



## 8.o Appendices

# Appendix A: Outreach Program

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# Outreach Program

## *A.1 Design Workshop #1- February 11, 2010*

The following comments were presented by City residents at the Design Workshop held on February 11, 2010. All comments are written verbatim.

### *A.1. Treasures and Challenges Post-It Note Exercise*

Participants were given an overview of the Imperial Highway Corridor, including existing conditions and project goals. Residents were then given an opportunity to identify the treasures and challenges of the corridor in an interactive exercise.

#### *Treasures:*

##### **Town/Gown**

- Biola Offices
- The built in consumers of Biola University

##### **Access/Transportation**

- High speed limit/average speed of traffic
- East of Traffic flow
- Pretty good traffic flow
- Roadway re-pavement
- City signs
- Imperial Highway showcases most aspect of La Mirada Living



- New pavement overlay
- Wide Streets

### Miscellaneous

- Area northwest of La Mirada Blvd., feasibility of commercial with lofts (residential) on 2nd story
- The high hills for 2 or 3 story restaurants

### Family

- Great community for families

### Retail / Services

- Cardinal liquors so friendly
- Gondola's
- Please do not get rid of Gondolas Pizza
- New landscaping between Santa Gertrudes and La Mirada Blvd.
- Jay's Chinese Kitchen
- Don't touch the Carriage Restaurant
- PHO
- Midori 5
- Home Depot
- Starbucks
- Gondola Pizza
- Mr. V's
- Gondola's
- Gondola's - Keep
- The Carriage



## Variety

- Not cluttered with vacant stores. Traffic Flows
- Wide variety of businesses
- Stein Mart
- Stater Brothers
- Fresh and Easy
- Stein Mart and Fresh and Easy
- Independent businesses
- Marshalls
- Keep – Marshall's and Stein Mart
- Variety of retailers
- Keep – Marshall's
- Geographic Location
- L. Santa Gertrudes
- View Opportunities
- Gondola's View



## Environmental/Open Space

- The Creek Park
- Creek Park
- Landscape in center divider
- Nice landscape median
- Nice landscape between La Mirada and Santa Gertrudes
- Greenery, plants, trees
- Medians look great
- New median part near Creek Park
- Park on the creek by La Mirada Blvd.
- The waking trail tunnel from Biola to Home Depot
- The center in road between La Mirada and Santa Gertrudes

## Challenges:

### Miscellaneous

- We want people that love our City s much as we do!

### Traffic / Noise

- Improved Traffic flow at Imperial/Telegraph
- Not pedestrian friendly
- Pedestrian friendly
- Traffic light timing to keep traffic flowing
- Increase traffic
- Efficient traffic lights/intersections
- Traffic lights out of sync
- Traffic at Imperial and Telegraph
- Traffic is terrible at Telegraph – La Mirada – Imperial. Coordinate lights at 5 ...? Intersection
- Noise
- Noise Traffic – interferes with the enjoyment of my backyard
- Fast traffic east/west on Imperial
- Noise

### Lack of Services (non retail)

- Trader Jose
- Vacancies
- Attract more stores or business of interest
- Corner of Imperial and Santa Gertrudes where the gas station use to be – been that way too long
- Lack of existing dining



- No commercial facilities
- Need another nice restaurant – why not corridor?
- Shortage of restaurants

### Visual Quality

- Not cohesive in appearance
- Retail Center's an extremely unattractive and do not entice patronage
- Home Depot shopping center – tie it all together
- Modernize buildings
- Long out of date architecture
- Antiquated shopping centers with vacant businesses
- Shamefully derelict crossroads shopping center – But no Big Box Stores!
- Centers need major face lift
- Visually unattractive
- Ugly frontage
- Old Michael's
- Fronts of buildings – update
- Run down properties
- Keeping business buildings occupied
- Old buildings
- Outdated buildings and parking lots
- No big name shops
- Keep buildings occupied
- Poor parking lot conditions
- Blighted area aging infrastructure – lack of quality vendors
- Modernize the architecture
- The three "nodes" have different styles. How do you get all these groups to agree?
  - The City has one vision, retail, commercial has another or competing vision
  - Funding?





## **Sound Wall**

- Sound walls
- Different block walls
- Unattractive landscape from V.V. to La Mirada
- All buildings are in need of curb appeal
- Sound walls on south side of Imperial
- Need a lot more green buffer
- Sound walls on Imperial and Oxford Drive southeast side
- Walls need replacement
- Big Lots Center

## **Miscellaneous**

- Bike vs. pedestrian traffic
- Use Biola University – Tunnel – Home Depot
  - Explore opportunities to capitalize open space amenities
- Dog Park needed
- Crossroads – Enter/Plaza
- Connect Stater lot with Imperial Highway (P/H health services area)
- Bring back Baskin & Robbins Ice Cream

## **Local Use**

- Missed the boat – La Habra and Whittier encouraged shopping business – La Mirada missed out. May be too late
- Poor utilization of consumers in La Mirada (most people go outside of La Mirada to shop/eat/play).
- Having to go outside the City to eat or shop
- Move Savers out – to another area
- Better use of /or use of space purpose

## Funding/Policy

- La Mirada City Council bias against south La Mirada
- City appears resistant to approving the movement of existing businesses to new locations within the city
- Keeping regulations from hindering new business growth
- Displacement of Business
- Being fair to current businesses and property owners while implementing new regulations
- Funding

### ***A.1.2 Small Group Design Exercise***

Workshop participants also had the opportunity to work in small groups for a more focused discussion on each planning area. The following comments were focused on the following planning areas:

- ***Planning Area 1: Valley View Avenue and Imperial Highway***
- ***Planning Area 2: La Mirada Boulevard and Imperial Highway***
- ***Planning Area 3: Santa Gertrudes Avenue and Imperial Highway***

#### **Map 1: Valley View Avenue**

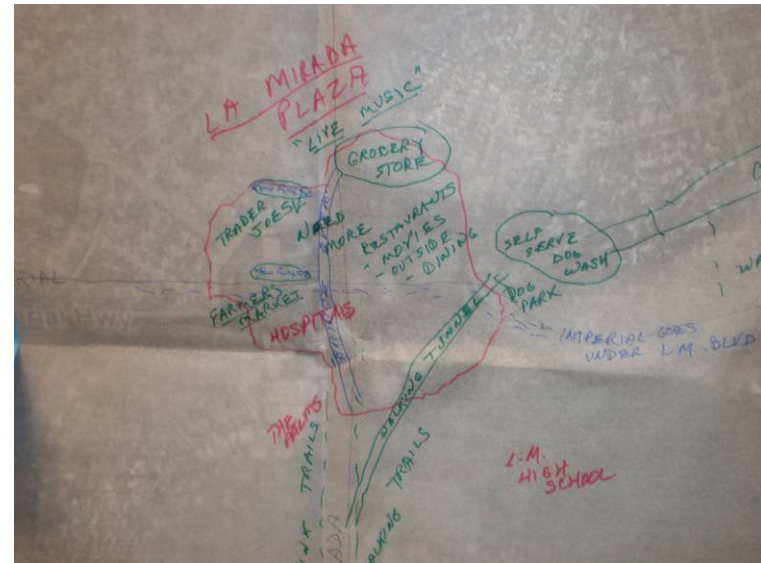
- ***Stores at periphery, not back***
- ***Courtyard, tie to senior housing***
- ***Mixed Use***
- ***Eastside – Professional center***
- ***Gateway to La Mirada***

### Map 2: La Mirada Boulevard

- Skate park (Michaels) / Bowling Alley
- Traffic Issues
- No vacancies! – Redevelop
- Economy made it difficult to vision – INCENTIVES NEEDED

### Map 3: La Mirada Boulevard

- “Birch Street” environment
- Underground parking
- Curb appeal – landscaping
- Gathering places
- Lunch places for students
- Farmers Market
- Aberage Heights/Student Housing
- Birch Street
- Lofts/Mixed use housing
- Theaters/underground parking
- Better traffic flow/light timing
- Bike paths
- Dog Park
- Curb appeal
- More food places
- Farmers market
- Lunch



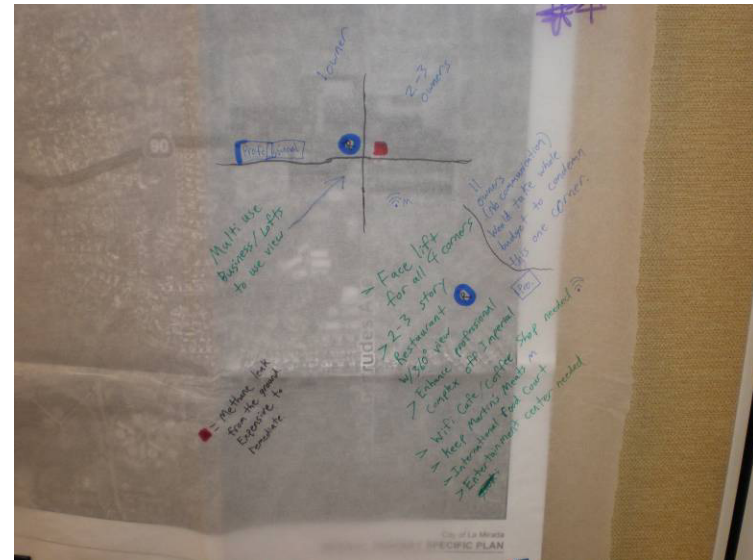
### Map 4: Santa Gertrudes Avenue

- Fix all four corners
- Remediation site – need developer “take over”
- Multi-land use/lofts

- Market; International Restaurants
- INTERNATIONAL FOOD BAZAAR
- Entertainment
- Wifi Café
- Retain Anchors (Stein Mart, Gondola)
- 2 story restaurant with a 360' view

#### Map 5: Santa Gertrudes Avenue

- Improved signage – all 4 corners
- Marshalls center – lands, benches, trees
- Talk with owners/help them make change
- Like Target with Chipotle, Corner Bakery, etc.
- 2-story restaurant at gas station site
- Stein Mart – Signage



#### Map 6: La Mirada Boulevard

- Funding – where coming from, what directed to?

#### Map 7: Whole Corridor

- Work on soundwalls – throughout
  - Want people to see it!
- Town Center – La Mirada Plaza – hub of spokes
- Customers – High School students, FBC, Medical, splash, theatre, Biola, Palms, Hospitals (survey students at 3:00 a.m. – give something clean and fun).
- Dog park and dog wash
- Create park walking trails
- Farmers Market, Trader Joes
- Add another grocery store?
- Add mixed use lofts

- Utilize/create walking tunnel
- Go under/over with circulation improvements
- Imperial must keep moving

**Miscellaneous Notes:**

1. The vision needs to include funding. It is wonderful to prepare a huge “wish list” yet regulations and a plan could hamper rather than encourage beautification of the City and development
2. I was wondering if La Mirada needs more housing for Senior’s?
3. Perhaps a 55 + high rise where Michaels use to be???
4. Re: Santa Gertrudes: Coordinate light landscaping in unused parking space of trees Both Savers and Marshall’s.

## ***A.2 Design Workshop #2- March 24, 2010***

The following comments were provided by City residents at the Design Workshop held on March 24, 2010.

### ***A.2.1 Visual Preference Survey Discussion***

Participants were given an overview of the Imperial Highway Corridor, including existing conditions and project goals. Findings and comments from the previous Design Workshop were also presented. Residents were then given an opportunity to vote on various visual design preferences through an interactive exercise using electronic handheld voting devices. The following are the voting results and participant comments.

#### **Miscellaneous Considerations:**

- Impacts to environment
- Reduction of open space
- Maintaining family-friendly community
- Walls along 5 freeway



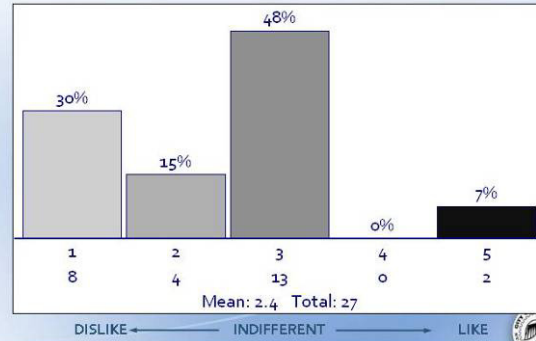
Residential Development Character | *Mixed-Use*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Residential Development Character | *Mixed-Use*



- Functional
- Don't like the mix of residential / commercial
- It works in some places but not others

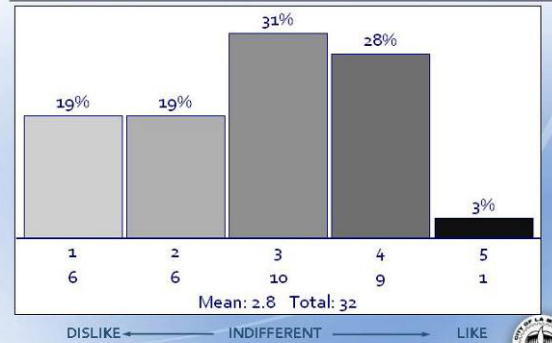
Residential Development Character | *Walk-Ups*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Residential Development Character | *Walk-Ups*



- Not single – family
- Parking / traffic
- Over population
- Safety
- Looks like low-cost housing

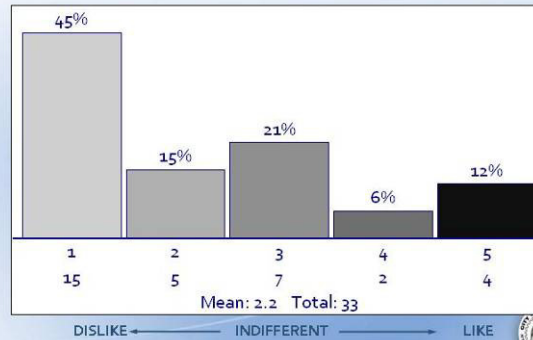
Residential Development Character | *Walk-Ups*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Residential Development Character | *Walk-Ups*



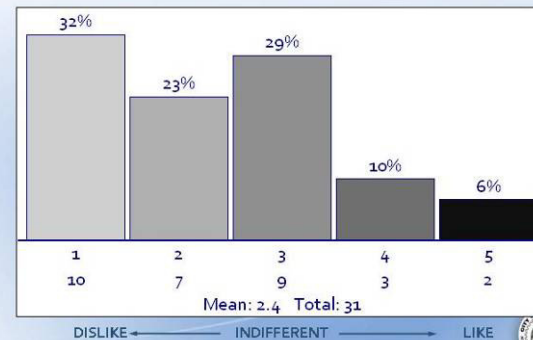
Residential Development Character | *Stacked Flats*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Residential Development Character | *Stacked Flats*





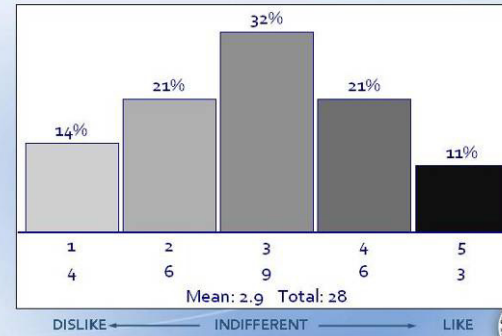
Commercial Development Character |  
*Street-Oriented*



1 2 3 4 5  
LIKE ← INDIFFERENT → DISLIKE



Commercial Development Character |  
*Street-Oriented*



DISLIKE ← INDIFFERENT → LIKE



- Mediterranean feel
- Open / Inviting
- Walkable
- Trees / Landscaping
- Imperial may be too busy

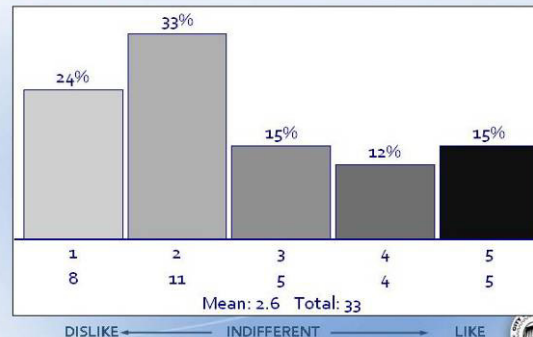
Commercial Development Character |  
*Street-Oriented*



1 2 3 4 5  
LIKE ← INDIFFERENT → DISLIKE



Commercial Development Character |  
*Street-Oriented*



DISLIKE ← INDIFFERENT → LIKE



- Aesthetic
- Too big, too high
- No breeze
- Blocking views

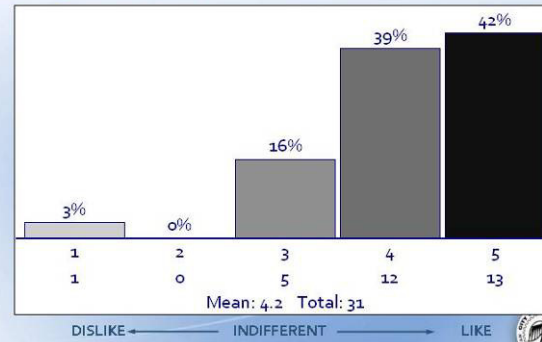
**Commercial Development Character |**  
*Integrated Centers*



1      2      3      4      5  
 LIKE ←      INDIFFERENT      → DISLIKE



**Commercial Development Character |**  
*Integrated Centers*



- Trees / Landscaping
- Available parking
- Different types of Buildings
- Business visibility

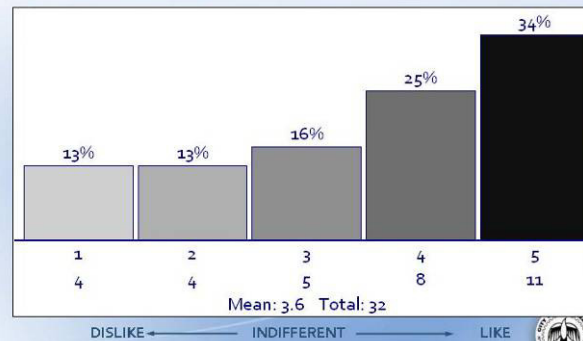
**Commercial Development Character |**  
*Outdoor Centers*



1      2      3      4      5  
 LIKE ←      INDIFFERENT      → DISLIKE



**Commercial Development Character |**  
*Outdoor Centers*



- Walkable

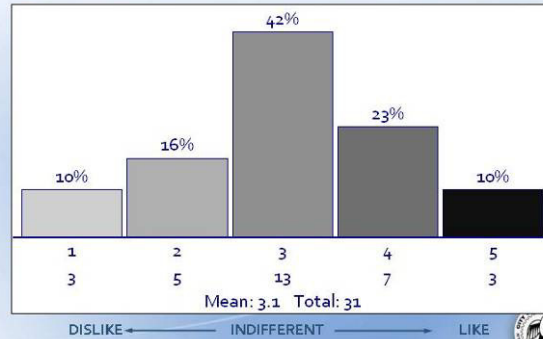
Commercial Development Character |  
Office Centers



1 2 3 4 5  
LIKE ← INDIFFERENT → DISLIKE



Commercial Development Character |  
Office Centers



DISLIKE ← INDIFFERENT → LIKE



- Depends on where its going to be

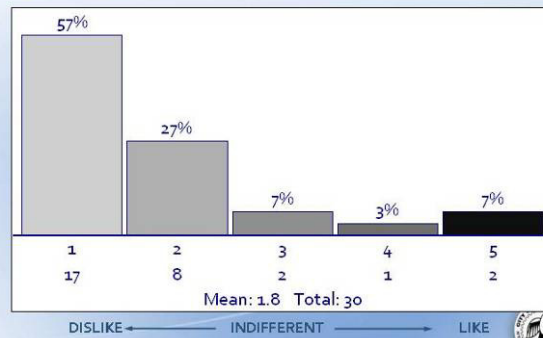
Commercial Development Character |  
Office Centers



1 2 3 4 5  
LIKE ← INDIFFERENT → DISLIKE



Commercial Development Character |  
Office Centers



DISLIKE ← INDIFFERENT → LIKE



- Already existing vacant space
- Scale is too large
- Consider "catchment" areas

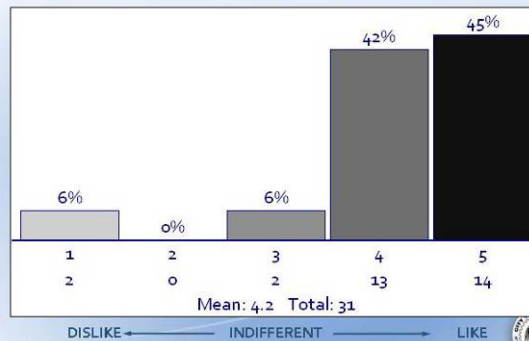
Shade Creation | Covered Arcade



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Shade Creation | Covered Arcade



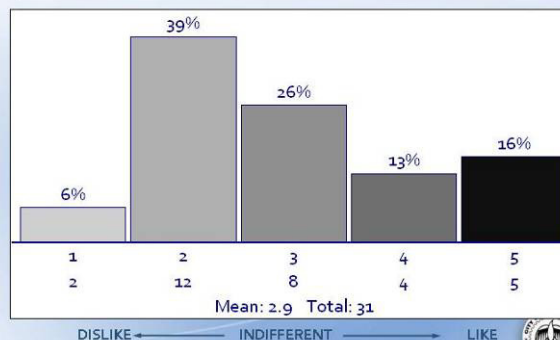
Shade Creation | Awnings and Canopies



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Shade Creation | Awnings and Canopies



- Nice in the winter, during rain  
 Like seeing businesses but depends on what it looks like
- Trendy

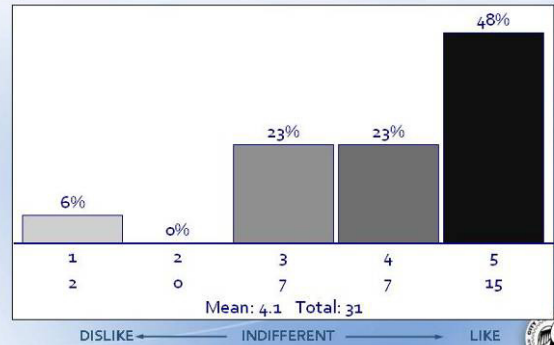
Shade Creation | *Tree Canopy*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Shade Creation | *Tree Canopy*



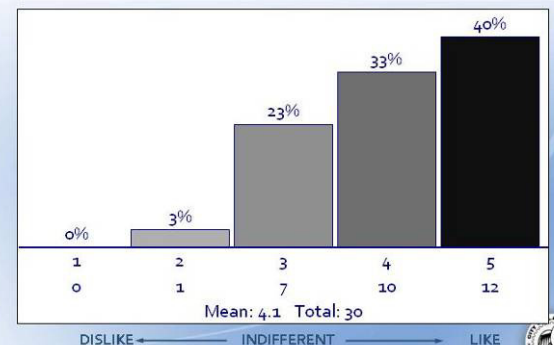
Lighting | *Freestanding*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Lighting | *Freestanding*



- Quaint look – pedestrian scale
- Improves character

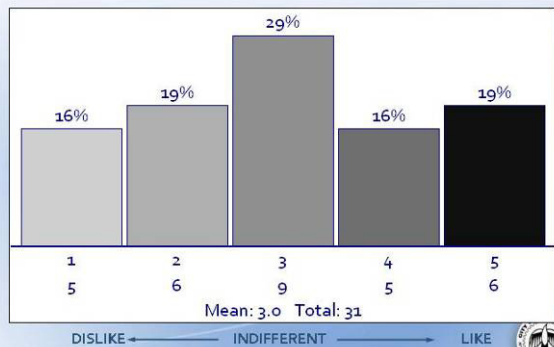
Lighting | *Building-Mounted*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Lighting | *Building-Mounted*



- Looked too commercial
- Can provide better lighting – safety/visibility
- Need a good mixture of freestanding and wall

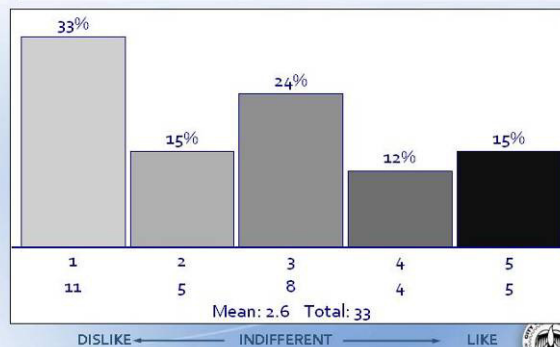
Lighting | *Bollard*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Lighting | *Bollard*



- Vandalism aspect – maintenance
- Good Lighting along paths
- Cost/benefit; don't give enough light

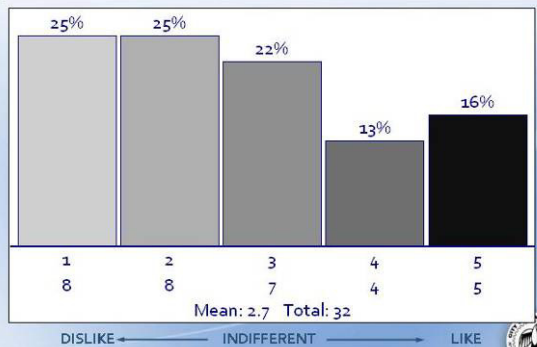
**Pedestrian Facilities** | *Pedestrian Paseos*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Pedestrian Facilities** | *Pedestrian Paseos*



DISLIKE ← INDIFFERENT → LIKE



- Too much effort; may not be used by people
- Too lavish

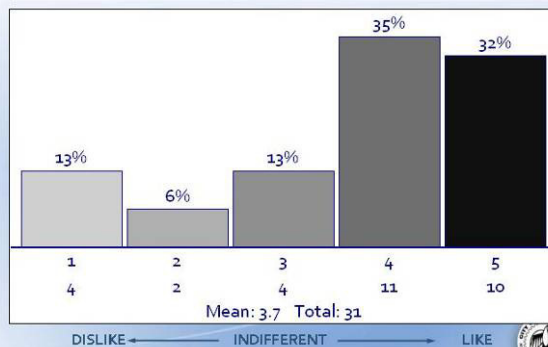
**Pedestrian Facilities** | *Painted Crosswalks*



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Pedestrian Facilities** | *Painted Crosswalks*



DISLIKE ← INDIFFERENT → LIKE



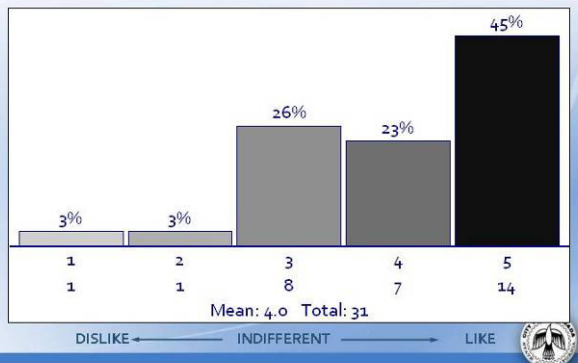
**Pedestrian Facilities | *In-Set Pavers Crosswalk***



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Pedestrian Facilities | *In-Set Pavers Crosswalk***



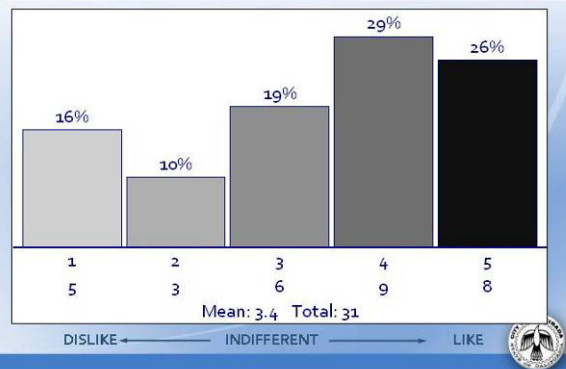
**Parking | *Angled***



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Parking | *Angled***



- Causes traffic problems
- Slow down of traffic may be beneficial



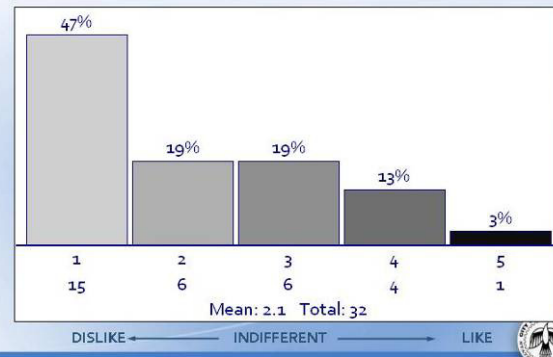
**Parking | Parallel**



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Parking | Parallel**



- Difficulty parking
- Does not give as many spaces
- Coordinate signal
- Lighting on Imperial

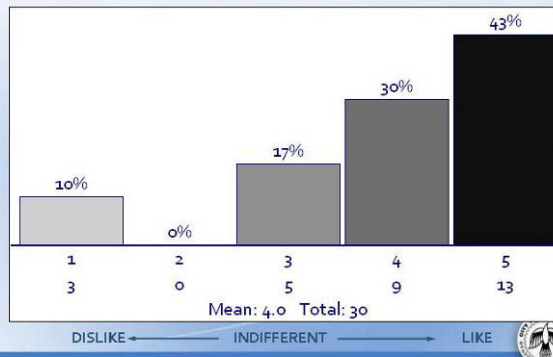
**Outdoor Use | Storefront Adjacent**



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



**Outdoor Use | Storefront Adjacent**



- Nice to eat outside
- Pet friendly
- May not be appropriate on some streets
- Health issues – car exhaust

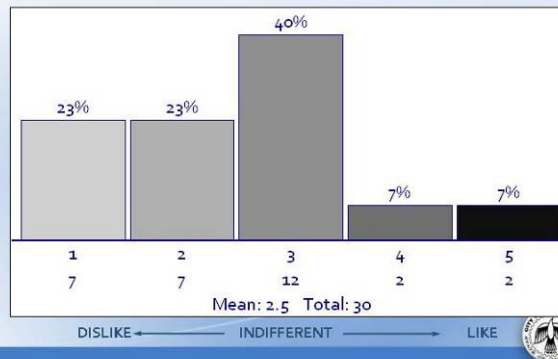
Outdoor Use | Street Adjacent



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Outdoor Use | Street Adjacent



- Logistics
- Does not look integrated into adjacent business

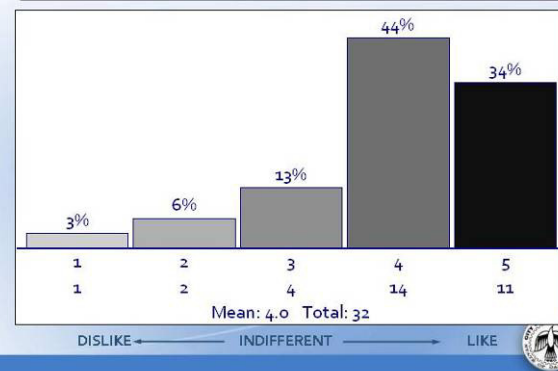
Outdoor Use | Plaza Setting



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Outdoor Use | Plaza Setting



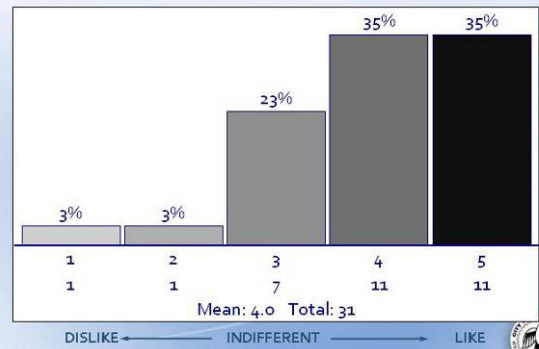
**Business Signs | Projecting**



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 LIKE ← INDIFFERENT → DISLIKE



**Business Signs | Projecting**



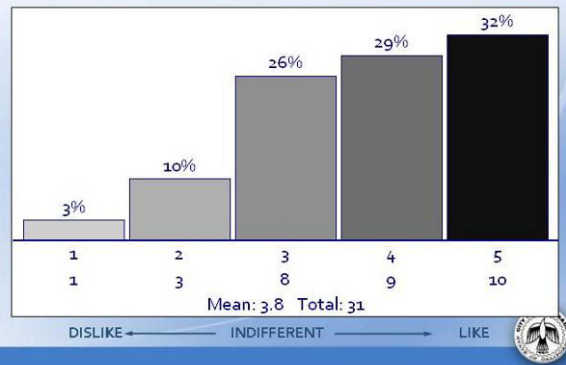
**Business Signs | Under Canopy**



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



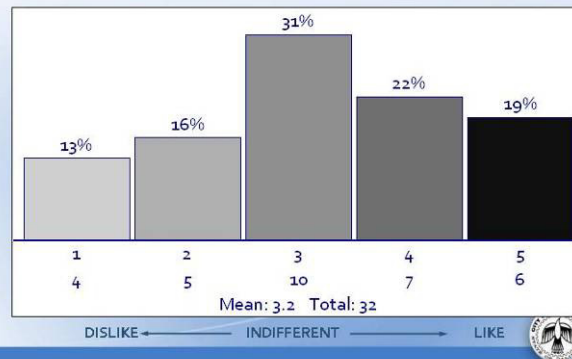
**Business Signs | Under Canopy**



Business Signs | Wall-Mounted (Can Signs)



Business Signs | Wall-Mounted (Can Signs)

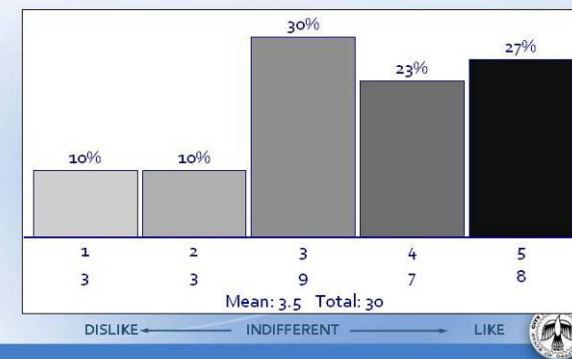


- Aesthetic quality

Business Signs | Wall-Mounted (Three Dimensional)



Business Signs | Wall-Mounted (Three Dimensional)



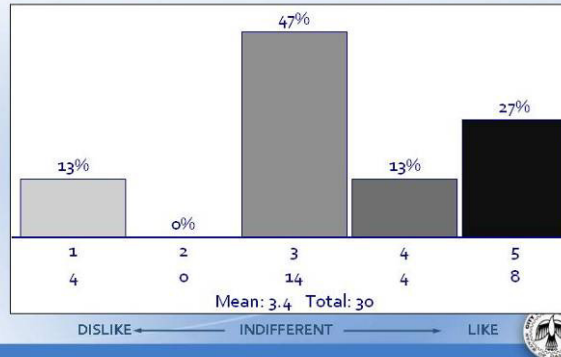
Business Signs | Window



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Business Signs | Window



- Hard to read
- Expensive/maintenance

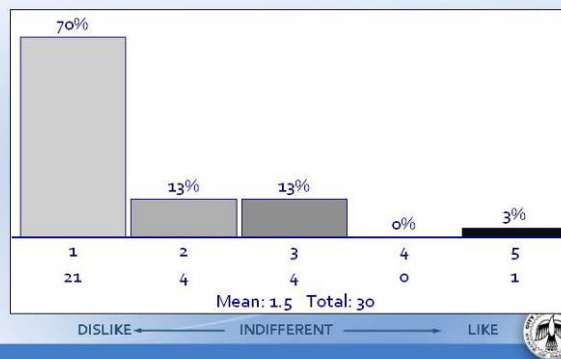
Business Signs | Window



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Business Signs | Window



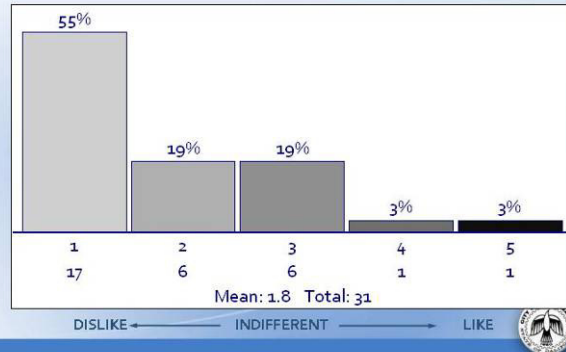
**Business Signs | A-Frame**



1      2      3      4      5  
 LIKE ←      INDIFFERENT      → DISLIKE



**Business Signs | A-Frame**



- Comparative to "sign Throwers"
- Must have wider sidewalks

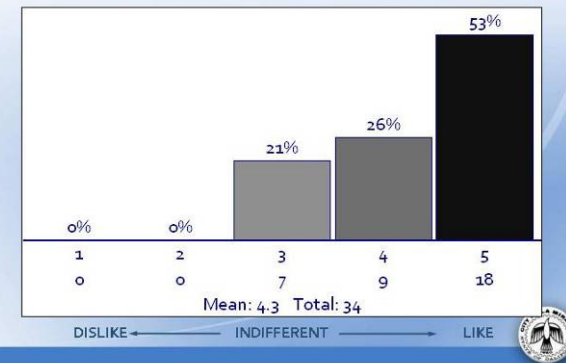
**Business Signs | Monument**



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 LIKE ←      INDIFFERENT      → DISLIKE



**Business Signs | Monument**

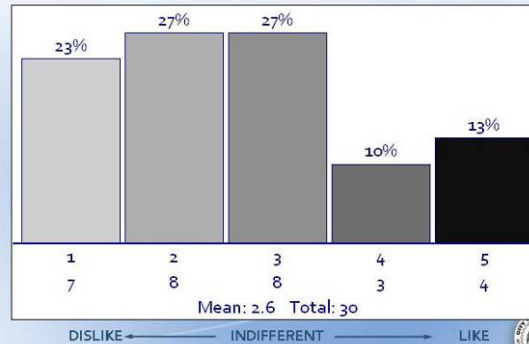


- Aesthetics
- Landscaping

Business Signs | Monument



Business Signs | Monument

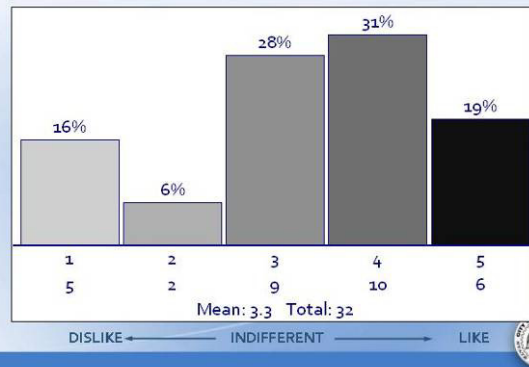


- Too big
- Have more space for businesses

Public Signs | Pole-Mounted Banners



Public Signs | Pole-Mounted Banners



- Cost/maintenance

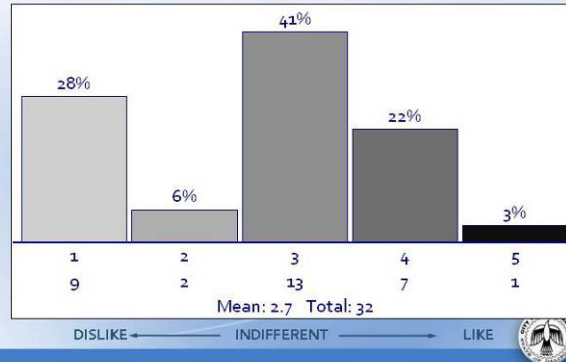
Public Signs | Street-Spanning Gateways



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Public Signs | Street-Spanning Gateways



- A little over-the-top
- Doesn't really look that good

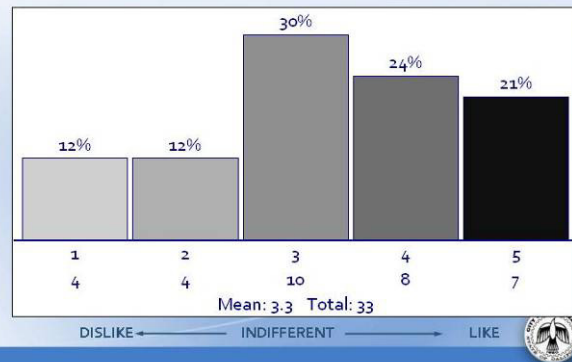
Landscaping | Planter Box



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Landscaping | Planter Box



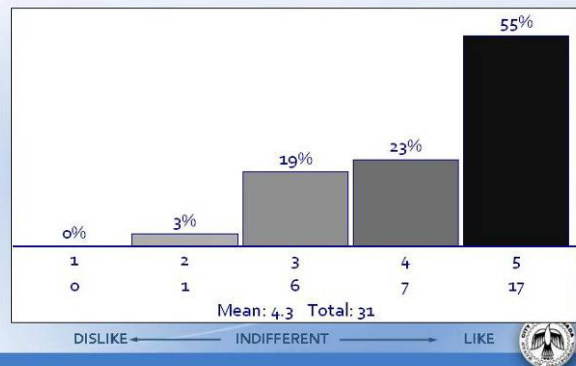
- Maintenance
- Water-proofing issue



Landscaping | *Potted Plants*



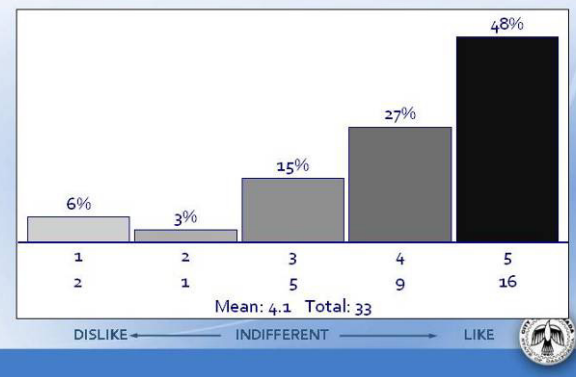
Landscaping | *Potted Plants*



Landscaping | *Trees in Tree Wells (Open)*



Landscaping | *Trees in Tree Wells (Open)*



- Select the right (species) types of trees

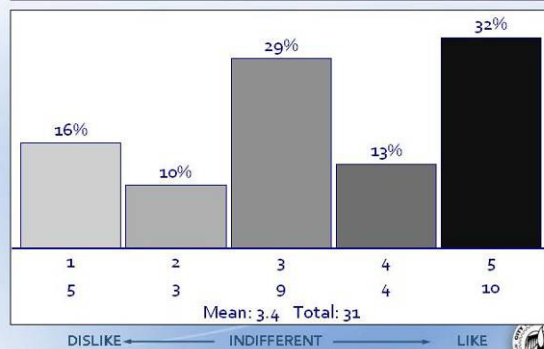
Landscaping | *Trees in Tree Grates (Solid)*



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Landscaping | *Trees in Tree Grates (Solid)*



- Maintenance of roots destroying the grates

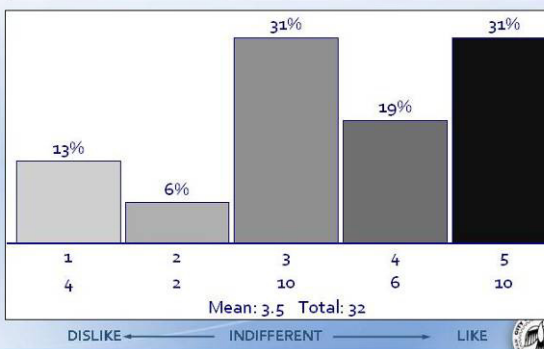
Landscaping | *Wall Vines*



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Landscaping | *Wall Vines*



- Helps stop "graffiti"
- Breaks up walls
- Choose the right type and ensure that it does not bring down the wall

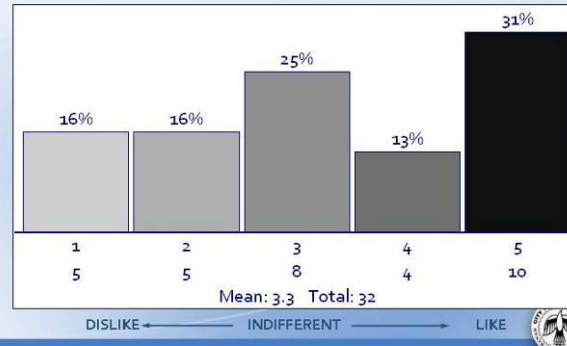
Site Amenities | Usable Public Art



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Site Amenities | Usable Public Art



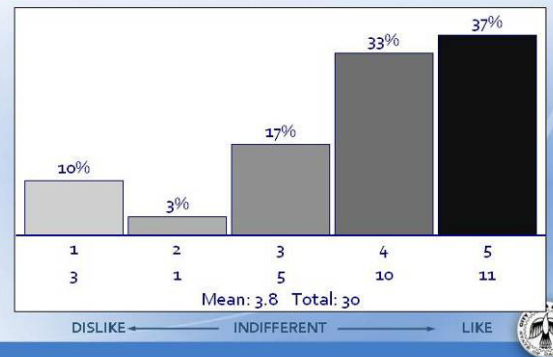
Site Amenities | Public Art Display



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Site Amenities | Public Art Display



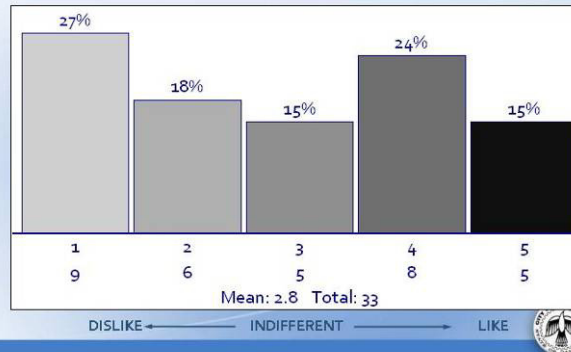
Site Amenities | *Integrated Public Art*



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Site Amenities | *Integrated Public Art*



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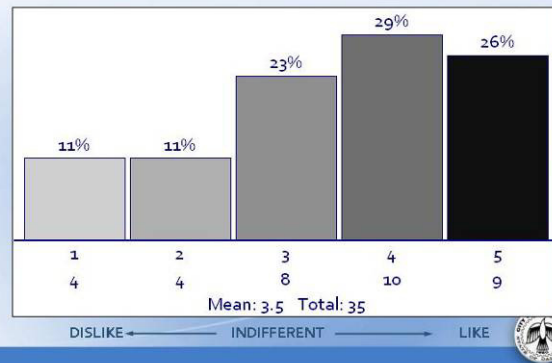
Site Amenities | *Activity/Event Areas*



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Site Amenities | *Activity/Event Areas*



DISLIKE ← INDIFFERENT → LIKE



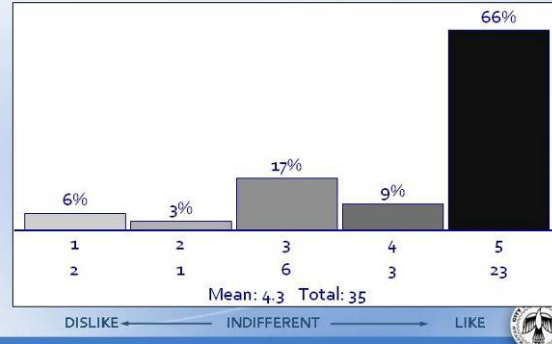
Site Amenities | *Fountains*



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Site Amenities | *Fountains*



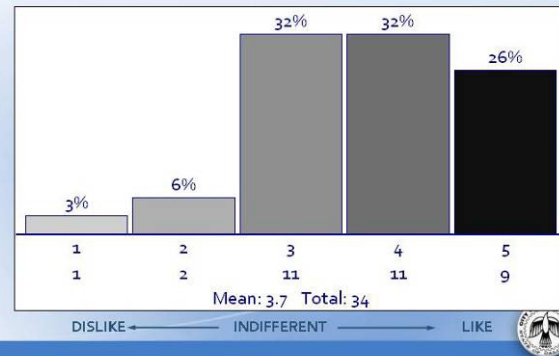
Site Amenities | *Residential Shared Space*



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Site Amenities | *Residential Shared Space*



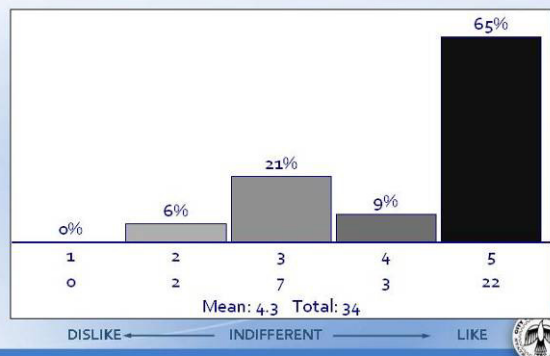
Site Amenities | Trails



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Site Amenities | Trails



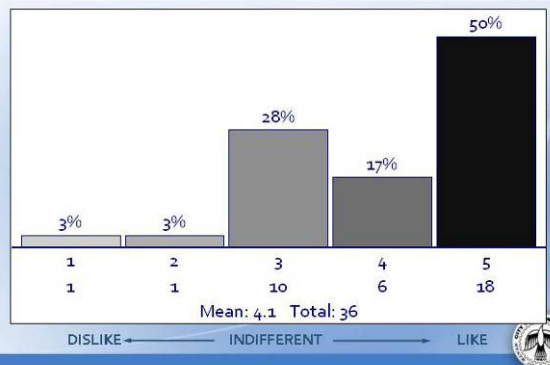
Site Amenities | Bikeways



1 2 3 4 5  
 LIKE ← INDIFFERENT → DISLIKE



Site Amenities | Bikeways



### A.2.2 Small Group Design and Discussion

Workshop participants also had the opportunity to work in small groups for a more focused discussion on each planning area. Each group presented ideas on what type of improvements and enhancements were needed through the whole corridor and within each planning area.

#### Group #1

##### Planning Area 1: Valley View Avenue

- Keep median planted all the way
- Soundwalls redo
- Mediterranean look
- Cover wall ways
- Fountains
- Benches
- Walkways
- Modernize the look and make into shopping center
- Sound walls (very important)
- Improves sound and look of area
- Walls are currently falling
- Improve sidewalks
- Beautify area by adding trees

##### Planning Area 2: La Mirada Boulevard

- Skate park
- Theaters
- Lofts (Mixed Housing)
- Businesses
- Gathering area



- Bubble-up things for kids to play

#### Planning Area 3: Santa Gertrudes Avenue

- Having all for corner shopping centers to have the same feel structurally
- “Birch Street” environment (Brea)
- Continue planted medians to Valley View
- Lofts over stores
- Exit road improve
- Outdoor seating (DO NOT REMOVE GONDOLA’S)
- Signs on 4 corners for business in section; Tall

#### Group #2

##### Whole Corridor

- Add/Integrate bus lines
- Retail, entertainment, restaurants, bookstores, cafes, bowling alley
- Anchor and specialty stores
- Lower speed limits
- More greenery, dog areas, modernize frontages
- Synchronize signals through Imperial Highway
- Median “Welcome to La Mirada” sign
- Ease for retail to move/upgrade without being tied up with rules and regulations from City

##### Planning Area 2: La Mirada Boulevard

- Much better!
- No value business
- Where is Norwalk Transit? Montebello? MTA?
- Connections and access



### Group #3

#### Whole Corridor

- Replace sidewalks and trees in western part of Imperial Highway with walls of uniform product with vines
- Median development similar to east of La Mirada Boulevard

#### Planning Area 2: La Mirada Boulevard

- Better lighting in Creek Park
- Develop walkway in Creek Park area
- Clean up vacant parcel
- Divert Telegraph Road; Eliminate traffic jam

#### Planning Area 3: Santa Gertrudes Avenue

- Good example (Fresh and Easy)
- Aesthetically modernize
- Improve signage at four corners
- Two-story restaurants at Savers
- Contemporary outdoor plaza (retail); parking in center



### Group #4

#### Planning Area 2: La Mirada Boulevard

- If a median is put between La Mirada Boulevard and Valley View Avenue, a very long left turn land onto Biola (heading west) would be needed or the left land of the highway would be blocked (like happens at Valley View too)
- Lamp posts along Imperial Highway

- Soundwall w/decorative features including plantings
- A walkway thru from Tanfield/Grayville to the corner
- Plaza fountain, restaurants and outdoor seating, farmers market
- Farmers market set back off from the exhaust of the streets
- Plaza/gathering area
- Walkway in from neighborhood
- Skate park in this area
- Fix grade and make a way to drive from one shopping center (Stater Bros.) to the next one (Medical Center)
- Nice restaurant with a view of the park
- Split-level land- have parking on lower level and walk-in to shops on upper level



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# Appendix B: Market Feasibility Analysis

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# Imperial Highway Corridor Specific Plan

Market Feasibility Analysis for the  
Imperial Highway Corridor Specific Plan

Prepared for:

City of La Mirada  
Southern California Association of Governments (SCAG)

Prepared by:

AECOM (Economics)  
Los Angeles

May 21, 2010

Project Number: 18465



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III. Office Market Analysis

IV. Retail Market Analysis

V. Residential Market Analysis

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# I. Introduction

## Introduction >>> Understanding of the Project

- The City of La Mirada is working to prepare the Imperial Highway Corridor Specific Plan (IHSP), which will guide the architectural design and land-use development along Imperial Highway. Imperial Highway currently suffers from a number of factors, including a poor pedestrian-oriented environment, the lack of quality or high performing commercial businesses, and inefficient site planning.
- As part of the City's planning process, AECOM has been commissioned to conduct a comprehensive market feasibility analysis of the subject area. This includes an evaluation of the socio-economic demographics as well as the supply of and demand for regional retail, office, and residential housing. The analysis also goes on to quantify the amount of retail, office, and residential housing that may be supported within the Imperial Highway Corridor specific plan area over the next 15 years.

Imperial Highway Corridor - Aerial View



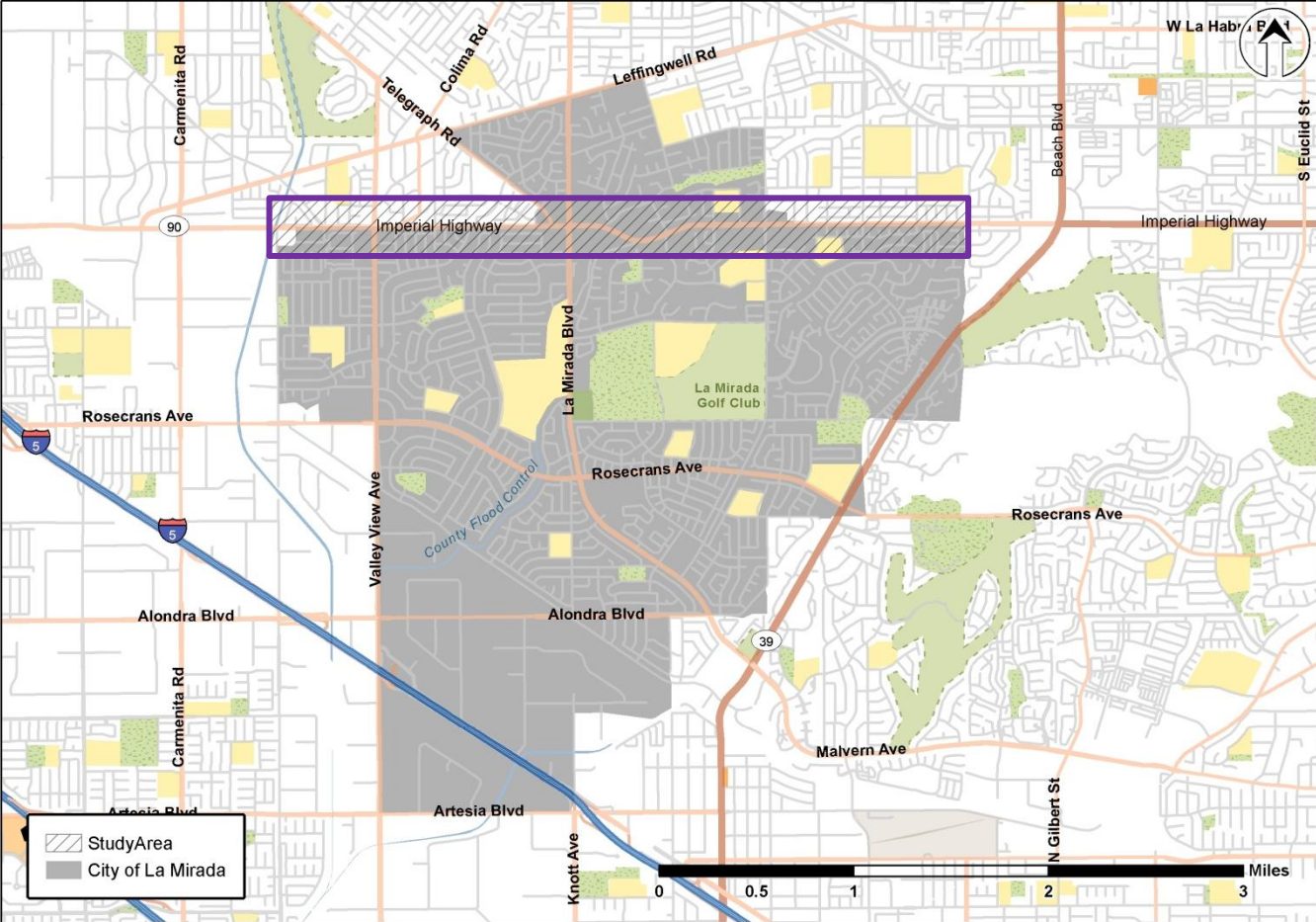
Source: ESRI; AECOM



# I. Introduction

## Introduction >>> Understanding of the Project

Imperial Highway Corridor within City of La Mirada



Source: ESRI; AECOM

# I. Introduction

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## Introduction >> Scope and Market Analysis Description

- The Economics group at AECOM, formerly known as Economics Research Associates, was retained as part of the consulting team led by RBF Consulting to perform a market feasibility analysis of the Imperial Highway Corridor
- The Economics at AECOM (AECOM) scope includes:
  - Market Analysis of Supply and Demand
  - a Return on Investment Analysis
- This deliverable presents the Market Analysis report. The Market Analysis reviews existing market conditions for office, retail, and residential uses in the City of La Mirada and evaluates the support (also called demand) for these uses across the next 15 years.
- The Market Analysis provides an outline of the possible scale of development that is potentially achievable within the City of La Mirada. This will be used to help guide potential development programs for the Imperial Highway Corridor.
- It should be noted that the US economy officially fell into recession as of fourth quarter 2007. While the recession is technically over, unemployment and consumer spending have not recovered. Population and employment growth projections used as a basis of the demand analysis have not been adjusted to account for the economic downturn.

***Thus, while AECOM has developed long-term estimates assuming a stable economy, absorption anticipated within the short term (next 5 years) may be pushed back 3 to 5 years.***

- The report presents demand in five-year increments for 2010 -2015, 2015-2020, and 2020-2025. Given current economic conditions, the demand estimates for the period 2010-2015 are likely to be delayed by three to five years depending on the speed of the presumed economic recovery.

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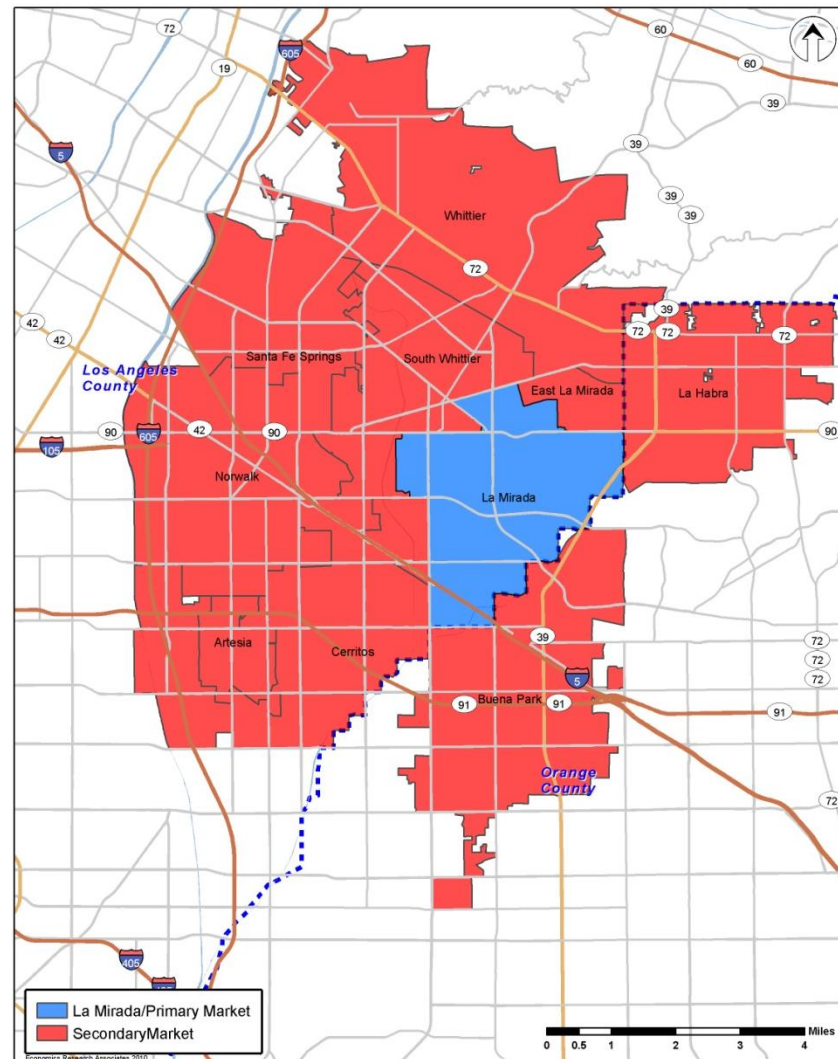
V. Residential Market Analysis

VI. Next Steps

## II. Demographic and Socio-Economic Overview

### Demographics >> Overview

- For the purpose of this study, AECOM reviewed the regional demographics in relation to a primary and a secondary market area, both of which are defined in relation to specific city boundaries.
  - The primary market area is defined as the City of La Mirada.
  - The secondary market area is comprised of the cities of Whittier, La Habra, Santa Fe Springs, Norwalk, Artesia, Cerritos, and Buena Park.
- When assessing the strength of a market area, AECOM uses a variety of resources to gauge growth prospects, including:
  - State of California Department of Finance (DOF) for annual population estimates of cities and counties.
  - Southern California Association of Governments (SCAG) for data on projected population and employment numbers.
  - ESRI, a private data provider, for small area estimates and projections that are based on a variety of sources, including US Census Bureau data and consumer survey information.



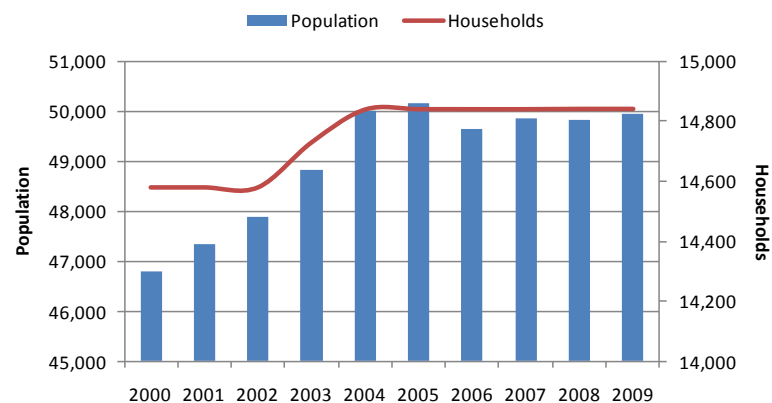
Source: AECOM

## II. Demographic and Socio-Economic Overview

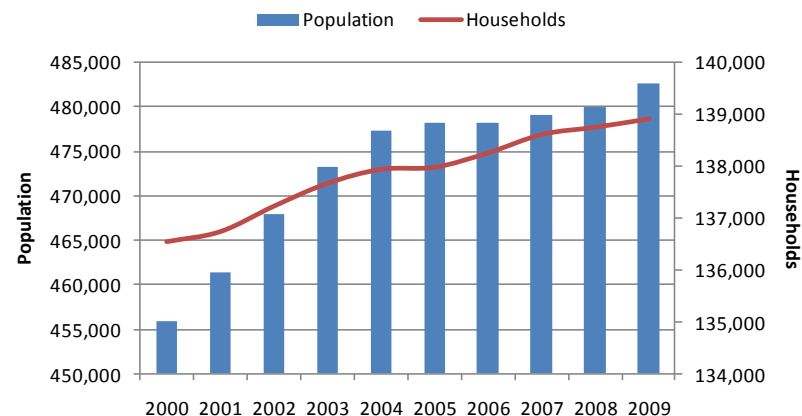
### Demographics >> Population and Households

- The City of La Mirada is currently home to just over 50,000 residents and 14,800 households.
  - Compared to the County, population in the City has grown more slowly at an average annual rate of 0.7 percent over the past nine years.
  - Population peaked in 2005 at 50,160 persons, and has since remained at about 50,000 persons.
  - The number of households has grown by less than 2 percent over the past decade, and has remained constant at about 14,800 since 2004.
- The Secondary Market currently has 483,000 residents and 139,000 households.
  - Similar to the Primary Market, population and household growth throughout the past decade has been relatively small
  - Since 2000, population has grown by about 26,700 persons at an average annual rate of 0.6 percent.
  - The number of households has grown by almost 2,400 at an average annual rate of just 0.2 percent.
- According to the California DOF, Los Angeles County currently has a population of 10.4 million and household count of 3.3 million.
  - Since 2000, County population has grown by nearly 874,000 persons at an average annual growth rate of 1.0 percent.
  - The number of households has increased by almost 141,000 since 2000 at an average annual growth rate of 0.5 percent.

#### City of La Mirada



#### Secondary Market



Source: California Department of Finance, AECOM

## II. Demographic and Socio-Economic Overview

### Demographics >> Population and Households

- The average number of persons per household (PPH) in the City, Secondary Market, and LA County has been slowly increasing over the past decade.
- Current estimates in La Mirada suggest there are 3.2 persons per household, which is in line with the LA County average of 3.1 PPH.
- The Secondary Market has a slightly higher average of 3.4 persons per household, suggesting larger family sizes.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	CAGR (2000-2009)
<b>City of La Mirada</b>											
Population	46,780	47,330	47,900	48,840	50,010	50,160	49,650	49,870	49,880	50,050	0.8%
Persons per Household	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	0.4%
Households	14,580	14,580	14,580	14,730	14,840	14,840	14,840	14,840	14,840	14,860	0.2%
<b>Secondary Market</b>											
Population	455,960	461,450	467,980	473,260	477,370	478,140	478,130	479,040	479,920	482,690	0.6%
Persons per Household	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	0.5%
Households	136,560	136,750	137,240	137,680	137,950	137,990	138,270	138,620	138,760	138,920	0.2%
<b>Los Angeles County</b>											
Population	9,519,300	9,656,600	9,815,400	9,959,400	10,074,800	10,158,400	10,209,200	10,243,800	10,301,700	10,393,200	1.0%
Persons per Household	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	0.5%
Households	3,133,800	3,141,500	3,154,700	3,170,200	3,184,300	3,201,100	3,223,200	3,239,600	3,260,500	3,274,700	0.5%

Source: DOF, SCAG, City of La Mirada

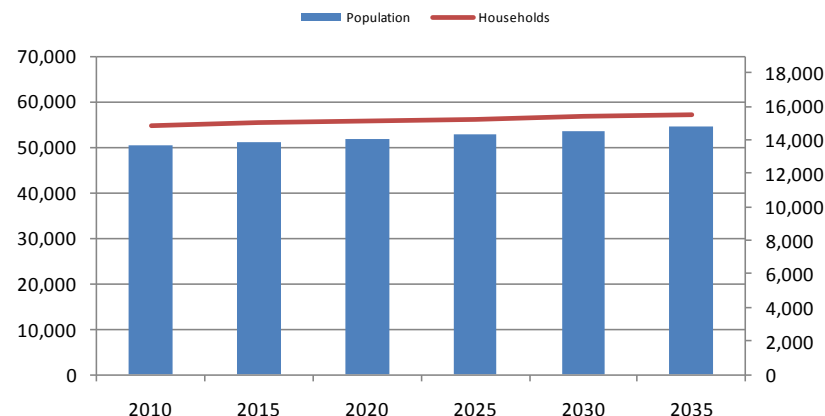
## II. Demographic and Socio-Economic Overview

### Demographics >> Population and Households

#### Population Projections

- Southern California Association of Governments (SCAG) projects that the rate of population growth in La Mirada will be fairly steady over the next 25 years.
- Between 2010 and 2035, La Mirada’s population is expected to grow 9 percent from 50,210 persons to 54,460 persons.

#### SCAG Projections - City of La Mirada



	2010	2015	2020	2025	2030	2035
<b>Population</b>						
La Mirada	50,210	51,060	51,920	52,750	53,600	54,460
5-Year CAGR	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%
Secondary Market	514,100	522,600	530,100	536,200	542,200	547,300
5-Year CAGR	0.6%	0.3%	0.3%	0.2%	0.2%	0.2%
Los Angeles County	10,616,000	10,972,000	11,330,000	11,679,000	12,016,000	12,339,000
5-Year CAGR	0.8%	0.7%	0.6%	0.6%	0.6%	0.5%
<b>Households</b>						
La Mirada	14,890	15,010	15,130	15,250	15,370	15,490
5-Year CAGR	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%
Secondary Market	144,400	146,500	148,600	150,100	151,600	152,900
5-Year CAGR	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
Los Angeles County	3,358,000	3,510,000	3,667,000	3,789,000	3,907,000	4,004,000
5-Year CAGR	0.9%	0.9%	0.9%	0.7%	0.6%	0.5%

- Households in La Mirada are expected to follow a slower growth trajectory than the population, increasing only 4 percent from 14,890 in 2010 to 15,490 in 2035.
- Population and households within the Secondary Market are projected to grow at a similar rate
- Population and households in Los Angeles County are expected to grow at nearly double the rate of La Mirada.

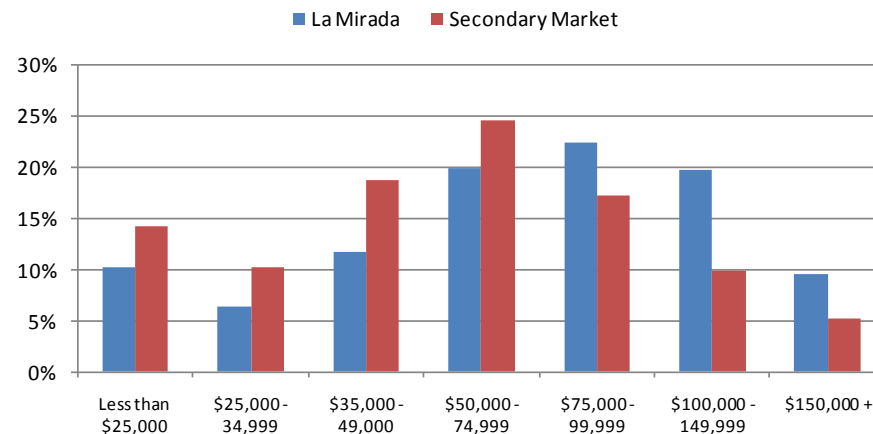
Source: Southern California Association of Governments

## II. Demographic and Socio-Economic Overview

### Demographics >> Household Income

- In 2009, median income for the City of La Mirada was \$76,300. In comparison, median income within the Secondary Market was \$57,300, and in LA County was \$55,100.
- La Mirada contains a significant concentration of high-income households: 52 percent earn \$75,000 or more per year, versus 32 percent in the Secondary Market.
- 16 percent of households in La Mirada earn less than \$35,000 annually, compared to 24 percent in the Secondary Market and 33 percent across Los Angeles County.

**Distribution of Household Income, 2009**



**Median and Average Household Income, 2009**

	La Mirada	Secondary Market	LA County	Index of Primary Market to County	Index of Secondary Market to County
Households	14,860	138,900	3,275,000	0.5	4.2
Median Income	\$76,300	\$57,300	\$55,100	138.5	104.0
Average Income	\$87,100	\$68,400	\$75,900	114.8	90.1

Note: Median income is the point where 50% of the population is less than the value and 50% of the population is greater than the value.

Average income is the total income divided by total population. Average incomes tend to skew towards higher values due to the lack of an upper boundary.

Source: SCAG, ESRI, AECOM

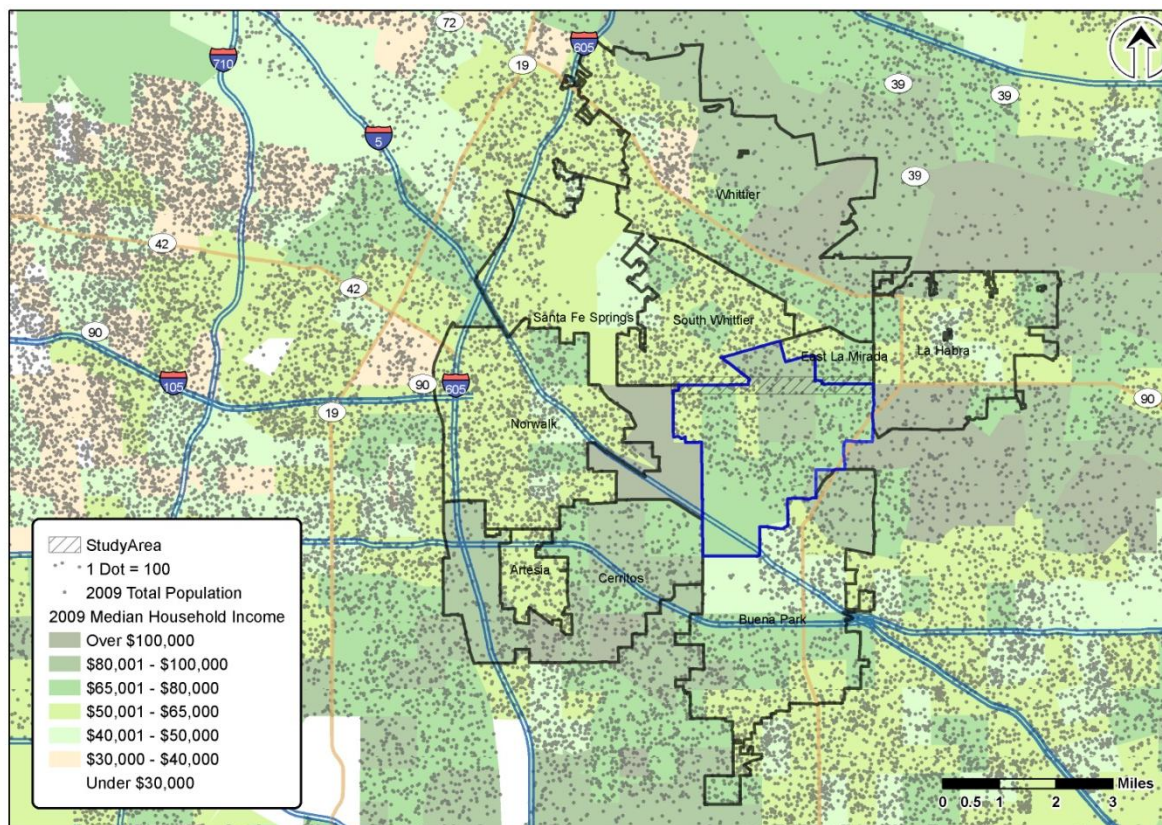


## II. Demographic and Socio-Economic Overview

### Demographics >>> Household Income by Census Tracts

- This graphic presents the median household income and population density in La Mirada and surrounding areas.
- Incomes tend to be higher to the north in Whittier, to the east in Fullerton, and to the southwest in Cerritos. Incomes are lower to the northwest and southeast.

**Population Density & Median Income**



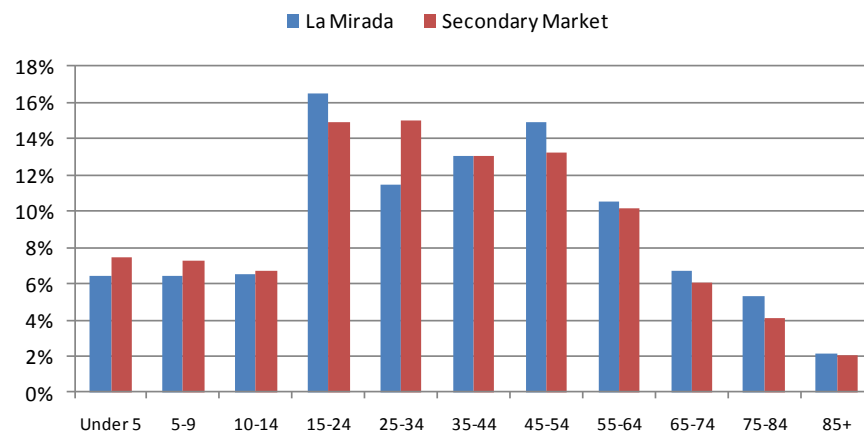
Source: ESRI, AECOM

## II. Demographic and Socio-Economic Overview

### Demographics >> Age

- The median age in La Mirada is currently 37.2 years, considerably older than the Secondary Market median of 34 years and the County median of 32.7 years.
- The Primary and Secondary Markets share a similar age distribution, with about 20 percent of the population under the age of 15, and 40 percent of the population between the ages of 25 and 55.
- The largest difference in age distribution between the Primary and Secondary Markets exists within the 25 to 34 age group, where La Mirada has a lower concentration at 11 percent, versus 15 percent for the surrounding cities.
- The male-to-female ratio is essentially 1-to-1 across both the Primary and Secondary Markets, as well as Los Angeles County.

**Age Distribution, 2009**



**Median Age, 2009**

	La Mirada	Secondary Market	LA County
Total Population	49,940	482,690	10,393,200
Median Age	37.2	34	32.7
Male	48.4%	50.5%	49.6%
Female	51.6%	49.5%	50.4%

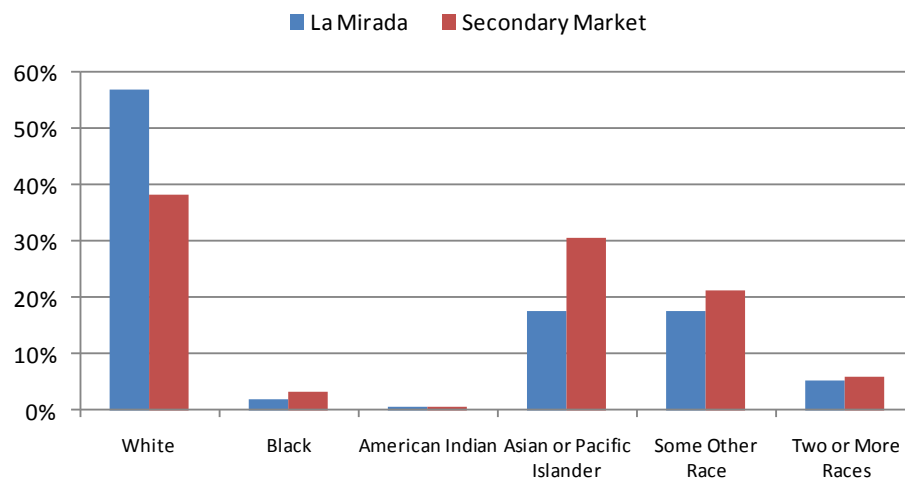
## II. Demographic and Socio-Economic Overview

### Demographics >> Race and Ethnicity

- Based on 2009 census data, 57 percent of La Mirada residents are classified as White, versus 38 percent for the Secondary Market and 44 percent for Los Angeles County.
- At 31 percent, Asians and Pacific Islanders comprise a significant portion of the population within the Secondary Market, versus 18 percent for La Mirada and 13 percent for the County.
- About 9 percent of the County population is classified as Black, compared to 2 percent in La Mirada and 3 percent in the Secondary Market.
- La Mirada and the Secondary Market have a lower concentration of residents of Hispanic origin at 43 percent and 44 percent, respectively, compared to 51 percent for the County.

**Race & Ethnicity, 2009**

	La Mirada	Secondary Market	LA County
Total Population	49,940	482,690	10,393,200
White	57%	38%	44%
Black	2%	3%	9%
American Indian	1%	1%	1%
Asian or Pacific Islander	18%	31%	13%
Some Other Race	18%	21%	27%
Two or More Races	5%	6%	6%
Non-Hispanic Origin	57%	56%	49%
Hispanic Origin	43%	44%	51%



Source: US Census Bureau, ESRI, AECOM

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# III. Office Market Analysis

## Office Market >> Highlights

### Office Supply

- La Mirada has captured little of the regional office market. While 120,000 square feet of space has been added to the city's inventory in the past decade, there have been no new buildings in the last 6 years.
- While La Mirada has a very small office market relative to its neighboring cities, the City appears to have been more severely affected by the economic downturn in terms of rents and vacancy rates as compared to the secondary office market.
- La Mirada's office vacancy rate is reportedly greater than 11 percent, which is lower than the County's reported vacancy rate of approximately 18 percent .
- While the City of La Mirada is not likely to capture a significant amount of office related to growing South Los Angeles County and Orange County employment, there is potential for new development of local-serving office (in particular, medical office and other service-based office industries) along the La Mirada corridor.

### Office Demand

- AECOM reviewed office demand for local service office (i.e. office space that supports residents daily needs). We estimate that La Mirada will support the following amount of incremental office space based on Los Angeles employment projections from the California Employment Development Department (EDD).

**Employment-Based General Office Cumulative Demand Model (2010-2025)**

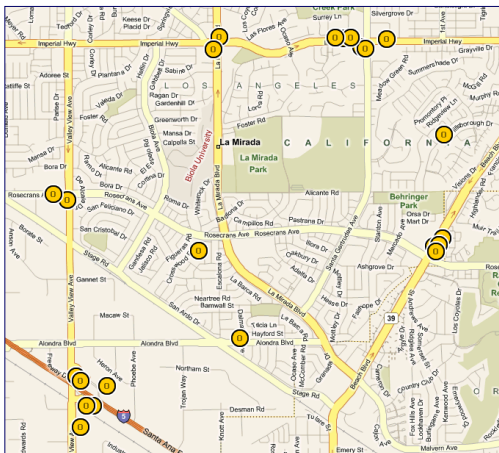
<b>Cumulative Supportable New Space</b>	<b>2010-2015</b>	<b>2015-2020</b>	<b>2020-2025</b>
Low Capture Rate Scenario @ 3%	-5,000 SF	6,000 SF	10,000 SF
Medium Capture Rate Scenario @ 6%	-2,000 SF	12,000 SF	20,000 SF
High Capture Rate Scenario @ 10%	2,000 SF	21,000 SF	34,000 SF

# III. Office Market Analysis

## Office Supply >> Local Distribution

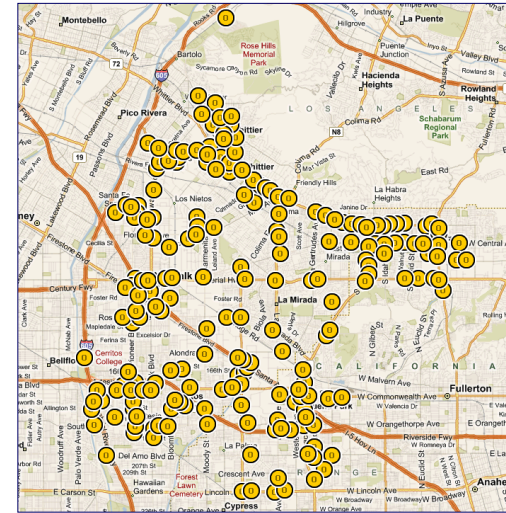
- For the office market, we continue to evaluate the market conditions based off the Primary and Secondary Markets as previously defined.
- Within La Mirada, commercial office space is sparse. There are three notable clusters:
  - Southwest corner of the City, near the intersection of the I-5 Freeway and Valley View Avenue
  - Eastern border of the City, near the intersection of Beach Boulevard and Rosecrans Avenue
  - Northern end of the City, where Santa Gertrudes Avenue meets Imperial Highway

### Office Properties in the Primary Market



Source: CoStar

### Office Properties in the Secondary Market



Source: CoStar

- Within the secondary market there are significant concentrations of office space, particularly in the following areas:
  - North of La Mirada, along Whittier Boulevard through the cities of Whittier and La Habra
  - South of La Mirada, along Beach Boulevard in Buena Park
  - Farther west along Imperial Highway, where the I-5 passes through Norwalk
  - Throughout Artesia, along Pioneer Boulevard and Artesia Boulevard

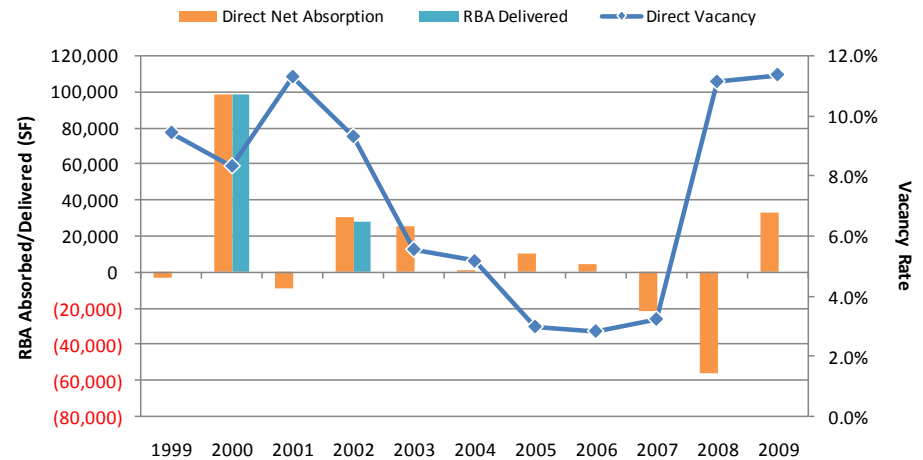
### III. Office Market Analysis

#### Office Supply >> Primary Market

- The City of La Mirada currently contains more than 580,000 square feet of leasable office space in 23 buildings.
- There is one Class A office building reported in La Mirada. The majority of office space, 66 percent, is comprised of Class B product. Class C office comprises the remaining 25 percent.
- No new office space has been added to the market since 2003. Since then, La Mirada has experienced negative net absorption of 3,250 square feet of rentable building area (RBA). This is to be expected considering the lack of new product.
- Average annual vacancy reached a 10-year low of 2.8 percent in 2006, but has spiked in the past two years to a current 10-year high of more than 11 percent.
- Full-service lease rates peaked in 2008 at an average of almost \$24 per square foot (PSF). Current rates are averaging \$21.60 per square foot (PSF), a 10 percent drop in 12 months.
- Stagnant supply growth and volatile vacancy rates suggest that La Mirada is not a strong employment-growth-driven office market.

Office Trends - La Mirada

Year	# Buildings	Total RBA (SF)	Direct Vacancy	Direct Net Absorption	RBA Delivered	Average Rent (Full Service)
1999	21	456,500	9.4%	(3,090)	0	\$19.22
2000	22	554,800	8.3%	98,910	98,310	\$19.90
2001	22	554,800	11.3%	(9,350)	0	\$20.08
2002	23	582,800	9.3%	30,870	28,000	\$20.16
2003	23	582,800	5.6%	25,880	0	\$20.29
2004	23	582,800	5.2%	320	0	\$19.93
2005	23	582,800	3.0%	10,320	0	\$20.28
2006	23	582,800	2.8%	4,490	0	\$20.46
2007	23	582,800	3.2%	(21,240)	0	\$22.52
2008	23	582,800	11.1%	(55,740)	0	\$23.93
2009	23	582,800	11.4%	32,720	0	\$21.58



Source: CoStar, AECOM

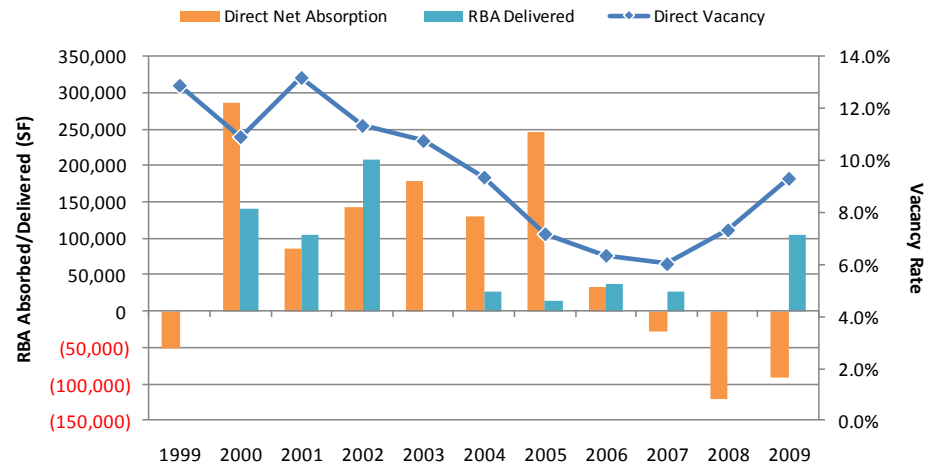
### III. Office Market Analysis

#### Office Supply >> Secondary Market

- The Secondary Market contains almost 8.8 million square feet of office space in 500 buildings.
- Prior to the global economic downturn, annual average vacancy had been on a downward trend, dropping from a 10-year high of 12.9 percent in 1999 to a 10-year low of 6.0 percent in 2007. Since then, annual average vacancy has risen considerably to 9.3 percent.
- Over the past decade, office supply in the Secondary Market has grown by just 8 percent. Relatively very little new space has been introduced into the market, and as a result, net absorption has averaged a mere 73,700 square feet per year.
- Lease rates peaked in 2008 at \$25.42 PSF and have since been decreasing with the growing amount of vacant space in the market. Lease rates are currently \$23.72 PSF.
- Overall, the Secondary Market appears to have a slightly stronger office market than the Primary Market, with lower average vacancy despite higher average rent.

**Office Trends within Secondary Market**

Year	# Buildings	Total RBA (SF)	Direct Vacancy	Direct Net Absorption	RBA Delivered	Average Rent (Full Service)
1999	488	8,126,400	12.9%	(52,120)	0	\$17.77
2000	490	8,267,700	10.9%	284,800	141,310	\$18.76
2001	491	8,372,300	13.2%	85,890	104,570	\$20.42
2002	494	8,580,600	11.3%	143,610	208,310	\$20.25
2003	494	8,580,600	10.8%	179,370	0	\$19.92
2004	496	8,607,000	9.3%	130,210	26,420	\$20.34
2005	497	8,620,900	7.2%	245,460	13,900	\$21.59
2006	500	8,657,600	6.3%	33,850	36,630	\$21.17
2007	501	8,683,400	6.0%	(27,330)	25,820	\$23.42
2008	501	8,683,400	7.3%	(121,040)	0	\$25.42
2009	502	8,787,500	9.3%	(91,540)	104,150	\$23.72



Source: CoStar; AECOM

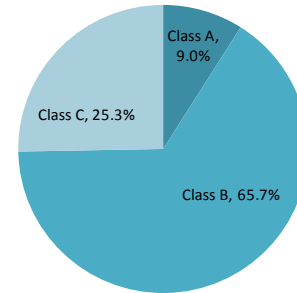


### III. Office Market Analysis

## Office Supply >> Primary Market Existing Office Buildings

- Class B and Class C buildings comprise the vast majority (91 percent) of the existing office space in La Mirada.
- The median age of the office buildings in La Mirada is 27 years, with the majority of the properties built prior to 1984. The last property introduced into the market was a 28,000 square foot Class B building constructed in 2002.

### Office Distribution and Performance By Class



	RBA	Average Vacancy	Average Weighted Rent
<b>La Mirada</b>			
A	52,600	32.5%	\$18.60
B	382,900	9.9%	\$21.15
C	147,400	1.3%	\$17.54
<b>Secondary Market</b>			
A	1,994,700	15.8%	\$25.78
B	3,885,100	10.1%	\$23.08
C	2,907,700	5.2%	\$19.22

### Existing Office Buildings in La Mirada

Building Address	Rentable Building Area (SF)	Direct Vacant Space (SF)	Building Class	Number Of Stories	Year Built	Average Weighted Rent
1. 15065 Alondra Blvd	3,000		C	1	1956	n/a
2. 14730 Beach Blvd	13,600		C	2	1983	n/a
3. 14752 Beach Blvd	13,600	600	B	2	1983	\$22.11
4. 14756-14760 Beach Blvd	13,400	2,300	B	1	1983	\$19.82
5. 14812 Beach Blvd	9,400		C	n/a	1983	n/a
6. 14251 Firestone Blvd	53,600		B	3	1985	n/a
7. 14256 Firestone Blvd	11,100		C	1	1982	n/a
8. 14320 Firestone Blvd	52,600	17,100	A	3	1990	\$18.60
9. 14351 Firestone Blvd	28,000		B	1	2002	n/a
10. 14241 E Firestone Blvd	53,900	10,300	B	4	1982	\$21.07
11. 14930 Imperial Hwy	6,400		C	1	1964	n/a
12. 15625-15627 Imperial Hwy	11,900	0	B	n/a	1990	Negotiable
13. 15651 Imperial Hwy	26,500	2,700	B	2	1973	\$21.00
14. 15707 Imperial Hwy	7,200	1,900	C	1	1970	\$16.89
15. 15744 Imperial Hwy	5,900		C	1	n/a	n/a
16. 15901 Imperial Hwy	3,100		C	1	n/a	n/a
17. 12625 La Mirada Blvd	71,100		C	3	1975	n/a
18. 16046 Peppertree Ln	1,600		C	2	1990	n/a
19. 14101 Rosecrans Ave	98,300		B	1	2000	n/a
20. 12627 Santa Gertrudes Ave	6,600		C	1	1963	n/a
21. 14809 Springford Dr	1,200		C	1	1955	n/a
22. 14311 Valley View Ave	7,200		C	2		n/a
23. 16700 Valley View Ave	83,700	21,900	B	4	1982	\$19.80

- The largest property in the market is a Class B building that contains 98,300 square feet of RBA and is located near the intersection of Rosecrans Avenue and Valley View Avenue. However, the majority of the properties in the City offer less than 14,000 square feet of RBA.
- Reported 2009 lease rates in La Mirada range from \$16 - \$22 per square foot (PSF). The average weighted rent is \$21 PSF for Class B buildings and \$18 PSF for Class C buildings. The sole Class A property in the City is underperforming with a vacancy of 32.5 percent and a lease rate of \$19 PSF.

Source: CoStar, AECOM

# III. Office Market Analysis

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## Local-Serving Office Demand Employment-Based >> [Methodology](#)

- Demand for general office space is projected based on an assessment of office-using employment growth.
- For this project, AECOM examined the growth of office-using employment across Los Angeles County and estimated the portion of the demand for additional office space that would be captured within the Secondary Market, the City of La Mirada, and specifically the Imperial Highway Corridor study area.

### Methodology

- AECOM used employment projections developed by the California Employment Development Department (EDD) to determine the anticipated growth in office-using employment in the County.
- It is estimated that Los Angeles County currently has approximately 794,000 office-using jobs (see table on next page).
- This is expected to grow to about 1,180,500 office-using jobs across the county by 2025.
- Based on an estimate of 300 square feet (SF) of gross space per office employee, AECOM translated employment growth into office space demand.
- A fair-share capture rate based on anticipated growth in local employment is then applied to total office space demand to project demand for office space at the Secondary Market level and then at the City level. The capture rates are then tested using low-, moderate-, and high-capture scenarios which could result from various land use and economic development policy decisions.

### III. Office Market Analysis

## Local-Serving Office Demand Employment-Based >> Methodology

### Office-Using Employment Projections (2010-2025)

Employment Category	Assumed % Using Office	CAGR 2010-			CAGR 2015-		CAGR 2020-	
		2010	2015	2015	2020	2020	2025	2025
Construction	10.0%	122,597	158,219	5.2%	204,191	5.2%	263,520	5.2%
Manufacturing	10.0%	393,565	416,133	1.1%	439,996	1.1%	465,227	1.1%
Trade, Transportation and Utilities	15.0%	764,310	883,353	2.9%	1,020,937	2.9%	1,179,951	2.9%
Information	15.0%	198,916	227,182	2.7%	259,464	2.7%	296,334	2.7%
Finance and Insurance	80.0%	149,346	167,836	2.4%	188,615	2.4%	211,967	2.4%
Real Estate and Rental and Leasing	70.0%	75,981	84,977	2.3%	95,037	2.3%	106,289	2.3%
Professional, Scientific and Technical	80.0%	256,220	287,988	2.4%	323,696	2.4%	363,830	2.4%
Management of Companies and Enter	80.0%	53,218	57,503	1.6%	62,132	1.6%	67,135	1.6%
Administrative and Support and Wast	30.0%	238,190	313,888	5.7%	413,644	5.7%	545,102	5.7%
Educational Services	1.0%	114,097	128,018	2.3%	143,638	2.3%	161,164	2.3%
Health Care and Social Assistance	5.0%	411,000	456,837	2.1%	507,785	2.1%	564,416	2.1%
Leisure and Hospitality	5.0%	388,794	414,219	1.3%	441,306	1.3%	470,164	1.3%
Other Services	25.0%	140,607	154,958	2.0%	170,775	2.0%	188,206	2.0%
Government	5.0%	603,587	624,443	0.7%	646,020	0.7%	668,342	0.7%
<b>Total Non-Farm Employment</b>		<b>3,910,500</b>	<b>4,375,500</b>		<b>4,917,000</b>		<b>5,551,500</b>	
<b>Estimated Office-Using Employment</b>		<b>794,000</b>	<b>903,000</b>		<b>1,030,500</b>		<b>1,180,500</b>	

Source: California EDD, AECOM

### III. Office Market Analysis

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#### Local-Serving Office Demand >> Office Space Supported by Employment Growth

- AECOM estimates that the 109,000 new office-related jobs anticipated between 2010 and 2015 will support approximately 34.3 million square feet of new office space throughout Los Angeles County.
- This includes all types of and classes of office use, also called gross office demand. We assume that there is an intrinsic structural vacancy rate of approximately 5 percent.
- The continued employment growth in the County across the next fifteen years is expected to support an additional 40.1 million square feet by 2020 and then another 47.2 million square feet by 2025, for a cumulative total of 115.9 million square feet of new office demand in Los Angeles County between 2010 and 2025.

#### Capture Rates

- The capture rates used in this analysis are based on the historical capture of office space in the market area.
- The total market area (primary and secondary markets) represents 2.3 percent of the gross office space inventory in the Los Angeles County market .
- The City of La Mirada represents 6.2 percent of the gross office inventory in the market area. Based on the City of La Mirada's historical capture rate, AECOM modeled medium-, high-, and low-capture scenarios to estimate gross office demand in the City.
- AECOM then applied a capture rate for the Imperial Corridor study area. This value represents a 45 percent capture rate of new office in the City, and applies an adjustment factor for converting gross office demand to local-serving uses. Local-serving office typically accounts for 25 to 30% of gross office demand.

#### Existing Vacant Space

- AECOM assumes that any new demand will first be absorbed by the existing surplus of vacant office space (surplus = any vacant space above an assumed structural vacancy of 5%) before supporting the demand for new space.

### III. Office Market Analysis

## Local-Serving Office Demand >> Office Space Supported by Employment Growth

### Estimated General Office Demand, 2010-2025

	2010-2015	2015-2020	2020-2025
County Employment Growth	108,900 Emp	127,400 Emp	149,900 Emp
Estimated Occupied Office Space/Employee	300 SF/Emp	300 SF/Emp	300 SF/Emp
	<b>32,667,000 SF</b>	<b>38,225,000 SF</b>	<b>44,960,000 SF</b>
Total Office Space Demand from Employment Growth			
Structural Vacancy Adjustment @ (5%)	1,633,000 SF	1,911,000 SF	2,248,000 SF
Total Supportable Space in Los Angeles County	34,300,000 SF	40,136,000 SF	47,208,000 SF
<b>Market Area Capture Rate = 2.3%</b>	789,000 SF	1,712,000 SF	2,798,000 SF
<b>Low Capture Rate Scenario</b>			
City Capture @ 3% of Market Area	24,000 SF	51,000 SF	84,000 SF
Less Existing Vacant Space	-66,000 SF	-5,000 SF	000 SF
Study Area Capture @ 12% of City	-5,000 SF	6,000 SF	10,000 SF
<b>Medium Capture Rate Scenario</b>			
City Capture Rate @ 6% of Market Area	47,000 SF	103,000 SF	168,000 SF
Less Existing Vacant Space	-66,000 SF	-2,000 SF	000 SF
Study Area Capture @ 12% of City	-2,000 SF	12,000 SF	20,000 SF
<b>High Capture Rate Scenario</b>			
City Capture Rate @ 10% of Market Area	79,000 SF	171,000 SF	280,000 SF
Less Existing Vacant Space	-66,000 SF	000 SF	000 SF
Study Area Capture @ 12% of City	2,000 SF	21,000 SF	34,000 SF
<b>Cumulative Supportable New Space: 2010-2025</b>			
<i>Low Capture</i>			<b>11,000 SF</b>
<i>Medium Capture</i>			<b>30,000 SF</b>
<i>High Capture</i>			<b>57,000 SF</b>

Source: AECOM

### III. Office Market Analysis

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#### Local-Serving Office Demand >> Demand Results

- AECOM estimates the employment growth in the county will support the following amount of office space, under the low, medium and high city capture rate scenarios:

**Employment-Based General Office Cumulative Demand Model (2010-2025)**

<b>Cumulative Supportable New Space</b>	<b>2010-2015</b>	<b>2015-2020</b>	<b>2020-2025</b>
Low Capture Rate Scenario @ 3%	-5,000 SF	6,000 SF	10,000 SF
Medium Capture Rate Scenario @ 6%	-2,000 SF	12,000 SF	20,000 SF
High Capture Rate Scenario @ 10%	2,000 SF	21,000 SF	34,000 SF

- Cumulative supportable office space between 2010 and 2025 :
  - Low Scenario: 11,000 square feet of new supportable general office space between 2010-2025
  - Medium Scenario: 30,000 square feet of new supportable general office space between 2010-2025
  - High Scenario: 57,000 square feet of new supportable general office space between 2010-2025

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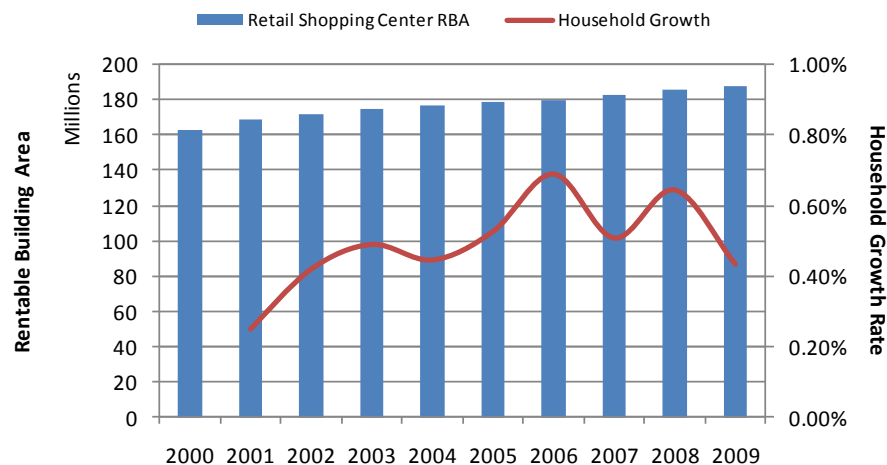
- I. Introduction
- II. Demographic and Socio-Economic Overview
- III. Office Market Analysis
- IV. Retail Market Analysis
- V. Residential Market Analysis
- VI. Next Steps

## IV. Retail Market Analysis

### Retail Market Analysis >> Overview

- Despite the strength of the economy and residential growth in Los Angeles and Orange County markets from 2000 to 2007, La Mirada has captured no new retail development since 2002.
- Surrounding markets have expanded their retail capacity aggressively during this time and have nearly surrounded La Mirada with a plethora of retail experiences and options, creating a fierce competitive environment for new development with the city.
- While the technical end to the recession has improved consumer confidence, retail sales remain unsteady, and the retail property market across Southern California continues to experience downward pressure on rents and occupancies.
- AECOM anticipates eventual stabilization and recovery in the economy, and has analyzed the study area and the surrounding regional market based on long-term historical trends and averages.

### Los Angeles County Retail Shopping Center Space and Household Growth



Source: CoStar, SCAG, AECOM



# IV. Retail Market Analysis

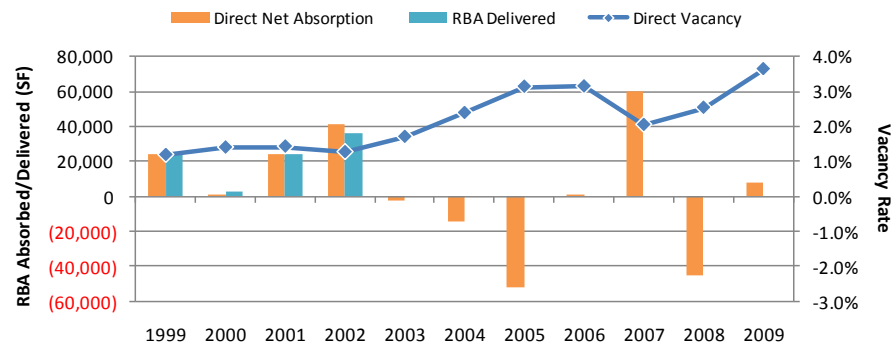
## Retail Supply >> Shopping Center Property Trends

### La Mirada (Primary Market)

- Currently there are numerous shopping centers (non-stand alone retail centers) comprised of 70 buildings for nearly 1.4 million square feet of RBA within La Mirada.
- Shopping center retail supply has remained stagnant over the past decade, with no new deliveries since 2003.
- Since 2003, total net absorption has been negative, with a loss of 44,000 square feet, representing 3.2 percent of existing inventory.
- While the average *reported* vacancy rate is at a 10-year high, current levels are still fairly low and indicate a steady level of demand for existing retail shopping center space.
- Average annual lease rates for shopping centers in La Mirada peaked at \$27.13 per square foot in 2008 and has since decreased 19 percent to about \$22.06 per square foot.
- Note that averages are based on *available retail lease data*, which may vary from year to year; thus smaller sample sizes, including La Mirada, should be viewed with this in mind.**

### Shopping Center Retail Trends within La Mirada

Year	# Buildings	Total RBA (SF)	Direct Vacancy	Direct Net Absorption	RBA Delivered	Average Rent (NNN)
1999	63	1,319,700	1.2%	23,870	23,870	n/a
2000	64	1,322,800	1.4%	1,100	3,100	n/a
2001	67	1,347,500	1.4%	24,640	24,640	n/a
2002	68	1,383,300	1.3%	41,240	35,850	n/a
2003	68	1,383,300	1.7%	(2,200)	0	n/a
2004	68	1,383,300	2.4%	(14,190)	0	n/a
2005	68	1,383,300	3.1%	(51,630)	0	\$15.73
2006	68	1,383,300	3.1%	780	0	\$15.58
2007	68	1,383,300	2.0%	60,100	0	\$15.61
2008	68	1,383,300	2.5%	(45,180)	0	\$27.13
2009	68	1,383,300	3.6%	8,340	0	\$22.06



Source: CoStar, AECOM

## IV. Retail Market Analysis

### Retail Supply >> Shopping Center Property List

#### Shopping Centers in La Mirada

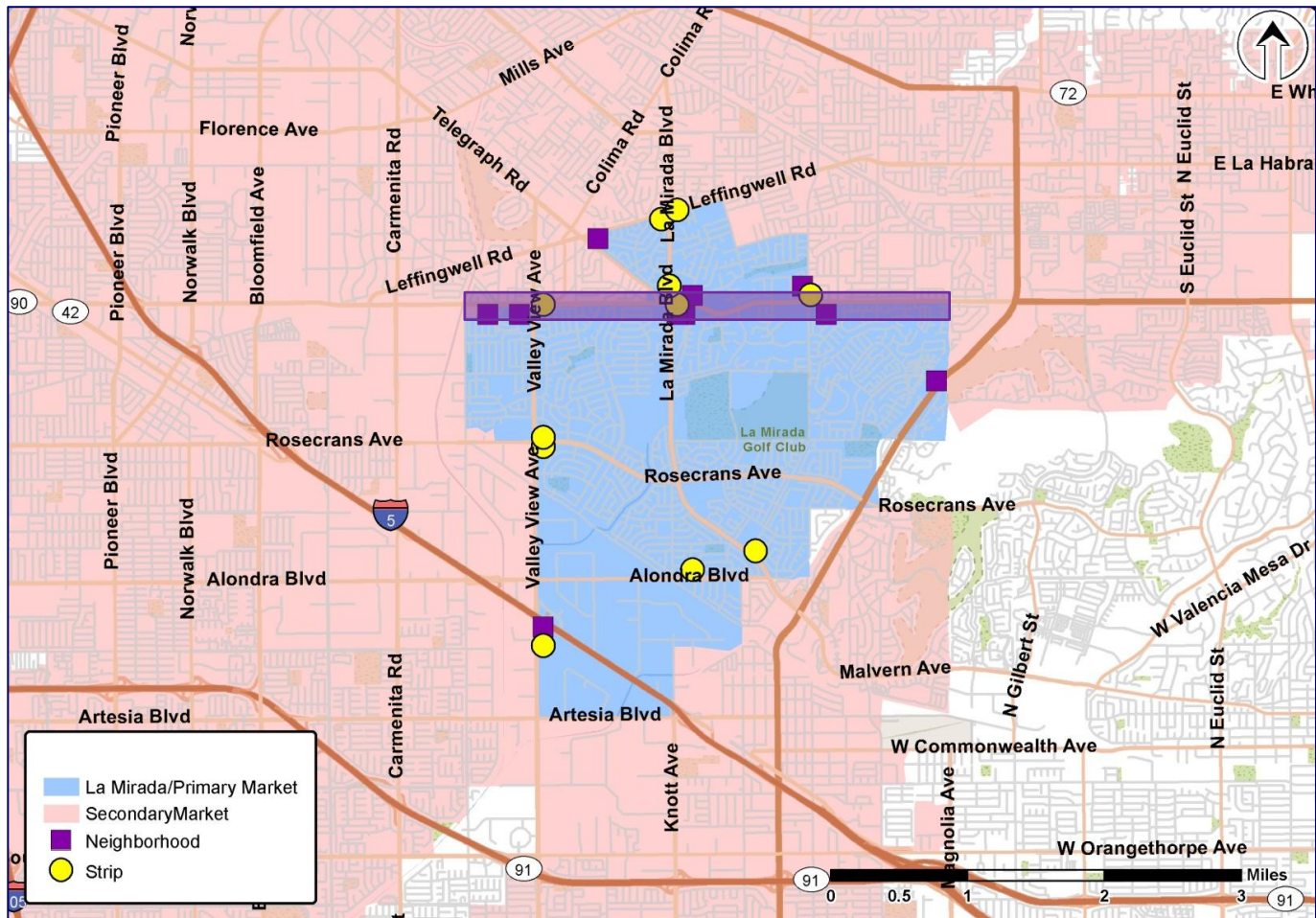
- The figure on the right provides a comprehensive list of shopping centers in the Primary Market.
- The existing shopping centers are neighborhood-serving, with retail tenants that cater to the day-to-day needs of the local market.
- The La Mirada Theatre Center, located on the corner of Rosecrans Avenue and La Mirada Boulevard, is the largest shopping center in the City at almost 300,000 RBA.
- The only shopping center built in the last decade is Plaza La Mirada, which was constructed in 2000 and commands the highest weighted average rent at \$33 per square foot.

Center Name	Anchor Tenants	Address	RBA	Average Weighted Rent	Year Built
<i>Neighborhood Center</i>					
1. Plaza La Mirada	n/a	13525 Beach Blvd	27,744	\$33.00	2000
2. Parkway La Mirada	n/a	14200-14220 Firestone Blvd	33,980	n/a	1966
3. n/a	n/a	13942 Imperial Hwy	29,332	n/a	1957
4. Centre On The Park	n/a	15050 Imperial Hwy	43,900	n/a	1986
5. Green Hills Plaza	fresh&easy Neighborhood Market	15745 Imperial Hwy	93,870	Negotiable	1990
6. n/a	Marshalls, Rite Aid	15906 Imperial Hwy	110,220	\$14.16	1961
7. Home Depot Shopping Center	Home Depot	12300-12333 La Mirada Blvd	151,459	\$21.00	1978
8. La Mirada Center	Stater Bros., Round Table Pizza	12800 La Mirada Blvd	80,733	n/a	1976
9. Mirada Crossroads	99 Cents Only	14525-14569 E Telegraph Rd	57,508	\$18.00	1956
10. Mirada/west Shopping Center	Vons	12721-12807 Valley View Ave	123,887	\$15.00	1968
<i>Community Center</i>					
1. La Mirada Theatre Center	Toys "R" Us, La Mirada Theatre, Albertsons, LA Fitness, Starplex Cinemas, CVS Pharmacy, USPS	15058-15088 Rosecrans Ave	297,548	Negotiable	1957
<i>Strip Center</i>					
1. n/a	n/a	12251 La Mirada Blvd	74,069	n/a	1960
2. n/a	n/a	15825-15843 Imperial Hwy	44,550	\$13.32	1961
3. Alondra Shopping Center	n/a	15071-15075 Alondra Blvd	43,607	n/a	1956
4. n/a	n/a	14210 Imperial Hwy	33,448	n/a	1986
5. n/a	n/a	16500-16580 Valley View Ave	23,480	\$13.08	1990
6. n/a	n/a	15530-15532 La Mirada Blvd	17,132	n/a	1989
7. L & L Shopping Center	n/a	14930 Leffingwell	17,032	n/a	1961
8. n/a	n/a	13940 Valley View Ave	15,405	n/a	1960
9. n/a	n/a	15008-15030 Leffingwell Rd	11,550	n/a	1988
10. n/a	n/a	14214 Rosecrans Ave	11,001	n/a	1959
11. n/a	n/a	15020 Imperial Hwy	6,000	n/a	1978

Source: CoStar, AECOM

# IV. Retail Market Analysis

## Retail Supply >> Shopping Centers within the Primary Market



Source: ESRI, AECOM

# IV. Retail Market Analysis

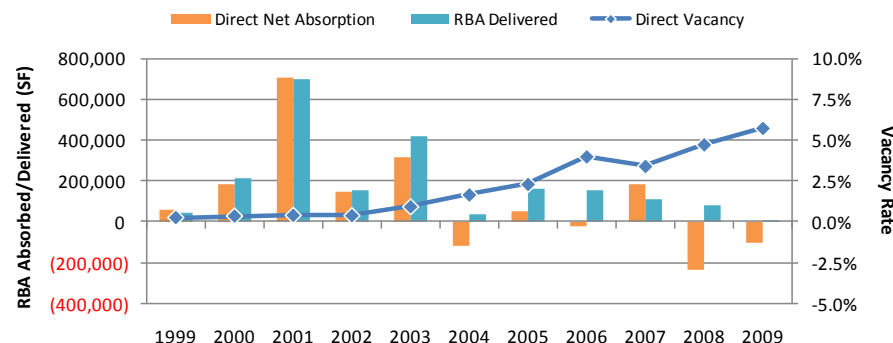
## Retail Supply >> Shopping Center Property Trends

### Secondary Market

- The secondary market contains 15.9 million square feet of retail in 454 buildings housed in shopping centers.
- More than 2.0 million square feet in 48 properties has been added to the Secondary Market in the past ten years.
- Over the past decade, the Secondary Market has experienced an average net absorption of 105,000 square feet per year.
- Average annual vacancy rate has increased steadily over the past decade, and is currently at a 10-year high of 5.7 percent.
- Average annual triple-net rent has also increased steadily over the past decade, and is currently at an all-time high of more than \$25 per square foot, 15 percent higher than the average rent in La Mirada.
- The recent economic downturn has resulted in negative net absorption of almost 341,000 square feet over the last two years. The negative trend is likely to continue in the short-term; however, the Secondary Market has a fairly strong growing retail base, with current vacancies likely to be absorbed over the mid and long-term.

### Shopping Center Retail Trends within Secondary Market

Year	# Buildings	Total RBA (SF)	Direct Vacancy	Direct Net Absorption	RBA Delivered	Average Rent (NNN)
1999	406	13,898,700	0.2%	58,180	39,900	\$12.84
2000	409	14,111,100	0.3%	183,270	212,370	\$12.58
2001	417	14,810,200	0.4%	701,830	699,170	\$14.39
2002	423	14,962,300	0.4%	142,500	152,070	\$14.40
2003	431	15,382,300	0.9%	317,150	419,980	\$14.15
2004	433	15,419,500	1.6%	(116,590)	37,190	\$15.14
2005	437	15,578,900	2.3%	51,480	159,440	\$15.32
2006	441	15,729,800	4.0%	(21,460)	150,920	\$19.38
2007	451	15,838,900	3.4%	184,010	109,100	\$23.44
2008	453	15,918,400	4.7%	(235,420)	79,420	\$25.27
2009	454	15,923,400	5.7%	(105,110)	5,000	\$25.28



Source: CoStar, AECOM

## IV. Retail Market Analysis

### Retail Supply >> Shopping Center Property List

- La Mirada has a reasonable share of local-serving retail compared to the Secondary Market, but lacks the larger, regional-serving shopping center types such as Power Centers and Regional Malls.

- Power Centers comprise 2.1 million square feet of RBA in the Secondary Market, while Regional and Super Regional Malls make up another 3.4 million square feet of RBA.

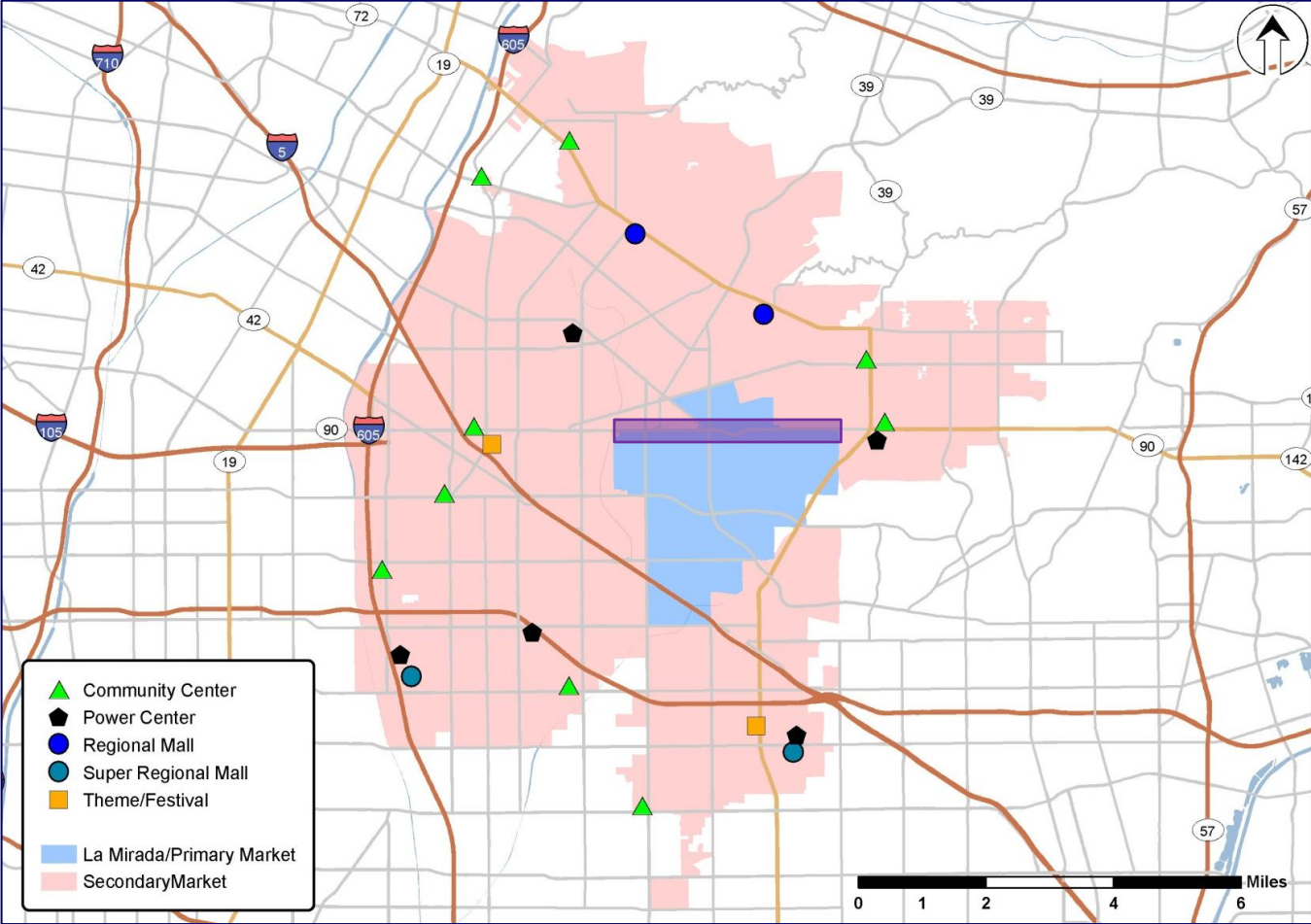
#### Major Shopping Centers in the Secondary Market

Center Name	Anchor Tenants	Address	City	RBA	Average Weighted Rent	Year Built
<u>Community Center</u>						
1. Cerritos Plaza South	Ralphs, Padelford AJ & Sons Inc	13225 South St	Cerritos	374,659	\$28.44	1976
2. La Habra Marketplace	Ross Dress for Less, Smart & Final	1201-1941 W Imperial Hwy	La Habra	371,933	Negotiable	1991
3. Paddison Square	Payless Food, Rite Aid, U.S. Post Office	12209-12503 S Norwalk Blvd	Norwalk	324,756	\$26.16	1966
4. Santa Fe Springs Marketplace	Food 4 Less, Krage Auto Parts, Rite	7810-7932 Norwalk Blvd	Whittier	277,906	Negotiable	1952
5. Norwalk Town Square	Newport Dental, Women's Health Center, Bally Total Fitness, 99 Cents	11701-13927 Rosecrans Ave	Norwalk	242,731	\$24.60	1956
6. Whittier Marketplace	Ralphs, Fashion Area, CVS Pharmacy	11701-11891 Whittier Blvd	Whittier	168,263	\$27.00	1992
7. Buena Park Market Place	Marshalls, Jo-Ann Stores, dd's	5885-5899 Lincoln Ave	Buena Park	150,477	\$36.00	1966
8. La Habra Square		2131-2141 W La Habra Blvd	La Habra	146,985	n/a	2005
9. College Square	Home Depot, Staples	10802-10930 Alondra Blvd	Cerritos	142,210	n/a	1964
<u>Theme/Festival Center</u>						
1. Movieland Wax Museum Property	Movieland Wax Museum	7711 Beach Blvd	Buena Park	68,462	n/a	n/a
2. Norwalk Entertainment Center	AMC Theatres, Cold Stone Creamery	12850 Norwalk Blvd	Norwalk	95,731	\$24.00	1996
<u>Power Center</u>						
1. Best Plaza	Burlington Coat Factory, Skate Depot, Big Lots, Chuck E. Cheese's	11113-11263 183rd St	Cerritos	366,227	\$15.84	1978
2. La Habra Westridge Plaza	Wal-Mart, Lowe's, Sam's Club, Bed Bath & Beyond, Borders	1370-1390 S Beach Blvd	La Habra	650,000	Negotiable	2001
3. Buena Park Downtown	Kohl's, Michaels, PetSmart, Office Depot, Dollar Tree	8321 La Palma Ave	Buena Park	240,044	\$27.00	1961
4. Gateway Plaza - Santa Fe Springs	Wal-Mart, Target, Gigante, LA Fitness, CVS Pharmacy	13310 Telegraph Rd	Santa Fe Springs	429,377	Negotiable	1985
5. Cerritos Towne Center	Wal-Mart, Kohl's, Borders, Best Buy, Regal Cinemas, Ross, OfficeMax, Old Navy, Trader Joe's, PETCO	12821 Towne Center Dr	Cerritos	432,856	\$18.12	1994
<u>Regional Mall</u>						
1. Whittwood Town Center	Target, 24 Hour Fitness, CVS	15600-15740 Whittwood Ln	Whittier	680,357	\$36.00	1958
2. The Quad At Whittier	Burlington Coat Factory, Ralphs, Ross,	113502 Whittier Blvd	Whittier	433,528	Negotiable	1963
<u>Super Regional Mall</u>						
1. Los Cerritos Shopping Center	Sears, Macy's, Nordstrom, Regal Cinem:	239 Los Cerritos Mall	Cerritos	1,130,439	Negotiable	1971
2. Buena Park Downtown	24 Hour Fitness, Bed Bath & Beyond, DSW, Krikorian Premiere Theatres,	8000-8390 La Palma Ave	Buena Park	1,123,481	Negotiable	1961

Source: CoStar, AECOM

# IV. Retail Market Analysis

## Retail Supply >> Major Shopping Center Properties within the Secondary Market



Source: ESRI, AECOM

## IV. Retail Market Analysis

### Retail Supply >> Non-Shopping Center Property Trends

#### Non-Shopping Center Retail

- Non-shopping center retail consists of freestanding, storefront retail properties. In La Mirada there is currently 792,000 square feet of non-shopping center retail space with an average vacancy of 2.0 percent.
- Non-shopping center retail supply has remained practically unchanged within the past decade. Since 2000, only two non-shopping center retail properties were added to the market – both were introduced in 2003, for a combined 9,700 square feet or leasable space.
- In the secondary market, there is almost 7.7 million square feet of non-shopping center retail. Average annual vacancy is currently at a 10-year high of 3.8 percent, which is higher than in La Mirada.
- Average annual triple-net rent in the Secondary Market peaked at \$35.16 per square foot in 2006, and has since dropped considerably to \$22.63, which is comparable to the current average rent level in La Mirada.

#### Non-Shopping Center Retail Trends

Year	# Buildings	Total RBA	Direct Vacancy	Direct Net Absorption	RBA Delivered	Average Rent (NNN)
<i>Primary Market</i>						
1999	39	782,300	0.1%	23,720	24,220	n/a
2000	39	782,300	0.2%	0	0	n/a
2001	39	782,300	0.2%	500	0	n/a
2002	39	782,300	0.1%	0	0	n/a
2003	41	792,000	0.2%	8,810	9,710	n/a
2004	41	792,000	0.4%	(2,500)	0	n/a
2005	41	792,000	0.5%	300	0	n/a
2006	41	792,000	0.4%	900	0	n/a
2007	41	792,000	0.4%	1,800	0	n/a
2008	41	792,000	3.1%	(550)	0	\$16.67
2009	41	792,000	2.0%	(30,320)	0	\$23.75
<i>Secondary Market</i>						
1999	846	7,099,800	0.7%	51,520	77,720	n/a
2000	850	7,213,600	1.1%	94,830	113,750	\$10.56
2001	857	7,275,900	1.1%	72,350	62,350	\$8.87
2002	859	7,328,400	1.0%	67,230	52,500	\$12.65
2003	874	7,566,100	1.5%	126,590	237,610	\$16.17
2004	879	7,647,200	1.8%	107,590	81,180	\$14.81
2005	883	7,656,700	2.4%	(58,180)	9,490	\$23.75
2006	884	7,660,200	2.2%	93,680	3,500	\$35.17
2007	884	7,660,200	1.5%	26,600	0	\$29.69
2008	886	7,675,800	2.7%	(98,910)	15,620	\$28.89
2009	888	7,685,600	3.8%	(108,460)	9,710	\$22.63

Source: CoStar, AECOM

## IV. Retail Market Analysis

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### Retail Demand >> Methodology

- AECOM bases its retail demand analysis on two sources:
  - Recapture of retail spending leakage: residential sales currently spent outside of the City.
  - New retail spending: sales by new residential household growth in the City and surrounding market areas.
- The retail demand analysis estimates the capacity for growth in the retail market. The amount of retail that can be captured specifically within the Imperial Highway study area corridor depends on market demand as well as land use policy direction set by the City. Thus, retail capture rates depend on the overall strategy as developed in the Imperial Highway Corridor Specific Plan.

#### Methodology

- To determine the amount of retail spending currently leaking out of the La Mirada, AECOM compares taxable sales data for the City against spending in Los Angeles County based on data from the California State Board of Equalization to determine how many retail dollars are actually being captured within the City, relative to residents' overall spending capacity..
- Demand from future residents is then projected by estimating the average spending capacity by retail category and applying this figure to the anticipated number of new City residents. AECOM has applied a series of capture rates for different retail categories based on the ratio of local vs. regional-serving uses as well as the suitability of the Imperial Highway corridor for different retail venues.
- Projected gross retail spending is then translated to square feet by using an estimate of retail performance based on sales per square foot. Sales values differ by spending category and estimates are based on industry standards, published sales data, and AECOM's experience in the retail marketplace.



## IV. Retail Market Analysis

### Retail Demand >> Existing Market Leakage Analysis

- AECOM examined the residential per capita spending in the City of La Mirada relative to the estimated per capita spending based on the County average.
- As shown in the table below, La Mirada experiences a leakage of retail spending in most retail categories. This means that other cities are capturing substantial amounts of retail sales from La Mirada residents.
- Retail spending in the home furnishings and appliances and building material categories, however, have a surplus of spending, indicated sales capture from outside the City.
- Currently, La Mirada does not have a major shopping center featuring higher end branded retail clothing & other stores, general merchandise, food stores and eating and drinking places. This retail gap may be causing residents to go elsewhere to meet their retail preferences.
- The City may be able to recapture a portion of the lost sales in these categories, depending on the development of new, high-quality, branded retail product that appeals to local residents and pass-through traffic.

#### Retail Sales Leakage/Surplus Analysis

Type of Retailer	Los Angeles County	La Mirada City		La Mirada City	La Mirada City	La Mirada City	Surplus / (Leakage)
	Average Per Capita Sales	Adj. Regional Per Capita Sales	Avg. Actual Per Capita Sales (2008)	Estimated Total Resident Spending	Projected Total Sales (2009)		
Apparel stores	\$602	\$744	\$244	\$37,224,000	\$12,209,000	(\$25,015,000)	
General merchandise stores	\$1,476	\$1,789	\$459	\$89,552,000	\$22,961,000	(\$66,591,000)	
Food stores	\$1,570	\$1,706	\$1,204	\$85,391,000	\$60,257,000	(\$25,134,000)	
Eating and drinking places	\$1,398	\$1,506	\$1,025	\$75,394,000	\$51,318,000	(\$24,076,000)	
Home furnishings and appliances	\$429	\$517	\$1,723	\$25,872,000	\$86,243,000	\$60,371,000	
Building materials	\$611	\$741	\$833	\$37,092,000	\$41,704,000	\$4,612,000	
Motor vehicles and parts	\$1,271	\$1,539	\$293	\$77,019,000	\$14,654,000	(\$62,365,000)	
Service stations	\$1,286	\$1,543	\$3,218	\$77,201,000	\$161,050,000	\$83,849,000	
Other retail stores	\$1,295	\$1,429	\$1,213	\$71,531,000	\$60,721,000	(\$10,810,000)	
<b>Retail Stores Totals</b>	<b>\$9,939</b>	<b>\$11,515</b>	<b>\$10,213</b>	<b>\$576,276,000</b>	<b>\$511,117,000</b>	<b>(\$65,159,000)</b>	

Source: AECOM

Source: BOE, AECOM

## IV. Retail Market Analysis

### Retail Demand >> Existing Market Leakage Analysis

#### Capacity of Retail Spending

Type of Retailer	Sales Attraction or Leakage	Typical sales PSF for Outlets	Estimated Supportable SF of New Store Space
Apparel stores	(\$1,251,000)	\$300	4,000
General merchandise stores	(\$2,331,000)	\$375	6,000
Food stores	(\$6,284,000)	\$450	14,000
Eating and drinking places	(\$4,213,000)	\$450	9,500
Home furnishings and appliances		\$550	0
Building materials		\$300	0
Motor vehicles and parts	(\$1,871,000)	\$250	7,500
Service stations		\$400	0
Other retail stores	(\$1,703,000)	\$250	7,000
<b>Retail Stores Totals</b>	<b>(\$17,653,000)</b>		<b>48,000</b>

- AECOM estimates that La Mirada has the capacity to support nearly 50,000 SF of additional retail space based on current leakage estimates. The estimated retail distribution includes:
  - Apparel Stores: 4,000 SF
  - General Merchandise Stores: 6,000 SF
  - Food Stores: 14,000 SF
  - Eating and drinking places: 9,500 SF
  - Motor vehicles and parts: 7,500 SF
  - Other retail stores: 7,000

## IV. Retail Market Analysis

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### Retail Demand >> from Residential Population Growth

#### Primary Market

- AECOM estimates the Imperial Highway Corridor study area can capture approximately \$1.2 million of new resident spending on retail goods and services during the five-year period from 2010-2015.
- New residents entering the primary market area between 2015-2020 are projected to spend an additional \$1.1 million on retail goods and services.
- From 2020-2025 residents are expected to spend approximately \$1.1 million on retail goods and services.
- The additional retail spending generated by the expected 2,540 new residents can support approximately 9,500 square feet of new retail over the next 25 years.
- ***Similar to the retail leakage analysis, these figures represent the potential retail support from future residents of La Mirada.***

#### Secondary Market

- AECOM estimates new residents to the secondary market, as well as daily drive-by traffic along Imperial Highway, will spend approximately \$3.7 million on retail goods and services in La Mirada from 2010 to 2015. This market is expected to spend an additional \$2.8 million from 2015 to 2020, and \$2.3 million from 2020-2025.
- The additional retail spending generated by these customers can support nearly 50,000 square feet of new retail over the next 15 years.
- ***These figures represent the potential retail support from the secondary market.***

## IV. Retail Market Analysis

### Retail Demand >> from Residential Population Growth

#### Retail SF Supported by Projected Population Growth of Primary Market

Type of Retailer	Capture of Resident Spending 2010-2015	Capture of Resident Spending 2015-2020	Capture of Resident Spending 2020-2025	Typical sales PSF for Outlets	Estimated Supportable SF of New Store Space 2010-2015	Estimated Supportable SF of New Store Space 2015-2020	Estimated Supportable SF of New Store Space 2020-2025	Total Estimated Supportable SF of New Store Space
Apparel Stores	\$33,000	\$32,000	\$31,000	\$300	110	110	100	320
General Merchandise Stores	\$56,000	\$54,000	\$52,000	\$375	150	140	140	430
Food Stores	\$368,000	\$365,000	\$356,000	\$450	820	810	790	2,420
Eating and Drinking Places	\$233,000	\$226,000	\$219,000	\$450	520	500	490	1,510
Home Furnishings and Appliance	\$57,000	\$55,000	\$54,000	\$550	100	100	100	300
Building Materials	\$82,000	\$79,000	\$77,000	\$300	270	260	260	790
Auto Dealers and Supply	\$41,000	\$40,000	\$38,000	\$250	160	160	150	470
Service Station	\$102,000	\$99,000	\$96,000	\$400	260	250	240	750
Other Retail Stores	\$195,000	\$193,000	\$188,000	\$250	780	770	750	2,300
<b>Total</b>	<b>\$1,167,000</b>	<b>\$1,143,000</b>	<b>\$1,111,000</b>		<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>9,500</b>

#### Retail SF Supported by Projected Population Growth of Secondary Market and Drive-By Traffic

Type of Retailer	Captured Spending 2010-2015	Captured Spending 2015-2020	Captured Spending 2020-2015	Typical sales PSF for Outlets	Estimated Supportable SF of New Store Space 2010-2015	Estimated Supportable SF of New Store Space 2015-2020	Estimated Supportable SF of New Store Space 2020-2025	Total Estimated Supportable SF of New Store Space
Apparel Stores	\$483,000	\$401,000	\$360,000	\$300	1,600	1,350	1,200	4,000
General Merchandise Stores	\$947,000	\$806,000	\$736,000	\$375	2,550	2,150	1,950	6,500
Food Stores	\$1,246,000	\$1,048,000	\$940,000	\$450	2,750	2,350	2,100	7,000
Eating and Drinking Places	\$851,000	\$722,000	\$657,000	\$450	1,900	1,600	1,450	5,000
Home Furnishings and Appliance	\$481,000	\$389,000	\$342,000	\$550	850	700	600	2,000
Building Materials	\$519,000	\$430,000	\$385,000	\$300	1,750	1,450	1,300	4,500
Motor vehicles and parts	\$651,000	\$569,000	\$530,000	\$250	2,600	2,300	2,100	7,000
Service Station	\$587,000	\$524,000	\$494,000	\$400	1,450	1,300	1,250	4,000
Other Retail Stores	\$785,000	\$677,000	\$620,000	\$250	3,150	2,700	2,500	8,500
<b>Total</b>	<b>\$6,550,000</b>	<b>\$5,566,000</b>	<b>\$5,064,000</b>		<b>18,500</b>	<b>16,000</b>	<b>14,500</b>	<b>49,000</b>

Totals may not sum due to rounding

Source: DOF, SCAG, AECOM

## IV. Retail Market Analysis

### Retail Demand >> Total Supportable Retail Space

- Leakage: Between 2010 and 2025, total potential retail square footage supported by leakage recapture is estimated to be approximately 48,000 SF.
- Market Growth: Total potential retail space supported by primary market growth is approximately 9,500 SF in the Imperial Highway corridor over the study period; with an additional 48,500 total square feet supported by the secondary market and drive-by traffic.
- Total Supportable Space: Supportable retail development in the Imperial Highway Corridor study area is estimated to total more than 100,000 square feet between 2010 and 2025.

#### Total Supportable Retail SF by Market: 2010-2025

Type of Retailer	Leakage	Primary Market	Secondary Market	Total
Apparel Stores	4,000	320	4,000	8,300
General Merchandise Stores	6,000	430	6,500	12,900
Food Stores	14,000	2,420	7,000	23,400
Eating and Drinking Places	9,500	1,510	5,000	16,000
Home Furnishings and Appliance	0	300	2,000	2,300
Building Materials	0	790	4,500	5,300
Motor Vehicle and Parts	7,500	470	7,000	15,000
Service Station	0	750	4,000	4,800
Other Retail Stores	7,000	2,300	8,500	17,800
<b>Total</b>	<b>48,000</b>	<b>9,500</b>	<b>49,000</b>	<b>106,500</b>

#### Total Supportable Retail SF by Period: 2010-2025

Type of Retailer	2010-2015	2015-2020	2020-2025	Total
Apparel Stores	5,710	1,460	1,300	8,500
General Merchandise Stores	8,700	2,290	2,090	13,100
Food Stores	17,570	3,160	2,890	23,600
Eating and Drinking Places	11,920	2,100	1,940	16,000
Home Furnishings and Appliance	950	800	700	2,500
Building Materials	2,020	1,710	1,560	5,300
Motor Vehicle and Parts	10,260	2,460	2,250	15,000
Service Station	1,710	1,550	1,490	4,800
Other Retail Stores	10,930	3,470	3,250	17,700
<b>Total</b>	<b>70,000</b>	<b>19,000</b>	<b>17,500</b>	<b>106,500</b>

Source: AECOM

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- II. Demographic and Socio-Economic Overview
- III. Office Market Analysis
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- VI. Next Steps

## V. Residential Market Analysis

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### Residential >> Highlights

#### Supply

- There are currently 15,000 residential units in La Mirada. 80 percent of existing housing units are detached single family residences, while 20 percent are multi-family units.
- Permit activity in La Mirada dropped steeply in the past two years. In 2009, there were only 20 permits issued, all of which fell into the multi-family, five units or more category. Permitting stalled in the Secondary Market as well, with only about 150 permits taken out in 2009.
- The Whittier/La Mirada apartment submarket consists of approximately 9,500 units in 200 properties. Submarket rents average just over \$1,100 per month. Average apartment vacancy in the Whittier/La Mirada submarket is 5.7 percent, slightly higher than the surrounding submarkets.
- Single family home and condominium resale markets are moderately active, with prices averaging \$350,000 to \$370,000. this represents a substantial decline from 2007 pricing.
- While the number of homes sales has been increasing over the past two years, the federal government's incentives for first-time home buyers ended April 30, 2010. The State of California began offering a tax credit incentive for home buyers beginning May 1, 2010, but the end date of that program is uncertain.
- There is concern that without such incentives, annual home sales will continue to erode. Furthermore, there is still substantial inventory of active new homes in the market that remain to be sold.
- Oversupply in both the SFR and condominium markets across Southern California may be suppressing apartment development due to the presence of 'shadow stock' (single family homes and condos being rented as apartments).

# V. Residential Market Analysis

## Residential >> Highlights

### Demand

- In order to project residential housing demand for the Imperial Highway Corridor study area, AECOM has taken a conservative approach given the expectation of a prolonged economic downturn and slow housing recovery.
- Cumulative new housing demand for the Imperial Highway Corridor is presented below.
- Potential residents are income-qualified and segmented based on home ownership vs. apartment rental preferences.
- AECOM has modeled two scenarios to provide an upper and lower boundary of probable demand.
- All new housing units are presumed to be attached units in a townhome or flat configuration that can accommodate mixed use or residential-only environments.

Demand Summary	2010-2015	2015-2020	2020-2025	Total
<b>Cumulative New Home Demand (Attached)</b>				
Low/Moderate	10	20	27	55
High	20	39	53	115
<b>Cumulative New Apartment Demand</b>				
Low/Moderate	16	33	44	95
High	33	65	89	185
<b>Total Demand for New Units</b>				
Low/Moderate	26	52	71	150
High	52	105	142	300

Totals may not sum due to rounding

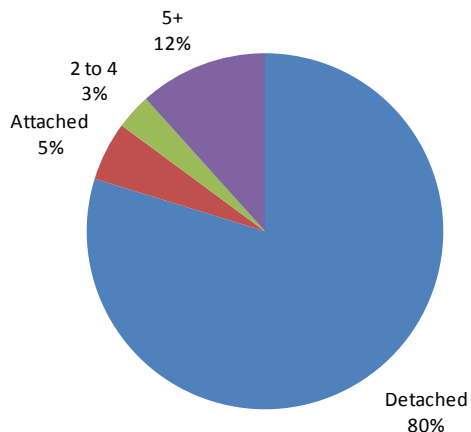


# V. Residential Market Analysis

## Residential Supply >> Housing Units by Project Size

- In La Mirada, there are roughly 15,000 housing units, of which 80 percent are detached single family residences. About 5 percent are attached single family residences, while the remaining 15 percent of units in the market are multi-family.
- Over the past decade, the total number of housing units in the City has increased by 260 units, an average annual rate of 0.2 percent per year. In fact, there has been practically no housing growth since 2004.
- Multi-family housing stock increased by 34 percent in 2003 with the addition of 122 units. Since then, no new multi-family residences have been added to the market.

**Distribution of Housing by Number of Units in Building**



**City of La Mirada Residential Supply**

Year	Total Housing Units	SINGLE		MULTIPLE		Mobile Homes
		Detached	Attached	2 to 4	5+	
2000	14,811	11,756	794	358	1,737	166
2001	14,811	11,756	794	358	1,737	166
2002	14,811	11,756	794	358	1,737	166
2003	14,962	11,779	800	480	1,737	166
2004	15,073	11,890	800	480	1,737	166
2005	15,074	11,891	800	480	1,737	166
2006	15,074	11,891	800	480	1,737	166
2007	15,074	11,891	800	480	1,737	166
2008	15,075	11,892	800	480	1,737	166
2009	15,075	11,892	800	480	1,737	166

**Year-Over-Year Change**

Year	Total Housing Units	SINGLE		MULTIPLE		Mobile Homes
		Detached	Attached	2 to 4	5+	
2000		0	0	0	0	0
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	151	23	6	122	0	0
2004	111	111	0	0	0	0
2005	1	1	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	1	1	0	0	0	0
2009	0	0	0	0	0	0
<b>Total Change</b>	264	136	6	122	0	0
<b>CAGR</b>	1.8%	1.2%	0.8%	34.1%	0.0%	0.0%

Source: California Department of Finance

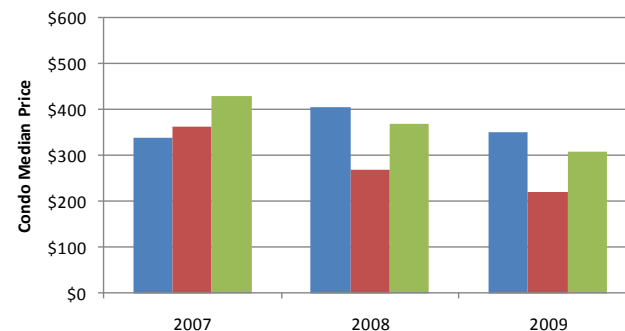
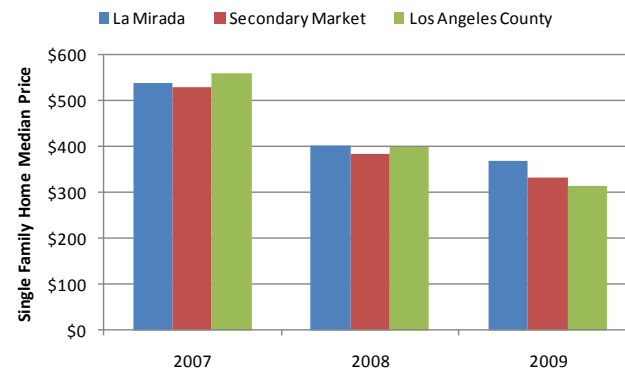
# V. Residential Market Analysis

## Residential Supply >> Home Resale Volume and Pricing

- The table and charts to the right detail the resale activity for existing single family homes and condos from 2007 to 2009.
- Compared to the Secondary Market and Los Angeles County, La Mirada has maintained higher home price levels in recent years. The median resale price for a single family home is currently \$370,000, 11 percent higher than in the Secondary Market. Additionally, the median resale price for a condo is currently \$350,000, 58 percent higher than the Secondary Market median price of \$222,000.
- Within La Mirada, the median resale price for single family homes dropped 31.5 percent from 2007 to 2009, while median condo resale prices remain comparable. Despite the drop in prices, single family home sales in 2009 remain on par with sales in 2007. Meanwhile, condo sales are 31 percent higher with 110 units sold in 2009 versus 70 units sold in 2007.
- The single family home resale market in the Secondary Market also experienced a considerable price drop, roughly 37 percent. However, unlike in La Mirada, sales volume increased 29 percent from 2007. The median resale price for condos dropped 39 percent, while condo sales jumped significantly by more than 90 percent, from 290 units in 2007 to 560 units in 2009.

Home Resale Activity, 2007-2009

Market Area	Single Family Homes Sold			
	2009	2008	2007	% Δ '07-'09
<i>Single Family Homes</i>				
La Mirada	356	299	374	-4.8%
Secondary Market	3,774	3,192	2,918	29.3%
Los Angeles County	57,432	45,596	50,559	13.6%
<i>Condominiums</i>				
La Mirada	110	84	70	57.1%
Secondary Market	556	346	291	91.1%
Los Angeles County	16,663	12,802	13,587	22.6%



\*Prices are in thousands

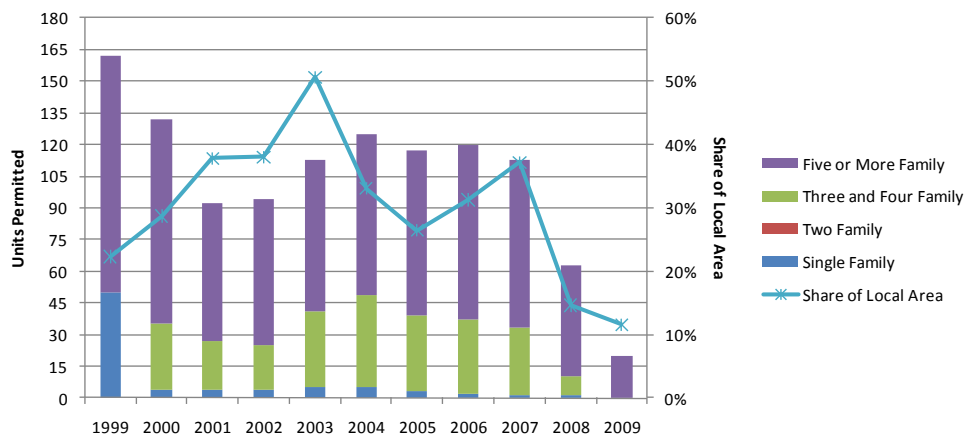
Source: DataQuick

# V. Residential Market Analysis

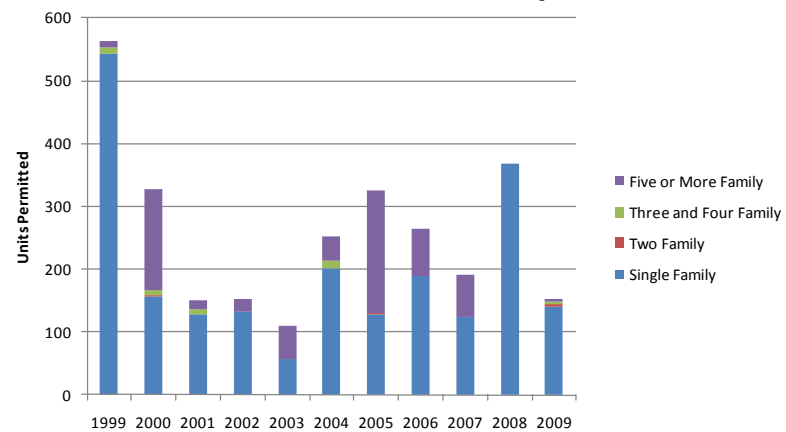
## Residential Supply >> Building Permits

- Building permits provide a leading indicator of future development activity in a community. From the time a building permit is received, it typically takes one to two years for a developer to complete construction, depending on the size of the project, site constraints, and other factors.
- Over the past decade, permitting of single family residential properties is no longer a focus in La Mirada. The majority of building permits recently issued have been for multifamily properties of three units or more.
- Permit activity in La Mirada dropped steeply in the past two years. In 2009, there were only 20 permits issued, all in the five units or more category.
- In contrast, the vast majority of building permits issued in the Secondary Market were for single family residences. Also, despite the recent economic downturn, permit activity for the Secondary Market was high in 2008, driven in large part by the City of La Habra.
- La Mirada's share of building permits throughout the Primary and Secondary Markets combined is at a 10-year low of 12 percent, down from 37 percent in 2007.

**# of Units Permitted in La Mirada**



**# of Units Permitted in Secondary Market**



Source: US Census 2009, AECOM

# V. Residential Market Analysis

## Residential Supply >> Active Residential Developments

- Hanley Wood Market Intelligence reports that there are approximately 9 active residential development projects in the Secondary Market.
- Currently, there are no active residential projects for the City of La Mirada.
- This list does not include new single family construction by individual, private homeowners.

### Residential Developments in the Primary and Secondary Market

City	Housing Type	Project Name	Builder Name	Price Range	Sq Ft Range
Whittier	Condo	RAVELLO	MBK Homes	\$392,990 - \$439,990	1,664 - 1,838
Santa Fe Springs	Single Family	VILLAGES AT HERITAGE SPRINGS/SINGLE FAMILY	Cornstock Homes	\$485,000 - \$569,000	1,763 - 2,166
Santa Fe Springs	Townhouse	VILLAGES AT HERITAGE SPRINGS/TOWNHOMES	Cornstock Homes	\$385,000 - \$454,000	1,390 - 1,931
La Habra	Single Family	BRIO IN LA HABRA	John Laing Homes	\$525,880 - \$544,880	1,751 - 2,084
La Habra	Single Family	TAPESTRY	Shea Homes	\$667,900 - \$701,900	2,795 - 3,247
Buena Park	Single Family	ASHBERRY AT LAUREN GATE	Lennar Homes	\$675,000 - \$689,000	2,565 - 3,074
Buena Park	Single Family	IVY LANE AT LAUREL GATE	Lennar Homes	\$599,000 - \$644,000	2,062 - 2,477
Buena Park	Townhouse	BUENATERRA	Taylor Morrison	\$405,000 - \$449,000	1,549 - 1,825
Buena Park	Townhouse	FOUNDER'S WALK	The Olson Company	\$479,990 - \$559,990	1,502 - 1,676

# V. Residential Market Analysis

## Residential Supply >> Planned and Proposed Development

- According to the City of La Mirada Planning Department, no major new residential projects have been completed in the past two years.
- Per the Planning Department, there is currently only one proposed residential development project underway. The proposed project is in the early preliminary planning stages, but is expected to be located on a 4.4 acre site near the intersection of Stage Road and Alondra Boulevard in the south side of the City. Currently, about 44 residential units are planned, but this number may change as the proposal process moves forward through the development application process.

**Site Location of Proposed Residential Development**



Source: City of La Mirada

## V. Residential Market Analysis

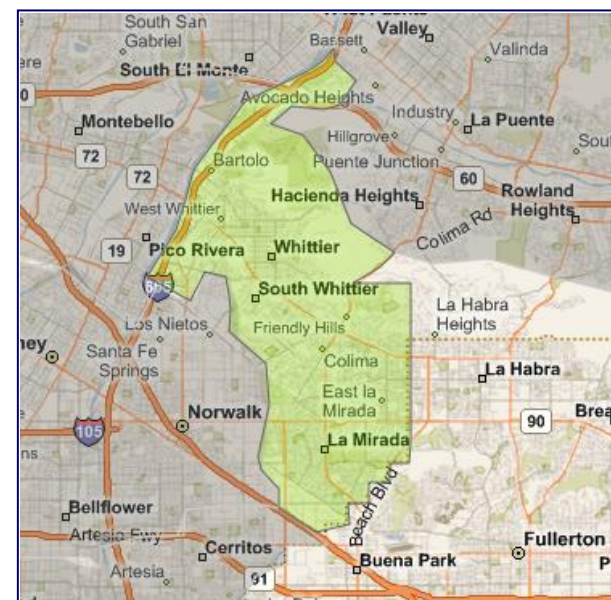
### Residential Supply >> Apartment Market in Regional Area

- Apartment performance data is provided by REIS™, a data collection firm specializing in residential property.
- Our study area falls into the Whittier/La Mirada Submarket as defined by REIS, with the geographic boundaries outlined in the figure to the right. REIS collects and aggregates local apartment information according to this submarket boundary.
- The Whittier/La Mirada Submarket consists of approximately 9,500 units in 200 properties, or roughly 1.3 percent of the apartment unit supply in the Los Angeles Metro Area.
- In 2009, rents in the Whittier/La Mirada Submarket averaged just over \$1,100 per month, which is 21 percent lower than the County average.
- It should be noted that REIS information is limited to multifamily rental apartments with 4 or more units. The apartment information does not include single family residence rentals, duplex or triplex apartment properties and often excludes buildings with special restrictions, such as senior rentals or affordable rentals.

Apartment Market, 2009

	Whittier/La Mirada	Los Angeles Metro
Number of Buildings	200	14,410
Number of Units	9,480	756,000
Asking Rent	\$1,105	\$1,397
Average Vacancy	5.7%	5.3%

Whittier/La Mirada Submarket Area



Source: REIS

## V. Residential Market Analysis

### Residential Supply >> Apartment Market in Regional Area

- The Whittier/La Mirada submarket is located on the border between Los Angeles County and Orange County, and is one of thirty-seven submarkets, as delineated by REIS, located within the larger Los Angeles County market.
- There are currently four major submarkets, as delineated by REIS, that encompass the Secondary Market area: N Long Beach/Lakewood/Artesia, Paramount/Downey/Bellflower/Norwalk, Buena Park, and Brea/La Habra. The latter two submarkets are part of Orange County.
- Average vacancy throughout the secondary submarkets range between 4.8 percent and 5.5 percent, slightly lower than the Whittier/La Mirada submarket average of 5.7 percent.
- Average monthly asking rents are generally higher throughout the secondary submarkets than in the Whittier/La Mirada submarket, especially in the Orange County submarkets of Buena Park and Brea/La Habra, where rents are about 20 to 25 percent greater.

**Apartment Metrics by Submarket, 2009**

Market Area	Units	Avg Monthly Asking Rent	Vacancy
<i>Primary Market</i>			
Whittier/La Mirada	9,480	\$1,105	5.7%
<i>Secondary Market</i>			
N Long Beach/Lakewood/Artesia	12,220	\$1,145	5.5%
Paramount/Downey/Bellflower/Norwalk	22,720	\$1,198	4.6%
Buena Park	17,140	\$1,294	4.9%
Brea/La Habra	5,840	\$1,376	4.8%
<i>County Level</i>			
Los Angeles County	756,000	\$1,397	5.3%
Orange County	203,520	\$1,504	6.4%

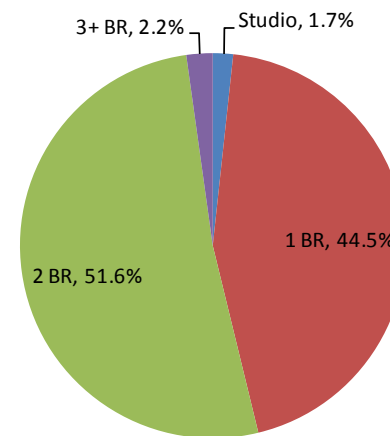
\* Data limited to properties of 4 or more units only. Does not include single family residence rentals, duplex or triplex apartment properties

# V. Residential Market Analysis

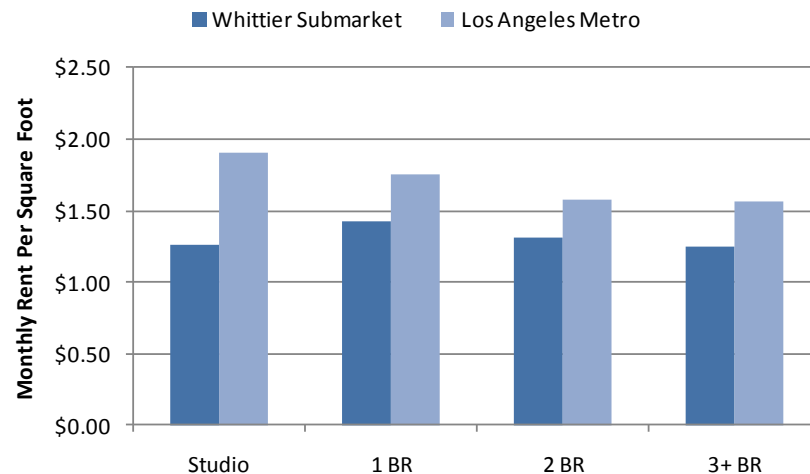
## Residential Supply >> Rents and Bedrooms

- The Whittier/La Mirada Submarket is comprised almost entirely of 1-bedroom and 2-bedroom apartments, which make up 96 percent of the existing apartment supply.
- Out of the unit types, 1-bedroom apartments achieve the highest monthly asking rent per square foot (PSF) at about \$1.40, followed by 2-bedroom apartments at about \$1.30, and studios and apartments with 3 or more bedrooms at \$1.25.
- On a per square foot basis, average monthly asking rents in the Whittier/La Mirada submarket are approximately 20 to 30 percent lower compared to rents on the Los Angeles Metro level. Rents on the Metro level range from \$1.55 PSF for apartments with 3 or more bedrooms to \$1.90 PSF for studios.
- Based on average unit size, average monthly asking rents in the Whittier/La Mirada submarket are \$770 for Studios, \$970 for One Bedrooms, \$1,220 for Two Bedrooms, and \$1,480 for Three Bedrooms
- Note – REIS only quantifies information for properties with 4 or more units. Stand-alone single family rental homes, duplexes, and triplexes are under-represented in the REIS dataset. . Therefore, the true rental market is somewhat larger than presented here.

Whittier/La Mirada Submarket Residential Supply



Whittier/La Mirada Submarket Residential Supply



Source: REIS



## V. Residential Market Analysis

### Residential Supply >> Apartments by Year Built

- About 55 percent of the apartment supply in the Whittier/La Mirada Submarket was built before 1970, an indication that rental residential units in the area are rather old. Average rent for these units is higher than the submarket average at roughly \$1,160 per month. Likewise, they have a higher-than-average vacancy rate of 6.6 percent.
- Based on available data, average vacancy and rent are lowest for apartments constructed between 1980 and 1989 – 3.9 percent and \$1,130 per month, respectively. These apartments make up just 6 percent of current inventory.
- Newer buildings usually command a higher rental rate, but apartment units constructed before 1970 are currently priced slightly higher than units constructed in the 1980’s. Vacancy rates are considerably higher for these higher-priced, older units.
- Note that residential properties in La Mirada are not subject to rent control.

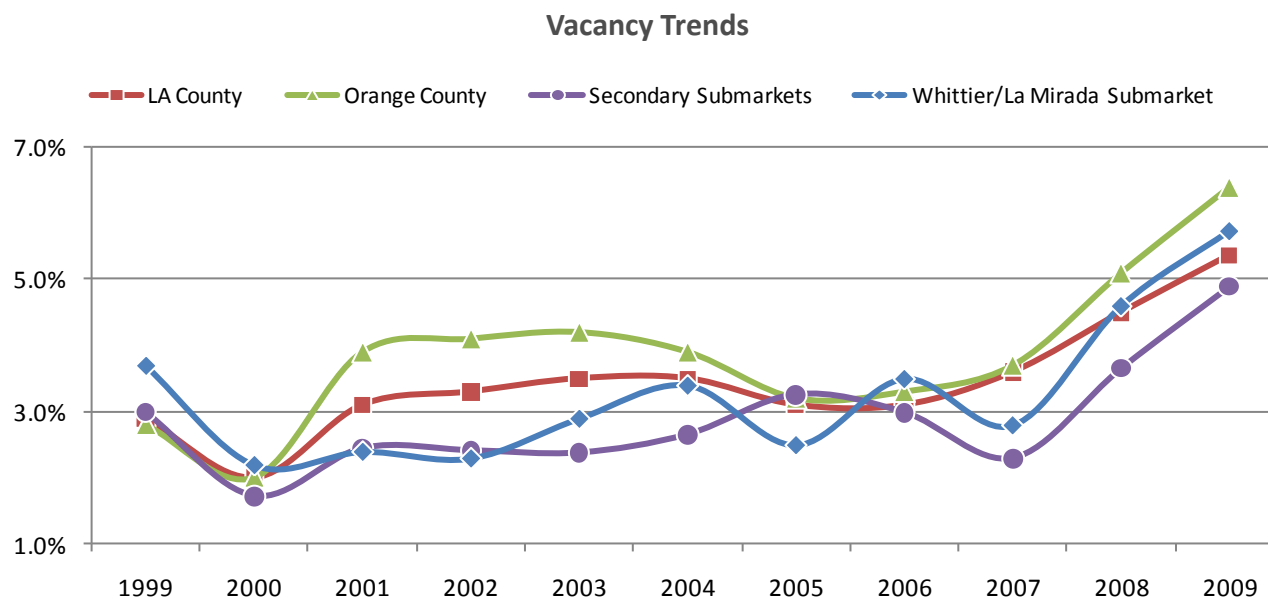
**Whittier/La Mirada Submarket Apartment Trends Summary**

Year Built	Rent	Vacancy Rate	Inventory by Building Age
Before 1970	\$1,159	6.6%	55.0%
1970-1979	\$1,156	5.9%	39.0%
1980-1989	\$1,128	3.9%	6.0%
1990-1999	n/a	n/a	0.0%
After 1999	n/a	n/a	0.0%
All	\$1,110	5.7%	100%

## V. Residential Market Analysis

### Residential Supply >> Apartment Submarket Vacancy

- Over the past two years, the average apartment vacancy rate for the Whittier/La Mirada Submarket has doubled, from 2.8 percent in 2007 to 5.7 percent in 2009. This is still fairly low in absolute terms. Prior to 2008, average annual vacancy rates had fallen consistently below 4.0 percent.
- Current vacancy in the Whittier/La Mirada Submarket is almost on par with the 5.4 percent in the Los Angeles Metro Area. The surrounding secondary submarkets – which includes cities in Orange County that are adjacent to La Mirada – are currently averaging 4.9 percent vacancy.



# V. Residential Market Analysis

## Residential Demand >> Methodology

- The residential demand analysis provides a benchmark for projected demand for rental multifamily apartment units and for-sale attached product in the City of La Mirada.
- Given the current economic condition, combined with the existing inventory of housing in the market area, we have used conservative projections.
  - The demand analysis consider demand from new population growth only.
  - The demand analysis consider new growth from the entire market area (La Mirada, Whittier, La Habra, Santa Fe Springs, Norwalk, Artesia, Cerritos, Buena Park and unincorporated areas of South Whittier and East La Mirada).
- The analysis projects demand within the market area as a whole. The expected capture along the Imperial Highway Corridor will depend on the quality, amenities and environment created in any proposed new development, combined with achievable price points.

### Methodology

- The demand analysis uses projected household growth in the primary and secondary market across a 15-year period and estimates the number of households that may be captured in the City and then the Imperial Highway study area.
- Total demand is then segmented to account for buyers' preferences for detached vs. attached housing in order to reach a final estimate of demand for apartment rentals and attached for-sale products.

### Household Projections in Market Area

	2010 Households	Incremental Household Growth			Total Growth
		2010-2015	2015-2020	2020-2025	
Primary Market	14,890	120	120	120	360
Secondary Market	144,000	2,100	2,100	1,500	5,700
<b>Total Market Area Growth</b>	<b>159,000</b>	<b>2,220</b>	<b>2,220</b>	<b>1,620</b>	<b>6,060</b>

Source: SCAG, AECOM

## V. Residential Market Analysis

### Residential Demand >> Methodology

- The demand for new housing must then be income-qualified to account for households that can afford the costs of a new home (rather than moving to a previously owned home).
  - Assuming that households may pay approximately 25 to 30 percent of their income for rent or mortgage, the table below shows the monthly rental range and for-sale home price range that different income categories can afford.
  - In the case of apartments, a monthly rent of \$1,300 to \$1,500 is required to cover the construction costs for a new Type II construction apartment building.
  - For-sale homes must be priced above \$250,000 to cover new attached product construction costs and still deliver reasonable returns to the developer.
- Annual household incomes of \$50,000 or greater are required to support rents or mortgages for new residential product.

**Estimated Residential Affordability Ranges**

Annual Income Range	Base Rental Range Price	Base Affordable Home Price Range
< \$25,000	< \$521	< \$100,000
\$25,000 - \$34,999	\$521 - \$729	\$100,000 - \$139,996
\$35,000 - \$49,999	\$729 - \$1,042	\$140,000 - \$199,996
\$50,000 - \$74,999	\$1,042 - \$1,562	\$200,000 - \$299,996
\$75,000 - \$99,999	\$1,563 - \$2,083	\$300,000 - \$399,996
\$100,000 - \$149,999	\$2,083 - \$3,125	\$400,000 - \$599,996
\$150,000 +	\$3,125 +	\$600,000 +

Source: AECOM

## V. Residential Market Analysis

### Residential Demand >> Methodology

- US Census data is then used to estimate the share of the new households, categorized by renters and owner-occupied dwelling units, that fall into the \$50,000 and above category.
- Finally, we estimate the share of residents willing to live in a multifamily unit versus a single family dwelling.
- For renters, this equates to renting in multifamily complex versus renting a stand-alone house.
- For home purchasers, we use the proportion of home owners already in the market in attached units as a proxy for willingness of new residents to locate in attached product rather than single family detached units.

**La Mirada Households by Tenure**

	<b>Owner Occupied</b>	<b>Renter Occupied</b>
	<b>% of all Households</b>	<b>% of all Households</b>
Less than \$20,000	8%	26%
\$20,000 to \$35,000	7%	20%
\$35,000 to \$50,000	9%	9%
\$50,000 to \$75,000	17%	19%
\$75,000 to \$100,000	14%	10%
\$100,000 to \$150,000	29%	9%
\$150,000+	15%	6%
<b>Total</b>		<b>18%</b>

Source: US Census, ESRI

## V. Residential Market Analysis

### Residential Demand >> Multi-Family Apartments and Attached Home Demand

#### Key Assumptions

Residential Demand Model		2010-2015	2015-2020	2020-2025
<b>Household Growth (New Households)</b>				
Primary Market Area		120	120	120
Secondary Market Area		2,100	2,100	1,500
Total Market Area (Projected Household Growth)		2,220	2,220	1,620
<b>Households Locating to the Primary Market</b>				
Fair Share Housing Estimate	9%			
Potential New Households in Primary Market		210	210	150
<b>Estimate of Households Locating in the Imperial Highway Corridor Specific Plan</b>				
Low/Moderate	25%	53	53	38
High	50%	105	105	75
		Owner	Renter	
Income Qualified (HH earning more than \$50,000)		75%	45%	
Willing to locate in attached units		25%	70%	

# V. Residential Market Analysis

## Residential Demand >> Results

- Based on the methodology described above, we estimate that there is significant potential demand for new housing along the Imperial Highway corridor in La Mirada between 2010 and 2025.
- We estimate that there is demand for between 55 and 115 new attached homes and between 95 and 185 new market-rate multi-family apartments in the City.
- The successful capture of these units in the study area will depend on a number of competitive features in any individual housing development, including:
  - Design and quality of the residential units
  - Creation of an attractive environment for the entire development, including improvements to the streetscape and retail offerings nearby
  - Policy direction from City staff on whether or not to concentrate new development opportunities along the corridor by creating incentives for development, for example: streamlined permitting processes, density bonuses, and reduced parking requirements

Demand Summary	2010-2015	2015-2020	2020-2025	Total
<b>Cumulative New Home Demand (Attached)</b>				
Low/Moderate	10	20	27	55
High	20	39	53	115
<b>Cumulative New Apartment Demand</b>				
Low/Moderate	16	33	44	95
High	33	65	89	185
<b>Total Demand for New Units</b>				
Low/Moderate	26	52	71	150
High	52	105	142	300

Values rounded to nearest 5 units

## Table of Contents

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- I. Introduction
- II. Demographic and Socio-Economic Overview
- III. Office Market Analysis
- IV. Retail Market Analysis
- V. Residential Market Analysis
- VI. Next Steps



## VI. Next Steps

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### Site Specific Feasibility Analysis >> Return on Investment

- As mentioned in the Introduction, the Market Analysis presents a framework for understanding the potential scale of new development opportunities within La Mirada and the Imperial Highway Corridor Specific Plan.
- The next step in economic analysis of the specific plan is to select specific sites in the study area for targeted intervention and modeling.
- To that end, utilizing inputs and data from the market analysis in combination with site selection and prototype suggestions from the Urban Design Team, AECOM will develop pro forma models to test the feasibility of several prototype developments under the guidelines of the proposed Specific Plan.
- The pro formas will demonstrate the potential return on investment to a private developer; it will also serve to identify potential financial gaps that may require adjustments to the plan, public policy changes, or public investment in order to catalyze development.

## Appendix

- Retail Demand: Detailed Calculations
- Glossary of Terms

## IV. Retail Market Analysis

### Retail Demand >> from Residential Population Growth

Details of Primary Market Analysis

#### Projected Retail Sales by Projected Population Growth of Primary Market Area

Type of Retailer	Los Angeles County	Primary Market	Primary Market	Primary Market	Primary Market	Primary Market	Primary Market
	Average Per Capita Sales	Adj. Regional Avg. Per Capita Sales 2010-2015	Adj. Regional Avg. Per Capita Sales 2015-2020	Adj. Regional Avg. Per Capita Sales 2020-2025	Estimated New Resident Spending 2010-2015	Estimated New Resident Spending 2015-2020	Estimated New Resident Spending 2020-2025
Apparel stores	\$602	\$786	\$744	\$736	\$661,000	\$637,000	\$618,000
General merchandise stores	\$1,476	\$1,885	\$1,789	\$1,771	\$1,587,000	\$1,531,000	\$1,487,000
Food stores	\$1,570	\$1,750	\$1,706	\$1,698	\$1,473,000	\$1,460,000	\$1,425,000
Eating and drinking places	\$1,398	\$1,580	\$1,506	\$1,492	\$1,330,000	\$1,289,000	\$1,253,000
Home furnishings and appliances	\$429	\$543	\$517	\$512	\$457,000	\$442,000	\$430,000
Building materials	\$611	\$780	\$741	\$734	\$656,000	\$634,000	\$616,000
Motor vehicles and parts	\$1,271	\$1,625	\$1,539	\$1,522	\$1,368,000	\$1,317,000	\$1,278,000
Service stations	\$1,286	\$1,621	\$1,543	\$1,528	\$1,364,000	\$1,320,000	\$1,282,000
Other retail stores	\$1,295	\$1,474	\$1,429	\$1,421	\$1,240,000	\$1,223,000	\$1,193,000
<b>Retail Stores Totals</b>	<b>\$9,939</b>	<b>\$12,043</b>	<b>\$11,515</b>	<b>\$11,413</b>	<b>\$10,136,000</b>	<b>\$9,853,000</b>	<b>\$9,582,000</b>

Type of Retailer	La Mirada City Capture (%)	Study Area Capture (%)	Capture of Resident Spending 2010-2015	Capture of Resident Spending 2015-2020	Capture of Resident Spending 2020-2025	Total Capture of Resident Spending
Apparel stores	10%	50%	\$33,000	\$32,000	\$31,000	\$96,000
General merchandise stores	10%	35%	\$56,000	\$54,000	\$52,000	\$162,000
Food stores	50%	50%	\$368,000	\$365,000	\$356,000	\$1,089,000
Eating and drinking places	50%	35%	\$233,000	\$226,000	\$219,000	\$678,000
Home furnishings and appliances	25%	50%	\$57,000	\$55,000	\$54,000	\$166,000
Building materials	25%	50%	\$82,000	\$79,000	\$77,000	\$238,000
Motor vehicles and parts	15%	20%	\$41,000	\$40,000	\$38,000	\$119,000
Service stations	50%	15%	\$102,000	\$99,000	\$96,000	\$297,000
Other retail stores	45%	35%	\$195,000	\$193,000	\$188,000	\$576,000
<b>Retail Stores Totals</b>	<b>33%</b>	<b>35%</b>	<b>\$1,167,000</b>	<b>\$1,143,000</b>	<b>\$1,111,000</b>	<b>\$3,421,000</b>

Source: AECOM

Source: DOF, SCAG, AECOM

# IV. Retail Market Analysis

## Retail Demand >> from Residential Population Growth

Details of Secondary Market Analysis

### Projected Retail Sales by Projected Population Growth of Secondary Market Area

Type of Retailer	Los Angeles County	Secondary Market	Secondary Market	Secondary Market	Secondary Market	Secondary Market	Secondary Market
	Average Per Capita Sales	Adj. Regional Avg. Per Capita Sales 2010-2015	Adj. Regional Avg. Per Capita Sales 2015-2020	Adj. Regional Avg. Per Capita Sales 2020-2025	Estimated New Resident Spending 2010-2015	Estimated New Resident Spending 2015-2020	Estimated New Resident Spending 2020-2025
Apparel stores	\$602	\$681	\$658	\$654	\$6,749,000	\$5,063,000	\$4,178,000
General merchandise stores	\$1,476	\$1,646	\$1,596	\$1,586	\$16,321,000	\$12,269,000	\$10,130,000
Food stores	\$1,570	\$1,641	\$1,618	\$1,614	\$16,274,000	\$12,443,000	\$10,309,000
Eating and drinking places	\$1,398	\$1,395	\$1,357	\$1,349	\$13,838,000	\$10,431,000	\$8,617,000
Home furnishings and appliances	\$429	\$477	\$464	\$461	\$4,735,000	\$3,565,000	\$2,945,000
Building materials	\$611	\$684	\$663	\$659	\$6,778,000	\$5,101,000	\$4,212,000
Motor vehicles and parts	\$1,271	\$1,410	\$1,365	\$1,356	\$13,983,000	\$10,496,000	\$8,663,000
Service stations	\$1,286	\$1,426	\$1,385	\$1,377	\$14,137,000	\$10,647,000	\$8,794,000
Other retail stores	\$1,295	\$1,363	\$1,340	\$1,335	\$13,516,000	\$10,301,000	\$8,529,000
<b>Retail Stores Totals</b>	<b>\$9,939</b>	<b>\$10,722</b>	<b>\$10,445</b>	<b>\$10,391</b>	<b>\$106,331,000</b>	<b>\$80,316,000</b>	<b>\$66,377,000</b>

### Additional Demand from Drive Through Traffic

Traffic Count - Imperial

87,720 cars daily (both directions)

Capture Rate (impulse stops/purchases)

3% capture

Type of Retailer	Secondary Market Capture (%)	Study Area Capture (%)	Capture of Resident Spending 2010-2015	Capture of Resident Spending 2015-2020	Capture of Resident Spending 2020-2025	Total Capture of Resident Spending
Apparel stores	9%	50%	\$304,000	\$228,000	\$188,000	\$720,000
General merchandise stores	9%	35%	\$514,000	\$386,000	\$319,000	\$1,219,000
Food stores	10%	50%	\$814,000	\$622,000	\$515,000	\$1,951,000
Eating and drinking places	10%	35%	\$484,000	\$365,000	\$302,000	\$1,151,000
Home furnishings and appliances	15%	50%	\$355,000	\$267,000	\$221,000	\$843,000
Building materials	10%	50%	\$339,000	\$255,000	\$211,000	\$805,000
Motor vehicles and parts	10%	20%	\$280,000	\$210,000	\$173,000	\$663,000
Service stations	10%	15%	\$212,000	\$160,000	\$132,000	\$504,000
Other retail stores	9%	35%	\$426,000	\$324,000	\$269,000	\$1,019,000
<b>Retail Stores Totals</b>	<b>10%</b>	<b>35%</b>	<b>\$3,728,000</b>	<b>\$2,817,000</b>	<b>\$2,330,000</b>	<b>\$8,875,000</b>

Source: AECOM

Source: DOF, SCAG, AECOM

## VI. Appendix

### Glossary of Terms

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- **General Terms of Art**

- **Absorption:** Refers to the change in occupancy over a given time period. Lease renewals are not factored into absorption unless the renewal includes the occupancy of additional space. (In that case, the additional space would be counted in absorption.) Pre-leasing of space in non-existing buildings (e.g., Proposed, Under Construction, Under Renovation) is not counted in absorption until the actual move-in date.
- **Full-Service Lease Rate:** A rental rate that includes normal building standard services which are provided and paid by the landlord.
- **Triple Net (NNN) Lease:** A lease in which a tenant pays certain costs associated with a property's operating expenses – including taxes, maintenance, insurance, and utilities – in addition to the base rent.

- **Shopping Centers**

- **Regional Mall:** Provides shopping goods, general merchandise, apparel, and furniture, and home furnishings in full depth and variety. Regional malls are anchored by at least one full-line department store with a minimum RBA of 100,000 square feet, and in many cases, two or more department stores may be included. Regional malls may range from 300,000 SF to more than 1,000,000 SF. An example is the Baldwin Hills Crenshaw Plaza located in Baldwin Hills, California.
- **Super Regional Mall:** Similar to a regional mall, but because of its larger size, a super regional mall has more anchors, a deeper selection of merchandise, and draws from a larger population base. An example is South Coast Plaza in Costa Mesa, California.
- **Community Center:** Generally, will have 2 to 3 large anchored tenants, but no department store anchors. Among the more common anchors are supermarkets and super drugstores. Community Center tenant offerings may include apparel, home improvement/furnishings, toys, electronics or sporting goods. Total RBA generally ranges from 100,000 to 350,000 SF.
- **Neighborhood Center:** Provides convenience goods (food, drugs, etc.) and personal services (laundry, dry cleaning, etc.) for the day-to-day living needs of the immediate neighborhood. A supermarket is usually the principal tenant. Total RBA may range from 30,000 to 100,000 SF.

## VI. Appendix

### Glossary of Terms

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- **Shopping Centers (continued)**

- **Strip Center:** An attached row of stores or service outlets managed as a coherent retail entity, with on-site parking usually located in front of the stores. Open canopies may connect the storefronts, but strip centers do not have enclosed walkways linking stores to each other.
- **Power Center:** Typically consists of several freestanding anchors and a minimal number of small specialty tenants. Dominated by several large anchors, including discount department stores, off-price stores, warehouse clubs, and "category killers" (stores that offer tremendous selection in a particular merchandise category at low prices). Total RBA may range from 250,000 to 600,000 SF.
- **Theme/Festival Center:** Typically employ a unifying theme that is carried out by the individual shops in their architectural design and, to an extent, in their merchandise. Sometimes the biggest appeal of these centers is to tourists. They can be anchored by restaurants and entertainment facilities, and range from 80,000 to 250,000 SF in RBA. These centers, generally located in urban areas, tend to be adapted from older, sometimes historic, buildings, and can be part of mixed-use projects. An example is Pier 39 in San Francisco, California.

- **Office Classes**

- **Class A:** Extremely desirable investment-grade property with the highest quality construction and workmanship, materials and systems, significant architectural features, the highest quality/expensive finish and trim, abundant amenities, first rate maintenance and management; usually occupied by prestigious tenants with above average rental rates and in an excellent location with exceptional accessibility. It is most eagerly sought by international and national investors willing to pay a premium for quality and is often designed by architects whose names are immediately recognizable. A building meeting this criteria is often considered to be a landmark, either historical, architectural or both. It may have been built within the last 5-10 years, but if it is older, it has been renovated to maintain its status and provide many amenities. Buildings of this stature can be one-of-a-kind with unique shape and floor plans, notable architectural design, excellent and possibly outstanding location and a definite market presence.

## VI. Appendix

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### Glossary of Terms

- **Office Classes (continued)**
  - **Class B:** Offers more utilitarian space without special attractions. It will typically have ordinary architectural design and structural features, with average interior finish, systems, and floor plans, adequate systems and overall condition. It will typically not have the abundant amenities and location that a Class A building will have. This is generally considered to be more of a speculative investment. The maintenance, management and tenants are average to good, although Class B buildings are less appealing to tenants and may be deficient in a number of respects including floor plans, condition and facilities. They therefore attract a wide range of users with average rents. They lack prestige and must depend chiefly on lower price to attract tenants and investors. Typical investors are some national but mostly local.
  - **Class C:** No-frills, older building that offers basic space. The property has below-average maintenance and management, a mixed or low tenant prestige, and inferior elevators and mechanical/electrical systems. As with Class B buildings, they lack prestige and must depend chiefly on lower price to attract tenants and investors.

## General Limiting Conditions

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Every reasonable effort has been made to ensure that the data contained in this report are accurate as of the date of this study; however, factors exist that are outside the control of AECOM and that may affect the estimates and/or projections noted herein. This study is based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives, or any other data source used in preparing or presenting this study.

This report is based on information that was current as of January 2010 and AECOM has not undertaken any update of its research effort since such date.

Because future events and circumstances, many of which are not known as of the date of this study, may affect the estimates contained therein, no warranty or representation is made by AECOM that any of the projected values or results contained in this study will actually be achieved.

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This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.



# Appendix C: Traffic Impact Analysis

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# **IMPERIAL HIGHWAY CORRIDOR SPECIFIC PLAN TRAFFIC IMPACT ANALYSIS**

Prepared for

**CITY OF LA MIRADA**

Prepared by



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## EXECUTIVE SUMMARY

This study analyzes the forecast traffic operations associated with the proposed Imperial Highway Specific Plan project. The proposed project is generally located at the three main commercial nodes along Imperial Highway between Meyer Road and Santa Gertrudes Avenue in the City of La Mirada. The proposed project includes redevelopment of commercial and residential properties along the corridor to include the following land use components:

- 345 multi-family residential dwelling units;
- 88 senior housing dwelling units; and
- 1,008,230 square feet of shopping center.

Since the proposed project is general in nature, buildout would occur over many years and be subject to changing market conditions.

The proposed Imperial Highway Specific Plan project is forecast to generate approximately 44,614 net new daily trips, which include approximately 1,195 net new a.m. peak hour trips and approximately 2,710 net new p.m. peak hour trips.

The proposed project includes redevelopment of commercial and residential properties along the corridor to include the following land use components:

- 345 multi-family residential dwelling units;
- 88 senior housing dwelling units; and
- 1,008,230 square feet of shopping center.

Since the proposed project is general in nature, buildout would occur over many years and be subject to changing market conditions.

The proposed Imperial Highway Specific Plan project is forecast to generate approximately 44,614 net new daily trips, which include approximately 1,195 net new a.m. peak hour trips and approximately 2,710 net new p.m. peak hour trips.

Based on City of La Mirada established thresholds of significance, the addition of project-generated trips is forecast to result in significant impacts at three study intersections for forecast year 2035 with project conditions:

- Imperial Highway / Valley View Avenue
- Imperial Highway / La Mirada Boulevard
- Imperial Highway / Santa Gertrudes Avenue

Mitigation measures have been identified for the three long-term significant impacts forecast to occur for forecast year 2035 with project conditions. The following mitigation measures have been identified to reduce traffic impacts to less than significant:

**Mitigation Measure #1**      **Imperial Highway/Valley View Avenue** – Widen the northbound Valley View Avenue approach from one left-turn lane, one through

lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

**Mitigation Measure #2**

**Imperial Highway/La Mirada Boulevard** – Widen the northbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane. Widen the southbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.

**Mitigation Measure #3**

**Imperial Highway/Santa Gertrudes Avenue** – Widen the northbound Santa Gertrudes Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

## **INTRODUCTION**

This study analyzes the forecast traffic operations associated with the proposed Imperial Highway Specific Plan project. The proposed project is generally located at the three main commercial nodes along Imperial Highway between Meyer Road and Santa Gertrudes Avenue in the City of La Mirada. The proposed project includes redevelopment of commercial and residential properties along the corridor to include the following land use components:

- 345 multi-family residential dwelling units;
- 88 senior housing dwelling units; and
- 1,008,230 square feet of shopping center.

Since the proposed project is general in nature, buildout would occur over many years and be subject to changing market conditions.

Project traffic conditions are analyzed assuming the standard study area circulation system. Exhibit 1 shows the regional location of the project site. Exhibit 2 shows the project site location.

### **Study Area**

Based on discussions with City staff, the following eight (8) intersections have been evaluated within this report:

1. Imperial Highway / Meyer Road (signalized);
2. Imperial Highway / Valley View Avenue (signalized);
3. Imperial Highway / Biola Avenue (signalized);
4. Imperial Highway / Telegraph Road (signalized);
5. Imperial Highway / La Mirada Boulevard (signalized);
6. Imperial Highway / Cordova Road (signalized);
7. Imperial Highway / Ocaso Avenue (signalized); and
8. Imperial Highway / Santa Gertrudes Avenue (signalized).

Exhibit 3 shows the location of the study intersections, which are analyzed for the following study scenarios:

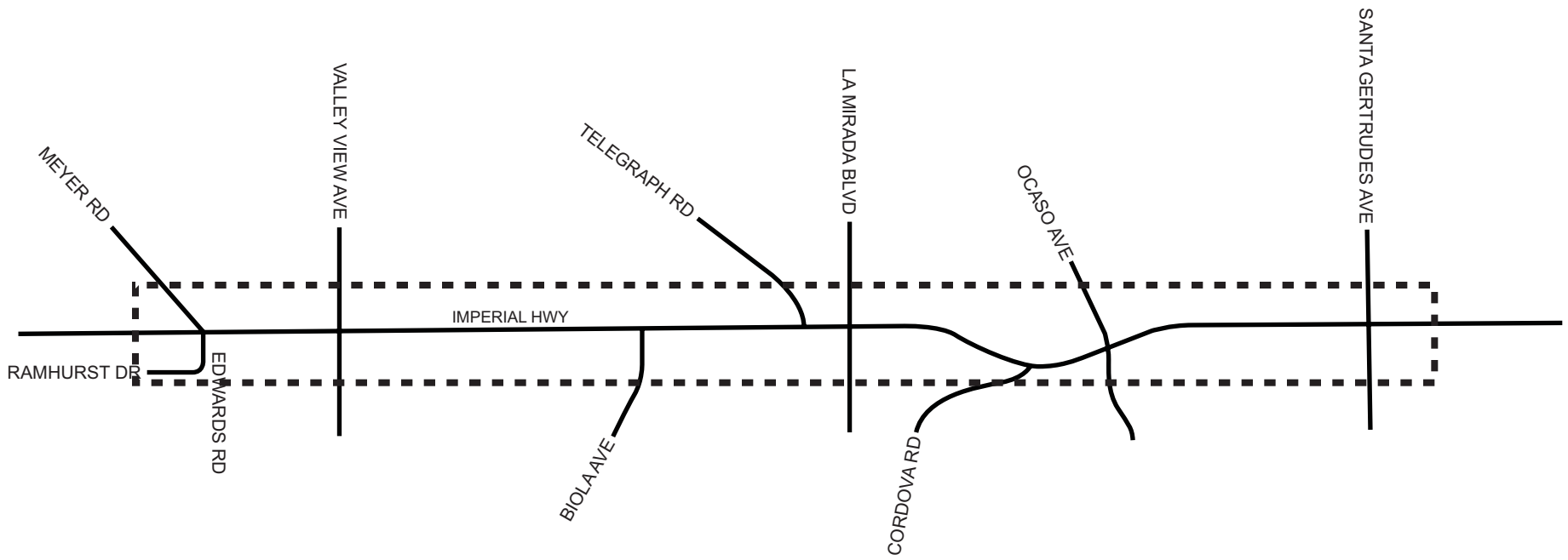
- Existing Conditions;
- Forecast Year 2035 Without Project Conditions;
- Forecast Year 2035 With Project Conditions;

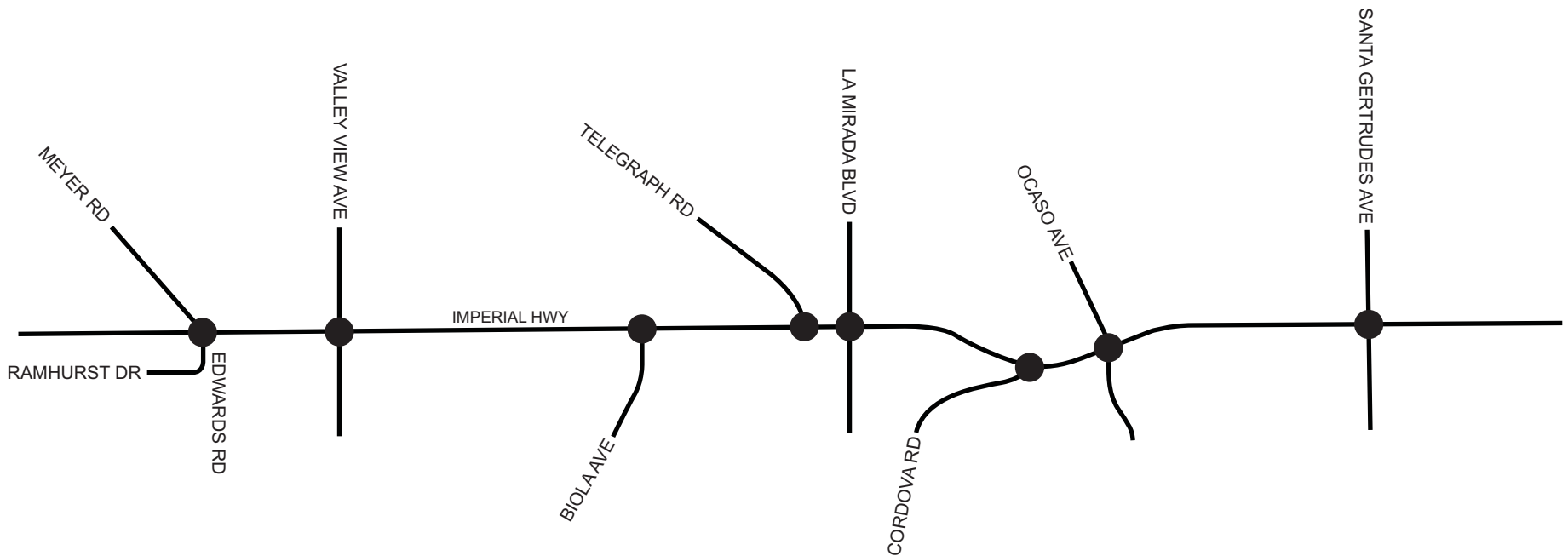
### **Analysis Methodology**

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection.









Legend:

● Study Intersection



The Intersection Capacity Utilization (ICU) analysis method is utilized by the City of La Mirada to determine the operating LOS of signalized intersections. The ICU analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding Volume/Capacity (V/C) ratios shown in Table 1.

**Table 1  
V/C & LOS Ranges**

<b>Signalized Intersections</b>	
<b>V/C Ratio</b>	<b>LOS</b>
≤ 0.60	A
0.61 to ≤ 0.70	B
0.71 to ≤ 0.80	C
0.81 to ≤ 0.90	D
0.91 to ≤ 1.00	E
> 1.00	F

**Source:** 1990 Transportation Research Board.

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections.

### **Performance Criteria**

As identified in the General Plan, the City of La Mirada target for peak hour intersection operation is LOS E or better for nonresidential signalized intersections and LOS D or better in residential neighborhoods. Therefore, for the purposes of this analysis LOS E is the applicable performance criteria for the study intersections.

### **City of La Mirada Threshold of Significance**

To determine whether the addition of project-generated trips at a signalized study intersection results in a significant impact, the City of La Mirada has established the following threshold of significance consistent with the *Los Angeles County Congestion Management Program (CMP)* (*Los Angeles County Metropolitan Transportation Authority, July 2004*):

- A significant impact occurs when a proposed project increases traffic demand at a signalized study intersection by two percent or more of capacity ( $V/C \geq 0.02$ ), causing or worsening LOS F ( $V/C > 1.00$ ).

## EXISTING CONDITIONS

### Roadway Description

The characteristics of the roadway system in the vicinity of the project site are described below:

**Imperial Highway** provides local and regional access through the project site as a six-lane major arterial, traversing the City in an east-west direction. Imperial Highway originates in Los Angeles from the Pacific Ocean coastline and continues east to its terminus in Yorba Linda near Interstate 90.

**Meyer Road** is a four-lane divided roadway with a continuous left-turn lane trending in a north-south direction. On-street parking is permitted on Meyer Road. Meyer Road terminates southerly at Imperial Highway.

**Valley View Avenue** is a four-lane divided roadway trending in a north-south direction. Valley View Avenue terminates northerly at Broadway and terminates southerly at I-405 where it changes name to Bolsa Chica Road. On-street parking is permitted on Valley View Avenue.

**Biola Avenue** is a two-lane undivided roadway trending in a north-south direction. Biola Avenue terminates northerly at Imperial Highway and terminates southerly at Stage Road. On-street parking is permitted on Biola Avenue.

**Telegraph Road** is a four-lane undivided roadway trending in an east-west direction. On-street parking is permitted on Telegraph Road. Telegraph Road terminates southerly at Imperial Highway.

**La Mirada Boulevard** is a four-lane divided roadway with a raised median trending in a north-south direction. La Mirada Boulevard terminates northerly at Lambert Road where it changes name to Colima Road and terminates southerly at Beach Boulevard where it changes name to Malvern Avenue.

**Cordova Road** is a two-lane roadway trending in a south-west direction south of Imperial Highway. Cordova Road changes name to Fonseca Avenue west of Bluefield Avenue. On-street parking is permitted on Cordova Road.

**Ocaso Avenue** is a two-lane roadway trending in a north-south direction. Ocaso Avenue terminates northerly at Las Flores Avenue and terminates southerly just south of at Olive Branch Drive where it changes name to Greenworth Drive. On-street parking is permitted on Ocaso Avenue.

**Santa Gertrudes Avenue** is a four-lane undivided roadway with a continuous left-turn lane trending in a north-south direction. Santa Gertrudes Avenue terminates northerly at Whittier Boulevard and terminates southerly at La Mirada Boulevard. On-street parking is prohibited on Santa Gertrudes Avenue.

## Existing Conditions Traffic Volumes

To determine the existing operation of the study intersections, a.m. and p.m. peak hour intersection movement counts were collected in March 2010. The peak period intersection counts were collected from 7:00 a.m. to 9:00 a.m. (a.m. peak period) and 4:00 p.m. to 6:00 p.m. (p.m. peak period). The counts used in this analysis were taken from the highest hour within the peak period counted. Detailed traffic count data is contained in Appendix A.

Exhibit 4 shows existing conditions a.m. and p.m. peak hour volumes at the study intersections. Exhibit 5 shows existing study intersection geometry.

## Existing Conditions Peak Hour Level of Service

Table 2 summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

**Table 2**  
**Existing Conditions AM & PM Peak Hour LOS**

Study Intersection	AM Peak Hour	PM Peak Hour
	V/C –LOS	V/C –LOS
1 – Imperial Highway/Meyer Road	0.52 – A	0.51 – A
2 - Imperial Highway/Valley View Avenue	0.95 – E	<b>1.07 – F</b>
3 – Imperial Highway/Biola Avenue	0.51 – A	0.70 – C
4 – Imperial Highway/Telegraph Road	0.68 – B	0.64 – B
5 – Imperial Highway/La Mirada Boulevard	0.90 – E	0.88 – D
6 – Imperial Highway/Cordova Road	0.54 – A	0.56 – A
7 – Imperial Highway/Ocaso Avenue	0.65 – B	0.62 – B
8 – Imperial Highway/Santa Gertrudes Avenue	0.93 – E	<b>1.05 – F</b>

**Note:** V/C = volume to capacity ratio

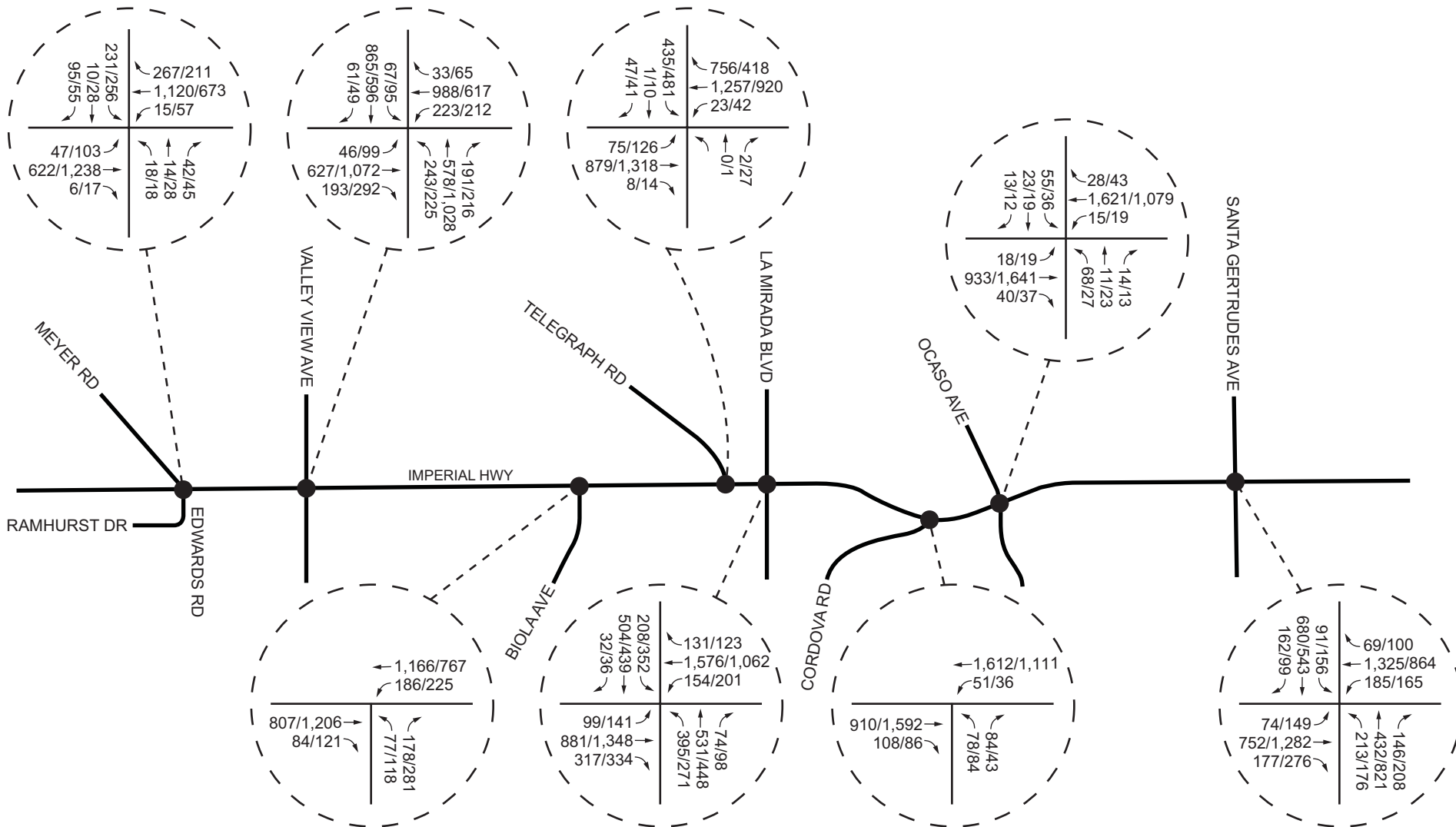
As shown in Table 2, the following study intersections are currently operating at unacceptable LOS (LOS F) according to applicable City performance criteria:

- Imperial Highway / Valley View Avenue (p.m. peak hour)
- Imperial Highway / Santa Gertrudes (p.m. peak hour)

## Existing Transit Inventory

The following transit services are available in the vicinity of the proposed project site:

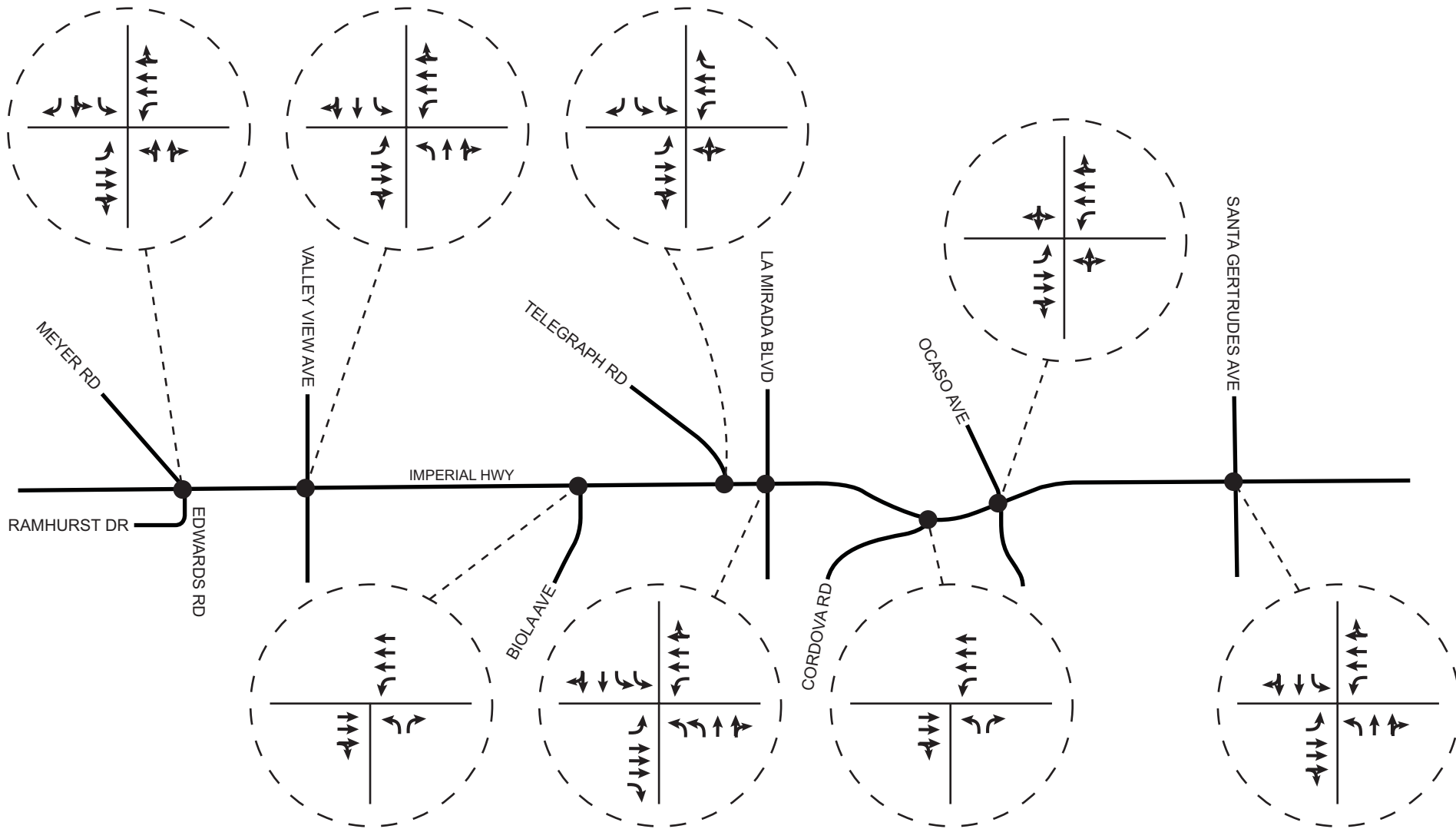
- Norwalk Transit Service Bus Line Route 4, which travels along Imperial Highway.
- Norwalk Transit Service Bus Line Route 8, which travels along Valley View Avenue.
- Montebello Bus Line Route 50, which travels along La Mirada Boulevard.



Legend:

xx/xx AM/PM Peak Hour Volumes





Legend:

→ Existing Geometry





- Los Angeles County Metro Route 121, which travels along Leffingwell Road between Telegraph Road and Stamy Road along the border of City of La Mirada and South Whittier.
- The Norwalk/Santa Fe Springs Metrolink Station, located on Imperial Highway, west of the Bloomfield Avenue/Imperial Highway intersection, approximately two miles west of the City of La Mirada city limits.
- The Buena Park Metrolink Station, located on Dale Street approximately 1 mile southeast of the City of La Mirada south of the Dale Street/Malvern Avenue intersection.

Appendix C contains the routes for each fixed bus line identified above. It is worth noting, the information provided on the La Mirada Transit includes a now discontinued Metro bus line 275 and does not show the Norwalk bus line 8.

## **FORECAST YEAR 2035 WITHOUT PROJECT CONDITIONS**

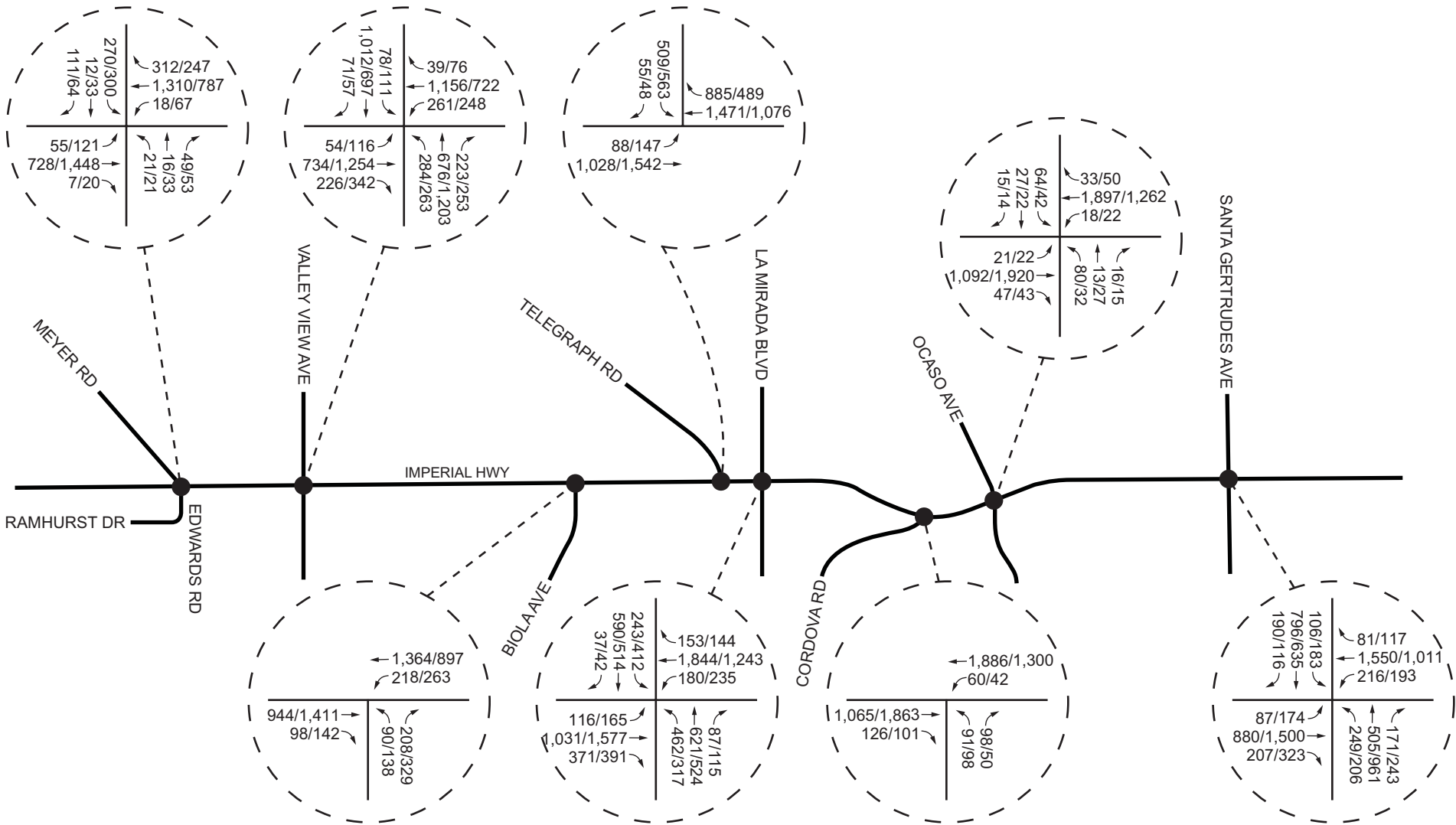
This section discusses long range forecast year 2035 without project conditions to provide a baseline for comparison to long-range with project conditions. As discussed with City staff, to derive forecast year 2035 traffic volumes, the *Los Angeles County CMP* identified annual growth rate of approximately 0.63 percent per year was applied to existing traffic volumes accounting for regional growth.

Forecast year 2035 conditions assume the City-planned realignment of Imperial Highway/Telegraph Road intersection. The realignment would shift Telegraph Road west of the existing westerly by approximately 300 feet. Currently, Telegraph Road intersects with Imperial Highway and feeds into a driveway at the south leg of the intersection. The realigned Imperial Highway/Telegraph Road intersection would include a west, north, and east leg, and would eliminate westbound left, eastbound right, and southbound through movements. All other study intersection geometries are assumed unchanged for forecast year 2035 conditions.

Exhibit 6 shows forecast year 2035 without project conditions a.m. and p.m. peak hour volumes at the study intersections.

### **Forecast Year 2035 Without Project Conditions Level of Service**

Table 3 summarizes forecast year 2035 without project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.



Legend:

xx/xx AM/PM Peak Hour Volumes



Long Range No Project AM/PM Peak Hour Intersection Volumes

**Table 3**  
**Forecast Year 2035 Without Project Conditions AM & PM Peak Hour LOS**

Study Intersection	AM Peak Hour	PM Peak Hour
	V/C –LOS	V/C –LOS
1 – Imperial Highway/Meyer Road	0.59 – A	0.59 – A
2 - Imperial Highway/Valley View Avenue	<b>1.08 – F</b>	<b>1.22 – F</b>
3 – Imperial Highway/Biola Avenue	0.58 – A	0.81 – D
4 – Imperial Highway/Telegraph Road	0.62 – B	0.60 – B
5 – Imperial Highway/La Mirada Boulevard	<b>1.03 – F</b>	<b>1.00 – F</b>
6 – Imperial Highway/Cordova Road	0.59 – A	0.64 – B
7 – Imperial Highway/Ocaso Avenue	0.73 – C	0.70 – C
8 – Imperial Highway/Santa Gertrudes Avenue	<b>1.06 – F</b>	<b>1.20 – F</b>

**Note:** V/C = volume to capacity ratio; delay shown in seconds per vehicle; N/A = Not Applicable; deficient intersection operation shown in **bold**.

As shown in Table 3, the following study intersections are forecast to operate at a deficient LOS (LOS F) according to City performance criteria for forecast year 2035 without project conditions:

- Imperial Highway / Valley View Avenue (a.m. and p.m. peak hour);
- Imperial Highway / La Mirada Boulevard (a.m. and p.m. peak hour); and
- Imperial Highway / Santa Gertrudes Avenue (a.m. and p.m. peak hour).

### **Pass-by Trip Reduction**

As documented in ITE’s Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004), a pass-by trip reduction is applicable to land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, during the p.m. peak hour, a motorist already traveling along Imperial Highway between work and home may stop at the proposed project site. A pass-by discount under this example would reduce/eliminate both the inbound trip and the outbound trip from the surrounding roadway circulation system since the vehicle was already traveling on the roadway. Without the pass-by trip discount, two trips would be generated: an inbound trip to the project site, and an outbound trip from the project site.

The following pass-by trip reductions applicable to the proposed shopping center land use is documented in the ITE Trip Generation Handbook (Institute of Transportation Engineers, 2nd Edition, 2004):

- Shopping Center: 34 percent weekday p.m. peak hour pass-by trip reduction.

## **PROPOSED PROJECT**

The 2.3 mile-long project site is located along Imperial Highway between Meyer Road and Santa Gertrudes Avenue in the City of La Mirada. The proposed project includes redevelopment of commercial and residential properties along the corridor to include the following land use components:

- 345 multi-family residential dwelling units;
- 88 senior housing dwelling units; and
- over 1.5 million square feet of commercial retail.

The land use component for the Imperial Highway Specific Plan area identifies three Planning Areas: Valley View Neighborhood Mixed-Use, La Mirada Boulevard Town Center, and Santa Gertrudes Avenue Neighborhood Mixed-Use.

The Valley View Neighborhood Mixed-Use Planning Area is intended to serve as the western gateway into the Imperial Highway corridor and the City of La Mirada. The Valley View Neighborhood Mixed-Use Planning Area provides opportunities for multi-family residential, commercial and mixed-use development.

The La Mirada Boulevard Town Center Planning Area serves as the commercial, retail and entertainment core of the Imperial Highway Specific Plan. The Planning Area is intended to provide for a complimentary mix of land use and development types that attract residents and visitors and reinforce pedestrian activity and transit utilization.

The Santa Gertrudes Neighborhood Mixed-Use Planning Area is the eastern gateway into La Mirada and the Imperial Highway corridor. The Planning Area is intended to provide for increased housing opportunities and neighborhood-serving retail development.

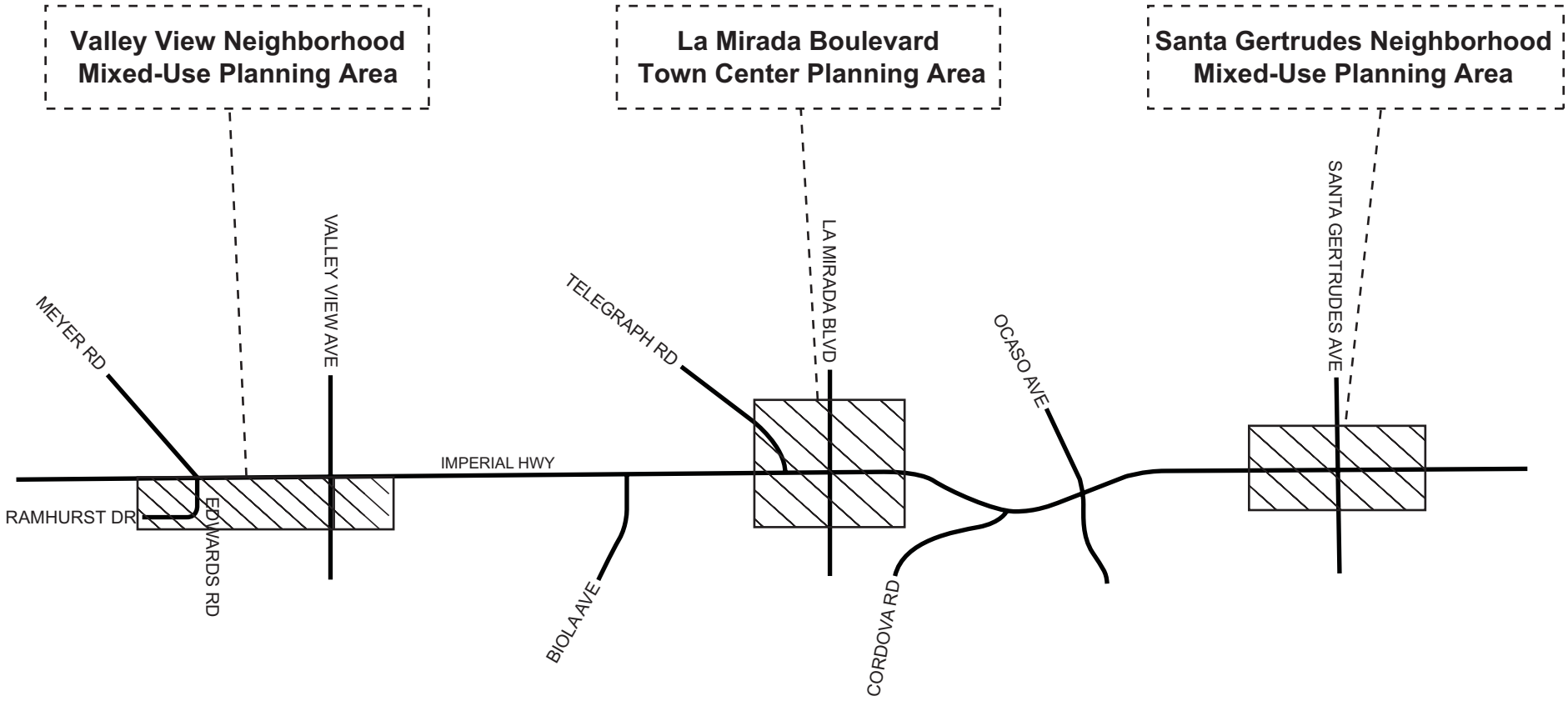
Locations of the proposed project planning areas are shown in Exhibit 7.

### **Project Trip Generation**

Construction of the land uses included in the Imperial Highway Specific Plan would include the displacement of some existing buildings. The forecast project site trip generation consists of the trips forecast to be generated by the proposed Imperial Highway Specific Plan project minus trips generated by the existing land uses displaced by the proposed project.

To calculate trips forecast to be generated by the existing land uses and proposed project site, *Institute of Transportation Engineers (ITE)* trip generation rates were utilized.

Table 4 summarizes the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the existing land use displaced by the proposed project, as well as the *ITE* trip generation rates used to calculate the number of trips forecast to be generated by the proposed project.



**Table 4**  
**ITE Trip Rates for Existing & Proposed Project Site Uses**

Land Use (ITE Code)	Units	AM Peak Hour			PM Peak Hour			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Apartment (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Senior Housing Attached (252)	du	0.05	0.08	0.13	0.10	0.06	0.16	3.48
Shopping Center (820)	tsf	0.61	0.39	1.00	1.83	1.90	3.73	42.94

**Source:** 2003 ITE Trip Generation Manual, 7<sup>th</sup> Edition.

**Note:** du = dwelling units; tsf = thousand square feet; N/A = not applicable.

Approximately 77,630 square feet of shopping center uses are expected to be displaced by the proposed project. Table 5 summarizes the trips forecast to be generated by the existing displaced land uses by planning area, utilizing the trip generation data shown in Table 4.

**Table 5**  
**Existing Project Site Trip Generation Displaced by Proposed Project**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
<b>Valley View Neighborhood Mixed Use Planning Area</b>							
Shopping Center (820)	10	6	16	29	30	59	672
<b>La Mirada Boulevard Town Center Planning Area</b>							
Shopping Center (820)	22	14	36	67	70	137	1,578
<b>Santa Gertrudes Neighborhood Mixed Use Planning Area</b>							
Shopping Center (820)	15	10	25	46	48	94	1,084
<b>Total Existing Trip Generation</b>	<b>47</b>	<b>30</b>	<b>77</b>	<b>142</b>	<b>148</b>	<b>290</b>	<b>3,334</b>

**Note:** tsf = thousand square feet; PCE = passenger car equivalent.

As shown in Table 5, the displaced land uses generate approximately 3,334 daily trips, which include approximately 77 a.m. peak hour trips and approximately 290 p.m. peak hour trips.

Table 6 summarizes the trips forecast to be generated by each of the planning areas included in the proposed project and accounting for displaced land uses utilizing the trip generation data shown in Table 4.

**Table 6  
Forecast Trip Generation of Proposed Project**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
<b>Valley View Neighborhood Mixed Use Planning Area</b>							
Apartment (256-du)	26	105	131	102	56	158	1,702
Senior Housing Attached (88-du)	4	7	11	9	5	14	306
Shopping Center (145.86-tsf)							
- Passenger Vehicles	89	57	146	266	276	542	6,263
<i>ITE Pass-by Reduction (34 Percent; PM Peak Hour Only)</i>	N/A	N/A	N/A	-81	-84	-164	-164
<i>Displaced Shopping Center</i>	-10	-6	-16	-29	-30	-59	-672
<b>Total Forecast Trip Generation</b>	<b>109</b>	<b>163</b>	<b>272</b>	<b>267</b>	<b>223</b>	<b>491</b>	<b>7,435</b>
<b>La Mirada Boulevard Town Center Planning Area</b>							
Shopping Center (700.00-tsf)							
- Passenger Vehicles	427	273	700	1,281	1,330	2,611	30,058
<i>ITE Pass-by Reduction (34 Percent; PM Peak Hour Only)</i>	N/A	N/A	N/A	-413	-428	-841	-841
<i>Displaced Shopping Center</i>	-22	-14	-36	-67	-70	-137	-1,578
<b>Total Forecast Trip Generation</b>	<b>405</b>	<b>259</b>	<b>664</b>	<b>801</b>	<b>832</b>	<b>1,633</b>	<b>27,639</b>
<b>Santa Gertrudes Neighborhood Mixed Use Planning Area</b>							
Apartment (89-du)	9	36	45	36	20	56	592
Shopping Center (240.00-tsf)							
- Passenger Vehicles	147	94	241	440	456	896	10,305
<i>ITE Pass-by Reduction (34 Percent; PM Peak Hour Only)</i>	N/A	N/A	N/A	-134	-139	-273	-273
<i>Displaced Shopping Center</i>	-15	-10	-25	-46	-48	-94	-1,084
<b>Total Forecast Trip Generation</b>	<b>141</b>	<b>120</b>	<b>261</b>	<b>296</b>	<b>289</b>	<b>585</b>	<b>9,540</b>
<b>Total Forecast Trip Generation of Proposed Project</b>	<b>655</b>	<b>542</b>	<b>1,197</b>	<b>1,364</b>	<b>1,344</b>	<b>2,709</b>	<b>44,614</b>

**Note:** du=dwelling unit; tsf = thousand square feet; N/A = not applicable.

**Source:** 2004 ITE Trip Generation Handbook, 2<sup>nd</sup> Edition.

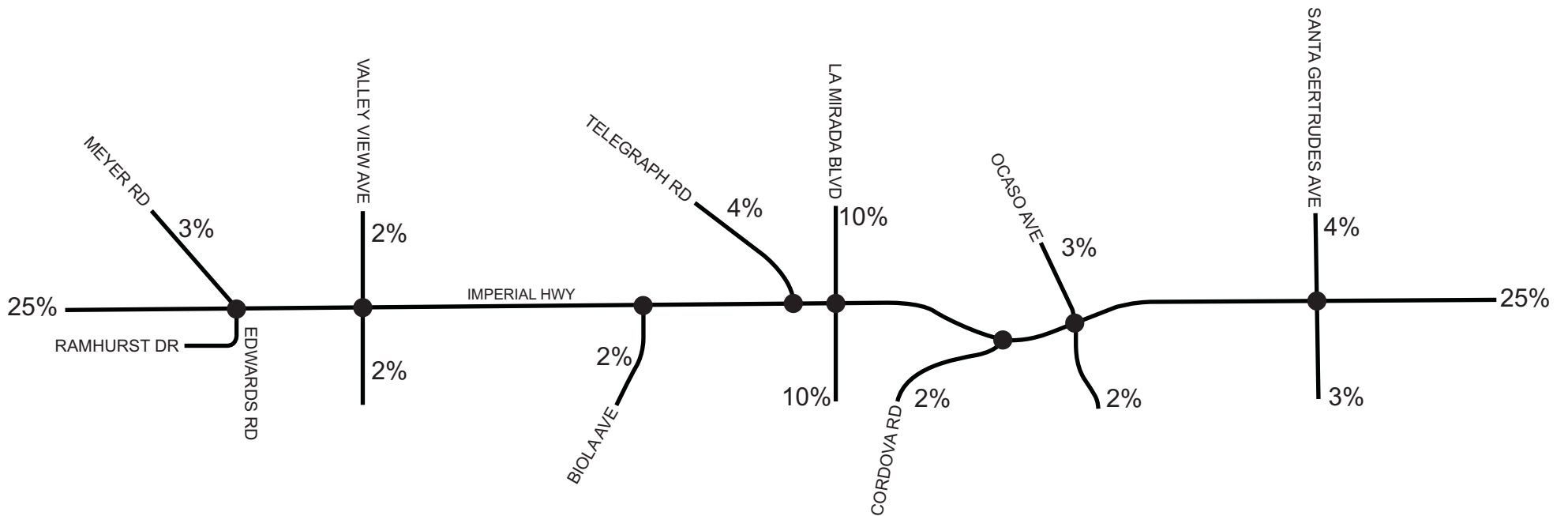
As shown in Table 6, the proposed project is forecast to generate approximately 44,614 net new daily trips, which include approximately 1,197 net new a.m. peak hour trips and approximately 2,709 net new p.m. peak hour trips. The forecast trips generated by the proposed project are conservative since no internal trip capture reductions are applied during the a.m. peak hour.

### Project Trip Distribution

Exhibit 8 shows forecast trip percent distribution of project-generated trips determined based on review of nearby land uses and the circulation network.

### Project Trip Assignment

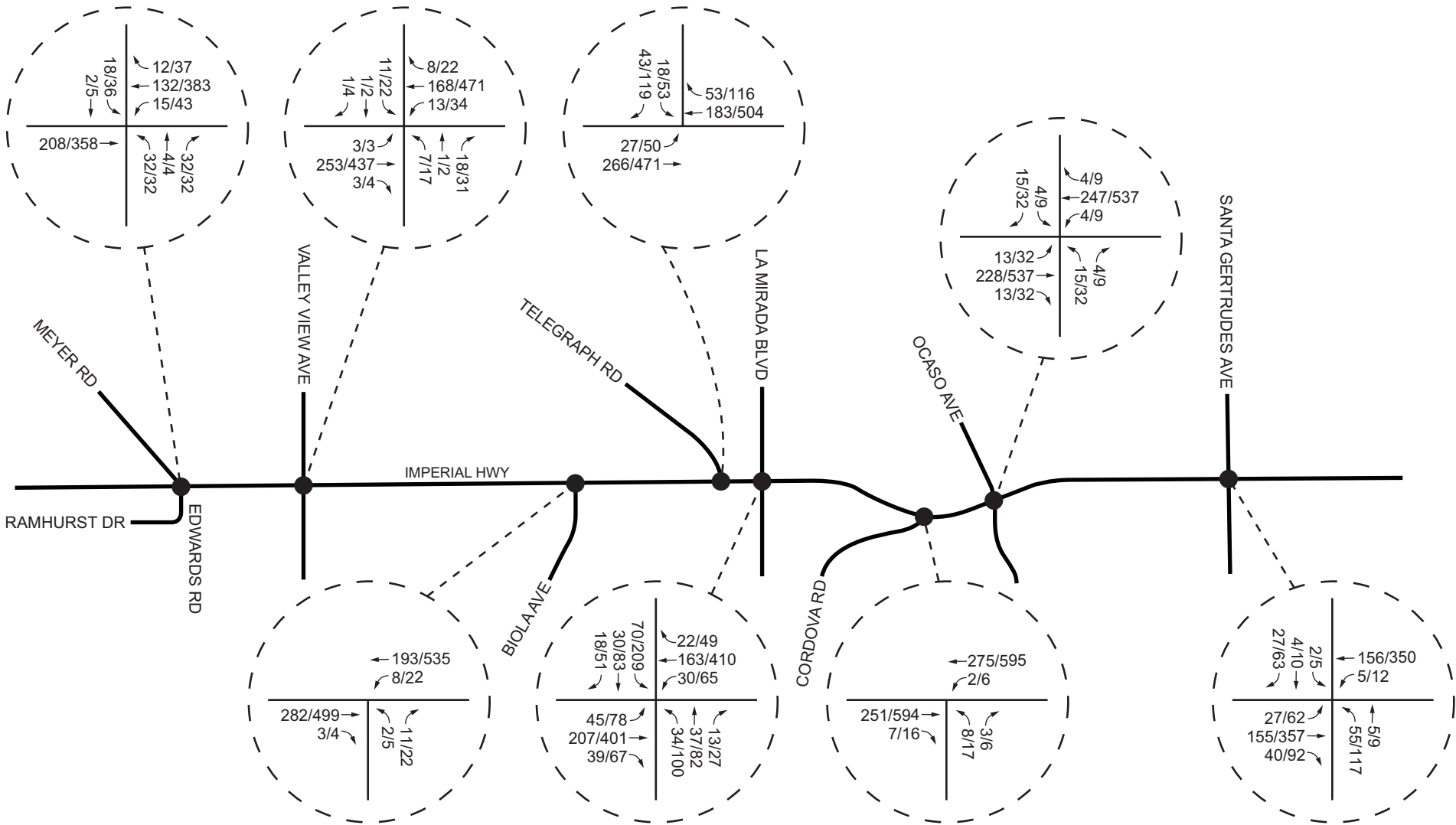
Exhibit 9 shows the corresponding assignment of project-generated peak hour trips assuming the trip percent distribution shown in Exhibit 8.



Legend:  
 \_\_\_\_\_  
 XX% Project Trip Distribution







**Legend:**

xx/xx AM/PM Peak Hour Volumes



## FORECAST YEAR 2035 WITH PROJECT CONDITIONS

This section analyzes the impact of the addition of trips forecast to be generated by the proposed project to forecast year 2035 without project conditions.

### Forecast Year 2035 With Project Conditions Traffic Volumes

Forecast year 2035 with project conditions a.m. and p.m. peak hour volumes were derived by adding net new project-generated trips to forecast year 2035 without project conditions traffic volumes. Exhibit 10 shows forecast year 2035 with project conditions a.m. and p.m. peak hour volumes at the study intersections.

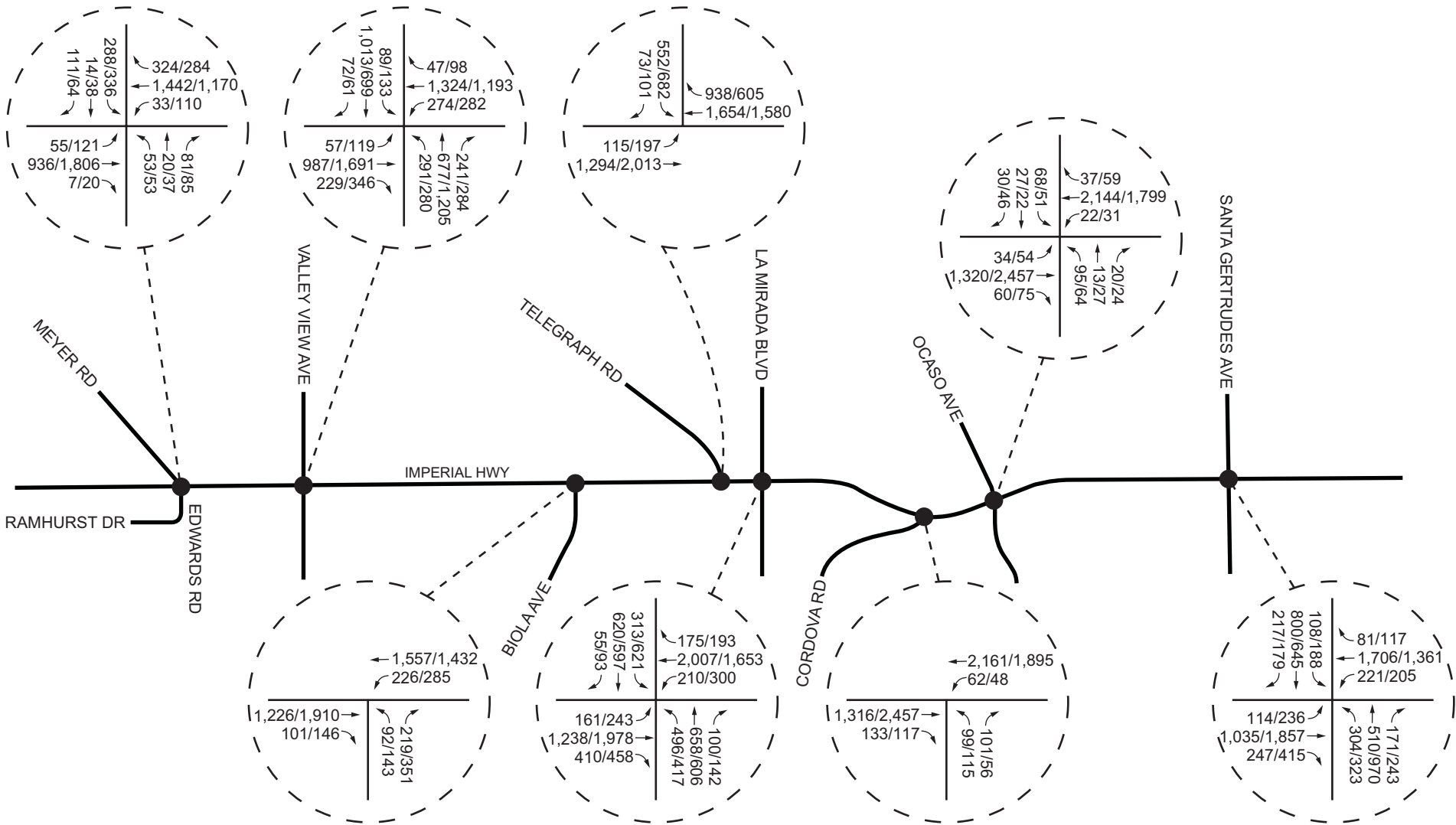
### Forecast Year 2035 With Project Conditions Level of Service

Table 7 summarizes forecast year 2035 with project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

**Table 7**  
**Forecast Year 2035 Without and With Project Conditions AM & PM Peak Hour LOS**

Study Intersection	Forecast Year 2035 Without Project Conditions		Forecast Year 2035 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS	
1 – Imperial Highway/Meyer Road	0.59 – A	0.59 – A	0.65 – B	0.73 – C	No
2 - Imperial Highway/Valley View Avenue	<b>1.08 – F</b>	<b>1.22 – F</b>	<b>1.15 – F</b>	<b>1.36 – F</b>	<b>Yes</b>
3 – Imperial Highway/Biola Avenue	0.58 – A	0.81 – D	0.66 – B	0.94 – E	No
4 – Imperial Highway/Telegraph Road	0.62 – B	0.60 – B	0.70 – B	0.78 – C	No
5 – Imperial Highway/La Mirada Boulevard	<b>1.03 – F</b>	<b>1.00 – F</b>	<b>1.13 – F</b>	<b>1.24 – F</b>	<b>Yes</b>
6 – Imperial Highway/Cordova Road	0.59 – A	0.64 – B	0.65 – B	0.79 – C	No
7 – Imperial Highway/Ocaso Avenue	0.73 – C	0.70 – C	0.82 – D	0.89 – D	No
8 – Imperial Highway/Santa Gertrudes Avenue	<b>1.06 – F</b>	<b>1.20 – F</b>	<b>1.16 – F</b>	<b>1.31 – F</b>	<b>Yes</b>

**Note:** V/C = volume to capacity ratio; deficient intersection operation shown in **bold**.



Legend:

xx/xx AM/PM Peak Hour Volumes



Long Range With Project AM/PM Peak Hour Intersection Volumes

As shown in Table 7, with the addition of project-generated trips, the following three (3) study intersections are forecast to continue to operate at a deficient LOS (LOS F) according to City performance criteria for forecast year 2035 with project conditions:

- Imperial Highway / Valley View Avenue (a.m. and p.m. peak hour);
- Imperial Highway / La Mirada Boulevard (a.m. and p.m. peak hour); and
- Imperial Highway / Santa Gertrudes Avenue (a.m. and p.m. peak hour).

As also shown in Table 7, with the addition of project-generated trips, the following three (3) study intersections are forecast to have a significant impact according to City thresholds of significance for forecast year 2035 with project conditions:

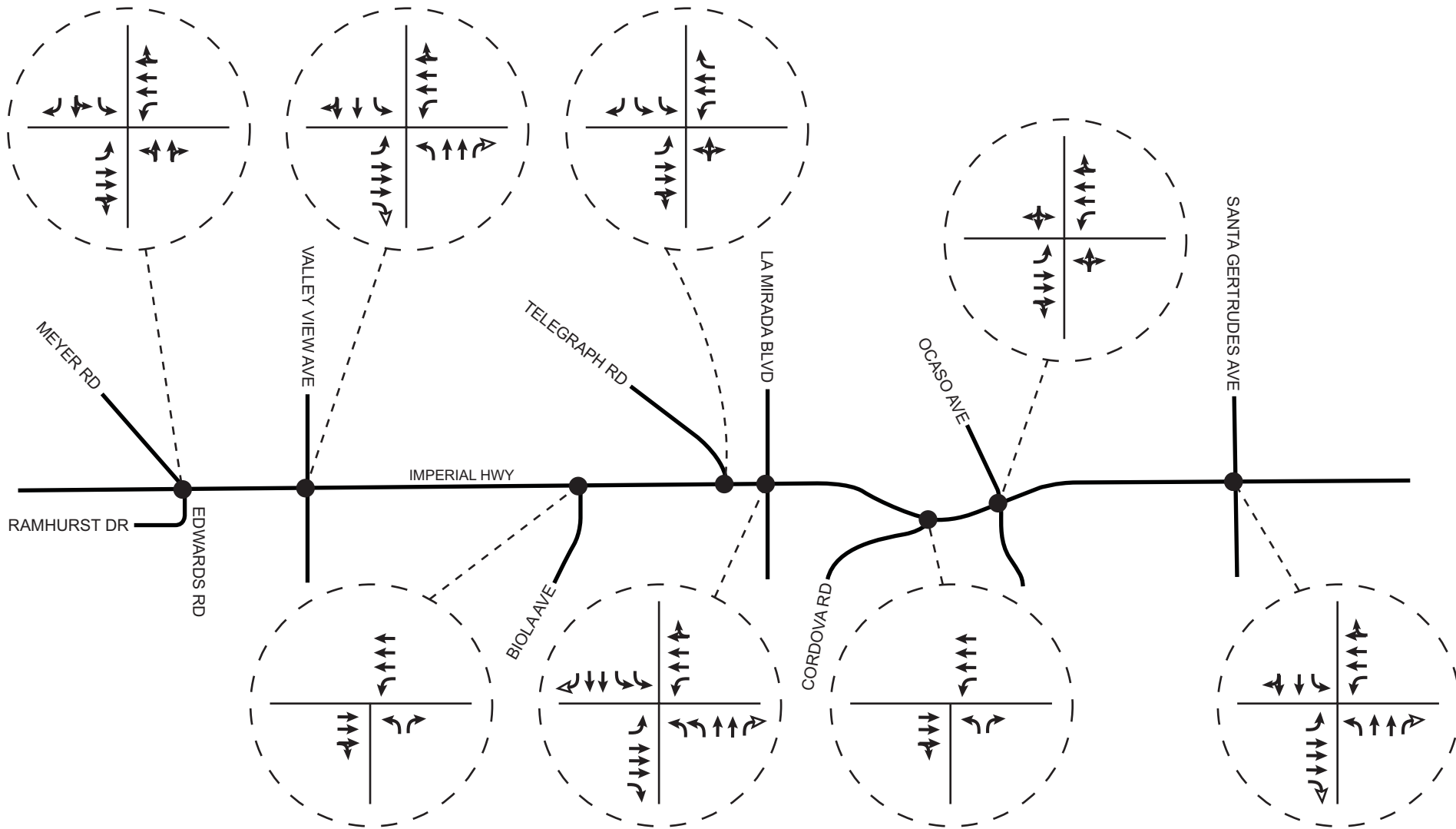
- Imperial Highway / Valley View Avenue;
- Imperial Highway / La Mirada Boulevard; and
- Imperial Highway / Santa Gertrudes Avenue.

### **Forecast Year 2035 With Project Conditions Mitigation Measures**

The following mitigation measures are identified for implementation by the proposed project to eliminate significant impacts at the study intersections for forecast year 2035 with project conditions:

- Mitigation Measure #1**      **Imperial Highway / Valley View Avenue** – Widen the northbound Valley View Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.
- Mitigation Measure #2**      **Imperial Highway / La Mirada Boulevard** – Widen the northbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane. Widen the southbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.
- Mitigation Measure #3**      **Imperial Highway / Santa Gertrudes Avenue** – Widen the northbound Santa Gertrudes Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

Recommended mitigation measures are shown in Exhibit 11.



**Legend:**

- Long Range Intersection Geometry
- ↪ Recommended Mitigation



## Mitigated Forecast Year 2035 With Project Conditions Study Intersection LOS

Table 8 summarizes mitigated forecast year 2035 with project conditions a.m. peak hour and p.m. peak hour LOS of the significantly impacted study intersections; detailed LOS analysis sheets are contained in Appendix B.

**Table 8**  
**Mitigated Forecast Year 2035 With Project Conditions AM & PM Peak Hour LOS**

Study Intersection	Forecast Year 2035 With Project Conditions		Mitigated Forecast Year 2035 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS	
2 – Imperial Highway / Valley View Avenue	<b>1.15 – F</b>	<b>1.36 – F</b>	<b>1.10 – F</b>	<b>1.20 – F</b>	No
5 – Imperial Highway / La Mirada Boulevard	<b>1.13 – F</b>	<b>1.24 – F</b>	<b>1.11 – F</b>	<b>1.19 – F</b>	No
8 – Imperial Highway / Santa Gertrudes Avenue	<b>1.16 – F</b>	<b>1.31 – F</b>	<b>1.16 – F</b>	<b>1.18 – F</b>	No

**Note:** V/C = volume to capacity ratio; deficient intersection operation shown in **bold**.

As shown in Table 8, assuming implementation of the identified mitigation measures, the significant impacts are eliminated at the study intersections for forecast year 2035 with project conditions.

## MITIGATION MEASURES

Mitigation measures have been identified for the three long-term significant impacts forecast to occur for forecast year 2035 with project conditions. The following mitigation measures have been identified to reduce traffic impacts to less than significant:

**Mitigation Measure #1**      **Imperial Highway/Valley View Avenue** – Widen the northbound Valley View Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

**Mitigation Measure #2**      **Imperial Highway/La Mirada Boulevard** – Widen the northbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane. Widen the southbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.

**Mitigation Measure #3**

**Imperial Highway/Santa Gertrudes Avenue** – Widen the northbound Santa Gertrudes Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

**CONCLUSIONS**

The proposed Imperial Highway Specific Plan project is forecast to generate approximately 44,614 net new daily trips, which include approximately 1,195 net new a.m. peak hour trips and approximately 2,710 net new p.m. peak hour trips.

The proposed project includes redevelopment of commercial and residential properties along the corridor to include the following land use components:

- 345 multi-family residential dwelling units;
- 88 senior housing dwelling units; and
- 1,008,230 square feet of shopping center.

Since the proposed project is general in nature, buildout would occur over many years and be subject to changing market conditions.

The proposed Imperial Highway Specific Plan project is forecast to generate approximately 44,614 net new daily trips, which include approximately 1,195 net new a.m. peak hour trips and approximately 2,710 net new p.m. peak hour trips.

Based on City of La Mirada established thresholds of significance, the addition of project-generated trips is forecast to result in significant impacts at three study intersections for forecast year 2035 with project conditions:

- Imperial Highway / Valley View Avenue
- Imperial Highway / La Mirada Boulevard
- Imperial Highway / Santa Gertrudes Avenue

Mitigation measures have been identified for the three long-term significant impacts forecast to occur for forecast year 2035 with project conditions. The following mitigation measures have been identified to reduce traffic impacts to less than significant:

**Mitigation Measure #1**

**Imperial Highway/Valley View Avenue** – Widen the northbound Valley View Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

**Mitigation Measure #2**

**Imperial Highway/La Mirada Boulevard** – Widen the northbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane. Widen the southbound La Mirada Boulevard approach from two left-turn lanes, one through lane, and one shared through-right-turn lane to consist of two left-turn lanes, two through lanes, and one right-turn lane.

**Mitigation Measure #3**

**Imperial Highway/Santa Gertrudes Avenue** – Widen the northbound Santa Gertrudes Avenue approach from one left-turn lane, one through lane, and one shared through-right-turn lane to consist of one left-turn lane, two through lanes, and one right-turn lane. Widen the eastbound Imperial Highway approach from one left-turn lane, two through lanes, and one shared through-right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.

H:\pdata\10107116\Traffic\Admin\7116\_Trf 06-25-10.docx



**APPENDIX A**  
**Existing Count Data**

# **Intersection Count Data Sheets**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

<b>DATE:</b> 3/18/10 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	LA MIRADA MEYER / RAMHURST IMPERIAL HWY	PROJECT #: LOCATION #: CONTROL:	CA10-0319-01 1 SIGNAL
-------------------------------------	---	---	---------------------------------------	-----------------------------

NOTES:	AM		▲ N	
	PM			
	MD	◀ W	S	E ▶
	OTHER OTHER		▼	

	NORTHBOUND MEYER / RAMHURST			SOUTHBOUND MEYER / RAMHURST			EASTBOUND IMPERIAL HWY			WESTBOUND IMPERIAL HWY			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	1	2	0	1.5	0.5	1	1	3	0	1	3	0	

AM	7:00 AM	1	3	9	26	1	17	10	111	1	1	281	47	508
	7:15 AM	2	3	8	47	4	18	11	139	0	6	321	55	614
	7:30 AM	6	5	9	67	3	24	13	149	0	1	273	59	609
	7:45 AM	7	4	14	67	2	31	16	181	4	3	296	98	723
	8:00 AM	3	2	11	50	1	22	7	153	2	5	230	55	541
	8:15 AM	3	4	9	48	0	19	6	150	3	7	285	48	582
	8:30 AM	3	5	3	35	2	13	12	149	2	3	259	29	515
	8:45 AM	6	0	8	42	4	19	12	153	1	3	213	38	499
	VOLUMES	31	26	71	382	17	163	87	1,185	13	29	2,158	429	4,591
	APPROACH %	24%	20%	55%	68%	3%	29%	7%	92%	1%	1%	82%	16%	
APP/DEPART	128	/	542	562	/	59	1,285	/	1,638	2,616	/	2,352	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	18	14	42	231	10	95	47	622	6	15	1,120	267	2,487	
APPROACH %	24%	19%	57%	69%	3%	28%	7%	92%	1%	1%	80%	19%		
PEAK HR FACTOR	0.740			0.840			0.840			0.883			0.860	
APP/DEPART	74	/	328	336	/	31	675	/	895	1,402	/	1,233	0	
PM	4:00 PM	6	2	9	61	3	12	23	312	3	12	177	43	663
	4:15 PM	3	9	19	62	4	10	9	273	3	11	157	37	597
	4:30 PM	7	9	12	75	4	11	22	287	5	14	164	44	654
	4:45 PM	2	5	5	56	9	9	25	304	5	13	154	62	649
	5:00 PM	2	7	16	73	11	11	36	296	1	18	203	46	720
	5:15 PM	7	7	12	52	4	24	20	351	6	12	152	59	706
	5:30 PM	1	7	12	44	7	15	24	310	4	16	136	47	623
	5:45 PM	3	4	7	41	8	17	24	267	4	10	134	44	563
	VOLUMES	31	50	92	464	50	109	183	2,400	31	106	1,277	382	5,175
	APPROACH %	18%	29%	53%	74%	8%	17%	7%	92%	1%	6%	72%	22%	
APP/DEPART	173	/	615	623	/	187	2,614	/	2,956	1,765	/	1,417	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	18	28	45	256	28	55	103	1,238	17	57	673	211	2,729	
APPROACH %	20%	31%	49%	76%	8%	16%	8%	91%	1%	6%	72%	22%		
PEAK HR FACTOR	0.813			0.892			0.901			0.881			0.948	
APP/DEPART	91	/	342	339	/	102	1,358	/	1,539	941	/	746	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
**NORTH & SOUTH:** VALLEY VIEW  
**EAST & WEST:** IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 2  
**CONTROL:** SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	
	OTHER			

	NORTHBOUND VALLEY VIEW			SOUTHBOUND VALLEY VIEW			EASTBOUND IMPERIAL HWY			WESTBOUND IMPERIAL HWY			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	LANES:	1	2	0	1	2	0	1	3	0	1	3	

AM	7:00 AM	53	123	29	6	186	14	8	103	32	41	242	5	842
	7:15 AM	50	125	31	8	223	10	6	119	41	42	325	4	984
	7:30 AM	70	171	39	15	232	10	6	167	54	48	247	11	1,070
	7:45 AM	51	120	47	12	239	15	15	169	52	59	291	11	1,081
	8:00 AM	64	150	54	21	212	15	8	127	51	52	201	5	960
	8:15 AM	58	137	51	19	182	21	17	164	36	64	249	6	1,004
	8:30 AM	60	160	45	8	177	13	8	126	36	41	183	9	866
	8:45 AM	65	143	39	6	165	16	9	136	41	46	170	6	842
	VOLUMES	471	1,129	335	95	1,616	114	77	1,111	343	393	1,908	57	7,649
	APPROACH %	24%	58%	17%	5%	89%	6%	5%	73%	22%	17%	81%	2%	
APP/DEPART	1,935	/	1,263	1,825	/	2,352	1,531	/	1,541	2,358	/	2,493	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	243	578	191	67	865	61	46	627	193	223	988	33	4,115	
APPROACH %	24%	57%	19%	7%	87%	6%	5%	72%	22%	18%	79%	3%		
PEAK HR FACTOR	0.904			0.933			0.917			0.861			0.952	
APP/DEPART	1,012	/	657	993	/	1,281	866	/	885	1,244	/	1,292	0	
PM	4:00 PM	55	178	37	16	135	17	29	249	80	39	157	13	1,005
	4:15 PM	55	225	53	39	147	18	22	239	64	50	135	8	1,055
	4:30 PM	44	273	64	24	123	12	32	240	71	55	151	22	1,111
	4:45 PM	67	250	50	15	163	8	28	277	73	54	143	12	1,140
	5:00 PM	57	236	52	28	152	17	22	263	68	57	186	13	1,151
	5:15 PM	57	269	50	28	158	12	17	292	80	46	137	18	1,164
	5:30 PM	50	233	46	13	173	13	30	273	55	52	136	29	1,103
	5:45 PM	60	214	41	20	160	11	19	241	52	40	115	10	983
	VOLUMES	445	1,878	393	183	1,211	108	199	2,074	543	393	1,160	125	8,712
	APPROACH %	16%	69%	14%	12%	81%	7%	7%	74%	19%	23%	69%	7%	
APP/DEPART	2,716	/	2,202	1,502	/	2,147	2,816	/	2,650	1,678	/	1,713	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	225	1,028	216	95	596	49	99	1,072	292	212	617	65	4,566	
APPROACH %	15%	70%	15%	13%	81%	7%	7%	73%	20%	24%	69%	7%		
PEAK HR FACTOR	0.964			0.934			0.940			0.873			0.981	
APP/DEPART	1,469	/	1,192	740	/	1,100	1,463	/	1,383	894	/	891	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
**NORTH & SOUTH:** BIIOLA  
**EAST & WEST:** IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 3  
**CONTROL:** SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	BIIOLA			BIIOLA			IMPERIAL HWY			IMPERIAL HWY			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	X	1	X	X	X	X	3	0	1	3	X	

AM	7:00 AM	20		21				137	6	16	257		457	
	7:15 AM	21		26				143	12	24	308		534	
	7:30 AM	24		33				242	12	23	317		651	
	7:45 AM	19		37				186	26	51	332		651	
	8:00 AM	15		44				185	31	57	252		584	
	8:15 AM	19		64				194	15	55	265		612	
	8:30 AM	17		49				188	20	40	210		524	
	8:45 AM	13		39				155	16	54	202		479	
	VOLUMES	148	0	313	0	0	0	0	1,430	138	320	2,143	0	4,492
	APPROACH %	32%	0%	68%	0%	0%	0%	0%	91%	9%	13%	87%	0%	
APP/DEPART	461	/	0	0	/	458	1,568	/	1,743	2,463	/	2,291	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	77	0	178	0	0	0	0	807	84	186	1,166	0	2,498	
APPROACH %	30%	0%	70%	0%	0%	0%	0%	91%	9%	14%	86%	0%		
PEAK HR FACTOR	0.768			0.000			0.877			0.883			0.959	
APP/DEPART	255	/	0	0	/	270	891	/	985	1,352	/	1,243	0	
PM	4:00 PM	16		59				249	20	60	173		577	
	4:15 PM	15		69				310	24	60	185		663	
	4:30 PM	24		64				302	26	53	186		655	
	4:45 PM	25		88				299	34	57	207		710	
	5:00 PM	30		66				283	27	59	189		654	
	5:15 PM	39		63				322	34	56	185		699	
	5:30 PM	32		61				284	30	53	157		617	
	5:45 PM	19		48				279	21	45	154		566	
	VOLUMES	200	0	518	0	0	0	0	2,328	216	443	1,436	0	5,141
	APPROACH %	28%	0%	72%	0%	0%	0%	0%	92%	8%	24%	76%	0%	
APP/DEPART	718	/	0	0	/	659	2,544	/	2,846	1,879	/	1,636	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	118	0	281	0	0	0	0	1,206	121	225	767	0	2,718	
APPROACH %	30%	0%	70%	0%	0%	0%	0%	91%	9%	23%	77%	0%		
PEAK HR FACTOR	0.883			0.000			0.932			0.939			0.957	
APP/DEPART	399	/	0	0	/	346	1,327	/	1,487	992	/	885	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
NORTH & SOUTH: TELEGRAPH  
EAST & WEST: IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 4  
**CONTROL:** SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	TELEGRAPH			TELEGRAPH			IMPERIAL HWY			IMPERIAL HWY			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	2	0	1	1	3	0	1	2	1	

AM	7:00 AM	0	0	0	69	0	1	9	131	1	5	276	178	670
	7:15 AM	0	0	0	83	0	7	9	149	1	6	307	199	761
	7:30 AM	0	0	2	98	0	5	13	248	1	4	322	214	907
	7:45 AM	0	0	0	140	0	14	22	195	1	1	356	196	925
	8:00 AM	0	0	0	101	0	14	14	213	6	5	313	183	849
	8:15 AM	0	0	0	96	1	14	26	223	0	13	266	163	802
	8:30 AM	0	0	1	89	1	8	18	194	1	25	277	153	767
	8:45 AM	0	0	3	74	1	15	13	191	0	30	207	120	654
	VOLUMES	0	0	6	750	3	78	124	1,544	11	89	2,324	1,406	6,335
	APPROACH %	0%	0%	100%	90%	0%	9%	7%	92%	1%	2%	61%	37%	
APP/DEPART	6	/	1,530	831	/	103	1,679	/	2,300	3,819	/	2,402	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	0	0	2	435	1	47	75	879	8	23	1,257	756	3,483	
APPROACH %	0%	0%	100%	90%	0%	10%	8%	91%	1%	1%	62%	37%		
PEAK HR FACTOR	0.250			0.784			0.918			0.920			0.941	
APP/DEPART	2	/	831	483	/	32	962	/	1,316	2,036	/	1,304	0	
PM	4:00 PM	0	0	13	132	3	8	31	293	1	11	210	91	793
	4:15 PM	0	0	9	133	3	9	35	315	2	11	210	117	844
	4:30 PM	0	1	5	109	3	10	38	313	7	10	225	87	808
	4:45 PM	0	0	6	137	3	11	23	344	1	14	233	108	880
	5:00 PM	0	0	7	102	1	11	30	346	4	7	252	106	866
	5:15 PM	0	0	5	100	1	12	25	330	3	6	194	114	790
	5:30 PM	0	1	10	125	1	14	21	326	5	9	207	118	837
	5:45 PM	0	0	5	132	2	7	14	267	5	9	198	112	751
	VOLUMES	0	2	60	970	17	82	217	2,534	28	77	1,729	853	6,569
	APPROACH %	0%	3%	97%	91%	2%	8%	8%	91%	1%	3%	65%	32%	
APP/DEPART	62	/	1,072	1,069	/	122	2,779	/	3,564	2,659	/	1,811	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	0	1	27	481	10	41	126	1,318	14	42	920	418	3,398	
APPROACH %	0%	4%	96%	90%	2%	8%	9%	90%	1%	3%	67%	30%		
PEAK HR FACTOR	0.778			0.881			0.959			0.945			0.965	
APP/DEPART	28	/	545	532	/	66	1,458	/	1,826	1,380	/	961	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
**NORTH & SOUTH:** LA MIRADA  
**EAST & WEST:** IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 5  
**CONTROL:** SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	
	OTHER			

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	LA MIRADA			LA MIRADA			IMPERIAL HWY			IMPERIAL HWY			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	0	2	2	0	1	3	1	1	3	0	

AM	7:00 AM	74	110	9	11	133	17	12	157	46	32	354	20	975
	7:15 AM	85	126	7	26	135	9	7	136	68	19	429	10	1,057
	7:30 AM	96	151	12	56	164	16	28	229	104	34	398	31	1,319
	7:45 AM	106	152	14	53	139	6	13	210	97	33	459	37	1,319
	8:00 AM	102	125	26	49	108	5	25	215	61	47	362	21	1,146
	8:15 AM	91	103	22	50	93	5	33	227	55	40	357	42	1,118
	8:30 AM	94	96	14	31	84	6	38	197	64	41	363	25	1,053
	8:45 AM	111	99	14	49	75	6	25	192	66	38	262	20	957
	VOLUMES	759	962	118	325	931	70	181	1,563	561	284	2,984	206	8,944
	APPROACH %	41%	52%	6%	25%	70%	5%	8%	68%	24%	8%	86%	6%	
APP/DEPART	1,839	/	1,349	1,326	/	1,776	2,305	/	2,006	3,474	/	3,813	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	395	531	74	208	504	32	99	881	317	154	1,576	131	4,902	
APPROACH %	40%	53%	7%	28%	68%	4%	8%	68%	24%	8%	85%	7%		
PEAK HR FACTOR	0.919			0.788			0.898			0.879			0.929	
APP/DEPART	1,000	/	761	744	/	975	1,297	/	1,163	1,861	/	2,003	0	
PM	4:00 PM	68	81	22	67	89	13	41	319	71	48	206	29	1,054
	4:15 PM	87	112	23	74	90	9	40	314	72	50	261	26	1,158
	4:30 PM	80	103	27	73	90	8	37	330	75	48	239	36	1,146
	4:45 PM	68	119	24	85	93	11	37	344	80	53	286	31	1,231
	5:00 PM	65	79	16	84	101	12	36	363	66	56	288	34	1,200
	5:15 PM	65	112	17	104	109	6	31	319	75	49	250	34	1,171
	5:30 PM	73	138	41	79	136	7	37	322	113	43	238	24	1,251
	5:45 PM	84	125	44	72	141	15	24	308	95	56	205	26	1,195
	VOLUMES	590	869	214	638	849	81	283	2,619	647	403	1,973	240	9,406
	APPROACH %	35%	52%	13%	41%	54%	5%	8%	74%	18%	15%	75%	9%	
APP/DEPART	1,673	/	1,392	1,568	/	1,899	3,549	/	3,471	2,616	/	2,644	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	271	448	98	352	439	36	141	1,348	334	201	1,062	123	4,853	
APPROACH %	33%	55%	12%	43%	53%	4%	8%	74%	18%	15%	77%	9%		
PEAK HR FACTOR	0.811			0.931			0.966			0.917			0.970	
APP/DEPART	817	/	712	827	/	974	1,823	/	1,798	1,386	/	1,369	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
**NORTH & SOUTH:** CORDOVA  
**EAST & WEST:** IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 6  
**CONTROL:** SIGNAL

NOTES:	AM		▲ N	
	PM			
	MD	◀ W	S	E ▶
	OTHER			
	OTHER		▼	

	NORTHBOUND CORDOVA			SOUTHBOUND CORDOVA			EASTBOUND IMPERIAL HWY			WESTBOUND IMPERIAL HWY			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	LANES:	1	X	1	X	X	X	X	3	0	1	3	

AM	7:00 AM	12		8					154	4	7	365		550
	7:15 AM	8		9					152	13	12	425		619
	7:30 AM	28		27					209	50	21	410		745
	7:45 AM	24		38					201	43	23	428		757
	8:00 AM	14		7					258	7	3	395		684
	8:15 AM	12		12					242	8	4	379		657
	8:30 AM	10		3					216	4	7	343		583
	8:45 AM	6		9					203	7	3	336		564
	VOLUMES	114	0	113	0	0	0	0	1,635	136	80	3,081	0	5,159
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	92%	8%	3%	97%	0%	
APP/DEPART	227	/	0	0	/	216	1,771	/	1,748	3,161	/	3,195	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	78	0	84	0	0	0	0	910	108	51	1,612	0	2,843	
APPROACH %	48%	0%	52%	0%	0%	0%	0%	89%	11%	3%	97%	0%		
PEAK HR FACTOR	0.653			0.000			0.960			0.922			0.939	
APP/DEPART	162	/	0	0	/	159	1,018	/	994	1,663	/	1,690	0	
PM	4:00 PM	21		8					327	28	4	255		643
	4:15 PM	13		17					355	22	12	273		692
	4:30 PM	16		8					364	24	13	286		711
	4:45 PM	20		13					401	15	10	305		764
	5:00 PM	28		6					412	27	5	269		747
	5:15 PM	20		16					415	20	8	251		730
	5:30 PM	15		15					404	22	12	240		708
	5:45 PM	15		9					414	16	9	244		707
	VOLUMES	148	0	92	0	0	0	0	3,092	174	73	2,123	0	5,702
	APPROACH %	62%	0%	38%	0%	0%	0%	0%	95%	5%	3%	97%	0%	
APP/DEPART	240	/	0	0	/	247	3,266	/	3,184	2,196	/	2,271	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	84	0	43	0	0	0	0	1,592	86	36	1,111	0	2,952	
APPROACH %	66%	0%	34%	0%	0%	0%	0%	95%	5%	3%	97%	0%		
PEAK HR FACTOR	0.882			0.000			0.956			0.910			0.966	
APP/DEPART	127	/	0	0	/	122	1,678	/	1,635	1,147	/	1,195	0	



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

**DATE:**  
3/18/10  
THURSDAY

**LOCATION:** LA MIRADA  
**NORTH & SOUTH:** OCASO  
**EAST & WEST:** IMPERIAL HWY

**PROJECT #:** CA10-0319-01  
**LOCATION #:** 7  
**CONTROL:** SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W	S	E ▶
	OTHER		▼	

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	OCASO			OCASO			IMPERIAL HWY			IMPERIAL HWY			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	3	0	1	3	0	

AM	7:00 AM	8	1	3	6	4	5	2	147	7	2	348	4	537
	7:15 AM	11	1	2	4	5	6	1	166	8	3	387	3	597
	7:30 AM	22	4	2	10	14	3	2	220	11	4	418	9	719
	7:45 AM	16	2	7	13	4	5	3	237	5	5	439	5	741
	8:00 AM	13	0	3	18	1	4	3	246	8	4	392	6	698
	8:15 AM	17	5	2	14	4	1	10	230	16	2	372	8	681
	8:30 AM	16	0	5	6	4	3	1	215	8	2	314	2	576
	8:45 AM	12	0	0	9	3	3	5	204	4	3	352	2	597
	VOLUMES	115	13	24	80	39	30	27	1,665	67	25	3,022	39	5,146
	APPROACH %	76%	9%	16%	54%	26%	20%	2%	95%	4%	1%	98%	1%	
APP/DEPART	152	/	79	149	/	131	1,759	/	1,769	3,086	/	3,167	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	68	11	14	55	23	13	18	933	40	15	1,621	28	2,839	
APPROACH %	73%	12%	15%	60%	25%	14%	2%	94%	4%	1%	97%	2%		
PEAK HR FACTOR	0.830			0.843			0.964			0.927			0.958	
APP/DEPART	93	/	57	91	/	78	991	/	1,002	1,664	/	1,702	0	
PM	4:00 PM	11	2	5	19	5	9	5	328	9	1	247	4	645
	4:15 PM	12	3	5	11	5	3	6	357	4	4	270	12	692
	4:30 PM	1	5	2	13	3	4	4	378	8	3	286	8	715
	4:45 PM	4	8	3	7	4	5	3	405	7	5	294	9	754
	5:00 PM	9	11	4	3	8	4	3	409	6	4	277	10	748
	5:15 PM	9	2	4	16	4	3	5	422	12	6	253	15	751
	5:30 PM	5	2	2	10	3	0	8	405	12	4	255	9	715
	5:45 PM	11	3	2	8	4	4	4	401	12	7	239	10	705
	VOLUMES	62	36	27	87	36	32	38	3,105	70	34	2,121	77	5,725
	APPROACH %	50%	29%	22%	56%	23%	21%	1%	97%	2%	2%	95%	3%	
APP/DEPART	125	/	151	155	/	140	3,213	/	3,219	2,232	/	2,215	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	27	23	13	36	19	12	19	1,641	37	19	1,079	43	2,968	
APPROACH %	43%	37%	21%	54%	28%	18%	1%	97%	2%	2%	95%	4%		
PEAK HR FACTOR	0.656			0.728			0.966			0.926			0.984	
APP/DEPART	63	/	85	67	/	75	1,697	/	1,690	1,141	/	1,118	0	

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

<b>DATE:</b> 3/18/10 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	LA MIRADA SANTA GERTRUDES IMPERIAL HWY	PROJECT #: LOCATION #: CONTROL:	CA10-0319-01 8 SIGNAL
-------------------------------------	---	--	---------------------------------------	-----------------------------

NOTES:	AM		▲ N	
	PM			
	MD	◀ W	S	E ▶
	OTHER		▼	
	OTHER			

LANES:	NORTHBOUND SANTA GERTRUDES			SOUTHBOUND SANTA GERTRUDES			EASTBOUND IMPERIAL HWY			WESTBOUND IMPERIAL HWY			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	

<b>AM</b>	7:00 AM	35	65	5	17	119	32	7	145	16	35	311	15	802
	7:15 AM	30	74	14	16	165	21	13	146	22	38	381	18	938
	7:30 AM	45	125	40	20	203	32	19	172	33	59	327	16	1,091
	7:45 AM	55	115	48	23	148	47	22	196	38	36	369	17	1,114
	8:00 AM	57	102	29	27	192	43	15	208	58	53	301	15	1,100
	8:15 AM	56	90	29	21	137	40	18	176	48	37	328	21	1,001
	8:30 AM	25	78	19	14	131	28	24	179	35	38	236	13	820
	8:45 AM	28	68	17	22	99	35	15	141	27	15	227	5	699
	VOLUMES	331	717	201	160	1,194	278	133	1,363	277	311	2,480	120	7,565
	APPROACH %	27%	57%	16%	10%	73%	17%	8%	77%	16%	11%	85%	4%	
APP/DEPART	1,249	/	970	1,632	/	1,782	1,773	/	1,724	2,911	/	3,089	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	213	432	146	91	680	162	74	752	177	185	1,325	69	4,306	
APPROACH %	27%	55%	18%	10%	73%	17%	7%	75%	18%	12%	84%	4%		
PEAK HR FACTOR	0.907			0.890			0.892			0.935			0.966	
APP/DEPART	791	/	575	933	/	1,042	1,003	/	989	1,579	/	1,700	0	
<b>PM</b>	4:00 PM	41	194	43	35	113	24	25	252	79	38	197	24	1,065
	4:15 PM	51	151	40	35	124	28	32	244	76	42	211	21	1,055
	4:30 PM	43	184	51	33	131	27	35	306	79	52	208	30	1,179
	4:45 PM	45	192	50	34	133	26	33	302	78	35	237	29	1,194
	5:00 PM	45	193	48	44	134	26	40	311	71	42	206	25	1,185
	5:15 PM	37	224	46	32	135	32	39	335	71	44	228	31	1,254
	5:30 PM	49	212	64	46	141	15	37	334	56	44	193	15	1,206
	5:45 PM	47	198	50	32	144	24	32	319	42	39	208	29	1,164
	VOLUMES	358	1,548	392	291	1,055	202	273	2,403	552	336	1,688	204	9,302
	APPROACH %	16%	67%	17%	19%	68%	13%	8%	74%	17%	15%	76%	9%	
APP/DEPART	2,298	/	2,025	1,548	/	1,943	3,228	/	3,086	2,228	/	2,248	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	176	821	208	156	543	99	149	1,282	276	165	864	100	4,839	
APPROACH %	15%	68%	17%	20%	68%	12%	9%	75%	16%	15%	77%	9%		
PEAK HR FACTOR	0.927			0.978			0.959			0.932			0.965	
APP/DEPART	1,205	/	1,070	798	/	984	1,707	/	1,646	1,129	/	1,139	0	

**APPENDIX B**  
**LOS Analysis Sheets**

## **Existing Conditions**

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #1 MEYER RD/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.522
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 0 1 0 1 0 1 1 0 2 1 0

Volume Module:
Base Vol: 18 14 42 231 10 95 47 622 6 15 1120 267
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 14 42 231 10 95 47 622 6 15 1120 267
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 19 15 44 243 11 0 49 655 6 16 1179 281
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 19 15 44 243 11 0 49 655 6 16 1179 281
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 19 15 44 243 11 0 49 655 6 16 1179 281

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.49 0.51 1.00 1.92 0.08 1.00 1.00 2.97 0.03 1.00 2.42 0.58
Final Sat.: 778 822 1600 3067 133 1600 1600 4754 46 1600 3876 924

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.08 0.08 0.00 0.03 0.14 0.14 0.01 0.30 0.30
Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #2 VALLY VIEW AVE/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.951
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 136 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 2 1 0

Volume Module:
Base Vol: 243 578 191 67 865 61 46 627 193 223 988 33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 243 578 191 67 865 61 46 627 193 223 988 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 256 608 201 71 911 64 48 660 203 235 1040 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 256 608 201 71 911 64 48 660 203 235 1040 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 256 608 201 71 911 64 48 660 203 235 1040 35

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.50 0.50 1.00 1.87 0.13 1.00 2.29 0.71 1.00 2.90 0.10
Final Sat.: 1600 2405 795 1600 2989 211 1600 3670 1130 1600 4645 155

Capacity Analysis Module:
Vol/Sat: 0.16 0.25 0.25 0.04 0.30 0.30 0.03 0.18 0.18 0.15 0.22 0.22
Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.515
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 30 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 77 0 178 0 0 0 0 807 84 186 1166 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 77 0 178 0 0 0 0 807 84 186 1166 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 81 0 187 0 0 0 0 849 88 196 1227 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 81 0 187 0 0 0 0 849 88 196 1227 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 81 0 187 0 0 0 0 849 88 196 1227 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.72 0.28 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4347 453 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.05 0.00 0.12 0.00 0.00 0.00 0.00 0.20 0.20 0.12 0.26 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 1 1 1 0 1 0 1 0 2 1 0 1 0 2 0 1

Volume Module:

Base Vol: 0 0 2 435 1 47 75 879 8 23 1257 756
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 2 435 1 47 75 879 8 23 1257 756
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 2 458 1 0 79 925 8 24 1323 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 2 458 1 0 79 925 8 24 1323 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 2 458 1 0 79 925 8 24 1323 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 1.00 2.00 1.00 0.00 1.00 2.97 0.03 1.00 2.00 1.00
Final Sat.: 0 0 1600 3200 1600 0 1600 4757 43 1600 3200 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.14 0.00 0.00 0.05 0.19 0.19 0.02 0.41 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #5 LA MIRADA BLVD/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.906
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 112 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:
Base Vol: 395 531 74 208 504 32 99 881 317 154 1576 131
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 395 531 74 208 504 32 99 881 317 154 1576 131
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 416 559 78 219 531 34 104 927 334 162 1659 138
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 416 559 78 219 531 34 104 927 334 162 1659 138
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 416 559 78 219 531 34 104 927 334 162 1659 138
OvlAdjVol: 126

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.76 0.24 2.00 1.88 0.12 1.00 3.00 1.00 1.00 2.77 0.23
Final Sat.: 3200 2809 391 3200 3009 191 1600 4800 1600 1600 4432 368

Capacity Analysis Module:
Vol/Sat: 0.13 0.20 0.20 0.07 0.18 0.18 0.07 0.19 0.21 0.10 0.37 0.37
OvlAdjV/S:
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* 0.08 \*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #6 CORDOVA RD/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.544
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:
Base Vol: 78 0 84 0 0 0 0 0 910 108 51 1612 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 78 0 84 0 0 0 0 0 910 108 51 1612 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 82 0 88 0 0 0 0 0 958 114 54 1697 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 82 0 88 0 0 0 0 0 958 114 54 1697 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 82 0 88 0 0 0 0 0 958 114 54 1697 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.68 0.32 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4291 509 1600 4800 0

Capacity Analysis Module:
Vol/Sat: 0.05 0.00 0.06 0.00 0.00 0.00 0.00 0.00 0.22 0.22 0.03 0.35 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #7 OCASA AVE/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 68 11 14 55 23 13 18 933 40 15 1621 28
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 68 11 14 55 23 13 18 933 40 15 1621 28
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 72 12 15 58 24 14 19 982 42 16 1706 29
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 72 12 15 58 24 14 19 982 42 16 1706 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 72 12 15 58 24 14 19 982 42 16 1706 29

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.73 0.12 0.15 0.61 0.25 0.14 1.00 2.88 0.12 1.00 2.95 0.05
Final Sat.: 1170 189 241 967 404 229 1600 4603 197 1600 4718 82

Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.06 0.06 0.06 0.01 0.21 0.21 0.01 0.36 0.36
Crit Moves: \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.931
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 124 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 213 432 146 91 680 162 74 752 177 185 1325 69
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 213 432 146 91 680 162 74 752 177 185 1325 69
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 224 455 154 96 716 171 78 792 186 195 1395 73
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 224 455 154 96 716 171 78 792 186 195 1395 73
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 224 455 154 96 716 171 78 792 186 195 1395 73

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.49 0.51 1.00 1.62 0.38 1.00 2.43 0.57 1.00 2.85 0.15
Final Sat.: 1600 2392 808 1600 2584 616 1600 3885 915 1600 4562 238

Capacity Analysis Module:
Vol/Sat: 0.14 0.19 0.19 0.06 0.28 0.28 0.05 0.20 0.20 0.12 0.31 0.31
Crit Moves: \*\*\*\*

\*\*\*\*\*



LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #1 MEYER RD/IMPERIAL HWY
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.516
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0 1 0 2 1 0
Volume Module:
Base Vol: 18 28 45 256 28 55 103 1238 17 57 673 211
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 28 45 256 28 55 103 1238 17 57 673 211
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 19 29 47 269 29 0 108 1303 18 60 708 222
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 19 29 47 269 29 0 108 1303 18 60 708 222
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 19 29 47 269 29 0 108 1303 18 60 708 222
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.40 0.61 0.99 1.80 0.20 1.00 1.00 2.96 0.04 1.00 2.28 0.72
Final Sat.: 633 985 1582 2885 315 1600 1600 4735 65 1600 3654 1146
Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.03 0.09 0.09 0.00 0.07 0.28 0.28 0.04 0.19 0.19
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*
\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #2 VALLBY VIEW AVE/IMPERIAL HWY
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 1.070
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0
Volume Module:
Base Vol: 225 1028 216 95 596 49 99 1072 292 212 617 65
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 225 1028 216 95 596 49 99 1072 292 212 617 65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 237 1082 227 100 627 52 104 1128 307 223 649 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 237 1082 227 100 627 52 104 1128 307 223 649 68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 237 1082 227 100 627 52 104 1128 307 223 649 68
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.65 0.35 1.00 1.85 0.15 1.00 2.36 0.64 1.00 2.71 0.29
Final Sat.: 1600 2644 556 1600 2957 243 1600 3772 1028 1600 4343 457
Capacity Analysis Module:
Vol/Sat: 0.15 0.41 0.41 0.06 0.21 0.21 0.07 0.30 0.30 0.14 0.15 0.15
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*
\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #3 BIOLA AVE/IMPERIAL HWY
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.704
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: C
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0
Volume Module:
Base Vol: 118 0 281 0 0 0 0 1206 121 225 767 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 118 0 281 0 0 0 0 1206 121 225 767 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 124 0 296 0 0 0 0 1269 127 237 807 0
Reduct Vol: 0
Reduced Vol: 124 0 296 0 0 0 0 1269 127 237 807 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 124 0 296 0 0 0 0 1269 127 237 807 0
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.73 0.27 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4362 438 1600 4800 0
Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.18 0.00 0.00 0.00 0.00 0.29 0.29 0.15 0.17 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*
\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*
Intersection #4 TELEGRAPH RD/IMPERIAL HWY
\*\*\*\*\*
Cycle (sec): 100 Critical Vol./Cap.(X): 0.642
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: B
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 0 1 0 1 1 0 1 0 1 0 2 1 0 1 0 2 0 1
Volume Module:
Base Vol: 0 1 27 481 10 41 126 1318 14 42 920 418
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1 27 481 10 41 126 1318 14 42 920 418
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 0 1 28 506 11 0 133 1387 15 44 968 0
Reduct Vol: 0
Reduced Vol: 0 1 28 506 11 0 133 1387 15 44 968 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 1 28 506 11 0 133 1387 15 44 968 0
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.04 0.96 2.00 1.00 0.00 1.00 2.97 0.03 1.00 2.00 1.00
Final Sat.: 0 57 1543 3200 1600 0 1600 4750 50 1600 3200 1600
Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.02 0.16 0.01 0.00 0.08 0.29 0.29 0.03 0.30 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*
\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.883
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 103 Level Of Service: D

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Ovl Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 271 448 98 352 439 36 141 1348 334 201 1062 123

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 271 448 98 352 439 36 141 1348 334 201 1062 123

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 285 472 103 371 462 38 148 1419 352 212 1118 129

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 285 472 103 371 462 38 148 1419 352 212 1118 129

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 285 472 103 371 462 38 148 1419 352 212 1118 129

OvlAdjVol: 209

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 1.64 0.36 2.00 1.85 0.15 1.00 3.00 1.00 1.00 2.69 0.31

Final Sat.: 3200 2626 574 3200 2957 243 1600 4800 1600 1600 4302 498

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.09 0.18 0.18 0.12 0.16 0.16 0.09 0.30 0.22 0.13 0.26 0.26

OvlAdjV/S: 0.13

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #6 CORDOVA RD/IMPERIAL HWY

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.567
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 84 0 43 0 0 0 0 0 1592 86 36 1111 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 84 0 43 0 0 0 0 0 1592 86 36 1111 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 88 0 45 0 0 0 0 0 1676 91 38 1169 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 88 0 45 0 0 0 0 0 1676 91 38 1169 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 88 0 45 0 0 0 0 0 1676 91 38 1169 0

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.85 0.15 1.00 3.00 0.00

Final Sat.: 1600 0 1600 0 0 0 0 4554 246 1600 4800 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.03 0.00 0.00 0.00 0.00 0.37 0.37 0.02 0.24 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #7 OCASA AVE/IMPERIAL HWY

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.626
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: B

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

-----

Volume Module:

Base Vol: 27 23 13 36 19 12 19 1641 37 19 1079 43

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 27 23 13 36 19 12 19 1641 37 19 1079 43

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 28 24 14 38 20 13 20 1727 39 20 1136 45

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 28 24 14 38 20 13 20 1727 39 20 1136 45

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 28 24 14 38 20 13 20 1727 39 20 1136 45

-----

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.43 0.36 0.21 0.54 0.28 0.18 1.00 2.93 0.07 1.00 2.89 0.11

Final Sat.: 686 584 330 860 454 287 1600 4694 106 1600 4616 184

-----

Capacity Analysis Module:

Vol/Sat: 0.04 0.04 0.04 0.04 0.04 0.01 0.37 0.37 0.01 0.25 0.25

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

LA MIRADA (10107116)
EXISTING CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.051
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

-----

Volume Module:

Base Vol: 176 821 208 156 543 99 149 1282 276 165 864 100

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 176 821 208 156 543 99 149 1282 276 165 864 100

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 185 864 219 164 572 104 157 1349 291 174 909 105

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 185 864 219 164 572 104 157 1349 291 174 909 105

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 185 864 219 164 572 104 157 1349 291 174 909 105

-----

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.60 0.40 1.00 1.69 0.31 1.00 2.47 0.53 1.00 2.69 0.31

Final Sat.: 1600 2553 647 1600 2707 493 1600 3950 850 1600 4302 498

-----

Capacity Analysis Module:

Vol/Sat: 0.12 0.34 0.34 0.10 0.21 0.21 0.10 0.34 0.34 0.11 0.21 0.21

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

## **Forecast Year 2035 Without Project Conditions**

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 MEYER RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.597
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0 1 0 2 1 0

Volume Module:

Base Vol: 18 14 42 231 10 95 47 622 6 15 1120 267
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 21 16 49 270 12 111 55 728 7 18 1310 312
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 16 49 270 12 111 55 728 7 18 1310 312
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 22 17 52 284 12 0 58 766 7 18 1379 329
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 22 17 52 284 12 0 58 766 7 18 1379 329
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 22 17 52 284 12 0 58 766 7 18 1379 329

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.49 0.51 1.00 1.92 0.08 1.00 1.00 2.97 0.03 1.00 2.42 0.58
Final Sat.: 778 822 1600 3067 133 1600 1600 4754 46 1600 3876 924

Capacity Analysis Module:

Vol/Sat: 0.01 0.02 0.03 0.09 0.09 0.00 0.04 0.16 0.16 0.01 0.36 0.36
Crit Moves: \*\*\*\* \*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.085
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:

Base Vol: 243 578 191 67 865 61 46 627 193 223 988 33
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 284 676 223 78 1012 71 54 734 226 261 1156 39
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 284 676 223 78 1012 71 54 734 226 261 1156 39
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 299 712 235 83 1065 75 57 772 238 275 1217 41
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 299 712 235 83 1065 75 57 772 238 275 1217 41
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 299 712 235 83 1065 75 57 772 238 275 1217 41

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.50 0.50 1.00 1.87 0.13 1.00 2.29 0.71 1.00 2.90 0.10
Final Sat.: 1600 2405 795 1600 2989 211 1600 3670 1130 1600 4645 155

Capacity Analysis Module:

Vol/Sat: 0.19 0.30 0.30 0.05 0.36 0.36 0.04 0.21 0.21 0.17 0.26 0.26
Crit Moves: \*\*\*\* \*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.589
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 77 0 178 0 0 0 0 807 84 186 1166 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 90 0 208 0 0 0 0 944 98 218 1364 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 90 0 208 0 0 0 0 944 98 218 1364 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 95 0 219 0 0 0 0 994 103 229 1436 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 95 0 219 0 0 0 0 994 103 229 1436 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 95 0 219 0 0 0 0 994 103 229 1436 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.72 0.28 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4347 453 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.14 0.00 0.00 0.00 0.00 0.23 0.23 0.14 0.30 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 435 0 47 75 879 0 0 1257 756
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 0 0 0 509 0 55 88 1028 0 0 1471 885
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 509 0 55 88 1028 0 0 1471 885
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 0 0 0 536 0 0 92 1083 0 0 1548 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 536 0 0 92 1083 0 0 1548 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 536 0 0 92 1083 0 0 1548 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.00 0.06 0.23 0.00 0.00 0.32 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.032
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 395 531 74 208 504 32 99 881 317 154 1576 131
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 462 621 87 243 590 37 116 1031 371 180 1844 153
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 462 621 87 243 590 37 116 1031 371 180 1844 153
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 486 654 91 256 621 39 122 1085 390 190 1941 161
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 486 654 91 256 621 39 122 1085 390 190 1941 161
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 486 654 91 256 621 39 122 1085 390 190 1941 161
OvlAdjVol: 147

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.76 0.24 2.00 1.88 0.12 1.00 3.00 1.00 1.00 2.77 0.23
Final Sat.: 3200 2809 391 3200 3009 191 1600 4800 1600 1600 4432 368

Capacity Analysis Module:
Vol/Sat: 0.15 0.23 0.23 0.08 0.21 0.21 0.08 0.23 0.24 0.12 0.44 0.44
OvlAdjV/S: 0.09
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.594
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 78 0 84 0 0 0 0 0 910 108 51 1612 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 91 0 98 0 0 0 0 0 1065 126 60 1886 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 91 0 98 0 0 0 0 0 1065 126 60 1886 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 96 0 103 0 0 0 0 0 1121 133 63 1985 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 96 0 103 0 0 0 0 0 1121 133 63 1985 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 96 0 103 0 0 0 0 0 1121 133 63 1985 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.68 0.32 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4291 509 1600 4800 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.00 0.06 0.00 0.00 0.00 0.00 0.00 0.26 0.26 0.04 0.41 0.00
Crit Moves: \*\*\*\*



LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 OCASA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.739
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 67 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 68 11 14 55 23 13 18 933 40 15 1621 28
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 80 13 16 64 27 15 21 1092 47 18 1897 33
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 80 13 16 64 27 15 21 1092 47 18 1897 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 84 14 17 68 28 16 22 1149 49 18 1996 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 84 14 17 68 28 16 22 1149 49 18 1996 34
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 84 14 17 68 28 16 22 1149 49 18 1996 34

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.73 0.12 0.15 0.61 0.25 0.14 1.00 2.88 0.12 1.00 2.95 0.05
Final Sat.: 1170 189 241 967 404 229 1600 4603 197 1600 4718 82

Capacity Analysis Module:
Vol/Sat: 0.07 0.07 0.07 0.07 0.07 0.07 0.01 0.25 0.25 0.01 0.42 0.42
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
AM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.063
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 213 432 146 91 680 162 74 752 177 185 1325 69
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 249 505 171 106 796 190 87 880 207 216 1550 81
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 249 505 171 106 796 190 87 880 207 216 1550 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 262 532 180 112 837 200 91 926 218 228 1632 85
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 262 532 180 112 837 200 91 926 218 228 1632 85
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 262 532 180 112 837 200 91 926 218 228 1632 85

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.49 0.51 1.00 1.62 0.38 1.00 2.43 0.57 1.00 2.85 0.15
Final Sat.: 1600 2392 808 1600 2584 616 1600 3885 915 1600 4562 238

Capacity Analysis Module:
Vol/Sat: 0.16 0.22 0.22 0.07 0.32 0.32 0.06 0.24 0.24 0.14 0.36 0.36
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 MEYER RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.590
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0

Volume Module:
Base Vol: 18 28 45 256 28 55 103 1238 17 57 673 211
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 21 33 53 300 33 64 121 1448 20 67 787 247
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 21 33 53 300 33 64 121 1448 20 67 787 247
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 22 34 55 315 34 0 127 1525 21 70 829 260
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 22 34 55 315 34 0 127 1525 21 70 829 260
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 22 34 55 315 34 0 127 1525 21 70 829 260

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.40 0.61 0.99 1.80 0.20 1.00 1.00 2.96 0.04 1.00 2.28 0.72
Final Sat.: 633 985 1582 2885 315 1600 1600 4735 65 1600 3654 1146

Capacity Analysis Module:
Vol/Sat: 0.01 0.04 0.04 0.11 0.11 0.00 0.08 0.32 0.32 0.04 0.23 0.23
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.225
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0

Volume Module:
Base Vol: 225 1028 216 95 596 49 99 1072 292 212 617 65
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 263 1203 253 111 697 57 116 1254 342 248 722 76
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 263 1203 253 111 697 57 116 1254 342 248 722 76
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 277 1266 266 117 734 60 122 1320 360 261 760 80
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 277 1266 266 117 734 60 122 1320 360 261 760 80
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 277 1266 266 117 734 60 122 1320 360 261 760 80

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.65 0.35 1.00 1.85 0.15 1.00 2.36 0.64 1.00 2.71 0.29
Final Sat.: 1600 2644 556 1600 2957 243 1600 3772 1028 1600 4343 457

Capacity Analysis Module:
Vol/Sat: 0.17 0.48 0.48 0.07 0.25 0.25 0.08 0.35 0.35 0.16 0.17 0.17
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.810
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 118 0 281 0 0 0 0 1206 121 225 767 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 138 0 329 0 0 0 0 1411 142 263 897 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 138 0 329 0 0 0 0 1411 142 263 897 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 145 0 346 0 0 0 0 1485 149 277 945 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 145 0 346 0 0 0 0 1485 149 277 945 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 145 0 346 0 0 0 0 1485 149 277 945 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.73 0.27 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4362 438 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.09 0.00 0.22 0.00 0.00 0.00 0.00 0.34 0.34 0.17 0.20 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.603
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 481 0 41 126 1318 0 0 920 418
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 0 0 0 563 0 48 147 1542 0 0 1076 489
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 563 0 48 147 1542 0 0 1076 489
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 0 0 0 592 0 0 155 1623 0 0 1133 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 592 0 0 155 1623 0 0 1133 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 592 0 0 155 1623 0 0 1133 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.19 0.00 0.00 0.10 0.34 0.00 0.00 0.24 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.006
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 271 448 98 352 439 36 141 1348 334 201 1062 123
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 317 524 115 412 514 42 165 1577 391 235 1243 144
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 317 524 115 412 514 42 165 1577 391 235 1243 144
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 334 552 121 434 541 44 174 1660 411 248 1308 151
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 334 552 121 434 541 44 174 1660 411 248 1308 151
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 334 552 121 434 541 44 174 1660 411 248 1308 151
OvlAdjVol: 244

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.64 0.36 2.00 1.85 0.15 1.00 3.00 1.00 1.00 2.69 0.31
Final Sat.: 3200 2626 574 3200 2957 243 1600 4800 1600 1600 4302 498

Capacity Analysis Module:
Vol/Sat: 0.10 0.21 0.21 0.14 0.18 0.18 0.11 0.35 0.26 0.15 0.30 0.30
OvlAdjV/S: 0.15
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 84 0 43 0 0 0 0 0 1592 86 36 1111 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 98 0 50 0 0 0 0 0 1863 101 42 1300 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 98 0 50 0 0 0 0 0 1863 101 42 1300 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 103 0 53 0 0 0 0 0 1961 106 44 1368 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 103 0 53 0 0 0 0 0 1961 106 44 1368 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 103 0 53 0 0 0 0 0 1961 106 44 1368 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.85 0.15 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4554 246 1600 4800 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.00 0.03 0.00 0.00 0.00 0.00 0.00 0.43 0.43 0.03 0.29 0.00
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 OCASA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 27 23 13 36 19 12 19 1641 37 19 1079 43
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 32 27 15 42 22 14 22 1920 43 22 1262 50
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 27 15 42 22 14 22 1920 43 22 1262 50
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 33 28 16 44 23 15 23 2021 46 23 1329 53
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 33 28 16 44 23 15 23 2021 46 23 1329 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 33 28 16 44 23 15 23 2021 46 23 1329 53

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.43 0.36 0.21 0.54 0.28 0.18 1.00 2.93 0.07 1.00 2.89 0.11
Final Sat.: 686 584 330 860 454 287 1600 4694 106 1600 4616 184

Capacity Analysis Module:
Vol/Sat: 0.05 0.05 0.05 0.05 0.05 0.05 0.01 0.43 0.43 0.01 0.29 0.29
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
LONG RANGE NO PROJECT CONDITIONS
PM PEAK HOUR

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.203
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 176 821 208 156 543 99 149 1282 276 165 864 100
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 206 961 243 183 635 116 174 1500 323 193 1011 117
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 206 961 243 183 635 116 174 1500 323 193 1011 117
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 217 1011 256 192 669 122 184 1579 340 203 1064 123
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 217 1011 256 192 669 122 184 1579 340 203 1064 123
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 217 1011 256 192 669 122 184 1579 340 203 1064 123

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.60 0.40 1.00 1.69 0.31 1.00 2.47 0.53 1.00 2.69 0.31
Final Sat.: 1600 2553 647 1600 2707 493 1600 3950 850 1600 4302 498

Capacity Analysis Module:
Vol/Sat: 0.14 0.40 0.40 0.12 0.25 0.25 0.11 0.40 0.40 0.13 0.25 0.25
Crit Moves: \*\*\*\*

## **Forecast Year 2035 With Project Conditions**

LA MIRADA (10107116)  
Long Range With Project  
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 MEYER RD/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Ignore Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 18 14 42 231 10 95 47 622 6 15 1120 267  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 21 16 49 270 12 111 55 728 7 18 1310 312  
Added Vol: 32 4 32 18 2 0 0 208 0 15 132 12  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 53 20 81 288 14 111 55 936 7 33 1442 324  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 56 21 85 303 14 0 58 985 7 34 1518 341  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 56 21 85 303 14 0 58 985 7 34 1518 341  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 56 21 85 303 14 0 58 985 7 34 1518 341

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.69 0.31 1.00 1.91 0.09 1.00 1.00 2.98 0.02 1.00 2.45 0.55  
Final Sat.: 1098 502 1600 3055 145 1600 1600 4764 36 1600 3919 881

Capacity Analysis Module:  
Vol/Sat: 0.03 0.04 0.05 0.10 0.10 0.00 0.04 0.21 0.21 0.02 0.39 0.39  
Crit Moves: \*\*\*\* \*  
\*\*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.155  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 243 578 191 67 865 61 46 627 193 223 988 33  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 284 676 223 78 1012 71 54 734 226 261 1156 39  
Added Vol: 7 1 18 11 1 1 3 253 3 13 168 8  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 291 677 241 89 1013 72 57 987 229 274 1324 47  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 307 713 254 94 1066 76 60 1039 241 288 1394 49  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 307 713 254 94 1066 76 60 1039 241 288 1394 49  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 307 713 254 94 1066 76 60 1039 241 288 1394 49

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 1.47 0.53 1.00 1.87 0.13 1.00 2.44 0.56 1.00 2.90 0.10  
Final Sat.: 1600 2359 841 1600 2987 213 1600 3896 904 1600 4637 163

Capacity Analysis Module:  
Vol/Sat: 0.19 0.30 0.30 0.06 0.36 0.36 0.04 0.27 0.27 0.18 0.30 0.30  
Crit Moves: \*\*\* \*  
\*\*\*\*\*

LA MIRADA (10107116)
Long Range With Project
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 77 0 178 0 0 0 0 807 84 186 1166 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 90 0 208 0 0 0 0 944 98 218 1364 0
Added Vol: 2 0 11 0 0 0 0 282 3 8 193 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 92 0 219 0 0 0 0 1226 101 226 1557 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 97 0 231 0 0 0 0 1291 107 237 1639 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 97 0 231 0 0 0 0 1291 107 237 1639 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 97 0 231 0 0 0 0 1291 107 237 1639 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.77 0.23 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4434 366 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.14 0.00 0.00 0.00 0.00 0.29 0.29 0.15 0.34 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 435 0 47 75 879 0 0 1257 756
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 0 0 0 509 0 55 88 1028 0 0 1471 885
Added Vol: 0 0 0 43 0 18 27 266 0 0 183 53
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 552 0 73 115 1294 0 0 1654 938
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 0 0 0 581 0 0 121 1363 0 0 1741 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 581 0 0 121 1363 0 0 1741 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 581 0 0 121 1363 0 0 1741 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.00 0.08 0.28 0.00 0.00 0.36 0.00
Crit Moves: \*\*\*\*



LA MIRADA (10107116)
Long Range With Project
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.130
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 395 531 74 208 504 32 99 881 317 154 1576 131
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 462 621 87 243 590 37 116 1031 371 180 1844 153
Added Vol: 34 37 13 70 30 18 45 207 39 30 163 22
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 496 658 100 313 620 55 161 1238 410 210 2007 175
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 522 693 105 330 652 58 169 1303 431 221 2113 184
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 522 693 105 330 652 58 169 1303 431 221 2113 184
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 522 693 105 330 652 58 169 1303 431 221 2113 184
OvlAdjVol: 170

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.74 0.26 2.00 1.84 0.16 1.00 3.00 1.00 1.00 2.76 0.24
Final Sat.: 3200 2780 420 3200 2937 263 1600 4800 1600 1600 4414 386

Capacity Analysis Module:

Vol/Sat: 0.16 0.25 0.25 0.10 0.22 0.22 0.11 0.27 0.27 0.14 0.48 0.48
OvlAdjV/S: 0.11
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 78 0 84 0 0 0 0 0 910 108 51 1612 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 91 0 98 0 0 0 0 0 1065 126 60 1886 0
Added Vol: 8 0 3 0 0 0 0 0 251 7 2 275 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 99 0 101 0 0 0 0 0 1316 133 62 2161 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 104 0 107 0 0 0 0 0 1385 140 65 2275 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 104 0 107 0 0 0 0 0 1385 140 65 2275 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 104 0 107 0 0 0 0 0 1385 140 65 2275 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.27 2.72 0.28 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4358 442 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.07 0.00 0.07 0.00 0.00 0.00 0.00 0.00 0.32 0.32 0.04 0.47 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 OCASA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.827  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 85 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 68 11 14 55 23 13 18 933 40 15 1621 28  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 80 13 16 64 27 15 21 1092 47 18 1897 33  
Added Vol: 15 0 4 4 0 15 13 228 13 4 247 4  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 95 13 20 68 27 30 34 1320 60 22 2144 37  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 100 14 21 72 28 32 36 1389 63 23 2256 39  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 100 14 21 72 28 32 36 1389 63 23 2256 39  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 100 14 21 72 28 32 36 1389 63 23 2256 39

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.74 0.10 0.16 0.55 0.21 0.24 1.00 2.87 0.13 1.00 2.95 0.05  
Final Sat.: 1184 161 255 872 343 385 1600 4592 208 1600 4719 81

Capacity Analysis Module:  
Vol/Sat: 0.08 0.08 0.08 0.08 0.08 0.08 0.02 0.30 0.30 0.01 0.48 0.48  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.161  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 213 432 146 91 680 162 74 752 177 185 1325 69  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 249 505 171 106 796 190 87 880 207 216 1550 81  
Added Vol: 55 5 0 2 4 27 27 155 40 5 156 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 304 510 171 108 800 217 114 1035 247 221 1706 81  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 320 537 180 114 842 228 120 1089 260 233 1796 85  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 320 537 180 114 842 228 120 1089 260 233 1796 85  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 320 537 180 114 842 228 120 1089 260 233 1796 85

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 1.50 0.50 1.00 1.57 0.43 1.00 2.42 0.58 1.00 2.86 0.14  
Final Sat.: 1600 2398 802 1600 2518 682 1600 3875 925 1600 4583 217

Capacity Analysis Module:  
Vol/Sat: 0.20 0.22 0.22 0.07 0.33 0.33 0.07 0.28 0.28 0.15 0.39 0.39  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 MEYER RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0 1 0 2 1 0

Volume Module:

Base Vol: 18 28 45 256 28 55 103 1238 17 57 673 211
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 21 33 53 300 33 64 121 1448 20 67 787 247
Added Vol: 32 4 32 36 5 0 0 358 0 43 383 37
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 53 37 85 336 38 64 121 1806 20 110 1170 284
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 56 39 89 353 40 0 127 1902 21 115 1232 299
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 56 39 89 353 40 0 127 1902 21 115 1232 299
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 56 39 89 353 40 0 127 1902 21 115 1232 299

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.61 0.42 0.97 1.80 0.20 1.00 1.00 2.97 0.03 1.00 2.41 0.59
Final Sat.: 973 674 1553 2876 324 1600 1600 4748 52 1600 3863 937

Capacity Analysis Module:

Vol/Sat: 0.03 0.06 0.06 0.12 0.12 0.00 0.08 0.40 0.40 0.07 0.32 0.32
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.369
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:

Base Vol: 225 1028 216 95 596 49 99 1072 292 212 617 65
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 263 1203 253 111 697 57 116 1254 342 248 722 76
Added Vol: 17 2 31 22 2 4 3 437 4 34 471 22
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 280 1205 284 133 699 61 119 1691 346 282 1193 98
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 295 1268 299 140 736 65 125 1780 364 297 1256 103
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 295 1268 299 140 736 65 125 1780 364 297 1256 103
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 295 1268 299 140 736 65 125 1780 364 297 1256 103

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.62 0.38 1.00 1.84 0.16 1.00 2.49 0.51 1.00 2.77 0.23
Final Sat.: 1600 2590 610 1600 2942 258 1600 3985 815 1600 4435 365

Capacity Analysis Module:

Vol/Sat: 0.18 0.49 0.49 0.09 0.25 0.25 0.08 0.45 0.45 0.19 0.28 0.28
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.949
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 132 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 118 0 281 0 0 0 0 1206 121 225 767 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 138 0 329 0 0 0 0 1411 142 263 897 0
Added Vol: 5 0 22 0 0 0 0 499 4 22 535 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 143 0 351 0 0 0 0 1910 146 285 1432 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 151 0 369 0 0 0 0 2011 153 300 1508 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 151 0 369 0 0 0 0 2011 153 300 1508 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 151 0 369 0 0 0 0 2011 153 300 1508 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.79 0.21 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4460 340 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.09 0.00 0.23 0.00 0.00 0.00 0.00 0.45 0.45 0.19 0.31 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 481 0 41 126 1318 0 0 920 418
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 0 0 0 563 0 48 147 1542 0 0 1076 489
Added Vol: 0 0 0 119 0 53 50 471 0 0 504 116
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 682 0 101 197 2013 0 0 1580 605
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 0 0 0 718 0 0 208 2119 0 0 1664 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 718 0 0 208 2119 0 0 1664 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 718 0 0 208 2119 0 0 1664 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.00 0.13 0.44 0.00 0.00 0.35 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.242
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 2 0 1 1 0 2 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 271 448 98 352 439 36 141 1348 334 201 1062 123
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 317 524 115 412 514 42 165 1577 391 235 1243 144
Added Vol: 100 82 27 209 83 51 78 401 67 65 410 49
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 417 606 142 621 597 93 243 1978 458 300 1653 193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 439 638 149 654 628 98 256 2082 482 316 1740 203
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 439 638 149 654 628 98 256 2082 482 316 1740 203
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 439 638 149 654 628 98 256 2082 482 316 1740 203
OvlAdjVol: 262

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.62 0.38 2.00 1.73 0.27 1.00 3.00 1.00 1.00 2.69 0.31
Final Sat.: 3200 2594 606 3200 2768 432 1600 4800 1600 1600 4298 502

Capacity Analysis Module:

Vol/Sat: 0.14 0.25 0.25 0.20 0.23 0.23 0.16 0.43 0.30 0.20 0.40 0.40
OvlAdjV/S: 0.16
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

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LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 84 0 43 0 0 0 0 0 1592 86 36 1111 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 98 0 50 0 0 0 0 0 1863 101 42 1300 0
Added Vol: 17 0 6 0 0 0 0 0 594 16 6 595 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 115 0 56 0 0 0 0 0 2457 117 48 1895 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 121 0 59 0 0 0 0 0 2586 123 51 1995 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 121 0 59 0 0 0 0 0 2586 123 51 1995 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 121 0 59 0 0 0 0 0 2586 123 51 1995 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.86 0.14 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4582 218 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.08 0.00 0.04 0.00 0.00 0.00 0.00 0.00 0.56 0.56 0.03 0.42 0.00
Crit Moves: \*\*\*\* \*\*\*\*

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LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 OCASA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 105 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 27 23 13 36 19 12 19 1641 37 19 1079 43
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 32 27 15 42 22 14 22 1920 43 22 1262 50
Added Vol: 32 0 9 9 0 32 32 537 32 9 537 9
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 64 27 24 51 22 46 54 2457 75 31 1799 59
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 67 28 25 54 23 48 57 2586 79 33 1894 62
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 67 28 25 54 23 48 57 2586 79 33 1894 62
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 67 28 25 54 23 48 57 2586 79 33 1894 62

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.56 0.23 0.21 0.43 0.19 0.38 1.00 2.91 0.09 1.00 2.90 0.10
Final Sat.: 887 375 338 685 298 617 1600 4657 143 1600 4647 153

Capacity Analysis Module:
Vol/Sat: 0.08 0.08 0.08 0.08 0.08 0.08 0.04 0.56 0.56 0.02 0.41 0.41
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.315
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 176 821 208 156 543 99 149 1282 276 165 864 100
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 206 961 243 183 635 116 174 1500 323 193 1011 117
Added Vol: 117 9 0 5 10 63 62 357 92 12 350 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 323 970 243 188 645 179 236 1857 415 205 1361 117
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 340 1021 256 197 679 188 249 1955 437 216 1433 123
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 340 1021 256 197 679 188 249 1955 437 216 1433 123
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 340 1021 256 197 679 188 249 1955 437 216 1433 123

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.60 0.40 1.00 1.57 0.43 1.00 2.45 0.55 1.00 2.76 0.24
Final Sat.: 1600 2558 642 1600 2506 694 1600 3923 877 1600 4420 380

Capacity Analysis Module:
Vol/Sat: 0.21 0.40 0.40 0.12 0.27 0.27 0.16 0.50 0.50 0.13 0.32 0.32
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

**Mitigated Forecast Year 2035  
With Project Conditions**

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 MEYER RD/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Ignore Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 1 0 1 0 1 1 0 0 0 1 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 18 14 42 231 10 95 47 622 6 15 1120 267  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 21 16 49 270 12 111 55 728 7 18 1310 312  
Added Vol: 32 4 32 18 2 0 0 208 0 15 132 12  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 53 20 81 288 14 111 55 936 7 33 1442 324  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 56 21 85 303 14 0 58 985 7 34 1518 341  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 56 21 85 303 14 0 58 985 7 34 1518 341  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 56 21 85 303 14 0 58 985 7 34 1518 341

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.69 0.31 1.00 1.91 0.09 1.00 1.00 2.98 0.02 1.00 2.45 0.55  
Final Sat.: 1098 502 1600 3055 145 1600 1600 4764 36 1600 3919 881

Capacity Analysis Module:  
Vol/Sat: 0.03 0.04 0.05 0.10 0.10 0.00 0.04 0.21 0.21 0.02 0.39 0.39  
Crit Moves: \*\*\*\* \*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.105  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7  
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:  
Base Vol: 243 578 191 67 865 61 46 627 193 223 988 33  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 284 676 223 78 1012 71 54 734 226 261 1156 39  
Added Vol: 7 1 18 11 1 1 3 253 3 13 168 8  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 291 677 241 89 1013 72 57 987 229 274 1324 47  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 307 713 254 94 1066 76 60 1039 241 288 1394 49  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 307 713 254 94 1066 76 60 1039 241 288 1394 49  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 307 713 254 94 1066 76 60 1039 241 288 1394 49

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 1.87 0.13 1.00 3.00 1.00 1.00 2.90 0.10  
Final Sat.: 1600 3200 1600 1600 2987 213 1600 4800 1600 1600 4637 163

Capacity Analysis Module:  
Vol/Sat: 0.19 0.22 0.16 0.06 0.36 0.36 0.04 0.22 0.15 0.18 0.30 0.30  
Crit Moves: \*\*\*\* \*\*



LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 77 0 178 0 0 0 0 807 84 186 1166 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 90 0 208 0 0 0 0 944 98 218 1364 0
Added Vol: 2 0 11 0 0 0 0 282 3 8 193 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 92 0 219 0 0 0 0 1226 101 226 1557 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 97 0 231 0 0 0 0 1291 107 237 1639 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 97 0 231 0 0 0 0 1291 107 237 1639 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 97 0 231 0 0 0 0 1291 107 237 1639 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.77 0.23 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 4434 366 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.14 0.00 0.00 0.00 0.00 0.29 0.29 0.15 0.34 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted
Rights: Include Ignore Include Ignore
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 435 0 47 75 879 0 0 1257 756
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 0 0 0 509 0 55 88 1028 0 0 1471 885
Added Vol: 0 0 0 43 0 18 27 266 0 0 183 53
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 552 0 73 115 1294 0 0 1654 938
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 581 0 0 121 1363 0 0 1741 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 581 0 0 121 1363 0 0 1741 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 581 0 0 121 1363 0 0 1741 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.00 0.08 0.28 0.00 0.00 0.36 0.00
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.111
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 395 531 74 208 504 32 99 881 317 154 1576 131
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 462 621 87 243 590 37 116 1031 371 180 1844 153
Added Vol: 34 37 13 70 30 18 45 207 39 30 163 22
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 496 658 100 313 620 55 161 1238 410 210 2007 175
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 522 693 105 330 652 58 169 1303 431 221 2113 184
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 522 693 105 330 652 58 169 1303 431 221 2113 184
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 522 693 105 330 652 58 169 1303 431 221 2113 184
OvlAdjVol: 170

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 2.76 0.24
Final Sat.: 3200 3200 1600 3200 3200 1600 1600 4800 1600 1600 4414 386

Capacity Analysis Module:

Vol/Sat: 0.16 0.22 0.07 0.10 0.20 0.04 0.11 0.27 0.27 0.14 0.48 0.48
OvlAdjV/S: 0.11
Crit Moves: \*\*\*\*

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LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 78 0 84 0 0 0 0 0 910 108 51 1612 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 91 0 98 0 0 0 0 0 1065 126 60 1886 0
Added Vol: 8 0 3 0 0 0 0 0 251 7 2 275 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 99 0 101 0 0 0 0 0 1316 133 62 2161 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 104 0 107 0 0 0 0 0 1385 140 65 2275 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 104 0 107 0 0 0 0 0 1385 140 65 2275 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 104 0 107 0 0 0 0 0 1385 140 65 2275 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.27 2.72 0.28 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4358 442 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.07 0.00 0.07 0.00 0.00 0.00 0.00 0.00 0.32 0.32 0.04 0.47 0.00
Crit Moves: \*\*\*\*

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LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 OCASA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.827
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 85 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 68 11 14 55 23 13 18 933 40 15 1621 28
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 80 13 16 64 27 15 21 1092 47 18 1897 33
Added Vol: 15 0 4 4 0 15 13 228 13 4 247 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 95 13 20 68 27 30 34 1320 60 22 2144 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 100 14 21 72 28 32 36 1389 63 23 2256 39
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 100 14 21 72 28 32 36 1389 63 23 2256 39
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 100 14 21 72 28 32 36 1389 63 23 2256 39

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.74 0.10 0.16 0.55 0.21 0.24 1.00 2.87 0.13 1.00 2.95 0.05
Final Sat.: 1184 161 255 872 343 385 1600 4592 208 1600 4719 81

Capacity Analysis Module:
Vol/Sat: 0.08 0.08 0.08 0.08 0.08 0.08 0.02 0.30 0.30 0.01 0.48 0.48
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
MITIGATION AM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.161
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:
Base Vol: 213 432 146 91 680 162 74 752 177 185 1325 69
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 249 505 171 106 796 190 87 880 207 216 1550 81
Added Vol: 55 5 0 2 4 27 27 155 40 5 156 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 304 510 171 108 800 217 114 1035 247 221 1706 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 320 537 180 114 842 228 120 1089 260 233 1796 85
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 320 537 180 114 842 228 120 1089 260 233 1796 85
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 320 537 180 114 842 228 120 1089 260 233 1796 85

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.57 0.43 1.00 3.00 1.00 1.00 2.86 0.14
Final Sat.: 1600 3200 1600 1600 2518 682 1600 4800 1600 1600 4583 217

Capacity Analysis Module:
Vol/Sat: 0.20 0.17 0.11 0.07 0.33 0.33 0.07 0.23 0.16 0.15 0.39 0.39
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 MEYER RD/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 50 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Ignore Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 1 0 1 0 1 1 0 0 1 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 18 28 45 256 28 55 103 1238 17 57 673 211  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 21 33 53 300 33 64 121 1448 20 67 787 247  
Added Vol: 32 4 32 36 5 0 0 358 0 43 383 37  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 53 37 85 336 38 64 121 1806 20 110 1170 284  
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 56 39 89 353 40 0 127 1902 21 115 1232 299  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 56 39 89 353 40 0 127 1902 21 115 1232 299  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 56 39 89 353 40 0 127 1902 21 115 1232 299

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.61 0.42 0.97 1.80 0.20 1.00 1.00 2.97 0.03 1.00 2.41 0.59  
Final Sat.: 973 674 1553 2876 324 1600 1600 4748 52 1600 3863 937

Capacity Analysis Module:  
Vol/Sat: 0.03 0.06 0.06 0.12 0.12 0.00 0.08 0.40 0.40 0.07 0.32 0.32  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #2 VALLEY VIEW AVE/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.200  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7  
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:  
Base Vol: 225 1028 216 95 596 49 99 1072 292 212 617 65  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 263 1203 253 111 697 57 116 1254 342 248 722 76  
Added Vol: 17 2 31 22 2 4 3 437 4 34 471 22  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 280 1205 284 133 699 61 119 1691 346 282 1193 98  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 295 1268 299 140 736 65 125 1780 364 297 1256 103  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 295 1268 299 140 736 65 125 1780 364 297 1256 103  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 295 1268 299 140 736 65 125 1780 364 297 1256 103

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 1.84 0.16 1.00 3.00 1.00 1.00 2.77 0.23  
Final Sat.: 1600 3200 1600 1600 2942 258 1600 4800 1600 1600 4435 365

Capacity Analysis Module:  
Vol/Sat: 0.18 0.40 0.19 0.09 0.25 0.25 0.08 0.37 0.23 0.19 0.28 0.28  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 BIOLA AVE/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.949  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 132 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 118 0 281 0 0 0 0 1206 121 225 767 0  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 138 0 329 0 0 0 0 1411 142 263 897 0  
Added Vol: 5 0 22 0 0 0 0 499 4 22 535 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 143 0 351 0 0 0 0 1910 146 285 1432 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 151 0 369 0 0 0 0 2011 153 300 1508 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 151 0 369 0 0 0 0 2011 153 300 1508 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 151 0 369 0 0 0 0 2011 153 300 1508 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.79 0.21 1.00 3.00 0.00  
Final Sat.: 1600 0 1600 0 0 0 0 4460 340 1600 4800 0

Capacity Analysis Module:

Vol/Sat: 0.09 0.00 0.23 0.00 0.00 0.00 0.00 0.45 0.45 0.19 0.31 0.00  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 TELEGRAPH RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781  
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Permitted Permitted  
Rights: Include Ignore Include Ignore  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 3 0 0 0 0 3 0 1

Volume Module:

Base Vol: 0 0 0 481 0 41 126 1318 0 0 920 418  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 0 0 0 563 0 48 147 1542 0 0 1076 489  
Added Vol: 0 0 0 119 0 53 50 471 0 0 504 116  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 682 0 101 197 2013 0 0 1580 605  
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.00  
PHF Volume: 0 0 0 718 0 0 208 2119 0 0 1664 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 718 0 0 208 2119 0 0 1664 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00  
FinalVolume: 0 0 0 718 0 0 208 2119 0 0 1664 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 3.00 0.00 0.00 3.00 1.00  
Final Sat.: 0 0 0 3200 0 1600 1600 4800 0 0 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.22 0.00 0.00 0.13 0.44 0.00 0.00 0.35 0.00  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 LA MIRADA BLVD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 1.195
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 3 0 1 1 0 2 1 0

Volume Module:

Base Vol: 271 448 98 352 439 36 141 1348 334 201 1062 123
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 317 524 115 412 514 42 165 1577 391 235 1243 144
Added Vol: 100 82 27 209 83 51 78 401 67 65 410 49
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 417 606 142 621 597 93 243 1978 458 300 1653 193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 439 638 149 654 628 98 256 2082 482 316 1740 203
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 439 638 149 654 628 98 256 2082 482 316 1740 203
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 439 638 149 654 628 98 256 2082 482 316 1740 203
OvlAdjVol: 262

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 2.69 0.31
Final Sat.: 3200 3200 1600 3200 3200 1600 1600 4800 1600 1600 4298 502

Capacity Analysis Module:
Vol/Sat: 0.14 0.20 0.09 0.20 0.20 0.06 0.16 0.43 0.30 0.20 0.40 0.40
OvlAdjV/S: 0.16
Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

LA MIRADA (10107116)
Long Range With Project
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 CORDOVA RD/IMPERIAL HWY

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 7 7 7 7 7 7 7 7
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 1 0 1 0 3 0 0

Volume Module:

Base Vol: 84 0 43 0 0 0 0 0 1592 86 36 1111 0
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17
Initial Bse: 98 0 50 0 0 0 0 0 1863 101 42 1300 0
Added Vol: 17 0 6 0 0 0 0 0 594 16 6 595 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 115 0 56 0 0 0 0 0 2457 117 48 1895 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 121 0 59 0 0 0 0 0 2586 123 51 1995 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 121 0 59 0 0 0 0 0 2586 123 51 1995 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 121 0 59 0 0 0 0 0 2586 123 51 1995 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.86 0.14 1.00 3.00 0.00
Final Sat.: 1600 0 1600 0 0 0 0 0 4582 218 1600 4800 0

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.04 0.00 0.00 0.00 0.00 0.00 0.56 0.56 0.03 0.42 0.00
Crit Moves: \*\*\*\* \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #7 OCASA AVE/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.890  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 105 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 2 1 0 1 0 2 1 0

Volume Module:  
Base Vol: 27 23 13 36 19 12 19 1641 37 19 1079 43  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 32 27 15 42 22 14 22 1920 43 22 1262 50  
Added Vol: 32 0 9 9 0 32 32 537 32 9 537 9  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 64 27 24 51 22 46 54 2457 75 31 1799 59  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 67 28 25 54 23 48 57 2586 79 33 1894 62  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 67 28 25 54 23 48 57 2586 79 33 1894 62  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 67 28 25 54 23 48 57 2586 79 33 1894 62

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.56 0.23 0.21 0.43 0.19 0.38 1.00 2.91 0.09 1.00 2.90 0.10  
Final Sat.: 887 375 338 685 298 617 1600 4657 143 1600 4647 153

Capacity Analysis Module:  
Vol/Sat: 0.08 0.08 0.08 0.08 0.08 0.08 0.04 0.56 0.56 0.02 0.41 0.41  
Crit Moves: \*\*\*\*

LA MIRADA (10107116)  
Long Range With Project  
MITIGATION PM Conditions

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #8 SANTA GERTRUDES AVE/IMPERIAL HWY  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 1.186  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 7 7 7 7 7 7 7 7 7 7 7 7  
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 3 0 1 1 0 2 1 0

Volume Module:  
Base Vol: 176 821 208 156 543 99 149 1282 276 165 864 100  
Growth Adj: 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17  
Initial Bse: 206 961 243 183 635 116 174 1500 323 193 1011 117  
Added Vol: 117 9 0 5 10 63 62 357 92 12 350 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 323 970 243 188 645 179 236 1857 415 205 1361 117  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 340 1021 256 197 679 188 249 1955 437 216 1433 123  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 340 1021 256 197 679 188 249 1955 437 216 1433 123  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 340 1021 256 197 679 188 249 1955 437 216 1433 123

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 1.00 1.00 1.57 0.43 1.00 3.00 1.00 1.00 2.76 0.24  
Final Sat.: 1600 3200 1600 1600 2506 694 1600 4800 1600 1600 4420 380

Capacity Analysis Module:  
Vol/Sat: 0.21 0.32 0.16 0.12 0.27 0.27 0.16 0.41 0.27 0.13 0.32 0.32  
Crit Moves: \*\*\*\*

**APPENDIX C**  
**Existing Transit Routes**



# Weekday Service

Servicio Entre Semana

## To Beach via Metrolink Station

GREEN LINE STATION	IMPERIAL/NORWALK	METROLINK STATION	IMPERIAL/SANTA GERTRUDES	IMPERIAL/BEACH	IMPERIAL/IDAHO
1	2	3	4	5	6
-	-	4:10	4:20	4:24	4:35
-	-	5:05	5:15	5:19	5:25
-	-	5:24	5:34	5:38	5:49
5:31	5:41	5:50	6:00	6:04	6:23
5:53	6:03	6:12	6:22	6:26	6:37
6:09	6:19	6:32	6:43	6:47	7:07
6:23	6:33	6:38	-	-	-
6:37	6:47	6:56	7:06	7:10	7:23
6:59	7:09	7:14	-	-	-
7:13	7:23	7:36	7:47	7:51	8:02
7:21	7:36	7:49	8:00	8:04	8:22
7:43	7:58	8:03	-	-	-
7:56	8:11	8:23	8:33	8:37	8:51
8:11	8:26	8:35	8:45	8:49	8:56
8:48	9:03	9:15	9:25	9:29	9:40
9:14	9:29	9:38	9:48	9:52	10:03
9:40	9:50	9:59	10:09	10:13	10:25
10:26	10:36	10:45	10:55	10:59	11:10
10:47	10:57	11:06	11:16	11:20	11:31
11:10	11:20	11:30	11:40	11:44	<b>12:00</b>
11:57	<b>12:07</b>	<b>12:16</b>	<b>12:26</b>	<b>12:30</b>	<b>12:41</b>
<b>12:16</b>	<b>12:26</b>	<b>12:35</b>	<b>12:45</b>	<b>12:49</b>	<b>1:00</b>
<b>12:46</b>	<b>12:56</b>	<b>1:11</b>	<b>1:22</b>	<b>1:26</b>	<b>1:40</b>
1:25	1:40	1:49	2:00	2:04	2:15
1:46	2:01	2:11	2:22	2:26	2:43
2:16	2:31	2:41	2:52	2:56	3:07
2:28	2:43	2:52	3:03	3:07	3:25
2:48	3:03	3:08	-	-	-
3:00	3:15	3:27	3:38	3:42	3:54
3:28	3:43	3:54	4:05	4:09	4:22
3:38	3:53	3:58	-	-	-
3:51	4:06	4:19	4:30	4:34	4:51
4:16	4:31	4:46	4:57	5:01	5:15
4:29	4:44	4:49	-	-	-
4:46	5:01	5:16	5:27	5:31	5:40
5:09	5:24	5:34	5:45	5:49	6:03
5:22	5:37	5:42	-	-	-
5:39	5:54	6:09	6:20	6:24	6:39
6:01	6:16	6:25	6:36	6:40	6:51
6:26	6:41	6:56	7:06	7:10	7:24
6:49	6:59	7:10	7:20	7:24	7:35
7:24	7:34	7:43	7:53	7:57	8:10
7:40	7:50	7:59	8:09	8:13	8:24
8:17	8:27	8:38	8:48	8:52	9:13
8:55	9:05	9:10	-	-	-
9:29	9:39	9:44	-	-	-
10:19	10:29	10:34	-	-	-
10:30	10:40	10:45	-	-	-
11:20	11:30	11:35	-	-	-
11:30	11:40	11:45	-	-	-

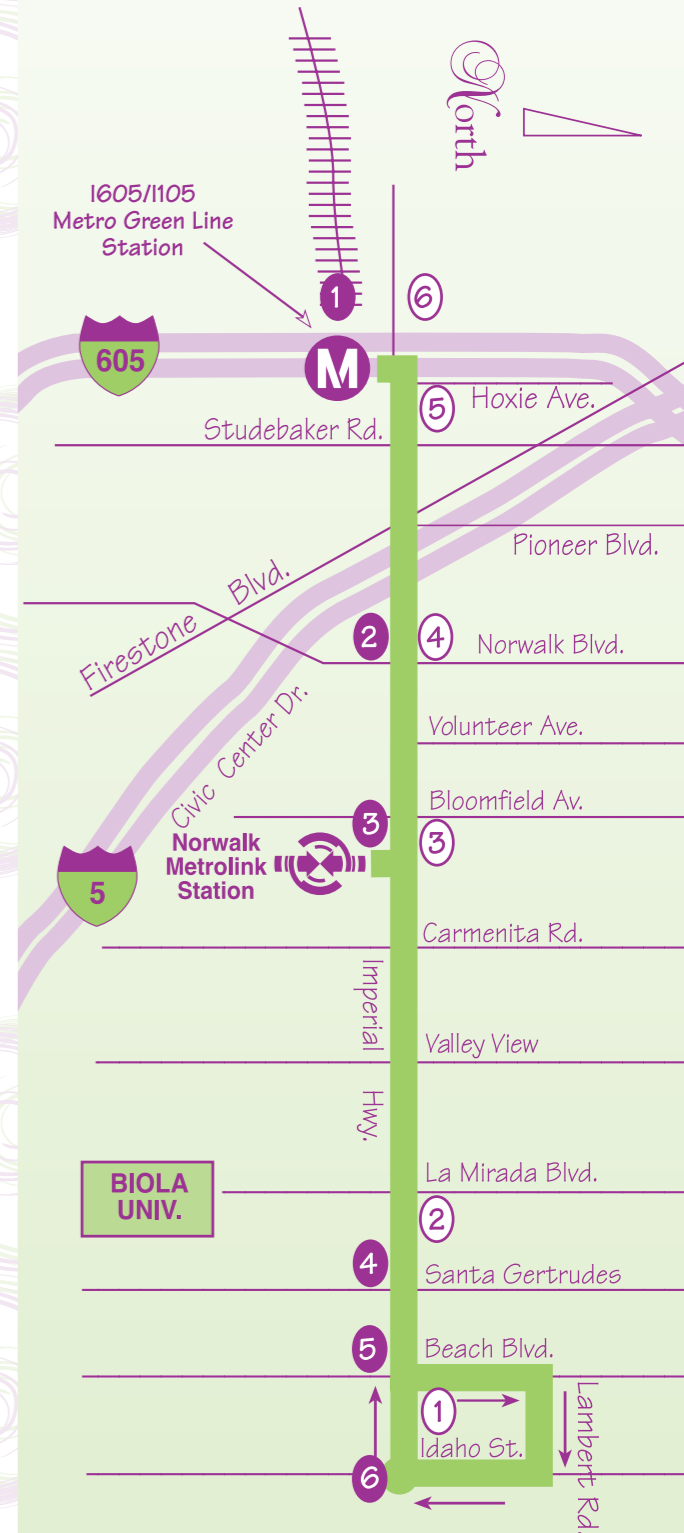
## To Hoxie via Metrolink Station

IMPERIAL/IDAHO	IMPERIAL/SANTA GERTRUDES	METROLINK STATION	NORWALK/IMPERIAL	IMPERIAL/FIRESTONE	GREEN LINE STATION
1	2	3	4	5	6
4:35	4:41	5:10	5:13	5:18	5:25
-	-	5:34	5:37	5:42	5:47
5:25	5:31	5:50	5:53	5:58	6:05
5:49	5:55	6:18	6:21	6:26	6:33
-	-	6:40	6:43	6:48	6:55
6:23	6:29	6:55	6:58	7:03	7:10
6:37	6:43	7:02	7:06	7:11	7:18
-	-	7:25	7:29	7:34	7:41
7:07	7:13	7:38	7:42	7:47	7:54
7:23	7:29	7:54	7:56	8:01	8:08
8:02	8:08	8:28	8:32	8:37	8:44
8:22	8:28	8:53	8:57	9:02	9:09
8:51	8:57	9:23	9:27	9:32	9:39
8:56	9:02	9:16	-	-	-
9:40	9:46	10:04	10:08	10:13	10:20
10:03	10:09	10:27	10:31	10:36	10:43
10:25	10:31	10:49	10:53	10:58	11:05
11:10	11:16	11:36	11:40	11:45	11:52
11:31	11:37	11:55	11:59	<b>12:04</b>	<b>12:11</b>
<b>12:00</b>	<b>12:06</b>	<b>12:24</b>	<b>12:28</b>	<b>12:33</b>	<b>12:40</b>
<b>12:41</b>	<b>12:47</b>	<b>1:05</b>	<b>1:09</b>	<b>1:14</b>	<b>1:21</b>
1:00	1:06	1:25	1:29	1:34	1:41
-	-	1:54	1:58	2:03	2:10
1:40	1:46	2:07	2:11	2:16	2:23
2:15	2:21	2:40	2:44	2:49	2:56
2:43	2:49	3:08	3:12	3:17	3:24
-	-	3:18	3:22	3:27	3:34
3:07	3:13	3:34	3:38	3:43	3:50
3:25	3:31	3:54	3:58	4:03	4:10
-	-	4:08	4:12	4:17	4:24
3:54	4:00	4:23	4:27	4:32	4:39
4:22	4:28	4:48	4:52	4:57	5:04
-	-	5:02	5:06	5:11	5:18
4:51	4:57	5:20	5:24	5:29	5:36
5:15	5:21	5:41	5:45	5:50	5:57
5:40	5:46	6:08	6:12	6:17	6:24
6:03	6:09	6:28	6:32	6:37	6:44
6:39	6:45	7:04	7:07	7:12	7:19
6:51	6:57	7:20	7:23	7:28	7:35
7:24	7:30	7:45	-	-	-
7:35	7:41	7:57	8:00	8:05	8:12
8:10	8:16	8:35	8:38	8:43	8:50
8:24	8:30	9:09	9:12	9:17	9:24
9:13	9:19	9:59	10:02	10:07	10:14
-	-	10:10	10:13	10:18	10:25
-	-	11:00	11:03	11:08	11:15
-	-	11:10	11:13	11:18	11:25

PM times are indicated in bold.  
(Horas después del medio día aparecen con números resaltados)

## Route 4

Ruta 4

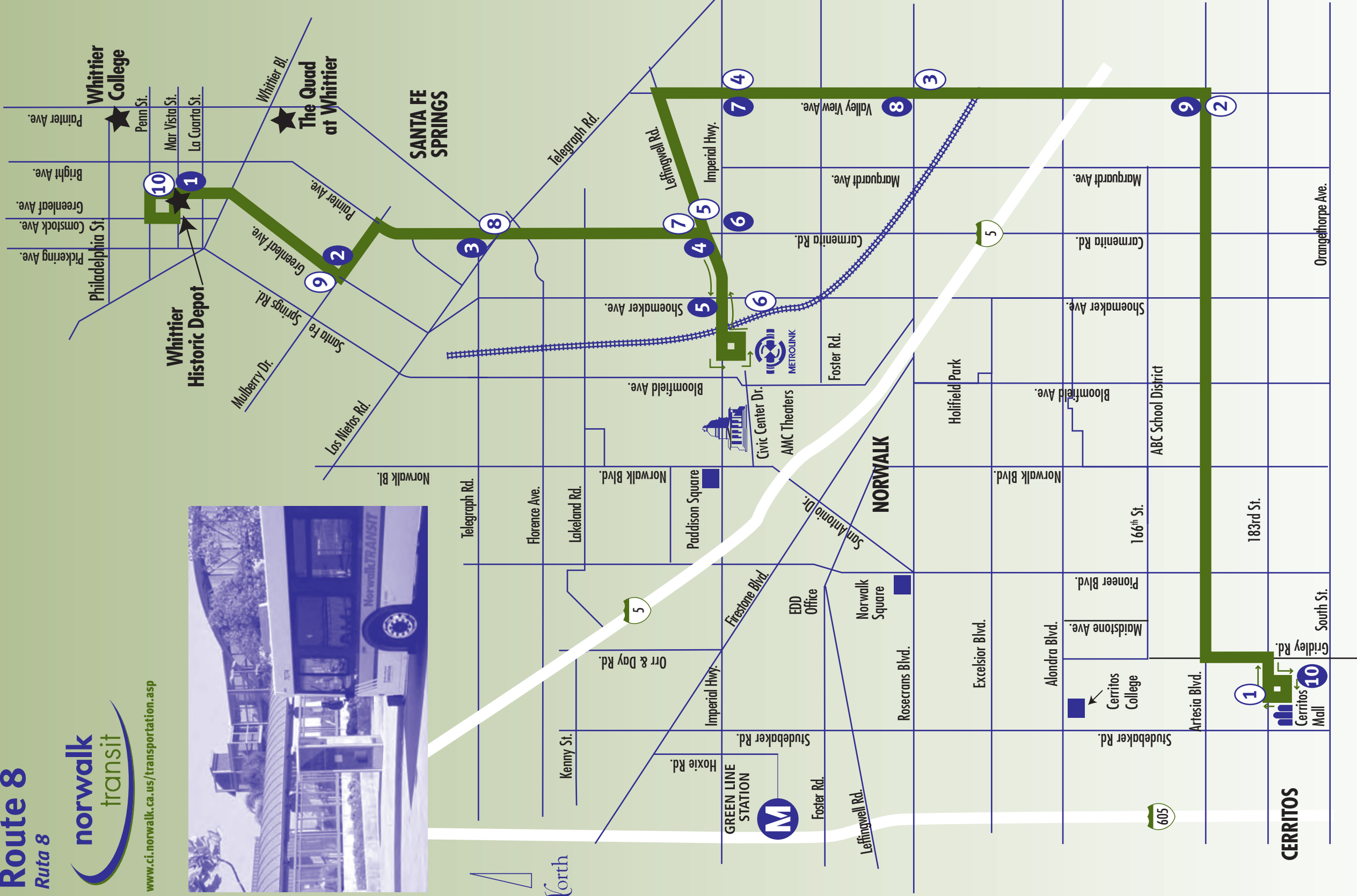
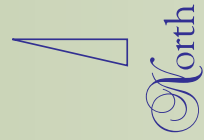


# Route 8

Ruta 8



[www.ci.norwalk.ca.us/transportation.asp](http://www.ci.norwalk.ca.us/transportation.asp)



# ROUTES

**LINE 10**  
**Atlantic Blvd. and Whittier Blvd.**  
 Operates seven days a week.  
 Weekdays: Operates every 6-15 minutes. Early morning and evening service operate every 20-30 minutes. Selected trips to and from Whittwood Mall operate every 15-30 minutes with early morning and evening service every 30-65 minutes. Last bus departs from ELAC to Pico Rivera at 11:05 PM and Whittwood Mall to Montebello at 10:16 PM.  
 Saturdays: Operates every 10-15 minutes. Early morning and evening service operate every 15-30 minutes. Selected trips to and from Whittwood Mall operate every 20 minutes with early morning and evening service every 30-60 minutes. Last bus departs from ELAC to Pico Rivera at 11:05 PM and Whittwood Mall to Garfield at 9:12 PM.  
 Sundays: Operates every 10-15 minutes. Early morning and evening service operate every 20-30 minutes. Selected trips to and from Whittwood Mall operate every 20-30 minutes with early morning and evening service every 30-60 minutes. Last bus departs from ELAC to Pico Rivera at 11:00 PM and Whittwood Mall to Garfield at 9:16 PM.

**LINE 20**  
**San Gabriel Blvd. and Montebello Blvd.**  
 Operates seven days a week.  
 Weekdays: Operates every 15 minutes. Evening service operates every 20-30 minutes. Selected trips to and from San Gabriel & Las Tunas operates every 30 minutes. Last bus to San Gabriel & Las Tunas departs from Telegraph and Gage at 9:40 PM and last southbound bus departs from San Gabriel and Las Tunas to Telegraph & Gage at 10:20 PM.  
 Weekends: Operates every 15 minutes. Evening service operates every 20-30 minutes. Service to and from San Gabriel & Las Tunas will not be provided. Last northbound bus departs from Telegraph & Gage at 10:08 PM and last southbound bus departs from San Gabriel & Garvey at 10:36 PM.

**LINE 30**  
**Garfield Ave.**  
 Operates seven days a week.  
 Weekdays: Operates every 45 minutes. Late evening service operates every 55 minutes. Last bus departs from Huntington Dr. at 10:05 PM and from Firestone Blvd. at 10:10 PM.  
 Weekends: Operates every 60 minutes. Last bus departs from Huntington Dr. at 10:30 PM and from Firestone Blvd. at 10:30 PM.

**LINE 40**  
**Beverly Blvd.**  
 Operates seven days a week.  
 Weekdays: Operates every 9-12 minutes. Early morning and evening service operates every 15-20 minutes. Selected trips to and from Norwalk Blvd. operate every 20-30 minutes. Last Beverly & Norwalk bus departs from Downtown LA at 9:50 PM, and westbound from Beverly & Norwalk at 8:33 PM.  
 Weekends: Operates every 15 minutes from Beverly Hospital to Downtown LA, and selected trips to and from Norwalk Blvd. operate every 30 minutes. Last Beverly & Norwalk bus departs from Downtown LA at 10:01 PM, and westbound from Beverly & Norwalk at 8:34 PM.

**LINE 50**  
**Washington Blvd.**  
 Operates Monday-Saturday.  
 Weekdays: Operates every 30-35 minutes. Operates every 50-55 minutes during late night service. Last bus departs from Downtown LA to Montebello at 10:20 PM and from the City of La Mirada to Montebello at 9:31 PM.  
 Saturday: Operates every 60 minutes. Last bus departs from Downtown LA to Montebello at 10:50 PM and from City of La Mirada to Montebello at 9:50 PM.

**LINE 60**  
**Passons Ave.**  
 Operates Monday-Saturday.  
 Weekdays: Operates every 35 minutes, early morning and evening service operates every 70 minutes. Last bus departs from San Gabriel River Pkwy. at 9:03 PM and from Telegraph Rd. at 9:40 PM.  
 Saturday: Operates every 70 minutes. Last bus departs from San Gabriel River Pkwy. at 9:03 PM and from Telegraph Rd. at 9:40 PM.

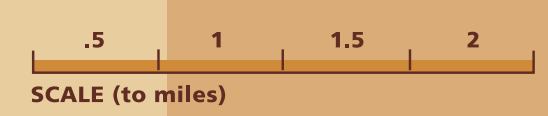
**LINE 70**  
**Via Campo / Wilcox Ave. / Mines Ave.**  
 Operates Monday-Friday.  
 Weekdays: Operates every 30 minutes. Last bus departs from Town Center at 6:30 PM and from Mines & Greenwood at 6:00 PM.

**EXPRESS 341**  
**Taylor Ranch Express**  
 Operates Monday-Friday.  
 Weekdays: Departs Taylor Ranch to Downtown LA at 6:25 AM, 6:45 AM, 7:05 AM, 7:30 AM, and 7:50 AM, 3:05 PM, 4:05 PM, 4:25 PM, 4:45 PM, and 5:41 PM.  
 Departs Downtown LA to Taylor Ranch at 7:10 AM, 8:15 AM, 8:35 AM, 3:50 PM, 5:10 PM, 5:30 PM and 6:26 PM.

**EXPRESS 342**  
**Norwalk Blvd. Express**  
 Operates Monday-Friday.  
 Weekdays: Departs Norwalk Blvd. to Downtown LA at 5:53 AM.  
 Departs from Downtown LA to Norwalk at 4:25 PM and 4:50 PM.

# LEGEND

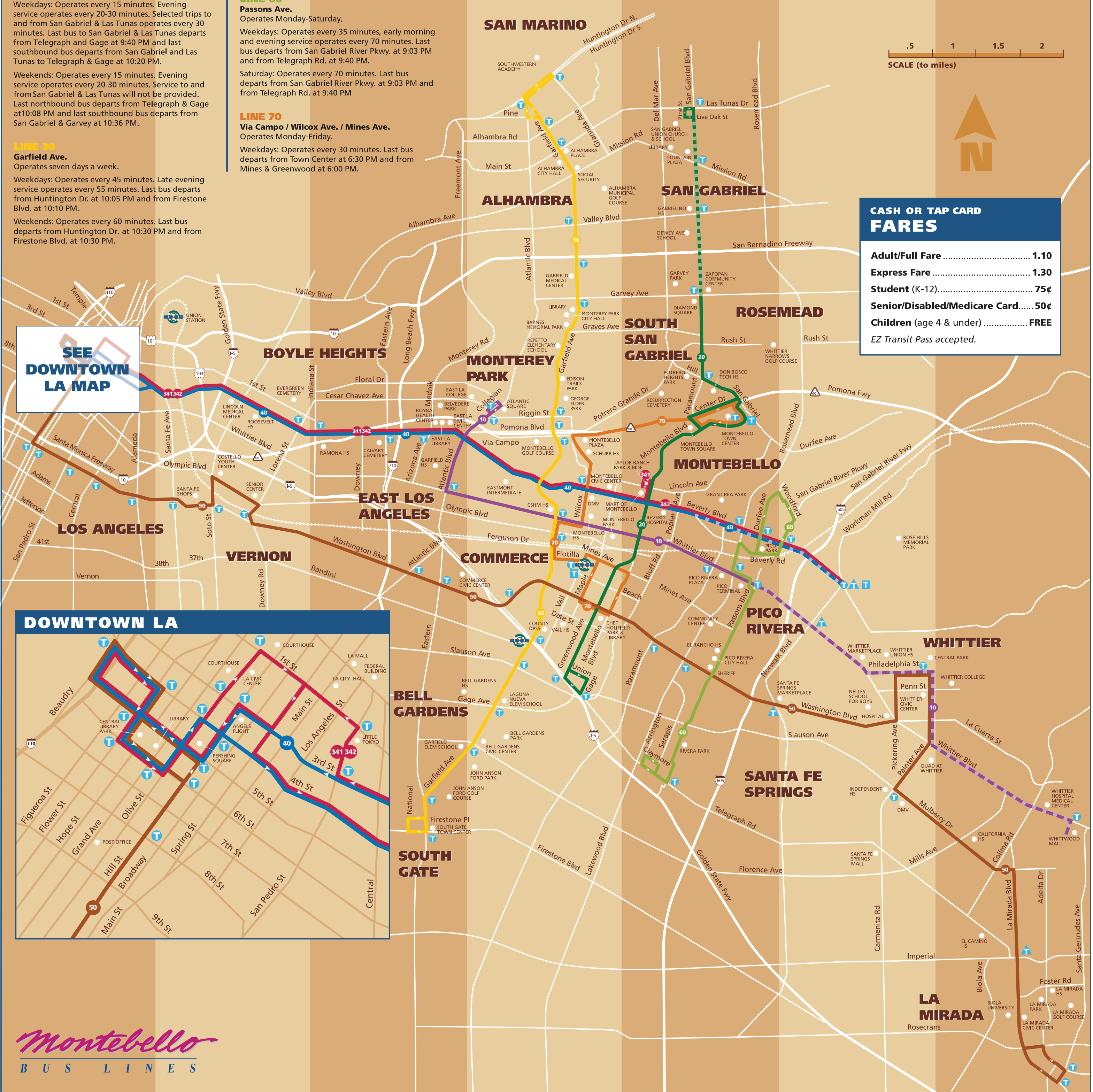
- Line 10
- Line 20
- Line 30
- Line 40
- Line 50
- Line 60
- Line 70
- Express Lines
- T Transfer Point to MTA Routes
- T Transfer Point to Foothill Transit Routes
- T Transfer Point to Norwalk Transit Routes
- T Metrolink Station
- Points of Interest



**CASH OR TAP CARD FARES**

Adult/Full Fare	1.10
Express Fare	1.30
Student (K-12)	75¢
Senior/Disabled/Medicare Card	50¢
Children (age 4 & under)	FREE

EZ Transit Pass accepted.



**SEE DOWNTOWN LA MAP**



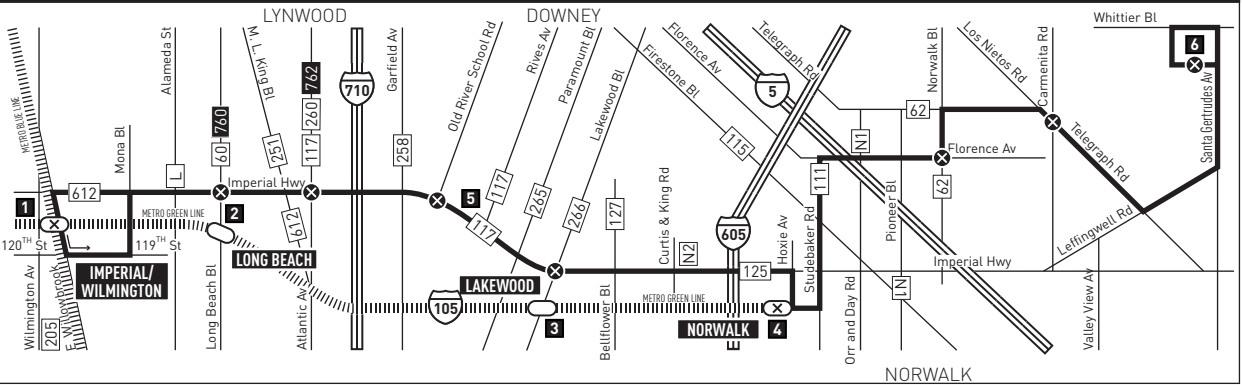
# Holiday Schedule

# Horario de dias feriados

Sunday & Holiday schedule will operate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Se usara horario del domingo y dias feriados para New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day.

## ROUTE MAP



## MAP NOTES

- 1 Imperial/Wilmington Station**  
Metro Bus Lines 55, 120, 202, 205, 305, 355, 612, 753; DASH Watts, Hahn Trolley
- 2 Long Beach Green Line Station**  
Metro Bus Lines 60, 251, 760; Lynwood Trolley A
- 3 Lakewood Green Line Station**  
Metro Bus Lines 117, 265, 266
- 4 Norwalk Green Line Station**  
Metro Bus Lines 111, 115, 121, 125, 270, 460, 577; N2, 4, 5; LB 172, 173
- 5 Rancho Los Amigos Medical Center**
- 6 Whittwood Mall**

## LEGEND

- Route of Line 121
- ⊗ Timepoint
- ⊗ Metro Rail Station Timepoint
- ▤ Metro Rail (Green Line)
- Metro Rail Station
- Connecting Line
- N Norwalk Transit
- L Lynwood Trolley
- LB Long Beach Transit