

Utah Technology Transfer Center Newsletter

TA ON THE MOVE

The Direction in Transportation Progress

Brought to you by Utah's LTAP (Local Technical Assistance Program)

Volume 15, Number 2

Spring (April) 2002

Olympic Transportation Success a Team Effort

UDOT, UTA & Traveling Public Get Kudos for Outstanding Effort

On March 11, 2002, Governor Michael O. Leavitt acknowledged the success of transportation during the Salt Lake 2002 Olympic Winter Games in a meeting at the Utah Department of Transportation (UDOT) headquarters in Salt Lake City.

"Thanks to the dedicated service of thousands of UDOT employees, transportation was a non-issue," said Leavitt. "As a consequence, spectators enjoyed Olympic competitions and Utah was branded as a state that can competently host a world class event."

In addition, the work of the Utah Transit Authority in providing mass transportation to Olympic venues and around the Salt Lake Valley, as well as the

wisdom of the traveling public to listen and abide by the transportation guidelines provided prior to and during the games, worked together to make transportation such a "non-issue."

IOC members have indicated that in Atlanta's Summer games of 1996, transportation problems were highly visible and felt by all. IOC members and Olympic visitors alike, left the Salt Lake Winter Games with a much different and far more positive impression!

For more than a year prior to the games, more than 2,000 UDOT employees and contractors worked to plan and prepare. That planning and preparation made the system a success—from park-

ing services to snow removal and traffic control to traffic management.

"We are pleased that the governor has taken the time to show his appreciation for the successful planning and execution of Olympic transportation plans," said UDOT Executive Director John Njord.

UDOT partnered with the Salt Lake Organizing Committee (SLOC) on transportation plans for the Games, including a comprehensive "Travel Demand Management" program, aimed at informing Utah residents about traffic during the Games and encouraging travel alternatives including public transit, telecommuting and alternate work schedules.

The goal of the campaign was to reduce normal, everyday traffic by 20 percent to facilitate the thousands of extra people traveling in Utah during the Games.

"Thanks to the outstanding cooperation of Utah residents, traffic in downtown Salt Lake City surpassed expectations and dropped 30 to 40 percent," Njord said. "Other traffic hot spots in places like West Valley and Davis County experienced 20 to 30 percent reductions in normal traffic during peak travel times. In fact, we identified a one- to two-hour shift in the peak rush hour as a result of alternate work schedules."

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About *On the Move*

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About the *Utah T² Center*

The Transportation Technology Transfer Program is an integral part of a nationwide Local Technical Assistance Program (LTAP) financed by the Federal Highway Administration, state departments of transportation and local transportation agencies. The Center bridges the gap between research and practice by translating the latest state-of-the-art technology in transportation into implementable products and information for the special use of local transportation agencies and personnel.

For more information about the LTAP program or items in this newsletter, please call us at 1-800-822-8878.



Legislative & Regulatory Update

Everyone Joining Bandwagon to Support Restoration of RABA Cuts

Excerpt from NACE UPDATE (March 14, 2002 - Volume 02 Number 6)

Legislation was introduced on February 7, 2002 aimed at replacing some of the \$8.7 billion state transportation departments stand to lose as a result of a negative revenue aligned budget authority (RABA). House H. R. 3694, the Highway Funding Restoration Act with (identical bill S. 1917 in the Senate) works to restore funding to the TEA-21 authorized levels. If enacted the legislation would reinstate a minimum of \$4.4 billion to the HTF in 2003. Both bills have broad bipartisan support.

In addition, House Appropriations leaders have introduced an alternative proposal (H. R. 3900) to address the RABA cuts. Attracting 50 sponsors to date, the bill directs the RABA reduction in FY 2003, as proposed in the administration's budget, "shall have no force or effect." AASHTO President, Brad Mallory, Secretary of the Pennsylvania DOT stated "With a groundswell of support like this, backers of highway funding restoration should not accept half a loaf" by settling for only \$4.4 billion in funding restoration. "With the nation's economy just turning the corner, and states looking at continuing economic challenges, splitting the difference means walking away from a powerful economic boost."

In addition, NACo, NLC, NACE, APWA, AMPO, NARC, and NADO have joined the call for support of the Highway Funding Restoration Acts introduced in each chamber of Congress.

A Special Welcome to Charles G. Luedders Pavement/Materials Engineer, FHWA Western Resource Center

We are pleased to welcome Mr. Charles Luedders as the Pavement/Materials Engineer for the FHWA Western Resource Center. Mr. Luedders comes to the job with a Bachelor's degree in Civil Engineering from the University of Nebraska. His area of expertise is bituminous and concrete mixture design, troubleshooting of pavement problems, SuperPave design methods and highway construction materials.

His professional experience includes: over 24 years of experience in highway engineering with the Kansas Department of Transportation; 17 years with field construction duties trouble-



shooting pavement materials problems. His focus has been on promoting quality mixture designs and placement of pavements.

He is an active member of the FHWA Recycling Materials Team. This team attempts to pass on technological advances in the use of various waste products in the Highway Industry. The emphasis this year is to increase the use of waste concrete pavement (an issue of particular interest to cost-conscious local governments).

He enjoyed the chance to organize and host the first open house for the construction of the SHRP SPS-2 concrete test sections on I-70 in Kansas. He most recently served as the district engineer for the South Central Kansas KDOT.

In his current position he serves as a Materials Expert in the Highway Pavement and Materials area. The duties of this position include assisting the FHWA Divisions and the State DOT's with troubleshooting problems in design and construction of Highway Projects. Here his expertise with concrete rehabilitation, Superpave mixture design, QC/QA, etc. come into play.

In addition, he will be receiving training as an NHI Instructor and will be available to teach various NHI courses in the concrete and asphalt paving areas. This includes providing training with the HIPERPAV concrete system. He also serves on teams with the Smoothness Expert Task Group to enhance pavement smoothness throughout the country.

You can reach Mr. Luedders at: Charles G. Luedders, Pavement/Materials Engineer, 555 Zang Street, Room 401, Lakewood, Colorado 80228, Phone: 303-716-2274, Fax: 303-969-6727, or E-mail: [CHARLES.LUEDDERS@fhwa.dot.gov].

Hats Off! To the 30,000+ Olympic Volunteers & Security Personnel



With the Olympic and Paralympic Winter Games recently completed, we wanted to give special recognize to the more than 30,000 volunteers and security personnel who were such a big part of making the entire Olympic experience a success for the athletes, spectators and visitors.

Some of our readers, no doubt, were part of this huge volunteer effort. Your service did not go unnoticed! Without the dedication and willingness to serve by these volunteers and security personnel, the outcome may have been very different for all involved. We are grateful for the careful planning and preparation made to ensure the success, and to all those who fulfilled their duties in such a kind and courteous manner.

The State of Utah will be forever remembered as the home of the 2002 Olympic Winter Games, and that memory will be a positive one for all who came and participated in the amazing 17 days of the Games! THANK YOU!!!

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The T² Center Advisory Board meets twice annually (and as needed) to make recommendations and evaluate the effectiveness of the program.

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Statistics gathered by UDOT also show that Utahns took the time to learn about the Olympic transportation system. The utahcommuterlink.com website, the primary communication tool for Olympic travel information, logged a substantial increase in visitors during the Games.

In February 2001 the site averaged 1.5 million hits per month and visitors averaged five minutes on the site. In the first two weeks of February 2002, the site experienced 57 million hits and the average visitor stayed on the site for 35 minutes. For the entire month of February, the site logged 74 million hits.

During the Games, in partnership with SLOC and the Utah Transit Authority, UDOT provided the leadership and funding for the delivery of 355,000 people to downtown Salt Lake City via the Olympic shuttle system and 340,000 by TRAX light rail.

UDOT also ensured that more than 850,000 Olympic ticket holders and 100,000 people participating in non-Olympic festivities arrived to mountain venues or towns via roadways and shuttles.

UDOT also provided the leadership, facilities and funding for a total of 1,100 buses for the Olympic shuttle system. This fleet was comparable in size to a transit system for a city the size of Chicago.

UDOT also increased the number of Incident Management Team (IMT) crews from 13 to 23 during the Games and added 40 service patrol personnel, consisting of UDOT staff reassigned from their normal duties and volunteers from Illinois, Washington, Tennessee and Wyoming.

Between the IMT and courtesy patrol teams, more than 1,450 motorists received assistance during the Games ranging from jumpstarts to tire changes. The average time to clear an accident decreased 40 percent during the Games from 115 minutes

to 70 minutes, resulting in less congestion for motorists.

UDOT's cooperation with the trucking industry also led to a significant drop in interstate truck traffic during the Games, minimizing congestion on major Olympic travel routes.

Statistics gathered during the Games by ports of entry within and surrounding Utah revealed the following:

- Truck traffic on I-80, a primary travel route to mountain Olympic venues, decreased significantly during the Games. Truck counts at Utah's Echo Westbound I-80 port decreased by more than 1,800 vehicles during the Games. At the Wendover East and Westbound I-80 port on the Utah-Nevada border, truck counts plummeted by more than 3,700 for the 17 days during the Salt Lake 2002 Olympic Winter Games.
- Truck traffic on I-84, another important road leading to mountain Olympic venues, also dropped during the Games. Truck counts at Utah's Perry North and Southbound I-15/84 port revealed a reduction of nearly 7,000 vehicles during the Games.
- Commercial motor vehicle travel times shifted during the Games, allowing trucks to avoid peak Olympic spectator travel times. Under normal circumstances at the Echo I-80 port, an average of 1,500 trucks pass through per day during the day shift and 300-500 at night. During the Games, port officials counted an average of 800-1,000 trucks per day during the day shifts and 500-800 at night.

From a letter to UTA employees from John English, General Manager of UTA, we learn more of the dedication, devotion and valuable contributions of the mass transit part of the transportation team!

"Few people realize the extraordinary efforts that were required to move so many people on public transportation in 21 days. I personally witnessed the dedica-

tion and commitment of hundreds of UTA employees who volunteered their time at park-and-ride lots, TRAX stations and bus stops. What I saw went far beyond the call of duty: A woman from our disabled services department directing traffic when buses couldn't get through. A UTA transit safety officer literally pulling two teenagers out of the path of a TRAX train. A crew working feverishly to repair a TRAX power line that had been down for several hours, finishing only seconds before three major events let out. The Herculean effort of cleaning and maintaining 700 extra buses and 29 additional light rail cars every night. Our call centers handling as many as 9,000 calls a day when they were set up to take only two or three thousand. I saw UTA employees and SLOC volunteers working in seven-degree weather, not just doing their jobs, but doing whatever was needed to make the system work.

Many others labored behind the scenes, doubling up and accepting additional responsibilities to keep UTA operating throughout the Olympic period. Equally impressive were our drivers and more than 1,000 operators, who came from 47 different states across our nation. They worked long shifts on unfamiliar streets, safely and cheerfully, with only two minor fender-benders during the entire 21-day period."

Here are some figures that are not final but give an approximation of ridership for different days during the Olympics. Just to give you a little background. TRAX N/S line typically carries about 19,000 riders each day. The University Line carries about 3,000-4,000. The following numbers include both lines.

- The first day of the Olympics TRAX carried 73,925 passengers.
- The middle Saturday TRAX carried 142,000.
- The last Saturday TRAX carried 123,000 passengers.
- Total TRAX and UTA Spectator Bus transportation was 2.523 Million.

All in all a great experience!

What Our Partners Are Doing

You Need to Know

Our thanks to these important partners for sharing this information and working with us in our efforts to serve the local agencies of Utah.

Utah League of Cities & Towns

If you desire more information on League activities, or to register for a League sponsored event, please call the Utah League of Cities & Towns directly at (801) 328-1601 or 1-800-852-8528 or go to their Web site [www.ulct.org].

Midyear Convention

April 11-12, 2002 (Dixie Center, St. George)

Please see detailed information on page 8.

Road School

April 24-26, 2002 (Dixie Center, St. George)

Please see detailed information on page 8.

Utah Association of Counties

For more information on UAC activities, or to register for a UAC sponsored event, please call them directly at (801) 265-1331 or go to their Web site [www.uacnet.org].

Annual Management Conference

April 10-12, 2002 at the Yarrow Convention Center, Park City

Cost is \$135 for elected officials and \$35 for spouse or partners (registration fee does not include hotel accommodations). Hotel reservations should be made directly with the hotel. The following hotels have a block of rooms available for the UAC Conference until March 27:

- **Yarrow Resort** (1-800-927-7694) at \$79/night
- **Radisson** (1-800-649-5012) at \$79/night

The following represents a preliminary schedule of events. **April 10:** Road

Department Training, MCAT Annual Meeting, UACIM Insurance Coordinator Workshop, UACIM Membership Meeting, Affiliate Departmental Sessions, UAC Board of Directors Meeting. **April 11:** General Session, Workshops, Luncheon, Affiliate Departmental Sessions, Dinner and Entertainment. **April 12:** Affiliate Departmental Sessions.

To register, go on-line to [<http://www.uacnet.org/conference/apr18.html>] and complete the online form. Then mail a copy of the confirmation and your total registration fee--there are no partial registrations--to UAC, 5397 South Vine Street, Murray, UT 84107 no later than March 22. Refund of registration fees will be made if written notice of cancellation is postmarked no later than April 1.

Personnel Conference

May 9-10, 2002 at the Dixie Convention Center, St. George

Cost for the conference is \$45 for attendees (\$40 for spouse/partners). The following is the tentative agenda for the conference. **May 9** (12 noon-8 pm): desk audits, personal liability, discrimination/harassment investigation, dinner and entertainment. **May 10** (7 am to 12 noon): *Gung-Ho* training.

Hotel rooms are available as part of a UACIM room block at the following hotels:

- **Abbey Inn** (435/652-1234) at \$65/night
- **Comfort Suites** (435/245-8602) at \$65/night
- **Fairfield Inn** (435/673-6066) at \$61/night

Registration deadline is April 26, 2002.

To register, go on-line to [<http://www.uacim.org/meetings/personnel.htm>] and complete the on-line form. Mail a copy of your on-line confirmation and your registration fee(s) to: UACIM, 5397 South Vine Street, Murray, Utah 84107.

APWA, Utah Chapter

For more information on APWA activities, call Bob Davis with DMJM at (801) 486-4454. Please note that all monthly luncheons are held at the West Valley Family Fitness Center from 12 noon till 2 pm (the board meets from 10:30-11:30 am prior to the luncheons).

Monthly Luncheon

April 25, 2002

Discussion topic: Concrete inspection/compaction testing.

APWA Nevada/Utah Spring Conference

May 1-3, 2002 in Mesquite, Nevada

The cost is \$150 for members, \$190 for non-members. Vendor space is available for \$350. You can register on-line at [www.apwa-nv.org/springconference/default.asp].

Monthly Luncheon

May 23, 2002

Discussion topic: Sexual harassment and risk management issues.

Monthly Luncheon

June 27, 2002

Discussion topic: Plans, reviews and permitting process/bond issues.

ITE, Utah Chapter

For information on ITE activities, please call Lee Cabell with Horrocks Engineers at (801) 763-5183 or by e-mail at [LCabell@horrocks.com]. All monthly luncheons will be held at the Shanghai Restaurant (7200 South 172 West, Salt Lake City) at 12 noon.

Monthly Luncheon

April 16, 2002 in Salt Lake City

Topic: Annual student paper contest presentations.

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2002 APWA Standard Plans & Specifications Now Available

The long awaited 2002 APWA Manual of Standard Plans & Specifications is now available to purchase. The cost is \$55 for a set, plus \$10 shipping.

To order, please contact the Utah T² Center:

- by phone at 1-800-822-8878,
- by fax at (435) 797-1582, or
- by e-mail at [utaht2@cc.usu.edu].

We'll need your name, agency, mailing address, and phone to process your order. Check, money order, or agency POs are welcome. Credit card orders can also be accepted.

FYI: For Your Information

Heavy Equipment Operation Training Tooele, Utah April 1-5, 2002

The April Heavy Equipment Operation Training classes are already full, but we have started a waiting list for the next available class. We currently plan to offer additional courses in the fall, however a late spring course offering is also possible.

To review, Section I (classroom and in-the-field work) is held the first three days of the scheduled course. This section is open to all interested persons. It will cover OSHA, trenching, equipment, job site safety, basic equipment maintenance, and equipment pre-shift and post-shift (walk around) inspections.

Section 2, "techniques of equipment operation" (further intensive and one-on-one, in-the-field work), is offered for the final two days of the course.

Registration for this section is limited and by invitation/eligibility only. This helps us to assure that all participants get the one-on-one instruction needed to become fully proficient on the equipment. Those taking Section 2 must have successfully completed Section 1 training or have permission from the instructor to register.

The cost is \$60 for Section 1 and \$200 for Section 2. For more information, please call Dee or Keri at 1-800-822-8878 or (435) 797-2931 or go to the Utah T² Web Site at [www.utaht2.usu.edu].

Updates on these and other calendar items are available at the Utah LTAP/T² Web site [www.utaht2.usu.edu]

April 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
	Heavy Equipment Operator Training: Classroom & Field Work (Tooele)					
7	8	9	10	11	12	13
			UAC Management Conference (Park City)		ULC&T Mid-Year Convention (St. George)	
14	15	16	17	18	19	20
		ITE Monthly Lunch				
21	22	23	24	25	26	27
				APWA Monthly Lunch		
			ULC&T Road School (St. George)			
28	29	30				
		WZTC (Ogden)				

Remove this section and post to keep up with training opportunities & events!

May 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 APWA Nevada/Utah Conference (Mesquite, Nevada)	2	3	4
5	6	7	8 Hot Mix Asphalt Construction (SLC)	9 UAC Personnel Conference (St. George)	10	11
12	13	14	15	16	17 ITE Intermountain Section Annual Meeting (Jackson, Wyoming)	18
19	20	21	22	23 APWA Monthly Lunch	24	25
..... National Public Works Week						
26	27 	28	29	30	31	

For more information about any of these activities, please call the Utah T² Center at 1-800-822-8878.

June 2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13 RR Grade Crossing Conference (SLC)	14	15
16	17	18 ITE Monthly Lunch	19	20	21	22
23 30	24	25	26	27 APWA Monthly Lunch	28	29

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**Intermountain Section Annual Meeting
May 17-18 in Jackson, Wyoming**

No local meeting will be held. Contact Scott Thorson, (775) 888-7490 or sthorson@dot.state.nv.us for information.

**Monthly Luncheon
June 18, 2002 in Salt Lake City**

Topic: to be determined

**Utah Local Governments
Insurance Trust**

For information on these and other Trust activities, please call Craig Bott at 1-800-748-4440. You can also e-mail Craig at [cbott@ulgt.org]. Also, check out their Web site at [www.ulgt.org].

**Utah Risk Management Mutual
Association**

For information or to register for these and other URMMA training activities,

please call Joanne Glantz at (801) 225-6692 extension 18. You can also check out their Web site at [www.urmma.org].

**Roundtable on Public Works
April 9, 2002 in Orem (10-11:30 am)**

Cost is \$5/person.

**Police Interpersonal Skills
April 11, 2002 in Layton (9 am-4 pm)**

April 12, 2002 in Orem (9 am-4 pm)
Cost is \$75 for URMMA members, \$150 for non-members.

**OSHA Training
April 16, 2002 in Centerville (9 am-4 pm)**

Cost is \$20 for URMMA membes, \$20 for non-members.

**Asset Management
May 1, 2002 in Brigham City (9 am-1 pm)**

May 2, 2002 in West Valley (9 am-1 pm)

Cost is \$35 for URMMA members, \$70 for non-members.

**Roundtable on Human Resources/
Personnel**

May 7, 2002 in Draper (10-11:30 am)

Cost is \$5/person.

**Police Officer Hands-on Help with
Fitness Standards**

**May 8, 2002 at West Valley Family
Fitness Center (morning--women;
afternoon--men)**

Cost is \$25/person.

**Police Officer Physical Fitness Training
May 14, 2002 at West Valley Family
Fitness Center**

**May 15, 2002 at West Valley Family
Fitness Center**

Cost is \$275 for URMMA members, \$325 for non-members.

**Police Defensive Driving Training
May 20, 2002 in Brigham City (8 hours)**

This course is offered in conjunction with POST and UAC training. Cost is \$15 for URMMA and UAC members,

**Utah League of Cities & Towns
Mid Year Convention--April 11-12, 2002 and
Road School--April 24-26, 2002
Coming to St. George!!!**

Think Spring! Feeling a little down now that the big party is over? Cheer up! Spring is on its way and we will celebrate with our own "spring thing" at the Dixie Center in St. George. Plan now to attend the annual **Mid-Year Convention** (April 11-12, 2002) and/or **Road School** (April 24-26, 2002). It may not be the Olympics but we promise shorter lines, less traffic, and for better or worse, we will all be speaking "Utahn." Registration packets will be in the mail soon. In the meantime, the following hotels are holding rooms for both of these events. When making your reservations, please indicate that you are part of the **Utah League of Cities & Towns**. If you have any questions, please don't hesitate to call the League staff at (801) 328-1601 or 1-800-852-8528.

Ramada Inn (ULCT home base)

1440 East St. George Blvd
(435) 628-2878
Rate: \$57

Hampton Inn

53 North River Road
(435) 652-1200
Rate: \$70

Holiday Inn

850 South Bluff
(435) 628-4235
Rate: \$65-73

Fairfield Inn

1660 South Main
(435) 673-6066
Rate: \$56

Coral Hills Best Western

125 East St. George Blvd
(435) 673-4844
Rate: \$62

Best Western Abby Inn

1129 South Bluff
(435) 652-1234
Rate: \$66-75

Focus on the Field

Multiple Chip & Seals: A Way to Stretch Limited Funds

by N. Dee Hadfield, Field Projects Manager

In a time when funding has to be stretched to the limit, two counties in the State of Utah have found a way to get the most out of their maintenance budgets. County Road Supervisor Gordon "Joe" Kirby of Cache County and Kenneth Canfield of Washington County have effectively used multiple chip seals to improve and upgrade numerous county roads.

The following is a brief outline of the "Multiple Chip Seal" road procedures used by each of these Supervisors.

Cache County

Joe and his crews have applied more than 65 miles of multiple chip seal to roads over the last 13 years. He has used the following procedures for their program.

They will grade the roadway to the proper cross section. This is done in the Fall of the year before it is to be chip and sealed. This allows the road to settle out over the winter and the crew to take any corrective actions in the Spring.

The road is compacted and wet down before it is chip and sealed. This damp surface condition keeps the asphalt from fish eyeing and allows the asphalt to penetrate into the gravel base.

The first application of asphalt is 0.55 gal. per square yard of MC-3000 cut back asphalt. A ¾" to 1" chip is than placed at a rate of 20 lb. per square yard.

It is then rolled and left to cure for 10-30 days. At the end of the curing period the second application is added.

The second application of asphalt is 0.45 gallons per square yard using CRS-2A asphalt. A ½" chip is than placed at a rate of 20 lb. per square yard.

Rolling is performed throughout the operation to make sure the chips are well seated into the first asphalt application.

The next year a third application of asphalt is added at a rate of 0.42 gallons per square yard using CRS-2A asphalt. A 3/8" chip is placed at a rate of 20 lb. per square yard. This application will improve the ride ability of the surface.

Rolling is again performed throughout the operation. Heavy traffic and warm weather will always improve the project. Chip application rates may vary with different roadway conditions and asphalt amounts. In Joe's experience this type of roadway can be constructed for about \$15,000-\$20,000 per lane mile.

You can contact Joe for more information at the following address: Gordon "Joe" Kirby, Road Superintendent, Cache County Road Department, 120 North 100 West, Logan, Utah 84321 or at the Cache County Shop at 525 North 1000 West , Logan, Utah 84321, (435) 716-8340.

Washington County

Kenny and his crew have been using their program for 22 years and have completed an average of 2.5 miles per year.

They begin by blading the roadway to the proper cross section. Then they wet down and compact it to a uniform smooth surface. The first application of asphalt is 0.45 gallons per square yard of MC-3000 cut back asphalt. A ¾" washed aggregate chip is placed at a rate of 280-300 tons per mile, 28' wide.

The second application of asphalt is 0.40 gallons per square yard of MC-3000 cut back asphalt. A ¾" washed aggregate chip is placed at a rate of 280-300 ton per

mile, 28' wide (the chip amount may need to be cut back if the road conditions warrant).

The third and fourth applications of asphalt are 0.40 gallons per square yard of MC-3000 cut back asphalt. A ½" washed aggregate chip is placed at a rate of 100-150 tons per mile, 28' wide.

All four applications are made within the same time frame. Compaction runs are continually through out the operation as well as for two hours after the chip and seal procedures have been completed. Compaction can continue into the next day if conditions warrant.

You can contact Ken for more information by mail at: Kenneth Canfield, Washington County Road Department, 197 E. Tabernacle, St. George, Utah 84770, (435) 680-5736 or at the Washington County Shop at 500 Skyline Drive, St. George, Utah 84770. Please note that in June of 2002 Ken and the Washington County Road Department will be moving to 350 South 5350 West, Hurricane, Utah 84737.

Both supervisors were pleased with the MC-3000 ability to heal cracks in warm weather and to move and adjust to different weather conditions. They also indicated that the chip amount may have to vary according to the asphalt and road conditions. The chip needs to be applied at a rate where the black asphalt is visible through the chip, if the amount is too light the chip will start to pick up on the tires of traveling vehicles; if it's too heavy there will be a large amount of loose aggregate on the roadway which increases cleanup and the chance of windshield damage to vehicles.

Focus on Engineering Work Zone Mobility & Safety: Advanced Notice of Proposed Rulemaking

Docket No. FHWA-2001-111303 Published in the Federal Register 2/6/02
by G. Stuart Thompson, Field Engineer

The FHWA is seeking comments regarding improvements that can be made to its regulation on Traffic Safety in Highway and Street Work Zones to better address work zone mobility and safety concerns.

The FHWA has identified goals for maximizing the availability of roadways during construction and maintenance, while minimizing impacts on road users and highway workers, and would like to ascertain whether the current provisions in the regulation are adequate to address the unique mobility and safety challenges posed by work zones.

Therefore, the FHWA is soliciting input to identify the key issues that should be considered if the regulation were to be updated.

Based on a federally funded survey, 32% of travelers are dissatisfied with work zones. In this survey travelers rated highway improvements that would most help overcome delays. Work zone related issues obtaining a "Great Help" rating included the following:

- Repairs made during non-rush hours (66%)
- Reducing repair time (52%)
- Better traffic signs showing expected road work (40%)
- Better guide signs for rerouting traffic to avoid road work (35%)

Nationally the number of work zones and the disruption they create is increasing. This is due in part to a decrease in the number of new roads being

built and an increase in reconstruction of existing roadways.

The result is a growth in congestion and the number of crashes. The graph (below) of work zone related fatalities shows a steady increase in the years 1998-2000.

Currently, the federal regulation has a broad purpose and narrowly focused language. Should it be broader to better address today's concerns? The FHWA wants to:

- Identify the key issues
- Determine if the regulation should be revised
- If so, how

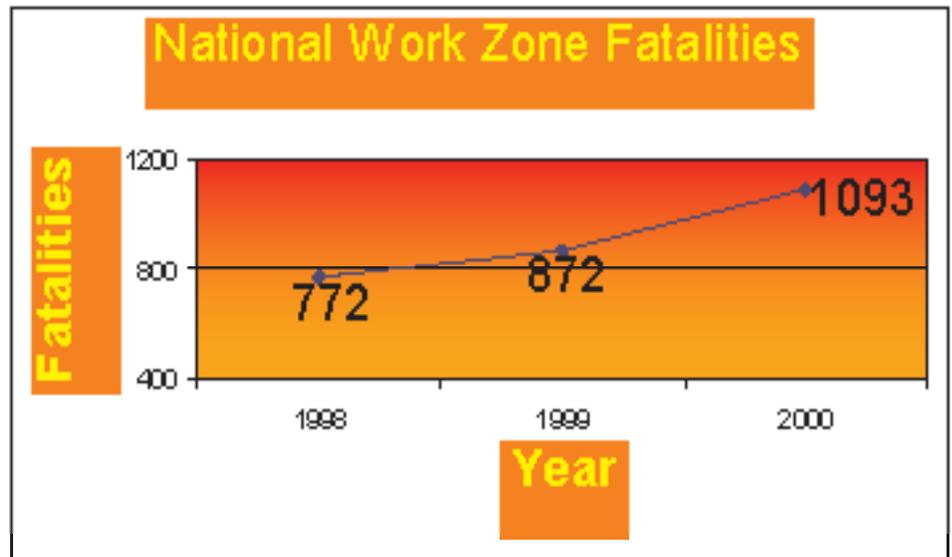
The following topic areas are covered in the ANPRM with a series of 20 questions asked to gather your input:

- General policy

- Planning
- Design and construction/maintenance
- Work zone management
- Performance measures
- Public outreach.

The *Work Zone Mobility and Safety, Advanced Notice of Proposed Rulemaking* docket can be downloaded from [www.nara.gov/fedreg]. Twenty questions that FHWA is posing are listed on pages four and five of the document.

Comments must be received on or before June 6, 2002. Mail or hand deliver comments to the U.S. Department of Transportation, Dockets Management Facility, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590, or submit electronically at [<http://dmses.dot.gov/submit>]. All comments should include the docket number FHWA-2001-111303.



Older Driver Highway Design Handbooks Available on Web

In October of 2001, FHWA published updated versions of the Older Driver Highway Design Handbook. These documents include specific engineering recommendations to improve the safety and ease of use of roadways by older drivers and pedestrians and by all road users.

The handbooks are divided into five sections: intersections, interchanges, roadway curvature and passing zones, construction/work zones, and highway-rail grade crossings. The shorter version, *Guidelines and Recommendations To Accommodate Older Drivers and Pedestrians* (FHWA-RD-01-051) contains some background information, followed by over 100 recommendations for highway changes to accommodate older road users. The longer version, *Highway Design Handbook for Older Drivers and Pedes-*

trians (FHWA-RD-01-103) includes all the recommendations as well as a detailed "Rationale and Supporting Evidence" section that summarizes the research that led to the recommendations. Both versions include cross-referencing to standards and guidelines commonly used by traffic engineers. The documents do NOT represent new standards, but provide recommendations for design, control and operational changes that can improve highway safety for older road users and all road users.

The handbooks are available on the web at [http://safety.fhwa.dot.gov/fourthlevel/pro_res_olderdriver_wdg.htm]. Hard copies of the handbooks can be obtained from the FHWA RD&T Reports Center in Lanham, Maryland by calling (301) 577-0818.

MUTCD News

There will not be another Revision to the MUTCD until next fall/winter 2002/2003. This will be the result of a notice of proposed amendment (NPA) that the FHWA is completing right now.

The FHWA anticipates that this will be published in the Federal Register (and installed on the MUTCD web site [<http://mutcd.fhwa.dot.gov>]) in March. The comment period for this proposed amendment would be open until July 5, 2002, or a minimum of 90 days.

Since FHWA wants to keep the Manual current with the state-of-the-practice, evolving technology, and new traffic management strategies, we anticipate a 1-2 two year cycle of revisions. It would be beneficial for the States to develop a method to amend their method of adopting the Manual with the latest Revision without a major effort.

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