

Chapter Three

Circulation Plan

3.1 Overview of Circulation Plan

The Rancho Los Lagos Circulation Plan complements the Land Use Plan and creates a safe, interconnected system for both vehicles and pedestrians. The Land Use Plan provides narrow front setbacks, orients buildings to the street, and encourages front porches to create comfortable streetscapes that foster pedestrian activity, passive visual surveillance, and social interaction throughout the Plan area. The Circulation Plan emphasizes comfortable streetscapes via a hierarchy of walkable streets lined with sidewalks, paseos, bicycle facilities, medians and landscaping. The design of the Circulation Plan emphasizes visual and physical connectivity to the parks and schools. The pedestrian and bicycle facilities provide the residential areas with connections to the multiple community amenities. The landscaping, including street tree canopies and landscaped areas provide all Plan area roadways with shade, a comfortable human scale, and attractive planting areas. Short residential blocks and open cul-de-sacs further enhance the Plan and reinforce the goals of a pedestrian-oriented community, convenient opportunities for recreation, and increased social interaction.

The Circulation Plan also provides the community with convenient access to the regional arterial and highway network. The Circulation Plan connects to adjacent planned roadways in both the City of Brawley and the County of Imperial. In the central portion of the Specific Plan area, future Western Avenue in the City of Brawley is extended south through the Specific Plan area by offsetting through traffic via Jameson Road to a new portion of Western Avenue just west of the proposed community park and extending

south to Lavender (Schartz) Road. These two new Circulation Element collector roads (Jameson Road and Western Avenue) are planned to parallel and relieve traffic from SR-86 while providing regional access by extending southerly outside the Specific Plan area past Lavender (Schartz) Road to Keystone Road and Harris Road respectively. This system of parallel north-south collector roads is then connected by the addition of an east-west planned Circulation Element roadway (Avenida Del Valle) connecting SR-86 to both Jameson Road and Western Avenue to the east, and swinging northwesterly to connect to the current terminus of Avenida Del Valle in the City of Brawley.

The proposed additions to the Circulation Element Map of the County of Imperial are shown on **Figure 3-1A** Regional Circulation Plan. These additions will be incorporated with the approval of the Rancho Los Lagos Specific Plan.

3.2 Proposed Roadways

The Rancho Los Lagos Circulation Plan includes several roadway types that serve a variety of functions: Dogwood Road; Lavender (Schartz) Road; Jameson Road; Avenida Del Valle (at commercial); Avenida Del Valle; Entry Avenue; Modified Collector (a portion of Western Avenue); Mid-Volume Residential Street; Low-Volume Modified Collector Street; Promenade Street with Paseo; Promenade Street; Community Park Street; Residential Street with Paseo; Residential Street; Private Alley; and Business Park Street.

The proposed roadways that bound the Plan area (i.e., Dogwood and Lavender (Schartz) Roads) are designed consistent with the Street Cross-Sections identified in the Imperial County General Plan. However, the configurations of the proposed internal roadways are based on the anticipated average daily traffic volumes (ADTs) and circulation planning objectives for the Plan area (e.g., efficient vehicular movement, walkable neighborhoods, pedestrian safety, and aesthetically-pleasing streets). In order to accommodate the anticipated traffic volumes and meet planning objectives, select roadway designs deviate from the standard Street Cross-Sections identified in the General Plan.

The roadways entering the Plan area, such as Avenida Del Valle and the Entry Avenues, are designed to handle the higher ADTs generated by vehicles entering and exiting Rancho Los Lagos. These roadways feature 12-foot lane widths to allow for efficient circulation of the higher anticipated traffic volumes and sufficient shoulders or bike lanes to provide increased safety for bicyclists on these higher volume streets. The Modified Collector Street and Mid-Volume Residential Street are also designed with 12-foot lane widths to accommodate the medium level ADTs that are anticipated at the commercial mixed use, along the extension of Western Avenue, and at the two proposed School/Park sites. The medium level ADTs dissipate before they extend deep into the residential neighborhoods because the Plan area's interconnected street network is designed to rapidly distribute higher traffic volumes onto multiple roadways within the Plan area. The dissipation of higher and medium level ADTs onto multiple roadways creates lower ADTs on Plan area roadways within residential neighborhoods. The circulation concept for the Plan area is illustrated on **Figure 3-1B** Circulation Concept.

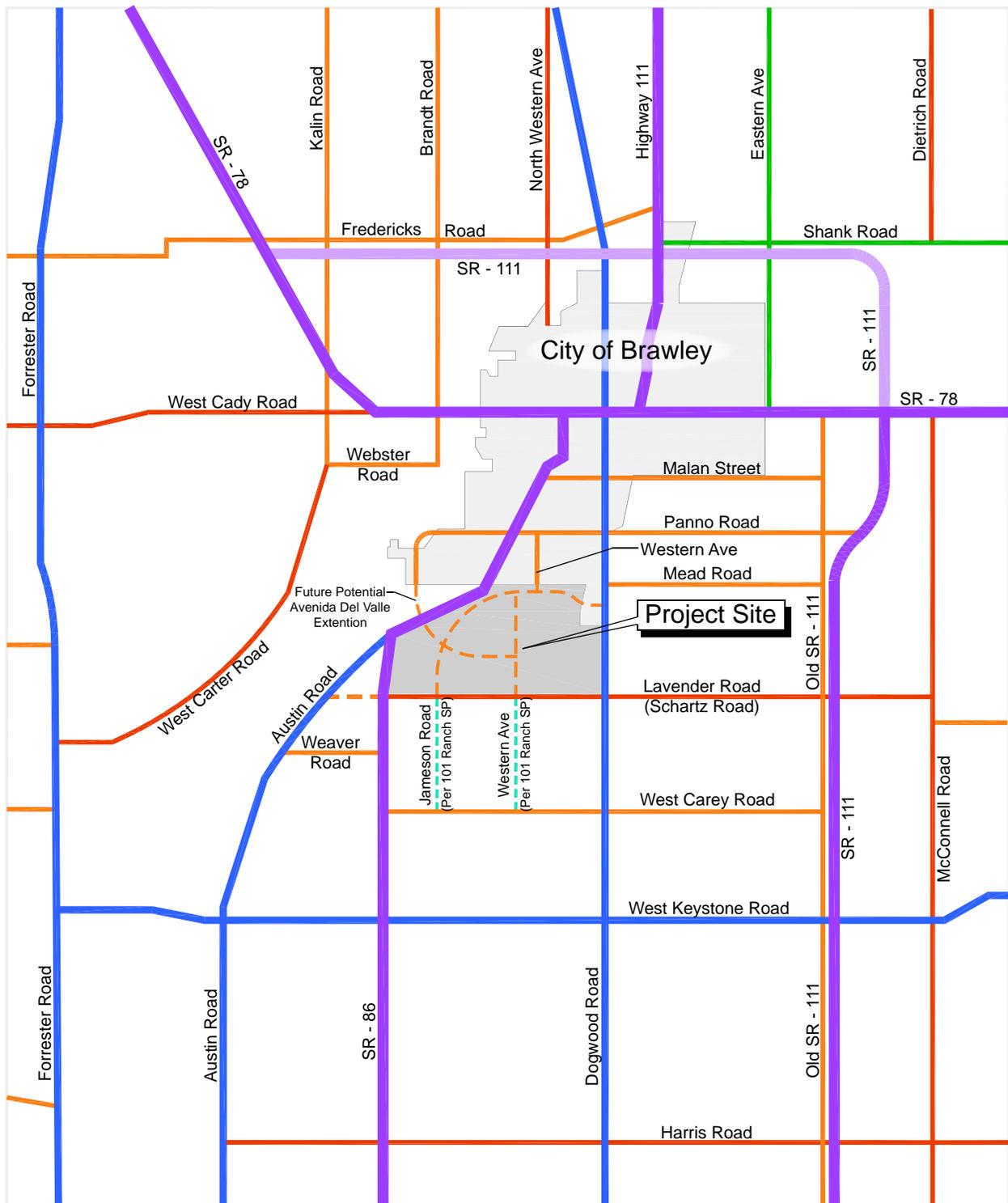
Since the anticipated ADTs are lower, roadways such as the Residential Street and Residential Street with Paseo include narrow vehicle lanes and reduced pavement widths to reduce vehicle speeds and increase pedestrian safety while still allowing for efficient and accessible vehicular circulation. Large vehicle lanes are specifically not used on these streets because they tend to encourage increased vehicle speeds and decreased pedestrian safety, which are incompatible with walkable residential neighborhoods. The lower ADTs, in tandem with the narrow lane design and reduced pavement width, also allow for safe bicycling in residential neighborhoods without the dedication of additional right-of-way to Class I or Class II bike facilities.

To complement the reduced pavement width and narrow vehicle lanes on low-volume roadways, the Circulation Plan proposes an increased use of on-site roadway rights-of-way areas for landscape and street tree areas as well as for pedestrian facilities like sidewalks and the Regional and Community Paseos on selected streets.

Roadways with higher and medium level ADTs and relatively wider pavement width and vehicle lanes also propose increased areas for landscaping, street trees, and pedestrian facilities. In addition to the transportation benefits already discussed, reduced pavement widths, narrow vehicle lanes, and increased landscape and street tree areas also provide the following benefits:

- ❖ Cost savings through reduced roadway construction and long-term maintenance expenses;
- ❖ Decreased volume of stormwater runoff and improved water quality through reduced amounts of impermeable surface and increased permeable surface areas; and
- ❖ Mitigation of increased temperatures caused by paving of the landscape (known as “urban heat island” effect).

As discussed in Section 1.8 – Relationship to Existing Plans and Regulations, an amendment to the Circulation Element of the Imperial County General Plan may be required to ensure that the proposed roadways of the Rancho Los Lagos Specific Plan are consistent with the goals of the County’s General Plan pursuant to the requirements of California State Law (Government Code §65454).



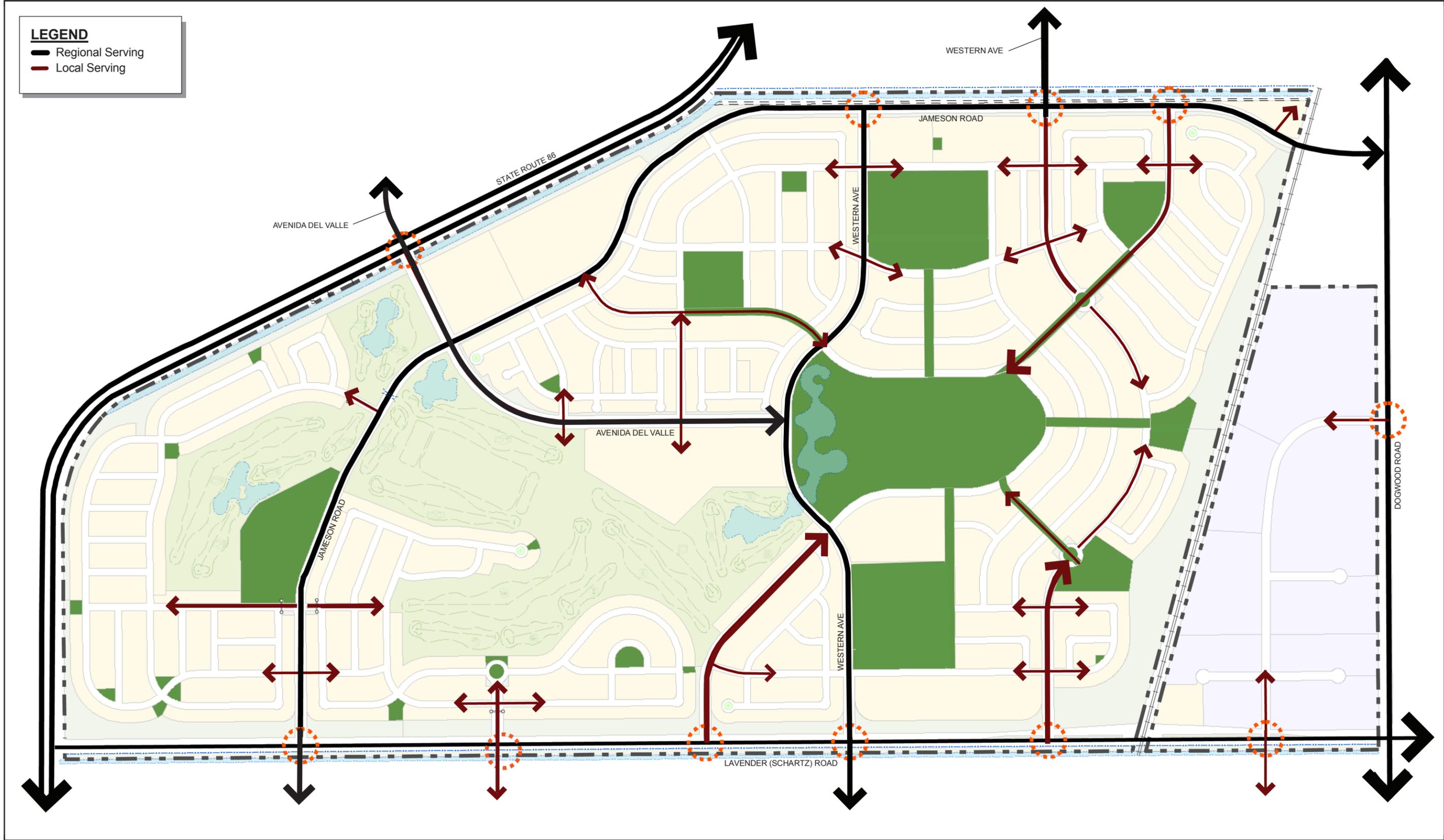
- State Highway / Expressway (6-Lanes Divided)
- State Highway / Expressway (6-Lanes Divided - Under Construction)
- Prime Arterial (6-Lanes Divided)
- Minor Arterial (4-Lanes Divided)
- Major Collector - Collector (4-Lanes)
- Minor Collector - Local Collector (2-Lanes)
- Proposed Minor Collector - Local Collector (2-Lanes)
- Proposed Minor Collector - Local Collector (2-Lanes) (Per 101 Ranch Specific Plan)

Not to Scale

P&D Consultants/EDAW

Figure 3-1A
Regional Circulation Plan

Rancho Los Lagos



Source: P&D Consultants in conjunction with EDAW, 2006



Figure 3-1B
Circulation Concept

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3.2.1 Design and Engineering Standards

1. The Circulation Plan includes several roadway types, all of which are strategically designed to accommodate the anticipated vehicular and pedestrian traffic volumes. **Table 3-1B** and the following section detail the design and engineering standards for these roadways. Improvements to the arterial roadways and highways surrounding the Rancho Los Lagos Specific Plan are also discussed. The layout of these roadways throughout Rancho Los Lagos is illustrated on the Street Design Plan (**Figure 3-2**). Caltrans is responsible for design, maintenance, and improvements to State Route 86. As such, this roadway is not included in the Rancho Los Lagos Circulation Plan.

State Route 86

According to the Imperial County General Plan, State Route 86 (SR-86) is an existing two to four lane conventional highway designated as a 6-lane Divided State Highway in the Circulation and Scenic Highway Element of the County General Plan. In the vicinity of the Plan area, SR-86 is a four lane divided highway.

SR-86 is a major north-south transportation corridor that traverses all of Imperial County from the international border to the Riverside County line. SR-86 provides vehicular access to the main entry of the Plan area at Avenida Del Valle and Lavender (Schartz) Road. With the exception of acceleration and deceleration lanes at Avenida Del Valle, the Circulation Plan does not include improvements to this roadway because this roadway is designed and maintained by Caltrans. However, the Plan is consistent with Caltrans requirements for access points and right-of-way width for SR-86.

The Central Main Canal parallels SR-86 along the northwest portion of the Plan area. An open space corridor buffers the residential areas from the canal and SR-86. Along the length of this open space, a screen wall is provided on top of a landscaped berm to provide the residential neighborhoods with visual separation from SR-86.

A screen wall is not provided along the commercial/multi-family mixed use area where the land use is mainly commercial; only a landscaped berm is provided to screen parking areas, but not buildings, from view from the street.

Where the mixed use area is mostly residential (in a horizontal mixed use scenario), a wall is required. In addition, neither a screen wall nor a landscaped berm is provided along the golf course. However, landscaping is provided along the golf course frontage to frame views into the golf course.

**Table 3-1
Roadway Summary**

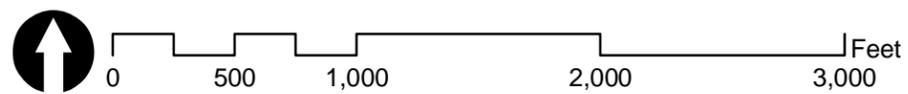
Specific Plan Roadway Name	Imperial Co. Roadway Classification	ROW (feet)	Pavement Width ¹ (feet)	Vehicle Lanes	Lane Width	Street Parking	Pedestrian/Bicycle Component	Figure
Dogwood Road ²	Prime Arterial	210	2 x 53 (106)	6	12'	Not Permitted	Dual 6' Class II Bike Lanes / within 10' shoulders Dual 5' Sidewalks	3-3
Lavender (Schartz) Road	Major Collector	119	2 x 32 (64)	4	12'	Not Permitted	Dual 8' Class II Bike Lanes / one 8' Regional Paseo (north side) & one 5' Sidewalk	3-4
Jameson Road (Includes 2-way left turn lane)	Minor Collector	80-83	48	2	12'	Not Permitted	Dual 6' Class II Bike Lanes / one (or two) 8' Regional Paseo & one 5' Sidewalk	3-5
Avenida Del Valle (at Commercial)	Major Collector	118	2 x 32 (64)	4	12'	Not Permitted	Dual 6' Class II Bike Lanes / one 7' Community Paseo (north side) & one 5' sidewalk	3-6
Avenida Del Valle	Minor Collector	104	2 x 32 (64)	4	12'	Not Permitted	Dual 6' Class II Bike Lanes / one 7' Community Paseo (north side) & one 5' sidewalk	3-7
Entry Avenue	Minor Collector	92	2 x 20 (40)	2	12'	Not Permitted	One 7' Community Paseo & one 5' sidewalk	3-8
Modified Collector Street	Minor Collector	80	48	2	12'	Not Permitted	One 7' Community Paseo & one 5' sidewalk	3-9
Mid-Volume Residential Street	Local County	66	40	2	12'	Within 8' on both sides	One 7' Community Paseo & one 5' sidewalk	3-10
Low-Volume Modified Collector Street	Minor Collector	70	40	2	12'	Within 8' on both sides	One 7' Community Paseo & one 5' sidewalk	3-11
Promenade Street w/Paseo	Local County	76	2 x 20 (40)	2	12'	Within 8' on both sides	One 7' Community Paseo & one 5' sidewalk	3-12
Promenade Street	Local County	74	2 x 20 (40)	2	12'	Within 8' on both sides	Dual 5' sidewalks	3-13
Community Park Street	Local County	64	40	2	12'	Within 8' on both sides	Dual 7' Community Paseos	3-14
Residential Street w/Paseo	Local County	62	40	2	12'	Within 8' on both sides	One 7' Community Paseo & one 5' sidewalk	3-15
Residential Street	Local County	60	40	2	12'	Within 8' on both sides	Dual 5' sidewalks	3-16
Private Residential Street w/Paseo	Private County	58	32	2	9'	Within 7' on both sides	One 7' Community Paseo & one 5' sidewalk	3-15
Private Residential Street	Private County	56	32	2	9'	Within 7' on both sides	Dual 5' sidewalks	3-16
Private Alley	Private	20	20	2	10'	Not Permitted	n/a	3-17
Business Park Street	Local Industrial	64	44	2	12'	Within 9' on both sides	Dual 5' sidewalks	3-18

NOTES:

1. Pavement width measured to face of curb.
2. Half-street improvement only.



Source: P&D Consultants in conjunction with EDAW, 2007; 2008; 2009



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Dogwood Road

Dogwood Road is a north-to-south trending roadway that forms the eastern border of the Plan area. This segment of Dogwood Road is planned as a major arterial that primarily functions to carry high volumes of vehicular traffic and connect with other arterial roadways and expressways, and is designated a 6-lane Prime Arterial in the Circulation and Scenic Highway Element of the County General Plan. Access from the Plan area to Dogwood Road is afforded by a local access road provided within the Business Park as well as by Jameson Road and Lavender (Schartz) Road.

The design of Dogwood Road features a 210-foot right-of-way. The configuration of this right-of-way is depicted in **Figure 3-3** and includes a 48-foot median for future transit use with 7-foot shoulders, three 12-foot vehicle lanes in each direction, and 6-foot Class II bicycle lanes within 10-foot shoulders adjacent to each curb. Adjacent to each curb, 5-foot contiguous sidewalks are provided. A 23-foot landscape area is provided beyond the sidewalks to complete the Dogwood Road right-of-way. Street trees and lighting are provided within this landscape area. A landscaped berm is provided immediately west of the Dogwood Road right-of-way to enhance visual quality of the Business Park. Only half-street improvements are proposed for Dogwood Road as part of this plan.

Lavender (Schartz) Road

Lavender (Schartz) Road trends east-to-west and runs along the southern border of the Plan area. This segment of Lavender (Schartz) Road is planned to carry high vehicular traffic volumes and connect with other arterial roadways and expressways. Lavender (Schartz) Road is designated a 4-lane Major Collector road from State Route 86 to State Route 111. This Specific Plan proposes the extension of Lavender (Schartz) Road west SR-86 as a 2-lane Collector from SR-86 westerly to Austin Road.

Five Entry Avenue roadways provide access from the conventional residential neighborhoods and active adult community to Lavender (Schartz) Road. As shown in **Figure 3-4**, Lavender (Schartz) Road also includes the Regional Paseo to disperse pedestrian traffic from the Plan area to destinations outside Rancho Los Lagos. Double rows of street trees are provided within the landscaped areas along the paseo on the north side of the roadway.

The design of Lavender (Schartz) Road features a 119-foot right-of-way. The configuration of this right-of-way is depicted in **Figure 3-4** and includes a 16-foot median landscaped at focal points only, two 12-foot vehicle lanes in each direction, and 8-foot Class II bike lanes on the shoulders adjacent to each curb. The south side of this right-of-way features a 5-foot sidewalk buffered from the roadway by an 8-foot landscape area. Street trees and street lights are provided within this area. An additional 5-foot landscape area is provided beyond the sidewalk to complete the south side of the Lavender (Schartz) Road right-of-way. The Plan area boundary is located approximately 40-feet south of the Lavender (Schartz) Road right-of-way. This area contains an easement for the Pearsol Drain (to be piped underground).

The north side (adjacent to the residential Plan area) features an 8-foot Regional Paseo buffered from the roadway by an 8-foot landscape area. Street trees and street lights are provided within this area. An additional 5-foot landscape and street tree area is provided beyond the Regional Paseo to complete the north side. A minimum 50-foot landscape

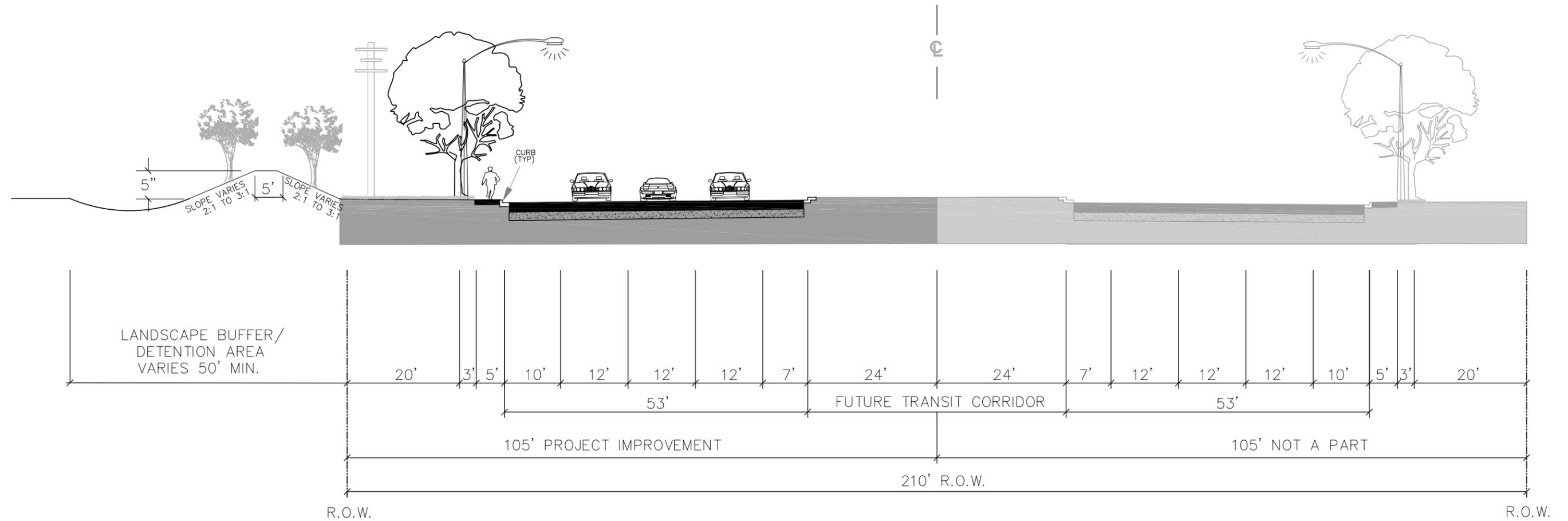
buffer, which includes areas for stormwater detention, is planned immediately north of the Lavender (Schartz) Road right-of-way. This area includes a maximum 6-foot height sound wall on top of an earthen berm at immediately adjacent residential neighborhoods to create a buffer from traffic noise. The earthen berm is not provided adjacent to the large stormwater detention area immediately adjacent to the railroad; only enhanced landscaping and the screen wall are provided adjacent to this detention area.

Jameson Road

Inside the northern border of the Plan area and trending east-to-west is Jameson Road. Jameson Road is planned as a 2-lane Minor Collector designed to carry medium traffic volumes and connect major arterials to other local collectors. Jameson Road also includes the Regional Paseo to disperse pedestrian traffic from the Plan area to destinations outside Rancho Los Lagos. The Regional Paseo is aligned within a double row of street trees on one side of the street and a single row is provided on the other side of the street. The proposed design for Jameson Road reflects the realignment of this roadway to the south of the existing IID Rockwood Substation adjacent to the northeast corner of the Plan area. (See Figure 3-2)

Jameson Road features an 80 to 83 foot right-of-way. As depicted in **Figure 3-5**, the design of this right-of-way includes a 12-foot two-way left turn lane, one 12-foot vehicle lane in each direction, and 6-foot Class II bike lanes adjacent to each curb. One side of the right-of-way features a 5-foot sidewalk buffered from the roadway by a 7-foot landscape area. Street trees and street lighting are provided here. The other side features an 8-foot Regional Paseo buffered from the roadway by a 7-foot landscape area. Street trees and street lighting are provided within this area. In addition, a 5-foot landscape and street tree area provided beyond the Regional Paseo completes this side of the Jameson Road right-of-way.

In Jameson Road—Condition A from Dogwood Road to the mixed use area, the Paseo is on the south side of the roadway and a 20-foot wide Imperial Irrigation District (IID) power line easement is located immediately north of the right-of-way line. Approximately 19-feet from the northern edge of the IID power easement is the existing approximately 28-foot wide Rockwood Canal. The Plan area boundary is located approximately 25-feet north of the northern edge of the Rockwood Canal. A 30-foot landscape buffer and a maximum 6-foot height screen on top of an earthen berm are provided immediately south of the Jameson Road right-of-way at immediately adjacent residential neighborhoods to create a buffer from traffic noise. The screen wall is located within the landscape buffer. Where Jameson road curves to the south, a narrower landscape buffer without a berm is provided. In Condition B, the right-of-way is immediately adjacent to the mixed use area, and there is a Paseo on both sides of the roadway. In Condition C, from Avenida Del Valle to Lavender (Schartz) Road, the Paseo continues only on the west side of the roadway.



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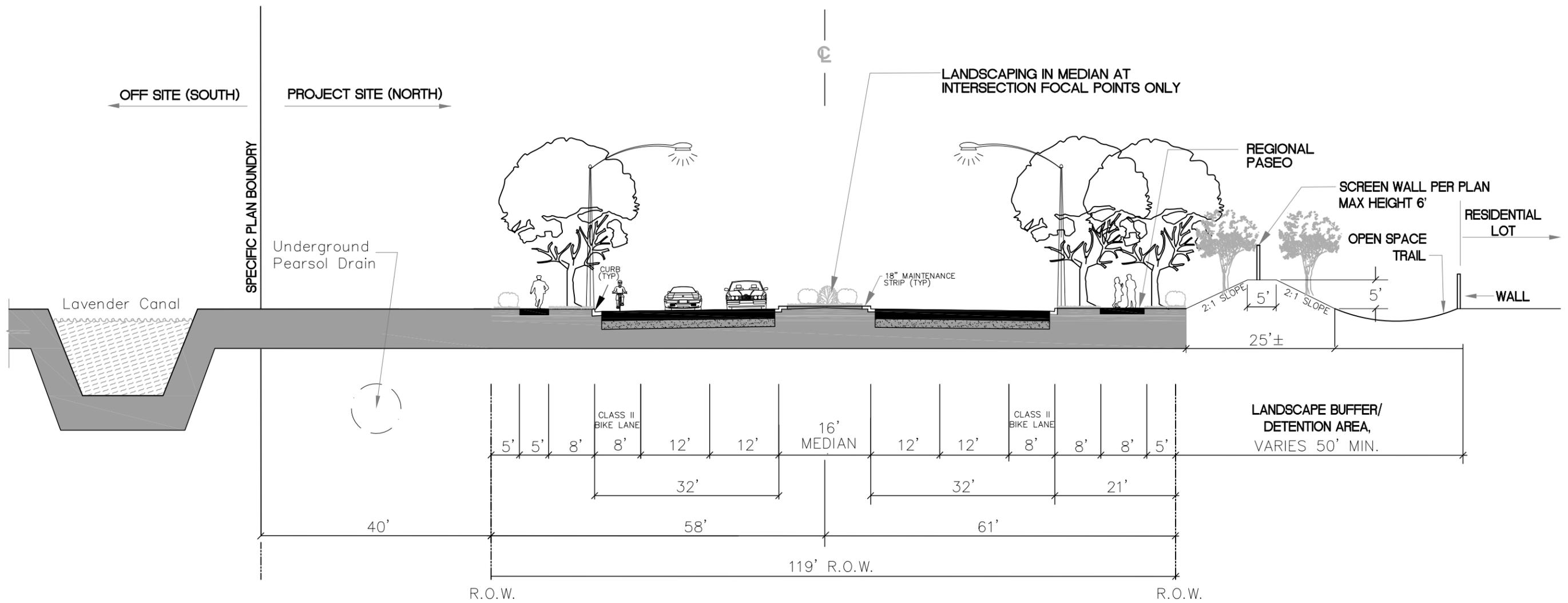
P&D Consultants/EDAW

County of Imperial

Figure 3-3
Dogwood Road Section

Rancho Los Lagos

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Avenida Del Valle (at Commercial)

The Avenida Del Valle (at Commercial) roadway is planned as a 4-lane Major Collector connecting SR-86 to Jameson Road. Avenida Del Valle is the primary entrance to the Rancho Los Lagos Specific Plan area. This collector roadway is designed with two vehicle lanes in each direction to provide high volume vehicular access through the Plan area to the north-south collector roadway parallel to SR-86 (Jameson Road), and to the conventional residential neighborhood, active adult community, commercial mixed use area, and community park. This roadway is also designed as an impressive visual amenity with a broad landscaped median, double rows of street on either side of the roadway, and impressive views of the golf course and water features. A Community Paseo is provided on the north side to accommodate pedestrian traffic. This roadway segment begins at State Route 86 and extends the length of the commercial mixed use area.

The design of this roadway features a 118-foot right-of-way. As shown in **Figure 3-6**, the configuration includes two 12-foot vehicle lanes in each direction separated by a 16-foot landscaped median. Beyond the vehicle lanes, 8-foot Class II bike lanes are provided adjacent to each curb. The side adjacent to the commercial mixed use area features a 7-foot Community Paseo buffered from the roadway by an 8-foot landscape area. Street trees and lighting are provided within this area. Beyond the Community Paseo, a 5-foot landscape and street tree area buffers the Community Paseo from the commercial mixed use area to complete this side of the right-of-way. The side adjacent to the golf course features a 5-foot sidewalk buffered from the roadway by an 8-foot landscape and street tree area. Street lighting is also provided within this area. A 5-foot landscape and street tree area abuts the sidewalk along the golf course to complete this side of the right-of-way.

Avenida Del Valle

Avenida Del Valle is the continuing extension of Avenida Del Valle (at Commercial) and further connects the two north-south Collector roadways (Jameson Road and Western Avenue) running parallel to and east of SR-86. This roadway celebrates the community's visual amenities with a wide landscaped median, double rows of trees on either side of the roadway, views of the golf course, and a terminating vista of the community's primary visual landmark – the lake within the community park. This roadway generally runs east-to-west through the Plan area from the commercial mixed use area to the community park.

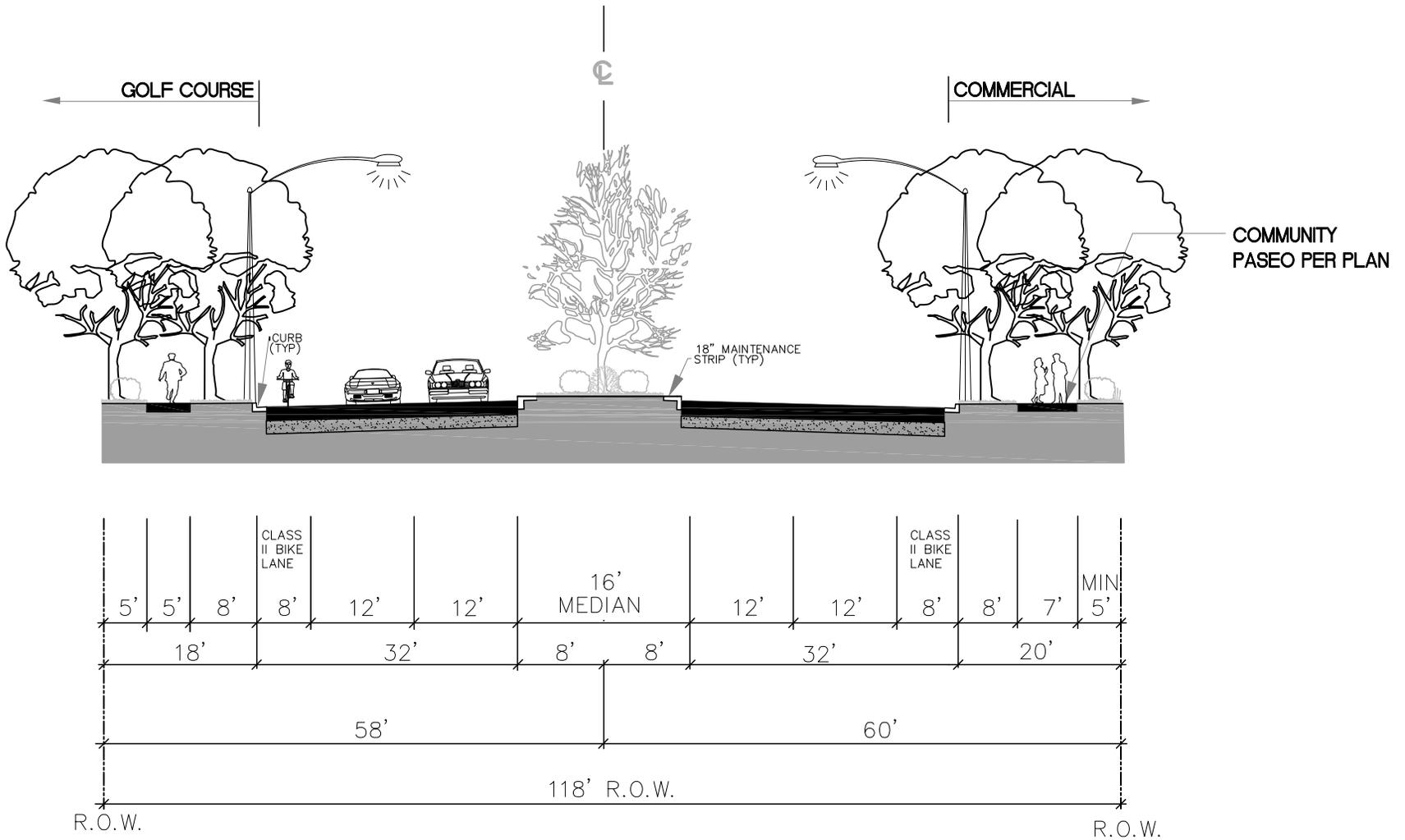
Avenida Del Valle features a 118' right-of-way. As depicted in **Figure 3-7**, the right-of-way includes a 16-foot landscaped median, two 12-foot vehicle lanes in each direction and 8-foot Class II bike lanes adjacent to each curb. The north side adjacent to the conventional residential neighborhood features a 7-foot Community Paseo buffered from

the roadway by an 8-foot landscape area. Street trees and lighting are provided within this area. Beyond the Community Paseo, a 5-foot minimum landscape and street tree area buffers the Community Paseo from the conventional residential neighborhood to complete this side of the right-of-way.

On the north side of Avenida Del Valle, a screen wall is provided as indicated on the Wall Plan, except at parks, schools, the golf course, and where dwelling units front onto the street. The south side of Avenida Del Valle adjacent to the golf course features a 5-foot sidewalk buffered from the roadway by an 8-foot landscape area. Street trees and lighting are provided within this area. A 5-foot landscape and street tree area separates the sidewalk from the golf course to complete this side of the right-of-way. Street trees are optional along the golf course to open up views of the course.



Double rows of trees provide shade for paseo walkways



COMMUNITY
PASEO PER PLAN

Figure 3-6

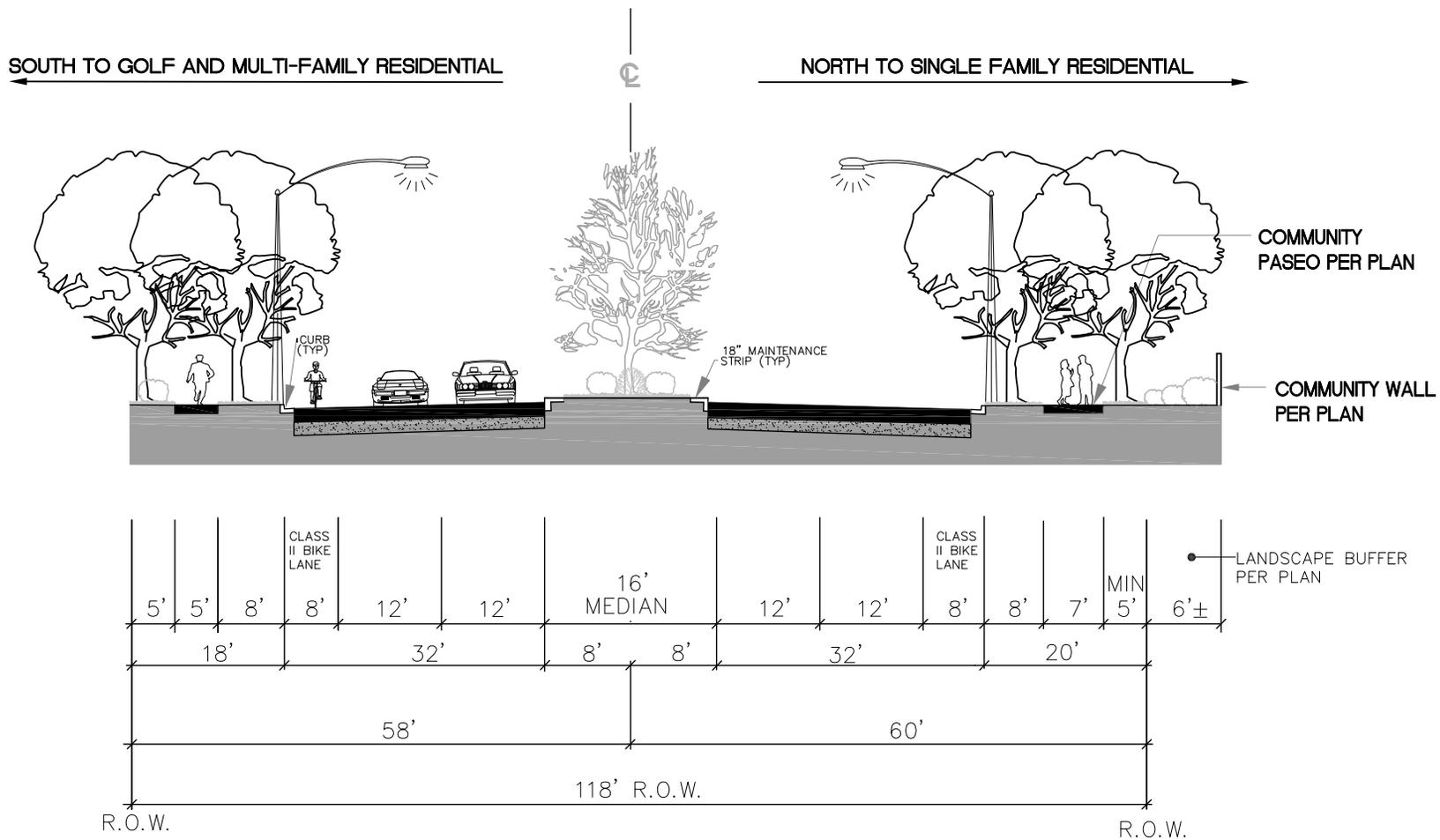
Avenida Del Valle (at Commercial) Section

Not to Scale

P&D Consultants/EDAW

County of Imperial

Rancho Los Lagos



Not to Scale

P&D Consultants/EDAW

County of Imperial

Figure 3-7
Avenida Del Valle Section

Rancho Los Lagos

Entry Avenues

Entry Avenues are designed to safely and efficiently accommodate the higher traffic volumes anticipated to enter the conventional residential neighborhood and active adult community from the arterials surrounding the Plan area. The wide median is designed to accommodate left-turn pockets within the landscaped median.

A total of eight Entry Avenues are provided: three link the conventional residential neighborhood to Jameson Road in the northern Plan area; three link the conventional residential neighborhood to Lavender (Schartz) Road in the southern Plan area; and two provide entry statements to the active adult portion of the Plan area.

This roadway type features a 92-foot right-of-way. The configuration of this roadway is depicted in **Figure 3-8** and includes an 14-foot landscaped median, one 12-foot vehicle lane in each direction, and 8-foot shoulders adjacent to each curb. One side of the roadway features the 7-foot Community Paseo separated from traffic by an 8-foot landscape area. Street trees and lighting are provided within this area. An additional 5-foot landscape and street tree area is provided beyond the Community Paseo to complete this half of the right-of-way.

The other side of the Entry Avenue is provided with a 5-foot sidewalk buffered from the roadway by an 8-foot landscape area, which includes street trees and lighting. An additional 5-foot landscape and street tree area is provided beyond the sidewalk to complete this half of the right-of-way. A screen wall is provided on both sides immediately within the Entry Avenue right-of-way, except at parks, the golf course, schools, and where dwelling units front onto the street.

Modified Collector Street

Traversing north and south at one location in the Plan area is a Modified Collector street. This street is planned as a collector designed to carry medium traffic volumes and connect collectors. The Modified Collector Street also includes a Community Paseo to disperse pedestrian traffic from the Plan area to destinations outside Rancho Los Lagos. A single row of street trees is provided on each side of the street.

The Modified Collector Street features a 80-foot right-of-way. As depicted in **Figure 3-9**, the design of this right-of-way includes a 12-foot two-way left turn lane (or optional landscaped median, one 12-foot vehicle lane in each direction, and 6-foot shoulders adjacent to each curb. One side of the right-of-way features a 5-foot sidewalk buffered from the roadway by a 7-foot landscape area. Street trees and street lighting are provided within this area. A 3-foot landscape area is provided between the sidewalk and the edge of the right-of-way.

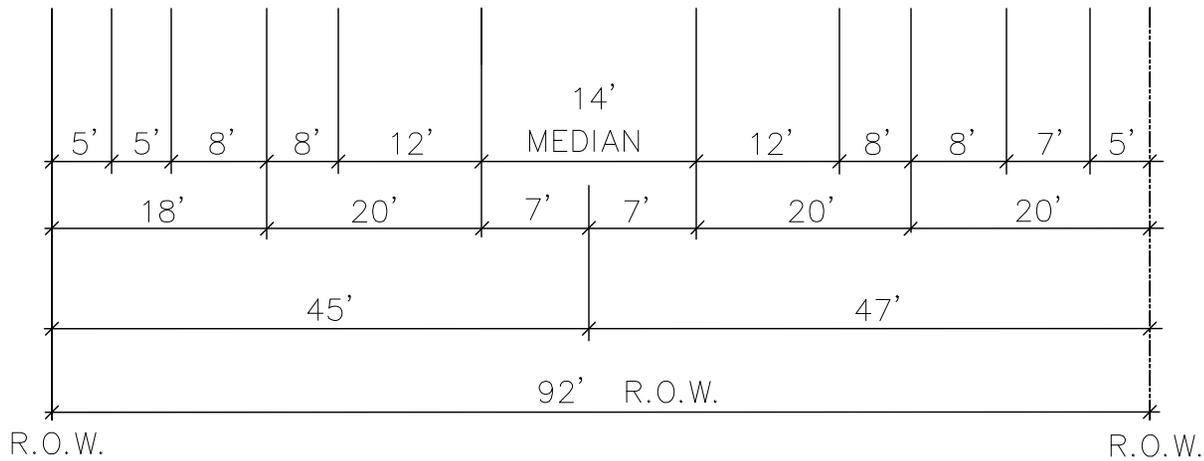
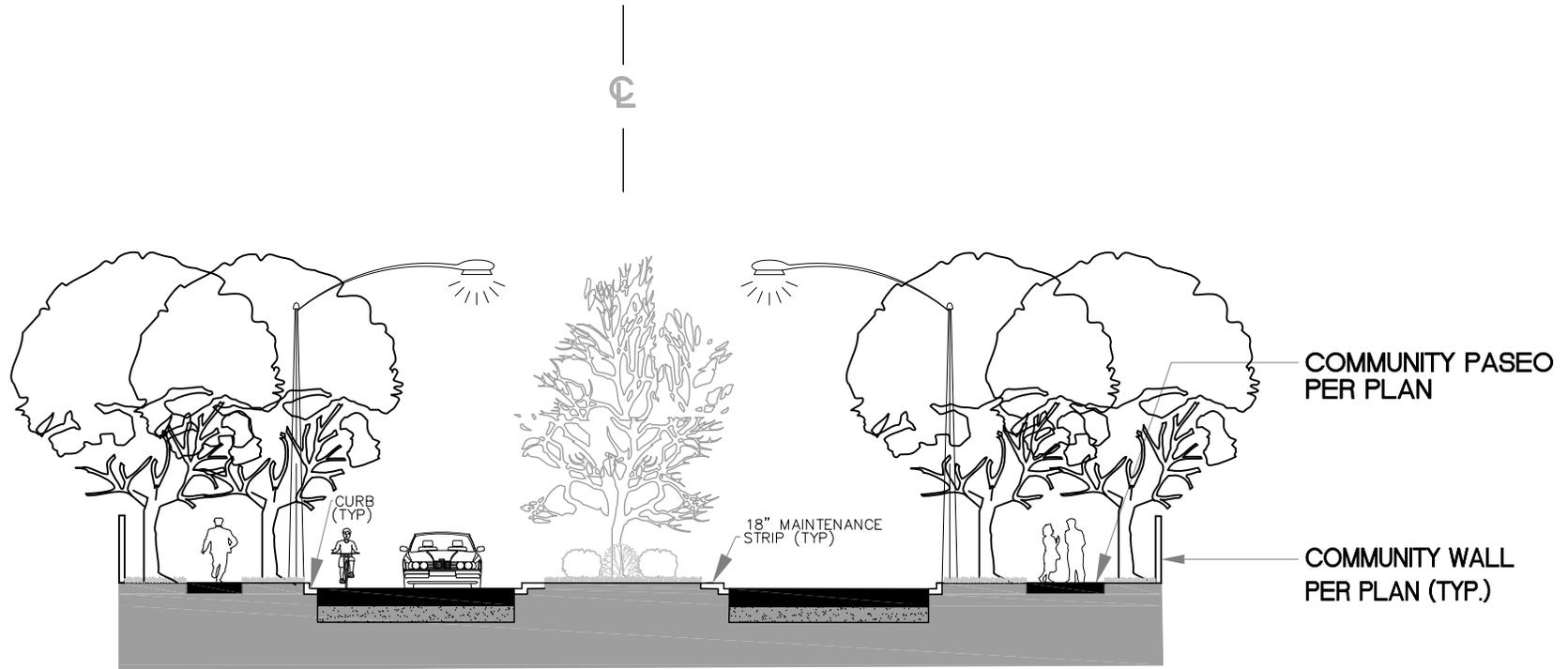
The other side of the street features a 7-foot Community Paseo buffered from the roadway by a 7-foot landscape area. Street trees and street lighting are provided within this area. In addition, a 3-foot landscape area provided beyond the Community Paseo completes this side of the Modified Collector Street right-of-way.

At the edge of the 3-foot landscape area on both sides, a screen wall is provided per the plan at the outer edge, immediately beyond both edges of the right-of-way line at side and rear yard condition of adjacent residential only. The wall and easement are not provided at parks, the golf course, schools, or at front yard condition.

Mid-Volume Residential Streets

Mid-Volume Residential Street roadways are provided at three general locations where medium level traffic volumes are anticipated within the Plan area: at the two proposed School/Park locations and along a portion of a north-south street east of the community park. As depicted in **Figure 3-10**, the Mid-Volume Residential Street features a 66-foot right-of-way.

The right-of-way includes: one 12-foot vehicle lane in each direction; parking within 8-feet of each curb; and 7-foot landscape areas to separate the 7-foot Community Paseo from vehicular traffic. A 4-foot landscape easement, including a screen wall at the outer edge, would be provided immediately beyond both edges of the right-of-way line at side and rear yard condition of adjacent residential only. The wall and easement are not provided at parks, the golf course, schools, or at front yard condition.



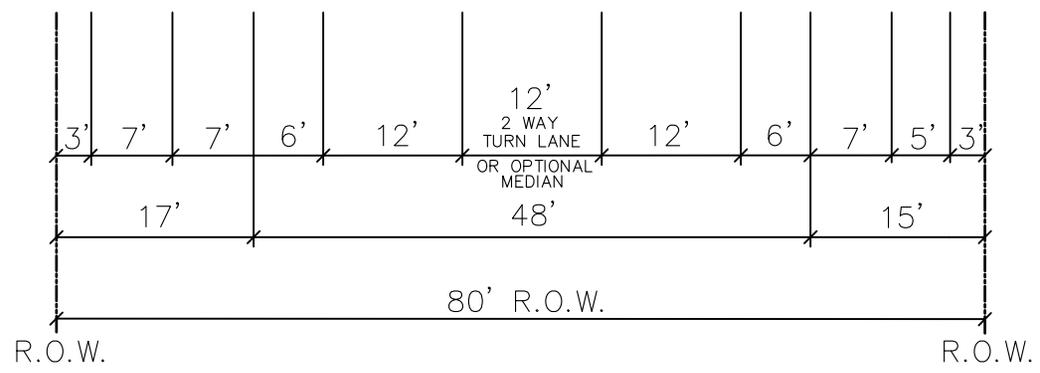
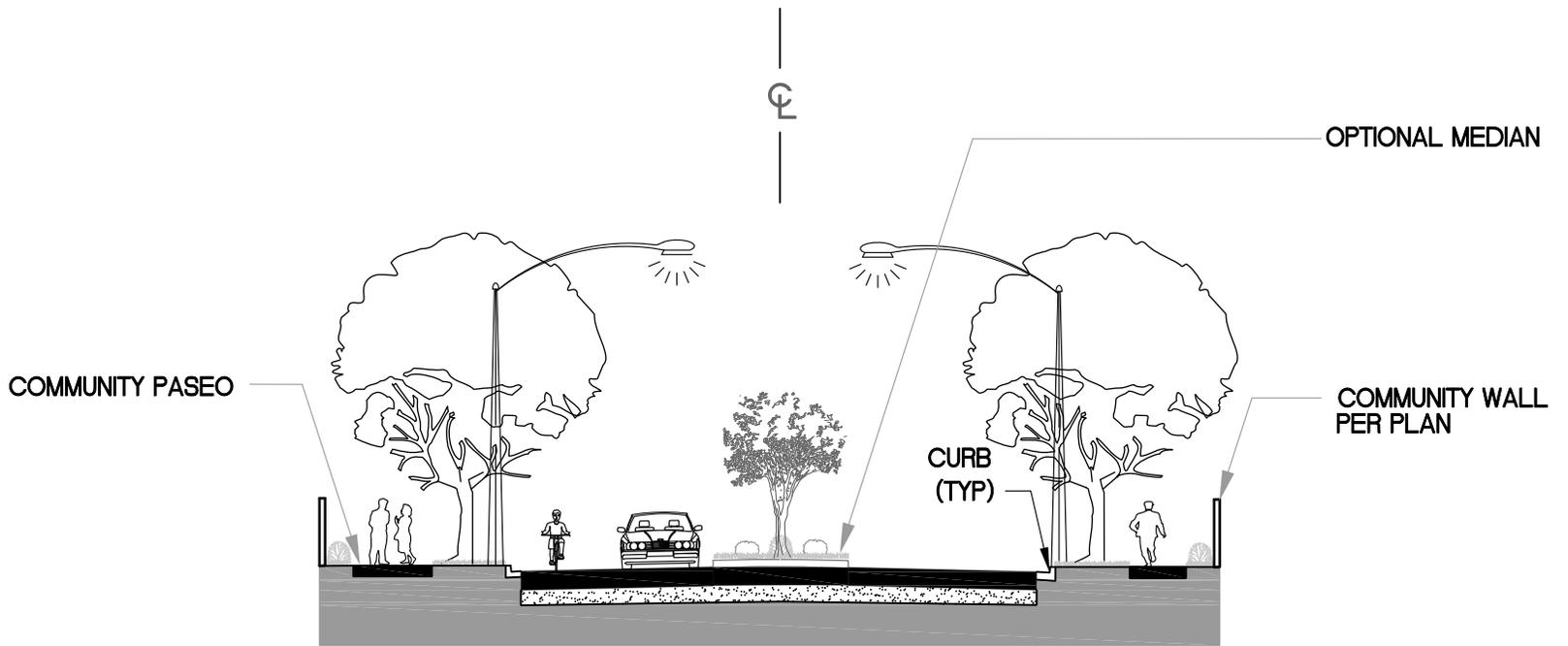


Figure 3-9
Modified Collector Street Section

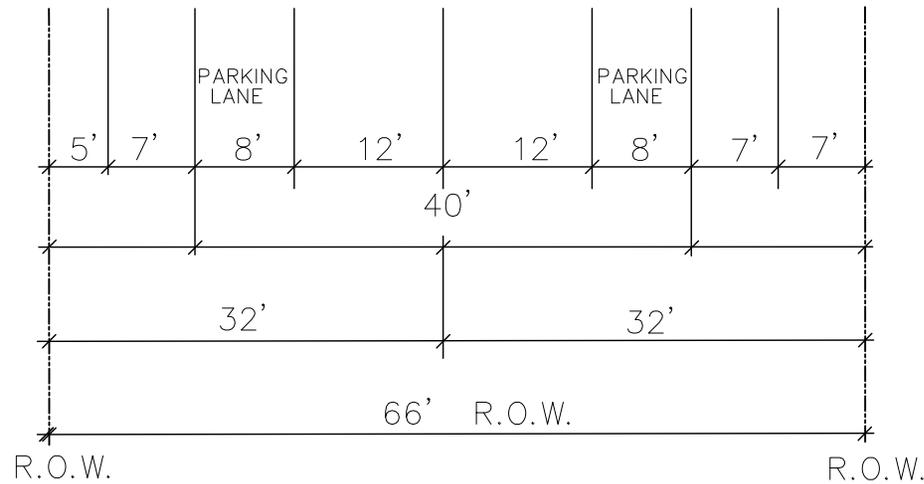
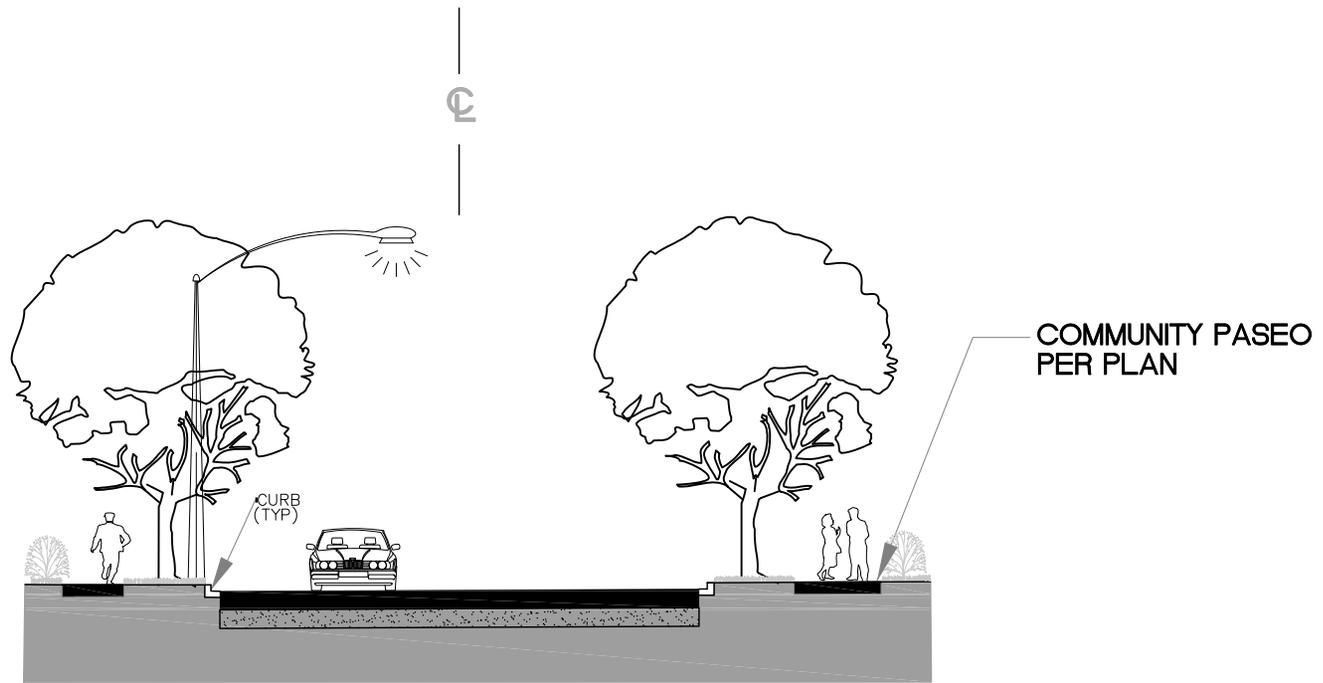


Figure 3-10

Mid-Volume Residential Street Section

Not to Scale

P&D Consultants/EDAW

County of Imperial

Rancho Los Lagos

Low-Volume Modified Collector Streets

The Circulation Plan includes four Low-Volume Modified Collector Streets, each of which provides a link to the community park. Each Low-Volume Modified Collector Street also provides access to residential areas. Since the interconnected circulation network and Entry Avenues quickly dissipate the higher traffic volumes entering the Plan area, this roadway is designed to accommodate lower traffic volumes in the middle of the Plan area. The street trees on each side further enhance the character of these streets. Lastly, the four Low-Volume Modified Collector Streets within the conventional residential neighborhoods provide strong physical and visual orientation to the community park; each terminates in a vista of this visual amenity.

The Low-Volume Modified Collector Street features a 70-foot right-of-way. As depicted in **Figure 3-11**, the configuration of this roadway includes one 12-foot vehicle lane in each direction and two 8-foot parking lanes. The Community Paseo is separated from the parking lane by an 8-foot landscape area. Street trees are provided within this area. A 2-foot landscape area is provided beyond the Community Paseo to complete this half of the right-of-way. The other side of the Low-Volume Modified Collector Street includes a 5-foot sidewalk separated from traffic by an 8-foot landscape area. Street trees and lighting are provided within this area. A 2-foot landscape area completes this half of the right-of-way.

Promenade Streets with Paseo

The Plan area includes several Promenade Streets with Paseo. Similar to the Promenade Street described below, this roadway type is intended to provide strong physical and visual orientation to parks with three of these roadways terminating in a vista of the community park as well. The addition of a landscaped median planted with street trees encourages slower vehicle speeds and creates comfortable human scale on the street.

The Promenade Street with Paseo features a 76-foot right-of-way. As shown in **Figure 3-12**, this roadway type features 12-foot vehicle lanes in both directions with parking within 8 feet of each curb and a 6-foot landscaped median. Beyond the roadway a 7-foot landscape area is provided beyond each curb to buffer pedestrians from traffic. Street trees and street lighting is provided within these landscaped areas.

Beyond the landscape areas, one side of the road features a 7-foot Community Paseo while the other side includes a 5-foot sidewalk. A 2-foot landscape area is provided beyond the sidewalk and Community Paseo to complete each side of the right-of-way. A screen wall is provided immediately within the right-of-way, at abutting rear yard residential conditions only per the Wall Plan.

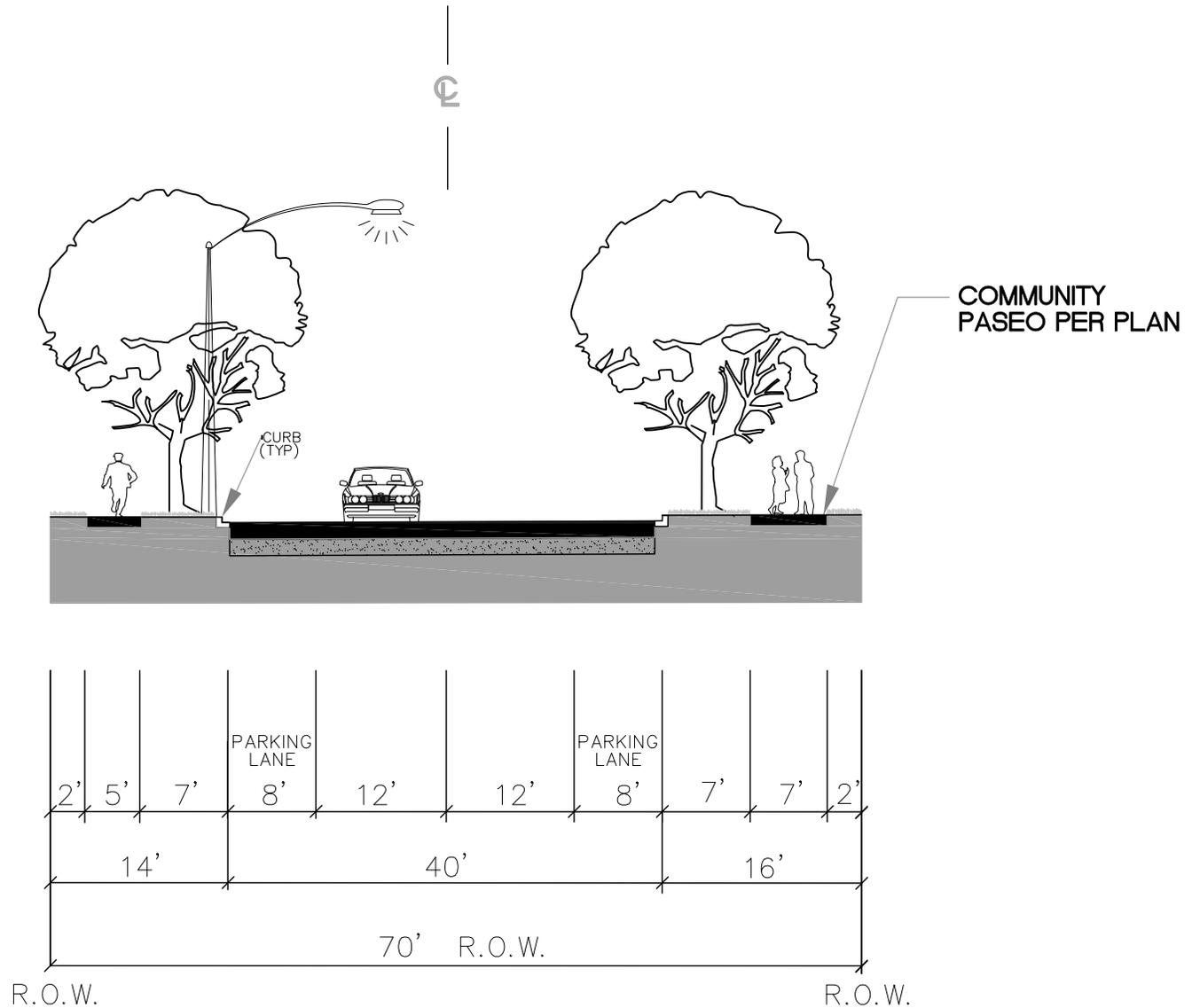


Figure 3-11

Low-Volume Modified Collector Street Section

Not to Scale

P&D Consultants/EDAW

County of Imperial

Rancho Los Lagos

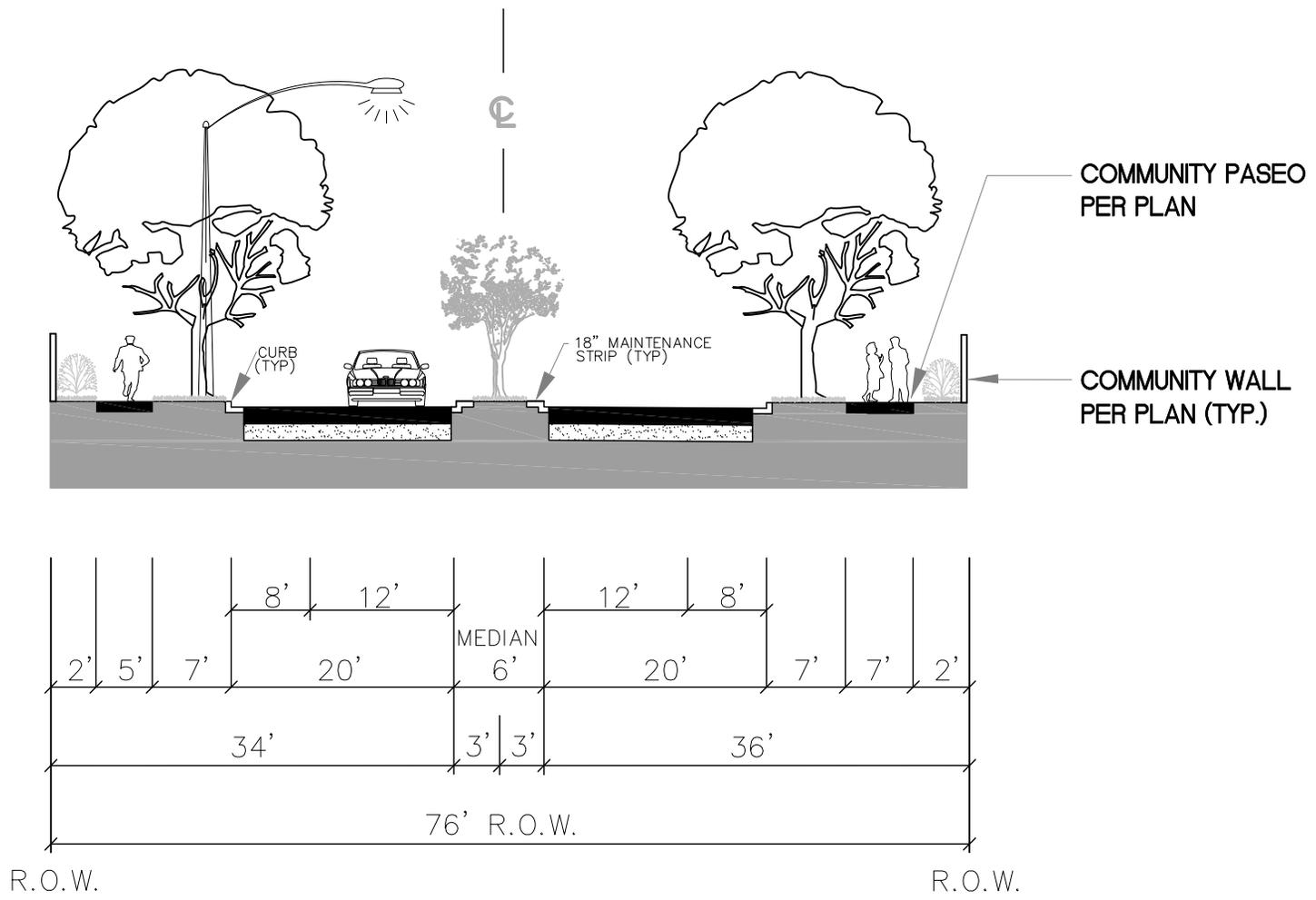


Figure 3-12

Promenade Street with Paseo Section

Promenade Street

There is one Promenade Street within the Plan area. This roadway is designed to promote safe vehicle speeds and provide a sense of entry for motorists and pedestrians as they enter the Phase 1 conventional residential neighborhood.

This roadway type features a 74-foot right-of-way. The design of this roadway is depicted in **Figure 3-13** and includes 12-foot vehicle lanes in both directions with parking within 8 feet of each curb and a 6-foot landscaped median. Beyond the roadway, 7-foot landscape areas are provided to buffer the 5-foot sidewalks. A 2-foot landscape area is provided beyond the sidewalks to complete the right-of-way.

A screen wall is provided immediately within the Promenade Street right-of-way per the plan except at parks, the golf course, schools, and where dwelling units front onto the street.

Community Park Street

The Community Park Street encircles the majority of the community park in the center of the Plan area. This roadway is designed as an attractive, walkable pedestrian amenity with narrow lanes, street trees, and on-street parking to encourage safe vehicular speeds. All housing units fronting the community park Street are rear-loaded with narrow front setbacks to provide a comfortable streetscape and eliminate the potential for vehicle-pedestrian conflicts caused by driveway curb-cuts.

This roadway also includes a Community Paseo on both sides for enhanced pedestrian-orientation and access. Landscaped curb bulb-outs at all eight intersections adjacent to the community park enhance pedestrian safety. (See Figure 3-2 and Figure 3-22) The landscape bulb-outs also enhance the aesthetic amenity of the community by providing a landscaped visual terminus at the community park.

The community park Street features a 64-foot right-of-way as shown in **Figure 3-14**. The design of this roadway includes one 12-foot vehicle lane in each direction and an 8-foot parking lane adjacent to each curb (except at intersections, where an 8-foot landscape bulb-out replaces the parking lane). Beyond each curb, a 5-foot landscape area is provided to buffer the 7-foot Community Paseos from the roadway. Street trees and lighting are provided within this landscape area.

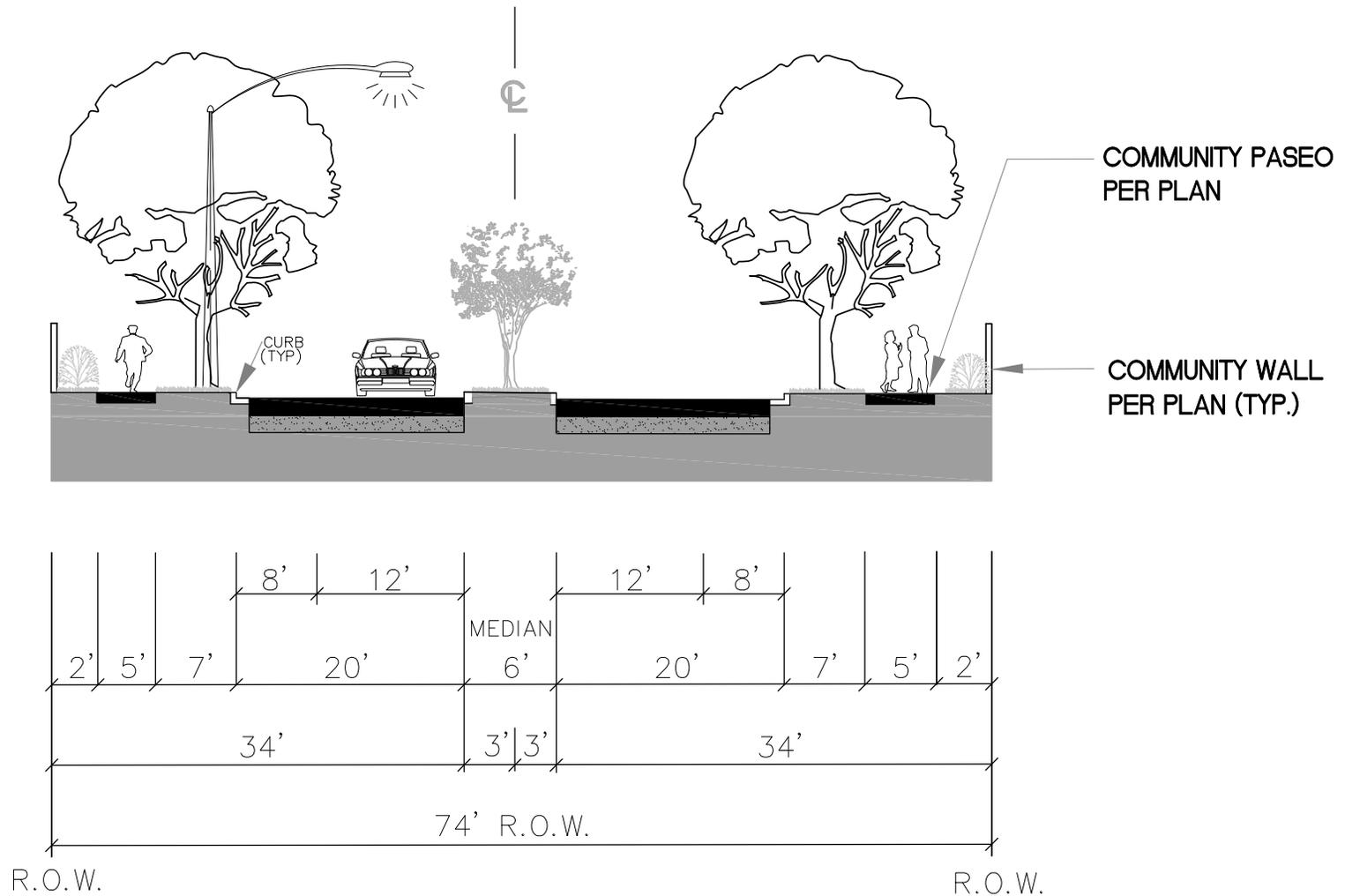


Figure 3-13

Promenade Street Section

Not to Scale

P&D Consultants/EDAW

County of Imperial

Rancho Los Lagos

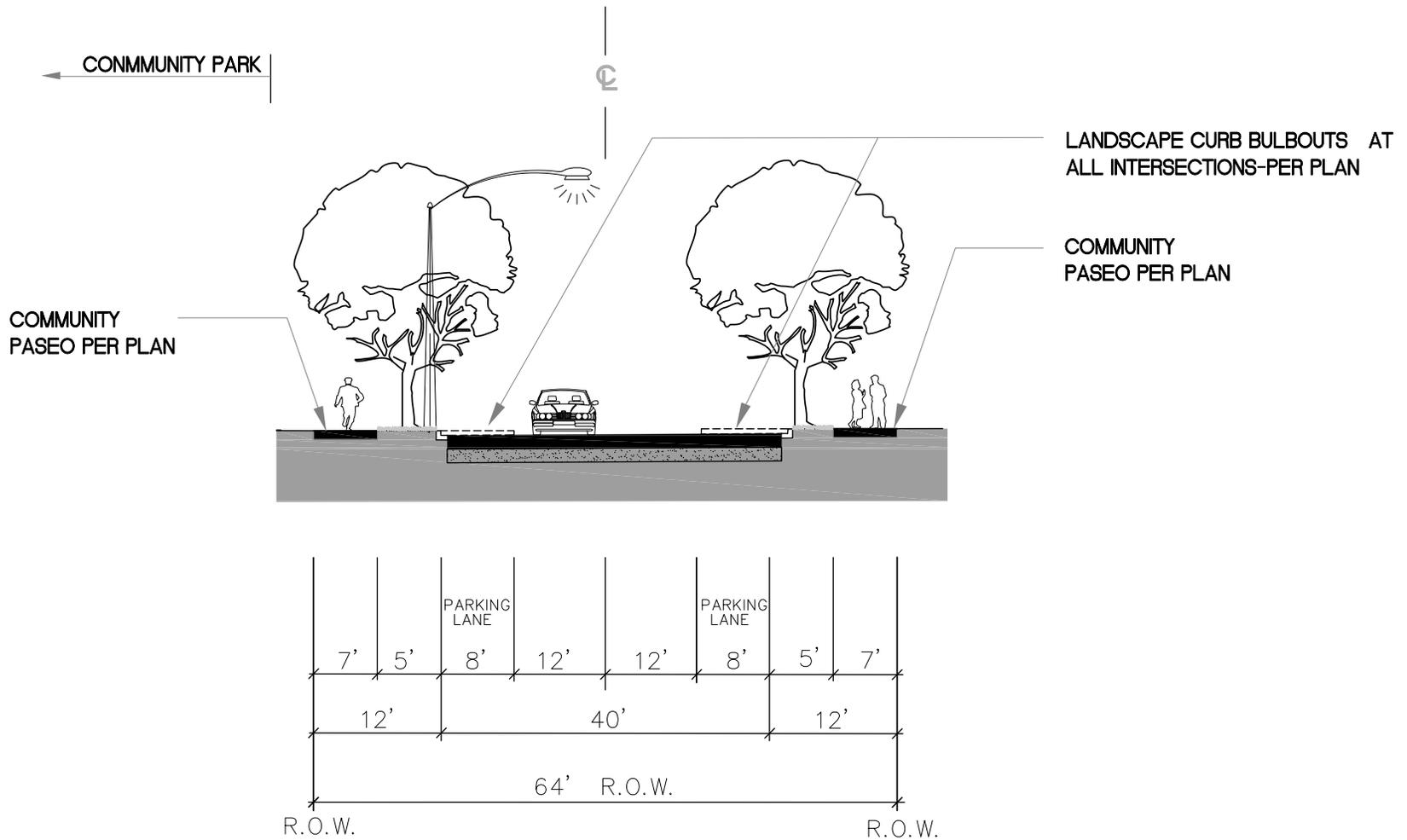


Figure 3-14
Community Park Street Section

Not to Scale

P&D Consultants/EDAW

County of Imperial

Rancho Los Lagos

Residential Streets with Paseo

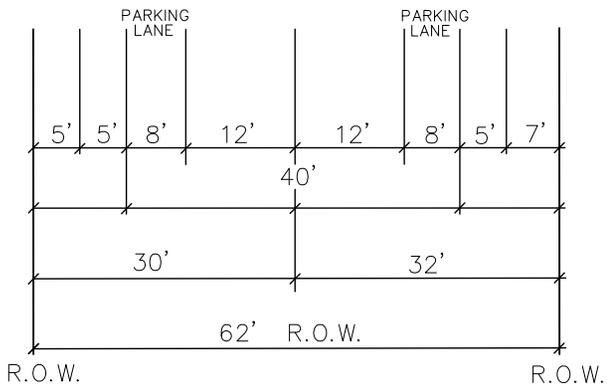
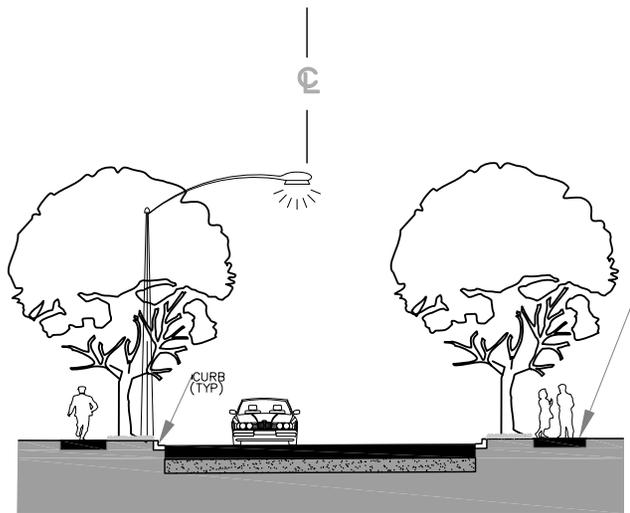
Residential Streets with Paseo are designed to encourage safe vehicle speeds of local traffic and accommodate low traffic volumes within residential areas. The Community Paseo provides residents with strong pedestrian access to community amenities and other residential areas. The Residential Street with Paseo features a 62-foot right-of-way. The Residential Street with Paseo may optionally be constructed as a private street.

As shown in **Figure 3-15**, the design of this roadway includes one 12-foot vehicle lane in each direction and a parking lane within 8-feet of each curb. On one side, a 5-foot landscape area is provided adjacent to the parking lane to buffer the 7-foot Community Paseo from the roadway. The other side features a 5-foot landscape area to buffer the 5-foot sidewalk from the roadway. A 4-foot landscape easement, including a screen wall at the outer edge, is provided immediately beyond both edges of the right-of-way line at side and rear yard condition only at locations indicated on the Wall Plan only. The wall and easement are not provided at parks, schools, or at front yard condition.

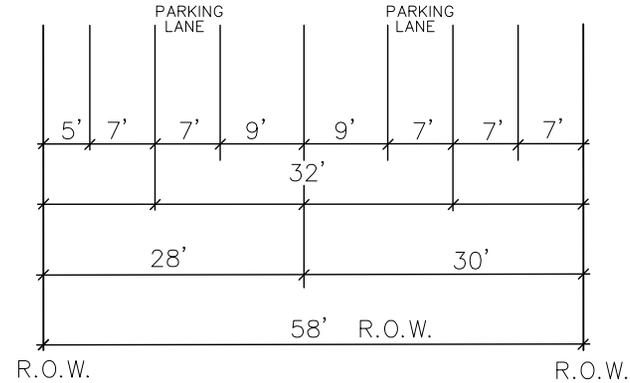
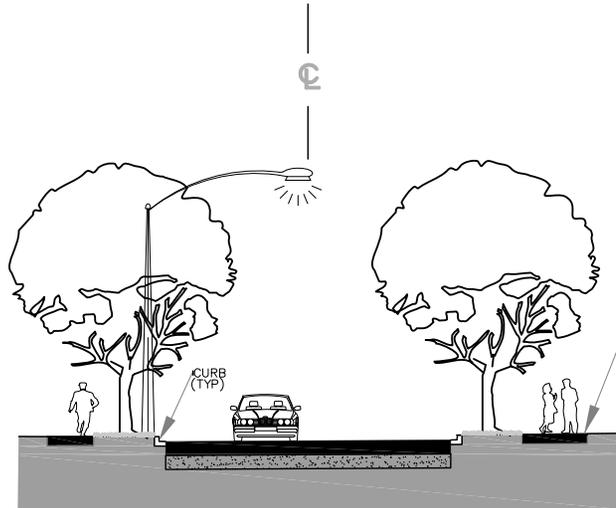
Residential Streets

Residential Streets comprise the majority of roadways within the Plan area and are designed to encourage safe vehicle speeds and accommodate low traffic volumes within residential areas. These roadways feature a 60-foot right-of-way. The Residential Street may optionally be constructed as a private street.

The design of the residential street is illustrated in **Figure 3-16** and includes one 12-foot vehicle lane in each direction and a parking lane within 8-feet of each curb. Beyond the parking lane, a 5-foot landscape area is provided to buffer the 5-foot sidewalk on each side from the roadway. A 4-foot landscape easement, including a screen wall at the outer edge, is provided immediately beyond both edges of the right-of-way line at side and rear yard condition only at locations indicated on the Wall Plan only. The wall and easement are not provided at parks, schools, or at front yard condition.



PUBLIC

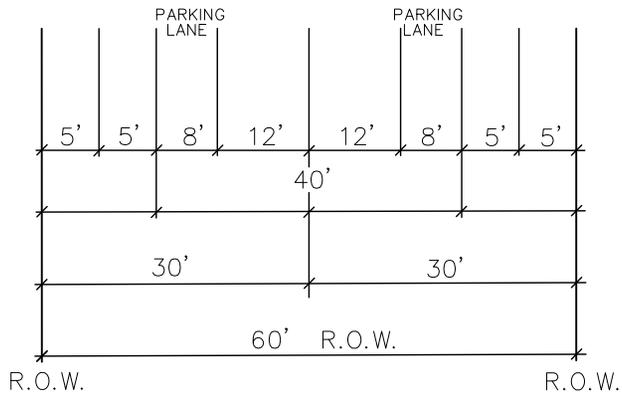
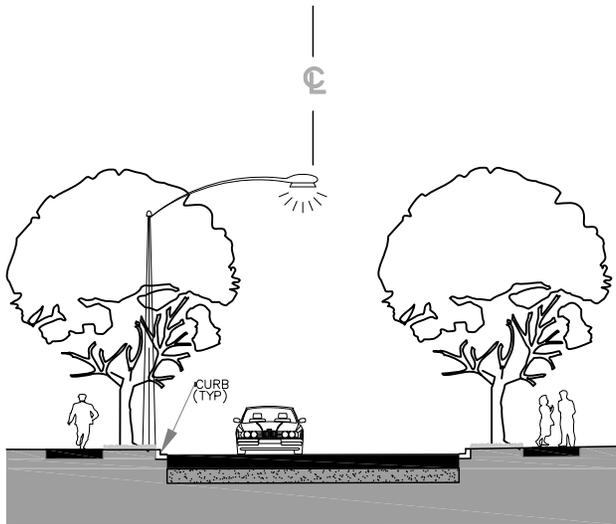


PRIVATE

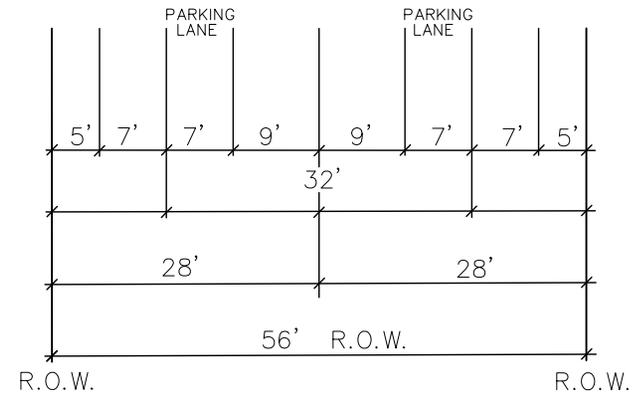
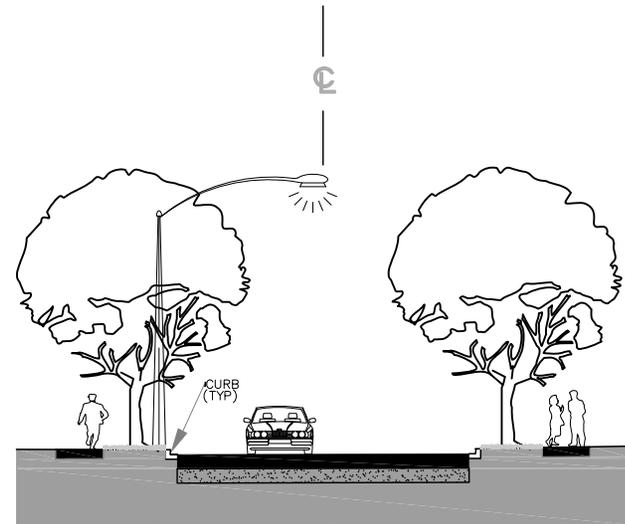
Not to Scale

P&D Consultants/EDAW

Figure 3-15
Residential Street with Paseo Section



PUBLIC



PRIVATE

Not to Scale

P&D Consultants/EDAW

County of Imperial

Figure 3-16
Residential Street Section

Rancho Los Lagos

Private Alley

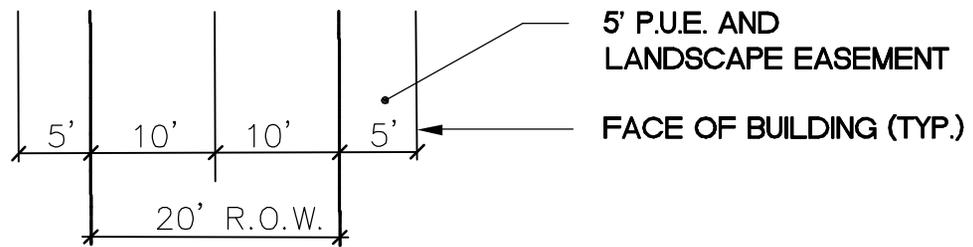
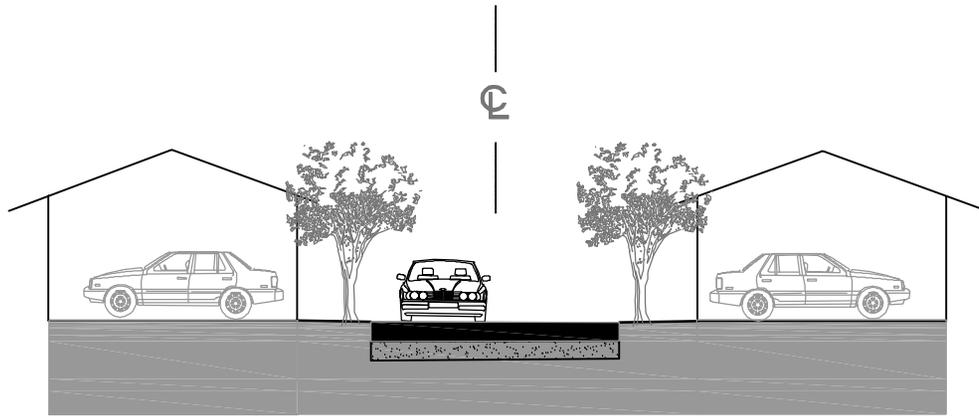
Private Alleys are provided to service rear-loaded lots with garage access provided at the rear of the lot via the alley. Private alleys are adequately sized for two-way vehicular circulation and emergency vehicle access. The goal of private alleys is to enhance the streetscape of residential areas by allowing garage access at the rear of the lot and eliminating the view of garage doors from the streetscape. Private alleys feature a 20-foot right-of-way (**Figure 3-17**), which includes 10-feet in each direction for two-way travel. Public Utility Easements (PUE) of 5-feet in width are provided on either side of the private alley right-of-way to accommodate utilities and shallow-rooted landscape materials. No parking is permitted in alleys.



Typical alley provides planting areas

Business Park Street

The Business Park Street is provided within the Business Park area and designed to accommodate the commuter and commercial traffic that may be generated by the land uses allowed within this area. As depicted on **Figure 3-18**, the Business Park Street features a 64-foot right-of-way, which includes one 13-foot vehicle lane in each direction. Parking lanes are also provided within 9-feet of each curb. Beyond the parking lanes, 5-foot landscape areas separate 5-foot sidewalks from the street. Street trees are provided within the landscape areas.



Not to Scale

P&D Consultants/EDAW

County of Imperial

Figure 3-17
Private Alley Section

Rancho Los Lagos

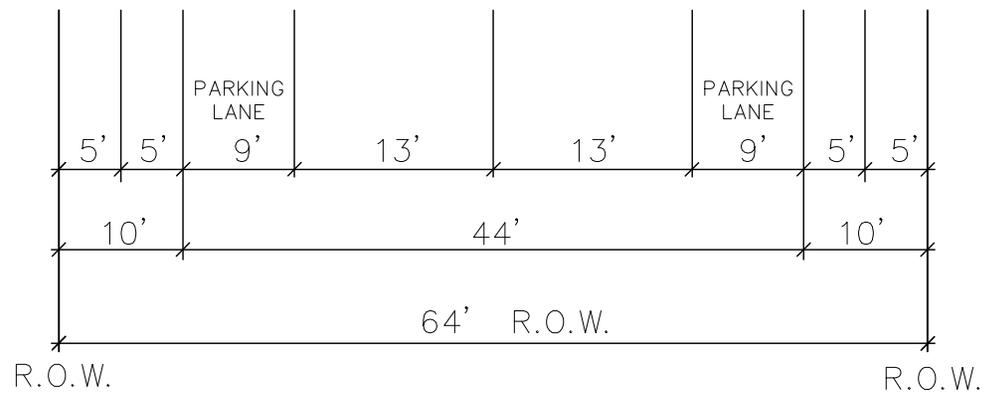
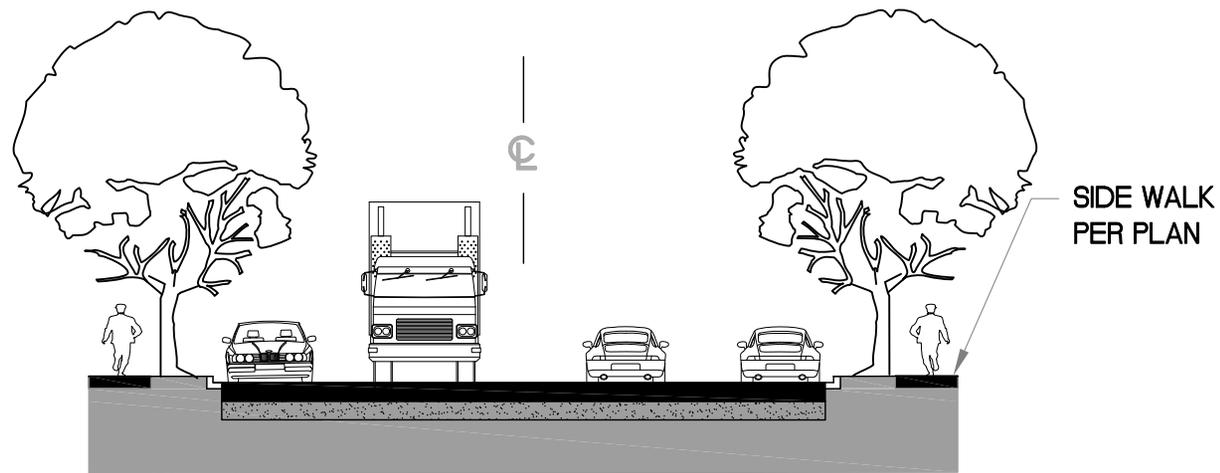


Figure 3-18
Business Park Street Section

Not to Scale

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Rancho Los Lagos

3.2.2 Street Character and Landscaping

Landscaping

Landscaping within roadway rights-of-way and required landscape easements primarily consists of drought-tolerant groundcover and tree species requiring minimal irrigation, fertilization, and maintenance. As discussed in Section 3.2.1, the Circulation Plan proposes landscape areas within roadway medians, within the right-of-way areas adjacent to walkways, and within required landscape easements adjacent to roadway rights-of-way. Responsibilities regarding the financing and maintenance of landscape and tree areas within roadway rights-of-way and required landscape easements are provided in Section 7.0 – Public Facilities Financing and Phasing Plan.

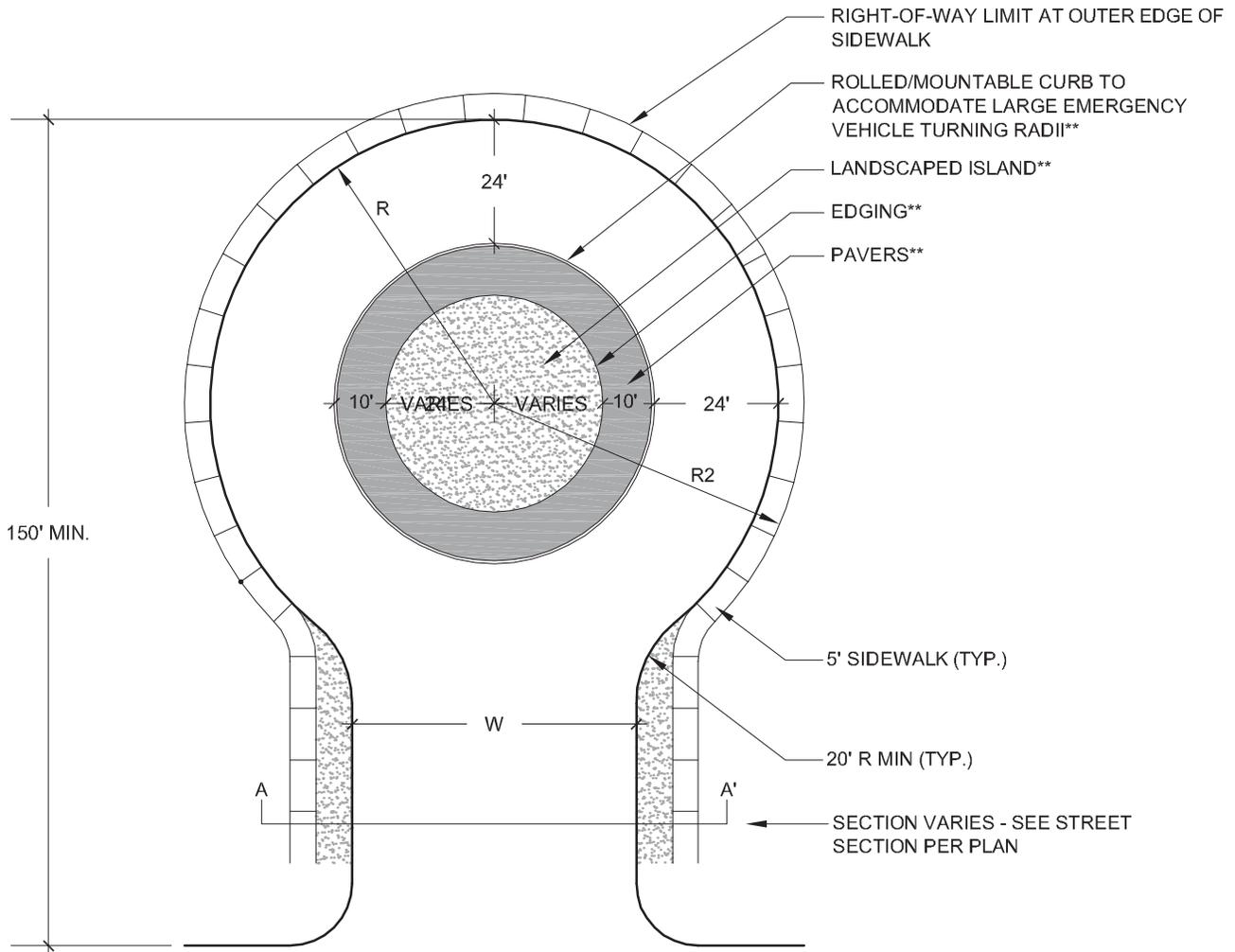
Community Walls Program

Community walls are provided in key locations within the Plan area to provide visual screening, attenuate noise impacts, contribute to a unifying aesthetic theme, and/or define the limits of the community and enhance entry features. Walls are also used to provide aesthetically consistent screening between private and public spaces in some areas. The locations of required community walls are provided in **Figure 2-11**. **Figure 2-12** further illustrates typical conditions where walls are required and shall be constructed as well as conditions where walls are recommended and may be constructed. A detailed discussion of the community walls program is provided in Section 2.0 – Land Use Plan.

Cul-de-Sacs

The typical cul-de-sac for the Plan area is illustrated in **Figure 3-19**. It includes a central landscaped island surrounded by a band of special pavers. The landscaped island improves water quality due to reduced runoff, and reduces future maintenance costs due to less paved area. This layout is adequate for fire and rescue vehicles since the area of special pavers accommodates large vehicle turning radii. The landscaped island does not occur in cul-de-sacs in the Business Park.

The Plan area also incorporates a reduced radius cul-de-sac (for cul-de-sacs that are less than 150 feet in length) that helps promote a walkable environment (**Figure 3-20**). The reduced radius cul-de-sac requires less pavement therefore providing more opportunities for landscaped elements, improved water quality due to reduced runoff, and reductions in future maintenance costs. Reduced radius cul-de-sacs have been shown to accommodate fire and rescue vehicles in other jurisdictions and only exist where they do not limit emergency access. The reduced radius cul-de-sac allows fire vehicles to drive in to provide services and then back out easily (due to the short length) when they are finished, unlike standard cul-de-sacs, which allow oversized fire vehicles to drive around them.



NOTE: ON-STREET PARKING SHOULD BE PROHIBITED ON REFUSE COLLECTION DAYS

**LANDSCAPED CUL-DE-SAC ISLAND DOES NOT OCCUR IN BUSINESS PARK CUL-DE-SACS

R = 50' AT RESIDENTIAL CUL-DE-SAC GREATER THAN 150 FEET (MEASURED TO THE FACE OF CURB)

R2 = 55' AT RESIDENTIAL CUL-DE-SAC GREATER THAN 150 FEET

R = 55' AT BUSINESS PARK USE

R2 = 60' AT BUSINESS PARK USE

W = 50' AT BUSINESS PARK STREET

W = 32' AT RESIDENTIAL STREET

Figure 3-19

Typical Cul-de-Sac (length greater than 150')

Not to Scale

P&QD Consultants/EDAW

County of Imperial

Rancho Los Lagos

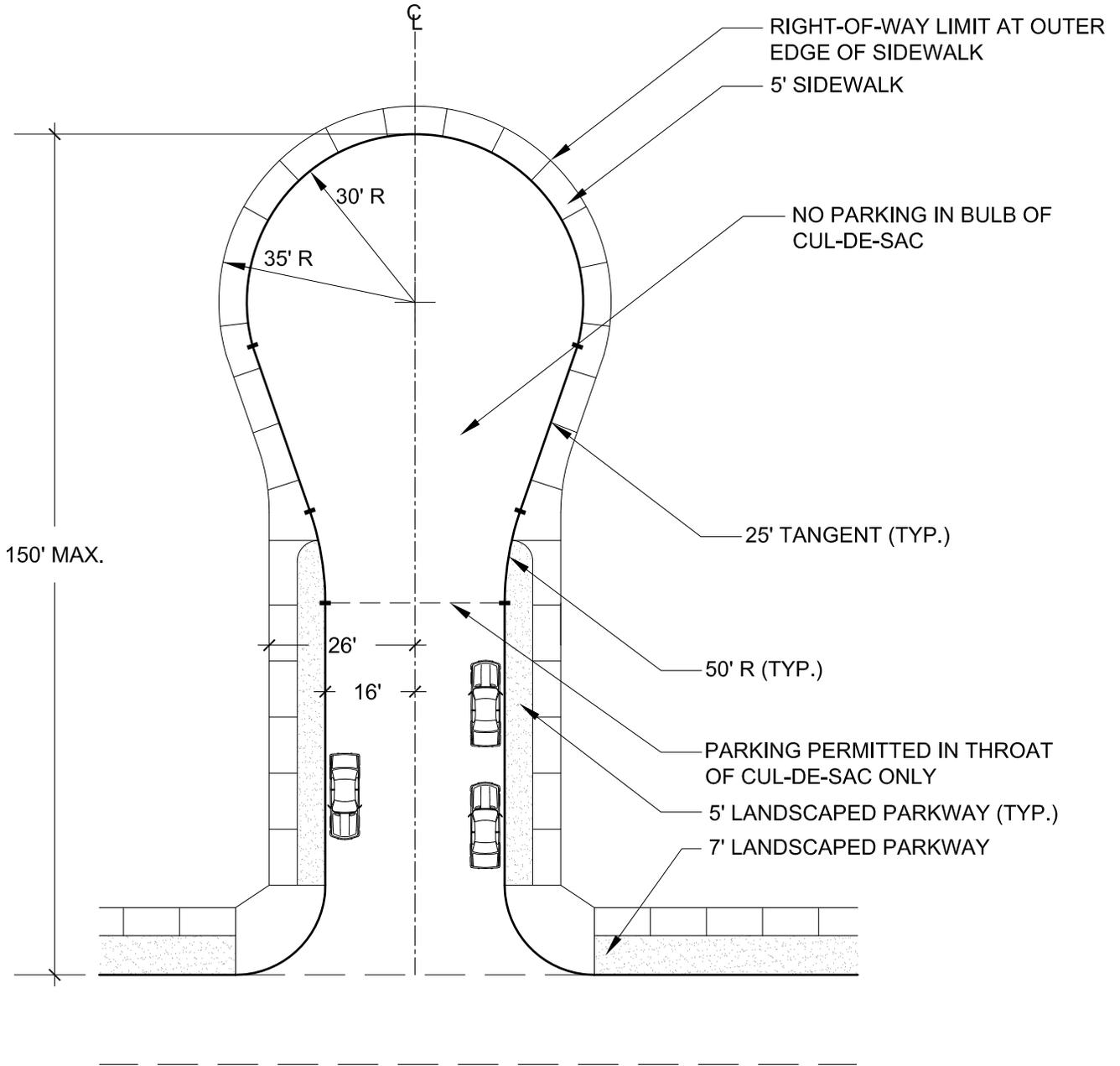


Figure 3-20
 Typical Cul-de-Sac (length less than 150')

The reduced radius cul-de-sacs have the following restrictions:

- ❖ The cul-de-sac must not be longer than 150 feet;
- ❖ No parking is allowed in the bulb of the cul-de-sac;
- ❖ There must be a minimum of 4 feet of clearance from curb to any obstruction (light pole, electrical box, etc) on the sidewalks;
- ❖ Driveways must be Americans with Disabilities Act compliant;
- ❖ Fire hydrants must be located at the beginning of the cul-de-sac radius, and
- ❖ Curbs must be provided on all public streets.

3.2.3 Traffic Calming Measures

The Circulation Plan is designed with various traffic calming measures in order to promote a safe and pedestrian friendly environment. Traffic calming design elements include narrower streets, medians, shorter blocks, knuckles, street tree canopies, landscape bulb-outs, roundabouts, and landscaped sidewalks and paseos; all of which enhance safety and encourage lower traffic speeds. A typical knuckle and a typical curb bulb-out at the community park are depicted in **Figures 3-21** and **3-22**, respectively. Curb bulb-outs occur at the locations indicated on the Street Design Plan (**Figure 3-2**). In addition to these elements, streets are designed to be shorter in length and have fewer straight sections in order to discourage high vehicular speeds.

3.2.4 Intersection Operation and Signalization

The layout of roadways within the Plan area is designed to minimize high speed through-traffic and promote safety. The main project access is located at the intersection of SR-86 and Avenida Del Valle, between Lavender (Schartz) Road and the Rockwood Canal. Traffic signal control is to be provided at this intersection.

The remaining project access points at Western Avenue, Dogwood Road, and five roadways along Lavender (Schartz) Road feature medians that transition into left turn pockets at the intersections. Each access point is stop-controlled for traffic exiting the Plan area on the internal project entry roadways and uncontrolled on Jameson and Schartz roads at these intersections. Traffic signal control may be provided at the intersection of Jameson Road and Western Avenue depending on traffic volumes. In addition, depending on traffic volumes, traffic signal control may be provided at the intersections at Schartz Road and SR-86, Schartz and Dogwood Roads, as well as the intersection of Jameson and Dogwood Roads.

Three small traffic circles are proposed for the Plan area: one within the active adult community and two on a north-south oriented street within the eastern side of the

conventional residential neighborhood. These circles act as traffic calming devices by causing vehicles to decrease their operating speed. They also act as subtle navigation aides given their location at turning points to the community park. Traffic circles also offer aesthetic value because landscaping and/or paving enhancements shall be included in the inner area of the circle.

All-way stop control with crosswalks is recommended at each corner of the elementary school sites to slow down vehicles and improve driver awareness of children/pedestrians, as well as to provide positive control for pedestrian crossings.

3.3 Pedestrian and Bicycle Network

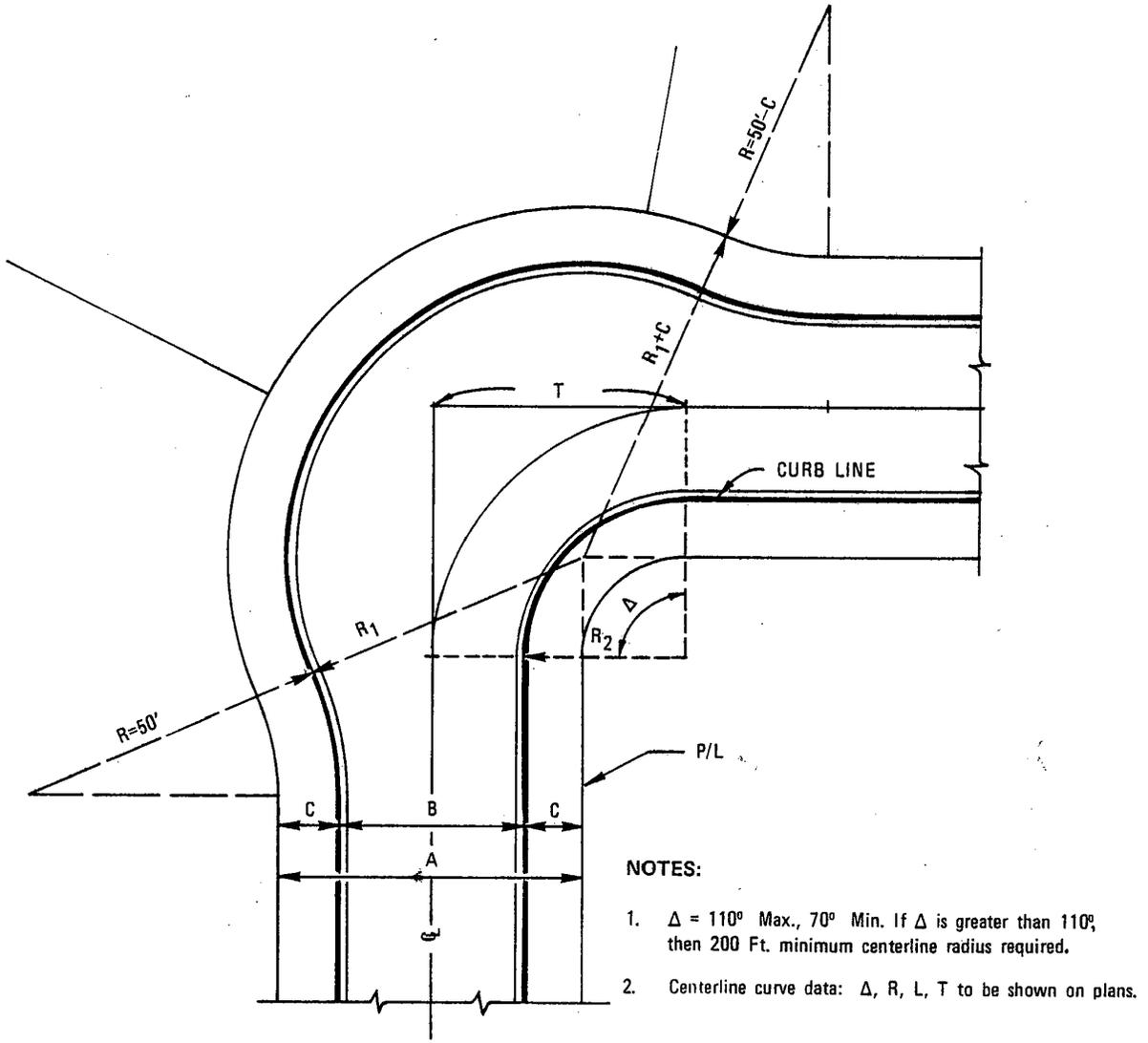
A hierarchy of paseos and sidewalks are provided to promote non-vehicular movement through the Plan area, and to connect the conventional residential neighborhoods and active adult community with the proposed community amenities and commercial mixed use area. Paseos also connect pedestrian traffic to destinations outside of the Plan area.

The pedestrian paseo and sidewalk network is an important component in ensuring connectivity and promoting pedestrian activity in the Plan area. In addition to promoting pedestrian activity, the Plan area also provides a design that encourages bicycle use for both recreation and transportation purposes. A Class I bike path, Class II bike lanes, and Class III bike routes provide residents and visitors with additional non-vehicular travel options. **Figure 3-23** displays the pedestrian and bicycle circulation plan. Each component of the pedestrian and bicycle network is described below.

Regional Paseo

The Regional Paseo system is provided on two higher volume arterial roadways bordering the Plan area to the north and south along Jameson Road and Lavender (Schartz) Road. The Regional Paseo provides a pedestrian link to destinations beyond the Plan area.

The Regional Paseo is separated from the roadway by a landscape area and features an 8-foot wide concrete path for pedestrians. Both sides of the Regional Paseo are landscaped to create visual separation from adjacent uses (roadways or residential), and to provide an enhanced user experience. The cross sections for Lavender (Schartz) Road and Jameson Road (**Figures 3-4** and **3-5**) depict the location and appearance of this pedestrian amenity. The Regional Paseo is shaded by a double row of street trees.



A	B	R_1	R_2	C
56'	32'	60'	30'	10'

Figure 3-21
Typical Knuckle

Not to Scale

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Rancho Los Lagos

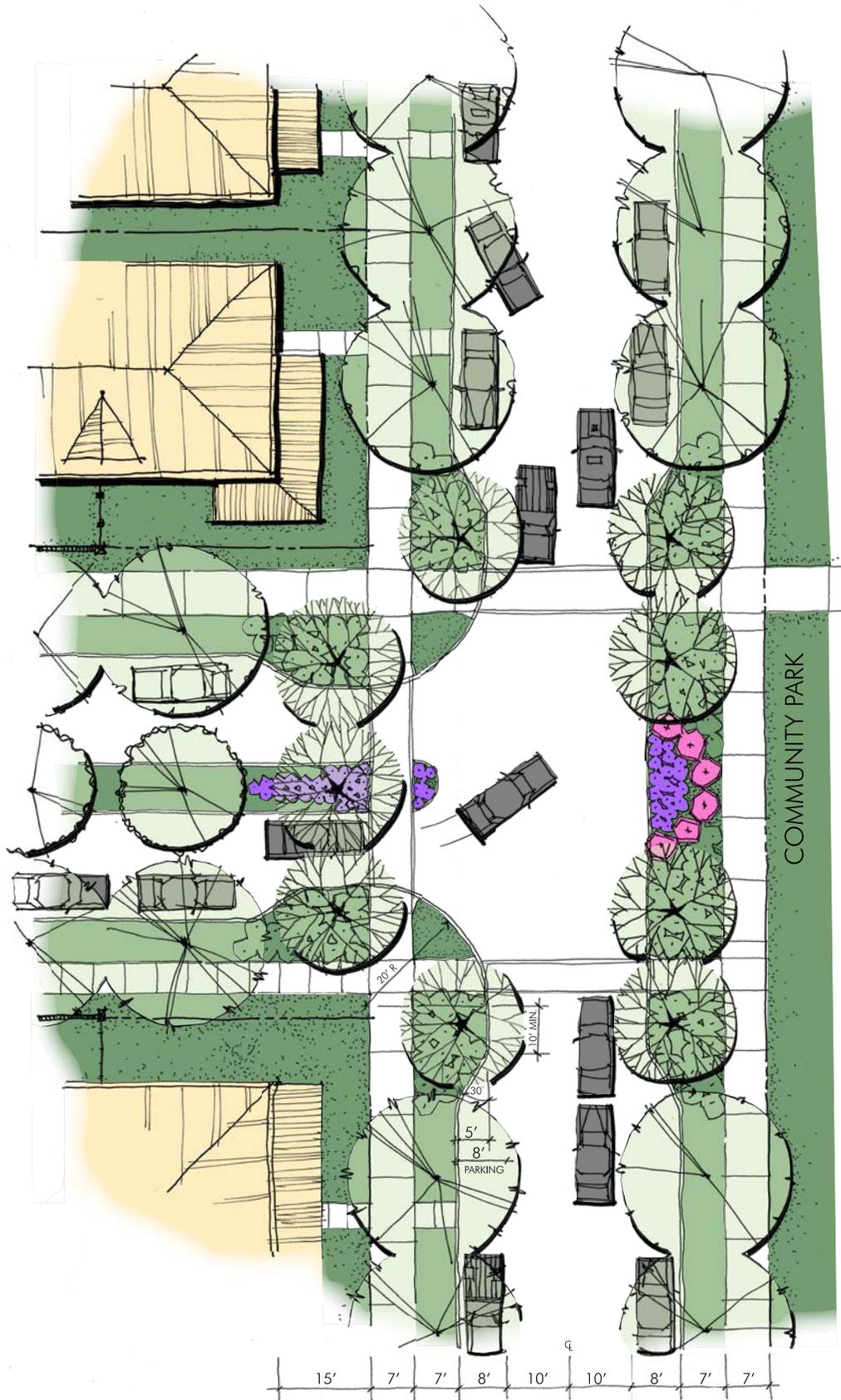


Figure 3-22

Typical Curb Bulb-Out at Community Park

Not to Scale

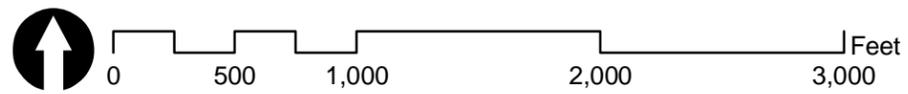
P&QD Consultants/EDAW

County of Imperial

Rancho Los Lagos



Source: P&D Consultants in conjunction with EDAW, 2007; 2008



P&D Consultants/EDAW

Path: P:\2006\06261892 Rancho Los Lagos Specific Plan\5GIS\MXD\specific_plan_figures_rev201103\PedBikeCircPlan_rev201103_v5.mxd, 03/14/11, LeeJ

County of Imperial

Figure 3-23
Pedestrian and Bicycle Circulation Plan
Rancho Los Lagos

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Community Paseo

The Community Paseo is used on several of the lower volume collector roadways found throughout the Plan area. The Community Paseo links pedestrians to parks, residential areas, schools, and other community amenities within the Rancho Los Lagos Specific Plan area. All open space destinations are connected to the Community Paseo.

The Community Paseo is a 7-foot wide concrete pathway for pedestrian use and is separated from the roadway by a landscape area. The landscape area creates a visual separation from adjacent uses (roadways and residential) and a more pleasant walking experience. Where space permits within the right-of-way, both the Regional Paseo and Community Paseo may meander in a gentle curvilinear fashion to provide enhanced interest. The Community Paseo is shaded by a double row of street trees along select streets only per the street sections.

Open Space Trail

Open Space Trails meander within the open space buffer and storm water detention area adjacent to the active adult community to provide additional walking opportunities for these residents. This trail includes separate segments, which are linked with the Community Paseo system. The Open Space Trail is a 5-foot trail and is suitable for pedestrian use. Since this trail is located within a detention area, it may be constructed of decomposed granite with edging to allow for absorption of stormwater. This meandering trail shall maintain a minimum 2-foot separation from all walls.

Class I Bike Paths

Class I bike paths provide a completely separate right-of-way designated for the exclusive use of bicycles and pedestrians with cross-flows by motorists minimized. The Plan area provides an 8-foot Class I bike path along the railroad right-of-way through the detention basin from the Regional Paseo provided along Schartz Road to the Regional Paseo along Jameson Road. This bike path will also provide maintenance vehicles with access to the detention basin.

Class II Bike Lanes

Class II bike lanes are lanes on the outside edge of roadways reserved for the exclusive use of bicycles, and designated with special signing and pavement markings. Class II bike lanes are provided on street segments anticipated to carry high vehicular traffic volumes such as Jameson Road and Avenida Del Valle to enhance bicycle safety. Class II bike lanes feature a zone on the outside edge of roadways reserved for the exclusive use of bikes and designated with special signage and standard pavement markings.

Class III Bike Routes

Class III bike routes are roadways recommended for bicycle use and often connect to bike lanes and bike paths. Routes are designated with signs only and may or may not include additional pavement width. Class III bike routes are provided on roadways on

which relatively low vehicular traffic volumes are anticipated and design speeds are low. Class III bike routes are proposed on the Community Park Street and on selected streets that lead to the community park or through the community. These bike routes are designated with signage only and bicyclists share the roadway with other vehicles.

3.4 Public Transit

The Imperial County Transit Authority offers public transit service to various cities and destinations within Imperial County. Currently, there is no public transit service provided to the Plan area. However, the need for public transit is expected upon build-out of the Rancho Los Lagos Specific Plan. The arterial roadways surrounding the Plan area could incorporate a bus route with regular stops at or within Rancho Los Lagos.

The Dogwood Road right-of-way provides a 46-foot median to accommodate a possible future transit corridor. It is unknown at this time where possible transit stops may be located. However, if a transit stop is located adjacent to the intersection of Dogwood Road and Jameson Road or Lavender (Schartz) Road, the Regional Paseos will provide an enhanced pedestrian pathway to points within the Plan area. The County shall coordinate with Imperial Valley Transit Authority to serve the Plan area with public transit service if and when such service becomes appropriate.