

Orange Blossom Trail



Conceptual Alignment Study
Opportunity and Constraints &
Final Alignment Addendum



Submitted to the
City of Redlands



Prepared by
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WRC

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Opportunities and Constraints and Alignments

This Addendum to the plan reviews the opportunities and constraints and final alignments beginning at the western Redlands city limit at Mountain View Ave. For convenience the intersections to be crossed by the proposed trail alignment are labeled with capital letters, A-Z, starting again, at the western city limit. These are referred to throughout the report. This section begins with a table that describes the opportunities and constraints. Next it utilizes annotated orthophotography with superimposed trail alignments to clarify the challenges and the decision making process used to determine the final alignments. These are augmented with photos of the trail alignment and sections where needed for clarification. Finally, this section closes with a table of suggested street crossing types.

The final alignment was driven by opportunities to use the proposed Metrolink right of way and the Zanja Creek maintenance roads.



Orange Blossom Trail Opportunities and Constraints

	Street Names	Trail Corridor Type	Street Crossing Opportunities	Street Crossing Constraints	Action Items	MetroLink/Rail Road/Creek Corridor Opportunities	MetroLink/Rail Road/Creek Corridor Constraints
A	Mountain View Ave.	Tracks/Channel	*The railroad tracks and Magnolia Channel cross Mountain View Ave. just south of where Lugonia Ave. terminates at Mountain View Ave.	*The existing bridge crossing the intersection is 50-year flood capable which limits the existing space for an undercrossing.	*Check to see if Lungonia Ave. is anticipated to be extended past Mountain View Ave. *Perform technical studies to determine the feasibility of a street undercrossing adjacent to Magnolia Channel. Evaluate the potential for street crossing *regulation at the proposed Class I trail or at Lugonia Ave.	*There is adequate 50' R.O.W. for MetroLink between Mountain View Ave. and I-10. *There are existing flood control channels on both sides of the flood control channel of adequate width for a bicycle trail from Mountain View Ave. to California St.	*A bicycle trail utilizing the maintenance road on the north bank of the Magnolia Channel would require a 5' fence barrier between the trail and the train tracks. There is limited MetroLink R.O.W. from *I-10 to the California St. which may impact the flood control maintenance road on the north side of the Magnolia Channel.
B	California St. Redlands Blvd.	Channel	*Plans for upgrading the intersection of California St. at Redlands Blvds. were completed 11 years ago and include a 100-year flood capable bridge. At such time as it is built, this offers the opportunity to develop a bicycle underpass. An upgrade of this intersection is cited in the Redlands Passenger Rail Station Area Plan.	*The existing bridge crossing the intersection is 50-year flood capable which limits the existing space for an undercrossing. California St. narrows and jogs at this intersection making at-grade crossing difficult. This is a confusing intersection for drivers, which causes it to be a *greater hazard for bicyclists trying to negotiate it.	*Evaluate potential for including an undercrossing as part of the proposed intersection upgrade. *Evaluate potential for at-grade crossing at existing intersection, and which side of the creek would be the best place for the proposed Class I trail.	*There are flood control maintenance roads on the east and west banks of the Magnolia Channel from California St. to Park Ave. which are wide enough to accommodate a Class I bicycle trail.	*The flood control maintenance road on the west bank of the Magnolia Channel narrows just south of Redlands Blvd. The flood control maintenance road *on the east bank of the Magnolia Channel narrows just north of Park Ave.
C	Park Ave.	Channel	*Park Ave. is classified as a local road with an anticipated traffic volume of 3,000 vehicles per day. *An at-grade crossing, regulated with a stop sign for bicyclists would probably be adequate at this location. Maintenance roads on both sides of creek *provide adequate width for a Class I bicycle trail.	*The existing bridge crossing Park Ave. is 50-year flood capable which limits the existing space for an undercrossing.	*Check with public works to determine if an at-grade crossing is permissible and what traffic control device would be best.	*There are flood control maintenance roads on the east and west banks of the Magnolia Channel from Park Ave. to about 500 ft. north of New Jersey St. which are wide enough to accommodate a Class I bicycle trail.	*The Magnolia Channel bifurcates about 500 ft. north of Nevada St. which would dictate a creek crossing for a trail along the west bank of the Magnolia Channel.
D	New Jersey St.	Channel	*New Jersey St. is classified as a local road with anticipated traffic volume of 3,000 per day. *The Zanja Creek is about 225 north of the intersection at Citrus Ave. which is regulated with stop signs on New Jersey St. only. An at-grade crossing at the creek or the *intersection with Citrus Ave. may be feasible as New Jersey St. is wide enough to allow a Class II bicycle lane.	*The existing intersection is 50-year flood capable which limits the existing space for an undercrossing.	*Check with public works to determine if bicycle traffic is acceptable on New Jersey St..	*There is a flood control maintenance road on the north and south banks of the Zanja Creek from New Jersey St. to Nevada St. which is wide enough to accommodate a Class I bicycle trail.	*The existing existing flood control maintenance road on the south side of Zanja Creek is inaccessible from the west due to the bifurcation of the Magnolia Channel.



Orange Blossom Trail Opportunities and Constraints (cont.)

E	Nevada St.	Channel	<p>*There is adequate room on the existing bridge and on Nevada St. between the Zanja Creek and Citrus Ave. to provide a lane for bicycles on both sides of the road. Traffic at the intersection at Citrus Ave. is regulated with stop signs in all four directions.</p> <p>An at-grade crossing at the intersection is feasible, particularly if the trail is located on the south bank of the Zanja Creek.</p>	<p>*Nevada Street is a major arterial with high traffic volumes.</p> <p>*The Zanja Creek is located about 50 ft. north of the intersection with Citrus Ave. which would prohibit an at-grade crossing at the Creek.</p> <p>*The existing intersection is 50-year flood capable which limits the existing space for an undercrossing.</p>	<p>*Check with public works to determine if bicycle traffic is acceptable on Nevada St. Perform technical studies to determine if an undercrossing is feasible.</p>	<p>*There is a flood control maintenance road on the north and south banks of the Zanja Creek from Nevada St. to about 600 ft. west of Iowa St. which is wide enough to accommodate a Class I bicycle trail.</p> <p>There is an existing striped and paved Class I bicycle trail/flood control maintenance road on the north bank of the Zanja Creek from about 600' west of Iowa St. which is 10' wide with adequate shoulder width.</p>	<p>*There is a tall wall adjacent to the existing Class I bicycle trail/flood control maintenance road which may attract graffiti.</p>
F	Iowa St.	Channel	<p>*Iowa St. is classified as a local road with anticipated traffic volume of 3,000 per day. There is adequate room on the existing bridge and on Iowa St. between the Zanja Creek and Citrus Ave. to provide a lane for bicycles on both sides of the road.</p> <p>There is an existing Class I bicycle trail on the north bank of the Zanja Creek.</p> <p>*Traffic at the intersection at Citrus Ave. is regulated with stop signs on Iowa St.</p> <p>*An at-grade crossing at the intersection is feasible.</p>	<p>*The existing intersection is 50-year flood capable which limits the existing space for an undercrossing.</p>	<p>*Check with public works to determine if bicycle traffic is acceptable on New Jersey St..</p>	<p>*There are flood control maintenance roads on the north and south banks of the Zanja Creek from Iowa St. to Alabama St. which are wide enough to accommodate a Class I Bicycle trail.</p>	<p>*None known.</p>
G	Alabama St.	Channel	<p>*The City anticipates a future replacement of the Alabama St. bridge which spans the Zanja Creek near Citrus Ave., but has no immediate plans for this improvement. At that time the bridge might include an accommodation for bicyclists to allow them to cross at the existing intersection. Given this scenario, the trail might proceed west along the south bank of the creek.</p> <p>Alternatively, when the bridge is widened a box culvert undercrossing (with drainage) could be placed to serve as a bicycle undercrossing, eliminating the need to cross at the intersection of Alabama St. and Citrus Ave.</p>	<p>*Alabama Street is a major arterial with high traffic volumes.</p> <p>*There is an existing trail on the east side of the street on north side of the creek.</p> <p>*The creek crossing is about 200 ft. north of Citrus, which is a signalized intersection.</p> <p>*With the high volume of traffic, it is not practical to cross at-grade at the creek.</p> <p>*Currently Alabama St. narrows just south of the existing bicycle path to accommodate the older bridge. This narrowing provides an unsafe zone for inexperienced bicyclists to proceed to the intersection to cross the street. There is inadequate room adjacent to the street and creek to develop a ramped overpass.</p> <p>Self storage unit on north side of creek on west side of Alabama St. attracts graffiti.</p>	<p>*Perform technical studies to determine if an undercrossing is feasible with the current bridge.</p> <p>*Perform technical studies and consult with public works and flood control to determine if a separate bicycle bridge is feasible.</p>	<p>*There is an existing striped and paved Class I bicycle trail on the north bank of the Zanja Creek from Alabama St. to about 60 ft. east.</p> <p>There is adequate flood control</p> <p>*R.O.W. to widen the existing bicycle trail.</p> <p>There is an existing flood control maintenance road on the south bank of the Zanja Creek from Alabama St. to Kansas St.</p> <p>There is an existing flood control maintenance road on the north side of the Zanja Creek from about 600 ft. east of Alabama St. to Kansas St.</p>	<p>*The existing bicycle trail is only 8 ft. wide.</p>



Orange Blossom Trail Opportunities and Constraints (cont.)

H	Kansas St.	Channel	<p>*Kansas St. is a local street with an anticipated traffic volume of 3,000 cars per day.</p> <p>*The creek crosses Kansas St. about 400' north of its intersection with Citrus Ave. An at-grade crossing with stop signs for bicyclists or flashing stop for automobiles may be feasible.</p>	<p>*Kansas St. has a 50-year flood bridge which, due to the shallow creek depth, would not allow for a ramped undercrossing.</p>	<p>*Check with public works to determine if an at-grade crossing is permissible and what traffic control device would be best.</p>	<p>*There are existing maintenance roads on the north and south banks of the Zanja Creek from Kansas St. to Tennessee St.</p>	<p>*None Known.</p>
I	Tennessee St.	Channel	<p>*Tennessee St. is a local street with a minor arterial with anticipated traffic volume of 13-29,000 cars per day. An at-grade crossing with stop signs for bicyclists or flashing stop for automobiles is undesirable due to the high traffic volume, even though the creek is over 400 ft. from an intersection. This is a possible location for placing a ramped box culvert beneath the street to be used as a bicycle crossing.</p> <p>*</p>	<p>*Tennessee St. has a 50-year flood bridge which, due to shallow creek depth, would not allow for a ramped undercrossing.</p> <p>*There is inadequate publicly-owned land available for a ramped overcrossing on either side of the creek.</p>	<p>*Check for future anticipated work at Tennessee St.</p> <p>*Perfrom technical studies to determine if an undercrossing is feasible.</p>	<p>*There are existing maintenance roads on the north and south banks of the Zanja Creek from Kansas St. to Tennessee St.</p>	<p>*None Known.</p>
J	New York St.	Channel	<p>*New York St. is a local street with an anticipated volume of 3,000 cars daily. An at-grade crossing with stop signs for bicyclists or flashing stop for automobiles may be feasible.</p> <p>Jennie Davis Park adjoins the east side of the street and it may be possible to route the bicycle trail along the western perimeter of the park as a Class I through to Redlands Blvd.</p> <p>There are restrooms at the park.</p> <p>Alternatively, a Class II bicycle trail might be accommodated on both sides of the street.</p>	<p>*The west side of New York St. would not accommodate a Class I Trail.</p>	<p>*Continue to work with Architects that are planning changes to the ESRI campus. Check with public works to determine if bicycle traffic north of the Zanja Creek is permissible to connect to the signalized intersection at Redlands Blvd.</p> <p>Check with public works to determine if an at-grade crossing at the Zanja Creek is permissible.</p> <p>Check with public works to determine if a Class I bicycle trail is permissible along the western perimeter of Jennie Davis Park.</p>	<p>*There is adequate room on the north bank of the Zanja Creek in Jennie Davis Park to accommodate a Class I bicycleTrail through the western part of the park.</p>	<p>*There is a slope along the northern perimeter of Jennie Davis Park at Redlands Blvd. which is a pinchpoint at the eastern end of the park. Property just east of the park is privately owned and would require cooperation of the owner.</p>
K	Redlands Blvd.	Neither	<p>*Redlands Blvd. is a major arterial with existing crosswalks across the terminus of New York St. and on the west side of the intersection on Redlands Blvd. Bicyclists could use this to cross to the orth side of Redlands Blvd. and on to the railroad tracks to the north.</p> <p>Alternatively an underpass could be constructed beneath Redlands Blvd.</p> <p>*</p>	<p>*Long waits to cross Redlands Blvd.</p>	<p>*Check with public works to determine if an additional crosswalk is permissible at Redlands Blvd.</p> <p>Evaluate the potential for a Class I Bicycle Trail adjacent to the eastbound tracks, connecting to the Stuart Ave. connector.</p>	<p>*There is adequate room on the south side of the rail road tracks north of Redlands Blvd. from New York Street to the existing track crossing north to Stuart Ave.</p> <p>There is adequate room on Stuart Ave. for a Class II bicycle lane from the railroad crossing east of Redlands Blvd. to Texas St.</p>	<p>*Crossing the railroad tracks is restricted to existing crossings. Future development may impact a route adjacent to the south side of the rail road tracks from New York Street to the existing track crossing north to Stuart Ave.</p>



Orange Blossom Trail Opportunities and Constraints (cont.)

L	Texas St.	Channel	<p>*Texas St. is classified as a collector. There is adequate right of way along *railroad tracks from Texas St. to Eureka St.</p>	<p>*Texas St. is a minor arterial with about 16,000 cars per day expected at buildout. *The railroad tracks cross Texas St. about 200 ft. north of Oriental Ave. and 175 ft. south of Stuart Ave. *There is curb adjacent street parking both sides of Texas St.</p>	<p>*Determine if an at-grade crossing at the tracks is permissible and what type of traffic control would be most suitable.</p>	<p>*There is adequate room for Class II bicycle lanes on Texas Street north to the railroad tracks. There is adequate room for Class II *bicycle lanes on Stuart Avenue from Texas St. to Eureka St.</p>	<p>*There is limited R.O.W. along the railroad tracks from Texas St. to Eureka St. *The creek is underground from Texas St. to Eureka St.</p>
M	Eureka St.	Tracks	<p>*At Eureka St. routing bicyclists through the proposed Krikorian development using the proposed fire land may be an option. However, to route the trail around the Orange St. Plaza (at Orange St.) may require a detour through the proposed redevelopment area north of Stuart between Eureka St. and Orange St. Wide sidewalks on the south side of Pearl Ave. between Eureka St. and 6th St. *</p>	<p>*The railroad tracks are about 200 ft. south of Stuart Ave. and 400 ft. north of Redlands Blvd. Stops signs on Stuart St. only. *The Krikorian project may increase vehicular traffic on Eureka St. north of the theater creating conflicts with a potential bicycle crossing at the railroad tracks. Possible parking structure at Stuart St. and Eureka St. may block connection to Pearl Ave. *</p>	<p>*Work with Krikorian planners to determine how to move bicyclists through or past the new development. Contact public works to determine the *feasibility of a Class I bicycle lane behind the commercial development on Eureka St. north of Stuart Ave. Contact public works to determine the potential for using the sidewalks on the *south side of Pearl Ave. to 6th St.</p>	<p>*The proposed Krikorian development just east of Eureka St. is in planning stages and may provide accommodations for a Class bicycle trail east to 3rd St. The area north of Stuart from Eureka St. to 3rd St. is a redevelopment area which may provide a route north to bypass the shopping center. There is an extra wide sidewalk adjacent to the eastbound lanes on *Pearl Ave. which is little used and would accommodate bicycle traffic. A Metrolink Station is anticipated in the downtown area. *</p>	<p>*The railroad R.O.W. is only 35.9 ft. wide from about 40 ft. west of Eureka St. to Orange St. The creek is underground from *Eureka St. to Orange St.</p>
N	Orange St.	Tracks	<p>*The sidewalk on east side of Orange St. is wide, however, several businesses open onto the sidewalk.</p>	<p>*Orange Street is a major arterial with high traffic volumes. There is existing parking along Orange Street, with bulb-outs. The high traffic volumes, parking and bulb-outs create an environment that is inhospitable to bicyclists. Railroad right of way between Eureka St. and 6th St. is not wide enough to accommodate Class I bicycle trail. Stuart St. terminates at the Orange St. Plaza. *</p>	<p>*None known.</p>	<p>*There is an extra wide sidewalk adjacent to the eastbound lanes on Pearl Ave. which is little used and would accommodate bicycle traffic.</p>	<p>*Stuart Ave. terminates at the east side of Orange St. *The railroad R.O.W. is only 35.9 ft. from Orange St. to about 75 ft. east of Orange St. *The railroad R.O.W. is limited to 50' from about 75 ft. east of Orange St. to 6th St. The creek is underground from Orange St. to 6th St.</p>



Orange Blossom Trail Opportunities and Constraints (cont.)

O	6th St.	Channel	<p>*The sidewalk adjacent to the Orange St. Plaza on 6th St. is adjacent to a planting strip, which might allow widening of the sidewalk to accommodate bicyclists to within about 75' of the railroad tracks. There is adequate room on 6th St. for two Class II bicycle lanes.</p> <p>*The railroad tracks are about 600 ft. north of Redlands Blvd. and 800ft. south of Pearl Ave.</p> <p>A street crossing at the railroad tracks would be feasible.</p> <p>*</p>	<p>*The Credit Union building on the west side of 6th St. is sidewalk adjacent for 75 ft. north of the railroad tracks. There is curb adjacent parking on both sides of 6th St.</p> <p>.</p>	<p>*Contact public works to determine the feasibility of either Class II bicycle lanes or widening the sidewalk on the west side of the street to accommodate bicyclists.</p>	<p>*The railroad R.O.W. is a comfortable 87 ft. wide from 6th St. to 7th St. providing landscaping opportunities.</p>	<p>*None known.</p>
P	7th St.	Tracks	<p>*7th St. is classified as a local road with an anticipated traffic volume of 3,000 vehicles per day.</p> <p>*The railroad tracks are located about 150 ft. south of Stuart Ave. and 600 ft. north of Redlands Blvd.</p> <p>An at-grade crossing should be feasible.</p> <p>*</p>	<p>*None known.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p>	<p>*The railroad R.O.W. is a comfortable 87 ft. wide from 7th St. to 9th St. providing landscaping opportunities.</p>	<p>*None known.</p>
Q	9th St.	Tracks	<p>*9th St. is classified as a local road with an anticipated traffic volume of 3,000 vehicles per day.</p> <p>*The railroad crossing is located about 150' south of Stuart Ave. and 750 ft. north of Redlands Blvd.</p> <p>An at-grade crossing should be feasible.</p> <p>*</p>	<p>*None known.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p>	<p>*The railroad R.O.W. is a comfortable 87 ft. wide from 9th St. to Church St. providing landscaping opportunities. The Zanja Creek surfaces at 9th St. There is adequate room along the north bank of the Zanja Creek for a Class I bicycle trail from 9th St. to Church St..</p>	<p>*There is inadequate room along the south bank of the Zanja Creek for a Class I bicycle trail from about 300 ft. west of Church St. to Church St.</p>
R	Church St.	Tracks	<p>*Church St. is classified as a Collector with an anticipated traffic volume of 3000 vehicles per day.</p> <p>The railroad tracks are about 175 ft. south of Stuart St. which terminates at Church St. and 500 ft. north of Central Ave. Church St. connects to Redlands High School.</p> <p>*</p>	<p>*None known.</p>	<p>*Contact public works to determine the traffic volumes for Church St. and to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p>	<p>*The railroad R.O.W. is a comfortable 87 ft. to 100 ft. from Church St. to University St., providing landscaping opportunities. The Zanja Creek has adequate width for a Class I bicycle trail. There is adequate room along the north and south banks of the Zanja Creek through Sylvan Park for a Class I bicycle trail.</p>	<p>*The Zanja Creek passes beneath the railroad tracks about 300 ft. east of Church St. which would require a track crossing</p> <p>*The rail road track trestle over the Zanja Creek is narrow.</p>



Orange Blossom Trail Opportunities and Constraints (cont.)

S	University St.	Tracks	<p>*University St. is classified as a local street with an anticipated traffic volume of 3,000 vehicles per day. Zanja Creek is located about 900 ft. north of *Central Ave. and 750 ft. south of Colton Ave. Railroad tracks are located about 400 ft. north of Central Ave. and 1,250 ft. south of *Colton Ave. Opportunity to work with University of Redlands to integrate Class I bicycle trail *into Zanja Creek Parkway.</p>	<p>*There is curb adjacent diagonal parking on west side of street, parallel parking on east side of street. *A moderate stream of traffic was noted. *There is moderately difficult visibility at the Zanja Creek due to parked cars. Good visibility at railroad tracks.</p>	<p>*Contact public works to determine the traffic volumes for University St. and to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable. Technical studies to determine the feasibility of an under the street crossing *or an over crossing. Work with University staff to integrate Class I bicycle trail into Zanja Creek Parkway on campus. *</p>	<p>*The rail road R.O.W. is a comfortable 100 ft. from University St. to Grove St. providing landscaping opportunities. A Metrolink Station is anticipated near the University. *The University or Redlands is amenable to partnering to create an enhanced trail corridor along the *south bank of the Zanja Creek from University Avenue to Grove St. An on-campus Class I bicycle lane connecting the Zanja Creek to the Railroad Tracks is promising. *</p>	*None known.
T	Grove St.	Tracks	<p>*Grove St. is classified as a local collector with an anticipated traffic volume of 3,000 vehicles per day. *Potential for Class I bicycle trail connection to Metrolink Station at railroad tracks, east side of Grove St. The Zanja Creek is located about about 900 *ft. north of Central Ave. and 750 ft. south of Colton Ave. The Railroad tracks are located about 400 *ft. north of Central Ave. and 1,250 ft. south of Colton Ave. An at-grade crossing at the intersection is *feasible.</p>	*None known.	*Contact public works to determine the traffic volumes for Grove St. and to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.	<p>*Grove St. provides adequate room for a Class II bicycle lane to connect from the Zanja Creek to the rail road tracks. The rail road R.O.W. is a comfortable *100 ft. from Grove St. to Judson St. providing landscaping opportunities.</p>	*The Zanja Creek corridor does not provide adequate room for a Class I bicycle lane from Grove St. to Judson St.
U	Judson St.	Tracks	<p>*Judson St. is designated as a minor arterial with an anticipated traffic volume of around 8,500 per day. On Judson St. the railroad tracks are *located about 600 ft. south of Sylvan Ave. and 600 ft. north of Central Ave. An at-grade crossing is feasible, but would require traffic regulation, possibly a bicycle *trip signal.</p>	* There is inadequate room for Class I bicycle trail along Sylvan St. adjacent to the Zanja Creek. *	*Check with public works to determine if an at-grade crossing is permissible and what traffic control device would be best.	The rail road R.O.W. is a comfortable 60 - 100 ft. from Judson St. to Grove St. providing landscaping opportunities in the wider portions.	The Zanja Creek corridor does not provide adequate room for a Class I bicycle lane from Judson St. to Lincoln St.



Orange Blossom Trail Opportunities and Constraints (cont.)

V	Lincoln St.	Tracks	<p>*Lincoln St. is classified as a local road with an anticipated traffic volume of 3,000 vehicles per day.</p> <p>*An at-grade crossing is feasible.</p> <p>*There is an existing wooden trestle across the Zanja Creek on the east side of Lincoln St. which may provide support for bicycle bridge.</p>	<p>*The railroad tracks cross the Zanja Creek on the east side of Lincoln St.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p> <p>Technical studies to determine if the *wooden trestle across the Zanja Creek could be used as the basis for a bicycle bridge in this location.</p>	<p>*The rail road R.O.W. is a comfortable 60 ft. from Lincoln St. to Dearborn St.</p>	<p>*The railroad R.O.W. crosses the Zanja Creek on the eastern side of Lincoln St. on an old wood trestle which may need upgrading.</p>
W	Dearborn St.	Tracks	<p>*Dearborn St. is classified as a minor arterial with an anticipated traffic volume of 5,000-9,000 vehicles per day.</p> <p>The railroad right of way crosses Dearborn Ave. about 650 ft. south of Colton Ave. and 1400 ft. north of Citrus Ave.</p> <p>An at-grade crossing is feasible.</p> <p>*</p>	<p>*None know.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p>	<p>*The rail road R.O.W. is a comfortable 60 ft. from Dearborn St. to Wabash Ave.</p> <p>*The rail road R.O.W. is adjacent to the northern perimeter of Colton School (which has restrooms and drinking water.</p> <p>The rail road R.O.W. could be *connected through Colton Park to Colton School.</p>	<p>*None known.</p>
X	Colton Ave. Wabash Ave.	Tracks	<p>*The intersection of Colton Ave. with Wabash Ave. is currently controlled by four-way stop signs.</p> <p>*The Metroline/rail road right of way connects to Colton Park which has restroom facilities and drinking water.</p> <p>*The potential for connecting a Class I bicycle lane through the park to Colton School to the south. This would require at-grade crossing and traffic regulation or crossing guards.</p>	<p>*Colton Ave. and Wabash Ave. are both classified as a minor arterial with about about 9,000 cars per day expected at buildout.</p> <p>*The Public right of way crosses this intersection diagonally, which would require crossing both streets.</p>	<p>*Technical studies to determine the potential for a diagonal undercrossing at this intersection.</p> <p>Contact public works to determine the *feasibility of a Class I bicycle trail through the east end of Colton Prk, connecting to the restrooms and the school to the south.</p>	<p>*The rail road R.O.W. is a comfortable 100 ft. from Wabash Ave. to Nice Ave. providing landscaping opportunities.</p>	<p>*The right of way is owned by Metropolitan Water District with whom no use agreement has been developed.</p>
Y	Nice Ave.	Tracks	<p>*Nice Ave. is classified as a local road with anticipated traffic volume of 3,000 per day.</p> <p>The Metropolitan Water District Easement *crosses Nice Ave. about 250 ft. east of Opal Ave. and 1,000 ft. west of Wabash Ave.</p> <p>An at-grade crossing is feasible.</p> <p>*</p>	<p>*None known.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing and what type of traffic regulation would be desirable.</p> <p>Check with Metropolitan Water District *about use of right of way.</p>	<p>*The rail road R.O.W. is a comfortable 100 ft. from Nice Ave. to Mentone Blvd. providing landscaping opportunities.</p>	



Orange Blossom Trail Opportunities and Constraints (cont.)

Z	Mentone Blvd.	Tracks/Channel	<p>*Mentone Blvd. is classified as a minor arterial with about about 9,000 cars per day expected at buildout.</p> <p>There is an existing unpaved trail along the eastern boundary of the Menton Sr. Center/Library on the northwest corner of Menton Blvd. and Opal Ave.</p> <p>There is existing Metropolitan Water District (MWD) easement on the west side of Sr. Center site that connects across Mentone Blvd. to the MWD easement on the south side of the street adjacent to Jasper St. which is about 275' west of Opal Ave. and 275' east of Wabash Ave. An at-grade crossing would be feasible at this location.</p> <p>There is existing landscaping along the southern perimeter of the Sr. Center that could connect the existing trail to the easements along the eastern edge of the Sr. Center site.</p> <p>*Existing stop signs on Opal Ave. only.</p>	<p>*The driveway at the Mentone Sr. Center crosses existing trail with a raised curb.</p> <p>*There is a bus stop just east of Jasper Ave. on south side of Wabash Ave.</p>	<p>*Contact public works to determine the feasibility of an at-grade crossing on Mentone Blvd. at Jasper Ave. and what type of traffic regulation would be desirable.</p> <p>Check with Metropolitan Water District to see if easement can be used for trail.</p> <p>Check with County to determine if a Class I bicycle trail can be located along the southern perimeter of the Sr. Center.</p> <p>Check to see if a crossing at Jasper Ave. would interfere with the bus stop.</p> <p>*</p>	<p>*The rail road R.O.W. is a comfortable 100 ft. from Mentone Blvd. north to the anticipated juncture with the Santa Ana River Trail, providing landscaping opportunities.</p> <p>There is adequate room along the southern perimeter of the Mentone Sr. Center/Library property to connect a Class I bicycle lane to Jasper Ave.</p> <p>The Metropolitan Water District R.O.W. crosses Menton Blvd. at Jasper Ave. where an at-grade crossing is feasible.</p>	<p>*The right of way is owned by Metropolitan Water District with whom no use agreement has been developed.</p> <p>*The existing trail on the west side of Opal Ave. at the Menton Sr. Center/Library terminates at Mentone Blvd. south of Opal Ave.</p> <p>*does not have curbs or gutters to accommodate Class II bicycle lanes.</p>
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Map A – Rails with Trail Alternatives - Metrolink/Magnolia Channel Mountain View Ave. to Bryn Mawr Ave.

This reach of the trail presents two alignment options.

1. A trail alignment adjacent to the proposed Metrolink tracks along the north bank of the Magnolia Channel. This is the less desirable option due to the following constraints:
 - ✦ Proximity to the proposed Metrolink would require a five foot high transparent safety barrier, and
 - ✦ Proximity to the proposed Metrolink trains may make some trail users uncomfortable, and
 - ✦ There is a choke point where Lugonia Ave. veers north and a narrow right of way may be inadequate for the trail and the Metrolink.

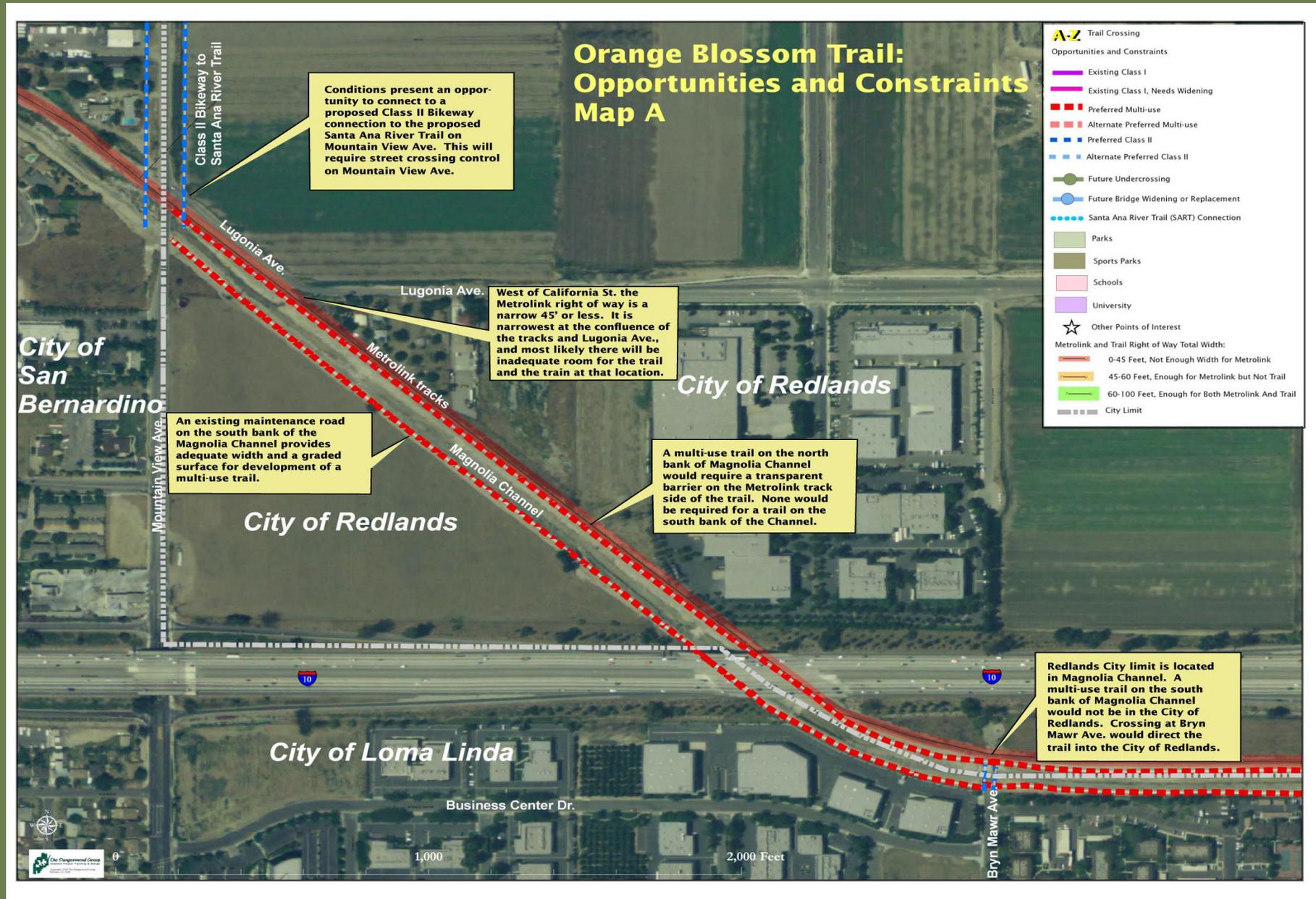
A trail alignment on the existing San Bernardino County Flood Control maintenance road along the south bank of the Magnolia Channel. This is the more desirable option as it avoids the constraints of placing the trail on the north bank, particularly avoiding the narrow right of way issue. The limitations for this alignment are:

- ✦ As Magnolia Channel passes beneath I-10, the jurisdictional boundary between Redlands and Loma Linda is the center of the Channel.
- ✦ From I-10 to Bryn Mawr Ave. a trail on the south bank of the Magnolia Channel would be in the City of Loma Linda
- ✦ Utilizing the existing Channel crossing at Bryn Mawr Ave. would provide an opportunity to bring the trail back into the City of Redlands.

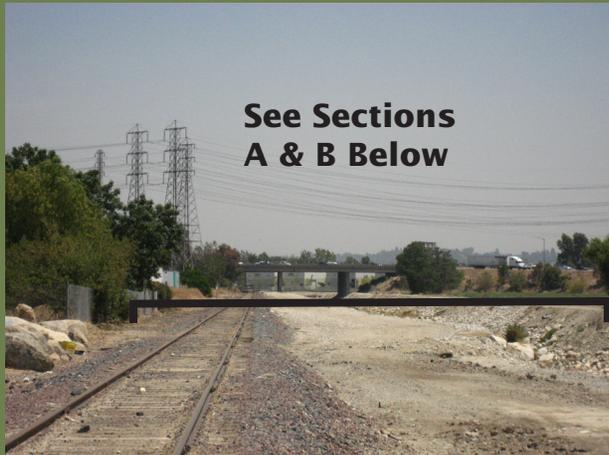
Either of the two trail alignment options would require development of a safe crossing at Mountain View Ave. to a Class II Bikeway heading north to the Santa Ana River Trail. It is necessary to cross Mountain View Ave. to connect to the southbound lane of the proposed Class II Bikeway.



Map A – Rails with Trail Alternatives - Metrolink/Magnolia Channel Mountain View Ave. to Bryn Mawr Ave.



Map A – Rails with Trail Alternatives - Metrolink/Magnolia Channel Mountain View Ave. to Bryn Mawr Ave.



See Sections
A & B Below

Magnolia Channel and tracks at Mountain View Ave. facing east

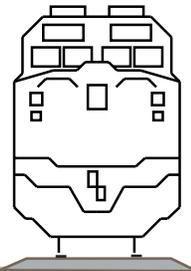


Railroad tracks at Mountain View Ave. facing west



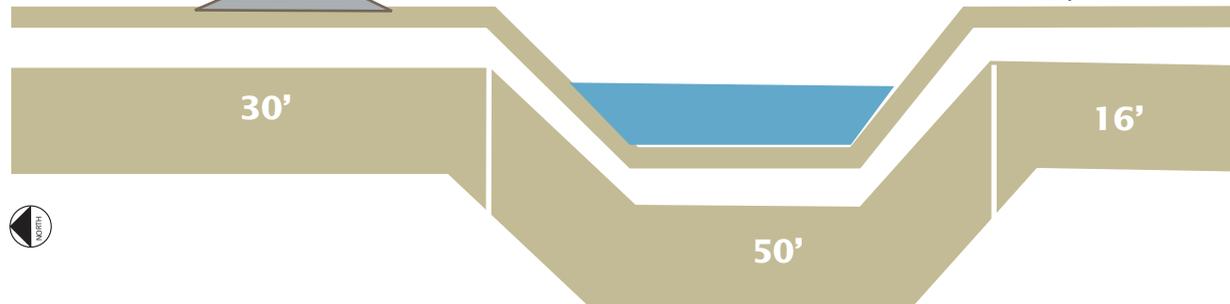
Magnolia Channel and tracks at Mountain View Ave. with maintenance road on south bank facing east

Proposed
Metrolink



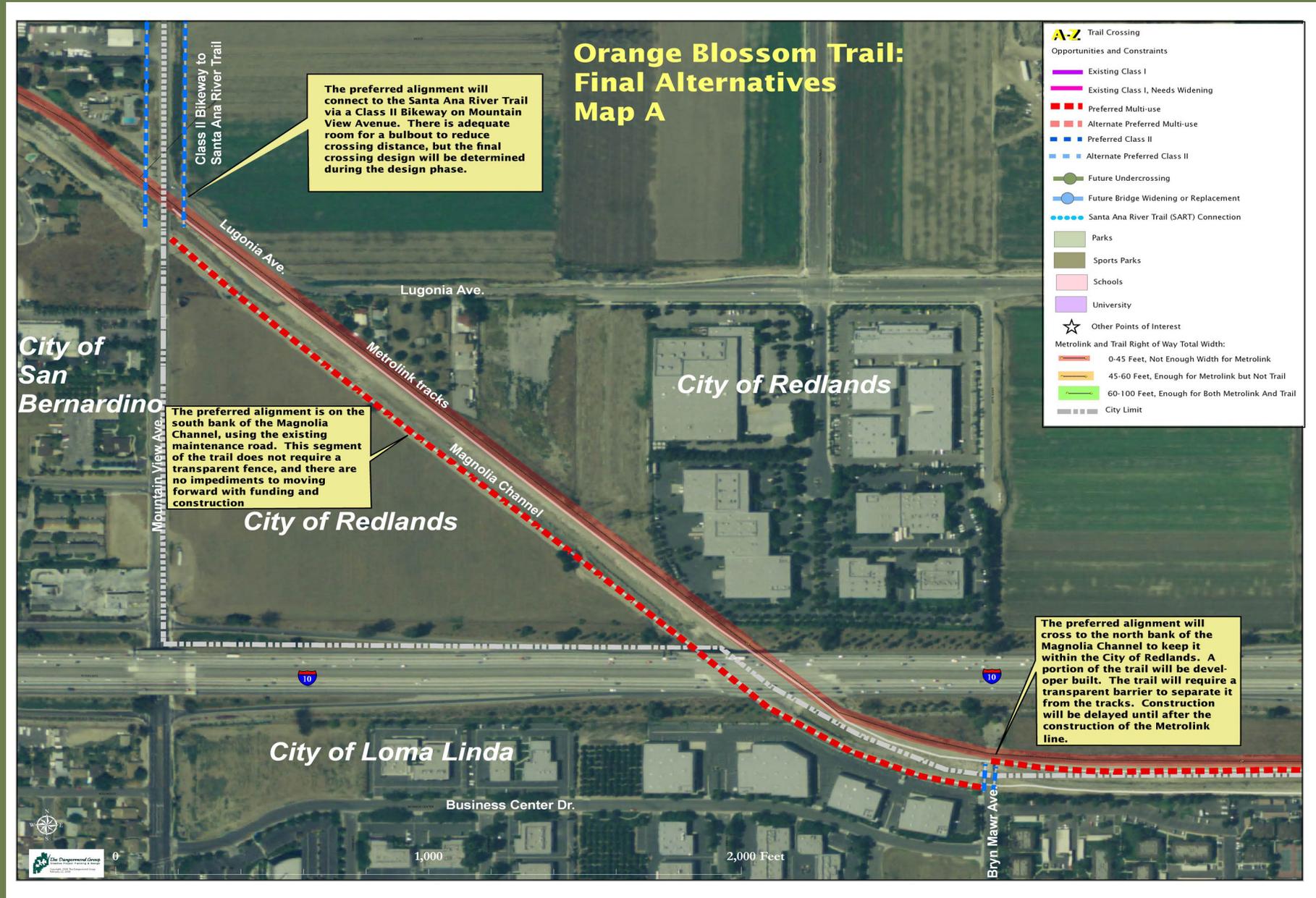
Magnolia
Channel

Multi-use Preferred
Alternative on Existing
Maintenance Road



Section A - Opportunities & Constraints - Metrolink tracks and Magnolia Channel upstream of Mountain View Ave.

Map A – Rails with Trail Alternatives - Metrolink/Magnolia Channel Mountain View Ave. to Bryn Mawr Ave.





Map B-C – Rails with Trail Alternatives - Metrolink/Magnolia Channel Bryn Mawr Ave. to Redlands Blvd.

A trail alignment on the south/southwest bank of the Magnolia Channel between Bryn Mawr Ave. and Redlands Blvd. would be impractical as it would be outside the Redlands City limits.

After crossing back into the City of Redlands at Bryn Mawr Ave. there are no major obstacles to proceeding on the north bank of the Magnolia Channel to Redlands Blvd. A five foot high transparent barrier is required by SANBAG to provide separation from the Metrolink tracks and proximity to the trains may cause some discomfort for trail users, however, these obstacles are not insurmountable.

The existing intersection of Redlands Blvd. with California St. has become a problem as traffic flows on both streets have increased. This intersection is currently controlled by traffic signals, with crosswalks for pedestrians. As the Magnolia Channel crosses this intersection at a diagonal, trail users would need to cross both Redlands Blvd. and California St., waiting for two signals. For long distance bicycle commuters this would be viewed as a major obstacle and may discourage use of the trail.

The Cities of Redlands and Loma Linda have developed a plan to realign the intersection. They have no immediate plans to proceed with this project. However, it presents an opportunity to include a trail undercrossing. Technical studies were performed which demonstrate that there would be adequate room to develop a ramped bicycle undercrossing without redesigning the planned automobile creek overpass.



Map B- C – Rails with Trail Alternatives - Metrolink/Magnolia Channel Bryn Mawr Ave. to Redlands Blvd.



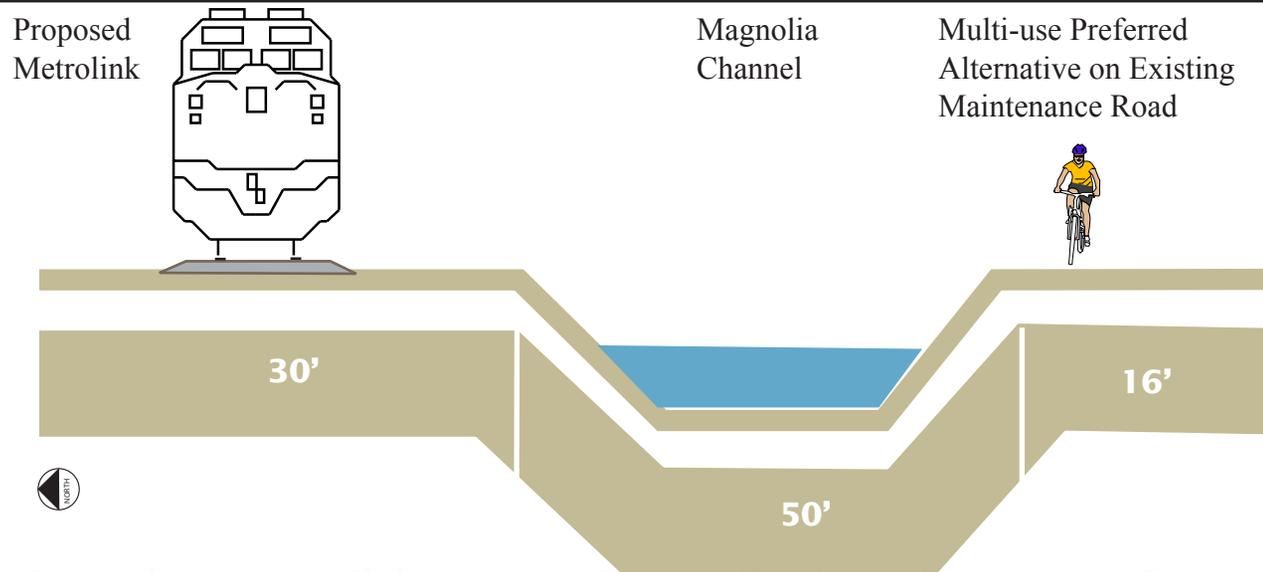
Map A – Rails with Trail Alternatives - Metrolink/Magnolia Channel Mountain View Ave. to Bryn Mawr Ave.



Magnolia Channel and Metrolink tracks passing beneath I-10, viewed from downstream.



Mountain Ave. automobile bridge viewed from upstream.



Section B - Preferred Alternatives - Metrolink tracks and Magnolia Channel upstream of Mountain View Ave.

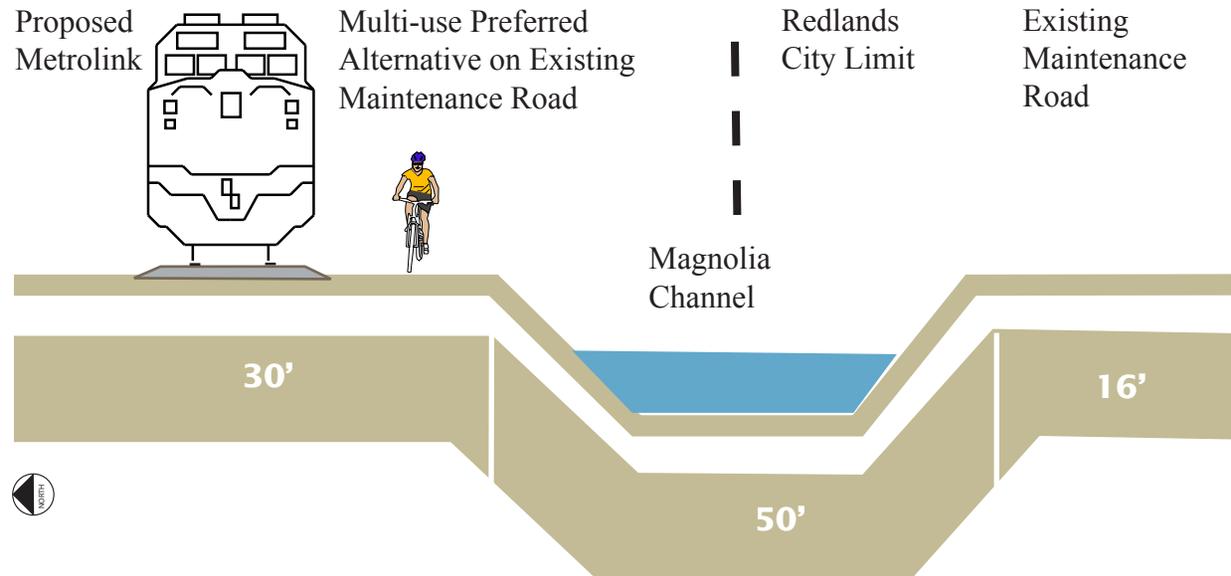
Map B-C – Rails with Trail Alternatives - Metrolink/Magnolia Channel Bryn Mawr Ave. to Redlands Blvd.



Magnolia Channel at Tudor Court (east of Bryn Mawr Ave.)

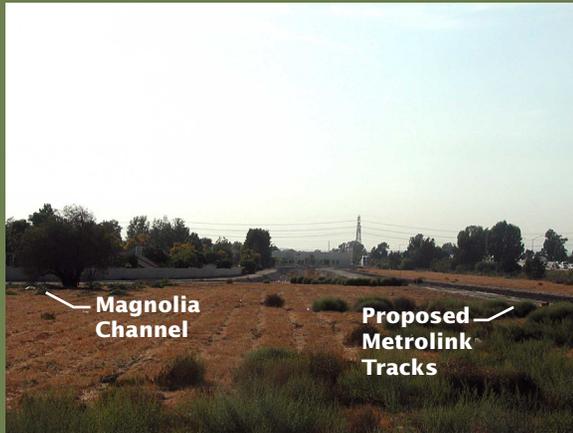


California St. facing north to intersection at Redlands Blvd.



Section C - Opportunities & Constraints Magnolia Channel at Tudor Court

Map B-C – Rails with Trail Alternatives - Metrolink/Magnolia Channel Bryn Mawr Ave. to Redlands Blvd.



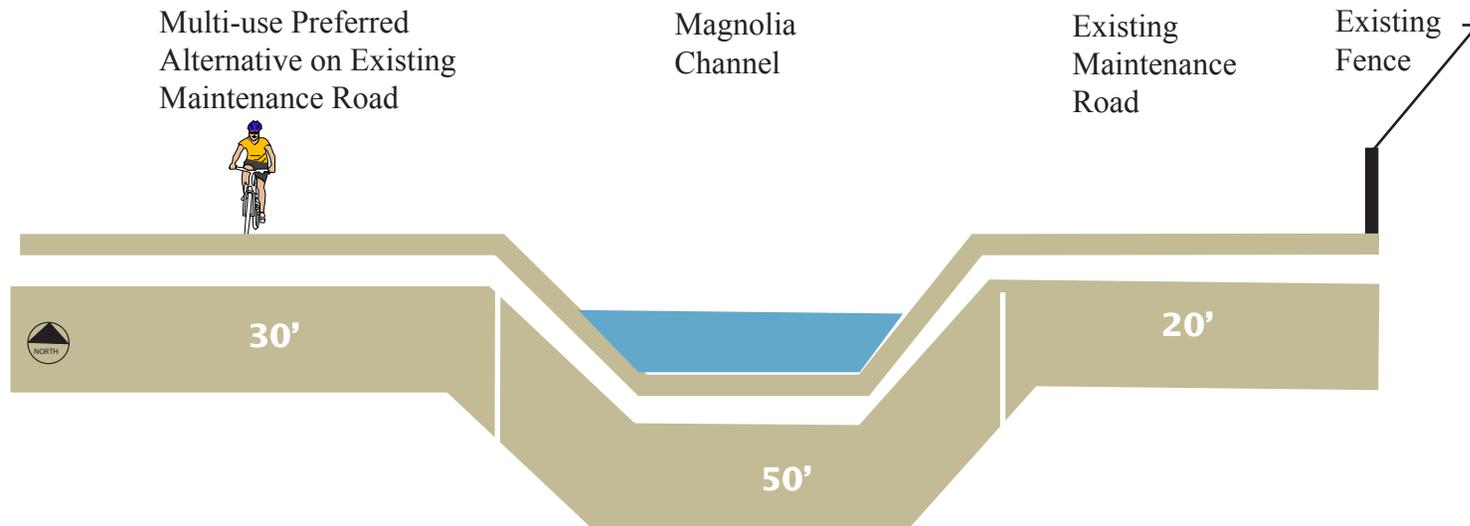
Magnolia Channel and potential Metrolink tracks as seen from California Blvd. facing west.



Magnolia Channel approaching intersection of California St. and Redlands Blvd. facing south.

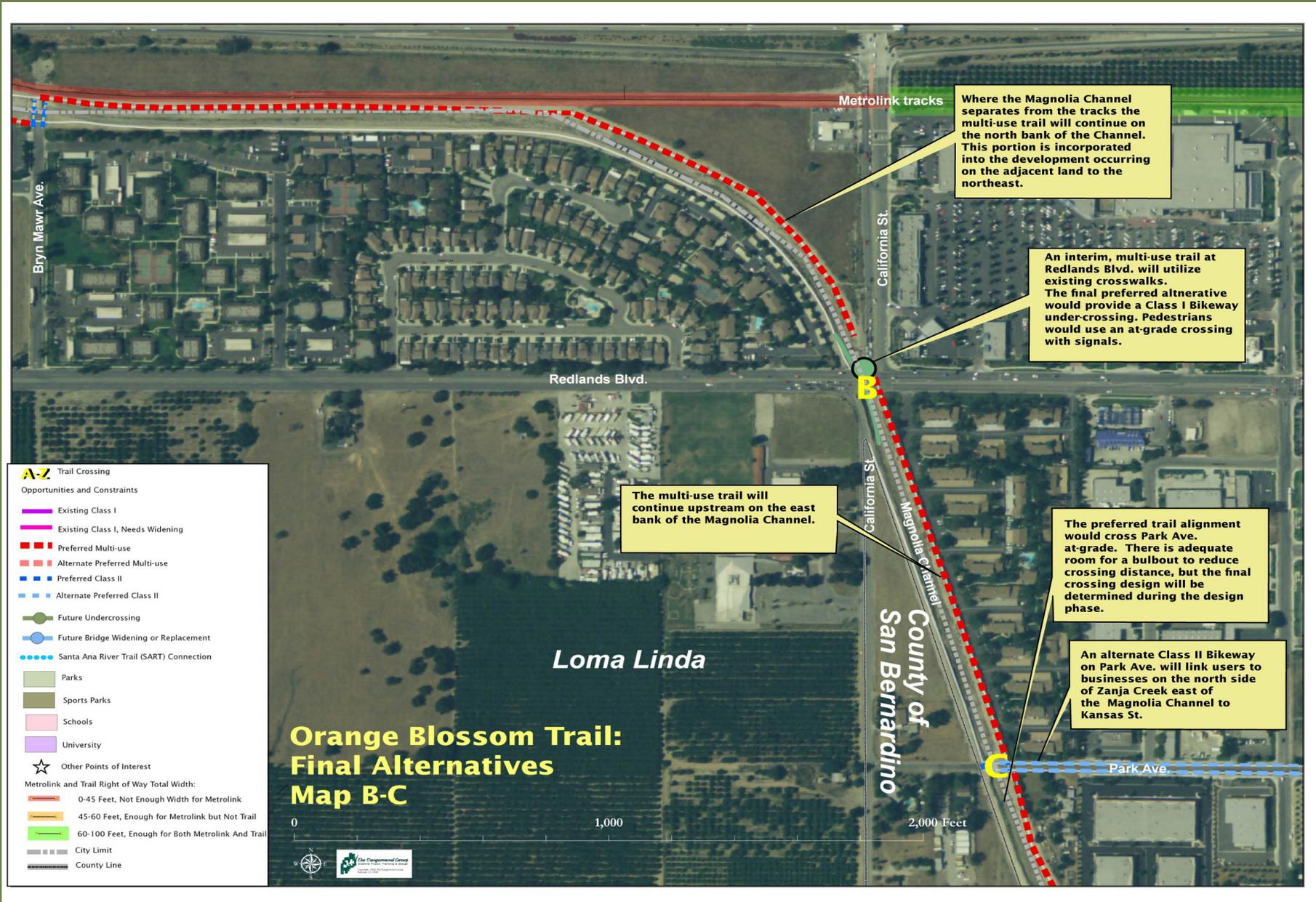


Magnolia Channel at intersection of Redlands Blvd. and California St.



Section D - Preferred Alternatives California St. north of Redlands Blvd.

Map B-C – Rails with Trail Alternatives - Metrolink/Magnolia Channel Bryn Mawr Ave. to Redlands Blvd.





Map D-F – Creekside Trail Alternatives - Magnolia Channel/Zanja Creek Redlands Blvd. to Iowa St.

From Redlands Blvd. to Park Ave. there is adequate room on the existing San Bernardino Flood Control maintenance road on the east bank of the Magnolia Channel. The existing automobile bridge crossing of the Magnolia Channel at Park Ave. would be crossed directly from north to south, remaining on the east bank of the Channel. In addition to the continuation of the Multi-use trail along the Magnolia Channel, an alternate Class II or Class III Bikeway route would be provided from the Magnolia Channel east to Kansas St. This would bypass a constriction on the Alabama Ave. automobile bridge over the Zanja Creek, which restricts bicycle traffic (see below under Map G-H). Signage at this location advising bicyclists to use the bypass would be needed.

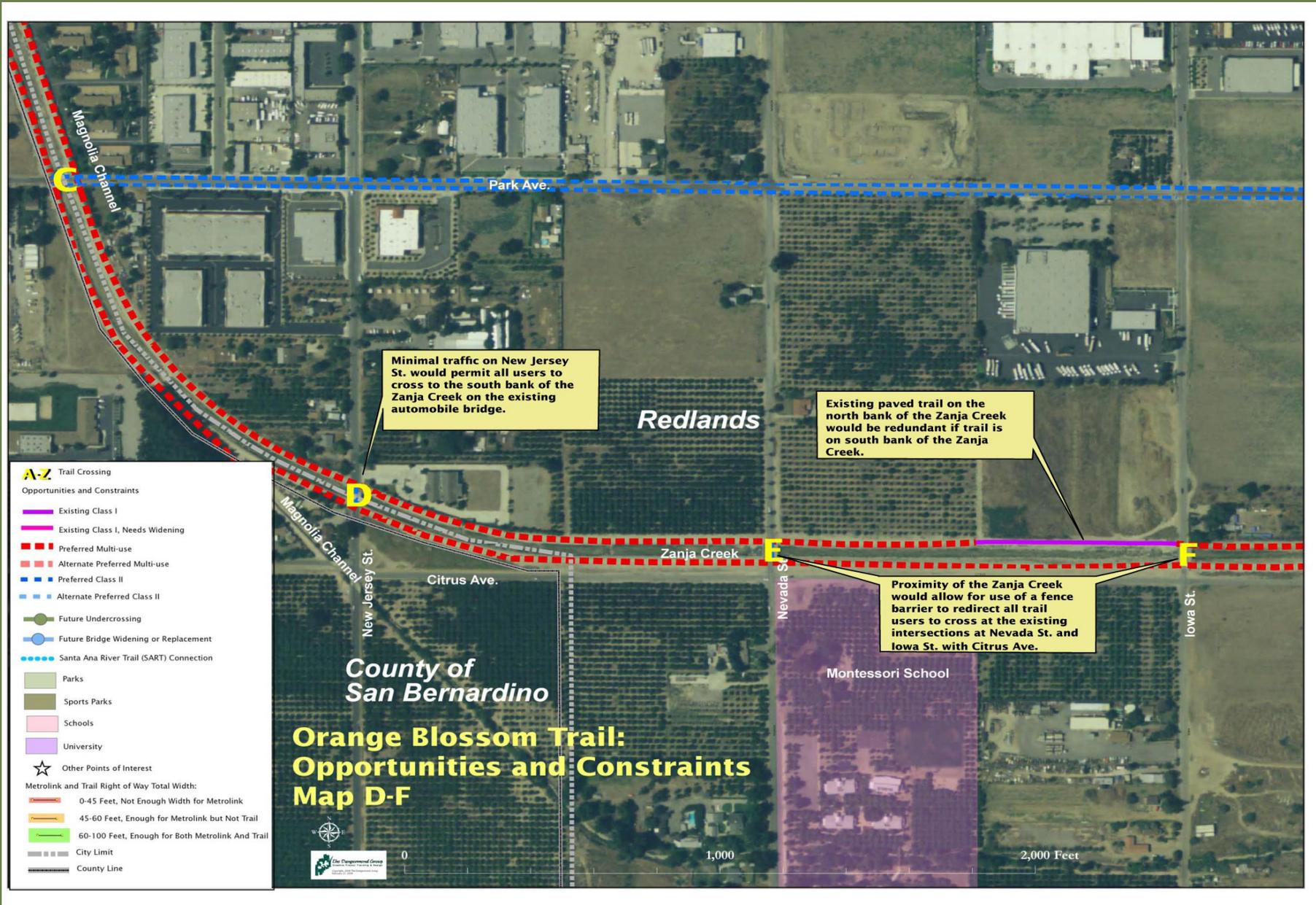
There is adequate room on the existing San Bernardino Flood Control maintenance road along the east bank of the Magnolia Channel/Zanja Creek from Park Ave. to New Jersey St. to accommodate the preferred fifteen foot trail width. And, staying on the east/north bank of the Channel avoids the impacts of the confluence of the Magnolia Channel with the Zanja Creek to a trail alignment on the south bank. A trail on the south bank would mandate a bridge crossing the Magnolia Channel at the confluence, connecting the south bank of the Zanja Creek with the south bank of the Magnolia Channel.

Continuing east, there is adequate room on the San Bernardino County Flood Control maintenance road on north bank of the Zanja Creek from New Jersey St. to Tennessee St., however, street crossing could be more easily accommodated with a trail on the County's maintenance road along the south bank of the Zanja Creek. Keeping this in mind the preferred route would utilize the existing automobile bridge crossing of the Zanja Creek to route the trail to the south bank, utilizing either a Class III Bikeway or existing automobile lanes on the bridge.

Please see the discussion of Nevada St. in the following section.



Map D-F – Creekside Trail Alternatives - Magnolia Channel/Zanja Creek Redlands Blvd. to Iowa St.



Map D-F – Creekside Trail Alternatives - Magnolia Channel Redlands Blvd. to Park Ave.



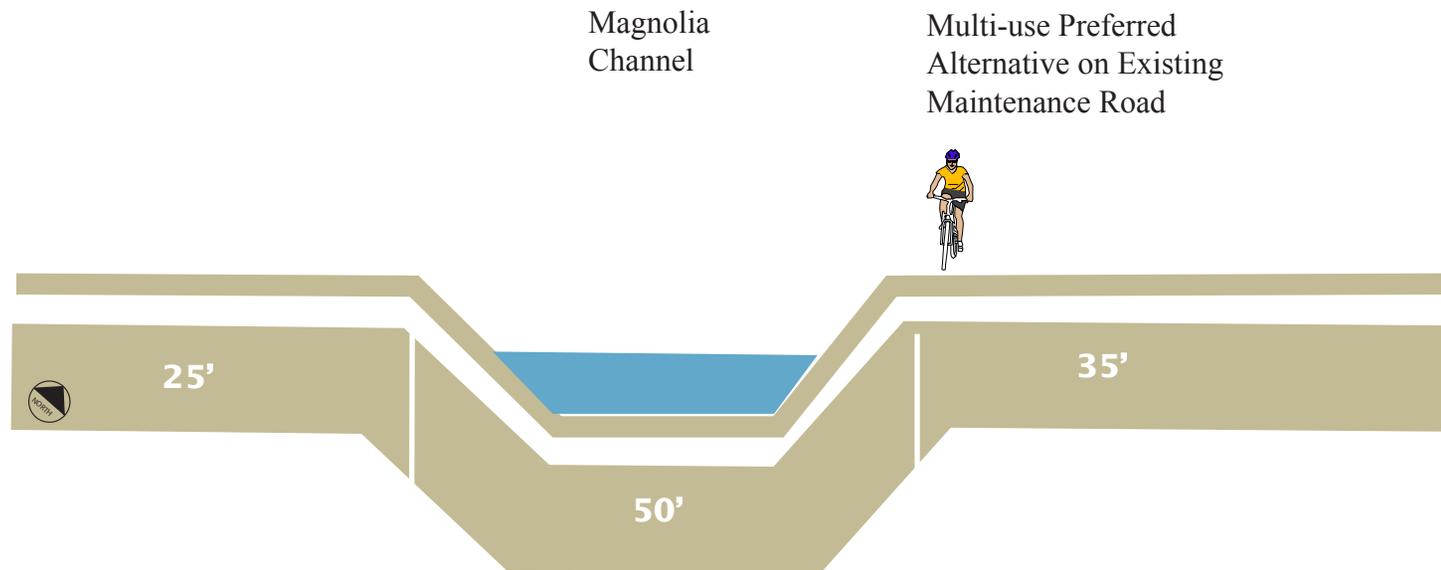
Magnolia Channel at Park Ave. facing north toward Redlands Blvd



Park Ave. crossing Magnolia Channel facing east



Magnolia Channel at Park Ave. facing south toward New Jersey St.



Section E - Opportunities & Constraints Zanja Creek upstream of Park Ave.

Map D-F – Creekside Trail Alternatives - Magnolia Channel/Zanja Creek Park Ave. to New Jersey St.



Zanja Creek at New Jersey St. facing west

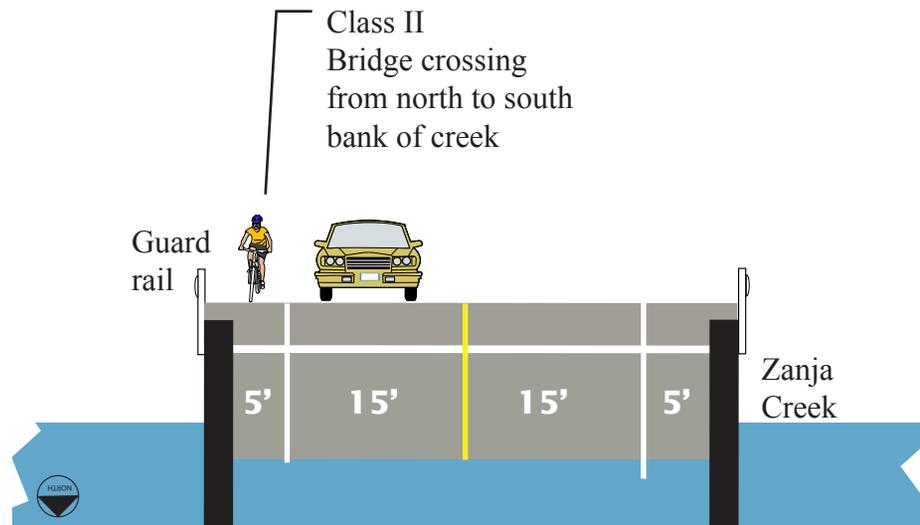


Zanja Creek at New Jersey St. facing north



Zanja Creek at New Jersey St. facing south

Section F - New Jersey St. automobile bridge at Zanja Creek



Map D-F – Creekside Trail Alternatives - Zanja Creek New Jersey St. to Iowa St.



Zanja Creek at Nevada St. facing west



Zanja Creek at Nevada St. facing north



Zanja Creek at Nevada St. facing east

Map D-F – Creekside Trail Alternatives - Zanja Creek Nevada St. to Iowa St.



Zanja Creek at Iowa St. facing east



Existing Zanja Creek Trail at Iowa St. facing west



Iowa St. at Zanja Creek facing south to Citrus Ave.

Map D-F – Creekside Trail Alternatives - Zanja Creek New Jersey St. to Nevada St.



Zanja Creek at Nevada St. facing west



Zanja Creek at Nevada St. facing north



Zanja Creek at Nevada St. facing east

Map D-F – Creekside Trail Alternatives - Zanja Creek Nevada St. to Iowa St.



Zanja Creek at Iowa St. facing east

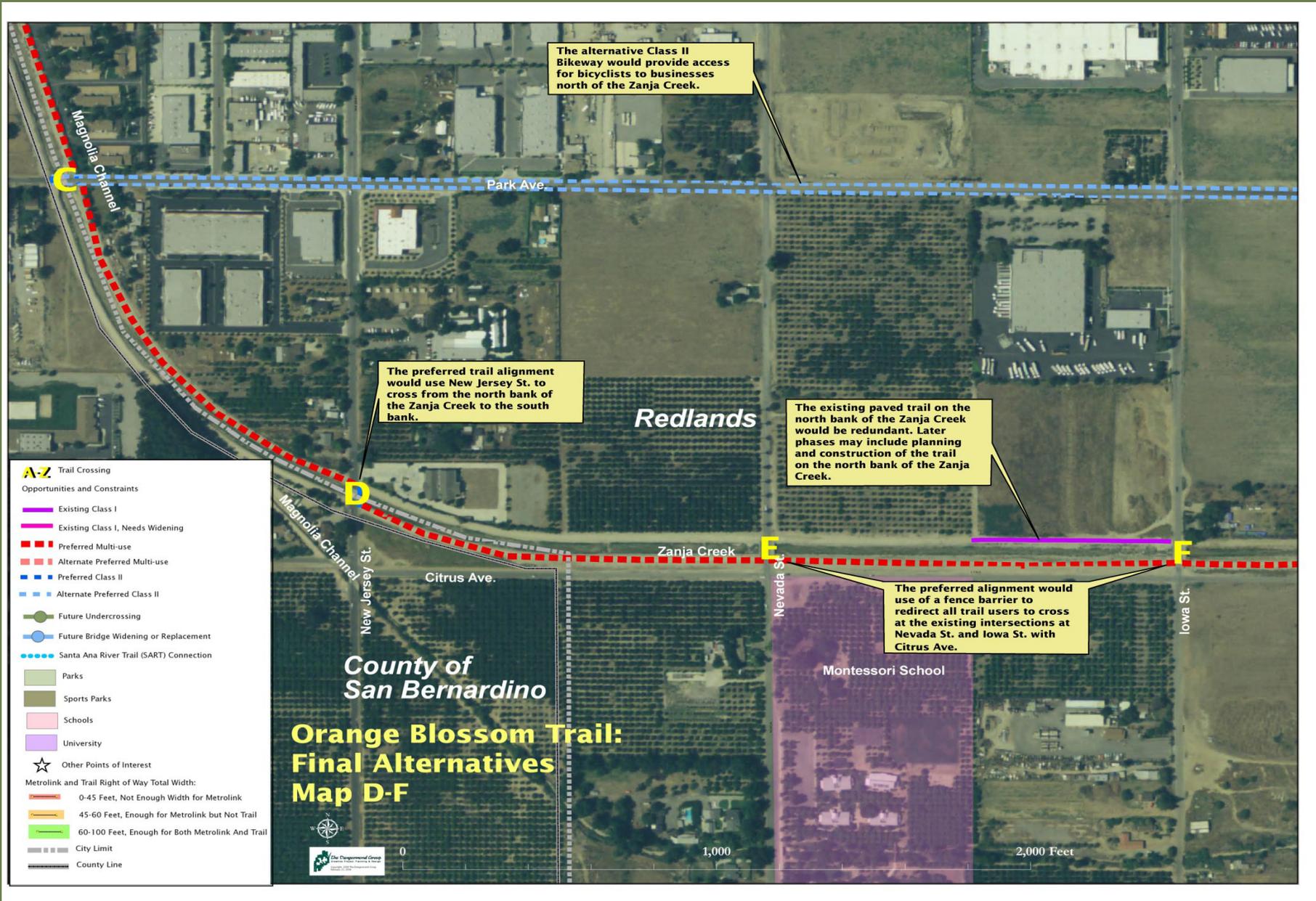


Existing Zanja Creek Trail at Iowa St. facing west



Iowa St. at Zanja Creek facing south to Citrus Ave.

Map D-F – Creekside Trail Alternatives - Magnolia Channel Redlands Blvd. to Iowa St.





Map G-H – Creekside Trail Alternatives - Zanja Creek Iowa St. to Tennessee St.

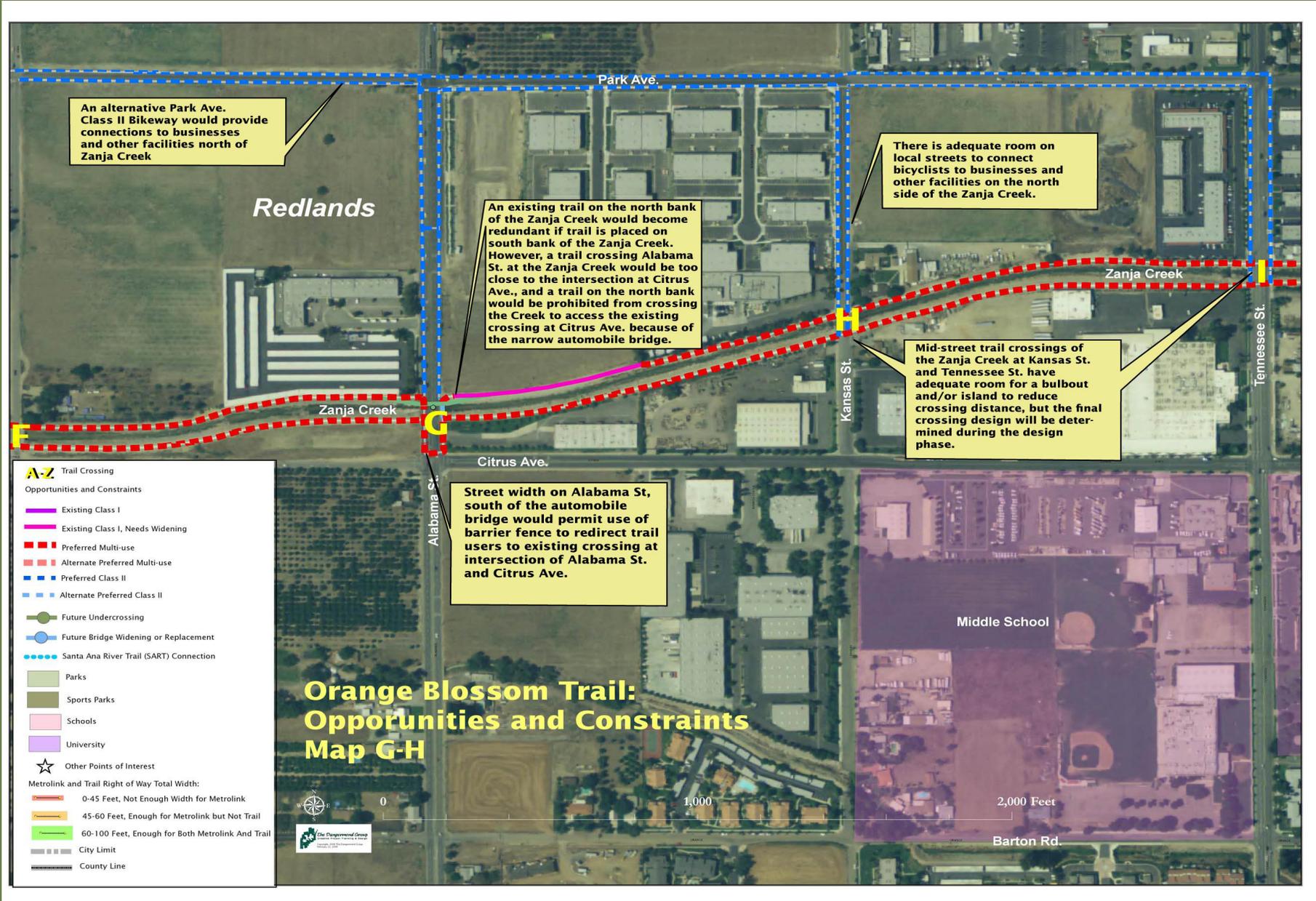
At Nevada and Iowa Sts. the Zanja Creek is adjacent to Citrus Ave. By placing the trail on the south bank of the river trail users could be easily directed, using a barrier fence and signage, to cross at the Citrus Ave. intersections. Trail users approaching these streets from the west could utilize the existing automobile bridges to access destinations to the north of the Zanja Creek, or alternatively, they can use the Class II/III Bikeway bypass on Park Ave. An unfortunate consequence of placing the trail on the south bank would be the obsolescence of the existing developer built bicycle trail on the north bank of the Zanja Creek from Iowa St. to about seven hundred and fifty feet west.

The conditions at Alabama St. are similar to those at Nevada and Iowa Sts., allowing trail users to cross at the intersection at Citrus Ave. However, because the automobile bridge over the Zanja Creek is too narrow to accommodate trail users, access to destinations north of the Creek on Alabama St. would need to use the Park Ave. Class II/III Bikeway bypass. Again, the developer built bicycle trail along the north bank of the Zanja Creek from Alabama St. to about seven hundred and fifty feet east would be obsolete.

At Kansas St. the Zanja Creek is about five hundred feet north of the intersection at Citrus Ave. and even a greater distance from the intersection with Park Ave. Routing trail users is less realistic and a mid-street crossing is recommended, utilizing a trail-user activated flashing yellow light system with crosswalks. For trail users approaching from the east, a Class II/Class III Bikeway on Kansas St. would provide access to destinations north of the creek on both Kansas St. and Alabama St. via Park Ave.



Map G-H – Creekside Trail Alternatives - Zanja Creek Iowa St. to Tennessee St.



Orange Blossom Trail: Opportunities and Constraints Map G-H

Map G-H – Creekside Trail Alternatives - Zanja Creek Iowa St. to Alabama St.

Road Narrows
at Bridge -
Inadequate Room for
Bike Lane

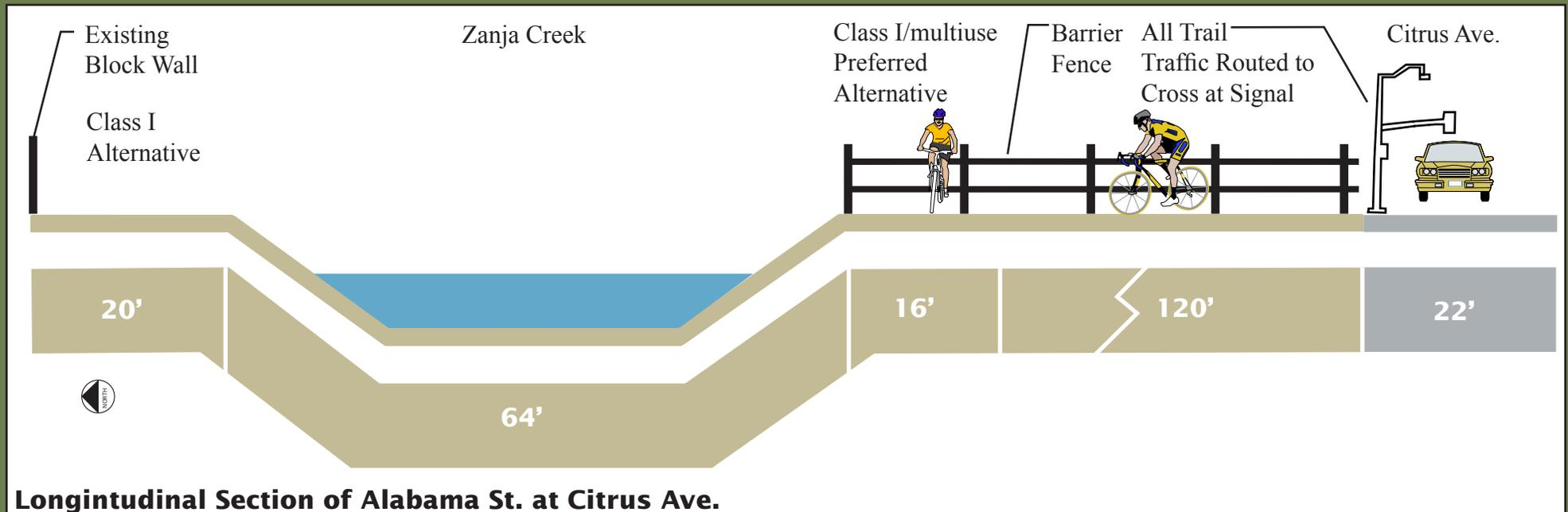


Zanja Creek at Alabama St. bridge - toward
Citrus Ave.



See Sec-
tion

Alabama St. at Zanja Creek and Citrus Ave.



Longitudinal Section of Alabama St. at Citrus Ave.

Map G–H – Creekside Trail Alternatives - Zanja Creek Alabama St. to Kansas St.



Zanja Creek at Alabama St. looking east

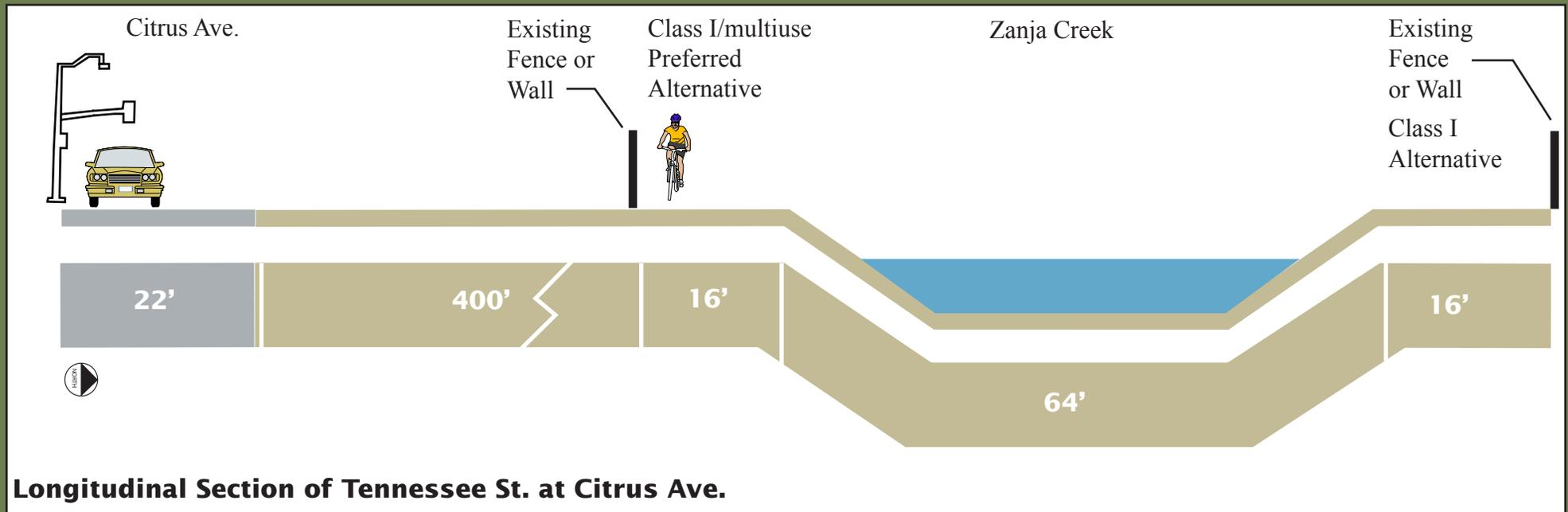
Map G-H –Creekside Trail Alternatives - Zanja Creek Kansas St. to Tennessee St.



Zanja Creek at Kansas St. looking west

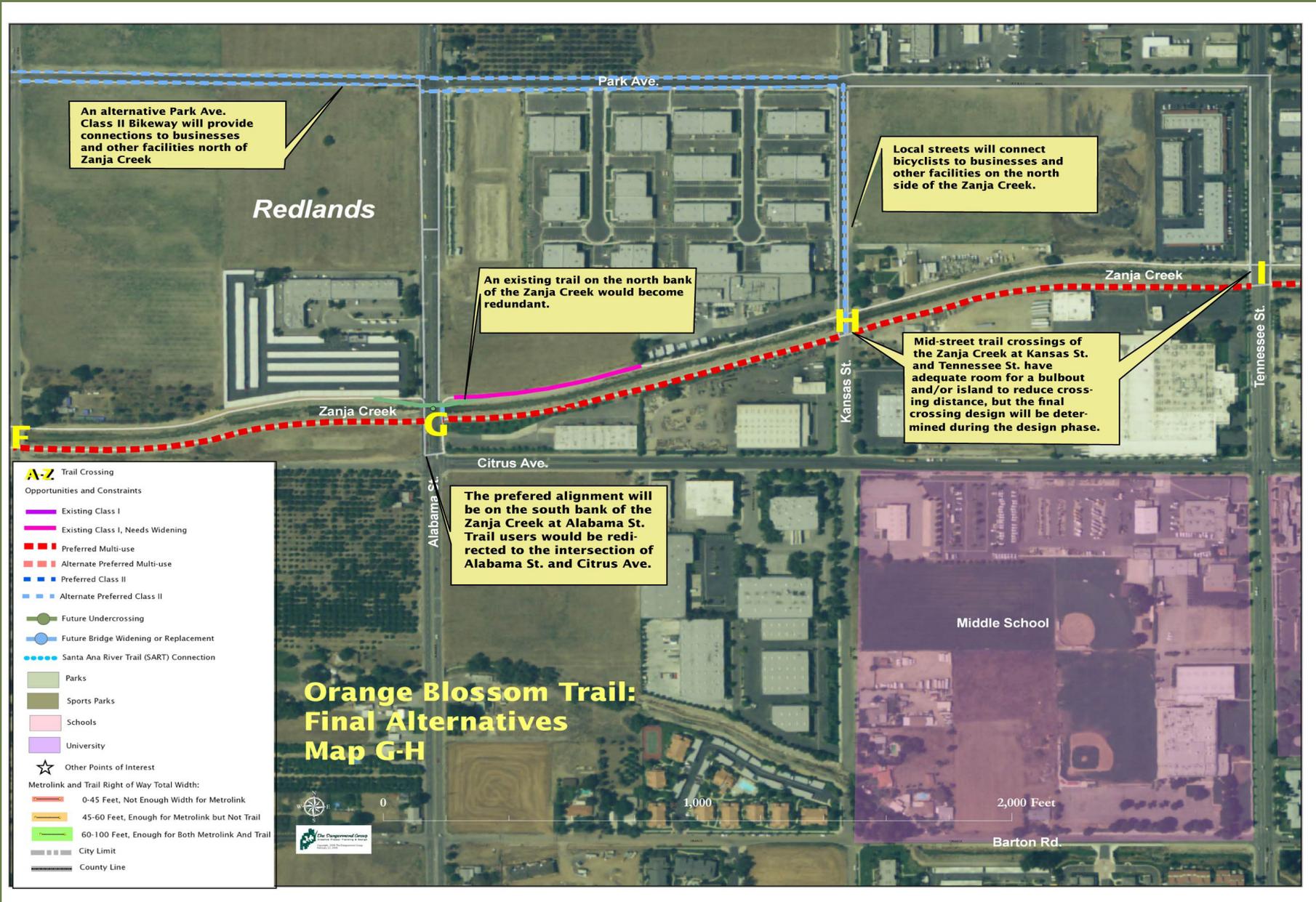


Zanja Creek at Tennessee St. looking west



Longitudinal Section of Tennessee St. at Citrus Ave.

Map G-H – Creekside Trail Final Alternatives - Zanja Creek Iowa St. to Tennessee St.





Map I-L – Zanja Creek Trail and Rails with Trails Alternatives Tennessee St. to Texas St.

Although there is adequate room for the trail on either bank of the Zanja Creek between Kansas St. and New York St. remaining on the south bank eliminates the need to cross from the south to the north bank. At Tennessee St. a mid-block crossing would be preferred. However, given the heavy flow of traffic on Tennessee St. a full signal may be preferred over a trail-user activated flashing yellow light.

At New York St. two optional alignments were explored.

1. A mid-block crossing of New York Street continuing along the south bank of the Zanja Creek would provide a scenic route between New York St. and Texas St. As a result of channelization of the Creek east of New York St. the south bank takes a small jog to the north. A portion of the trail, from New York St. to the northern entry to the Veterans of Foreign Wars parking lot, already exists. This portion of the trail does not directly connect to New York St., but instead it begins in the parking lot at New York St. A readjustment of this would create a safer street crossing. Due to moderate to heavy traffic on New York St. a trail-user activated yellow flashing light and crosswalks would help control traffic conflicts. Trail users can access the restrooms and drinking fountain which are located on New York St. at the southwest corner of Jennie Davis Park.

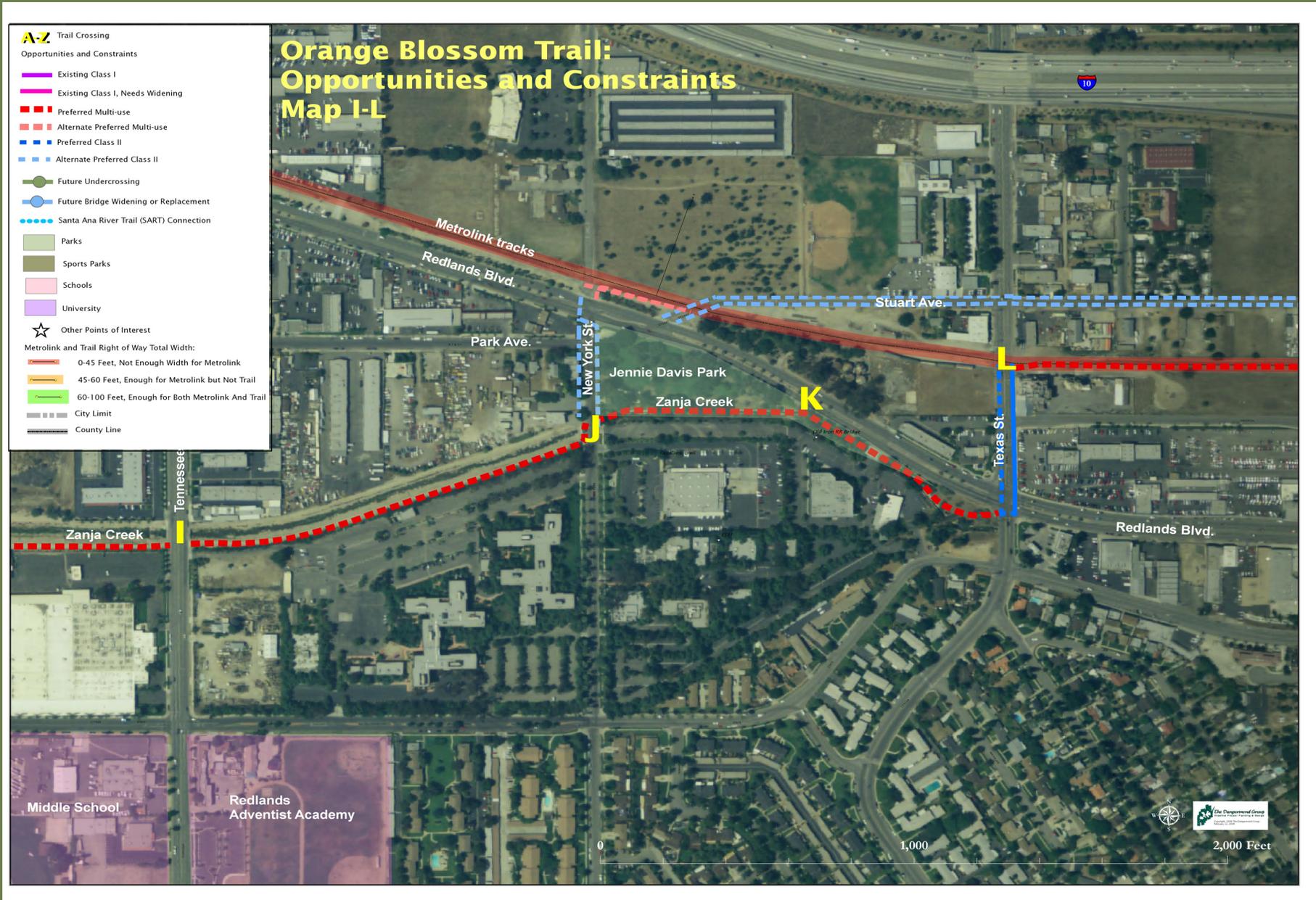
East of the north parking lot entry there is adequate room to develop a fifteen foot trail corridor along the south bank of the Zanja Creek, with the exception of a pinchpoint at the corner of the Veterans of Foreign Wars building. Here removal of two parking spaces would accommodate the trail corridor.

As the trail approaches Texas St. the potential for utilizing the existing historic railroad trestle exists. This would add interest to the trail and provide a connection to the signalized intersection of Texas St. with Redlands Blvd. Trail users would utilize the existing crosswalks to access a Class II/III Bikeway heading north on Texas St. to the proposed Metrolink tracks.

2. Option two is a Class II/III Bikeway that follows New York St. north to Redlands Blvd. where it proceeds east along the south side of the proposed Metrolink tracks to the Stuart Ave. railroad crossing, and the east on Stuart Ave. This alignment would provide an alternative route should the Metrolink right of way between Texas St. and 6th St. be inadequate to accommodate the Metrolink lines and a minimum ten foot wide trail corridor.



Map I-L – Creekside Trail Zanja Creek/Class II Bikeway Alternatives - Tennessee St. to Texas St.



Map I-L – Creekside Trail Alternative - Zanja Creek Tennessee St. to New York St.



Zanja Creek at Tennessee St. facing east



Zanja Creek at New York St. facing west



*Zanja Creek at New York St. facing east
toward Jennie Davis Park*

Stuart Ave. Alternative - Zanja Creek New York St. to Texas St.



*New York St. at Redlands Blvd. crossing
north to Stuart Ave. alternative*

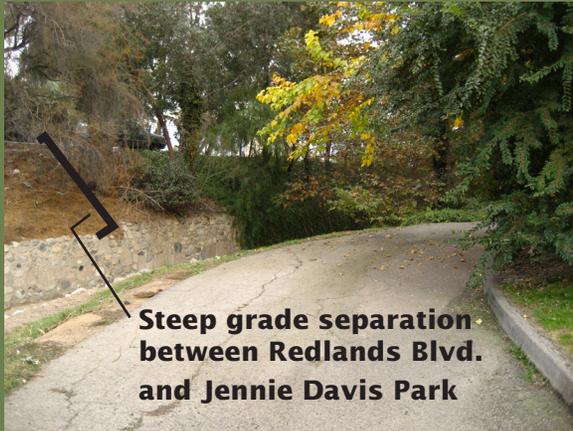


New York St. at Redlands Blvd. facing east



*Railroad tracks on north side of Redlands
Blvd. heading east from New York St.*

Map I-L – Jennie Davis Park Alternative - Zanja Creek New York St. to Texas St.



Steep grade separation between Redlands Blvd. and Jennie Davis Park

Slope along shoulder of Redlands Blvd. at eastern terminus of Jenny Davis Park on north bank of Zanja Creek

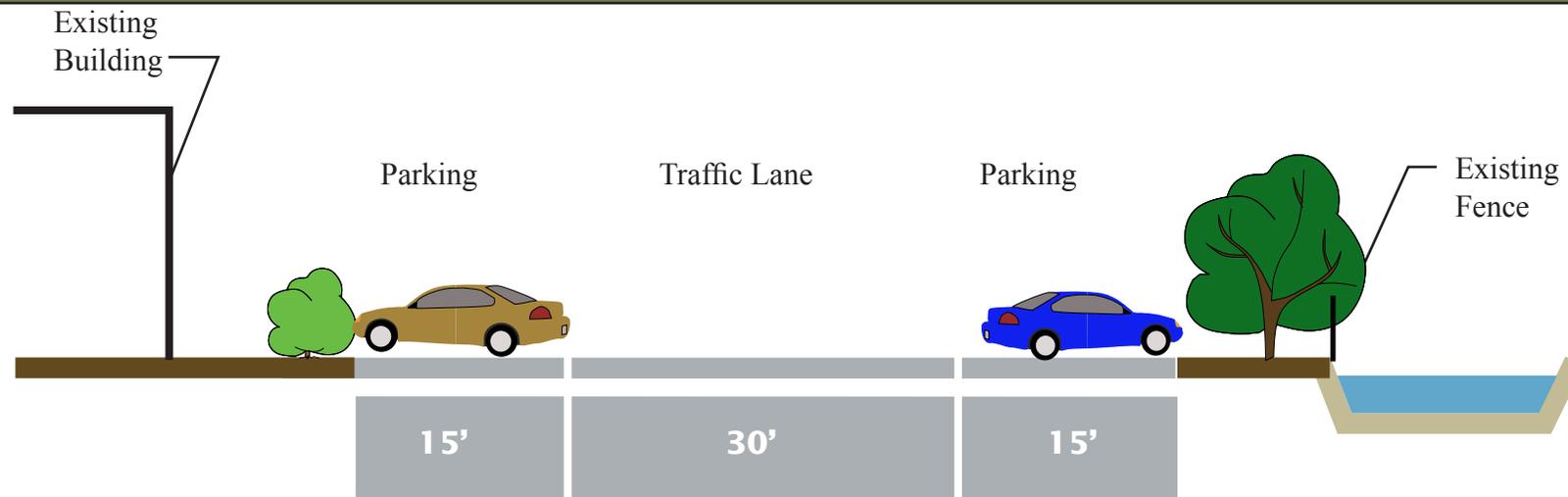


Existing path on south side of Zanja Creek from New York St. to parking lot north entrance



See Section Below

Narrowing of parking lot adjacent to Veterans of Foreign Wars building



Cross Section of existing parking lot pinch point at Veterans of Foreign Wars Building



Map I-L – Stuart Ave. Alternative - Zanja Creek New York St. to Texas St.



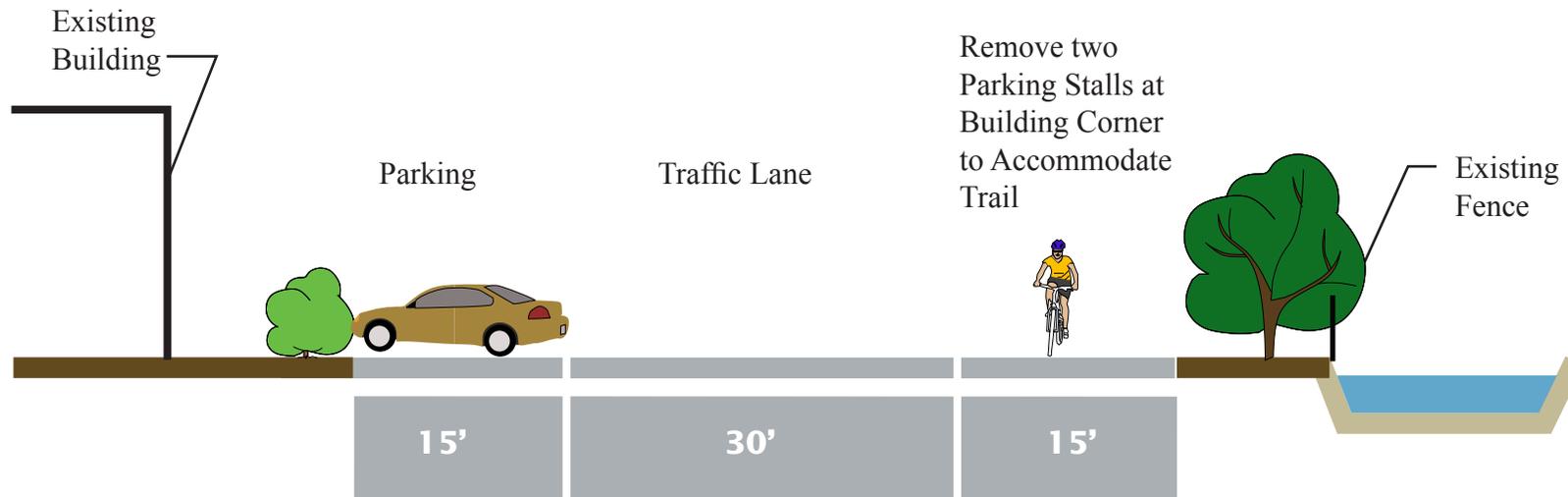
Existing Historic Railroad Bridge at Texas St. and Redlands Blvd.



Texas St. at Redlands Blvd. looking north
Existing path on south side of Zanja Creek from New York St. to parking lot north entrance



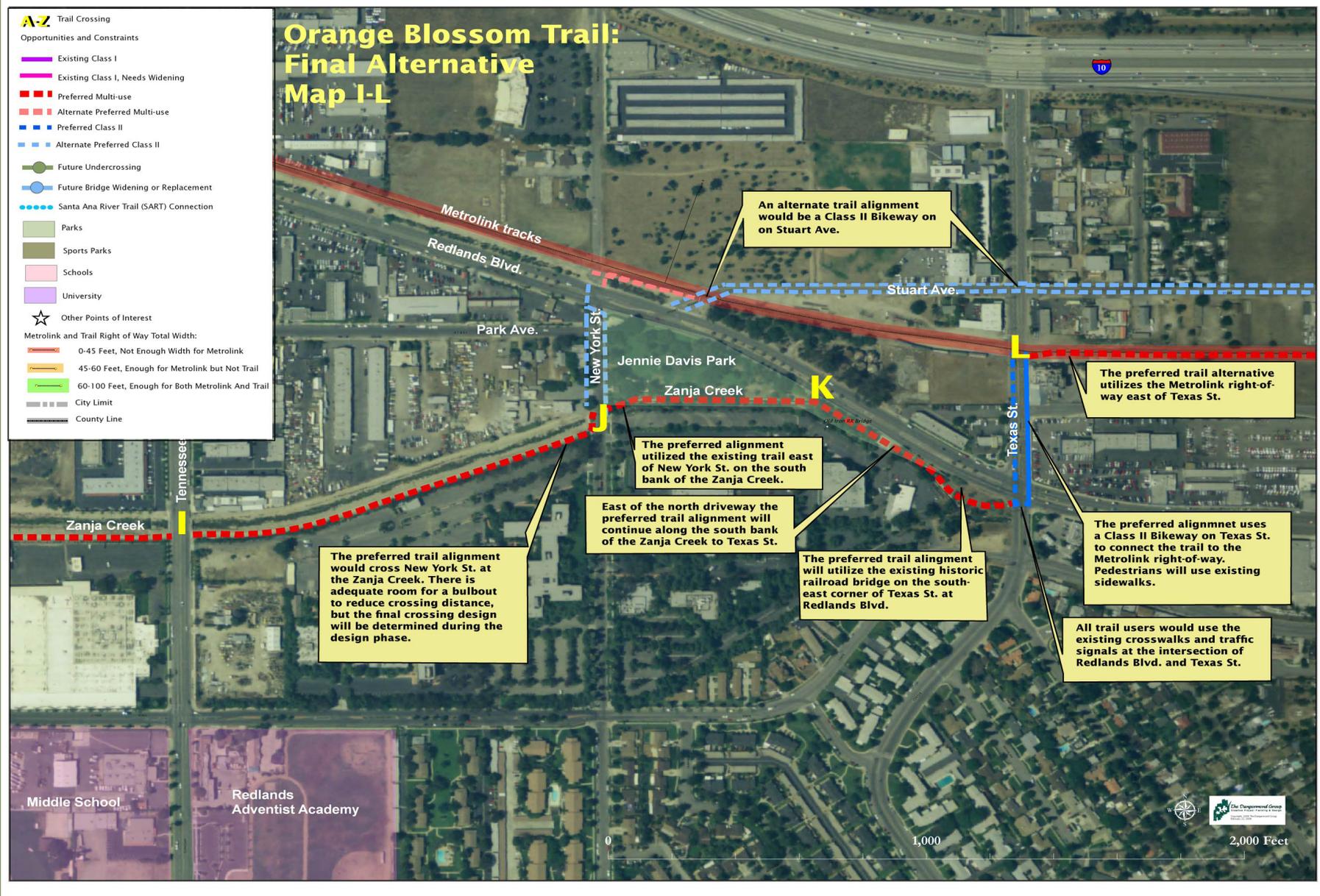
Texas St. at Metrolink tracks looking south.



Cross Section of preferred alternative parking lot at Veterans of Foreign Wars Building



Map I-L – Creekside Trail Zanja Creek/Class II Bikeway Alternatives - Tennessee St. to Texas St.





Map M-Q – Trail – Zanja Creek and Rails with Trails Alternatives Eureka St. to 9th St.

1. From Texas St. to 6th St. the Metrolink corridor ranges from thirty-six to forty-five feet wide. Current estimates are that the minimum Metrolink corridor width will be forty-five feet wide. As planning continues this may change. However, if it does not, there will be inadequate room for the trail along this corridor, in which case the alternate Stuart Ave. route may become the preferred alternative for all or part of this trail segment. The Metrolink train will require street crossing barriers and signals at each of the streets from Eureka St. east to the anticipated end of the line at the University of Redlands. Trail crossing needs will be compatible, and preferably integrated into, the Metrolink system's equipment.

The potential Krikorian development at Eureka St. may accommodate the proposed trail along the north side of the tracks as part of the anticipated fire lane. Ideally the trail will proceed east to the historic railroad depot where compatible uses, such as restaurants or coffee shops, will provide a destination and stopping place.

2. Alternatively, the Orange Blossom Trail will be a Class II/III on Stuart Ave. To assure a safe route, the street will need to be repaved per Caltrans Bikeway Planning and Design Guidelines in the Highway Design Manual. Stuart Ave. is interrupted by the Orange Street Plaza, between Orange St. and 6th St. Although a recommendation to extend Stuart Ave. through the mall may be part of the downtown plan, no immediate plans are in place. As the Metrolink right of way is narrowest between Orange St. and 6th St., finding an alternate route is most important.

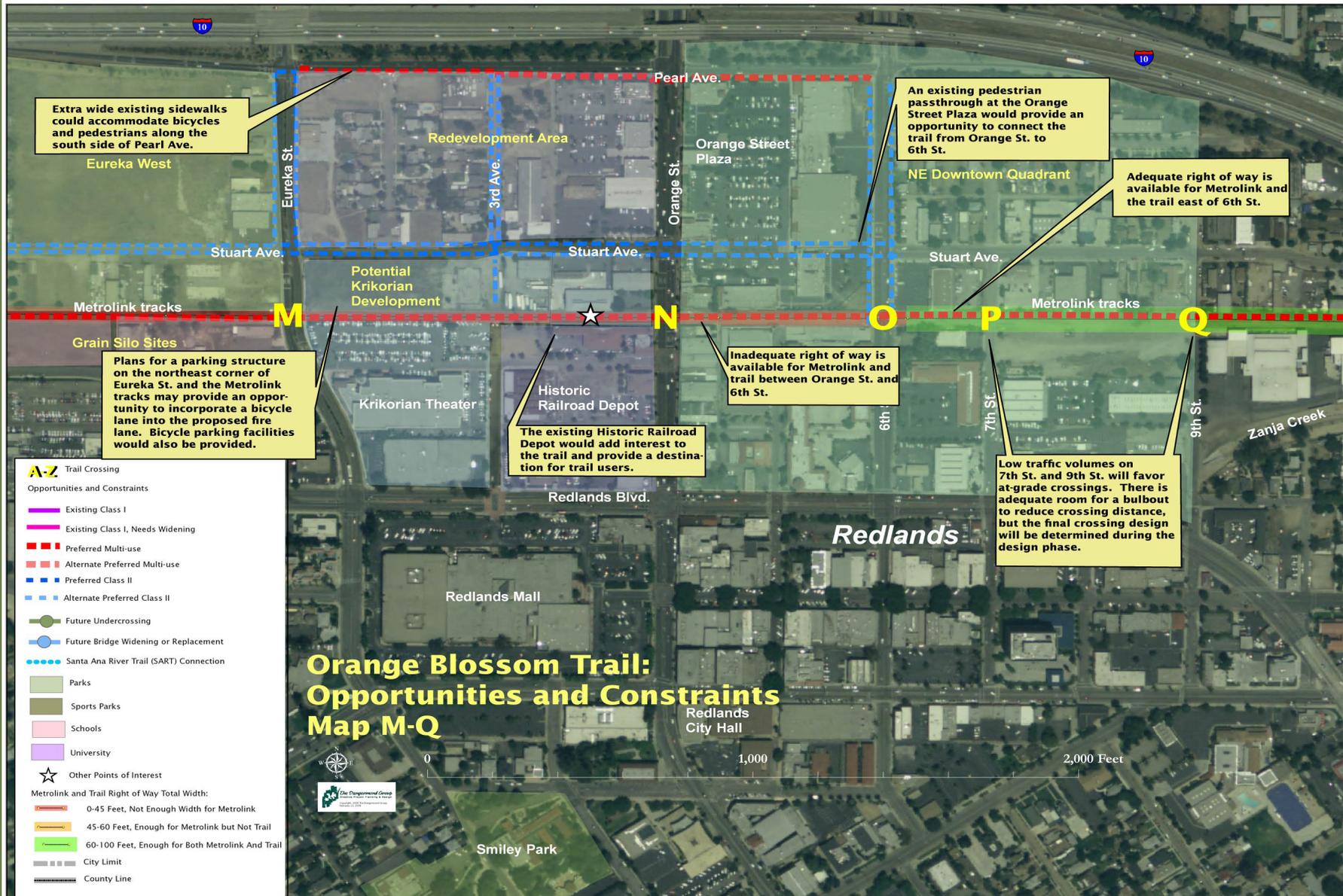
An existing pass-through in the middle of the plaza is adequately wide to accommodate both bicyclists and pedestrians. This may be a required walk-through zone for bicyclists. The Stuart Ave. entry at Orange St. and the 6th St. entry to the plaza provide adequate room for bicyclists and both lead directly to the pass-through.

Exiting the Orange Street Plaza pedestrians would utilize the existing sidewalk to access the proposed trail alignment along the Metrolink right of way east of 6th St. Bicyclists would utilize a Class II/III Bikeway along 6th St. with a trail-user activated yellow flashing light and crosswalks at the 6th St. entry to the plaza.

From 6th St. to 9th St. the Metrolink right of way is a minimum of sixty feet wide, which would easily accommodate the trail and the trains. Street crossings at 7th and 9th Sts. would utilize a trail-user activated yellow flashing light and crosswalks.



Map M-Q – Rail with Trail Alternatives Eureka St. to 9th St.



Map M–Q – Rail with Trail Alternatives Eureka St. to 9th St.



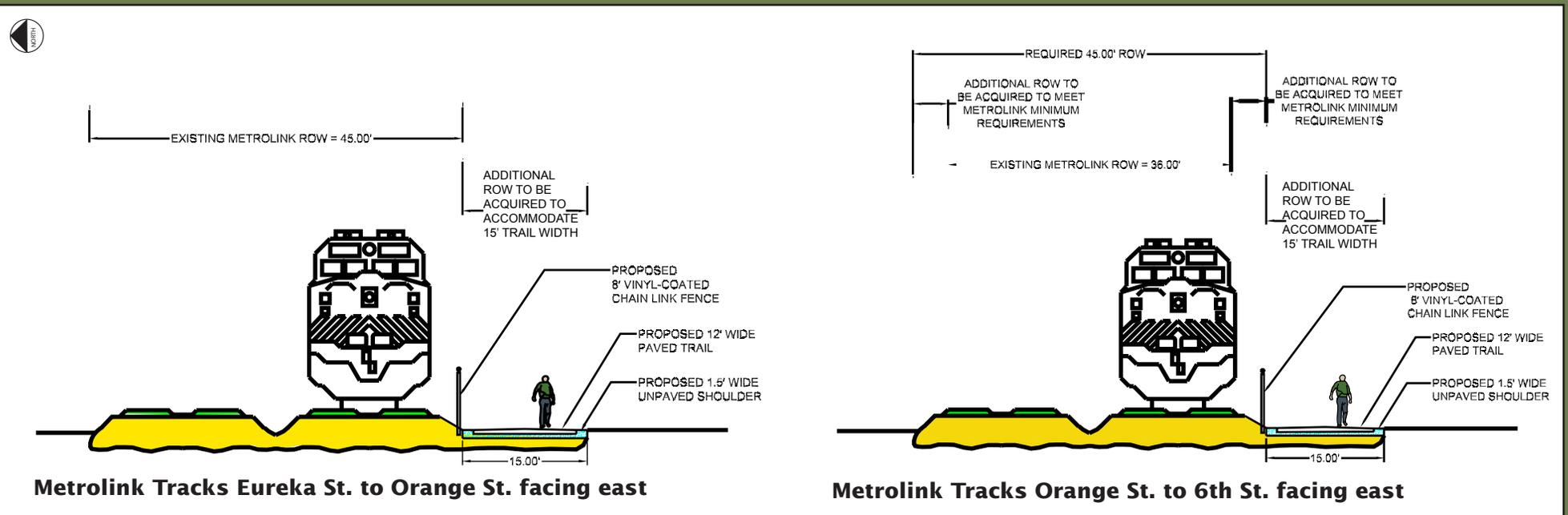
Metrolink tracks at Texas St. facing east



Metrolink tracks at Eureka St. facing west



Metrolink tracks at Eureka St. facing east



Map M-Q Orange Street Plaza Alternative Orange St. to 6th St.



Historic Redlands Railroad Depot at Orange St. facing east to Orange St.



Orange St. at Pearl Ave. facing south to Orange Street Plaza entrance



Orange St. entrance to Orange Street Plaza facing east toward pedestrian pass through



Orange St. entrance to Orange Street Plaza facing west from pedestrian pass through



Existing pedestrian pass through at Orange Street Plaza facing east toward 6th St.



Metrolink tracks east of Orange St. facing west along southern perimeter of Orange Street Plaza

Map M–Q – Rail with Trail Alternatives Eureka St. to 9th St.



6th St. at Metrolink tracks facing north



*Metrolink tracks at 6th St. facing west
along southern perimeter of Orange
Street Plaza*



Metrolink tracks at 6th St. facing east



*Metrolink tracks at 7th St. facing west
toward 6th St.*

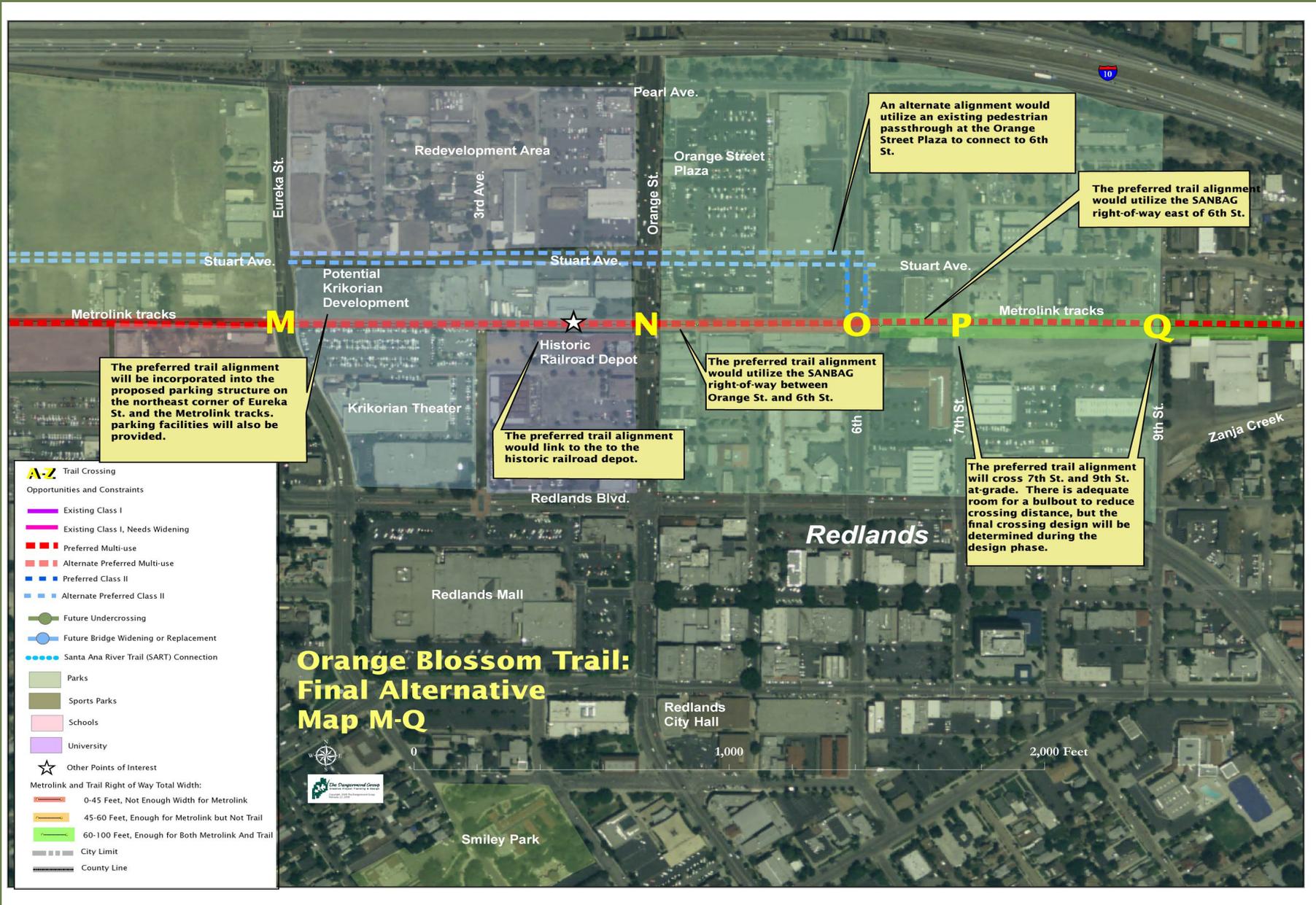


*Metrolink tracks at 7th St. facing east
toward 9th St.*



*Metrolink tracks at 9th St. facing west
toward 7th St.*

Map M-Q – Rail with Trail Alternatives Eureka St. to 9th St.





Map R-S – Trail – Creekside and Rails with Trails Alternatives 9th St. to University St.

There is adequate right of way along the anticipated Metrolink corridor for shared Metrolink and trail use from 9th St. east to University Ave. where the line is currently anticipated to end. Looking to the future, SANBAG also owns the right of way east/northeast to Nice Ave. and may extend the line at a future date, however, this portion of the SANBAG right of way continues to be adequate for joint Metrolink and trail use.

The trail would continue on the Metrolink right of way, crossing Church St. where a trail-user activated yellow flashing light with crosswalks would be utilized. Just east of Church St. the SANBAG right of way crosses over the Zanja Creek. The trail would bifurcate at this crossing and follow both the Creek to the northeast and the Metrolink tracks to the east.

Creekside Alignment

There is adequate room for the trail on the north bank of the Zanja Creek as it passes beneath I-10. East of the Freeway it would continue through Sylvan Park on the north side of the Creek. Restrooms, drinking fountains and picnic facilities are accessible at the park. To exit the Sylvan Park at University would require reworking the existing rock wall, and potentially removing two of the existing on-street parking spaces north of the trail on the west side of University Ave. to allow for street-crossing visibility. A trail-user activated yellow flashing light and crosswalks would be utilized at this location.

The University of Redlands expects to complete a Master Plan for the southern portion of the campus within the next couple of years. They anticipate enhancing the Zanja Creek and are enthusiastic about routing the trail along the Creek.

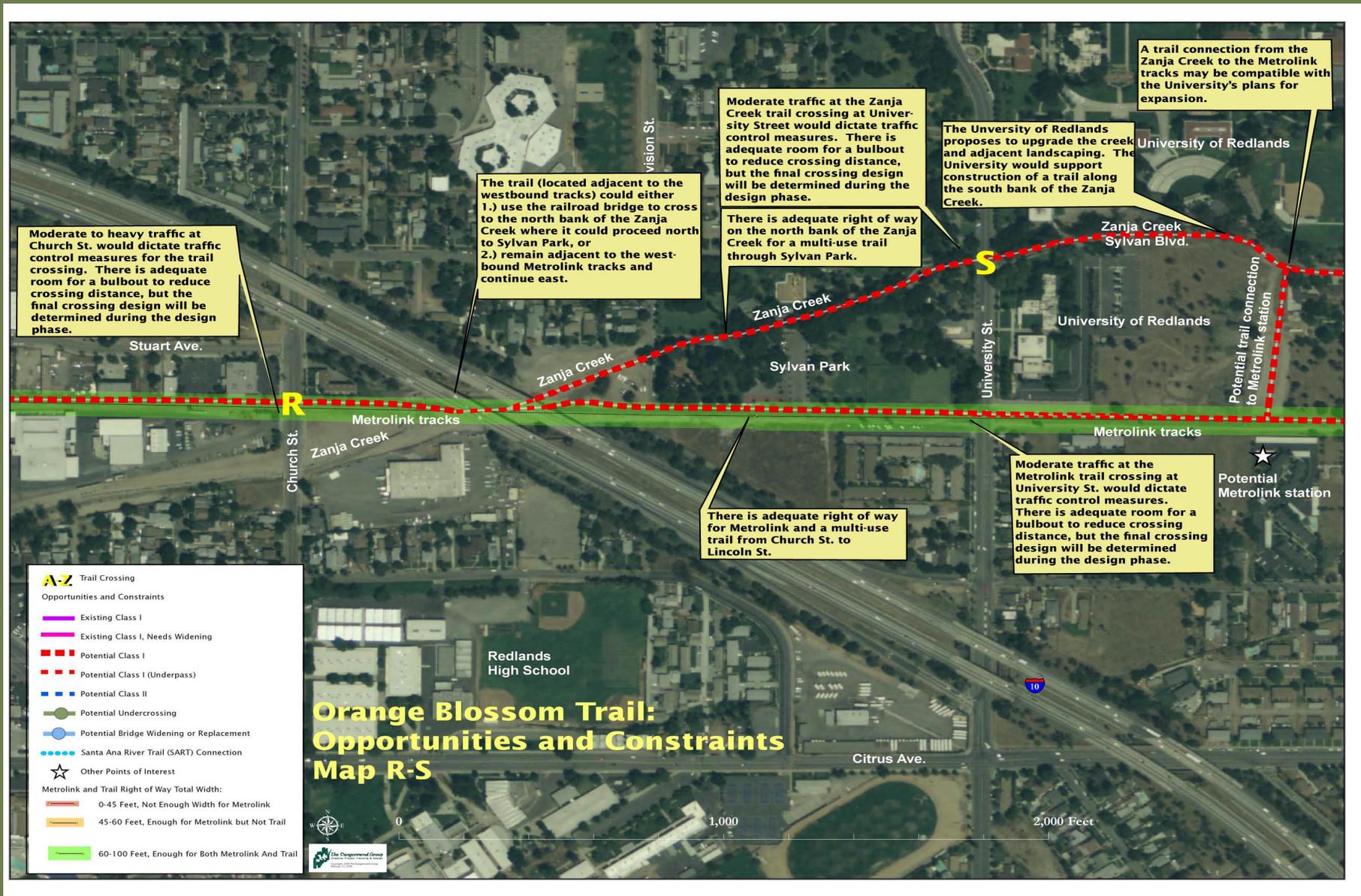
SANBAG anticipates that a Metrolink station will be located along the rail corridor in the vicinity of the University of Redlands campus. The exact location has not yet been determined. Several alternative connections have been identified pending a decision, including alternate routes through the southern portion of the campus and a Class II/III Bikeway and sidewalks along Grove St.

Rails with Trails Alignment

The Rails with Trails Alignment would be adjacent to the eastbound tracks from I-10 to the anticipated Metrolink station at the University of Redlands.



Map R-S – Rails with Trails and Zanja Creek Alternatives 9th St. to University St.



Map R-S – Rails with Trails and Zanja Creek Alternatives 9th St. to University St.



Metrolink tracks at 9th St. facing east toward Church St.



Metrolink tracks at Church St. facing west toward 9th St.



Intersection of Metrolink tracks and Zanja Creek between Church St. and I-10 facing east toward I-10



Metrolink tracks at I-10 facing east toward Sylvan Park



Metrolink tracks at Sylvan Park facing west toward Church St.



Sylvan Park facing southwest toward Sylvan Blvd. and I-10

Map R-S – Rails Trails and Zanja Creek Alternatives 9th St. to University St.



Sylvan Park at University St. facing north-east toward the University of Redlands

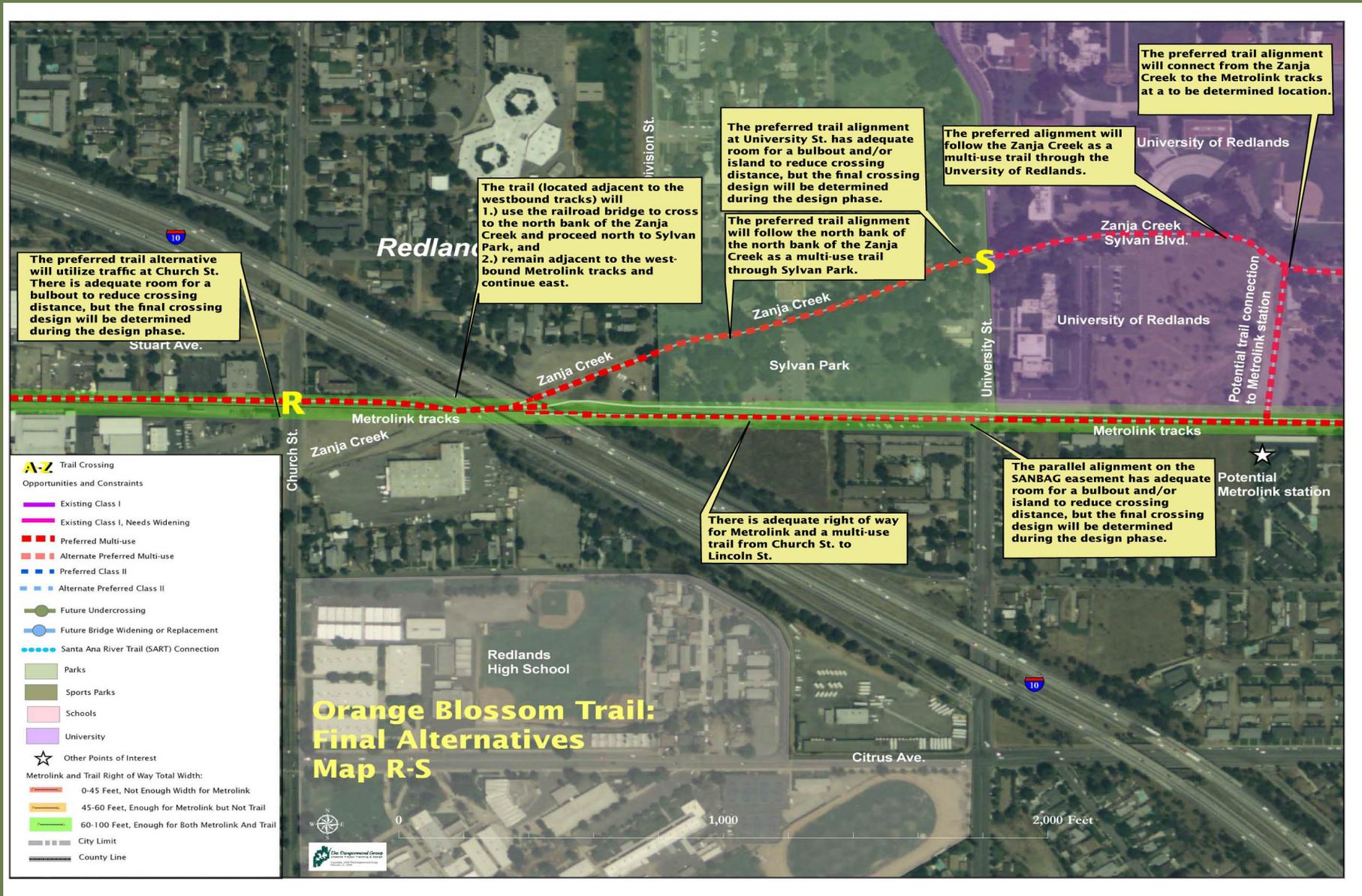


Entry to Sylvan Park at University St. facing north toward Colton Ave.



Entry to Sylvan Park at University St. facing south toward Metrolink tracks and I-10

Map R-S – Rails with Trails and Zanja Creek Alternatives 9th St. to University St.





Map T-V – Rails/Trails Alternative University St. to Lincoln St.

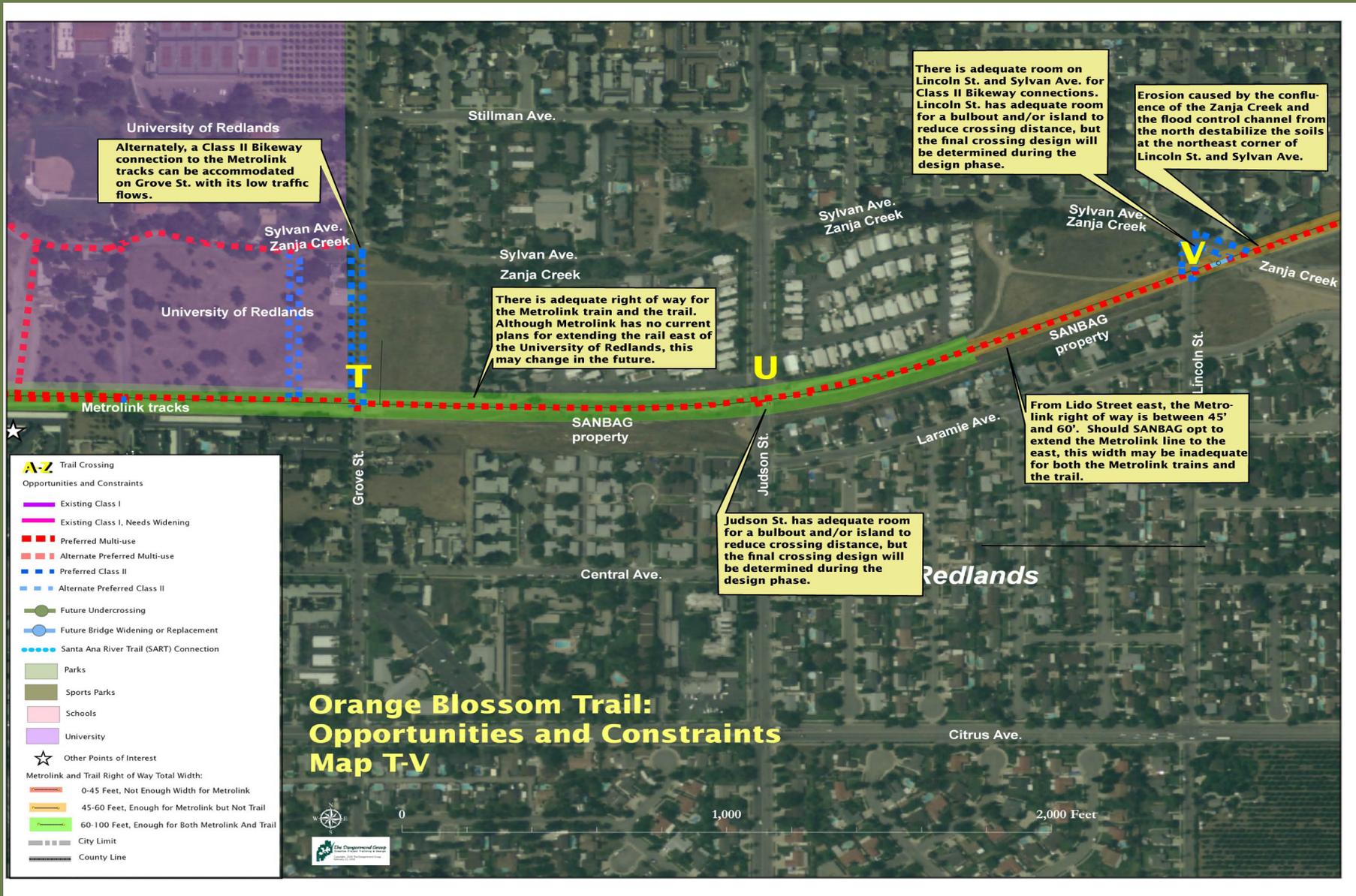
The Zanja Creek is adjacent to the westbound lane on Sylvan Ave. from Grove St. to Lincoln St. Sylvan Ave. does not provide adequate width for a Class II/II Bikeway, and the adjacency of the creek would make it difficult to widen the street.

However, from Grove St. to Lido St. the SANBAG right of way is adequate for both the train and the trail, should the rail line be extended east in the future. Beginning at Lido St. it narrows to forty-five to sixty feet and this may limit the allowable trail width. Between Grove St. and Lido St. the trail passes mobile home park. Given the ample SANBAG right of way, a landscape strip between the trail and the park would provide screening for both.

At Judson St. a trail-user activated yellow flashing light with crosswalks would moderate traffic at Judson St. when trail users are present.



Map T-V – Rails/Trails and Zanja Creek Alternatives University St. to Lincoln St.



Map T-V – Rails/Trails and Zanja Creek Alternatives University St. to Lincoln St.



Zanja Creek crossing beneath University St. at the University of Redlands facing west toward Sylvan Park



Zanja Creek along Sylvan Blvd. at the University of Redlands facing north west toward University St. and the main campus



Zanja Creek along Sylvan Blvd. the University of Redlands facing east toward Grove St.



Zanja Creek along Sylvan Blvd. at Grove St. where Sylvan Blvd. narrows - facing east



Abandoned rail corridor at Grove St. facing north toward Sylvan Blvd.



Abandoned rail corridor at Grove St. facing west

Map T-V – Rails/Trails and Zanja Creek Alternatives University St. to Lincoln St.



Abandoned rail corridor at Judson St. facing west toward Grove St.



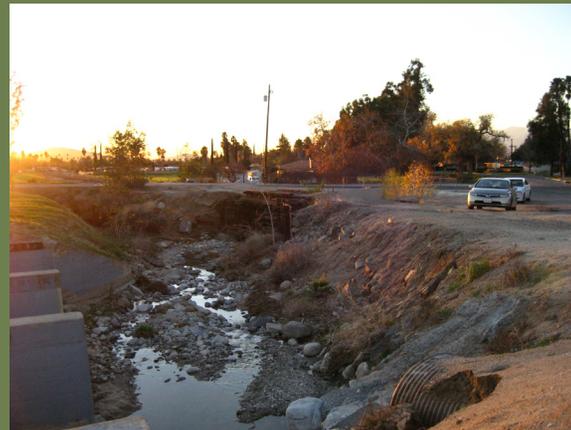
Abandoned rail corridor at Judson St. facing east toward Lincoln St.



Abandoned rail corridor at Lincoln St. facing west toward Judson St.



Zanja Creek and abandoned rail corridor crossing at intersection of Lincoln St. and Sylvan Blvd. facing east toward Sylvan Blvd.

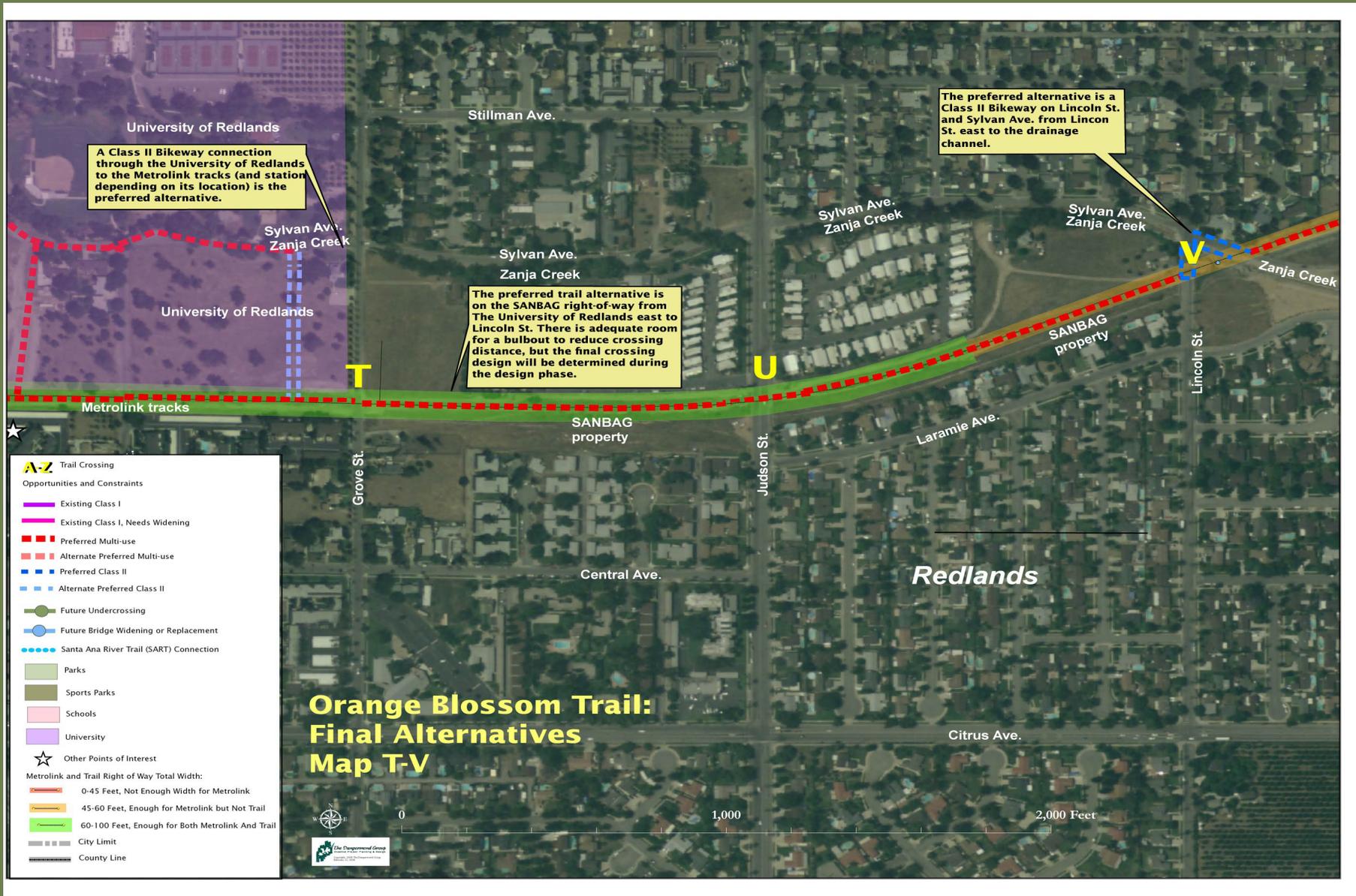


Confluence of Zanja Creek (center) and drainage channel inlet (Abandoned rail corridor crossing (on left) on right) approaching Lincoln St. - facing west



Confluence of Zanja Creek (distant center and foreground), drainage channel inlet (left) and abandoned corridor crossing (right) - facing east

Map T-V – Rails/Trails and Zanja Creek Alternatives University St. to Lincoln St.





Map W-X – Rails/Trails Alternative Lincoln St. to Wabash Ave.

Heading northeast the SANBAG right of way crosses the Zanja Creek just east of Lincoln St. and then aligns itself with a drainage channel from the northeast, which drains into the Zanja Creek at Lincoln St. The confluence of the Zanja Creek and the drainage channel has resulted in substantial erosion at the base of the old railroad piers, and is likely to continue to erode these structures. To avoid this problem area, the trail alignment would utilize a Class II/III Bikeway heading north on Lincoln St. and then east on Sylvan Ave., where the trail would revert to a multi-use trail and utilize the existing maintenance road on the south side of the drainage channel.

The northeast corner of the intersection of Lincoln Ave. provides two unique opportunities.

1. Three parcels at the northeastern corner of Lincoln St. and Laramie Ave. is owned by the City of Redlands. This presents an excellent opportunity to develop a natural park, providing limited facilities, such as trash receptacle, benches and shade trees.
2. Approximately one quarter mile east of Lincoln St. along the southern perimeter of the SANBAG easement there are several large parcels that are owned by the Southern Pacific Transportation Company. In particular some of these parcels create a linear strip along the southern perimeter of the SANBAG easement extending from Lincoln St. east to Crafton Park. A purchase of this strip would provide adequate room for a landscape barrier for the mobile home park east of Dearborn Ave.

At Dearborn St. a trail-user activated yellow flashing light with crosswalks would be provided for the trail.

Currently the Zanja Creek and the drainage channel overflow their banks during heavy rains, and flood the SANBAG right of way east of Lincoln St. The City of Redlands plans to create a detention basin along the drainage channel upstream, which will control the flooding within the next decade. The existing flooding is not anticipated to damage the proposed Orange Blossom rail, however, additional seasonal maintenance will be needed until the flooding is controlled.

There is adequate room for the trail to continue along the south side of the drainage channel east to Colton Ave., passing along the northern perimeter of Crafton Park. Restrooms and drinking fountains are easily accessible to trail users along the eastern perimeter of the park.





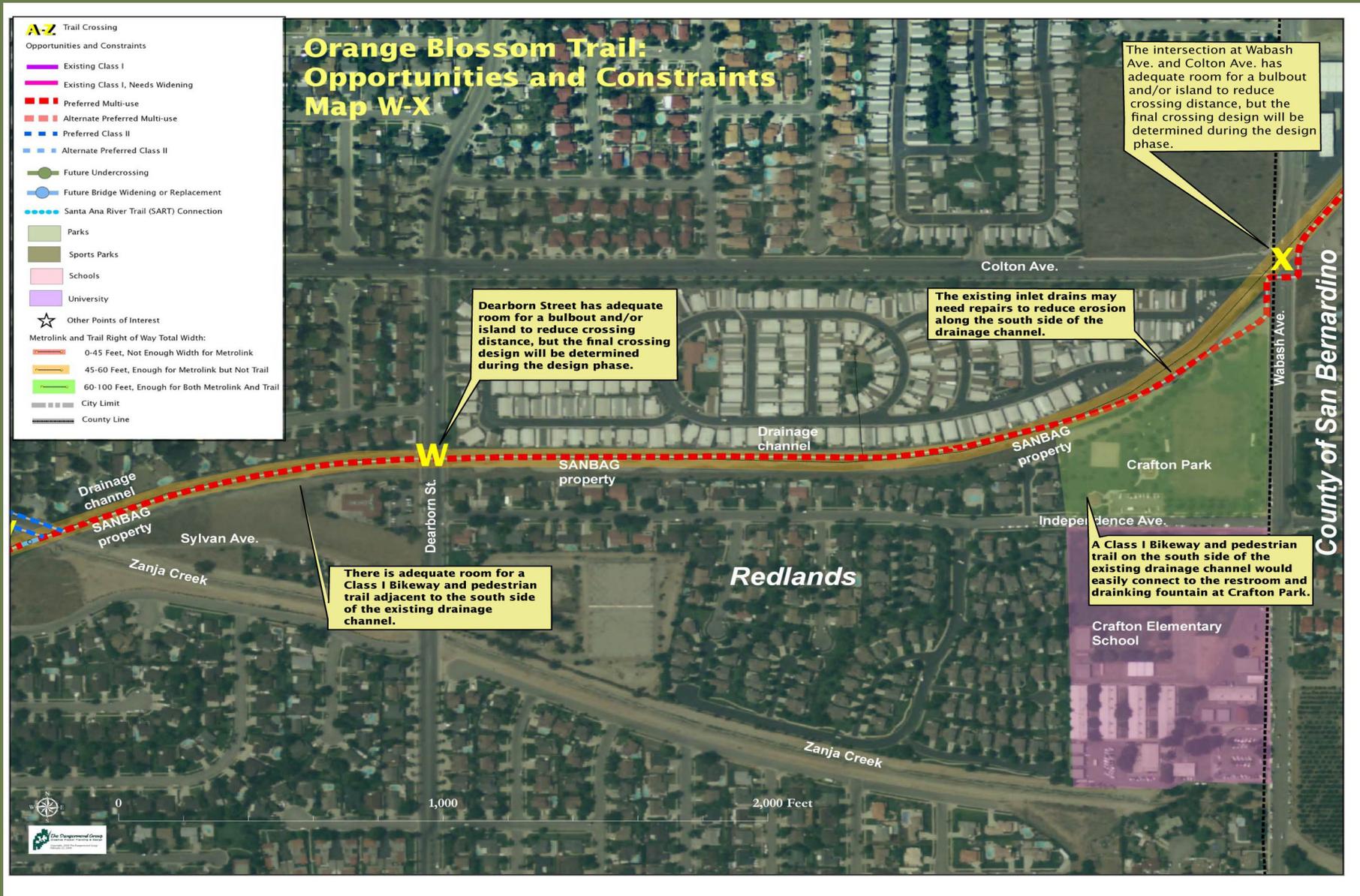
Map W-X – Rails/Trails Alternative Lincoln St. to Wabash Ave. (cont.)

Three drainage inlets which converge on the maintenance road have created erosion which will need to be addressed when constructing the trail, both short and long term.

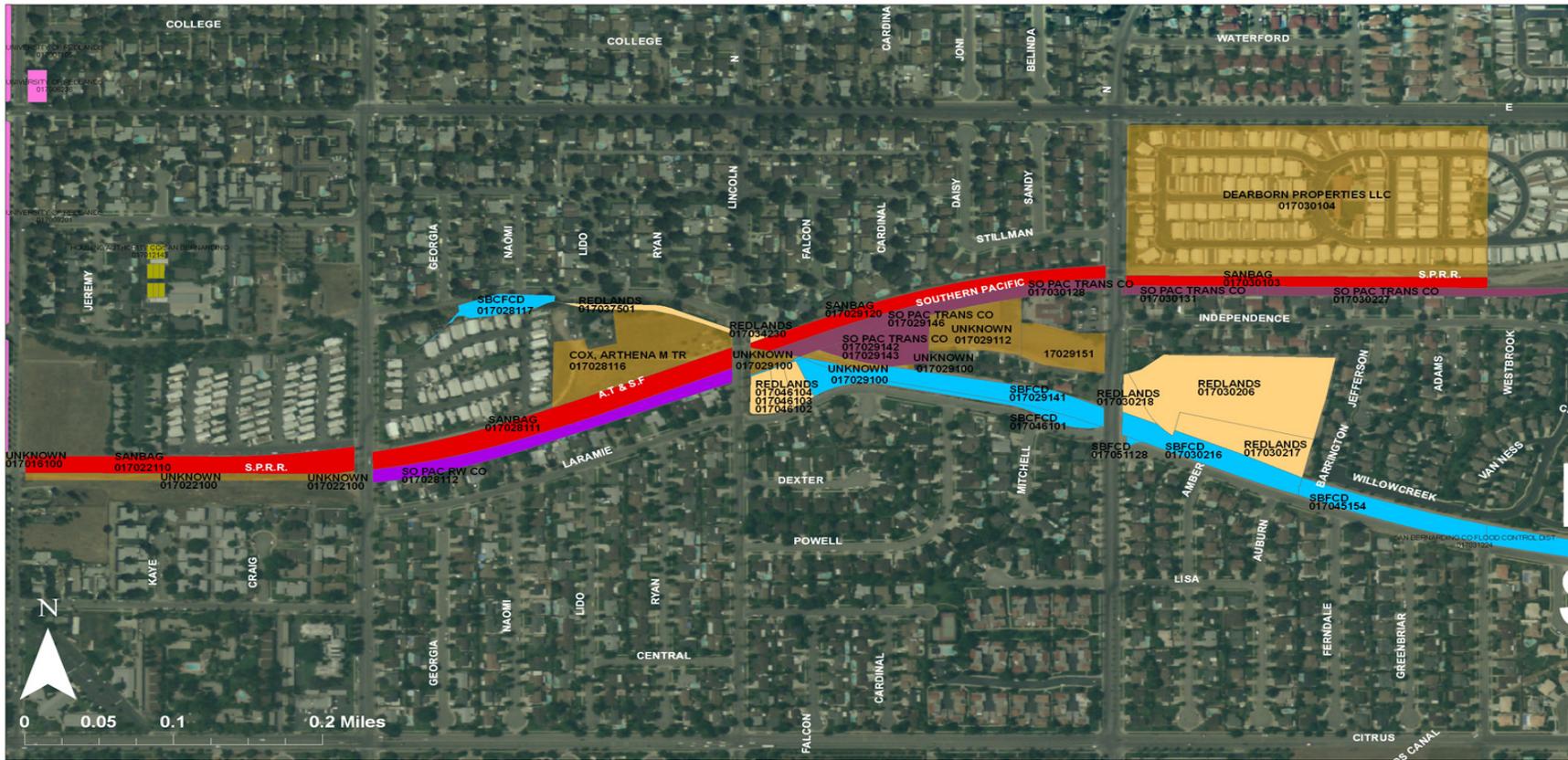
The drainage channel, and with it the maintenance road, cross the intersection of Colton Ave. and Wabash Ave. at a northeasterly bound diagonal. The trail user will need to cross both streets. Trail users will utilize existing crosswalks. In the future, if the intersection is signalized, a diagonal crosswalk can be created.



Map W-X – Rails/Trails and Drainage Channel Alternatives Lincoln St. to Wabash Ave.



Map T-V – Rails/Trails Right of Way and Adjacent Ownership Lincoln St. to Wabash



ORANGE BLOSSOM TRAIL PUBLIC OWNERSHIP ALONG POTENTIAL TRAIL ROUTE

Legend

Ownership Status

- | | | |
|----------------------------------|--------------------------------------|---|
| OWNERSHIP UNKNOWN | METROPOLITAN WATER DIST SO CALIF | SAN BERNARDINO COUNTY MUSEUM ASSN |
| ATCHISON TOPEKA & SANTA FE RR CO | REDLANDS UNIFIED SCHOOL DISTRICT | SAN BERNARDINO INTERNATIONAL AIRPORT |
| CITY OF LOMA LINDA | REDLANDS, CITY OF | SOUTHERN PACIFIC RAILROAD/RAILWAY CO |
| CITY OF REDLANDS | SAN BDNO VALLEY WATER CONSERV DIST | SOUTHERN PACIFIC TRANSPORTATION COMPANY |
| COUNTY OF SAN BERNARDINO | SAN BERNARDINO ASSOCIATED GOVERNMENT | UNION PACIFIC RAILROAD COMPANY |
| HOUSING AUTHORITY/REDEVELOPMENT | SAN BERNARDINO CO FLOOD CONTROL DIST | UNITED STATES OF AMERICA |
| LOMA LINDA UNIVERSITY | | UNIVERSITY OF REDLANDS |



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Map W-X – Rails/Trails and Drainage Channel Alternatives Lincoln St. to Wabash Ave.



Abandoned rail corridor and drainage channel at Dearborn St. facing west toward Lincoln St.



Abandoned rail corridor and drainage channel at Dearborn St. facing northeast toward Colton Ave.



Abandoned rail corridor and drainage channel east of Dearborn St. facing northeast toward Colton Ave.



Abandoned rail corridor and drainage channel along northern perimeter of Crafton Park facing west toward Dearborn St.



Drainage outlets along drainage channel north of Crafton Park creating erosion issues on existing maintenance road - facing east toward Wabash Ave.



Entry to Crafton Park from Independence Ave. facing north toward abandoned rail corridor and drainage channel

Map W-X – Rails/Trails and Drainage Channel Alternatives Lincoln St. to Wabash Ave.



Connection from proposed trail corridor along abandoned rail corridor and drainage channel to restroom at Crafton Park (far left) - facing south to Independence Ave.



Crafton Park at intersection of Colton Ave. and Wabash Ave. facing northeast



Abandoned rail corridor and drainage channel along northern perimeter of Crafton Park facing west toward Dearborn St.



Existing 4-way crosswalk street crossing at Colton Ave. and Wabash Ave. facing south

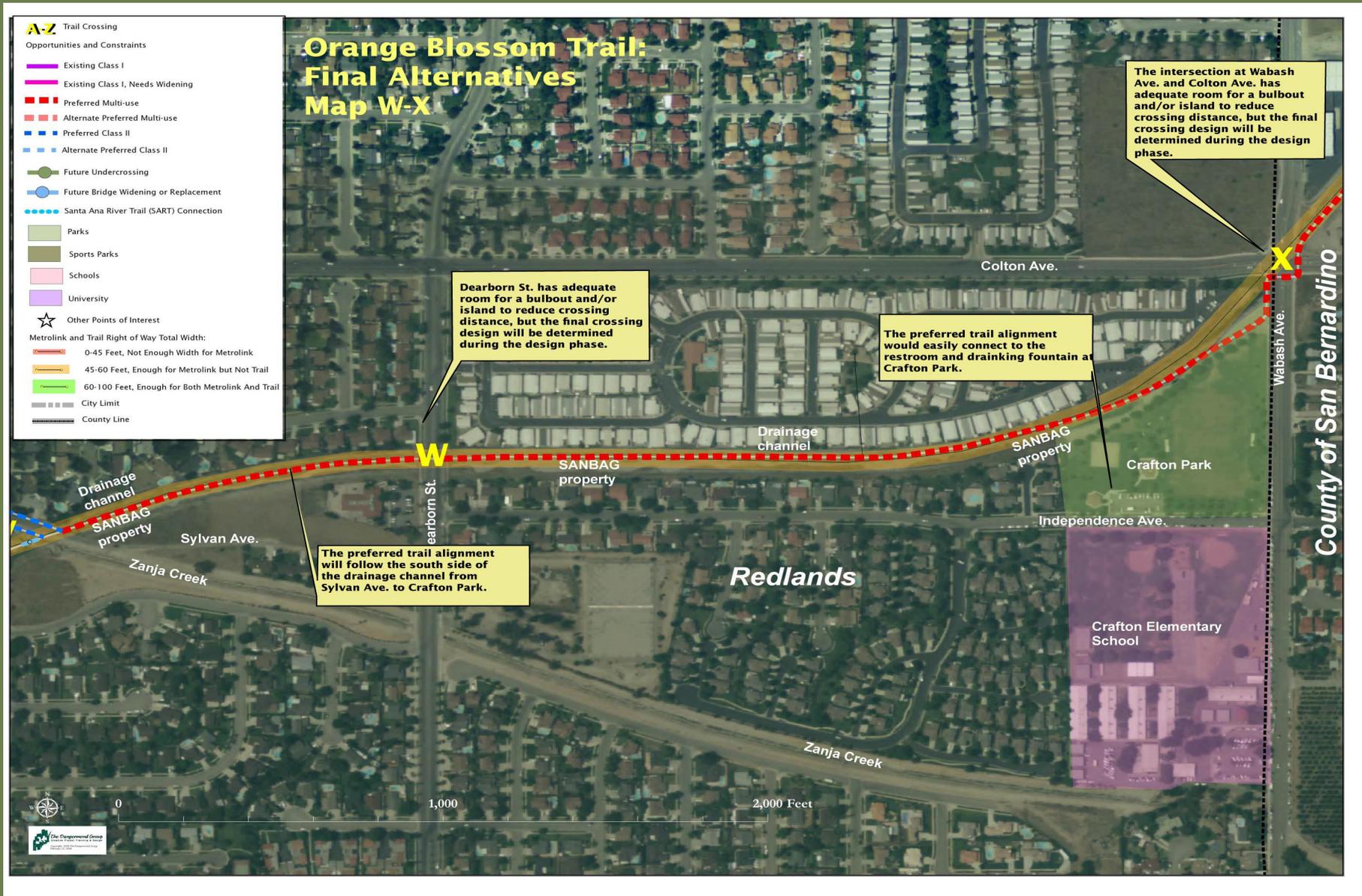


Intersection of Colton Ave. and Wabash Ave. with continuation of abandoned rail corridor and drainage channel diagonally across intersection to northeast



Continuation of abandoned rail corridor and drainage channel north east of Crafton Park facing northeast

Map W-X – Rails/Trails and Drainage Channel Alternatives Lincoln St. to Wabash Ave.





Map Y-Z – Rails/Trails Alternative Wabash Ave. to Opal Ave.

Metropolitan Water District (MWD) has purchased the abandoned rail corridor from Nice Ave. north to the river and installed a major pipeline. The pipeline corridor varies in width, but the minimum width is about two hundred feet wide. Discussions with MWD staff have verified that MWD is willing to work with the City of Redlands to create a trail on the pipeline corridor, however, due to security and water quality issues, an agreement outlining restrictions will need to be reached between MWD and the City of Redlands. The County of San Bernardino has completed an agreement with MWD for the Santa Ana River Trail corridor north of the Mentone Sr. Center/Library. It is recommended that the City of Redlands obtain a copy of that agreement to use as a basis for developing the agreement for the Orange Blossom Trail.

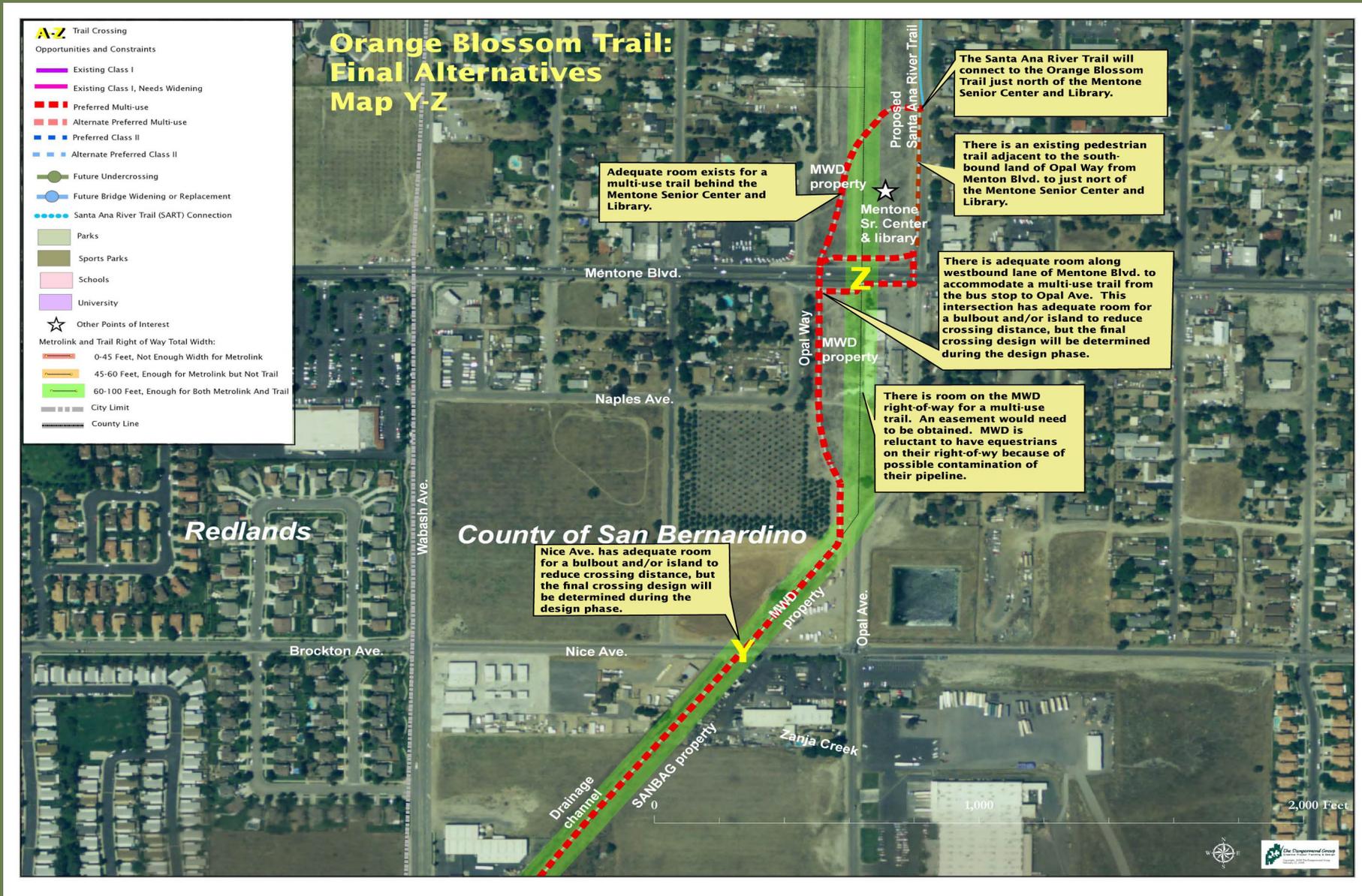
The MWD corridor crosses Mentone Blvd. about two hundred feet west of Opal Ave. An at-grade trail crossing at this location would be too close to the intersection.

The most ideal solution would be an overcrossing. There is adequate room both north and south of Mentone Blvd. to assure reasonable grades for the ramps leading to and from the overpass.

Alternatively, trail users would be diverted along the eastbound lane of traffic utilizing either a wide sidewalk or a two-way bicycle lane adjacent to the roadway, with a barrier to separate bicycles from motorized vehicles.



Map Y-Z – Rails/Trails and Zanja Creek Alternatives Wabash Ave. to Opal Ave.



Map Y-Z – Rails/Trails and Zanja Creek Alternatives Wabash Ave. to Opal Ave.



MWD easement at Nice Ave. facing south



MWD easement at Nice Ave. facing north



MWD easement north of Nice Ave. heading north to Mentone Blvd.



MWD easement at Mentone Blvd. facing south to Nice Ave.



MWD easement at Mentone Blvd. facing west

Map Y-Z – Rails/Trails and Zanja Creek Alternatives Wabash Ave. to Opal Ave.



Intersection of Opal Ave. and Wabash Ave. facing southwest toward MWD easement



Mentone Sr. Center/Library at the intersection of Opal Ave. and Wabash Ave. facing north toward the proposed Santa Ana River Trail

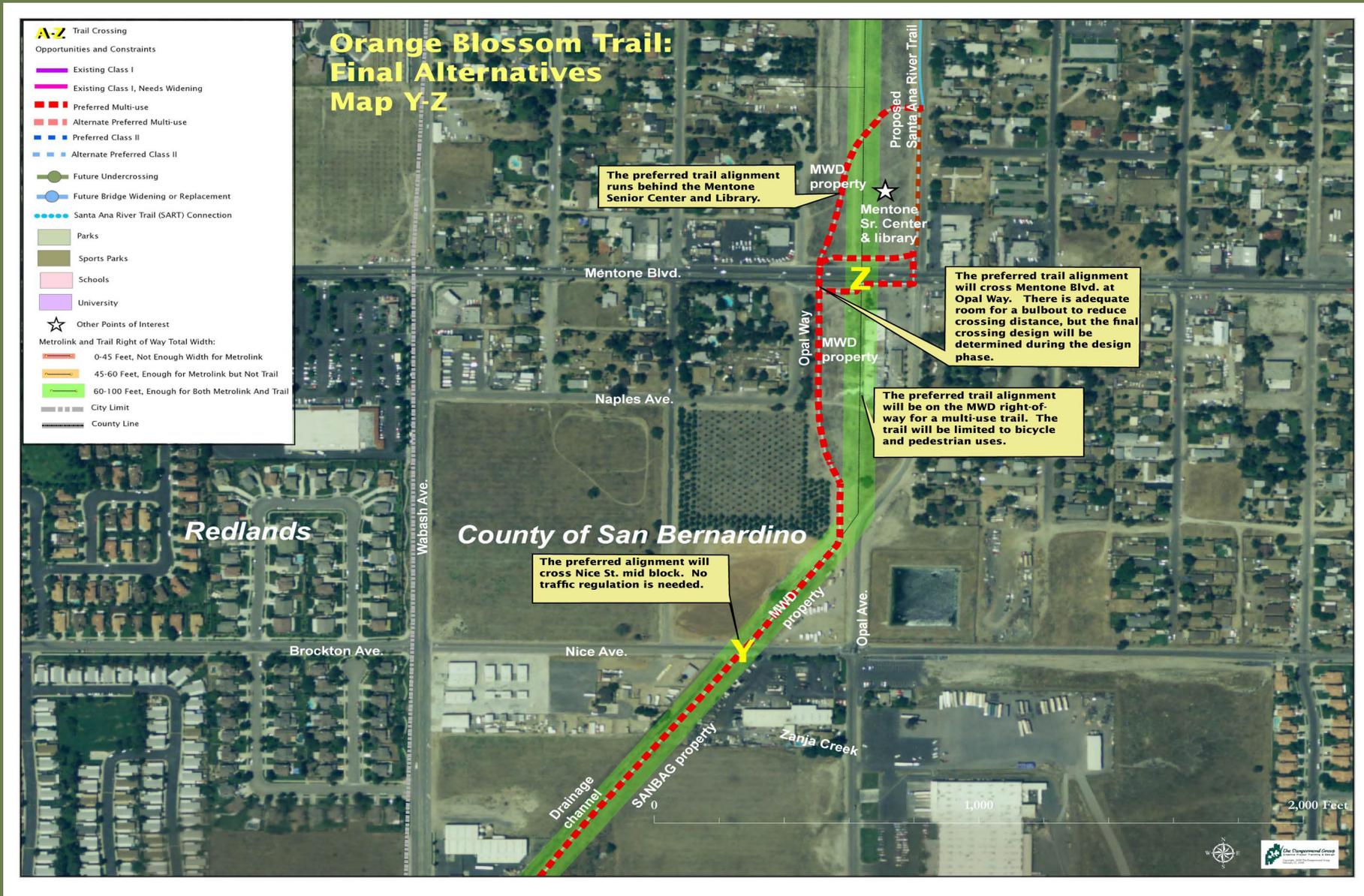


MWD easement running north/south behind the Mentone Sr. Center/Library facing northwest



Existing equestrian pathway at the Mentone Sr. Center/Library extending from the intersection of Opal Ave. and Mentone Blvd. north and terminating about 150 feet north of the the Sr. Center/Library

Map Y-Z – Rails/Trails and Zanja Creek Alternatives Wabash Ave. to Opal Ave.



Orange Blossom Trail Suggested Crossing Type

	Street Names	Trail Corridor Type	Street Type	Number of Lanes at Crossing	Street Orientation	Traffic Volumes Existing 1994	Traffic Volumes Buildout	Roadside Parking	Trail Type	Suggested Street Crossing Type
A	Mountain View Ave.	Tracks/Channel	Major Arterial	2	NS			no	Multi-use on south bank of Magnolia Channel; Class II Bikeway on Mountain View Ave.	Yellow flashing lights and crosswalks.
B	California St. Redlands Blvd.	Channel	Major Arterial Major Arterial	2 4	NS EW	4-7,000 20,000	22-58,000 34-39,000	east side	Multi-use on east bank of Magnolia Channel.	Interim: Existing signals. Long-term: Bicyclists use under-crossing, Pedestrians use proposed traffic signals and crosswalks.
C	Park Ave.	Channel	Collector	2	NS	3,000	3,000	yes	Multi-use on east bank of Magnolia Channel.	No traffic control.
D	New Jersey St.	Channel	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on south bank of Zanja Creek.	Yellow flashing lights and crosswalks.
E	Nevada St.	Channel	Minor Arterial	2	NS	1,000	11-18,000	no	Multi-use trail on south bank of Zanja Creek.	Divert traffic to existing crossing at intersection of Nevada St. and Citrus Ave.
F	Iowa St.	Channel	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on south bank of Zanja Creek.	Divert traffic to existing crossing at intersection of Iowa St. and Citrus Ave.



Orange Blossom Trail Suggested Crossing Type (cont.)

G	Alabama St.	Channel	Major Arterial	4	NS	13-21,000	16-37,000	east side no of creek	Multi-use trail on south bank of Zanja Creek.	Divert traffic to existing crossing at intersection of Alabama St. and Citrus Ave.
H	Kansas St.	Channel	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on south bank of Zanja Creek.	Yellow flashing lights and crosswalks.
I	Tennessee St.	Channel	Minor Arterial	4	NS	14,000	13-29,000	yes	Multi-use trail on south bank of Zanja Creek.	Yellow flashing lights and crosswalks, or Traffic signal and crosswalks.
J	New York St.	Channel	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on south bank of Zanja Creek.	Yellow flashing lights and crosswalks.
K	Redlands Blvd.	Neither	Major Arterial	4	EW	14-19,000	33,000	no	Multi-use trail on south bank of Zanja Creek.	Existing signals and crosswalks.
L	Texas St.	Channel	Collector	2	NS	???	???	yes	At Redlands Blvd., multi-use trail on south bank of Zanja Creek; At Metrolink tracks, multi-use on north side of Metrolink tracks.	At Redlands Blvd. use existing signals and crosswalks; At Metrolink tracks, coordinate crossing with SANBAG.
M	Eureka St.	Tracks	Minor Arterial	(2) 4????	NS	4,000	10,000	no	At Metrolink tracks, multi-use trail on north side of Metrolink tracks; At Stuart Ave. Class II Bikeway with pedestrians on sideswalks.	At Metrolink tracks, coordinate with SANBAG.; At Stuart Avenue use flashing yellow lights with existing crosswalks.

Orange Blossom Trail Suggested Crossing Type (cont.)

N	Orange St.	Tracks	Minor Arterial	4	NS	22,000	21,000	yes	At Metrolink tracks, multi-use on north side of Metrolink tracks; At Stuart Ave. Class II Bikeway with pedestrians on sidewalks.	At Metrolink tracks, coordinate with SANBAG.; At Stuart Avenue use existing traffic signal and crosswalks.
O	6th St.	Channel	Minor Arterial	2	NS	5,000	7-10,000	yes	At Stuart Avenue Class II Bikeway south to Metrolink tracks, pedestrians on sidewalks south to Metrolink tracks.	At Metrolink tracks, coordinate with SANBAG.; At Stuart Avenue bicyclists to use traffic lanes to access shopping plaza, pedestrians use sidewalk to access Metrolink tracks.
P	7th St.	Tracks	Minor Arterial	(2) 4????	NS	4,000	10,000	no	Multi-use trail on north side of Metrolink tracks.	At Metrolink tracks, coordinate with SANBAG.;
Q	9th St.	Tracks	Minor Arterial	4	NS	22,000	21,000	yes	Multi-use trail on north side of Metrolink tracks.	At Metrolink tracks, coordinate with SANBAG.;
R	Church St.	Tracks	Collector	4	NS	?????	?????	no	Multi-use trail on north side of Metrolink tracks or east and west sides of Church St.	Yellow flashing lights and crosswalks, or Traffic signal and crosswalks.

Orange Blossom Trail Suggested Crossing Type (cont.)

S	University St.	Tracks	Local Street	2	NS	3,000	3,000	yes	At Sylvan Park multi-use trail on north side of Zanja Creek; At Metrolink tracks, multi-use trail on north side of Metrolink tracks.	At Metrolink tracks, coordinate with SANBAG.; At Sylvan Park use flashing yellow lights with existing crosswalks.
T	Grove St.	Tracks	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on north side of Metrolink tracks east and west sides of Church St.	Yellow flashing lights and crosswalks, or Traffic signal and crosswalks.
U	Judson St.	Tracks	Collector	2	NS	???	???	yes	Multi-use trail on north side of Metrolink tracks.	Yellow flashing lights and crosswalks, or Traffic signal and crosswalks.
V	Lincoln St.	Tracks	Collector	3	NS	???	???	yes	Pedestrians use new sidewalk on west side of Lincoln St. north to Sylvan Ave. and on Sylvan Ave. east to drainage channel; Bicyclists use two-way bicycle lane on west side of Lincoln St.	Pedestrians and bicyclists use crosswalks at Sylvan Ave.
W	Dearborn St.	Tracks	Minor Arterial Minor Arterial	(2) 4???? (2) 4????	EW NS	2-6,000 2-6,000	5-9,000 3-9,000	no no	Multi-use trail on south side of drainage channel.	Yellow flashing lights and crosswalks, or Traffic signal and crosswalks.



Orange Blossom Trail Suggested Crossing Type (cont.)

X	Colton Ave. Wabash Ave.	Tracks	Local Street	2	EW	3,000	3,000	no	Multi-use trail on south side of drainage channel.	Use existing cross-walks, but add flashing yellow lights.
Y	Nice Ave.	Tracks	Minor Arterial	4	EW	8,000	10-19,000	north side	Multi-use trail on MWD easement.	No traffic control.
Z	Mentone Blvd.	Tracks/Channel	Local Street	2	NS	3,000	3,000	yes	Multi-use trail on MWD easement.	Tracks/Channel

