PRESENTATION

University Avenue Mobility Study

prepared for

April 26, 2011

DAVID EVANS AND ASSOCIATES INC.

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

PARTERRE

Outline

- Introduction
- Review of Action Items
- Community Walk Audits Summary
- Mobility Assessment
- Draft Measures of Effectiveness
- Potential Design Solutions
  - Guidelines
  - Concepts
- Community Workshop – May 16, 2011
- Next Working Group Meeting – June 16, 2011

Technical Team Introduction

- Thomas Landre – City of SD PM
- Oscar Valdivieso – City of SD
- Tracy Reed – City Redevelopment
- Bill Darnell – Darnell & Assoc. Inc, Traffic
- Lewis Michaelson – Katz and Associates
- Tricia McColl – David Evans (DEA), Civil Engineer
- Lili O'Connor – Parterre, Landscape Architect

Working Group Introduction

- Laura Riebau – EACPC
- Jody Talbott – CNF
- Betty White – RPCC
- Lee Rittiner – RPCC/EACPC
- Jeannette Maxwell – Crossroads PAC BOD
- Jim Stone – Walk San Diego
- Jennifer Finnegan – College Area BID
- Anna Orzei-Arnita – Redwood Village CC
- Jim Bartell – Northgate Markets
- Mario Ingrasci – Crossroads Rolando Eastern Area

Input form the Community Workshop

- 54th Street to 58th Street
  - 54th Street is not safe for pedestrians
  - High volume of children and elderly pedestrians
  - Free right turn encourages speeding
  - Intersections are very wide
  - Intersections are too far apart
  - J-walking east of 54th Street
  - Sight distance is poor on the north side of the street
  - Median island is not complete
  - Median landscaping is needed
  - Chollas Intersection is not safe
  - The skewed angle limits visibility
  - The stop signs are not effective

Input form the Community Workshop

- 58th Street to College Avenue
  - No sidewalk on the north side
  - No steps or ramp across from University Square
  - Bus stop waiting area is too small
  - Pedestrian timing seems too short
  - Limited number of pedestrian crossings over long distances
  - Semi Trucks and Trailers park on the street
  - Need left turn signal at 58th Street
  - Missing sidewalk east of 60th Street
  - Obstructions in the sidewalks east of 60th Street
  - Steep driveways east of 60th Street
  - Need left turn signal at 58th

Input form the Community Workshop

- College Avenue to Bonillo
  - Missing sidewalk
  - Parking lots and drive aisles in the public right of way
  - On street parking is needed for businesses
  - Sometimes there is spill over of parking into the community
  - Need wider sidewalks in commercial areas
  - Drainage Improvements needed at Bonillo Drive
  - Drainage improvements needed at Cartagena Boulevard
  - Cars back out onto University Avenue in some locations
  - Driveways are very close together

Input form the Community Workshop

- Bonillo Drive to Aragon Drive
  - Missing sidewalk
  - Parking lots and drive aisles in the public right of way
  - On street parking is needed for businesses
  - Drainage Improvements needed at Rolando Boulevard
  - Cars back out onto University Avenue in some locations
  - Driveways are very close together on the north side of the street

Input form the Community Workshop

- Aragon Drive to 69th Street
  - Improvements at Kroc Center are in good condition
  - Median and Landscaping is in good condition
  - Staging Buses cause sight distance problem at 69th Street
  - Drainage improvements needed at Alamo Drive
  - Parking lots and drive aisles in the public right of way
  - On street parking is needed for businesses
  - Drainage Improvements needed at Rolando Boulevard
  - Cars back out onto University Avenue in some locations
  - Driveways are very close together on the north side of the street

Walk Audit Results

- Walk Audit Summary
  - Pedestrian Safety – Poor at 54th, Bonillo to Aragon, Aragon to 69th
  - Bicycle Facilities – Poor
  - Transit – Poor at 54th and Bonillo to Aragon
  - Potential to reduce on street parking west of College
  - Need for dedicated bike lanes
  - Street trees 54th Street and east of Bonillo
  - Consolidate driveways east of Bonillo
  - Free rights create a conflict

Mobility Assessment

- Questions

Mobility Assessment

Summary 2030 Conditions

- Vehicular Traffic increase – 24%
  Pedestrian Traffic – 25% increase
- Bicycle Traffic – 25% increase
- Transit Ridership – 19% increase

Mobility Assessment

- 4 lane major roadway
- Future condition dual left turns at College Avenue
- Future Conditions dual left turns at 54th Street if Chollas Parkway is closed
- Chollas Parkway intersection
  - Close to through traffic
  - Realign with signalized Tee Intersection
- Surface improvements to be ADA compliant
- Traffic Signals to be ADA compliant
- Mid block cross walks don't meet warrants
- Striped cross walks at non-signalized intersections don't meet City Council Policy

Mobility Assessment

- Sidewalks – 10 feet preferred – ADA
- Crosswalk – 10 feet minimum
- Two ramps per corner preferred
- Bike Lanes – Planned
- Transit – Improve Shelters and Access
- Parking – Maintain some street parking East of College

Draft Measures of Effectiveness

Pedestrian
Walkability
Sidewalk Accessibility
Crosswalks
Potential Vehicle/Pedestrian Conflicts at intersections
Potential Vehicle/Pedestrian Conflicts at Mid-Block Locations
Pedestrian Safety
Transit
Transit Access
Transit Amenities
Bicycle Facilities
Potential Vehicle/Bicycle Conflicts at intersections
Potential Vehicle/Bicycle Conflicts at Mid-Block Locations
Other
Aesthetics
Parking

Draft Measures of Effectiveness

Engineering

Roadway Level of Service (Volume to Capacity Ratio)
Intersection Level of Service (Volume to Capacity Ratio)
Intersection Delay
Passenger Vehicle Travel Time
Corridor Delay
Parking Capacity Change
Parking Maneuver/Traffic Flow Conflicts
Storm Drainage
Stormwater management
Compliance with City Design Standards
Right of Way Impacts
Environmental Impacts
Maintenance
Liability

Design Solutions

- City of San Diego Street Design Manual
- ADA Guidelines for Access and Signals
- Street Lighting Standards
- San Diego Regional Standards
- No Additional City Maintenance Budget
  - Landscaping
  - Ladder Crosswalks
  - Street Furnishings
  - Decorative Pavement
- No Right of Way Acquisition

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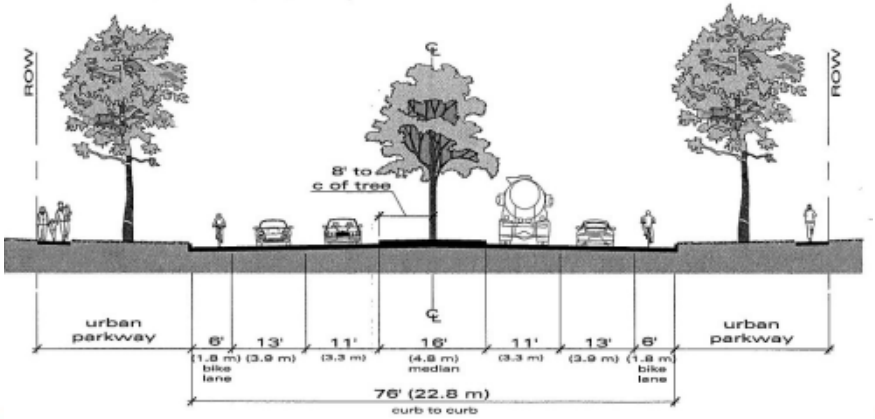
Four Lane Major

Width, Right-of-Way		120 ft. (36.0 m)
Design ADT	LOS C LOS D	30,000 35,000
Design Speed		55 mph (90 km/h)
Width (includes bike lanes and 16 ft. (4.8 m) raised center median), **Curb-to-Curb**[1,2]		76 ft. (22.8 m)
Maximum Grade		7%
Minimum Curve Radius		1,850 ft. (585 m) with no superelevation 1,350 ft. (430 m) with 2% (min.) superelevation 880 ft. (275 m) with 10% (max.) superelevation
Land Use		Single Dwelling Residential-no front or side yards; Multiple Dwelling Residential-no front or side yards; Community Commercial-no front yards; Regional Commercial; Commercial Office; Visitor Commercial; Church; Public Building; Industrial; Open Space
Parkway		U-4 (b)

[1] Widen additional 10 ft. (3.0 m) at approaches to intersecting four-or-six-lane streets to provide a minimum of 250 ft. (75 m) of two-lane left-turn storage, exclusive of transitions. Receiving lanes for dual lefts shall be 12 ft. (3.6 m) wide. In instances where supporting information exists, such as an approved traffic impact study, showing clearly that dual left-turn lanes would not be warranted, the standard curb-to-curb width may be permitted.

[2] At intersections, a minimum 6 ft. (1.8 m) wide refuge island shall be maintained in the center median.



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Four Lane Urban Major

Width, Right-of-Way		118 ft. (35.6 m) - 130 ft. (39.0 m)
Design ADT	LOS C LOS D	30,000 35,000
Design Speed		45 mph (70 km/h)
Width (includes bike lanes and 16 ft. (4.8 m) raised center median), **Curb-to-Curb**[1,2]		90 ft. (27.0 m)
Maximum Grade		7%
Minimum Curve Radius		1,090 ft. (325 m) with no superelevation 830 ft. (245 m) with 2% (min.) superelevation 660 ft. (195 m) with 6% (max.) superelevation
Land Use		Single Dwelling Residential-no front or side yards; Multiple Dwelling Residential-no front or side yards; Neighborhood Commercial; Community Commercial; Regional Commercial; Commercial Office; Visitor Commercial; School (high school and above); Church; Public Building; Urban Village Commercial Retail; Industrial
Parkway Options		U-4 (a); U-5 (a,b); U-6 (a,b)

NOTE: Four-Lane Urban Major street classification is applicable to streets of limited length, where intersections are closely spaced, where there is extensive driveway access, or in other situations where the speed is expected to be less 45 mph (70 km/h) or less.

[1] Widen additional 10 ft. (3.0 m) at approaches to intersecting four- or six-lane streets to provide a minimum of 250 ft. (75 m) of two-lane left-turn storage, exclusive of transitions. Receiving lanes for dual lefts shall be 12 ft. (3.6 m) wide. In instances where supporting information exists, such as an approved traffic impact study, showing clearly that dual left-turn lanes would not be warranted, the standard curb-to-curb width may be permitted.

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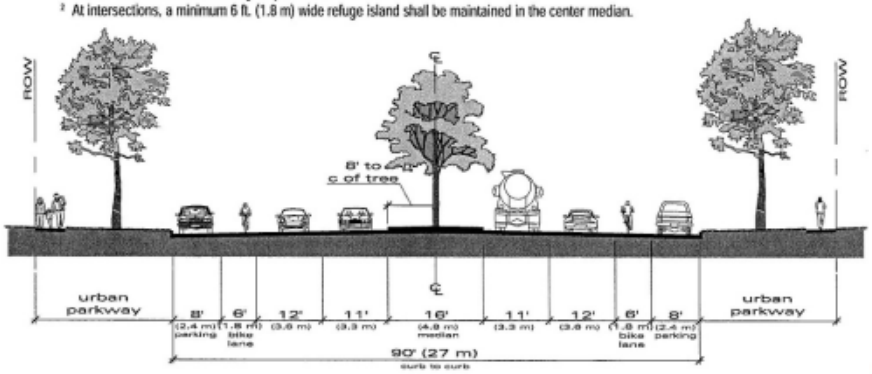

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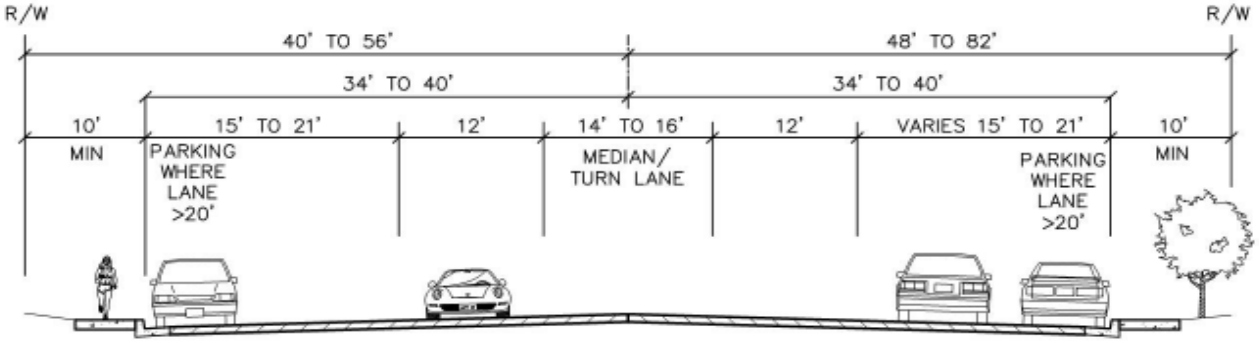
Cross Sections

54th Street to 58th Street



EXISTING CONDITIONS

NO SCALE

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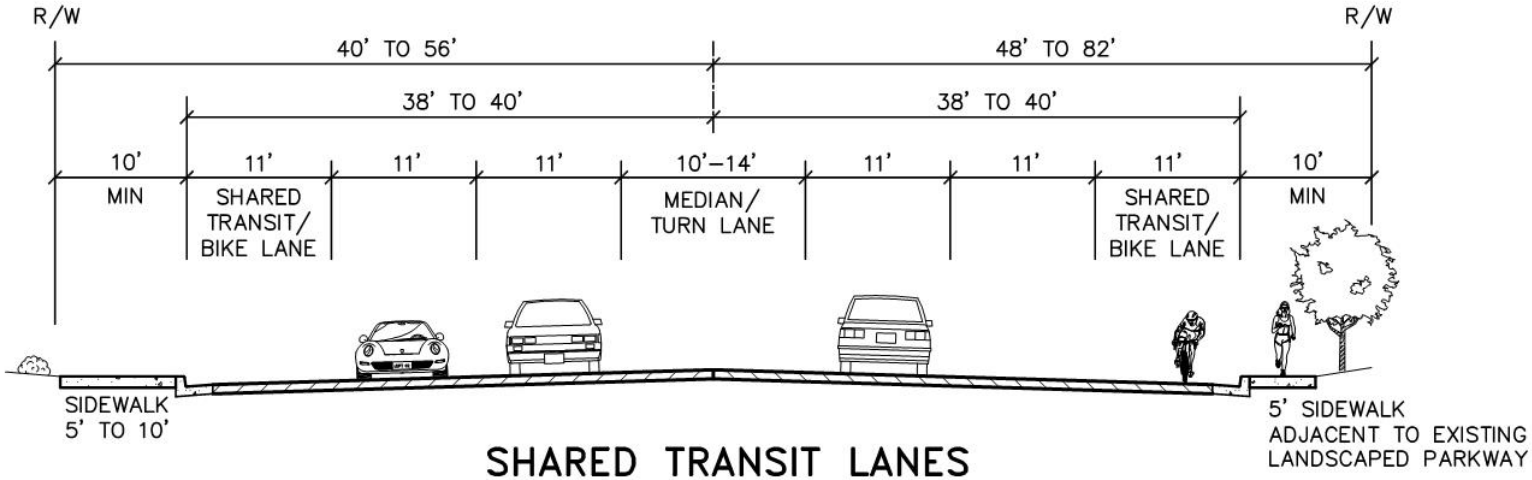
Cross Sections

54th Street to 58th Street



SHARED TRANSIT LANES & NO PARKING

NO SCALE

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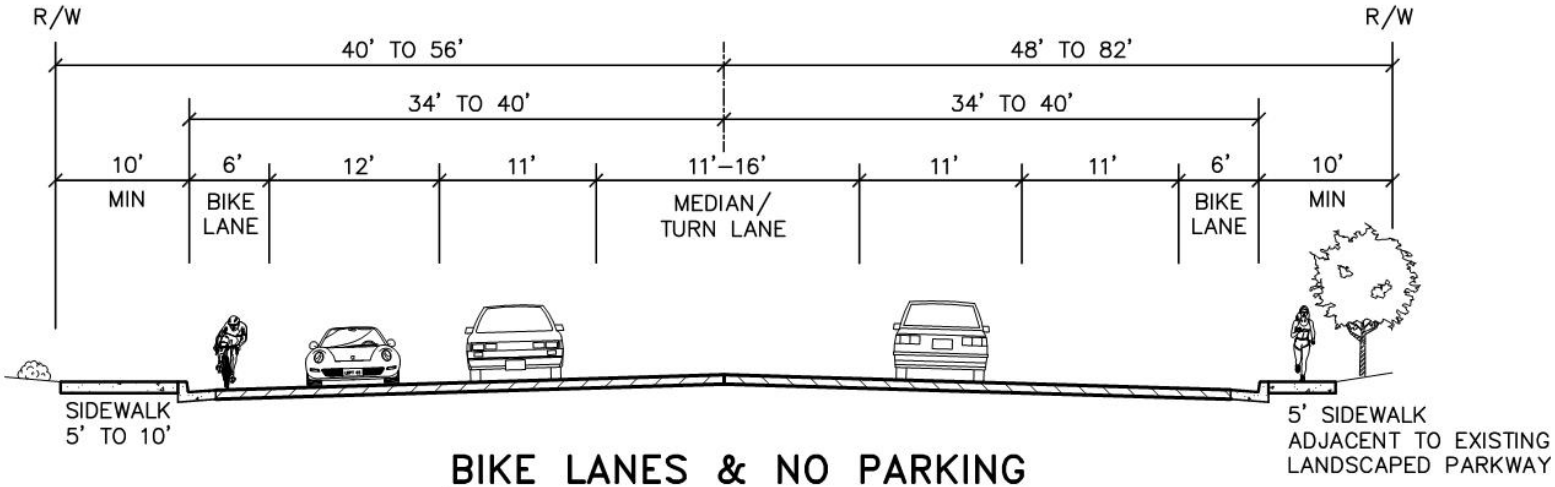
Cross Sections

54th Street to 58th Street



BIKE LANES & NO PARKING

NO SCALE

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54th Street to 58th Street

54th Street to 58th Street

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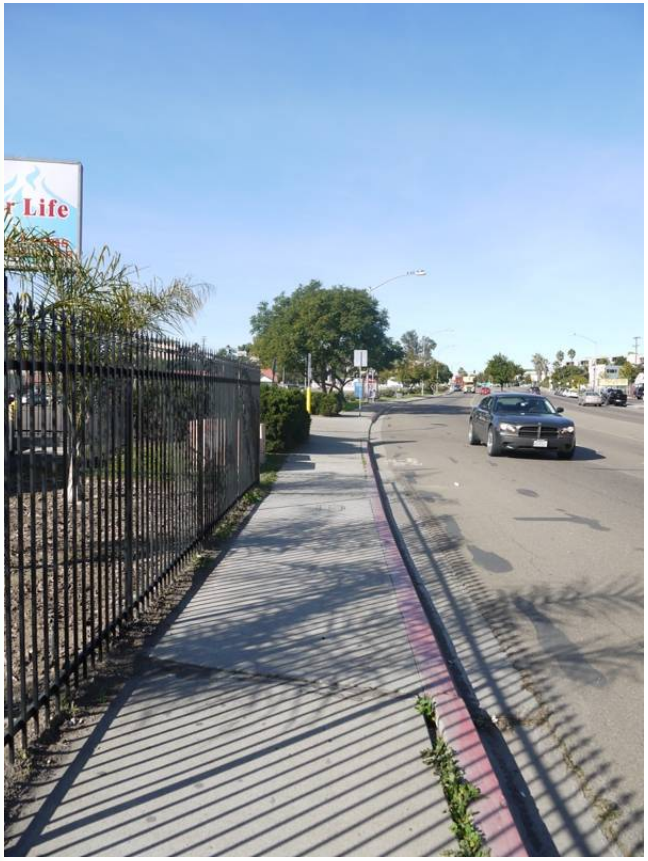
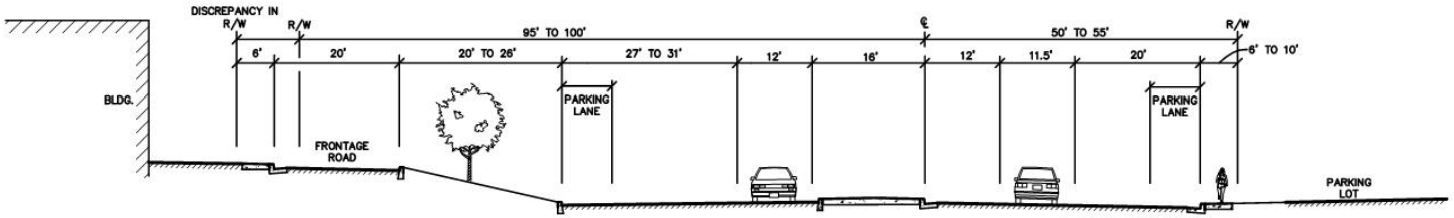


54th Street to 58th Street

58th Street to 60th Street



EXISTING CONDITIONS

NO SCALE

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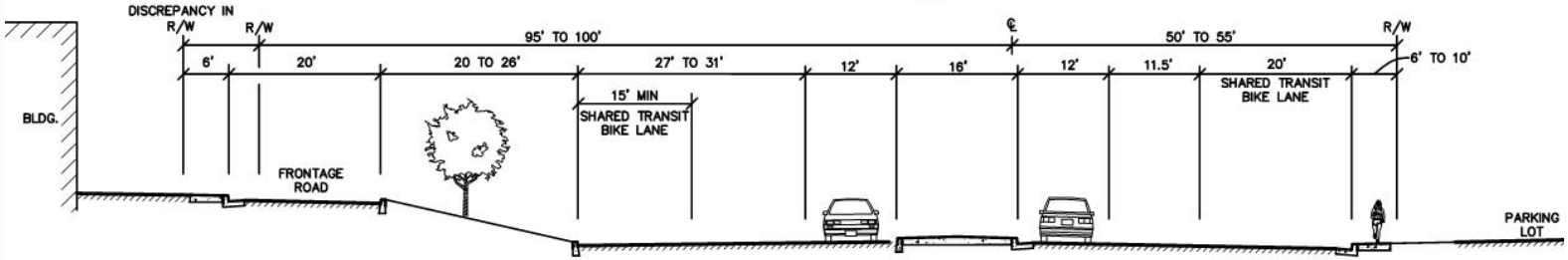
58th Street to 60th Street

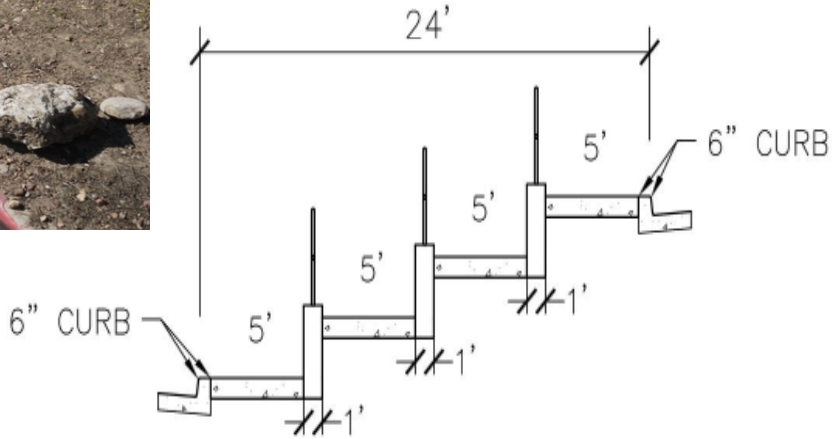


SHARED TRANSIT/BIKE LANE

SCALE: 1"=10'

58th Street to 60th Street

58th Street to 60th Street



8% MAX GRADE
WITH HANDRAILS

58th Street to 60th Street

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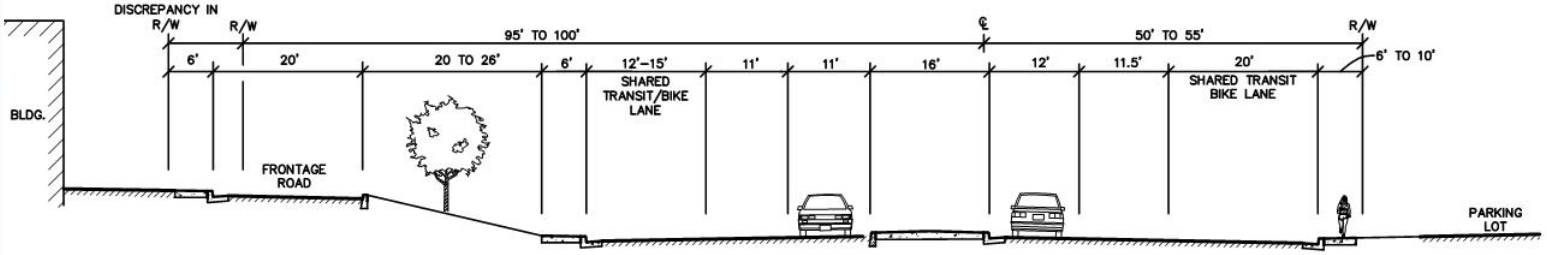
58th Street to 60th Street



ADD 6' SIDEWALK ON THE NORTH SIDE

NO SCALE

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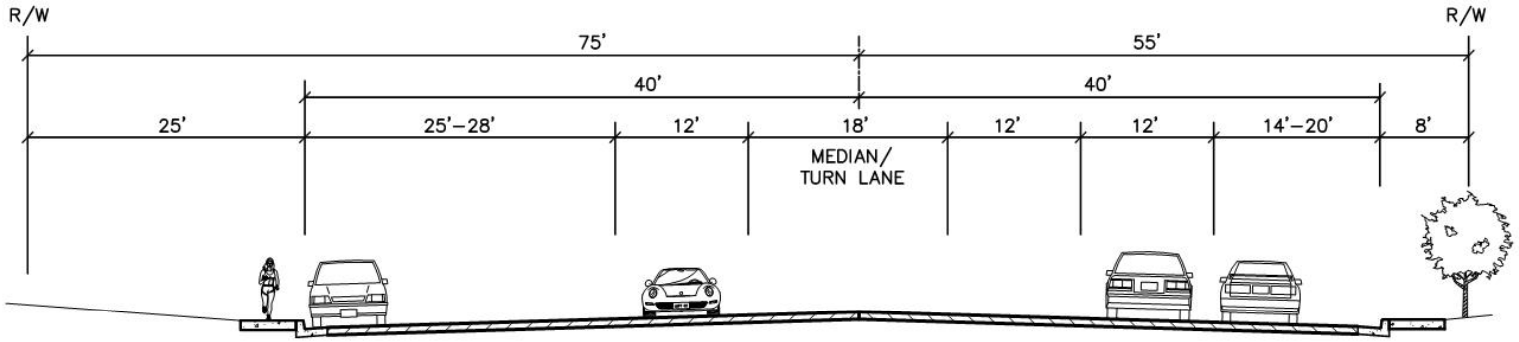
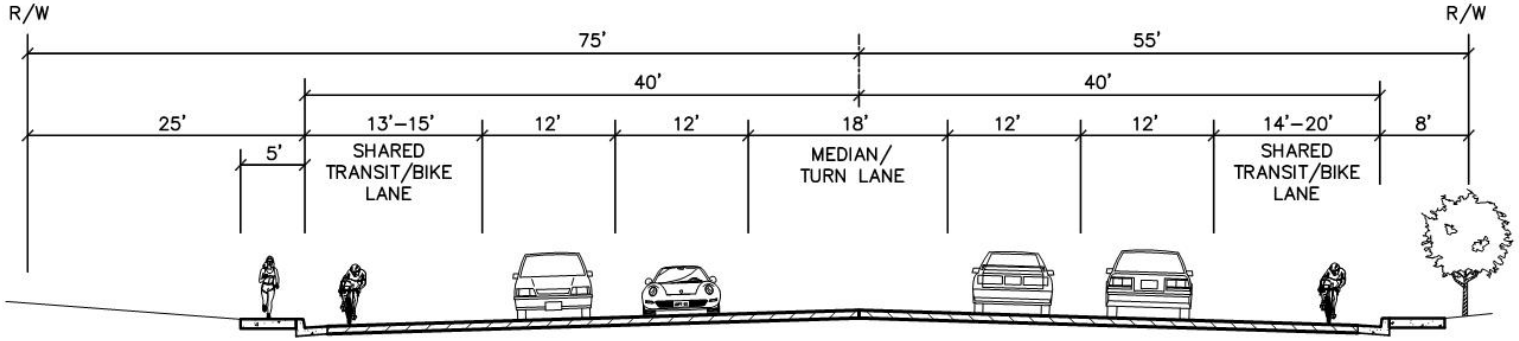
60th Street to College Avenue



EXISTING CONDITIONS

NOT TO SCALE



SHARED TRANSIT/BIKE LANE & NO PARKING

NOT TO SCALE

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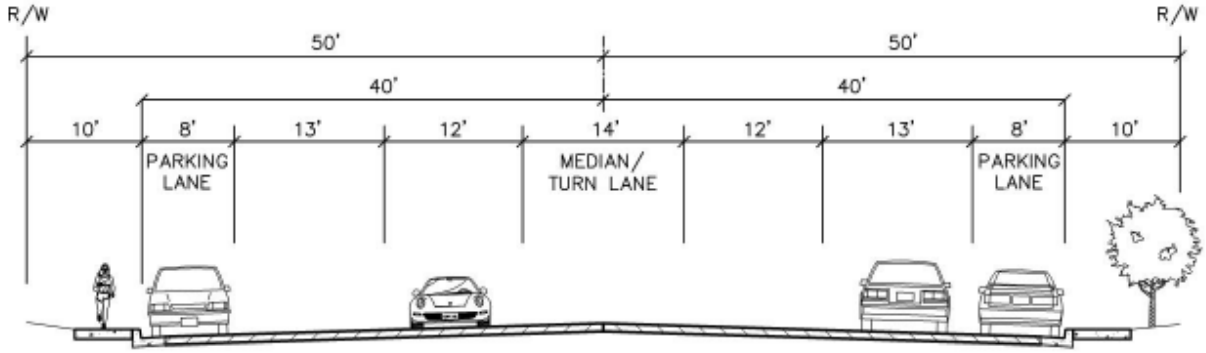
60th Street to College Avenue

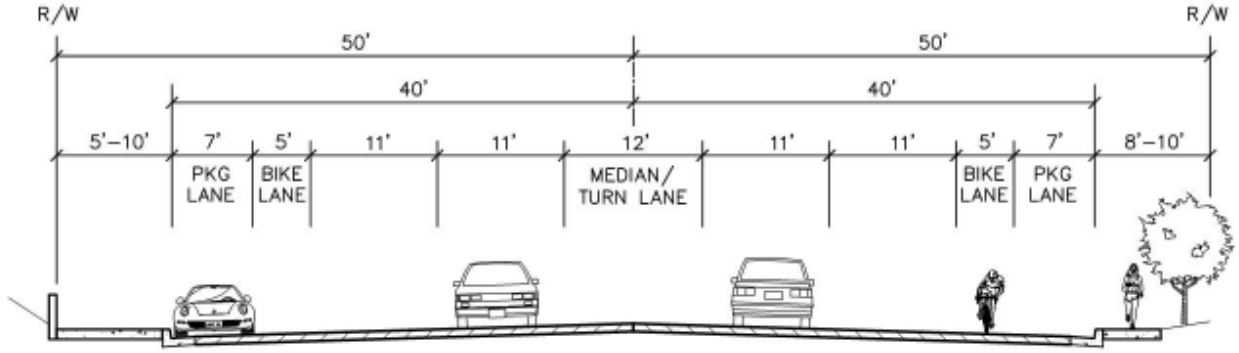
College Avenue to Aragon Drive

College Avenue to Aragon Drive



EXISTING CONDITIONS

SCALE: 1"=10'



BIKE LANES & PARKING

SCALE: 1"=10'

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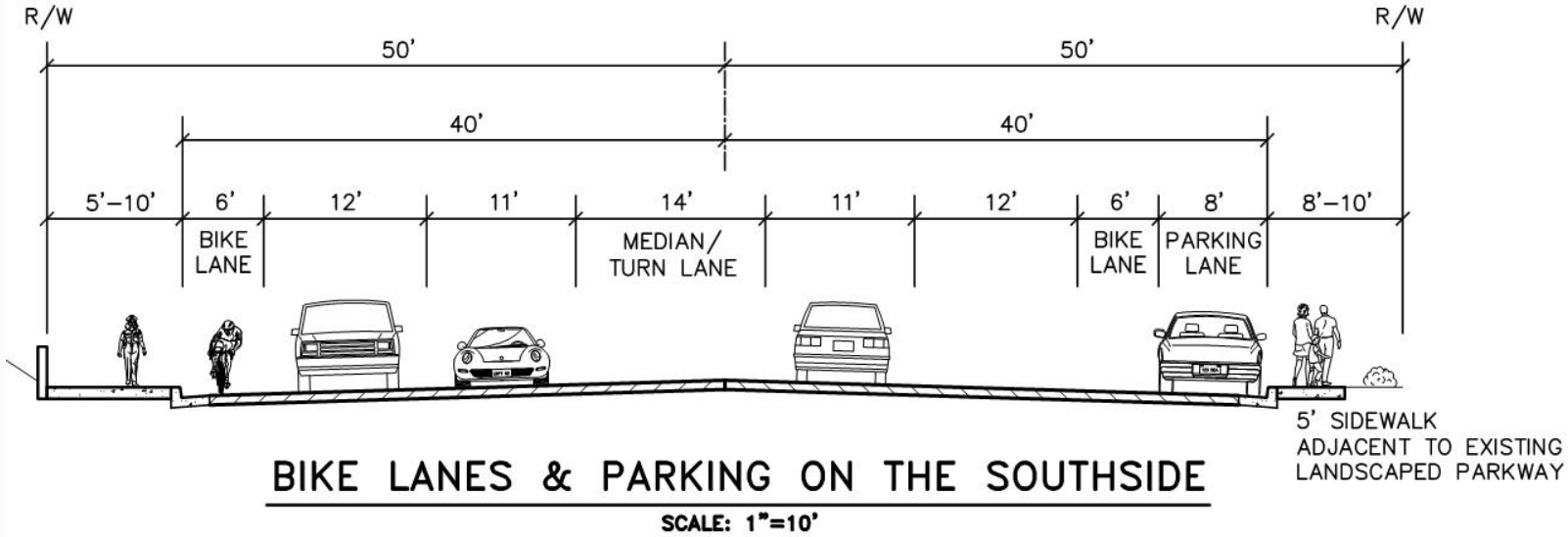
College Avenue to Aragon Drive

College Avenue to Aragon Drive



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College Avenue to Aragon Drive

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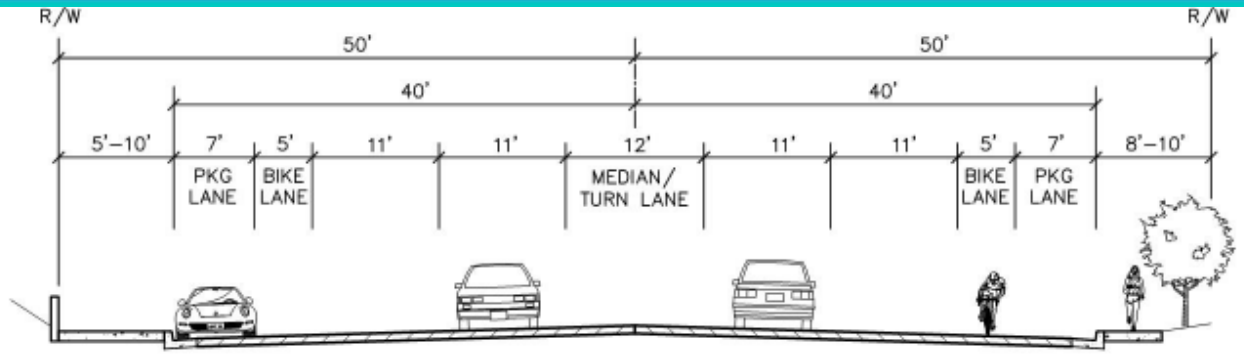

BIKE LANES & PARKING

SCALE: 1"=10'

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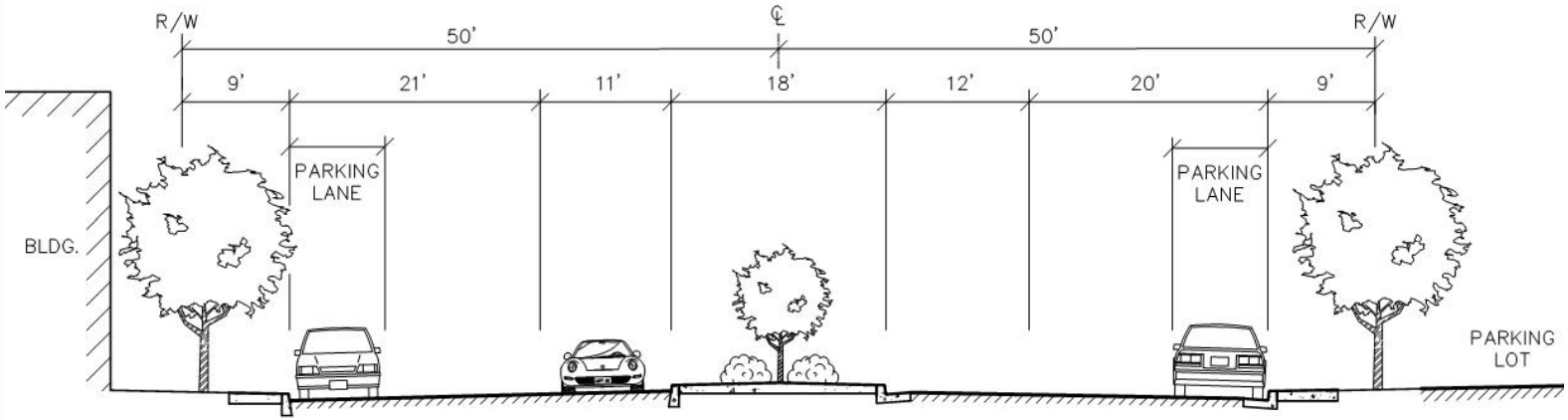
Aragon Drive to 68th Street

Aragon Drive to 68th Street



EXISTING CONDITIONS

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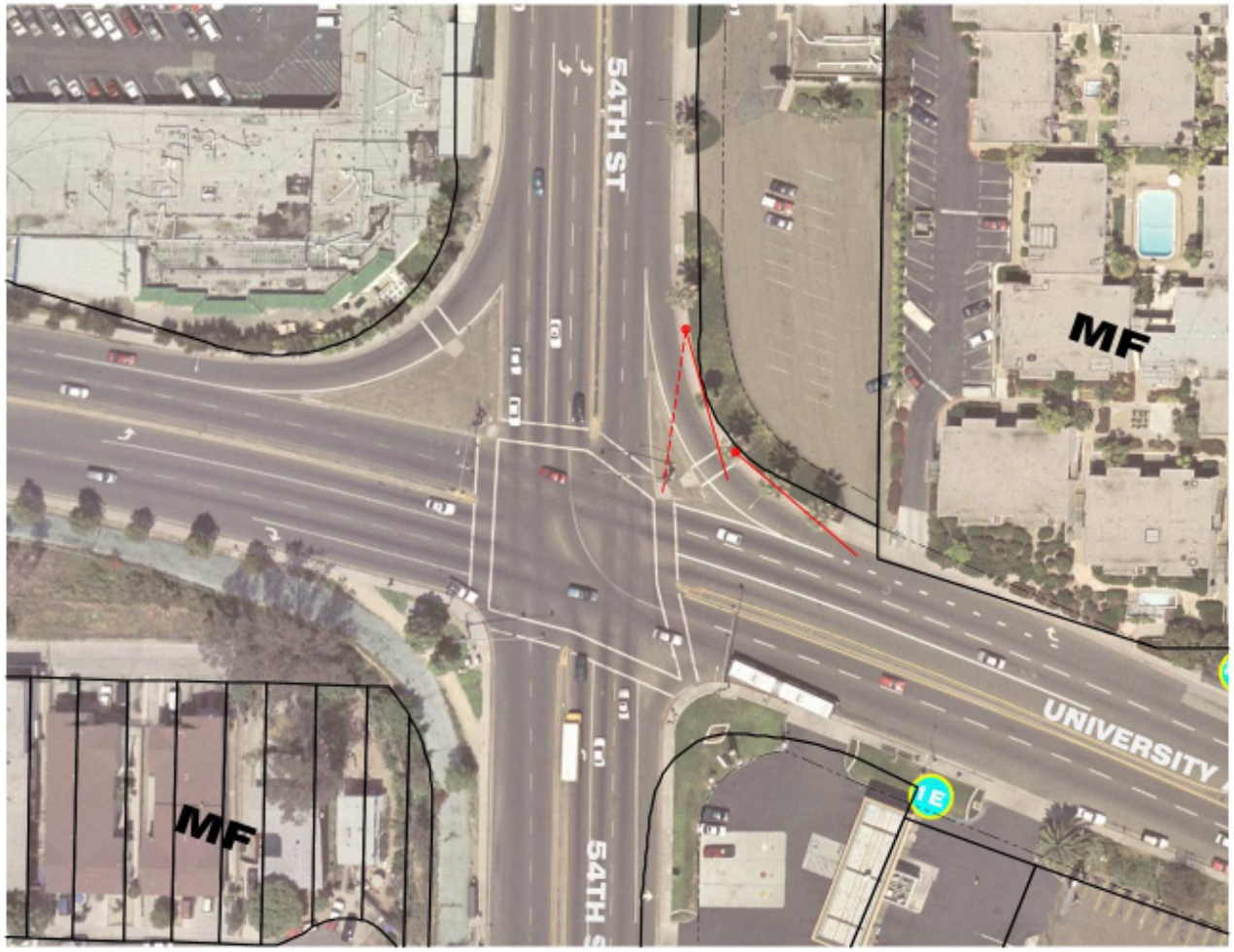
Aragon Drive to 68th Street

Aragon Drive to 68th Street

Aragon Drive to 68th Street

54th Street – Free Right Turns



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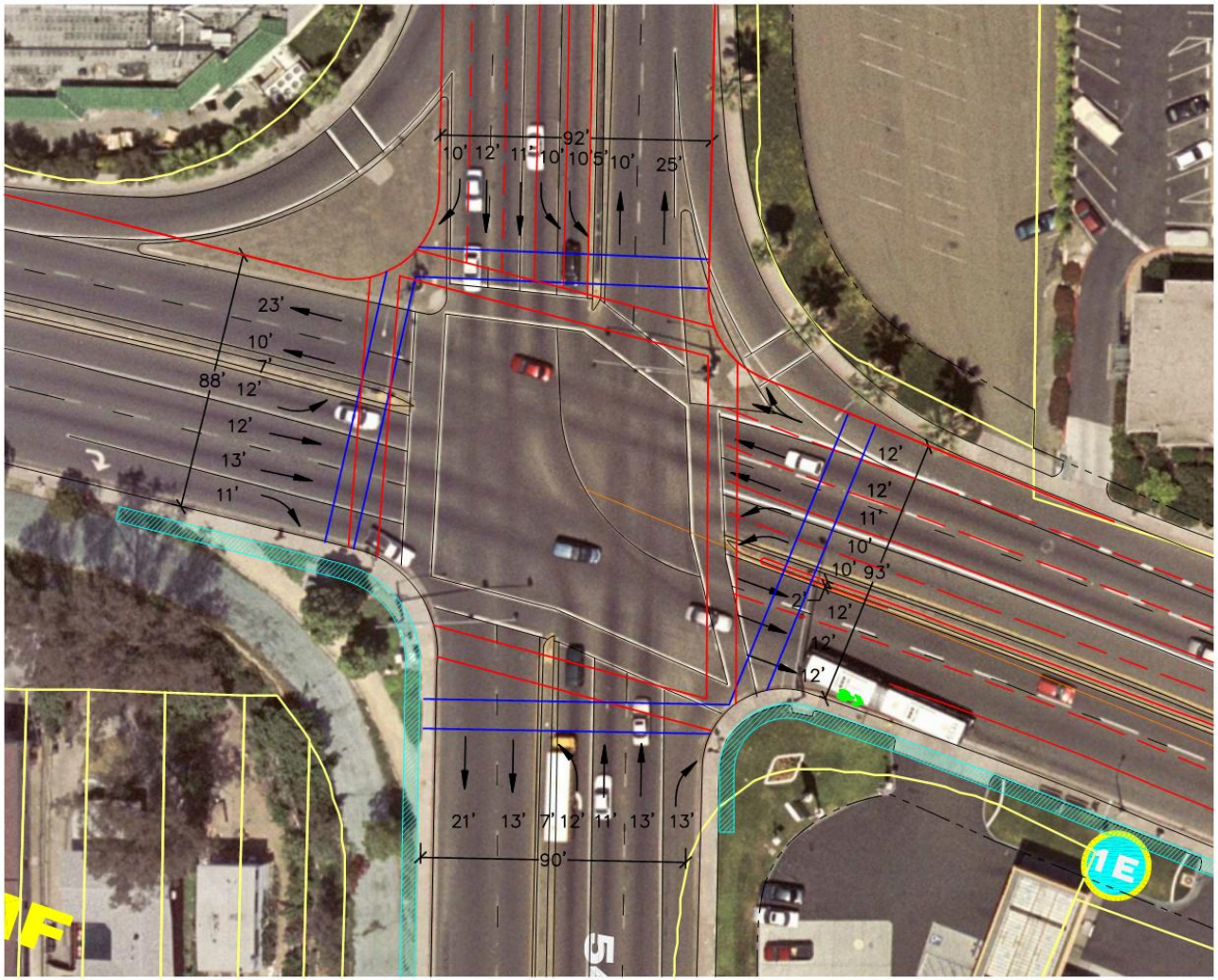
Re-striping at 54th Street – Delete Free Right Turns



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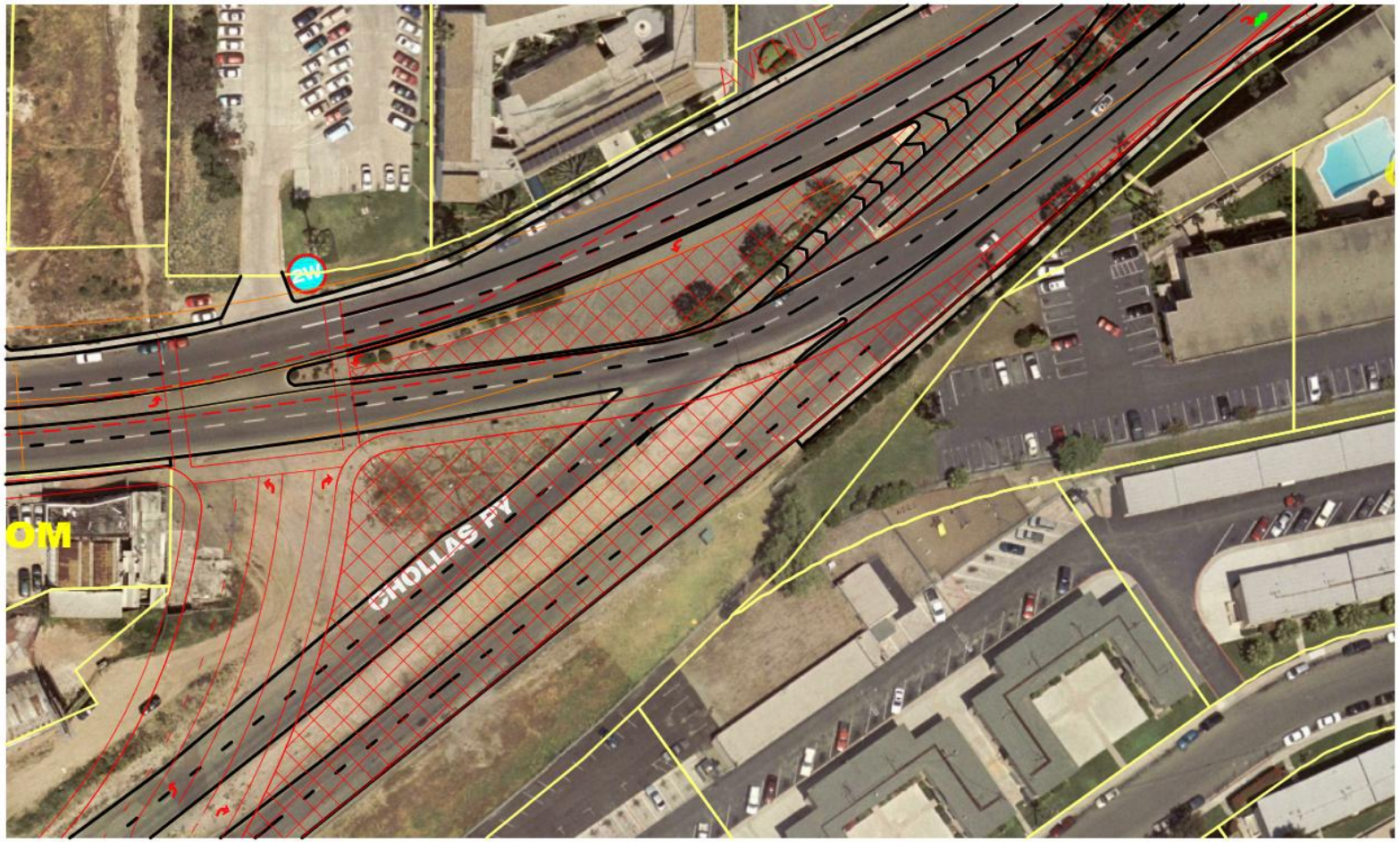
Realign intersection at Chollas Pkwy



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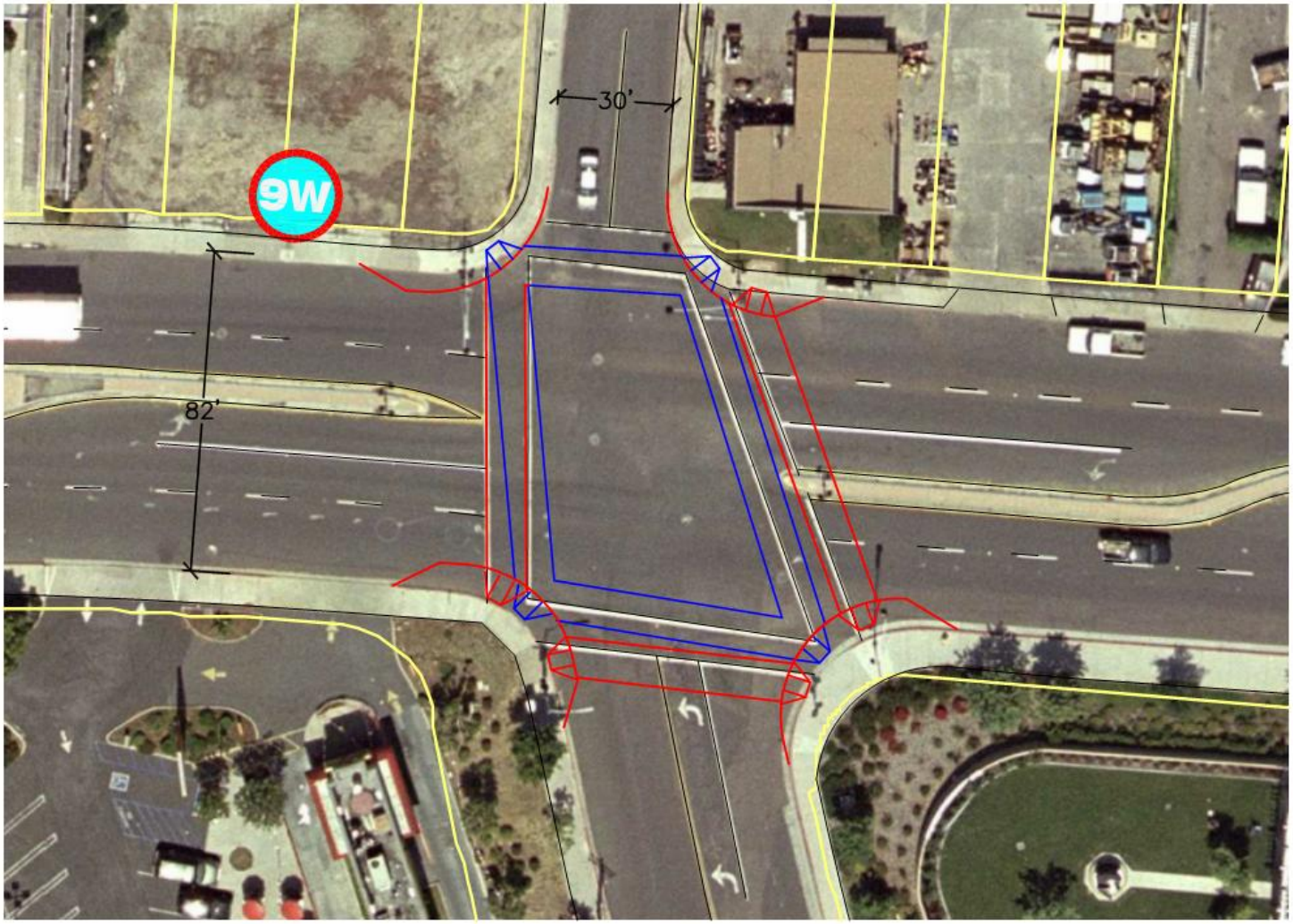
Pop-Outs at Aragon Drive



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Community Meeting Schedule

- Community Workshops
  1. Tuesday, March 8, 2011
  2. Monday, May 16, 2011
  3. Thursday, July 21, 2011
- Working Group Meetings
  1. Tuesday, February 22, 2011
  2. Tuesday, March 22, 2011
  3. Tuesday, April 26, 2011
  4. Thursday, June 16, 2011
- Community Planning Group Meetings
  1. Tuesday, September 13, 2011 – Preliminary Alternatives
  2. Tuesday, October 11, 2011 – Present Report

University Avenue Mobility

- The End

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