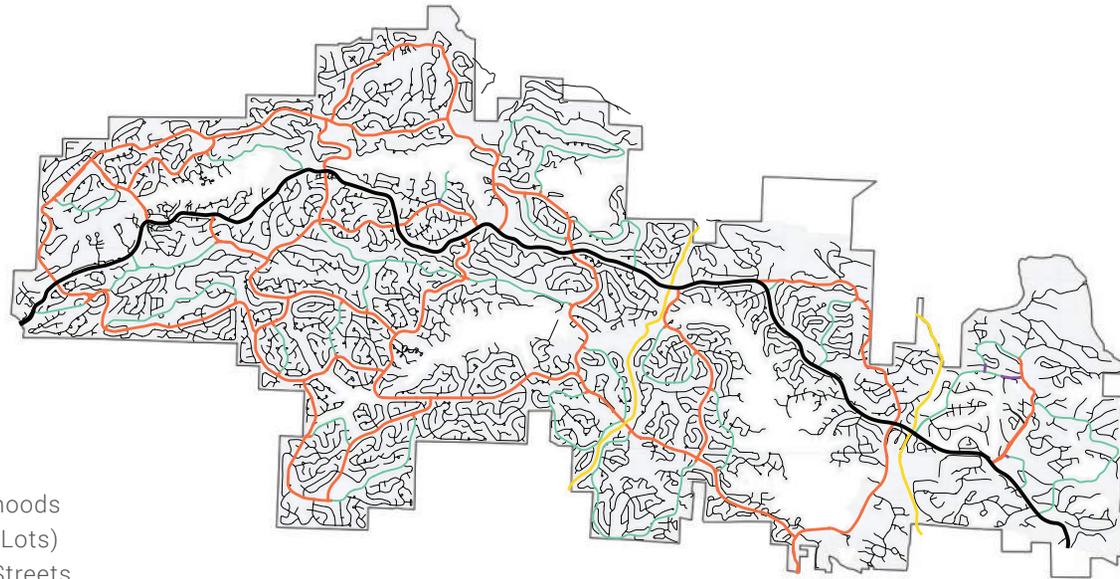


# VILLAGE STRUCTURE

## TRANSPORTATION



- DeSoto Boulevard
- County Roads
- Connectors of Neighborhoods
- Local Street (Fronted by Lots)
- Potential Extensions of Streets

### Thoroughfare Hierarchy

Transportation issues with the Village are complicated, with very few opportunities for physical change. Over the next 20 years, growth and change will have a limited impact on existing vehicular patterns. Still stacking at the gates is an increasing problem as is turning onto DeSoto. Many aspects of this plan will mitigate current and future problems, but there is limited opportunity for meaningful change for vehicular traffic.

The majority of this section discusses vehicular traffic. See alternate modes below for discussion of other modes.

### Dendritic Pattern

The current pattern of streets limits viable solutions to traffic, current or future. The Village was designed with a dendritic pattern of streets. This refers to the way major arterial streets, like DeSoto, branch off to collector streets, like Balearic and Carmona, which branch off to minor streets, like Asturias, and finally to the culs-de-sac.

Dendritic street networks concentrate traffic from local streets onto the collectors which in turn concentrate traffic onto the arterials. The network in the Village only consists of a single arterial, DeSoto, which receive almost all traffic headed into and out of the gates. While other minor gates do exist, the majority of traffic uses the East or West gate.

The pattern established offers very few options for modification. While there are a few alternatives to DeSoto, like Barcelona to the north and Balearic & Fresno to the south, they still deliver traffic to DeSoto at some point.

Due to property ownership and topography, physical changes to this pattern are nearly impossible. Luckily the system is very underutilized at present, and growth projected for the next 20 years will not overwhelm the pattern. If the entirety of the Village were developed, traffic backups would be frequent, but growth and suspension strategies discussed in this plan will help to offset those effects.

# VILLAGE STRUCTURE

## TRANSPORTATION

### Topography

The topography of the Village is a major impediment to transportation solutions. As built today, many of the Village's intersections and streets far exceed national standards. While those standards may be a little excessive, Village road grades are clearly dangerous in many places. Unfortunately little can be done to change this situation, however it may be avoided in or remedied by future development.

Over the next 20 years, a few strategies may be pursued:

- Suspending development within areas of extreme roadway grade,
- Reducing travel speeds,
- Inventorying intersection grades,
- Modifying intersection design or control where grades permit.

### DeSoto Intersection Improvements

Because traffic concentrates onto DeSoto, it will be in need of flow and safety improvements before any other street. In fact at current there are numerous intersections with sight distance, topographic, speed, and control problems. With very few traffic control measures along DeSoto, turning left onto the street, and even right at times, can be difficult or dangerous.

While resistance to intersection control along DeSoto is anticipated, it is necessary to improve the long-term function of the full street network and to improve safety.

Combined with new signage, intersection control along DeSoto can assist in wayfinding as well. By controlling key intersections, movements onto and off of DeSoto will improve, reducing stacking onto collectors and speed will be reduced. Slower speeds along DeSoto will likely draw resistance, but the current operating speeds are dangerous and signage alone will not change behavior.

Intersection control, grades, and sight distance need to be studied at a number of intersections along DeSoto. The intersection improvements below should be studied at minimum.

INTERSECTION	IMPROVEMENT
W. Villena Dr. / DeSoto Blvd.	Left-turn onto DeSoto
Barcelona Rd. / DeSoto Blvd.	Full stop control or round-about
Emanuel Cir. / DeSoto Blvd.	Speed Control
Huelva Rd. / DeSoto Blvd.	Left-turn onto DeSoto
Calella Rd. / DeSoto Blvd.	Sight distance, Speed control
Alicante Rd. / DeSoto Blvd.	Sight distance, Left-turn onto DeSoto
Carmona Rd. / DeSoto Blvd.	Sight distance, Round-about
Fresno Rd. / DeSoto Blvd.	Full stop control or round-about
Balearic Rd. / DeSoto Blvd.	Full stop control or round-about
Cortez Rd / DeSoto Blvd.	Left-turn onto DeSoto
Minorca Rd. / DeSoto Blvd.	Full stop control or round-about
Balboa Rd to Ecuestra Dr. / DeSoto Blvd.	Town center interventions
Villacarriedo Dr. / DeSoto Blvd.	Left-turn onto DeSoto
Ponce de Leon / DeSoto Blvd.	Full stop control
Maderas Dr. / DeSoto Blvd.	Left-turn onto DeSoto
Iniciador Way / DeSoto Blvd.	Left-turn onto DeSoto

# VILLAGE STRUCTURE

## TRANSPORTATION

### Gates

Transportation issues across the entire network in the Village are exacerbated by a limited number of access points to the surrounding regional network. Because residents must leave the Village for most shopping and employment, the gates are bottlenecks. Similarly, and often more noticeably, the gates back-up with visitors and workers who are part of the day-to-day function of the Village.

Improvements are being made to gate functionality currently, which may alleviate some issues. But the west gate will continue to suffer from excessive demand. Unfortunately the west gate cannot easily be moved due to W Villena Dr and San Fernando Ln. As long as the gates remain, they will cause entry bottlenecks. Technology and event timing are the only steps to be taken, with the exception of trip capture.

### Trip Capture

For long-term traffic reduction without major changes to the roadway network, trip capture is required. This technique works by providing activities and services closer to where people live, so there are fewer vehicle trips and shorter trips overall. The town center, Carmona, and Coronado centers are key to capturing trips. By providing meaningful destinations within the gate, fewer trips need to go through the gates and those trips cover a smaller portion of DeSoto.

Trip capture is similar to retail gap analysis, which determines where people who reside within the Village spend their money outside of the Village. If a portion of that spending can occur within the gates, vehicle trips overall are reduced. Achieving this, however, requires that the destinations within the gates have numerous activities that require parking in only one time. They also need a critical mass of housing very nearby to ensure they remain active. These items are critical to success and central to the growth strategies of this plan.

### Aging Population

To compound traffic issues, driving, especially at night, becomes more difficult as people age. Strategies to address this concern include safety and lighting improvements, downsizing within the walkable activity centers, and alternate transportation options.

Safety and lighting improvements should be studied generally throughout the Village. The current lighting strategy is almost entirely resident led. Safety concerns caused by a lack of lighting should be a community-wide concern, particularly on the more major streets. This doesn't mean that every street should be fully lit, but a minimal standard should be considered as a community-wide responsibility. Other safety concerns were discussed previously, speed and intersections in particular.

Downsizing within the Village into the walkable activity centers is a viable strategy for a portion of the aging population. While not for everyone, many charrette participants expressed a desire to live in smaller houses or condos without yards or extra rooms to maintain. Many were also interested in the activity centers with access to food, entertainment, recreational amenities, and people watching. Downsizing into these centers significantly reduces the need to drive.

Lastly alternative transportation options may be considered. In many communities these include on-demand shuttle buses and a greater range of golf cart friendly paths. The latter option is difficult in most of the Village, however, due to topography. Additionally, the Village lacks transportation network services like Uber or Lyft. While these services are not likely to grow organically within the gates, the Village could shepherd growth. With Uber, the Village could train residents as drivers and offer a phone-based system to book rides for people without smartphones. Together this would build a pool of drivers available to anyone in the Village, and a service for those most in need.

# VILLAGE STRUCTURE

## TRANSPORTATION

### **Non-vehicular Modes**

Transportation is not only about cars, but they tend to dominate the conversation. Provisions for cyclists and pedestrians are almost completely lacking across the entire Village. Few streets if any provide sidewalks. Those streets with bicycle markings are inadequate. And multi-use trails are not fully connected.

Adding support for non-vehicular modes is a daunting task at the scale of the Village. Topography additionally makes walking and cycling very difficult in much of the Village. With too much ground to cover, strategic, incremental improvements are needed. Some are as easy as adjusting the bicycle route to a less topographically challenging location.

The majority of non-vehicular improvements should be concentrated along the major roadways and within and around activity centers. Along DeSoto, the multi-use trail should be improved for multi-modal use and a new trail for road bikes adjacent to the roadway should be added. Along other roadways connecting major centers like Coronado, multi-use paths along the roadway should be added. Within activity centers, pedestrian and bicycle modes should be prioritized. Between activity centers and housing within ½ mile of them, bicycle connections should be added to collectors and pedestrian connections added through trails, multi-use paths, and sidewalks where possible.