Evaluation Criteria

The path alternative rating criteria was used to compare alignment alternatives as they related to various concerns and comments raised during the initial public outreach for the feasibility study. Some comments or concerns raised by the public are not directly measurable. Examples include effect upon neighborhood privacy, tranquility and property values. In those cases, the criteria considered measurable path characteristics such as the relative setback or buffer of path alternatives to private yard areas. The results of the Alternative Evaluation are provided in Appendix E.

Figure 8. Alignment Evaluation Criteria

	Constituency	Rating Criteria	Does the Alignment…
Property Owners	Property owners near the path	Compatibility with Nearby Property	Provide a separation or buffer between sensitive uses and path or path access points?
		Parking & Traffic	Minimize neighborhood traffic and parking by providing access to off-street public parking?
		Aesthetics	Minimize the potential for cuts, fills, walls or structures?
		Availability of Right-of-Way	Use public property or minimize impacts to existing/planned uses of private property?
Path Users	Walkers and bikers	Path User Comfort	Minimize user exposure to busy roadways?
		Transportation System Performance	Provide direct connections between key destinations and other pathways?
		Recreation Facility Performance	Result in a continuous off-street facility with well-distributed access points?
		Environmental Interpretation	Afford opportunities for enjoyment of natural resources/interpretation?
		Exposure to hazards	Minimize exposure to noise & air pollution?
Public Safety	Property owners and path users	Natural Surveillance	Support visibility of path and minimizes exposure to dark or confined crossings?
		Emergency response	Provide access points for emergency vehicles?
Environ-mental	Flora and fauna in the Greenbelt/Path Users	Habitat & Wildlife	Minimize the impact to sensitive environmental resources?
		Flooding	Minimize the potential for obstruction of creek flows or erosion?
Municipal Operations	City of Roseville	Utility System Performance	Facilitate access to and minimize the potential for impacts to existing utilities?
		Consistency with Local Plans	Achieve consistency with adopted plans?
		Cost Efficiency	Efficiently use limited resources for construction and maintenance?

Recommended Path Alignment

The preferred path alignment is indicated by a red dotted line on Maps 20–31. The preferred alignment was determined by performing an extensive examination and analysis of existing conditions, opportunities, and constraints, while striving to meet the project goals and objectives. The project team, stakeholders, and City of Roseville developed the evaluation criteria used to evaluate the conceptual path alignments.

Alignment Narrative

The preferred path alignment begins with a connection to a pathway along the east side of Dry Creek from Saugstad Park to Darling Way (planned for construction in 2009) and closely follows Dry and Linda Creeks to just south of Old Auburn Way. Connections are planned to Hillcrest, Cirby Side, Sierra Gardens, Meadow Oaks, and Maidu neighborhoods, Eich Intermediate and Sierra Gardens Elementary Schools, and to Maidu Regional Park.

The recommended improvements below correspond to the 12 sheets in this Feasibility Study. The sheets delineate approximately one half-mile of the pathway per sheet and are numbered from west to east. The sheets correspond to the sheets in the Alignment Alternatives chapter.

Darling Way to Dry Creek – Cirby Creek Confluence Sheet 1 - Map 20

The Evaluation Criteria identify option 1-3 as the highest-scoring option from I-80 to Marlin Drive. However, the Dry Creek Greenway Stakeholders Group did not fully support this option and some members of the Stakeholder Group believe that Option 1-2 should have scored higher than Option 1-3. In particular, some Stakeholders do not support the use of Segment A2 and instead support use of Segment B2 (which was a part of option 1-2). As a result, the available options are:

- **Option 1-3.** Within Saugstad Park, **Segment B1A** would use Creek Crossing 1 to get to the west side of Dry Creek. The trail would then connect to Darling Way. Alternatively, Segment B1A and Creek Crossing 1 may be eliminated in favor of widening the sidewalk on the existing Darling Way bridge. Both options would use either an at-grade crossing or undercrossing of Darling Way. **Segment B1B** would continue the trail along the west bank of Dry Creek to **Creek Crossing 2**. **Segment A2** would utilize Creek Crossing 2 to get to the north bank of Cirby Creek. After about 500 feet, **Creek Crossing 4** would be used to cross back to the south bank of Cirby Creek.
- **Option 1-2.** This is identical to Option 1-3 except that it uses **Creek Crossing 3** and **Segment B2** instead of Creek Crossings 2 and 4 and Segment A2. Segment B2 would utilize Creek Crossing 3 to get to the south bank of Cirby Creek, and then retaining walls or additional bridge structures would continue Segment B2 to the east towards the Cirby Hills Condominiums.

- If Option 1-3 is chosen, a **Neighborhood connection** to the existing access path leading to Hernandez Lane/Machado Lane is recommended. Option 1-2 would not afford an opportunity for connection to Hernandez Lane/Machado Lane.
- **Trailhead Parking Lot –** Regardless of which option is chosen, a trailhead parking lot is recommended for construction on the vacant property at 647 & 648 Riverside Avenue. The parking lot would include lighting, landscaping, bike racks, water, restrooms, map kiosk and other amenities. The trailhead project may be combined with flood protection and habitat restoration elements.

The decision to use segment A2 or B2 will be studied further during the environmental review phase, and will involve additional public outreach to the Stakeholders and nearby property owners. Cost, right-of-way acquisition, neighborhood compatibility, safety, flooding, and environmental compatibility will be considerations when this decision is made.

Dry Creek – Cirby Creek Confluence to I-80
Sheet 2 – Map 21

The Evaluation Criteria identify option 2-1 as the highest-scoring option from the Dry Creek-Cirby Creek Confluence to I-80. This option rated highest because it maximized neighborhood connections and minimized right-of-way acquisition. However, the Dry Creek Greenway Stakeholders Group supports option 2-2 as the preferred alignment. Option 2-2 is summarized as follows:

- **Segment B3** would continue the trail on the south side of Cirby Creek to the Cirby Hills Townhomes.
- **Segment B4** would continue the trail on the south side of Cirby Creek to the Windscape Apartments.
- **Segment B5** would continue the trail on the south side of Cirby Creek past the Windscape Apartments to the I-80 undercrossing, where an existing 15-foot shelf on the south bank of Cirby Creek would be used to get under Interstate 80. The pathway will be constructed over the existing interlocking cell block revetment mattress, and a 42-inch railing will be added.
- **Neighborhood connections** to the Cirby Hills Townhomes, Windscape Apartments and Jo Anne Lane (via **Creek Crossing 7**) are planned.

I-80 to Marlin Drive
Sheet 3 – Map 22

The Evaluation Criteria identify option 3-5 as the highest-scoring option from I-80 to Marlin Drive. The Dry Creek Greenway Stakeholders Group supports option 3-5. This option is summarized as follows:

- After crossing under Interstate 80, **Segment B6** would continue the trail on the south side of Cirby Creek.
- **Segment B7** would continue the trail on the south side of Cirby Creek to Marlin Drive, within an existing trail easement.

- **Segment B8A** or **Segment B8B** are two separate options for climbing from creek bank to street level, but in different locations. Segment B8A would involve widening the existing sidewalk on Marlin Drive to meet Class I trail standards, and has the advantage of minimizing right-of-way acquisition requirements but may require structural improvements and grading. Segment B8B would route the trail in the open space separated from Marlin Drive, but may result in comparatively more right-of-way costs and construction of **Creek Crossing 10**.
- **Segment B8C** would continue the trail on the south side of Cirby Creek towards Eastwood Park, using the existing wide sidewalk, which should be upgraded to meet AASHTO and Caltrans standards for Class I bikeways.

The decision to use trail segment B8A or B8B will be made during the final engineering phase of the project. Cost, right-of-way implications and environmental compatibility will be considerations when this decision is made.

Marlin Drive to Sunrise Avenue
Sheet 3 – Map 23

The Evaluation Criteria identify option 4-2 as the highest-scoring option from I-80 to Marlin Drive. The Dry Creek Greenway Stakeholders Group supports option 4-2. This option is summarized as follows:

- **Segment B8C** would continue the trail along the south side of Cirby Creek using the existing Marlin Drive side path to the Tina Way connector.
- **Segment B9** would continue the trail into and through Eastwood Park to **Creek Crossing 12**, which crosses a small drainage leading into Cirby Creek.
- **Segment B10** would continue the trail past a connector to Sundown Way to the confluence of Cirby & Linda Creek.
- **Segment A7 or B11.** The Stakeholder Representative Group was unable to reach consensus about whether the pathway should follow segment A7 on the north bank of Linda Creek or segment B11 on the south bank of Linda Creek. See Sheet 5 discussion for more information on these segments.
- **Neighborhood Connector.** Marlin Drive and Eastwood Park provide ample opportunity for connections to the nearby homes. The existing bridge (**Creek Crossing 11**) to Tina Way also provides good neighborhood connection.

Sunrise Avenue to Oak Ridge Drive
Sheet 5 – Map 24Map 23. Recommended Alignment – Sheet 5

The Evaluation Criteria identify option 5-2 as the highest-scoring option for Sheet 5. However, based upon concerns raised by nearby business owners, the Dry Creek Greenway Stakeholders Group did not reach a consensus for use of Option 5-2 and believes that additional consideration should be given to Option 5-1. These options are discussed by segment below.

- **Option 5-1** would cross the trail to the north side of Linda Creek using **Creek Crossing 13**. **Segment A7** would continue the trail on the north side of Linda Creek to an undercrossing of Sunrise Avenue. This undercrossing uses an existing maintenance road bench that is about 12 feet wide. **Segment A8** would then continue the trail on the north side of Linda Creek past the Alta Manor Assisted Living Facility to Oak Ridge Drive.
- **Option 5-2** would keep the trail on the south side of Linda Creek using **Segment B11** to an undercrossing of Sunrise Avenue. The trail would then continue on the south side of the creek to **Segment B12**. At **Creek Crossing 14**, the trail would cross to the north side of Linda Creek. **Segment A8** would then continue the trail on the north side of Linda Creek past the Alta Manor Assisted Living Facility to Oak Ridge Drive.

The decision to use Option 5-1 or 5-2 will be studied further during the environmental review phase, and will involve additional public outreach to the Stakeholders and nearby property owners. Cost, right-of-way acquisition, neighborhood compatibility, safety, flooding, and environmental compatibility will be considerations when this decision is made.

Oak Ridge Drive to Blue Jay Drive Sheet 6 – Map 25

The Evaluation Criteria identify option 6-1 as the highest-scoring option from East of Oak Ridge to Blue Jay Drive. The Dry Creek Greenway Stakeholders Group supports option 3-5. This option is summarized as follows:

- East of Oak Ridge Drive, an existing Class I pathway follows the north side of Linda Creek toward Sierra Gardens Elementary and Eich Intermediate Schools. This alignment provides access to four existing multi-use path spurs.
- **Segment A9.** Segment A9 begins at Creek Crossing 15 (Woodlake Lane bridge) and extends east past the trail segment that leads to Meadowlark Way. Segment A9 includes an existing 5-foot wide path that will be upgraded to meet Class I standards.
- **Segment A10** follows an existing dirt/gravel sewer maintenance road to a point where Linda Creek "bends" to the south (north of and across the creek from Blue Jay Drive.)
- **Segment A13** continues the trail on the north bank of Linda Creek towards Rocky Ridge Drive.
- **Neighborhood Connectors.** A short connector trail from Segment A10 would lead to the Meadowlark Way access point. Another connector would be extended from Segment A10, using Segment A12 to Creek Crossing 16, and then continuing to Dana Way (see continuation on Sheet 7).

The Dana Way connector (Creek Crossing 16) is supported by the Meadow Oaks Neighborhood Association to enhance neighborhood access to the trail and create a recreational loop using existing dirt footpaths that meander on the south bank of Linda Creek. No improvements are recommended to the existing foot paths on the south bank of Linda Creek.

Blue Jay Drive to Rocky Ridge Drive
Sheet 7 – Map 26

The Evaluation Criteria identify option 7-3 as the highest-scoring option from East of Oak Ridge to Blue Jay Drive. The Dry Creek Greenway Stakeholders Group supports option 7-3. This option is summarized as follows:

- **Segment A13.** Continue on Segment A13 on the north bank of Linda Creek along the existing sewer maintenance road to a potential neighborhood connector at Creek Crossing 17.
- **Segment A14**. Continue along the existing sewer maintenance road to Rocky Ridge Drive.
- **Road Crossing E**. The preferred crossing of Rocky Ridge Drive is an undercrossing, as discussed in the road crossings section of this report.
- **Segment A15B.** After the trail crosses under Rocky Ridge Drive, Segment A15B would loop the trail back to an existing side path on Rocky Ridge Drive, which would be used to cross the trail from the north to the south bank of Linda Creek.
- **Blue Jay Drive Connector.** There is an existing path that leads from Blue Jay Drive to the southwest side of Linda Creek. **Creek Crossing 17** would connect the preferred trail alignment to this connector. If the Dana Way Connector (sheet 6) is built, then the Blue Jay Drive Connector would not be necessary because of their proximity. The Dana Way connector is preferred because it has the advantage of creating a looped recreational trail, it offers greater separation between the trail and adjacent homes (when compared to the Blue Jay connector option) and it is currently used on an informal basis by neighbors.
- **Trailhead Parking Lot.** City-owned property on the east side of Linda Creek near Balboa Drive has been identified as a potential site for a trailhead parking lot. Due to curvature and site distance on Rocky Ridge Drive, a traffic study will be required to determine if installation of this parking lot is feasible. The availability of parking at nearby Maidu Park as well as compatibility with existing homes on Balboa Drive would be factors in determining whether or not this parking lot is needed.

The decision on whether or not to build the Blue Jay Drive connector and the Trailhead Parking Lot will be made during the environmental review or final engineering phases of the project.

Rocky Ridge Drive to North Cirby Way
Sheet 8 – Map 27

The Evaluation Criteria identify option 8-1 as the highest-scoring option from East of Oak Ridge to Blue Jay Drive. The Dry Creek Greenway Stakeholders Group supports option 8-1. This option is summarized as follows:

- **Segment A16** continues the trail along the south bank of Linda Creek to a point where the trail approaches an overflow channel built by the Flood Control Project.
- **Segment A17 or B16.** Segment A17 would continue the trail along the south bank of Linda Creek on the north side of the overflow channel, using **Creek Crossing 19**

to cross the overflow channel. Segment B16 would continue the trail along the south bank of Linda Creek south of the overflow channel. Segment B16 may result in impacts to mitigation plantings built by the Flood Control Project and the Pheasant Run Subdivision.

- **Creek Crossing 20** would cross the trail to the north side of Linda Creek, and would be used with either Segments A17 or B16. There is an existing gap in the riparian canopy of Linda Creek that may make a good location for Bridge 20, pending hydraulic analysis.
- **Segment A18** would continue the trail on the north side of Linda Creek and the west side of Strap Ravine to **Creek Crossing 21**, an existing crossing of Strap Ravine. Crossing 21, a rail car bridge used for sewer and open space maintenance purposes, would have to be upgraded (new deck and handrails) for trail use.
- **Segment A19** would continue the trail on the north side of Linda Creek to the dead end of N. Cirby Way.
- **Nighthawk Circle and McKinley Drive Connectors.** The plan identifies potential connectors to Nighthawk Circle and McKinley Drive at N. Cirby Way. The Nighthawk Circle connector presents environmental challenges due to the Pheasant Run Subdivision open space and wetland preserve. The McKinley Drive connector would require removal of some landscape improvements that a nearby property owner has made on City property. If the City chooses to pursue these connections, additional study will be needed.

The decision to use trail segment A17 or B16 will be made during the environmental review or final engineering phase of the project. Hydraulic impacts and environmental compatibility will be primary considerations when this decision is made.

Strap Ravine to Maidu Regional Park
Sheet 9 – Map 28

The Strap Ravine connection would provide access to Maidu Park's trail system, as well as access to a sewer manhole that is currently landlocked. However, the Strap Ravine connection would require two bridge crossings of Strap Ravine and additional grading (including fill material) near McLaren Drive. These present potential hydraulic and cost concerns. There is an existing side path on Rocky Ridge Drive leading from Linda Creek to Maidu Park that provides comparable access to Maidu Park. As a result, the Strap Ravine connection is not recommended at this time. The Stakeholder Representatives Group does not support the Strap Ravine connection at this time because of the availability of the existing side path on Rocky Ridge Drive. If in the future the City believes that access to the sewer manhole is beneficial, then the Strap Ravine connector may be pursued further.

North Cirby Way to Colonial Parkway
Sheet 10 – Map 29

The Evaluation Criteria identify option 10-2 as the highest-scoring option from East of Oak Ridge to Blue Jay Drive. The Dry Creek Greenway Stakeholders Group supports option 10-2. This option is summarized as follows:

- **Segment A20 or A21** would continue the trail on the north bank of Linda Creek from N. Cirby Way to a crossing of Champion Oaks Drive and then to W. Colonial Parkway. **Segment A20** would cross through privately-owned, undeveloped parcels zoned Floodway and would use **Crossing 25**. Alternatively, **Segment A21** would route the trail closer to the creek on City-owned property, and would use **Crossing 26**. Segment A21's proximity to the creek would increase the risk of trail washout, and may also require removal of wetland mitigation plans installed by the Flood Control Project. Crossings 25 and 26 cross a small tributary of Linda Creek and would likely be a culvert crossing.
- **Neighborhood Connectors** are available along the full length of this trail segment. The W. Colonial Parkway connector is located in an area that was previously identified for use as a passive park. The trail connector is compatible with this planned use. If feasible, the connector would be designed to avoid nearby mitigation plantings that were installed with the Flood Control Project.

The decision to use trail segment A20 or A21 will be made during the final engineering phase of the project. Right-of-way acquisition, hydraulic impacts and environmental compatibility will be primary considerations when this decision is made.

Colonial Parkway to Old Auburn
Sheet 11 – Map 30

The Evaluation Criteria identify option 11-1 as the highest-scoring option from W. Colonial Parkway to Old Auburn Road. The Dry Creek Greenway Stakeholders Group supports option 11-1. This option is summarized as follows:

- **Segment A22** would extend the trail along the north/east bank of Linda Creek from W. Colonial Parkway to Old Auburn Road.

Concrete flood walls border both sides of the corridor in this stretch, providing privacy but limiting access to the greenway. This segment would include a connection to the north side of Old Auburn Road. When Segment A22 is built, the undercrossing of Old Auburn Road may also be installed to provide access to the south side of Old Auburn Road.

Old Auburn to Spahn Ranch Road
Sheet 12 – Map 31

The Evaluation Criteria identify option 12-1 as the highest-scoring option from Old Auburn Road to the City limits. The Dry Creek Greenway Stakeholders Group supports option 21-1. This option is summarized as follows:

- **Segment A23** would continue the trail along the north/east bank of Linda Creek past City-owned property at Spahn Ranch Road.
- **Segment A24** would continue the trail to the City limits.
- **Connections** to the north and south side of Old Auburn Road are recommended
- **Trailhead Parking Lot.** Two city-owned properties on the south side of Linda Creek have been identified as potential sites for a trailhead parking lot. One of the

lots (at 4999 S. Cirby Way abutting the Country Villa Mobile Home Park) has many existing native oaks that together with topography may present construction difficulties. The other lot at 3170 Old Auburn Road also has topographic constraints and was recently the site of a City-sponsored native oak tree mitigation project.

Segments A23 & A24 would be built at such time as Placer County decides to continue the trail to the east. Timing of trailhead construction would be determined during final engineering phase.

Roseville Dry Creek Greenway Planning & Feasibility Study

Recommended Alignment - Sheet 1

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LEGEND

- Recommended Alignment
- Connection
- Retaining Wall
- Creek Crossings
- Road Crossings
- Parking
- Approximate 100-year Flood Zone Boundary
- Park Sites
- Creeks
- Existing or Planned Trails
- Bike Route - Bike Lane
- Bike Route - Shared Lane

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Recommended Alignment - Sheet 2

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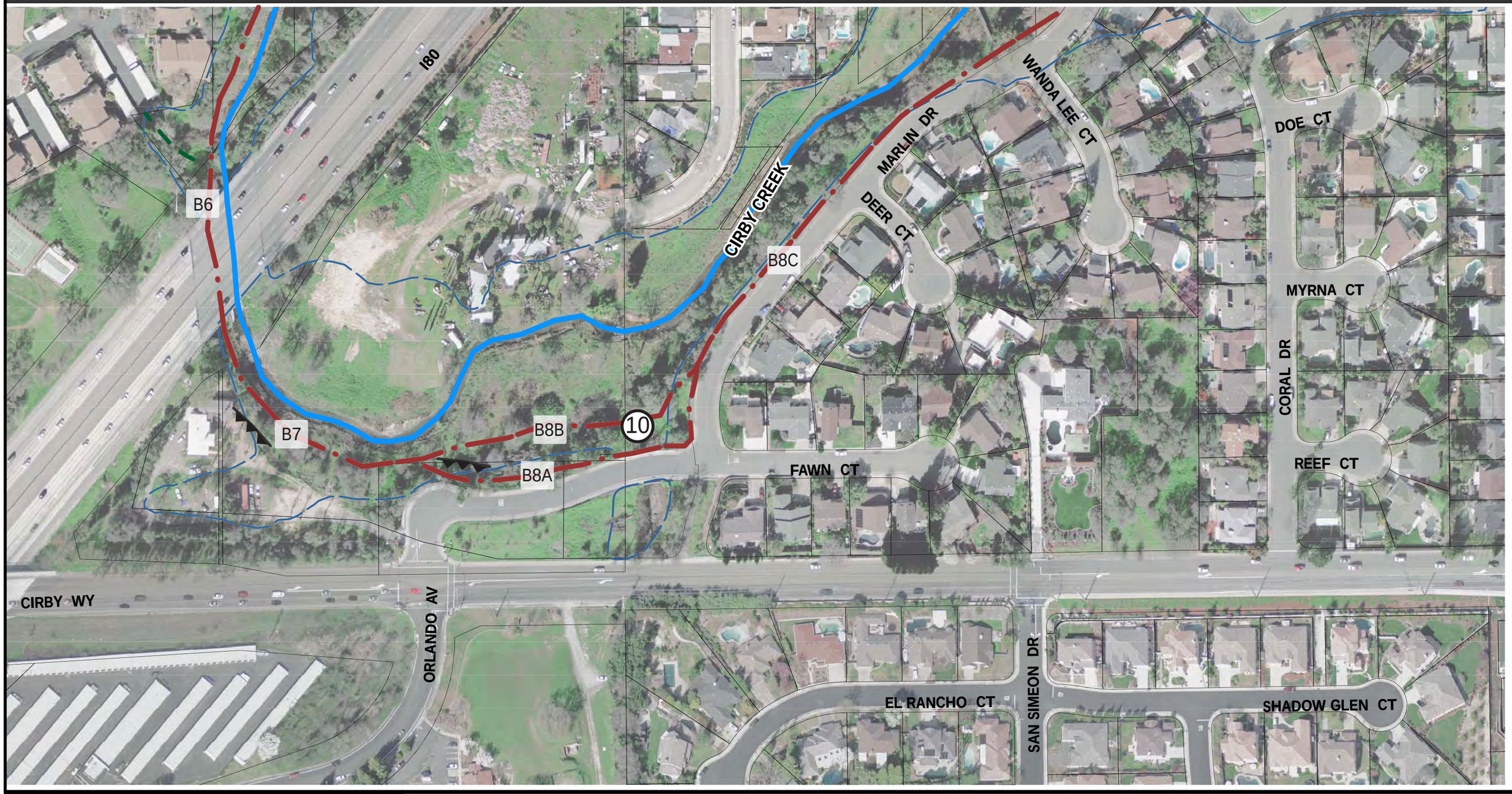

Recommended Alignment - Sheet 3

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LEGEND

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- Bike Route - Bike Lane
- Bike Route - Shared Lane

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Roseville Dry Creek Greenway Planning & Feasibility Study

Recommended Alignment - Sheet 4

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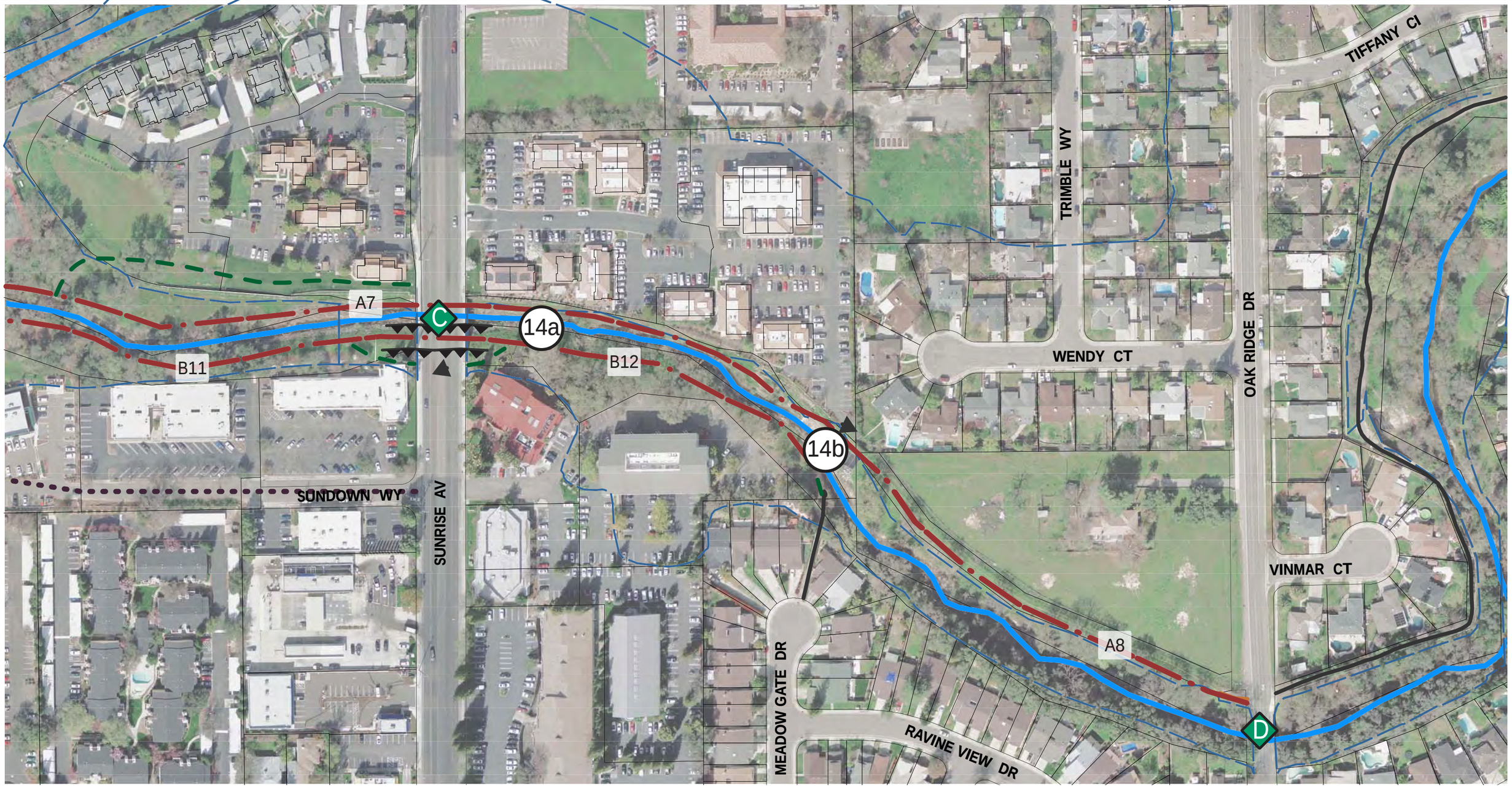

Recommended Alignment - Sheet 5

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Roseville Dry Creek Greenway Planning & Feasibility Study

Recommended Alignment - Sheet 6

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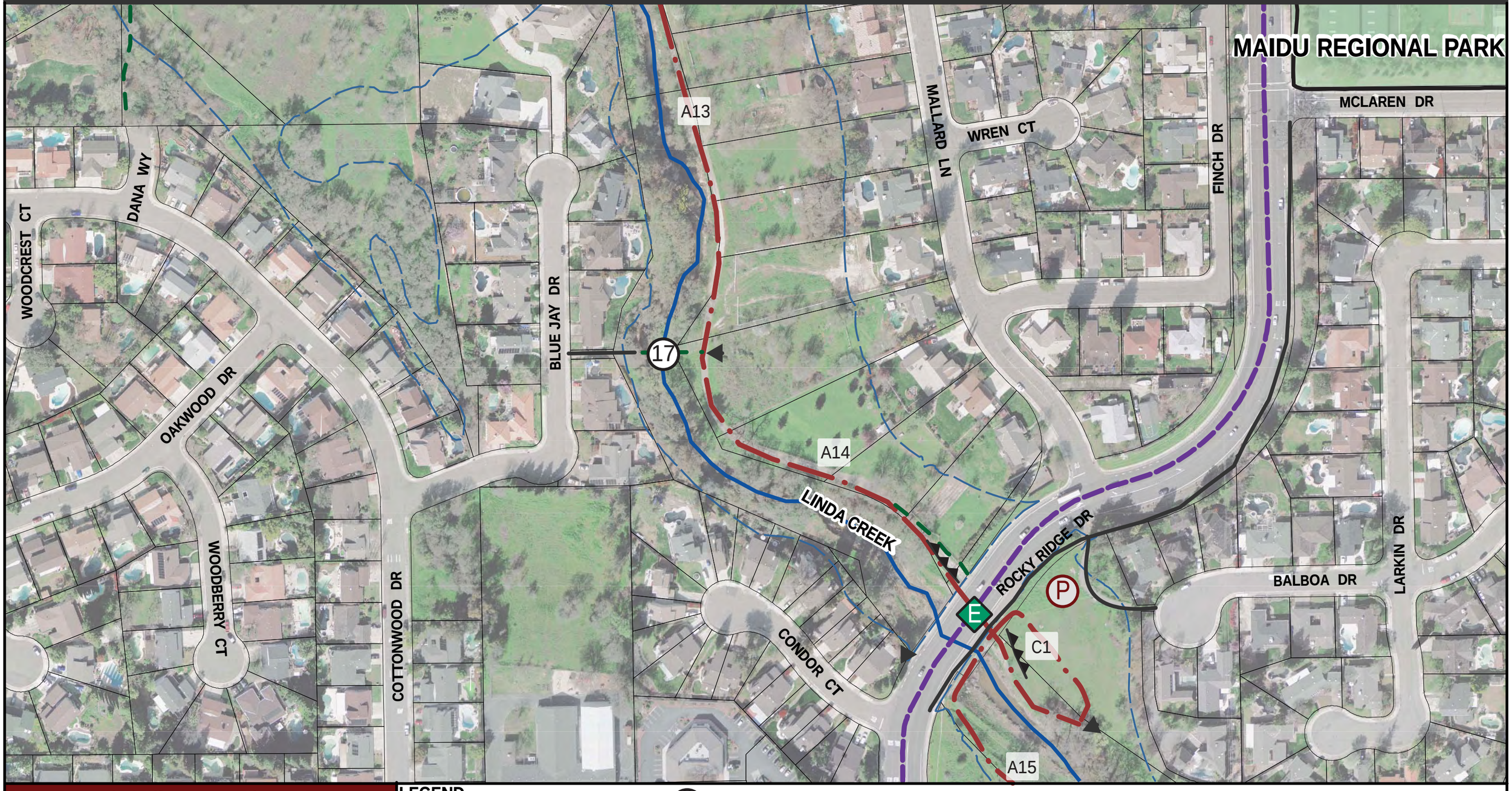

Recommended Alignment - Sheet 7

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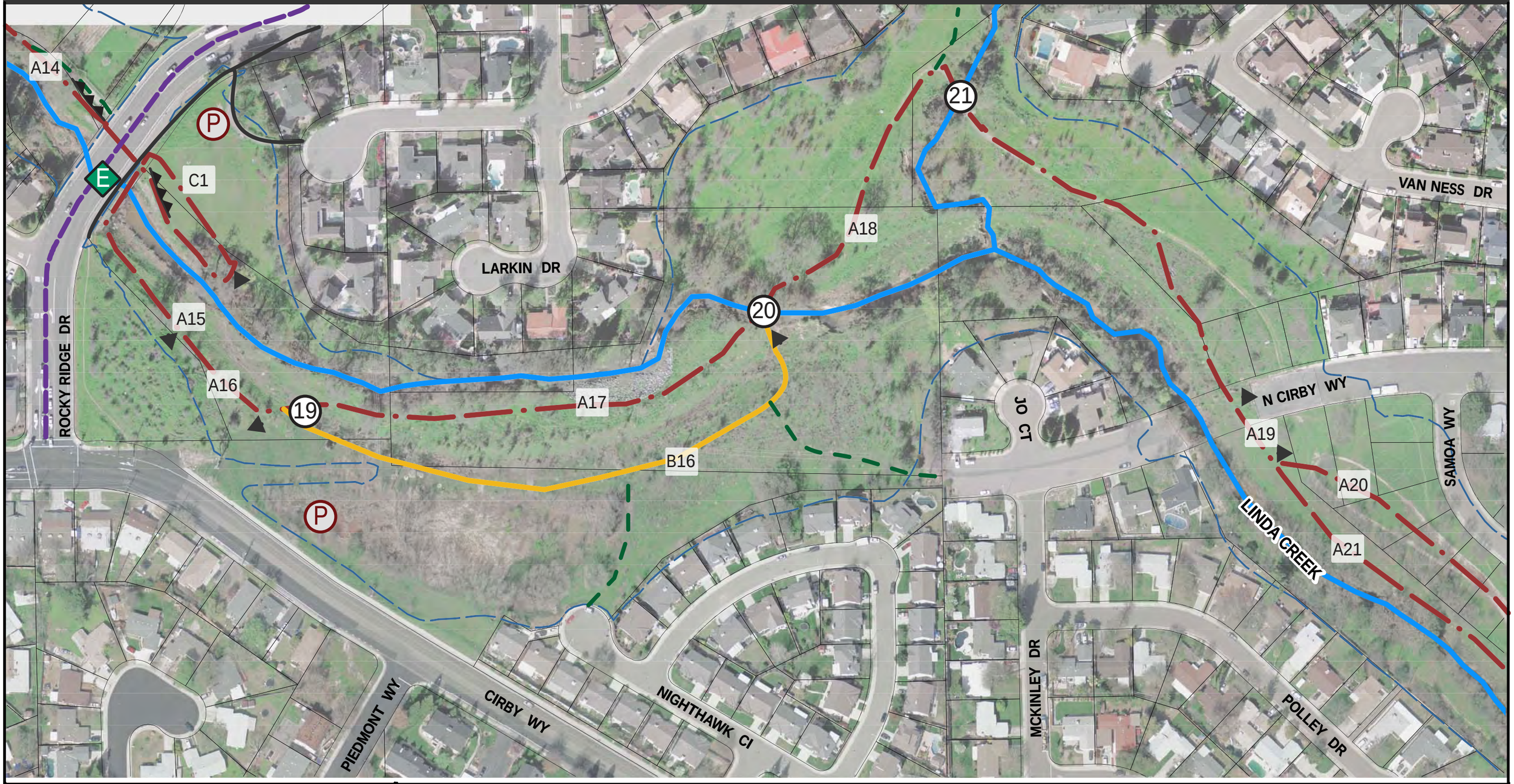

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Roseville Dry Creek Greenway Planning & Feasibility Study

Recommended Alignment - Sheet 9

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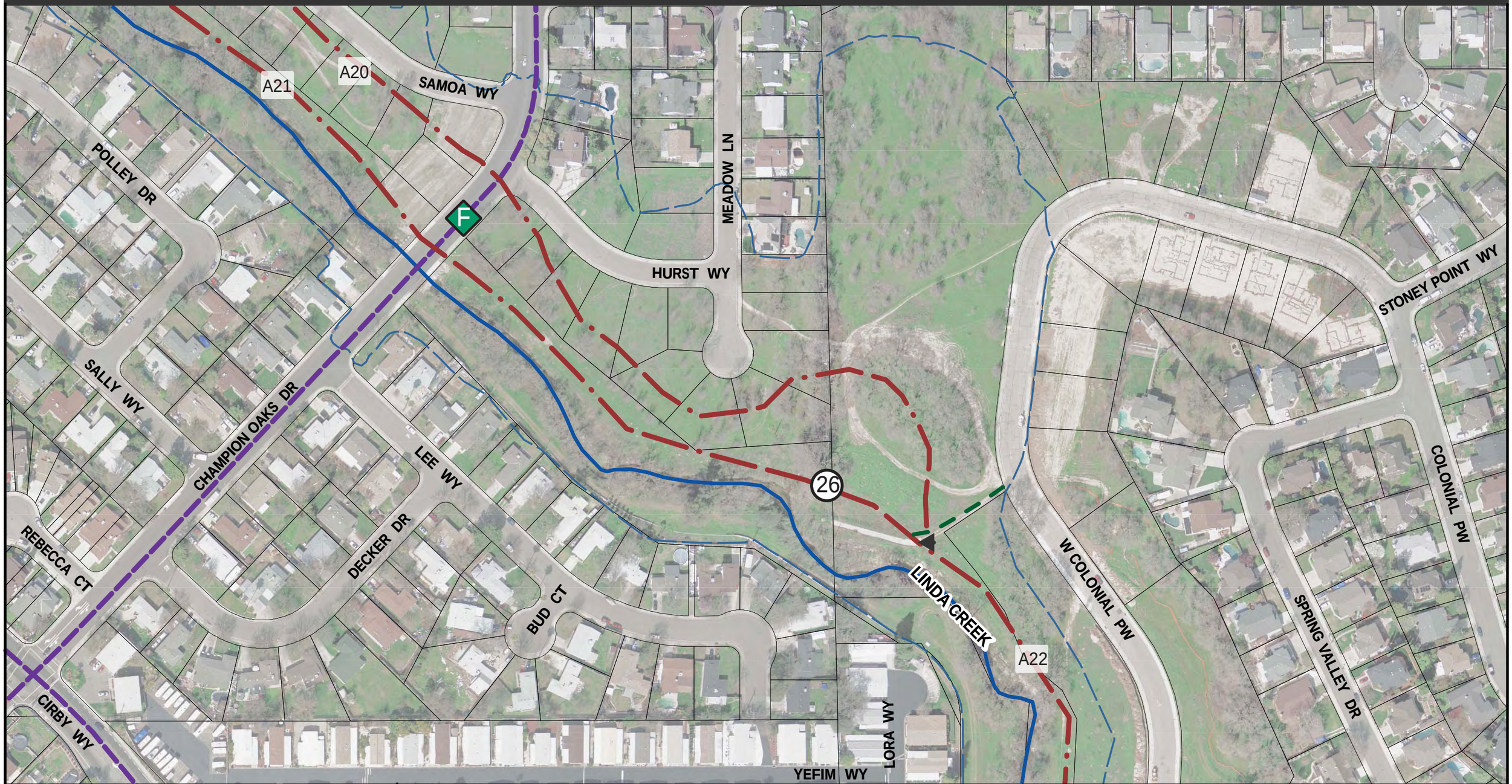

Recommended Alignment - Sheet 10

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- Bike Route - Shared Lane

0 75 150 300 450 600 Feet

Roseville Dry Creek Greenway Planning & Feasibility Study

Recommended Alignment - Sheet 11

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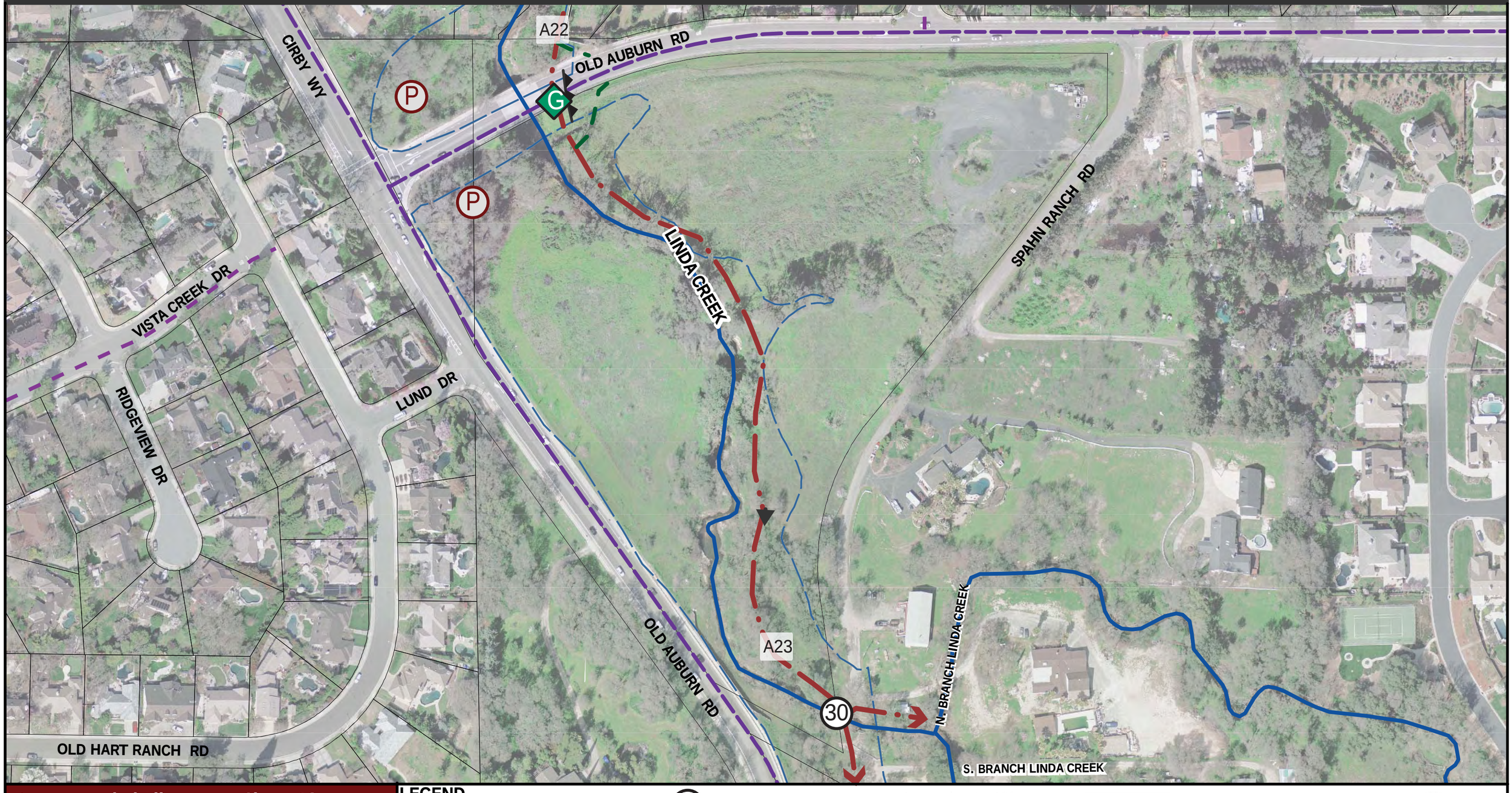
Roseville Dry Creek Greenway Planning & Feasibility Study



Recommended Alignment - Sheet 12

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- Park Sites
- Creeks
- Existing or Planned Trails
- Bike Route - Bike Lane
- Bike Route - Shared Lane

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Design Treatment

The character of Dry Creek Path is influenced by the surrounding land uses and landscapes, as well as the design attributes of the recommended path improvements (i.e. width, materials, color, texture, landscaping). The path should blend aesthetically with its surroundings. Examples of path improvements include path surface, creek crossings, road crossing, and path access points.

The following recommendations provide design and implementation guidelines and standards to ensure that the preferred Dry Creek Greenway Planning alternative is constructed to a consistent set of the highest standards currently available. The path design will meet the safety needs of all path users.

Standard Path Design

The "typical" sections of the Roseville Dry Creek Greenway multi-use path will conform to the City of Roseville Class I Bikeway Grading standard and other provisions of the City of Roseville Design Standard, Section 13, Bikeways. The typical section (Figure 9) consists of a 10-foot wide paved path with two-foot shoulders on each side (one composed of decomposed granite and one of aggregate base). This provides enough width for two-way bicycle and pedestrian traffic, and allows maintenance vehicles to use the pathway to access utilities. Eight-foot wide sections may be used for access spurs and in "pinch-point" locations that have severe physical or environmental constraints.

Portions of the pathway may be located more than one foot below the City's 10-year storm even water surface elevation (10-WSE). In these sections, the path shall conform to Section 13-5, Bike Paths in Floodplains, of the City's Design Standards. The path shall be at least as high as the two-year storm water surface elevation (2-WSE), shall be Portland Cement Concrete, and shall have toe protection to prevent the path from being undermined during flood events. Figure 10, page 85, shows a typical detail of a reinforced path section.

Path construction will be conducted in a similar manner as roadway construction. Sub-base thickness will be determined by soil conditions. Expansive soil types require special structural sections. Use of geotextiles should be encouraged (depending on subsurface soil type and drainage) to provide stability and aid drainage to subsurface soils). Ideal asphalt thickness should be two inches minimum, but may be increased in thickness based on existing soil conditions, of Asphalt Concrete, Type A over 4-inches of Class 2 aggregate base.

As outlined in the City of Roseville Design Standards (2007), a minimum of two feet of graded shoulders on each side of the path is required. One shoulder should be comprised of Class 2 Aggregate Base material, and the other of decomposed granite. Where grades are four percent or greater, the decomposed granite may be stabilized with lime/fly ash or cement treatment, otherwise Class 2 Aggregate Base material may be used for the shoulders.

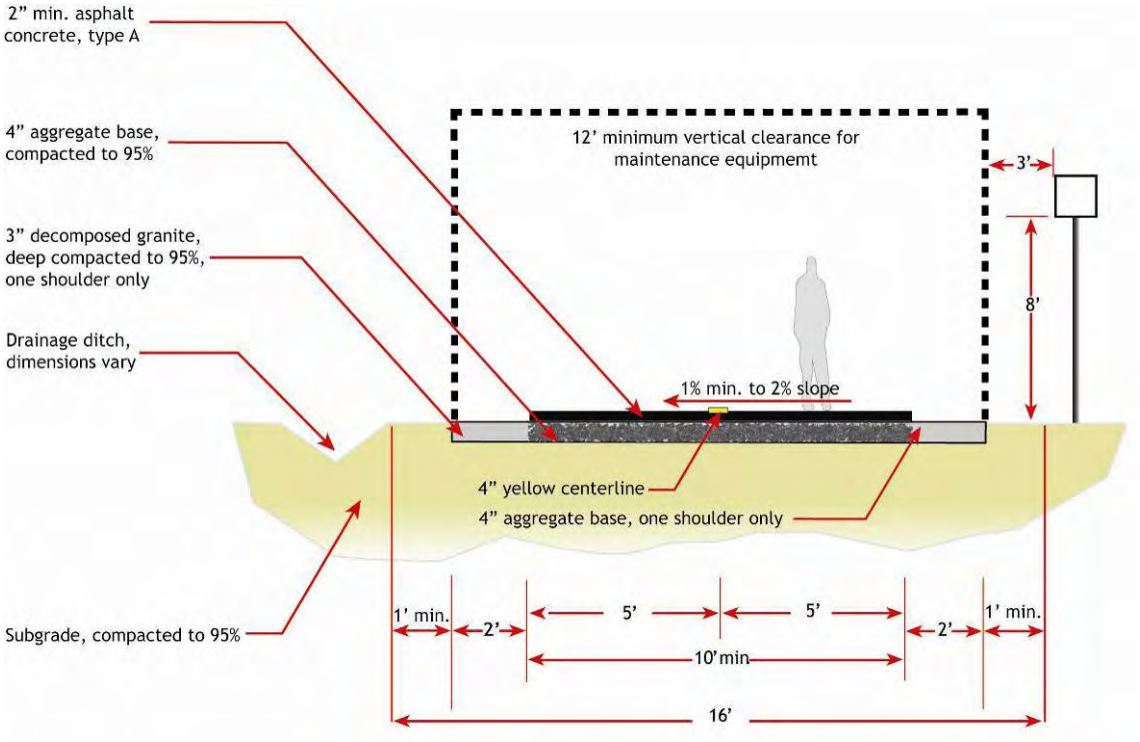

Figure 9. Typical Pathway Structural Section

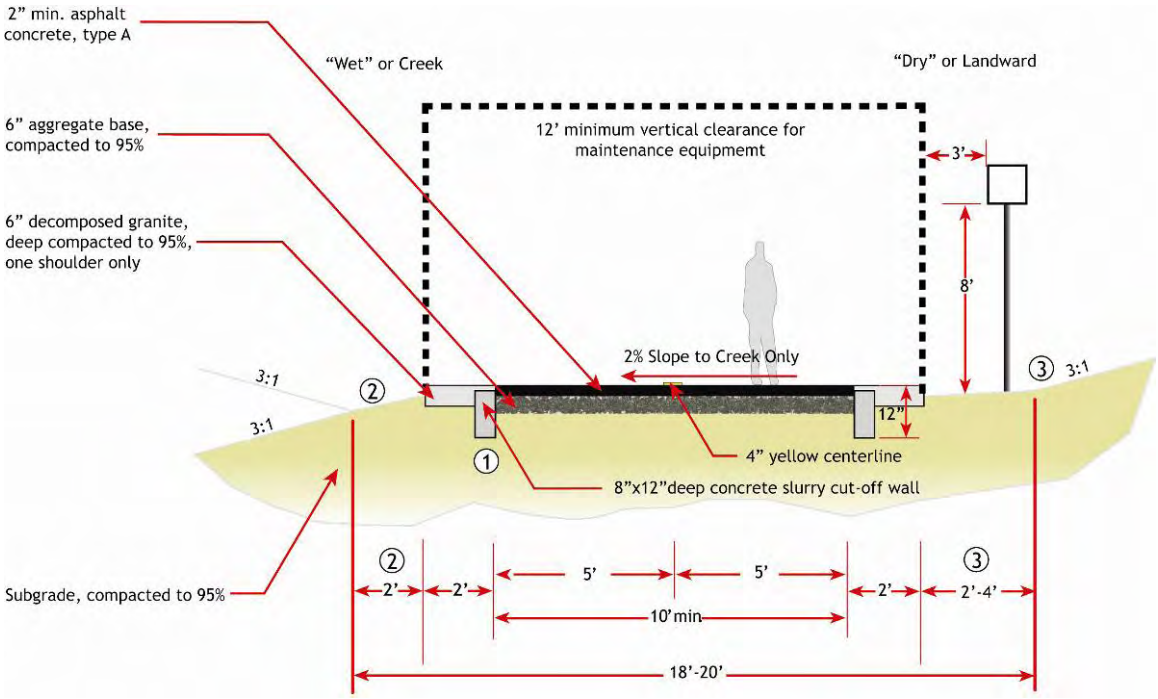

Figure 10. Reinforced Pathway Structural Section

Bike paths constructed within cut-slopes shall have a drainage ditch of suitable dimensions along the uphill side to intercept the hillside drainage. Bike paths constructed on top of fill slopes shall have a drainage ditch of suitable dimensions along the downhill side to intercept the path's drainage.[3]

Roadway Crossings

Several roadways cross through the study area. Figure 11 summarizes the road crossing and the potential crossing treatments. Based on the recommended alignment, the path would cross these either at-grade or below-grade under existing bridges or possibly using a newly constructed under-crossing (Rocky Ridge).

Figure 11. Potential Road Crossing Treatments

Location	Potential Crossing Treatment	Number of Lanes	Road Width (ft)	Posted Speed (mph)	Traffic Volume (ADT-2003)
Darling Way	Under-crossing – under existing bridge (either bank) Uncontrolled at-grade crossing	2	30	25	4,434 (Sep-03)
I-80	Under-crossing – under existing bridge (south bank)	6	100+	N/A	N/A
Sunrise Avenue	Under-crossing – under existing bridge (either bank) Signalized at-grade crossing	5	60 ft	35	35,527 (Sep-03)
Oak Ridge Drive	Uncontrolled at-grade crossing	2	30 ft	25	3,086 (Sep-03)
Rocky Ridge Drive	Under-crossing using existing box culvert Under-crossing using new box culvert adjacent to existing (either bank, but south bank is more constrained) Over-crossing	5	60 ft	30 (cautionary)	29,088 (Sep-03)
Champion Oaks Drive	Uncontrolled at-grade crossing	2	50 ft	25	2,936 (Sep-03)
Old Auburn Road	Under-crossing - under existing bridge (either bank) At-grade crossing at Cirby Way intersection	3	40 ft	40	12,773 (Oct-03)

*Design of under-crossings will have to address the security issues often associated with under-crossings in urban areas.

The proposed crossing treatments in this study are based on established standards, preliminary evaluation of the available data, and experience on similar existing facilities. The proposed crossing treatments fit into one of four basic categories, described in Figure 12.

[3] Roseville Standard Bikeway Details, March 2007.

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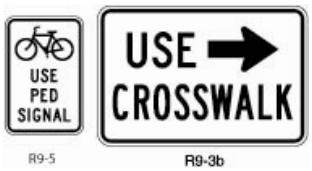
Figure 12. Basic Crossing Prototypes

Crossing Type	Photo	Description
I. Unprotected		Unprotected crossings include mid-block crossings of residential, collector, and sometimes major arterial streets. Type 1+ crossings include high-visibility crosswalks, which can incorporate pedestrian-activated warning flashers or in-pavement lights.
II. Routed to Existing Intersection		Pathways that emerge near existing intersections may be routed to these locations.
III. Signalized/Controlled		Pathway crossings that require signals or other control measures due to traffic volumes, speeds, and path usage.
IV. Grade Separated		Under-crossings and over-crossings provide the maximum level of safety but also generally are the most expensive and have right-of-way, maintenance, and other public safety considerations.

Roadway crossings represent one of the key challenges to pathway implementation. Motorists often do not expect to see bicyclists and pedestrians at unprotected mid-block path crossings. Most of the path/roadway intersections will be designed to meet at a 90-degree angle or will travel under the roadway. Pathway crossings of roads with high traffic volumes will be under-crossings (I-80, Sunrise and Rocky Ridge). As part of the phasing plan for the pathway, path users wishing to cross Rocky Ridge from the west and access the existing pathway on the east side of Rocky Ridge will be directed the signalized intersection at Rocky Ridge and Cirby.

An evaluation of crossings of the pathway involves analysis of traffic patterns of vehicles as well as path users. This includes traffic speeds, street width, traffic volumes (average daily traffic and peak hour), line of sight, and path user profile (age distribution, destinations).

A Traffic Safety study will need to be completed as part of the civil engineering design of the proposed crossings to determine the most appropriate design features. This will identify the most appropriate crossing options given available information, which must be verified and/or refined through the engineering and construction document stage of the process.

Roadway Crossing Recommendations

For the Dry Creek Greenway path, Type I, and IV path crossings are recommended. Figure 13 presents a summary of path–roadway intersections in the Dry Creek corridor and their respective treatments.

Road	ADT*	Speed	Recommended Crossing Type
Darling Way	4,434 / 7,646	25	On-street or under-crossing at the west end of the bridge
Interstate-80	N/A	N/A	Under-crossing – under existing bridge, using existing bench
Sunrise Avenue	35,527 / 53,144	40	Under-crossing – under existing bridge
Oak Ridge Drive	3,086 / 12,791	25	Type I+, marked crosswalk and curb extensions
Rocky Ridge Drive	29,088 / 31,471	40	Under-crossing – using existing box culvert or new, larger one
Champion Oaks Drive	2,936 / 10,441	25	Type I+ marked crosswalk and either curb extensions or pedestrian median refuge
Old Auburn Road	12,773 / 18,339	40	Under-crossing – under existing bridge

* 2003 (actual)/2020 (projected) ADT per City of Roseville

Figure 13. Path-Roadway Intersections Treatments for the Dry Creek Greenway path

Design and operation measures are available which can address pathway-user safety concerns. For example, an under-crossing can be designed to minimize flooding and be spacious and well-lit, and completely visible for the entire length prior to entering.

All five of the proposed under-crossings will result in the path surface being below the 10-year water surface elevation. As such, all would be protected on the creek side by a retaining/floodwall and all would be constructed of Portland cement concrete (Figure 9, page 85). Careful consideration will have to be given to drainage of the path at the under-crossings. This may include a short flood wall on the creek side of the path to keep low flows off of the path, while allowing the path to drain after being inundated by higher flows.

Darling Way

Two options for an at-grade crossing and a crossing under the existing Darling Way bridge were explored as part of this study. From that point, an at-grade crossing at the east end of the bridge was eliminated because of limited site distance and proximity to the Hernandez Lane intersection. Reconfiguring the layout of the bridge by narrowing the travel lanes to

11'-10.5" each and widening the existing sidewalk to 11 feet allows for a 10-foot clear pathway along Darling Way on the existing bridge. An at-grade crossing or an under-crossing of Darling Way are both feasible from the west end of the bridge. The visibility is sufficient and the distance to the nearest signalized intersection is sufficient to allow for a safe at-grade crossing of Darling Way on the west end of the existing bridge.

The recommended alignment crosses Dry Creek on the existing Darling Way bridge by widening the existing, raised, 4.5-foot wide north sidewalk to 11-feet (10-foot clear[4]) to accommodate path users. A new 54-inch high railing on the south side of the path will separate vehicular and path traffic. The existing roadway over the bridge is narrowed to approximately 23 feet 9 inches[5]. The proposed crossing treatment is shown in Figure 14 below. Figure 3, page12, shows the existing conditions at Darling Way.

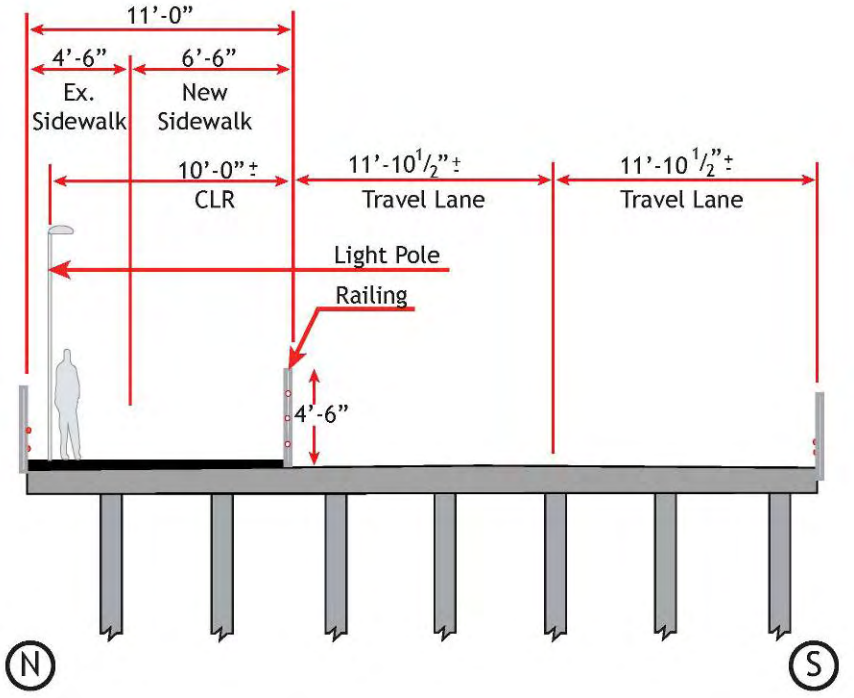


Figure 14. Proposed Crossing of Dry Creek Using Existing Darling Way bridge

Alternatively, the existing slab bridge could be widened by approximately 5 feet with the addition of one pile/column at each bent to meet minimum standards for both roadway and path width, or a new bridge could be constructed upstream of the existing bridge.

For an under-crossing (shown in Figure 15, below) an uphill retaining wall with a maximum height of approximately 10 feet may be required to support the existing abutment slope, and a shorter wall on the creek side may be required to protect the path from being undermined

[4] The City of Roseville Design Standards requires 12-foot minimum clearance for bike paths. Caltrans minimum width for bikeways on bridges is 8-feet.
[5] Requires a detailed traffic analysis during the design phase.

by creek flows. Recently-installed electrical transformers and other utility boxes on Clinton Avenue may complicate the under-crossing option.

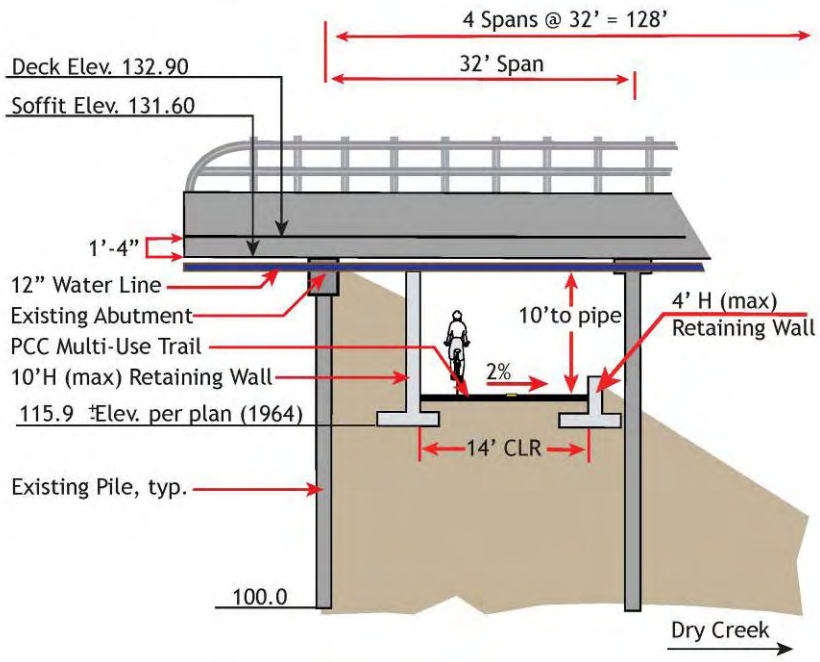


Figure 15. Darling Way Bridge under-crossing Path Section, looking upstream

Interstate-80

The recommended path alignment crosses I-80 on the south/west side of Cirby Creek. The alignment will use the existing armored 15-foot wide bench along the south side of the creek. This treatment is shown in Figure 16, page 90.

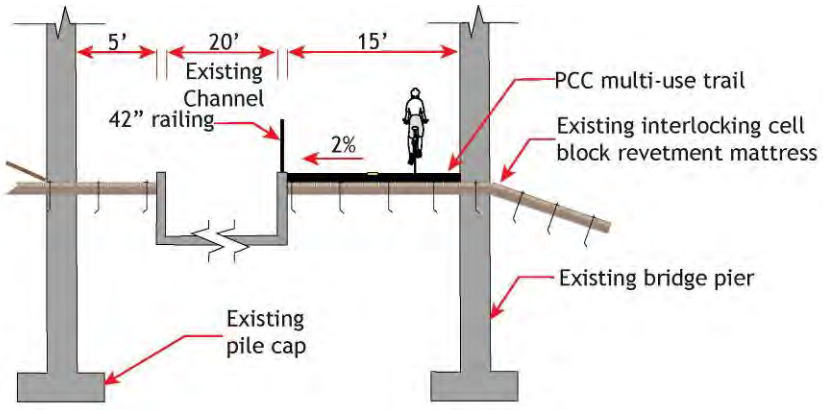


Figure 16. Interstate-80 Under-crossing section, looking upstream

Sunrise Avenue

Two options are proposed for crossing Sunrise Avenue, both are under-crossings. The first option would be used if the trail is located on the south side of Linda creek in this area. This option, shown in, Figure 18, is similar to the concept at Darling Way. This option includes connector paths to both the northbound and southbound sides of Sunrise; the connections require additional retaining walls on the approaches to the under-crossing.

The second option utilizes the existing bench along the north side of the Linda Creek. This option, shown in Figure 17, incorporates a short retaining wall along the creek side of the path to protect the path from erosion and widen the bench to accommodate a 10-foot path with shoulders. The wall extends the length of the existing retaining walls on the uphill side of the path. A connector path to the southbound side of Sunrise is above the existing retaining wall.

An option for an at-grade, signalized crossing where the pathway intersects Sunrise Avenue was ruled out by the City of Roseville based on a traffic study that determined a signal at this location did not meet warrants and would result in vehicular delay.

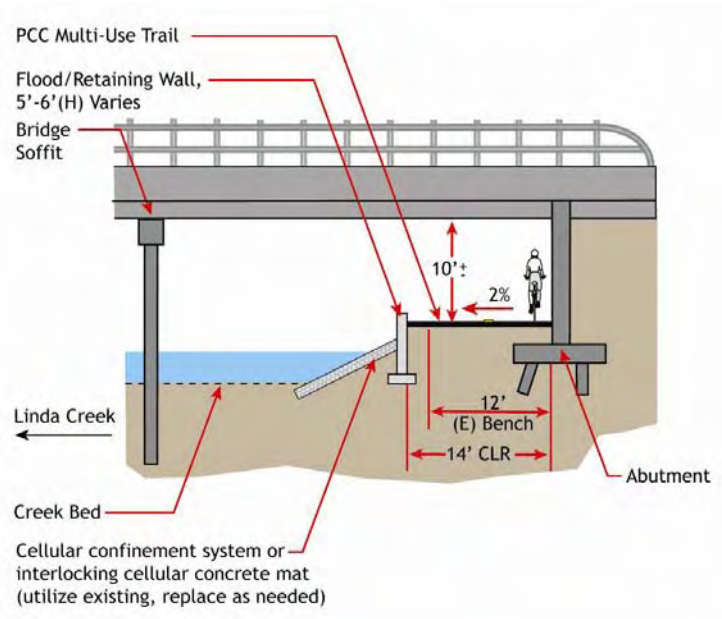


Figure 17. Sunrise Avenue Crossing, Option 1

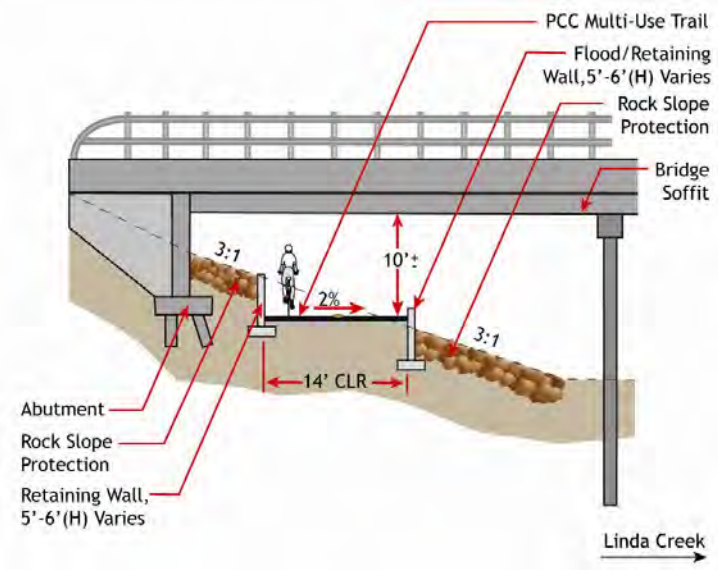


Figure 18. Sunrise Avenue Crossing, Option 2

Oak Ridge Drive

The proposed crossing of Oak Ridge Drive will be at-grade, with a high-visibility crosswalk and curb extensions. Curb extensions decrease the crossing distance and place waiting bicyclists and pedestrians in a visible location. This location has good visibility and a low volume of traffic, rendering an at-grade crossing appropriate (Figure 19).

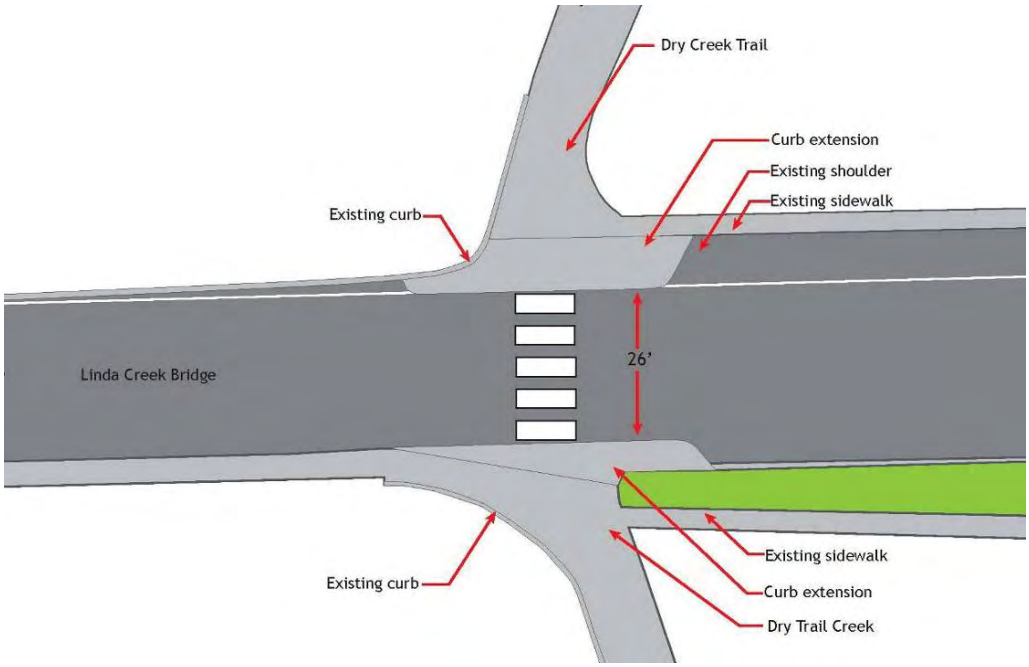


Figure 19. Oak Ridge Drive Crossing Treatment

Rocky Ridge Drive

Several options were explored for the crossing of Rocky Ridge Drive including two under-crossing options, an over-crossing option, and two at-grade options. The undercrossing options are recommended. An opportunity exists either to utilize the western-most cell of the existing box culvert for a path, or to install a sixth cell to either side of the existing ones to create an under-crossing. A separate project to perform preliminary design and environmental review of this crossing will provide the additional information required to choose between the two alternatives.

The first, and less expensive option, is to modify the northerly 10-foot high by 12-foot wide cell of the existing box culvert to accommodate bicycle and pedestrian use (see Figure 20). Modifications include construction of short flood walls along the approaches to keep low flows out of the box serving the path while still allowing the box to carry flows associated with less frequent flood events, installation of lighting, and possibly addition of a median skylight.

The second option (Figure 21, page 94) is to construct an additional, larger, box culvert cell to the north of the existing culvert. The new culvert consists of a 10-foot high by 14-foot wide box be set 1 foot higher than the existing culvert. The additional width provides shy distance to the walls and a more open, safer, feel for users. The higher path surface elevation, with the addition of a low flood wall, eliminates normal flows from the path while increasing flood capacity under Rocky Ridge.

Both options require relocation of at least one manhole and portions of a 24-inch storm drain connected to it. Hydrological models of the proposed culvert modifications would have to be developed to determine the impact a partial flood wall would have on creek flows. An existing sewer line beneath Rocky Ridge Drive may affect the viability of installing a sixth cell as a bike undercrossing. Further engineering study is required to determine the viability of these options.

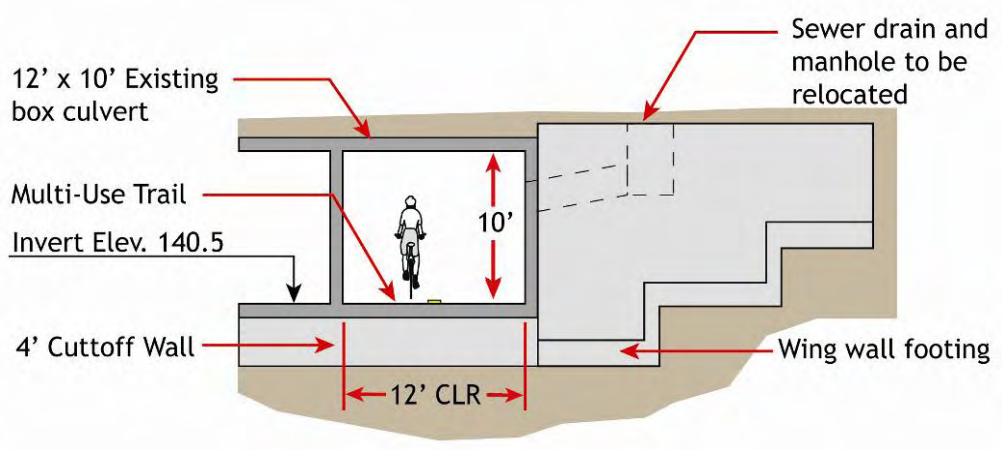


Figure 20. Rocky Ridge Drive Crossing, Option 1

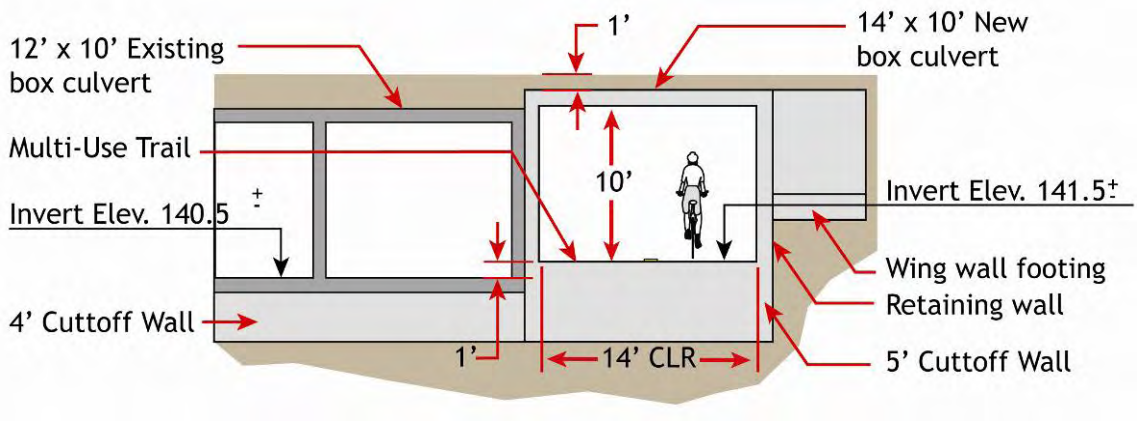


Figure 21. Rocky Ridge Drive Crossing, Option 2

Champion Oaks Drive

There are two recommended options for a street-level crossing of Champion Oaks Drive as shown in Figure 22 and Figure 23. The first is to install 6-foot curb extensions and a high-visibility crosswalk (Figure 22). The second is to install a high-visibility crosswalk and a 16-foot median in the center of the road (Figure 23), which allows path users to make a two-part crossing movement.

The median option divides the crossing into two short crossings of one-way traffic, which are easier to manage than a single, longer crossing. The roadway is physically and visually narrowed for vehicles, which provides a traffic calming effect. However, this option shifts the traffic lanes towards the on-street bike lanes on the approaches to the crossing. The curb extension option also provides a narrowing effect, although not as dramatic as the median option, but does not shift the lanes.

Both options require the removal of on-street parking, with the median option requiring removal of a slightly greater amount. Neither option requires removing parking in front of any existing homes. The existing on-street parking in the vicinity of the path is considered beneficial because it will function as an undesignated trailhead for nearby residents.

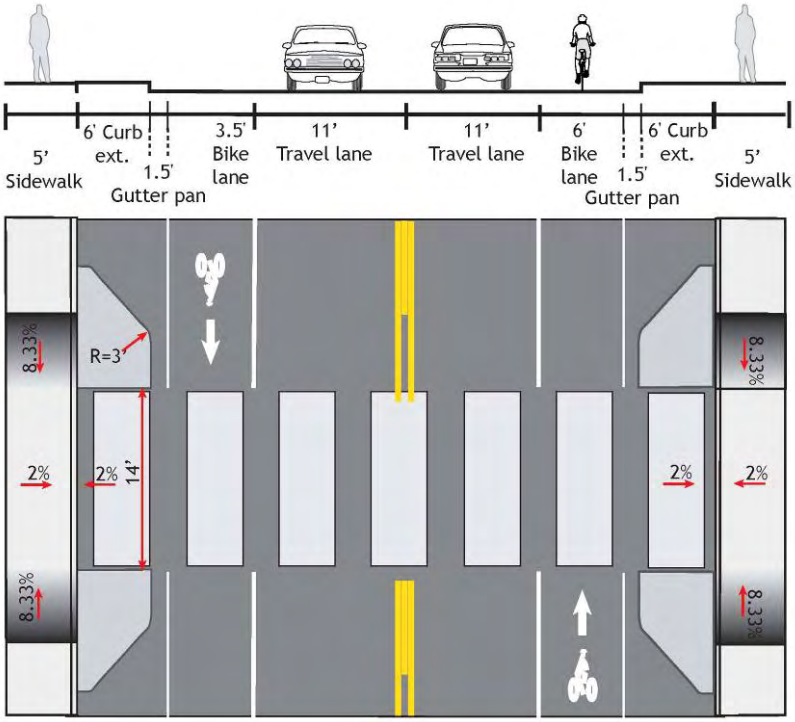


Figure 22. Champion Oaks Drive – Option 1 – Curb Extensions

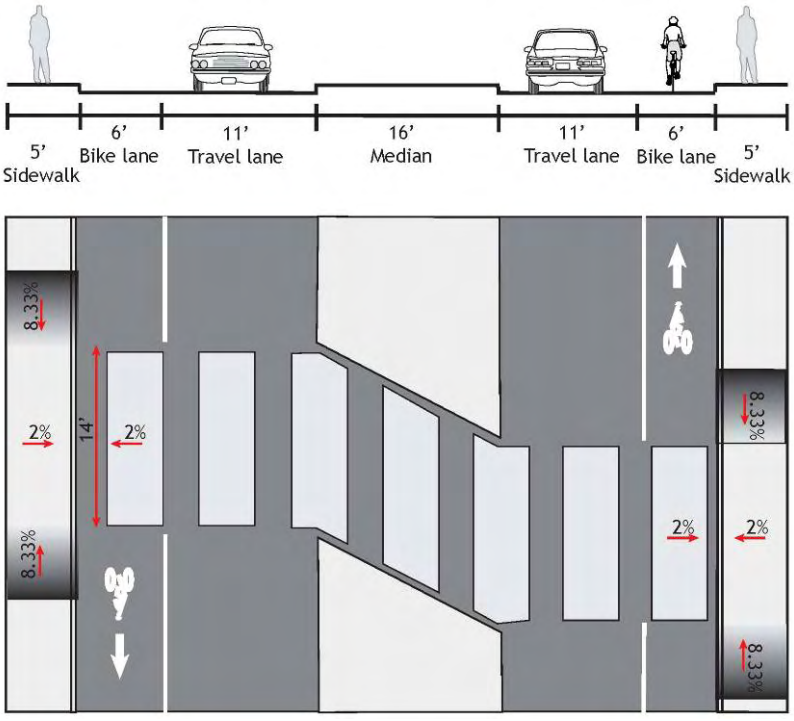


Figure 23. Champion Oaks Drive – Option 2 – Median Refuge

Old Auburn Road

The pathway will cross Old Auburn Road under the existing bridge. This under-crossing will require construction of two retaining walls, and will provide a 14-foot wide path (see Figure 24). Construction would be similar to the Darling Way and Sunrise under-crossings, but because of the shorter spans, a tieback retaining wall rather than a standard gravity wall will probably be required to protect the abutment slope.

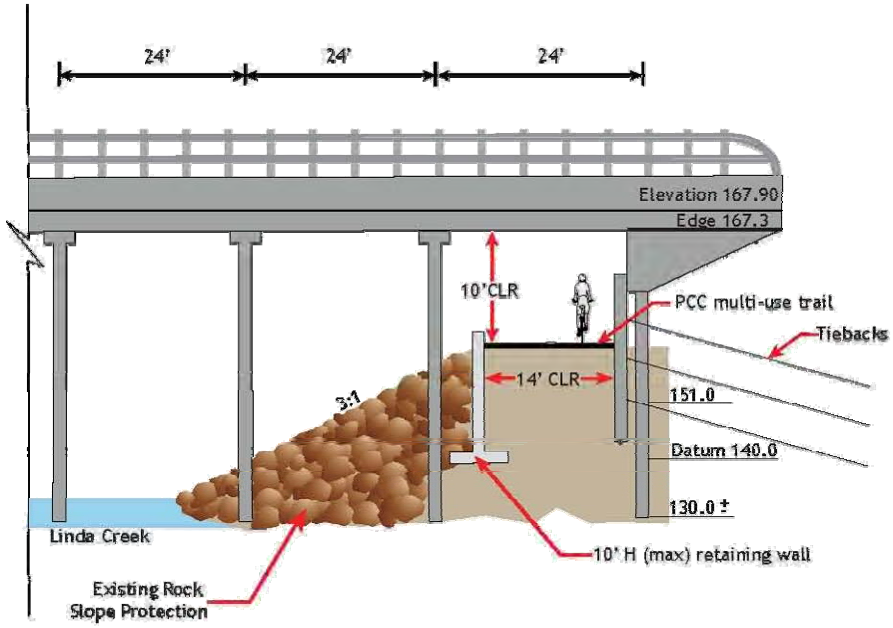


Figure 24. Old Auburn Road – Under-crossing Recommendation, looking upstream.

Creek Crossings

The alternatives analysis considered 30 different creek crossing alternatives, of which several are existing bridges. The identified crossings included major crossings of Dry, Cirby and Linda Creeks, and minor crossings of drainages that feed these creeks. Some crossings are identified as options for the main trail alignment, while others are identified to enhance neighborhood connectivity.

The alternatives analysis eliminated 12 creek crossings from consideration. The 18 remaining creek crossings under consideration are listed below. Of these, 3 are existing bridges. As noted below, not all of these crossings are required. Several are alternatives for the sections of trail where the Stakeholders Group was not able to reach consensus. Other crossings are identified for neighborhood connections.

- Crossing 1 – New bridge over Dry Creek north of Darling Way. Use of this crossing is possible may be eliminated in favor of using the existing Darling Way bridge.

- Crossing 2 – New bridge over Dry Creek upstream and north of the Dry/Cirby Creek confluence. This bridge will not be used if Crossing 3 is selected.
- Crossing 3 – New bridge over Dry Creek downstream and west of the Dry/ Cirby Creek confluence. This bridge will not be used if Crossings 2 and 4 are selected.
- Crossing 4 – New bridge over Cirby Creek upstream and east of the Dry/ Cirby Creek confluence. This bridge will not be used if Crossing 3 is selected.
- Crossing 7 – New bridge over Cirby Creek to neighborhood connection at JoAnne Lane, upstream of I-80.
- Crossing 10 – New crossing of drainage channel near Marlin Drive.
- Crossing 11 – Existing bridge connection to Tina Way. No improvements to this bridge are proposed at this time.
- Crossing 12 – New crossing of drainage channel near Eastwood Park.
- Crossing 13 – New bridge over Linda Creek west of Sunrise Avenue. This bridge will not be used if Crossing 14 is selected.
- Crossing 14 – New bridge over Linda Creek east of sunrise Avenue. This bridge will not be used if Crossing 13 is selected.
- Crossing 15 – Existing bridge connection to Woodlake Lane. No improvements to this bridge are proposed at this time.
- Crossing 16 - New bridge over Linda Creek leading to Dana Way. This bridge will not be used if Crossing 17 is selected.
- Crossing 17 – New bridge over Linda Creek leading to Blue Jay Court. This bridge will not be used if Crossing 16 is selected.
- Crossing 19 – New bridge over flood control project overflow channel. This bridge may not be needed if Segment B16 is selected and the trail is routed around the overflow channel.
- Crossing 20 – New bridge over Linda Creek upstream of Rocky Ridge Drive and Pheasant Run Subdivision
- Crossing 21 – Existing Bridge over Strap Ravine west of N. Cirby Way. The bridge deck would need to be upgraded and railings added.
- Crossing 25 or 26 – Crossings 25 and 26 represent different locations for a new bridge over a minor drainage near W. Colonial Parkway.

Bridges

Bridges should be at least as wide as the paved path and a minimum of 12 feet clear between railings per Roseville Bikeway Design Standards. Caltrans guidelines require railings no shorter than 54 inches and decking material that is firm and stable. Roseville Bikeway Design/Construction Standards require bridges:

- Be designed to accommodate fire and maintenance vehicles with a gross vehicle weight of 30,000 pounds; unless it is determined that fire access using the bridge will not be required.
- Be constructed with the bridge deck above the 10-year water surface elevation.
- Be above the 100-year water surface elevation (WSE) line, a hydraulic analysis is required to ensure no increase in upstream flood elevations will occur. All of the bridges recommended for the Dry Creek Greenway path will likely be below the 100-year WSE.
- Not impede fish passage or constrict the floodway.

Examples of bridges within the floodway that have been used in creek crossings for other bike path projects in Roseville are shown in Figure 25. Bridges types with low profiles to provide minimal obstruction to flood flows, such as reinforced or pre-stressed concrete slab bridges or rolled steel beam bridges, are recommended. For longer spans, prefabricated steel truss spans are economical choices.

Crossing Location	Photo	Description
False Ravine Path		Single span concrete bridge.
Veteran's Park Path		Steel beam bridge.
Woodlake Lane Bridge		Prefabricated steel truss bridge.
Harding to Royer Bridge		Segmented concrete bridge.

Figure 25. Crossing Types Used Within the Floodplain in Roseville

Roseville Standards require that approaches to the bridges within the 10-year flood plain must be reinforced (see Figure 10, page 85). Bridge footings should be located on the outside of the stream channel at the top of the stream bank. Bridge railings should be designed to "break away" or to withstand flood flows, with hydraulic modeling accounting for the railings assumed to be solid obstructions to creek flow. Roseville and other cities have used removable railings with limited success. Unless removed for the entire rainy season with the path closed, the timing of railing removal becomes a logistical and safety issue for maintenance crews. Future studies evaluating cost, design and environmental compatibility will dictate which structure type is best for each location.

Path Access

Access to the path for all users is a key element to its future success, because people cannot get to a path easily, they will not use it. Accessibility guidelines for paths (as defined in the Design/Construction Standards) will be met. Neighborhood access will be achieved from all local streets crossing the path. Each street crossing will be identified and directional signs will be placed at street intersections, identifying destinations and distances along the path and within the surrounding community. Figure 26 shows potential path access points.

Existing Access Point	Sheet #	Crossing Requirements
Darling Way shared lane bike route	1	
Crossing 15 to Sierra Gardens Elementary School	6	
North of Crossing 15 to Eich Intermediate School	6	
North of Crossing 15 to Meadowlark Way	6	
North of Crossing 15 to Sierra Gardens Drive	6	
Rocky Ridge Drive bike lane	7	
Champion Oaks Drive bike lane	10	
Old Auburn Road bike lane	12	
Potential Access Point	**Sheet #**	**Crossing Requirements**
West of Crossing 2 to Riverside	1	
East of Crossing 2 to Hernandez Lane/Machado Lane	1	
Machado Lane between crossings 5 & 6	1	
Jo Anne Lane	2	Crossing 7
North of Crossing 12 to Sundown Way	4	
Meadow Gate Drive accessway	5	Crossing 14
North of Rocky Ridge Drive to Blue Jay Drive accessway	7	Crossing 12
Rocky Ridge Drive under-crossing to Rocky Ridge Drive path	7	
Strap Ravine to Maidu Park	9	Crossings 23 and 24
South of Champion Oaks Drive to Colonial Way	10	

Figure 26. Path Access Points

Potential Trailheads

Trailheads (formalized parking areas) serve all path users. They provide information about the path (i.e., maps) and may have path user facilities like restrooms, trash receptacles, information kiosks, water fountains and benches. Trailhead locations should ideally be located every two to three miles along the path. Use of these sites as public trailheads will require discussions with the managing agency of the site and neighbors living in the vicinity of the trailheads. A conceptual layout for the trailhead at Rocky Ridge is shown in Figure 27. Typical Trailhead Layout. Each trailhead would include parking for approximately 20 cars. Four areas along the path are recommended as trailhead access points (see Recommended Path Alignment maps for locations):

- Riverside Avenue
- Eastwood Park (trailhead only)
- Rocky Ridge Drive
- Old Auburn Road (north and south)

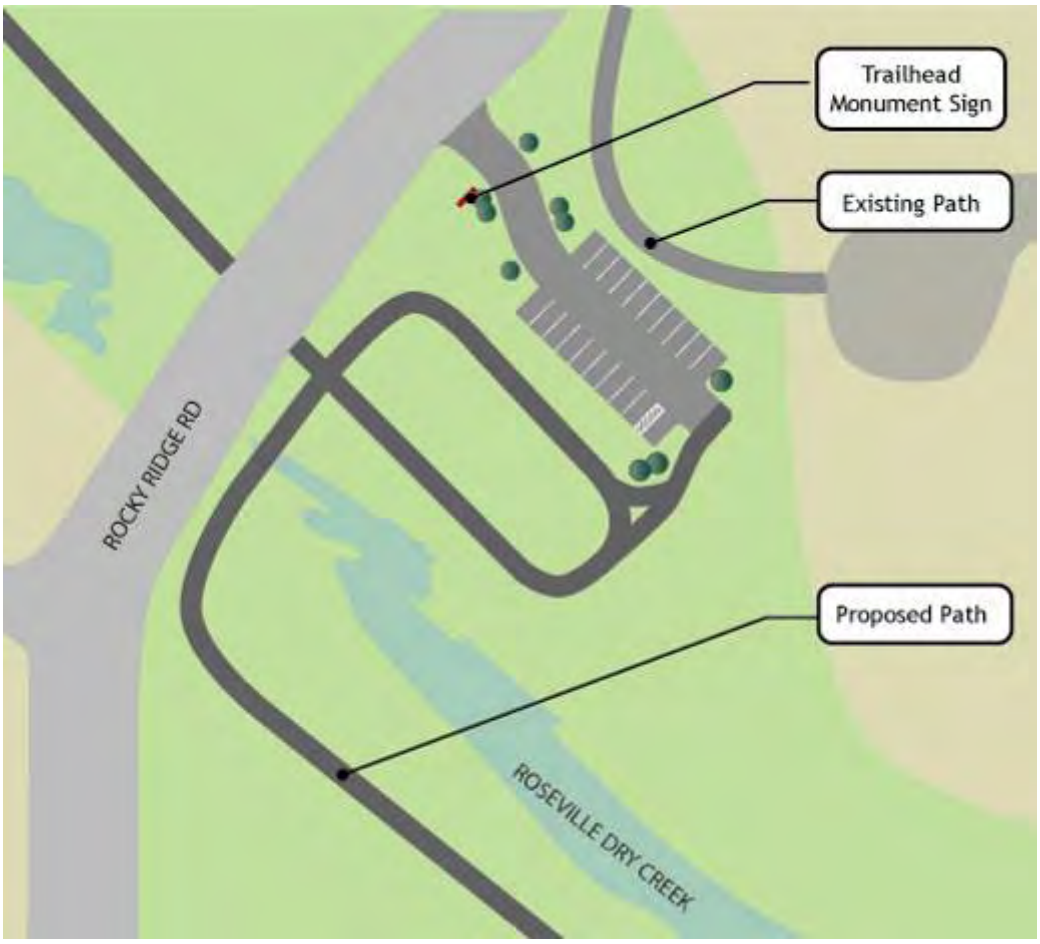


Figure 27. Typical Trailhead Layout

Landscaping

Vegetative Buffers

When possible, landscaping is the first choice for creating separation between the path and adjacent properties. Vegetative buffers have the dual purpose of creating a natural privacy screen, providing habitat for some of the wildlife that live in the creek corridor (i.e. birds, small mammals), and stabilizing the creek bank. Landscaping can also be an effective barrier to unwanted access where needed (Figure 28). For further discussion regarding the use of vegetative buffers and landscape areas as a means of crime prevention see Figure 28.

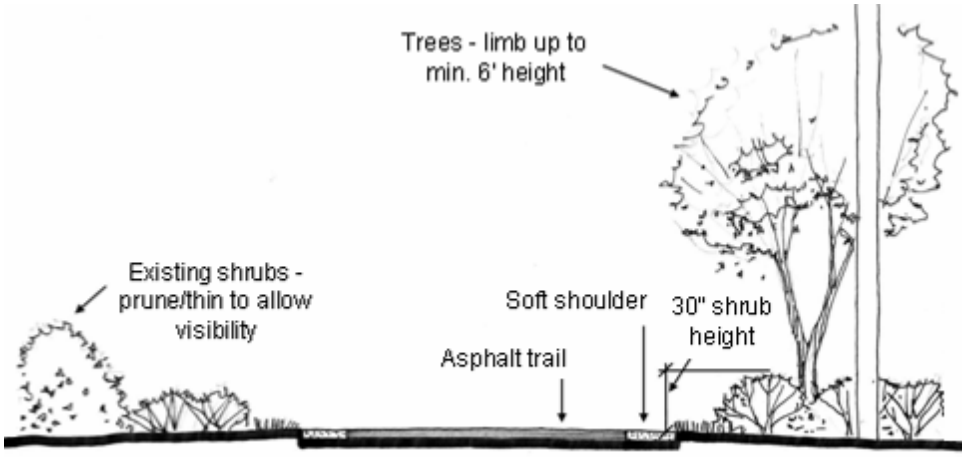


Figure 28. Cross-Section with Vegetative Buffer

Signing

Signs for the Dry Creek Greenway path should include both regulatory and wayfinding signs. Path etiquette and other information should be available at trailheads. Interpretive signs will be located at selected locations throughout the path corridor.

Consistency of signs image provides the path user with a sense of continuity of the path system as well as general path user orientation and safety. Since this is a regional path that will cross jurisdiction boundaries, the City may see to coordinate with other jurisdictions. Additionally, incorporation of signs into vertical elements such as bollards, lighting or other path elements should be encouraged. This will avoid the "visual pollution" of too may signs along the path and an excessive number of sign poles.

Regulatory Signs

Crossing features for all roadways should include warning signs for both vehicles and path users. Signing for path users must include a standard "STOP" sign and pavement markings and may include a curve in the path or other measures to slow bicyclists as they approach the

intersection. The type, location, and other criteria for regulatory signs are identified in the California Manual for Uniform Traffic Control Devices (CA MUTCD).

Give consideration to adequate warning distance based on vehicle speeds and line of sight, with visibility of any signing absolutely critical. Catching the attention of motorists de-sensitized to roadway signs may require additional alerting devices such as roadway striping or in-ground flashing lights. As a general rule, less signs is better, as path users become overwhelmed and noncompliance increases.

Figure 30 displays the location, color, and designation of which type of sign to use in the path corridor.

Figure 29. Path Etiquette Signs

Item	Location	Color	AASHTO Designatio	CA MUTCD Designation
No Motor Vehicles	Entrances to path	B on W	R44A	R5-3
Use Ped Signal/Yield to Peds	At crosswalks; where sidewalks are being used	B on W	N/A	R9-5 , R9-6
STOP, YIELD	At path intersections with roads	W on R	R1-2	R1-1, R1-2
Bicycle Crossing	For motorists at path crossings	B on Y	W79	W11-1
Turns and Curves	At turns and curves which exceed 20 mph design specifications	B on Y	W1,2,3; W4,5,6,14 W56,57	W1-1,2 W1-4,5 W1-6
Path Intersections	At path intersections where no STOP or YIELD required, or sight lines limited	B on Y	W7,8,9	W2-1, W2-2, W2-3, W2-4, W2-5
STOP Ahead	Where STOP sign is obscured	B,R on Y	W17	W3-1
Signal Ahead	Where signal is obscured	B,R,G	YW41	W3-3
Pedestrian Crossing	Where pedestrian walkway crosses path	B on Y	W54	W11A-2
Directional Signs	At intersections where access to major destinations is available	W on G	G7, G8	D1-1b(r/l), D1-1c
Path Regulations / Bikes Reduce Speed & Call Out Before Passing	All path entrances	B on W	n/a	n/a
Multi-purpose Path: Bikes Yield to Pedestrians	All path entrances	n/a	n/a	n/a
Please Stay On Path	In environmentally-sensitive areas or where the path travels on private property	n/a	n/a	n/a
Path Closed: No Entry Until Made Accessible & Safe for Public Use	Where path or access points closed due to hazardous conditions	n/a	n/a	n/a

Figure 30. Recommended Regulatory Signs

Directional Signs

Directional signs provide orientation to the path user and emphasize path continuity. Street names, mileage markers, and place names are key elements that should be called out along the path. Street names should be called out at all path intersections with roadways. Directional signs (Figure 31) should call out key destinations along the path route including:

Figure 31. Path Directional Sign

- Saugstad Park
- Maidu Park
- Eastwood Park
- Connections to other bike routes
- Cirby Elementary School
- Sierra Gardens Elementary School
- Eich Intermediate School
- Downtown Roseville
- Commercial areas

Directional signing may be useful for path users and motorists alike. For motorists, a sign reading "Dry Creek Greenway Xing" along with a path emblem or logo helps both warn and promote use of the path itself. For path users, directional signs and street names at crossings help direct people to their destinations.

Figure 32. Trailhead Access Sign

Trailhead Access Signs

Informational signs, "You Are Here" maps, and path etiquette signs should be provided at paths heads to serve visitors that may not be familiar with the path. These should be placed on an information kiosk, designed to be reflective of the corridor or adjacent surroundings (Figure 32).

Figure 33. Interpretive Sign

Interpretive Signs

Interpretive signs provide enrichment to the path user experience, strengthen the uniqueness of the local community, and provide educational opportunities (Figure 33). Interpretive signs should follow City of Roseville guidelines. Key interpretive opportunities include:

- Environmental education about stream ecology, water quality, conservation, native plants, riparian corridors, and the watershed
- Archeological and indigenous cultures information at Maidu Park
- Historic Neighborhood Development
- Land Settlement Patterns/Place name history
- Topography / geologic formations

Other Path Features

There are a number of amenities that make a path inviting to the user. Discussed below are some common items that make path systems stand out.

Water Fountains and Bicycle Parking

Water fountains provide water for people (and pets, in some cases) and bicycle racks allow path users to safely park their bikes if they wish to stop along the way, particularly at parks and other desirable destinations.

Figure 34. Water Fountain and Bicycle Parking

Pedestrian-Scale Lighting and Furniture

In areas where lighting is proposed, pedestrian-scale lighting improves safety and enables the path to be used year-round. It also enhances the aesthetic of the path. Pedestrian-scale lighting provides high-quality lighting without the glare that is usually produced by typical cobra-type street fixtures.

Benches at key rest areas and viewpoints encourage people of all ages to use the path by ensuring that they have a place to rest along the way. Benches can be simple (e.g., wood slates) or more ornate (e.g., stone, wrought iron, concrete).

Figure 35. Pedestrian-Scale Lighting and Furniture

Art Installations

Local artists can be commissioned to provide art for the path system, making it uniquely distinct. Many path art installations are functional as well as aesthetic, as they may provide places to sit and play on. Artistic themes can draw upon the history or environmental surroundings of the path, or could simply be whimsical. This type of art can add to the path experience, especially for children.

Developing Path Themes

A design theme is significant for any path system. A theme can create a unique and enriching experience for the path user, and help strengthen the community's identity around the Dry Creek area.

The Dry Creek Path should be designed around a theme that blends with the existing cultural and geologic history present in the area. Materials should be used in simple and elegant ways, but should shy away from being too rustic in character. Key elements of this theme could include:

- Interpretation of the Dry Creek corridor and early development of the area.
- References to cultural/historical themes
- References to the local geological features as a design element on the path in the form of retaining walls and bollards.

Equally important, the creation of a path presents an opportunity for environmental enhancement and stewardship. As the path is developed, opportunities should be captured to enhance wildlife habitat, improve water quality and groundwater infiltration, and improve the native plant community.