

# California Association of Accident Reconstruction Specialists

## SKIDEMARKS

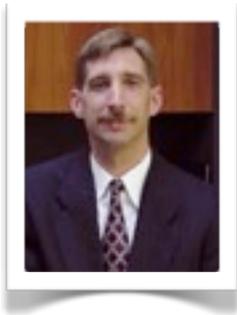
No. 43

December 2008

# *Congratulations!*

The votes are in!

Here are the members we voted into the CA2RS Board of Directors at our Annual Conference in October. See our September 2008 newsletter for more information about these "new" board members. Better yet, get to know more about them at a quarterly training event!



Kent Boots  
Chairperson



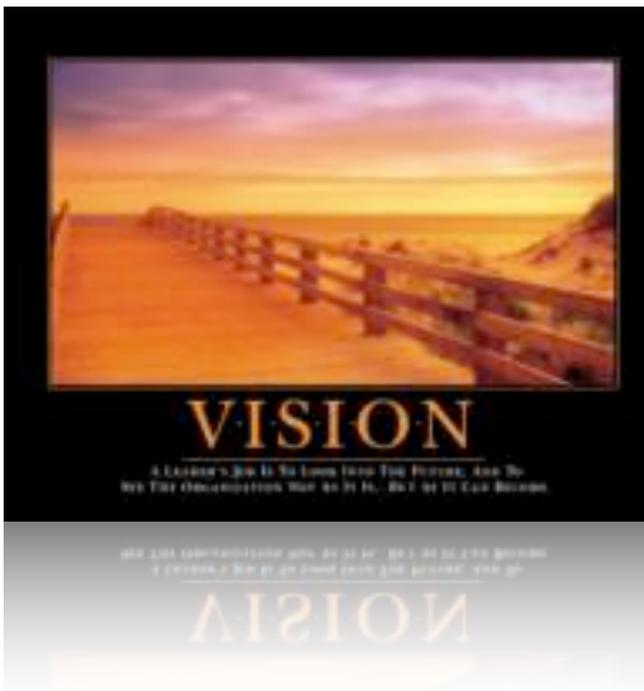
David Heinbaugh  
Director at Large



Sean Shimada  
Director at Large

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# CONNECTING THE DOTS

*Collaboration between Accident Reconstructionists and Biomechanists  
presented by Sean Shimada*

This one-day training seminar will consist of evaluating several case studies. The case studies will reveal how collaborative efforts between the accident reconstructionist and biomechanist can provide a more comprehensive and complete analysis for trial purposes. The case studies will involve the “beginning to end” accident reconstruction and biomechanical analysis for pedestrian versus vehicle collisions, as well as various configurations of motor vehicle collisions. The seminar will involve the participation of the attendees in assisting with the completion of accident reconstruction and injury causation analysis for each case study. Accident reconstructionists...bring your pencils, paper, calculators, laptops, etc to assist me in the accident reconstruction.

Training will be held 1/21/09 for northern California and 2/18/09 for southern California. Directions to Davis PD on page 12.



**Who do I  
contact for... ?**



**Treasury**  
Monica Franksen  
[MonicaR@ci.clovis.ca.us](mailto:MonicaR@ci.clovis.ca.us)



**Membership**  
Kevin Cassidy  
[kc2938@pacbell.net](mailto:kc2938@pacbell.net)



**ACTAR**  
[www.ACTAR.org](http://www.ACTAR.org)



**Newsletter**  
Jennifer Johnson  
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The Board of Directors	
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Sean Shimada	<a href="mailto:drs@yolo.com">drs@yolo.com</a>

# The Board BEAT

As I sit here and type this it's hard to believe that 2008 is almost over. It seems like the Board just started planning the 2008 conference. Before you know it, we will be planning the 2009 Conference. It seems like the days get shorter toward the end of the year. Oh wait, they do, but that saying refers to the amount of daylight. To me, sometimes it seems like there are actually less hours in the day.

**2008 Conference:** This year's conference, CA<sup>2</sup>RS 10<sup>th</sup> Anniversary & SOAR's 25<sup>th</sup> Anniversary, has come and gone. The conference was held at the Sacramento Arden West Hilton October 16<sup>th</sup> through the 18<sup>th</sup>. We had some outstanding topics and speakers. For the most part the Board was able to attend all of the training sessions for a change. We were fortunate to have the assistance of Arnie Wheat from SOAR help us in planning the conference. Arnie was gracious enough to share his conference review article from the SOARce newsletter; take a look at pages 4-6 to see what you missed.

We honored our founding members and past chairpersons at the end of the day on Thursday. Representatives of the ACTAR Board, Arnie Wheat and Jincy Pace, presented Rudy Degger with a special plaque recognizing his service to ACTAR. Take a look at the pictures on page 7.

**2008 General Membership Meeting:** The meeting was held on Saturday morning. The first order of business was the Board of Directors elections. I've had the great pleasure of serving on the board with outgoing board members Paul Arnold and Dave Willat. I would like to extend my gratitude to them for their dedicated service. This organization would not be where it is today if it weren't for the many hours our board and administrative staff volunteers give in service. I was elected to another two-year term as chairperson, and David Heinbaugh and Sean Shimada were elected as directors-at-large. I look forward to working with the new board as we start our 11<sup>th</sup> year.

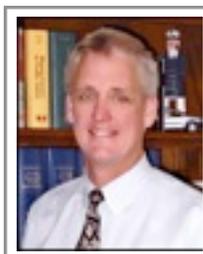
There were several modifications to the by-laws that were approved. Some were specifically related to IRS requirements in order to get our non-profit status. An additional change was related to the fee charged to non-members who attend quarterly training. The fee had been 50% of the application fee (currently \$50) or \$25. This was increased to 100% so a non-member who attends quarterly training is required to pay \$50. They have the option of joining at the training session by completing a membership application. The amended by-laws are posted on our web site.

An announcement was made during the meeting regarding CA<sup>2</sup>RS sponsored training cruises. You may have noticed we haven't advertised a training cruise for 2009. The 2008 Board of Directors unanimously agreed the training cruise did not presently serve the best interests of our entire membership. Further board discussion will need to take place prior to having cruise training in the future.

*Continued on next page.*



Kent E. Boots  
Chair



Chris Kauderer  
Vice-Chair



Joel Salinas  
Director



Paul Wade  
Director



Jahna Beard  
Director



David Heinbaugh  
Director



Sean Shimada  
Director

*The Board Beat continued from page 3.*

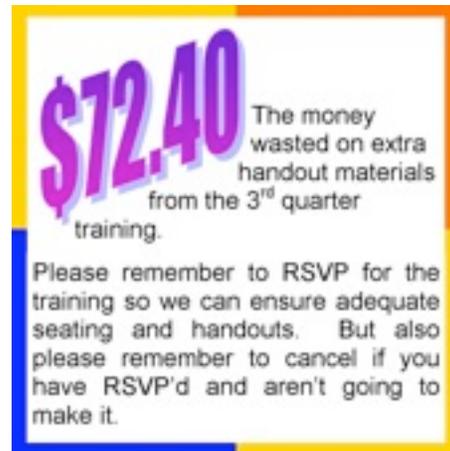
**Quarterly Training:** The 1<sup>st</sup> quarter training, “Connecting the Dots”; a Collaboration between Accident Reconstructionists and Biomechanists is being presented by Sean Shimada. Davis PD will be hosting the Northern California session on January 21<sup>st</sup>, and Fontana PD will be hosting the Southern California session on February 18<sup>th</sup>. Specific details on the location and the RSVP contact will be updated on our web site training calendar.

We haven’t picked a topic for our 2<sup>nd</sup> quarter training yet. If you have any ideas for topics or speakers, or you yourself would like to present a topic, please don’t hesitate to let Joel Salinas, our training coordinator, know via e-mail at [training@ca2rs.com](mailto:training@ca2rs.com).

**The Future:** I wish everyone a Merry Christmas (or whatever holiday you celebrate) and a Happy New Year. As always, if there is ever anything that I or any of the other board members can do to improve your organization, please don’t hesitate to let us know.

That’s all for now,

*Kent*



## Calendar of Events

Date	Location	Topic	RSVP
Jan 21, 2009	Davis PD Conference Center - 2600 5th Street, Davis, CA	Connecting the Dots: Collaboration between Accident Reconstructionists and Biomechanists Presenter: Sean Shimada	Chris Kauderer <a href="mailto:Chris@ChrisKauderer.com">Chris@ChrisKauderer.com</a> (916) 481-6600
Feb 18, 2009	Jessie Turner Health & Fitness Center (located in Fontana Park) 15556 Summit Ave. (at Lytle Creek Rd.) Fontana, CA	Connecting the Dots: Collaboration between Accident Reconstructionists and Biomechanists Presenter: Sean Shimada	Jahna Beard <a href="mailto:JBeard30575@aol.com">JBeard30575@aol.com</a> (213) 847-1646

All training is from 0800 - 1700 hours unless otherwise specified.

# 2008 SOAR-CAARS Combined Conference

25<sup>th</sup> Anniversary for SOAR  
10<sup>th</sup> Anniversary for CAARS

By Arnold G. Wheat, ACTAR

For three days in October, almost 100 members of Society (SOAR) and the California Association of Accident Reconstruction Specialists (CAARS) met in Sacramento to learn more about the field of traffic accident investigation and reconstruction. This “Anniversary Conference” heralded two important milestones for each respective organization. The conference was hosted by CAARS, which did an outstanding job of providing an exceptional venue for learning. Included in the registration costs were:

- conference proceedings and presentation notes, in both a printed notebook and in a CD-ROM
- luncheon meals, morning and afternoon refreshments breaks and an evening buffet
- conference briefcases
- tickets for conference prize drawings



**John Daily instructs attendees on how to analyze roll-over collision events.**

**Luncheon meals were provided on all three days of the conference.**



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The focus of the conference related to re-enforcing the knowledge of basic elements in collision investigation and reconstruction, so emphasis was made to present topics that may be frequently applicable to the collision analyst. Presentations made during the event included:

***Narrow Object Impact reconstruction analysis,  
Critical Speed/Yaw Analysis***

***Roll-over Collision Analysis Techniques***

Taught by John Daily of Jackson Hole Scientific Investigations

***Comparing Methods of Measuring Drag Factors***

Taught by Rick Jobe of Vericom Computers, Inc.

***Human Factors and Visibility***

***Surviving Cross Examination***

Taught by John Kwasnoski of Legal Sciences

***“Bullet proof” your Written Reports***

Taught by Arnold Wheat of Accident Reconstruction Services, Inc.

***Crash Photography Issues***

Taught by Joel Salinas and Arnold Wheat

Several vendors related to the collision reconstruction field also had product and service displays. Attendees could ask questions of the representatives, view product demonstrations and take “test drives” of the various products offered.



**Vericom Computers, Inc.**



**FactualDiagrams.com**



**MapScenes**



**4N6XPRT - Autostats**

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Each vendor also had the opportunity to make a short presentation to the group. At the end of the conference, about 25 door prizes were given to attendees who were present for the random drawing of attendee names. The "Grand Prize" for the conference was offered by Visual Statement. A complete FX3 reconstruction software package, worth several thousand dollars, was donated by Visual Statement and was won by Ken Heichman.



Just like a reunion, many familiar faces were in attendance at the training conference. Several of the SOAR members who showed up in Sacramento have been with the organization for a majority of the 25 years.





Rudy Degger was presented with a plaque on behalf of ACTAR in recognition of his dedicated service and leadership as a member of the ACTAR Board of Directors from April 2001 through February 2008. The award was presented by current board members Arnie Wheat and Jincy Pace



Kevin Cassidy and Gordon Gray (not present) were recognized as past Chairpersons for the CAARS organization. They received a framed picture titled, Vision with the saying, "A leader's job is to look into the future, and to see the organization not as it is... but as it can become." The engraved plaque was personalized with their name and years of service as chairperson.

Kevin Cassidy, Rudy Degger, Karl Pringle, and Al Sutcliffe (not present) were recognized as founding members of CAARS. They each received an interactive gear desk clock with their name, CAARS, and Founding Member engraved on the plaque.





## Upcoming Specialized Courses with Discounts to CAARS Members !

### **Human Factors for Accident Reconstruction (40 hours)**

Instructor: Jeffrey W. Muttart

This class is being co-sponsored by FactualDiagrams.com and Kauderer & Associates.

Cost \$695 per student. Tuition includes all handout materials and a catered hot lunch all five days.

**CAARS members** receive a \$50 discount on the tuition and only pay \$645. You must be a member in good standing at the time of class registration; membership will be verified.

**Dates:** January 12-16, 2009

**Location:** Lions Gate Hotel and Conference Center,  
34 10 Westover St., Sacramento (McClellan), CA  
866-866-7100

NOTE: If you are staying at the hotel mention that you are attending this class; the group booking code is KEBA; the discounted standard room rate is \$99 per night + tax. Government employees, mention the booking code SGOV; the rate is \$84 a night + tax.

ACTAR CEUs

We will be seeking ACTAR CEUs for this course. In the past this course has been approved for 33 ACTAR CEUs.

Information/Registration: FactualDiagrams.com

*Jeffrey Muttart noted that his other courses are FULL. He does not anticipate scheduling more classes in the near future.*

### **IPTM's Investigation of Motorcycle Crashes (40 hours)**

Cost: \$625 per student. Tuition includes all handout materials including the "Motorcycle Accident Investigation" book (2nd edition) and "Inspection of Motorcycles and Helmets after Impact" both published by IPTM; a \$70 value.

NOTE: CAARS members receive a \$50 discount on the tuition and only pay \$575. You must be a member in good standing at the time of class registration; membership will be verified.

ACTAR CEUs

This course is approved for 30 ACTAR CEUs.

Dates: March 16-20, 2009

Location: Vallejo Police Department, 111 Amador Street, Vallejo, CA

Local contact for travel/lodging inquiries:

Lt. Joel Salinas

707-649-3407

[jsalinas@vallejo.ca.us](mailto:jsalinas@vallejo.ca.us)

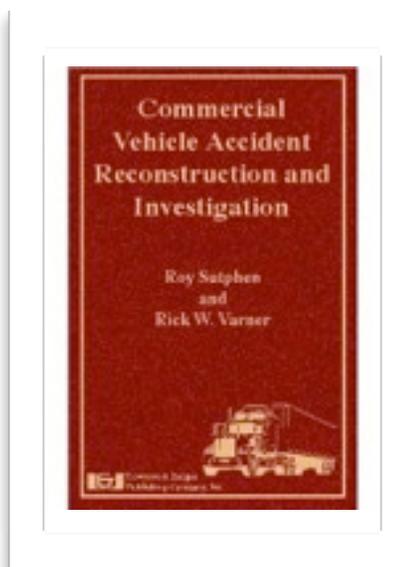
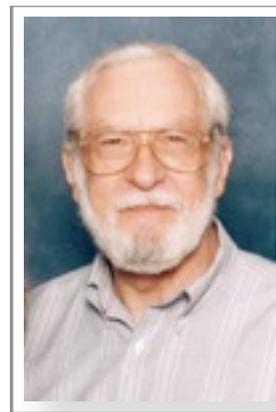
NOTE: Registration and payment must be made through FactualDiagrams.com

For more information or to sign up, visit FactualDiagrams.com



# From The Bookshelf

## Another book review from Joseph E. Badger



In 1973, Rick Varner worked in law enforcement in Cambria County, Pennsylvania. Nearly a decade later he joined forces with TIPS, which grew over the years to become the Institute for Law Enforcement Education (ILEE).

Over the years, Rick conducted commercial vehicle (heavy trucks) crash tests.

With that background, Varner teamed up with Roy Sutphen, Sr. and the two of them wrote *Commercial Vehicle Accident Reconstruction and Investigation*, published by Lawyers & Judges Publishing Co. Inc. of Tucson, AZ.

Sutphen retired after 25 years with the Pennsylvania State Police. He was a motor carrier inspector and had accident reconstruction training. Sutphen eventually became a member of ILEE's adjunct staff.

Back in the day, okay so it was only 2001, Varner asked me to give a presentation on Trailer Underride at a conference put on by the Pennsylvania Traffic Institute for Police Services (TIPS) at the fantastic Seven Springs Conference Center.

Having written *Trailer Underride: Conspicuity, Human Factors and Rear Bumpers*, (Institute for Police Technology & Management, Jacksonville, 1998), I thought I had seen the results of just about every type of trailer underride crash on the books. That is, until I saw the photo on page 257 of the Varner/Sutphen book. I've seen cars that were fairly well flattened after having passed beneath a semitrailer, but their photo wins the prize, hands down.

In fact, I consider their nine-page chapter "Trailer Underride and Rear-End Protection" one of those "must-read" sections of any book. But the book isn't about only trailer underride. There are chapters covering Roadway Evidence, Vehicle Evidence, Human Factors, Off-Tracking, Vehicle Dynamics, Commercial Vehicle Rollover and Onboard Computers.

Chapter 15, The Brake System, discusses Hydraulic Brakes Systems and Surges, Electric Brakes, Air Brake Components, Air Over Hydraulic Brakes, Truck Retarders and Wedge Brakes.

For those just getting into commercial vehicle accident reconstruction, there are primer chapters on such topics as Out-of-Service Criteria, Types of Carriers, Driver Responsibilities, Driver's Record of Duty Status, Commercial Driver's License Regulations.

The book discusses various vehicle components such as the electrical system, wheels, rims and tires, plus many more too numerous to mention. Besides 392 pages (including the index) containing valuable text, there are over 100 photographs of everything from a pop-off valve and moisture ejector to graphics demonstrating how to calculate off-tracking and weight shift to showing the difference between a Dayton wheel and a Budd wheel.

Page 291 even shows Rick after getting his hands dirty. What we have here is three books in one. "Book 1" (my divisions, not Varner's), including chapters one through six, covers licensing, log books, types of carriers, out-of-service criteria, and such.

"Book 2" (chapters seven through 15) describes commercial vehicle components and systems. "Book 3" (chapters 16 through 29) is what I call the meat of the text. This section covers vehicle and roadway evidence, human factors, vehicle dynamics, onboard computers etc.

The final chapter, titled "Other Speed Equations" discusses a few of the formulae that many accident reconstructionists know about but are the less memorized ones. Such as the commercial vehicle hydroplane formula and determining speed when you know gear positions and the truck's RPM at the time of the collision.

Then there's that dreadful weight shift equation that is so beastly that I doubt you'll ever really use it. However, it's nice to know where to find it – just in case.

You may get the book through Lawyers & Judges Publishing by going to their website <http://www.lawyersandjudges.com/> and enter "Varner" (without the quotes) in the Search box and click on By Author.

Or call L&J toll-free at (800) 209-7109. Or you may ask questions via e-mail at [sales@lawyersandjudges.com](mailto:sales@lawyersandjudges.com).

# ACTAR Examination Schedule



**NOTE:** A **NEW** application **MUST** be received at the ACTAR Administrative Office **60 Days prior** to the date of the examination in which you are considering taking. This does not apply to candidates whose application has been approved and

are in the two-year eligibility window. Those candidates must register for the exam by the listed cutoff date.

**NO CANDIDATE WILL BE SCHEDULED FOR AN EXAMINATION SITE UNTIL THEIR APPLICATION HAS BEEN APPROVED**

**DATE:** Saturday January 24, 2009  
**LOCATION:** Rochester New Hampshire  
**SPONSOR:** NAPARS  
**CUTOFF DATE:** December 23, 2008  
**COMMENTS:**

**DATE:** Wednesday January 28, 2009  
**LOCATION:** Hershey Pennsylvania  
**SPONSOR:** PSP  
**CUTOFF DATE:** December 29, 2008  
**COMMENTS:**



## .....150 mph + ??

The Honda rider was traveling at such a "very high speed", his reaction time was not sufficient enough to avoid this accident.

Swedish Police estimate a speed of ~250 KM/h before the bike hit the slow moving car side-on at an intersection. At that speed, they predicted that the rider's reaction time (once the vehicle came into view) wasn't sufficient enough for him to even apply the brakes. The car had two passengers and the bike rider was found **INSIDE** the car with them. The Volkswagen actually flipped over from the force of impact and landed 10 feet from where the collision took place. All three involved (two in car and rider) were killed instantly.

This graphic demonstration was placed at the Stockholm Motorcycle Fair by the Swedish Police and Road Safety Department. The sign above the display also noted that the rider had only recently obtained his license.

# Directions to The Davis Police Department

2600 Fifth St.  
Davis, California  
530.747.5400



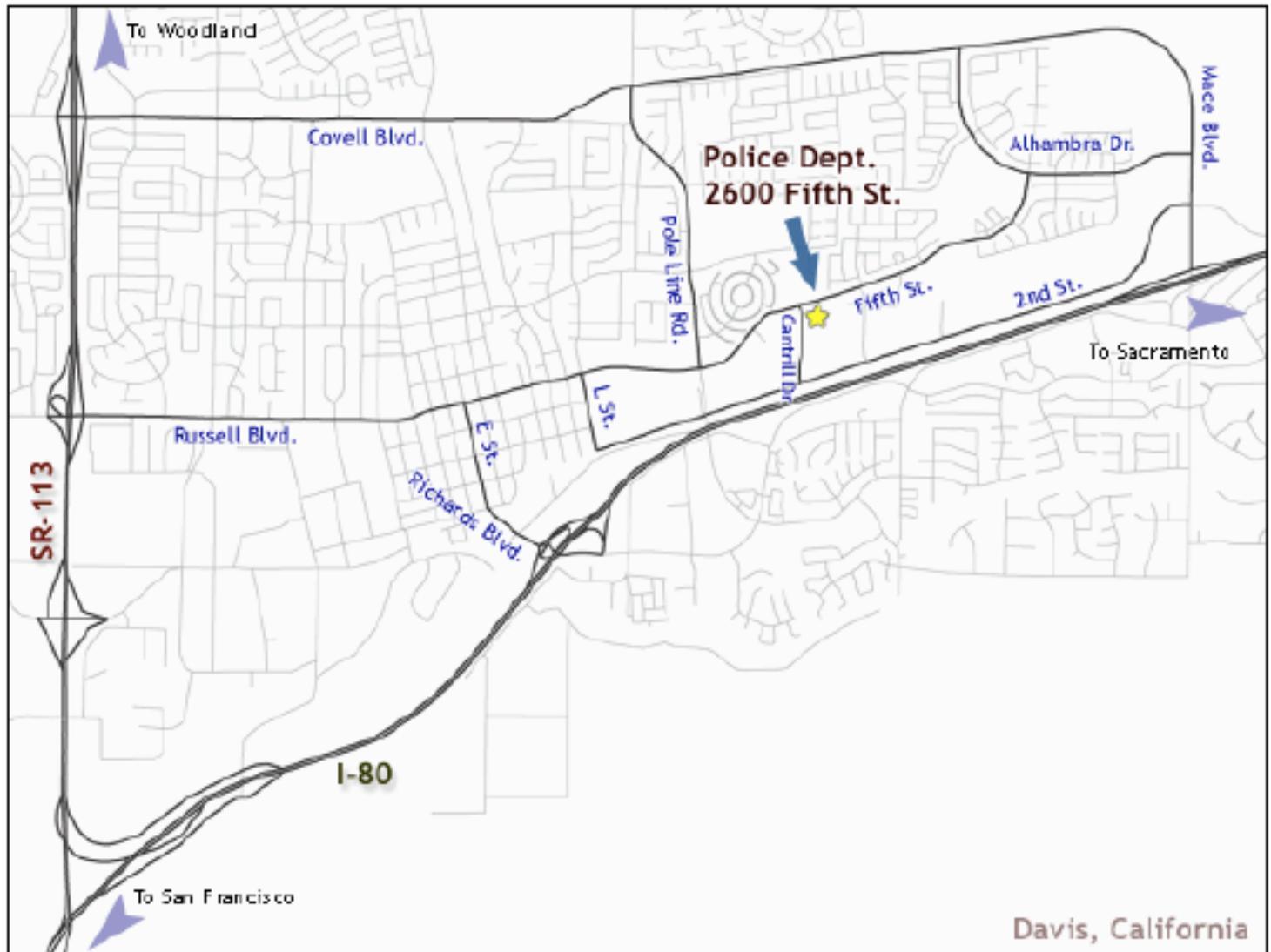
## To the Davis Police Department From Sacramento (I-80 Westbound)

Take I-80 towards San Francisco

- Take the MACE BLVD exit.
- Turn RIGHT onto MACE BLVD
- Turn LEFT onto 2ND ST.
- Turn RIGHT onto CANTRILL DR.
- Turn RIGHT onto 5TH ST.
- The Police Department is at 2600 Fifth Street, parking is in front of the building.

## To the Davis Police Department From San Francisco (I-80 Eastbound)

- Take I-80 towards Sacramento
- Take State Route 113 North/WOODLAND exit
- Take the RUSSELL BLVD exit, turn right at the end of the ramp.
- Russell Blvd will turn into Fifth St.
- The Police Department is at 2600 Fifth Street, parking is in front of the building.



Davis, California

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