

Submitted by:



MID-TOWN MASTER LAND USE VISION AND MOBILITY PLAN

Existing Mobility Conditions Memorandum

Submitted to:

Town of Yucca Valley

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The preparation of this report has been financed in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

This is a project for the Town of Yucca Valley with funding provided by the Southern California Association of Governments' (SCAG) Compass Blueprint Program. Compass Blueprint assists Southern California cities and other organizations in evaluating planning options and stimulating development consistent with the region's goals. Compass Blueprint tools support visioning efforts, infill analyses, economic and policy analyses, and marketing and communication programs.

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Memorandum

To:	Jean Ward	From:	Viggen Davidian, Shaumik Pal
Date:	August 20 th , 2012	Job Number:	J12-1756
Re:	Mobility Memorandum		

1.0 INTRODUCTION

This document presents the existing circulation and mobility conditions for the Mid-Town focus area in the Town of Yucca Valley. The document also includes a draft list of opportunities and constraints that will help the project team in providing recommendations for new policies for the study area. The following sections describe the existing setting in terms of roadways, transit, pedestrian and bike facilities, and truck circulation. **Figure 1** illustrates the project location for the Mid-Town area.

2.0 EXISTING CIRCULATION SYSTEM

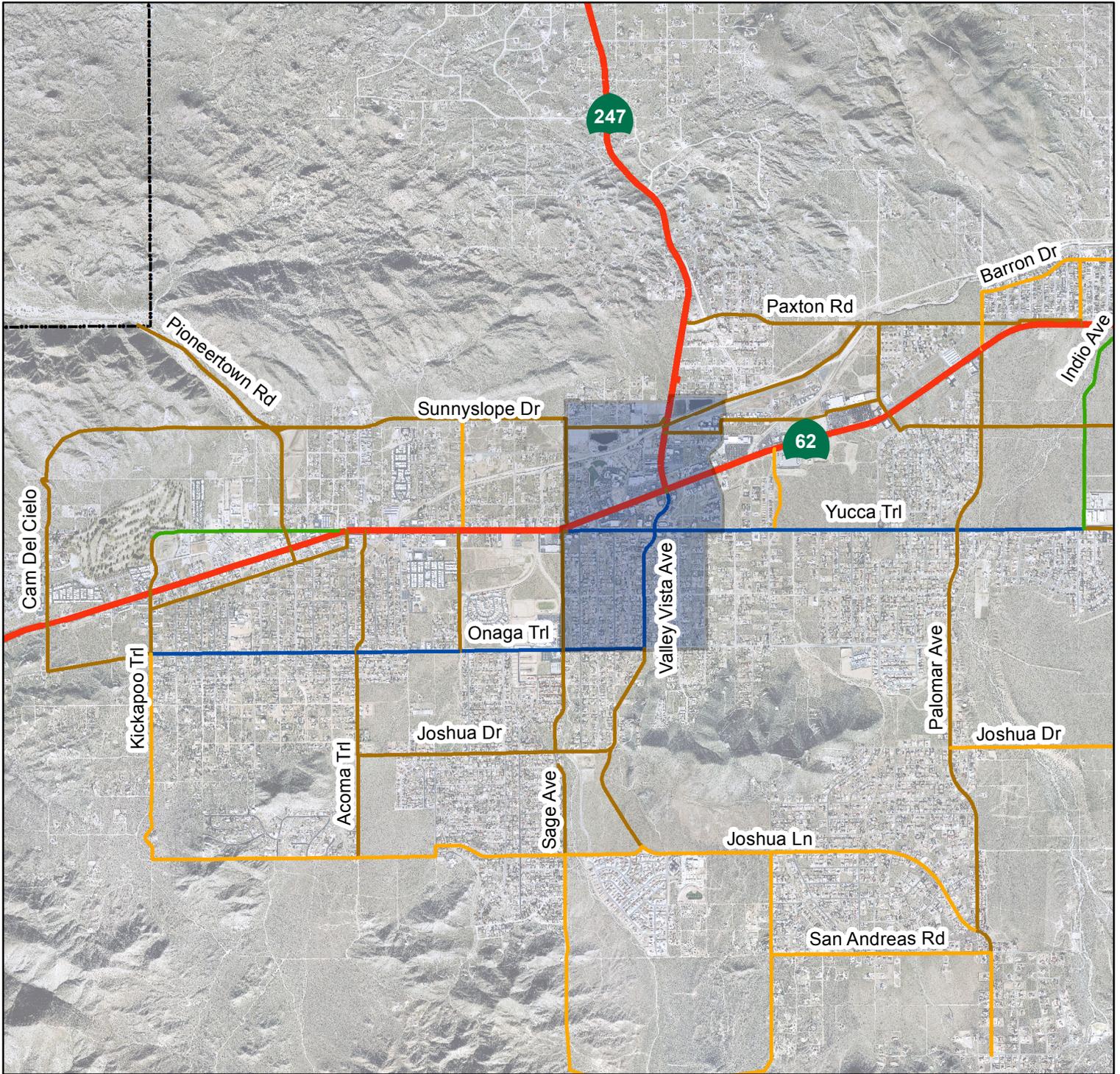
2.1 REGIONAL ACCESS

State Route 62 (SR-62) is the primary roadway providing regional accessibility to the Town of Yucca Valley. It is a four-lane divided facility and provides regional transportation access to and from the Town of Yucca Valley, including the Mid-Town study area. SR-62 begins at Interstate 10 (I-10) near Whitewater and ends at the Arizona State Line. The route serves the unincorporated communities of Morongo Valley, Joshua Tree and Earp, Town of Yucca Valley, and City of Twentynine Palms. It also provides access to Joshua Tree National Park. It carries significant truck traffic, recreational traffic, as well as military convoys.

Within the Study area, SR-62 is also designated as part of the National Highway System (NHS). Under the NHS, SR-62 is included in the Strategic Highway Corridor Network (STRAHNET) as a connector, which is a vital roadway in the National Defense network.

Within the study area, SR-62 has on-street parking on both sides of the roadway. Currently, there are only two signalized intersections along SR-62 within the project study area, at Sage Avenue, which is at the western border of the study area and at State Route 247 (SR-247).

In addition to SR-62, a second major regional connection is SR-247. SR-247 is a two-lane undivided conventional highway that begins at SR-62 and ends at I-15 in the City of Barstow. Within the study area, SR-247 has four-lane sections just north of SR-62. It is not designated as a scenic highway, but is designated as a Terminal Access Route in the National Network of Surface Transportation Assistance Act (STAA) for oversized trucks. The route concept for SR-247 is a six-lane conventional highway from SR-62 to Aberdeen Drive.



Legend

- Mid-Town Project Boundary
- Town of Yucca Valley Boundary



2.2 OTHER MAJOR ROADWAYS

The street system in Yucca Valley is comprised of five functional classifications: arterials, collectors, industrial roads, local roads, and rural local roads. Each of these has a hierarchy depending upon number of travel lanes, roadway width, right-of-way and traffic volumes. **Figure 2** illustrates the General Plan roadway classification of the major roadways in the project area and vicinity. **Figure 3** illustrates the typical cross sections of each of the classification roadways. Other than SR-62 and SR-247, major roadways within the study area include:

Yucca Trail – is an east-west industrial roadway between SR-62 and Kickapoo Trail. In this stretch, it is a two-lane roadway with no pedestrian facilities.

Joshua Lane - is a four-lane arterial roadway, which becomes SR-247 north of SR-62; on-street parking is prohibited. Between Yucca Trail and Onaga Trail, Joshua lane is an undivided two-lane roadway. It is designated as a Class III bike route between Onaga Trail and Palomar Avenue.

Onaga Trail – is a two-lane undivided roadway; on-street parking is permitted. The entire stretch of Onaga Trail is designated as a Class III bike route.

Sage Avenue – is a collector roadway bordering the western boundary of the Mid-Town area and extends from San Andreas Road to Sunnyslope Drive.

2.3 EXISTING TRANSIT SYSTEM

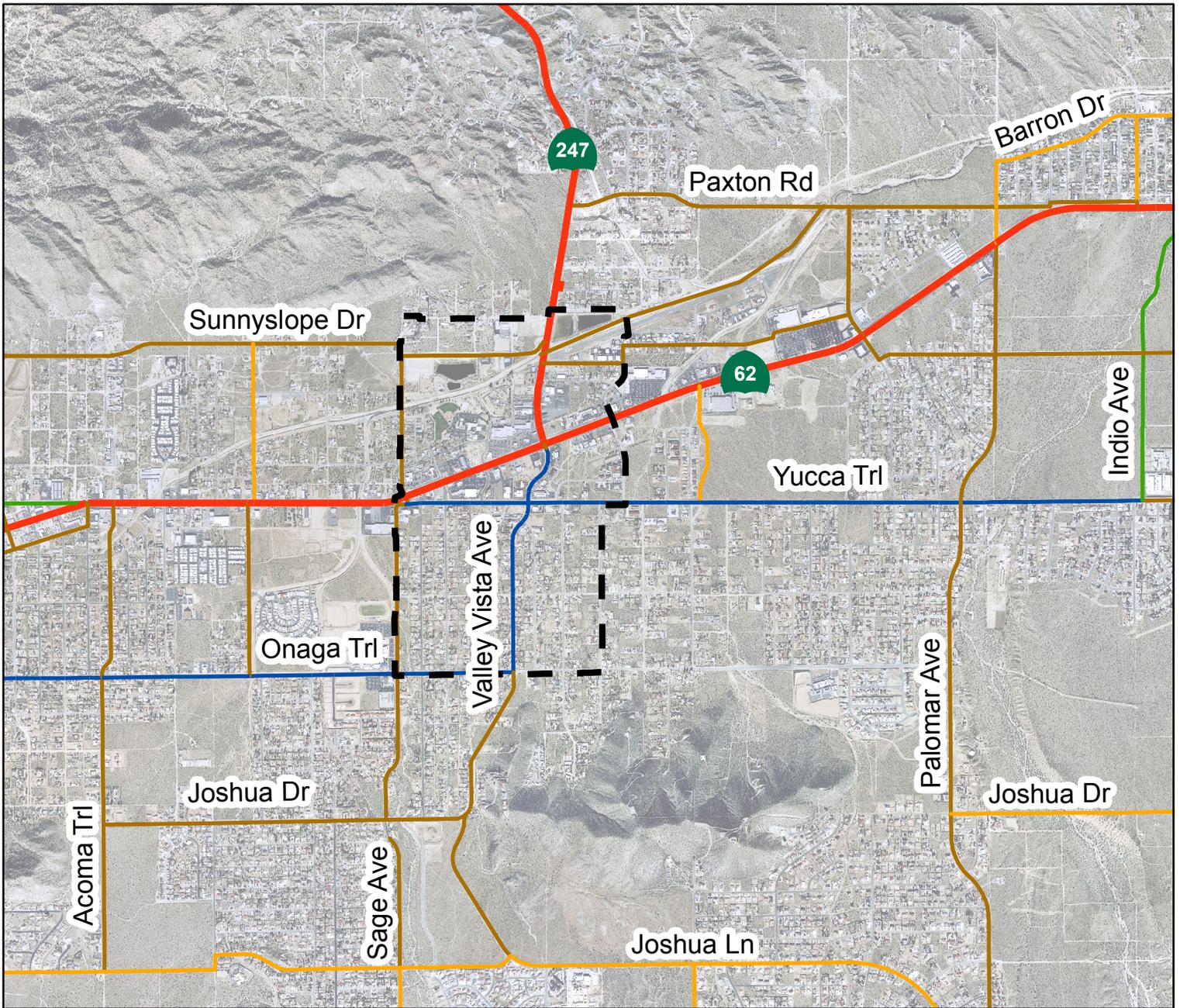
The Morongo Basin Transit Authority (MBTA) is the provider of transit service within the town of Yucca Valley including the mid-town area. All transit routes within Yucca Valley have a transfer point at the Yucca Valley Transit Center near the intersection of Yucca Trail and Airway Avenue.

The MBTA has five routes which service the Mid-Town area, Route 1, 7A, 7B, 12 and 21. All five routes travel along SR-62 and three of the routes make a loop within the Mid-Town area. Route 1, 7A and 7B have headways of about 1 hour, while Route 12 and 21 have headways of 2 to 3 hours.

2.4 PEDESTRIAN AND BICYCLE FACILITIES

Within the Mid-Town area, very limited continuous sidewalks are provided even on major routes such as SR-62, Yucca Trail and Onaga Trail. This is a major existing constraint in the development of a multi-modal circulation system in the Mid-Town area.

The entire Mid-Town area has very limited bicycle facilities to connect to major activity centers within the study area. Although, all three classes of Bike Paths (I, II, III) are available for integration, none of the facilities have been developed. Currently, only Class III bikeways are provided including some segments on Joshua Lane and Onaga Trail.



Legend

 Project Location

Road Classification

 4 Lane Highway, Divided (104')

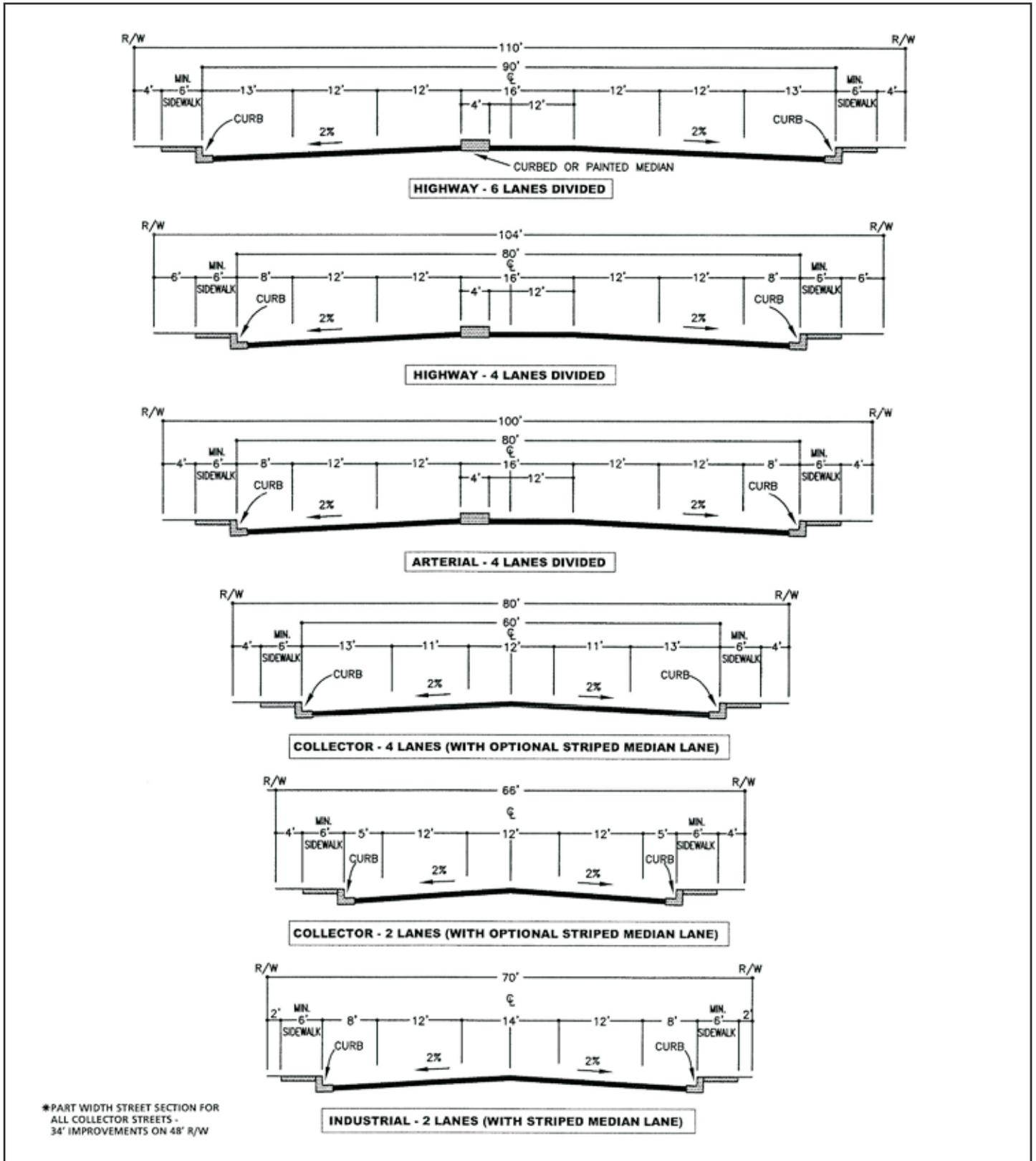
 4 Lane Arterial, Divided (100')

 4 Lane Collector (80')

 2 Lane Collector (66')

 2 Lane Industrial (70')





SOURCE: Old Town Yucca Valley Specic Plan CMP Trafic Impact Analysis, Urban C rossroads, August 7, 2005.

2.5 TRUCK CIRCULATION

Section 12.30.040 of the Yucca Valley Development Code establishes and designates the following streets and portions of streets as truck routes within the Mid-Town Area:

1. Airway Avenue from State Route 62 to Yucca Trail;
2. Airway Drive from Aviation Drive to State Route 62;
3. Aviation Drive from State Route 247 to Airway Avenue;
4. SR-247 (Old Woman Springs Road) from SR-62 to the northern City limits.

The chapter of the Municipal Code defines weight restrictions and specifies the ability of trucks to enter areas not designated as truck routes.

2.6 AVIATION

The Yucca Valley airport is a privately owned airport for private aircraft and flight training. However, the closest commercial airport is in Palm Springs with MBTA connection directly into the airport.

3.0 EXISTING TRAFFIC CONDITIONS AND LEVEL OF SERVICE

Level of Service (LOS) is a measure of transportation system performance based upon the ratio of traffic volume relative to the capacity of the roadway or intersection. Roadway capacity is a factor of the number of travel lanes, the presence of left-turn pockets, parking, and other specific roadway attributes. The volume-to-capacity ratio (V/C) indicates the overall performance of the roadway or intersection and corresponds to a rating of A through F identifying its level of capacity utilization and relative level of congestion. LOS A represents free-flow traffic with little or no delay whereas LOS F represents a breakdown of traffic flow and a high incidence of delay.

Roadways are generally classified in a hierarchical manner, according to the number of vehicle lanes provided. **Table 1** shows the Town of Yucca Valley roadway capacity of average daily traffic (ADT) based on roadway classification and LOS E.

TABLE 1: LEVEL OF SERVICE DAILY VOLUME THRESHOLDS

Highway Designation	Number of Lanes	LOS A	LOS B	LOS C	LOS D	LOS E
Collector	2 lanes undivided	900	2,000	6,800	14,100	17,400
Industrial	2 lanes undivided	900	2,000	6,800	14,100	17,400
Arterial	2 lanes undivided	-	-	9,700	17,600	18,700
Arterial	4 lanes undivided	-	-	17,500	27,400	28,900
Arterial	4 lanes divided	-	-	19,200	35,400	37,400

Source: Existing Conditions Report, Yucca Valley General Plan Update

The Highway Capacity Manual 2000 (HCM 2000) method is utilized by the Town of Yucca Valley to determine the operating LOS of intersections, which 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 corresponding delays as shown in **Table 2**. The Town of Yucca Valley goal for roadway segment and intersection operation is LOS D or better. Based on this, any intersection or roadway segment operating at LOS E or F is considered deficient.

TABLE 2: LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS

Level of Service	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
A	≤ 10	≤ 10
B	>10 and ≤ 20	>10 and ≤ 15
C	>20 and ≤ 35	>15 and ≤ 25
D	>35 and ≤ 55	>25 and ≤ 35
E	>55 and ≤ 80	>35 and ≤ 50
F	> 80	> 50

Table 3 provides a summary of existing Average Daily Traffic (ADT) and LOS for major roadway segments within the Mid-Town area. As can be seen, all major roadway segments within the Mid-Town area currently operate at acceptable (LOS D or better) levels of service.

TABLE 3: EXISTING ROADWAY SEGMENT LEVEL OF SERVICE

Street Name	Classification	Capacity	ADT	LOS D or Better
Joshua Lane (north of Onaga Trail)	2-lane undivided arterial	17,600	4,950	Yes
Joshua Lane (north of Yucca Trail)	2-lane undivided arterial	17,600	7,022	Yes
Onaga Trail (west of Joshua Lane)	2-lane undivided arterial	17,600	3,730	Yes
SR-62 (West of SR-247)	4-lane divided arterial	35,400	28,500	Yes
SR-247 (north of SR-62)	2-lane undivided arterial	17,600	12,000	Yes
Sunnyslope Avenue (west of SR-247)	Collector	14,100	1,680	Yes
Yucca Trail	2-lane undivided arterial	17,600	8,080	Yes
Sage Avenue	Collector	14,100	2,140	Yes

Source: Existing Conditions Report, Yucca Valley General Plan Update

4.0 NON-MOTORIZED MOBILITY PLANS

4.1 SAN BERNARDINO NON-MOTORIZED PLAN

The Non-Motorized Transportation Plan (NMTP) developed by San Bernardino Association of Government (SANBAG) in 2001 and updated in 2011 identifies the following facilities in the Mid-Town area of Yucca Valley:

- Joshua Lane (Class II Bikeway);
- Onaga Trail (Class II Bikeway);
- Sage Avenue (Class II Bikeway);
- Yucca Trail (Class II and III Bikeway).

No Class I Bikeways are identified within the Mid-Town study area.

4.2 PARKS AND RECREATION MASTER PLAN UPDATE

The Parks and Recreation Master Plan Update was adopted by the Town in 2008. Other than parks and recreational facilities, the Plan also includes bicyclists and pedestrians. This Plan is consistent with this NMTP with some additional bikeways identified. Within the study area, the following facilities have been proposed as part of the Plan:

- Joshua Lane (Class II Bikeway);
- Onaga Trail (Class II Bikeway);

- Sage Avenue (Class II Bikeway);
- Yucca Trail (Class II and III Bikeway);
- SR-247 (Class II Bikeway);
- Sunnyslope Drive (Class II Bikeway).

5.0 MOBILITY OPPORTUNITIES AND CONSTRAINTS

The following is a brief list of opportunities and constraints related to transportation and mobility within the Mid-Town project area. As the planning process develops, both opportunities and constraints will be considered and analyzed in relation to and coordinated with the overall land use planning context and vision. This will help develop integrated land use/transportation policies and will determine how the mobility options can contribute to reducing vehicle miles of travel (VMT) and environmental effects from Greenhouse Gas emissions.

Constraints:

Constraints are current problems and issues which serve as limiting factors and restrictions to taking and/or considering certain positive actions and solutions or make implementation of improvements difficult.

- SR-62 acts as a barrier and divider for the Mid-Town area. This is exacerbated by high vehicle speeds and the presence of trucks and military vehicles which prevents pedestrian activity.
- SR-247 high congestion, high traffic areas;
- Lack of north-south bike path connections;
- Infrequent bus service;
- Lack of continuous sidewalks;
- Lack of landscaping, shading and other pedestrian amenities;
- No on-going financing programs by SANBAG, only local pass-through funds from Measure I that have helped build some transportation improvements.

Opportunities:

Opportunities are generally favorable conditions or positive chances that exist or can become available to improve problems through feasible or practical solutions.

- As mentioned in the constraints, SR-62 acts a barrier between major government centers and offices. Based on the California Complete Streets Act of 2008, beginning in 2011, any substantive revision to the circulation element of any jurisdiction must have complete streets provisions

incorporated. The new law basically directs Caltrans to “fully consider the needs of non-motorized travelers in all programming, planning, maintenance, construction, operations and project development activities and products”. This Act provides an opportunity to the project team to devise ways to incorporate alternatives to vehicular access and encouraging non-motorized traffic such as pedestrians and bicyclists.

- In addition, traffic calming opportunities along SR-62 and SR-247 may also be considered in combination with the multimodal element. Potential traffic calming measures may include roundabouts, additional traffic signals if warranted, better lighting, bulbouts, textured crosswalks, etc.
- Fairly good levels of service at intersections and roadway segments within the Mid-Town area;
- Consolidation of driveways along SR-62, better use of existing frontage roads (Outerhighways) and opportunities for completion of frontage roads will help reduce local circuitous travel along SR-62;
- Commercial (central) part of Mid-Town area entirely within a fairly walkable district (½ mile radius);
- High transit use by students;
- Expansion of shuttle services between major origin-destinations and parking facilities to avoid making short auto trips;
- Opportunities for grid system street connectivity and implementation of the General Plan bikeway system;
- Complete Streets Legislation as guide for master plan of streets;
- Continuation of Measure I improvements and funding.