

Sustainable Mobility Plan

Stakeholder Working Group Meeting #1



What is the Sustainable Mobility Plan?

- Assesses existing network
- Develops preferred design guidelines
- Identifies investment priorities

Project Tasks

- Stakeholder Engagement
- Existing Conditions & Needs Analysis
- Locations for Improvements
- Design Guidelines for Access
- Programming Recommendations
- Prioritization of Investments

Purpose and Benefits

- Implement General Plan Mobility Element
- Increase convenience and choices for all

Stakeholder Engagement

- Stakeholder Working Group
- Online Interface
- Targeted Communications
 - Schools, seniors, employers, etc.
- Travel Data Evaluations

Working Group Role

- Represent your unique perspective
- Provide insights into methodology of prioritizing projects
- Share information and updates

Planning Process and Schedule

- **Summer '18:**
 - Existing Conditions Assessment
 - Stakeholder Engagement Planning
- **Fall '18:**
 - Design Guidelines Development
 - Stakeholder Engagement Efforts
 - Project Identification
- **Winter '18:**
 - Project Prioritization
 - Plan Development and Adoption

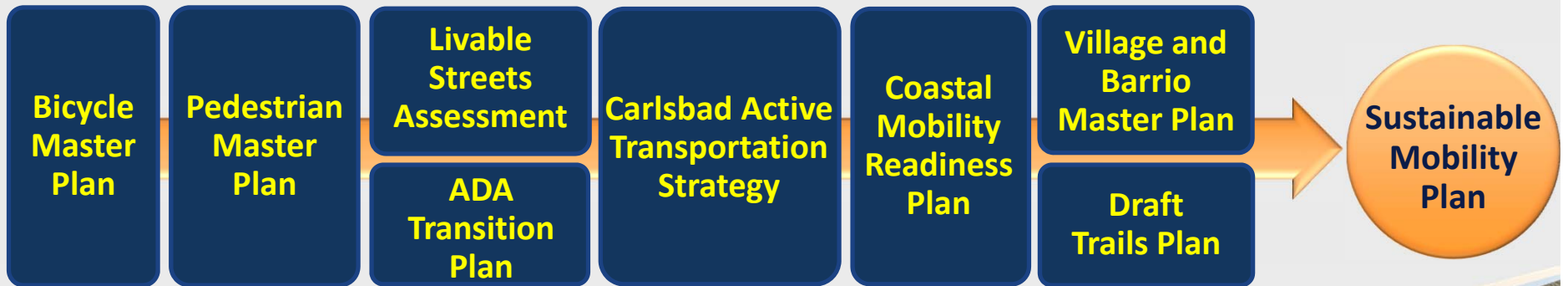
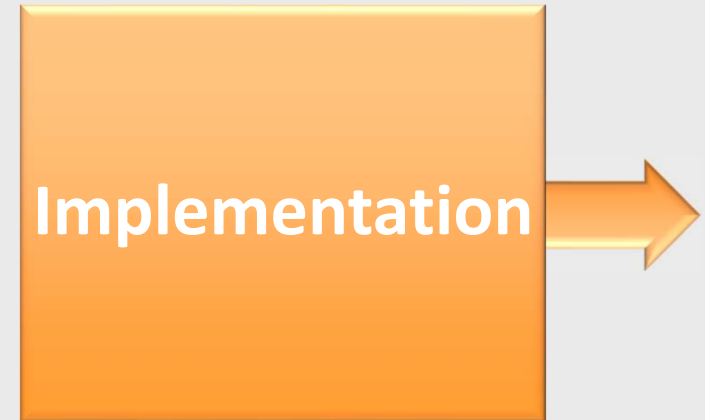
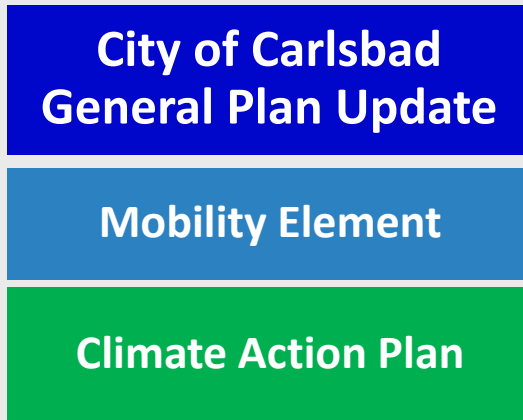
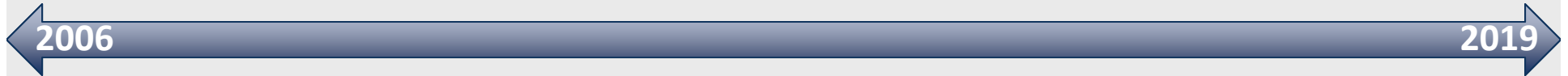
Working Group Questions?

'8 to 80' Networks

State of the System

- Document and Policy Framework
- Mobility - Network Connectivity
- Access - Network Quality

Mobility Planning Context



Planning Context – Street Types



Planning Context – Street Types



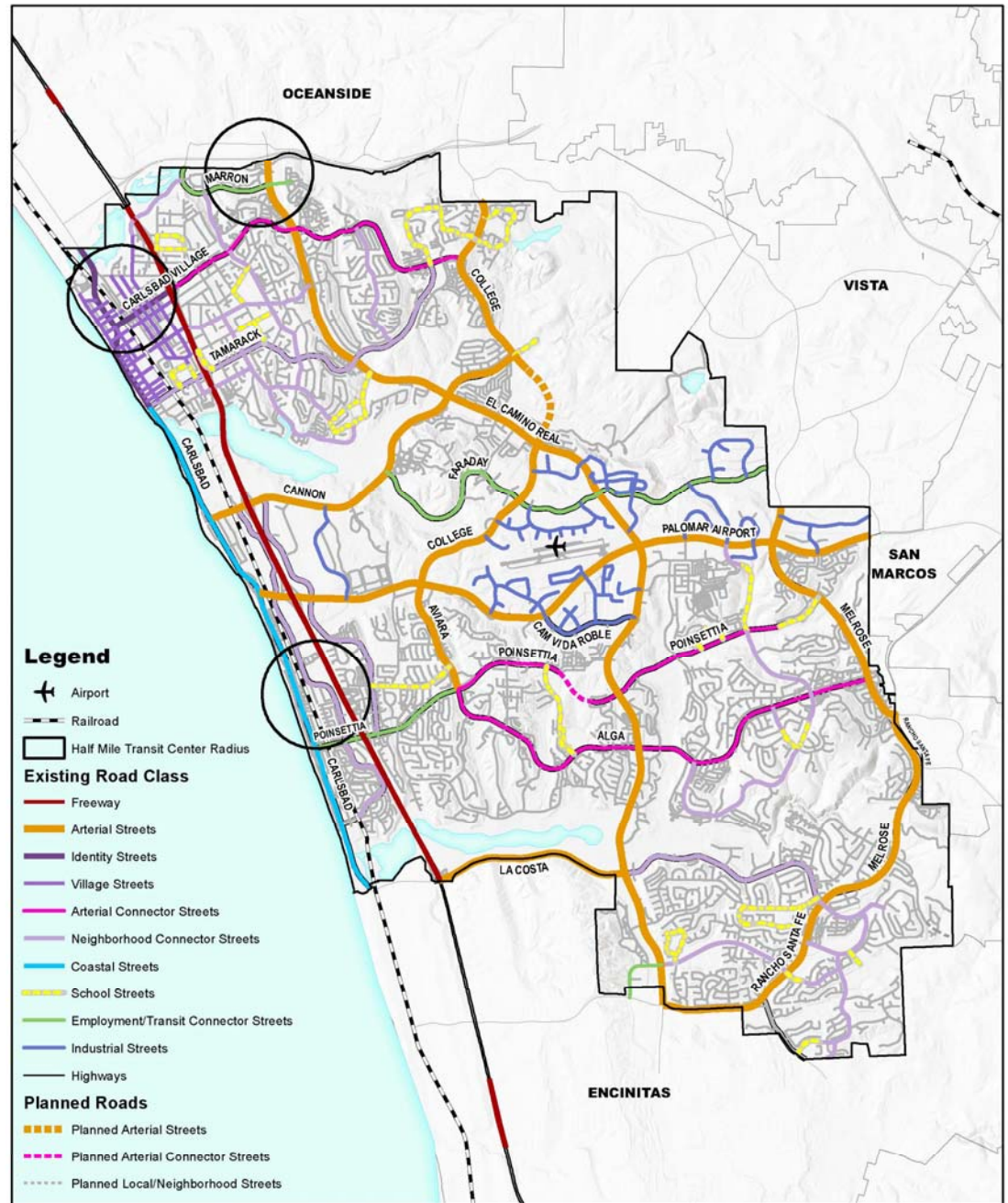
Planning Context – Street Types



Planning Context – Street Types



Planning Context - Street Types



Adopted Street Classification

0 1 2 Miles

Source: City of Carlsbad Mobility Element



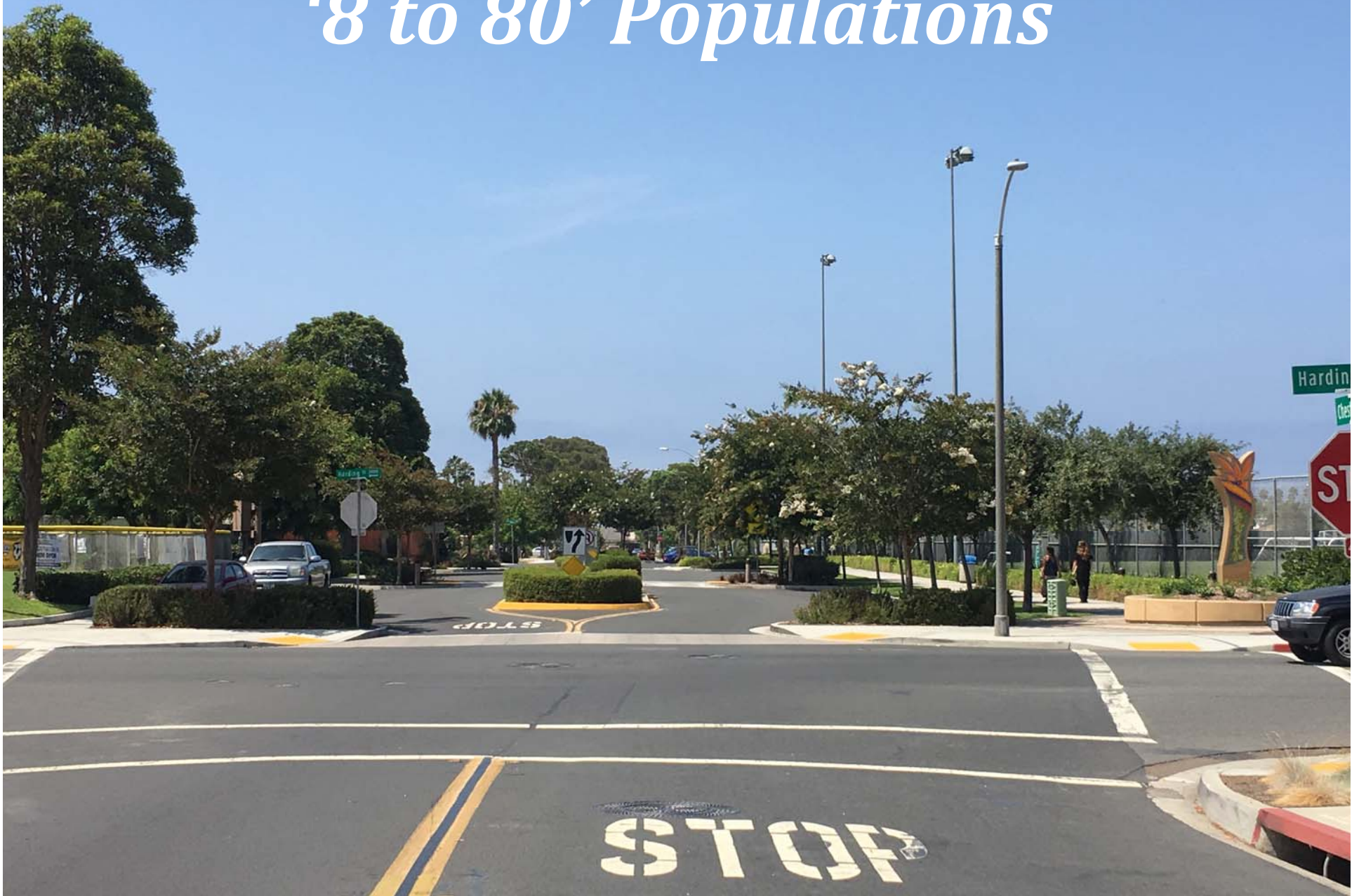
Mobility for People on Foot



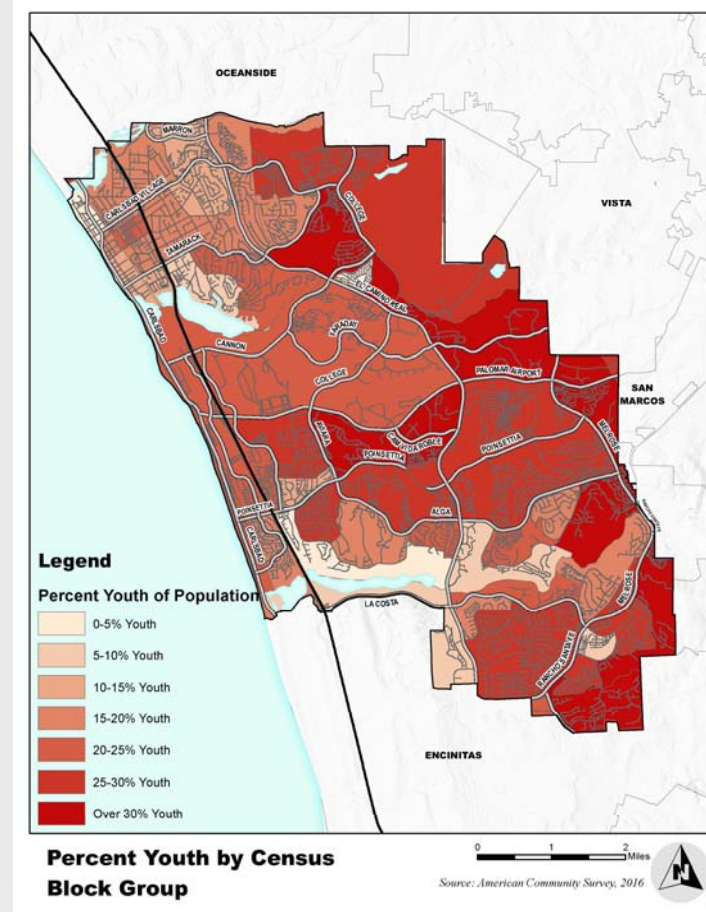
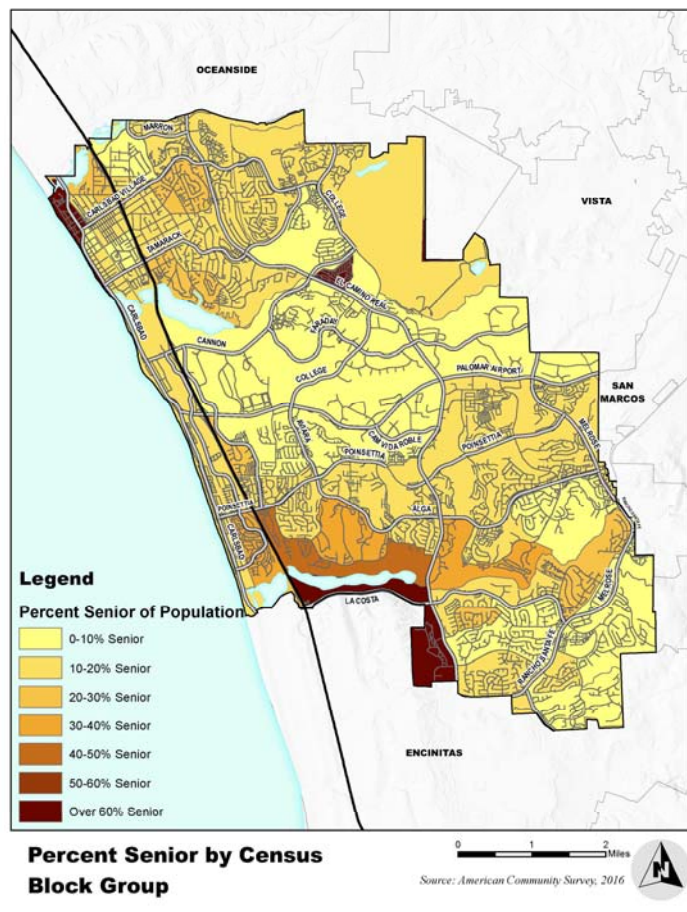
'8 to 80' Populations



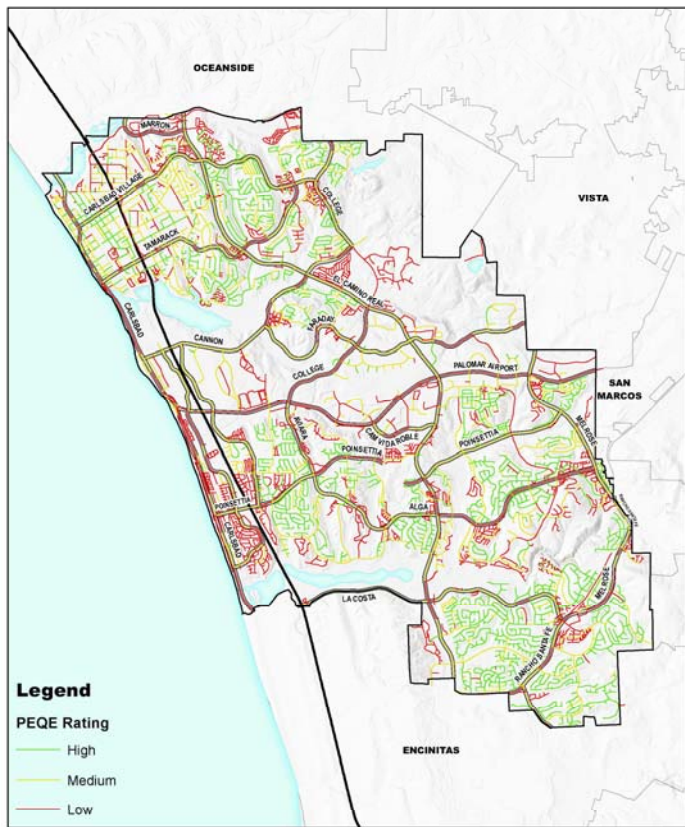
'8 to 80' Populations



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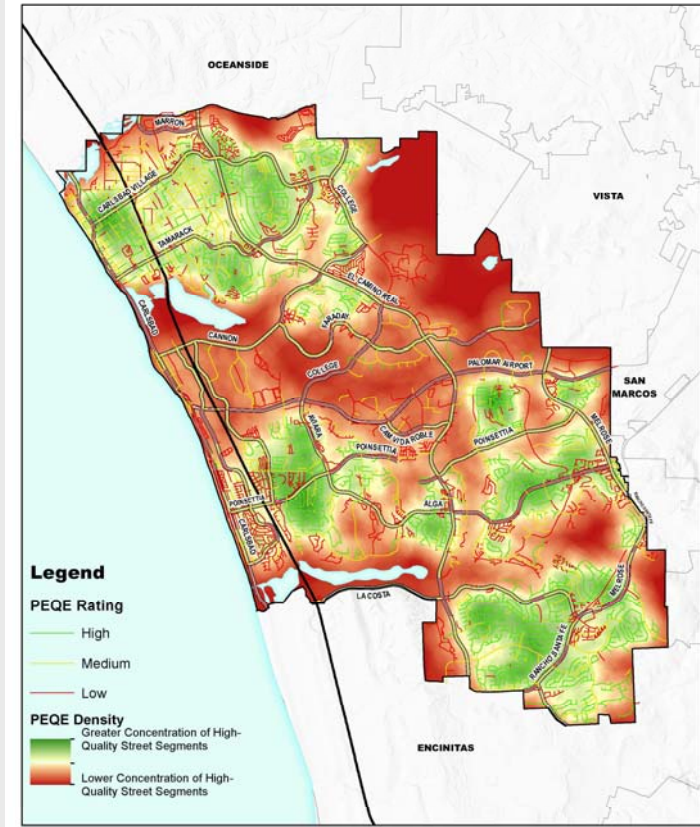


Network Quality Citywide



Pedestrian Environment Quality Evaluation (PEQE)

0 1 2 Miles
Source: Chen Ryan Associates

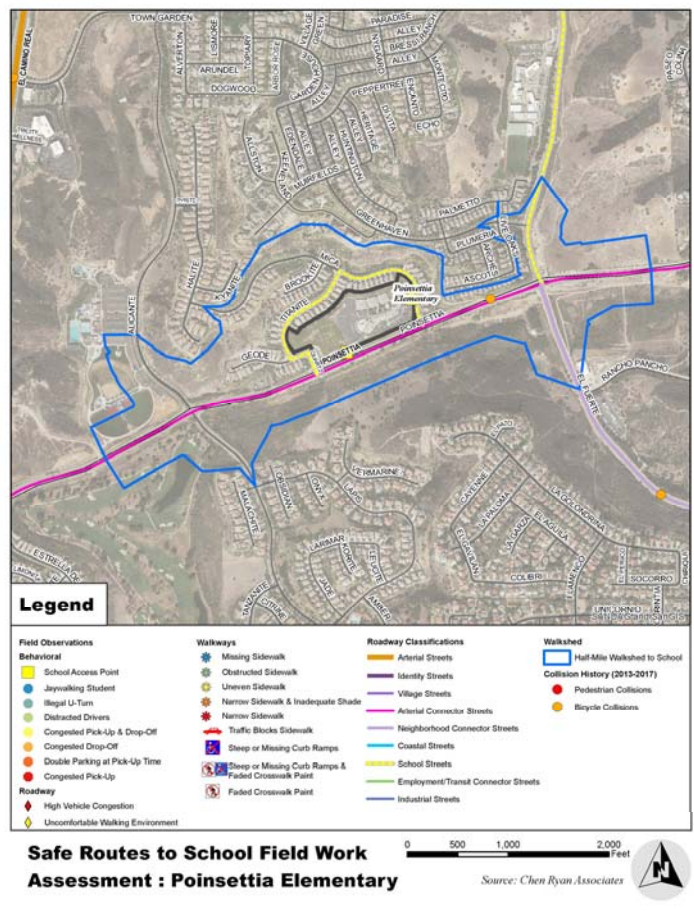


Pedestrian Environment Quality Evaluation (PEQE) Density

0 1 2 Miles
Source: Chen Ryan Associates



Access for People on Foot



Mobility for People on Bikes



Four Types of Bikeways



Shared-Use Path – Class 1

Four Types of Bikeways



Bike Lane / Buffered PL - Class II

Four Types of Bikeways



Shared Lane – Class III

Four Types of Bikeways



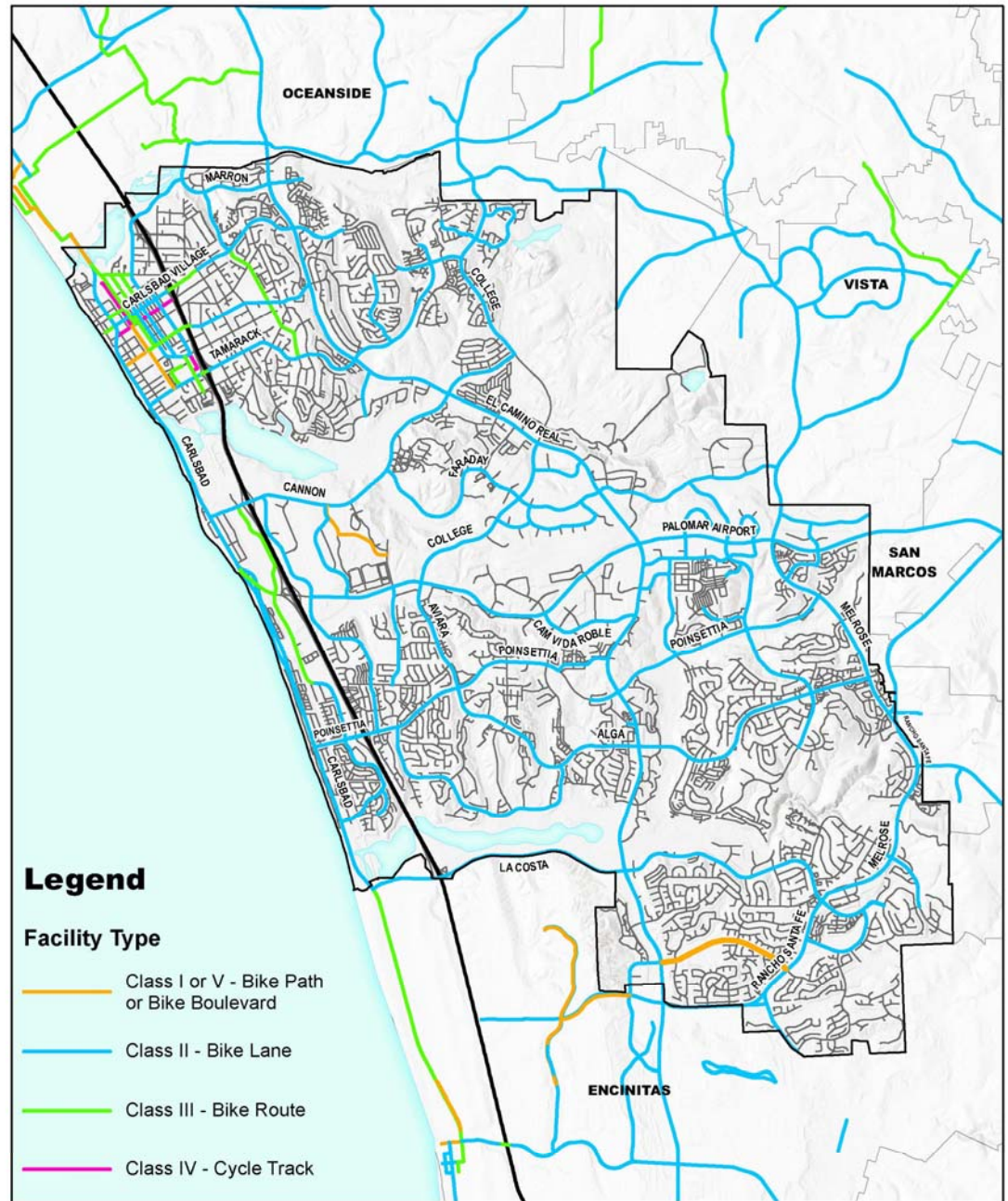
Cycletrack – Class IV

Four Types of Bikeways



Cycletrack – Class IV

Mobility Network for People on Bikes



Legend

Facility Type

- Class I or V - Bike Path or Bike Boulevard
- Class II - Bike Lane
- Class III - Bike Route
- Class IV - Cycle Track

Adopted Bike Network

0 1 2 Miles

Source: City of Carlsbad



Four Types of Cyclists



“Strong and Fearless”



“Enthused and Confident”



“Interested, but Concerned”



“Interested, but Concerned”



"No way, No How"

Network Quality



Level of Traffic Stress 1/2



Level of Traffic Stress 3



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Level of Traffic Stress 4



Design Considerations

- Design to increase access for most vulnerable people

THE FOUR TYPES OF BICYCLISTS



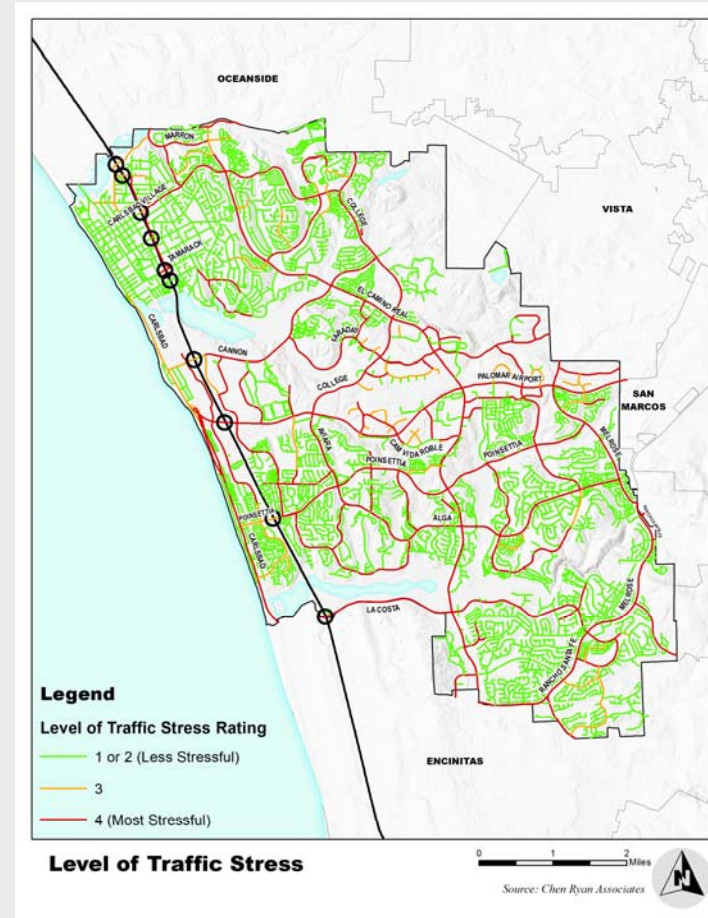
LEVEL OF TRAFFIC STRESS

Level of traffic stress (LTS) is a way to evaluate the stress a bike rider will experience while riding on the road. It is used to categorize roads by the types of riders above who will be willing to use them based on:



- LTS 1** Most children can feel safe riding on these streets.
- LTS 2** The mainstream "interested but concerned" adult population will feel safe riding on these streets.
- LTS 3** Streets that are acceptable to "enthusied and confident" riders who still prefer having their own dedicated space.
- LTS 4** High-stress streets with high speed limits, multiple travel lanes, limited or non-existent bikeways, and long intersection crossing distances.

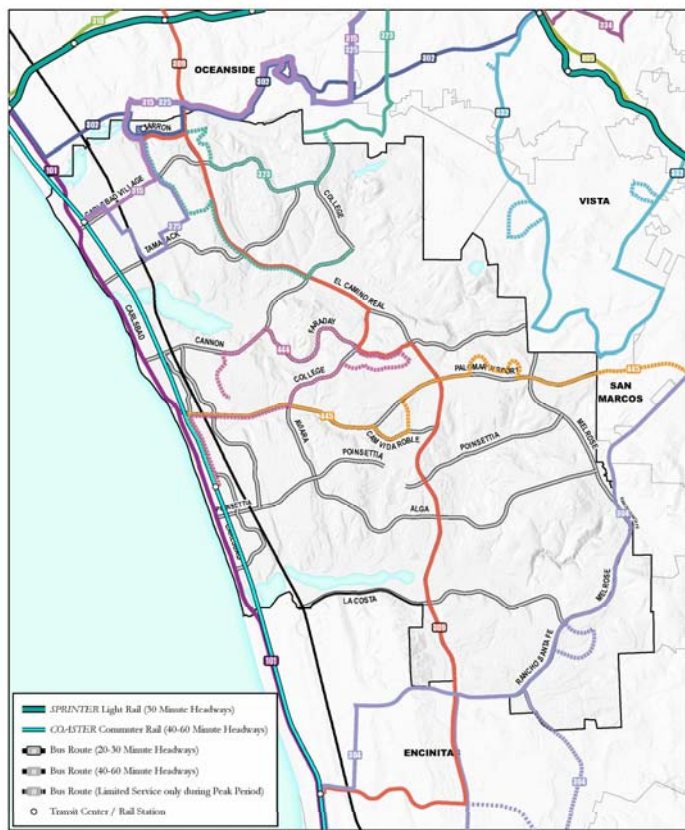
Network Quality Citywide



Mobility for People in Transit

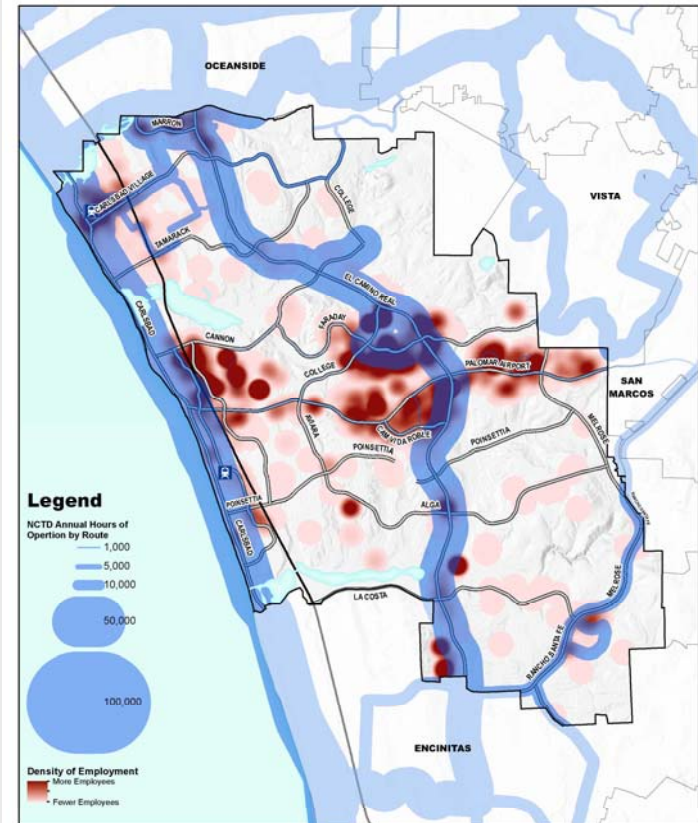


Mobility Network for People in Transit



NCTD BREEZE Fixed Route Transit

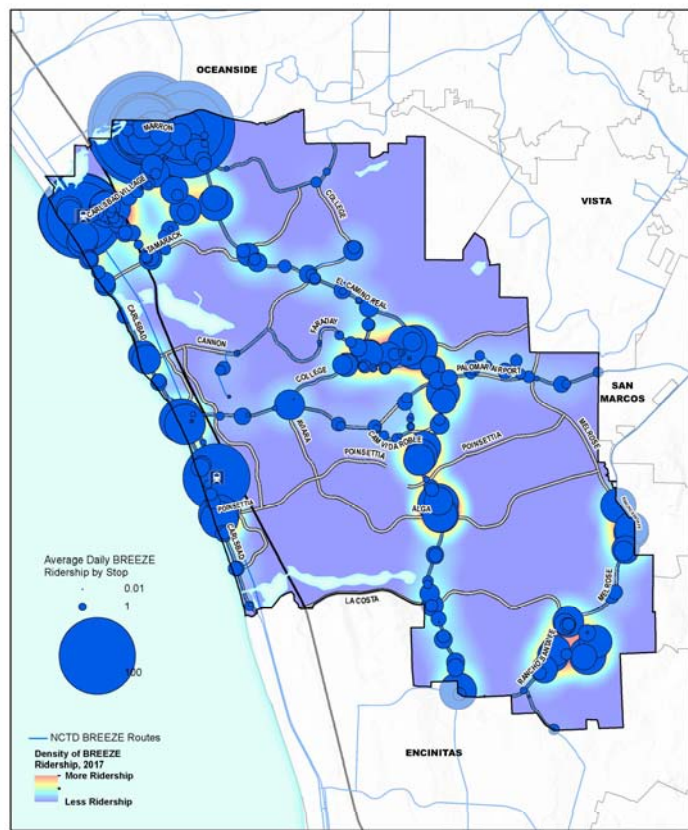
0 1 2 Miles
Source: NCTD



NCTD BREEZE Annual Activity and City of Carlsbad Employment

0 1 2 Miles
Source: NCTD

Network Quality in Transit



NCTD BREEZE Average Daily Ridership

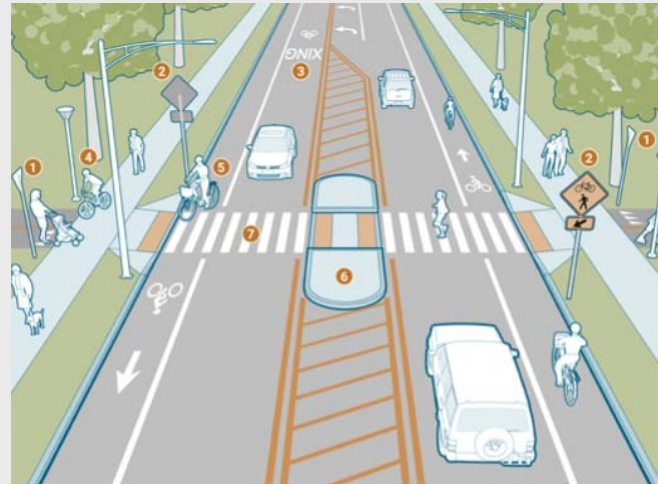
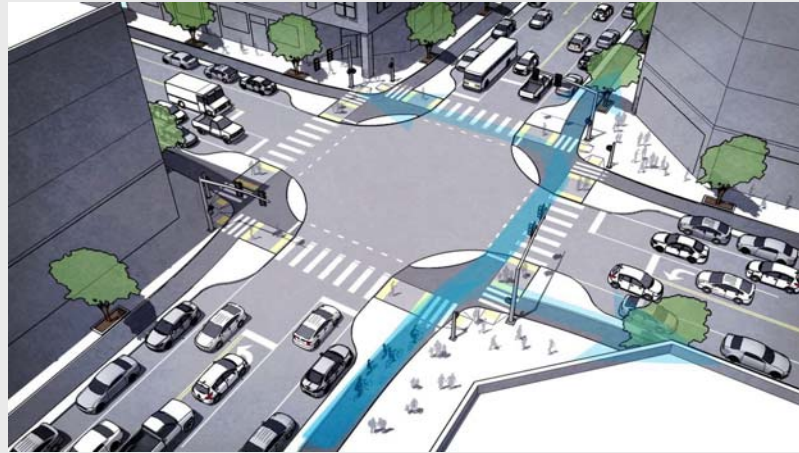
Source: NCTD, 2017



New Mobility Network Considerations



New Access Considerations



New Connections



17 UNIVERSAL TRANSPORTATION ACCOUNT



A universal transportation account offers a single mobile app to find, access, and pay for a wide range of mobility services - transit, carshare, bikeshare, parking, tolls, etc.

10 BIKE REPAIR STAND



A bike repair stand allows cyclists to repair and maintain their personal bikes. Stands may be located within a group bike parking facility for added security.

- 

1 ENHANCED TRANSIT WAITING AREA
- 

2 REAL-TIME TRAVEL INFORMATION
- 

3 CURB EXTENSION
- 

4 STREET FURNITURE
- 

5 ENHANCED PAVING
- 

6 HIGH VISIBILITY CROSSING
- 

7 MEDIAN REFUGE ISLAND
- 

8 BIKEYWAY
- 

9 SECURE GROUP BIKE PARKING FACILITY
- 

10 BIKE REPAIR STAND
- 

11 BIKESHARE
- 

12 DEDICATED TRANSIT LANES
- 

13 TRANSIT SIGNAL PRIORITY
- 

14 MICROTRANSIT
- 

15 WAYFINDING
- 

16 PACKAGE DELIVERY
- 

17 UNIVERSAL TRANSPORTATION ACCOUNT

Sustainable Outcomes

- Approx. 45% of all trips in certain parts of Carlsbad are under 2 miles in length
- Project will:
 - Close travel network gaps
 - Increase travel choices to work and play
 - Improve quality & access for vulnerable users

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Questions?

www.carlsbadca.gov

Search “Sustainable Mobility Plan”



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