TO: HONORABLE CHAIRMAN AND PLANNING COMMISSION

FROM: RON WHISENAND, COMMUNITY DEVELOPMENT DIRECTOR

SUBJECT: CRESTON ROAD-ROLLING HILLS ROAD PLAN LINE

DATE: DECEMBER 11, 2007

Needs: For the Planning Commission to consider recommendation of a Plan Line to the City Council to establish right-of-way limits for future improvements to the intersection at Creston and Rolling Hills Roads.

Facts:

1. In 2005, the City received an application for a 118-unit multi-family residential development located at the northwest corner of Rolling Hills Road and Creston Road.

2. In consideration of the impacts of the project, the City Council retained Whitlock & Weinberger Transportation, Inc. (W-Trans) to provide recommendations for traffic controls in the intersection leading to the establishment of a plan line. In their scope of work, W-Trans analyzed the operational effectiveness of a traditional traffic signal versus the modern roundabout.

3. On July 12, 2007, W-Trans presented their findings at a community workshop held at the Daniel Lewis Middle School auditorium.

4. In 2005, the City Council retained URS Corporation to provide a study of the Creston Road corridor from South River Road to Lana Street. URS has provided draft alternatives for the future development of the corridor comparing a four-lane design with traditional traffic signals versus a two-lane road with a center turn lane. The two-lane alternative features the modern roundabout at many intersections, including the Creston Road intersection with Rolling Hills Road.

5. W-Trans has prepared a presentation for the Planning Commission regarding the alternative designs for the Rolling Hills-Creston Road intersection and the operational characteristics of the modern roundabout.

6. The establishment of a plan line is a project that is subject to the California Environmental Quality Act (CEQA). Attached is an Initial Study that concludes that this project will not have any significant effect on the environment and recommends that a Negative Declaration be approved. The Planning Commission is requested to accept any public comment on the proposed Negative Declaration and forward its recommendation to adopt a Negative Declaration to the City Council.

Analysis & Conclusion: W-Trans has prepared a report which evaluates the operational efficiency of a traffic signal versus the roundabout. They concluded that a roundabout at the Creston-

Rolling Hills Road intersection is not only feasible but is safer, more efficient and provides substantially better access for residents on Laura Way.

The goals applied to the conceptual design study were as follows:

- Design an intersection that has the capacity to accommodate future traffic growth under buildout of the General Plan.
- Provide access to Creston Road for residents on Laura Way.
- Provide a high level of traffic safety.
- Safely accommodate pedestrian and bicycle travel.
- Reduce drivers' speeds as they transition from the wider four lane Creston Road to the two-lane corridor west of Rolling Hills Road.
- Ensure that the largest City of Paso Robles fire engines and commercial trucks can comfortably negotiate the intersection.

The Planning Commission is asked to make a recommendation to the City Council to adopt a Plan Line for the intersection of Creston and Rolling Hills Roads. Adoption of a Plan Line does not set in motion the construction of the project. The Plan Line establishes the right-of-way needed for the future development of the intersection and therefore provides a boundary for the future developed area of adjacent properties.

Policy Reference: Municipal Code Section 11.04

Fiscal Impact: Adoption of a Plan Line does not have an immediate fiscal impact.

Options:

A. Adopt a Plan Line for the intersection of Creston and Rolling Hills Roads consistent with the W-Trans report dated September 15, 2006 recommending the modern roundabout.

B. Amend, modify, or reject the above option.

Attachments (3):
Report by W-Trans dated September 15, 2006
TRB Brochure
Resolution
Initial Study
Affidavits of Newspaper and Mail Notices for the Public Hearing

w-trans

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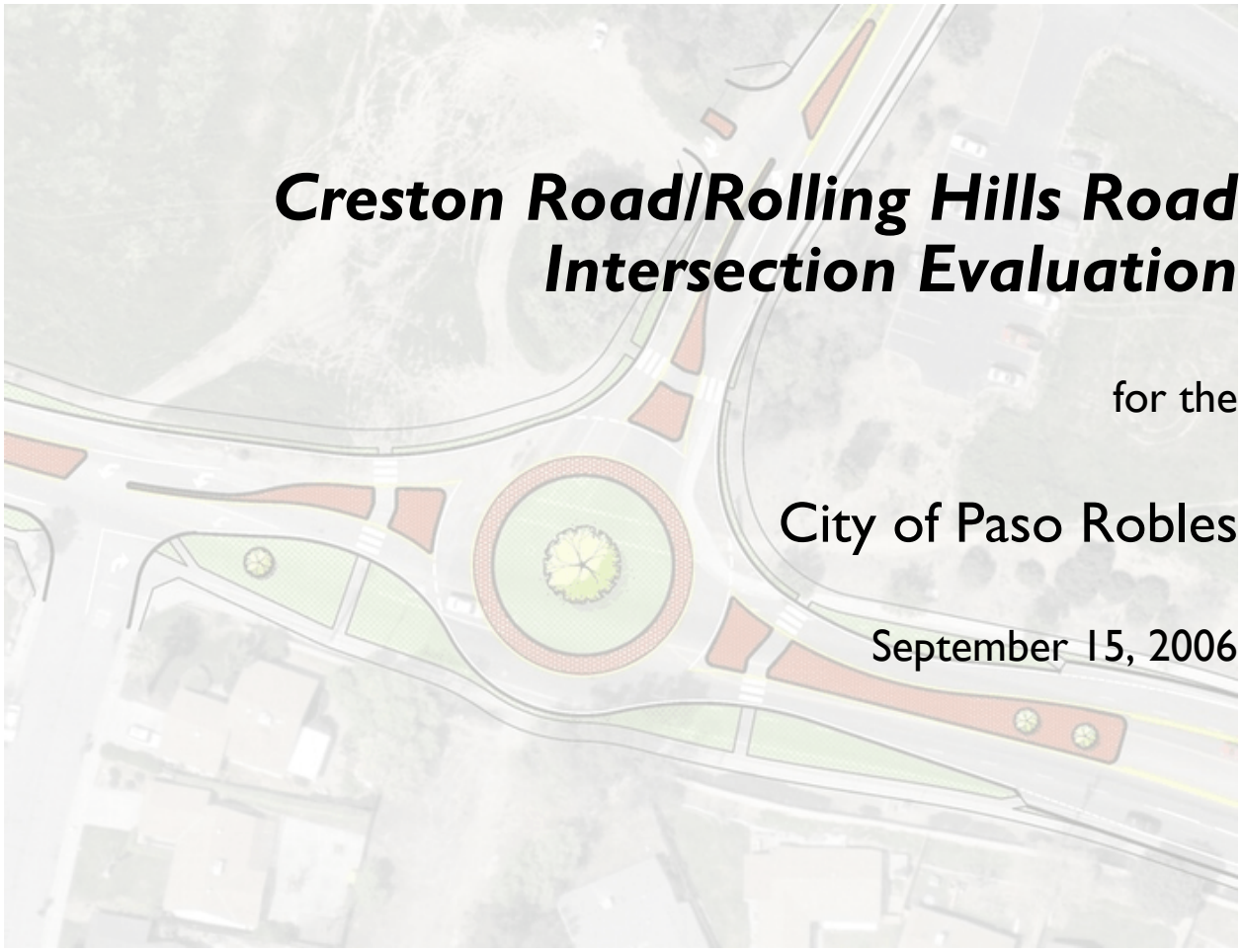

Creston Road/Rolling Hills Road Intersection Evaluation

for the

City of Paso Robles

September 15, 2006

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Introduction and Background

Introduction

The following report summarizes the findings of an intersection control study prepared for Creston Road/Rolling Hills Road in Paso Robles. Whitlock & Weinberger Transportation, Inc. (W-Trans), has evaluated the potential benefits and constraints associated with installing either a roundabout or a traffic signal at the intersection. This study considers the future potential configurations of the Creston Road corridor that are being evaluated by URS Corporation for the City in a separate study.

Initial conceptual designs have been prepared for both a roundabout and a traffic signal at the intersection. The report includes an analysis of the intersection operation with each type of traffic control, and indicates how each concept could affect adjacent properties. The report also includes a summary of the design features of the roundabout alternative, as well as some background information on roundabouts in general.

Project Goals

The goals applied to the comparative analysis and conceptual designs were as follows:

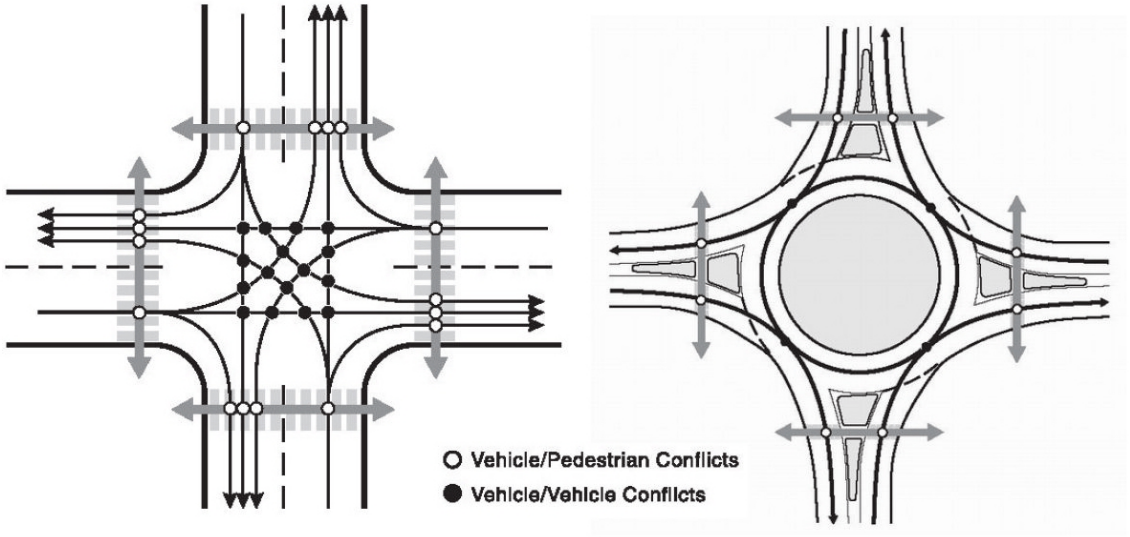
- Determine intersection configurations that have the capacity to accommodate traffic expected with future growth under buildout of the General Plan, including pedestrian and bicyclist traffic.
- Understand the long-range performance of each type of intersection control, including provision for expansion in the future, if needed.
- Evaluate the appropriateness of the intersection control in the context of the greater Creston Road corridor.
- Determine how access to adjacent streets and parcels could function in the future, including Laura Way, Melody Drive, and the currently-vacant parcel on the northwest corner of the intersection.
- Ensure that the largest City of Paso Robles fire engines can easily negotiate the intersection, and that the occasional large semi truck can be accommodated for through travel on Creston Road.

Background on Modern Roundabouts in the United States

Modern roundabouts are relatively new to the United States, though in the past several years their use has been growing rapidly as decision makers, the public, and the development community have come to realize their benefits. In March 2000 the Federal Highway Administration (FHWA) published *Roundabouts: An Informational Guide*, which provides design guidelines as well as discussions of the operational impacts of roundabouts. Following is a synthesis of the benefits typically associated with modern roundabouts based on discussion in the FHWA guide, as well as safety-related findings from the Insurance Institute for Highway Safety (IIHS) and National Cooperative Highway Research Program (NCHRP).

1. Safety – The IIHS has found that installation of modern roundabouts, on average, results in a 39 percent decrease in total crashes, 76 percent decreases in injury-producing crashes, and 90 percent decreases in fatal crashes. The IIHS also reports significant reductions in pedestrian-related incidents after roundabout installation. The NCHRP is currently conducting further research on the safety performance of roundabouts in the United States, and preliminary findings are similar to those indicated by the IIHS. The NCHRP has found that overall collisions decrease by 35 percent when intersections are converted to roundabouts, with a 76 percent decrease in injury-producing collisions.

There are multiple characteristics of roundabouts that lead to their notable safety performance. Perhaps the most influential are related to speed moderation and reduction in conflict points. Properly-designed roundabouts are configured to regulate all vehicle speeds to the 15-20 mph range, versus two-way stop-controlled or signalized intersections where drivers in one or more directions of travel may be traveling at significantly higher speeds. Collisions in roundabouts, when they do occur, are low-speed incidents that often result only in property damage. The most severe types of accidents, head-on and broadside, do not occur at roundabouts. Another major difference between roundabouts and other intersections is a substantial reduction in the number of potential conflict points, or locations where a collision can occur. At four-way intersections roundabouts have eight vehicle-to-vehicle conflict points versus 32 at a conventional intersection, and eight vehicle-to-pedestrian conflict points in comparison to 16. Diagrams showing conflict point locations are provided below.



Source: FHWA Roundabout Guide

2. Capacity and Delay Times – For a given approach width, roundabouts are capable of handling a higher volume of vehicles than other types of intersection controls. At many intersections, and in particular those that are all-way stop-controlled, roundabouts will have lower average vehicle delay and better Levels of Service.

3. Aesthetics and "Gateway" Effect – Roundabouts provide an excellent opportunity for landscaping and/or public art, and work well as transition points between higher-speed and lower-speed environments. Roundabouts also create "gateways" into urban areas that visually alert drivers that they are entering a different type of street environment.

4. Speed Moderation – Roundabouts are carefully designed to moderate traffic speeds through maneuverability restrictions, with all traffic flowing through the roundabout at design speeds of 15 to 20 miles per hour. This also results in moderated traffic speeds on the roundabout approaches and exits without creating the stop-and-start conditions associated with stop signs and traffic signals.

5. Fuel Consumption, Air Quality, and Energy – By reducing the amount of rapid acceleration and deceleration associated with other types of intersection controls, roundabouts typically cause vehicles

to consume less fuel and correspondingly lead to lower vehicle emissions. Roundabouts also use no electricity other than street lighting, and have a longer expected service life than signalized intersections.

6. U-turns – The ability to make U-turns is relatively easy and safe at roundabout-controlled intersections. This can facilitate parking circulation, and can improve access from driveways along adjacent street segments where left turns are difficult or prohibited.

Traffic Projections Background

Existing and future traffic volumes for the intersection were obtained from two sources. The primary source was the *Creston Road Plan Line - Draft Traffic Report*, April 17, 2006, Associated Traffic Engineers (ATE). Project-added traffic volumes for the proposed project on the northwest corner of the intersection were then added to the ATE report's future volumes. The project-related volumes were obtained from *Traffic Impact Report for Rolling Hills Property,* May 4, 2006, Orosz Engineering Group, Inc.

The applied existing and future traffic volumes are shown in Figure 1.

Collision History

The collision history for the Creston Road/Rolling Hills Road intersection was reviewed. The average annual collision rate was calculated based on records for the 5-year period between 2000 and 2004 obtained through the California Highway Patrol and published in their Statewide Integrated Traffic Records System (SWITRS) reports. It was determined that there were six reported collisions related to the intersection during this time, which translates to an average collision rate of approximately 0.32 collisions per million vehicles entering the intersection (c/mve). The average statewide collision rate for a suburban "tee" intersection with stop controls is 0.19 c/mve. Based on this information, it appears that the collision experience at the intersection is higher than that experienced at similar types of intersections on state highways in California. Two of the collisions were broadsides involving right-of-way violations, two were rear-ends involving drivers traveling at unsafe speeds, one involved a driver turning improperly and injuring a bicyclist, and one was a DUI. It is likely that installation of a roundabout or traffic signal would reduce the potential for broadside collisions. In addition, a roundabout would potentially reduce the potential for speed-related collisions.

Creston Road/Rolling Hills Road Intersection Evaluation

City of Paso Robles

Figure 1

Existing and Future Traffic Volumes

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Intersection Performance

Existing Traffic Control

View of existing intersection

The Creston Road/Rolling Hills Road intersection is currently controlled by a STOP sign on the southbound Rolling Hills Road approach. Rolling Hills Road is a two-lane road near the intersection, though it does include a short 50-foot left turn pocket at the Creston Road intersection. Creston Road includes two through lanes in each direction to the east of the intersection, and one through lane in each direction to the west. A center two-way left-turn lane (TWLTL) exists on Creston Road through the study area where dedicated turn pockets are not striped. Based on these geometric conditions and current traffic volumes, the intersection is currently operating acceptably at LOS D during peak hours on the stop-controlled approach. Operating conditions can be expected to deteriorate to an unacceptable LOS F as traffic increases in the vicinity.

Roundabout Performance

Geometric Configuration

Evaluation of conditions with the future 2025 traffic volumes indicates that a single-lane roundabout would work well at the intersection. Because the ultimate configuration for the surrounding Creston Road corridor has not yet been finalized, however, consideration was given to how a single-lane roundabout would fit into an overall five-lane wide corridor scheme. Based on traffic volume threshold guidelines and input from the Creston Road corridor analysis consultant team, City Staff determined that the roundabout should be able to be expanded to accommodate dual through lanes in each direction on Creston Road, if needed in the future.

The desire to construct a single-lane roundabout that can be expanded to dual lanes in the future begs the question, "why not just construct the dual-lane roundabout in the first place?" There are several drawbacks of building a multi-lane roundabout when a single-lane would suffice. Paramount of these is the ability to moderate vehicle speeds. Speeds can more easily be regulated at a single-lane roundabout through design. Speed regulation is also possible at multi-lane roundabouts, though when these intersections have excessive capacity (in other words, insufficient traffic compared to the capacity), the "fastest-path" curves that drivers can negotiate is too high. Some of the benefits that roundabouts provide, such as lower corridor speeds and superior safety performance, are lost.

The roundabout-specific analysis and modeling conducted by W-Trans indicates that a single-lane roundabout would work acceptably at the intersection well beyond 2025. For the purposes of the comparative analysis between a roundabout and traffic signal, it was assumed that a single-lane roundabout would remain in place through 2025. The conceptual design prepared for analysis would accommodate future expansion if ever needed. Further descriptions of the roundabout's sizing and positioning under single-lane and dual-lane conditions are provided in the "Roundabout Design Details" section of this report.

Level of Service

Intersection operating conditions with a roundabout were determined using the aaSIDRA roundabout analysis tool, which was also used to determine an appropriate geometric configuration for the roundabout, and updated iteratively to reflect the conceptual design ultimately prepared. The roundabout concept is shown in Figure 2.

The Creston Road/Rolling Hills Road intersection is projected to operate acceptably at LOS A in the short-term with a roundabout, and at LOS A to B in the future.

Queuing

When considering any type of intersection control it is important to understand the potential effects of queuing, or stacking, created as drivers wait to proceed through the intersection. Peak queues should typically not extend into adjacent intersections, particularly adjacent intersections controlled by a traffic signal or roundabout.

The future 2025 95th percentile roundabout queues at Creston Road/Rolling Hills Road are projected to have no adverse impacts on adjacent intersections. The longest queues would occur on eastbound Creston Road, extending approximately 330 feet during the p.m. peak hour. Queues on westbound Creston Road would extend approximately 240 feet; not into the adjacent Melody Drive intersection.

A summary of the roundabout level of service and queuing calculations is presented in Table 1. Copies of the calculations are provided in Appendix A.

JOB NO. PR0004	DRAWN: ZM CHECKED: SW	REVISIONS:	DATE: 8/23/2006	CRESTON/ROLLING HILLS INTERSECTION EVALUATION CITY OF PASO ROBLES FIGURE 2 ROUNDABOUT CONCEPT	w-trans Whitlock & Weinberger Transportation, Inc. 490 Mendocino Avenue, Suite 201 Santa Rosa, CA 95401 (707) 542-9500 Fax: (707) 542-9590

Table 1
Summary of Roundabout Level of Service and Queuing Calculations

	AM Peak Hour			PM Peak Hour		
	Delay	**LOS**	**Queue**	**Delay**	**LOS**	**Queue**
Existing Volumes						
Overall Intersection Operation	**6.2**	**A**	**-**	**6.2**	**A**	**-**
Southbound Rolling Hills Road	*8.8*	*A*	*70*	*7.8*	*A*	*57*
Eastbound Creston Road	*5.5*	*A*	*131*	*5.7*	*A*	*171*
Westbound Creston Road	*6.2*	*A*	*127*	*6.3*	*A*	*96*
Future Volumes						
Overall Intersection Operation	**7.7**	**A**	**-**	**7.1**	**A**	**-**
Southbound Rolling Hills Road	*13.7*	*B*	*144*	*10.4*	*B*	*101*
Eastbound Creston Road	*5.7*	*A*	*189*	*5.7*	*A*	*328*
Westbound Creston Road	*7.4*	*A*	*236*	*7.8*	*A*	*213*

Notes: Delay is measured in average seconds per vehicle, LOS = Level of Service
Queue is measured in feet and represents the 95th percentile stacking distance
Westbound queue calculations assume equal use of westbound lanes

Performance with a Traffic Signal

Geometric Configuration

From a level of service perspective, acceptable operation at the Creston Road/Rolling Hills Road intersection would be achievable under signalized conditions in 2025 with few changes to the current lane configuration. From a queuing perspective, however, signalization of the intersection with the current lanes could result in 700-foot long queues on westbound Creston Road and through the Melody Drive intersection unless additional capacity was created. It was determined that Creston Road would require two westbound lanes extending through the Rolling Hills Road intersection, merging to a single lane approximately 200 feet to the west. The left turn lane on southbound Rolling Hills Road would also need to be lengthened from the existing 40 feet to about 150 feet. Right turn overlap signal phasing would be needed on the southbound approach. A bulbout could be installed on the northwest intersection corner to shorten pedestrian crossing distances, assuming that on-street parking is provided along the north side of Creston Road. A conceptual layout for a signalized intersection is shown in Figure 3.

Level of Service and Queuing

With the traffic signal and configuration shown in the concept, the intersection would be expected to operate acceptably at LOS B in 2025, with little to no adverse queuing impact. As shown in Table 2, a traffic signal would be expected to operate with average peak hour delays that are slightly longer than with a roundabout. Levels of service would be acceptable in the LOS A to B range with either form of intersection

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REVISIONS:
DATE: 9/12/2006

CRESTON/ROLLING HILLS INTERSECTION EVALUATION
CITY OF PASO ROBLES

FIGURE 3
SIGNAL CONCEPT

w-trans
Whitlock & Weinberger Transportation, Inc.
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control. The 95th percentile queues on the individual approaches would generally extend a greater distance with a traffic signal than with a roundabout. Note that roundabout queues tend to be a constant, slow-moving line of vehicles versus a stopped group of vehicles such as those created at signals.

Table 2
Summary of Traffic Signal LOS and Queuing
and Comparison to Roundabout

	Roundabout	Traffic Signal
Future AM Peak Hour	**LOS A (7.7 sec)**	**LOS B (13.5 sec)**
Southbound Rolling Hills Road	144	325
Eastbound Creston Road	189	300
Westbound Creston Road	236	240
Future PM Peak Hour	**LOS A (7.1 sec)**	**LOS B (12.2 sec)**
Southbound Rolling Hills Road	101	275
Eastbound Creston Road	328	325
Westbound Creston Road	213	225

Notes: Delay is measured in average seconds per vehicle, LOS = Level of Service
Queue is measured in feet and represents the 95th percentile stacking distance
Signal results reflect lane with the longest queue
Westbound signal queue assumes 80% outer lane utilization due to downstream merge

Fuel Consumption and Emissions Comparison

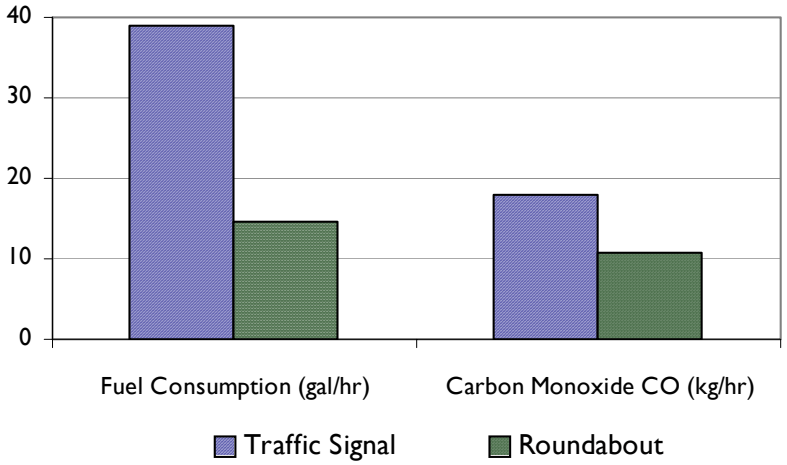
Because roundabouts are typically characterized by vehicles moving at low, relatively constant speeds on all approaches to an intersection, less overall fuel consumption and air pollution is created than at signals, where there is a significant amount of stop-and-start activity. The aaSIDRA application includes analyses that facilitate comparison of fuel consumption and emissions at intersections. A comparison of roundabout versus signal characteristics at the Creston Road/Rolling Hills Road intersection indicates that fuel consumption would be approximately 62 percent lower with a roundabout, and carbon monoxide production approximately 56 percent lower. A summary of the fuel consumption and emission findings is shown in Table 3 and Figure 4.

Table 3
Future PM Peak Hour
Comparison of Fuel Consumption and Emissions

	Traffic Signal	Roundabout
Fuel Consumption (gal/hr)	38.9	14.7 (-62%)
Hydrocarbon Production HC (kg/hr)	18.03	10.72 (-41%)
Carbon Monoxide Production CO (kg/hr)	0.55	0.24 (-56%)
Nitrogen Oxides NO_X (kg/hr)	0.72	0.30 (-59%)
Carbon Dioxide CO_2 (kg/hr)	368.3	139.7 (-62%)

Note: Results obtained using aaSIDRA application

Figure 4
Comparison of
Fuel Consumption and Carbon Monoxide Production



Comparison of Required Right-of-Way

Construction of a traffic signal would require right-of-way acquisition along the north side of Creston Road, to the east of Rolling Hills Road, along the frontage of the proposed townhome project. This additional space would be required to construct a second westbound lane and merge/transition to a single lane, and would also accommodate an on-street bicycle lane and on-street parking. The additional right-of-way would consume approximately 9,150 square feet of the adjoining parcel.

The right-of-way needs for a roundabout are more complex. In order to allow for a multi-lane roundabout to be constructed in the future if needed, right-of-way would need to be acquired from parcels on both the northeast and northwest corners of the intersection. Land on the northeast corner is part the Williams

Plaza shopping center, though the area needed is part of an open space area that will remain free of any structures or parking areas integral to the development. Land on the northwest corner and along the north side of Creston Road is currently vacant though there is an active development application for a townhome residential development.

Approximately 3,300 square feet of land would need to be acquired from Williams Plaza in order to accommodate a multi-lane roundabout. Approximately 12,460 square feet of land on the northwest corner of the Creston Road/Rolling Hills Road intersection and along the north frontage of Creston Road would also be required. It is assumed that on-street parking would be provided along the north side of Creston Road adjacent to the proposed townhome development.

The right-of-way acquisition areas required for a roundabout and traffic signal are shown and compared on Figure 5.

Cost Estimates

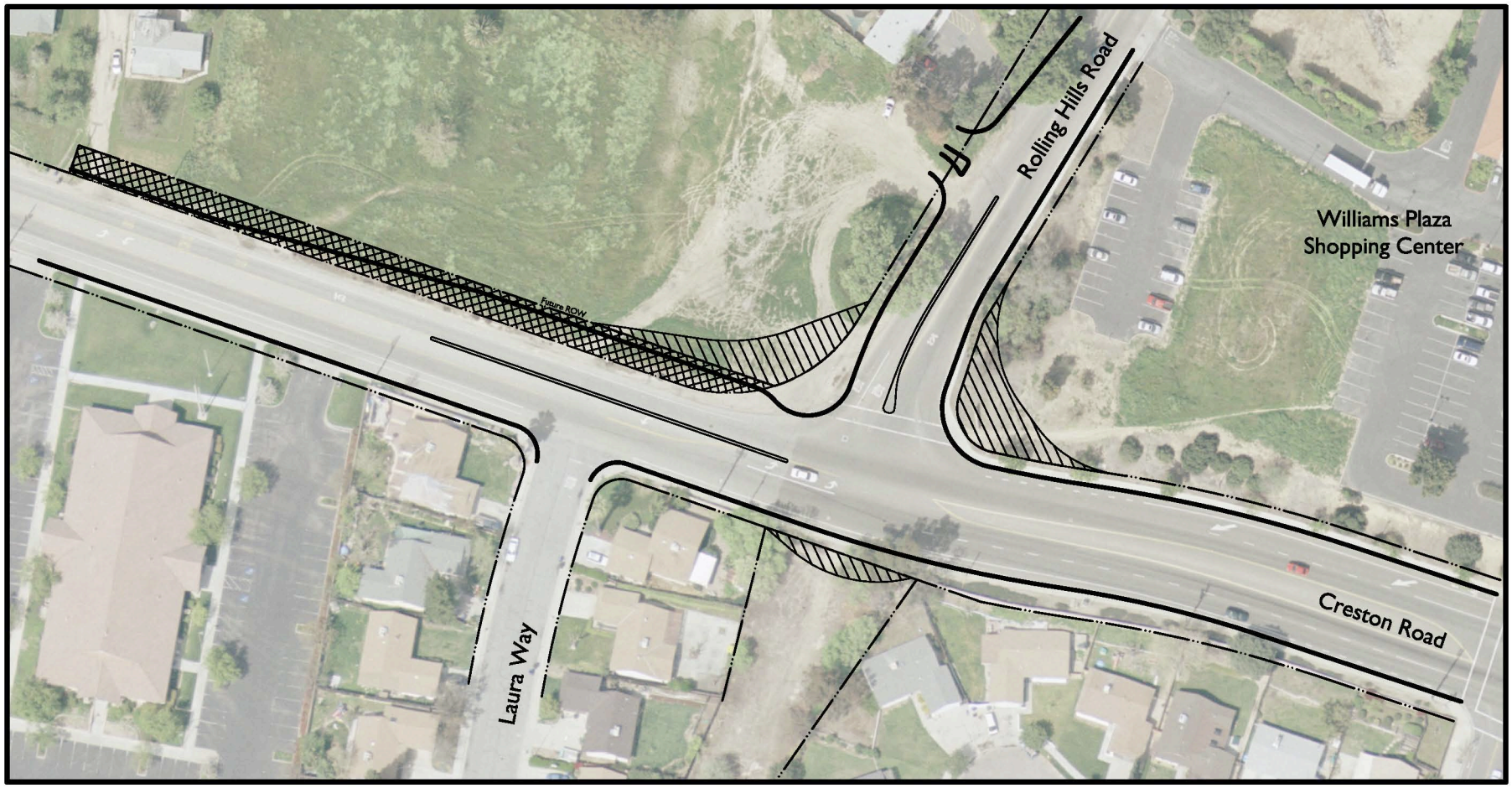
Engineering opinions of probable costs were developed for the conceptual roundabout and signal designs. The estimated cost for construction of the roundabout is approximately $1.43 million. Construction of a signalized intersection is estimated to cost approximately $1.06 million. The major cost components that lead to a higher cost for the roundabout are 1) the need to moderately realign the Creston Road approaches to regulate vehicle speeds and enhance safety; and 2) costs associated with pavement removal and installation of landscaping. Note that neither estimate includes right-of-way acquisition. The cost estimate summaries are provided in Appendix B.

Near- and Long-Term Conditions at Melody Drive Intersection

The current draft of the Creston Road corridor plan envisions future changes at the signalized Melody Drive intersection, which is 360 feet east of Rolling Hills Road. Upon installation of roundabouts at Rolling Hills Road and Golden Hills Road, the traffic signal at Melody Drive would be removed and a raised median installed to block left turn movements. This change would improve operation of the corridor by eliminating left-turn movements and the distance between primary intersections, would allow the existing roadway to be narrowed, and would be expected to improve safety. The change would also result in minimal impacts to drivers since u-turns would be easily accommodated by the adjacent roundabouts to the east and west.

The potential changes to the Melody Drive intersection may not take place for several years. Because of this, it is important to consider the potential near-term queuing conditions that could occur upon changes to traffic control at the Rolling Hills Road intersection. A roundabout or traffic signal at Rolling Hills Road should not create a westbound queue that extends through the Melody Drive intersection, nor should the Melody Drive signal create eastbound queues that extend to Rolling Hills Road.

Based on the queuing analysis performed and concept designs developed for the intersection, it appears that adverse queuing conditions would not occur in the near-term upon installation of either a roundabout or traffic signal at Rolling Hills Road. As traffic volumes increase on the Creston Road corridor, however, it is possible that peak westbound queues at the Rolling Hills Road roundabout or signal could extend through the Melody Drive intersection. The key 95th percentile queuing distances at the two intersections are shown in Table 4. The queues are shown graphically in Figure 6.



Approximate Right of Way Acquisition Needs

Area needed with either a signal or roundabout

Additional area needed only for roundabout

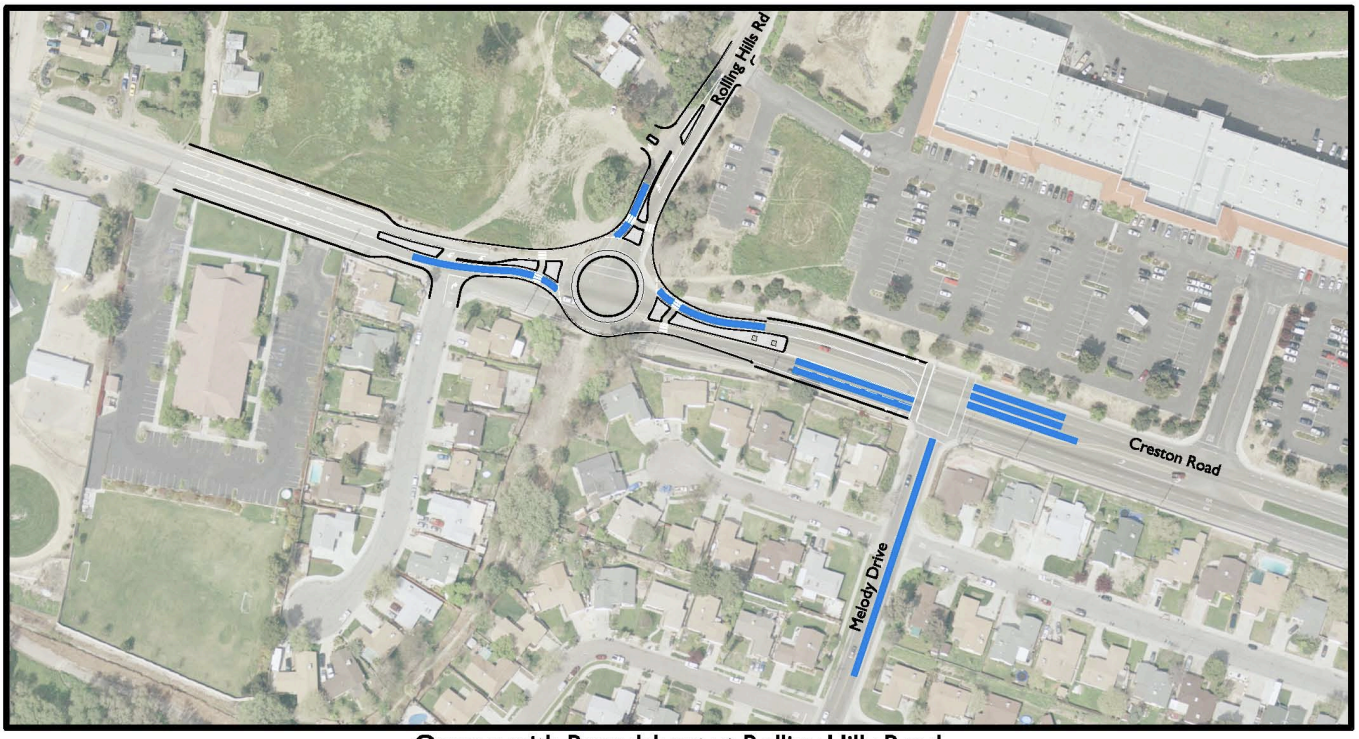
Creston Road/Rolling Hills Road Intersection Evaluation

Figure 5

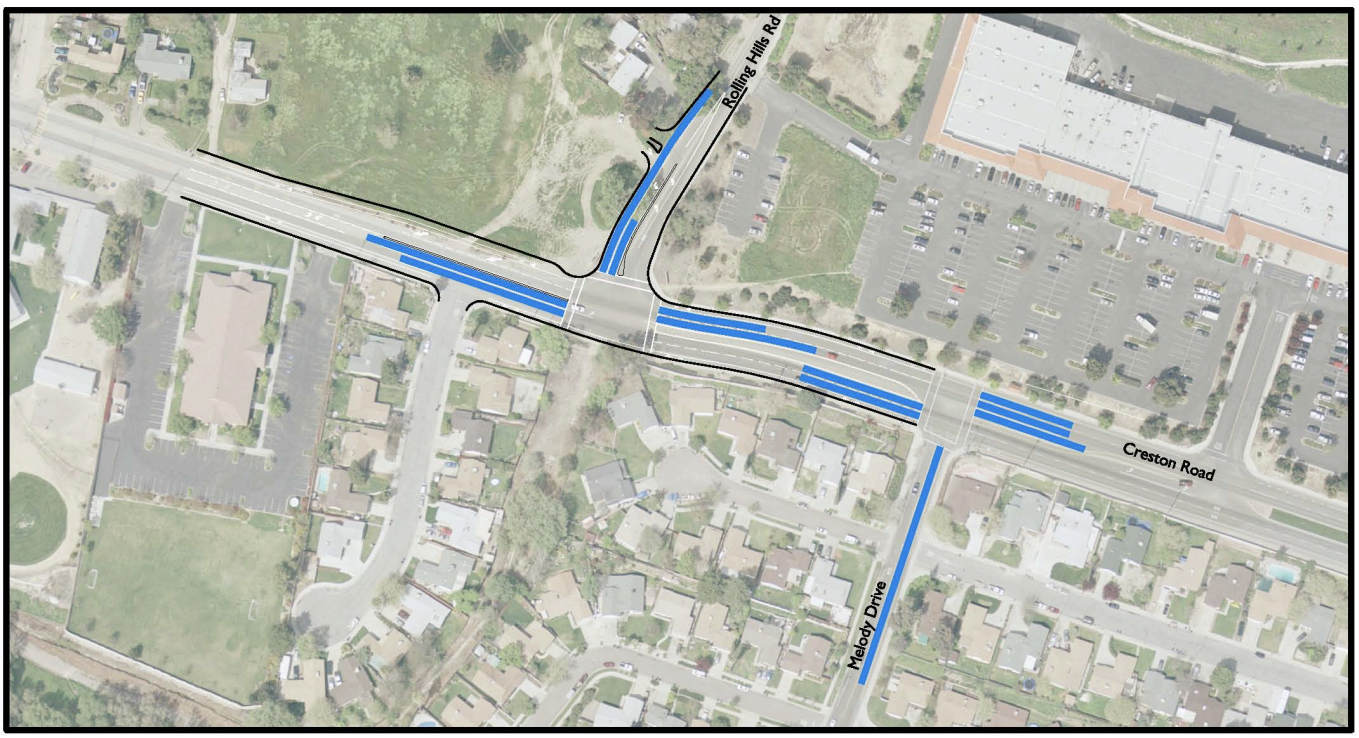
City of Paso Robles

Signal-Roundabout Right of Way Comparison

September 2006



Queues with Roundabout at Rolling Hills Road



Queues with Signal at Rolling Hills Road

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95th Percentile Queue

Creston Road/Rolling Hills Road Intersection Evaluation — Figure 6

City of Paso Robles — Near-Term 95th Percentile Queues

September 2006

Table 4
Near-Term Queuing Conditions at Melody Drive Intersection

	Rolling Hills Road Westbound Queue		Melody Drive Eastbound Queue
	Roundabout	Traffic Signal	Traffic Signal
AM Peak Hour	236	240	163
PM Peak Hour	213	225	163

Notes: Queue is measured in feet and represents the 95th percentile stacking distance

Compatibility with Creston Road Corridor Plan

The Creston Road corridor plan currently envisions roundabouts as the primary form of intersection control. Roundabouts provide high capacity at intersections while allowing connecting road segments to have fewer lanes. In contrast to signals, roundabouts do not require turn pockets or additional lanes at intersections. Providing roundabouts at key intersections also permits the installation of raised medians to restrict left-turn movements at minor intersections, with the diverted left turns becoming safer u-turns at adjacent roundabouts.

If the Creston Road corridor were to rely long-term on signals versus roundabouts, it is projected that a five-lane roadway section would be required between River Road and Golden Hills Road. With roundabouts a narrower three-lane section would suffice. In addition to facilitating a narrower roadway section on Creston Road, a corridor with roundabouts also helps to moderate vehicle speeds much more than a corridor with signals. This is a particularly appealing safety benefit since the corridor passes through residential areas and serves adjacent schools.

Maintaining Access to Laura Way and Northwest Parcel

Laura Way is a 16-home cul-de-sac located 150 feet west of the Rolling Hills Road intersection. The proximity of the Laura Way and Rolling Hills Road intersections presents operational and safety concerns regardless of what types of intersection controls exist. A similar issue would be present on Rolling Hills Road, where future development of the parcel on the northwest corner of the intersection would likely include a major access point between 130-150 feet north of Creston Road.

Outbound Left Turns

Based on a review of projected traffic volumes, it was determined that outbound left turn movements should be prohibited from both Laura Way and any future driveway access on Rolling Hills Road once a roundabout or signal is installed. With a roundabout at Creston Road/Rolling Hills Road, both of these restrictions would result in minimal driver inconvenience, as a u-turn could be made at the roundabout. U-Turns would *not* be possible at a traffic signal, however, due to inadequate turning radii and the need to include right-turn overlap signal phasing on southbound Rolling Hills Road. Drivers would need to alter their routes moderately in order to reach their destination.

Inbound Left Turns

With a roundabout, sufficient space would exist to create a 50-foot long left turn pocket on Creston Road at Laura Way, and a 75-foot long left turn pocket on Rolling Hills Road to serve the northwest parcel. Though provision of turn lanes this close to an intersection is undesirable, there are several factors that make it an acceptable compromise, given the lack of other available access points. With a roundabout, drivers using the short left turn lanes need to cross only a single lane of slow-moving opposing traffic. As long as outbound left turns are prohibited as recommended, there would also be no other conflicting vehicle movements. Because single-lane roundabout queues (when they exist) are constantly moving at low speeds, drivers in the queue are also generally willing to let opposing left-turn movements occur, since there is little to no time penalty associated with doing so.

Inbound left turns at Laura Way could be eliminated entirely in the future if another roundabout is built within a half mile to the west on Creston Road, since drivers could simply make a u-turn at the next intersection.

Under signalized conditions, an inbound left turn movement could be also provided to the northwest parcel's future access as long as a 125-foot long left turn pocket is constructed on Rolling Hills Road. It would be advisable to install "KEEP CLEAR" pavement legends on southbound Rolling Hills Road at this driveway to maintain a break in peak hour queues. At Laura Way, however, inbound left turn movements would need to be prohibited because of safety and operational constraints, and a raised median installed to block the left turn access.

Overall circulation upon development of the northwest parcel could be improved by creating a major right-turn-in/right-turn-out access from the project onto Creston Road. By doing this, the number of inbound left turns and outbound right turns onto Rolling Hills Road would be reduced, decreasing the frequency of driveway conflicts close to the intersection. Creating another major access point on Creston Road would create minimal impacts to through traffic on the corridor as long as the access is restricted to right turns.

Overall Comparison

A summary of the key performance comparisons between a roundabout and traffic signal are shown in Table 5.

Table 5
Overall Comparison of Roundabout versus Traffic Signal

	Traffic Signal	Roundabout
Level of Service (LOS) with existing traffic	LOS A	LOS A
Level of Service (LOS) with 2025 traffic	LOS B	LOS A
Average delay per vehicle in 2025	12.2 seconds	7.1 seconds
Vehicle Queuing in 2025 (combined approaches)	825 feet	642 feet
Vehicle Fuel consumption	38.9 gallons per hour	14.7 gallons per hour
Air Emissions (average of HC, CO, NO_X, CO_2)	-	59% lower than signal
Needed Right of Way Acquisition	0.21 acre	0.36 acre
Expected Safety Performance	-	48% fewer total collisions 78% fewer injury collisions
Potential for near-term queuing problems between Rolling Hills and Melody Drive	no	no
Conforms to Creston Road Corridor Plan	no	yes
Facilitates inbound left turns at Laura Way	no	yes
Facilitates inbound left turns to northwest parcel	yes	yes
Driver inconvenience with restricted outbound left turns at Laura Way and Northwest Parcel	moderate	minimal
Estimated Cost	$1,057,000	$1,427,000

Notes: All quantitative measures are based on 2025 p.m. peak hour traffic conditions.

Design Elements

Roundabouts have geometric elements that are unique among traffic control devices. The combination of various design elements must be customized to each roundabout intersection, and specifically configured to achieve the desired balance of safety, capacity, and speed regulation. A diagram showing the terminology associated with each component of a roundabout is provided in Figure 7. Dimensions of the conceptual roundabout at Creston Road/Rolling Hills Road are shown in Figure 8.

Size and Positioning

In the initial design phase, various diameters and placement of the inscribed circle were examined. Single-lane roundabouts are considered to have an optimal balance of speed control, capacity, and mobility at

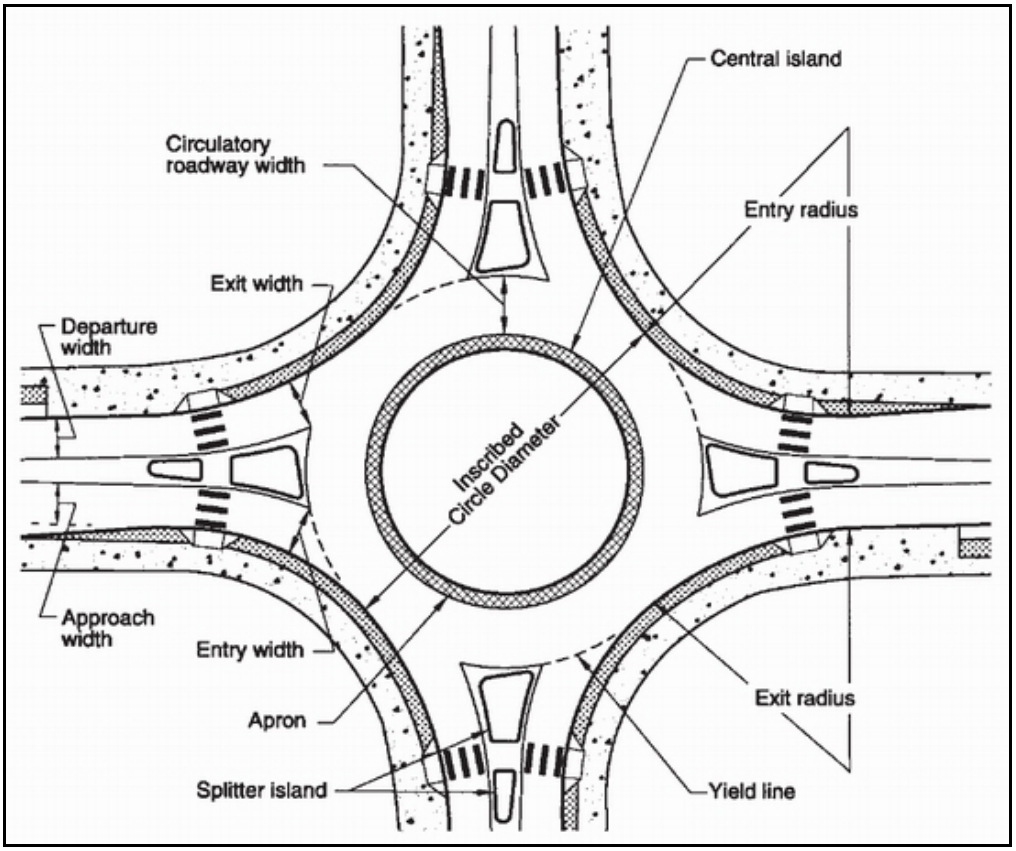
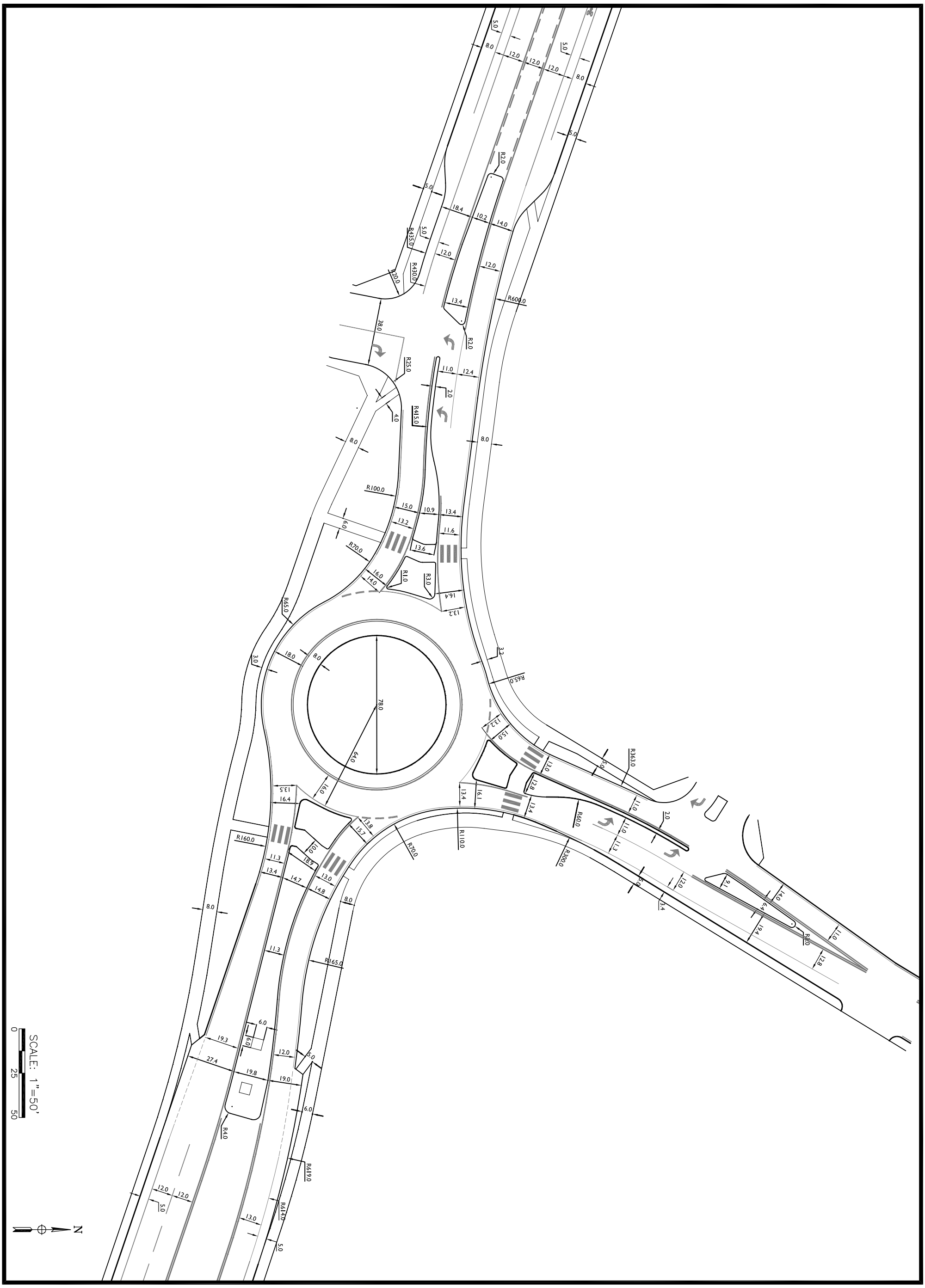


Figure 7 - Roundabout Design Elements *(Source: FHWA Roundabout Guide)*

inscribed diameters of approximately 120 feet. The current concept uses a diameter of 130 feet, which is needed to accommodate expansion of the intersection to dual circulating lanes in the future, if ever needed. In terms of placement, the circle has been located to provide adequate deflection and speed control on both corridors, and to accommodate future expansion.



CRESTON/ROLLING HILLS INTERSECTION EVALUATION
CITY OF PASO ROBLES

FIGURE 8
ROUNDABOUT DIMENSIONS

DRAWN: ZM
CHECKED: SW
JOB NO. PR0004
DATE: 8/23/2006
REVISIONS:

Whitlock & Weinberger Transportation, Inc.
490 Mendocino Avenue, Suite 201
Santa Rosa, CA 95401
(707) 542-9500 Fax: (707) 542-9590

Central Island and Truck Apron

The "central island" of a roundabout is the innermost area that is raised and landscaped. No vehicles pass through the central island area. Roundabouts must be designed to accommodate large vehicles while maintaining low speeds for passenger vehicles. A "truck apron" is generally incorporated into the design of single-lane roundabouts to provide additional traversable area around the raised central island for large trucks. The cabs of semi trucks often drive on the circulating roadway like a passenger vehicle, with the less-maneuverable trailers mounting the truck apron as the vehicle passes through the intersection.

The dimensions of the roundabout's central island and mountable truck apron were determined by a combination of large vehicle maneuverability testing (described in more detail below) and the need to regulate vehicle speeds. The current concept includes an 8-foot wide truck apron, which is constructed of structural concrete that is raised 2 inches above the circulating travel lane, colored, and given an aggressive texture (such as small cobbles) that deters passenger car drivers while still being traversable by semi truck trailers. The central island of the Creston Road/Rolling Hills Road roundabout is shown to be 78 feet in diameter and landscaped.

Splitter Islands

Splitter islands are generally provided on the entry legs of all roundabouts. Their purpose is to provide shelter for pedestrians, assist in controlling speeds, guide traffic into the roundabout, physically separate entering and exiting traffic streams, and deter wrong-way movements. Additionally, splitter islands can be used as a place for mounting signs and occasionally landscaping.

Splitter island configurations are determined by the widths of entry and exit roadways, as well as the recommended striping offsets. The lengths of the splitter islands are influenced by the desire to slow vehicle speeds as drivers proceed toward the roundabout, and can also be used to channel and restrict turning movements at adjacent driveways and streets. The splitter islands include a minimum 10-foot wide break through which the pedestrian crosswalk passes; it is set back approximately 20 feet (one vehicle length) from the circulatory roadway. Splitter islands are typically 6 inches high, formed by batted concrete curbs, and filled with a colored hardscape treatment.

Landscaping

Landscaping plays an important role in roundabout design. In addition to the need for vertical elements in the central island, the western Creston Road approach should also include small trees to help alert drivers to the presence of the roundabout since drivers' line of sight from the west will not be aligned with the vertical elements in the central island. Landscaping in the central island also serves to focus drivers' attention only on circulating traffic, rather than activity on adjacent approaches. Small shrubs should be planted between pedestrian paths and the circulating roadway to help guide pedestrians to the crosswalks (rather than entering into the roundabout itself). A similar effect can be created by installing a rough cobble-like hardscape between paths and the circulating roadway.

Design for Pedestrians and Bicyclists

For the purposes of preparing the conceptual design, it was assumed that sidewalks would be provided on both sides of all streets, including areas where they do not currently exist (such as along the parcel on the

northwest corner of the intersection). On-street bicycle lanes would also be retained on Creston Road.

Pedestrian crossings would be provided on all legs of the roundabout. The crossings are set back 20 feet (one vehicle length) from the circulating roadway and pass through the raised splitter islands, where a "refuge" area of 14-20 feet is provided. On the east leg sufficient space exists to create an offset crossing, which is a desirable safety feature that directs pedestrians to face oncoming traffic before crossing. All refuge areas allow pedestrians to cross one lane/direction of traffic, wait within the protected splitter island area, and then cross the remaining lane/direction of traffic. High-visibility ladder-type crosswalk markings would be provided. The pedestrian crossing area within the splitter island is flush with the rest of the crossing, and includes coloring and a slight texturing (approximately one-quarter inch relief) to accommodate ADA needs and clearly delineate the refuge area from vehicle travel lanes.

At single-lane roundabouts, most bicyclists are comfortable "claiming the lane" and proceeding through the roundabout with vehicles, which are traveling at low speeds in the 15-20 mph range. Where possible, it is also desirable to provide an alternate route for less-confident cyclists around the perimeter of the intersection. The conceptual roundabout design includes bicycle ramps in advance of the crosswalks on both of the Creston Road approaches, allowing bicyclists to join pedestrians on the paths surrounding the roundabout. On-street bicycle lanes would begin and terminate at these ramps. Any paths that are shared by bicyclists and pedestrians are widened to 8 feet so that they function as a multi-use path rather than a sidewalk.

Accommodation of Future Expansion

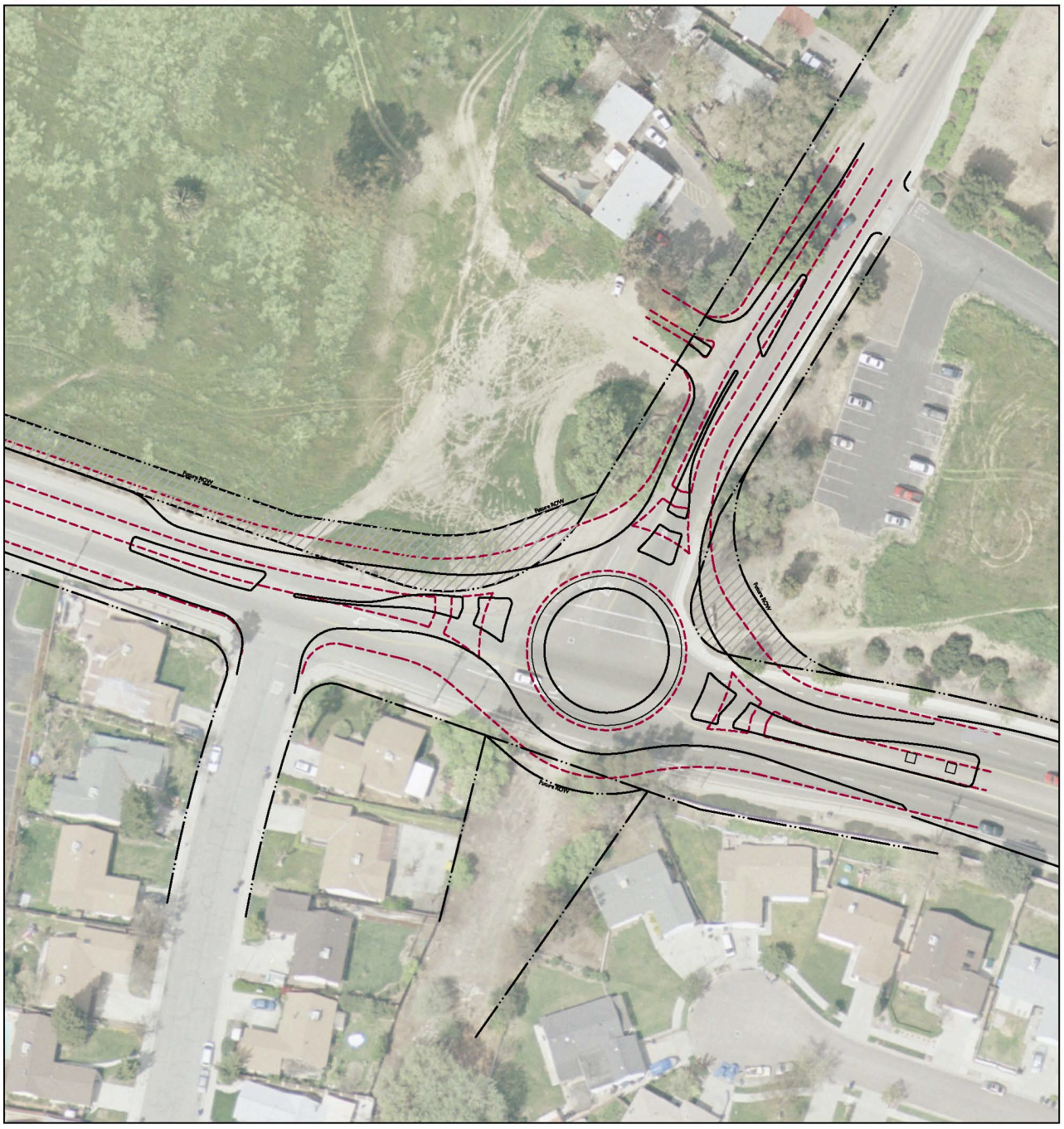
A single-lane roundabout is projected to operate efficiently at the intersection through 2025 and beyond. The team preparing the draft Creston Road Corridor plan has, however, indicated that roadway capacities could approach traditional volume thresholds for needing additional lanes. For this reason the City requested that the Creston Road/Rolling Hills Road roundabout be designed to accommodate dual circulating lanes in the future in case they are ever needed.

When planning for a single-lane roundabout that can be expanded, it is advisable to locate the center island such that it will not have to be significantly modified. The center island includes landscaping, which is critical to the design and will mature over time. Underground utilities are also often located with access on the center island. Roundabout drainage and grading are also designed largely around the location of the center island. If and when the roundabout is ever expanded to accommodate multiple circulating lanes, the landscaped portion of the center island would remain intact, while the truck apron and splitter islands on all approaches would be reconstructed.

Figure 9 shows an overlay of two roundabouts. The solid line represents the conceptual single-lane roundabout. The dashed red line provides a rough approximation of where the roundabout curbs would be located in the future if the intersection was expanded to a multi-lane facility. The hatched area on the northeast corner shows the right-of-way that would need to be acquired in order to build the multi-lane roundabout (plus surrounding buffer/pedestrian-bike paths).

Vehicle Maneuverability

Though few large semi trucks currently pass through the intersection, it is important to accommodate the occasional large vehicle. For the purposes of this analysis, the roundabout was designed to accommodate



Single-lane roundabout alignment

Multi-lane roundabout alignment

Right-of-way acquisition required to accommodate multi-lane roundabout

N

Creston Road/Rolling Hills Road Intersection Evaluation Figure 9

City of Paso Robles Single versus Multi-Lane Roundabout Comparison

August 2006

a 55-foot long WB-50 truck for the through movements on Creston Road, and a 45-foot long WB-40 for all movements to and from Rolling Hills Road. The Paso Robles Fire Department also provided the dimensions of the City's largest ladder truck. Some fire departments prefer fire trucks not to have to use the central truck apron at roundabouts, which require slower speeds to transverse. The roundabout was therefore designed to minimize the need for the Paso Robles fire design vehicle to use the truck apron.

The simulated travel paths for the various design vehicles are shown in Figure 10.

Speed Moderation

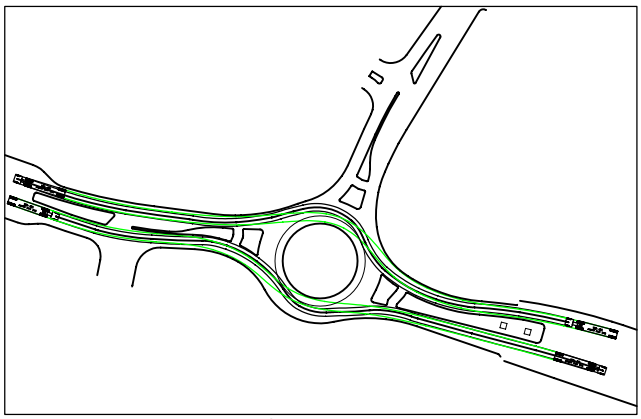
Upon satisfying the various requirements indicated above, the resulting configuration was tested to ensure that appropriate vehicle speeds were maintained for passenger vehicles at the entry, within the roundabout and upon exiting. Drivers would be able to maneuver through the roundabout most quickly during times where there is little traffic. The driving path that results in the greatest speeds is called the "fastest path," and is calculated for various maneuvers associated with a roundabout.

The fastest paths for vehicles entering the roundabout would be in the range of 15 to 22 mph. The fastest circulating speeds within the roundabout would be in the 15-16 mph range. The fastest exiting speeds, measured at the exiting approach's crosswalk, would be approximately 19-20 mph. The fastest movements would be right turns in the 20-22 mph range. All of the projected speeds fall within acceptable parameters for urban single-lane roundabouts, including the differentials among various circulating and entering speeds. A summary of the projected fastest-path speeds is provided in Table 6.

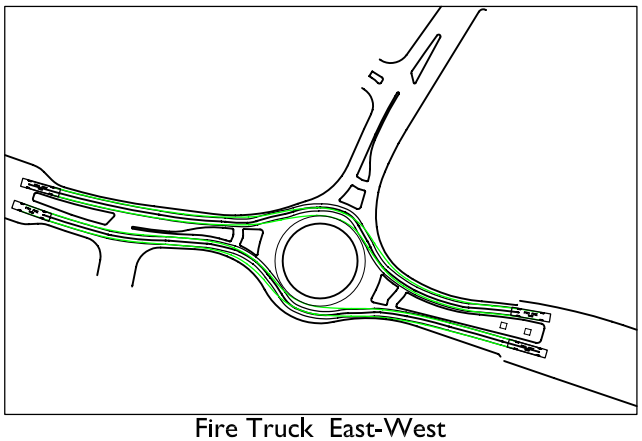
Table 6
Projected "Fastest-Path" Vehicle Speeds

Movement	Southbound Rolling Hills	Eastbound Creston	Westbound Creston
R1 - Entering	20.0	19.3	20.4
R2 - Circulating	-	15.9	15.7
R3 - Exiting	-	19.9	19.7
R4 - Left Turn	14.8	14.8	-
R5 - Right Turn	20.4	-	21.5

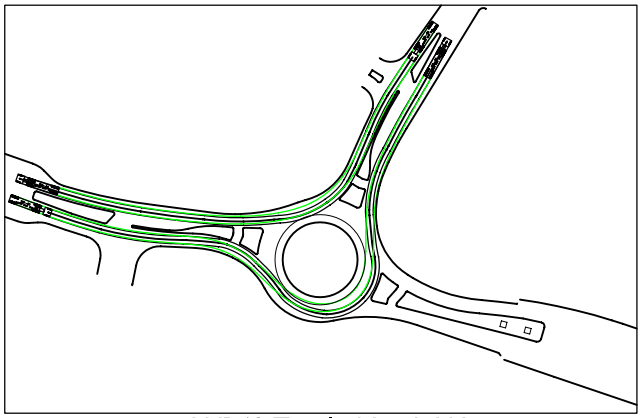
Note: all values are in miles per hour



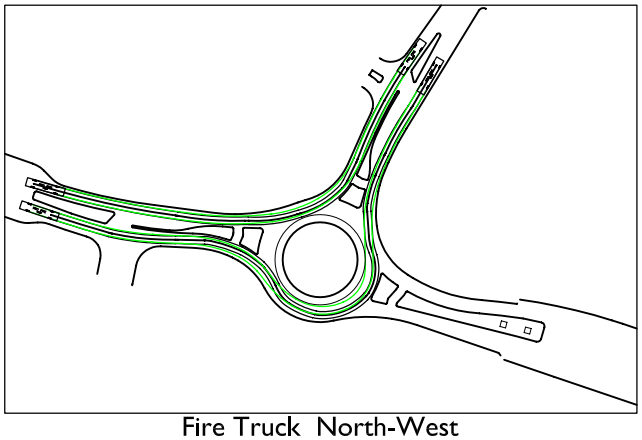
WB50 Truck East-West



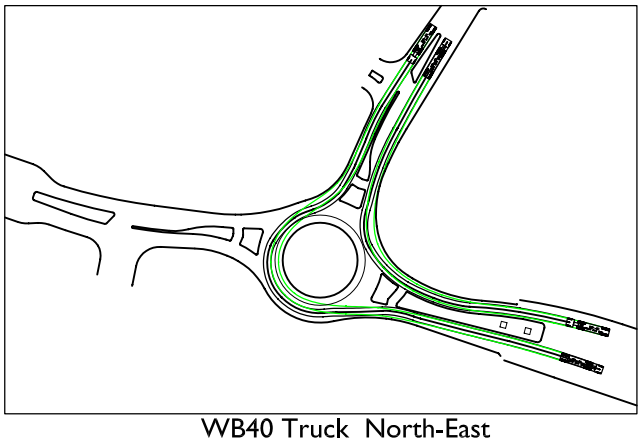
Fire Truck East-West



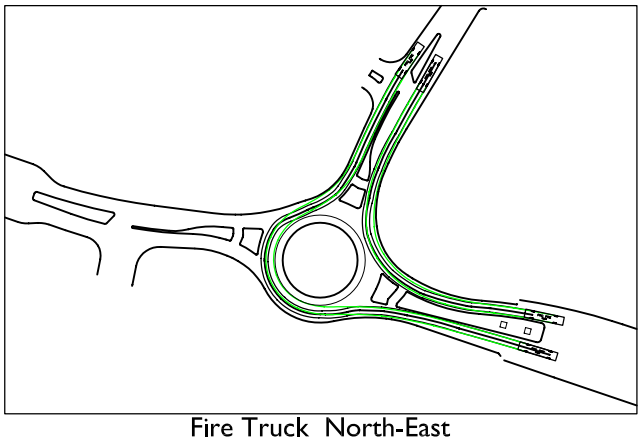
WB40 Truck North-West



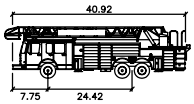
Fire Truck North-West



WB40 Truck North-East

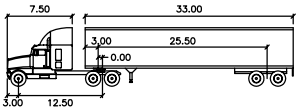


Fire Truck North-East



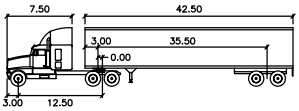
PRO FIRE feet

Width	: 8.50
Track	: 8.00
Lock to Lock Time	: 6.00
Steering Angle	: 33.00



WB–40 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.00	Steering Angle	: 20.30
Tractor Track	: 8.00	Articulating Angle	: 70.00
Trailer Track	: 8.00		



WB–50 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.00
Trailer Width	: 8.50	Steering Angle	: 17.70
Tractor Track	: 8.00	Articulating Angle	: 70.00
Trailer Track	: 8.50		

Creston Road/Rolling Hills Road Intersection Evaluation — Figure 10

City of Paso Robles — Truck Turn Paths

August 2006

Conclusions

General Conclusions

- Existing and future vehicle, pedestrian, and bicycle traffic could be accommodated at the intersection by installation of either a single-lane roundabout or a widened intersection with a traffic signal.

- Both a single-lane roundabout and a traffic signal would result in acceptable LOS A or B traffic operation in the future.

- Installation of a traffic signal would require less right-of-way acquisition at the intersection than a roundabout. Installation of a traffic signal is also projected to cost up to 35 percent less than a roundabout, after considering the realignment, pavement removal, and landscaping costs associated with the roundabout.

- Research indicates that a properly-designed roundabout would result in significantly fewer traffic collisions than a traffic signal. A roundabout at Creston Road/Rolling Hills Road would also have shorter overall queues, operate with less delay, result in less fuel consumption, and produce fewer vehicle emissions than a traffic signal.

- A roundabout would conform to the future Creston Road Corridor scheme better than a traffic signal, and would also be compatible with the City's plans to remove the traffic signal at Melody Drive and restrict that street to right turns in and out.

- With either a signal or roundabout, it is recommended that a primary right-in right-out access on Creston Road be provided in conjunction with any future development project on the northwest corner of the intersection.

Roundabout-Related Conclusions

- Though a single-lane roundabout is projected to operate acceptably beyond the year 2025, it could be expanded to a multi-lane facility in the future, if needed.

- The use of roundabouts, including at the Rolling Hills Road intersection, allows the corridor to have fewer travel lanes, moderated speeds, and superior safety while still maintaining efficient traffic flow.

- The conceptual roundabout shown in this report has been designed to accommodate large trucks and the City's largest emergency response vehicles.

- Inbound left turns could be provided at both Laura Way and a future access on Rolling Hills Road to the parcel on the northwest corner of the intersection. Outbound left turns would need to be prohibited at both locations, though little driver inconvenience would result as drivers could instead turn right and make a u-turn through the roundabout.

Signal-Related Conclusions

- In order to minimize the potential for queuing problems in the future, a signal at Rolling Hills Road would need to be designed to accommodate two westbound through lanes. The two lanes would merge to a single lane beyond the intersection. For safety reasons it would be unadvisable to allow on-street parking adjacent to the merge lane area.

- Inbound left turns could be provided on Rolling Hills Road into the future project on the northwest corner of the intersection, provided that a 125-foot long left turn lane is provided. Outbound left turns should be prohibited at this location through channelization.

- With installation of a signal, both inbound and outbound left turns to Laura Way would need to be prohibited through the installation of a raised median on Creston Road. Drivers wishing to make these movements would need to alter their travel routes.

- U-Turns at the Creston Road/Rolling Hills Road are not possible due to space constraints and the need for southbound right turn overlap signal phasing.

Study Participants and References

Study Participants

Principle-In-Charge:	Steve Weinberger, P.E., PTOE
Project Manager:	Zachary Matley, AICP
Concept Designs:	Zachary Matley, AICP
Graphics:	Deborah Dunn and Zachary Matley, AICP
Report Review:	Dalene J. Whitlock, P.E., PTOE

References

Applying Roundabouts in the United States: Preliminary Safety Findings, NCHRP 3-65, presented at the 2005 National Roundabout Conference, Vail, CO.

Creston Road Plan Line - Draft Traffic Report, ATE, April 2006

Highway Capacity Manual 2000, Transportation Research Board, 2000

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Traffic Impact Report for Rolling Hills Property, Orosz Engineering Group, May 2006

PRO004

Appendix A

Level of Service Calculations

AM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Creston/Rolling Hills

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: D[30.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 0 1 0		
Volume Module: OEG 2006												
Base Vol:	0	0	0	19	0	224	195	554	0	0	660	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	19	0	224	195	554	0	0	660	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	21	0	249	217	616	0	0	733	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	21	0	249	217	616	0	0	733	52
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1808	xxxx	759	786	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	88	xxxx	409	842	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	70	xxxx	409	842	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.30	xxxx	0.61	0.26	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	1.1	xxxx	3.9	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	76.8	xxxx	26.5	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	D	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			30.4			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Creston/Rolling Hills

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: D[29.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 0 1 0		
Volume Module: OEG 2006												
Base Vol:	0	0	0	32	0	210	242	617	0	0	511	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	32	0	210	242	617	0	0	511	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	36	0	233	269	686	0	0	568	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	36	0	233	269	686	0	0	568	49
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1816	xxxx	592	617	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	87	xxxx	510	973	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	68	xxxx	510	973	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.52	xxxx	0.46	0.28	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	2.1	xxxx	2.4	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	104.7	xxxx	17.9	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	F	*	C	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			29.4			xxxxxx			xxxxxx		
ApproachLOS:	*			D			*			*		

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Creston/Rolling Hills (signalized)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.406
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.7
Optimal Cycle:	23	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	19	0	224	195	554	0	0	660	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	19	0	224	195	554	0	0	660	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	21	0	249	217	616	0	0	733	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	21	0	249	217	616	0	0	733	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	21	0	249	217	616	0	0	733	52
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.93	1.00	0.83	0.93	0.98	1.00	1.00	0.92	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.87	0.13
Final Sat.:	0	0	0	1769	0	1583	1769	1862	0	0	3270	233
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.16	0.12	0.33	0.00	0.00	0.22	0.22
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.09	0.00	0.39	0.30	0.85	0.00	0.00	0.55	0.55
Volume/Cap:	0.00	0.00	0.00	0.14	0.00	0.41	0.41	0.39	0.00	0.00	0.41	0.41
Delay/Veh:	0.0	0.0	0.0	42.7	0.0	22.7	28.3	1.7	0.0	0.0	13.0	13.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.7	0.0	22.7	28.3	1.7	0.0	0.0	13.0	13.0
LOS by Move:	A	A	A	D	A	C	C	A	A	A	B	B
HCM2k95thQ:	0	0	0	1	0	11	11	9	0	0	14	14

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Creston/Rolling Hills (signalized)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.413
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.1
Optimal Cycle:	24	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	32	0	210	242	617	0	0	511	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	32	0	210	242	617	0	0	511	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	36	0	233	269	686	0	0	568	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	36	0	233	269	686	0	0	568	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	36	0	233	269	686	0	0	568	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.93	1.00	0.83	0.93	0.98	1.00	1.00	0.92	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.84	0.16
Final Sat.:	0	0	0	1769	0	1583	1769	1862	0	0	3218	277
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.15	0.15	0.37	0.00	0.00	0.18	0.18
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.05	0.00	0.46	0.41	0.89	0.00	0.00	0.48	0.48
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.32	0.37	0.41	0.00	0.00	0.37	0.37
Delay/Veh:	0.0	0.0	0.0	49.4	0.0	17.3	20.7	1.1	0.0	0.0	16.6	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	49.4	0.0	17.3	20.7	1.1	0.0	0.0	16.6	16.6
LOS by Move:	A	A	A	D	A	B	C	A	A	A	B	B
HCM2k95thQ:	0	0	0	3	0	9	11	8	0	0	12	12

Note: Queue reported is the number of cars per lane.

Movement Summary

Creston Road / Rolling Hills Road

AM Peak Hour - Existing Conditions with Single Lane Roundabout

Roundabout

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Westbound Creston Rd										
22	T	695	2.0	0.578	6.2	LOS A	127	0.50	0.55	23.3
22	R	49	2.0	0.578	6.2	LOS A	127	0.50	0.55	23.3
Approach		**744**	**2.0**	**0.578**	**6.2**	**LOS A**	**127**	**0.50**	**0.55**	**23.3**
Southbound Rolling Hills										
42	L	21	2.2	0.338	8.8	LOS A	70	0.76	0.80	20.1
42	R	249	2.2	0.338	8.8	LOS A	70	0.76	0.80	20.1
Approach		**271**	**2.2**	**0.338**	**8.8**	**LOS A**	**70**	**0.76**	**0.80**	**20.1**
Eastbound Creston Rd										
12	L	217	1.9	0.505	5.5	LOS A	131	0.15	0.43	24.0
12	T	616	1.9	0.505	5.5	LOS A	131	0.15	0.43	24.0
Approach		**831**	**1.9**	**0.505**	**5.5**	**LOS A**	**131**	**0.15**	**0.43**	**24.0**
All Vehicles		**1846**	**2.0**	**0.578**	**6.2**	**LOS A**	**131**	**0.38**	**0.53**	**23.1**

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Movement Summary

Creston Road / Rolling Hills Road

PM Peak Hour - Existing Conditions with Single Lane Roundabout

Roundabout

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Westbound Creston Rd										
22	T	538	2.1	0.481	6.3	LOS A	96	0.50	0.56	23.3
22	R	46	2.1	0.481	6.3	LOS A	96	0.50	0.56	23.3
Approach		**584**	**2.1**	**0.481**	**6.3**	**LOS A**	**96**	**0.50**	**0.56**	**23.3**
Southbound Rolling Hills										
42	L	36	2.2	0.292	7.8	LOS A	57	0.65	0.71	20.5
42	R	233	2.2	0.292	7.8	LOS A	57	0.65	0.71	20.5
Approach		**270**	**2.2**	**0.292**	**7.8**	**LOS A**	**57**	**0.65**	**0.71**	**20.5**
Eastbound Creston Rd										
12	L	269	2.0	0.597	5.7	LOS A	171	0.23	0.44	23.4
12	T	686	2.0	0.597	5.7	LOS A	171	0.23	0.44	23.4
Approach		**955**	**2.0**	**0.597**	**5.7**	**LOS A**	**171**	**0.23**	**0.44**	**23.4**
All Vehicles		**1809**	**2.0**	**0.597**	**6.2**	**LOS A**	**171**	**0.38**	**0.52**	**22.9**

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AM Peak Hour - Future Conditions
City of Paso Robles

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Creston/Rolling Hills (signalized)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.5
Optimal Cycle:	26	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	1	0 0	0 0	1	1 0
Volume Module:												
Base Vol:	0	0	0	57	0	257	223	650	0	0	820	63
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	57	0	257	223	650	0	0	820	63
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	57	0	257	223	650	0	0	820	63
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	60	0	271	235	684	0	0	863	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	60	0	271	235	684	0	0	863	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	60	0	271	235	684	0	0	863	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.93	1.00	0.83	0.93	0.98	1.00	1.00	0.92	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.86	0.14
Final Sat.:	0	0	0	1769	0	1583	1769	1862	0	0	3249	250
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.17	0.13	0.37	0.00	0.00	0.27	0.27
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.08	0.00	0.37	0.29	0.86	0.00	0.00	0.57	0.57
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.46	0.46	0.43	0.00	0.00	0.46	0.46
Delay/Veh:	0.0	0.0	0.0	45.5	0.0	24.7	30.1	1.8	0.0	0.0	12.6	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	45.5	0.0	24.7	30.1	1.8	0.0	0.0	12.6	12.6
LOS by Move:	A	A	A	D	A	C	C	A	A	A	B	B
HCM2k95thQ:	0	0	0	5	0	13	12	10	0	0	16	16

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future Conditions
City of Paso Robles

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Creston/Rolling Hills (signalized)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.559
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.2
Optimal Cycle:	30	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	1	0 0	0 0	1	1 0
Volume Module:												
Base Vol:	0	0	0	43	0	241	277	885	0	0	730	62
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	43	0	241	277	885	0	0	730	62
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	43	0	241	277	885	0	0	730	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	45	0	254	292	932	0	0	768	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	45	0	254	292	932	0	0	768	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	45	0	254	292	932	0	0	768	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.93	1.00	0.83	0.93	0.98	1.00	1.00	0.92	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.84	0.16
Final Sat.:	0	0	0	1769	0	1583	1769	1862	0	0	3222	274
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.16	0.16	0.50	0.00	0.00	0.24	0.24
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.05	0.00	0.41	0.37	0.89	0.00	0.00	0.53	0.53
Volume/Cap:	0.00	0.00	0.00	0.56	0.00	0.39	0.45	0.56	0.00	0.00	0.45	0.45
Delay/Veh:	0.0	0.0	0.0	55.3	0.0	21.0	24.6	1.6	0.0	0.0	14.8	14.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	55.3	0.0	21.0	24.6	1.6	0.0	0.0	14.8	14.8
LOS by Move:	A	A	A	E	A	C	C	A	A	A	B	B
HCM2k95thQ:	0	0	0	5	0	11	13	13	0	0	15	15

Note: Queue reported is the number of cars per lane.

Movement Summary

Creston Road / Rolling Hills Road

AM Peak Hour - 2025 Conditions with Single Lane Roundabout

Roundabout

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Westbound Creston Rd										
22	T	863	2.2	0.732	7.4	LOS A	236	0.67	0.66	22.2
22	R	66	2.2	0.732	7.4	LOS A	236	0.67	0.66	22.2
Approach		**929**	**2.2**	**0.732**	**7.4**	**LOS A**	**236**	**0.67**	**0.66**	**22.2**
Southbound Rolling Hills										
42	L	60	1.8	0.525	13.7	LOS B	144	0.94	1.05	17.0
42	R	271	1.8	0.525	13.7	LOS B	144	0.94	1.05	17.0
Approach		**330**	**1.8**	**0.526**	**13.7**	**LOS B**	**144**	**0.94**	**1.05**	**17.0**
Eastbound Creston Rd										
12	L	235	4.2	0.606	5.7	LOS A	189	0.34	0.45	22.8
12	T	684	4.2	0.606	5.7	LOS A	189	0.34	0.45	22.8
Approach		**919**	**4.2**	**0.606**	**5.7**	**LOS A**	**189**	**0.34**	**0.45**	**22.8**
All Vehicles		**2178**	**3.0**	**0.732**	**7.7**	**LOS A**	**236**	**0.57**	**0.63**	**21.4**

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Movement Summary

Creston Road / Rolling Hills Road

PM Peak Hour - 2025 Conditions with Single Lane Roundabout

Roundabout

Vehicle Movements

Mov No	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Westbound Creston Rd										
22	T	768	2.2	0.695	7.8	LOS A	213	0.69	0.70	22.0
22	R	65	2.2	0.695	7.8	LOS A	213	0.69	0.70	22.0
Approach		**833**	**2.2**	**0.695**	**7.8**	**LOS A**	**213**	**0.69**	**0.70**	**22.0**
Southbound Rolling Hills										
42	L	45	2.0	0.427	10.4	LOS B	101	0.87	0.90	19.1
42	R	254	2.0	0.427	10.4	LOS B	101	0.87	0.90	19.1
Approach		**299**	**2.0**	**0.427**	**10.4**	**LOS B**	**101**	**0.87**	**0.90**	**19.1**
Eastbound Creston Rd										
12	L	292	4.3	0.756	5.7	LOS A	328	0.39	0.43	22.5
12	T	900	4.3	0.756	5.7	LOS A	328	0.39	0.43	22.5
Approach		**1192**	**4.3**	**0.756**	**5.7**	**LOS A**	**328**	**0.39**	**0.43**	**22.5**
All Vehicles		**2324**	**3.2**	**0.756**	**7.1**	**LOS A**	**328**	**0.56**	**0.59**	**21.8**

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AM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Creston/Melody

Cycle (sec):	100	Critical Vol./Cap.(X):	0.421
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.4
Optimal Cycle:	24	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	210	0	58	0	0	0	0	406	167	57	497	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	210	0	58	0	0	0	0	406	167	57	497	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	233	0	64	0	0	0	0	451	186	63	552	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	0	64	0	0	0	0	451	186	63	552	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	233	0	64	0	0	0	0	451	186	63	552	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	1.00	1.00	1.00	1.00	0.89	0.88	0.93	0.93	1.00
Lanes:	0.78	0.00	0.22	0.00	0.00	0.00	0.00	1.41	0.59	1.00	2.00	0.00
Final Sat.:	1363	0	376	0	0	0	0	2392	984	1769	3538	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.00	0.17	0.00	0.00	0.00	0.00	0.19	0.19	0.04	0.16	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.41	0.00	0.41	0.00	0.00	0.00	0.00	0.45	0.45	0.09	0.53	0.00
Volume/Cap:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.42	0.42	0.42	0.29	0.00
Delay/Veh:	21.6	0.0	21.6	0.0	0.0	0.0	0.0	19.0	19.0	45.3	13.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	0.0	21.6	0.0	0.0	0.0	0.0	19.0	19.0	45.3	13.0	0.0
LOS by Move:	C	A	C	A	A	A	A	B	B	D	B	A
HCM2k95thQ:	13	0	13	0	0	0	0	13	13	5	10	0

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Creston/Melody

Cycle (sec):	100	Critical Vol./Cap.(X):	0.404
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.8
Optimal Cycle:	23	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0 1!	0	0	0 0	0	0	0 1	1 0	1	0 2	0 0
Volume Module:												
Base Vol:	94	0	84	0	0	0	0	543	106	87	461	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	0	84	0	0	0	0	543	106	87	461	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	104	0	93	0	0	0	0	603	118	97	512	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	0	93	0	0	0	0	603	118	97	512	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	104	0	93	0	0	0	0	603	118	97	512	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	0.89	1.00	1.00	1.00	1.00	0.91	0.91	0.93	0.93	1.00
Lanes:	0.53	0.00	0.47	0.00	0.00	0.00	0.00	1.67	0.33	1.00	2.00	0.00
Final Sat.:	896	0	801	0	0	0	0	2889	564	1769	3538	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.21	0.21	0.05	0.14	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.52	0.52	0.14	0.65	0.00
Volume/Cap:	0.40	0.00	0.40	0.00	0.00	0.00	0.00	0.40	0.40	0.40	0.22	0.00
Delay/Veh:	29.2	0.0	29.2	0.0	0.0	0.0	0.0	14.9	14.9	40.7	7.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.2	0.0	29.2	0.0	0.0	0.0	0.0	14.9	14.9	40.7	7.1	0.0
LOS by Move:	C	A	C	A	A	A	A	B	B	D	A	A
HCM2k95thQ:	10	0	10	0	0	0	0	13	13	6	7	0

Note: Queue reported is the number of cars per lane.

Appendix B

Cost Estimate Summaries

Cost Estimate (Roundabout)
Creston Road/Rolling Hills Road Intersection

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Cost Total
HARDSCAPE					
1	Remove Curb, Gutter and Sidewalk	1,690	S.F.	$4.25	$7,182.50
2	Remove Pavement	28,460	S.F.	$2.15	$61,189.00
3	Clearing and Grubbing	0.43	AC	$11,200.00	$4,807.08
4	Earthwork Excavation	940	C.Y	$31.00	$29,140.00
5	Install Structural Base 18"	7,537	S.F.	$5.00	$37,685.00
6	Install Street Paving 9"	7,537	S.F.	$5.00	$37,685.00
7	Install Street Paving 4"	11,205	S.F.	$2.70	$30,253.50
8	Install Street Paving 2"	4,325	S.F.	$1.32	$5,709.00
9	Install Curb & Gutter	1,885	L.F.	$30.00	$56,550.00
10	Install Concrete Sidewalk	9,610	S.F.	$10.00	$96,100.00
11	Install Asphalt Multiuse Path	0	S.F.	$4.50	$0.00
12	Install Splitter Island Curbs	1,340	L.F.	$30.00	$40,200.00
13	Install Splitter Island Decorative Hardscape	5,925	S.F.	$9.00	$53,325.00
14	Install Center Island (incl landscaping)	4,778	S.F.	$9.00	$43,002.00
15	Install Truck Apron	2,162	S.F.	$28.00	$60,536.00
16	Install ADA Pedestrian Ramps	8	Each	$1,200.00	$9,600.00
LANSDCAPING					
17	Remove Trees	2	Each	$860.00	$1,720.00
18	Install Other Landscaping and Irrigation	8,820	S.F.	$8.00	$70,560.00
SIGNAGE					
19	Relocate Signs	10	Each	$231.00	$2,310.00
20	Remove Stop Signs	2	Each	$250.00	$500.00
21	Install New Signs	32	Each	$300.00	$9,600.00
22	Large Guide Signs	3	Each	$1,000.00	$3,000.00
RIGHT OF WAY					
23	Right of Way Acquisition (not included)	0.36	AC	$0.00	$0.00
TRAFFIC SIGNAL					
24	Signal Equipment and Installation	0	L.S.	$250,000.00	$0.00
STRIPING AND PAINTING					
25	Remove Striping	1,360	L.F.	$1.10	$1,496.00
26	Install Two-Way Left-Turn Lane Striping	575	L.F.	$3.50	$2,012.50
27	Install 8" Yield Line Striping	54	L.F.	$2.40	$129.60
28	Install Single 4" Stripe	3,700	L.F.	$1.10	$4,070.00
29	Install Thermoplastic Arrow Markings	15	Each	$160.00	$2,400.00
30	Install Crosswalk Striping	180	L.F.	$3.00	$540.00
UTILITIES AND DRAINAGE					
31	Streetlights	10	Each	$4,000.00	$40,000.00
32	Streetlight Conduit	850	L.F.	$12.00	$10,200.00
33	Install 24" Drainage Pipe	280	L.F.	$200.00	$56,000.00
34	Adjust Affected Manholes	5	Each	$600.00	$3,000.00
35	Relocate Affected Fire Hydrants	2	Each	$3,000.00	$6,000.00
36	Install New Catch Basins	12	Each	$3,000.00	$36,000.00
37	Relocate Utility Poles	2	Each	$3,000.00	$6,000.00
38	Additional Utility Relocations (Misc)	10	Each	$450.00	$4,500.00
SUBTOTAL					$833,002.18
CONSTRUCTION					
39	Traffic Control System (3%)	1	L.S.	$25,000.00	$25,000.00
40	Mobilization (10%)	1	L.S.	$83,000.00	$83,000.00
41	Storm Water Pollution Prevention (1%)	1	L.S.	$8,000.00	$8,000.00
DESIGN					
42	Design and Engineering (20%)	1	L.S.	$167,000.00	$167,000.00
43	Construction Engineering Work (10%)	1	L.S.	$83,000.00	$83,000.00
44	Project Management (5%)	1	L.S.	$42,000.00	$42,000.00
				SUBTOTAL	**$1,241,002.18**
				15% CONTINGENCY	**$186,150.33**
				TOTAL	**$1,427,152.51**

Notes: L.S. = Lump Sum L.F. = Lineal Feet AC = Acres
S.F. = Square Feet C.Y. = Cubic Yards

Cost Estimate (Signal)
Creston Road/Rolling HIlls Road Intersection

Item No.	Item Description	Estimated Quantity	Unit of Measure	Unit Cost	Item Cost Total
HARDSCAPE					
1	Remove Curb, Gutter and Sidewalk	0	S.F.	$4.25	$0.00
2	Remove Pavement	4,080	S.F.	$2.15	$8,772.00
3	Clearing and Grubbing	0.37	AC	$11,200.00	$4,170.43
4	Earthwork Excavation	480	C.Y	$31.00	$14,880.00
5	Install Structural Base 18"	13,740	S.F.	$5.00	$68,700.00
6	Install Street Paving 9"	13,740	S.F.	$5.00	$68,700.00
7	Install Street Paving 2"	43,042	S.F.	$1.35	$58,106.70
8	Install Curb & Gutter	875	L.F.	$15.00	$13,125.00
9	Install Concrete Sidewalk	4,475	S.F.	$10.00	$44,750.00
10	Install Asphalt Multiuse Path	0	S.F.	$4.50	$0.00
11	Install Median Curbs	844	L.F.	$15.00	$12,660.00
12	Install Median Decorative Hardscape	488	S.F.	$9.00	$4,392.00
13	Install ADA Pedestrian Ramps	4	Each	$1,200.00	$4,800.00
LANSDCAPING					
14	Remove Trees	0	Each	$860.00	$0.00
15	Install Other Landscaping and Irrigation	0	S.F.	$8.00	$0.00
SIGNAGE					
16	Relocate Signs	6	Each	$231.00	$1,386.00
17	Remove Stop Signs	1	Each	$250.00	$250.00
18	Install New Signs	15	Each	$300.00	$4,500.00
19	Large Guide Signs	0	Each	$1,000.00	$0.00
RIGHT OF WAY					
20	Right of Way Acquisition (not included)	0.21	AC	$0.00	$0.00
TRAFFIC SIGNAL					
21	Signal Equipment and Installation	1	L.S.	$250,000.00	$250,000.00
STRIPING AND PAINTING					
22	Remove Striping	1,165	L.F.	$1.10	$1,281.50
23	Install Two-Way Left-Turn Lane Striping	1,260	L.F.	$3.50	$4,410.00
24	Install 8" Yield Line Striping	0	L.F.	$2.40	$0.00
25	Install Single 4" Stripe	3,490	L.F.	$1.10	$3,839.00
26	Install Thermoplastic Arrow Markings	19	Each	$160.00	$3,040.00
27	Install Crosswalk Striping	464	L.F.	$3.00	$1,392.00
UTILITIES AND DRAINAGE					
28	Streetlights	3	Each	$4,000.00	$12,000.00
29	Streetlight Conduit	160	L.F.	$12.00	$1,920.00
30	Install 24" Drainage Pipe	90	L.F.	$200.00	$18,000.00
31	Adjust Affected Manholes	3	Each	$600.00	$1,800.00
32	Relocate Affected Fire Hydrants	1	Each	$3,000.00	$3,000.00
33	Install New Catch Basins	2	Each	$3,000.00	$6,000.00
34	Relocate Utility Poles	1	Each	$3,000.00	$3,000.00
35	Additional Utility Relocations (Misc)	8	Each	$450.00	$3,600.00
SUBTOTAL					$622,474.63
CONSTRUCTION					
36	Traffic Control System (2%)	1	L.S.	$12,000.00	$12,000.00
37	Mobilization (10%)	1	L.S.	$62,000.00	$62,000.00
38	Storm Water Pollution Prevention (1%)	1	L.S.	$6,000.00	$6,000.00
DESIGN					
39	Design and Engineering (20%)	1	L.S.	$124,000.00	$124,000.00
40	Construction Engineering Work (10%)	1	L.S.	$62,000.00	$62,000.00
41	Project Management (5%)	1	L.S.	$31,000.00	$31,000.00
				SUBTOTAL	**$919,474.63**
				15% CONTINGENCY	**$137,921.19**
				TOTAL	**$1,057,395.83**

Notes: L.S. = Lump Sum L.F. = Lineal Feet AC = Acres
S.F. = Square Feet C.Y. = Cubic Yards

Roundabouts and the Multi Modal Roadway Network of the Future

The vision of a multimodal transportation network requires the integration of all of the various modes of transportation.

Interchange Designs Incorporating Roundabouts

A well-designed roundabout requires motorists to slow when negotiating the roadway. Because of this, roundabouts can serve as a method to alert roadway users that they are transitioning from one roadway environment to another, such as from the freeway to the local street system, or from a rural environment to one that is more urban.

The modern roundabout can be used in a variety of urban and rural settings and with a variety of configurations ranging from mini-roundabouts to large multilane roundabouts and interchange ramp terminals. Motorists and transportation professionals alike are realizing the broad potential application and benefit to considering roundabouts along with traditional intersection designs.

As roundabouts do not use traffic signals to control the entry, they do not require a constant power supply. This means that a roundabout can continue to function during power failures. Also, roundabouts do not require the installation or maintenance of the traffic detection devices associated with traffic signals.

Presented By: w-trans

TRB TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

w-trans

Roundabouts in the United States

Many people in the United States are unfamiliar with roundabouts. Today, however, there is a growing volume of information on roundabouts that demonstrate how they have proven to be a safe and effective form of intersection design.

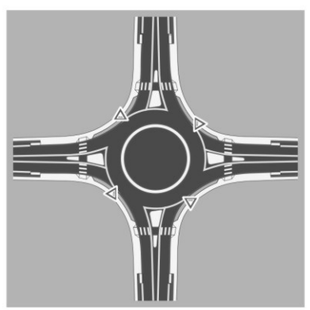
Traffic Management and Intersection Control: A Historical Perspective

Sometime in the early 1800's traffic management became an issue as urban populations gained in density. Pedestrian and horse traffic became such a problem in 18th century London that systems of traffic control devices began to appear, including colored lanterns and semaphore flags.

By the beginning of the 20th century the widespread usage of the automobile increased the need for safe traffic control as the increasing speed of traffic escalated safety issues regarding vehicle collisions and pedestrian safety.

Roundabouts and Other forms of Circular Intersection Design

The modern roundabout has three distinguishing characteristics: They are generally circular in shape, they have geometric features to slow traffic passing through the intersection, and they are always yield-controlled for the motorist entering the roundabout.



The Modern Roundabout

The other forms of circular intersections serve different purposes. The rotary is usually larger and serves a wider geographic function, with parking or other features occupying the center island. The large traffic circle likewise functions as more of a circular confluence of streets, often allowing and encouraging pedestrians to access the center of the circle. The neighborhood traffic circle is a much smaller design usually placed in the center of an intersection, narrowing the available travel lanes in an effort to slow the traffic traveling through the neighborhood. None of these is, by intent or by design, a modern roundabout.

Safety Benefits of Roundabouts

Research has shown there are many safety benefits associated with roundabouts.

As a school crossing guard from Wisconsin stated. "Personally, I love them, . . . you only have to stop one lane of traffic, then go to the middle and wait. The cars can't go much faster than 20 mph through the roundabout so the crossing aspect is great"

Research shows that roundabouts can be an effective way to improve safety at intersections. When comparing data from roundabouts that were converted from four-way intersections, the reduction in crash rate is quite remarkable. A review of 55 sites where various traditional intersections were converted to roundabouts, before and after crash data shows that a total of 1122 crashes per year were reduced to 726 total crashes per year, a reduction of 35 percent.

Bicycle Safety Benefits

Bicycles travel as vehicle

Bicycles travel as pedestrian

In 2003, there were an average of 6,850 motor vehicle crashes per day at intersections across the United States. This means there were over two and a half million intersection related crashes in that year. Data from the Insurance Institute for Highway Safety shows that the intersection-related crashes represent 41 percent of the total motor vehicle crashes that occur on the roadway system, 46 percent of all injury crashes and 23 percent of all fatal crashes in this country.

Safety Data

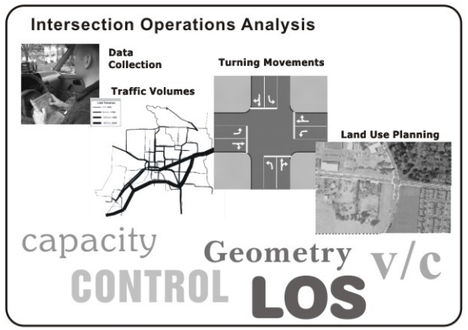
While crashes do occur at roundabouts, the research has shown that with the one exception of an all-way stop controlled intersection, there is a significant reduction in the overall number of crashes where roundabouts replace conventional intersections. More importantly, the number of severe injury related crashes was reduced significantly, in some cases, a reduction of 60 to 80 percent.

Intersection Type	Change in Total Crashes after Conversion	Change in Severe Injury after Conversion
All IIntersections	-35%	-76%
Signalized Urban	TOO FEW	-60%
Signalized Suburban	-67%	TOO FEW
All-Way Stop Controlled	SIMILAR	SIMILAR
Two-Way Stop Controlled Urban	-72%	-87%
Two-Way Stop Controlled Suburban	-32%	-71%
Two-Way Stop Controlled Rural	-29%	-81%

Roundabouts and Intersection Operations

In order to understand how transportation professionals determine if installing a roundabout is a suitable solution for a specific intersection, it is important to be aware of some of the roundabout's operational considerations.

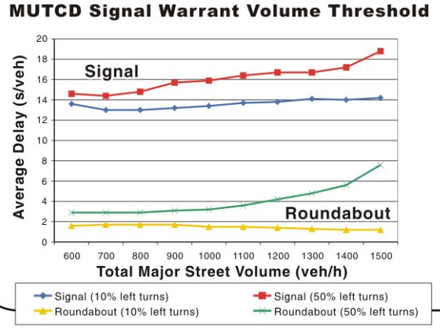
The roundabout design and yield signs allow each motorist to enter the roundabout with a minimum delay by yielding to the vehicles to the left and then proceeding to the desired destination.



A wide range of costly technology is required to achieve a coordinated traffic signal system on a roadway. These systems grow more complex as intersections serve increasing volumes of motorized and non-motorized traffic. Many signal systems today can be monitored and controlled from a central location.

Signal systems are expensive to install and maintain and can result in an expensive energy bill, as the signals are required to operate continuously.

MUTCD Signal Warrant Volume Threshold



A roundabout typically experiences significantly less delay than a signalized intersection serving comparable traffic volumes. This example shows that motorists experience an average of approximately 14 seconds of delay at a signalized intersection as compared to less than two seconds of delay at a roundabout with similar turning volumes.

The combination of geometric and self-regulated yield control represents a simple, low-cost alternative to a traffic signal.

Based on MUTCD Warrant 3 (2000 ed.) Warrant 11 (1988 ed.)

Roundabouts: How They Are Used

Special publications, videos and instructional materials about roundabouts are available to provide guidance to the road users as their use becomes more widespread across the country. Public service TV announcements can provide a great opportunity to show film clips that describe the rules of the road as it relates to roundabouts. This can also include examples and guidance for motorists, cyclists and pedestrians. An increasing number of State Driver's Manuals include criteria and rules of the road related to roundabouts.

Special Publications

RESOLUTION NO.: 07-xxx

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EL PASO DE ROBLES RECOMMENDING TO THE CITY COUNCIL THE ESTABLISHMENT OF A PLAN LINE FOR THE INTERSECTION OF CRESTON AND ROLLING HILLS ROADS

WHEREAS, the City has received an application for a 118-unit multi-family residential development located at the northwest corner of Creston and Rolling Hills Roads; and

WHEREAS, in consideration of the impacts on traffic, the City Council retained Whitlock and Weinberger Transportation, Inc. (W-Trans) to provide recommendations for traffic controls in the intersection; and

WHEREAS, W-trans analyzed the operational effectiveness of a traffic signal versus a modern roundabout; and

WHEREAS, on July 12, 2007, W-Trans presented their findings at a community workshop held at the Daniel Lewis Middle School auditorium; and

WHEREAS, on December 11th, 2007, the Planning Commission held a duly noticed public hearing, considered the facts presented in the staff report and the W-Trans report; and accepted public testimony; and

WHEREAS, based on the facts and analysis presented in the staff report, the report prepared by W-Trans, and its independent judgment, the Planning Commission:

- Recommends that the City Council establish a Plan Line at the intersection of Creston and Rolling Hills Roads based upon the recommendations outlined in the report prepared by W-Trans and dated September 15, 2006 for the installation of a modern roundabout.

- Recommends that the City Council approve a Negative Declaration in accordance with the California Environmental Quality Act for this project.

PASSED AND ADOPTED THIS 11th day of December, 2007, by the following Roll Call Vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
CHAIRMAN MARGARET HOLSTINE

ATTEST:

_____
RON WHISENAND, PLANNING COMMISSION SECRETARY

Exhibit A

CITY OF PASO ROBLES
INITIAL STUDY

1. GENERAL PROJECT INFORMATION

PROJECT TITLE:	Creston Road Roundabout Plan Line
LEAD AGENCY:	City of Paso Robles, 1000 Spring Street, Paso Robles, CA 93446
Initial Study Contact: **Phone/email:**	Ed Gallagher, City Planner (805) 237-3970, ed@prcity.com
PROJECT LOCATION:	Creston Road, centered on its intersection with Rolling Hills Road, between Orchard Lane and Melody Drive (See attached location map.)
PROJECT PROPONENT:	City of Paso Robles
Project Contact Person: **Phone/email:**	John Falkenstien, City Engineer (805) 237-3970, jfalkenstien@prcity.com
GENERAL PLAN DESIGNATION:	Creston Road Right-of-Way; affected properties are designated for Residential, Multiple Family 20 units per acre (RMF-20), Residential Single Family, 4 units per acre (RSF-4), and Community Commercial (CC) Creston Road is designated by the Circulation Element as an arterial street; Rolling Hills Road is designated as a local street.
ZONING:	Not applicable to right-of-way; affected properties are zoned R-4-20, R-1, and C-1

2. PROJECT DESCRIPTION:

The proposed project is the establishment of a plan line for Creston and Rolling Hills Roads at their intersection in order to accommodate a roundabout instead of a standard traffic signal. The plan line will determine the limits of dedication for right-of-way. Three properties will be affected:

A. 4 RMF-20 designated lots on the northwest corner of Creston and Rolling Hills Roads, currently under a single ownership;

B. A CC designated lot with a vacant building pad on the northeast corner of Creston and Rolling Hills Roads;

C. A City-owned open space/drainage way on the south side of Creston Road, opposite Rolling hills Road.

Attached is a map that shows the position of the new plan line.

On Property "A", the new plan line will be located about 20 feet north of the existing property line along Creston Road. The new line will follow a radius at the corner and join the existing right-of-way for Rolling Hills Road. For most of the property's Creston Road frontage, the new plan line would be the same if the intersection was to be controlled by a standard traffic signal. The substantial difference for a roundabout is the corner sweep.

On Property "B", additional right-of-way will be needed to make a corner sweep. The additional right-of-way will not affect the developable area of the lot.

On Property "C", a minimal amount of additional right-of-way is needed to accommodate the roundabout.

3. ENVIRONMENTAL SETTING:

The setting is urban. There are no habitats, wetlands, or steep slopes on the affected properties. There are no oak trees in the proposed additional right-of-way. (There is an oak in the existing right-of-way for Rolling Hills Road, which the developer of the condominium project plans to protect.) Property "A" is vacant, the area within the proposed plan line is covered in grasses. An application to develop condominiums units on this property has been submitted. (The application is presently incomplete and is being revised.) There are no street improvements (curb, gutter, sidewalk, full paved width) along this property's frontage. Property "B" contains a vacant building pad for a community shopping center. Its frontage on both Creston and Rolling Hills Roads is improved with curbs, gutters, and sidewalks. Construction of a roundabout would require reconstruction of these improvements and reconfiguration of landscaping. Property "C" is open space, but its Creston Road frontage is fully-improved.

4. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED):

None.

5. RELATED ENVIRONMENTAL DOCUMENTATION:

None.

6. CONTEXT OF ENVIRONMENTAL ANALYSIS FOR PROJECT:

This Initial Study focuses on the environmental effects associated with additional right-of-way needed to accommodate a roundabout at the intersection of Creston and Rolling Hills Roads and an arterial street along the frontage of Property "A".

7. PURPOSES OF AN INITIAL STUDY

The purposes of an Initial Study for a Development Project Application are:

A. To provide the City with sufficient information and analysis to use as the basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration for a site specific development project proposal;

B. To enable the Applicant of a site specific development project proposal or the City as the lead agency to modify a project, mitigating adverse impacts before an Environmental Impact Report is required to be

prepared, thereby enabling the proposed Project to qualify for issuance of a Negative Declaration or a Mitigated Negative Declaration;

C. To facilitate environmental assessment early in the design of a project;

D. To eliminate unnecessary EIRs;

E. To explain the reasons for determining that potentially significant effects would not be significant;

F. To determine if a previously prepared EIR could be used for the project;

G. To assist in the preparation of an Environmental Impact Report if one is required; and

H. To provide documentation of the factual basis for the finding of no significant effect as set forth in a Negative Declaration or a Mitigated Negative Declaration prepared for the a project.

8. EXPLANATION OF ANSWERS FOUND ON THE ENVIRONMENTAL CHECKLIST FORM

A. Scope of Environmental Review

This Initial Study evaluates potential impacts identified in the following checklist.

B. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers to the questions presented on the following Environmental Checklist Form, except where the answer is that the proposed project will have "No Impact." The "No Impact" answers are to be adequately supported by the information sources cited in the parentheses following each question or as otherwise explained in the introductory remarks. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors and/or general standards. The basis for the "No Impact" answers on the following Environmental Checklist Form is explained in further detail in this Initial Study in Section 9 (Earlier Environmental Analysis and Related Environmental Documentation) and Section 10 (Context of Environmental Analysis for the Project).

2. All answers on the following Environmental Checklist Form must take into account the whole action involved with the project, including implementation. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.

4. Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. Mitigation Measures from Section 9 (Earlier Environmental Analysis and Related Environmental Documentation) may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D).

See Section 4 (Earlier Environmental Analysis and Related Environmental Documentation) and Section 11 (Earlier Analysis and Background Materials) of this Initial Study.

6. References to the information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the Environmental Checklist Form. See Section 11 (Earlier Analysis and Related Environmental Documentation). Other sources used or individuals contacted are cited where appropriate.

7. The following Environmental Checklist Form generally is the same as the one contained in Title 14, California Code of Regulations; with some modifications to reflect the City's needs and requirements.

8. Standard Conditions of Approval: The City imposes standard conditions of approval on Projects. These conditions are considered to be components of and/or modifications to the Project and some reduce or minimize environmental impacts to a level of insignificance. Because they are considered part of the Project, they have not been identified as mitigation measures. For the readers' information, the standard conditions identified in this Initial Study are available for review at the Community Development Department.

9. Certification Statement: The statements made in this Initial Study and those made in the documents referenced herein present the data and information that are required to satisfy the provisions of the California Environmental Quality Act (CEQA) – Statutes and Guidelines, as well as the City's Procedures for Implementing CEQA. Further, the facts, statements, information, and analysis presented are true and correct in accordance with standard business practices of qualified professionals with expertise in the development review process, including building, planning, and engineering.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or is "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

☐ Land Use & Planning	☐ Transportation/Circulation	☐ Public Services
☐ Population & Housing	☐ Biological Resources	☐ Utilities & Service Systems
☐ Geological Problems	☐ Energy & Mineral Resources	☐ Aesthetics
☐ Water	☐ Hazards	☐ Cultural Resources
☐ Air Quality	☐ Noise	☐ Recreation
	☐ Mandatory Findings of Significance	

DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

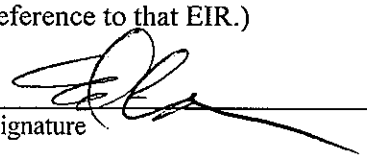
I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☑

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. **A NEGATIVE DECLARATION** will be prepared. ☐

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

I find that the proposed project **MAY** have a significant effect(s) on the environment, but one or more effects (1) have been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) have been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or is "potentially significant unless mitigated." An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effect(s) that remain to be addressed. ☐

I find that although the proposed project could have a significant effect(s) on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. (See item #11 above, for a specific reference to that EIR.) ☐



Signature

10/18/07
Date

Ed Gallagher
Printed Name

City Planner
Title

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

2. All answers must take account of the whole action involved. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.

4. Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XVII at the end of the checklist.

6. References to information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the checklist. A source list has been provided at the end of the checklist. Other sources used or individuals contacted have been cited in the respective discussions.

7. The following checklist has been formatted after Appendix I of Chapter 3, Title 14, California Code of Regulations, but has been augmented to reflect the needs and requirements of the City of Paso Robles.

(Note: Standard Conditions of Approval - The City imposes standard conditions of approval on projects which are considered to be components of or modifications to the project, some of these standard conditions also result in reducing or minimizing environmental impacts to a level of insignificance. However, because they are considered part of the project, they have not been identified as mitigation measures. For the readers' information, a list of applicable standard conditions identified in the discussions has been provided as an attachment to this document.)

SAMPLE QUESTION:

ISSUES (and Supporting Information Sources):	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the proposal result in or expose people to potential impacts involving:				
Landslides or Mud flows? (Sources: 1, 6)	☐	☐	☐	☑

Discussion: The attached source list explains that 1 is the Paso Robles General Plan and 6 is a topographical map of the area which show that the area is located in a flat area. (Note: This response probably would not require further explanation).

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

I. LAND USE AND PLANNING. Would the Proposal:

a) Conflict with general plan designation or zoning? (Source: Paso Robles Zoning Code.) ☐ ☐ ☐ ☑

Discussion: The project will have no effect on land use on the affected properties. It will facilitate implementation of the Circulation Element of the General Plan. The amount of right-of-way necessary for a roundabout is slightly more than that necessary for a standard traffic signal. However, the City recognizes that, in situations such as those found in the project area, roundabouts provide superior traffic circulation and less congestion than intersections controlled by standard traffic signals.

b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project? ☐ ☐ ☐ ☑

Discussion: See response to Item #I.a, above.

c) Be incompatible with existing land use in the vicinity? ☐ ☐ ☐ ☑

Discussion: A roundabout will improve the flow of traffic to and from land uses in the vicinity.

d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible uses)? ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? ☐ ☐ ☐ ☑

Discussion: See response to Item #I.e, above.

II. POPULATION AND HOUSING. Would the proposal:

a) Cumulatively exceed official regional or local population projections? ☐ ☐ ☐ ☑

Discussion: The project will not affect population growth.

b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ☐ ☐ ☐ ☑

Discussion: See response to Item #II.a, above.

c) Displace existing housing, especially affordable housing? ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:

a) Fault rupture? ☐ ☐ ☐ ☑

Discussion: The project does not traverse any known faults.

b) Seismic ground shaking? ☐ ☐ ☐ ☑

Discussion: See the response to Item IIIa.

c) Seismic ground failure, including liquefaction? ☐ ☐ ☐ ☑

Discussion:. The City's General Plan contains public safety policies that would require special attention to projects with potential for liquefaction. Also, see the response to Item IIIa. Based on the above discussion, the potential for exposure of persons or property to seismic hazards, including liquefaction is not considered significant.

d) Seiche, tsunami, or volcanic hazard? ☐ ☐ ☐ ☑

Discussion: The project site is not located in an area identified at risk for seiche, tsunami, or volcanic hazards.

e) Landslides or Mud flows? ☐ ☐ ☐ ☑

Discussion: The intersection would not be affected by, or contribute to, landslides and mudflows.

f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill? ☐ ☐ ☐ ☑

Discussion: There may be a need for a retaining wall on the northeast corner of Creston and Rolling Hills Roads in order to accommodate a roundabout. However, the amount of grading and soil retained would not be significant.

g) Subsidence of the land? ☐ ☐ ☐ ☑

Discussion: See the discussion under Items III (e) and (f) above. No significant adverse impacts are anticipated.

h) Expansive soils? ☐ ☐ ☐ ☑

Discussion: See the discussion under Items III (e) and (f) above. No significant adverse impacts are anticipated.

i) Unique geologic or physical features? ☐ ☐ ☐ ☑

Discussion: There are no unique geologic or physical features on site.

IV. WATER. Would the proposal result in:

a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? (Source: 9) ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of people or property to water related hazards such as flooding? (Source: 9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Discharge into surface waters or other alteration of surface water quality (e.g. temperature, dissolved oxygen, turbidity)?	☐	☐	☐	☑
Discussion: At the time of construction of the roundabout, a Storm Water Pollution Prevention Plan will be required (as a standard condition) to be prepared and implemented to ensure that any impacts will be avoided.				
d) Changes in the amount of surface water in any water body?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
e) Changes in currents, or the course or direction of water movement?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability? (Source: 9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
g) Altered direction or rate of flow of groundwater?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
h) Impacts to groundwater quality?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
i) Substantial reduction in the amount of groundwater otherwise available for public water supplies?	☐	☐	☐	☑
Discussion: Not applicable to this project.				

V. AIR QUALITY. Would the proposal:

a) Violate any air quality standard or contribute to an existing or projected air quality violation? (Source: 10)	☐	☐	☐	☑
Discussion: There will be no operational phase impacts. The scope of the project is so small that construction phase air quality impacts will not be significant.				

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Expose sensitive receptors to pollutants? (Source: 10)	☐	☐	☐	☑
Discussion: See response to Item #V.a, above.				
c) Alter air movement, moisture, or temperature? (Source: 10)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
d) Create objectionable odors? (Source: 10)	☐	☐	☐	☑
Discussion: Not applicable to this project.				

VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:

a) Increased vehicle trips or traffic congestion?	☐	☐	☐	☑
Discussion: The project will not generate traffic but will facilitate better traffic flow.				
b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Inadequate emergency access or inadequate access to nearby uses?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
d) Insufficient parking capacity on-site or off-site?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
e) Hazards or barriers for pedestrians or bicyclists?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
g) Rail, waterborne or air traffic impacts?	☐	☐	☐	☑
Discussion: Not applicable to this project.				

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:

a) Endangered, threatened or rare species or their habitats (including but not limited to: plants, fish, insects, animals, and birds)? ☐ ☐ ☐ ☑

Discussion: The project site is in an urbanized area. There are no habitats on the affected properties.

b) Locally designated species (e.g., heritage trees)? ☐ ☐ ☐ ☑

Discussion: There are no oak trees in the expanded right-of-way. The existing oak tree in the right-of-way for Rolling Hills Road is not related to the plan line project. The developer of the condominium project has indicated intent to preserve that tree, however.

c) Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)? ☐ ☐ ☐ ☑

Discussion: There are no habitats on the affected properties.

d) Wetland habitat (e.g., marsh, riparian and vernal pool)? ☐ ☐ ☐ ☑

Discussion: The project will not impact any wetlands.

e) Wildlife dispersal or migration corridors? ☐ ☐ ☐ ☑

Discussion: See response to Item VII.a, above.

VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:

a) Conflict with adopted energy conservation plans? (Source: 1) ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

b) Use non-renewable resource in a wasteful and inefficient manner? (Source: 1) ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State? (Source: 1) ☐ ☐ ☐ ☑

Discussion: Not applicable to this project.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS. Would the proposal involve:				
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
b) Possible interference with an emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) The creation of any health hazard or potential hazards?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
d) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☐	☐	☑
Discussion:				
X. NOISE. Would the proposal result in:				
a) Increases in existing noise levels?	☐	☐	☐	☑
Discussion: The Noise Element of the General Plan indicates that traffic on Creston Road will create noise that exceeds 65 dBA L_{DN} 69 feet from centerline, or about 19 feet into Property "A". This will happen with or without the plan line for the roundabout. Zoning regulations call for a 25 foot setback from the ultimate right-of-way of arterial streets, which will serve to mitigate this noise impact.				
b) Exposure of people to severe noise levels?	☐	☐	☐	☑
Discussion: See discussion on Item #Xa, above.				
XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a) Fire protection? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
b) Police Protection? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Schools?	☐	☐	☐	☑
Discussion: Not applicable to this project.				

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Maintenance of public facilities, including roads?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
e) Other governmental services? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				

XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:

a) Power or natural gas?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
b) Communication systems?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Local or regional water treatment or distribution facilities? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
d) Sewer or septic tanks? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
e) Storm water drainage? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
f) Solid waste disposal? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
g) Local or regional water supplies? (Source: 1,9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				

XIII. AESTHETICS. Would the proposal:

a) Affect a scenic vista or scenic highway?	☐	☐	☐	☑
Discussion: Not applicable to this project.				

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a demonstrable negative aesthetic effect?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Create light or glare? (Source: 1, 2, 9)	☐	☐	☐	☑
Discussion: Not applicable to this project.				
XIV.CULTURAL RESOURCES. Would the proposal:				
a) Disturb paleontological resources?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
b) Disturb archaeological resources?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
c) Affect historical resources?	☐	☐	☐	☑
Discussion: No historical resources will be affected by the project.				
d) Have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
e) Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
XV.RECREATION. Would the proposal:				
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	☑
Discussion: Not applicable to this project.				
b) Affect existing recreational opportunities?	☐	☐	☐	☑
Discussion: Not applicable to this project.				

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? Discussion: See responses to Items VIIa-e, above.	☐	☐	☐	☑
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals? Discussion: Not applicable to this project.	☐	☐	☐	☑
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) Discussion: Not applicable to this project.	☐	☐	☐	☑
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Discussion: Not applicable to this project..	☐	☐	☐	☑

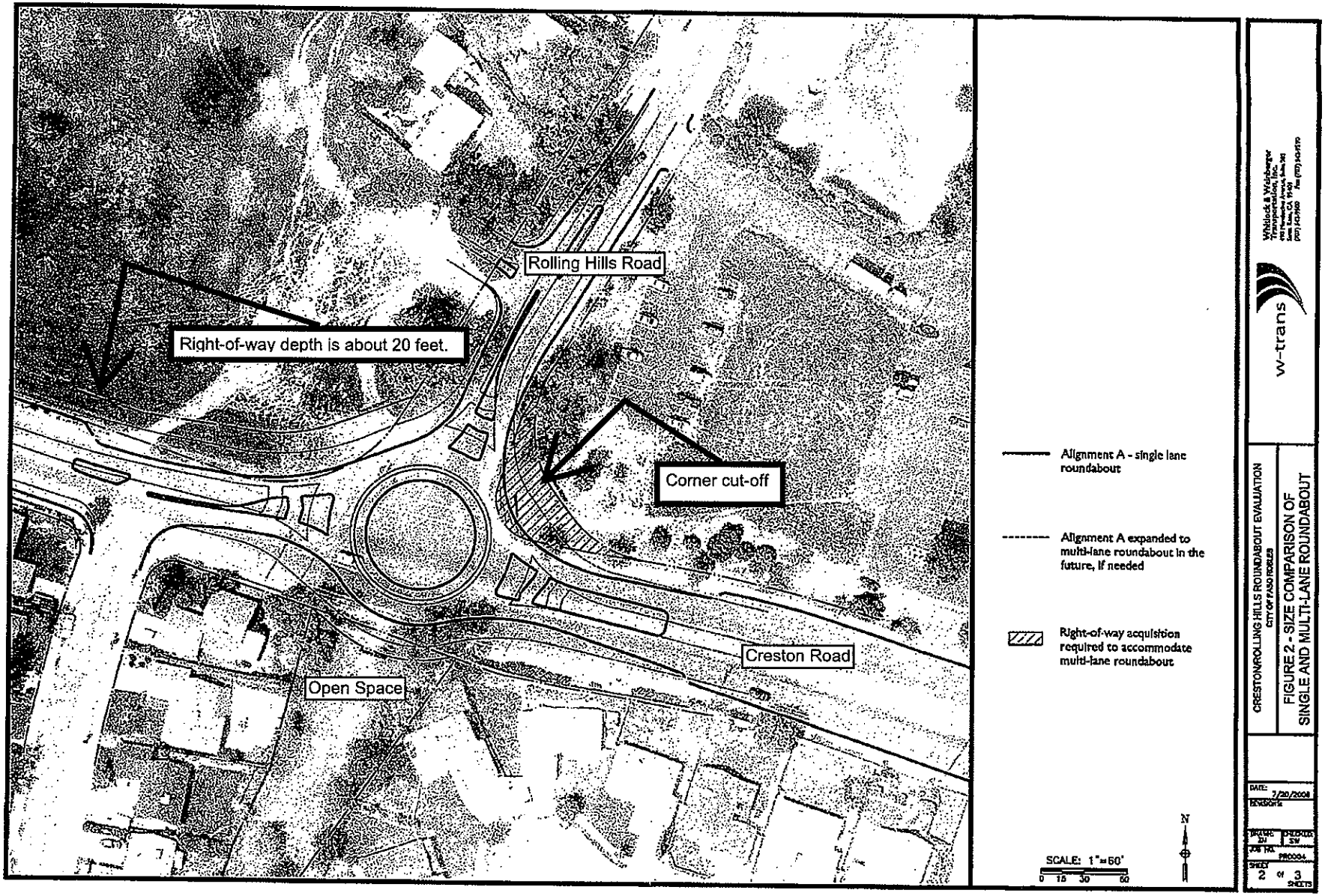
Exhibit A

EARLIER ANALYSIS AND BACKGROUND MATERIALS.

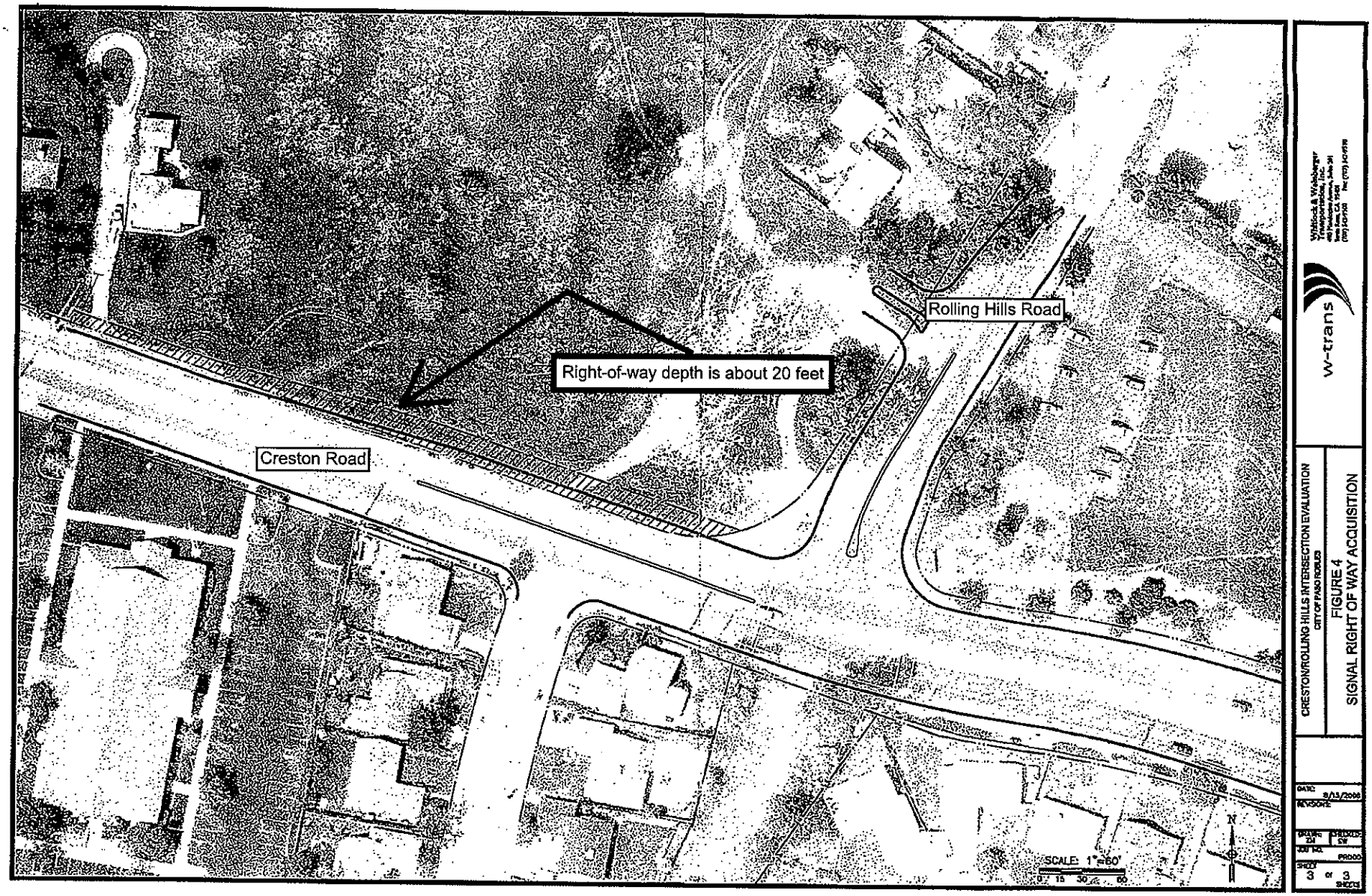
Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D).

Earlier Documents Prepared and Utilized in this Analysis and Background / Explanatory Materials

Reference #	Document Title	Available for Review at:
1	City of Paso Robles General Plan	City of Paso Robles Community Development Department 1000 Spring Street Paso Robles, CA 93446
2	City of Paso Robles Zoning Code	Same as above
3	City of Paso Robles Environmental Impact Report for General Plan Update	Same as above
4	2005 Airport Land Use Plan	Same as above
5	City of Paso Robles Municipal Code	Same as above
6	City of Paso Robles Water Master Plan	Same as above
7	City of Paso Robles Sewer Master Plan	Same as above
8	City of Paso Robles Housing Element	Same as above
9	City of Paso Robles Standard Conditions of Approval for New Development	Same as above
10	San Luis Obispo County Air Pollution Control District Guidelines for Impact Thresholds	APCD 3433 Roberto Court San Luis Obispo, CA 93401
11	San Luis Obispo County – Land Use Element	San Luis Obispo County Department of Planning County Government Center San Luis Obispo, CA 93408
12	USDA, Soils Conservation Service, Soil Survey of San Luis Obispo County, Paso Robles Area, 1983	USDA Soil Conservation Offices 65 Main Street, Suite 108 Templeton, CA 93465



RIGHT-OF-WAY CONFIGURATION FOR ROUNDABOUT



RIGHT-OF-WAY CONFIGURATION FOR STANDARD TRAFFIC SIGNAL

THE Newspaper of the Central Coast
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In The Superior Court of The State of California
In and for the County of San Luis Obispo
AFFIDAVIT OF PUBLICATION

AD #6663726
CITY OF PASO ROBLES

STATE OF CALIFORNIA
ss.
County of San Luis Obispo

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen and not interested in the above entitled matter; I am now, and at all times embraced in the publication herein mentioned was, the principal clerk of the printers and publishers of THE TRIBUNE, a newspaper of general circulation, printed and published daily at the City of San Luis Obispo in the above named county and state; that notice at which the annexed clippings is a true copy, was published in the above-named newspaper and not in any supplement thereof – on the following dates, to-wit; NOVEMBER 28, 2007 that said newspaper was duly and regularly ascertained and established a newspaper of general circulation by Decree entered in the Superior Court of San Luis Obispo County, State of California, on June 9, 1952, Case #19139 under the Government Code of the State of California.

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Anne E. Durand
(Signature of Principal Clerk)

DATED: NOVEMBER 28, 2007
AD COST: $170.81

CITY OF EL PASO DE ROBLES
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of Paso Robles will conduct a public hearing to consider the project described below:

Project Title:	Creston Road Roundabout Plan Line
Applicant:	City of Paso Robles
Project Location:	Creston Road, at its intersection with Rolling Hills Road, City of Paso Robles, California
Project Description:	The City of Paso Robles plans to establish a plan line for Creston and Rolling Hills Roads at their intersection in order to accommodate a roundabout instead of a standard traffic signal. The plan line will determine the limits of dedication from two private properties on the north side of Creston Road for right-of-way for the roundabout.

The Planning Commission will conduct a public hearing on this matter on Tuesday, December 11, 2007, at the hour of 7:30 pm in the Conference Center (First Floor) at the Paso Robles Library/City Hall, 1000 Spring Street, Paso Robles, California. All interested parties may appear and be heard at this hearing.

The Planning Commission will not be taking final action on the proposed plan line; it will make a recommendation to the City Council regarding this matter. As part of its recommendation, the Planning Commission will review a proposed Negative Declaration (Statement that the project will not have any significant environmental effects) in accordance with the California Environmental Quality Act (CEQA).

Final action on the plan line and its associated Negative Declaration will be taken by the City Council, which will conduct a public hearing on the proposed plan line at a future date. A separate notice of public hearing will be published for the City Council's hearing on this matter.

The public is invited to provide written comment on the proposed plan line and to provide oral comment at the public hearing noted above.

Maps showing the position of the proposed plan line and affected properties and a Draft Negative Declaration are available at the Community Development Department, 1000 Spring Street, Paso Robles, CA 93446. Questions about the proposed plan line may be directed to Ed Gallagher, City Planner at (805) 237-3970 or via email to ed@prcity.com.

Comments on the proposed project may be mailed to the Community Development Department, 1000 Spring Street, Paso Robles, CA 93446 or e-mailed to CDdirector@prcity.com provided that any comments are received no later than 5:00 pm on December 11, 2007.

If you challenge the action of the Planning Commission in court, you may be limited to raising only those issues you or someone else raised at the public meeting described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the public meeting described herein.

Publish one time on Wednesday, November 28, 2007.

Ed Gallagher, City Planner
November 28, 2007

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AFFIDAVIT

OF MAIL NOTICES

PLANNING COMMISSION/CITY COUNCIL PROJECT NOTICING

I, Ed Gallagher, employee of the City of El Paso de Robles, California, do hereby certify that the mail notices have been processed as required for Plan Line for Creston Road at Rolling Hills Road on this 30th day of November 2007.

City of El Paso de Robles
Community Development Department
Planning Division

Signed: _____
Ed Gallagher