Westernite

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President's Message

The holiday season is just around the corner, and we're all looking forward to celebrating with our families and friends. I know for many of us this means not only our loved ones at home but also our friends and business associates. Those intrinsic qualities that make our families so special are in many ways why we work together so well as a team. This, in turn, makes our ITE family so special because we can share our successes, failures, difficult problems, experiences and gain insight with our ITE friends and associates.

As I travel to different ITE sections, I see the commitment that all of our members have that makes each section so successful. For example, recently I visited the Central California Section, where Mike Bitner was honored by his colleagues as an outstanding ITE member. It was my pleasure to present to him a Presidential Proclamation proclaiming "Mike Bitner Day" for his 36 years of exceptional dedication to ITE. I also recently visited a recent Intermountain Section meeting in Las Vegas, and had the pleasure of presenting Walt Vodrazka with a similar

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What's In This Issue

Relentless Traffic Demand Meets its Match in Isolated Corridors

Winner of the Annual Meeting Best Paper Award!

By Paul F. Brown, P.E. (M)

Introduction

Many transportation planners and traffic engineers spend much of their careers developing and applying travel demand forecasts. The transportation planner is often involved in regional forecast development and application for transportation plans, sub-area analyses, and National Environmental Policy Act (NEPA) studies. The traffic engineer often applies more detailed forecasts for traffic impact analyses, corridor studies, and engineering design.

Although the goals may be somewhat different, the steps are usually similar. The study area is defined, anticipated changes in study area land use are developed, new trips associated with the land use are estimated, the trips are assigned to the roadway network, and the network is analyzed to determine impacts. See the flowchart below.

The author was recently presented with a project where this process broke down. The first three steps were performed according to the normal process. However, when the assignment was undertaken, a flaw became readily apparent. The initial 25-year forecasts far exceeded the roadway capacity under the no-action scenario. Since the study area had a choke point where one roadway connected it to the remainder of the metropolitan area, there was no "network" on which to distribute over-capacity trips. Alternate routes were available, but they are such that corridor delays would still be preferable to "going the long way." Another approach was necessary.

This paper outlines the procedural changes that were undertaken to address this critical project issue while staying within the bounds of the NEPA process. It also examines four related questions raised during the project.

- Is it reasonable to assume that roadway capacity will limit the demand forecasts under the no-action scenario and if so, how?
- Should capacity-constrained land-use forecasts be applied under the build scenario?
- Could land use grow despite capacity limitations, resulting in changed travel patterns within the corridor?
- Will land-use forecasts change between no-action and build scenarios, creating potential land-use impacts that must be evaluated under NEPA?

Problem Definition

As described above, our project faced a crucial issue—how could we address the projected growth within the bounds of our constrained corridor? In order to understand the problem, the first three steps of the process were examined.

The Study Area and Roadway

The study area consists of a narrow corridor of rural mountain communities southwest of Denver whose populations rarely exceed several thousand residents. Existing land use is typically low-density residential or agricultural (density is often controlled by terrain). Limited retail parcels provide some neighborhood services. Many residents rely on the Denver area for at least some of their retail and employment needs.

The roadway under study is a 15-mile segment of two-lane highway with a narrow, winding alignment and significant grades. As part of the capacity analysis efforts, the corridor was broken into seven segments and analyzed per HCM rural methodologies. Due to the Denver-oriented trip patterns in the corridor, the

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Call for Abstracts for the 2005 District 6 Annual Meeting

The Local Arrangements Committee (LAC) for the 2005 ITE District 6 Annual Meeting is now formally accepting proposal abstracts for presentations in the following topic areas:

- Traffic Engineering
- Transportation Planning
- Traffic Safety
- Multi-modal/Transit
- Livability/Community Issues
- Traffic Operations & Management
- Rural Planning, Safety, and Design
- Access Management/Mobility
- ITS Applications/Research
- Commercial Transport Issues
- Asset Management
- Leadership/Education

Authors should not feel constrained by the preceding list of topics. If you have a presentation that falls outside of the scope of the list of topics given, submit the abstract with your own topic suggestion. It is the goal of the LAC to provide the highest quality of presentations on a comprehensive array of topics, and as such, we will work with you to include any worthy presentation in the technical program.

It is anticipated that the 2005 District 6 Annual Meeting technical program will comprise three program tracks, each of which will consist of topic areas similar in focus. The title of each track will be determined from the distribution of topics areas selected for presentation. A minimum of twenty-four technical sessions are planned, with 90 or more papers to be presented.

Abstract submittals must be postmarked by January 14, 2005. Abstract submittals crediting multiple authors must designate one lead author. Unless it is otherwise indicated, the lead author will be expected to make the technical presentation.

Abstracts must be formatted to include the following elements:

- Title
- Lead author contact information (name, organization, address, phone number, fax number, and e-mail address)
- Supporting author name(s)
- Presentation topic area (from list or suggested)
- Abstract text (250 word maximum)

An electronic abstract submittal form can be downloaded soon. Submitters are requested to use this electronic form whenever possible.

Abstract submittals should be sent to Robert Marvin, Technical Chair for the 2005 Annual Meeting. It is strongly preferred that all submittals be made via e-mail in PDF or Microsoft Word® format. Should PDF or Microsoft Word® formatting not be feasible, other common word processing formats would be acceptable.

E-mail submittals should be formatted as follows:

The PDF or Microsoft Word® file should be named with the lead author's last name followed by an underscore and the words 2005Dist6Abstract. For example, a submittal by Mr. Marvin would be titled "Marvin_2005Dist6Abstract." Please include a subject line in the e-mail that is indicative of the submittal. Email submittals should be submitted to marvin@enginc.com.

If an abstract cannot be submitted via e-mail, printed copies and an electronic version (on either a CD or a 3.5" floppy disk) may be sent by regular mail to:

Abstracts for the 2005 District 6 Annual Meeting
c/o Robert Marvin
Marvin & Associates
1260 S. 32 nd St. West
Billings , MT 59108

Questions or Comments? Please contact Mr. Marvin through e-mail at the address given above, or call him at (406) 655-4550.

The selection of technical program presentations will be completed by February 25, 2005 . Shortly thereafter, a listing of chosen abstracts will become available on the District 6 website (www.westernite.org). If your abstract is not listed, please understand that we had to make some very hard decisions on which abstracts to include. We encourage you to submit a paper or presentation anyway—all submissions will be included in the conference compendium, and if you submit a presentation or paper, we will include you in a pool of alternatives to fill in for the inevitable no-shows or cancellations that occur.

A CD compendium of submitted papers will be prepared for distribution at the meeting. To be included in the compendium, papers **must** be submitted by Friday, April 15, 2005. Detailed requirements for paper submittals will be provided to authors once abstracts are selected.

President's Message

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proclamation for his many hours assisting both the local ITE section and the University of Nevada, Las Vegas student chapter.

When you visit the *WesternITE* Web site (www.westernite.org), you can see the fine work Jon Pascal does as our webmaster keeping us current with what is going on in our profession. I invite you to visit our excellent web site often. A technical editor is needed to work with managing editor John Kerenyi for our award-winning newsletter, *WesternITE.* If you are interested, please contact me as soon as possible, since we expect to fill this position at our next mid-year meeting on January 28th in Ontario, California.

Believe it or not, we are already making plans for the 2010 annual meeting which will be held somewhere in California. Two sections have already indicated an interest in hosting the meeting, but it's not too late to apply. If your section would like to host the 2010 meeting, please send me a letter of interest so the Board can consider all possible options at the Ontario meeting in January. The winning location will be chosen at the 2005 annual meeting.

I am really excited about our next annual meeting that will be at Kalispell, Montana. It's the perfect family getaway location, with both old-west charm and spectacular scenery. There are outdoor activities for the entire family such as hiking, horseback riding, rafting, and biking.

Kalispell is located in northwest Montana at the north end of Flathead Lake, which is the largest freshwater lake west of the Mississippi. The west entrance to Glacier National Park is only a short drive away. Family night will be held at Summit House atop the Big Mountain Ski Resort. Take the gondola ride to the top and enjoy a spectacular view of Flathead and Glacier National Park. You can still submit an abstract for a technical paper too! *[see the facing page for more details—Ed.]*.

Best wishes to all for a fantastic holiday season!!

Mike Bitner and his wife receive a proclamation from Zaki Mustafa declaring "Mike Bitner Day"

Walt Vodrazka (center, with plaque) receives Zaki's Presidential proclamation together with many members of the UNLV Student Chapter that were there to congratulate him, as were several local, District, and International ITE elected leaders.

Get to Know Your Local Leadership

Central Coast Section

The California Central Coast Section elected the following officers for 2004-2005:

Left to right: Mike Bitner, President; Lisa Wallis, Secretary-Treasurer; Gary Mills, Vice President

Arizona Section

The Arizona Section elected the following officers for 2004-2005:

Scott Nodes, President

Mark Poppe, Vice President

Kim Carroll, Secretary

Micah Henry, Treasurer

Sarath Joshua, Past President

Feature Article

(Continued from page 1)

northerly segment exhibits the highest volumes today, while the southerly segment exhibits the lowest volumes.

Land-use Plans and Trip Productions

Area land-use plans called for much of the agricultural and vacant land in the corridor to develop with residential land uses as the Denver exurbs expand. Since much of the corridor is outside of the Denver region's travel demand model, land-use forecasts were based on adopted local zoning plans and through the help of the project's land-use committee. Based on these inputs, new trips for the corridor were forecast, aggregated, and distributed to the study roadway. This effort resulted in volumes that increased by up to 119% from existing conditions in the horizon year.

Reactions to Initial Results

These early volume forecasts raised various concerns. The sponsoring agencies reacted negatively because the future volumes appeared to exceed planned corridor capacity. The communities reacted negatively because they did not understand how their zoning decisions could result in that much traffic in their communities. Meanwhile, the project's FHWA representative asked that induced growth be considered in the corridor. Therefore, the project team developed a "revised zoning" scenario with less overall land-use growth. This scenario reduced volumes by up to ten percent at key locations. However, the decrease was not enough to address the no-action capacity constraint issues. Since the existing zoning scenario reflected build-out of all zones at the maximum density allowed by zoning, it was considered the high forecast, while the revised zoning scenario was assumed to be closer to what may actually be built in the corridor. For the EIS, NEPA required that our team maintain the existing zoning scenario since the revised zoning is not a "committed" improvement. Therefore, two sets of future volumes were presented throughout the NEPA document.

About the Author:

Paul F. Brown, P.E., is a senior transportation engineer with Carter & Burgess in Denver. He was the traffic engineering lead for the study described in the article. He holds a BSCE from Polytechnic University (New York) and is a Member of ITE.

Our Approach to the Problem

After a review of the problem definition, we knew we had to develop a defensible solution. The solution had to fall within NEPA guidelines, and had to be reasonable to the agencies and area communities.

Peak Spreading

The future ADT forecasts and existing hourly counts were used to produce peak-hour forecast volumes, which were used to evaluate future peak-hour level of service. These analyses showed that the No-Action peak hours were over capacity for the three northerly segments, but there was available peak shoulder capacity. These three segments exhibited peak shoulder operations where the future LOS was poor (D/E), but capacity was not actually exceeded. This pointed to the first element in the preferred solution—peak spreading.

Peak spreading was defined for each peak hour as traffic that could shift to one adjacent hour. In addition, one hour on either side of the peak could spread into adjacent hours to allow for peak hour spillover. This led to No-Action scenarios where three or more hours operated at capacity during the AM and the PM periods. We considered this reasonable since existing counts reflected several 90-minute peak periods.

Unmet Demand

A second step was also necessary since peak spreading could not accommodate the entire future forecast. Under NEPA, a full No-Action scenario must be evaluated. However, peak spreading and the revised zoning scenario were insufficient to reduce volumes to the future two-lane capacity. Therefore, it was assumed that some corridor travel demand would be unmet. The unmet demand was simply the over-capacity peak volume that could not be eliminated through peak spreading. Unmet demand was considered a No-Action "impact."

The unmet demand presented a unique problem in the analysis. Since the volumes vary widely along the corridor, it was possible to be within the roadway's capacity in one segment and not in the adjacent segment. Our team developed two approaches for this issue. One approach assumed that the unmet demand within a given segment would be specific to that segment; other segments would continue to grow despite adjacent unmet demand. The second approach determined the highest unmet demand in the study area, calculated the unmet demand percentage in that segment, and applied the percent reduction corridor-wide. Since both approaches have flaws, the No-Action volume was assumed to lie between these two values, and ranges were presented in the NEPA document.

Process Summary

The new process that was developed for the subject project is summarized in the flowchart below. This flowchart replaces the simple assignment assumed at the start of the project.

Project Conclusions

The process described above resulted in an analysis that conforms to NEPA requirements, has agency and community buy-in, and has led to a successful project. Each step taken follows practices applied elsewhere to a unique rural corridor.

Transportation Planning Implications

Each of the four general questions posed at the beginning of this paper are addressed in this section. These questions are answered in the context of the subject project, but could be transferred to other isolated corridors where applicable.

Impact of Capacity Constraints on Demand

The first question states, "Is it reasonable to assume that roadway capacity will limit the demand forecasts under the No-Action scenario and if so, how?" Our team concluded that the answer to this question was yes. The public will find facilities that are less congested and provide easier access, resulting in supply-and-demand equilibrium as described by Jack Leisch[1]. Most travel demand models assume this equilibrium is required, and strive to achieve it across the model network. However, in an isolated corridor, there are no other paths to be used during equilibrium calculations. Since transportation systems cannot provide equilibrium, land use must do so.

Multiple Land-use Scenarios

The second question states, "Should capacity-constrained land-use forecasts be applied under the build scenario?" In the study corridor, the build scenario was evaluated and the new roadway facility operated at LOS D or better under both land-use scenarios. Therefore, build capacity constraints were unnecessary, but various land-use scenarios were evaluated

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as part of the project. Littman states, "Most transport models treat land-use development patterns as an exogenous impact unaffected by transportation decisions."[2] The consideration of multiple zoning scenarios in this project has shown that land use and transportation analyses can be linked, and that analysis of various land-use sets can actually benefit the NEPA process.

Impacts of Capacity Constraints on Land Use

The third question states, "Could land use grow despite capacity limitations, resulting in changed travel patterns within the corridor?" The answer to this question is a resounding yes[3]. Peak spreading is a concept that has been studied repeatedly. Research shows that significant volumes are fleeing the peak in various urban areas in favor of the shoulders of the peak[4].

Induced Growth

The fourth question states, "Will land-use forecasts change between No-Action and Build scenarios, creating potential land-use impacts that must be evaluated under NEPA?" Induced growth has been a recent buzzword in our profession, and many technical papers have been prepared on the topic[5,6]. The concept holds that added roadway capacity "generates" more traffic on that roadway, although definitions vary widely. DeCorla-Souza outlines four distinct elements in his induced growth definition[7], which is used by the FHWA. The following summarizes these elements and their applicability to this analysis:

- *Some induced growth is due to "new" person-trips.* The differing zoning scenarios change the number of person-trips in the project corridor, acknowledging this effect.
- *Some trips get longer when capacity is added, so planners must be aware of the "unit of measure" (trips vs. miles).* In other words, longer trips are not necessarily new trips. Since relatively few services are found in the project corridor, this effect is anticipated to be minimal.
- *Trips will return to the peak hour if capacity is added.* This phenomenon is the reverse of peak spreading. In the "Build" scenario for this study, the facility is forecast to perform at LOS D or better for all hours of the day. Therefore, it is anticipated that this phenomenon will be minimal in the study corridor.
- *New capacity attracts trips from parallel facilities.* In the project corridor, this shift cannot occur since there are no parallel facilities.

The NEPA work performed for our corridor should capture induced growth in the project area, based on DeCorla-Souza's definitions. The two land-use scenarios address the first component, the second and third components are expected to be minimal in the corridor, and the fourth element is not applicable to the corridor.

Conclusions

Many travel forecasting efforts follow tried-and-true processes, flowing from study area and land use definitions to calculating trips and assigning them to the transportation network. This paper examined one case where this traditional process could not be applied.

The author presents a methodology for addressing forecasts in isolated corridors, where alternate paths are non-existent. Generally, the land use changes and trip generation need to be revisited in a way that allows these elements to feed the isolated corridor appropriately. Several accepted effects were applied in this process, including peak spreading and capacity constraints. The paper also discussed how the proposed process fits within the NEPA process.

Notes:

1. Leisch, Jack E., "A Plan for Coordination of Transportation with Land Use for Urban Development," *Traffic Engineering,* May 1970.
2. Littman, Todd; "Generated Traffic: Implications for Transportation Planning," *ITE Journal,* April 2001.
3. *Op. cit.;* Purvis, Chuck; "Peak-Spreading Models—Promises and Limitations." Available online from the Metropolitan Transportation Commission.
4. Levinson, David and Kumar, Ajay, "Operation Evidence of Changing Travel Patterns: A Case Study," *ITE Journal,* April 1994.
5. Noland, Robert B. and Coward, William A., "Analysis of Metropolitan Highway Capacity and the Growth in Vehicle Miles of Travel," TRB 79th Annual Meeting (January 2000).
6. DeCorla-Souza, Patrick and Cohen, Harry, "Accounting for Induced Travel in Evaluation of Urban Highway Expansion," TRB 77th Annual Meeting (January 1998). Abridged version available on FHWA Web site.
7. *ibid.,* Section 2.0, page 2.

Sign of the Times

"Who would have thought that such signs of angst and disregard for public property would be on display in an ostensibly perfect suburban community such as Foothill Ranch, California?

"Wait a minute, I think I know what's going on… isn't this the Oakley surfwear and sunglass factory's private driveway?"

Submitted by Jim Otterson, Huntington Beach, California

Section and Chapter Activities

Hawaii Section

July Meeting

The July luncheon meeting was held on the 20th at the office of Belt Collins in Honolulu. The featured speaker was Thomas Quinn, Director of the Hawaii Center for Advanced Transportation Technologies (HCATT). HCATT was established in 1993 as the Hawaii Electric Vehicle Demonstration Program. Its objective is to develop zero- or low-emission transportation vehicles and infrastructure. Recent, current, and future projects include:

- Testing rapid-charging (10 minutes instead of several hours) electric vehicles supplied by Hyundai.
- An electric Waikiki trolley (not currently in use) and an electric bus which HECO still uses to transport employees.
- Hybrid buses which support the airport's WikiWiki system and in the City and County of Honolulu's bus fleet that may be used as part of the Bus Rapid Transit (BRT) system.
- Currently developing a 30-foot fuel cell bus that will be used at the Hickam Air Force Base.
- Future development of a hydrogen refueling station for fuel-cell vehicles, multi-vehicle charging stations, and a lithium-battery-powered van.

More information regarding HCATT can be found at their website, www.htdc.org/hcatt.

Annual Meeting

The Hawaii Section Annual Meeting was held on August 17th at the Wisteria Restaurant in Honolulu. President Cathy Leong presented Certificates of Appreciation to the outgoing officers and committee chairs. Tellers Robert Miyasaki and Panos Prevedouros announced that based upon a tally of the votes received for the 2004-2005 elections, the following were elected as the incoming officers:

- Wayne Yoshioka, President
- Greg Hiyakumoto, Vice President
- Jodi Chew, Secretary
- Robert Nehmad, Treasurer

The featured speaker was Abe Wong, Hawaii Division Administrator for the Federal Highways Administration (FHWA). Mr. Wong described how federal spending affects Hawaii, including the current TEA-21 reauthorization issues. Hawaii generally receives about $120 million per year from the FHWA's $30 billion program.

Cathy Leong, Past President

San Francisco Bay Area Section

September Meeting

The first meeting of the season was held on the 16th at the Jaliscos II Mexican Restaurant located in the Fruitvale Transit Village in Oakland. The meeting's feature presentation was "Fruitvale TODay: a Look at the New Transit Oriented Development (TOD) in Oakland's Fruitvale Neighborhood." A panel representing the various organizations involved with the project discussed the project, its challenges, and its successes. The panel consisted of: Tom Limon, representing the local community group; Wlad Wlassowsky, Transportation Services Manager for the City of Oakland; Jeff Ordway, manager of property development for the Bay Area Rapid Transit (BART); Tina Spencer, manager of long-range planning for the Alameda-Contra Costa Transit District (AC Transit); and James Corless, a senior planner with the Metropolitan Transportation Commission (MTC).

The project, which is located at Fruitvale BART Station in Oakland, consists of 38,000 square feet of retail, community amenities such as a library and a senior center, and 47 residential units oriented around a pedestrian plaza that links the BART station and the existing neighborhood. The project was initiated in 1993 by the local community in response to BART's plans to expand the existing parking facility at the BART station. Although the project has been open for less than one year, its dramatic impacts on the local neighborhood can already be seen. A blighted area has been beautified, and as a result crime has decreased. The vacancy rates in the surrounding areas have dropped from around 80% to less than 1%. Fruitvale is once again a vibrant, lively neighborhood. The panel discussion was followed by a walking tour. More information about the Fruitvale TOD village can be found at fruitvalevillage.net.

Sam Tabibnia, Scribe

New Mexico Section

September Meeting

Pat Noyes, District Six International Director, installed the New Mexico Section's new officers [*see the Sept-Oct issue, Page 3—Ed.]*. Pat then co-presented the technical portion of the meeting with Jeanette Walthers from Bohannan-Huston, regarding the traffic management program for Los Alamos County. The success of the program is, in part, attributed to a two-level approach to solve the speeding problem in a neighborhood. Level 1 tools include use of a speed-monitoring trailer, targeted enforcement, sign installation, use of a neighborhood speed awareness newsletter, and a neighborhood speed watch program.

If the program has not achieved the desired results as determined by the residents, Level 2 of the program is implemented. Level 2 improvements include median modifications, neighborhood entry islands, neckdowns, curb extensions chokers, speed humps, and raised crosswalks or speed tables. Level 2 improvements require additional field

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studies, neighborhood surveys, 67% neighborhood petition support, and review by the Transportation Board. The process helps to ensure that the improvements are warranted and will be effective.

Tom Blaine, Vice President

Central Coast Section

August Meeting

The August luncheon was held on the 10th at the Hungry Hunter Steakhouse Restaurant in the City of Thousand Oaks. Twenty-eight people attended. The guest speaker was Mr. Dragan Buha, a Resident Engineer with Caltrans. He provided a good overview of the $110 million Santa Clara River Bridge widening on State Route 101 between Oxnard and Ventura. This is the largest State-funded project in the Los Angeles area. Mr. Buha described the various complexities in building the project, including traffic management plans and endangered species.

October Meeting

The October luncheon was held on the 12th at the Mussel Shoal's Restaurant at the Cliff House Inn (between Ventura and Santa Barbara). Twenty-seven people attended. Rob Eaton, Principal of Traffic Signal Maintenance, and Doug Bilse, Associate Traffic Engineer with the City of Camarillo, presented a traffic signal coordination project in Camarillo. The project updated timing and coordination on three major arterials: Las Posas Road, Carmen Drive, and Santa Rosa Road. Rob discussed the scope of work, challenges of the project (e.g. incompatible hardware), and lessons learned. Doug described the intricacies in using Synchro in developing timing plans.

Upcoming Meetings

The Central California Section's quarterly meeting dates for 2005 have been set as follows (all of which fall on Wednesday):

- January 19
- April 20
- July 20
- October 19

Please save these dates and watch your Section newsletter for more details.

Ray Chong, Scribe

Colorado-Wyoming Section

End-of-Year Golf Tournament

This annual event, held on June 9th at the Saddle Rock Golf Course near Denver, had over 100 registrants. Thanks to Section Golf Committee members including Joe Hart, Mark Proper, and Jon Blake. Plans are already underway for next June's tournament and for a tournament to be held in conjunction with the Colorado Transportation Conference in October 2005.

September Meeting

The September luncheon was held at the Holiday Inn Select in Denver. New Section President, Nate Larson, presided over the meeting that was attended by over 70 members and guests.

Highlights of the luncheon included a presentation from the new Executive Director of the Denver Area Regional Council of Governments (DRCOG), Jennifer Schaufele, and the installation of new officers by Pat Noyes, International ITE Director. The section's officers for this year (2004-05) are:

- President: Nate Larson
- Vice President: Will Johnson
- Secretary-Treasurer: Bill Hange
- Past President: Allen Albers

Two student scholarships were awarded by the Section: $1000 was awarded to graduate student Anna Bunce, and $500 was awarded to Benjamin Weaver. Benjamin is a University of Wyoming Senior and ITE Student Chapter President.

Fall Golf Tournament

The Section's fall golf tournament was held at Pelican Lakes Golf Course in Windsor, Colorado on September 17th. A total of 110 people registered. Winners of the tournament were John Clark Ed Hammontree, Tom Puto, and Joe Wilson.

October Meeting

The October luncheon was held in conjunction with the 77th Colorado Transportation Conference (CTC) at the Omni Interlocken Resort Hotel in Broomfield, Colorado, on the 15th. The conference was sponsored by the Colorado-Wyoming Section and was well-attended by many transportation professionals from across Colorado.

US Congressman Bob Beauprez was the featured luncheon speaker. Honorable Mr. Beauprez is the first representative from Colorado to serve on the House Transportation Committee. He presented some excellent insights into the workings of the Transportation Committee and the status of the proposed transportation bill.

November Meeting

The November luncheon was held on the 12th in Colorado Springs, Colorado, at the Embassy Suites Hotel. The meeting was attended by 45 members and guests.

It was announced that two Front Range transportation initiative ballot measures (Fast Tracks in Denver and the Rural Transportation Authority in Colorado Springs).

Rob McDonald from the Pikes Peak Area Council of Governments (PPACG) introduced the speaker, Transportation Planning Director of PPACG, Craig Casper. Craig presented an update of what's happening at the PPACG. The passing of the RTA means new funding for transportation projects in the region of $1 Billion dollars in the next 10 years. He also indicated identified that the PPACG will soon be updating their transportation model. The new model will likely include expanded traffic analysis zones and different development scenarios. Mr. Casper also discussed the modification of the transit system from the existing "hub and spoke" system to an Express Route system.

Upcoming Events

Upcoming events include:

- December 3rd: holiday luncheon/ meeting in Denver
- January 28th: Vendor Show/Luncheon
- April 1st: Joint meeting with Women in Transportation Seminar.

Bill Hange, Scribe

WANTED: Peak-Hour Traffic Surveillance Tapes for Intersection Research

University of Hawaii at Manoa, Civil and Environmental Engineering, Traffic and Transportation Laboratory—Various concerns have been raised about the variability of inputs and the uncertainty in the outputs of signalized intersection analysis with the Highway Capacity Manual (HCM). A survey by Dr. A. Tarko at Purdue University and a discussion report of the Highway Capacity and Quality of Service Committee of the Transportation Research Board indicate that most HCM users would prefer knowing the confidence intervals or range of the Level of Service.

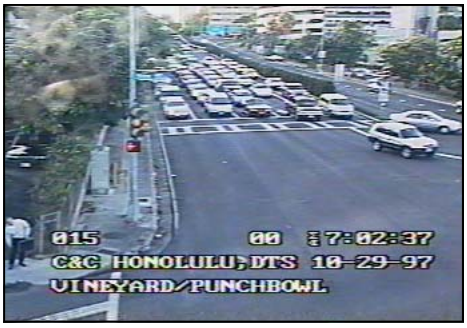
We conducted analyses of the HCM delay model for signalized intersections using data from one intersection approach from Honolulu and nine from suburban Chicago. Our papers received an enthusiastic response and encouragement to collect a nationally representative sample. We would like to solicit the help of ITE's District 6 cities and jurisdictions with surveillance cameras at intersections of arterial streets to provide us with tapes of signalized intersection approaches so that we can analyze a large, representative sample.

Requirements

The requirements for the tapes are as follows:

- The intersection should be controlled with actuated signals and the terrain should be level.
- The subject approach must have at least two exclusive through lanes and one exclusive left-turn lane.
- At least one signal head visible on the tape (per sample at right).
- At least five normal weekdays from each location are needed.
- Both morning and afternoon peak periods are desired (but are not required).
- A good view of the end of queue is preferred but not required.
- The camera should be somewhat zoomed in to the approach, as in the sample to the right, to facilitate counts and measurements.

If the unit extension of the actuated signals for the phases serving left-turn and through movements is available, then please indicate it on the tapes. Blank tapes will be sent to those who send us tapes. If waivers of liability or promissory notes to the effect that these tapes will only be used for research are required, then we will review and sign them. We appreciate your willingness to help us with this research project. Please contact the researchers for more information:



Sample frame of desired video of intersection operation.

- Dr. Panos Prevedouros, Associate Professor, (808) 956-9698, pdp@hawaii.edu
- Jerry Ji, Research Assistant, (808) 956-0949, xji@hawaii.edu

Arizona Section Creates Active-Member Group

Two years ago, the Arizona Section began an experimental committee called the Active Member Group (AMG). The AMG was to be a forum for ITE members to become more involved in networking, their community, and also to become more knowledgeable about our profession. Each year, the group has planned or been involved with a variety of events, including sporting events, technical tours, social hours, family events, a charity golf tournament and other charity activities. Events have included:

- ITE Future Cities Judging Team
- ITE Future Cities Golf Tournament (Benefiting the Phoenix Future Cities Competition)
- Collecting Items for a Domestic Violence Shelter
- Spring Training Baseball Games
- Bowling Night
- Technical Tour of the Coyotes Arena

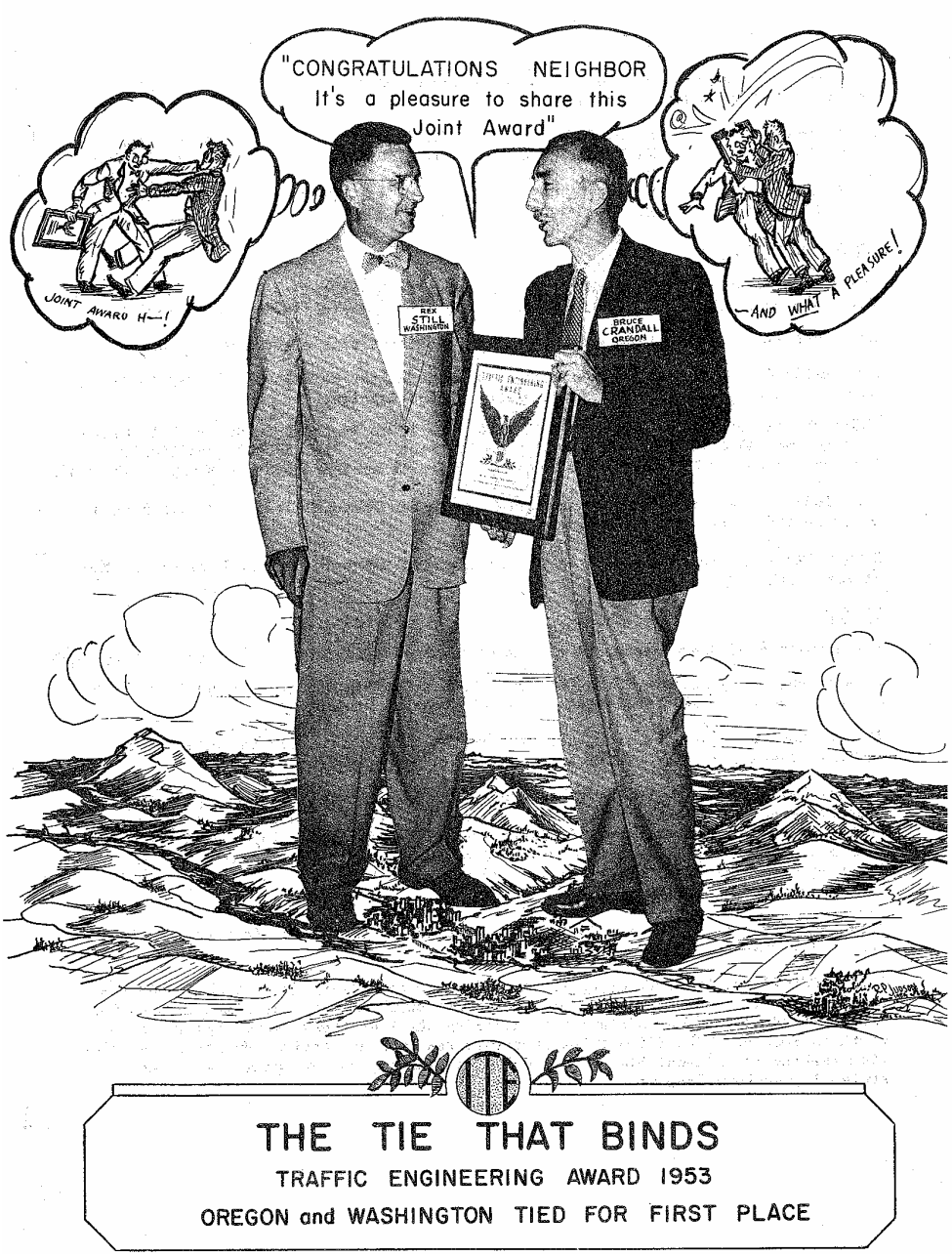
The AMG receives funding from the Arizona Section and also holds fundraising events in hopes of one day becoming self-reliant. The group's most recent fundraising event was a competition for a new Arizona Section logo. The winning logo was embroidered on polo shirts that were sold at the section meetings.

Sarath Joshua, Past President of AZITE, says, "Over the span of two short years, through their various projects and activities, AMG has made significant contributions to the community, the Arizona Section of ITE, and our profession."

The majority of the AMGers are young professionals; however, there is no age restriction. The AMG meets once per month, separately from the Arizona ITE monthly meeting/luncheon, to plan events and to network with each other. The group has now grown to over 20 members. If you would like further information about AMG, please contact Chris Williams at CWilliams@taskeng.net or (602) 277-4224.

In WesternITE 50 Years Ago

This cartoon appeared in the December 1954 WesternITE.
They apparently took their awards pretty seriously back then too!



Have you purchased your copy of the WesternITE Compendium yet? For only $20 you, too, can peruse WesternITE's archives to find gems like these, or to learn "new" tricks from old pros. For more information, please contact the San Diego State University Student Chapter at SDSU_ITE@hotmail.com or (858) 560-4911.

Positions Available

CHS Consulting Group

Transportation Planner/Engineer (Full-Time)—CHS Consulting Group, a fast-growing transportation planning and engineering firm in SF and Oakland CA, has immediate openings for one mid to senior level transportation planner and one mid to senior level traffic engineer positions. Candidates should have at least 5 years experience with strong analytical, computer, written, and communication skills. Candidates with experience in HCS, EMME2, TP+, SYNCHRO, CORSIM, and VISSIM are preferred. The ideal candidate for the traffic engineer's position should be a licensed TE or CE in the State of California or is capable of obtaining the license in the near future.

We have a number of exciting projects currently underway, including areawide planning studies, traffic analysis, signal design projects, traffic engineering studies, and EIRs. We offer competitive salary and benefits.

Send resume and cover letter to CHS Consulting Group, 500 Sutter Street, Suite 216, San Francisco, CA 94102 or email to or fax to (415) 392-9788. Any question regarding this offer, please call Ms. Williams at (415) 392-9688. EOE

TRANSPORTATION SOLUTIONS, INC.

Transportation Engineer—Transportation Solutions, Inc. (TSI) is a specialized transportation planning and traffic engineering firm in Redmond, Washington, that serves high-profile public, private, and institutional clients with development feasibility, environmental review, traffic operations, and signal design. The ideal candidate is a highly motivated ethical person with 3+ years of experience looking for increased client-focused management responsibility. A strong technical foundation with extraordinary interpersonal and communication skills is required. MSCE and/or PE desirable. Send resume to Lynn Reams, Office Administrator, at lynnr@tsinw.com.

CITY OF LONG BEACH, CALIF.

Transportation Planner—Job Number: 127. Salary Range (Monthly):

- Grade I: $3,974 to $5,407
- Grade II: $4,289 to $5,837
- Grade III: $4,622 to $6,297

Appointment may be made at any grade level, depending on qualifications. Benefits package includes vacations, holidays, bereavement and sick leave. In addition, employees in this classification earn benefits, including a comprehensive vested retirement plan and extensive medical, dental and life insurance plans.

Applications available: 7:30 a.m. To 4:30 p.m., October 1, 2004 through January 2, 2005.

Filing deadline: 4:30 p.m., January 7, 2005. Applications will not be accepted after that date and time. Postmarks will not be accepted.

Examples of Duties: Under direction, assists in traffic analyses and preparation of traffic studies for Port of Long Beach facilities, transportation projects and environmental documents (EIR/EIS); manages and assists in the review of consultant traffic studies; assists in the review/analysis of regional transportation studies/issues pertaining to outside agencies such as SCAG, LACMTA, Caltrans and USDOT; conducts or assists in the review/analysis of traffic issues; conducts or assists in the analysis of regulatory (e.g., Congestion Management Program) and legislative (e.g., proposed State transportation bills) issues; assists Port engineering division in development and conceptual design of roadway and rail facilities; collects, develops, analyzes various types of data for use in Port transportation studies; manages Port consultants and staff interns; evaluates and develops strategies on funding issues; may represent the Port of Long Beach at outside agency meetings; prepares reports and correspondence; performs other related duties as required.

Requirements to File: Proof of graduation from an accredited college or university with a bachelors degree in Civil Engineering or Urban Planning with an emphasis in transportation planning/ engineering **and** two or more years of paid, professional experience in transportation planning/transportation engineering or traffic engineering. A copy of diploma or transcripts is required by the close filing.

Proof of a valid motor vehicles operator's license is required at time of selection interview (A current DMV driving record must be submitted to the hiring department at time of selection interview.)

Desirable Qualifications: Knowledge and experience using traffic engineering and transportation engineering/planning principles and methodologies (including computer software applications.)

Selection Procedure: This examination will be conducted using the continuous, non-competitive procedure of placing qualified individuals on an eligible list, with those receiving Veteran's Credit first, and then in the order in which applications were filed. Screening of candidates will be conducted on the basis of the application, supplemental application, and resumes submitted. Resumes will be accepted, but may not be substituted in lieu of the required application and supplemental application. As vacancies occur, the names of qualified applicants will be submitted to the requesting department for consideration.

Applicants will be contacted shortly after applications have been filed. If you do not receive notification, contact the civil service office at (562) 570-6202.

This information is available in an alternative format by request to (562) 570-6202.

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CH2M HILL is committed to moving the Northwest into the future! Our engineers, planners, and scientists act as environmental stewards while helping governments provide modern mobility for moving people and products safely. We need your talents to deliver innovative transportation projects and help our clients build a better world.

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CH2M HILL offers professional growth, challenging projects, and the latest technology. To learn more about our opportunities contact Jonda Franklin at 425-233-3208 or visit our website at www.ch2m.com. EEO/AA Employer

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Short Elliott Hendrickson Inc. (SEH), a leading multidisciplined consulting firm based out of the Mpls/St.Paul area, is looking for the following positions at our Boulder, CO office. We have 5 offices in Colorado.

Traffic Engineer—Job #0028

Candidate must have a Bachelors degree in Civil Engineering; State of Colorado P.E. registration; and 7+ years' experience in transportation/traffic engineering. Experience in traffic signal design, signing and striping plans and traffic impact studies highly desired. Working knowledge of HCS, Synchro, and CORSIM desired, as well as established client base in Colorado's Front Range.

Transportation Planner—Job #0029

Candidate must have a Bachelors degree in planning, urban studies, environmental engineering or related field; AICP certification and/or P.E.; 10+ years' experience in transportation/corridor planning; experience with NEPA documentation for CDOT projects desired.

For confidential consideration, please send resume and salary history to hr@sehinc.com or fax to 612.758.6701. Please refer to job number when submitting your resume. EOE/AA

RBF CONSULTING

Founded in 1944, RBF Consulting has a staff of over 800 professionals and is located in offices throughout California, Arizona and Nevada. We are currently seeking Transportation/Traffic and Bridge Engineers to join our design team and help construct improvements to modernize the entire 12-mile length of the SR-22 (Garden Grove) freeway.

Positions require a BSCE, 3+ years of related design experience, and strong AutoCAD and/or Microstation skills. Professional registration is preferred.

RBF offers an excellent compensation and benefits package including a generous matching 401(k) plan, profit sharing and bonus plans, and relocation assistance. Join a Firm committed to career growth, teamwork and family values!

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EOE/M/F/D/V

LLG ENGINEERS

Linscott, Law & Greenspan, Engineers (LLG) is an established traffic and transportation engineering firm with offices located in San Diego, Costa Mesa, Pasadena, and Las Vegas. Over the past 37 years, our firm has provided engineering solutions for over 6,000 projects including traffic impact studies, Project Study Reports, Project Reports, roadway alignment studies, demand management studies, parking studies, traffic signal designs, signing/striping plans, and traffic control plans.

LLG currently has openings for a Traffic Engineer/Transportation Planner

CITY TRAFFIC ENGINEER
Peoria, Arizona
Salary $69,082 - $94,988 DOQ
(salary currently under review)

The City of Peoria, Arizona is one of the fastest growing cities in the United States. Located near Phoenix, the City encompasses over 162 square miles, with a current population of 126,000 and projected build-out of 253,400 residents by the year 2030. Peoria boasts a wide range of home prices with a median price for a new home of $161,000. This position reports to the Engineering Director, and supervises a current staff of five; three professional and two support staff, with expectations of continued growth. The Traffic Engineer is responsible for traffic planning; signal design, interconnect, and operations; establishing traffic engineering standards; and reviewing traffic impact studies. This position also coordinates the Neighborhood Traffic Management Program, and represents the City on various regional committees.

Candidates must have the equivalent of a Bachelor's degree in Civil Engineering, Transportation Engineering or a related field, and a minimum of five years of increasingly responsible traffic engineering experience. Experience with computerized traffic signal control systems, and registration as a professional engineer is desirable.

Qualified individuals should submit an unbound resume (e-mail preferred), cover letter, references, and current salary information **NO LATER THAN DECEMBER 8, 2004 to**:

adams consulting
public sector search and assessment

ANNETTE BRIGGS
9305 NE 191st Street
Bothell, WA 98011
briggsam@msn.com
425.357.6780 t 425.485.9775 f

Positions Available

to join our teams in the San Diego and Costa Mesa offices. The position requires a bachelor's degree in Civil Engineering, Urban Planning or a related field and between 1–5 years of professional experience in the transportation field. Experience preparing traffic impact studies is required.

LLG offers excellent salaries and benefits, quarterly profit sharing bonuses, and a very enjoyable working environment. We are offering an acceptance bonus to qualified candidates. For further information please visit our website at www.llgengineers.com and, if interested, fax or email your resume to John Keating's attention at:

LLG Engineers
4542 Ruffner Street, Suite 100
San Diego, CA 92111
Fax: 858.300.8810
Email: keating@llgengineers.com

CITY OF PEIORIA, ARIZ.

Sr. (Traffic) Engineering Technician—$44,701 - $57,221—The City of Peoria, Arizona, is one of the fastest-growing cities in the United States. Located near Phoenix, the city encompasses over 162 square miles, with a current population of 126,000 and projected build-out of 253,400 residents by the year 2030. The successful candidate's duties will include inspecting new traffic signals, traffic signal controllers, fiber optic cable, wireless communication equipment, CCTV cameras, and Dynamic Message Signs (DMS). In addition, the employee will review plans related to traffic signals, communication devices, signs, pavement markings, and temporary traffic control. The City will be installing a new traffic signal system and thus, the employee will assist with technical activities related to the new system.

We are seeking candidates with high-level experience with traffic signals and controllers (TS-2 type). In addition, we will give preference to candidates that have experience with fiber optic equipment and electronic troubleshooting. The successful candidate will have the unique opportunity to deploy, develop and maintain the City's Intelligent Transportation Systems (ITS) equipment that includes fiber optic and wireless communications equipment for traffic signals, CCTV cameras, variable message signs, and vehicle detection systems.

Candidates are required to have five years' experience in the installation, maintenance, and repair of electric, electronic, and digital traffic signal control devices. In addition, the successful candidate must have possession of, or ability to obtain, an International Municipal Signal Association (IMSA) Level II Traffic Signal Certification within one year of hire and an Arizona Driver's License within one month of hire. An Associate of Arts degree with major course work in civil engineering or closely related field is desirable.

This position opens October 25th, 2004. Review of applications will begin November 29th, 2004, and continue until the position is filled. See www.peoriaaz.com for application and more information.

TRANSCORE

ITS Engineer, Los Angeles—As the largest firm in the United States specializing in Intelligent Transportation Systems (ITS), TransCore (www.transcore.com) provides value with dedicated project staff who are experienced in ITS and understand issues surrounding ITS planning, design, and deployment. For 30-years, TransCore has been involved in the planning, design, and deployment of Advanced Transportation Management Systems (ATMS), Advanced Traveler Information Systems (ATIS), communications networks, and other ITS applications.

TransCore is currently searching for an ITS Engineer. This full-time position would be based in our downtown Los Angeles Office.

Job Description

- Develop system requirements based on the needs of the involved Agencies (e.g., traffic control systems, communications, etc.)
- Prepare conceptual and detailed designs for placement of ITS devices (e.g., CCTV cameras, traffic signals, CMS, other ITS equipment, etc.)
- Perform system analysis and designs for development of communications networks to support ITS programs (landline & wireless communications)
- Perform system alternatives analyses and develop a recommended approach based on feasibility, functionality, and cost (e.g., communications, traffic control systems, other ITS equipment, etc.)

Required Skills

- Experience with design of traffic management systems including signal systems, traffic surveillance systems, and traveler information systems
- Experience with analysis and design of communications networks for traffic management systems and other ITS applications/equipment
- Experience with communications networks, systems, and architectures (e.g., fiber-optic, wireless, leased line, twisted-pair/copper, etc.)
- Experience in developing Client requirements and performing system needs analysis

Education: BS Civil Engineering or BS Electrical Engineering

Salary: $60,000 – $80,000 + benefits (commensurate with experience)

Interested applicants please send resume in an MS Word version to chadf@rwjportland.com.

Positions Available Ads:

To place your ad, e-mail your ad to **john.kerenyi@kimley-horn.com**. The deadline is the 28th of the previous odd-numbered month. The cost is $1.50 per word, with a minimum cost per ad of $100.00. Ads are also posted on our web site at *www.westernite.org*. More information is available on our Web site.

Don't forget...

The latest Positions Available ads are always on our Web site!

Positions Available

AAE, INC.

Traffic Engineer/Signal Designer
Brea, California, Salary: $60K-$90K
Seeking a Traffic Engineer/Signal Designer with a minimum of 5 years of experience. Responsible for the design, construction and engineering of traffic signal projects and systems. California Civil/Traffic Engineering registration is a plus. Send resume/salary history to AAE, Inc., 601 S. Valencia Avenue, Suite 250, Brea, CA 92823, or email to rmadura@aaeinc.com.

TOWN OF GILBERT, ARIZ.

Senior Traffic Engineering Technician— Requires Associate's degree and three years' related experience. Details and application at www.ci.gilbert.az.us. Apply in person at Town of Gilbert Employment Center, 50 E Civic Center Dr., Gilbert, AZ 85296. Open until filled. First review 5:00 pm, Friday, November 12. $19.48 to $27.27 hourly.

CITY OF ANAHEIM

Associate Engineer (Traffic Engineering)—$64,350 to $88,482 per year— The City of Anaheim is currently accepting applications for an Associate Engineer. Applications will be accepted through Thursday, December 9, 2004. To obtain an application please visit www.anaheim.net or call (714) 765-5111. This position requires:

- Professional journey-level field experience in troubleshooting electronics and signal control communications; experience with traffic signals and systems.
- Knowledge of traffic engineering principles in the areas of traffic signal control systems, signal timing, capacity analysis and signal timing software such as Synchro.
- Knowledge of standard PC platform including hardware. Proficient with Microsoft Windows and Office products (Word, Excel, Access and PowerPoint); graphics software (Visio, AutoCAD).

Data Collection Fund Proposals Due December 10th

It's not too late for your student chapter to submit a proposal to get paid to collect data for the traffic engineering profession. But you'll have to hurry because time's running out! Please visit *www.westernite.org* for more information.

Legislative Update

Walt Stringer, District 6 Legislative Committee Chair

As this column is prepared one week before the November 2 election date, most legislative matters are in continuing resolution status during recess, pending the result of the elections and, in Washington, a likely special session starting in mid-November.

At the Federal level, on the final day of FY04 (September 30), Congress extended TEA-21 for eight months (HR5183), with the actual funding levels to be included in the FY05 Appropriations Bill (HR 5025), with $5.2B for transit and $24.5B for highways expected to be provided (the amounts are a pro-rata for eight months, based on the previous year's funding). Minor revisions include depositing the 2.5c/gallon ethanol fuel tax into the Highway Trust Fund instead of the General Fund, and releasing approximately $4B in highway funds placed on hold (due to rules disputes) in earlier short-term funding extensions. Congress also passed a continuing resolution extending general governmental spending through November 30. In the final days of the session (which ended in early October), House and Senate Committees passed HR 5082/S.2884 (Transit Security), which is intended to provide $35B in funding over three years to "harden" mass-transit systems with both capital and operating grants, and a variety of administrative provisions related to assessment of system security needs, including employee training, with funding provided via the Dept. of Homeland Security, to avoid competing with other existing funding streams. The new Export Tax Bill (HR4520) will also provide highway transportation funding benefits due to ethanol tax and anti-fuel-tax-evasion provisions.

In California, many counties have placed transportation sales-tax extensions on the ballot, with terms of 20-40 years starting in 2008, when the current revenue streams from 1980's-era taxes ends. This time around a two-thirds majority is required, versus the original requirement for a simple majority in the '80's. Many counties decided to begin the process in 2004 in order to have another

opportunity in 2006 or even 2008, if the 2004 campaign is unsuccessful (due to tight economic times or other factors). At the state level, transportation interests await the result of the fate of Props 68 and 70, with a negative outcome on these two propositions helping to ensure future state transportation funding (the California Transportation Commission has yet to begin funding projects again at 2002 levels of activity, despite the presence of an approved state budget, with CTC agendas listing "cash flow uncertainty" as the reason for continued funding holds).

If your state or locality in District 6 had a ballot issue related to transportation funding or other items, please let me know (email to wstringer@nctd.org) and we'll include it in the next column, the first of 2005. Happy Holidays and a great New Year to all!

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