TTAP Highway Construction and Maintenance Videos

24 Hour Whitetopping
TRMCA 1992 9 minutes Video ID # 40
Depicts a Whitetopping project done in Nashville, TN. The video is designed to promote the use of Whitetopping at high volume intersections.

Anti-Icing for Maintenance Personnel
CRREL/FHWA 1997 13 minutes Video ID # 218
Implementation of an anti-icing plan to prevent the hazardous road conditions associated with the bonding of ice to the roadway involves the following tools: material, equipment, personnel and strategy. This video gives a basic overview of these tools for the municipal maintenance manager.

Base and Sub-Base Repair
IRF 1985 15 minutes Video ID # 41
Presentation outlines nine step base repair system. The steps include placing traffic control devices, marking the limits of repair, cutting the pavement surface, removing all unsuitable material, installing sub drainage, restoring sub grade and base, replacing pavement surface, cleaning work site, and removing traffic control devices.

Blading Unpaved Roads
FHWA / NACE 1988 22 minutes Video ID # 42
Illustrates practical aspects of motor grader operation to maintain unpaved roads, differences between blading and shaping, appropriate use of drags, and grading of intersections, driveways, bridge approaches, and railroad crossings.

Controlling Dust on Unpaved Roads
Dow Chemical Co. 1989 16 minutes Video ID # 43
The narration on this promotional video begins with the "one" rule about unpaved roads. "One car, making one pass daily on one mile of untreated, unpaved road, can generate one ton of dust in one year." The program shows problems dust can create on unpaved roads.

Creating Meadows Through Road Maintenance and Construction
USDA - Forest Service 1995 8 minutes Video ID # 44
Details ways in which erosion and sediment deposits can be controlled around drainage area by raising the water table and creating wetlands and meadows.
Detecting Flawed & Non-Standard Concrete
American Concrete Inst./Portland Cement 1988 28 minutes Video ID # 46
Presents seven different tests for use in quality control of concrete: (1) Test C1064-Temperature of freshly mixed concrete; (2) C172-Sampling fresh concrete; (3) C143-Slump of portland cement concrete; (4) C138-Unit weight, yield, and air content of concrete; (5) C173-Air content of freshly mixed concrete by the pressure method; (6) Air

Dust Control 1989
Dow Chemical Co. 1989 16 minutes Video ID # 45
Defines dust, describes the problem which it can create on unpaved roads, and describes ways to reduce these problems. Shows the advantages of using "Liquidow" in controlling dust.

Evaluation Procedures for Deicing Chemicals
NACE 1993 11 minutes Video ID # 67
A brief look at 12 tests used to evaluate deicing chemicals. Among these tests include: ice melting capacity, ice penetration, ice undercutting, corrosive effect on metal, scaling effects on concrete surfaces, and frictional characteristics of deicers.

Forest Roads and the Environment
FHWA/USDA Forest Service 18 minutes Video ID # 284
Demonstrates the importance of maintaining safe forest roads. Also explains how a poorly maintained road can prematurely intercept, divert and concentrate storm water affecting the surrounding ecosystem.

Guardrail Installation (Module 14)
FL T2 Center Van Program 46 minutes Video ID # 219
This module describes the installation of W-Beam guardrail with various end treatments.

Guardrail Installation and Repair
FHWA 1989 20 minutes Video ID # 51
Describes the evolution of guardrail standards, how to eliminate guardrails through slope flattening, elements of a W-Beam guardrail, proper installation of guardrails, treatment of guardrail ends, and guardrail repair.

Guardrail Terminal Designs
Syro Steel Company 8 minutes Video ID # 325
This shows two alternative guardrail end terminal designs that are produced by Syro Steel Company. The effectiveness of these two guardrail terminals is shown. The first one is called the C-A-T (Crash-cushion Attenuating Terminal). The other one is the ET-2000.
Here's How Hot Mix Plant Works

Video Univ. Productions 55 minutes Video ID # 308
Discusses and illustrates the entire process within a hot mix plant along with common plant locations and types.

Installation of Geotextile on Gravel Surfaced Roads

OK T2 Center 1989 43 minutes Video ID # 50
Demonstrates the use of geotextiles on gravel roads. Discusses woven and non-woven fabric, different types of gravel to be used, the proper method for dumping rock on a soft road bed, how the fabric should be applied to hillsides with rock outcroppings.

Low Volume Roads Series - Setting Maintenance Priorities for Low Volume

IRF/FHWA 30 minutes Video ID # 296
Discusses the unique process of setting maintenance priorities for low volume roads and managing maintenance strategies. Includes a discussion of goals for maintenance procedures including keeping roads open and safe year round, reducing the rate of deterioration, increasing life of roads and reducing vehicle operating costs by maintaining.

Maintaining Asphalt Roads: Blade Patching

NM DOT 1993 12 minutes Video ID # 53
A quick, general overview of the blade patching process that can correct rutted roads, large alligator cracks and potholes too large for hand patching.

Maintaining Granular Surface Roads

Iowa Highway Research Board 1985 19 minutes Video ID # 54
Presentation designed to aid the motor grader operator in maintaining gravel roads.

Maintaining Gravel Roads in Arkansas

Arkansas T2 1989 29 minutes Video ID # 52
Intended for road foremen and grader operators. The video covers motor grader operation, drainage requirements, crown and super elevated compaction, and other aspects pertaining to maintaining gravel roads.

Maintaining the Ditch and Surface Cross Drains

FHWA/USDA Forest Service 16 minutes Video ID # 288
Provides comprehensive instructions for correctly constructing and maintaining ditches, culverts and various surface cross drains. The video highlights heeling and pulling a ditch, rolling drain dips, interceptor dips, earthen water bars and open top drainage devices.
Plows of the Future
SHRP   1983   8 minutes   Video ID # 66
Illustrates new plows that prevent snow from going on drivers’ window and to unwanted areas and passing cars. This video particularly focuses on the design of a snow-scoop that can be retro-fitted to existing plows, which produces better efficiency and control.

Problems with Gravel Roads
FHWA    1995   55 minutes   Video ID # 68
Gives a general overview of the problems associated with gravel roads. A good tape for those who want to know how gravel roads fail. Covers materials and environment, problems, grader equipment and techniques.

Reading Beyond the Traveled Way
FHWA/USDA Forest Service    17 minutes   Video ID # 286
Demonstrates the importance of inspecting both the roadway and roadside when performing site investigations. Identifies gullies, ditches, culverts, cracks, and slumps as problem areas and offers repair and upkeep strategies.

Reading the Traveled Way
FHWA/USDA Forest Service    16 minutes   Video ID # 285
Stresses the value of adequate mapping, planned maintenance and upkeep of forest roads. Also discusses performing site evaluations to identify common problems along the traveled way including examples of long and short term solutions.

Replenishing Earth and Gravel Shoulders
IRF    1985   19 minutes   Video ID # 55
Nine maintenance work steps to restore the unpaved shoulder by adding new material are shown in this module. Proper procedures are fully presented for preparing the existing shoulder surface before adding additional material, placing and spreading additional material, and compacting material. Equipment and proper use are discussed.

Roadway Design: Balancing Safety, Environment, and Cost
MN Local Road Research Board    1995   13 minutes   Video ID # 69
Provides an overview of three important factors to be considered when constructing or building a roadway: safety, environmental protection, and cost--both initial and long term.

Rural Roads, A New Approach
Montana State Univ.    1984   25 minutes   Video ID # 56
Discusses current technology which can be utilized in upgrading secondary roads.
**Safety Restoration Snow Removal Guidelines**  
FHWA / US DOT  1991  26 minutes   Video ID # 57  
Safety priorities, policies, and procedures for post-snowstorm cleanup. A review of snow removal guidelines pertaining to restoration of the roadway for use by the motoring public. Includes concerns with roadside safety device effectiveness.

**Shoulder and Roadside Maintenance (Module 7)**  
FL T2 Center Van Program  38 minutes   Video ID # 224  
This module gives procedures for repairing earthen shoulders using a motor grader and maintaining roadside ditches using a motor grader or hydraulic excavator.

**Smoothing and Reshaping the Traveled Way**  
FHWA/USDA Forest Service  18 minutes   Video ID # 287  
Covers detailed step by step processes for both smoothing and reshaping a road. The video emphasizes crowned roads, inslope roads, outsloped roads and transition sections.

**Snow & Ice Control**  
SHRP  1993  13 minutes   Video ID # 65  
Presents economic, environmental and safety benefits of employing advances in snow and ice control techniques. Summarizes localized weather forecasting programs, anti-icing techniques, utilization of snow fences, and plows of the future.

**Snow Plow & Spreader Operation**  
Nebraska Dept. of Roads  53 minutes   Video ID # 58  
Operation and maintenance of snow plow and spreader on a dump truck includes hookup of plow and spreader, daily checks, servicing, and plowing and spreading techniques.

**Staying Ahead of the Storm**  
SHRP  1992  21 minutes   Video ID # 64  
Discusses the use of the Road Weather Information System (RWIS) to provide a variety of road condition and weather information giving highway engineers an up-to-the-minute decision-making tool.

**Tennessee Crash Tests**  
72 minutes   Video ID # 327  
This video is a composite of Tennessee Crash Tests 7199 – 1 through 6. The crashes involve slotted rails, transition rails, and guardrail end treatments.
### The New Generation of Snow and Ice Control

**FHWA** 1998 7 minutes Video ID # 225

State of the art road weather information systems (RWIS) and anti-icing techniques are helping a new generation of snow and ice control managers prevent dangerous roadway conditions before they develop. Includes a 14 page booklet with the video.

### The Safer Roadside

**Wash DOT** 1988 17 minutes Video ID # 59

Removing fixed roadside barriers is one way of making highways safer for traffic. Utility poles along highway rights-of-way need to be removed. Highway departments along with the utilities have established a plan for doing this.

### The Snowfighters

**The Salt Institute** 1982 27 minutes Video ID # 226

The story of the people and equipment that keep us moving through inclement weather. From plan to action this video takes us through the decision making process involved in fighting to keep roadways clear of snow and ice.

### Traffic Barriers: Overview, W-Beams, Terminals

**FHWA / US DOT** 1990 46 minutes Video ID # 60

Explains general procedures for designating and maintaining the roadside barriers, median barrier and bridge rail barriers. It describes the different parts of barriers and different kinds of barriers.

### Traffic Safety Series: Identifying Highway Safety Problems &

**IRF/FHWA** 60 minutes Video ID # 294

Focuses on identifying highway safety problems and solutions, evaluating and selecting the best safety alternatives and evaluating the results of the chosen safety program.

### Understanding Superpave™ Mix Design

**FHWA** 1996 13 minutes Video ID # 72

A description of the performance based Superpave™ mix design system. Provides an overview of specifications, mix design and new equipment used with Superpave™.

### Unsurfaced Road Inspection

**USACRREL** 1990 8 minutes Video ID # 62

Explains the procedure for measuring the seven different road distresses. Aids in the set-up of a road management program.
Upgrading Gravel Roads
  Montana State Film & Television Dept.  1985  20 minutes  Video ID # 63
Demonstrates techniques and cost evaluation of upgrading rural gravel roads. Directed at the problems that low maintenance budget counties face in keeping the roads in good condition. Techniques for some kinds of maintenance are discussed.

Utility Cut Repair: Doing It Right
  MN Local Road Research Board  1996  11 minutes  Video ID # 71
This video will show supervisors, workers, and public officials how everyone benefits from quality workmanship and the use of research-tested materials and methods. Conversely, the video will show how doing things the wrong way will cost everyone money, headaches and time.

Utility Cuts in Paved Roads
  LTAP  1996  41 minutes  Video ID # 70
The relationship between roadways and utilities are not an accident. This two-part video focuses on making cuts in roadways effectively and safely with little traffic disruption and no permanent effects.