



Bicycle Master Plan

Village of Los Lunas

2015



MOLZENCORBIN
ENGINEERS | ARCHITECTS | PLANNERS



RESOLUTION 17-26

WHEREAS, the Village of Los Lunas Bicycle Master Plan describes the Village of Los Lunas vision for bicycle route development in the community; and

WHEREAS, the Village of Los Lunas's goal with respect to bicycles is to provide a high quality and a safe bicycle system for a wide diversity of users including family oriented recreational riders, commuters, and advanced athletics; and

WHEREAS, bicycle routes can help improve the health and safety of our residents, make it easier for citizens to incorporate healthy physical activities into daily travel routes, increase the use of bicycles by traveling to and from activity centers, schools and residential communities; and

WHEREAS, an effective Bicycle Master Plan can reduce vehicle miles traveled, and carbon emission while improving air quality and the health of the community; and

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE VILLAGE OF LOS LUNAS, NEW MEXICO, that I, Charles Griego, Mayor, hereby approve the Bike Master Plan Resolution for the Village of Los Lunas, New Mexico, and hereby commit to bicycle route development.

PASSED, ADOPTED, AND APPROVED THIS 21nd day of December 2017.



Charles Griego, Mayor

ATTEST:



Gregory D. Martin, Village Administrator

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1.0 - Background

The Village of Los Lunas currently utilizes three (3) main types of bicycle facilities: multi-purpose paths, bike lanes, and shared use roadways. A Bikeway Master Plan Map was developed to improve the connectivity between the existing bicycle facilities and to encourage designated bikeways where no such facilities currently exist. The following text will help to define and explain the roles of each bikeway facility and provide key design elements for each option.



2.0 - Definitions

A “bikeway” for the means of this document is a facility that is provided primarily, but limited to, bicycle travel. Bikeways can include the following:

-  **Multi-purpose Path** Provides a completely separate right-of-way (paved or non-paved) for the use of bicycles, equestrians, joggers, hikers, etc. with cross flow by motorists minimized.
-  **Bike Lane** Provides a striped lane for one-way bike travel on a street or highway.
-  **Shared Use** Provides for shared use with pedestrian or motor-vehicle traffic. Typically accompanied by “shared lane” pavement markings.

All three (3) bikeway facilities can currently be found in the Village of Los Lunas. Examples of such facilities can be referenced in Figures 6-1, 6-2, and 6-3.

3.0 - Roles of Bikeways

Creating bike facilities is just one element of a large effort to improve bicycle safety and convenience. It is created to either help accommodate motor vehicle and bicycle traffic on shared roadways or to complement the road system to meet needs not adequately met by roads.

In addition, off-street bike and pedestrian facilities in exclusive corridors can be effective in providing new recreational opportunities or, in some instances, desirable commuter routes. They can also be used to close gaps where barriers exist to bicycle and pedestrian travelers such as ditch or river crossings.

4.0 - Decision to Develop Bikeways

The decision to develop bikeways should be made with the knowledge that bikeways are not the solution to all bicycle-related problems. Many of the common problems are related to improper bicyclist and motorist behavior and can only be corrected through effective education and enforcement programs. The development of well-conceived bikeways can have a positive effect on bicyclist and motorist behavior. Contrarily, poorly developed bikeways can be counterproductive to education and enforcement programs.

5.0 - Needs of Non-Motorized Transportation

The needs of non-motorized transportation are an essential part of all roadway projects within the

Village of Los Lunas. Bicycle travel, in particular, can be enhanced by improving maintenance and by upgrading existing roads used regularly by bicyclists, regardless of whether or not bicycle facilities are designated. This effort requires increased attention to the right-hand portion of roadways where bicyclists are expected to ride. Some design criteria to be considered when implementing roadway improvements are listed below:

- ⊗ **On new construction and major re-construction projects**, adequate width should be provided to permit shared use by motorists and bicyclists.
- ⊗ **On resurfacing projects**, it is important to provide a uniform surface for bicyclists and pedestrians and, when feasible, a wider shoulder should be considered.
- ⊗ **When placing a roadway edge line**, sufficient room outside the line should be provided for bicyclists.
- ⊗ **When considering the re-striping of roadways** for more traffic lanes, the impact on bicycle travel should be assessed.



6.0: Bikeway Facilities



The type of facility to be selected in meeting the bicycle need is dependent on many factors, but the following applications are the most common for each type.

6.1 - Multi-Purpose Path

Generally, multi-purpose paths should be used to serve corridors not served by roadways or where wide right-of-way exists, allowing for such facilities to be constructed away from the influence of parallel traffic. Multi-purpose paths should offer opportunities not provided by the road system. They can either provide a recreational opportunity or, in some instances, can serve as direct high-speed commuter routes if cross flow vehicle and pedestrian conflicts can be minimized. There may also be situations where such facilities can be

provided as part of planned developments, such as the Huning Ranch Area Plan adopted in 2007 by the Village.

Multi-purpose paths are facilities with exclusive right-of-way, with cross flows by motorists minimized for the exclusive use of bicycles, pedestrians, and equestrians. If significant pedestrian use is anticipated, separate facilities, such as sidewalks, should be utilized to minimize conflicts.

Sidewalk facilities are not considered bicycle facilities because they are primarily intended to serve pedestrians and generally cannot meet the design standards for bikeways. They also typically do not minimize motorist cross flows. The following criteria should be noted when designing a multi-purpose path:



Figure 6.1 - Multi-Purpose Path

-  **Minimum width:** 8 ft
-  **Signing and Striping:** For application and placement of signs, reference the most current addition of the Manual of Uniform Traffic Control Devices (MUTCD)
-  **When crossing an arterial street,** the crossing should either occur at the pedestrian crossing, where motorists can be expected to stop, or at a location completely out of the influence of any intersection to permit adequate opportunity for bicyclists to see turning vehicles. When crossing at midblock locations, right-of-way should be assigned by devices such as yield signs, stop signs, or traffic signals which can be activated by bicyclists. In some cases, “bike xing” signs may be placed in advance of the crossing to alert motorists. Ramps should be installed in the curbs to preserve the utility of the bike path and should be in the same width as the bicycle paths.

6.2 - Bike Lanes

Bike lanes are established along streets in corridors where there is significant bicycle demand and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bicyclists in the corridors. Bike lanes are intended to delineate the right-of-way assigned to bicyclists and motorists and to provide for more predictable movements by each. In addition, a more important reason for constructing bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. This can be accomplished by reducing the number of lanes, reducing lane width, or prohibiting parking on given streets in order to delineate bike lanes.

Bike lanes for preferential use by bicycles are established within the paved area of roadways. Bike lane pavement markings are intended to

promote an orderly flow of traffic by establishing specific lines of demarcation between areas reserved for bicycles and lanes to be occupied by motor vehicles. The effect is supported by bike lane signs and pavement markings. Bike lane pavement markings can increase bicyclists' confidence that motorists will not stray in their path of travel if they remain within the bike lane. Likewise, with more certainty as to where bicyclists will be, passing motorists are less apt to swerve toward opposing traffic in making certain they will not hit bicyclists.

 ***Bike lanes shall be one way facilities.***

 ***Minimum Width:*** The intent is to provide a minimum 4 foot wide bike lane, since the gutter reduces the effective width of the bike lane for the following two (2) reasons:

1) The longitudinal joint may not always be smooth, and may be difficult to ride along;

2) The gutter does not provide a suitable surface for bicycle travel. Bicyclists should not be expected to ride in the gutter.

 ***Bike lanes shall not be placed between the parking area and the curb.*** Such facilities increase the conflict between bicyclists and opening car doors, and reduce visibility at intersections. Also, they prevent bicyclists from leaving the bike lane to turn left and cannot be effectively maintained.

 ***There are situations where it may be desirable to reduce the width of the traffic lanes*** in order to add or widen bicycle lanes or shoulders. In determining the appropriateness of narrower traffic lanes, consideration should be given to factors such as motor vehicle speeds, truck volumes, alignment, bicycle lane width, sight distance, and the presence of on-street vehicle parking.



Figure 6.2 - Bike Lane



Figure 6.3 - Shared Use Facility



usage is secondary. Since bicyclists are permitted on all roadways within the Village (except I-25), the decision to designate the route as a bikeway should be based on the advisability of encouraging bicycle travel on the route.

⊗ **Shared use facilities** are established by placing “shared lane” pavement markings, and appropriate “bicycles can use full lane” signs to be referenced in the latest version of the MUTCD.

⊗ **Minimum widths for shared use bikeways are not specified**, as the acceptable width is dependent on many factors, including the volume and characteristic of vehicular traffic on the road, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions.

⊗ **To be of benefit to bicyclists**, bike routes should offer a higher degree of service than alternative streets. Shared use should be signed and marked only if some of the following apply:

- 1)** They provide for through and direct travel in bicycle-demand corridors.
- 2)** Connect discontinuous segments of bike lanes.
- 3)** An effort has been made to adjust traffic control devices (stop signs/signals) to give greater priority to bicyclists, as compared to alternative streets.

6.3 - Shared Use

Most bicycle travel in the Village now occurs on roadways without bikeway designations. This probably will be true in the future as well. In some instances, entire street systems may be fully adequate for safe and efficient bicycle travel and signing and pavement marking for bicycle use may be unnecessary. In other cases, prior to designation as a bikeway, routes may need improvements for bicycle travel. Such improvements could include the installation of roadway signing and markings. Shared use is intended to provide continuity to the bikeway system. Bike routes are established along through routes not served by multi-purpose paths or bike lanes, or to connect discontinuous segments of bike lanes. Shared use facilities imply their intention, which is to share the roadway with motor vehicles on the street, in which case bicycle

7.0: Bicycle Master Plan Map



Referencing the ***Village of Los Lunas Bicycle Master Plan Map (Figure 7.1, page 7)*** allows one to understand both the current status of bikeway facilities and also the direction in which the Village intends to go with their bicycle facilities. Two (2) of the largest issues the Village faces in creating bikeways are both right-of-way acquisition and maintaining continuity between existing facilities. Given the geography of the Village, the Rio Grande River, and numerous ditches that irrigate the farmland, it should be noted that natural barriers limit east and west bikeway travel as mentioned in the “Roles of Bikeways” section above. The ***Village of Los Lunas Bicycle Master Plan Segment Map (Figure 7.2, page 8)***, is a map of the Village of Los Lunas which divides the village into six (6) main segments (titled A-F). Sections 7.1 through 7.6 will explore three (3) main criteria for each segment: existing bikeways, proposed bikeways, and potential difficulties.

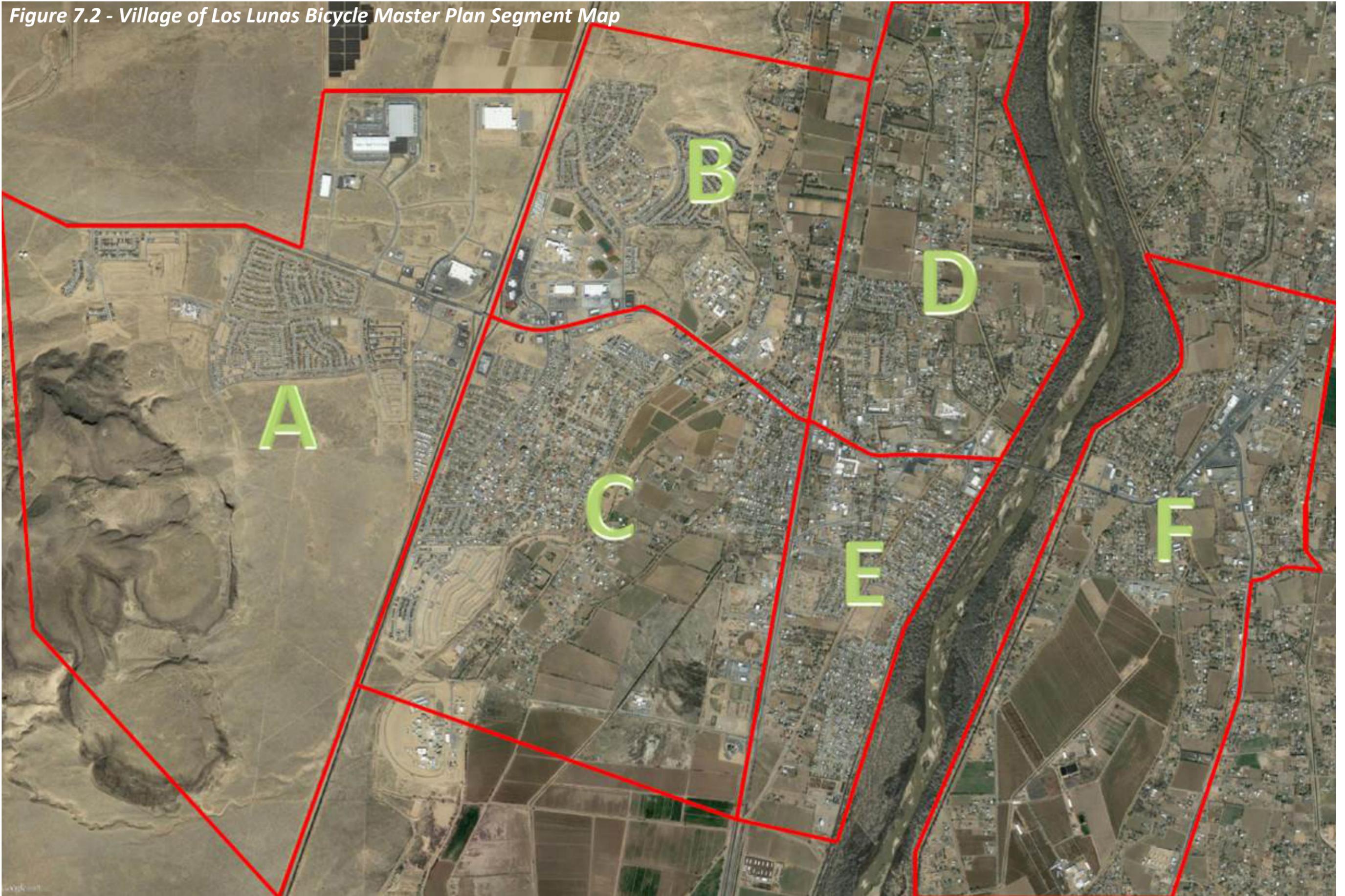
VILLAGE of LOS LUNAS

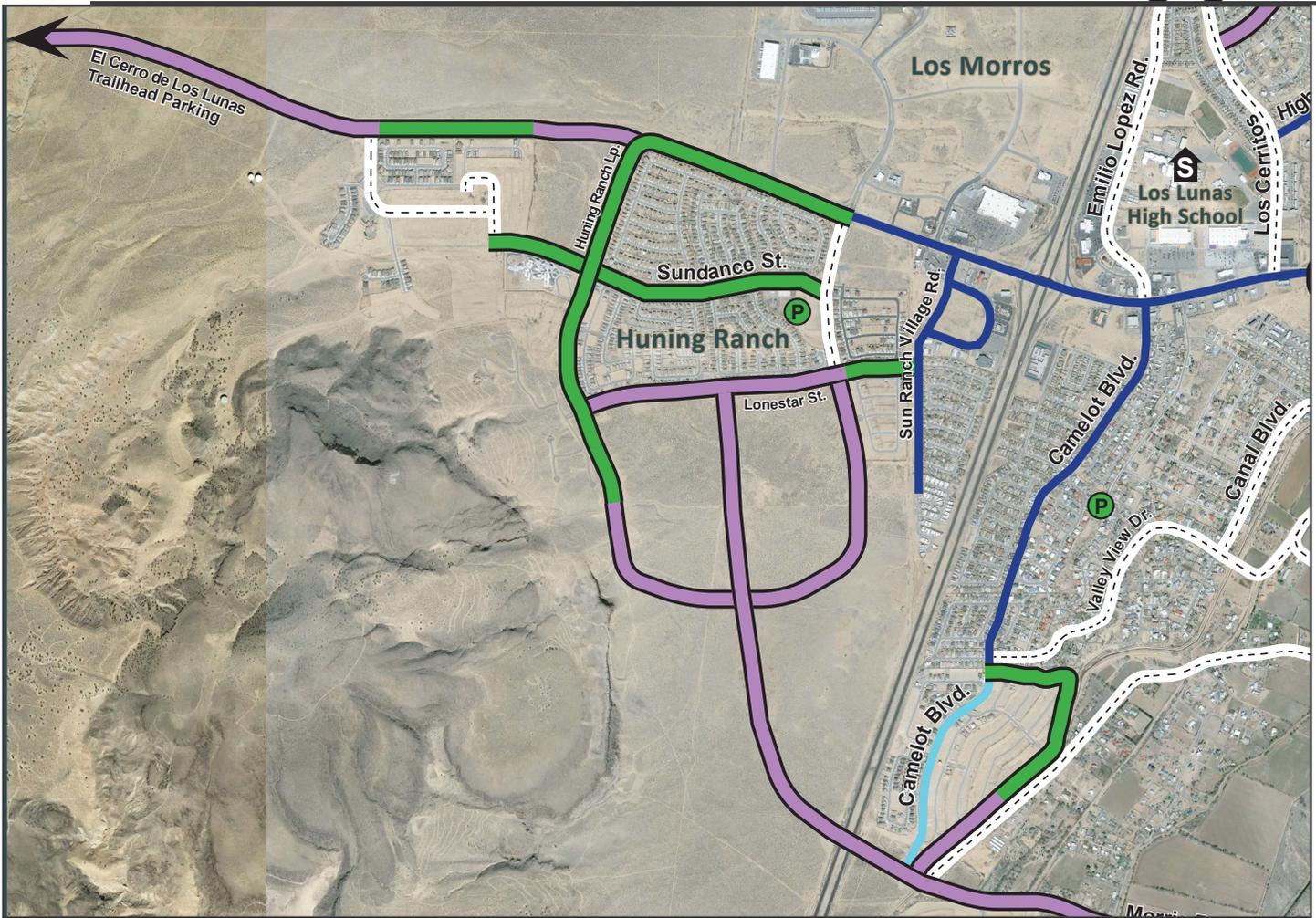
Bicycle Master Plan



Figure 7.1 - Village of Los Lunas Bicycle Master Plan

Figure 7.2 - Village of Los Lunas Bicycle Master Plan Segment Map





7.1 - Segment A

EXISTING BIKEWAYS: There are two (2) main types of bikeways existing in Segment A: multi-purpose path and bike lanes. The 2007 Huning Ranch Area Plan shows the proposed development within Segment A, much of which includes multi-purpose trails. Bike lanes along NM 6 and Sun Ranch Village are great features to allow bicycle access to all subdivisions from NM 6.

 **Proposed Bikeways:** The Village is proposing to implement multi-purpose paths from Huning Ranch to the El Cerro de Los Lunas Trailhead, continuing the current trend of the NM 6 bikeway facilities. In addition, the Village is encouraging connectivity between the three (3) main subdivisions (Jubilee, Huning Ranch, and Sun Ranch) by adding either a shared use bikeway or a multi-purpose path as shown on the Bicycle Master Plan Map.

 **Potential Difficulties:** Given the residential and commercial development projections of the Huning Ranch Area Plan, the Village can anticipate large traffic volumes along Huning Ranch East Loop. The proposed designation of shared use along Huning Ranch East Loop could lead to an efficiency and safety issue for both bicyclists and vehicles. Existing roadway dimensions do not allow for bike lanes along Huning Ranch East Loop, but the existing right-of-way dimensions do allow for a multi-purpose path to be constructed along the roadway. Traffic patterns should be analyzed as development increases.



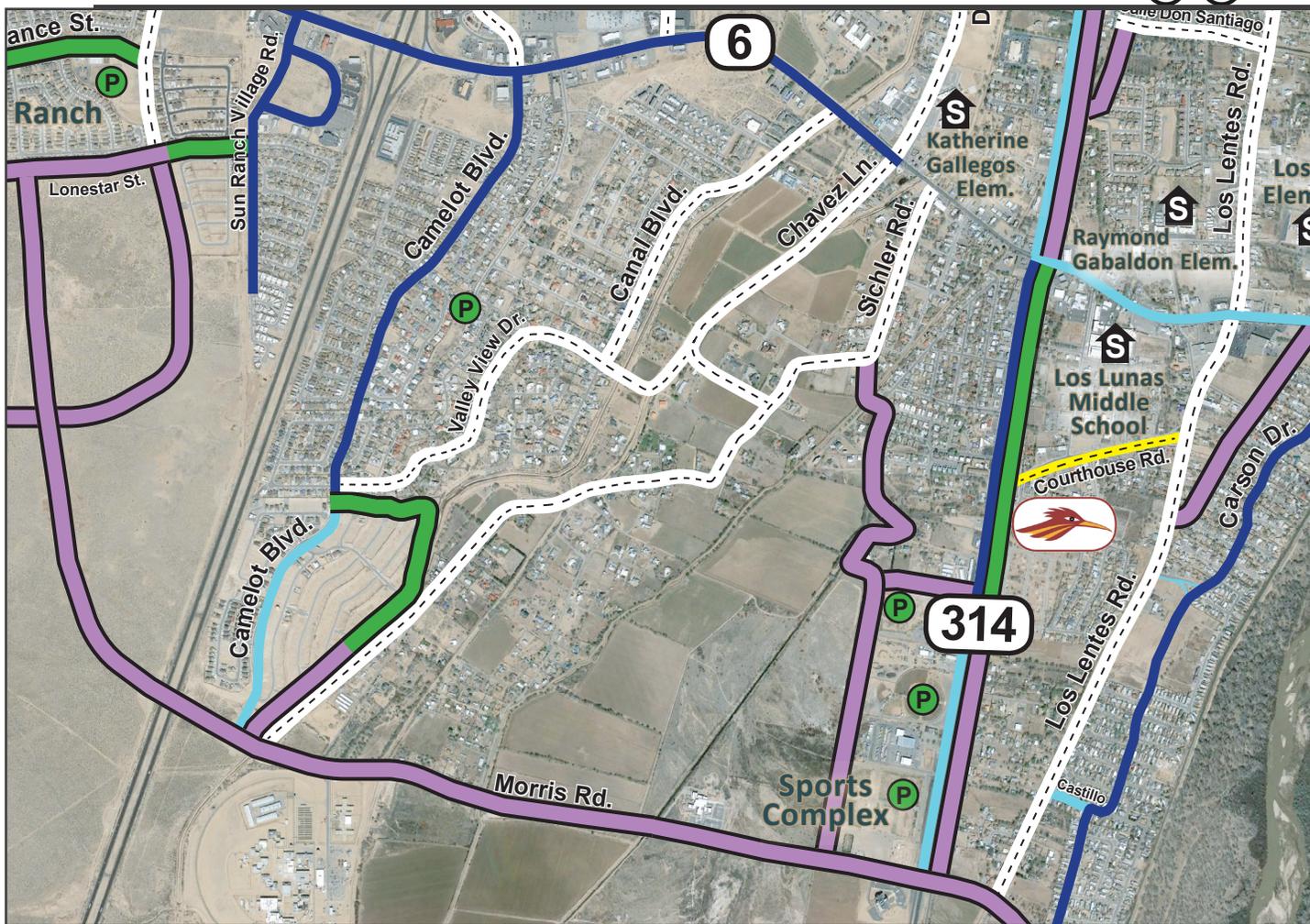
7.2 - Segment B

EXISTING BIKEWAYS: Two (2) bikeways currently exist in Segment B. Highline Street was constructed with a bike lane and there is a multi-purpose path that wraps along the north side of the Fiesta Subdivision.

Proposed Bikeways: There are three (3) different proposed bikeways for Segment B. Emilio Lopez Road, Los Cerritos, Don Pasqual Road, and Tondre Road are to become shared use roadways in addition to the extension of the Highline bike lanes and adding a multi-purpose path just north of Los Cerritos Del Los Lunas.

Potential Difficulties: Emilio Lopez Road and Los Cerritos could generate a lot of traffic, both commercial and residential. Large traffic volumes could be dangerous to bicyclists in a shared use scenario. In addition, crossing a ditch

could potentially be a massive coordination effort for the Village. The leg just west of Tondre Road will be one such effort to be noted. This connection proves vital for a residential bypass between Los Cerritos and NM 314.



7.3 - Segment C

EXISTING BIKEWAYS: Bike lanes along Camelot Boulevard and NM 314, as well as the multi-purpose path along NM 314 are the only existing facilities in Segment C.

 **Proposed Bikeways:** Shared use along Canal Boulevard, Chavez Lane, and Sichler Road will provide connectivity between the numerous subdivisions and NM 6 (Main Street).

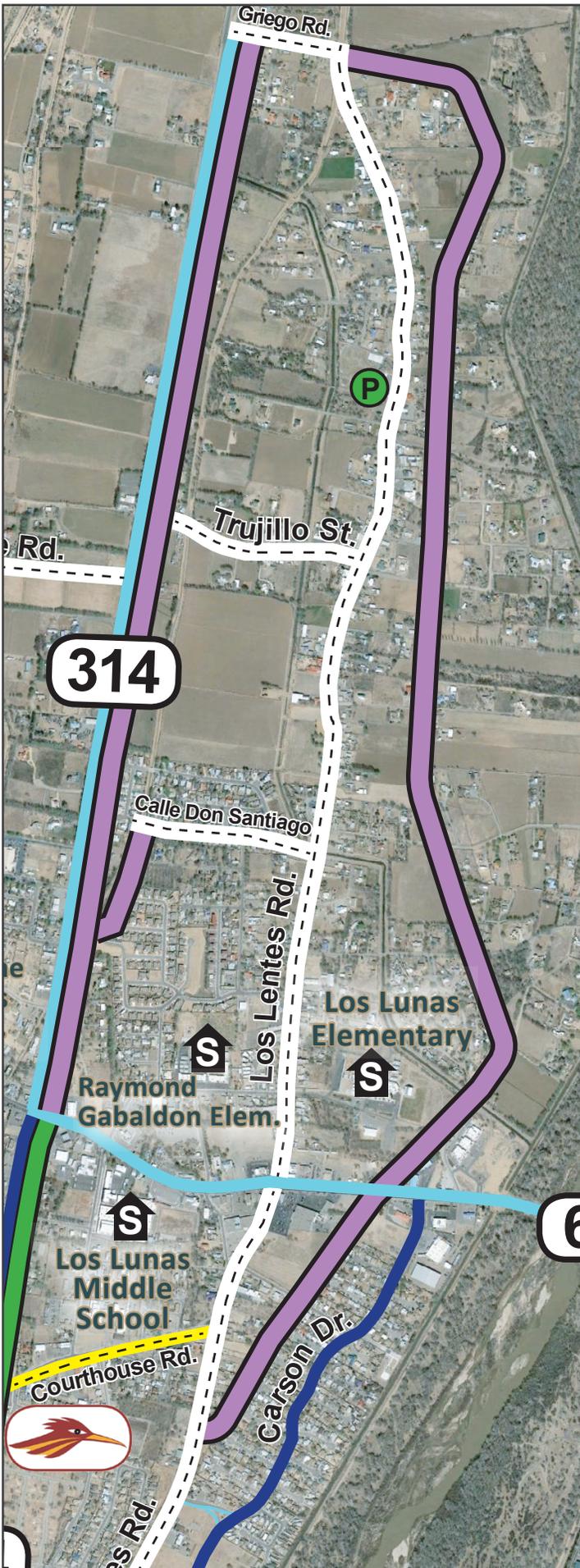
 **Potential Difficulties:** The Village may face some difficulties finding ditch crossings for the two (2) locations (Chavez Lane and Sichler Road). Maintaining east and west connectivity is going to be crucial at these locations within the Segment C bikeway development.

7.4 - Segment D

EXISTING BIKEWAYS: Segment D has no existing bikeways.

 **Proposed Bikeways:** The Village is proposing all three (3) types of bikeways along various routes including, but not limited to, NM 314, Los Lentos Road, Trujillo Street, Griego Street, Calle Don Santiago, as well as maintaining access to drainage ditches in the area.

 **Potential Difficulties:** Calle Don Santiago and Trujillo Street will both need to cross the railroad to attain access to NM 314. This will be a large coordination effort with the NMDOT Railroad Division.



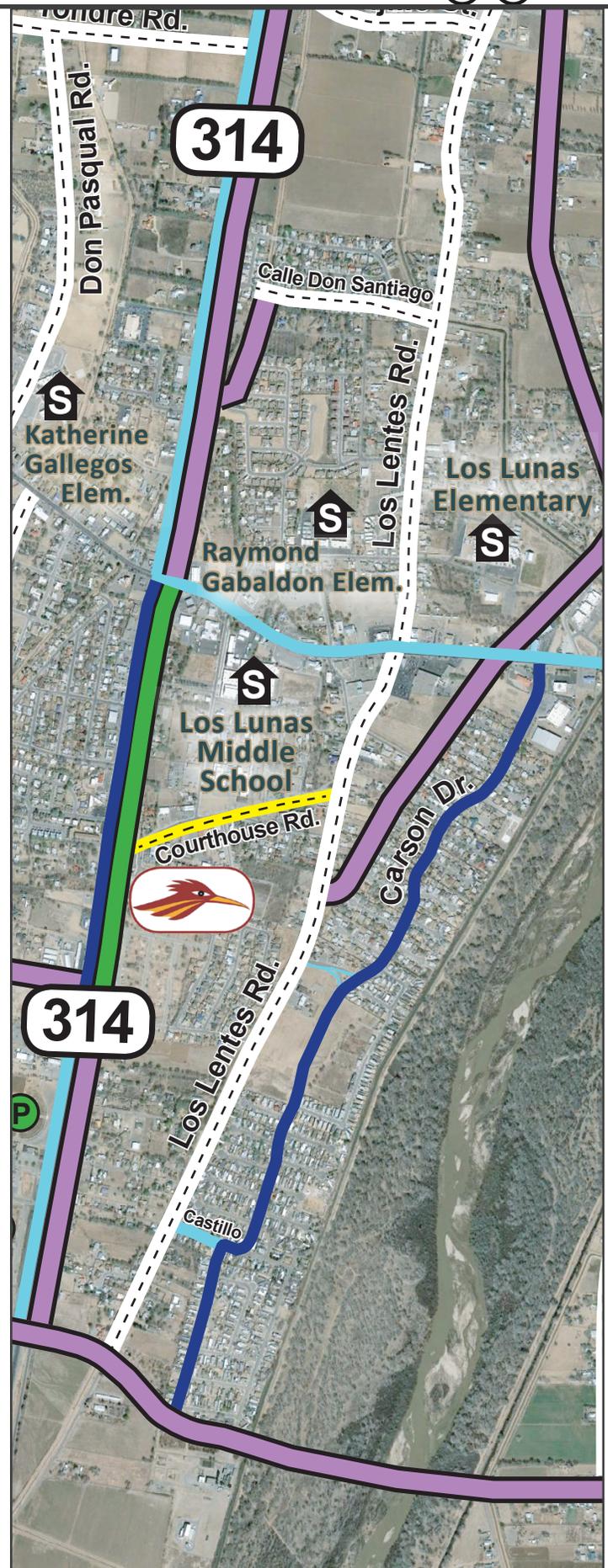


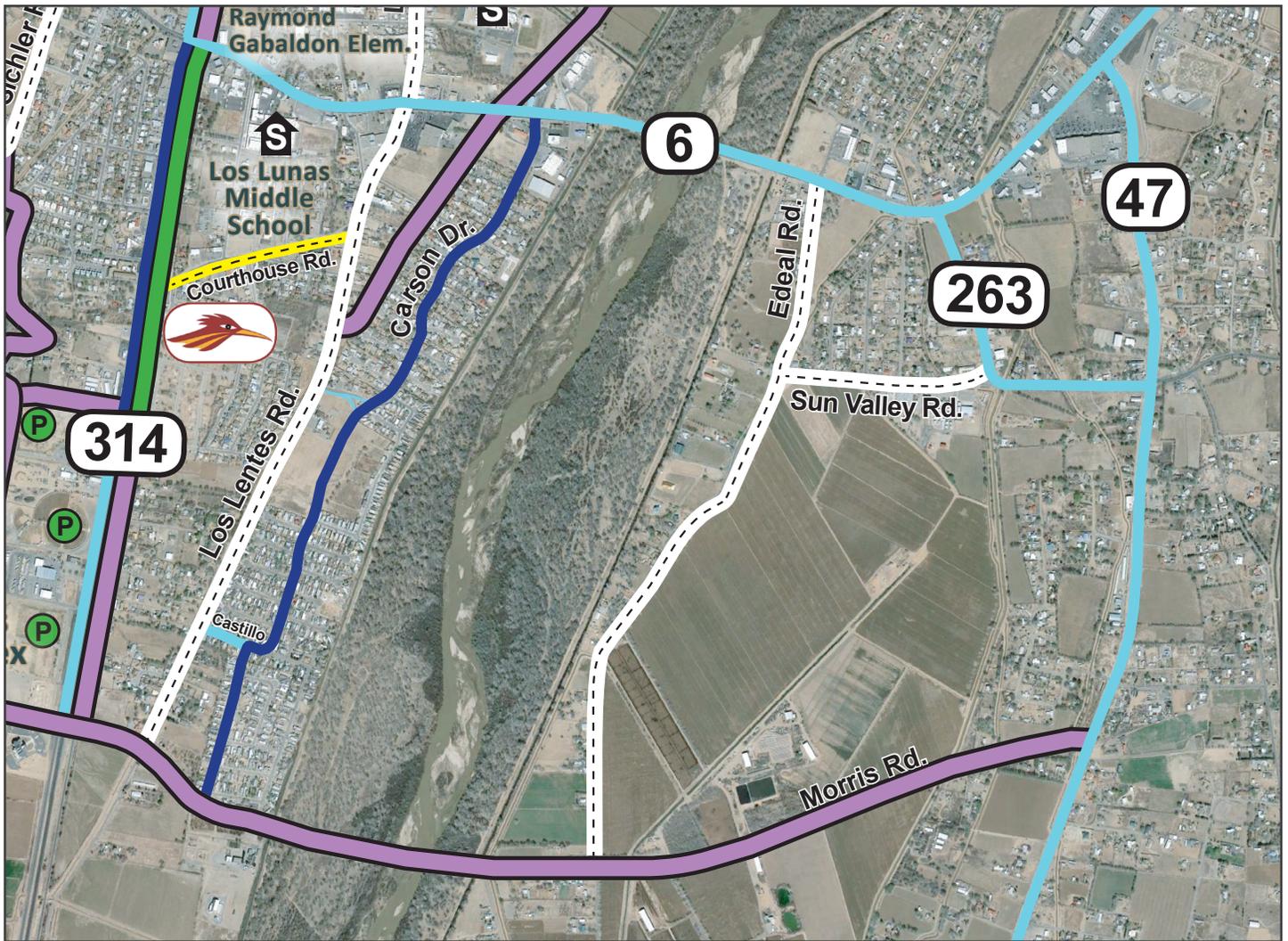
7.5 - Segment E

EXISTING BIKEWAYS: Courthouse Road is the only existing shared use facility currently in the Village, and Carson Drive has a long stretch of bike lanes running from NM 6 to Morris Road.

 **Proposed Bikeways:** The Village is proposing shared use bikeways along Los Lentes Road and to connect Aspen Drive and Castillo Street to Los Lentes Road via bike lanes. In addition, a multi-purpose path along a drainage ditch and bike lanes along NM 6 are crucial to improving connectivity between neighborhoods and commercial businesses.

 **Potential Difficulties:** One such difficulty is going to be the NMDOT coordination of a mid-block pedestrian crossing along the ditch at NM 6.





7.6 - Segment F

EXISTING BIKEWAYS: Segment F has no existing bikeways.

Proposed Bikeways: Edeal Road and Sun Valley Road are proposed shared use facilities, and NM 263 and NM 47 are proposed future bike lanes. The Morris Road connection is proposed to be a multi-purpose path.

Potential Difficulties: There may be issues with roadway widths/right-of-way acquisition along the state highways. This too will be a large coordination and design effort with NMDOT.

References



California Department of Transportation; Chapter 1000, Bikeway Planning and Design, Highway Design Guide published June 2006.

Huning Ranch Area Plan, 2007

Manual on Uniform Traffic Control Devices, 2012

