

# LTAP

Local Technical  
Assistance  
Program

Presented by WSDOT's Highways & Local Programs LTAP Center

## Basics of a Good Gravel Road

### A Gravel Road Maintenance Class

**A one-day course**

**Fee: \$50**

**Time: 8:30 am to 4:00 pm**

**Class Size: 35**

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### Instructor

William F. Heiden, P.E., L.S.

Mr. Heiden is a professional engineer and retired land surveyor. He has a background of over 40 years experience as a county road engineer and contractor working in the construction and maintenance of roads in Larimer and Gilpin Counties in Colorado. Since 1999 he has consulted and lectured in New Mexico, Arizona, South Dakota, Texas, Utah, Oklahoma, Indiana, Idaho, Oregon, Alaska, Wyoming, as well as in Washington State and British Columbia. Mr. Heiden is recognized throughout the United States for his expertise on drainage and gravel roads. He has a strong knowledge of practical business measures that can help cut costs for your agency.

### Target Audience

This class is for anyone who has responsibility for maintenance and/or design of gravel roads and streets. Maintenance operators and supervisors of city, county, tribal, state, and forest service roads will expand their knowledge about maintaining gravel roads. In addition, design engineers, technicians, field engineers, inspectors, and industry representatives will find Mr. Heiden's presentation very beneficial.

### Course Description

Gravel and dirt roads make up approximately thirty-six percent of all roads in the United States today. However, the funds allocated to these roads are often only a small portion of the total amount spent on roadway construction. Therefore, it is important to take full advantage of the knowledge, tools, and techniques available to us today.

The LTAP Center offers this training to local agencies and other Washington State municipalities who have gravel roads within their jurisdictions. Mr. Heiden comes from Arizona to present his program on the basic maintenance and construction of a good gravel road, and will address all major problems and concerns of unpaved roads: washboarding (corrugation), traffic patterns, rutting, surface drainage, dust control, surface material, and roadside obstructions. The techniques that Mr. Heiden teaches can help to reduce unpaved road maintenance expenditures to 40 percent or less of current expenditures in three to five years.



Washington State  
Department of Transportation

## Agenda

- **Engineering Basics:** In-depth discussion of desired traffic wear patterns: Proper shape, centerline, cross slope, roadway edges, and roadside intimidation.
- **Good Surface Materials:** A brief, simplified explanation of how soils work and what you need for a lasting road.
- **Dust Palliatives/Base Stabilizers:** Report on a joint study on use and effectiveness of dust palliatives.
- **Equipment and Methods to Maintain a Good Gravel Road**
- **Sequences and Specifications**

For further information contact Judy McDonald, Training Program Coordinator, at (360) 705-7355 or [McdonJT@wsdot.wa.gov](mailto:McdonJT@wsdot.wa.gov)

