Arizona Department of Transportation

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands 2008



Chapter Overview Presentations

Twelve Chapter Overview presentations supplement the Guidelines document. Chapters 1-11 each have a Chapter Overview and an additional one summarizes appendices A-O.

These self-paced presentations are designed for individual use or for small group presentations where discussion can be accommodated. It is helpful to have the Guidelines document as a reference when viewing the presentations.

The Chapter Overview presentations are available on the ADOT Roadside Development Section website.

http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands

Navigate the Chapter Overview by scrolling through the pages.



Arizona Department of Transportation Guidelines for Highways on

Bureau of Land Management and U.S. Forest Service Lands 2008

Appendices









Acknowledgments:



Arizona Department of Transportation

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands













Steering Committee Members & Contributors

ADOT

Members:

LeRoy Brady
Richard Duarte*
Doug Forstie
John Louis*
Mary Viparina
Todd Williams

Contributors:

Thor Anderson
Nicole A. Carpenter
Lonnie Hendrix
Paul Langdale
Siobhan Nordhaugen

FHWA Members:

Ken Davis
Steve Thomas

Contributors:

Layne Patton

BLM

Members:

Carol Kershaw* Angela Mogel

Contributors:

John Reid

USFS

Members:

Marjorie Apodaca
Mathew O'Grady*
Bill Woodward*

Contributors:

Terry Brennan Rob Ingram

* Past Member



Guidelines Contents







Introduction

2 ADOT Development Process on BLM and USFS Lands

3 Habitat Connectivity

4 Roadway Design and Construction

5 Major Structure Design and Construction

Drainage Design and Construction

7 Landscape Restoration

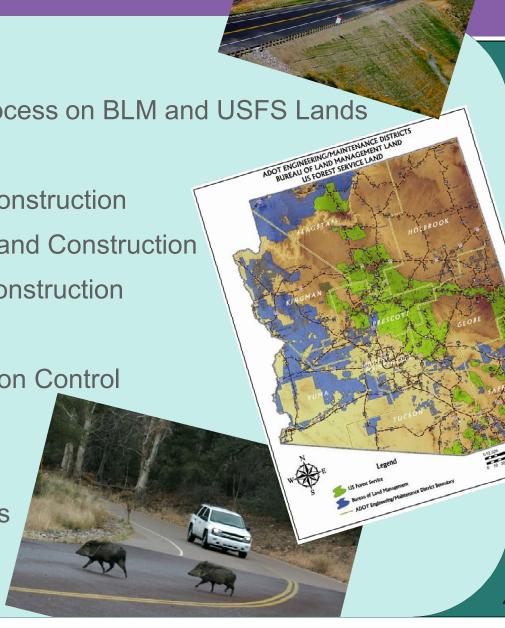
8 Storm Water and Pollution Control

Material Sites

10 Construction

11 Maintenance Operations

Appendices A - O

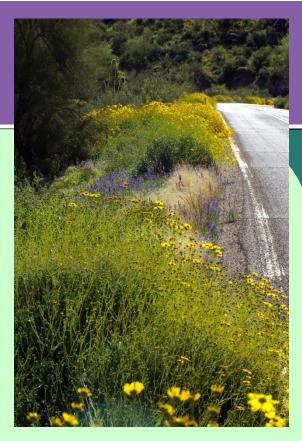


Appendices





- B. Glossary of Terms
- C. ADOT-FHWA-USFS MOU
- D. ADOT-FHWA-BLM MOU
- E. Slope Design Details
- F. Easement Development
- G. Section 106 Process on Forest Service Lands
- H. Typical Blasting Plan Content
- I. Comparison of Permit Processes for Material Sites
- J. Signing
- K. Project Reference Fact Sheet
- L. Native Plant Salvage & Replanting Evaluation Guidelines
- M. References and Photography Credits
- N. Additional Photos (online appendix)
- O. Document Revision History







A: Acronyms & Abbreviations



 A list of acronyms and abbreviations used in the planning, design, construction and maintenance of highways on BLM and USFS lands.



Do you know these?

| FONSI | HED | PS&E | TCE |
|-------|-----|---------|-----|
| DCR | | ROW SWI | PPP |
| CWA | LOC | NAGPRA | BMP |
| EIS | NHS | AASHTO | VER |

B: Glossary of Terms

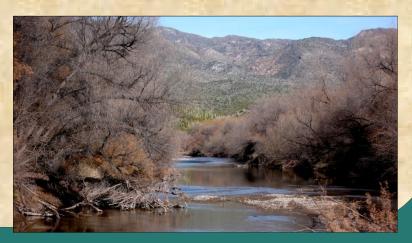


- Definitions of terms used in the Guidelines.
- Sometimes agencies have different definitions for the same term.
 - See Abandonment in Appendix B.
- Can you define these terms:
 - Geotechnical Investigation
 - Mitigation
 - Riparian Area







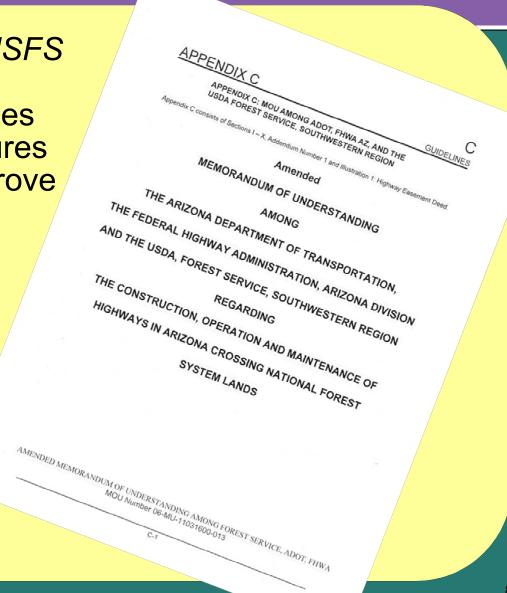


C: USFS MOU



The ADOT-FHWA-USFS Memorandum of *Understanding* outlines policies and procedures to establish and improve cooperative working relationships.





D: BLM MOU







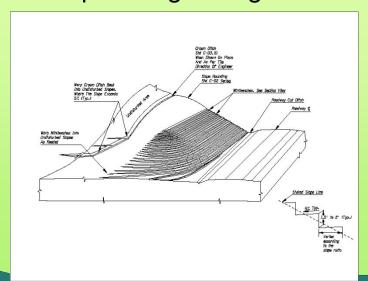
 The ADOT-FHWA-BLM Memorandum of Understanding outlines policies and procedures to establish and improve cooperative working relationships.

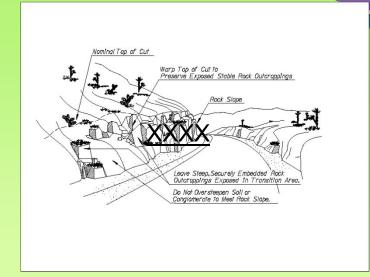


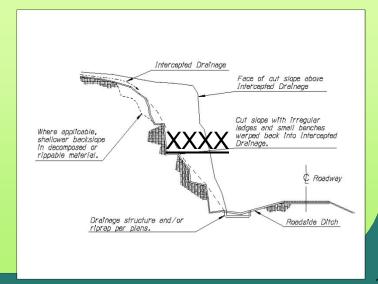
E: Slope Design Details



- ADOT sample details:
 - Minibenching
 - Slope Rounding
 - Rock Cut Transition
 - Intercepted Drainages Concept
 - Cut Slope Concepts
 - Slope Roughening Section







F: Easement Development



- Appendix F discusses both the USFS and the BLM Easement Development Process.
 - Request for Appropriation
 - Agreement to Appropriation
 - Conditions of Appropriations
 - Disagreement to Appropriations
 - Appropriation by Operation of Law
 - Disposal of Title 23 Rights-Of-Way
 - Construction (BLM)
 - Operation, Maintenance, Minor Rehabilitation (BLM)

G: Section 106 Process on USFS Lands







Section 106 of the National Historic
 Preservation Act requires Federal agencies to review all actions which may affect a property listed on the National Register of Historic Places, or which may affect a property eligible for listing.



- Appendix G defines the USFS Section 106 Process
 - Consideration of Historic Properties
 - What are Historic Properties
 - The Section 106 Process

H: Typical Blasting Plan Content



- A list of items usually contained in a typical Blasting Plan including:
 - Name and experience of blasting supervisors.
 - Methods for and locations of explosives transportation, storage and use.
 - Traffic control and other public safety precautions.
 - Equipment intended to be used in or support of blasting operations.
- Also a list of items contained in a Specific Blasting Plan including:
 - Station limits of proposed shot.
 - Fly rock control measures.
 - Identification of environmental monitoring method, equipment and location.

Comparison of Permit Processes for Material Sites



 In table form this appendix compares, by topic, the permit processes for material sites for BLM and USFS.

- Topics:
 - Regulations
 - Notice
 - Plan
 - Bonding
 - NEPA
 - Non-Compliance
 - Appeals
 - Undue/Unnecessary Degradation

APPENDIX I GUIDE

APPENDIX I: COMPARISON OF PERMIT PROCESSES FOR MATERIAL SITES

| TOPIC | FOREST SERVICE | BUREAU OF LAND MANAGEMENT |
|-------------|---|--|
| Regulations | 36 CFR 228, Subpart A (locatable | CFR 3802 (Wilderness Study Areas |
| | minerals) | only two in Arizona) |
| | | 43 CFR 3809 (All other Public Land |
| | | including Designated Wilderness |
| | | Areas in conjunction with Wilderness |
| | | Regulations) also 43 CFR 3809 |
| | | standards apply to Stock |
| | | Raising Homestead Lands |
| | | 43 CFR 3715 All Public Lands where |
| | | BLM is the managing agency for bot |
| | | the surface and mineral estates. |
| Casual Use | N/A | Casual use definition applicable only |
| | | to 43 CFR 3809. For activities below |
| | | regulatory threshold (e.g., sampling with a rock hammer or short term ter |
| | | camping less than 15 days), no Notice |
| | | or Plan required. No definition of |
| | | casual use under 43 CFR 3802 |
| | | Occupancies over 15 days in any 90 |
| | | day period require concurrence und |
| | | 43 CFR 3715 regardless of surface |
| | | disturbing activites. |
| Notice | All activities that might cause surface | Five acres or less total disturbance |
| | disturbance require a Notice of Intent | lands outside Wilderness, Wild-Scer |
| | to Operate (36 CFR 228.4(a)). Such | Rivers, Areas of Critical |
| | notice of intent shall be submitted to | Environmental Concern, etc. No |
| | the District Ranger having jurisdiction | Notices allowed under 43 CFR 3802 |
| | over the area in which the operations | Contents of a Notice described at 43 |
| | will be conducted. If the District | CFR 3715.3-2 and 43 CFR 3809.1-3 |
| | Ranger determines that such | and 43 CFR 3715 for occupancies. |
| | operations will likely cause significant disturbance of surface resources, the | Review time frame for notices is 15 days. Notices that incorporate 43 CF |
| | operator must submit a proposed Plan | 3715 occupancies are not subject to |
| | of Operations. | this time frame for concurrence of the |
| | or Operations. | occupancy. |
| | | oscapanoj. |
| Plan | If proposed operations will likely | More than five acres total surface |
| | cause significant disturbance of | disturbance on lands subject to 43 |
| | surface resources, a Plan of | CFR 3809. Contents of a Plan |
| | Operations must be submitted (36 | described at 43 CFR 3715.3-2 and 4 |
| | CFR 228.4 (a)). Contents of the Plan | CFR 33802.1-4 and 43 CFR 3809.1 |
| | of Operations are described at 36 | All activities that occur in a |
| | CFR 228.4 (c). | Wilderness, Wilderness-Study Area, Wild-and-Scenic River, etc. need a |
| | A plan of apprehings can be sub-it-it-it | Plan of Operation regardless of their |
| | A plan of operations can be submitted | Plan of Operation regardless of their |

I-1

J: Signing











 The Signing appendix is an overview of ADOT/BLM/USFS signing for projects on BLM/USFS lands. Links to signing guidelines and manuals with indepth technical sign designs and requirements are provided as the ultimate reference for each agency's requirements.

Topics:

- Sign Planning
- Sign Guidelines
- Types of Signs



ADOT Parkways, Historic and Scenic Roadways; BLM Back

Country Byways; and USFS Scenic Byways Signing

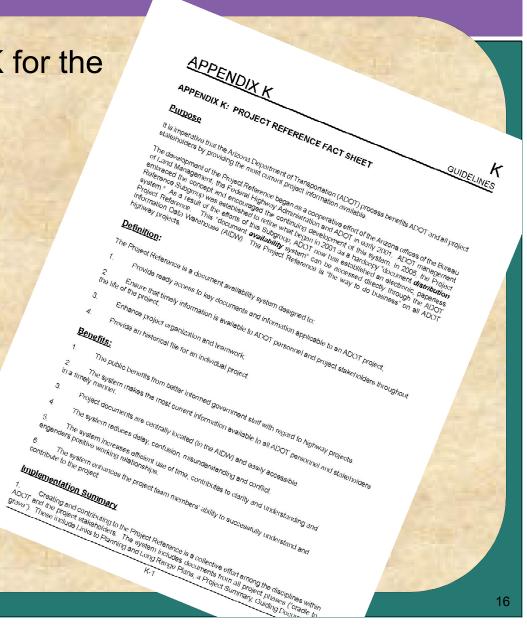


K: Project Reference



Refer to Appendix K for the purpose, definition, benefits and implementation information.

contribute to the project



Native Plant Salvage & Replanting Evaluation Guidelines



- Native Plant Salvage and replanting on a project must be in conformance to the requirements of Arizona Native Plant laws.
- Refer to Appendix L for Non-Discretionary and Discretionary Evaluation Requirements.













M: References and Photography Credits



- Appendix M includes Guidelines, Manuals, Standards and/or other references that were used as sources of information for the ADOT Guidelines for Highways on BLM/USFS Lands 2008.
- Other sources listed provide supplemental information to topics discussed in the Guidelines.



N: Additional Photos



 A digital appendix included with the ADOT website Guidelines document. Photographs will be added to supplement each chapter's text and concepts. Access the website document at:

http://www.azdot.gov/Highways/Roadway Engineering/Roadside Development/HwyBLM USFS.asp

 Contact ADOT Roadside Development Section if you have photos to contribute.

O: Document Revision History



 An online record of revisions to the Guidelines that lists the date, chapter and page of the revision, and briefly describes the changes.

| APPENDIX O GUIDELINES | | | | | | | |
|--|------------|----------|-----------------------------|--|--|--|--|
| APPENDIX O: DOCUMENT REVISION HISTORY | | | | | | | |
| This table describes changes to the Arizona Department of Transportation Guidelines for Highwr Bureau of Land Management and U.S. Forest Service Lands, 2008. | | | | | | | |
| | | | | | | | |
| DATE | CHAPTER | PAGE | BRIEF DESCRIPTION OF CHANGE | | | | |
| n_ | ~~~ | 1 | | | | | |
| ~~~ | ~~~ | w | | | | | |
| | | | | | | | |
| | | _ | | | | | |
| | | <u> </u> | | | | | |
| | | — | | | | | |
| | | ├ | | | | | |
| | | \vdash | | | | | |
| \vdash | _ | ⊢ | | | | | |
| | | \vdash | | | | | |
| | | \vdash | | | | | |
| | | \vdash | | | | | |
| | | | | | | | |
| | | \vdash | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Contact ADOT
 Roadside Development
 Section if you have
 suggested revisions.

Conclusion











- Before beginning projects on Federal Lands.
- As a reference for the design, construction and maintenance of ADOT projects on lands managed by BLM and USFS.
- To review accepted procedures, and the needs and concerns of each agency to facilitate creation of safe, environmentally sound and aesthetically pleasing highway corridors.
- As a touchstone throughout projects.
- As a resource to locate additional information sources.



Document Availability



Purchase from:

ADOT Engineering Records Section 1655 W. Jackson Room 175 Mail Drop 112F

Phoenix, Arizona 85007-3217

Telephone: 602-712-8216 or 712-7498

Fax: 602-712-3235

For availability and cost:

http://www.azdot.gov/business/Contracts andSpecifications

Download from:

http://www.azdot.gov/business/engineering-and-construction/roadway-engineering/roadway-design-standards-and-guidelines/guidelines-for-highways-on-bureau-of-land-management-and-us-forest-service-lands

Arizona Department of Transportation

Guidelines for Highways on Bureau of Land Management and U.S. Forest Service Lands













