

Alaskan Transportation



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Manual for Flexible Pavement Design in Alaska

Alaska DOT & PF Research Section is pleased to announce the release of their new *Manual for Flexible Pavement Design*. Alaskan designers now have a tool to help determine whether a proposed pavement structure will adequately perform if subjected to a specified number of vehicle load cycles and intensities.



What is the purpose of the pavement design manual & software?

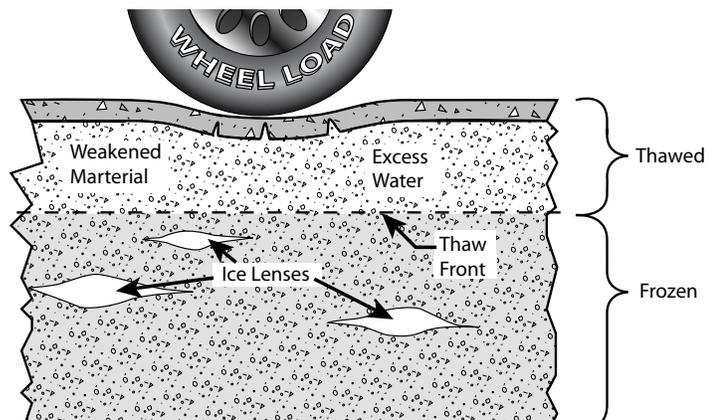
This manual helps the designer produce good pavement design recommendations by guiding them through a comprehensive computerized method for establishing thickness of layers in asphalt pavements. The manual consolidates a collection of pave-

ment design tools previously used by Alaska DOT & PF engineers, and is intended to be applied to all but the most complicated designs.

The Manual

- contains general engineering background to help the designer understand basic principles

continued



One of the illustrations in the manual that shows the pavement structure weakened by thaw.

Flexible Pavement Design Manual (continued)

of the Alaska Flexible Pavement Design process and how the program operates.

- describes all functional capabilities of the program and provides step-by-step design examples.
- provides specific guidance on input variables and other decision criteria required to run Alaska Flexible Pavement Design software.
- presents some of the broader aspects and policies bearing on the pavement design process.

Who should use the manual?

The manual is primarily focused at the design engineer or anyone doing pavement design. Also useful for those involved in the design process or wishing to understand pavement design—to include managers.

The screenshot shows a software interface with several sections:

- Project Information:** Project Name (Seward Creek Road), Project Number (23494), Designer (Siv Engineering, Inc.), Date (2/21/2003 10:30:20 AM), and Unit selection (English/Metric).
- Traffic Loads:** AADT (10000), Annual Average Daily Traffic, and Axle Weights (10, 40, 10, 40).
- Asphalt Layer Properties:** Modulus (E), Poisson's Ratio (ν), and Layer Thickness (h).
- Pavement Structure:** A table listing layers: Asphalt (3 in), ATB (5 in), Seward A (12 in), Subbase (24 in), and Subgrade (8 in). Each layer has associated Modulus (E) and Poisson's Ratio (ν) values.

Screen shot: The user types in all data items required for the complete mechanistic analysis.

Will the pavement design manual solve all my pavement design problems?

No. The design manual and software are a useful tool, but used alone won't turn the novice engineer into a design expert. It is to be used in conjunction with the pavement designer's accumulated knowledge in economic analysis, construction methods, materials source, laboratory test procedures, hydrology, evaluation of source aggregates, and other relevant topics.

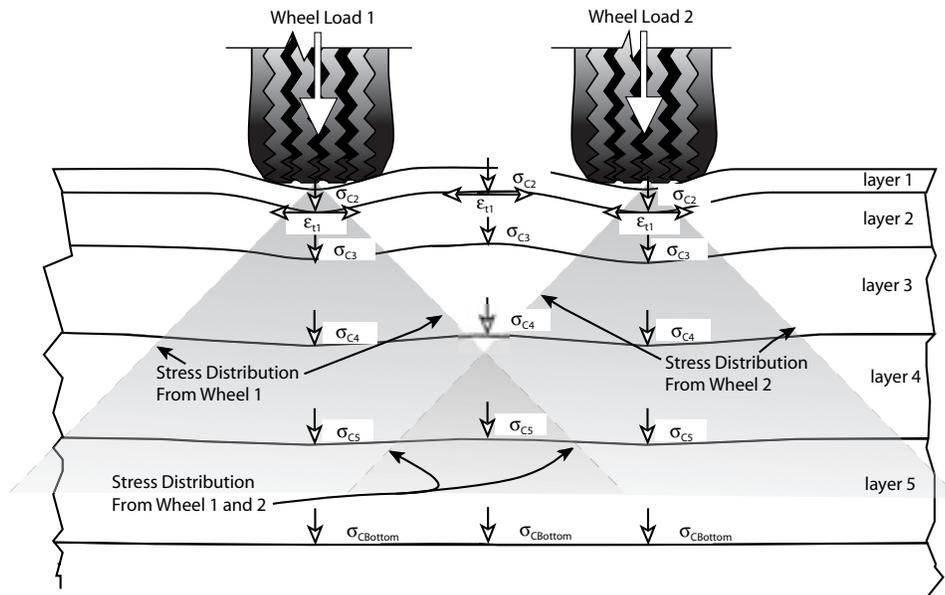
Also, poor foundation conditions can profoundly affect the performance of pavement, regardless of the quality of the pavement thickness design—often to a far greater extent than the thickness design alone. Pavement designers need to be aware of these issues and ask the right questions.

How do I learn more about the manual and software?

Alaska DOT & PF Research has scheduled several 1½ day courses in Fairbanks, Anchorage, and Juneau. Target dates are set for February and March, with more sessions following as necessary. Information on these trainings can be found at our web site or by calling (907) 451-5320.

T2 Training Web Site:
www.dot.state.ak.us/stwddes/research/train_cal.html

This figure from the Summary of Mechanistic Design section shows how the depth-distributed loads from two tires superimpose (and add together) at some depth.



Weeds at Home on Our Roadsides

By Edie Lau, reprinted with permission from the *Sacramento Bee*, May 4, 2003

Roads, it seems, not only take people where they want or need to go, they carry and support certain botanical hitchhikers, too.

You've seen them: The brushy blades of a wild barley locally known as foxtail. The tall, coarse stalks of Italian thistle. The thorny stems of yellowstar thistle that prick so many ankles in summertime.

Looking at almost any stretch of highway, it's plain to see that weeds flourish and predominate.

This and similar observations have seeded a rising field of research called road ecology, which explores how roads alter the environment. As Americans drive more miles than ever, the subject is starting to spread beyond academia into government policy discussions.

"Roads are a hot topic right now," said student Jonathan Gelbard, who began seven years ago to examine the relationship between roads and invasive plant species at UC Davis Institute of Transportation Studies. Working as an environmental consultant in Oregon, he surveyed noxious weeds in national forest areas.

"It became clear that noxious plants were mostly along roads, in clear-cuts and in power line corridors," he said.

While any unwanted plant may be deemed a weed, noxious weeds are those that tend to take over. These are foreign plants that haven't evolved to coexist with local flora, and for which few or no natural predators or competitors exist here.

Roads promote their spread in assorted ways:

- Seeds in dirt or mud get picked up in the cracks of tires, in radiator grilles, and in the undercarriages of vehicles, later to be deposited far from the parent plant.
- Vehicles driven off the pavement disturb the soil, providing an entree for invading plants.
- The earthen material under the pavement may have come from another area, changing the soil chemistry, making it less-suited for locals and more welcoming to outsiders.

- The roadsides have their own environment. They are bathed in runoff—water and chemicals, whether herbicides, salt for de-icing or hydrocarbons and heavy metals found in automotive fuels and fluids—that is better tolerated by some plants than others.

- Passing traffic creates gusts that help push wind-borne seeds along.

While the seeds of any plant in theory may be distributed widely by roads, plants from Europe and Asia—typical sources of imported weeds—tend to do better than natives in disturbed environments, Gelbard said, because they have evolved over centuries alongside human activity.

Scientists around the world are documenting the role of roads and vehicles in disseminating plants. Richard Forman, a landscape ecologist at Harvard University and a pioneer in the study of road ecology, said one researcher in Nigeria collected mud samples from 75 vehicles, from which he managed to germinate 40 plants.

In the same vein, a researcher in Australia collected wastewater from a carwash, from which he retrieved 18,500 seedlings, which yielded 259 species of plants.

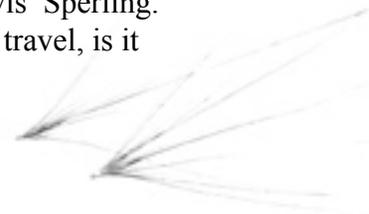
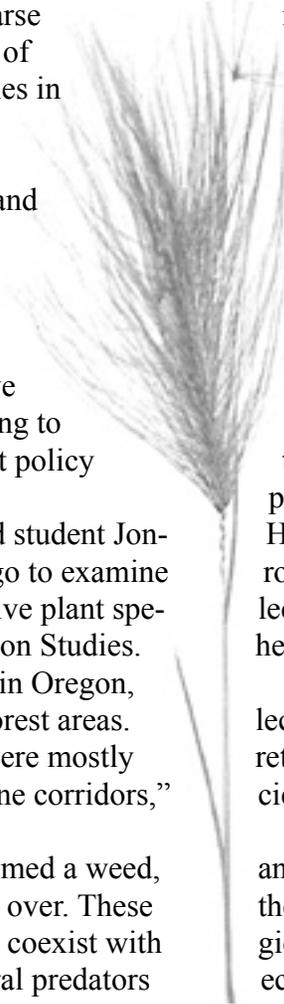
"The bulk of the seedlings were from the city and surrounding croplands and woodlands, but there were 20 species not even known from the region," said Forman, who co-authored the new road ecology book with UC Davis' Sperling.

Given the ease of world travel, is it even possible to impede the spread of exotic plants?

Many scientists and government agencies think it's important to try.

"They're displacing native plants, threatening threatened and endangered species, they upset biodiversity; some weeds are toxic to livestock and wildlife," said Dave Thomas, a U.S. Forest Service vegetation management specialist.

The agency is poised to place greater emphasis on exotic species. Forest Service Chief Dale Bosworth, in



continued

Weeds on Our Roadsides (continued)

a speech at UC Berkeley last month, identified invasive species as one of his four top priorities.

Thomas said the weed issue will influence a national debate on road-building in forestland, though it will not be a deciding factor. "Invasive species will not be ... forcing roads closed," he said.

The agency will tackle the problem in other ways. For example, Thomas said, contractors entering forests will be required to do things such as set up wash stations to clean their equipment to stem the spread of seeds.

Thomas said public education is needed, too, since problem weeds can be carried in hikers' socks, shoes and pants cuffs.

Vehicles, which can go much farther than pedestrians, magnify the effect. And the better the road they travel, the greater the impact. Gelbard, working in Utah's Canyonlands National Park, found that the more improved the road, the weedier the roadside. So graded surfaces promoted weed growth more than four-wheel drive tracks, and paved roads more still.

In Davis, where Gelbard is wrapping up his doctoral work, roadsides offer plenty more fodder on the topic. On a recent drive around Yolo County, Gelbard talked about how road maintenance can unintentionally support the growth of noxious plants. He got out of the car on the broad median strip of Highway 113 to explain.

Gelbard leaned over the freshly mowed grass, rummaging in the thatch. "Here we go," he said, revealing a low-lying rosette of leaves. "Here's a yellowstar thistle."

A cousin of the dandelion, yellowstar thistle begins the season hugging the soil. Later, it bolts up, forming spindly, thorny stems bearing yellow flowers that later turn to seed. The thistle's growing pattern is such that it tends to be small when the grass is long and lush, and to bolt when the grass goes dry, Gelbard said.

Since road crews mow when the grass is long, the thistle doesn't get cut. By summer, Gelbard predicted, the median will be covered with it.

The state Department of Transportation is aware of the problem. But reducing highway fire hazards must come first, said Caltrans spokesman David Anderson. "Public safety has to be our top concern," he said.

The department hopes eventually to solve both problems by planting along highways low-growing, drought-and fire-resistant species that are stronger competitors against weeds.

Not every alien weed is a problem, and not every road brings invasive weeds. Gelbard said roads going through highly infertile soils—such as serpentine soils found in California—tend not to promote weeds.

Gelbard's attention these days is on the inner coast range, from St. Helena to Bear Valley. His research examines the flip side of roads—how roadless habitats provide refuges for native grasses—and the ways in which roads influence plant communities.

"What I'm trying to say is not just that roads are bad ..." Gelbard said. "I'm trying to take a more constructive approach. I'm trying to say, 'Under what conditions is it bad and under what conditions is it not bad?'"



See back page for *Weed Roadside Field Guide* announcement.



National Highway Specifications Website

Highway construction specifications from all 50 states are now consolidated on one site for contractors, construction engineers, researchers, and other transportation officials.

What can you find on this site?

- Electronic library of currently approved standard highway construction specifications and supplemental specifications from state and other organizations across the U.S.
- Warranty and performance-related specifications.
- Quality assurance specifications.
- Design-build specifications.
- Innovative and emerging specifications.

- Discussion forum to enhance communication and feedback among users.

Consolidation of information on this web site occurred through a collaborative effort of the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO).



U.S. Department of Transportation
Federal Highway Administration

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Construction & Maintenance

Search FHWA:

[FHWA](#) > [Information](#) > [NHS](#)

National Highway Specifications

Home	Search Specifications	Discussion Forums	Administrative Login
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Category: **Standard Specifications and Supplements**
Agency: **Alaska**
Topic: **D - Asphalt Pavements and Surface Treatments**

File Name (Click to View)	Supplement Code	Date Effective	Spec Description	Download (Size)
SECTION 401.pdf		01/01/2002	Asphalt concrete Pavements	(41,673)
SECTION 402.pdf		01/01/2002	Tack Coat	(7,990)
SECTION 403.pdf		01/01/2002	Prime Coat	(9,047)
SECTION 404.pdf		01/01/2002	Seal Coat	(8,886)
SECTION 405.pdf		01/01/2002	Surface Treatment	(6,319)
SECTION 406.pdf		01/01/2002	Rumble Strips	(5,887)

Supplement Code: S = Supplement

Roundabouts, a Non-Traditional Intersection

By Karen Stippich, Safety Engineer FHWA—Indiana Division
Reprinted in part from *The Pothole Gazette*, Summer 2003—Indiana LTAP

Intersection safety is a national priority. Driving through intersections is one of the most complex conditions drivers will encounter. In 2000, more than 2.8 million intersection-related crashes occurred, representing 44 percent of all reported crashes. About 6,500 fatalities (21 percent of total fatalities) and almost one million crashes with injuries occurred at or within an intersection.

What is a roundabout intersection?

A roundabout is a one-way circular intersection without a traffic signal in which traffic flows around a center island. A roundabout brings together conflicting traffic streams and allows the streams to safely merge and traverse the roundabout and exit the streams to their desired directions.

Why build a roundabout intersection?

A properly designed modern roundabout will improve the safety at an intersection, improve traffic flow and save money for the community. The benefits of a roundabout are numerous:

Safety

- Up to a 90% reduction in fatalities
- 76% reduction in injury crashes
- 30–40% reduction in pedestrian crashes
- Slower speeds give drivers more time to react to other cars
- Advantageous to older and novice drivers

Efficient Traffic Flow

- 30–50% increase in traffic capacity
- Improved traffic flow reduces pollution and fuel use
- Improves traffic flow for intersections that handle a high number of left turns

Money Saved

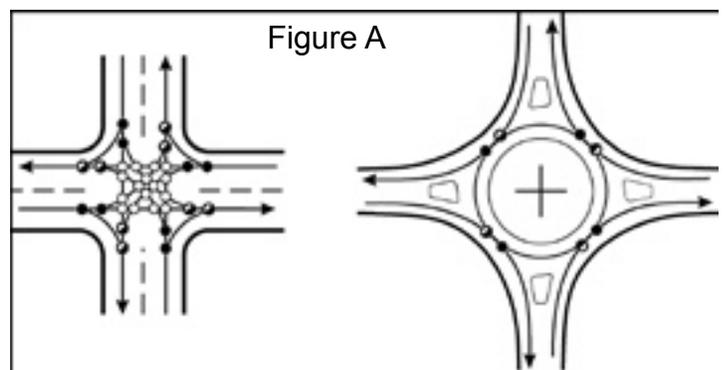
- No signal equipment to install and repair
- Savings estimated at an average of \$5,000/year in electricity and maintenance costs
- Service life of 25 years versus the 10-year life of signal equipment

Community Benefits

- Traffic Calming
- Aesthetic landscaping

Why are roundabouts safer?

The only movement allowed upon entry or exit from a roundabout is a right turn; thus the number of crashes that result in injury is substantially reduced. Figure A shows the vehicle-to-vehicle conflict points for a traditional four-leg intersection and a four-leg roundabout of two lanes. The number of vehicle-to-vehicle conflict points for a four-leg intersection is 32, and for a four-leg roundabout there are 8 conflict points plus 4 for potential rear-end collisions when entering the roundabout. Fewer conflict points means fewer opportunities for collisions. The severities of collisions that do occur in a roundabout are reduced. Lower speeds reduce within the roundabout and smaller angles of impact reduce severity.

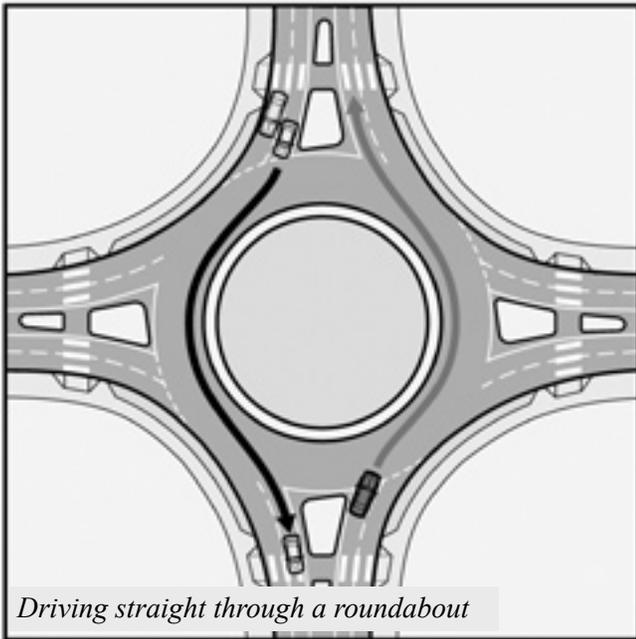


Signalized intersection:
32 conflict points

Roundabout:
8 conflict points

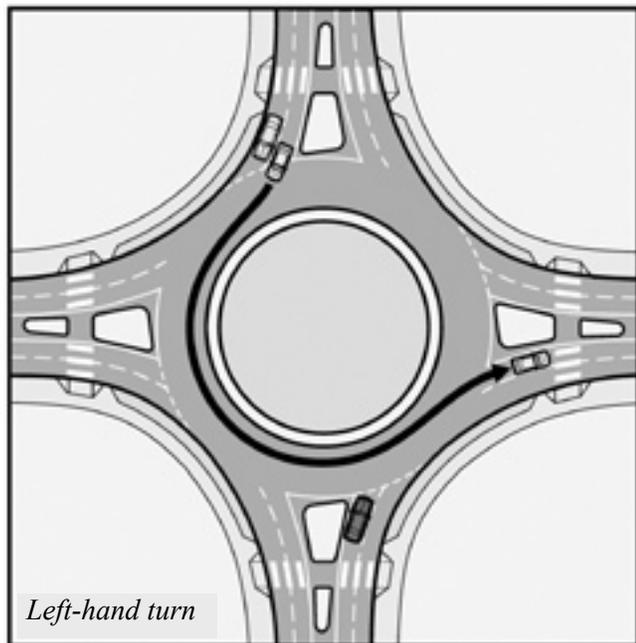
What are the design features?

All roundabouts have three specific design and traffic control features. The first is Yield-at-Entry, in which traffic entering the circle yields to traffic already in the circle. The second is Traffic Deflection, where traffic is channelized by pavement markings and raised islands into a one-way counterclockwise flow around an island. The third is Geometric Curvature, where the radius of the circular road and the angles of entry can be designed to slow the speed of vehicles.



Driving straight through a roundabout

Source: The Highway Code (UK) (8), converted to right-hand drive



Left-hand turn

Source: The Highway Code (UK) (8), converted to right-hand drive

What else is there to consider?

Roundabouts usually require more right-of-way for the circular roadway and the central island than the traditional intersection. Compared to a signalized intersection, a roundabout does not have signal equipment that requires power and maintenance. However, there can be higher landscape maintenance costs.

The first roundabout installed in a jurisdiction requires public education on how to use it. Often a roundabout will initially create a negative public reaction. However, after construction and use, reaction to roundabouts is very positive. Public meetings, videos and brochures, and media announcements are some of the ways to educate the public about the new roundabouts.

The presence of sizable truck volumes is not an adverse issue; truck drivers like roundabouts because they experience less delay. They appreciate that they do not usually need to come to a full stop and go through all of the gears to regain speed.

Where are roundabouts being used?

Roundabouts have been used for more than 25 years in Europe as an effective means of traffic control in the modern era of high traffic density. In the United States they have been used sporadically in the past and are rapidly increasing in popularity. They are often confused with the rotaries found in the eastern U.S.: smaller traffic circles often found in residential neighborhoods.

For a free copy of the video "The Case for Roundabouts" contact Karen Stippich at 317-226-7122 or e-mail Karen.Stippich@fhwa.dot.gov. The video is designed for the public to learn about the benefits of roundabouts.

When should a roundabout be considered?

A roundabout is a safety countermeasure to consider when you have a high crash rate or poor operation of an intersection. Roundabouts should be considered as an alternative to:

- rural cross intersection;
- signalizing a medium to low volume cross intersection;
- intersections with skewed approaches;
- intersections with more than four approaches;
- intersection of two and one-way streets.



Bloomington, Indiana



Alaska Launches 511: Travel In The Know



What is 511 in Alaska?

As part of a national effort to enhance traveler information, the ADOT&PF has introduced 511 Travel in the Know: a system to help travelers access weather-related road conditions, construction, and other relevant travel information.

511 Travel In The Know By Phone Or Web

The traveler information is available by dialing 5-1-1 from any phone or visiting the web site at <http://511.alaska.gov/>. The phone version of 511 Travel in the Know is specific to phones used within Alaska. To use the 511 Travel in the Know from outside Alaska, simply dial 1-866-282-7577 (toll free).

The Alaska 511 Travel in the Know offers the following information:

- Urgent reports—avalanches, earthquakes, road closures, hazardous driving conditions
- Driving conditions—road condition reports from M&O stations, weigh stations and U.S. Customs and Border Patrol
- Roadwork—road construction and maintenance information
- National Weather Service forecasts
- Ferries—web page provides ferry tracking information. The 5-1-1 travel information number offers to transfer the caller to the ferry scheduling service.
- Routes—driving conditions, roadwork and urgent reports along a route.

Future additions include:

- Oversize/overweight permit information for commercial vehicles
- Yukon roads
- Anchorage roads
- Public transportation information
- Real-time ferry arrival/departure information
- Amber alert messages

The benefits of the 511 Travel in the Know are:

- Improves internal communication
- Improves incident response
- Increases timeliness of information
- Creates a single source of travel information
- Improves safety conscious trip planning

Where Does 511 Data Come From?

From the web-based database used to report and edit real-time transportation related situations called the Condition Acquisition and Reporting System (CARS). CARS is used internally by ADOT&PF and partnering agencies. Partners both internal and external to the ADOT&PF can manually enter road condition information into CARS. Those partners are:

- Alaska State Troopers
- U.S. Customs and Border Patrol
- ADOT&PF: Maintenance and Operations, Construction, Right of Way, Bridges, Commercial Vehicle Enforcement, and Alaska Marine Highways.

The National Weather Service sends weather forecasts automatically from the NWS server to the CARS server. CARS also gets updates from road weather stations located strategically along major highways. The road weather stations collect atmospheric, pavement and sub-surface data.

ADOT&PF soon hopes to share with other key partners: Yukon Roads Department, emergency response, Municipality of Anchorage, other municipalities and boroughs, recreational and park agencies and other agencies on the transportation grid. Including more partner agencies can help improve the amount and quality of travel information.

Trusted users, with name and password control, can enter over 1000 types of events or incident information in CARS. The database is geographically displayed and can store active incidents (e.g., floods, accidents, lane/road closures, road conditions) or planned activities (e.g., construction, utility permit work, oversize/overweight movements, parades). Other travel information is also included (e.g., unseasonable storms, wind, heavy smoke, loose gravel, closures due to earthquake damage). The information is then portrayed using traffic symbol icons to represent incidents on internet maps.

History of 511

In July 2000, the Federal Communications Commission (FCC) designed "511" as the national traveler information phone number. The U.S. Department of Transportation (USDOT), American Association of State Highway and Transportation Officials (AASHTO), Intelligent Transportation Society of America (ITS America), and American Public Transportation Association (APTA) are leading 511 deployment efforts and developing guidelines for a seamless and comprehensive service nationwide. The 511 service is already up and running in Utah, Nebraska, Kentucky, Minnesota, the I-81 corridor in Virginia,

San Francisco Bay, and the Cincinnati Metro. Alaska launched the 511 program in April 2003.

Alaska's 511 Travel in the Know is part of the national 511 deployment coalition and uses CARS.



The national program is the foundation for the Alaska Iways program. Iways is the user friendly term for Intelligent Transportation Systems (ITS) in Alaska. ITS is the application of computers, communications and sensors to transportation. Used effectively, ITS produces new ways of understanding, operating, expanding, refining, reconfiguring and using the transportation network.

operating, expanding, refining, reconfiguring and using the transportation network.

Pooled Fund Effort

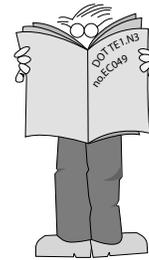
ADOT&PF is part of a ten-state CARS consortium under the Federal Highway Administration pooled fund rules. The CARS-511 consortium has received \$950,000 from Federal Highway Administration to help implement 511. The pooled fund concept helps share costs for a very technical and expensive system and helps us gain access to a system that has been tested in real world circumstances by other state highway agencies. The other nine states are Washington, Minnesota, Iowa, Missouri, Vermont, New Mexico, Kentucky, Maine, and New Hampshire. Eight of the 10 CARS states are also part of the 511 pooled fund effort. Iowa is the lead state for both the CARS and 511 pooled fund. ADOT&PF has contributed over \$300,000 for CARS pooled fund entry and additional program enhancements.

Contact Information

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New resources added to the DOT Collection at the Keith B. Mather Library

(Publication dates of 2000-2003)



ADOT uses for virtual private networking technology: Phase 2: Final test report (2002)	DOT TE662.A3 no.AZ-00-502(2)
Advanced computer tools for roadway hydraulic and hydrologic design (2000)	DOT TE213.G74 2000
Alaska Native employment partnership (2001?)	DOT HD8081.A7 A43 2001
Alaska: transportation profile (2002?)	DOT HE213.A4 A435 2002
Alternate Routing Information System (ARIS) (2002)	DOT TE662.A3 no.AZ-02-513
Analysis of AMHS Fast Vehicle Ferry wake wash predictions. Phase 1 report, Comparison of the AMHS FVF expected wash characteristics against measured vessels and past studies (2002)	DOT TE662.A3 no.AK-RD-02-04
Analysis of the AMHS fast vehicle ferry wake wash predictions. Phase 2 report, Comparison of the AMHS FVF expected wash characteristics to existing AMHS vessels and cruise ships (2002)	DOT TE662.A3 no.AK-RD-02-09
Arizona Department of Transportation information data warehouse application: evaluation of HERS/ST as a data source component (2002)	DOT TE662.A3 no.AZ-02-529
The behavior of prestressed high performance concrete bridge girders for US Highway 401 over the Neuse River in Raleigh, NC (2001)	DOT TE662.A3 no.NC-2002-003
Bus rapid transit. Volume 1, Case studies in bus rapid transit (2003)	DOT HE192.5.R46 no.90 v.1
Civil rights in transportation projects (2003)	DOT KF5524.L44 no.48
A comparative review of wetland mitigation practices: evaluation, monitoring, maintenance, inventory, staffing, and funding (2001)	DOT QH541.5.M3 J63 2001
Continuous evaluation of in-service highway safety feature performance (2002)	DOT TE662.A3 no.AZ-02-482
Coordination of commercial vehicle data collected by automatic traffic counter (ATC) and weigh-in-motion (WIM) (2003)	DOT TE662.A3 no.AZ-03-526
Customer-focused transit: a synthesis of transit practice (2002)	DOT HE4401.T37 no.45
Dancing diamonds in highway work zones: an evaluation of arrow-panel caution displays (2002)	DOT TE228.S2375 2002
Development of a pilot archaeological database (PAD) for use in the WisDot Transportation District 3 project development and maintenance: final report (2001)	DOT F583.K65 2001
Effectiveness of earthen return ramps in reducing big game highway mortality in Utah (2000)	DOT HE5620.W54 B57 2000
Effects of subsurface drainage on performance of asphalt and concrete pavements (2003)	DOT TE7.N25 no.499
Emissions reduction through better traffic management: an empirical evaluation based upon on-road measurements (2001)	DOT TD886.5.E65 2001
Evaluating and improving pedestrian safety in Utah:	

pedestrian safety issues, actions and recommendations (2002)	DOT HE336.P34 C67 2002
Evaluation of operational efficiencies, cost, and accident experience of four phase single point urban interchanges (2002)	DOT TE662.A3 no.AZ-01-501
Fatigue performance of large-sized long-span prestressed concrete girders impaired by transverse cracks (2002)	DOT TE662.A3 no.NC-2002-024
A guide to public transportation security resources (2003)	DOT HE4401.R48 no.59
I-15 corridor reconstruction project design/build evaluation: final report: special experimental project no.14 (2003)	DOT TE195.C64 2003
In-house experimental features UDOT research 1999 (2002)	DOT TE192.S53 2002
Incident detection algorithm evaluation: final report (2001)	DOT TE228.3.I54 2001
Intelligent transportation systems benefits: 2001 update (2001)	DOT TE228.3.P76 2001
Intelligent transportation systems benefits and costs: 2003 update (2003)	DOT TE228.3.P76 2003
International transit studies program: report on the Spring 2002 mission: safety and security issues at all-bus systems in small-to-medium-sized cities in Western Europe (2003)	DOT HE4401.R48 no.58
Optimal procedures for quality assurance specifications (2003)	DOT TE662.A3 no.RD-02-095
Pavement preservation technology in France, South Africa, and Australia (2002)	DOT TE662.A3 no.PL-03-001
PCC pavement smoothness: characteristics and best practices for construction (2001)	DOT TE662.A3 no.IF-02-025
R&D network shadow advanced traffic operations center to model signal timing for severe weather conditions (2001)	DOT TE228.M29 2001
Regionalizing public transportation services (2002)	DOT TE662.A3 no.NC-2002-025
RHODES-ITMS-MILOS: ramp metering system test (2002)	DOT TE662.A3 no.AZ-02-481
Sampling and testing of stormwater runoff from North Carolina highways (2001)	DOT TE662.A3 no.NC-2001-002
Security measures in the commercial trucking and bus industries (2003)	DOT HE4614.2.C66 no.2
A sign inventory study to assess and control liability and cost (2002)	DOT TE662.A3 no.NC-2002-017
Stabilization techniques for reactive aggregate in soil-cement base course (2003)	DOT TE662.A3 no.LA-03-366
State of Alaska, DOT/PF Equal Employment Opportunity Program update: December 2000 submittal, reporting year July 1, 1999–June 30, 2000 (2001)	DOT HD4903.3.U6 A47 2001
Stormwater conveyance modeling and design (2003)	DOT TD657.S75 2003
Strategies for improved traveler information (2003)	DOT HE192.5.R46 no.92
Strong motion instrumentation of I-15 bridge C-846: a research report (2001)	DOT TG265.H27 2001
A synthesis of the application and performance of three-sided precast box culverts (2002)	DOT TE213.M87 2002
Technology and intelligent transportation systems (ITS): the implications for future transportation (2002)	DOT TE662.A3 no.AZ-01-507(4)
Third party transaction cost-benefit analysis (2003)	DOT TE662.A3 no.AZ-03-539
Traveler information systems in Europe (2003)	DOT TE662.A3 no.PL-03-005
Utah RWIS traveler information evaluation (2001)	DOT TE228.3.U85 2001



Alaska Transportation History

2003

Moving 35,000 Soldiers to Kiska

The allied landing on Kiska Island in the Aleutian Islands on August 15, 1943, featured considerable cooperation and involvement of Canadian and U.S. forces.

The landing took many hours because only one good site was available, and early in the invasion engineers were sent ashore to blast new channels for the landing craft to reach the shore safely. Conversely, time was not lost on building a new airstrip—two weeks!

There was none of the costly fighting that was experienced earlier on Attu. The Japanese troops had been secretly evacuated days earlier—another logistical marvel in a very tough place.



Above: An aerial view of the invasion fleet.

Right: *The original caption on this official Navy photo released to the press Aug. 24, 1943, states "U.S. Army and Navy amphibious forces board an LCM at an Aleutian base for the drive against Kiska. American transports lie off-shore, ready to take their places in the invasion convoy."*



Below: *A gravel ramp has already been built off the rocky beach as landing craft approach to unload in this photo dated Aug. 15, 1943.*

All four photos are courtesy of Jill Holmgren.



Above: *Underscoring the U.S.-Canadian cooperation, a soldier stands guard between the Canadian and United States flags overlooking the landing site on Kiska.*

Training and Meeting Calendar

2003

January

NHI 131063A: Hot Mix Asphalt Pavement Evaluation and Rehabilitation
January 27–29 in Anchorage.

Alaska Engineering Design Information System
January 22 in Fairbanks.

Evaluation of Bioengineered Stream Bank Stabilization in Alaska
January 23 in Anchorage.

February

Alaska Flexible Pavement Design
February 10–11 in Fairbanks, 17–18 in Anchorage, and 25–26 in Juneau (see also March)

March

Maintaining Safe Roadsides
March 23 in Fairbanks
March 25 in Anchorage
April 20 in Juneau

Alaska Flexible Pavement Design
March 17–18 in Anchorage and 23–24 in Fairbanks

For information about T2-sponsored training, contact:

Dave Waldo at 907-451-5323, david_waldo@dot.state.ak.us
or
Simon Howell at 907-451-5482, simon_howell@dot.state.ak.us
or go to:
www.dot.state.ak.us, select "T2 Training" under "Hot Topics Quicklinks," and then choose "Training" from the menu on the left.



Meetings Around Alaska

Society	Chapter	Meeting Days	Location & Contact	
ASCE	Anchorage Fairbanks Juneau	Monthly, 3rd Tues., noon Monthly, 3rd Wed., noon Monthly, 2nd Wed., noon*	Moose Lodge Captain Bartlett Inn Goldbelt Hotel	http://sections.asce.org/alaska/index.htm * except June–Aug.
ASPE	Anchorage Fairbanks Juneau	Monthly, 2nd Thurs., noon* Monthly, 1st Fri., noon Monthly, 2nd Wed., noon**	Coast International Inn Captain Bartlett Inn Goldbelt Hotel	Jennifer Gibson, 343-8130 * except summer ** except June–Aug.
ASPLS	Anchorage Fairbanks Mat-Su Valley	Monthly, 3rd Tues., noon Monthly, 4th Tues., noon Monthly, last Wed., noon	Executive Cafeteria, Federal Building Ah Sa Wan Restaurant Windbreak Cafe	George Strother, 745-9810
AWRA	Northern Region	Monthly, 3rd Wed., noon	Rm 531 Duckering Bldg., University of Alaska Fairbanks	Larry Hinzman, 474-7331
ICBO	Northern Chapter	Monthly, 1st Wed., noon except July and August	Zach's Sophie Station	Tom Marsh, 451-9353
ITE	Anchorage	Monthly, 4th Tues., noon**	Sourdough Mining Co.	Art Johnson, 276-4245 ** except July, Nov., & Dec.
IRWA	Sourdough Ch. 49 Arctic Trails Ch. 71	Monthly, 3rd Thurs., noon** Monthly, 2nd Thurs., noon**	West Coast International Inn Zach's	** except July & Dec.
Asphalt Pavement Alliance	Alaska	3rd Wednesday of every other month	varies	John Lambert 267-5294
PE in Government	Anchorage	Monthly, last Fri., 7 a.m.	Elmer's Restaurant	
Society of Women Engineers	Anchorage	Monthly, 1st Wed. 5:30 p.m. except July and August	DOWL Engineers	Julie Gaken, 269-0634 Karen Helgeson, 269-0997

2004 Proposed Training Plan

Each year Alaska Technology Transfer meets with state and local government agencies to evaluate their training needs. The resulting list of proposed trainings are selected from a large number of requests. We often get nearly \$2 million in requests and can only fund about \$600,000. The following list is pending available funding and approval of the new highway bill or TEA-21:

Local Government/DOT

Construction Cost Engineering	Fall	Fairbanks/Anchorage/Juneau
NPDES— Storm Water Permitting	Fall	Anchorage
Traffic Control Supervisor	Spring	Anchorage
Traffic Control Technician	Spring	Anchorage
Informed Consent	Fall	Anchorage/Juneau
Road Safety Analysis Program	Spring	Fairbanks/Anchorage/Juneau
Roundabout Design	Spring	Fairbanks
Design Build Contracting	Spring	Anchorage
Fall Protection	Spring	Fairbanks/Anchorage/Juneau
Fall Protection— Advanced	Spring	Anchorage
Driven Pile Inspection	Fall	Fairbanks/Anchorage/Juneau
Flexible Pavement Design	Spring	Fairbanks/Anchorage/Juneau
Noise Abatement	Fall	Fairbanks/Anchorage/Juneau
Air Quality	Fall	Fairbanks/Anchorage/Juneau
Mini Road Side Design	Spring	Fairbanks/Anchorage/Juneau
Low Cost Safety Improvements	Summer	Fairbanks/Anchorage
Maintenance & Operations Scheduling	Spring	Fairbanks/Juneau/Kenai
Wetland Delineation	Spring	Anchorage/Juneau
Grader Operator— Intermediate	Summer	Fairbanks/Juneau
Grader Operator-Advanced	Spring/Fall	Kodiak
Writing that Works	Fall	Anchorage
Synchro -Simms Traffic	Spring	Anchorage
NHI— NEPA	Spring	Anchorage
NHI— Access Management	Spring	Anchorage/Fairbanks
NHI— Road Safety Audit	Spring	Fairbanks/Anchorage/Juneau
NHI— Pedestrian Facility Design	Fall	Anchorage
NHI— Bicycle Facility Design	Fall	Anchorage
NHI— Highway Program Financing	Fall	Anchorage
NHI— HMA Evaluation & Rehab	Spring	Anchorage
NHI— Functional Assessment of Wetlands	Fall	Anchorage
NHI— HMA Construction	Spring	Fairbanks/Anchorage/Juneau

DOT only

Warrant I—Procurement Rules	Fall	Fairbanks/Anchorage/Juneau
Warrant III—Negotiations	Fall	Anchorage
Warrant II- Contract Administration	Spring	Anchorage/Juneau
Warrant IV—Contract Law	Spring	Anchorage/Juneau
Warrant V—Innovative Procurement	Fall	Fairbanks/Anchorage/Juneau
Warrant VI—Advanced Contract Law	Spring	Fairbanks/Anchorage/Juneau
Civil Rights Title VI	Spring	Fairbanks/Anchorage/Juneau
Civil Rights DBE	Spring	Fairbanks/Anchorage/Juneau
Highway Specifications	Spring	Fairbanks/Anchorage/Juneau
Consent Decree	Spring	Fairbanks/Anchorage/Juneau/Nome
MSHA Mine Safety	Spring	Fairbanks/Anchorage/Juneau/Nome
Managing Confrontational Situations	Spring	Anchorage
Scheduling for Designers	Fall	Fairbanks/Anchorage/Juneau
Scheduling for Construction	Fall	Fairbanks/Anchorage/Juneau
Crusher Plant Training	Spring	Fairbanks/Anchorage
Design Build Executive Summary	Spring	Juneau

* Due to pending funds, most courses are not yet posted on web site

To register for classes or to find more detailed information as posted, please visit our web site. Also consider signing up for our training list-serve and be notified as trainings are posted:

T2 Training Website:



DOT/T2 Training List-Serve

http://Juneaumail17.state.ak.us/guest/RemoteListSummary/DOT_Training_Notification_list



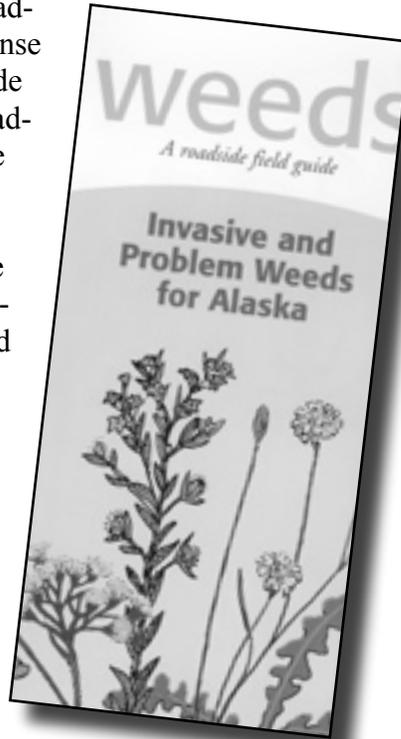
Weed Roadside Field Guide Helps to Identify Invasive Plants

Invasive plants continue to adapt and move to new habitats—particularly disturbed roadside areas. Early detection and rapid response reduce future management costs. This guide was produced as a tool to help Alaskan roadside vegetation managers and maintenance personnel identify and control invasive plants in their jurisdiction.

The guide identifies plants that have the highest potential of appearing and flourishing in Alaska. These plants can invade and degrade both agriculture land and natural areas.

To get a copy of the field guide contact:
Michele Hebert
ffmah@uaf.edu
(907) 474-2423

Linda Gavin
linda_gavin@dot.state.ak.us
(907) 451-5320



see page 3 for a related article

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- select scroll box "Inside DOT&PF" at the top
- Pull down to "Research & Tech"



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