APPENDIX B

TRANSPORTATION AND CIRCULATION
Transportation Impact Analysis

TRANSPORTATION IMPACT ANALYSIS

DeWitt Government Center Facility Plan (2003-2010)

prepared for
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1. Introduction

This report documents the impacts of the proposed DeWitt Government Center Facility Plan (2003-2010) on the transportation system surrounding the Dewitt Center, including roadways, transit services and bicycle facilities. The traffic analysis covers the following development scenarios:

- Existing Conditions (No Project)
- 2006 No Project
- 2006 with development of the DeWitt Government Center Facility Plan (2003-2010)
- 2020 No Project
- 2020 with development of the DeWitt Government Center Facility Plan (2003-2010)

By 2006, the County plans to extend Willow Creek Drive to the intersection of F Avenue and First Street. This connection will provide a new access from SR 49 to the DeWitt Center and substantially change existing travel patterns in the vicinity of the DeWitt Center. The Proposed Project involves moving many employees from existing buildings to new buildings and from existing buildings to other existing buildings. Most of these movements are scheduled in the Facility Plan to take place between November 2005 and February 2006. Therefore, traffic impacts were evaluated for each of the development scenarios under 2006 conditions as well as cumulative/2020 conditions.

2. Environmental Setting

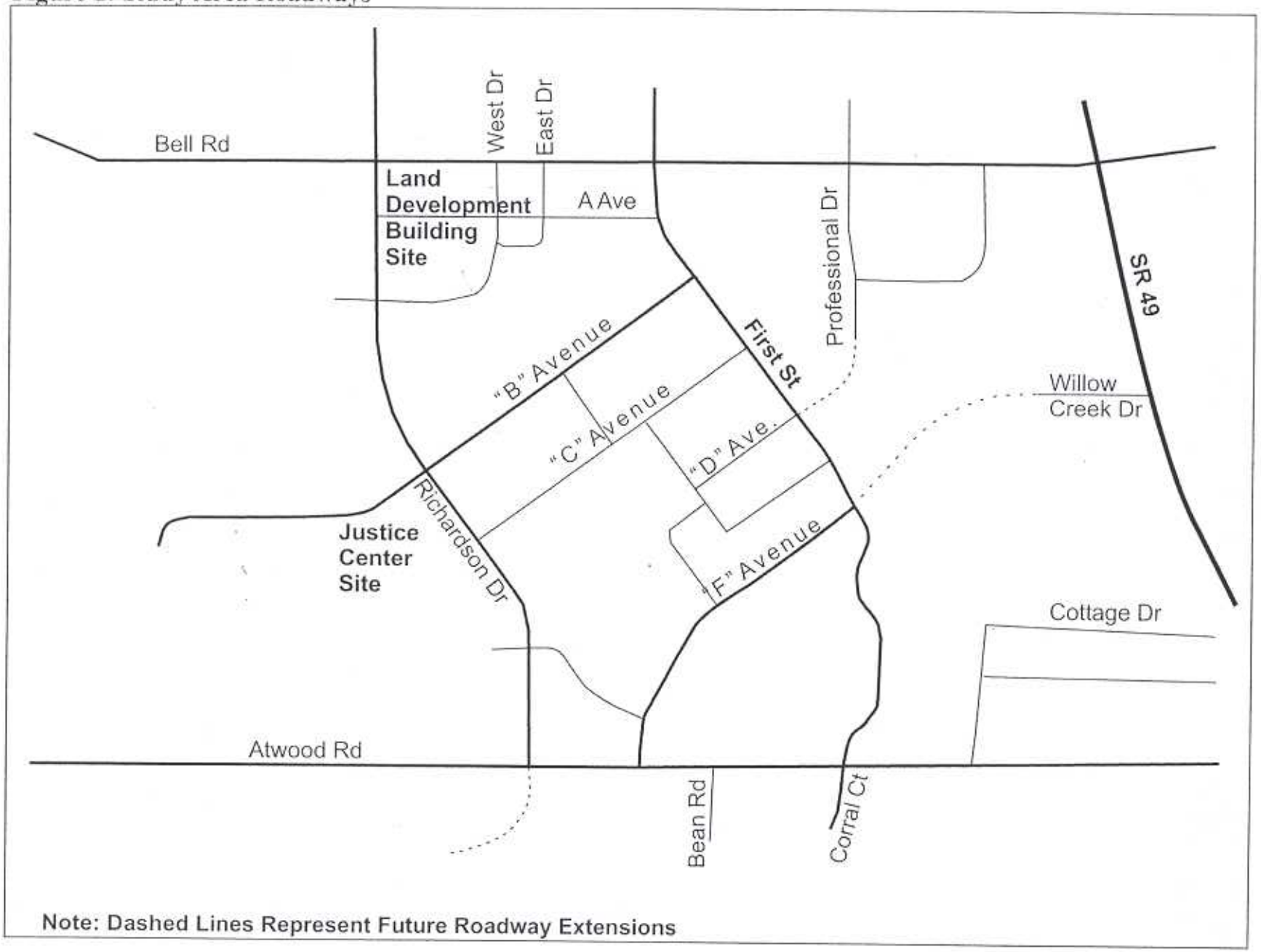
The evaluation of the operating characteristics of the existing circulation system in the vicinity of the proposed project is the initial task in defining the transportation impacts of the proposed project. The following sections briefly discuss existing roadway functions, traffic volumes, and traffic levels of service, as well as transit services and bicycle facilities.

Study Area Roadway System

The traffic analysis covers an area bounded by Bell Road to the north, Atwood Road to the south, Richardson Drive to the west, and Professional Drive to the east. These roadways serve the County's DeWitt Center campus. Figure 1 shows the study area roadways.

The Circulation Plan Diagram in the Countywide General Plan depicts the circulation system for unincorporated Placer County by means of a set of roadway classifications. The roadway classification system has been developed to guide Placer County's long range planning and programming. Roadways are classified in this system based on the linkages they provide and their function, both of which reflect their importance to the land use pattern, traveler, and general welfare. The County's functional classification system recognizes differences in roadway function and standards between urban/suburban areas and rural areas.

Figure 1: Study Area Roadways



The roadway classifications are as follows:

- **Local streets** provide direct access to abutting land, and access to the collector street system. The public uses these streets for local circulation. They carry little, if any, through traffic, and generally carry very low traffic volumes.

- **Collector roadways** are intended to "collect" traffic from local streets and carry it to roadways higher in the street classification hierarchy (e.g., arterials). The public uses these roadways as secondary circulation routes, and they generally carry light to moderate traffic volumes. Access to abutting land is normally permitted, but may be restricted to certain uses dependant upon future traffic volumes. In urban/ suburban areas, major collector roadways will generally carry higher traffic volumes than minor collectors and thus require more right-of-way and have more access restriction.

- **Arterial roadways** are fed by local and collector roadways and provide linkages to the State highway system as well as linkages to and between communities and major activity centers. The public uses these roadways as primary circulation routes for through traffic, and they carry higher volumes of traffic than local streets and collector roadways. In urban/suburban areas, major arterials will generally carry higher traffic volumes than minor arterials and thus require more right-of-way and have more access restrictions. Rural arterial roadways may or may not carry high traffic volumes, but do provide primary access routes for through travel in rural areas of the County.

The existing roadway network in the vicinity of the proposed project consists of state highways, arterial, collectors and local roadways. The key roadways in the project vicinity are shown in Figure 1 and are described below.

Atwood Road is an east-west roadway that runs along the south side of the DeWitt Center. This roadway is classified as an urban/suburban major collector from Richardson Drive to SR 49. West of Richardson Drive, Atwood Road extends as a rural roadway west to Mount Vernon Road.

Bell Road is an east-west roadway that runs along the north side of the DeWitt Center. This roadway is classified as an urban/suburban minor arterial from the urban limits west of the project site to SR 49. Bell Road is classified as an urban/suburban major arterial from SR 49 to Interstate 80. Bell Road serves as a major connection between SR 49 and Interstate 80. Auburn Municipal Airport has its main access off Bell Road.

Richardson Drive is a north-south local roadway that runs through the central portion of the DeWitt Center, west of the majority of the existing onsite development. This roadway currently terminates at Atwood Road to the south and just north of Bell Road to the north.

First Street is a north-south roadway that runs along the east side of the DeWitt Center. It is a two-lane local roadway that becomes Blue Oaks Drive north of Bell Road and Corral Court south of Atwood Road.

Professional Drive is a north-south local roadway to the east of the project site. Professional Drive begins north of Bell Road at Education Drive and currently dead-ends south of Bell Road. Plans include an extension of this roadway to the intersection of D Avenue/ First Street on the DeWitt campus.

Willow Creek Drive is an east-west local roadway that runs a short distance westward from SR 49. Future plans include an extension of this roadway to the intersection of F Avenue/ First Street on the DeWitt Campus. This would provide a new access from SR 49 to the DeWitt Center.

A Avenue, B Avenue, and C Avenue are all east-west streets that run through the DeWitt Center from First Street to Richardson Drive. They are all two lane local streets with some on-street parking. **F Avenue** is a local street that connects First Street with Atwood Road.

State Route 49 is a north-south highway to the east of the project site. SR 49 connects the City of Auburn to foothill communities to the south and to Grass Valley/ Nevada City to the north. SR 49 provides access to the project site from Interstate 80, approximately 3 miles to the south.

Existing Traffic Levels of Service

Determination of traffic impacts of the proposed project is based upon projected roadway volumes and comparisons to roadway capacities. Roadway operating conditions are described using the concept of "levels of service".

Level of service (LOS) is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operation costs. Levels of service are designated "A" through "F" from the best to worst, which cover the entire range of traffic operations that might occur. Level of service "E" describes conditions approaching or at maximum capacity.

Under the Placer County General Plan, the County has set a standard of LOS "C" except for within one-half mile of state highways, where the standard is LOS "D". Tables 1 and 2 summarize the level of service criteria used for signalized and unsignalized intersections, respectively.

Table 1
Level of Service Definitions - Signalized Intersections

LOS	V/C	Description
A	0.00-0.60	**Free Flow / Insignificant Delays:** No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	0.61-0.70	**Stable Operation / Minimal Delays:** An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted.
C	0.71-0.80	**Stable Operation / Acceptable Delays:** Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	0.81-0.90	**Approaching Unstable / Tolerable Delays:** Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	0.91-1.00	**Unstable Operation / Significant Delays:** Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	>1.00	**Forced Flow / Excessive Delays:** Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Sources: Circular 212, Transportation Research Board, 1981.

Table 2
Level of Service Definitions - Unsignalized Intersections

Level of Service (LOS)	Average Delay per Vehicle (sec/vehicle)
A	0 to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	> 60.0

Source: Highway Capacity Manual, Transportation Research Board, 2000.

Placer County uses the Transportation Research Board Circular 212 (critical movement) method to evaluate levels of service at its signalized intersections. Analysis of level of service at unsignalized intersections is based upon the methodology found in the Transportation Research Board's *Highway Capacity Manual*. This method calculates level of service based on the delay on each of the stop-sign controlled movements at the intersection. For this EIR, the level of service for stop-sign controlled intersections is based on the average delay for all movements in the intersection.

Figures 2 and 3 show existing traffic volumes for the key study area intersections during the AM and PM peak hours, respectively. Table 3 summarizes existing peak hour operating conditions for those study intersections. For one-way and two-way stop sign controlled intersections, both "average" intersection delay and "worst movement" delay are reported. This is because intersections of a major roadway and a minor cross-street can experience a very good overall average level of service while a relatively low number of vehicles on the side street may experience lengthy delays to find a gap and enter the major street. 4-way stops use average intersection delay as the basis for level of service calculations. Signalized intersections use volume-to-capacity (V/C) ratio as the basis for level of service calculations.

Table 3
Existing Level of Service

Intersection	Traffic Control	AM Peak Hour				PM Peak Hour			
		Average		Worst Movement		Average		Worst Movement	
		LOS	Delay/ V/C	LOS	Delay	LOS	Delay/ V/C	LOS	Delay
Richardson Dr and Bell Rd	2-way stop	A	3.2	B	12.3	A	3.3	B	13.1
First St and Bell Rd	2-way stop	A	4.3	D	28.1	A	3.7	C	19.6
Professional Dr and Bell Rd	Signal	A	0.53			A	0.42		
Richardson Dr and A Ave	1-way stop	A	2.9	A	9.9	A	1.5	A	9.9
Richardson Dr and B Ave	4-way stop	A	8.3			A	8.7		
Richardson Dr at C Ave	2-way stop	A	0.9	B	11.2	A	2.4	B	11.8
Richardson Dr and Atwood Rd	1-way stop	A	3.0	A	9.6	A	6.2	B	12.1
First St and Atwood Rd	2-way stop	A	1.4	C	17.8	A	2.6	C	22.2

Figure 2: Existing Conditions AM Peak Hour

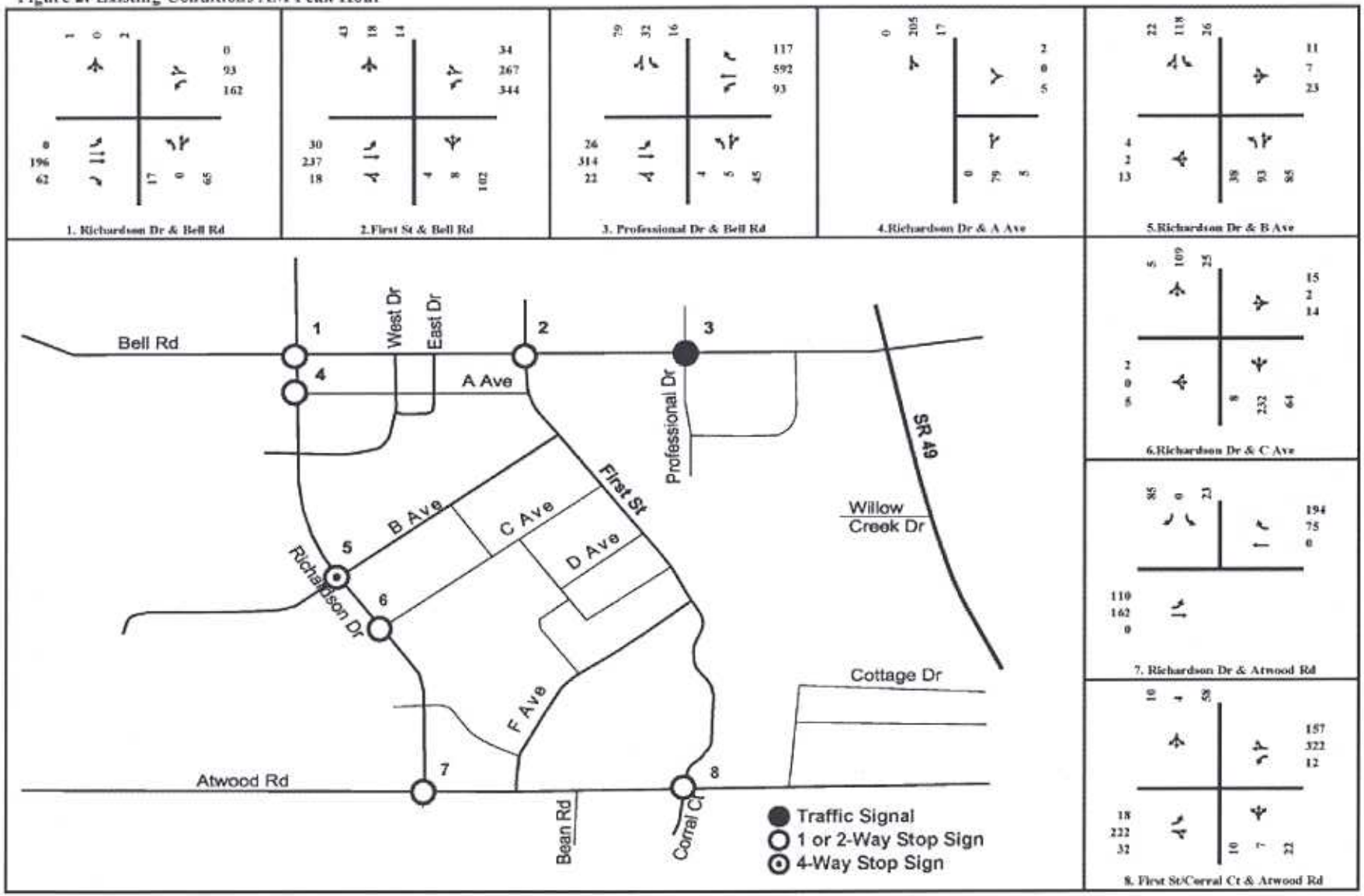
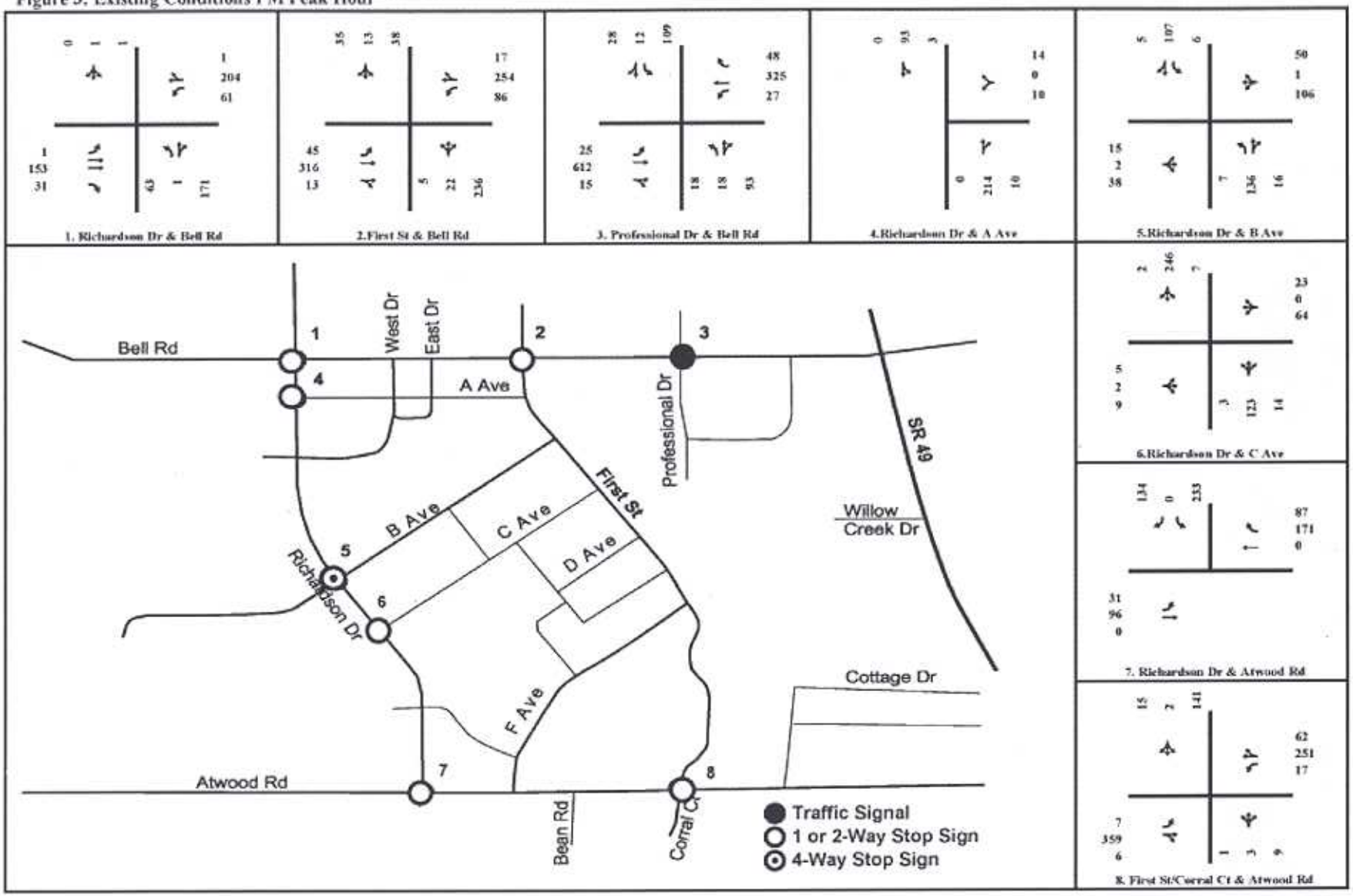


Figure 3: Existing Conditions PM Peak Hour



Existing Transit Service

Placer County Transit (PCT) provides bus service to the DeWitt Center with two routes. Its Highway 49 Shuttle route provides hourly service along Highway 49, makes several stops within the DeWitt Center and in the City of Auburn connects to PCT's Taylor Road Shuttle and their Auburn to Light Rail route. The North Auburn Loop stops in the DeWitt Center and provides hourly service to locations within the North Auburn Area.

Existing Bicycle Facilities

Bicycle facilities in Placer County are classified as follows:

- **Class I**: Off-street bike trails or paths which are physically separated from streets or roads used by motorized vehicles.
- **Class II**: On-street bike lanes with signs, striped lane markings and pavement legends.
- **Class III**: On-street bike routes marked by signs and shared with motor vehicles and pedestrians. Optional four-inch edge lines painted on the pavement.

There is a very limited bikeway system in the vicinity of the proposed project. According to The Placer County Bikeway Map prepared by the Placer County Transportation Planning Agency, both Bell Road and Atwood Road are considered to be "on-street bikeways", which do not have signed and striped bike lanes or provide bicyclists with increased road privileges. These roadways were determined to be appropriate for bicyclist to share the travel way with motor vehicles traffic or pedestrians.

3. Regulatory Setting

A number of County standards apply to the evaluation of transportation impacts of the proposed projects. These standards cover the primary aspects of the transportation system (operations and design) and should be adhered to by the projects. These standards are included in the following text.

Project Consistency with the Placer County General Plan

Placer County's General Plan contains policies governing development within Placer County. Any inconsistencies with the transportation and circulation policies in the General Plan would be regarded as impacts of the proposed projects.

Placer County Level of Service (LOS) Standard

Under the Placer County General Plan, the County has set a standard of LOS "C" or better for its roadway system. Consequently, LOS "A", "B", and "C" are considered acceptable, while

"D", "E" and "F" are unacceptable. Within one-half mile of a state highway, LOS "D" will be considered acceptable. The Auburn/Bowman Community Plan also establishes LOS "C" as the minimum acceptable operating condition for roadway segments and intersections, and LOS "D" as the minimum for segments and intersections within one-half mile of a state highway. The Community Plan recognizes that there are some existing segments and intersections that are not expected to attain LOS "C" or LOS "D." These segments and intersections are listed in Table 17 of the Community Plan. None of the roadways analyzed in this document are considered exceptions in the Community Plan.

Placer County Improvement Standards

Roadway improvements within Placer County must conform to a set of standard plans that detail County standards for pavement width, lighting, drainage, sewer, and other roadside facilities. Roadway facilities associated with the two proposed projects must meet or exceed these standards.

Placer County Capital Improvement Program (CIP)

The CIP defines phasing of roadway improvements that are needed to meet the County's level of service standards over a 20-year period. This program should be updated a minimum of every five years or with the approval of a significant level of development.

Placer County Bikeway Master Plan

The Placer County General Plan calls for the development of a comprehensive bikeway system that would provide connections between the major urban areas of the County, with linkages to bikeway systems in other jurisdictions. The County developed a Bikeway Master Plan in 1988 to provide guidelines for the development of a countywide network of bicycle facilities and design standards (based on Caltrans standards) for new bicycle facilities. The plan covers the west slope of the County from Colfax to Roseville.

Placer County Truck Routes

Placer County has not developed a system of truck routes for the unincorporated county. However, trucks are prohibited from using specific bridges and roadways.

4. Impacts

This section identifies and discusses the environmental impacts resulting from the proposed project, and suggests mitigation measures to reduce the level of impact.

Standards of Significance

CEQA Guidelines states that a project will normally have a significant effect on the environment if it will cause a substantial increase in traffic in relation to the existing traffic load and capacity of the street system. For this analysis, roadway levels of service will be used as the basis for determining significant impacts.

Placer County uses a LOS "C" standard for county roadways, except for those county roadways within one-half mile of a state highway, where LOS "D" is permissible.

Potential significant impacts associated with traffic impacts have been evaluated using the following criteria:

- In unincorporated Placer County, the project would cause roadway or intersection operations to deteriorate to levels below LOS C standard, or LOS D within one-half mile of state highways.

- Planned transit services do not meet the additional transit demand generated by the project, which includes helping the County meet its level of service standard, transportation systems management standards and air quality goals.

- Planned bicycle facilities do not provide adequate capacity for the additional bicycle trips generated by the project, and the policies and guidelines of the Bikeway Master Plan.

Methodology

According to County data, the DeWitt Campus currently houses about 1,917 employees. The DeWitt Government Center Facility Plan (2003-2010) includes the movement of numerous employees from existing buildings on the site to existing vacated buildings and future buildings. The proposed new buildings include the Land Development Building (LDB), the Auburn Justice Center (AJC), a new Women's Center (WC), and a new Children's Emergency Shelter (CES).

The proposed LDB is to be built on a site within the built-up portion of the DeWitt Center. This site is bounded by Bell Road to the north, DeWitt Drive to the south, Richardson Drive to the west, and East Street to the east. Four of the six buildings that house the Bell Gardens Apartments and some other existing buildings would be demolished to make way for the new building and associated parking. "A" Avenue and West Street would also be abandoned.

The proposed AJC would be located west of Richardson Drive and south of "B" Avenue. This site is currently vacant.

The site for the WC and CES is currently vacant and is located in the southwest corner of the Dewitt Center, west of the existing DeWitt Center facilities. These new facilities would be accessed by a new entrance road connecting to Atwood Road west of Richardson Drive.

For 2006 conditions, the Facility Plan includes minimal new employment in the DeWitt Center. Approximately 15 new employees would be located at the new facilities. Thirteen multi-family dwelling units would be demolished and up to ten new ones would be constructed as part of the new Women's Center.

In addition to movements of existing employees, the Facility Plan includes approximately 180 new employees on the campus by 2010. The Plan also assumes the movement of 205 employees from the DeWitt Center to the proposed South Placer County Justice Center (SPCJC) in Roseville by 2007, as anticipated in the Placer County Criminal Justice Facilities Master Plan. However the SPCJC is not included in the proposed DeWitt Government Center Facility Plan. That project is being pursued by the County as a separate project. Therefore in 2020 implementation of the Plan and operation of the SPCJC will result in a net *decrease* of approximately 25 employees in the departments affected by the proposed project. The Plan also calls for the demolition of the four of the six buildings that house the Bell Gardens Apartments, which consists of 13 multi-family dwelling units housing approximately 44 people.

In order to calculate existing trip generation for the project site, DKS Associates conducted a "cordon count" for all entrances and exits to the DeWitt Center in the spring of 2002. Table 4 shows existing daily and peak hour traffic volumes for these entrances and exits. These volumes reflect 2002 employment levels of 1,917 employees. Based on these traffic counts, DeWitt Center currently produces approximately 16,800 daily trips (or approximately 8.77 daily trips per employee).

Future transportation system needs and impacts on the County's roadway system are based on the Placer County Travel Demand Model, which was originally developed by DKS Associates in 1993 for Placer County. This model was recently re-validated to 2001/2002 conditions in the North Auburn area. The model translates land uses into roadway volume projections. Its inputs are estimates of development (i.e., the number of single-family and multi-family dwelling units, and the amount of square footage of various categories of non-residential uses) and a detailed description of the roadway system. The model covers not only the portions of Placer County west of Colfax, but also the entire Sacramento region, including Sacramento, Yolo and South Sutter counties. For areas outside Placer County, the model uses the trip generation estimates from the regional model maintained by the Sacramento Area Council of Governments (SACOG). The Placer County model also maintains a general consistency with the trip distribution and mode choice estimates from SACOG's regional model for the entire region.

The Placer County Travel Demand Model was used to estimate traffic demand on the

roadway system in the vicinity of the DeWitt Center under 2006 and 2020/cumulative conditions. Developments in the vicinity of the DeWitt Center that were identified by Placer County to be in place by 2006 were added to the existing (2001) travel model land use inventory. The travel model was then used to estimate 2006 traffic volumes. For 2020, local and regional development estimates for 2020 were used with the Placer County Travel Demand Model to estimate 2020 traffic volumes.

Table 4
Existing Traffic Volumes Entering and Exiting DeWitt Center

Location	AM Peak Hour (7:30 to 8:30 AM)				PM Peak Hour (4:30 to 5:30 AM)				Daily Volume
	Inbound		Outbound		Inbound		Outbound		
	Volume	Direction	Volume	Direction	Volume	Direction	Volume	Direction	
South of Bell Road									
Richardson Drive	238	SB	52	NB	86	SB	228	NB	3,352
North Entrance	27	SB	22	NB	22	SB	36	NB	631
1st Street	437	SB	86	NB	123	SB	245	NB	5,118
Subtotal	702		160		231		509		9,101
North of Atwood Road									
Richardson Drive	303	NB	112	SB	102	NB	304	SB	4,043
F Avenue	85	NB	40	SB	21	NB	83	SB	1,313
1st Street	161	NB	54	SB	45	NB	122	SB	2,352
Subtotal	549		206		168		509		7,708
Total	**1,251**		**366**		**399**		**1,018**		**16,809**
Trips per Employee (1,917 employees)	Inbound		Outbound		Inbound		Outbound		Total
	0.65		0.19		0.21		0.53		8.77

Source: DKS Associates based on traffic counts conducted in February and April 2002

Project Trip Generation

Table 5 summarizes the estimated trip generation of DeWitt Center under existing, 2006, and 2020 conditions. The Plan does not include much additional employment by 2006, it mostly calls for shifts of employees from old facilities to new ones.

Table 5
Estimated Growth in Vehicle Trips Generated by the DeWitt Center

		2002	2006	2020
	Employment	1,917	1,932	1,892 [1]
	Daily Vehicle Trips	16,809	16,940	16,590
AM Peak Hour Vehicle Trips	Inbound	1,251	1,261	1,235
	Outbound	366	369	364
PM Peak Hour Vehicle Trips	Inbound	399	402	397
	Outbound	1,018	1,026	1,013

Note 1: Reflects 205 employees moved to South Placer County Justice Center (SPCJC) in Roseville by 2010

Trip Distribution and Assignment

Traffic count data were used to estimate the distribution of trips that enter and leave the DeWitt Center. Table 6 shows the existing distribution of traffic to and from the DeWitt Center. The extension of two roadways adjacent to the site will change the usage at its points of access.

Future plans include the extension of Willow Creek Drive from its current terminus just west of State Route 49 to First Street on the east edge of the DeWitt Center. This would provide new direct access from SR 49 to the DeWitt Center. The intersection of Willow Creek and SR 49 is signalized and will thus provide a good alternative to the heavily used intersections of Atwood Road/SR 49 and Bell Road/SR 49. Therefore, some of the vehicles that currently enter or exit the site via Bell Road or Atwood Road could shift to Willow Creek Road. An assumption has been made that approximately 30% of the vehicles that would have entered or exited DeWitt Center from Atwood Road to the east would shift to Willow Creek Drive.

The extension of Professional Drive from its current terminus south of Bell Road to the east edge of DeWitt Center would also provide a new access point to the site. Vehicles using Bell Road could divert from entering the DeWitt Center from First Street to entering from Professional Drive. An assumption has been made that approximately half of the vehicles entering or exiting DeWitt Center from Bell Road via First Street would shift to Professional Drive.

Table 6
Existing Traffic Volume Distribution Entering and Exiting DeWitt Center

Location	AM Peak Hour (7:30 to 8:30 AM)		PM Peak Hour (7:30 to 8:30 AM)		Percent of Daily Volume
	Percent of Total Inbound Volume	Percent of Total Outbound Volume	Percent of Total Inbound Volume	Percent of Total Outbound Volume	
South of Bell Road					
Richardson Drive	19.0%	14.2%	21.6%	22.4%	19.9%
North Entrance	2.2%	6.0%	5.5%	3.5%	3.8%
1st Street	34.9%	23.5%	30.8%	24.1%	30.4%
Subtotal	56.1%	43.7%	57.9%	50.0%	54.1%
North of Atwood Road					
Richardson Drive	24.2%	30.6%	25.6%	29.9%	24.1%
F Avenue	6.8%	10.9%	5.3%	8.2%	7.8%
1st Street	12.9%	14.8%	11.3%	12.0%	14.0%
Subtotal	43.9%	56.3%	42.1%	50.0%	45.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: DKS Associates based on traffic counts conducted in February and April 2002

These two roadway extensions would change the distributions displayed in Table 6 and have been incorporated into the future scenarios with and without the proposed project.

Planned Transportation Improvements

The analysis of the "no project" conditions under the 2006 and 2020 conditions assumed that the improvements contained in the Placer County Capital Improvement Program (CIP) would be fully implemented. These improvements include the following improvements by 2006:

- Widening of Bell Road from 2 to 4 lanes (SR 49 to I-80)
- Extension of Willow Creek Drive from current terminus to the intersection of 1st Street and F Avenue
- Extension of Professional Drive from its current terminus to the intersection of 1st Street and D Avenue
- Signalization of Richardson Drive/Atwood Road intersection (concurrent with construction of the Atwood Ranch Phase 3 residential subdivision)
- Signalization of First Street/Bell Road intersection
- Extension of Richardson Drive south of Atwood Road to serve the Atwood Ranch Phase 3 development
- Locksley Lane Connector, east from Quartz at SR 49 and north to Locksley Lane

These improvements also include the following improvements contained in the Placer County Capital Improvement Program (CIP) by 2020:

- Widening of SR 49 to six lanes from Dry Creek to Nevada Street
- Extension of Richardson Drive from Bell Road north to Dry Creek Road
- Extension of Education Street west to Richardson Drive
- Extension of Quartz Drive west to Richardson Drive
- Improvement of Bell Road to four-lane divided arterial standards from SR 49 to Richardson Drive.

Project Related Transportation Improvements

Some intersections on Bell Road and Richardson Drive would be modified or eliminated due to roadway changes that are part of the proposed project. West Drive would be abandoned and East Drive would be converted from one-way to two-way. These roadway changes would alter their intersections with Bell Road. A Street between Richardson Drive and East Drive would also be abandoned, which would eliminate its intersection with Richardson Drive.

Bell Road would be widened, and curb, gutter and sidewalk would be added along Bell Road and along Richardson Dive adjacent to the project site. Entrances to the parking lot for the proposed Land Development Building would be located on DeWitt Drive and East Drive. entrances to the parking lots for the proposed Auburn Justice Center would be located on

Richardson Drive at B Avenue and C Avenue. Some intersections on Bell Road and Richardson Drive would be modified or eliminated due to roadway changes that are part of the proposed project.

The proposed project would not create the need to signalize any intersections in the vicinity of the proposed project. The change in location of employment and parking resulting from the proposed project would cause a moderate shift in traffic from First Street to Richardson Drive.

2006 Traffic Impact Analysis

A traffic impact analysis was conducted for the year 2006 in the project vicinity. Various local development projects were assumed to be in place based on conversations with Placer County Public Works staff. These projects include:

- A Home Depot store, located east of the DeWitt Center along Willow Creek Drive between Professional Drive and SR 49 (approximately 129,000 square feet).
- An Auto Zone auto parts store, located at the southwest corner of SR 49 and Willow Creek Drive (approximately 5,400 square feet).
- Sullivan Commercial located at the northwest corner of SR 49 and Willow Creek Drive, a co-branded Arco gas station and Wendy's (3,400 square feet with 12 fueling stations) and 20,000 square feet specialty commercial.
- Highway 49 Racing Pigeon Clubhouse, located on the east side of SR 49 at Poppy Lane (1,344 square feet).
- Rock Creek Plaza, located at southeast quadrant of SR 49 and Bell Road (43,000 square foot expansion).
- The Atwood Ranch Phases 2, 3 and 5 located south of Atwood Road and totaling 229 residential units.
- A new middle school south of Atwood Road.

Figure 4 shows the 2006 No Project AM peak hour volumes at the study intersections. Figure 5 shows the same data for the PM peak hour. A planning level traffic signal warrant analysis was conducted under 2006 No Project conditions. Results of this warrant analysis suggest that traffic signals would likely be warranted at the intersections of First Street/ Bell Road and Richardson Drive/ Atwood Road by 2006 without the proposed project.

As stated previously, the DeWitt Government Center Facility Plan (2003-2010) does not include significant increases in employment by 2006. It is assumed that the new buildings will house employees that currently are located in outdated and overcrowded facilities. Some of those existing buildings would be demolished while others will have fewer employees. Therefore, compared to the No Project Alternative, few new vehicle trips would be produced by this scenario.

Employees and visitors to the proposed new buildings will use different parking facilities than they would under the No Project Alternative, The change in location of employment and

parking resulting from these proposed projects would cause moderate shifts in traffic around the site. The new buildings are all located toward the west side of the site and thus would cause shifts of traffic from the eastern entrances and roadways in the DeWitt Center toward the west. An updated and more detailed version of the Placer County Travel Demand Model was used to determine the resultant shifts of traffic at the study intersections. This updated model also includes the Willow Creek and Professional Drive extensions. The addition of these two extensions results in shifts of vehicles from Atwood and Bell to Willow Creek and from First to Professional. Since these two extensions are assumed to be in the no project and with project cases, their impacts on traffic volumes are not documented in this report. Figures 6 and 7 show the estimated shifts in turning movements attributed to the proposed project for the AM and PM peak hour, respectively.

Figure 8 shows the 2006 Plus Project AM peak hour volumes and Figure 9 shows the same data for the PM peak hour. A planning level traffic signal warrant analysis was conducted for 2006 Plus Project conditions. Results of this warrant analysis suggest that no additional signals would be warranted beyond those needed under the No Project Alternative (at the intersections of First Street/ Bell Road and Richardson Drive/ Atwood Road).

Figure 4: 2006 No Project AM Peak Hour

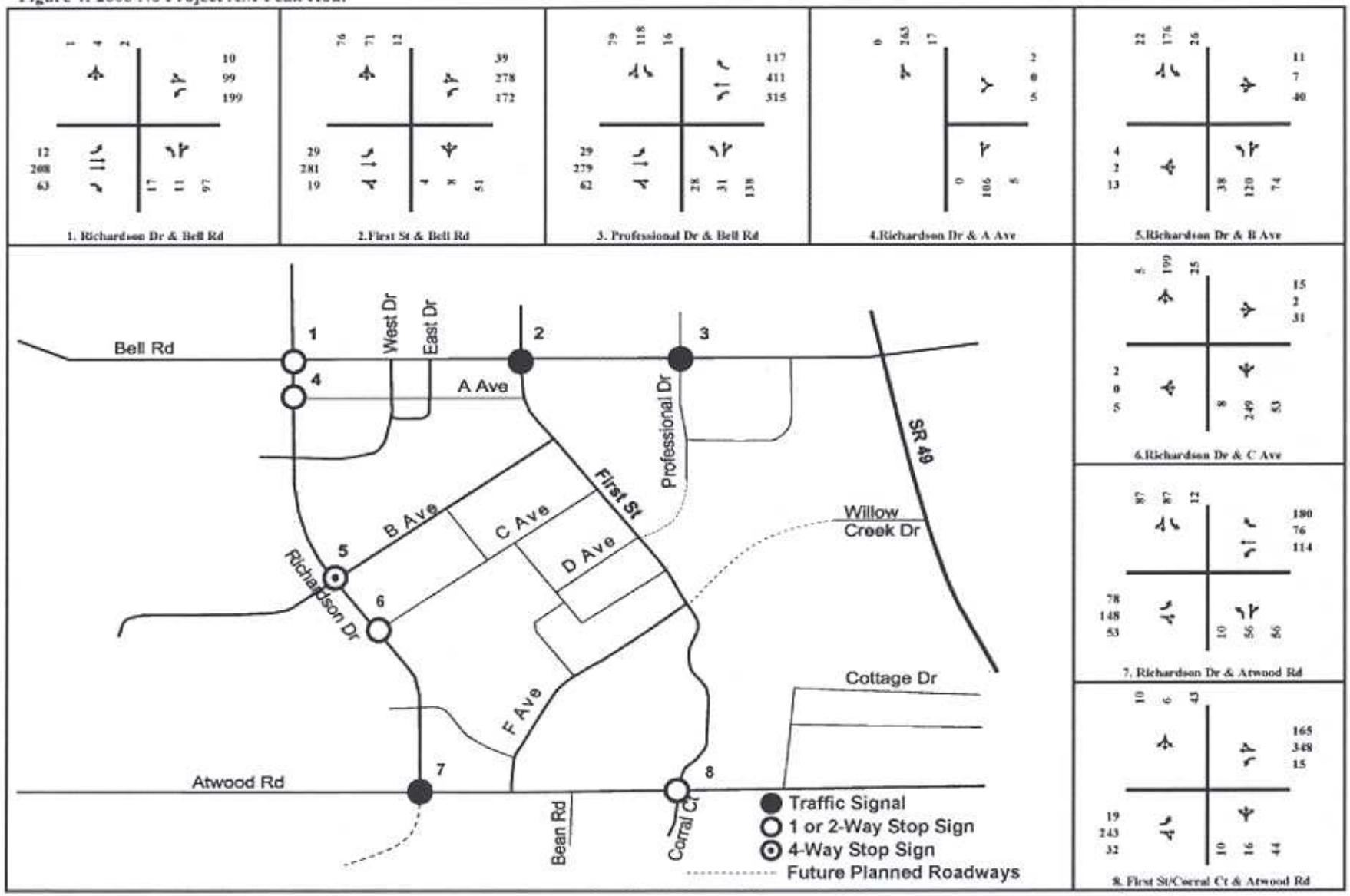


Figure 5: 2006 No Project PM Peak Hour

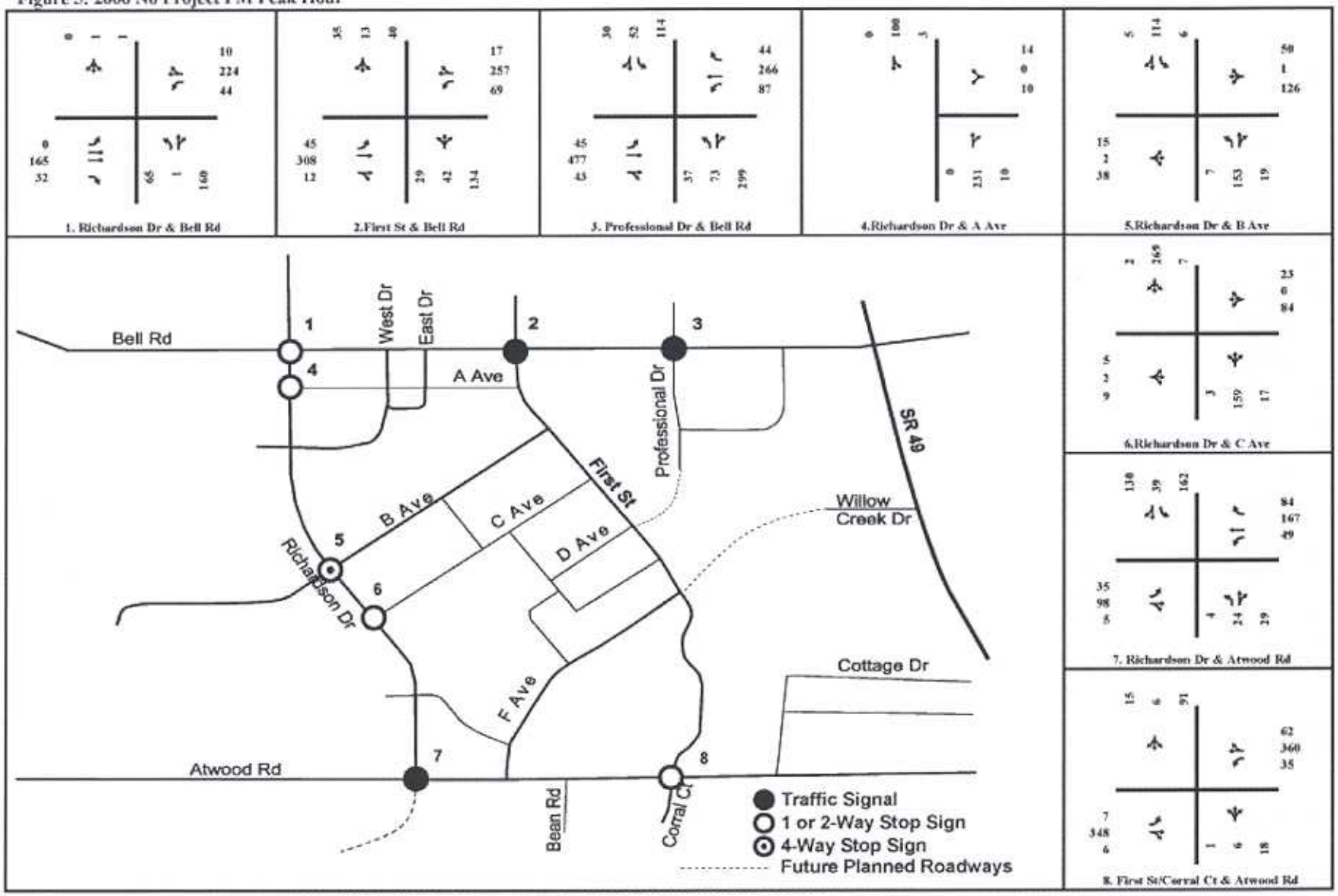


Figure 6: 2006 Project Added AM Peak Hour

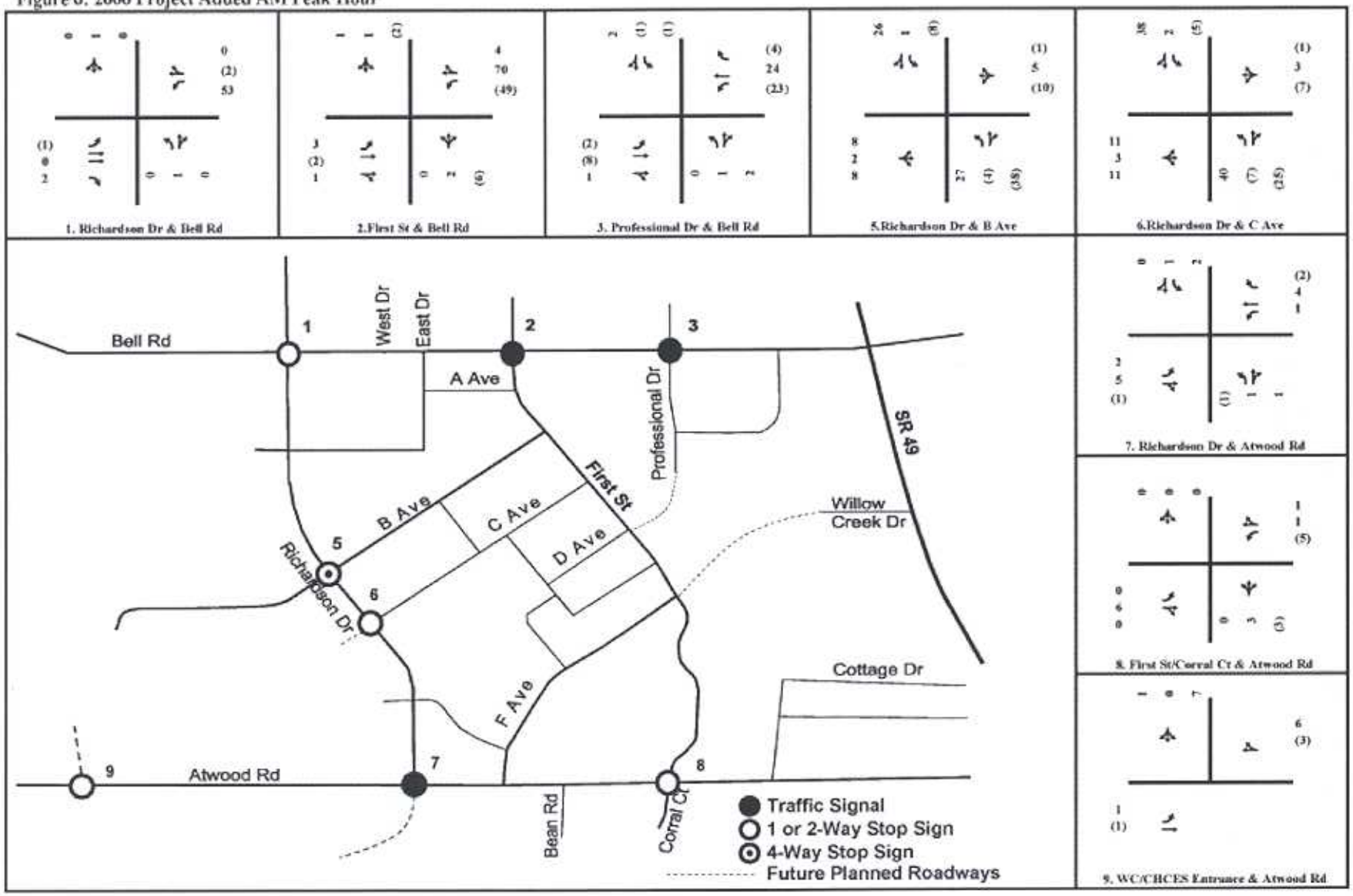


Figure 7: 2006 Project Added PM Peak Hour

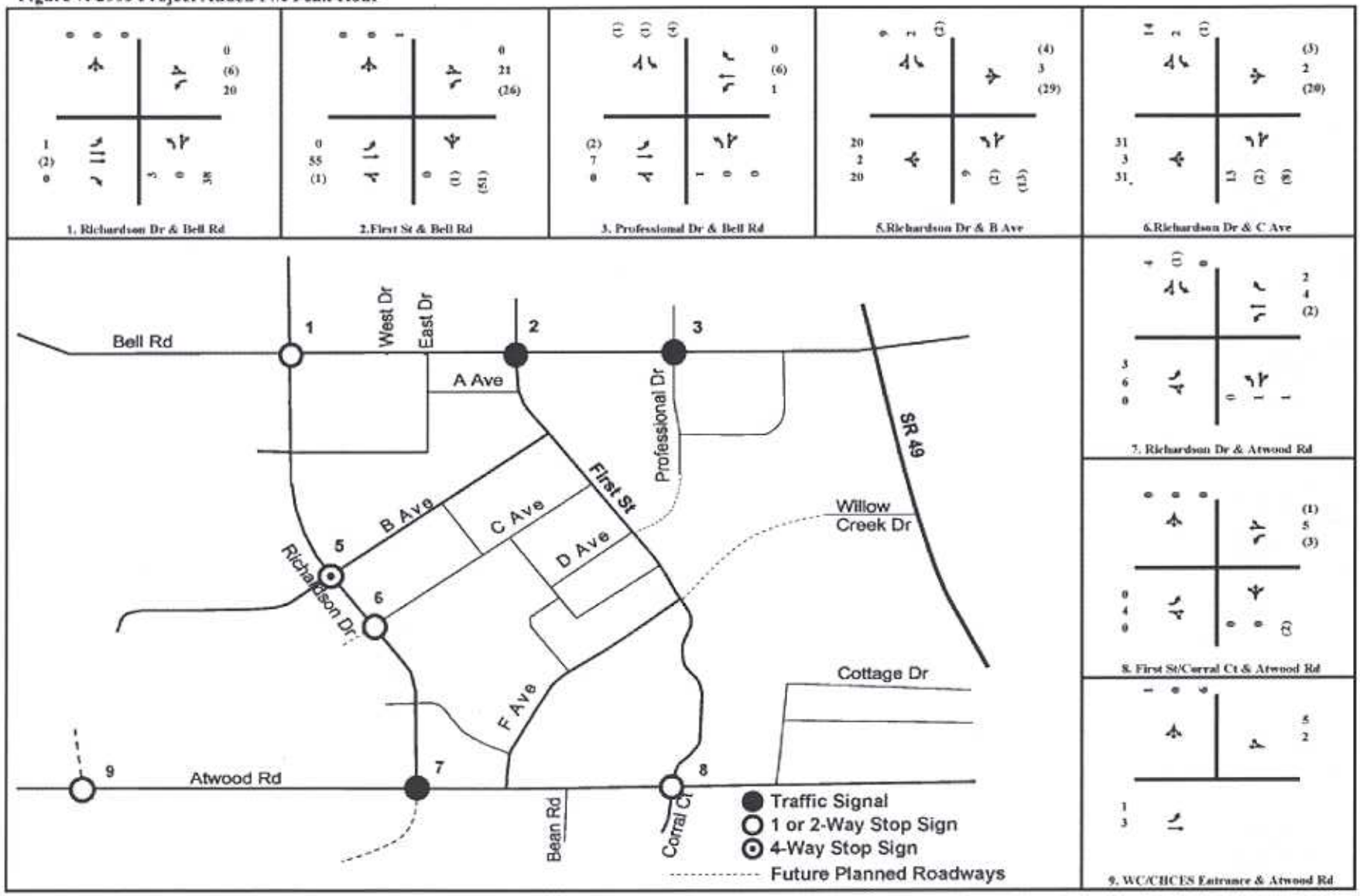


Figure 8: 2006 Plus Project AM Peak Hour

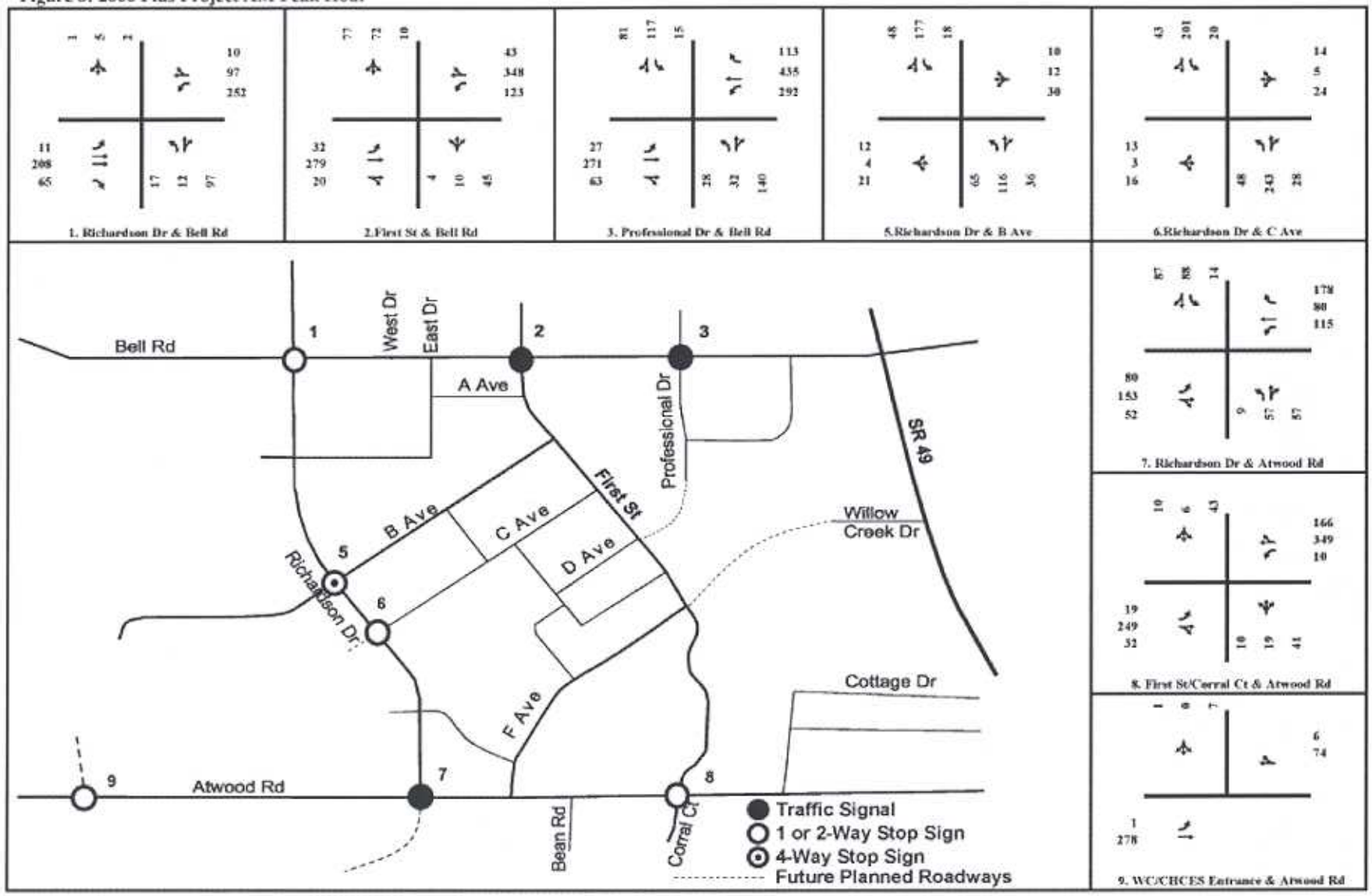


Figure 9: 2006 Plus Project PM Peak Hour

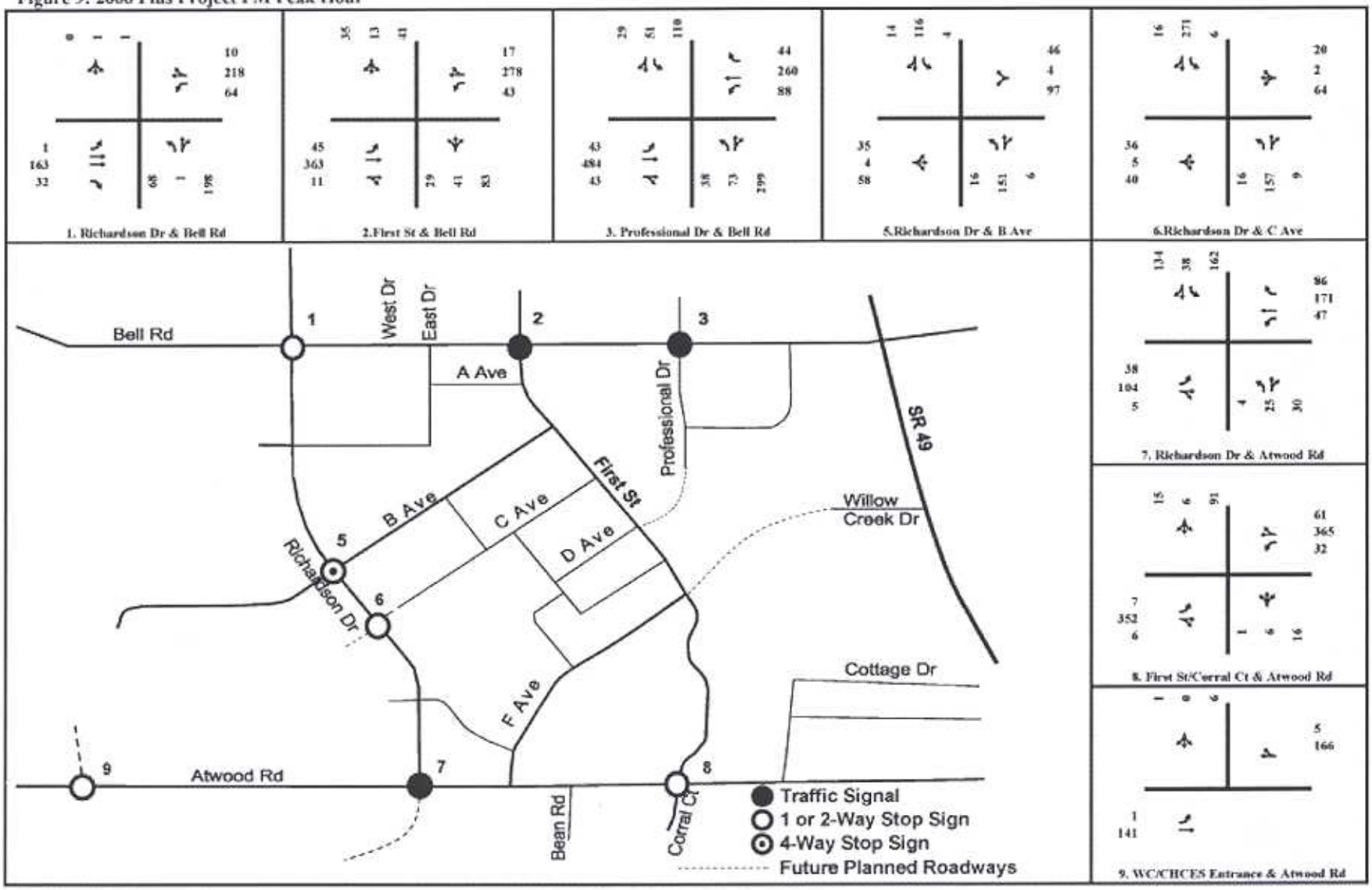


Table 7 shows the level of service summaries for 2006 conditions for the AM and PM peak hours. These tables show that all study intersections would operate at acceptable (LOS A-C) conditions with or without the proposed projects. Compared to the No Project Alternative, the new facilities of the proposed project would shift moderate amounts of traffic from one intersection to another, but they would not add significant overall traffic to the roadway system near the DeWitt Center.

2020 Traffic Impact Analysis

A traffic impact analysis was conducted for the year 2020 in the project vicinity. Estimated 2020 development levels in the North Auburn area, as well as the rest of the region were assumed based on previous regional studies. In addition, checks were made to ensure that key local developments were included in the 2020 development assumptions. The Placer County Travel Demand Model was then used to estimate roadway volumes on the study area roadways and intersections. Figure 10 shows the 2020 No Project AM peak hour volumes at the study intersections. Figure 11 shows the same data for the PM peak hour.

As stated previously, the DeWitt Government Center Facility Plan (2003-2010) includes increases in employment in the new facilities over the facilities they replace. These increases in employment are anticipated by 2010. Countering these increases, however, are shifts on employees from DeWitt Center facilities to the proposed South Placer County Justice Center by 2007. The approximately 180 new employees anticipated by 2010 combined with the 205 employees to be transferred to the SPCJC by 2007 result in a decrease of approximately 25 employees by 2020.

Employees and visitors to the proposed new buildings will use different parking lots than they would under the No Project Alternative. The change in location of employment and parking resulting from these proposed projects would cause moderate shifts in traffic around the site. The new buildings are all located toward the central portion of the site and thus would cause shifts of traffic from the east toward the center. An updated and more detailed version of the Placer County Travel Demand Model was used to determine the resultant shifts of traffic at the study intersections. Figures 12 and 13 show the approximate shifts in turning movements attributed to the proposed project for the AM and PM peak hour, respectively.

Figure 14 shows the 2020 Plus Project AM peak hour volumes and Figure 15 shows the same data for the PM peak hour. A planning level traffic signal warrant analysis was conducted for all 2020 conditions. Results of this warrant analysis suggest that no additional signals would be warranted beyond those needed under the No Project Alternative (at the intersections of First Street/ Bell Road and Richardson Drive/ Atwood Road). The Placer County Capitol Improvement Program (CIP) includes new signals at these intersections by 2020.

Table 7
2006 Levels of Service - With Project

Intersection	Traffic Control	No Project AM				Plus Project AM				No Project PM				Plus Project PM			
		Average		Worst Movement		Average		Worst Movement		Average		Worst Movement		Average		Worst Movement	
		LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay
Richardson Dr and Bell Rd	2-way stop	A	3.9	C	16.8	A	4.4	C	19.6	A	3.0	B	12.9	A	3.5	B	13.6
First St and Bell Rd	Signal [1]	A	0.41			A	0.47			A	0.45			A	0.42		
Professional Dr and Bell Rd	Signal	A	0.52			A	0.50			B	0.61			B	0.61		
Richardson Dr and A Ave [2]	1-way stop	A	2.8	B	10.4	N/A	N/A	N/A	N/A	A	1.5	B	10.0	N/A	N/A	N/A	N/A
Richardson Dr and B Ave	4-way stop	A	8.8			A	8.9			A	9.0			A	8.9		
Richardson Dr at C Ave	2-way stop	A	1.2	B	12.8	A	1.4	B	13.8	A	2.7	13.1	B	A	2.2	B	12.2
Richardson Dr and Atwood Rd	Signal [1]	A	0.36			A	0.37			A	0.30			A	0.31		
First St and Atwood Rd	2-way stop	A	1.5	C	19.3	A	1.5	C	19.3	A	2.1	C	24.6	A	2.0	C	24.6
WC/CHCES Entrance and Atwood Road [3]	1-Way Stop	N/A	N/A	N/A	N/A	A	0.2	B	10.4	N/A	N/A	N/A	N/A	A	0.2	B	10.1

Note: 1 New traffic signals included in Placer County CIP
2 Intersection abandoned under Plus Project conditions
3 New intersection part of Proposed Project

Figure 10: 2020 No Project AM Peak Hour

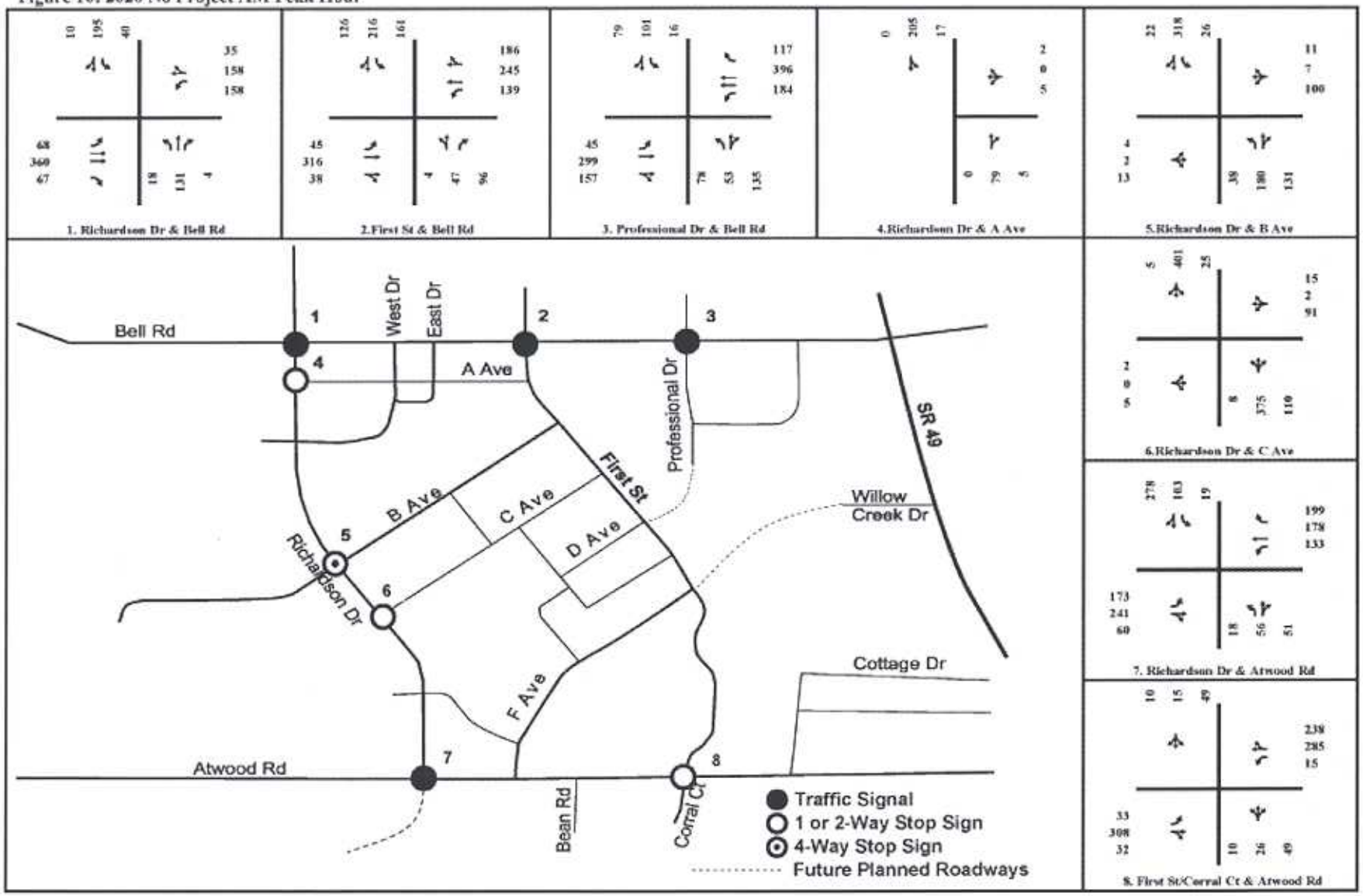


Figure 11: 2020 No Project PM Peak Hour

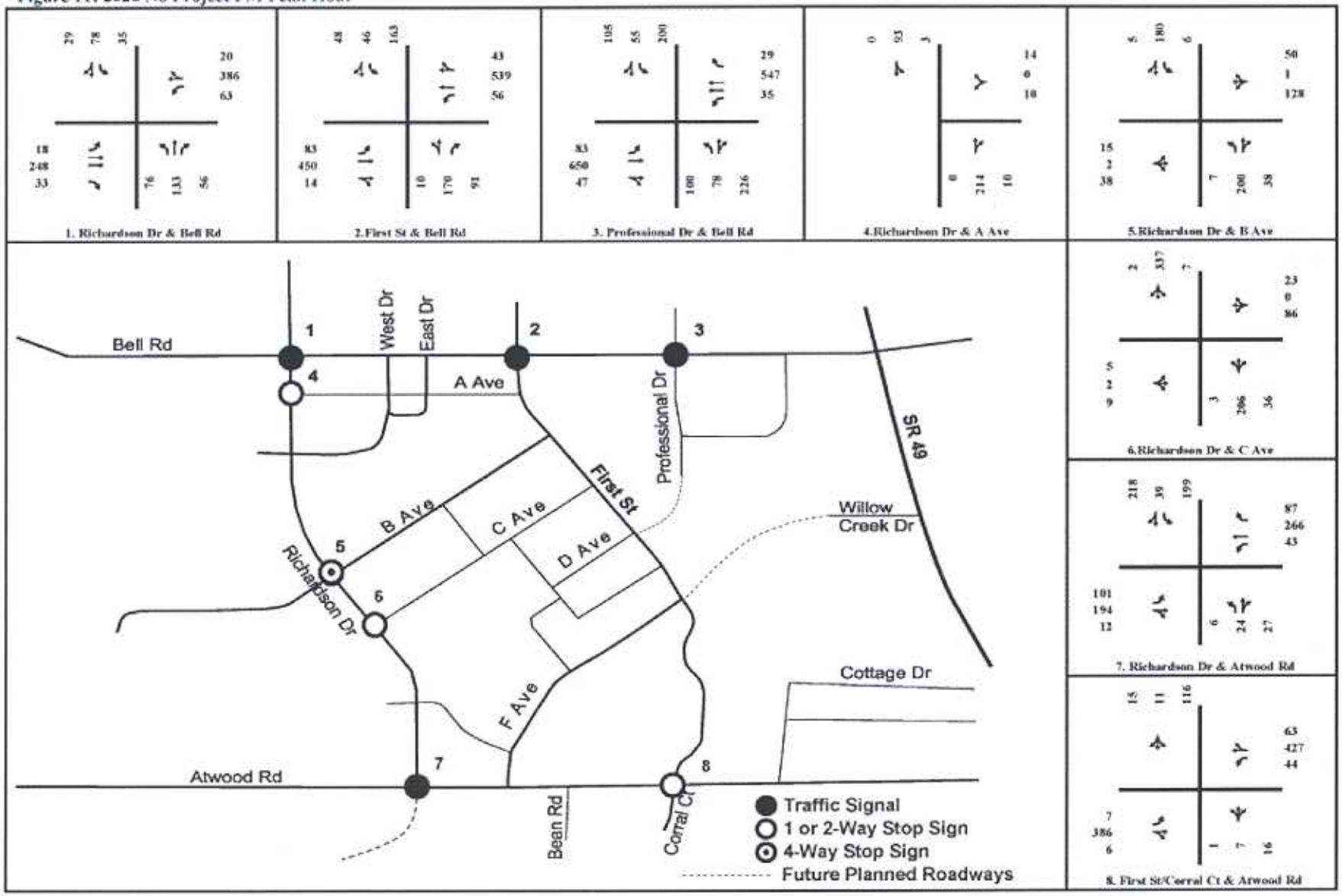


Figure 12: 2020 Project Added AM Peak Hour

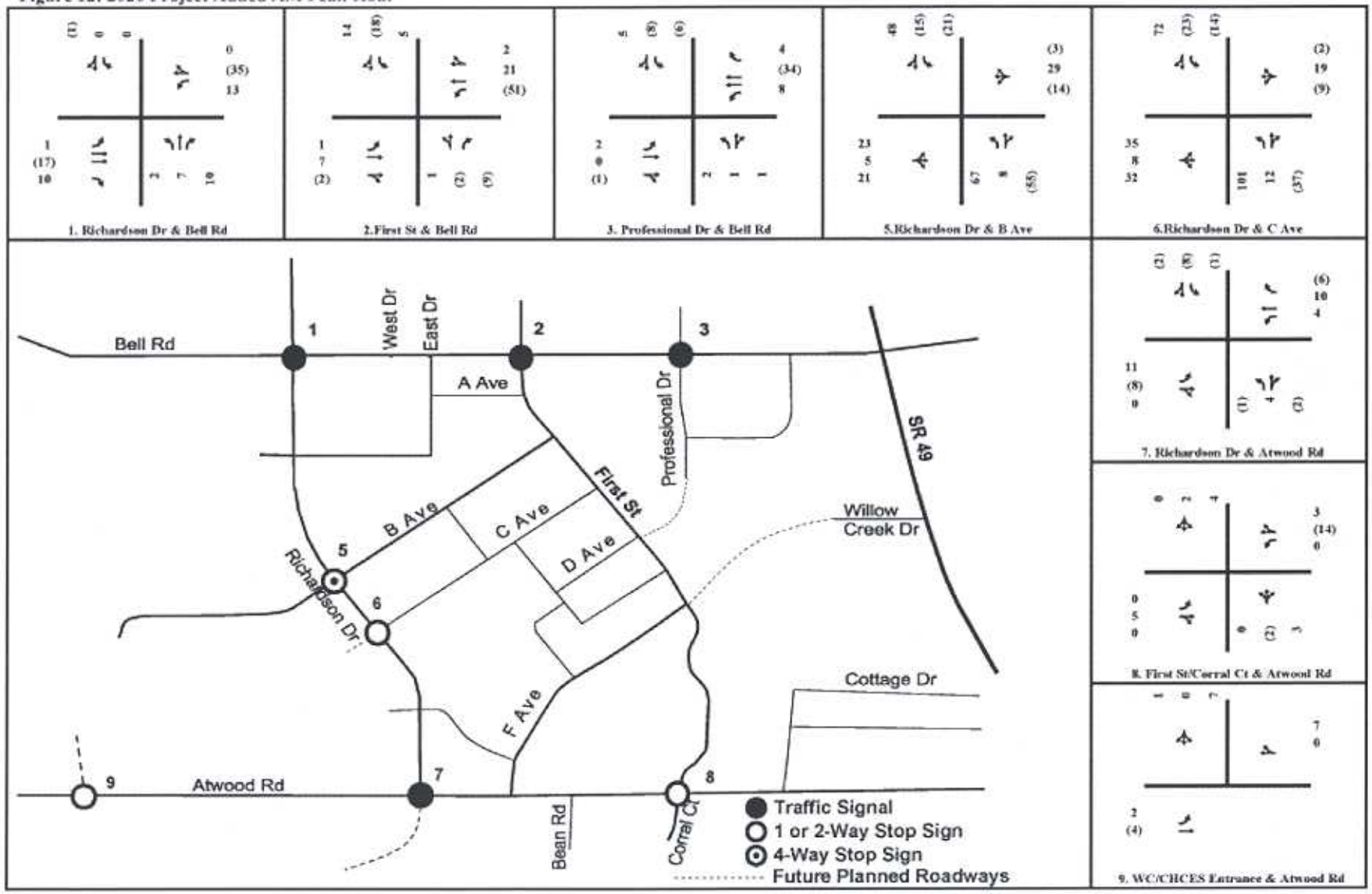


Figure 13: 2020 Project Added PM Peak Hour

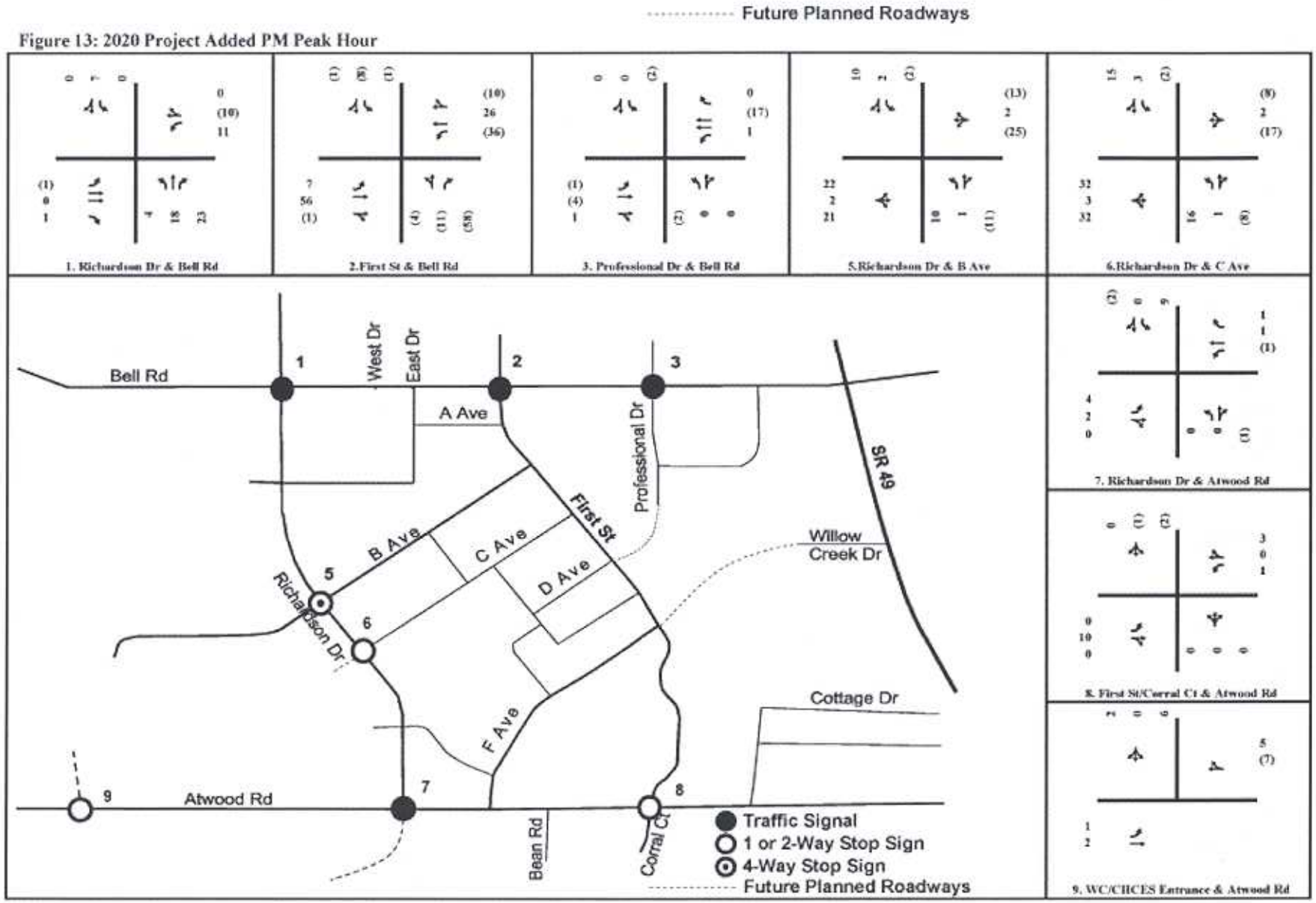


Figure 14: 2020 Plus Project AM Peak Hour

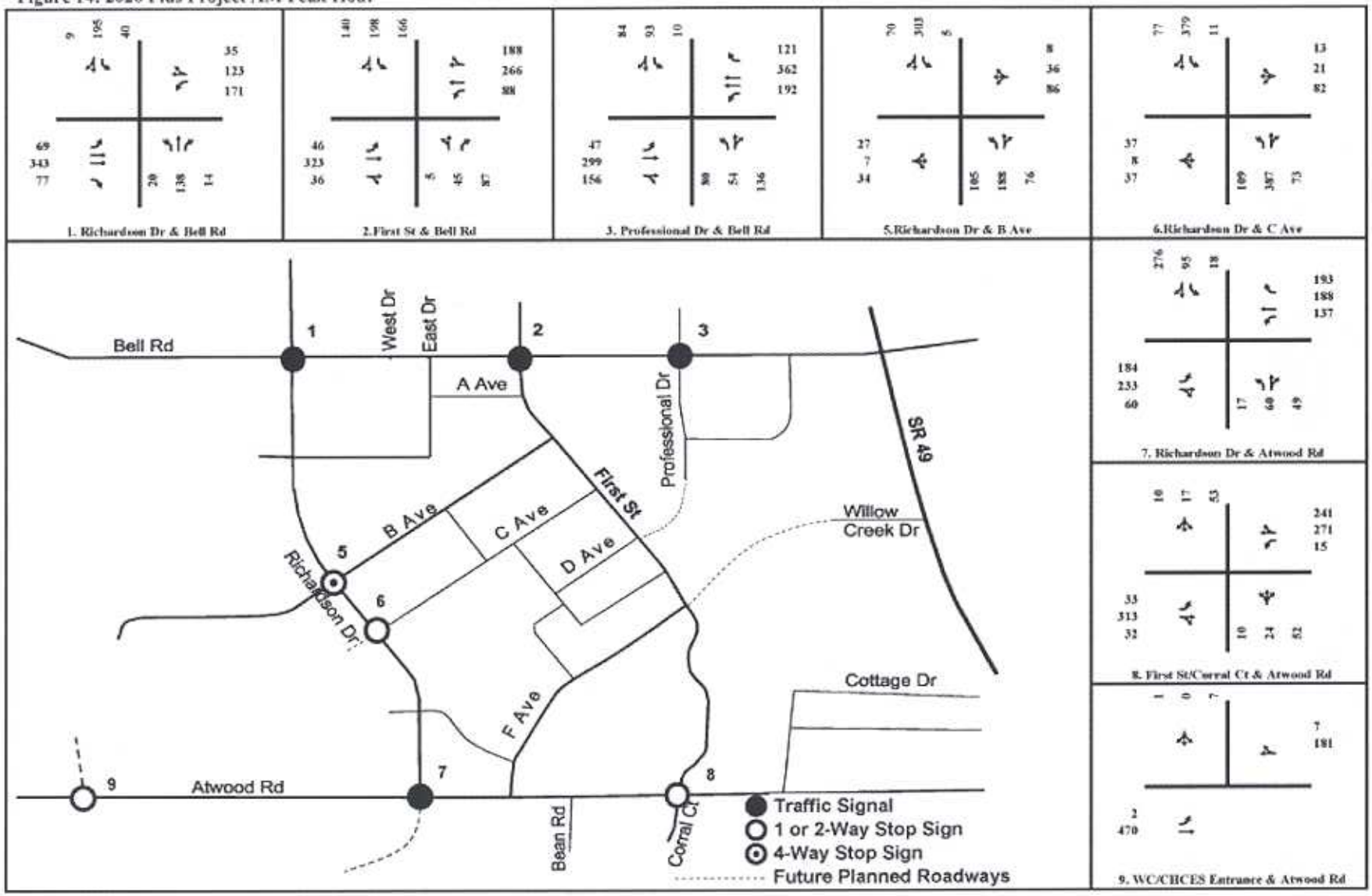


Figure 15: 2020 Plus Project PM Peak Hour

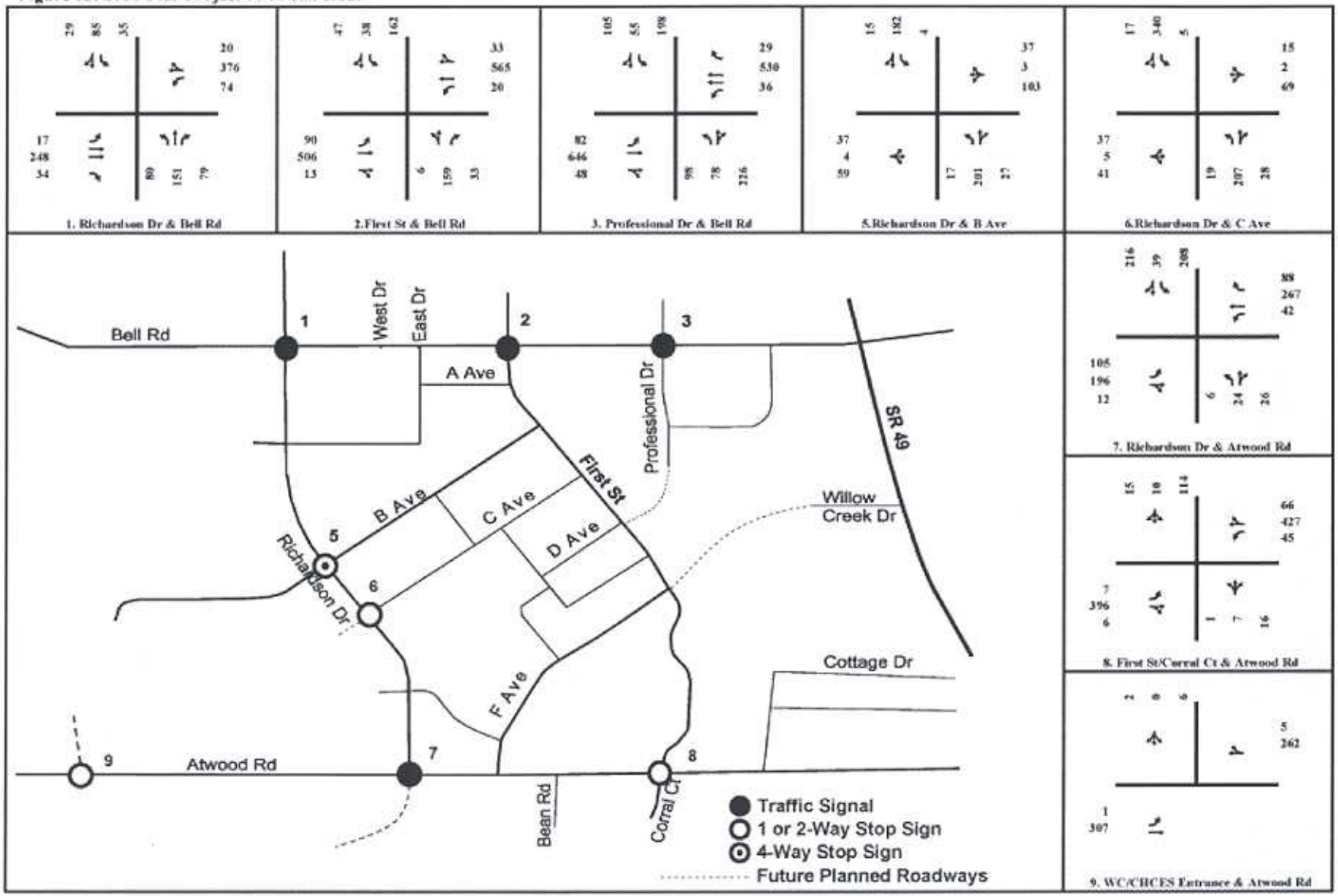


Table 8 shows the level of service summaries for 2020 conditions for the AM and PM peak hours. The tables show that all study intersections would operate at acceptable (LOS A-C) conditions with or without the proposed projects. Compared to the No Project Alternative, the proposed projects would shift moderate amounts of traffic from one intersection to another, but they would not add significant overall traffic to the roadway system near the DeWitt Center.

One stop sign controlled intersection (First Street and Atwood Road) would operate at an overall intersection LOS "A" in the PM peak hour both with and without the proposed projects. The LOS analysis also shows that the southbound approach would operate at LOS "E." with and without the proposed projects. This means that while the overall intersection operates at an acceptable level of service, the relatively low volumes on the north and south approaches would experience longer delays. The County's LOS policy applies to overall intersection delay, not the delay of each approach. Signalization of this intersection would result in an acceptable LOS for the entire intersection all under all 2020 cases.

Another stop sign controlled intersection (Richardson Drive at C Avenue) would operate at an overall intersection LOS "A" in the AM peak hour both with and without the proposed project. The LOS analysis also shows that the westbound approach would operate at LOS "D" without proposed project and LOS "F" with the proposed project. This means that while the overall intersection operates at an acceptable level of service, the relatively low volumes on the westbound approach would experience longer delays. The County's LOS policy applies to overall intersection delay, not the delay of each approach, therefore signalization of this intersection is not warranted under 2020 conditions with or without the proposed project.

Impacts on Transit

Placer County Transit (PCT) provides hourly bus service to the DeWitt Center on two routes, one of which provides connections to other PCT bus routes in the City of Auburn. By 2020, employment at the DeWitt Center is expected to grow by only about 10 percent, and thus will likely not require additional bus service to the DeWitt Center. However, other growth in the North Auburn area may result in additional bus service in the North Auburn area that may also increase service to the DeWitt Center.

Since the proposed Land Development Building, Auburn Justice Center, Women's Center, and Children's Emergency Shelter will not significantly increase employment or visitors to the DeWitt Center compared to the No Project Alternative, they will not significantly increase the demand for transit services in the project area, and thus would not have a significant impact on transit.

Impacts on Bicycle Facilities

Since the proposed Land Development Building, Auburn Justice Center, Women's Center, and Children's Emergency Shelter will not significantly increase employment or visitors to the DeWitt Center compared to the No Project Alternative, they will not significantly increase the demand for bicycle facilities in the project area, and thus would not have a significant impact on bicycle facilities.

Table 8
2020 Levels of Service - With Project

Intersection	Traffic Control	No Project AM				Plus Project AM				No Project PM				Plus Project PM			
		Average		Worst Movement		Average		Worst Movement		Average		Worst Movement		Average		Worst Movement	
		LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay	LOS	Delay /V/C	LOS	Delay
Richardson Dr and Bell Rd	Signal [1]	A	0.41			A	0.41			A	0.44			A	0.44		
First St and Bell Rd	Signal [1]	A	0.55			A	0.51			A	0.52			A	0.52		
Professional Dr and Bell Rd	Signal	A	0.49			A	0.49			B	0.65			B	0.64		
Richardson Dr and A Ave [2]	1-way stop	A	2.9	A	9.9	N/A	N/A	N/A	N/A	A	1.5	A	9.9	N/A	N/A	N/A	N/A
Richardson Dr and B Ave	4-way stop	B	11.4			B	12.1			A	10.0			A	9.9		
Richardson Dr at C Ave	2-way stop	A	2.8	D	26.2	A	4.9	F	56.1	A	2.6	C	15.2	A	3.3	C	16.5
Richardson Dr and Atwood Rd	Signal [1]	B	0.61			A	0.60			A	0.46			A	0.46		
First St and Atwood Rd	2-way stop	A	2.1	C	23.8	A	2.2	C	24.1	A	3.4	E	40.4	A	3.4	E	41.0
WC/CHCES Entrance and Atwood Road [3]	1-Way Stop	N/A	N/A	N/A	N/A	A	0.1	B	13.0	N/A	N/A	N/A	N/A	A	0.1	B	11.8

Note: 1 New traffic signals included in Placer County CIP
2 Intersection abandoned under Plus Project conditions
3 New intersection part of Proposed Project

Impacts on Local Vehicular Circulation and Safety

The Proposed Project would create new parking areas and driveways and abandon or alter others and thus would change traffic patterns within the project site.

A review of the changes in circulation near the new Land Development Building (LDB) and the Auburn Justice Center (AJC) does not appear to create any significant impacts on localized vehicle circulation and safety. The proposed design of entrances to parking areas for these buildings would consolidate access points at appropriate locations.

A concern has been raised by the Placer County Public Works Department of the "sight distance" available to drivers exiting the project site onto Atwood Road at the new Women's Center (WC) and new Children's Emergency Shelter (CES). The proposed Women's Center/ Children's Emergency Shelter driveway onto Atwood Road is located approximately one-half mile west of Richardson Drive. The southbound approach from the driveway is proposed to be stop sign controlled. A single lane is provided on the eastbound and westbound Atwood Road approach. In the vicinity of the driveway, Atwood Road has a 45 mph design speed and the centerline is marked with a double-yellow line to indicate a no passing zone. Sight distance measurements were conducted at this location in accordance with Caltrans design criteria.

The clear sight distance for vehicles exiting this driveway is about 360 feet to the east and approximately 285 feet to the west. That is, vehicles exiting the driveway can look east down Atwood Road and see an approaching vehicle about 360 feet away, or looking west see an approaching vehicle about 285 feet away. Beyond these distances, Atwood Road has crest vertical curves, which limit sight distance.

At a minimum, the sight distance at this driveway should allow approaching vehicles time to safely stop when a vehicle exists the driveway. According to Table 201.1 in the Caltrans Highway Design Manual, a 45 mph design speed requires a minimum stopping sight distance of 360 feet. Ideally, sight distances would allow vehicles to turn left or right from the driveway onto Atwood Road without requiring approaching vehicles to significantly reduce their speed. Much greater distances are required to meet that criteria.

The lack of a safe sight distance at the proposed location for the driveway to the Women's Center/ Children's Emergency Shelter represents a significant impact. This impact could be mitigated by either 1) reconstruction of Atwood Road in the vicinity of the proposed driveway to provide adequate sight distance in accordance with Placer County design standards to the satisfaction of the Placer County Public Works Department, or 2) relocate the driveway to a location that is acceptable.