

Vision Plan



View to east of Activity Node at intersection of Alessandro Boulevard at Frederick Street showing major reconfiguration of the right-of-way to a boulevard with frontage roads. Major new mixed-use development shown at right with modest change to existing development at left.

Prepared For: The City of Moreno Valley, CA



Acknowledgements & Table of Contents

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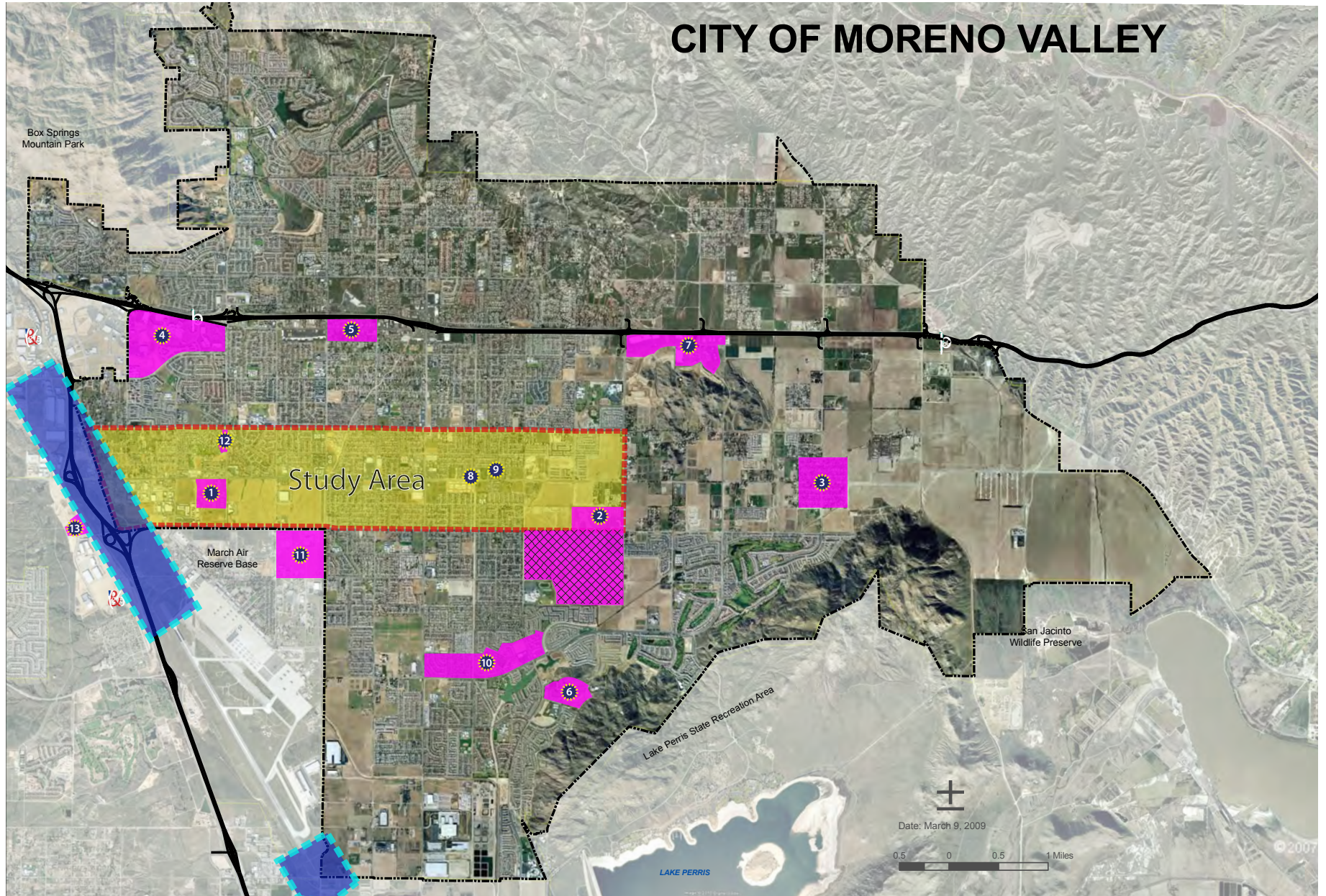


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1. Introduction



Introduction

The Alessandro corridor and the properties within 1/2 mile to its north and south between the 215 Freeway and Nason Street are the subject of this SCAG Compass Blueprint study. The study's purpose is to identify the potential for Alessandro Boulevard becoming a transit corridor, linking a planned Metrolink station with the 50-square mile, 186,000 person community of Moreno Valley.

After learning that TOD would not be possible at the planned Metrolink station due to restrictions involving aircraft patterns from nearby March Air Force Base, this study broadened its focus to evaluate the corridor's potential for transit as part of the composite solution for revitalization of the corridor. Essentially, transit will play a role in the corridor but it should not drive the community's efforts to recast this 5.5 mile major component of Moreno Valley.

This report presents a summary of the consultant team's analysis (see Existing Conditions Report appendix for further information) along with clear recommendations, their benefits and their implications for the City's use over the near and long-term.

The consultant team, led by Raimi + Associates (R+A), evaluated the corridor in five ways:




- Local perspective and vision
- Existing Physical Conditions
- Existing Policy and Regulatory Requirements
- Existing Economic Conditions
- Existing Sustainability Conditions

A. Local perspective and vision:

The process began with interviews of stakeholder groups ranging from the Mayor and City staff to local property owners and developers to understand the local point of view on Moreno Valley and the corridor in particular.

Generally, the corridor is seen as an unattractive and high speed road that does not put forth a positive image for Moreno Valley. In addition, the corridor is seen as underperforming in economic terms. Spending from Moreno Valley is estimated, by locals, to be leaking at an annual rate of approximately \$500 million to nearby communities. Many in the community attribute this situation to the corridor's lack of attractive uses and businesses. Others attribute the situation to Moreno Valley's lack of substantial local employment. Because most people have to leave Moreno Valley for their work, they tend to spend their disposable income in the communities where they work prior to returning home in traffic. Those interviewed all agreed that this is a pattern which is not desirable or sustainable for Moreno Valley's well being.

Key

-  Study Area - defined by 1/2 mile extension to the north and south of Alessandro Boulevard
-  March Air Reserve Base - Accident Potential Zone
-  Community Centers
 1. Civic Center
 2. Riverside County Regional Medical Center / Medical Overlay

3. Moreno Valley - Historic Moreno Town Site
4. Towngate Regional Center
5. Village at Sunnymead Mixed Use Area
6. Moreno Valley Community College
7. Stoneridge/Moreno Beach/Auto Mall Regional Center
8. Moreno Valley Library
9. Moreno Valley Unified School District Administrative Offices
10. Aquabella Specific Plan (2900 senior residential units – future)

11. March Medical Campus
12. Aqueduct Linear Park/Bikeway
13. Metrolink Station

1. Introduction (continued)

B. Physical Conditions:

Properties vary in size and configuration with approximately two thirds of the vacant or underutilized sites on the south side of the corridor and the remaining third of the sites along the north side. At 5.5 miles in length, the corridor is the longest of Moreno Valley's five corridors connecting Interstate 215 -where the future Metrolink Station will be located - with the Riverside County Regional Medical Center approximately 4.5 Miles to the east along Nason Street.

Existing physical conditions on the corridor are typical and characteristic to many suburban corridors - low intensity, automobile-oriented uses such as warehouses, office parks, a few restaurants, and many strip malls. The roadway itself lacks landscaping and an overall positive image. Buildings along the corridor tend to be located behind parking lots. Some new buildings have been built closer to the corridor but are located behind drainage swales that are visually pleasant but tend to disconnect the building from the environment it is shaping. Established single family neighborhoods are north and south of the corridor and present their backyard walls along the corridor. Multi-family apartments and townhomes are located in lesser amounts in the area.

The natural setting of the area is very attractive, with long-distance views from the corridor of surrounding hills and mountain ranges, including large peaks in the San Bernardino National Forest and Mt. San Jacinto

National State Wilderness. Remnants of agricultural fields, vineyards, and orchards are in the eastern end of the corridor. One mile east of the study area, located at Alessandro and Redlands Boulevards is the location where Moreno Valley was established in 1891. Lake Perris, a popular recreation area is located approximately 5 miles southeast of the study area.



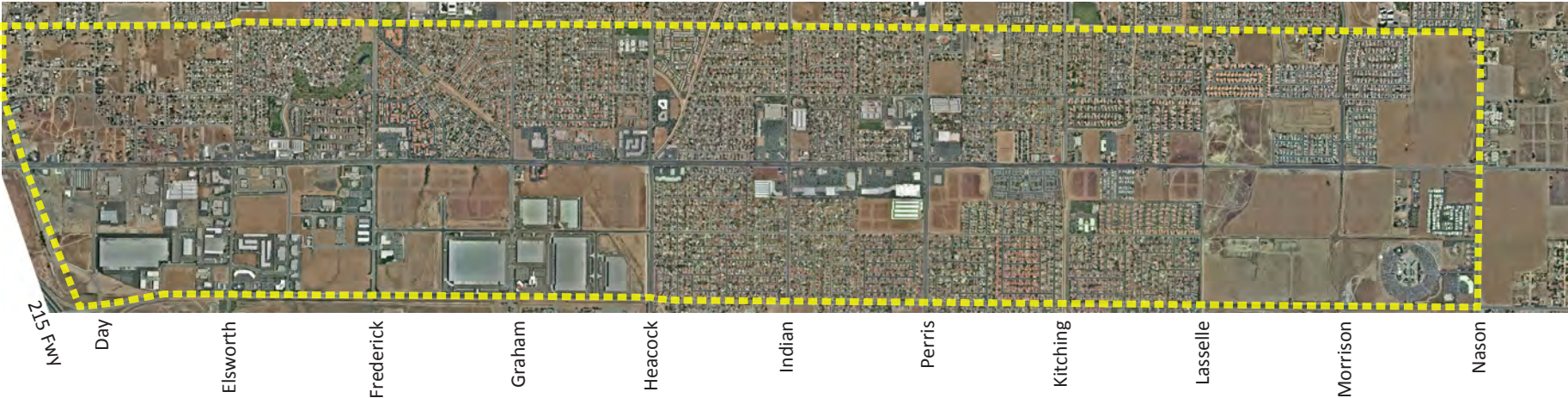
Panorama over Moreno Valley from mountains to north



From Alessandro Boulevard, the mountains and surrounding rock features are reminders of the immediately surrounding natural environment. Note that the unobstructed views are primarily from vacant property and that existing development already restricts views of the mountains surrounding the community.

Vision Plan for Alessandro Boulevard Corridor

30 June 2010



This Vision Plan focuses on the properties fronting the Alessandro Boulevard corridor between the 215 Freeway and Nason Street. In doing so, the adjacent properties to the north and south within 1/2 mile of the corridor are discussed as to their role in and benefit from revitalization of the corridor.

----- Project Boundary (approximate)

1. Introduction (continued)

C. Summary of Issues Facing Alessandro Boulevard

Through the public process used in preparing this report, the following were identified as key to address for the future of the corridor:

1. Lack of a coherent Public Realm / Streetscape -- no 'personality' or positive image
2. Lack of an identifiable center and very dispersed services
3. Internally-oriented lot development doesn't help to activate the sidewalk or give shape to the streetscape
4. TOD cannot occur near train station due to airport patterns; development must be low intensity
5. Large vacant parcels need a more pedestrian-oriented block structure
6. Day Street to Frederick Street needs significant change
7. Need to slow down the traffic for commerce and pedestrian safety -- currently posted at 45mph;
8. Spending leaks out of Moreno Valley -- estimated at \$50M annually
9. Need a gateway to announce the corridor as a place
10. Parking requirements are too high
11. High vacancy of commercial space, estimated at 20%
12. Access-management needed to deal with numerous curb cuts along corridor
13. Provide linkage and access to planned Metrolink Station
14. Better bicycle access/accommodation is needed
15. Destinations are needed at nodes; nodes should correspond to bus stops. Bus stops are currently underutilized and timing for buses is inconvenient resulting in low ridership
16. Wide sidewalks are needed to make walking more enjoyable next to such a large street
17. Need to maintain smooth traffic flow and safety
18. The west end of the corridor is currently operating between 30,000 and 35,000 ADT with a planned build out capacity of 50,000 ADT. The east end of the corridor is currently operating at about half of the ADT of the west end.
19. Transit needs to be integral to the street section so that it easily can be realized in future
20. Provide on-street parking, whether only off-peak or at all times depending upon the details
21. Parking lots in front of stores should be reconsidered for other techniques
22. Area near the hospital is a potential location for a node
23. Retail along corridor is overbuilt (12% of corridor is zoned for residential) and should be concentrated; Demand for small retail is greatly reduced due to corporate ownership patterns.
24. Connect employment to Metrolink Station



Although some buildings are near the street, the combination of low building height and a wide corridor dilute their presence, poorly shaping the streetscape



West end of the corridor: sparse and low-scale development poorly shapes the wide streetscape



Recent development on the corridor: attractive but located too far away from the sidewalk - given its low scale - to help shape the corridor and streetscape



Shopping center development: despite the aesthetic qualities, the remote distance from the street results in businesses resorting to large and unattractive signage



Recent development on the corridor: attractive buildings and landscaping but only provides a pleasant environment within the private property. Although adjacent, the pedestrian environment remains unchanged.



Middle and East end of Corridor: streetscape is shaped by back yards of homes that have 6 lanes of 45 mph traffic as their neighbor

1. Introduction (continued)

D. Transportation

At the outset of this process, CDM, documented the strengths, weaknesses, opportunities, and threats along Alessandro Boulevard (please see Existing Conditions Report). Additionally, the following observations and/or reflections upon the Alessandro Boulevard corridor were presented to the technical team by the stakeholders, including key representatives from City staff and the community:

- Need to slow down the traffic for commerce and pedestrian safety – currently posted at 45 mph;
- Access management needed to deal with numerous curb cuts along corridor;
- Better bicycle access/accommodation is needed;
- Destinations are needed at nodes; nodes should correspond to bus stops; bus stops are currently under utilized and timing for buses is inconvenient resulting in low ridership;
- Wide sidewalks are needed to make walking more enjoyable next to such a large street;
- Need to maintain smooth traffic flow and safety;
- The west end of the corridor is currently operating between 10,000 to 35,000 average daily trips

(ADT) with a planned build-out capacity of approximately 50,000 ADT;

- Transit needs to be integral to the street section so that it easily can be realized in the future; and
- Provide on-street parking, whether only off-peak or at all times depending upon the details.




The corridor was broken down into segments from one large intersection to the next and Level of Service (LOS) values were determined for each segment. One of 12 segments is operating at LOS C, 7 at D, 1 at E and 3 at F. Factors contributing to the LOS include; number of lanes, signal operations, percent of left turns, driveways, medians and trucks. In addition to these variables, the functional classification of the roadway impacts LOS. The current classification of Alessandro Boulevard is a Primary Arterial Class I. This definition means the roadway is a primary corridor for motorists that operate at high speeds through an urban location. Given the posted speed limit on the corridor of 45 mph in the west end and 50 mph in the east end, this seems to be an appropriate classification for the existing conditions.

The projected conditions in 2025 indicate that the corridor will operate at or near capacity even with the majority of it being three lanes in each direction. This is largely because of uncontrolled access points, poorly planned development and inefficient signal progression.

The high percentage of access points increases potential conflicts which results in delays and potential safety concerns. The poorly planned development of parcels leads to increased trip rates with minimal consideration for multi-modal usage and smart growth. The poor signal progression is related to traffic signal coordination. Traffic signal coordination is used to allow corridors to process vehicles by timing the green light on the main line (Alessandro Boulevard) with the predicted travel speeds. The increased number of access points decreases the predictability of traffic signal progression thus affecting the corridor's capacity and an increase in delays.

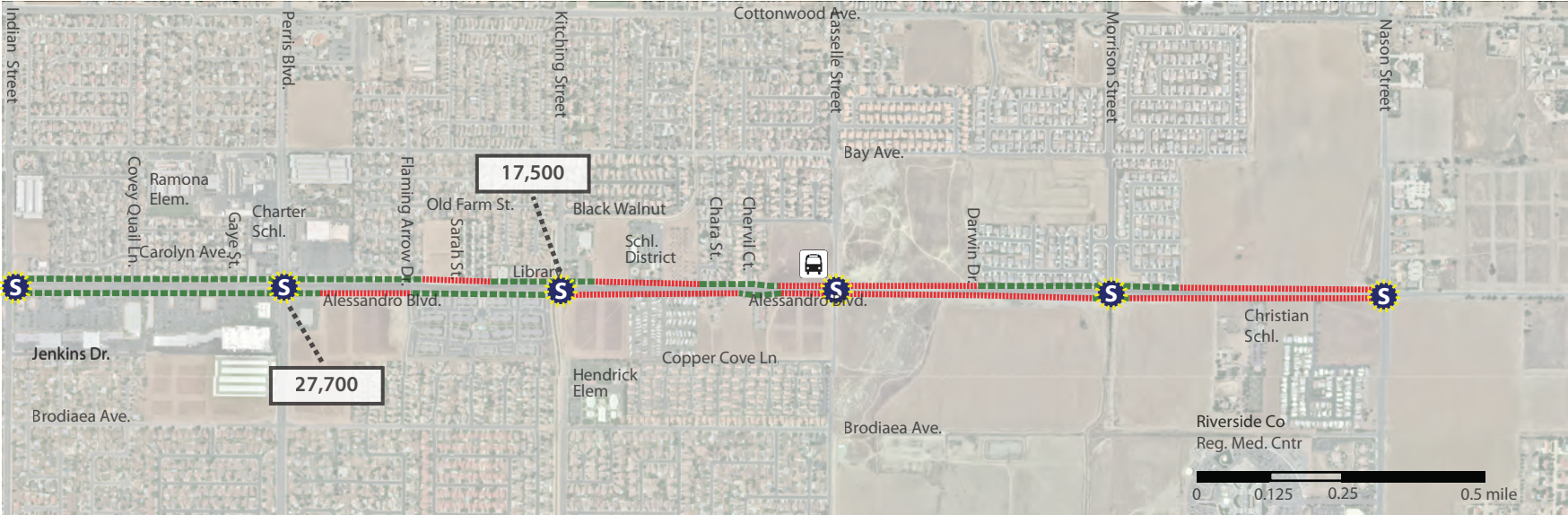
In addition to the above, it is interesting to note that the corridor is operating at the stated LOS while not resulting in a positive environment for pedestrians, business or motorists.

Traffic and Transportation

- ■ ■ Pedestrian walkway present
- Gap in pedestrian walkway network
-  Traffic Count (at specified location)
-  Signalized Intersection
-  Existing RTA Bus Stops

Vision Plan for Alessandro Boulevard Corridor

30 June 2010



1. Introduction (continued)

i. Existing Policy and Regulatory Requirements:

Equally important in gaining an understanding of existing conditions is to identify if current policy and regulations support or hinder the need to revitalize the corridor. The R+A team evaluated the Alessandro corridor from the following key policy and regulatory perspectives:

Key Policy Perspective 1.

Examples of successful transit corridors show that transit needs to be accommodated by more than the necessary right-of-way and lane-configurations. Does current General Plan policy and local regulation support Alessandro Boulevard becoming a transit corridor through supportive land use, circulation and urban design?

Overall, the General Plan's view for Alessandro Boulevard was found to be focused on traffic circulation. A brief discussion identifies the potential for a transit oasis that could link destinations along the corridor with the planned Metrolink station. Aside from this, there is no discussion about this corridor's role as a transit corridor. The general policy direction is aimed at 'reducing conflicts' or access to the corridor in an effort to maintain traffic flow. Such well-intended suburban policies can incrementally generate an environment where automobile efficiency is clearly prioritized over the effectiveness of retail and service businesses. Further, in an effort to reduce 'conflicts' or what are really intersections with the corridor, development becomes internalized with more traffic funneled on to fewer streets. This results in overly

wide intersections which tends to discourage pedestrian activity and visually separate uses that are across the corner from each other. Such is the situation along Alessandro Boulevard: the ingredients are all present but their configuration is based on a structure that is imbalanced in strong favor of high vehicle speeds.

Bus route 20 provides service along the corridor at each major intersection with headways of 30 to 40 minutes during the week and 50 minutes on weekends. The bus stops along the corridor are lacking the identity and basic comfort found in other communities as well as the very nice examples along Sunnymead Boulevard. Certainly, some people have no choice but to use public transit. But when given the choice between basic or better accommodations, the rider will choose the better option. Currently, all things considered, Alessandro is not the better option.

Within the 5.5 mile study area, approximately 30% or 350 acres are identified for commercial development. Of these 350 acres, about 50% of those acres are vacant. For a large community such as Moreno Valley, this suggests quite an oversupply of commercially designated land which tends to increase speculation and artificially inflate land costs (see Economic Conditions later in this section).

Zoning regulations, particularly the recently adopted Mixed Use Development 1 and 2 zones, were found to

be supportive of positively intensifying the corridor with activity and pedestrian-oriented development. These zones are available but have yet to be applied to any property.

Key Policy Perspective 2.

Examples of successful corridors show that vehicular circulation is clearly important but is balanced with other factors such as pedestrians, cyclists, commerce, and place-making. Do the community's physical structure and transportation patterns support Alessandro Boulevard for more than traffic circulation?

The posted speed limits on the corridor are 45 and 50 miles per hour. In the consultant team's experience with driving this corridor and in interviews with stakeholders, most vehicles on the corridor are travelling at or higher than this limit. Such high speeds are supportive of efficient circulation to a point. Ultimately, higher speeds ultimately result in more conflicts and more severe accidents. While higher speeds are perceived to provide a benefit to motorists, that benefit comes at the expense of the retail and services along the corridor. In addition, such speeds are not supportive of any pedestrian-oriented development due to the wide difference between the environment of highway speeds and that of genuine sidewalk activity. Even if pedestrian-oriented development with outdoor dining were to occur on the corridor, the high traffic speeds would discourage most customers from comfortably sitting near vehicles travelling at 45 miles per hour. A typical reaction is to move the pedestrian and outdoor dining activity away from the sidewalk or completely within the building. While this solves one issue, it reinforces the view that the corridor's sole purpose is to move vehicles. In the

process, this weakens the corridor's ability to generate a positive and appealing place.

According to the City's records, between January 1, 2007 and December 31, 2009, the most accidents along the corridor were reported at the intersections of Alessandro Boulevard/ Perris Boulevard (42 collisions) and at Alessandro Boulevard/ Graham Street (35 Collisions). The primary cause is vehicle speed. With higher speeds comes the reality of motorists facing the choice of slowing for the yellow traffic signal or trying to make it just before the signal turns red. This disparity between the speed of side street traffic and corridor traffic contributes to an increase in accidents and, more severe accidents. Successful corridors have slower speeds than Alessandro Boulevard, such as 35 or in some cases, 40 m.p.h. Lower speeds generate a balanced flow that minimizes speeding between signals, and results in fewer accidents. The balance between vehicle speeds and the desired activity along the corridor's edges is critical to the success of Alessandro Boulevard's revitalization.

Walking to the corridor for services or something to eat is not currently seen as something worth doing because of the poor visual conditions and the lack of connectivity between adjacent neighborhoods and the corridor. This is an important issue because within a 5-minute walk of the corridor, there is significant customer potential: approximately 6,000 households or roughly 18,000

persons. This is in addition to the office development that exists in the area and the customers that such activity represents.

Currently in Moreno Valley, the public right-of-way is considered as area strictly for the movement of vehicles, cyclists and pedestrians. This is certainly the case for the majority of streets in the community. However, there are other streets such as corridors and main streets which connect various pieces of the community and as such, need to use the sidewalk for activities such as outdoor dining that truly don't belong in a neighborhood or office park. Businesses along many successful corridors and main streets utilize the sidewalk as another 'place' that serves those wanting the outdoor experience as well as to advertise their presence without the need for signage. The key to a successful use of sidewalk area for outdoor dining lies in the balance between sidewalk width and the amount of activity allowed.

1. Introduction (continued)

E. Economic Conditions:

Alessandro Boulevard is typical of many California corridors in terms of both its physical form and economic function. Many of these corridors are facing competitive pressures from newer forms of retail development in particular from town centers, reinvigorated downtowns and other more compact and contiguous forms of development. In many respects these corridors have become obsolete in their functionality. Some of the reasons for this include:

- Traffic congestion or the perception of congestion
- Lack of an attractive, positive physical character
- Smaller building sizes which limit reuse options
- Fragmented and inefficient parking
- Role as a thoroughfare causes traffic conflicts
- Car-oriented design
- Unattractive pedestrian environment
- The corridor is not competitive with newer development formats
- Cannot exploit full land value based on location and markets. Need for redevelopment of obsolete properties.
- Lack of public gathering places
- Lack of comfortable pedestrian access

Key Factors in Successful Corridors

In general, successful corridors have been revitalized through a combination of factors. Two key factors are meeting the demands of a competitive real estate market, in particular for retail uses, and adjusting development standards to align with community objectives. Other key factors found to contribute to successful corridors are listed below:

- Critical mass of retail stores
- A balanced retail mix
- Existing, local market (i.e. nearby housing density and income support)
- Consumers feel safe and secure

Retail Mix

For comparison purposes, the typical land use mix in successful community scale nodes of development is comprised of the following non-residential uses. The following information confirms the corridor's automobile-oriented focus in its retail mix. Although corridors can have an automobile-oriented focus in the mix with big box retailers such as Staples, Office Depot, and Petco, many corridors use the very presence of such regional attractors to help physically shape the streetscape. While remaining convenient to the automobile, buildings are sited to be attractive to pedestrians and to shape the streetscape in general. This is not the current situation on Alessandro Boulevard.

Table 1 - Retail Mix

Land Use	% of Retail Mix	
	Typical Node	Alessandro Blvd
Food and Beverage	30	20.82
Professional office	20	
General Merchandise	20	
Grocery / Food Store	10	10.97
Soft Goods	up to 10	
Specialty Retail (incl. apparel)	up to 10	19.64
Service Stations		36.27
Auto Dealers/Supplies		10.08
Liquor Store		2.22
TOTAL	100	100

Development Entitlements

There is a need to align development entitlements with market demand and to reinforce the desired development outcomes through standards that create more compact, walkable and interrelated pedestrian nodes along the corridor. At present, the amount of development entitlements along the corridor is well beyond any reasonable market expectation at build out. This condition may actually delay future rounds of development by artificially increasing the valuation of land beyond what the market can absorb realistically. That is to say, as transactions are considered on specific parcels, the entitlements are valued as part of the overall

land cost. Land is then priced on the assumption that it would eventually be built out to the fullest extent of its entitlements. Such a set of circumstances can create a speculative valuation that is never borne out by the market as a whole. Over time, these inflated values become institutionalized through assessments, refinancing, and comparable sales. A circumstance can develop where entitlements are not realistically aligned with demand. This situation exists for Alessandro Boulevard.

Table 2 shows the implied growth of new retail demand along Alesandro Blvd based on household expenditures and the forecast rate of household growth included in the 2008 RTP. Presently there is an approximate 20% vacancy rate for existing retail property within the study area. This implies that some of the previously forecasted growth in demand may occur later than the previously anticipated forecast period as existing inventory is absorbed by the market. Also it is important to recognize that over a 25 year time period there is likely to be significant "churn" or turn over in the existing developed properties as new tenants arrive in the area and as retail conditions change. The opportunities for total new development are much likely to be larger than the net growth implied by the forecast. The amount of about 30,000 square feet every five years is likely to be pursued in larger projects of 75,000 to 120,000 square feet in the form of neighborhood and community scale projects.

Table 2 - Forecast of Retail Demand of Alessandro Blvd

Year	Households	Total (sq ft)	Net Growth (sq ft)	Annual % Growth
2010	50,432	321,000		
2015	55,407	352,000	32,000	1.6
2020	60,025	382,000	30,000	1.7
2025	64,699	411,000	29,000	1.6
2030	69,353	441,000	30,000	1.5
2035	72,977	464,000	23,000	1.0

Table 3 - Forecast of Non-Retail Demand for Alessandro Blvd

Year	Growth Rate	Total Employment	Net Growth Sq Ft	Total Sq Ft
2010		1,570		471,000
2015	26.0	1,978	122,346	593,346
2020	25.4	2,481	150,816	744,162
2025	15.1	2,856	112,692	856,854
2030	13.0	3,229	111,767	968,621
2035	13.6	3,668	131,784	1,100,405

Using the same proportional share methodology based on Moreno Valley's expected growth in the RTP, Table 3 translates forecasts in employment growth to square feet of demand for new employment space along Alesandro Blvd. Note that this includes both office and other types

of space used for commercial activities other than retail stores. As with retail, current economic conditions imply that some of this anticipated growth will be shifted off into future forecast periods due to vacancies in the existing space available.

Consistent with the trends of development in Moreno Valley the 2008 RTP anticipates significant increases in housing demand out to 2035. This forecast is shown on Table 4. As with the other categories of real estate, there are currently significant vacancies in the community stemming from current economic conditions. Demand for new units will likely be delayed as existing inventory is absorbed.

Table 4 - Forecast of New Housing for Alessandro Blvd

Year	Growth Rate %	New Dwellings	Total Dwellings
2010			13,047
2015	9.9	1,287	14,334
2020	8.3	1,195	15,529
2025	7.8	1,209	16,738
2030	7.2	1,204	17,942
2035	5.2	938	18,879

F. Sustainability

Sustainability is a purposeful strategy of comprehensively managing natural resources, environmental quality, community well-being, and economic resources. The goal of sustainability is to meet a variety of complementary and conflicting needs of today without compromising the ability of future generations to meet their own needs. Sustainability encompasses a wide range of environmental, social and economic topics and has a direct impact on how people live their lives today and in the future.

This section identifies the sustainability indicators relevant to the growth and development of the Alessandro Boulevard corridor. These indicators are intended to help the City monitor the sustainability performance of the corridor over time. Each indicator has been established within the context of existing conditions along the corridor, or relevant existing conditions within the City or region. This starting point provides a reference and for continued monitoring and/or analysis of conditions in years to come.

Sustainability indicators for Alessandro Boulevard are organized into five broad categories:

1. Land use,
2. Mobility,
3. The pedestrian environment,
4. Health,
5. Water/Energy

Each indicator, the existing conditions associated with that indicator and the projected conditions of applying the recommendations in this report are summarized in Table 5.

Table 5 - Summary of Existing Sustainability Indicators

Category	Indicator	Metrics	Existing Condition (Scale of Data)
Land Use	Jobs/Housing Ratio	Jobs/Housing Ratio .46 (City)	.46 (City)
	Density	Dwelling Units per Gross and Net Acres	1.5 gross du/ac (city); 4.5 net du/ac (Corridor)
	Housing Unit Mix	Percent Single- and Multi-Family	86% SF, 14% MF (City)
	Land Use Mix	Land Zoned for Mixed Use	Approximately 12% Zoned for Residential/ (Corridor)
	Household Costs of Housing & Transportation	Percent of Household Income	24.8% (housing); 26.4% transportation (County)
Mobility	Mode Split	Percent Auto/Mass Transit/Walk/Bike	94% auto / 1.5% public transit / <1% walk or bike (Subregion)
	Vehicle Miles Traveled (VMT)	Auto VMT/household/day and VMT/capita/day	66.5 mi/hh/day; 21.26 mi/capita/day (County)
	Cycling Facilities	Miles of Class I, II, and III Bike Lanes; Bike Parking	None (Corridor)
Pedestrian Environment	Sidewalks	Widths and Presence on Both Sides of Road	Generally 5' and lacking in some blocks (Corridor)
	Bus Stop Amenities	Presence of Amenities	Shelters and seating at a few; others have none (Corridor)
	Block Size	Length of Blocks	2,500 ft (Corridor)
	Street Frontage	Pedestrian Obstacles and Building "Faces"	Walled off residential; commercial buildings set back from sidewalk (Corridor)
	Urban Forest	Canopy of Street Trees and Streetscape Landscaping; Few street trees and landscaping	Few street trees and landscaping (Corridor)
Public Health	Roadway Design	Number of Lanes and Lane Widths	Majority is > 60 feet, 6-8 lanes; 2-4 lanes on east end (Corridor)
	Leading Causes of Death	Top Causes of Deaths	Heart disease and cancer (City)
	Obesity	Percent Overweight or Obese	65% of adults; 15% of adolescents (County)
	Retail Food Environment	Ratio of Healthy to Unhealthy Food Venues	.87 (Corridor)
	Air Quality	Days of Unhealthy Air Quality for Sensitive and All Populations	65 days for sensitive and 21 days for all (Region)
	Asthma Rates	Percent of Population Ever Diagnosed with Asthma	15% of adults and 12% of children (County)
Water and Energy	Water Use	Average Annual Residential and Commercial Water Use	.58 acre-feet/hh single-family; .29 acre-feet/hh multi-family; Up to 2.24 acre feet per gross acre for commercial (City)
	Energy Use	Average Annual Household and/or Commercial Building Energy Use, Including Electricity and Natural Gas	Electricity: 6230 kWh/hh for residential; 2.5 kWh/sq. ft.commercial, Natural Gas: 465 therms/hh for residential
	Greenhouse Gas Emissions	Metric Tons of Carbon Dioxide Equivalents from Household Driving, Natural Gas, and Electricity Use per year	17.4 mtCO2e/hh/year

2. Vision and Guiding Principles



Alessandro Boulevard at Frederick Street showing varying degrees of change toward becoming the Civic Center Node



Alessandro Boulevard at Frederick Street today

Vision

Alessandro Boulevard is a thriving multi-modal boulevard that connects neighborhoods and employment centers with regional, community and neighborhood-serving retail and services spaced along the corridor in activity nodes. Residents, employees and visitors can walk to the corridor for a variety of needs ranging from personal services to restaurants and groceries.

Examples

In order to envision a new future for Alessandro Boulevard, it was necessary to identify the types of places, physical and economic conditions that appealed to the community. Using this feedback, the following corridors were discussed in the public process as successful examples that support transit, pedestrian-oriented development while accommodating large volumes of traffic and generating a positive streetscape for pedestrians (see photos at right):

- Huntington Drive - Arcadia, Pasadena, San Marino, CA
- Shattuck Avenue - Berkeley, CA
- San Vicente Boulevard - Los Angeles, CA
- Santa Monica Boulevard - West Hollywood, Beverly Hills, CA



Huntington Drive: 35 to 40 miles per hour, 3 lanes each direction, diagonal parking, large planted median, class 3 bike route, mix of uses, sidewalk dining



Shattuck Avenue: 35 miles per hour, 2 lanes each direction, diagonal parking in frontage street, planted median, class 3 bike route, mix of uses, sidewalk dining



San Vicente Boulevard: 35 to 40 miles per hour, 2 lanes each direction, parallel parking, large planted median, class 2 bike lane, primarily residential



Santa Monica Boulevard: 35 to 40 miles per hour

2. Vision and Guiding Principles



Intensity at activity nodes provides focus and a hierarchy for the corridor



Corridors can accommodate many forms of retail and services.



Streets must be balanced to also support pedestrian activity

Principles

From this information, the underlying principles were identified and are established in this report to guide the City's actions for Alessandro Boulevard's revitalization:

1. Alessandro Boulevard's future is established through a vision that has a clear purpose, is generated through a collaborative public process, focuses on placemaking, is implementable and adaptable through a framework of tangible policy and standards;
2. Positive change is realized through a variety of partnerships aimed at a diverse range of opportunities along the corridor;
3. The corridor is organized into a hierarchy of distinct and related activity nodes that respond to the adjacent existing and/or future neighborhoods and employment centers;
4. The physical scale of each activity node and connecting corridor segments is adjusted to the intended physical character to promote compatibility;
5. Streetscapes and rights-of-way accommodate the vehicle while focusing on the needs of pedestrians and cyclists, particularly at activity nodes;
6. Development is scaled to the pedestrian and consists of a mix of retail, housing, public facilities and types of buildings;
7. Commerce is focused at and near activity nodes to generate thriving pedestrian-oriented development and to share infrastructure such as parking;
8. A diverse mix of building types and styles generates an urban form along the corridor that enhances commerce at activity nodes, creating a positive identity;
9. Housing types include a mix of dwellings by size and income levels to generate a wide range of housing choices and to enhance the customer base along the corridor;



Building entries are on the street or directly near the street, accessible from an adjacent parking lot



Streetscapes include on-street parking, trees, landscaping, and pedestrian amenities such as this forcourt



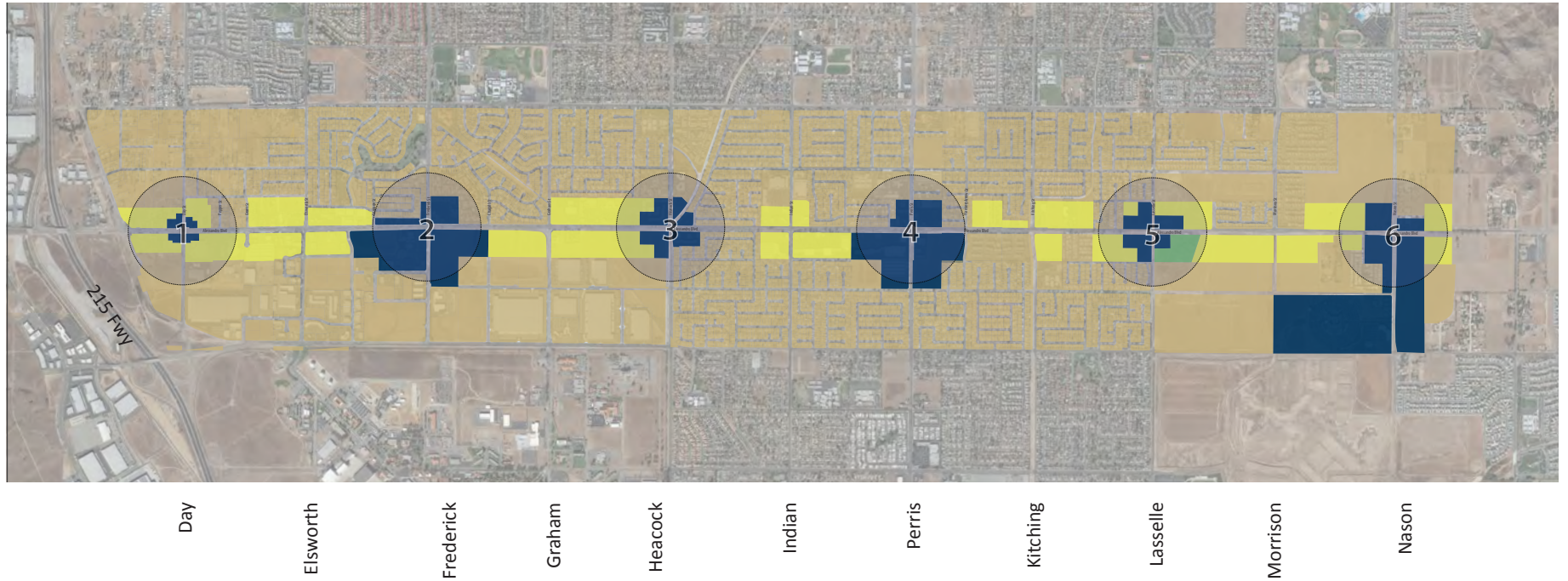
Sidewalks are wide and comfortable with active frontages

10. Mixed use and/or higher density buildings are located at the core of activity nodes to physically shape and activate public space/streetscapes at these important locations;
11. Open Space is distributed along the corridor and consists of a mix of public open spaces -- streetscapes, linear parks, plazas -- depending upon the intended physical scale of the location;
12. Streets are multi-modal -- rail, bus, car, bike, pedestrian -- aimed at providing a range of choices and to support the corridor as a series of distinct and related pieces;

13. The corridor is designed for efficient traffic flow while at speeds that are compatible with pedestrian activity and support commercial activity;
14. The streetscape provides shade and comfort for pedestrians and cyclists with consistent elements to spatially define the corridor and to emphasize the commercial nature of activity nodes;
15. Parking in non-residential areas and activity nodes is addressed through a 'park-once' approach which groups and shares parking responsibilities with the parking ratio calibrated to the different intensities of the activity nodes. Residential parking is provided for

each property in ways that are supportive of the living environment and that maintain the integrity of the public streetscape.

3. Community Form and Role of Alessandro Boulevard



Alessandro Blvd Corridor Plan

- Activity Node (Community; Civic; Neighborhood)
- Corridor Zones (Primary; Secondary)
- Corridor Adjacent Zones (Adjacent; Unlikely to Change)

1 1/4 mile walking radius projecting outward from nodes

The Role of Alessandro Blvd

Through the planning process used to prepare this report, the community envisioned a different and much more positive situation for the corridor. The following sections describe the intentions:

A. Alessandro Boulevard as a series of nodes

The diagram on the facing page illustrates Moreno Valley's composite structure of nodes. The nodes range from regional-level attractions such as the Moreno Valley Town Center to community-level collections of retail and services such as the shops along Sunnymead Boulevard. In total, Moreno Valley's existing nodes and the recommended nodes are listed at right in Table 6:

Table 6 - Structure of Community Nodes		
Type of Node	Existing	New on Alessandro
Regional	1. Town Center 2. Food4Less Center on Indian	Node at Nason to connect with Medical Center
Medical Center	1. Expansion of Center near Nason	Connection to Regional node at Alessandro
Community	Total of 5 nodes with one on Alessandro at Perris	1. Expand at Perris 2. Expand Civic Center Node 3. Gateway node at Day
Neighborhood	none	1. At Heacock 2. At Lasselle

B. A new image to attract business, office and housing to the corridor

In terms of the market, consumer tastes are increasingly favoring commercial and mixed-use environments of more compact and contiguous forms of development. Such environments are seen as an amenity and something that business, office and housing would prefer as a location.

In order to address this need on Alessandro Boulevard, key intersections should be developed into more pedestrian-oriented nodes. One way to achieve this is to zone higher densities to facilitate vertical mixed use and to achieve pedestrian concentrations that create an active street in these locations. Capital improvements programming can also support this pattern of development by directing public investments in these areas to help make higher-value private investments feasible.

It is important to recognize that this not a recommendation for across the board increases in entitlements and development intensities along the length of the entire boulevard. As mentioned earlier in this report, there is a need to align the allowed development potential with the realistic long-term needs of the community. Upon identifying that balance, it is possible to concentrate that potential into nodes along the corridor.

3. Community Form and Role of Alessandro Boulevard

Alessandro Boulevard's economic and fiscal performance improves to generate a vital and new image. This transformation is supported by the following objectives:

- Allow new forms of development
- Create hubs of activities and mixed uses to provide diversity and economic stability
- Create gathering places with key businesses as an attraction
- Allow convenient pedestrian access to generate activity and to enable nearby residents to become customers
- Create in-fill housing to provide a wide variety of housing choices and to support local retail and services
- Create a cohesive image of the corridor as an overall set of distinct but related places

C. Serve the Local Economy

The corridor has some specific advantages that maybe leveraged to alter the trajectory of development and economic performance over the long term. These key assets include:

- Large and deep undeveloped parcels
- The oncoming Metrolink station
- approximately 18,000 to 20,000 residents within 5 minute walking distance of the corridor
- Expansion of the regional medical center at the east end of the corridor

Given the above objectives and specific advantages, it is appropriate to recommend a development strategy based on directing nodes of development and commercial activity at key intersections to reorient development activity from a linear pattern towards a more district based approach.

Based on the approximate 6,500 households that are located within an easy 5-minute walk of the corridor, the corridor stands to benefit from activity and a configuration that invites neighborhood customers. It is unknown how many of these households are visiting corridor businesses but the great number of households as well as the potential for employment-based customers is of serious importance to the corridor's success. Conversely, if people living or working in these areas don't see themselves as pedestrians that can reach these destinations in a safe, comfortable and relatively quick manner, businesses will continue to rely on motorist traffic, skewing the potential business mix.

Last, the ability to have nearby services, restaurants and employment opportunities should be seen as an amenity for nearby residents and employers.



The above successful corridor (Arroyo Parkway, Pasadena, CA) has a posted vehicle speed of 35 m.p.h. with big box retail as well as office and restaurants fronting the street. While some buildings have off-street parking lots directly accessible from the street, the parking is grouped with the pair of buildings shaping the parking lot and shaping the streetscape (approximately 50% of each lot is in the form of building adjacent to the street). Building entries are at or near the corners with storefronts along the sidewalk. On-street parking is allowed during non-peak traffic hours (after 9am and until 3pm).

3. Community Form and Role of Alessandro Boulevard

D. Transportation, Circulation and Access

As described in the Introduction chapter of this report, Alessandro Boulevard is currently accommodating vehicular traffic while accommodating other modes to a lesser extent. This is due in part to the travel patterns of local residents who work far enough away that they need to travel in personal vehicles. It is also due in part to the fact that the corridor is not yet perceived as a desirable place or set of identifiable places that foster enough activity to support transit. There is also the fact that in accommodating the vehicular traffic, the corridor has become a place that is perceived as less than positive and not necessarily safe or comfortable for pedestrians and cyclists.

Successful examples of corridors still accommodate the vehicle, and in large numbers due to the fact that many corridors connect communities and do not recognize jurisdictional boundaries. But while accommodating the vehicle, other modes are not only encouraged, they are integrated into the strategy for the corridor and how it functions.

Level of Service (LOS)

A critical factor to deal with in revitalizing a corridor is understanding what role LOS plays in the corridor's future. As described earlier in this report, current conditions as well as those projected to 2025 indicate that the corridor will be operating at D to F with one segment at

C. Therefore, the corridor continues to receive attention for accommodating vehicular traffic while the corridor is delayed from becoming the positive place and economic engine it can become. As the successful examples show, the subject of LOS is but one of several factors involved in the revitalization of a corridor. The current imbalance between vehicle speeds and the types of businesses that will locate on the corridor needs to be addressed if the situation is to be improved in a meaningful way.

Transit Oasis

The transit oasis is a mobility concept that has been promoted as part of the RCIP and is discussed in the Moreno Valley General Plan as a viable option to the automobile. The concept of the transit oasis is to provide an integrated system of local-serving, rubber-tired transit that is linked with commuter transit systems (either rail or bus). The transit oasis would help transport commuters to the proposed Metrolink Station at the west end of the corridor. To operate efficiently, this system should be located in areas of concentrated development, and areas of high activity. A transit oasis / center allows ease of transfer between transit lines. Its use should be considered wherever three or more lines converge (e.g., Moreno Valley Mall).



Lake Avenue in Pasadena, CA is a major north-south corridor which has two lanes of traffic in each direction, a planted median, on-street parallel parking, restaurants, retail and office with moderate to low density neighborhoods behind. This street is posted for 35 m.p.h. traffic.

4. Recommendations: Change and Benefits Summary

Range of Choices for Revitalizing the Corridor

At 5.5 miles in length and traversing many different areas of Moreno Valley, the corridor presents several opportunities and challenges. In terms of physical constraints, Alessandro Boulevard has many possibilities in comparison to other corridors. For example, the amount of right-of-way combined with the number of and size of vacant or underutilized properties is remarkable. Typically, corridors have very shallow lot depths and more demand than their right-of-way will accommodate. This is not the case for Alessandro Boulevard.

Over time and in response to limited resources, the community will most likely need to prioritize its focus and effort. To assist in this process, Table 7 summarizes the recommendations of this report into three levels of change: Minor, Moderate, and Major.

These categories of change relate to the amount of change to be pursued. For example, a minor change would be to infill missing street trees while a major change would be to widen the parkway and install new sidewalks and on-street parking. But in either case, there are typically other changes or considerations that need to accompany the work. Such other considerations include necessary policy shifts, changes in regulation, and other technical adjustments that are needed to realize the desired level of change. Table 7 aims to help Moreno Valley in making those choices as it revitalizes the corridor over time.

Table 7: Range of Choices and Benefits

Component	Minor Change		
	Changes	Main Benefits	Notes / Key Implications
Activity Node			
Building Location	addition closer to street	physically defined street corners	use exstg M.U. 2 zone at nodes and M.U. 1 zone on rest
Building Frontage	no change	maintains status quo	could result in blank walls
Building Height	no change	better defined streetscape	use exstg M.U. 1 or 2 zone
Density	no change	maintains status quo	use exstg M.U. 1 or 2 zone
Land Uses	no change	maintains status quo	use exstg M.U. 1 or 2 zone
Streetscape			
Median	plant all existing medians	reduces visual width of pavement	maintenance
Transit	dedicated bus lane	efficiency	parking, street width
Through-Lanes	no change	maintain 3 through lanes	continued speeding
Bicycles	class 2 bike lane	encourage bicycle activity	restripe from exstg
On-Street Parking	parallel at activity nodes	convenience	street restriping
Street Trees	infill missing trees	supports node	maintenance
Open Space	no change	maintains status quo	none

Vision and Range of Choices

Moderate Change				Most Change			
Component	Changes	Benefits	Implications	Component	Changes	Benefits	Implications
Activity Node				Activity Node			
Building Location	new buildings near and at the sidewalk	physically defined streetscape	use exstg M.U. 2 zone at nodes and M.U. 1 zone on rest	Building Location	new buildings near and at the sidewalk	physically defined streetscape	use exstg M.U. 2 zone at nodes and M.U. 1 zone on rest
Building Frontage	at least 2/3 of façade at sidewalk	encourages active frontage	adjust standards	Building Frontage	at least 2/3 of façade at sidewalk	encourages active frontage	adjust standards
Building Height	varied massing; allow limited 4th story in certain locations	more defined streetscape; better project feasibility	adjust standards	Building Height	varied massing; allow limited 4th and 5th story in certain locations	more defined streetscape; better project feasibility	adjust standards
Density	increased to 40 within 300 feet of community level nodes	more customers within walking distance	adjust standards	Density	increased to 40 within 600 feet of community level nodes	more customers within walking distance	adjust standards
Land Uses	retail and restaurants focused at nodes	concentrated activity; encourages walking	use exstg M.U. 2 zone	Land Uses	retail and restaurants focused at nodes	concentrated activity; encourages walking	use exstg M.U. 2 zone
Streetscape				Streetscape			
Median	add planted medians	reduces visual width and controls circulation efficiency	selection of roadway section; cost, maintenance parking, street width	Median	add planted medians	reduces visual width and controls circulation efficiency	selection of roadway section; cost, maintenance parking, street width
Transit	dedicated bus lane	LOS B; more compatible with commercial activity	selection of roadway section; cost, maintenance	Transit	dedicated bus lane	LOS B; more compatible with commercial activity	selection of roadway section; cost, maintenance
Through-Lanes	change to 2 lanes	encourage bicycle activity	restripe from exstg street restriping	Through-Lanes	change to 2 lanes	encourage bicycle activity	restripe from exstg street restriping
Bicycles	class 2 bike lane	convenience		Bicycles	class 2 bike lane	convenience; access management	
On-Street Parking	parallel at activity nodes	supports node	maintenance	On-Street Parking	parallel or diagonal through use of frontage road	supports node	maintenance
Street Trees	infill missing trees	continuous route across community	manage pedestrian crossings, provide enough width in median	Street Trees	infill missing trees	continuous route across community; makes effective use of unusable areas and parking next to residential walls	manage pedestrian crossings, provide enough width in median
Open Space	widen median for jogging path			Open Space	install linear park along residential wall sections of corridor and connect w/ medians or route next to s.w.		

4. Recommendations: Change and Benefits Summary

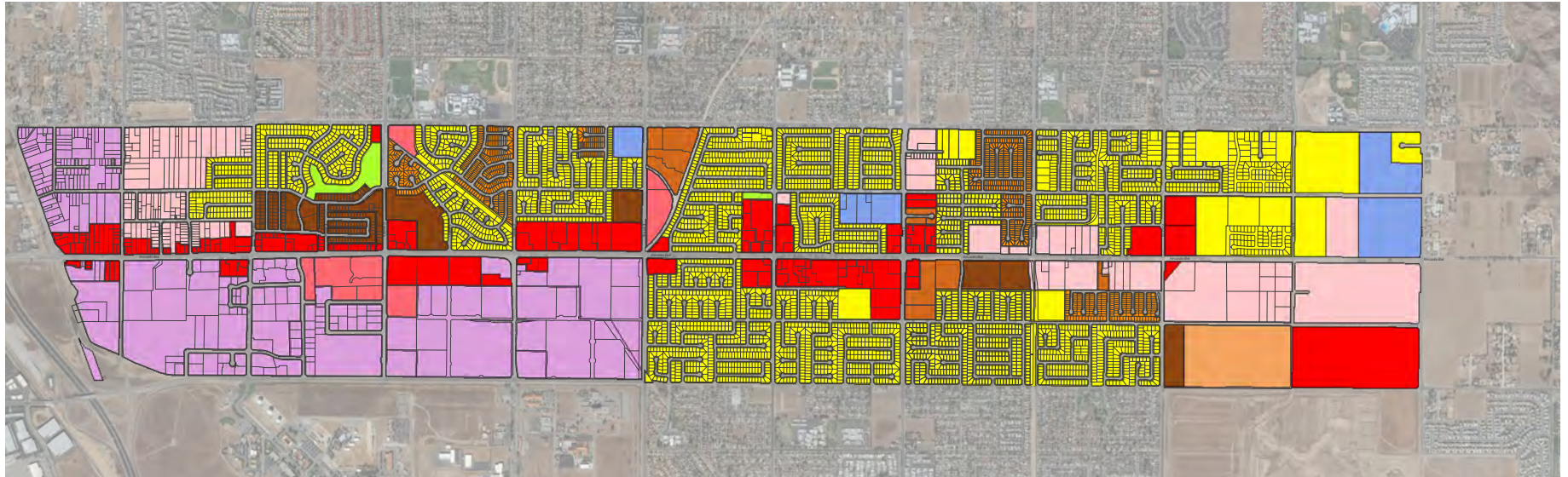
Table 7: Range of Choices and Benefits (continued)

Component	Minor Change		
	Changes	Main Benefits	Notes / Key Implications
Pedestrian Activity			
Sidewalks	no change	cost-savings	exstg condition continues
Crossings Destinations	curb-extensions key uses at nodes	ped safety, less crossing time activate nodes	more ped activity builds importance of node; provides destination for pedestrians to visit
Vehicular Circulation			
Through-movement	no change	maintains status quo	none
Speed Limit	no change (stays at 45 and 50 mph)	maintains status quo	will delay node's success
Level of Service	no change	maintains status quo	disparity in expectations of roadway compared to expectations of land on corridor
Env'l Performance			
GHG-Reduction			
Fiscal Performance			
Leakage-Reduction			

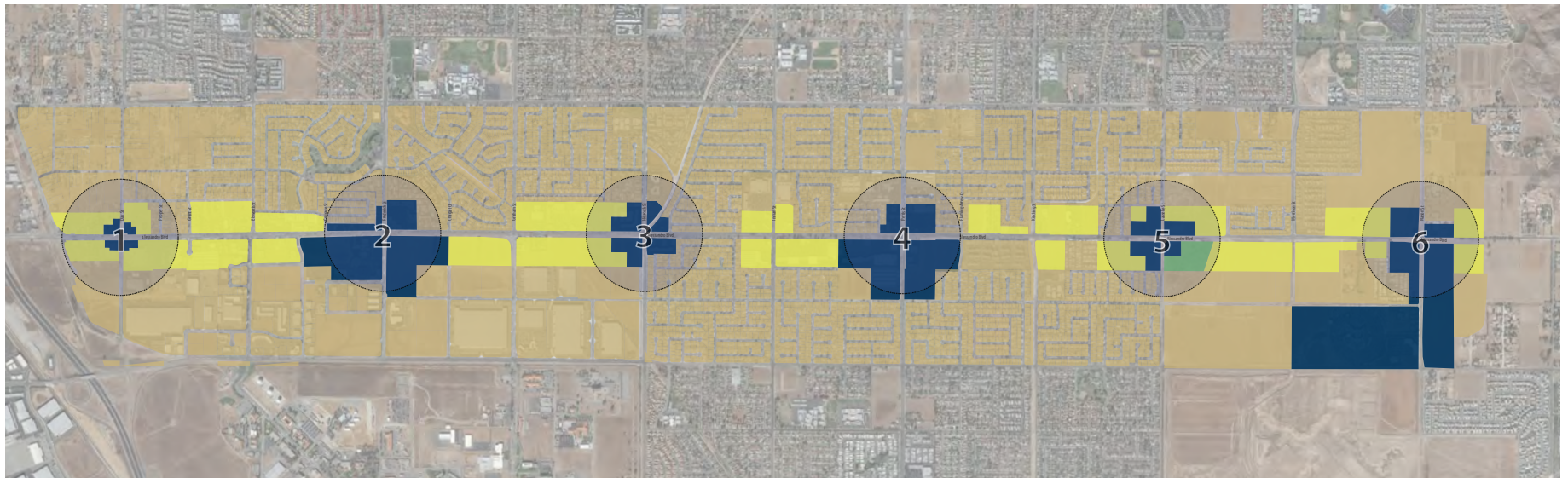
Vision and Range of Choices

Moderate Change				Most Change			
Component	Changes	Benefits	Implications	Component	Changes	Benefits	Implications
Pedestrian Activity				Pedestrian Activity			
Sidewalks	widened to 12 min at nodes	encourages pedestrian activity for health and business	cost, maintenance	Sidewalks	widened to 18 min at nodes	encourages pedestrian activity for health and business; allows for sidewalk dining	cost, maintenance; change to city policy re: sidewalk dining on r.o.w.
Crossings	curb-extensions	ped safety, less crossing time	more ped activity	Crossings	curb-extensions	ped safety, less crossing time	more ped activity
Destinations	key uses at nodes	activate nodes	builds importance of node; provides destination for pedestrians to visit	Destinations	only allow key uses at nodes	activate nodes and helps to make a critical mass at nodes	builds importance of node; provides destination for pedestrians to visit
Vehicular Circulation				Vehicular Circulation			
Through-movement	reconfigured at nodes	activity nodes are featured, giving business more visibility	select roadway section and design the transitions	Through-movement	reconfigured at nodes	activity nodes are featured, giving business more visibility	select roadway section and design the transitions
Speed Limit	changes to 35 mph	causes locals and pedestrian-oriented businesses to reconsider the corridor as an inviting place	reclassify from principal arterial 1; educational campaign to discuss the need for changes and their benefits	Speed Limit	changes to 35 mph	causes locals and pedestrian-oriented businesses to reconsider the corridor as an inviting place	reclassify from principal arterial 1; educational campaign to discuss the need for changes and their benefits
Level of Service	B	smooth traffic flow, improved physical and business environment	educational campaign to discuss the need for changes and their benefits	Level of Service	B	smooth traffic flow, improved physical and business environment	educational campaign to discuss the need for changes and their benefits
Env'l Performance				Env'l Performance			
GHG-Reduction				GHG-Reduction			
Fiscal Performance				Fiscal Performance			
Leakage-Reduction				Leakage-Reduction			

4. Recommendations: **Activity Nodes**



Existing Land Use Designations along the Alessandro corridor have generated a 5 mile corridor with no real nodes or centers of activity and no sense of place.



The corridor is transformed to create distinct centers which concentrate activity, serve adjacent neighborhoods and businesses while generating a positive sense of place.

A Series of Nodes




Based on the strong potential for Alessandro Boulevard that was presented in the earlier sections of this report, the key recommendation for the corridor is that it become a series of independent but related nodes.

These nodes work in concert with Moreno Valley's existing nodes to provide a complete and strategically dispersed set of places aimed at either regional, community or neighborhood retail and services. As illustrated in the diagram on the facing page, the corridor is articulated from its current incoherent pattern of various land uses to a series of six nodes between the 215 Freeway and Nason Street.

The six nodes are summarized below and identified in more detail on the following pages. Further, three of these nodes (Gateway, Civic, and Perris) are studied and illustrated in more detail to provide additional information about development potential, necessary supporting regulations and so forth:

- 1: Gateway Node at Day Street
- 2: Civic Node at Frederick Street
- 3: Neighborhood Node at Heacock Street
- 4: Community Node at Perris Boulevard
- 5: Neighborhood Node at Lasselle Street
- 6: Community Node to connect with Medical Center at Nason

Alessandro Blvd Corridor Plan

-  Activity Node (Community; Civic; Neighborhood)
-  Corridor Zones (Primary; Secondary)
-  Corridor Adjacent Zones (Adjacent; Unlikely to Change)

 1 ¼ mile walking radius projecting outward from nodes

4. Recommendations: Activity Nodes

A Hierarchy of Nodes

As discussed, the corridor is in need of concentrating activity to both create places of value and appeal and, to depart from the current pattern of disparate and isolated development. The recommendation for identifying nodes is important for addressing the above issues. Equally important is the need to recognize the distinct role that certain locations and their node will play along the corridor. For example, the role of the Gateway node at the west end of the corridor is key but very different from that of the Civic Center node at Frederick Street. Below, each node and the segments in between - corridor zones - are described.

1. Gateway (Community) Node at Day Street

This node is limited in its scale and intensity by the fact that it is within the aircraft approach and landing zone for March Air Force Base. Working with this restriction, the purpose of this node is to provide identity for the corridor's west entry.

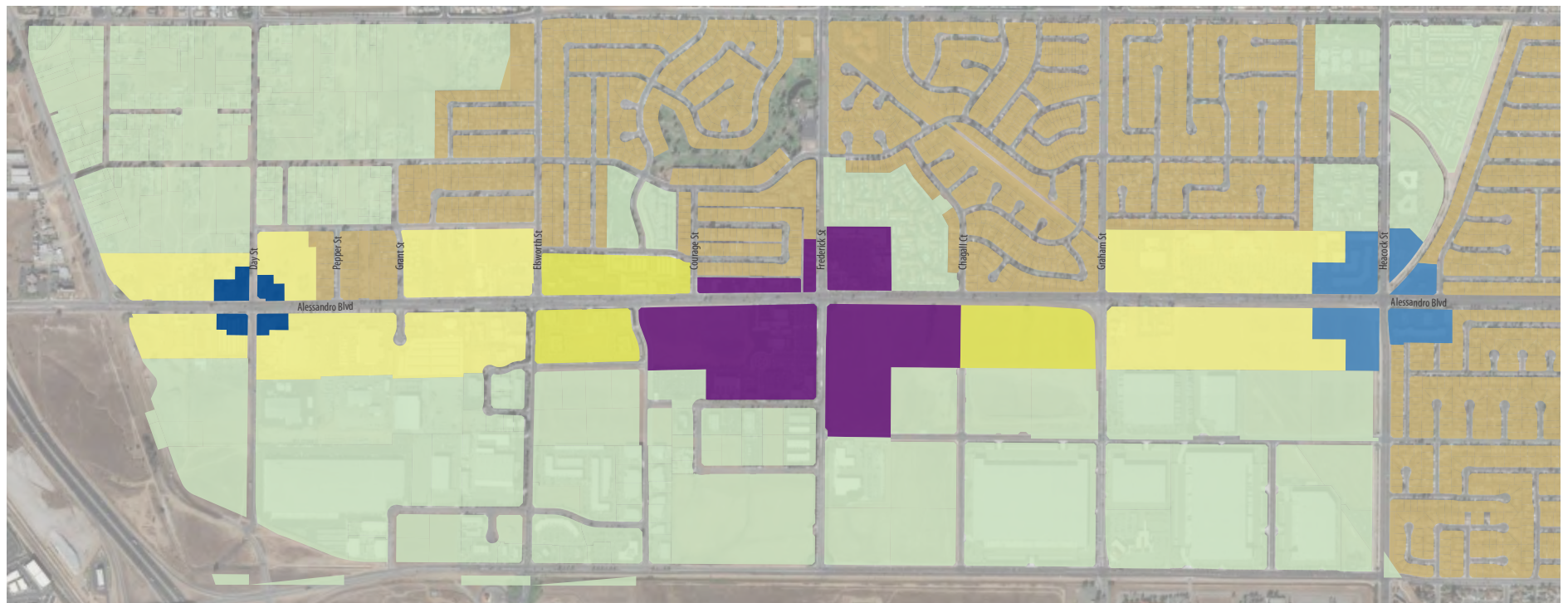
2. Civic Node at Frederick Street

The existing civic center located at the southeast corner of Frederick and Alessandro provides the substantial opportunity for reconfiguring this important point along the corridor into a place that provides local employees and nearby residents with appealing retail, restaurant and services. In addition, the large amount of

vacant land in this node provides the opportunity to create a local 'main street' on either the civic center property or on the vacant land east of Frederick.

3. Neighborhood Node at Heacock Street

The existing shopping center in the southeast quadrant of this intersection provides the impetus for revitalization of this area toward a more pedestrian-oriented, local-serving place. Over time, new blocks are generated from existing parking lots, providing more floor space while incrementally creating a pattern that is less dependent upon motorists on the corridor.



4. Community Node at Perris Boulevard

This node capitalizes on the importance of Perris Boulevard and its connection between the 60 freeway, central Moreno Valley and the newer areas to the south around the college.

5 Neighborhood Node at Lasselle Street

This node serves as a way to focus neighborhood-serving development to complement the strong identity of the rock pile while making a positive east entry to the corridor.

6. Community Node at Nason Street

This node is essentially an extension of the Medical Center as it intersects with Alessandro Boulevard with the intent of

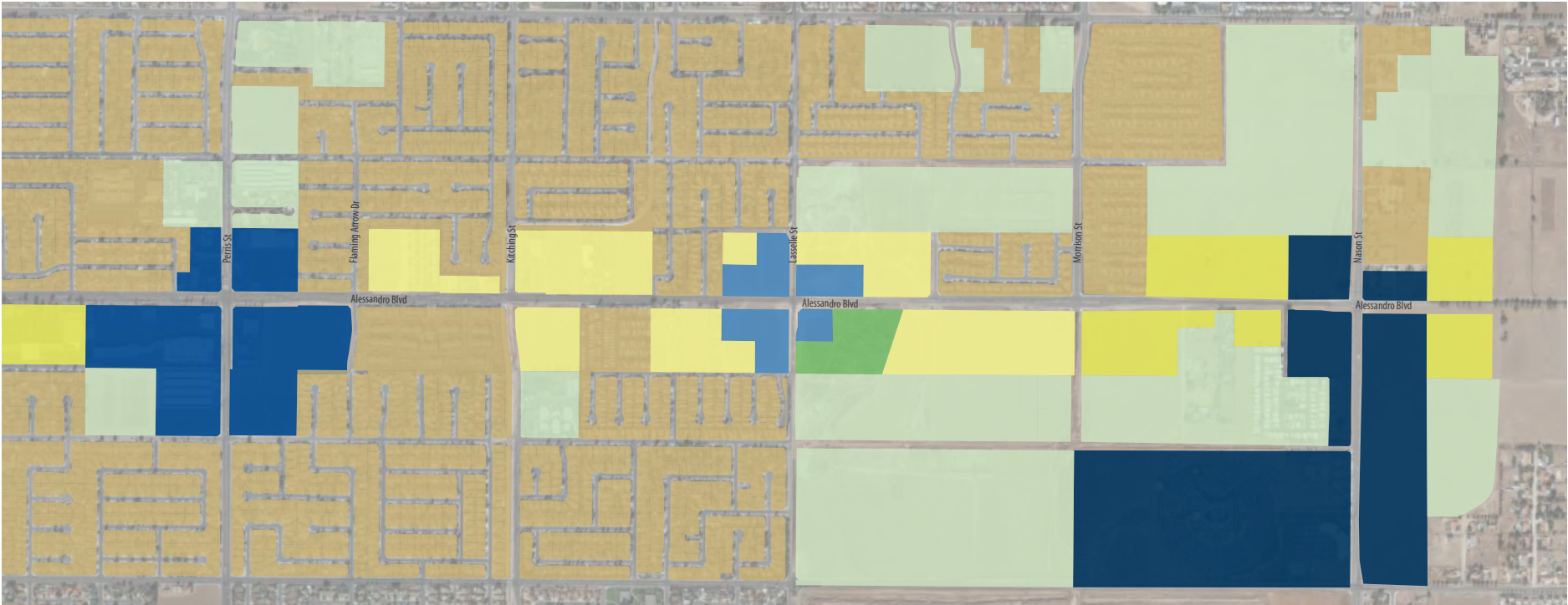
complementing the Medical Center with retail, shopping and services that benefit visitors as well as locals.

In addition to the six nodes, the land in between the nodes plays an important part along the corridor. In this category, there are two general areas or 'zones': primary and secondary. The primary zone refers to those areas along the corridor that are nearest the nodes. Secondary zone areas are those that are not near the nodes and are in the middle segments of each corridor-fronting block.

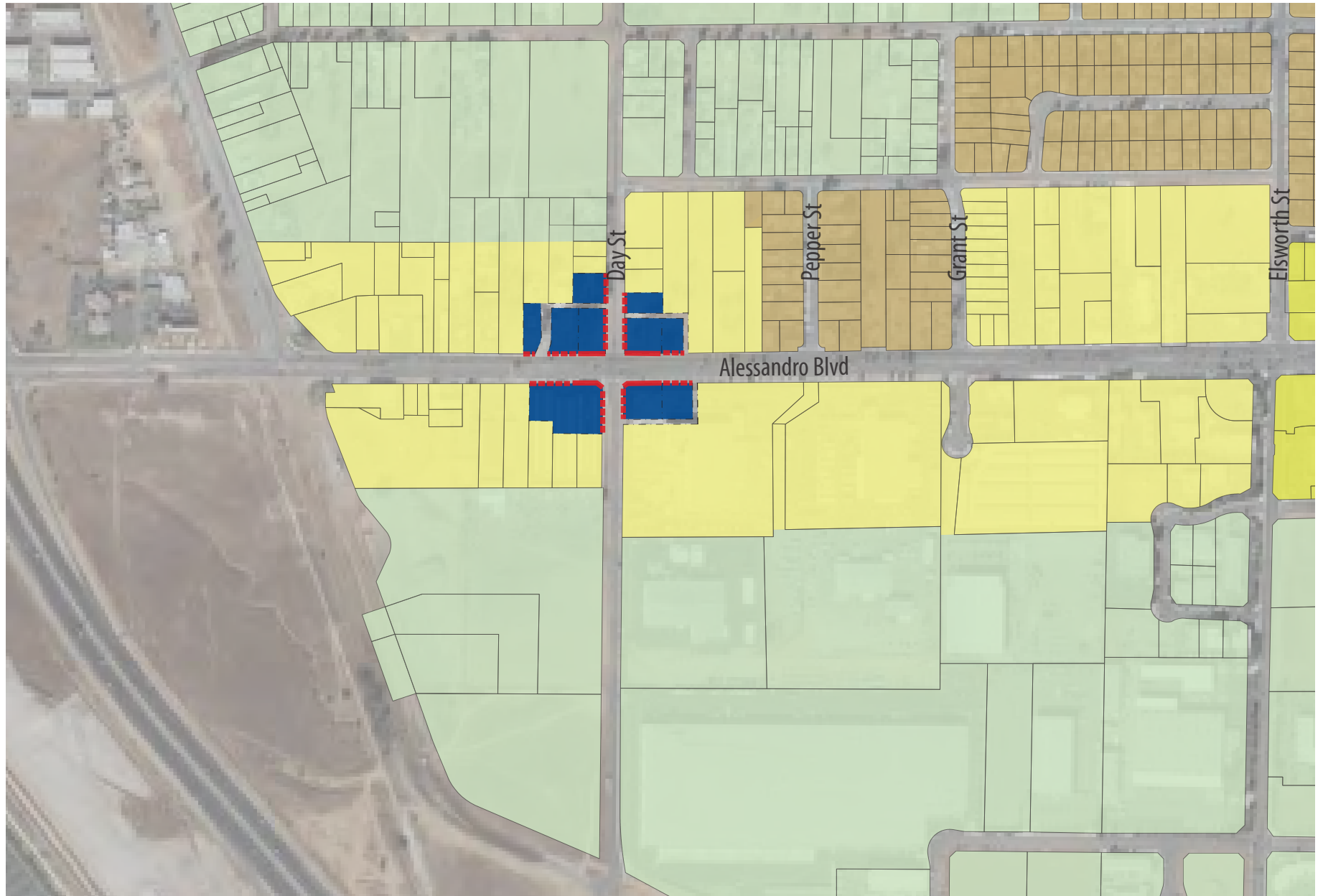
The last category addressed is that of the land that is either adjacent to the corridor-fronting zones or land that is highly unlikely to change.

Node Regulating Plan

- Community Node
- Civic Node
- Neighborhood Node
- Primary Corridor Zone
- Secondary Corridor Zone
- Corridor Adjacent Zone
- Change Unlikely



4. Recommendations: **Activity Nodes**



Gateway Node at Day Street

This node responds to community feedback about providing a positive identity for the corridor’s west entry.

Key to understanding the potential of this node to generate a west entry to the corridor is the limitation of building height and land use activity as a result of the March Air Force Base flight patterns.

Using this foundation, the objectives for this node are listed below:

Pattern of Blocks and Streets

- Organize the node through one walkable block at each corner and influence the pattern of adjacent land to interconnect and continue the pattern;
- Utilize rear access through an interconnected service alley system.

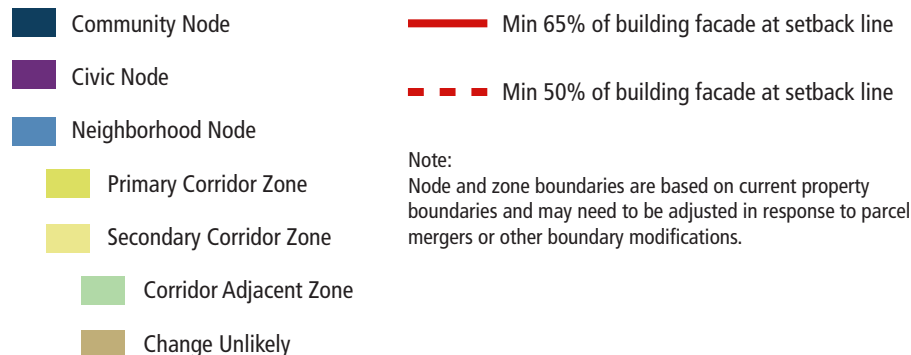
Buildings

- Physically frame and shape the intersection of Day and Alessandro to serve as a gateway / entry to the corridor;
- Locate at least half of a building’s frontage near or at the sidewalk with the rest of the building allowed to be set back;
- Maintain a one-story height limit with exceptions at the intersection of Day and Alessandro where either a second story or a taller first story would provide visual emphasis;

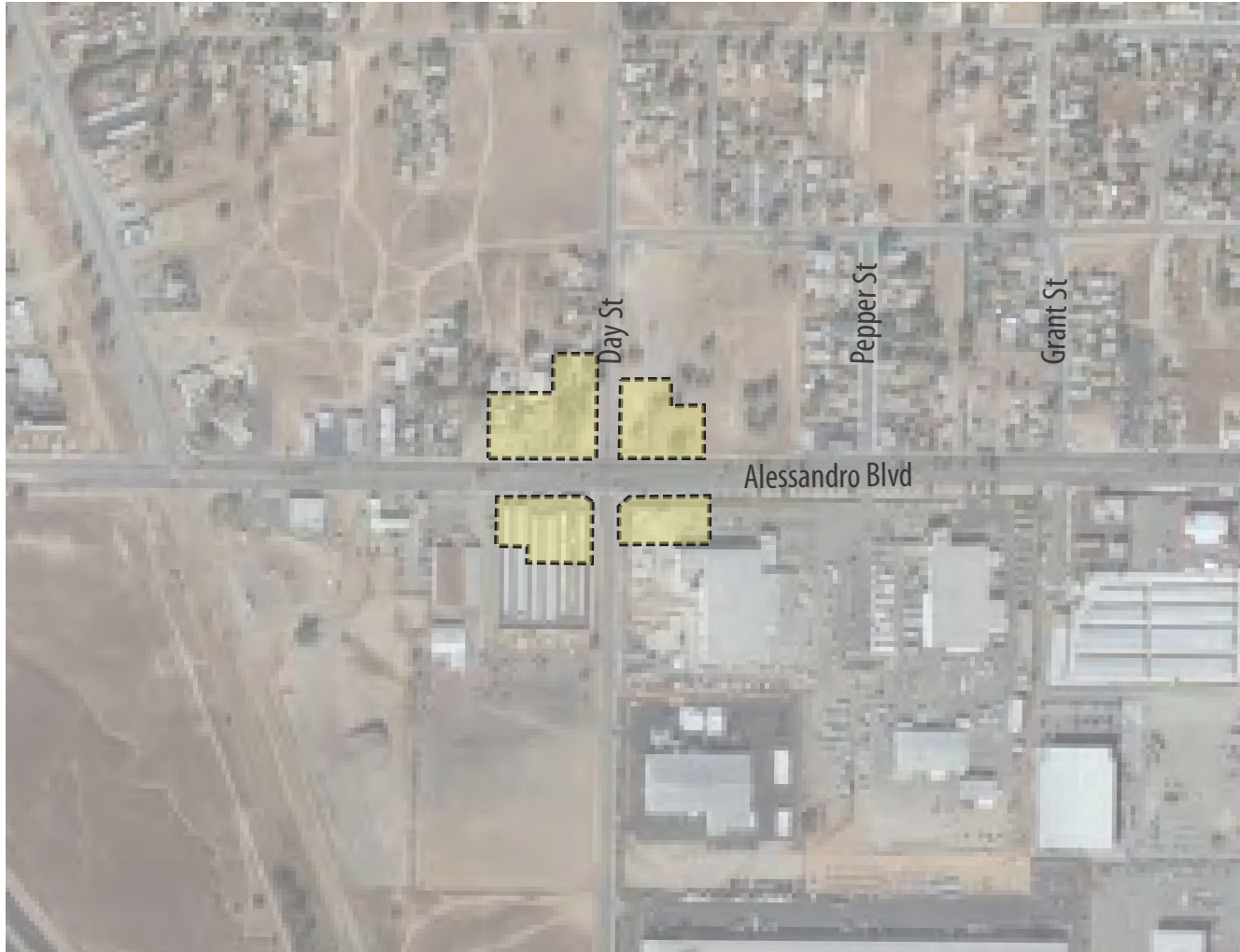
Alessandro Blvd and R.O.W.

- Utilize the intersection of Day Street to serve as the transition for the section to the west which will function as access to and from I-215, and the section to the east which will begin the reconfiguration of the corridor;
- Reconfigure sidewalk to include landscaping and trees to visually narrow the roadway and help provide identity;
- Include a planted median with trees;
- Allow on-street, parallel parking while enabling efficient access to and from the 215 freeway;

Node Regulating Plan



4. Recommendations: **Activity Nodes**



Left:
Existing area at the intersection of
Day and Alessandro with focused
opportunities for change.

Northwest Quadrant:

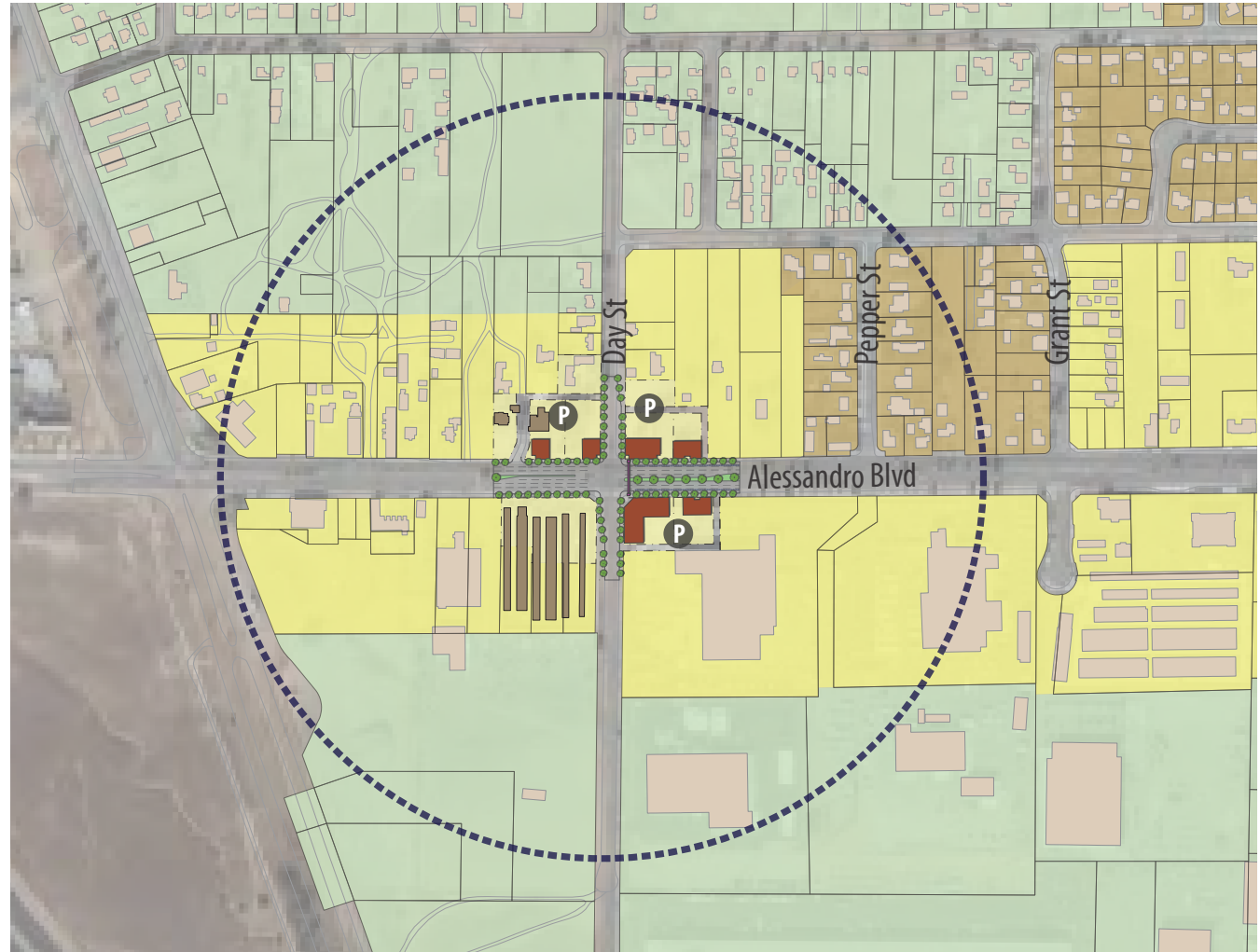
Alessandro functions as access to and from I-215 with little change to the street section. Buildings front and shape the streetscape while using parking that is located in the rear and accessible from Day Street.

Northeast and Southeast Quadrants:

The street section would change at this point and transition to 2 or 3 lanes in each direction. Buildings front and shape the streetscape working with the proposed day care and affordable housing development currently underway in this area. In addition, the opportunity exists for a gateway sign similar to the Sunnymead Blvd example.

Southwest Quadrant:

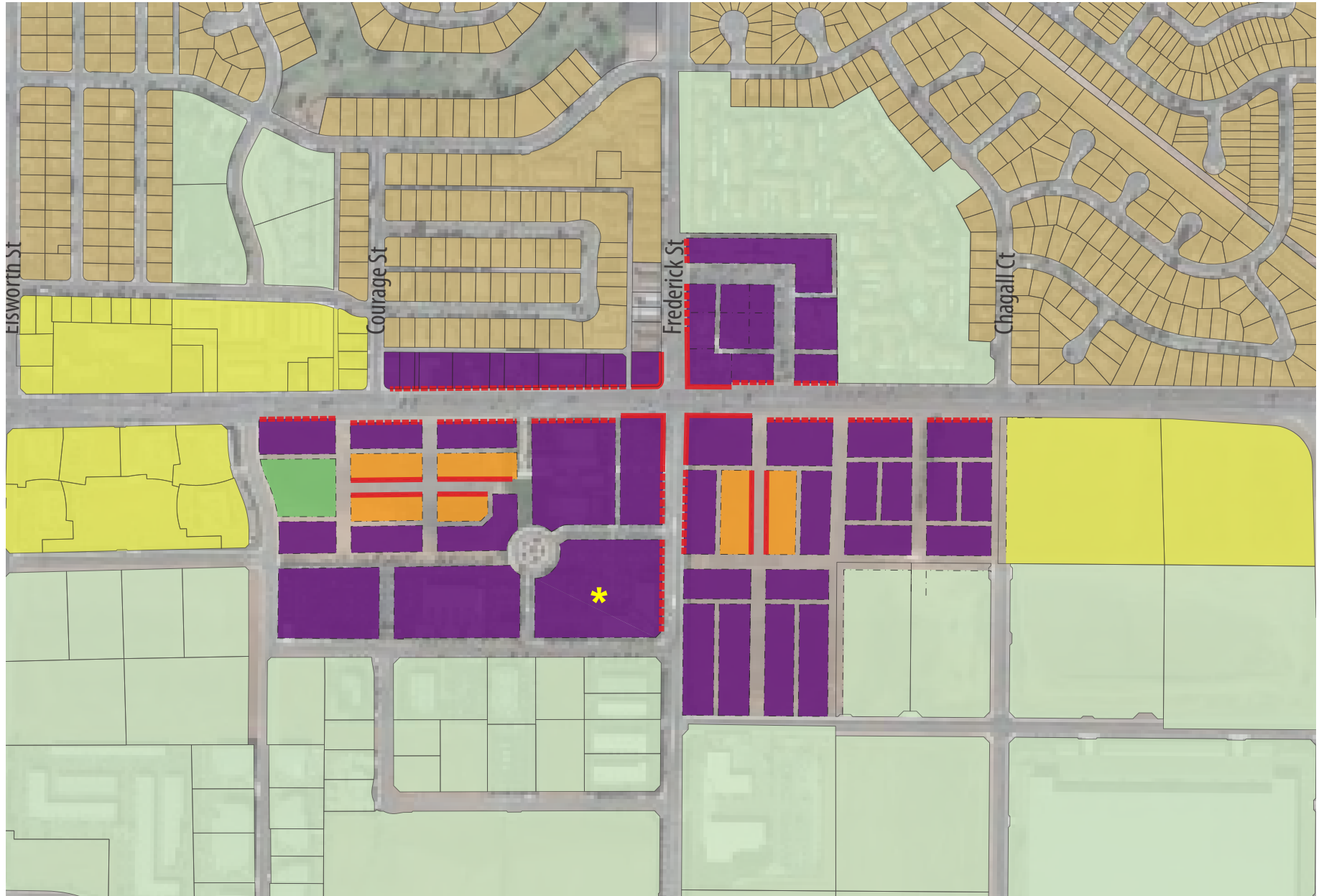
No change.



Building Figures

- Existing Building Footprints
- New Building Footprints
- P Parking

4. Recommendations: **Activity Nodes**



Civic Node at Frederick Street

This node builds upon the role of the civic center as a community focus by connecting existing development to new development at the intersection of Frederick and Alessandro. In addition, the substantial amount of vacant land enables a new pedestrian-oriented pattern of blocks and streetscapes to complete this important node. A new 'main street' environment can be achieved within either the southwest or the southeast quadrant and capitalize on the employee base of the area as well as new residents.

Using this foundation, the objectives for this node are listed below:

Pattern of Blocks and Streets

- Organize the node through new walkable blocks at the southwest and southeast corners, connecting to existing streets and using the frontage road alternative to distribute traffic and manage access;
- Utilize rear access through an interconnected service alley system.

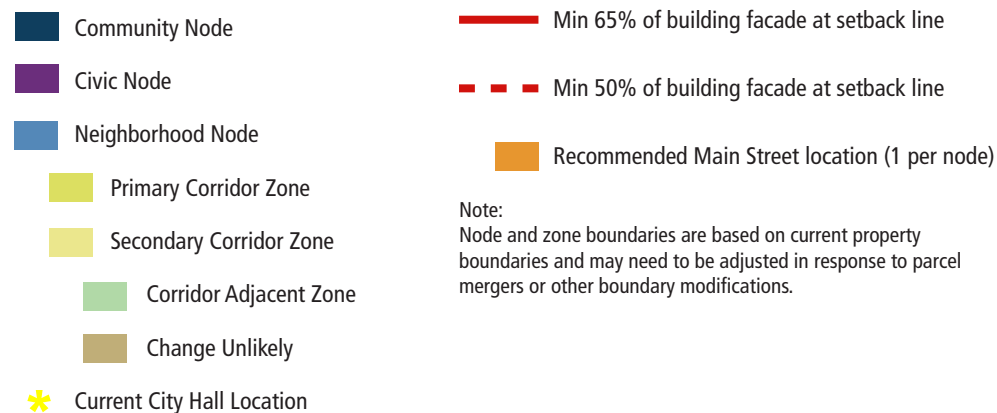
Buildings

- Physically frame and shape the intersection of Frederick and Alessandro to be one of the most important nodes along the corridor;
- Locate most of a building's frontage near or at the sidewalk with the rest of the building allowed to be set back;
- Allow building height to be the most (e.g., 3 to 4 stories) within 300 feet of the intersection of Frederick and Alessandro to provide for mixed-use buildings that offer housing and/or office with ground floor commercial activity;

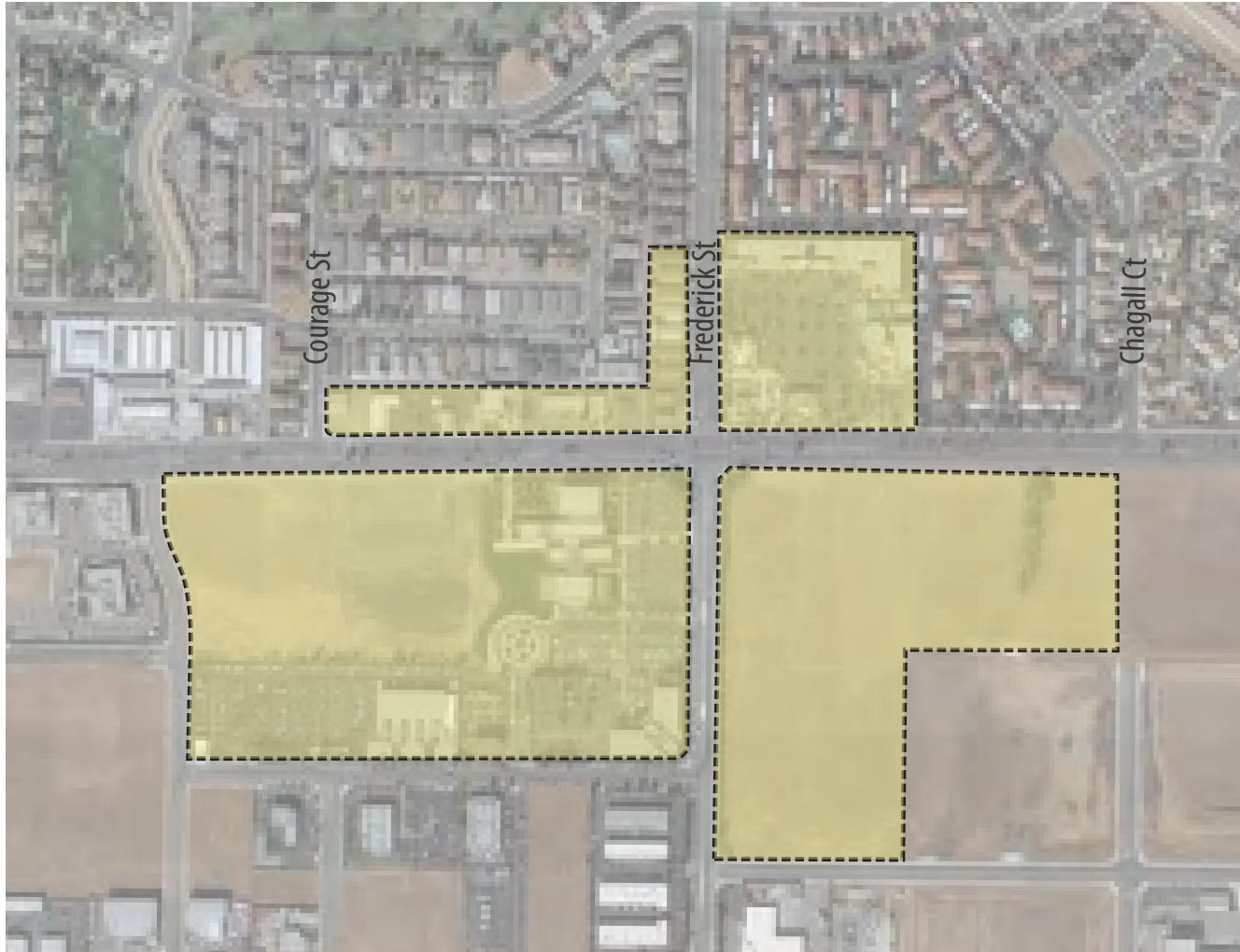
Alessandro Boulevard and R.O.W.

- Reconfigure street to provide a calm streetscape fronting the civic center and new buildings along the south (e.g., frontage street with parking);
- Maintain wide sidewalks (e.g., 12 feet min) to include trees and provide a comfortable pedestrian environment;
- Include a planted median with trees;

Node Regulating Plan



4. Recommendations: **Activity Nodes**



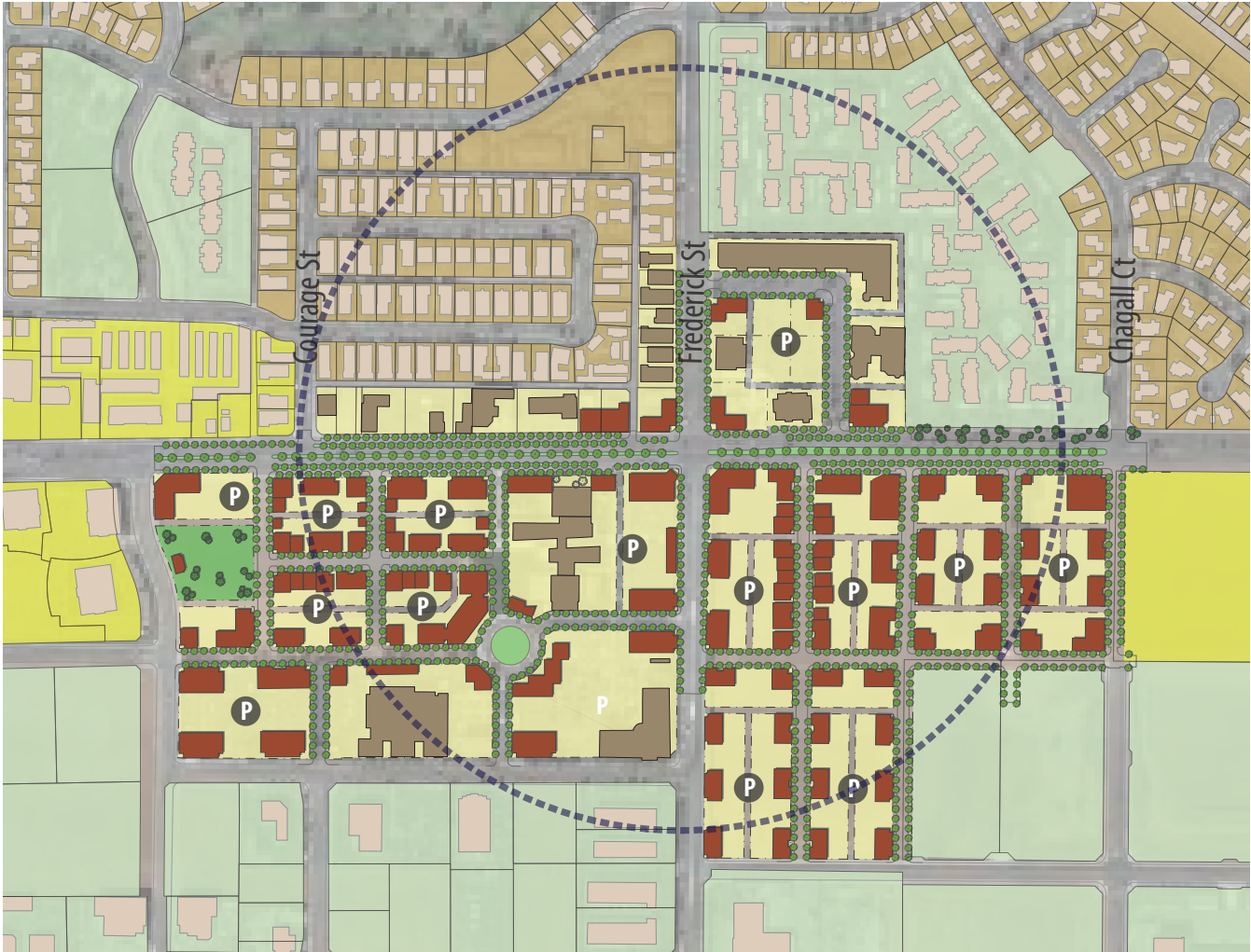
Left:
Existing area at the intersection of
Frederick and Alessandro with several
opportunities for change.

Northwest Quadrant:
The gas station converts either to another pattern with buildings that front the street and/or new buildings are located at the corner with parking behind.

Southwest Quadrant:
The Civic Center's presence and role as a community focus is enhanced by transforming parking lots -over time- into a series of smaller, pedestrian-oriented blocks with parking behind a variety of office buildings that line the new blocks and streetscapes.

Northeast Quadrant:
The existing shopping center's parking lot is organized around a new interior street with a few new buildings and a new building at the street corner.

Southeast Quadrant:
The vacant land is configured into walkable blocks that orient toward a new frontage street along Alessandro and a potential 'main street' one block east of Frederick, to serve the local and future employees and residents in the area.



Building Figures

- Existing Building Footprints
- New Building Footprints
- Open Space

P Parking

4. Recommendations: **Activity Nodes**

1



Above: Existing intersection of Frederick and Alessandro looking east.

2



Above: Reconfiguration of Alessandro into two through lanes in each direction with frontage roads and curb extensions. The existing restaurant could extend its dining area on to a sidewalk patio.



3

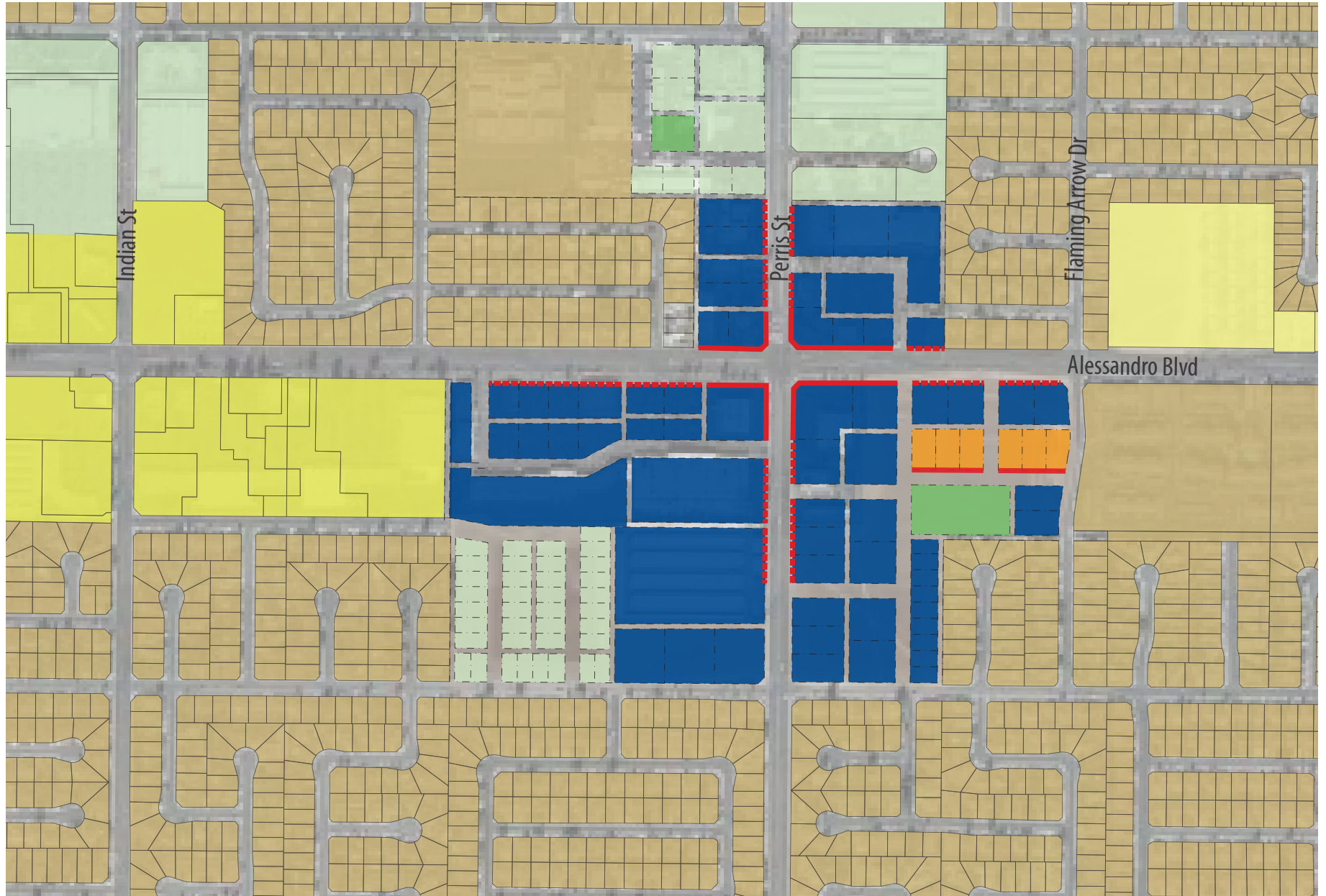
Above: Installation of street trees and streetscape along southeast corner adjacent to the vacant sites.



4

Above: Potential 3 to 4 story corner building with ground floor retail and upper story housing and/or office. New 2 story buildings shown east along Alessandro taking access from the frontage road with easy access on- and off-street parking.

4. Recommendations: **Activity Nodes**



Community Node at Perris Boulevard

The importance of this location at busy Perris Boulevard presents the opportunity to enhance the existing situation to generate a community-serving node. This node serves local and community-level needs by completing the pattern in the northwest quadrant and transforming the southwest and northeast quadrants over time into pedestrian-oriented blocks, streetscapes and mixed-use buildings. The substantial amount of vacant land surrounding an existing commercial building in the southeast quadrant offers the opportunity to generate a new set of walkable blocks and streetscapes that improve circulation and connectivity for the adjacent neighborhoods to the south. Such opportunities provide possibilities for recasting corridor development to be considered an amenity for nearby and adjacent neighborhoods as well as for motorists along Alessandro.

Using this foundation, the objectives for this node are listed below:

Pattern of Blocks and Streets

- Organize the node and generate new building sites by subdividing existing parking lots into new walkable blocks, connecting to existing streets and using the frontage road alternative to distribute traffic and manage access;
- Utilize rear access through an interconnected service alley system;
- Provide alternate routes for circulation and access to new node and daily services through new connections to south.

Buildings

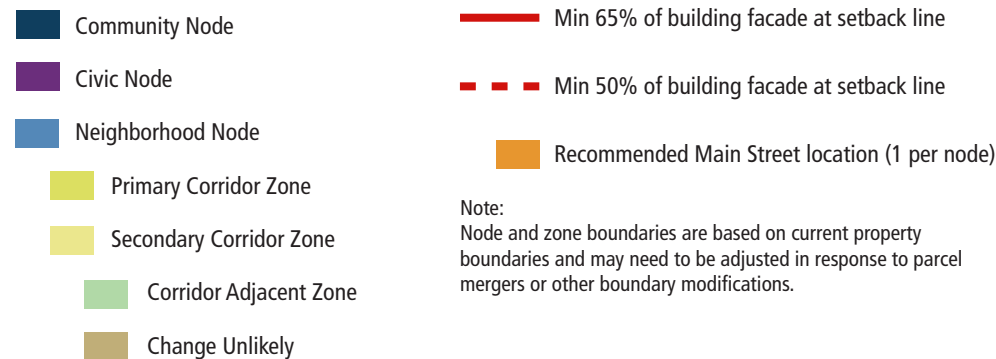
- Physically frame and shape the intersection of Perris and Alessandro to be one of the most important nodes along the corridor;
- Locate most of a building's frontage near or at the sidewalk with the rest of the building allowed to be set back;

- Allow building height to be the most (e.g., 3 to 4 stories) within 300 feet of the intersection of Perris and Alessandro to provide for mixed-use buildings that offer housing and/or office with ground floor commercial activity;
- Allow for new buildings within existing parking lot pattern by generating new blocks with rear-access surface-parking;

Alessandro Boulevard and R.O.W.

- Reconfigure Alessandro to generate desirable commercial frontage through widened sidewalks, landscaping and street trees;
- Using a frontage street along Alessandro, organize access to new blocks without conflicting with Alessandro traffic;
- Maintain wide sidewalks (e.g., 12 feet min) to include trees and provide a comfortable pedestrian environment;
- Include a planted median with trees;

Node Regulating Plan



4. Recommendations: **Activity Nodes**



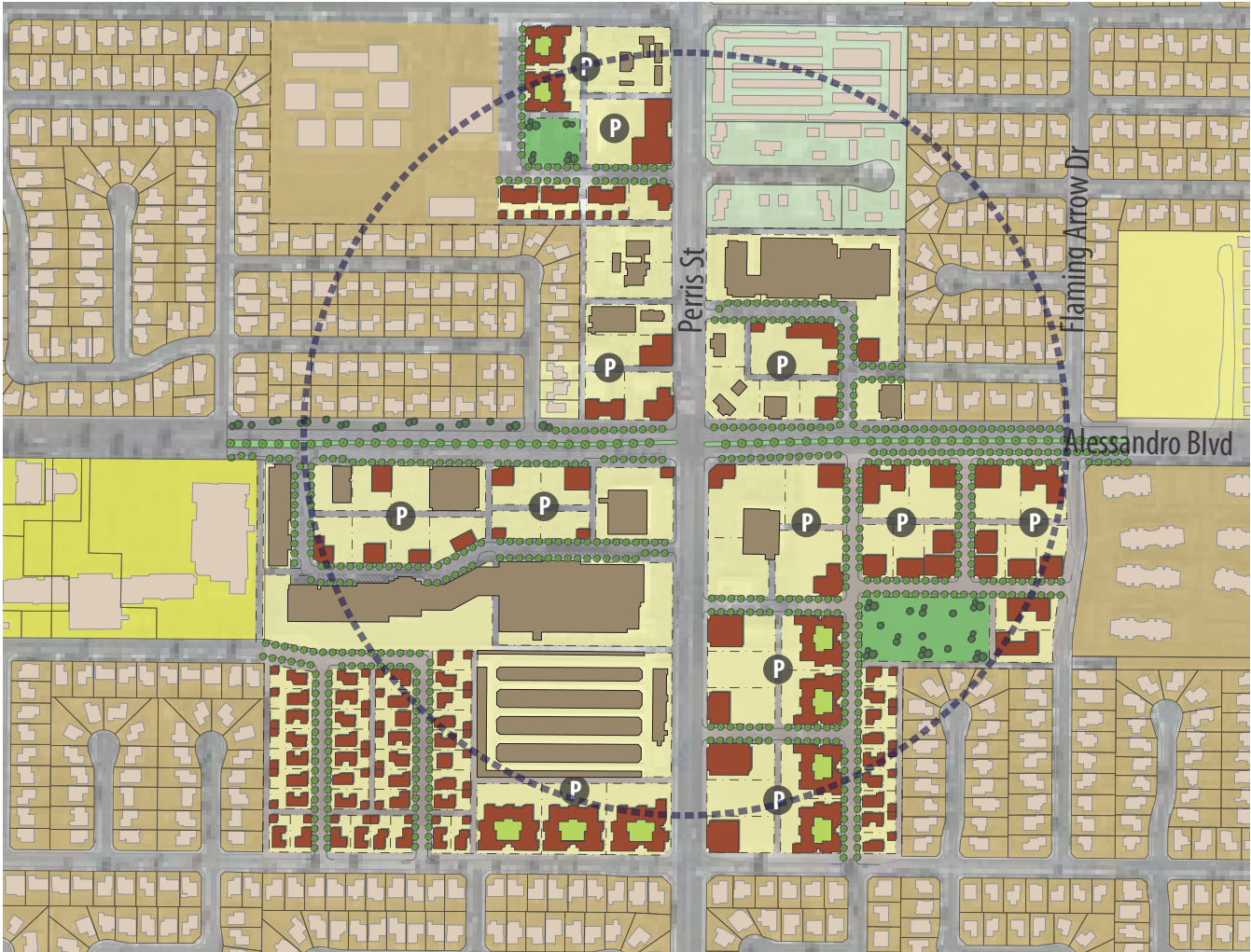
Left:

Existing area at the intersection of Perris and Alessandro with several opportunities for change.

Northwest Quadrant:
New buildings are located at the corner to help physically shape the intersection as well as Perris Blvd. Beyond, to the north, neighborhood-compatible housing is introduced to complete the pattern, improve circulation and provide more customers for this node.

Northeast and Southwest Quadrants:
The existing shopping centers are reorganized around new internal streets that are shaped by a few new buildings while retaining recent buildings. Beyond, to the south, neighborhood-compatible housing is introduced to complete the pattern, improve circulation and provide more customers for this node.

Southeast Quadrant:
The relatively new retail building remains while the vacant land is organized into walkable blocks that improve circulation with the adjacent neighborhood while providing the pattern for new buildings and new neighborhood-compatible development, including open space.



Building Figures

- Existing Building Footprints
- New Building Footprints
- Open Space
- P Parking

4. Recommendations: Transportation, Circulation & Access

The transportation, circulation and access component of the vision plan are integral to everything presented so far in this report. This section of the report describes the specific approach to supporting the urban design objectives presented earlier with the overall objective of revitalizing the corridor.

The recommendations are described in three levels of change: minor, moderate, and major with reference to street sections that have been designed for these conditions.

A. Minor Change & Enhancements

The following minor modifications and enhancements would primarily involve lane re-striping and landscaping improvements along Alessandro Boulevard. Each potential condition is discussed below, and representative examples from cities throughout Southern California are then presented.

Condition A-1

Similar to Glenoaks Boulevard in the City of Glendale, the existing 136-foot Alessandro right-of-way would continue to accommodate three lanes of travel in each direction. Class II bike lanes are added adjacent to on-street parallel parking with landscaped medians and landscaped tree lanes separating the sidewalks from the roadway.

This configuration would be ideal on the western edge of the corridor where the most traffic along Alessandro Boulevard occurs. However, the right-of-way is wide enough to accommodate this condition along the entire five-mile corridor.

Condition A-2

To allow for wider Class II bike lanes in areas along the corridor where on-street parking is not necessary, especially in residential areas where large walls front Alessandro on both sides of the street, the parking lane could be removed, the bike lanes widened to 8 feet, and

the sidewalks widened to 9 feet. Under this scenario the roadway would still have three through lanes of travel in each direction and Class II bike lanes.

Existing examples of Condition A-1 and A-2

- Glenoaks Boulevard – Glendale, California

Located within the City of Glendale, Glenoaks Boulevard is a major thoroughfare with characteristics similar to Alessandro Boulevard in Moreno Valley. Glenoaks Boulevard is a six-lane, major arterial with a landscaped median, Class II bike lanes, and on-street parking along the shoulders. The corridor is more commercially developed than Alessandro Boulevard, but the right-of-way and the configuration of the roadway is similar to Alessandro.

According to staff within the transportation department at the City of Glendale, the existing conditions on Glenoaks Boulevard are such that high speed travel along the roadway inadvertently discourages use by cyclists. According to the city, the roadway is 'over built' and therefore contributes to high speeds. Users of this roadway are often avoiding congestion on the Highway 134, which is located just a few blocks south of Glenoaks Boulevard. Due to the high speed of travel and the night-time racing that occurs along this street, there are

a number of traffic collisions that occur on the street and the city is exploring a variety of traffic calming measures along the street. These traffic calming measures include, but are not limited to, reducing the number of travel lanes from three in each direction down to two, widening the existing Class II bike lanes and creating medians to separate the bike lanes from through traffic, police enforcements of speeders, and reducing the allowable speed limits.

If the community wanted to keep things relatively the same as they exist today, this example would satisfy such direction. However, the City has the opportunity to incorporate traffic calming features, as discussed above, into the design of the roadway to prevent problems related to high-speed travel similar to those experienced in Glendale.

- Colorado Boulevard – Community of Eagle Rock, Los Angeles, California

A second example of a wide major thoroughfare with three through lanes of travel in each direction, and on-street shoulder parking is Colorado Boulevard in the community of Eagle Rock within the City of Los Angeles. Portions of Colorado Boulevard provide Class II bike lanes, and portions of the roadway are merely Class III bike routes. Colorado Boulevard, in the location, is a highly utilized commercial corridor and would be similar to a built-out urban node along Alessandro Boulevard.

Glendale Boulevard – Glendale, California

A third example of a wide major thoroughfare with three through lanes of travel in each direction, and on-

street shoulder parking is Glendale Boulevard in the City of Glendale, north of Highway 134. Glendale Boulevard is a Class III bike route, and in this location contains residential uses on one side of the street and lower density commercial uses along the other side of the street.



Glenoaks Boulevard, Glendale, CA



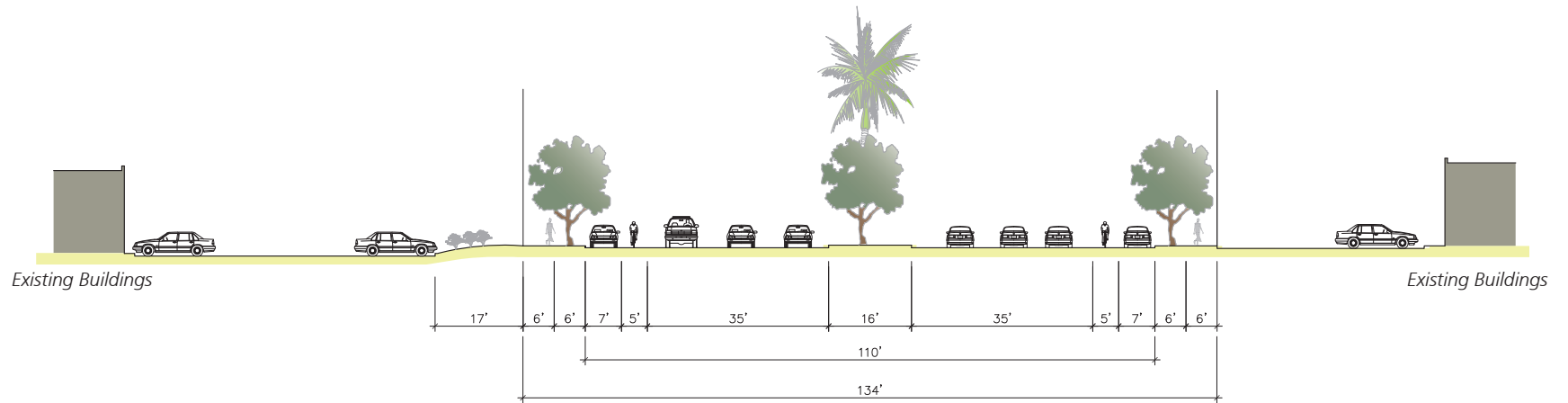
Colorado Boulevard, Eagle Rock, CA



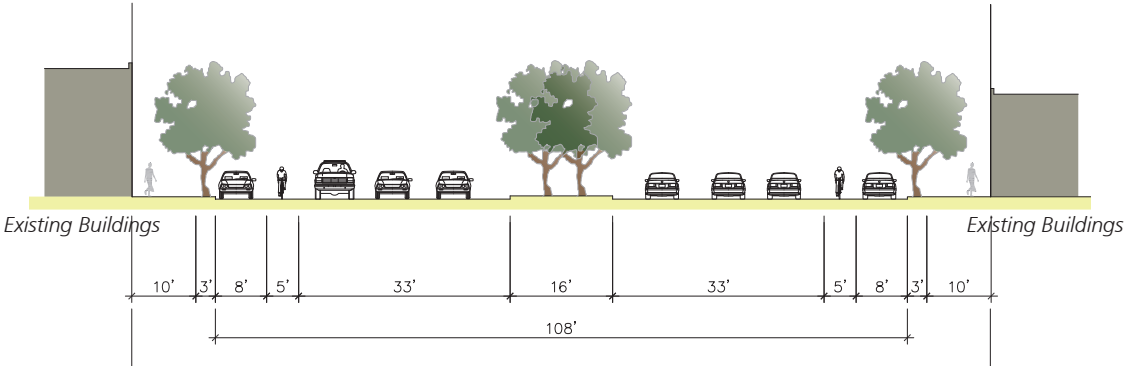
Glendale Boulevard, Glendale, CA

4. Recommendations: Transportation, Circulation & Access

Sections for 'A' Conditions



Condition A-1 Section View



Condition A-2 Section View

4. Recommendations: Transportation, Circulation & Access

B. Moderate Change & Enhancements

The following moderate modifications and enhancements would require reconfiguration of Alessandro Boulevard along portions of the corridor beyond just re-striping the roadway and/or provided landscaped medians.

It is important to note that as part of this process, the consultant team, and CDM in particular, evaluated the potential for the corridor or portions of it to be reconfigured for 2 through lanes in each direction from the current 3 in each direction. The analysis shows that it is possible to reconfigure the corridor to 2 through lanes in each direction while maintaining better levels of service than currently exist. In addition, the reconfigured right-of-way allows more creative solutions to be considered for revitalizing the corridor.

Each potential condition is discussed below followed by representative examples of corridors from the Greater Los Angeles area.

Condition B-1

Under this scenario, Alessandro Boulevard would continue to operate with three through lanes of travel in each direction with a landscaped center median. No on-street parking would be provided and instead of parking, linear parks would line both sides of the roadway and accommodate a shared Class I bike path/pedestrian trail. This scenario is the next step modification from scenario A-2 discussed earlier with the primary difference between this scenario and A-2 is that rather than on-street bike

lanes and shoulder parking adjacent to sidewalks, linear parks with dedicated bicycle and pedestrian trails are provided.

Similar to scenario A-2, this option would work where no on-street parking is required. Ideal locations for this scenario would be along Alessandro Boulevard through residential areas where walls line the corridor on both sides of the street. Additionally, a linear park option should be considered by the City in the vicinity of the Aqueduct Bike Path near Heacock Street.

Condition B-2

Implementation of this scenario would be appropriate in urban centers/nodes where commercial uses line both sides of the street. This option provides for a wide landscaped center median with diagonal parking on one side of the street, much like the diagonal parking along Huntington Drive in the City of San Marino, as shown in the examples provided below. On the opposite side of the street, parallel parking could be accommodated. Alessandro Boulevard would then serve as a Class III bike route where bikes would share the shoulder with diagonal parking on one side of street and parallel parking on other side of street. Again, this is similar to Huntington Drive in the City of San Marino.

Condition B-3

Implementation of condition B-3 would entail three through lanes of travel in each direction with a

landscaped center median. Rather than having a linear park on each side of the street, as presented in condition B-1, the roadway would be shifted to one side and a wider linear park would be provided on only one side of the street. Within the linear park would be a Class I bike path/pedestrian trail. Additionally, on-street parking could be accommodated adjacent to the linear park. This scenario would work best along the residential areas of the corridor, especially where tall residential walls line Alessandro Boulevard.

Condition B-4

Implementation of this scenario is similar to scenario B-3 with the linear park on one side of the road. The linear park could contain a Class I bike path/pedestrian trail, while the roadway would contain two through lanes of travel could be accommodated in each direction. This scenario would work in conditions where one side of the street has residential land uses and the other side of the street is developed with commercial uses; the park could serve as a buffer between the residential uses and the major thoroughfare and commercial uses.

On the side of the street with residences and the linear park, on-street parking could be accommodated in the shoulder. On the side of the street with commercial uses, on-street parking could be accommodated in either a parallel parking layout or diagonal parking. Additionally, landscaping and a sidewalk could be accommodated adjacent to the commercial uses fronting Alessandro Boulevard.

Condition B-5

This scenario would require more substantial reconfiguration of Alessandro Boulevard and would be most appropriate in areas of the corridor where one side of the street is developed with residential uses and the other side of the street is developed with vibrant commercial uses. With implementation of condition B-5, two through lanes of travel in each direction could be accommodated on Alessandro. A landscaped linear park could be constructed in the median separating the main roadway from a frontage road on the side of the street with commercial uses. Similar to other conditions with a linear park, the park could accommodate a Class I bike path/pedestrian trail on the side of the street fronting the residential land uses, thereby serving as a buffer between the residences and the major thoroughfare. On the side of the street with commercial uses, a frontage road could be constructed that includes one parking lane and one through lane of travel. On-street parking would only be within the frontage road adjacent to the businesses.

Existing examples of Conditions B-1 through B-5

- **Huntington Drive – San Marino, California**

Huntington Drive in the City of San Marino operates as a major east-west thoroughfare. Throughout the corridor in the City of San Marino, as well as the neighboring City of South Pasadena, Huntington Drive provides three through lanes of travel in each direction with a wide

landscaped median periodically used by pedestrians for walking and/or jogging. Portions of the corridor are lined with residential uses, portions with institutional uses, and portions with commercial uses. In the residential and institutional areas of the corridor, limited on-street parking is available. In the commercial areas of the corridor, in select locations diagonal on-street parking is provided and in other select areas parallel on-street parking is available. Huntington Drive is a Class III bike route; designated Class II bike lanes are not provided along Huntington Drive.

As part of identifying the options for circulation along the Alessandro Boulevard corridor, CDM spoke with a staff member from the Transportation Department at the City of San Marino, and according to city staff, the diagonal parking along Huntington Drive has been in place for at least 25 years. During that time, there have been few if any car-car or car-bike accidents. The handful of known car-car accidents have been minor rear-end collisions resulting from cars backing out onto Huntington Drive. No known car-bike accidents have resulted. The city staff and the residents view the diagonal parking favorably and with the diagonal configuration more on-street parking can be accommodated in the same space than if parallel parking were provided.

- **San Vicente Boulevard – Santa Monica, California**

San Vicente Boulevard extends through the community

of Brentwood in the City of Los Angeles and through the City of Santa Monica, where it terminates at Ocean Avenue in Santa Monica. The roadway provides east-west access between Santa Monica and Interstate 405, and includes two through lanes of travel in each direction. San Vicente also provides Class II bike lanes, on-street parking, and contains a landscaped center median used by joggers as a linear park.

When considering recommendations for the City of Moreno Valley, CDM spoke with a staff member from the Open Space Department within the City of Santa Monica. The Open Space Department oversees use of the landscaped median along San Vicente Boulevard. This median has been used by joggers, as a designated jogging corridor, and is controlled as such by a Jogging Ordinance. The Jogging Ordinance stipulates that the median can only be used for movement and cannot be used for stationary recreational activities (i.e., picnicking, stretching, exercise classes, etc.). One of the reasons this landscaped center median is used successfully as a jogging corridor is that there are very few streets that intersect with San Vicente; therefore, long uninterrupted landscaped sections of the median area available for use by joggers without needing to worry about crossing intersections.

When considering the option of providing a designed walking, jogging or bicycle path in a landscaped center median/linear park along Alessandro Boulevard, due to

4. Recommendations: Transportation, Circulation & Access

the number of intersections along the corridor, it is not recommended to encourage pedestrian activity in center medians. The City of Santa Monica has made it work but it's an exception rather than a rule; they have very few intersection crossings so long stretches of undisturbed center running linear park.

- ***Brand Boulevard – Glendale, California***

Located in the City of Glendale, California, Brand Boulevard is a major thoroughfare with two through lanes of travel in each direction, diagonal parking fronting commercial uses on both sides of the streets, and mid-block and intersection crossings for pedestrians. The corridor is predominantly developed with mid and high-rise office and retail uses.

In considering recommendations for Alessandro Boulevard, CDM contacted a representative from the Transportation Department in the City of Glendale to discuss operations along Brand Boulevard. According to Glendale transportation staff, while Brand Boulevard is a major destination, the flow of traffic and the traffic-pedestrian interface has been problematic. Glendale recently installed signalized mid-block pedestrian crossings with flashing warning lights, which has reduced the number of car-pedestrian conflicts, but car-car conflicts have been a minor problem for the corridor. Also of concern are delivery trucks parking illegally behind the diagonal parking, thereby blocking cars from

exiting their parking spaces and also encroaching into one of the two highly traveled through traffic lanes.

Awareness of these potential issues would allow Moreno Valley to implement design features and elements onto Alessandro Boulevard to address these concerns before they become problematic for the city. Signalized mid-block pedestrian crossings could be integrated into Alessandro early in its revitalization.

- ***Whittier Greenway Trail – Whittier, California***

The City of Whittier has a shared Class I bike path and pedestrian trail running approximately five miles through the City. Portions of the Greenway Trail front Whittier Boulevard, a road similar in size and capacity to Alessandro Boulevard. The Greenway Trail is highly utilized by city residents as well as residents from neighboring cities and communities. Additionally, according to city staff, since its January 2009 opening, there have been no reported bicycle/ vehicular or pedestrian/vehicular accidents at any of the ten crossings with intersecting streets. The City of Moreno Valley has the opportunity to incorporate a shared use bicycle path and pedestrian trail into a linear park along Alessandro Boulevard similar to the Greenway Trail.

There is an opportunity for this path to connect to the existing Class I bike path that travels along the aqueduct through the city.

- ***Linear Park – Santa Monica Boulevard and Wilshire Boulevard – Beverly Hills, California***

Similar to the scenarios suggested above, on the north side of Santa Monica Boulevard within the City of Beverly Hills, as well as the east side of Wilshire Boulevard in Beverly Hills, is a linear park providing a walking and biking trail immediately adjacent to these two major thoroughfares. Along Santa Monica Boulevard, two through lanes of travel are provided in each direction, and along Wilshire Boulevard, three through lanes of travel are provided in each direction. For both streets, the linear park serves as a buffer between upscale single family residential uses, the major thoroughfares themselves, and commercial uses immediately across the streets from the residences. The linear parks serve as corridors for pedestrians and cyclists as well as recreational destinations for areas residents.



Huntington Drive, San Marino, CA



San Vicente Boulevard, Santa Monica, CA



Brand Boulevard, Glendale, CA



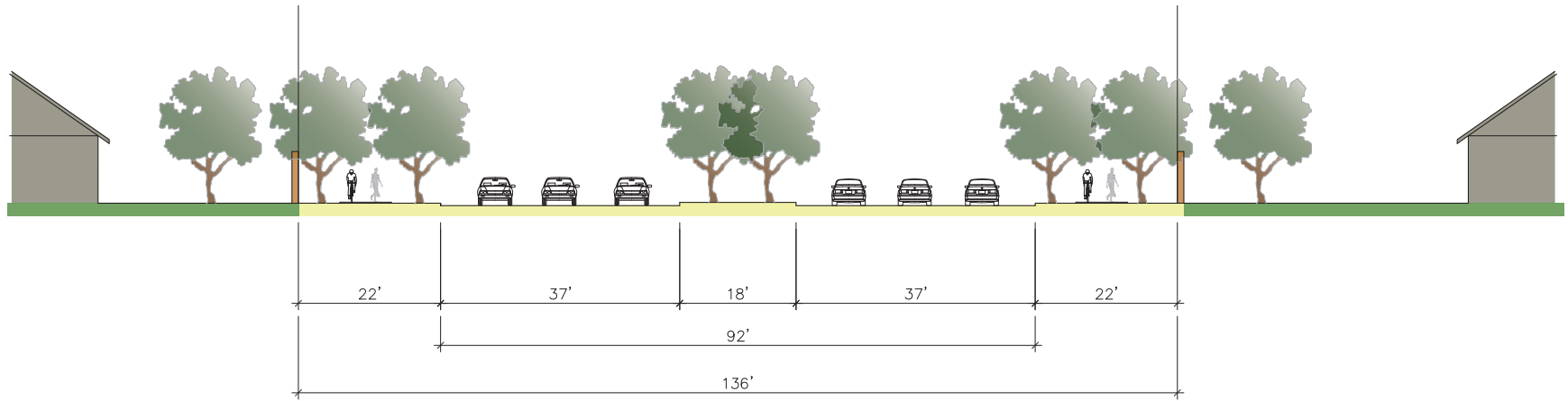
Whittier Greenway Trail, Whittier, CA



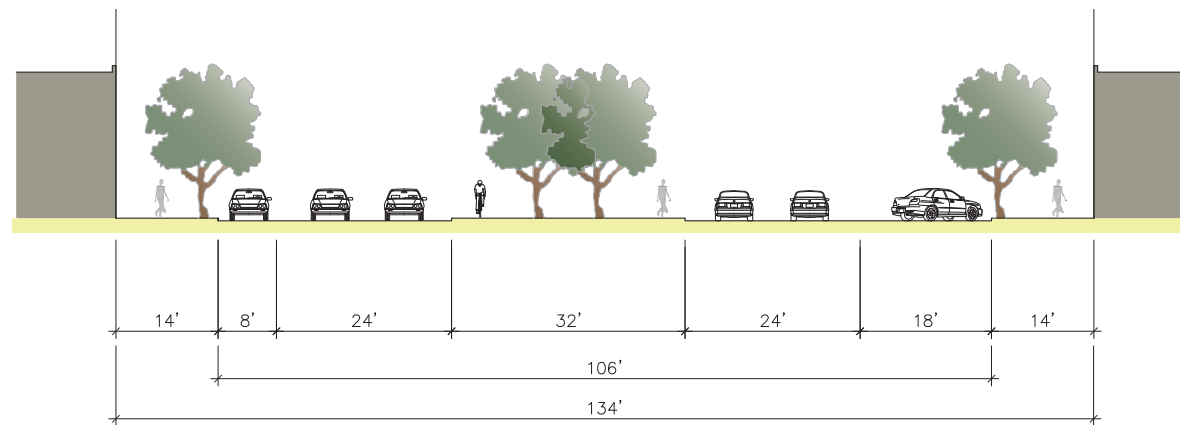
Linear Park, Beverly Hills, CA

4. Recommendations: Transportation, Circulation & Access

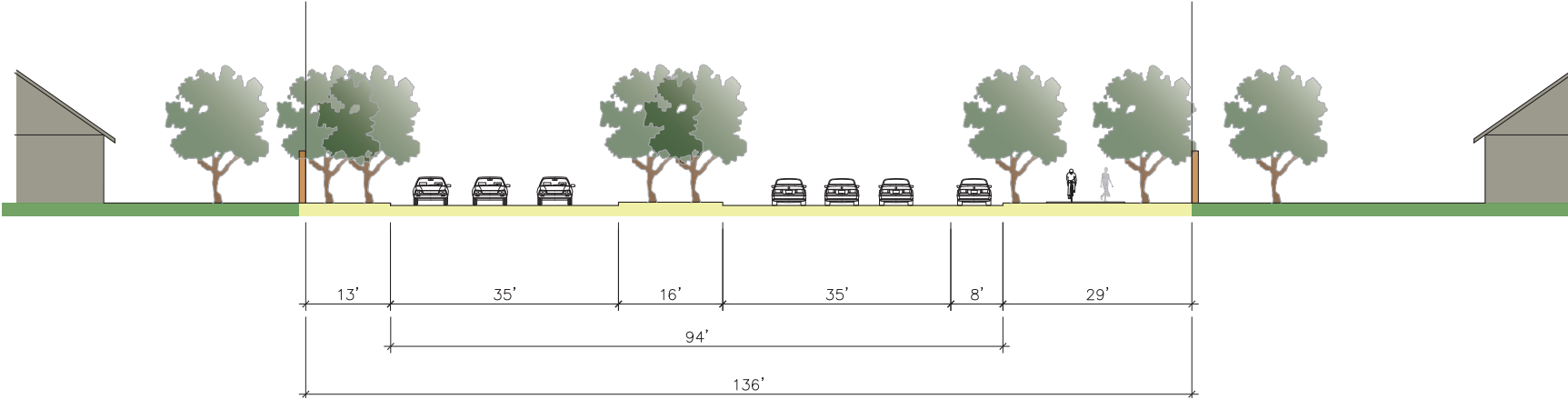
Sections for 'B' Conditions



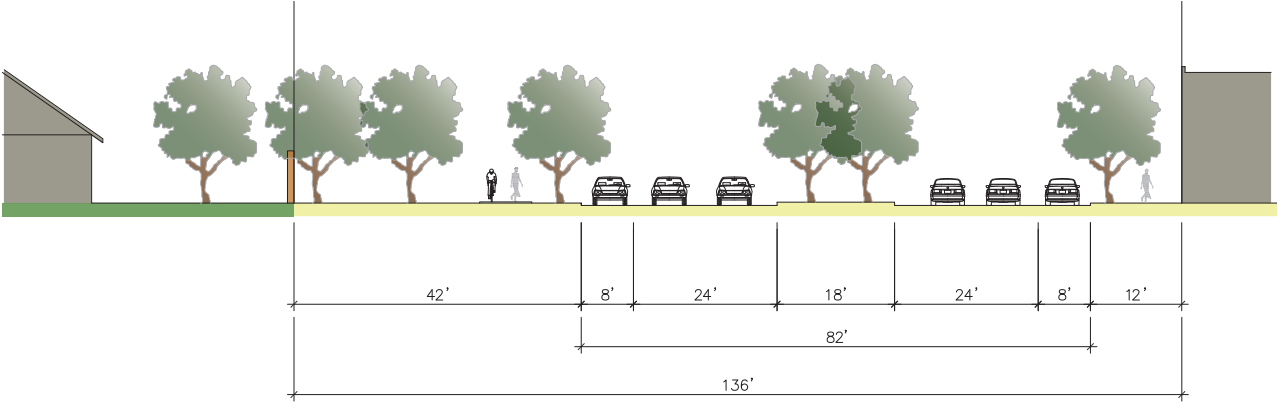
Condition B-1 Section View



Condition B-2 Section View



Condition B-3 Section View



Condition B-4 Section View

4. Recommendations: Transportation, Circulation & Access

C. Major Change & Enhancements

The following major changes and enhancements would require significant reconfiguration of Alessandro Boulevard. Each potential condition is discussed below followed by representative examples of other corridors where these conditions have been successfully implemented.

Condition C-1

Implementation of this scenario would be most appropriate in an urban node along a portion of Alessandro Boulevard with commercial uses on both sides of the street. Under this scenario, two through lanes of travel could be accommodated in each direction, with frontage roads on both sides of the roadway. The frontage roads would be separated from the main thoroughfare by landscaped medians. Within the frontage roads adequate space would be provided for one parallel parking lane and one through lane for cars to transition from and back onto Alessandro Boulevard. Under this scenario, Alessandro Boulevard would be a Class III bike route and a center landscaped median could be accommodated.

Condition C-2

Similar to condition C-1, implementation of this scenario would be appropriate in an urban node in a portion of Alessandro Boulevard that is a vibrant corridor with commercial uses on both sides of the street. Under this scenario, one side of the street would be configured in a manner identical to condition C-1, while the other

side of the street could accommodate diagonal parking fronting the commercial uses. Two through lanes of travel could be accommodated in each direction, with a landscaped center median, and under this scenario, Alessandro Boulevard would serve as a Class III bike route. Additionally, a landscaped median would separate the through lanes of travel from the frontage road.

Condition C-3

Implementation of this scenario could be accomplished on a longer term basis, as the use of the corridor intensifies. Currently ridership of the existing bus lines along the corridor is low. Therefore, implementation of a Bus Rapid Transit (BRT) system today may not be supportable. However, in the longer term when ridership could support it, the 136-foot right-of-way for Alessandro Boulevard could accommodate center-running BRT. Use of the center median for BRT operations is suggested because even further in the future, the BRT system could be converted to a light-rail or streetcar system along corridor providing direct connections with the medical facilities located on Nason and the future Metrolink station near I-215.

With implementation of a center-running BRT system, three through lanes in one direction and two in the other could be accommodated along Alessandro Boulevard. Additionally, adequate right-of-way would exist to accommodate parallel parking along both shoulders. At station locations, the number of through travel lanes in

each direction would need to be reduced to two lanes, and on-street parking along the shoulders could still be accommodated. Under this condition, Alessandro Boulevard would serve as a Class III bike route. Under this scenario center platform stations could be located in the urban nodes throughout the corridor.

Examples

- ***Santa Monica Boulevard – Community of Westwood in the City of Los Angeles, California***

Along Santa Monica Boulevard between Interstate 405 and Century City, the City of Los Angeles recently completed circulation improvements to the boulevard. Throughout the corridor the City constructed frontage roads providing immediate access to commercial uses. The boulevard has two types of segments: those with two and those with three through lanes of travel in each direction with a narrow landscaped center median. Separating the frontage roads from the through lanes of travel are additional narrow medians. As shown in the example, parallel parking is provided on both sides of the frontage road, with one through lane to facilitate entry into and exit from the frontage road back onto Santa Monica Boulevard. Similar kinds of frontage roads could be constructed within the existing right-of-way along Alessandro Boulevard to provide on-street and convenient parking for commercial uses along the corridor.

- ***Emerald Express Bus Rapid Transit (BRT) – Eugene, Oregon***

The Emerald Express BRT system provides rapid bus service between Eugene, Oregon and the City of Springfield. The line opened in 2007 and has a total of ten stops along a four mile corridor. The line runs in the center of the street so as to allow for the integration of a light-rail train system into the street in the future. Both center platform and side platform stations are incorporated into the system.



Santa Monica Boulevard - Westwood, CA



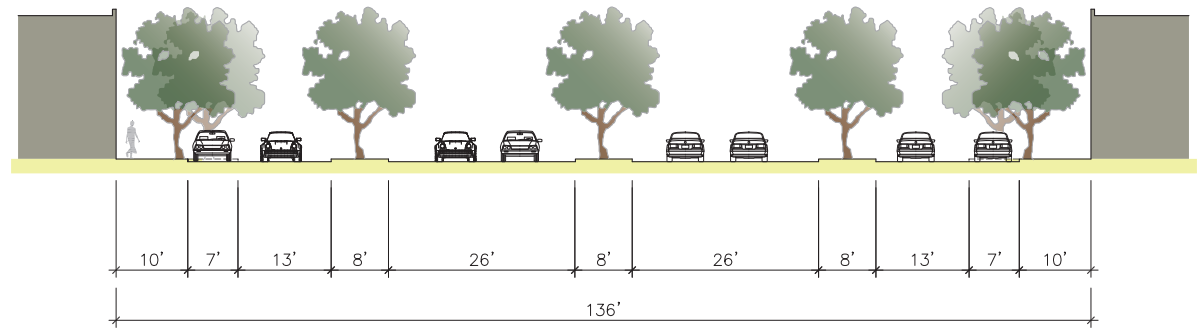
Shattuck Avenue, Berkeley, CA



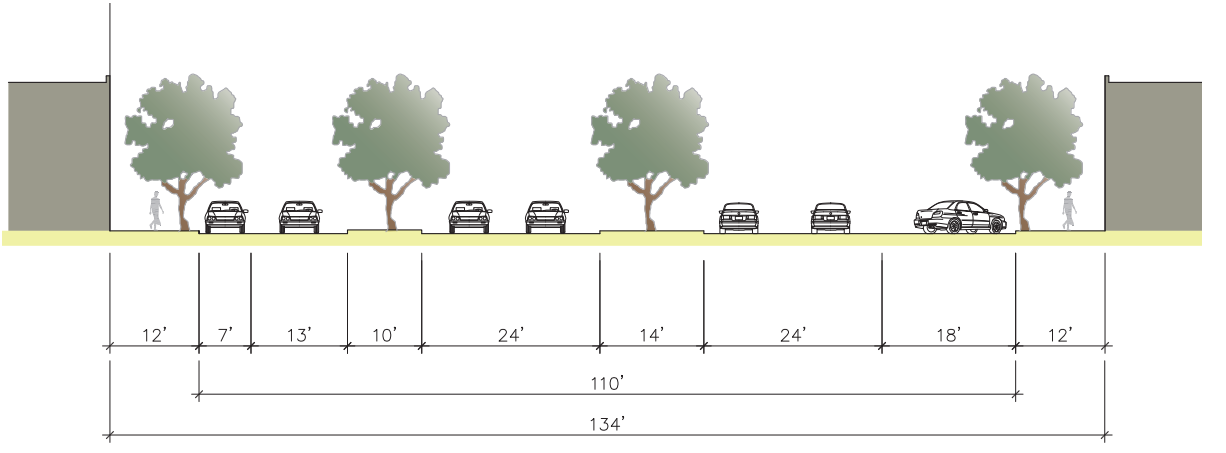
Emerald Express BRT, Eugene, OR

4. Recommendations: **Transportation, Circulation & Access**

Sections for Conditions C-1 - C-2



Condition C-1 Section View



Condition C-2 Section View

D. Corridor Level of Service (LOS)

In order to determine if the changes and enhancements to the right-of-way identified above would be appropriate for Alessandro Boulevard, a level of service planning analysis was conducted on the corridor. The analysis was performed using City of Moreno Valley future (2025) traffic projections for Alessandro Boulevard. A comparison between existing conditions and proposed modifications is below. It is important to note that these comparisons are for planning purposes only and do not represent design or operational analyses.

1. Projected Results under Current Direction

Based on current policy, General Plan land use, and traffic projections, the existing conditions projected for 2025 indicate that the corridor will operate at or near capacity even with the majority of it being three lanes each direction in the future. The reason is because of uncontrolled access points, poorly planned development and inefficient signal progression.

The high percentage of access points increase conflicts which result in delays and potential safety concerns. The poorly planned development of parcels leads to increased trip rates with minimal consideration for multi-modal usage and smart growth. The poor signal progression is related to traffic signal coordination. Traffic signal coordination is used to allow corridors to process vehicles by timing the green light on the main line (Alessandro Boulevard) with the predicted travel speeds. The

increased access points decrease the predictability of traffic signal progression thus the corridor's capacity and delays are increased.

2. Proposed Conditions

The conditions proposed under the changes and enhancements identified earlier represent a comparison of existing LOS with proposed LOS. The proposed LOS analysis included the following factors that impacted the results:

- Change in roadway classification from a Class I (high speed arterial) to a Class II or III (lower speed arterial through well defined urban nodes). Changing the roadway classification also lowers the speeds on the corridor and promotes a more inviting community with sidewalks, bike lanes, narrow travel lanes and transit stops.
- Improved access points and management (frontage roads, shared drives, side street access, etc.)
- Improved traffic signal timing, phasing and progression
- Consideration for multi-modal usage (transit, bike, pedestrians)
- Condition A-1 and A-2: Minor LOS Improvement

The LOS results on the proposed minor improvements will be slightly better than the existing conditions since the corridor will maintain the three lanes in each direction. However, with the introduction of a uniform median along the projects limits and bike lanes, the amount of driveway conflicts will be reduced and potential vehicle trips will also be reduced.

- Conditions B-1 through B-5: Moderate LOS Improvement

The moderate improvements described in B-1 through B-5 will result in a better LOS for the corridor than the existing conditions. Moderate improvements that contribute to reduced delays and capacity include the wide center median that controls access, uniform bike lanes, and traffic signal progression. However, the introduction of dedicated on-street parking spaces will increase the conflict points and contribute to more delays for through movements.

- Conditions C-1 through C-3: Major LOS Improvement

The major improvements documented above are included in the analysis for the proposed conditions. These improvements will ultimately make the corridor an inviting center of business while controlling driveway curb cuts and development through smart growth strategies that focus on multi-modal usage and frontage roads for local trips.

3. Proposed Conditions Results (see Table 8B)

Upon performing this analysis, the proposed condition of two lanes in each direction from Day Street to Nason Street operates equal to or better than existing conditions with the three-lane segments.

The reason is because of better signal coordination, access management and consistent medians throughout the corridor. In addition, the uniformity of two lanes in each direction minimizes driver confusion on lane mergers and tapers.

In general, more analysis is recommended to further understand and apply the various street reconfigurations. But the analysis prepared for this report enables a variety of solutions for revitalizing the corridor from both a transportation perspective and from the perspective of generating an appealing and successful set of places.

Table 8A: Projected 2025 LOS Conditions along Alessandro Boulevard (per Current General Plan)

Segment		AASHTO Classification	Segment Length (Mi)	Speed Limit (mph)	Estimated Free Flow Speed (mph)	# of lanes	ADT 2025	PHV	DDHV	vphpl	Signal Arrival Type	Cycle Length	Green Ratio (g/C)	LOS
From	To													
I-215	Day	Principal Arterial, Urban Street Class 1	0.25	45	50	3	55,900	5,031	3,019	1,147	4	120	0.60	F
Day	Elsworth	Principal Arterial, Urban Street Class 1	0.50	45	50	3	49,500	4,455	2,673	1,016	4	120	0.60	D
Elsworth	Frederick	Principal Arterial, Urban Street Class 1	0.50	45	50	3	46,700	4,203	2,522	958	4	120	0.60	D
Frederick	Graham	Principal Arterial, Urban Street Class 1	0.50	45	50	2	49,300	4,437	2,662	1,464	4	120	0.60	D
Graham	Heacock	Principal Arterial, Urban Street Class 1	0.50	45	50	2	39,900	3,591	2,155	1,185	4	120	0.60	D
Heacock	Indian	Principal Arterial, Urban Street Class 1	0.50	45	50	3	25,100	2,259	1,355	515	4	120	0.60	C
Indian	Perris	Principal Arterial, Urban Street Class 1	0.50	45	50	3	31,200	2,808	1,685	640	4	120	0.60	D
Perris	Flaming Arrow	Principal Arterial, Urban Street Class 1	0.25	45	50	2	30,500	2,745	1,647	906	4	120	0.60	E
Flaming Arrow	Kitching	Principal Arterial, Urban Street Class 1	0.25	45	50	1	30,500	2,745	1,647	1,647	4	120	0.60	F
Kitching	Lasselle	Principal Arterial, Urban Street Class 1	0.50	50	50	1	25,800	2,322	1,393	1,393	4	120	0.60	F
Lasselle	Morrison	Principal Arterial, Urban Street Class 1	0.50	50	50	1	18,300	1,647	988	988	4	120	0.60	D
Morrison	Nason	Principal Arterial, Urban Street Class 1	0.50	50	50	1	18,400	1,656	994	994	4	120	0.60	D

Vision Plan for Alessandro Boulevard Corridor

30 June 2010

Table 8B: Projected 2025 LOS Conditions along Alessandro Boulevard (per Vision Plan recommendations)

Segment		AASHTO Classification	Segment Length (Mi)	Speed Limit (mph)	Estimated Free Flow Speed (mph)	# of lanes	ADT 2025	PHV	DDHV	vphpl	Signal Arrival Type	Cycle Length	Green Ratio (g/C)	LOS
From	To													
I-215	Day	Minor Arterial, Class II / III	0.25	35	40	3	55,900	5,031	3,019	1,660	5	120	0.70	B
Day	Elsworth	Minor Arterial, Class II / III	0.50	35	40	2	49,500	4,455	2,673	1,470	5	120	0.70	B
Elsworth	Frederick	Minor Arterial, Class II / III	0.50	35	40	2	46,700	4,203	2,522	1,387	5	120	0.70	B
Frederick	Graham	Minor Arterial, Class II / III	0.50	35	40	2	49,300	4,437	2,662	1,464	5	120	0.70	B
Graham	Heacock	Minor Arterial, Class II / III	0.50	35	40	2	39,900	3,591	2,155	1,185	5	120	0.70	B
Heacock	Indian	Minor Arterial, Class II / III	0.50	35	40	2	25,100	2,259	1,355	745	5	120	0.70	B
Indian	Perris	Minor Arterial, Class II / III	0.50	35	40	2	31,200	2,808	1,685	927	5	120	0.70	B
Perris	Flaming Arrow	Minor Arterial, Class II / III	0.25	35	40	2	30,500	2,745	1,647	906	5	120	0.70	B
Flaming Arrow	Kitching	Minor Arterial, Class II / III	0.25	45	50	1	30,500	2,745	1,647	1,647	4	120	0.70	B
Kitching	Lasselle	Minor Arterial, Class II / III	0.50	35	40	2	30,500	2,745	1,647	906	5	120	0.70	B
Lasselle	Morrison	Minor Arterial, Class II / III	0.50	35	40	2	25,800	2,322	1,393	766	5	120	0.70	B
Morrison	Nason	Minor Arterial, Class II / III	0.50	35	40	2	18,300	1,647	988	544	5	120	0.70	B

4. Recommendations: Transportation, Circulation & Access

E. Additional Considerations

1. Access Management

Access management of Alessandro Boulevard could utilize the following strategies to help control conflict points while improving access to buildings for motorists, cyclists and pedestrians.

- Limited Access Points and driveway openings
- Proposed developments along Alessandro Boulevard should have only one full access drive, with supplemental right-turn in, right-turn out drives.
- Proposed developments on intersection corners should be encouraged to access the side street with their full access drive to minimize conflicts on Alessandro Boulevard.
- Minimum driveway spacing along Alessandro Boulevard should be included in any new development bylaws or policies. National guidelines on driveway spacing are based on the functional classification of roadway, adjacent parcels and frontage. In general, spacing should be no less than 300 feet between drives. In many communities, this is the equivalent of the length between the intersections that define a block. For longer blocks, it simply means that in addition to the intersections at each end of the block, there would be driveways with at least 300 feet between the intersections and the next driveway.

- Driveways should not be situated within the functional boundary of at-grade intersections (including space for turn lanes, deceleration and acceleration).

2. Driveway Consolidation/Frontage Road.

A frontage road would be beneficial in considering the redevelopment of multiple parcels along Alessandro Boulevard. Placing buildings somewhat closer to the road with a 'rear' access road connecting multiple parcels would also be in tune with the urban node concept. It would be beneficial to also consider consolidating existing driveways. In addition, with the proposed options documented above and an existing wide right-of-way, a frontage road could be a feasible alternative that would have an immediate impact on promoting business growth and reducing corridor capacity and delays.

3. Standardize Driveway Openings

While the existing driveways along Alessandro Boulevard are a mixture of sizes, the overall approach should be to standardize driveway openings in width and material such that driveway openings are more visible to the driver.

4. Median Islands

Median islands are an effective way to promote access management. Median islands can be installed in specific locations to limit access or can be installed

throughout the length of a corridor to enforce full access management. Median islands can provide an area for low-growth landscaping, encourage reduced travel speeds, and significantly reduce the number of angle collisions along a corridor. According to the Asset Management Handbook, "median islands discourage strip development, allows better control of land uses by local government, can provide pedestrian refuge and separates opposing traffic flows." Unfortunately median islands may also have the disadvantage of reducing emergency vehicle flexibility, increases left-turn volumes at median openings, and limits direct access to property.

5. Truck Route

Alessandro Boulevard is currently a designated truck route within Moreno Valley. Implementation of any of the above circulation recommendation conditions must take truck use of the corridor into consideration. Roadway widths in each of the presented scenarios can accommodate truck traffic, and implementation of these recommendations would allow Alessandro Boulevard to remain a major thoroughfare. However, the City may want to consider the re-routing of trucks off of the corridor. Re-routing the trucks off of the corridor in concert with implementation circulation, bicycle and pedestrian improvements, may enhance the use of the corridor by cyclists and pedestrians and may enhance the commercial appeal in urban nodes in the longer term. The gridded street network in Moreno Valley and the

city's location relative to State Route 60 and I-215 may make it possible to re-route the trucks off of Alessandro Boulevard.

6. Traffic Calming Techniques

It is recommended that a detailed speed and traffic report be conducted on the corridor to determine appropriate speed limits based on engineering analysis and functional classification.

To support the recommendation for a node or series of activity nodes along the corridor the City must work with the community to lower speeds along the corridor. While more rigorous enforcement of speed limits may be an effective means of reducing speeds, there are several traffic calming techniques available that will encourage a reduction in speed without shifting substantial volumes onto local area streets. The following traffic calming measures are appropriate for an arterial roadway:

- Street furniture, Street trees, Street lighting
- Raised curbs, Curb extensions, Medians and crossing islands, Textured pavement
- Roundabouts
- Building sighting (building placement along the street instead of set back)
- Narrower lanes (compatible with the posted speed limit), Bicycle lanes

In addition to the treatments listed above, many communities are investing in the Automated Speed Reader signs. While speed humps or tables are also an effective means of slowing traffic, they are not recommended for this corridor due to the volumes of traffic on the corridor.

Incorporating some of these traffic calming measures into the overall plan for Alessandro Boulevard would work in conjunction with the activity node recommendations. The overall intent is to provide a variety of visual cues to motorists that they are within an urban business and residential center and should monitor their speed.

While developing a comprehensive traffic calming plan for Alessandro Boulevard should be incorporated into the long-term improvements for the corridor, it is recommended that the City consider the following traffic calming measures as an interim strategy until such time that the overall corridor plan receives funding to move forward:

- More rigorous enforcement
- Gateways (signs, curbing and landscaping, at either end of the corridor to alert motorists they are entering a node)
- Textured pavement
- Permanent automated speed control signs (permanently installed signs which use radar to alert motorists of their current speed)

7. Streetscape

Implementation of streetscape improvements will help create a sense of place, define the corridor's physical character, and provide a more distinct entry into Moreno Valley. Potential elements that could be incorporated into the design of Alessandro Boulevard include, but are not limited to, decorative street lighting, street trees and other landscaping elements along sidewalks, delineated pedestrian crossings and walkways using stonework and/or colored pavements, interesting bus shelters, public art, trash containers, bicycle racks, and street furniture.

In support of the west gateway entrance to Moreno Valley from I-215, visually prominent and attractive signage and/or other features, either natural or manmade such as trees, rocks, and water features, could be utilized. Manmade features could include a clock tower, signage, and other design elements marking the gateway.

In order to implement street beautification and provide ongoing maintenance of the improvements implemented along Alessandro Boulevard, the city may want to use the example of the Sunnymead Boulevard special district where local businesses/land owners pay a fee for the maintenance of the streetscape and landscaping. However, the success of the corridor should be further along before this approach is applied.

4. Recommendations: Sustainability

Sustainability

Sustainability is a purposeful strategy of comprehensively managing natural resources, environmental quality, community well-being, and economic resources. The goal of sustainability is to meet a variety of complimentary and conflicting needs of today without compromising the ability of future generations to meet their own needs. Sustainability encompasses a wide range of environmental, social and economic topics and has a direct impact on how people live their lives today and in the future.

This section describes sustainability indicators relevant to the growth and development of the Alessandro Boulevard corridor. These indicators should be used by the City to monitor the sustainability performance of the corridor throughout its development over time. Each indicator is discussed within the context of existing conditions along the corridor, or relevant existing conditions within the City or region to create a reference and starting point for analysis of conditions in years to come. Sustainability indicators described in this report are organized into five broad categories. The categories are land use, mobility, the pedestrian environment, health, and water/energy. In addition, each indicator and the existing conditions associated with that indicator are summarized in the enclosed table.

Benefits of Sustainability

Each of these indicators and sustainability topic areas is associated with one or more community benefits. Community benefits include a variety of factors supporting community well-being, including increased mobility, public health, resource conservation, economic benefits, and social equity.

Mobility means that residents and visitors have more choice about when and how they move within and through the Alessandro Boulevard corridor, including walking, biking, and public transit, along with the automobile. Increased circulation options are a benefit because they lead to less auto congestion, more opportunity to enjoy the outdoor environment, opportunities for exercise, opportunities to socially engage with others in the public realm, cost savings on auto use, better air quality, less auto noise, and reduced greenhouse gas emissions. Some of these benefits are closely tied to community health as well.

Public health benefits include better physical health as a result of improved environmental quality, such as air quality, water quality, increased vegetation, access to healthier foods, more parks/open space, and increased opportunities for exercise. Public health also includes mental health and social well-being, which can be improved with increased opportunities for social interaction in the public realm, and through improved quality in basic human inputs and natural resources, such as food and water.

Resource conservation describes the resource, health, and economic benefits of resource management. For example, effective water supply management can help ensure sufficient supply for growing populations, save money, and free scarce financial resources for other uses. Effective water quality management (especially wastewater and storm water) can protect the purity of drinking water, the safety of water for swimming and recreation, and the availability of clean water for fish and wildlife. Water is also related to energy because a significant amount of energy is used to transport and supply water to our communities. The benefits from sustainable energy use include financial benefits from energy savings, as well as environmental quality benefits associated with less energy combustion. In addition, less energy use means better air quality and less greenhouse gas emissions.

The economic benefits of sustainability cross a wide variety of arenas. Increased mobility and density, for example, are associated with lower auto transportation costs. Higher densities can also save local governments on infrastructure costs. Energy and water management can lead to significant reductions on household and municipal utility bills. In addition, improved public health prevents expensive medical care expenditures over time.

Sustainability also promotes social equity, and many social costs of unsustainable practices are disproportionately

Sustainability Indicators

borne by lower-income communities. This includes poor air quality, lack of access to healthy foods, higher transportation and energy costs in proportion to income, as well as others. Sustainable management practices tend to improve the urban habitat for all dwellers, bringing social, economic, environmental, and other benefits to the community as a whole.

The following section identifies sustainability indicators that capture these types of benefits for the Alessandro Boulevard corridor.

Indicators for this report have been developed based on current best practices for sustainability, the particular features of the Alessandro Boulevard Corridor, and the availability of data. Indicators are organized into five broad categories, including land use, mobility, the pedestrian environment, health, and water/energy. Each section contains an overview of the importance of the category, the indicator, the metric for each indicator, and the results.

A. Land Use

The land use mix of our communities has a significant influence over circulation patterns, economic success, health, and resource use. For example, land use mix and housing unit mix help meet the needs of diverse housing, employment, consumption, and recreational needs of residents and visitors. In addition, land use density encourages more efficient use of space, and more efficient circulation patterns. The indicators below focus on selected land use factors relevant for sustainability along the Alessandro Boulevard corridor.

i. Jobs / Housing Ratio: The jobs / housing ratio is an important indicator of the completeness of a community, the availability of housing for the City's workforce, and job availability for the City's residents. It is also an indirect indicator of economic activity to the extent that jobs are a proxy for business enterprise. Moreno Valley's jobs/housing ratio is approximately .46, meaning it has approximately

half the jobs than housing units.¹ The overall jobs/housing ratio within Riverside County is approximately 0.7, which includes all cities within its jurisdiction.² This suggests that Moreno Valley has less than its fair share of jobs within the County.

ii. Density: Density is correlated with walkability and how much people drive; the further apart the land uses, the longer it takes to get from one place to another, and the less convenient that walking and bicycling can become. Moreover, there are cost savings and energy efficiency benefits to increasing density; it reduces the miles of infrastructure needed to service new development, and compact spaces generally require less energy to heat and cool. The average gross residential density in Moreno Valley is approximately 1.5 housing units per acre. As a rule of thumb, average gross densities of 1-2 dwelling units per gross acre describe highly suburbanized communities, 3-6 dwelling units per gross acre describe suburbanized communities with smaller lot single-family homes; densities of 7-12 dwelling units per gross acre describe communities characterized by compact development; and gross densities of 13 and up characterize relatively urbanized environments.

In addition, within the Alessandro Boulevard corridor, the typical net residential density is approximately 4 dwelling units per net acre. In comparison, single-family homes with front and back yards in more compact environments

4. Recommendations: Sustainability

achieve 12 dwelling units per net acre, and townhomes with back yards average approximately 20 dwelling units per net acre.

iii. Housing Unit Mix: Housing unit mix is an important indicator of a community's resource efficiency. In comparison to single-family units, multi-family units use significantly less energy and water. Housing unit mix also reflects whether housing supply meets the needs of a diverse housing population of varying income levels, ages, and family status. Youth, singles, couples without children and seniors frequently prefer to live in multi-family housing because it can be cheaper than single-family housing, creates more opportunities for social interaction, and requires less maintenance. Within Moreno Valley 86% of housing is single-family (including mobile homes), and approximately 14% is multi-family. Approximately 47% of housing was projected to be multi-family across the SCAG region in 2010, suggesting that other communities in the region have a significantly higher proportion of multi-family housing than Moreno Valley.³

iv. Land Use Mix: When residential, commercial, and office land uses intermingle, communities generally have lower vehicle miles traveled, and lower household transportation costs because they own and operate fewer vehicles. Approximately 12% of the corridor is zoned for residential/office combined.⁴ However, significant portions of the Alessandro Boulevard corridor

are currently zoned for a single use, and could potentially benefit from mixed use zoning that would allow a vertical mixing of uses. There are also opportunities for existing land uses where two land use types meet, so long as good pedestrian access points are created between different land uses.

v. Household Costs of Housing and Transportation: The costs of living in a given community are strongly tied to housing affordability and vehicle miles traveled. The combined cost of housing and transportation within the Riverside County area is 51.2% of household income, (24.8% for housing and 26.4% for transportation). In comparison, Los Angeles County households spend a total of 26% of income for housing and 19.6% for transportation. Orange County residents spend 24.7% of income on housing and 20.8% on transportation. San Bernardino County residents spend 24.9% of income on housing and 26.2% on transportation⁵.

B. Mobility

The way in which we travel--whether it is by auto, public transit, bicycle, or by walking--has a significant impact on our energy use, greenhouse gas emissions, as well as our community health and well-being. Mobility refers to the circulation options available to us to get to work, school, shop/run our daily errands, socialize, and recreate. The more options we have to incorporate walking and biking into our daily circulation routines, the more physical

activity we will get, helping to maintain our health. Non-motorized transportation, combined with public transit, also reduces fuel consumption on the passenger vehicle. This generally translates into cost savings, less emissions from fuel combustion, and improved air quality in our communities.

i. Commuter Mode Split: Mode split is an important indicator of whether there are viable transportation options available to the community. The primary form of transportation along the corridor is the private automobile.⁶ Regional data shows that approximately 94% of commuters travel by auto in the "central region" of WRCOG's jurisdiction, which encompasses Moreno Valley (and 80% drove alone). Approximately 1.5% take public transit to work, and less than one percent walk or bike there.⁷ Non-motorized and shared modes--walking, biking, and public transit--are a relatively small percent of total trips and efforts should be made to shift trips away from the private automobile.

ii. Vehicle Miles Traveled: Vehicle miles traveled (VMT) is an important indicator of community mobility and greenhouse gas emissions from transportation. In 2008, average per household VMT from passenger vehicles in the Riverside County area was 66.5 miles per day (and 21.26 miles per day per capita).⁸ Vehicle miles traveled decrease with higher density, diversity of land use, pedestrian-oriented design, distance to public transit, and within proximity to regional destinations, among other factors.



Cyclists often bike on sidewalks to avoid roadway traffic.

iii. Cycling Facilities: Cycling provides an alternative to driving and has numerous health and environmental benefits. Key bicycle facilities include bicycle parking and bikeways. There are three categories of bikeways—Class I, Class 2, and Class 3. Class I is a bike path, independent of automobile traffic, and can be paved or unpaved. Class II is a designated bike lane at least 6 feet in width. Class III is a designated bike route on a roadway lane shared with traffic, and is generally recommended in areas with low auto traffic. Alessandro Boulevard currently does not have any bicycle facilities.

Pedestrian Environment

The physical pedestrian environment plays a significant role in people’s interest and ability to walk to their destinations and spend time outside in the public realm.

A variety of physical factors influence pedestrian comfort, including the availability of sidewalks, bus stop amenities, block size, street frontage, street trees, and roadway widths. Walkability is closely tied to public health because it increases physical activity and encourages social interaction. In addition, pedestrian amenities such as street trees improve walkability, reduce the heat island effect, and improve storm water management. Walkable communities also save energy through reductions in vehicle miles traveled. The following indicators target pedestrian environment factors particularly influential in the Alessandro Boulevard corridor.

i. Sidewalks: Sidewalks are a necessary and essential element of pedestrian circulation. Significant portions of the corridor do not have sidewalks, or have a narrow 5-foot sidewalk along one side of the street. A significant commercial corridor needs sidewalks that are much wider. Generally, a 12-16 foot sidewalk would be considered wide, and accommodates 3 or more pedestrians. A sidewalk ranging between 8-10 feet would be of moderate width, and can accommodate two passing pedestrians. A sidewalk of 6 feet and below is considered narrow, and only accommodates one person at a given time.

ii. Bus Stop Amenities: Bus stop amenities can significantly help facilitate transit use along a transit-ready corridor. Desirable bus stop amenities include seating areas, shade structures, bus route maps and

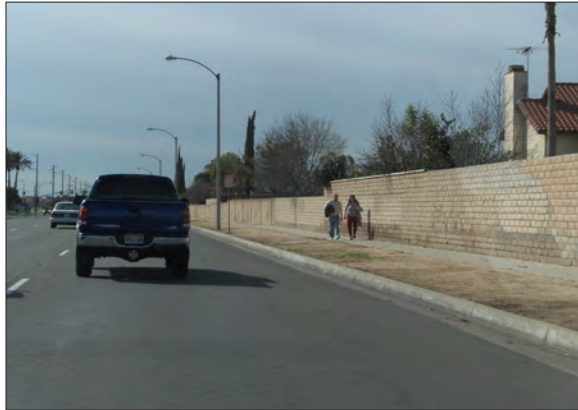


A bus stop with benches and a shade structure invites riders along the Alessandro Boulevard corridor.

schedules, as well as real-time bus arrival information. Alessandro Boulevard has a number of bus stops. While some provide waiting riders with benches or shade, the majority of bus stops do not have needed amenities. The quality of these bus stops can be consistently improved along the corridor to help create a sustainable public transit route.

iii. Block Size: Block size is very important for pedestrian accessibility. Long blocks with little cross streets, and few access points into interior land uses make it difficult to walk from between two places in a reasonable amount of time. Blocks sizes along the corridor generally

4. Recommendations: Sustainability



The majority of the residential areas adjacent to the corridor are walled-off along very long city blocks.

range around 2,500 feet, which is much too long of a distance for most people to walk. Walkable blocks are generally considered to be 400 feet with a maximum of approximately 600 to 800 feet. Conversely, in the adjacent neighborhoods, block sizes are approximately 500-600 feet. However, the existing street grid does not connect with Alessandro Boulevard, thus making it difficult for pedestrians to walk between the residential neighborhoods and the uses or bus stops along the corridor.

iv. Street Frontage: Street frontage is the manner in which adjacent buildings interface with the pedestrian realm. A high quality street frontage is characterized by a building front that is 16 feet or less from the sidewalk

and provides an interesting building facade that is not obscured by fencing or walls. In addition, windows and doorways should “face” the street, and windows and other features should be at the pedestrian level. On Alessandro Boulevard, the majority of residential development along the corridor is gated off and has no street frontage. Municipal buildings along the corridor lack a sufficient building “face” -- including windows and doorways. Commercial development sometimes faces the street, but frequently lacks front-facing entrances, or is too far away from the sidewalk to target pedestrians.

v. Urban Forest: The urban forest includes the street trees and landscaping within and along the public right-of-way, especially along sidewalks. An urban forest



Parking lots and parked cars face pedestrians along the corridor.



A beautiful grove of trees near Moreno Valley High school provides the foundation for an urban forest.

increases walkability by providing shade and creating a pleasant streetscape, helps clean the air, reduces the heat island effect, helps with storm water management, and can improve building energy performance in adjacent buildings. The majority of the corridor has few street trees, and little landscaping, and opportunities exist to improve this aspect of the corridor.

vi. Street Width: The width and the number of lanes of a roadway are inversely correlated with the amount of pedestrian activity. A 2-lane street that is less than 30 feet wide is conducive to a highly pedestrian-friendly (and bicycle-friendly) environment. A moderately pedestrian-friendly environment can occur along a 4-lane roadway that is less than 60 feet wide. Roadways with more than



Portions of Alessandro Boulevard are exceptionally wide discouraging walking, biking, and pedestrian activity.

four lanes or wider than 60 feet have a low status for pedestrians, and discourage pedestrian activity. The majority of Alessandro Boulevard either exceeds four lanes or is wider than 60 feet.

C. Public Health

In recent years, there has been significant research about the links between health and the built environment. This research has explored the causal connections between the lay-out and construction of cities and specific health outcomes and behaviors affecting health. One strong connection between health and the built environment is walkability. Walkable communities generally have lower rates of obesity and heart disease, fewer air quality

issues, and higher levels of physical activity by residents. The following indicators address health issues related to the Alessandro Boulevard corridor.

i. Leading Causes of Death: The leading causes of death in Moreno Valley are heart disease and cancer with 173 and 167 deaths in 2007, respectively.⁹ This is approximately 7.8 deaths per 10,000 residents for heart disease, and 7.5 deaths per 10,000 residents for cancer. These are also the leading causes of death across the entirety of Riverside County.

ii. Obesity: Obesity stems from a variety of factors, including lack of physical activity and unhealthy eating habits. Approximately 65% adults living within Riverside County are obese or overweight (compared to approximately 55% across California and 62% nationwide).¹⁰ Approximately 15% of adolescents are overweight or obese in Riverside County, slightly surpassing the national average. This is important because overweight children are more likely to be obese adults.

iii. Retail Food Environment: Access to healthy food and unhealthy food can have a significant impact on the overall health of community members. Residents' and visitors' eating habits will be influenced by the types of foods available to them. The ratio between healthy and unhealthy foods along the Alessandro Boulevard corridor is approximately .87, meaning that there are slightly more

unhealthy food venues--such as fast food restaurants serving high caloric foods with little nutritional value.¹¹

iv. Air Quality: Air quality is an ongoing issue within the SCAG region primarily due to vehicular traffic. In 2005, Riverside County experienced 65 days (18%) of the year when air quality was at unhealthy levels for sensitive groups, including children, the elderly, and the physically compromised. Children are particularly susceptible because their metabolic rates are much higher than adults, and they soak up significantly more pollutants in the same amount of time as adults. Air quality reached unhealthy levels for healthy individuals as well during 21 days (6%) of the year.¹² Reducing emissions from vehicular traffic will help improve local air quality.

v. Asthma Rates: Asthma is a health condition that is closely linked to air quality. Asthma and poor air quality are primarily the result of vehicular emissions within the SCAG region. Approximately 15% of individuals within Riverside County have been diagnosed with asthma.¹³ This is one percent higher than the average for California, and nearly twice the national average.¹⁴ In addition, 38% of all hospitalizations related to asthma were children under 18 years of age in 2005, and approximately 12% of children in Riverside County have been diagnosed with asthma.¹⁵ Moreno Valley can help minimize the incidence of asthma for its community by working to reduce vehicular emissions along the Alessandro Boulevard corridor.

4. Recommendations: Sustainability

D. Water and Energy

Water Use: Homes and businesses account for the majority of urbanized water use. Single-family homes account for the majority of residential water use primarily due to outdoor landscaping of grass and other vegetation unsuitable for the Southern California climate. Multi-family homes tend to use less water for landscaping, and also tend to use less water in their daily activities. Some water use by multi-family homes gets displaced to commercial Laundromats and car washes, however.

The Eastern Municipal Water District (EMWD) supplies water to Moreno Valley. EMWD estimates that the average single-family home uses .58 acre-feet per year of water, while the average multi-family home uses approximately .29 acre-feet per year. Water usage also goes down as density goes up; high density residential uses approximately half the water than low-density residential.¹⁶

EMWD also plans for up to 2.24 acre-feet of water supply per year per gross acre for commercial buildings, and the average commercial account is projected to use 2.8 acre-feet per year of water in 2010.¹⁷

Moreno Valley can encourage less water use by supporting multi-family development, increasing densities, finding ways to use non-potable water, and by regulating commercial and residential water use for landscaping and similar uses.

Energy Use: Communities can significantly reduce their household and commercial costs of building energy use through proper building techniques and building retrofits. The Moreno Valley Utility (MVU) services a significant portion of the City and portions of the Alessandro Boulevard corridor. Electricity usage within the City was estimated using Moreno Valley Utility figures, under the assumption that Moreno Valley customers represent the average Moreno Valley customer.

The typical MVU residential household used approximately 6230 kWh of electricity in 2007.¹⁸ The average commercial customer used 2.5 kWh of energy per square foot of building.¹⁹ The average commercial building in MVU's jurisdiction used approximately 42,400 kWh of electricity in 2007; this figure is not normalized by customer type or building size.²⁰ Southern California Gas Company provides gas services to Moreno Valley, and the company's average household use is a proxy for residential natural gas use in Moreno Valley, where a significant portion of households rely on natural gas to heat their homes.²¹ The average household located within the Southern California Gas Company region (which includes Moreno Valley) used 465 therms of natural gas per year in 2007.²²

Greenhouse Gas Emissions:²³ Climate change is an increasingly acknowledged global environmental issue. The warming of our climate results when the atmosphere traps heat radiating from Earth towards space. Certain

gases in the atmosphere act like glass in a greenhouse, allowing sunlight to pass into the greenhouse, but blocking the heat from escaping into space. While the greenhouse effect is essential to life on earth, human activity has increased the concentration of greenhouse gases to ecologically disruptive levels.

Household greenhouse gas emissions from passenger vehicles and residential electricity and natural gas use per household were estimated using current literature and readily-accessible data. The average household within the Alessandro Boulevard corridor emits approximately 17.4 metric tons of carbon dioxide equivalents (mtCO₂e) per year for passenger vehicle travel and residential electricity use combined, roughly 50% of which is attributable to passenger vehicle miles traveled, and 50% to building energy use. Generalized assumptions were made for this estimate, and a detailed energy use analysis would need to be completed to provide more accurate figures.

Based on these estimates, it would take approximately 4 acres of mature pine or fir forest to annually sequester the amount of carbon produced by a single household in a given year.²⁴

Table 9 - Existing and Projected Sustainability Indicators Summary

Category	Indicator	Metrics	Existing Condition (Scale of Data)	Projected Condition
Land Use	Jobs/Housing Ratio	Jobs/Housing Ratio	.46 (City)	<ul style="list-style-type: none"> • Increase in jobs/housing ratio is anticipated due to build-up of retail and office uses within planned activity nodes. • Activity nodes are anticipated to attract further economic activity as desirable places to work, play, and live. • Proximity to the MetroLink station will further attract jobs to the City and Boulevard.
	Density	Dwelling Units per Gross and Net Acres	1.5 gross du/hh (city); 4.5 net du/hh (Corridor)	<ul style="list-style-type: none"> • Density along corridor is likely to increase, attracted by employment and recreational activities within activity nodes. • Proximity to the MetroLink station will also attract density.
	Housing Unit Mix	Percent Single- and Multi-Family	86% SF, 14% MF (City)	<ul style="list-style-type: none"> • Increased multi-family housing is anticipated near activity nodes, attracted by retail, entertainment, employment. • Proximity to the MetroLink Station will also attract multi-family housing.
	Land Use Mix	Land Zoned for Mixed Use	Approximately 12% Zoned for Residential/Office (Corridor)	<ul style="list-style-type: none"> • Activity nodes will foster land use diversity, and accommodate retail, office, and residential land uses.
	Household Costs of Housing & Transportation	Percent of Household Income	24.8% (housing); 26.4% transportation (County)	<ul style="list-style-type: none"> • Transportation costs may decrease as activity nodes attract jobs to City, allowing more residents to live and work in Moreno Valley.

4. Recommendations: Sustainability

Table 9 - Existing and Projected Sustainability Indicators Summary (continued)

Category	Indicator	Metrics	Existing Condition (Scale of Data)	Projected Condition
Mobility	Mode Split	Percent Auto/Mass Transit/Walk/Bike	94% auto / 1.5% public transit / <1% walk or bike (Subregion)	<ul style="list-style-type: none"> • Bike lanes and increased pedestrian infrastructure will encourage mode shift away from the automobile. • Increased bus service and BRT under the Major Change scenario will shift longer-distance travel away from the automobile. • Proximity to the MetroLink station will also promote mode shift to alternative forms of transportation.
	Vehicle Miles Traveled (VMT)	Auto VMT/household/day and VMT/capita/day	66.5 mi/hh/day; 21.26 mi/capita/day (County)	<ul style="list-style-type: none"> • VMT growth rates would stabilize under the Minor and Moderate Change scenarios. • VMT will decrease somewhat with BRT under the Major Change scenario. • Increases in the jobs/housing ratio along activity nodes will help reduce local VMT. • Proximity to the MetroLink station will also help reduce VMT in the City.
	Cycling Facilities	Miles of Class I, II, and III Bike Lanes; Bike Parking	None (Corridor)	<p>Bike lanes under the Minor, Moderate, and Major Change scenarios will create a comprehensive network along corridor. All scenarios would increase miles of cycling facilities.</p> <ul style="list-style-type: none"> • Minor Change: Class II Bike lanes, 8'-wide where on-street parking is not necessary and 5'-wide where there is on-street parking. • Moderate Change: Class I bike path/pedestrian trails along Boulevard. A 22'- 29' shared bike and pedestrian path along residential portions of the Boulevard. A 32'-42' linear park with shared bike and pedestrian path on residential side of Boulevard where one side of the street is developed with residential uses and the other side with vibrant commercial uses. • Major Change: A Class III bike route along the Boulevard.

Vision Plan for Alessandro Boulevard Corridor

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Category	Indicator	Metrics	Existing Condition (Scale of Data)	Projected Condition
Pedestrian Environment	Sidewalks	Widths and Presence on Both Sides of Road	Generally 5' and lacking in some blocks (Corridor)	<p>Expanded sidewalk infrastructure under the Minor, Moderate, and Major Change scenarios will create a comprehensive pedestrian network along corridor. All scenarios would improve the pedestrian environment.</p> <ul style="list-style-type: none"> • Minor Change: 9-foot sidewalks where parking not necessary; 6-foot sidewalks throughout corridor where there is street-side parking. Additional planting strip (3'-6' in width, respectively) separating sidewalk from parking lane. • Moderate Change: A 12' -14' sidewalk along commercial portions and activity nodes. A 22'- 29' shared bike and pedestrian path along residential portions of the Boulevard. A 32'-42' linear park with shared bike and pedestrian path on residential side of Boulevard where one side of the street is developed with residential uses and the other side with vibrant commercial uses. • Major Change: 10'-12' sidewalk along activity nodes and commercial land uses.
	Bus Stop Amenities	Presence of Amenities	Shelters and seating at a few; others have none (Corridor)	<ul style="list-style-type: none"> • Streetscape improvements will result in new bus stops and bus stop amenities. • The highest level of amenities will be made possible by increased bus service and BRT under the Major Change, Condition C-3 scenario.
	Block Size	Length of Blocks	2,500 ft (Corridor)	<ul style="list-style-type: none"> • Block sizes in activity nodes will decrease significantly, and will range between 300' and 550' along the majority of planned streets. Shorter block sizes will make the corridor more pedestrian friendly.
	Street Frontage	Pedestrian Obstacles and Building "Faces"	Walled o residential; commercial buildings set back from sidewalk (Corridor)	<ul style="list-style-type: none"> • Street frontage will be required on main streets along activity nodes, creating an environment attractive to pedestrians.
	Urban Forest	Canopy of Street Trees and Streetscape Landscaping; Few street trees and landscaping	Few street trees and landscaping (Corridor)	<ul style="list-style-type: none"> • Landscaped medians and street trees in the minor, moderate, and major change recommendations will increase the urban forest and thereby improve the pedestrian environment. • Linear parks in the moderate change recommendation offer further opportunities to increase the urban canopy, providing shade and sheltering pedestrians and the community from traffic noise and pollution.

4. Recommendations: Sustainability

Table 9 - Existing and Projected Sustainability Indicators Summary (continued)

Category	Indicator	Metrics	Existing Condition (Scale of Data)	Projected Condition
Pedestrian Environment (continued)	Roadway Design	Number of Lanes and Lane Widths	Majority is > 60 feet, 6-8 lanes; 2-4 lanes on east end (Corridor)	<p>Street widths and number of lanes would vary depending on the following recommended scenarios:</p> <ul style="list-style-type: none"> • Minor Change: Lane widths be narrowed to make the streetscape more pedestrian-friendly. The corridor would continue to accommodate three lanes of travel in each direction, but some of the public right-of-way would be shifted to bicyclists, pedestrians, and the urban forest. • Moderate Change: Conditions B-2, B-4: The Number of lanes will decrease to make the streetscape more pedestrian-friendly. At the same time, LOS performance is anticipated to improve. There will be two lanes of travel in each direction, with expanded pedestrian and bicycle facilities along Boulevard. • Major Change: The Number of lanes will decrease to make the streetscape more pedestrian-friendly. Preliminary analysis suggests that this scenario will significantly improve LOS conditions along the corridor (see Table 8B). There will be two lanes of travel in each direction. In addition, portions of the Boulevard intersecting activity nodes will have a local "frontage" lane of travel, separated by a landscaped median. Under Condition C-3, a BRT would run in the center median of the Boulevard.

Category	Indicator	Metrics	Existing Condition (Scale of Data)	Projected Condition
Public Health	Leading Causes of Death	Top Causes of Deaths	Heart disease and cancer (City)	<ul style="list-style-type: none"> Heart disease rates could be positively impacted with increased biking and pedestrian activity.
	Obesity	Percent Overweight or Obese	65% of adults; 15% of adolescents (County)	<ul style="list-style-type: none"> Obesity rates could be positively impacted with increased biking and pedestrian activity.
	Retail Food Environment	Ratio of Healthy to Unhealthy Food Venues	.87 (Corridor)	<ul style="list-style-type: none"> Activity nodes likely to attract a more diversified retail food environment.
	Air Quality	Days of Unhealthy Air Quality for Sensitive and All Populations	65 days for sensitive and 21 days for all (Region)	<ul style="list-style-type: none"> Increased efforts to get people out of their cars are anticipated to improve local air quality. The growing urban forest is also anticipated to improve local air quality.
	Asthma Rates	Percent of Population Ever Diagnosed with Asthma	15% of adults and 12% of children (County)	<ul style="list-style-type: none"> Expanded urban forest will help filter local air pollution, and help curb asthma rates. Overall impact to asthma difficult to determine, because it is contingent, in part, on regional air quality.
Water and Energy	Water Use	Average Annual Residential and Commercial Water Use	.58 acre-feet/hh single-family; .29 acre-feet/hh multi-family; Up to 2.24 acre feet per gross acre for commercial (City)	<ul style="list-style-type: none"> Increased multi-family housing—anticipated to grow near activity node—will have positive impacts on per capita water use within the City. Additional reductions possible based on appropriate City water conservation policies.
	Energy Use	Average Annual Household and/or Commercial Building Energy Use, Including Electricity and Natural Gas	Electricity: 6230 kWh/hh for residential; 2.5 kWh/sq. ft.commercial, Natural Gas: 465 therms/hh for residential	<ul style="list-style-type: none"> Increased urban forest will help lower energy loads in adjacent buildings. Additional energy reductions possible based on appropriate City energy conservation policies.
	Greenhouse Gas Emissions	Metric Tons of Carbon Dioxide Equivalents from Household Driving, Natural Gas, and Electricity Use per year	17.4 mtCO ₂ e/hh/year	<ul style="list-style-type: none"> Growth in greenhouse gas emissions will begin to stabilize due to land use and transportation changes that control VMT. Greenhouse gas emissions reductions also possible from appropriate energy policies and resulting energy use reductions.

5. Implementation: Framework of Zones and Standards

Supporting Regulatory Framework

In order to provide an understanding of the necessary supporting regulations for the ideas presented in this report, Table 10 on the facing page identifies 8 topics with corresponding recommendations. It is important to note that many of the necessary regulations to support the range of revitalization choices in this report already exist within City of Moreno Valley zoning.

Therefore, the information presented in Table 10 represents the overall framework of regulations that should be pursued for revitalization.

Table 10 - Regulatory Framework for Corridor

1.0 Spacing and Service Area	Min (ft)	5
	Max (ft)	
2.0 Block Size (Walkability)	Perimeter	Min (ft)
		Max (ft)
	Length	Max (ft)
3.0 Building Height (max % of Story, based on ground floor)		
2nd Story		
3rd Story		
4th Story		
5th Story		
4.0 Frontages and Min % of Façade at Setback Line		
Major Intersection		
N/S streets within 300 ft of Major Intersection		
Corridor: change expected		
Corridor: little to no change expected		

Vision Plan for Alessandro Boulevard Corridor

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Activity Node					Corridor		
Medical Center	Civic Center	Gateway	Community	Neighborhood	Corridor General 1	Corridor General 2	Corridor Adjacent
5 miles	serves the entire	1/2 mile	1/2 mile	1/4 mile	with Regional, Civic Center, Gateway, Community	with Gateway, Community, Neighborhood	
no max	community	2 miles	2 miles	1/2 mile			
800	800	800	800	800	1,200	800	
2,200	2,200	2,000	1,600	1,200	2,200	2,200	
500	500	600	400	400	600	500	
100%	100%	100%	100%	80%	100%	90%	
80%	70%	25%	50%	20%	65%	40%	
65%	50%	0%	35%	0%	20%	0%	
25%	25%	0%	0%	0%	0%	0%	
75%	75%	50%	75%	75%	75%	75%	
75%	75%	50%	75%	75%	50%	50%	
20%	50%	20%	20%	50%	20%	20%	
exstg setbacks	exstg setbacks	exstg setbacks	exstg setbacks	exstg setbacks	exstg setbacks	exstg setbacks	

5. Implementation: Framework of Zones and Standards

Supporting Regulatory Framework

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Table 10 - Regulatory Framework for Corridor (continued)

Corridor: change expected
Corridor: little to no change expected
5.0 Building Placement (ft) See 5.0 for % of façade at setback line
Front Setback
Street Side
Interior Side
Rear
6.0 Parking Placement (ft)
Front Setback
Street Side
Interior Side
Rear
7.0 Land Use and Intensity
Retail
Restaurant
Commercial - Personal Services
Commercial - Automotive / Repair
Office
Civic
Residential
Lodging
Industrial

Vision Plan for Alessandro Boulevard Corridor

30 June 2010

Activity Node					Corridor		
Medical Center	Civic Center	Gateway	Community	Neighborhood	Corridor General 1	Corridor General 2	Corridor Adjacent
0 min	0 min	0 min	0 min	0 min	5 min	10 min	to be identified upon establishing connections to Corridor and determining pattern of blocks and uses
0 min	0 min	0 min	0 min	0 min	0 min	10 min	
15 min	15 min	10 min	10 min	0 min	10 min	10 min	
10 min	10 min	25 min	25 min	25 min	10 min	20 min	
65 min	65 min	65 min	65 min	30 min	30 min	30 min	
65 min	65 min						
5 min	5 min						
5 min	5 min						
yes	yes	yes	yes	yes	yes	no	
yes	yes	yes	yes	yes	yes	no	
yes	yes	yes	yes	yes	yes	no	
no	no	yes	no	no	no	yes	
yes	yes	yes	yes	yes	yes	yes	
yes	yes	no	yes	yes	no	no	
40 per acre	no	20 per acre	30 per acre	15 per acre	20 - 30 per acre	20 - 30 per acre	
yes	yes	yes	yes	no	no	no	
no	no	yes	no	no	yes	yes	

Source Information:

- ¹ Economics and Politics, Inc., "Demographic, Economic, and Quality of Life Report: Moreno Valley, California," (comparing 2005 jobs to 2006 housing data).
- ² Western Riverside Council of Governments "Western Riverside County: A collection of profiles, indicators, and maps" (2006).
- ³ Southern California Association of Governments, "Compass Blueprint Growth Vision Report" (2004).
- ⁴ GIS zoning data obtained from Janice Nollar and Mike Heslin, City of Moreno Valley, in March 2010.
- ⁵ Joseph Carreras, "Applying the Housing + Affordability Index in Your Metro Area" (Southern California Association of Governments 2010) PowerPoint Presentation).
- ⁶ See Transportation Analysis chapter above.
- ⁷ True North Research, "The Choices We Make: Commuting, Housing, and Employment" (Western Region Council of Governments 2008). ⁸ 2008 Regional Transportation Plan, Amendment 2 PL data provided by Yongping Zhang and Guoxiong Huang, Transportation Planning Department, Southern California Association of Governments in March 2010 for Raimi + Associates.
- ⁹ US Census, "Riverside County: Count of Deaths by Selected Causes and Zip Code of Residence" (2007).
- ¹⁰ "Community Health Profile" (Riverside County Department of Public Health 2008) (2006 data).
- ¹¹ Analysis performed in March 2010 using Google Map Search Engine of the Alessandro Boulevard Corridor study area.
- ¹² Western Riverside Council of Governments "Western Riverside County: A collection of profiles, indicators, and maps" (2006).
- ¹³ Community Health Profile" (Riverside County Department of Public Health 2008) (2006 data).
- ¹⁴ US Center for Disease Control, "Summary Health Statistics" (2008)
- ¹⁵ Community Health Profile" (Riverside County Department of Public Health 2008) (2006 data).
- ¹⁶ Eastern Municipal Water District, "Urban Water Management Plan" (2005) and Eastern Municipal Water District "Principle Guidelines Criteria" (2006).
- ¹⁷ Ibid.
- ¹⁸ Data on Moreno Valley Utility electricity deliveries obtained from California Energy Commission, Energy Consumption Database (ECDMS) (2007), using Moreno Valley Utility customer estimates provided by Gerald McAllister, Electric Utility Division, Public Works Department, City of Moreno Valley for Raimi + Associates.
- ¹⁹ 2007-2008 Data provided by Gerald McAllister, Electric Utility Division, Public Works Department, City of Moreno Valley in March 2010 for Raimi + Associates.
- ²⁰ Data on Moreno Valley Utility electricity deliveries obtained from California Energy Commission, Energy Consumption Database (ECDMS) (2007), using Moreno Valley Utility customer estimates provided by Gerald McAllister, Electric Utility Division, Public Works Department, City of Moreno Valley in March 2010 for Raimi + Associates.²¹ US Census, Moreno Valley DP-4: Profile of Selected Housing Characteristics, Summary File 3 (SF 3) (2000).
- ²² California Energy Commission, "Energy Almanac: California Residential Natural Gas Consumption" (2007 data).
- ²³ Greenhouse gas emissions were calculated using EPA greenhouse gas emissions calculation methodologies, available at <http://www.epa.gov/cleanenergy/energy-resources/refs.html>. For transportation, emissions were calculated applying the California Air Resources Board CO2 kilograms per gallon conversion factor of 8.9, as published on behalf of the PEW Center on Global Climate Change in "Comparison of Passenger Vehicle Fuel Economy and Greenhouse Gas Emission Standards Around the World" (December 2004). Electricity emissions were calculated in part using service provider and energy content label estimates published by Dennis Silverman in "California Greenhouse Gas Reduction," (U.C. Irvine 2007).
- ²⁴ US Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator (Updated March 2010), available at <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>.

