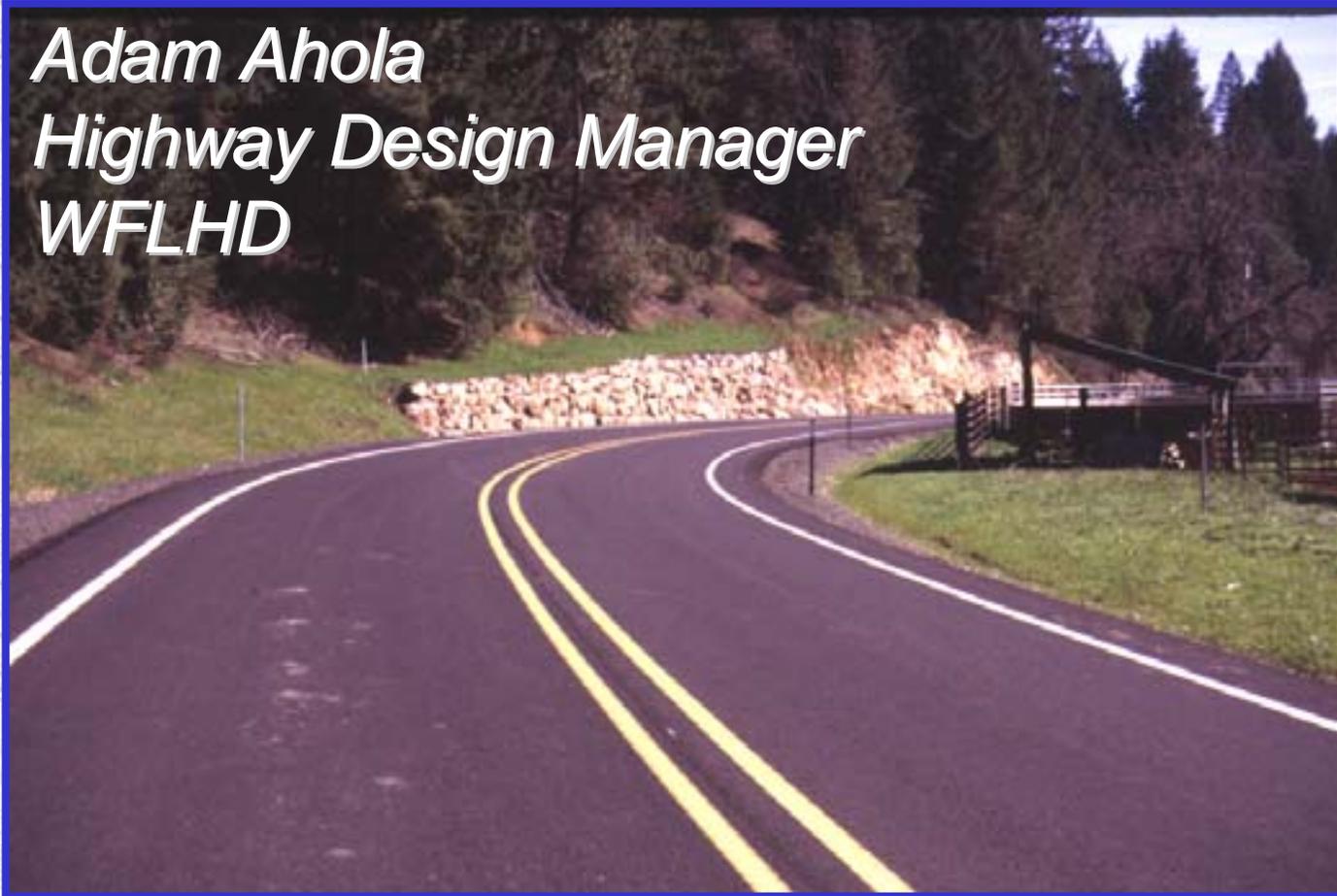




Context Sensitive Solutions

Adam Ahola
Highway Design Manager
WFLHD





What is CSS?

“Context sensitive design is personal”

-Connecticut DOT Engineer

CSD includes specific design processes

CSS includes construction, maintenance, and operations

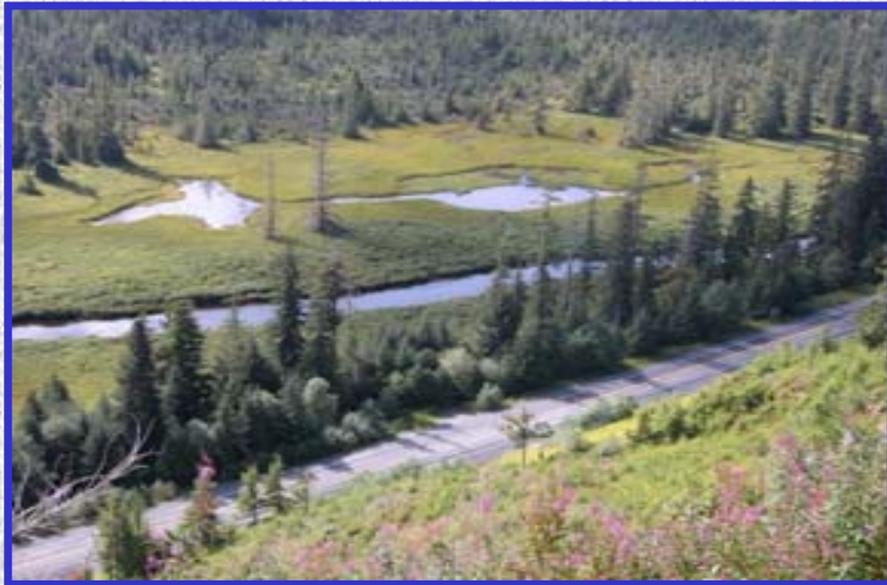


5 Keys to a Context Sensitive Project:

- 1. Does it reflect community values?*
- 2. Is it Environmentally sensitive?*
- 3. Is it safe?*
- 4. Is it feasible? (constructible, financially)*
- 5. Have stakeholders been included in the decision process?*



Park Roads Program Forest Highway Program



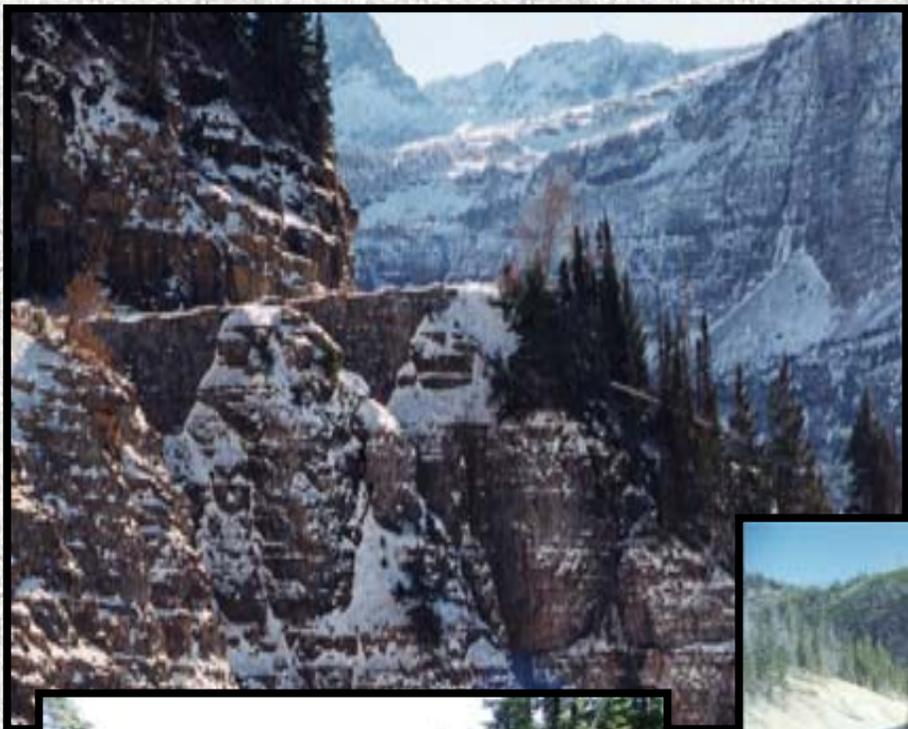


CSS in WFL





CSS in WFL





Context of WFL Projects

- **Environmentally Sensitive**
 - **Wildlife Considerations**
 - **Local economic impacts**
 - **Aesthetic Considerations**
 - **Limited programs**
- Environmental Document/Permits
- Partnering Agencies

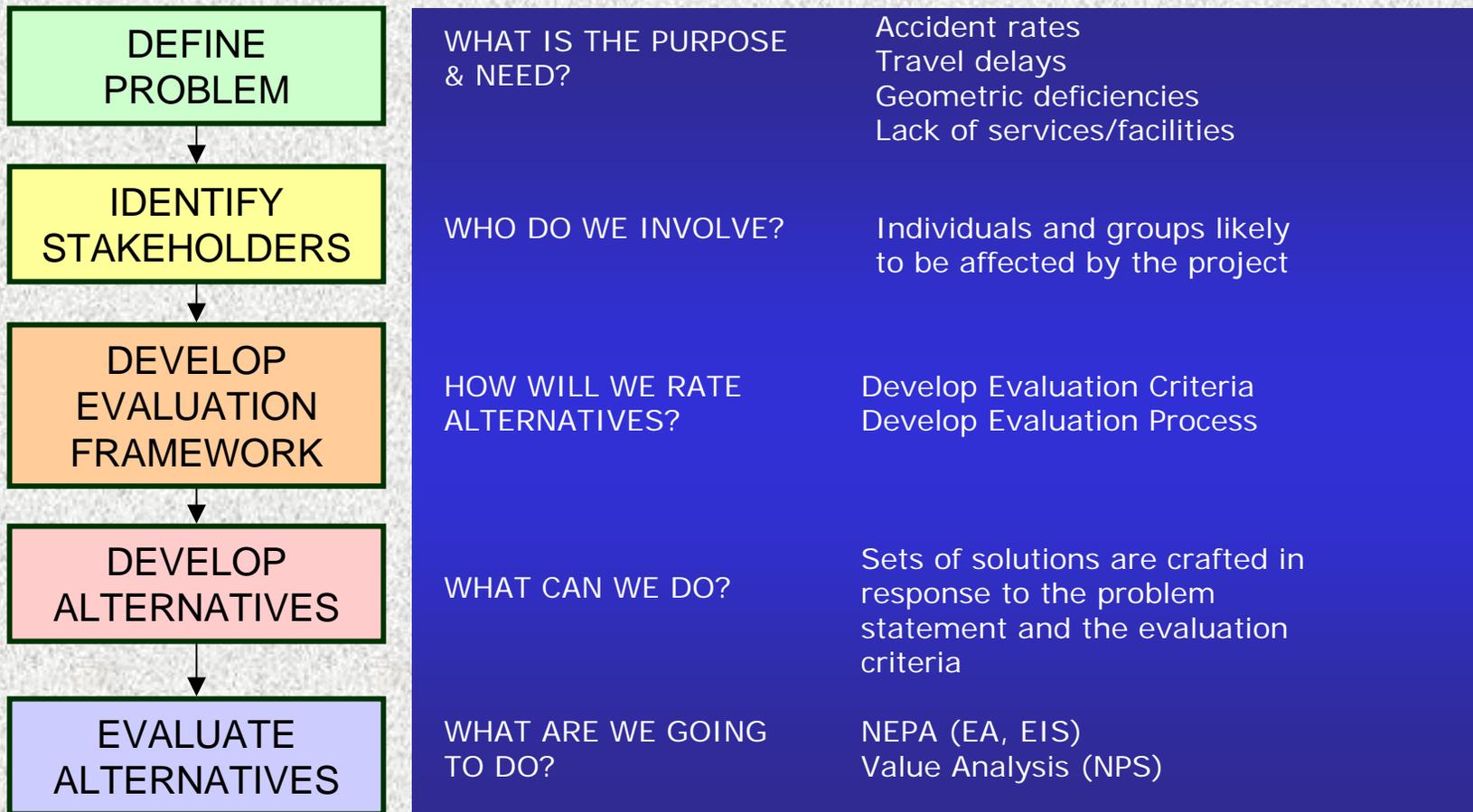


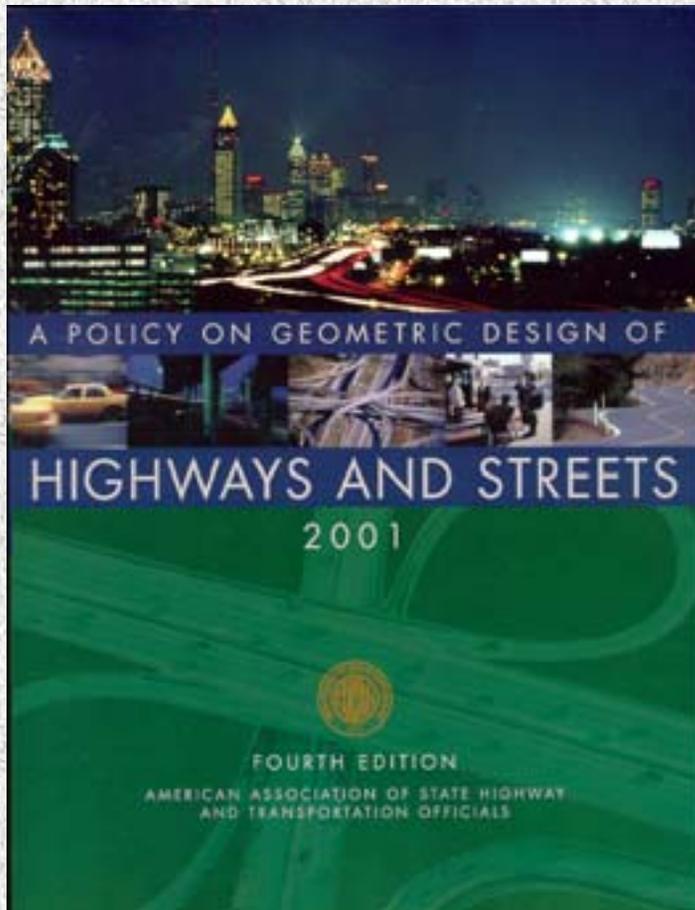
CSS in our Designs





CSS Design Process





“The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. It is not intended to be a detailed design manual... Sufficient flexibility is permitted to encourage independent designs tailored to particular situations.”

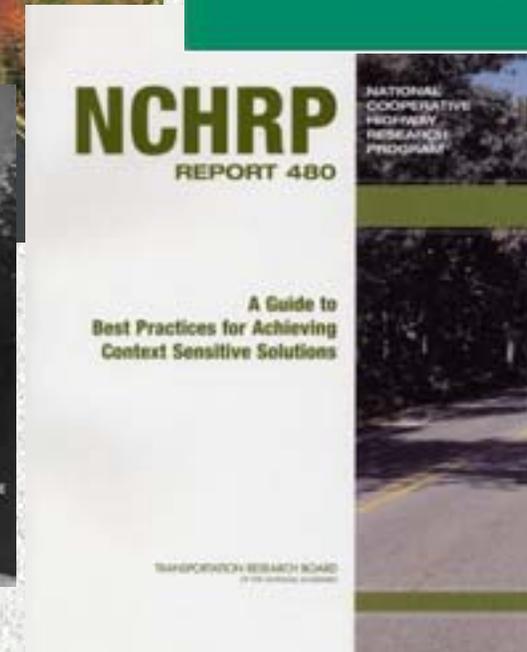
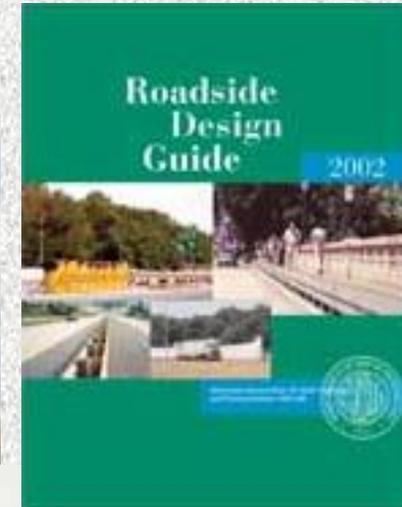
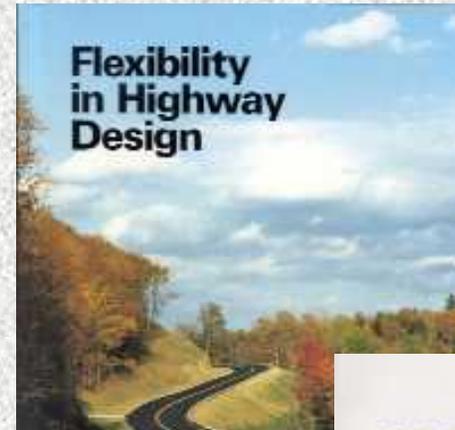
Foreword – AASHTO Policy on Geometric Design of Highways and Streets, 2001 Edition



- AASHTO Roadside Design Guide
- NPS Park Road Standards

"Park roads are for leisurely driving only. If you are in a hurry, you might do well to take another route now, and come back when you have more time."

-Park Road Standards, National Park Service, 1984
- FHWA Flexibility in Highway Design
- NCHRP Report 480 – A Guide to Best Practices for Achieving CSS



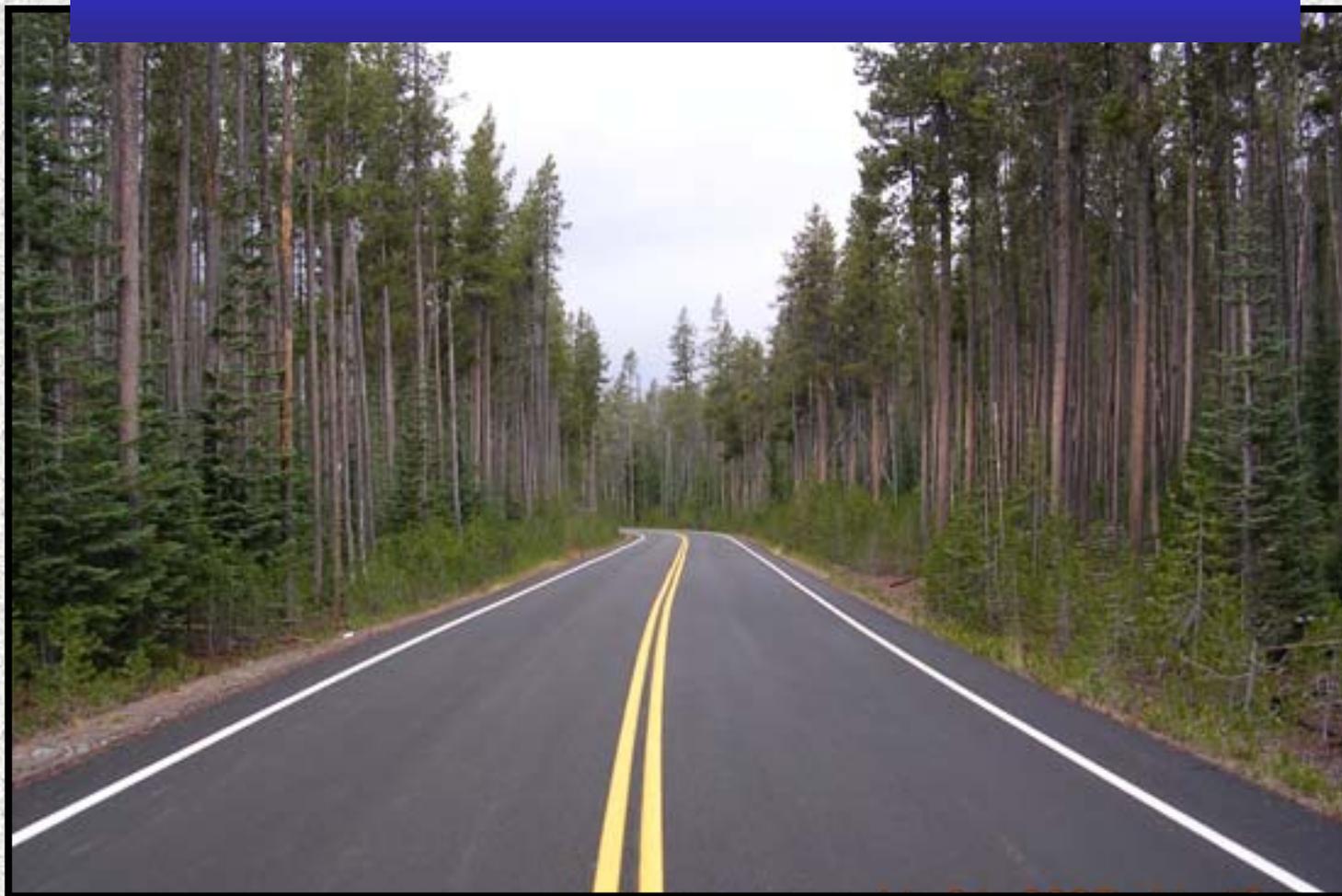


Common Design Exceptions:

- *Horizontal alignment*
- *Vertical alignment*
- *Lane width*
- *Shoulder width*
- *Bridge width*
- *Stopping Sight Distance*
- *Superelevation*
- *Grade*

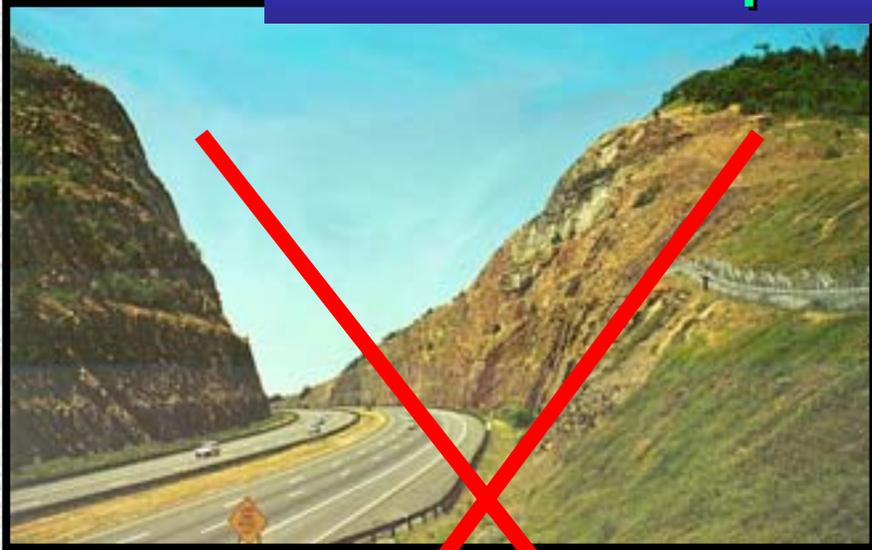


Minimal Clear Zones



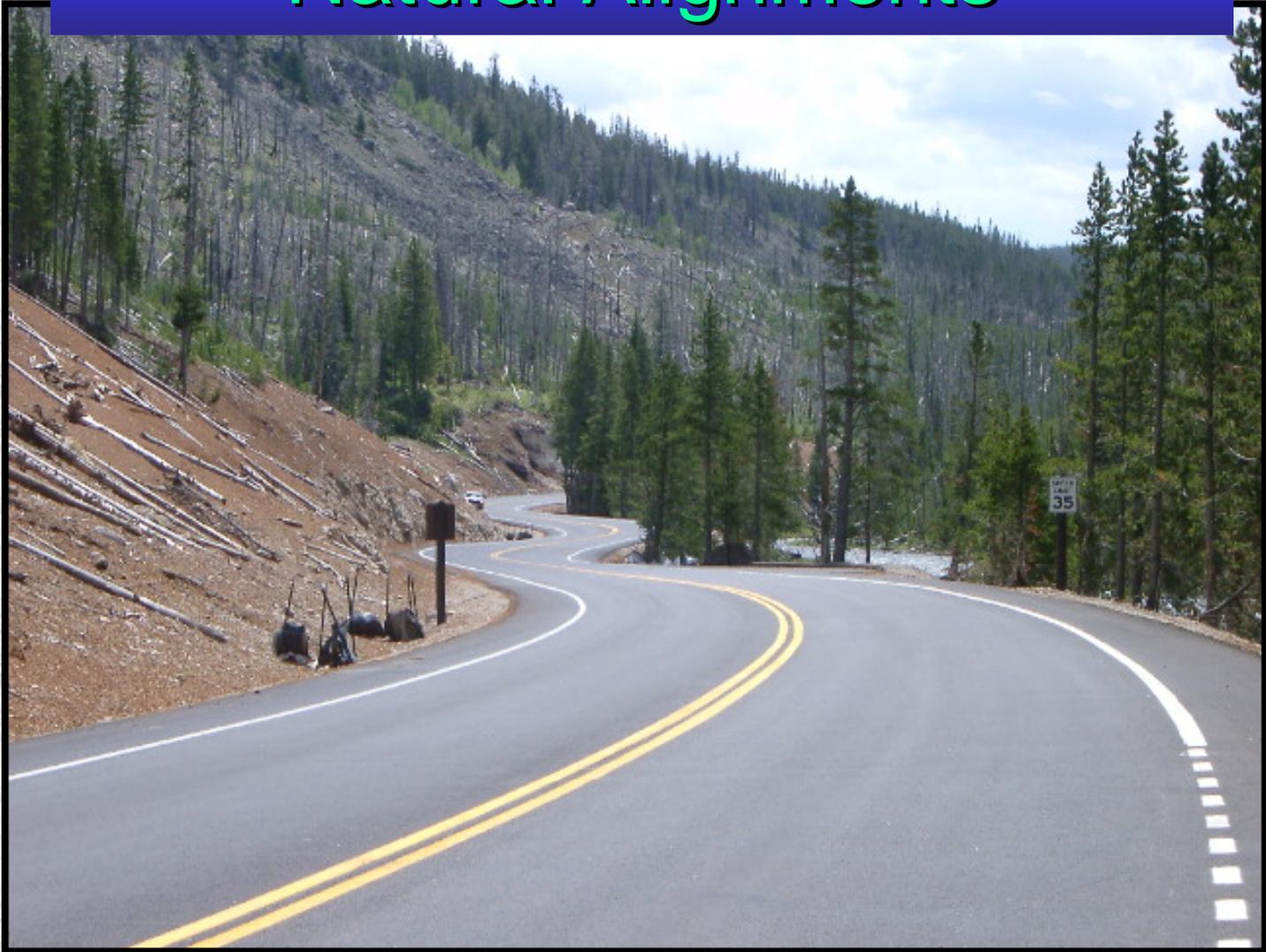


Slope Sculpting





Natural Alignments





CSS in Construction

- ***Maintain Environmental Commitments***
- ***Maintain Contact with Stakeholders Throughout Construction***
- ***Monitor Commitments When Proposing Changes to Contract***





Maintain Environmental Commitments

- Topsoil
- Work windows
- Traffic Delays
- Builds high level of trust with Environmental Agencies





Maintain Contact with Stakeholders Throughout Construction



- Newsletters
- Website
- Telephone
- Newspapers
- Inform stakeholders of changes to plans, schedules and traffic control



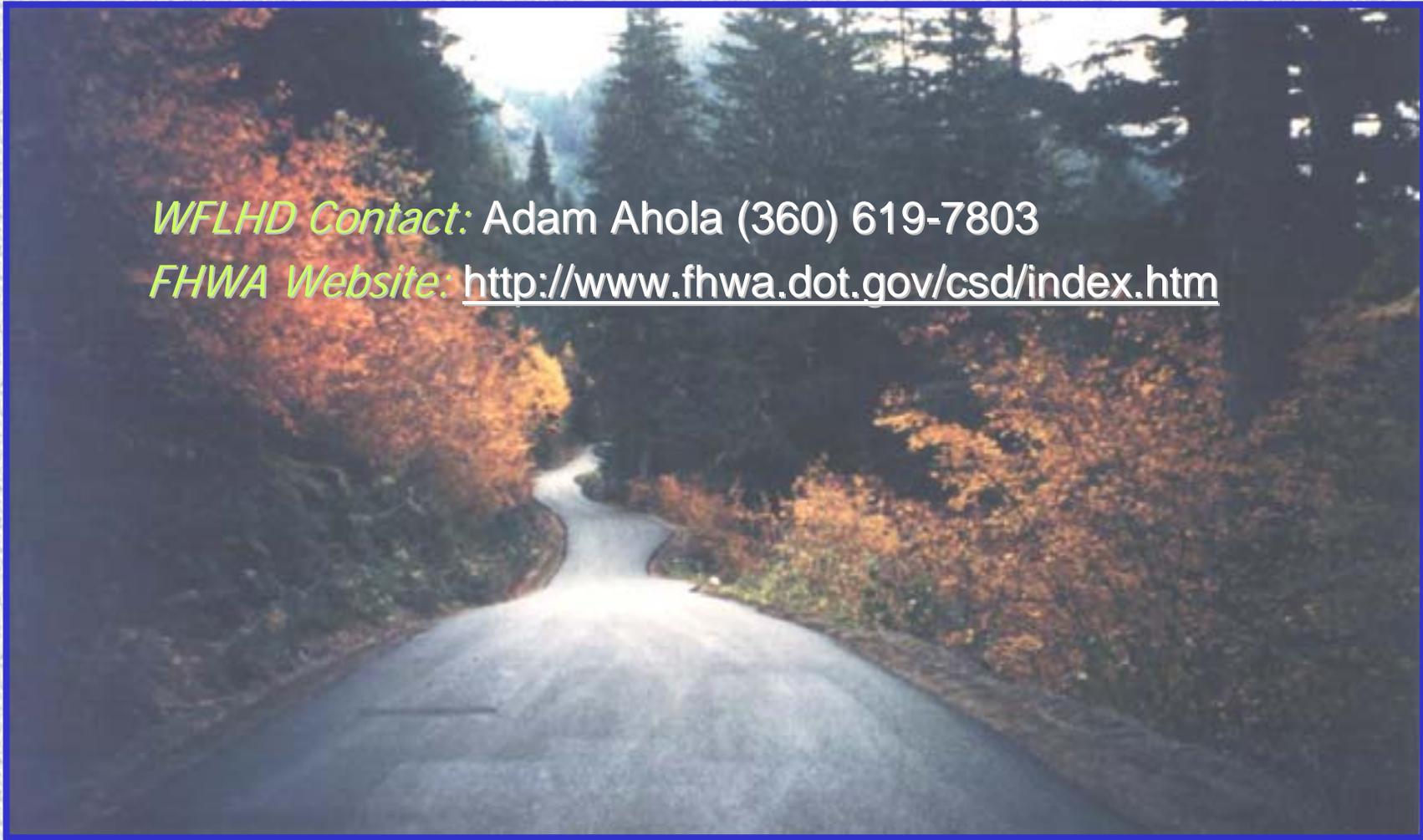
Monitor Commitments When Proposing Changes to Contract

Do CM's or VE Proposals eliminate work items or requirements promised to stakeholders?

Examples:

- ROW/Wetland/Arch impacts
- Wildlife commitments
- Road closures/traffic delay schedules
- Project-specific design guidelines (Visual appearance, roadway character)





WFLHD Contact: Adam Ahola (360) 619-7803

FHWA Website: <http://www.fhwa.dot.gov/csd/index.htm>