HAWAIIAN CONNECTIONS

THE HAWAII LOCAL TECHNICAL ASSISTANCE PROGRAM

VOLUME 7, No. 4 WINTER 2005

In This Issue

Please pass this on to other interested parties in your office.

SAFETEA-LU

By Abraham Wong, FHWA Hawaii Division Administrator

Aloha and tidings of good news. On August 10, 2005, the President signed into law the **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users** (SAFETEA-LU). With guaranteed funding for highways, highway safety, and public transportation totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in our Nation's history.

So what's in a name? The name SAFETEA-LU tells us a lot about what is in the bill.

Safety – SAFETEA-LU establishes a new core Highway Safety Improvement Program that is structured and funded to make significant progress in reducing highway fatalities. It creates a positive agenda for increased safety on our highways by almost doubling the funds for infrastructure safety and requiring strategic highway safety planning, focusing on results. Other programs target specific areas of concern, such as work zones, older drivers, and pedestrians, including children walking to school, further reflect SAFETEA-LU's focus on safety.

Equity –The new Equity Bonus Program addresses donor state concerns; however, more important to Hawaii is the provision that every State is guaranteed a specified rate of growth over its average annual TEA-21 funding level, regardless of its Trust Fund contributions.

Innovative finance – SAFETEA-LU makes it easier and more attractive for the private sector to participate in highway infrastructure projects, bringing new ideas and resources to the table.

Congestion Relief – Tackling one of the most difficult transportation issues facing us today – congestion – SAFETEA-LU gives States more flexibility to use road pricing to manage congestion, and promotes real-time traffic management in all States to help improve transportation security and provide better information to travelers and emergency responders.

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Participants inspecting a bridge at the "Safety Inspection of In-Service Bridges" workshop. See page 11.

GOT A BETTER MOUSETRAP?

Editor's Note: The Hawaii LTAP Director challenged our readers to submit descriptions of devices or machine modifications they invented for improved operations so that everyone can gain from the fruits of local creativity. Our feature for this quarter was submitted by the County of Maui. We look forward to the other counties submitting their devices to be featured in future issues.

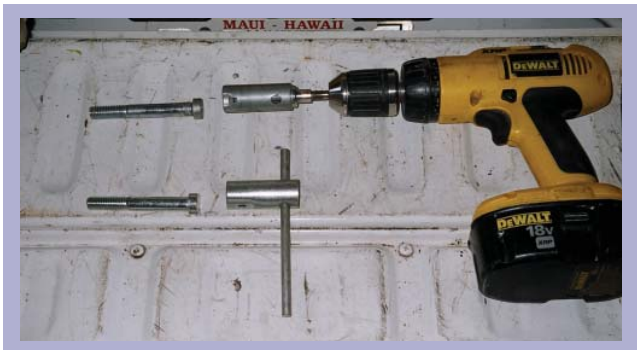
Invented by: Edwin Emoto, District Supervisor
County of Maui, Wailuku Highways

During the last annual supervisors meeting in September, Edwin Emoto, County of Maui District Supervisor, promised to submit a "better mousetrap" entry.

Not only was he true to his word but he outdid himself by submitting two inventions of his: What we called the "hooded blinker" and the "blinker remover."

Often, the District displays more than one hundred barricades with blinkers that have to be inspected before usage, a tedious job. To make matters worse, when checking the blinkers in well-lit environments, it becomes difficult to tell if they are functioning properly. Edwin's solution was to devise a black-out cover consisting, as he put it, of "10 mil black plastic (12" x 24") folded in half, duck-tape the two sides and cut a one-inch diameter hole, just to see if the light blinks." Edwin and a utility worker carry one in their toolboxes for use in the field, and two more are kept in the shop for testing the blinker there.

The "hooded blinker" in operation.



The old and new "blinker removers".

The second device invented by Edwin replaced a crude manual tool that came with the blinker barricades to remove the housing for changing batteries. It was a steel rod attached to a socket that couldn't be turned more than 90 degrees and perhaps causing "carpal tunnel disease for workers," Edwin muses.

His prototype solution was to use a ratchet and a 3/8" socket to make the job easier. After some creative thinking, he came up with a contraption that is driven by a battery drill, adding an adapter for a quarter-inch socket that fit into the manufacturer's tool. Two designs were necessary for the three different styles of wrenches now available to the Division. One had the socket pressed in the tool and pinned to prevent slippage. The other required brazed welding together to ensure a solid connection.

WHAT'S NEW?

County of Kaua'i launches Click2Gov

County officials announced the launching of Click2Gov, a new section on the County of Kaua'i's website that enables homeowners to check the status of their building permits online.

Click2Gov eliminates the need for anyone who's building a home on Kaua'i to drive to Līhu'e or call the various county divisions involved in the permitting process.

Essentially, all the information regarding the permit status of residential projects on the Garden Island is now available on the Internet, and Kaua'i is the first outer island to offer this service.

"This addition to the county website is part of our overall efforts to enhance our services and make things better for the people of Kaua'i," said **Mayor Bryan J. Baptiste**.

According to **David Murray**, a systems analyst with the County of Kaua'i's Information Technology team who's responsible for launching and maintaining Click2Gov, the new link is very easy to access.

"Just log on to egov.kauai.gov/Click2GovBP, type in your building permit application number, and you can access practically any information you're interested in regarding your permit status," said Murray.

Among the list of menu options in Click2Gov are the following: permit status and details, view application fees, inspection status, plan tracking status and help with permitting questions.

On the status detail page, basic information on a particular parcel is provided, e.g. the owner's name, permit application date, what the property is valued at, and whether or not the application has been approved.

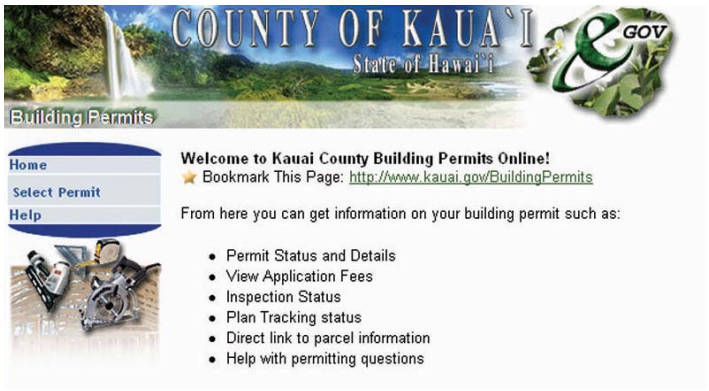
The application fees page indicates if a homeowner has paid the fees associated with the permitting process or if there are any outstanding fees.

The inspection status page shows whether or not the required inspections have been done on the building project, while the plan tracking status page displays in real time what stage a permit application is at in the review process, as well as a summary of the action taken by each government agency involved in permitting.

Murray pointed out that more information on residential parcels is available via a link to www.kauaipropertytax.com from Click2Gov.

Another recent addition to the county's website is a step-by-step permitting guide that's designed to help homeowners go through the permitting process as smoothly as possible.

"It's chockfull of information on what's required to ensure the best possible turnover time in obtaining a building permit," said the mayor.



The web-based permitting guide, located at www.kauai.gov/permitting, begins with the basics – how to start the permitting process:

- Read the County of Kaua'i's Building Permits Minimum Checklist Requirements document.
- Read the Owner-Builders in Hawai'i: A Guide to State Regulations.
- Complete a building permit application.
- Complete a building contractor's statement.
- Complete a zoning permit application.

It also points out a few things that a homebuilder should pay particular attention to including – the importance of writing the correct Tax Map Key (TMK) on all forms, the requirement of submitting five sets of plans for permits, and what to do if your home needs a new address.

Additionally, the permitting guide has links to other pertinent information including – flood insurance rate maps, residential building evaluation policy, Department of Water forms, various engineering forms and instructions, and the Building Code commercial checklist.

In the near future, the county's IT team has plans to roll-out other initiatives that will make life easier for Kaua'i residents.

In late spring of 2006 for example, county sewer customers will be able to pay their sewer bills online with a credit card.

"Thanks to technology and our IT staff, we're able to add new links on the county's website, one project at a time, that directly benefit the people we serve," said **Mayor Baptiste**.

NEWS FROM OUR PARTNERS...

American Society of Civil Engineers

By Ron E. Iwamoto, P.E., ASCE Hawaii Chapter Secretary

AN ORDER OF THE ENGINEER RING CEREMONY WILL BE HELD AT THE 2006 ENGINEERS WEEK BANQUET FEBRUARY 25, 2006 AT THE OAHU COUNTRY CLUB

The Hawaii Council of Engineering Societies (HCES) invites you to participate in the Order of the Engineer Ring Ceremony to be held at the Engineers Week Banquet.

The Order of the Engineer was initiated in the United States to foster a spirit of pride and responsibility in the engineering profession, to bridge the gap between training and experience, and to present to the public a visible symbol identifying the engineer. The first Ring Ceremony was held on June 4, 1970 at Cleveland State University. Others like it have since spread across the United States at which graduate and registered engineers are invited to accept the Obligation of the Engineer and to wear a stainless steel ring.

The Ring Ceremonies are conducted by Links (local sections) of the Order, of which the American Society of Civil Engineers (ASCE) is one. On April 15, 2004, 75 people participated in the first Ring Ceremony held in Hawaii. More information on the Order of the Engineer can be found at www.order-of-the-engineer.org.

Any engineer is eligible for induction into the Order of the Engineer if he or she has graduated from an ABET-accredited engineering program or holds a license as a Professional Engineer. Students enrolled in ABET-accredited engineering degree programs are eligible if they are within two academic terms of graduation. Guests are welcome to witness the Ceremony.

Participants at the Engineers Weeks Banquet Ring Ceremony will take the Obligation of the Engineer and receive a stainless steel ring. The cost for the Ring Ceremony will be $17.50. A registration form and ring sizing chart for the Ring Ceremony will be available on the HCES and ASCE Hawaii Section websites (www.hces.us and www.ascehawaii.org) and in the January Wiliki.

For additional information on the Ceremony, please contact: **Walter Billingsley**, ASCE President, at 846-3232 or wbillingsley@beltcollins.com.

NEWS FROM OUR PARTNERS... (Continued from Page 4)

Cement and Concrete Products Industry

By Wayne Kawano, CCPI of Hawaii President

Aloha! As the Cement and Concrete Products Industry of Hawaii enters its 42nd year of servicing the design and construction community in Hawaii we take this opportunity to wish everyone a Happy New Year! We extend our sincere thanks to the LTAP staff for their efforts and look forward to another productive year. Mahalo!

The concrete industry continues to remain strong and healthy as we look forward to the opportunities in the year ahead. Without a doubt, the concrete market closely parallels and provides the foundation for our local construction industry.

We provide technical information and educational seminars to engineers, architects, inspectors, and contractors to help them expand their knowledge in concrete designs and applications. Some of the Hot Topic seminars planned for this year: Concrete Repair; Non-Destructive Testing & Measuring of Concrete; Construction of Suspended Floors; Precast/ Prestressed Concrete Design and Applications; Concrete Enhancements with Admixtures; Construction of Concrete Pavements. A couple of these topics will be proposed through LTAP. We welcome suggestions for future seminars or workshops.

As the local sponsoring group for several ACI certification programs, our affiliation with the American Concrete Institute is the primary technical resource along with other industry associations, such as, the American Concrete Pavement Association, the Portland Cement Association, the National Ready Mix Concrete Association, and the National Concrete Masonry Association.

CCPI is the local 'concrete resource' for the design and construction community. We would be glad to provide you with a technical bulletin of your interest. Please contact us. Best wishes and enjoy the times ahead!

Hawaii Asphalt Paving Industry

By John Dupuis, HAPI President

Mele Kalikimaka and Hauoli Makahiki Hou to all from the Hawaii Asphalt Paving Industry. As the year rapidly comes to an end, we reflect back on the accomplishments of the last year and look forward to the many challenges that lay before us in the year to come. HAPI is very proud of our educational seminar series that has been accomplished in partnership with LTAP and we are looking forward to future successes. Our lead speaker; "Kailua Boy" **Dr. Steve Muench** has also been instrumental in aiding the City and County of Honolulu with their Design Guide and other matters pertaining to roads maintenance.

In the last year HAPI has been associated with the Hawaii Highway Users Association and thanks to the efforts of HAPI members **Bill Paik** and **John Romanowski**,this organization is helping to educate the public on issues pertaining to Hawaiis' roadway infrastructure.

Another of our proud accomplishments during the past year which we will be continuing this next year is HAPIs' participation as a co-sponsor in the **Steve Fong** Annual Scholarship Golf Tournament. This years event was an unqualified success, and under next years' tournament co-chair HAPI member **Raymond Nii**, we are sure the "**Steve Fong**" will be even better.

It's the holiday season which means even more traffic, so HAPI urges everybody to drive with care.

THE VALUE OF TRAINING

*By **Steve Muench, Ph.D. PE**, Assistant Professor of the Department of Civil & Environmental Engineering at the University of Washington. The article below is a summary of a chapter in his Ph.D. dissertation, 2004. This article reprinted from Gem State Roads, Idaho Technology Transfer Center, with permission from Dr. Muench.*

Knowledge is a vital organizational asset. This is the essential unstated assumption associated with almost all training discussions. While American corporations spend in excess of $50 billion annually on training (Galvin, 2002) and numerous authors espouse the virtue and necessity of training, few make an effort to actually show its value. This short article highlights the fundamental premise for continued and even increased support for training: it is an investment in a valuable commodity that produces high returns.

Knowledge is Valuable

Today, in the information age, organizations are routinely valued not on their physical but rather their intellectual capital. Edvinsson and Malone (1997) define intellectual capital as "the possession of the knowledge, applied experience, organizational technology, customer relationships and professional skills that provide [an organization] with a competitive edge in the market". Bassi and Van Buren (1999) point out that "intellectual capital is the only source of competitive advantage within a growing number of industries." For instance, the $296 billion market value of Microsoft in June 2004 far exceeds the value of its physical assets. To be sure, much of this value is based on speculation, but much is also based on Microsoft's intellectual capital – what it knows.

Training is one of the chief methods of maintaining and improving intellectual capital. Because of this, an organization's training can affect its value. Bassi and Van Buren (1999) found training as a percentage of payroll to be significantly correlated with the market-to-book value of publicly traded companies. Where the average U.S. employer spent about 0.9% of payroll on education and training (Bassi, et al., 1996), training magazine's 2002 top 100 training companies averaged 4% with Pfizer ranking first at 14%.

Training is an Investment

General accounting standards classify training as an expense. However, training is really an investment: an organization typically invests upfront to train its employees (in the form of enrollment fees, travel expenses and opportunity cost of the employees' time) and, in return, expects future returns (in the form of increased knowledge, skills and productivity). As with any other investment, if the returns outweigh the investment, training is a worthwhile endeavor.

Training is also an investment from the employee's perspective. Training increases skills and knowledge, which can lead to better pay or promotion. So who benefits most from the training investment: the employee with increased wages and/or promotion or the employer with increased productivity? Loewenstein and Spletzer (1998) researched this question and concluded, "...the effect of an hour of training on productivity growth is about five times as large as the effect on wage growth." Therefore, employers "reap almost all the returns to company training" (Bartel, 2000). This may be oversimplifying because employees generally view training as either a gift from the employer or at least a sign of commitment on the part of the employee, which is important to job satisfaction (Barrett and O'Connell, 2001).

In sum, both the employee and employer benefit from the training investment. The question now shifts to one of measurement: do the returns on training outweigh the investment?

Training Return on Investment (ROI)

When calculated using sound methodology, training has been shown to provide significant return on investment: on the order of 5 to 200 percent. The problem is that methods used to quantify training ROI can often be

THE VALUE OF TRAINING (Continued from Page 6)

suspect or even outright self-promotion. Furthermore, it is often very difficult to quantify the effects of training. For instance, one of training's effects can be increased job satisfaction, which is difficult if not impossible to quantify. Intuitively we know this is important in retaining good employees; however it will not show up on a ROI calculation.

In 2000, Bartel provided one of the best objective looks at the value of training to the employer. She looked at 10 large data set surveys and 16 individual case studies in an attempt to determine the employer's return on investment for employee training. She found the following:

- Methods using large data sets to compare many different organizations estimated training ROI from 7 to 50 percent.
- Individual case studies estimated training ROI from 100 to 5900 percent. Bartel believes the high ROIs in this category are based on faulty methodology. Her in-depth analysis of two well-constructed internal case studies revealed a 100 to 200 percent ROI.

Therefore, even the most conservative estimate puts training's ROI at 7 percent – an acceptable rate of return by most standards. Additionally, although it is not appropriate to generalize based on the results of two case studies, it can be said that based on Bartel's in-depth analysis of two well-constructed internal case studies, training's ROI can be much higher: approaching 100 to 200 percent.

Summary

Training is a valuable commodity that, if viewed as an investment rather than an expense, can produce high returns. While it is true that training costs money and uses valuable employee time and resources, studies tend to show training provides a positive return on investment – sometimes in the neighborhood of several hundred percent. Therefore, although training might seem like a luxury expense in tight financial times, it is, in fact, one of the most sure and sound investments available.

References

Barrett, A. and O'Connell, P.J. (April 2001). Does Training Generally Work? The Returns to In-Company Training. *Industrial and Labor Relations Review*, 54(3). pp. 647-662.

Bartel, A.P. (July 2000). Measuring the Employer's Return on Investments in Training: Evidence from the Literature. *Industrial Relations*, 39(3). pp. 502-524.

Bassi, L.J. and Van Buren, M.E. (1999). Valuing investments in intellectual capital. *International Journal of Technology Management*, 18(5/6/7/8). pp. 414-432.

Bassi, L.J.; Gallagher, A.L. and Schroer, E. (1996). *The ASTD Training Data Book*. American Society for Training and Development. Alexandria, VA.

Edvinsson, L. and Malone, M.S. (1997). *Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brainpower*. Harper Business. New York, NY.

Galvin, T. (October 2002). 2001 Industry Report. *Training*, 38(10). pp. 40-75.

Loewenstein, M.A. and Spletzer, J.R. (November 1994). *Informal Training: A Review of Existing Data and Some New Evidence*. National Longitudinal Surveys Discussion Paper. U.S. Department of Labor, Bureau of Labor Statistics. Washington, D.C. http://www.bls.gov/ore/pdf/nl940050.pdf.

HAWAII DOT RESEARCH PROGRAM

HDOT Materials Testing & Research Branch

Contracts for the following research projects were executed by the State of Hawaii, Department of Transportation and the University of Hawaii, Manoa.

"Island Mapping of Chloride Deposition Rate"

Principal Investigator – Professor **Dr. Ian Robertson**

Objective:
Develop chloride-deposition-rate maps for the Hawaiian Islands. Because of the close proximity of structures in Hawaii to the ocean, the structures that contain steel are damaged by corrosion from exposure to chlorides.

Potential Implementation and Benefits:
Knowledge of the chloride deposition rates allows for the prediction of the onset of corrosion and estimate the life cycle cost.

"Updating of the State Pavement Management System and Calibration of the 2002 Design Guide for Hawaiian Conditions"

Principal Investigator – Assistant Professor **Dr. A. Ricardo Archilla**

Co-Principle Investigator – Assistant Professor **Dr. Phillip S.K. Ooi**

Objective:
1. Develop procedures for the collection of information to predict pavement performance, determined alternate maintenance and rehabilitation strategies, and optimization procedures that consider the pavement life cycle.
2. Calibrate the mechanistic design procedures for the pavement materials used in Hawaii.
3. Revise HDOT's pavement design guidelines for practically, design and maintenance requirements, cost-benefit analysis, and constructability.

Potential Implementation and Benefits:
Provide for a more efficient management of pavements in Hawaii.

SAFETEA-LU (Continued from Page 1)

Mobility & Productivity – SAFETEA-LU provides for a substantial increased investment in core Federal-aid programs to address our growing mobility and productivity needs.

Efficiency – The Highways for LIFE pilot program in SAFETEA-LU will advance longer-lasting highways using innovative technologies and practices to speed up the construction of efficient and safe highways and bridges.

Environmental Stewardship – SAFETEA-LU adds new programs focused on the environment, including a pilot program for nonmotorized transportation and Safe Routes to School. SAFETEA-LU also includes significant new environmental requirements for the Statewide and Metropolitan Planning process.

Environmental Streamlining –There are several delegations of authority to States, including delegation of Categorical Exclusions for all states.

SAFETEA-LU presents many new opportunities to improve transportation in the islands. We look forward to working with many of you to best utilize SAFETEA-LU for Hawaii.

FREE PUBLICATIONS

1. **FHWA-PD-99-015** - Transportation Air Quality - Selected Facts and Figures
2. **FHWA-PL-00-014** - Our Nation's Highways - Selected Facts and Figures
3. **FHWA-PL-03-010** - Highway Statistics 2002
4. **FHWA-RD-00-025** - Portland-Cement Concrete Rheology and Workability: Final Report
5. **FHWA-RD-01-163** - Guidelines for Detection, Analysis, and Treatment of Materials-Related Distress in Concrete Pavements - Volume 1: Final Report
6. **FHWA-RD-01-164** - Guidelines for Detection, Analysis, and Treatment of Materials-Related Distress in Concrete Pavements - Volume 2: Guidelines Description and Use
7. **FHWA-RD-01-165** - Guidelines for Detection, Analysis, and Treatment of Materials-Related Distress in Concrete Pavements - Volume 3: Case Studies Using the Guidelines
8. **FHWA-RD-88-069** - Pavement Friction Measurement Normalized for Operational, Seasonal, and Weather Effects
9. **FHWA-RD-95-188** - TravTek Evaluation Safety Study
10. **FHWA-RD-96-028** - TravTek Evaluation Rental and Local User Study
11. **FHWA-RD-97-077** - Design Pamphlet for the Determination of Layered Elastic Moduli for Flexible Pavement Design in Support of the 1993 ASSHTO Guide for the Design of Pavement Structures
12. **FHWA-SA-93-021** - Advance Warning (Flashing) Arrow Panels: Positive Guidance

We are cleaning and reorganizing the Transportation Library! Please take the time to review this list. Any remaining copies will be discarded by MARCH 2006.

Hawaii LTAP Transportation Library

The Hawaii Local Technical Assistance Program Library is located in Holmes Hall 143A at the University of Hawaii. The library houses over 10,000 transportation-related technical reference materials. Informational and workshop videos may also be found in the library. Reference materials and videos are available to the public and may be borrowed or copied.

Database of all materials may be found on the web at:

Videos - www.eng.hawaii.edu/~hltap/video.html

Publications - www.eng.hawaii.edu/~tlib

Website: www.eng.hawaii.edu/~hltap/

For more information, please contact us at 956-8719.

HAPPY HOLIDAYS!!

Tyson Costas Juli Keoni Thong Holly Kevin Gail

Director's Note

by C.S. Papacostas

The new federal transportation authorization bill, dubbed SAFETEA-LU, is now signed into law. We are indebted to ***Abraham (Abe) Wong****, FHWA Hawaii Division Administrator, for providing a timely overview of this fundamental piece of legislation (pg. 1). As promised, we will continue to convey additional information that is relevant to our state when it is clarified by rule-making and precedent.*

Also in this issue, we are happy to feature the electronic government services web-site of the County of Kaua`i, Click2Gov. We think it useful to help disseminate such important developments by our counties to inform others of their existence and as a means of peer exchange and technology sharing.

A pet feature of mine is the "better mousetrap" section of the newsletter. This is another way by which we can help share creative ways or devices that can result in efficiency gains. In this issue, we describe two labor-saving devices invented by ***Edwin Emoto*** *from the County of Mau`i.*

The annual meeting of our Advisory Board was held on December 9 and, as always, it was the source of many new ideas and suggestions for enhancing our program. We are grateful to the board's members and to you, our associates, for the support throughout the year. Please do not hesitate to let us know how we can serve you better.

Season's Greetings!

Program Manager's Note

by Juli Kobayashi

Mele Kalikimaka & Hauoli Makahiki Hou!

We have had another wonderful year serving the needs of our customers. We held 22 workshops with a total of 800 participants. This resulted in over 12,600 hours of training! Thank you to all of the instructors and participants at our workshops. You have made this a very successful year!

Some of the highlights of the year included our Annual Superintendent/Overseers Conference, the series of workshops with ***David Grouchy****, a ROVVER demonstration and the Safety Inspection of In-Service Bridges course to name a few. We are always open to suggestions for workshops from you and a request form can be easily downloaded from our website at http://hltap.eng.hawaii.edu/forms/requestForm.pdf*

In 2006 we are looking forward to putting together our strategic plan which will center on the LTAP-TTAP vision and mission. The four areas that we will focus on are Safety, Workforce Development, Infrastructure Management and Value Delivery. At our recent Advisory Board Meeting, we had our members participate in an activity which analyzed our program and gave us ideas on how to improve our services. We are eager to implement some of their suggestions and hope to see the program progress in the future.

Have a safe and joyous Holiday Season with wonderful blessings in the New Year!

*Hawaiian Connections features scenic pictures from various locations in Hawaii.

In this issue, we are featuring the Island of Kauai. The official flower of Kauai is the Mokihana (which is actually a green berry). It is a shrub about 2-8 meters tall with thin, leather-like, elliptic, opposite leaves and is a member of the citrus family (Rutaceae).

HAWAII LTAP ACTIVITES

Compiled by Gail Ikeda, Hawaii LTAP

David and Janet Grouchy (grōō'shā) visited us in the Aloha State to put on a series of workshops in the month of September. Participants in Hilo learned the power of humor in the workshop entitled: "Humor as a Tool or a Weapon". In this interactive workshop, Dave and Janet helped participants develop a critical coping skill which included exercises to raise awareness of a sense of humor, techniques to lower your blood pressure, solve conflicts and have more control over your life. Next, the Grouchy's visited the County of Maui to present two courses. The first, "Basics of a Good Road" covered topics on design features, materials, compaction, paving, traffic considerations and soil. The second, "Conflict Resolution" identified common problems that cause conflict in the workplace. Participants discovered ways to work with people they don't get along with, to stop gossip and help supervisors solve conflicts at the lowest competent level. The Grouchy's final destination was the island of Oahu where they put on two workshops, "Drainage: The Key to Roads That Last" and "The Power of Positive Delegation". The first workshop addressed problems caused by improper drainage and some of the ways to solve those problems. This basic course covered proper culvert design, bedding and backfilling, inspection and maintenance of culverts and bridges. "The Power of Positive Delegation" workshop covered topics on micromanaging, delegating properly, developing leaders and more productive, logical and satisfying ways to get things done.

Also in the month of September, we helped to coordinate the "Introduction to Systems Engineering for Advanced Transportation" workshop with the Federal Highway Administration. This NHI (National Highway Institute) course introduced the basic concepts to individuals who work on ITS (Intelligent Transportation Systems) projects. The goal was to allow participants to understand the benefits of applying systems engineering approaches as a means of developing quality systems. It covered technical practices such as modeling, prototyping, trade-off analysis and testing, and management practices.

In the month of November we assisted the Federal Highway Administration with the "Context Sensitive Solutions" workshop. This workshop focused how highway and other transportation projects could benefit from CSS (Context Sensitive Solutions) approach. The terms CSS and Context Sensitive Design (CSD) stem from a focus on concerns about environmental and other effects of public works projects. The two-day seminar also presented the background on CSS and CSD and lessons learned by agencies involved with CSS over the past 10 years.

In mid December, we held a two day "Highway / Utility Issues" workshop. This course presented fundamentals of effective coordination of utility relocation and accommodation issues throughout the planning, design, construction and maintenance phases of a highway project.

We ended the year with an intense two-week workshop, "Safety Inspection of In-Service Bridges". This course was based on the new "Bridge Inspector's Reference Manual" and certifies bridge inspectors. In addition to local government and private consultants, we also had international participants from Japan and Canada. Everyone was administered a mid-term and final examination on the course content during the two weeks.

For more information on any of these workshops please contact us at (808) 956-9006.

HAWAII LTAP NEWS

The Hawaii LTAP would like to congratulate **Holly Suyama** who recently graduated with a Bachelor of Business Administration Degree in Marketing. For five years our 'veteran' student assistant has assisted with workshop registration, evaluation reports, and day to day transportation library operations. She also assisted with the very successful 2003 National LTAP-TTAP Conference held here in Hawaii. She recently accepted a job with the Honolulu Star-Bulletin in their sales department. We bid her all the very best as she enters a bright future in her professional career.

HAWAII LOCAL TECHNICAL ASSISTANCE PROGRAM

The Hawaii Local Technical Assistance (LTAP) is a cooperative program of the University of Hawaii Department of Civil and Environmental Engineering, the Hawaii Department of Transportation, Highway Division, State of Hawaii and the U.S.. Department of Transportation Federal Highway Administration, Hawaii. The LTAP program provides technical assistance and training programs to local transportation related agencies and companies in order to assist these organizations in providing cost-effective improvements for the nation's highways, roads and bridges. Our office is located at:

Hawaii LTAP
Department of Civil and Environmental Engineering
University of Hawaii at Manoa
2540 Dole Street - Holmes Hall 383
Honolulu, Hawaii 96822

Please contact:
C.S. Papacostas, Director
Tel: (808) 956-6538
Fax: (808) 956-5014
E-mail: csp@eng.hawaii.edu
or
Juli Kobayashi, Program Manager
Tel: (808) 956-9006
Fax: (808) 956-8851
E-mail: juli@eng.hawaii.edu

Website:
http://www.eng.hawaii.edu/~hltap/

Hawaii Local Technical Assistance Program
Department of Civil and Environmental Engineering
University of Hawaii at Manoa
2540 Dole Street - Holmes Hall 383
Honolulu, Hawaii 96822

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