IIG)	Cities/Developers	CAHCD	US-HUD	Grant	Competitive
AF Multifamily Bond Financing	Developers	Los Angeles Community Development Commission (LACDC)		Financing	Competitive
AF Los Angeles County Housing Innovation Fund	Developers	LACDC		Financing	Competitive
District-wide Value Capture Mechanisms					
VC Transportation utility fees					
VC Parking Fees/Congestion Pricing					
VC Development Impact Fee					
VC Special Assessment District					
VC Enhanced Infrastructure Finance Districts					
VC Community Revitalization and Investment Authorities (CRIA)					
VC Debt Tools					

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>BP Active Transportation Program (ATP) Applicant: Cities Disbursement Agency: MPOs Source: CalTrans Funding Type: Grant Process: Call for Projects</p>	<p>On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program</p>	<p>Increase the proportion of trips accomplished by biking and walking; increase safety and mobility for non-motorized users; advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals, pursuant to SB 375 (Of 2008) and SB 341 (of 2009); Enhance public health; Ensure that disadvantaged communities fully share in the benefits of the program, and Provide a broad spectrum of projects to benefit many types of active transportation users.</p>	<p>40% to metropolitan planning organizations in urban areas with populations greater than 200,000, in proportion their relative share of population. 10%to small urban and rural regions with populations of 200,000 or less. 50%to projects awarded on competitive statewide basis.</p>	<p>Highly applicable for funding TOD-enabling infrastructure.</p>
<p>BP Measure M - Metro Active Transportation Program Applicant: Cities Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Discretionary Funds Process: Competitive</p>	<p>Approximately \$17 million of annual Measure M active transportation funding exists in the new Measure M 2% Active Transportation Program (2% ATP). A key reason Investing in Place and other advocates championed Measure M in 2016 was the creation of the first ever regional funding for walking, biking, vision zero, crosswalks and sidewalks.</p>	<p>Metro introduced a 2% ATP cash flow analysis, which essentially divided up the fund into four main categories: First/Last mile, LA River Bike Path, Bike Share, and Metro Bike and Pedestrian Programs. Each category includes funding allocations for the next five fiscal years.</p>	<p>The funding has been accounted for all the LA County regions. The active transportation projects will be funded through a competitive process and a local match.</p>	<p>Funding available in the near term.</p>
<p>BP Local Returns Program (LA County) Applicant: Cities Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Grant Process: Formula</p>	<p>The Proposition A, Proposition C and Measure R Local Return programs are three one-half cent sales tax measures approved by Los Angeles County voters to finance a countywide transit development program. By ordinance, LA Metro is responsible for administering the programs and establishing guidelines.</p>	<p>Over 50% of local return funds are invested in local public transit. In addition to funding transit services, cities use their Local Return funds to improve and maintain local streets. The Local Return Program also enables local governments to provide other essential local components of our overall transportation system, such as bus stops, park and ride lots, bicycle access, pedestrian access and safety and security.</p>	<p>Local Return funds are allocated and distributed monthly to jurisdictions on a "per capita" basis by Metro. Eligible expenditures are outlined in the Metro's Adopted Local Return Program Guidelines.</p>	
<p>BP Transportation Development Act (Article 3) Applicant: Transit Agencies/Cities Disbursement Agency: LA Metro Source: Retail Sales Tax Funding Type: Grant Process: Formula</p>	<p>Transportation Development Act, Article 3 funds are used by cities within Los Angeles County for the planning and construction of bicycle and pedestrian facilities. A Local Transportation Fund (LTF) for each county derived from ¼ cent of the 7.25 cent statewide retail sales tax. The funds are apportioned to each county by the State Board of Equalization according to the amount of tax collected in the county.</p>	<p>TDA funds can be used for a wide variety of bike and pedestrian facilities such as right-of-way acquisition; construction costs, retrofitting bike and pedestrian amenities, route safety improvements, and bike infrastructure.</p>	<p>Local agencies may either draw down these funds or place them on reserve. Agencies must submit a claim form to LA Metro by the end of the fiscal year in which they are allocated. Failure to do so may result in the lapse of these allocations.</p>	

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>BP Bicycle and Pedestrian Facilities Program SB-821 Applicant: Transit Agencies/Cities Disbursement Agency: RCTC Source: Local Transportation Fund (LFT) Funding Type: Grant Process: Call for Projects</p>	<p>Each year 2% of the Local Transportation Fund (LTF) revenue is made available for use on bicycle and pedestrian facility projects through the Commission's SB 821 Program.</p>	<p>Eligible projects include sidewalks, access ramps, bicycle facilities, and bicycle plan development.</p>	<p>All of the cities and the county of Riverside are notified of the SB-821 program estimate of available funding and are requested to submit project proposals. An evaluation committee composed of the Technical Advisory Committee makes recommendations for projects and funding award amounts to the Commission for their final approval.</p>	
<p>BP Measure I - Local Streets Applicant: Cities Disbursement Agency: SBCTA Source: Sales Tax Funding Type: Grant Process: Formula</p>	<p>Measure I is a half-cent sales tax collected throughout San Bernardino County for transportation improvements. In 2004, San Bernardino County voters overwhelmingly approved the extension of the Measure I sales tax through 2040.</p>	<p>Program receives 20% of revenue collected in the San Bernardino Valley Subarea, includes funds for local street repair and improvements. Program funds can be used flexibly for any eligible transportation purpose determined to be a local priority, including local streets, major highways, state highway improvements, freeway interchanges and other improvements to maximize the use of transportation facilities.</p>	<p>Funds distributed to cities and the County on a per capita basis. Annually each jurisdiction develops a Five Year Capital Improvement Plan for Local Streets Projects that is consistent with local, regional, and State transportation plans.</p>	<p>Funds are disbursed to local jurisdictions monthly upon receipt of the annually adopted Local Street Five Year Plan.</p>
<p>BP Safe Routes to School (State & Federal) Applicant: Cities/Counties Disbursement Agency: CalTrans Source: State (AB-57); Federal (MAP-21) Funding Type: Grant Process: Apportionment/Competitive</p>	<p>The program's aim is to increase the number of children who walk or bicycle to school by funding projects that remove the barriers that currently prevent them from doing so. Those barriers include lack of infrastructure, unsafe infrastructure, lack of programs that promote walking and bicycling through education/encouragement programs aimed at children, parents, and the community.</p>	<p>The SR2S program funds construction projects to improve the safety of students who walk or bike to school. Improvements must be made on public property. The facilities should include pedestrian facilities, traffic calming, traffic control devices, bike facilities, and public outreach.</p>	<p>Funds will be apportioned to each Caltrans District on the basis of student enrollment as determined by the California Department of Education.</p>	
<p>BP Sustainable Transportation Planning Grant Program Applicant: Cities Disbursement Agency: MPOs and others Source: Caltrans (from FHWA) Funding Type: Planning Grant Process: Competitive</p>	<p>Strategic Partnership Program offers funding for transportation planning studies in partnership with CalTrans to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.</p>	<p>Planning goals include; 1) improve multimodal mobility and accessibility for all people; 2) preserve the multimodal transportation system; 3) support vibrant economy; 4) foster livable and healthy communities and promote social equity; and 5) practice environmental stewardship</p>	<p>CalTrans releases annual statewide notice of funding availability for planning grants which are available to MPOs.</p>	<p>Highly competitive program.</p>

Bicycle/Pedestrian Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>BP Surface Transportation Block Grant (FAST Act) Applicant: Cities Disbursement Agency: MPOs Source: FHWA (FAST Act) Funding Type: Grant Process: Formula</p>	<p>The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.</p>	<p>STBG funds cannot be used from local roads and collectors; but can be used for pedestrian and bike projects among many others. The STBG requires all the Surface Transportation Program eligibilities and in addition, requires states to create and operate an office to design, implement, and oversee P3 initiatives.</p>	<p>A percentage of a State's STBG apportionment (after set-asides for Transportation Alternatives) is to be obligated in the following areas in proportion to their relative shares of the State's population.</p>	<p>Funds allocated to MPOs based on population.</p>
<p>BP Congestions Mitigation and Air Quality Improvement Program (CMAQ) Applicant: Cities Disbursement Agency: MPOs Source: FHWA (FAST Act) Funding Type: Grant Process: Formula</p>	<p>Funds may be used for a transportation project or program that is likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution.</p>	<p>Funds may be used for transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution, and be included in the Metropolitan Planning Organization's (MPO's) current transportation plan and transportation improvement program (TIP) or the current state transportation improvement program (STIP) in areas without an MPO.</p>	<p>FAST Act directs FHWA to apportion funding as a lump sum for each State then divide that total among apportioned programs. Once each State's combined total apportionment is calculated, funding is set-aside for the State's CMAQ Program.</p>	<p>Improvement in air quality from project required.</p>

Urban Greening/Environmental Project Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>UG Urban and Communities Forestry Grants Program Applicant: Cities/Counties Disbursement Agency: Dept. of Forestry and Fire Source: CCI (from Cap&Trade) Funding Type: Grant Process: Competitive</p>	<p>Through the California Climate Investments (CCI) Urban & Community Forestry Grant Program, CAL FIRE works to optimize the benefits of trees and related vegetation through multiple-objective projects</p>	<p>These projects further the goals of the California Global Warming Solutions Act of 2006 (AB 32), result in a net greenhouse gas benefit, and provide environmental services and cost-effective solutions to the needs of urban communities and local agencies. Co-benefits of the projects include increased water supply, clean air and water, reduced energy use, flood and storm water management, recreation, urban revitalization, improved public health, and producing useful products such as bio-fuel, clean energy, and high quality wood.</p>		
<p>UG California Urban Greening Grant Program Applicant: Cities/Counties Disbursement Agency: CA Natural Resources Agency Source: CCI (from Cap&Trade) Funding Type: Grant Process: Competitive</p>	<p>This new program is a competitive program that supports projects that reduce GHG emissions by establishing and enhancing parks and open space; greening lands and structures; establishing green streets and alleyways; using natural solutions to improve air and water quality and reduce energy consumption; and creating more walkable and bikeable trails that enable residents to access work, schools and commercial centers without having to drive automobiles.</p>	<p>Eligible urban greening projects will reduce GHG emissions and provide multiple additional benefits, including, a decrease in air and water pollution or a reduction, conversion of an existing built environment into green space, incorporate green infrastructure solutions that improve sustainability.</p>	<p>The applicant is required to submit an application, which is evaluated by the state and projects are selected that are likely to make the maximum impact.</p>	
<p>UG Infill Infrastructure Grant Program (IIG) Applicant: Developers Disbursement Agency: Cities Source: CAHCD Funding Type: Grant Process: Competitive</p>	<p>Funded by Proposition (Prop 1C) 1C, the Housing and Emergency Shelter Trust Fund Act of 2006, the primary goal is to promote infill housing development.</p>	<p>IIG is grant assistance, available as gap funding to infrastructure improvements required for specific residential or mixed-use infill development. IIG serves to aid in new construction and rehabilitation of infrastructure that supports higher-density affordable and mixed-income housing in locations designated as infill.</p>	<p>Funds are allocated through a competitive process, based on the merits of the individual infill projects and areas. Some of the application selection criteria includes housing density, project readiness, access to transit, proximity to amenities, and housing affordability.</p>	<p>Funding only for qualifying infill project</p>

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>PT Proposition C - Transit Centers, Park-n-Ride Applicant: Developers Disbursement Agency: LA Metro Source: Sales Tax Funding Type: Grant Process: Call for Projects</p>	<p>A voter-enacted (1990) ½-cent sales tax for public transit purposes.</p>	<p>Capital costs of transit centers including facilities, access improvements, landscaping, bike lockers, rehabilitation, and other amenities. Capital costs and rehabilitation of park-and-ride lots, including freeway bus stops incorporated into a transit center or park-and-ride lot, used exclusively by transit and ride-sharing patrons during normal working hours.</p>	<p>Funds flow to Metro which allocates to itself and other agencies according to the Metro Formula Allocation Procedure, the Metro Call for Projects, and Metro Board actions. A Funding Agreement (FA) is executed for each project in the Metro Call for Projects. These funds can be leveraged by bonding for capital projects.</p>	
<p>PT FTA Section - 5310, 5316, 5317 Programs Applicant: Transit Agencies/Cities Disbursement Agency: LA Metro Source: FTA Funding Type: Grant Process: Competitive</p>	<p>Federal transit law, as amended by MAP-21, requires that projects funded under the Section 5310, Section 5316, and Section 5317 Programs are included in a locally developed, coordinated public transit-human services transportation plan. The 2016-2019 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") was formally adopted by the Metro Board of Directors in July 2015.</p>	<p>FTA grant programs include Section 5310 (Enhance Mobility of Seniors and Individuals with Disabilities Program), Section 5316 (Job Access and Reverse Commute Program), and Section 5317 (New Freedom Program).</p>	<p>The solicitation is a competitive selection process that will result in the award of available federal grants apportioned by the Federal Transit Administration (FTA) to eligible agencies through Metro. Approved awards will be authorized by way of fully executed Funding Agreement by/between successful applicant and Metro.</p>	
<p>PT BEYOND Framework Funds Program Applicant: Member Agencies Disbursement Agency: WRCOG Source: Funding Type: Grant Process: Formula</p>	<p>BEYOND is an economic development and sustainability local assistance funding program designed to enable member agencies to develop and implement plans and programs aimed at improving quality of life in Western Riverside County.</p>	<p>Agencies may ask request the funds: 1) To develop plans and/or implement projects; 2) To provide a match for grants and other funding opportunities; and 3) To pool resources with other member agencies for larger projects that affect economic development, water, education, environment, health, and transportation.</p>	<p>The BEYOND Core funding is a non-competitive, fixed amount of funding available to member agencies. Once approved of Core funding, members can apply for project-based funding.</p>	
<p>PT Local Transit Funds (LTF) Transportation Development Act (TDA) SB 325 Applicant: Cities Disbursement Agency: Cities and Counties Source: CalTrans Funding Type: Grant Process: Discretionary</p>	<p>Local Transportation Fund (LTF), is derived from a ¼ cent of the general sales tax collected statewide. The State Board of Equalization, based on sales tax collected in each county, returns the general sales tax revenues to each county's LTF. Each county then apportions the LTF funds within the country based on population.</p>	<p>These funds can be used for transit capital expenditures, operations, or a combination thereof. Standard practice is LTF funds are assumed to be used for operations first, then as a local match for federally funded capital projects when State Transit Assistance (STA) funds can't be used.</p>	<p>It is a three-step process: (1) apportionment, (2) allocation, and (3) payment. Annually, the Transportation Planning Agencies (TPAs) determine each area's share of the anticipated LTF.</p>	<p>Allocation discretionary action by regional planning organization.</p>

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>PT Cap and Trade - Transit and Intercity Rail Capital Program Applicant: Cities Disbursement Agency: MPOs Source: CalTrans Funding Type: Grant Process: Call for Projects</p>	<p>The Transit and Intercity Rail Capital Program (TIRCP) to provide grants from the Greenhouse Gas Reduction Fund to fund transformative capital improvements that will modernize California's intercity, commuter, and urban rail systems, and bus and ferry transit systems to reduce emissions of greenhouse gases by reducing congestion and vehicle miles traveled throughout California.</p>	<p>Primary Criteria: Reduce GHG emissions; Increase ridership; Integrate the services of the State's various rail and transit operations; Improve safety. Secondary Criteria: Reducing VMT; Promoting housing development near transit; Improve area for more jobs and housing to increase locational efficiency; Expanding existing rail and public transit systems; Enhancing the connectivity, integration, and coordination of the State's various transit agencies; Implementing clean vehicle technology.</p>	<p>Apply to TIRCP call for projects.</p>	<p>Requires an EIR for high rating in the competitive process.</p>
<p>PT Cap and Trade - Low Carbon Transit Operations Program (LCTOP) Applicant: Cities Disbursement Agency: Transit Agencies Source: CalTrans Funding Type: Grant Process: Competitive</p>	<p>The Low Carbon Transit Operations Program (LCTOP) is one of several programs that are part of the Transit, Affordable Housing, and Sustainable Communities Program established by the California Legislature in 2014 by Senate Bill 862.</p>	<p>The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities.</p>	<p>(1) Lead agency must be listed on SCO letter. (2) Verify the project is in the list of eligible projects. (3) Verify project meets criteria. (4) Submit required documents requested in LCTOP guidelines.</p>	<p>Applicable for all transit projects. But needs commitment from other funding sources.</p>
<p>PT Buses and Bus Facilities Grant Program - 5339 Applicant: Cities Disbursement Agency: Transit Agencies (Buses) Source: FTA Funding Type: Grant Process: Competitive</p>	<p>The Bus & Bus Facilities Infrastructure Investment Program makes federal resources available to states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.</p>	<p>FTA will prioritize projects that demonstrate how they will address significant repair and maintenance needs, improve the safety of transit systems, deploy connective projects that include advanced technologies to connect bus systems with other networks and support the creation of ladders of opportunity.</p>	<p>Funds remain available for obligation for four fiscal years. This includes the fiscal year in which the amount is made available or appropriated plus two additional years.</p>	<p>Valley Transit authority and Metrolink could apply for this. Funding is provided through formula allocations and competitive grants.</p>
<p>PT Urbanized Area Formula Grants - 5307 Applicant: Cities Disbursement Agency: MPOs/Transit Agencies Source: FTA Funding Type: Capital/ Planning Grant Process: Formula</p>	<p>The Urbanized Area Formula Funding program makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.</p>	<p>Funds are primarily used for operations and maintenance but can be used for capital projects, including the purchase of vehicles. Eligible activities include: planning, engineering, design and evaluation of transit projects and other technical transportation-related studies.</p>	<p>Funding is allocated via formulas. Funds requires a 20% local match. Future funds can potentially be bonded under the Certificate of Participation Program.</p>	

Parking and Transit Infrastructure Funding Sources

Sources of Funding	Overview	Criteria	Process	Considerations
<p>PT California Infrastructure State Revolving Loan Fund (I-Bank) Applicant: Cities Disbursement Agency: State of California Source: Funding Type: Financing Process: Rolling Application</p>	<p>The ISRF Program provides financing to public agencies and non-profit corporations sponsored by public agencies for a wide variety of infrastructure and economic development projects (excluding housing). ISRF Program funding is available in amounts ranging from \$50,000 to \$25 million, with loan terms for the useful life of the project up to a maximum of 30 years.</p>	<p>Applicant must demonstrate project readiness and feasibility to complete construction within 2 years after the I-Bank's financing approval. In this context, "complete a project" the portion of the project financed by the I-Bank must meet construction contract specifications for completeness and/or ability to operate.</p>	<p>Funding applications are continuously accepted. The I-Bank Board of Directors makes the financing decision. Examples of eligible sources of financing repayment includes: Enterprise/ Sewer Special Funds, leases of Borrower assets, property taxes or property-related assessments, voter-approved General Fund debt.</p>	<p>Financing option for project rather than funding source. All other funding sources must be committed prior to financing approval.</p>
<p>PT Transportation Infrastructure Finance and Innovation Act (TIFIA) Applicant: Cities Disbursement Agency: Caltrans Source: USDOT Funding Type: Financing/Guarantee Process: Rolling Application</p>	<p>Strategic goal of the TIFIA is to leverage limited Federal resources and stimulate capital market investment in transportation infrastructure by providing credit assistance in the form of direct loans, loan guarantees, and standby lines of credit (rather than grants) to projects of national or regional significance.</p>	<p>The TIFIA credit program offers three distinct types of financial assistance – direct loans, loan guarantees, and standby lines of credits. Major criteria include creditworthiness; foster partnerships that attract public and private investment for the project; ability to proceed at an earlier date or reduced lifecycle costs; Reduces contribution of federal grant assistance to the project; construction contracting process can commence no more than 90 days from execution of a TIFIA credit instrument.</p>	<p>DOT reviews creditworthiness of project sponsor (sponsor must pay \$100,000) and then DOT may request oral presentation. DOT will evaluate and give recommendation to DOT Credit Council, DOT Credit Council makes recommendation to the Secretary. DOT will notify sponsor if project is approved. Project sponsor must satisfy all program requirements, DOT will issue term sheet, credit agreement, and will disburse funds.</p>	<p>Source of credit assistance, but needs a revenue source to service the debt payments. Applicable for Parking Structure/Districts.</p>
<p>PT Pilot Program for TOD Planning funded by CIG Program Applicant: Cities Disbursement Agency: Caltrans Source: USDOT Funding Type: Planning Grant Process: Competitive</p>	<p>The Pilot Program for TOD Planning helps support FTA's mission of improving public transportation for America's communities by providing funding to local communities to integrate land use and transportation planning with a transit capital investment that is seeking or recently received funding through the Capital Investment Grant (CIG) Program.</p>	<p>Comprehensive planning funded through the program must examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations.</p>	<p>Competitive funding application</p>	<p>MetroLink could apply for this. LA Metro got for WSAB corridor.</p>
<p>PT Capital Investment Grant (Small Starts) - 5309 Applicant: Cities Disbursement Agency: Transit Agencies Source: FTA Funding Type: Grant Process: Discretionary</p>	<p>This is FTA's primary grant program for funding major transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. It is a discretionary grant program unlike most others in government.</p>	<p>Project Justification Criteria: Mobility improvements; Environmental benefits; Congestion relief; Cost-effectiveness; Economic development; Supportive land uses and land use policy. Financial Commitment Criteria: Current financial conditions of project operator; Commitment of funds; Financial capacity and reasonableness of assumptions.</p>	<p>Application to Small Starts required. Instead of an annual call for applications and selection of awardees by the Federal Transit Administration (FTA), the law requires that projects seeking CIG funding complete a series of steps over several years to be eligible for funding.</p>	<p>Highly competitive and requires commitment from other non-federal sources.</p>

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
<p>ER New Markets Tax Credit Applicant: Developer Disbursement Agency: Local CDEs Source: US-Treasury Funding Type: Financing Process: Competitive</p>	<p>The NMTC Program incentivizes community development and economic growth through the use of tax credits that attract private investment to distressed communities. The NMTC Program enables the Community Development Financial Institution (CDFI) to allocate tax credit authority to Community Development Entities (CDEs) through a competitive application process. CDEs use their authority to offer tax credits to investors in exchange for equity in the CDE. Using the capital from these equity investments, CDEs can make loans and investments to businesses operating in low-income communities on better rates and terms and more flexible features than the market.</p>	<p>The NMTC Program enables the Community Development Financial Institution (CDFI) to allocate tax credit authority to Community Development Entities (CDEs) through a competitive application process. Funding can be used only for commercial development such as manufacturing, food, retail, housing, health, technology, energy, education, and childcare.</p>	<p>NMTC process begins with applying for a CDE certification. Next, the CDE will need to apply to the current Allocation round, which typically begins in May and awards are announced in the winter of the same year. Once the awards are announced, the allocation agreement has to be closed. The final step is an ongoing reporting and compliance documentation.</p>	<p>Creating a separate entity is critical for accessing NMTC dollars.</p>
<p>ER Community Development Block Grant (CDBG) Applicant: Developer Disbursement Agency: Cities and Counties Source: US-HUD Funding Type: Grant Process: Formula</p>	<p>The Community Development Block Grant (CDBG) is a flexible program that provides communities with resources to address a wide range of unique community development needs. The CDBG program works to ensure decent affordable housing, to provide services to the most vulnerable in our communities, and to create jobs through the expansion and retention of businesses.</p>	<p>Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons. In addition, each activity must meet one of the following national objectives for the program: 1) benefit low- and moderate-income persons, 2) prevention or elimination of slums or blight, or 3) address community development needs having a particular urgency.</p>	<p>The annual CDBG appropriation is allocated between States and local jurisdictions based on a formula comprised of several measures of community need, including the extent of poverty, population, housing overcrowding, age of housing, and population growth lag in relationship to other metropolitan areas.</p>	<p>Directly disbursed to counties and cities based on formula.</p>
<p>ER CDBG - Section 108 Loan Guarantee Program Applicant: Cities Disbursement Agency: Local Govt. or State Source: US-HUD Funding Type: Loan Guarantee Process: Competitive</p>	<p>Section 108 offers state and local governments the ability to transform a small portion of their Community Development Block Grant (CDBG) funds into federally guaranteed loans large enough to pursue physical and economic revitalization projects capable of revitalizing entire neighborhoods.</p>	<p>Source of financing for certain community development activities, such as housing rehabilitation, economic development, and large-scale physical development projects. All projects and activities must meet one of</p>	<p>The borrower will be required to secure the loan by pledging current or future CDBG allocations to either repay the loan or secure it. In addition, the borrower may be required to pledge additional security to the loan which may include property liens or other collateral.</p>	

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
<p>ER Historical Preservation Tools - Historic Rehabilitation Tax Credit Applicant: Developers Disbursement Agency: Cities Source: US Parks Funding Type: Financing Process: Rolling Application</p>	<p>The Federal Historic Rehabilitation Tax Credit program is administered by the National Park Service and the State Office of Historic Preservation.</p>	<p>The Federal Historic Preservation Tax Incentives Program encourages private investment in the re-use of historic buildings. The program provides for a 20% income tax credit for the rehabilitation of income-producing buildings that are “certified historic structures.” A smaller tax credit (10%) is available for non-certified buildings constructed before 1936.</p>	<p>Building owners must complete a three-part application process to qualify for the credit. In Part 1, the applicant verifies that the property is listed in or eligible for the National Register. Part 2 provides a description of the proposed work for approval, utilizing the Secretary of the Interior’s Standards for Rehabilitation. Part 3 compares the actual project work with the Part 2 description and verifies that the project has met the Standards.</p>	<p>Only applicable to income-producing properties.</p>
<p>ER California Organized Investment Network (COIN) Applicant: Cities Disbursement Agency: Insurance Companies Source: CA Insurance Funding Type: Financing Process: Rolling Application</p>	<p>COIN is a collaborative effort between the California Department of Insurance, the insurance industry, and advocates for investments in low-income communities. This voluntary program facilitates insurance industry investments that benefit California’s environment and its low-to-moderate (LMI) income and rural communities.</p>	<p>COIN researches, sources, structures and certifies that investment in a wide range of innovative opportunities and deliver competitive rates of return. Investments must benefit California’s environment or its low-to-moderate income or rural communities through economic development, job creation, access to transit or healthcare or improvements in education.</p>	<p>COIN extensively researches investment opportunities for insurers and publishes Investment Bulletins for high impact or guided investments that are believed to be safe and solvent, offer competitive financial returns, and benefit California’s environment, LMI, and rural communities.</p>	<p>Attracts private investments for community economic development. Can be used for access to transit as well as healthcare and education-related development</p>
<p>ER Choice Neighborhood Applicant: Cities/Developers Disbursement Agency: Local Government Source: US-HUD Funding Type: Capital/Planning Grant Process: Competitive</p>	<p>The Choice Neighborhoods program provides competitive Planning Grants and Implementation Grants to enable communities to revitalize struggling neighborhoods with distressed public housing or HUD-assisted housing through a comprehensive approach to neighborhood transformation.</p>	<p>Planning Grants enable local leaders to undertake a comprehensive planning process, working closely with housing residents, broader community members, businesses, and a range of local stakeholders. Implementation Grants support communities that have undergone a comprehensive planning process and are ready to implement their plans.</p>	<p>HUD established a mapping tool for the purposes of establishing neighborhood eligibility and to assign points for certain rating factors. This mapping tool will overlay the locally defined neighborhood boundaries with data associated with that area and estimate the rates of certain indicators in that neighborhood using a proportional allocation methodology.</p>	<p>It is competitive grant program. Notice of funding availability of announced each year. Applicants can apply for these grants.</p>

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
<p>ER LA County - TOD Planning Grant Program Applicant: Cities Disbursement Agency: LA Metro Source: Combination of various funds Funding Type: Planning Grant Process: Call for Projects</p>	<p>Metro is responsible for allocating discretionary federal, state and local transportation funds to improve all modes of surface transportation. Metro also prepares the Los Angeles County Transportation Improvement Program (TIP). A key component of TIP is the Call for Projects program, a competitive process that distributes discretionary capital transportation funds to regionally significant projects.</p>	<p>The eight modal categories of funding include regional surface transportation improvement, good movement improvements, signal synchronization and bus speed improvements, transportation demand management, bicycle improvements, pedestrian improvements, and transit capital.</p>	<p>Every other year, Metro accepts Call for Projects applications in eight modal categories. Metro staff ranks eligible projects and presents preliminary scores to Metro’s Technical Advisory Committee (TAC) and the Metro Board of Directors for review. Upon approval, the TIP is developed and formally transmitted to the regional and state transportation planning agencies. The TIP then becomes part of the five-year program of projects scheduled for implementation in Los Angeles County.</p>	
<p>ER EB-5 Immigration Visa Investment Applicant: Developer Disbursement Agency: Local Jurisdiction Source: USCIS Funding Type: Financing Process: Rolling Application</p>	<p>The EB-5 program allows foreign nationals to achieve permanent residency with an investment that will create 10 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.</p>	<p>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.</p>	<p>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.</p>	<p>The development needs to be financial attractive to attract investors.</p>
<p>ER Public- Private Partnerships (P3)</p>	<p>A public-private partnership is a contractual agreement between a public agency and a private-sector entity whereby “the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public.</p>	<p>Typically, the private entity provides the capital cost to finance the project and the public agency offers concession leases. The private partner makes upfront or ongoing payments to the public partner in exchange for developing and operating the asset, in exchange for collecting the revenue generated by the asset. There are various forms of public private partnerships depending on the nature of the project’s risks and rewards.</p>	<p>P3s are typically large, complex projects such as transportation or social infrastructure</p>	<p>P3s are applicable for all types of projects. Procurement process is complex and require multiple advisors. It is an expensive process. Transaction costs especially are a cause of concern for smaller projects.</p>

Major Developments Funding Sources - Economic Revitalization

Sources of Funding	Overview	Criteria	Process	Considerations
<p>ER Joint Development Program Applicant: Developer Disbursement Agency: LA Metro and others Source: Funding Type: Financing Process: Call for Projects</p>	<p>Joint Development is the only value capture mechanisms commonly employed by transit agencies, since the FTA has guidelines that allow certain projects to use public funding.</p>	<p>It can take many forms, ranging from an agreement to develop land owned by the transit agency to joint financing and development of a larger project that incorporates both transit facilities and private development. A joint development agreement can include a cost-sharing agreement, a revenue sharing agreement, or a combination of the two.</p>		<p>JDs require complex financial transactions. The public sector needs advanced real estate knowledge to implement JDs.</p>





Major Developments Funding Sources - Affordable Housing

Sources of Funding	Overview	Criteria	Process	Considerations
<p>AF Low Income Housing Tax Credit (LIHTC) Program Applicant: Developers Disbursement Agency: CTCAC Source: US-Treasury Funding Type: Financing Process: Competitive</p>	<p>The LIHTC enables low-income housing sponsors and developers to raise project equity through the sale of tax benefits to investors. The program is regulated and administered by the Internal Revenue, which is part of the U.S. Treasury Department. Recognizing the extremely high cost of developing housing in California, the state legislature authorized a state low income housing tax credit program to augment the federal tax credit program.</p>	<p>Only rental housing projects are eligible for tax credits in both the federal and state programs. The programs have both rent and income restrictions. Under federal law, credit projects must remain affordable for at least 30 years; however, California law generally requires a 55-year extended use period for 9% tax credit projects.</p>	<p>Most credits are sold to corporate or individual investors through public or private syndication</p>	<p>This is a financing source that only affordable housing developers can apply for.</p>
<p>AF Affordable Housing and Sustainable Communities (AHSC) Program Applicant: Developers Disbursement Agency: CAHCD Source: Cap&Trade Funding Type: Loan/Grant Process: Competitive</p>	<p>AHSC funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas ("GHG") emissions. Funding for the AHSC Program is provided from the Greenhouse Gas Reduction Fund (GGRF), an account established to receive Cap-and-Trade auction proceeds.</p>	<p>Eligible activities include affordable housing development, housing-related infrastructure, sustainable transportation infrastructure, transportation-related amenities, and program costs.</p>	<p>Applicants must submit a concept proposal which will be reviewed by the Strategic Growth Committee (SGC) and the respective MPO to rank for priority projects. Priority applicants will be invited to submit a full application.</p>	<p>Highly competitive funding source.</p>
<p>AF HOME Investment Partnerships Program Applicant: Developers/Cities Disbursement Agency: CAHCD Source: US-HUD Funding Type: Grant/Low Interest Loan Process: Competitive</p>	<p>Assist cities, counties, developers, including Native American Entities, and nonprofit community housing development organizations (CHDOs) to create and retain affordable housing.</p>	<p>Housing rehabilitation, new construction, and acquisition and rehabilitation, for both single-family and multifamily projects, and predevelopment loans to CHDOs. All activities must benefit lower-income renters or owners.</p>	<p>Grants are provided to cities and counties and low-interest loans are provided to developers. Most assistance is in the form of loans by city and county recipients to project developers to be repaid to local HOME accounts for reuse. Applications are invited through issuance of Notices of Funding Availability (NOFAs).</p>	<p>Funding for affordable housing for developers given to cities/counties.</p>
<p>AF National Housing Trust Fund (To be announced) Applicant: Developers/Cities Disbursement Agency: CAHCD Source: US-HUD Funding Type: Soft Loans Process: Competitive</p>	<p>The National Housing Trust Fund (NHTF) is a new federal program administered in California by the Department of Housing and Community Development.</p>	<p>Assist in new construction of permanent housing for extremely low-income households through deferred payment loan or forgivable loans (soft loans).</p>	<p>Applications will be invited through the issuance of Notices of Funding Availability (NOFAs). NHTF will be paired with another State program in a joint NOFA.</p>	



Major Developments Funding Sources - Affordable Housing

Sources of Funding	Overview	Criteria	Process	Considerations
<p>AF Multifamily Bond Financing Applicant: Developers Disbursement Agency: LACDC Source: Funding Type: Financing Process: Competitive</p>	<p>The County issues tax-exempt bonds to finance low- and moderate-income housing for families.</p>	<p>The projects need to adhere to the Federal and state requirements for tax-exempt multifamily housing bonds. The developers need to set aside 20 percent of the units for low-income tenants. The projects must be located in unincorporated County of Los Angeles.</p>		
<p>AF Los Angeles County Housing Innovation Fund Applicant: Developers Disbursement Agency: LACDC Source: Funding Type: Financing Process: Competitive</p>	<p>LACHIF II is a \$60 million revolving loan fund providing site acquisition and predevelopment financing for the development of affordable housing in the County of Los Angeles.</p>	<p>For creation of multifamily rental affordable housing located within the County of Los Angeles.</p>	<p>There are three originating lenders leverage LACDC's \$19.5 million to create this revolving loan fund.</p>	

District-wide Value Capture Mechanisms

Sources of Funding	Overview	Criteria	Process	Considerations
 Transportation utility fees	Transportation utility fees are assessments on property that are designed to be closely related to transportation demand and can therefore spread the costs of financing local roads or other transportation services among users in a fashion that approximates a user fee	Transportation utility fees are most commonly used for roads, but they can also be used to provide a dedicated funding source for transit systems.	The fee can be a flat fee for each property, or it can apply a formula based on units of housing, number of parking spaces, or square footage. It can also be based on the estimated trip generation rate for a property type.	Does not require voter approval. Chiefly pays for O&M costs. Requires technical feasibility and financial feasibility to cover the construction and operation costs.
 Parking Fees/Congestion Pricing	Congestion pricing is a demand management strategy which allows pricing mechanisms to control demand for services such as parking during peak hours. Congestion pricing has been successfully implemented in several dense, urban core to reduce congestion and raise funds for transportation improvements.	The revenue from the congestion pricing can be used to cover the cost of the tolling system as well as improving transit systems. Typically, congestion pricing requires state legislation and/or voter approval.		
 Development Impact Fee	Development impact fees, system development charges, and connection or facility fees are charges assessed on new development to defray the cost to the jurisdiction of extending public services to the development and cannot be used to fund existing deficiencies.	Impact Fees cannot be used to upgrade existing deficiencies in infrastructure. Fee can be exacted only after establishing reasonable relationship of development impact and impact mitigation.	The fees are generally collected once and are used to offset the cost of providing public infrastructure such as streets and utilities.	
 Special Assessment District	<p>Special districts are considered a value capture tool because they capture the value (or benefit) generated by an improvement or service to provide funding for the improvement or service.</p> <p>Special districts, which can include (but are not limited to) business improvement districts (BIDs) and Special Assessment Districts (SADs).</p> <p>Requires voter approval.</p>	Assessment districts are formed to include a geographical area in which property owners or businesses agree to pay an assessment to fund a proposed improvement or service from which they expect to directly benefit. The amount of the assessment must be directly related to the cost of the improvement and the expected benefit to the property owner.	Special districts can be used either for pay-as-you-go improvements or to finance the issuance of bonds backed by the assessment revenue. Property owners in the district pay an additional tax or fee to pay for the service or improvement in the desired timeframe or to finance a debt obligation in accordance to the property's proportional share of the benefit.	Less risky for local governments since the risk is transferred to property owners. Difficult to implement across large geographies with multiple jurisdictions. Applicable to non-revenue generating infrastructure, however, the benefit generated for the property owners should be direct.

District-wide Value Capture Mechanisms

Sources of Funding	Overview	Criteria	Process	Considerations
 Enhanced Infrastructure Finance Districts	<p>Cities, counties, and special districts can create EIFDs and issue TIF bonds (under special circumstances). An EIFD captures the incremental tax revenue generated by new development related to public capital improvement across multiple jurisdictions.</p> <p>Requires voter approval.</p>	<p>EIFDs can only capture tax revenue net of the moneys payable to school districts or educational funds, subject to approval from taxing authorities.</p> <p>An EIFD can finance traditional public works, as well as transportation, transit, parks and libraries, water and sewer facilities, solid waste disposal, and flood control and drainage. It can also be used for non-revenue generating projects such as bike and pedestrian amenities.</p>	<p>EIFDs are separate government entities, formed through a Joint Power Authority (JPA) consisting of cooperating cities, counties, and special districts. The new EIFD requires these entities to work together to make financing plans that combine a range of permitted funding sources, including tax increment bonds, that are the responsibility of all participants.</p>	<p>Obtaining approvals for EIFDs from tax authorities is challenging. Implementing and administering an EIFD can be complex.</p>
 Community Revitalization and Investment Authorities (CRIA)	<p>In 2015, Governor Jerry Brown signed a law enabling cities to establish CRIsAs, which enabled them to capture additional tax revenues for revitalization of neighborhoods. Redevelopment projects can be financed by bonds backed by future tax increment revenues derived from the project.</p>	<p>CRIsAs will be able to receive the tax increment on increased property taxes in a subject area with consent from taxing entities including the city, county, and special districts. Twenty-five percent of revenue from the tax increment must be allocated to Low- and Moderate-Income Housing Fund.</p>	<p>There are two ways to create a CRIA; 1) municipalities can directly establish an authority board; and 2) by signing a joint power agreement between city, county, and special districts. Restrictions apply to where CRIsAs can be established.</p>	<p>Creation of a CRIA needs to undergo a public hearing process and can be rejected if 50% of the owners and residents protest. Improved infrastructure in underserved communities</p>

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Part III

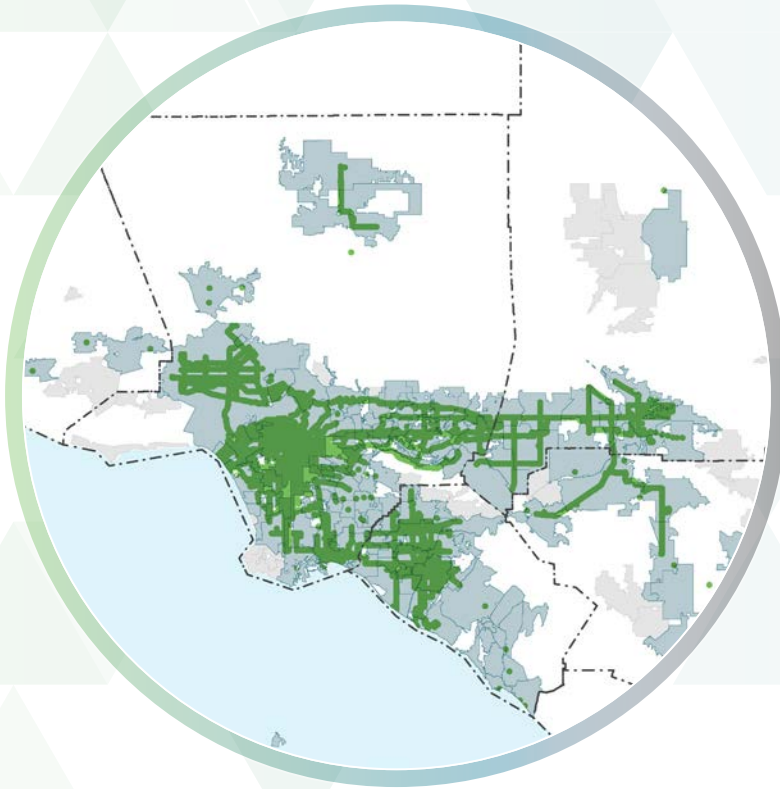
Additional Resources

B - ADDITIONAL RESOURCES

TOD Place Types - Table of Metrics

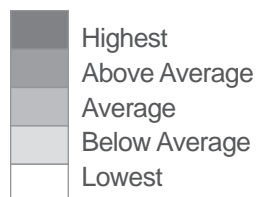
Station Survey Walking Tour

Glossary of Abbreviations



HQTA Place Types

		Land Use Mix				Built Environment			
		Residential	Employment	Mixed Use	Civic / Open Space	Intersections per mi ²	Average Floors	Floor Range	Total Net FAR
Urban	Urban Mixed Use	18%	16%	45%	21%	200	23	15 - 100	9.0
	Urban Commercial	4%	64%	12%	21%	200	18	15 - 100	6.0
	Urban Residential	64%	4%	12%	21%	200	15	5 - 60	9.0
City	City Mixed Use	28%	17%	35%	20%	200	7	3 - 40	3.4
	City Commercial	1%	82%	4%	14%	200	7	5 - 40	3.1
	City Residential	65%	4%	11%	20%	200	7	5 - 40	2.9
Town	Town Mixed Use	26%	20%	29%	25%	200	4	2 - 8	1.9
	Town Commercial	1%	69%	17%	14%	200	3	2 - 8	1.8
	Town Residential	68%	0%	10%	22%	220	3	2 - 8	1.2
Village / Suburban	Village Mixed Use	43%	14%	14%	28%	220	3	2 - 6	1.0
	Village Commercial	0%	61%	7%	32%	230	2	2 - 6	1.2
	Village Residential	74%	0%	1%	25%	180	3	2 - 5	0.9
	Suburban Multi-family	87%	0%	0%	13%	90	3	2 - 5	1.2
Special Districts	High Intensity Activity Center	14%	37%	41%	8%	130	5	5 - 40	2.5
	Industrial / Office / Residential Mixed High	58%	36%	0%	6%	60	4	1 - 17	2.0
	Office Focus	0%	82%	0%	18%	45	4	2 - 9	1.1
	Campus / University	32%	2%	0%	66%	150	8	3 - 17	1.7



Note for color shading: For Land Use Mix, Residential Mix, and Employment Mix, color shading is based on land use percentage on 100 point scale; for Built Environment and Average Density per Acre, color shading is based on value for each place type as a percentage of the highest score for each category (e.g. For the Average Floors category, the highest number of floors is 23. The shading for 18 average floors would be $18 / 23 = 78\%$ of shading for 23 floors.)

Average Density per Acre			Residential Mix			Employment Mix		
Households	Employees	Households + Employees	Single Family	Townhouse / Live-Work	Multi-family	Office	Retail	Industrial
85	266	351	0%	0%	100%	80%	20%	0%
8	402	410	0%	0%	100%	93%	7%	0%
131	44	175	0%	0%	100%	22%	78%	0%
44	85	129	0%	3%	97%	60%	40%	0%
4	200	204	0%	0%	100%	77%	23%	0%
58	14	72	0%	3%	97%	40%	60%	0%
21	50	71	0%	0%	100%	75%	25%	0%
5	75	80	0%	0%	100%	68%	32%	0%
18	12	30	0%	47%	53%	47%	53%	0%
10	14	24	30%	29%	41%	42%	58%	0%
2	40	42	0%	0%	100%	49%	51%	0%
10	2	12	52%	48%	0%	100%	0%	0%
32	2	34	0%	11%	89%	85%	15%	0%
24	69	93	0%	6%	94%	20%	80%	0%
45	42	87	0%	4%	96%	73%	16%	11%
0	65	65	0%	0%	0%	93%	2%	5%
31	22	53	0%	0%	100%	64%	36%	0%

Station Survey Walking Tour

After analyzing the HQT A area through mapping and analysis, the next step in defining the station area is a micro-level analysis of the individual blocks, street, buildings, and other individual physical elements in the half-mile station area. To understand these elements from their impact towards facilitating pedestrian activity between land uses and transit, this analysis is best completed as a survey during a walking tour. Metro developed a station survey as part of the First-Last Mile Strategic Plan to begin to assess areas of intervention. The station surveys, “Mainly qualitative, measure performance of each station/stop area. With the end goal of increasing transit ridership and user comfort, urban design elements that are most important for rider comfort and system function” are the focus of the station survey. Parts of the Metro station survey, as well as portions of other station surveys from research of best practices, comprise the station survey below. The format of the developed checklist is broad, and touches upon a range of issues faced by most station areas in the SCAG Region. The survey is organized to broadly assess the following categories: land use, mobility, safety, aesthetics/urban design, and accessibility. Each question is scored on a 1 - 5 scale.

Excellent	5 - 4
Good	3.99 - 3
Fair	2.99 - 2
Poor	1.99 - 1

	Disagree/ Lacking		Somewhat/ Adequate		Agree/ Ample
Land Use					
1. Mix of uses: Different uses that attract different people throughout the day, and week.	1	2	3	4	5
2. Limited Vacancy: There are no, or few empty storefronts.	1	2	3	4	5
3. Few auto-oriented uses: Commercial uses are not mostly located behind surface parking lots.	1	2	3	4	5
4. Location of commercial uses: Retail is concentrated near major arterials and near major transit stops/stations.	1	2	3	4	5
5. Convenient retail: Uses to serve transit users and residents (e.g. grocery, coffee, etc.)	1	2	3	4	5
Total Points _____					

Pedestrian Amenities and Legibility

6. Adequate Lighting: Lighting is regularly spaced and directed towards sidewalks/bikeways.	1	2	3	4	5
7. Eyes on the street: Windows, balconies, and entries face the street and public spaces.	1	2	3	4	5
8. Well-maintained public realm: No/minimal litter, trimmed vegetation, sidewalks in good condition.	1	2	3	4	5
9. Buffer for bikes: Bikes are adequately separated from vehicles.	1	2	3	4	5
10. Buffer for pedestrians: Pedestrians are adequately separated from vehicles e.g. by street trees, pedestrian amenities, and infrastructure.	1	2	3	4	5
11. Pedestrian appropriate traffic speeds: Slow traffic due to narrow roads; drivers yield to pedestrians.	1	2	3	4	5
12. Clear traffic signage: Traffic signage is easy to see for vehicles, bikes, and pedestrians.	1	2	3	4	5
13. Overall, the station feels comfortable: The area is perceived as safe for all users: women, children, elderly, etc.	1	2	3	4	5
Total Points _____					

Station Survey Walking Tour

	Disagree/ Lacking		Somewhat/ Adequate		Agree/ Ample
Urban Design					
14. Sense of place: Unique street characteristic, landmarks, and activity that sets space apart.	1	2	3	4	5
15. Pleasant landscaping: Well-maintained and frequent street trees that provides ample shade.	1	2	3	4	5
16. Pedestrian amenities: Variety of and frequent pedestrian amenities for rest and activity.	1	2	3	4	5
17. Building orientation and frontage: Entrances oriented to sidewalks, buildings built to sidewalk edge; buildings encourage transit access.	1	2	3	4	5
18. Architectural features and design: Visually appealing building design, materials, elements.	1	2	3	4	5
19. Active frontage and transparency: Avoid blank walls along sidewalks, active first-floor uses.	1	2	3	4	5
20. Pleasant walking environment: There is a inviting and interesting experience for all users.	1	2	3	4	5
					Total Points _____
Accessibility					
21. Sidewalks: Sidewalks are wide enough to accommodate range of uses and multiple users.	1	2	3	4	5
22. Clear, safe crossings: Intersections allow ample time to cross, are frequent, and ADA accessible.	1	2	3	4	5
23. Seamless transit mode transfer: Different modes in close proximity connected by clear paths.	1	2	3	4	5
24. Wayfinding signage: Clear view for pedestrians and bikes, provides clear information/direction.	1	2	3	4	5
25. Parking and pick-up / drop-off: Adequate number of spaces, separated from pedestrians.	1	2	3	4	5
26. Navigating public realm is easy and intuitive: Multiple pathways accessible to all users.	1	2	3	4	5
					Total Points _____
Mobility / Connectivity					
27. Street design prioritizes transit, bikes, and pedestrians: Street lanes for vehicles are minimal and narrow to encourage slow speed, separated facilities for bus, bikes, and pedestrians.	1	2	3	4	5
28. Transit station connectivity: Transit station(s) is/are clearly visible from major roadways, and have clear signage indicating routes and transfer opportunities.	1	2	3	4	5
29. Vehicle parking: Vehicle parking is hidden behind buildings or underground.	1	2	3	4	5
30. Car share / Bike share: Car share and bike share stations are present within the station area.	1	2	3	4	5
					Total Points _____

Total Survey Points _____ /30 = Average Survey Points _____

Glossary of Abbreviations

- AMI** Area Median Income
- BRT** Bus Rapid Transit
- CBD** Central Business District
- CTOD** Center for Transit-Oriented Development
- du/ac** Dwelling Units per Acre
- FAR** Floor-Area Ratio
- GHG** Greenhouse gas
- HQTA** High Quality Transit Area
- HSR** High Speed Rail
- HRT** Heavy Rail Transit
- LIHTC** Low Income Housing Tax Credit
- LRT** Light Rail Transit
- RTP/SCS** Regional Transportation Plan / Sustainable Community Strategy
- SCAG** Southern California Association of Governments
- SB** Senate Bill
- TOC** Transit-oriented community
- TOD** Transit-oriented development
- VMT** Vehicle miles travel

Additional Resources

- 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy**
SCAG
- Buffalo Green Code: Unified Development Ordinance**
City of Buffalo
- First-Last Mile Strategic Plan: Path Planning Guidelines**
Metro
- Toolkit for Transit-Oriented Development Grants**
Metropolitan Council
- TOD 203 - Transit Corridors and TOD: Connecting the Dots**
CTOD
- Transit Supportive Planning Toolkit, 2015**
Metro
- Urban Footprint Technical Summary: Model Version 1.0**
Calthorpe Associates
- Urban Street Design Guide**
National Association of City Transportation Officials (NACTO)
- Transit Design Guidelines**
Omnitrans, 2013
- The Arrive Corridor**
Gruen Associates, 2015
- Complete Street Design Guide**
City of Los Angeles
- Long Beach Downtown and TOD Pedestrian Master Plan**
Gruen Associates

Appendix

A - Existing Conditions Inventory

B - HQTA Toolkit



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Appendix A

Existing Conditions Inventory



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