Agency: FHWA - WFLHD

**Project Title:** Evaluation of Avalanche Resistant Guard-walls

Percent Complete: 75

### **Accomplishment / Status To Date:**

Avalanche resistant guard-walls are being evaluated by the NPS on Going to the Sun Road in Glacier National Park. The final season of evaluation data will be collected this winter. A final report to the document the evaluation will be completed in February, 2004.

### **Next Steps:**

A final report to the document the evaluation will be completed in February, 2004.

### **Champions:**

Dick Gatten / Brad Roberts

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Weather Condition Monitoring

**Percent Complete: 95** 

# **Accomplishment / Status To Date:**

Report completed by Champion

# **Next Steps:**

Results to be disseminated.

# **Champions:**

Brad Roberts

Agency: FHWA - WFLHD

**Project Title:** Continuing Education for FHWA Field Engineers in Digital Format

**Percent Complete: 75** 

### **Accomplishment / Status To Date:**

Training will be in multi-media formats and techniques, schematic animation, 3D models and/or animation, full-screen visual animation, and full-screen video. The production will include commentary, hypertext links to existing Internet documents, photographs, and print quality documents.

### **Next Steps:**

An Introduction To The Inspection of Soil Nails and Ground Anchors - Printing Endangered Species Act – Final Beta Version Field Inspection of Micropiles - Printing Field Inspection of Soil Nail Walls - Printing

### **Champions:**

**Rich Barrows** 

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Condition Inventory of Indian Reservation Roads

Percent Complete: 75

# **Accomplishment / Status To Date:**

The funding for this project was obligated in 2002 through a RA with BIA. The Colville Indian Reservation was selected as the pilot project. In FY2003 the following activities occurred:

- Pete Field, Jim Kennedy, and Kyle Kitchel conducted a route ID Meeting.
- Jim Kennedy and crew rated the paved roads with CFL's ARAN Van.
- Roadware (CFL Contractor) has processed the paved road data.
- Jim Kennedy has coordinated with Mandli to provide a Hummer to rate the gravel roads.
- The gravel road-rating trip is scheduled for the week of November 17<sup>th</sup>, 2003.

#### **Next Steps:**

Pending the completion of data collection Jim Kennedy and Pete Field will develop a report of the road conditions for the Colville Indian Reservation.

#### **Champions:**

Pete Field

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Revegetation Effectiveness Monitoring Protocol

Percent Complete: 20

### **Accomplishment / Status To Date:**

This study will develop a concise and technically credible protocol to monitor the effectiveness of revegetation efforts unique to highway construction projects. The study will evaluate the effectiveness of the protocol in diverse range of environments found in the Pacific Northwest. The results will be documented in a final report and accompanied by a comprehensive monitoring protocol guide.

### **Next Steps:**

- 31 August 2003 31 January 2004: Phase 1 Research and Development.
  - Design monitoring protocol
  - Select projects representing diverse habitat for protocol validation
  - Summary report of Monitoring Protocol Recommendations
- 01 February 2004 31 October 2004: Phase 2 and 3 Evaluation and Implementation.
  - Field validation (reproducibility, accuracy, precision, consistency, defensibility, ease of use, and cost effectiveness)
  - Implementation of Effectiveness Monitoring Protocol (assorted vegetation, diverse habitat, multiple environments)
  - Draft report of Revegetation Effectiveness Monitoring Protocol including data from 2004 field season
- 01 November 2004 31 October 2005: Phase 3 & 4- Implementation and Protocol Assessment
  - Continued Implementation of Effectiveness Monitoring Protocol
  - Final Protocol Assessment and data correlation
  - Final report of Revegetation Effectiveness Monitoring Protocol
  - Monitoring Protocol Guide

**Champions:** Victoria Peters

Agency: FHWA - WFLHD

**Project Title:** Overheight Detection at Yellowstone National Park Entrance

**Percent Complete: 35** 

### **Accomplishment / Status To Date:**

Construction contract was delayed. Detection system will be constructed next summer.

### **Next Steps:**

Documentation summarized in a report.

### **Champions:**

John Synder

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

Project Title: Crash Test Removeable Round Timber/Steel Backed Guardrail

**Percent Complete: 95** 

# **Accomplishment / Status To Date:**

Testing has been completed and draft report has been generated by the Texas Transportation Institute.

# **Next Steps:**

Disseminate results.

### **Champions:**

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Development of Automated Parking Monitoring System

Percent Complete: 20

### **Accomplishment / Status To Date:**

The study has been renamed the Advanced Traveler Information System. The purpose of the study is to evaluate various ITS and Advanced Public Transportation System tools that would be suitable in Glacier National Park. Subsequent to determining costs and following study recommendations, an appropriate set of ATIS tools will be chosen for deployment. This ATIS will provide advanced travel information to park visitors and result in the reduction of park roadway and parking lot congestion.

#### **Next Steps:**

Phase I Study will identify and evaluate: September 2004

- Real-time parking occupancy management including vehicle detection devices
- Interactive information kiosks
- Broadcast traveler information
- Small electronic message signs to provide parking occupancy and next bus arrival times
- Smart bus technology

Phase II - the selected tools will be purchased and deployed in the park and a final report will be written.

September 2006

### **Champions:**

Valerie Rodman

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Development and Implementation of ITS plan and an Advanced

Traveler Information System for Mt. Rainer National Park

Percent Complete: 20

# **Accomplishment / Status To Date:**

The purpose of the study is to evaluate various ITS and Advanced Public Transportation System tools that would be suitable in Mt. Rainier National Park. Subsequent to determining costs and following study recommendations, an appropriate set of ATIS tools will be chosen for deployment

# **Next Steps:**

Phase I Study will identify and evaluate: September 2004

- Real-time parking occupancy management including vehicle detection devices
- Interactive information kiosks

- Broadcast traveler information
- Small electronic message signs to provide parking occupancy and next bus arrival times
- Smart bus technology

Phase II - the selected tools will be purchased and deployed in the park and a final report will be written.

September 2006

# **Champions:**

Valerie Rodman

Agency: FHWA - WFLHD

Project Title: Park Road Level of Service/Visitor Experience/Resource Composite

Rating

Percent Complete: 20

#### **Accomplishment / Status To Date:**

The scope of work in the contract will include a literature search of existing measures of Level of Service, the development of a National Park composite level of service rating system which will include a measure for each type of road use and documentation of the results and findings.

Technical committee has been formed composed of US DOT and NPS staff.

The Technical Committee will apply the composite rating system to a minimum of three national parks experiencing traffic congestion to measure whether any gaps exist in meeting the new standard. All measures for each type of road will be tested. A final report will be presented with the rating system.

Team met in November.

# **Next Steps:**

Draft report December 2004

TC Testing June 2005

Final Report September 2005

### **Champions:**

Valerie Rodman

# **CTIP PROJECT SUMMARY**

Agency: FHWA - WFLHD

**Project Title:** Portable Weight Monitoring of Vehicles on IRR

# **Percent Complete:** 5

# **Accomplishment / Status To Date:**

The project has not had the BIA resources needed to start. WFLHD and BIA staff have committed resources to completing the Pilot Road Condition Study. Information from the condition study will be used to select sites.

### **Next Steps:**

Data collection.

### **Champions:**

Pete Field