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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL & ENHANCEMENT GROUP

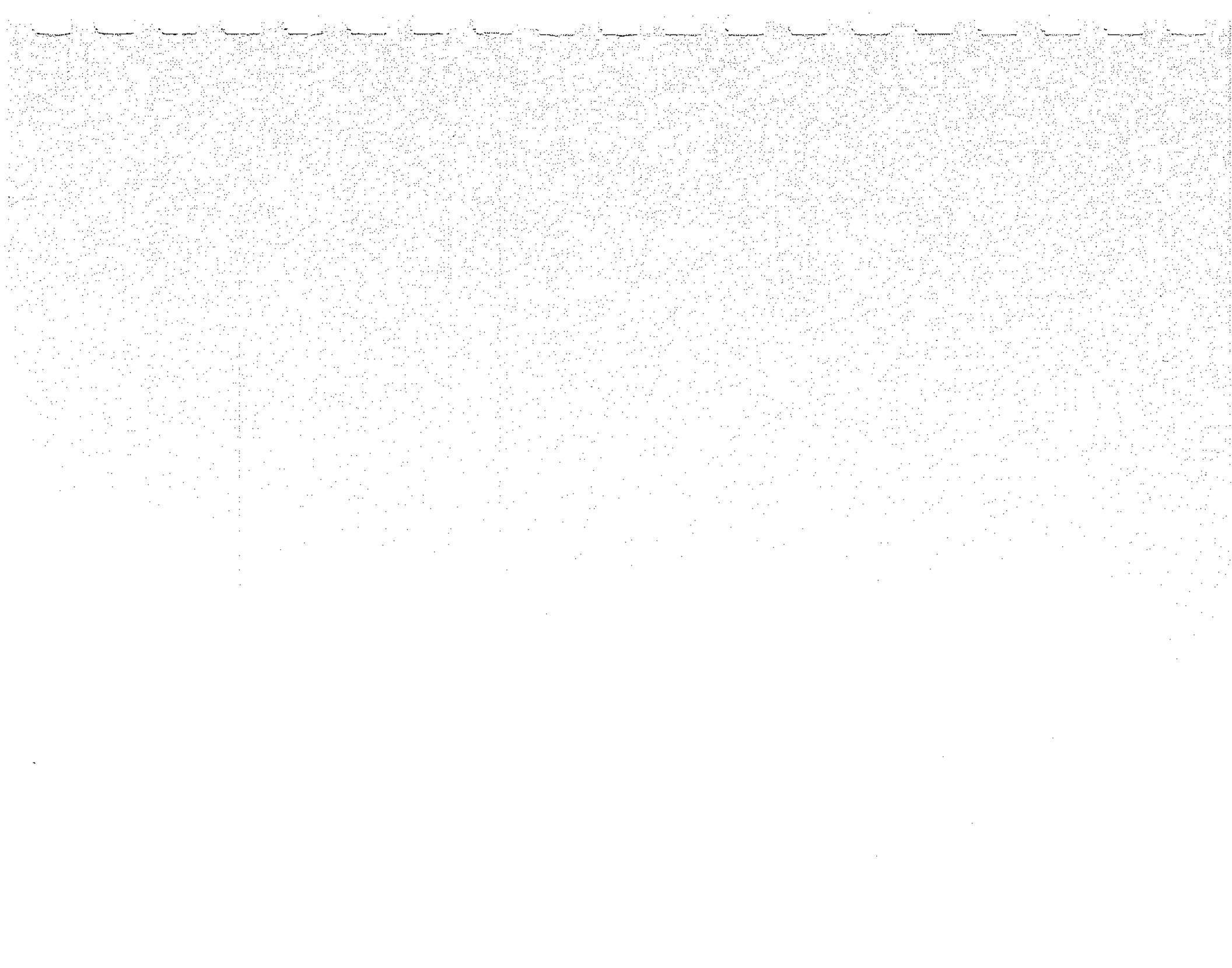
FINAL ENVIRONMENTAL ASSESSMENT

for

US 93, WICKENBURG TO THE SANTA MARIA RIVER

Interim Project No. STP-093-B(872)
TRACS No. 093 YV 161 H4871 01L
Prescott and Kingman Districts - Yavapai County

March 2005



FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR

Project STP-093-B(872))
093 YV 161 H4871 01L
US-93; Wickenburg to Santa Maria River

The FHWA has determined that this project will not have any significant impact on the human environment. This Finding of NO Significant Impact is based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

April 18, 2005
Date

for Division Administrator

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
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Prescott and Kingman Districts - Yavapai County

March 2005

Approved by: _____ Date: 3-16-05

Richard M. Duarte, Manager
Environmental & Enhancement Group
Arizona Department of Transportation

This Final Environmental Assessment has been prepared in accordance with the provisions and requirements of Title 23, Code of Federal Regulations, Part 771, relating to the implementation of the National Environmental Policy Act of 1969 (42 US Code 4332(2)(c)).

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PREFACE

The Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA) are proposing improvements to US 93 between State Route (SR) 89 and the Santa Maria River in Yavapai County, Arizona. A Draft Environmental Assessment (DEA) for the proposed project was approved in October 2004. On November 17, 2003, a public hearing was conducted to receive public comments on the preferred alternative identified in the DEA.

The purpose of this Final Environmental Assessment (FEA) is to respond to the comments received subsequent to the distribution of the DEA and the public hearing and to provide factual corrections to the DEA. This FEA is presented in addendum format and must be considered in conjunction with the DEA. Deleted text is identified with a ~~strikethrough~~, with new or substituted text appearing in *italics*. Throughout the document, references to the "preferred alternative" are changed to "selected alternative," and uses of the verb "would" are changed to "will," when referring to the proposed project and selected alternative. Additional changes are listed by the page on which the text is found in the DEA.

This FEA includes the complete list of mitigation measures that have been subdivided into ADOT design responsibilities, ADOT construction district responsibilities, and contractor responsibilities. The FEA also includes text changes to the DEA, copies of agency correspondence subsequent to the DEA distribution (Appendix K), the public hearing transcript (Appendix L), and a summary of public comments with ADOT responses (Appendix M).

MITIGATION MEASURES

Mitigation measures have been defined to avoid or minimize the environmental impacts of the preferred alternative. The following mitigation measures and commitments are not subject to change without the prior written approval of the Federal Highway Administration.

Design Responsibilities

- *The Arizona Department of Transportation will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design (page 24).*

- *For each project design segment, the Arizona Department of Transportation will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts on livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination (page 27).*

- To minimize impacts on adjacent land use, existing cattle crossings under US 93 will be maintained or relocated. To maintain existing cattle crossings, existing box culverts that are 6 feet in height or greater will not be downsized and will be designed to function as cattle passes where feasible. If during design it is determined that the existing cattle passes cannot be retained, the Arizona Department of Transportation will contact the affected land managing agency for information on cattle crossing needs and arrange for the development of improved crossing locations or the provision of new livestock water sources (page 28).

- During final design, the Arizona Department of Transportation will review the project plans to verify the extent of encroachment within the 100-year floodplain and will obtain the required floodplain construction permits from the Yavapai County Flood Control District (page 30).

- During final design, the project plans will be reviewed to verify the extent of encroachment into waters of the US. As appropriate, *mitigation plans will be developed and* certifications and permits required under Sections 401 and 404 of the Clean Water Act will be obtained by the Arizona Department of Transportation prior to construction (page 30).

- The Arizona Department of Transportation Roadside Development Section will determine who will prepare the Storm Water Pollution Prevention Plan (page 30).

- A survey for loggerhead shrike nests will be performed by a qualified biologist during final design. The survey will be conducted in areas that will be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If loggerhead shrike nests are found, the Arizona Department of Transportation will coordinate with the Bureau of Land Management regarding potential impacts to the species (page 34).

- A survey for western burrowing owls will be performed by a qualified biologist during final design. The survey will be conducted in areas that will be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If western burrowing owls are found, the Arizona Department of Transportation will coordinate with the Bureau of Land Management regarding potential impacts to the species (page 34).

- Game fence consistent with the Arizona Department of Transportation Game Fence Specification included in Appendix E will be installed along the right-of-way line in all portions of the project that are not immediately adjacent to developed areas (page 35).

- *The Arizona Department of Transportation will include the Arizona Game and Fish Department in the design partnering process to address wildlife movement issues. During design, Arizona Game and Fish Department representatives will be requested to provide input in discussions about wildlife opportunities and the development of appropriate wildlife-sensitive design measures at locations identified as important for wildlife connectivity and movement, including the Date Creek and Big Jim Wash bridges. In conjunction with the wildlife-sensitive design efforts, further examination of available wildlife strike data for the project area will be conducted (page 36).*

- The Arizona Department of Transportation Roadside Development Section will notify the Arizona Department of Agriculture at least 60 days prior to the start of construction to afford commercial salvagers the opportunity to remove and salvage any plants that are not included in the plant salvage plan (page 37).

- A plan for the inventory, salvage, storage, and transplantation of native plants, including saguaro, agave, and Joshua trees, will be developed by the Arizona Department of Transportation Roadside Development Section during final design. Healthy, salvageable native plants within the area of disturbance will be salvaged and transplanted to the extent practicable to replicate the surrounding vegetative density (page 37).

- Disturbed areas will be seeded with a seed mix consisting of native species selected for the site and will be revegetated with salvaged plants. During final design, the Arizona Department of Transportation will develop the seed mix. Revegetation plans will identify, where applicable, the need for mulching, salvaging, topsoiling, and other necessary treatments to promote successful plant establishment (page 37).

- During final design, the Arizona Department of Transportation Natural Resources Section will survey the project area for invasive species. If invasive species are found, the Arizona Department of Transportation Natural Resources Section will treat these species according to an invasive species management plan and any necessary treatments will continue following completion of construction (page 38).

- During final design, the variable-width median and roadway centerline will be located to minimize visual impacts and maximize travelers' experience within the Joshua Forest Scenic Road (page 40).

- Vegetation within the median area will be protected in-place to the extent possible in areas where the median width will be greater than 84 feet (page 40).

- The cottonwood trees located in the vicinity of milepost 166.8 will be protected in-place (page 40).

- Seeding of disturbed areas will occur in a progressive manner as the slopes are completed (page 40).

- Newly exposed rock faces will be shaped to blend with natural rock features by incorporating characteristics of the adjacent natural rock to include color, scale, shape, slope, and fracturing to the extent that is practical and feasible as identified through geotechnical testing and constructability reviews (page 40).

- Rock outcrops will be left in place after construction if they are determined to be stable; will blend into the surrounding terrain; and will not create a hazard to the traveling public, interfere with construction, or look out of place in the natural landscape (page 40).

- At the intersections of cuts and natural grades, slopes will be adjusted and warped to flow into each other or transition into the natural ground surfaces without noticeable breaks (page 40).

- Cut and fill slopes will be designed with varied slope ratios to leave an irregular, undulating, or roughened appearance rather than a uniform grade to simulate the terrain of the surrounding area. The slope ratios will vary from the top to the bottom of the slope face and from station to station (page 41).

- ~~To avoid retaining uncharacteristic and unnatural landforms resulting from construction, the project plans would indicate remnants of landforms to be removed completely~~ *The project plans will identify remnants of landforms to be modified to make them appear more natural and to avoid leaving uncharacteristic fin-shaped landforms in the median* (page 41).

- Any riprap material will blend with the surrounding rock and exposed soil color (page 41).

- Erosion control matting will be composed of a natural, earth-tone material (page 41).

- During final design, the Arizona Department of Transportation will evaluate the use of staining exposed rock to reduce the color contrast with the existing landscape (page 41).

- Bridges, concrete barriers, retaining walls, and highly visible culvert headwalls and endwalls will be constructed with color and/or texture qualities that blend with the existing landscape (page 41).

- Where guardrail is required, natural-appearing metal guardrail material, such as naturally weathered steel, will be installed to blend with the landscape (page 41).

- During final design, copies of the construction documents will be provided to the Parkway, Historic, and Scenic Roads Advisory Committee for review and comment (page 41).

- During final design, the Federal Highway Administration's Visual Prioritization Process (1994) or its equivalent will be used to identify site-specific measures to reduce impacts to visual resources (page 41).

- All asphalt not reused as part of the project will be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed will be reshaped, scarified, and revegetated. All abandoned sections of old roadway will be obliterated and made to blend with the existing landscape (page 41).

- Within the designated limits of the Joshua Forest Scenic Road, signing and other roadside elements, such as reflectors, delineators, and object markers, will be limited to those essential to ensure efficient traffic operations (page 41).

- If possible, any new roadway signs will be placed to avoid obstructing northbound motorists' views of the Shiprock formation between mileposts 166.0 and 164.0. The Arizona Department of Transportation will field-verify the placement of roadway signs before installation (page 41).

- An Initial Site Assessment will be conducted during final design to assess hazardous materials concerns associated with right-of-way acquisition at the US 93/State Route 71 junction. If necessary, remedial measures will be implemented based on the results of the assessment (page 47).

- During final design, the Arizona Department of Transportation will conduct assessments to determine the presence of asbestos within any bridge structure that will be altered or modified as a result of construction. The Arizona Department of Transportation will also conduct assessments to determine the presence of Resource Conservation and Recovery Act metals (e.g., lead-based paint) on these structures (page 47).

- ~~A Programmatic Agreement to determine the appropriate treatment for sites that could not be avoided but are eligible for the National Register of Historic Places would be executed among the Arizona Department of Transportation, Federal Highway Administration, Bureau of Land Management, and State Historic Preservation Office prior to construction.~~ The stipulations contained in the Programmatic Agreement *between the Arizona Department of Transportation, Federal Highway Administration, Bureau of Land Management, and State Historic Preservation Office* will be fully satisfied prior to the beginning of construction (page ~~49~~ *50*).

- *During design, the Arizona Department of Transportation will administer a public involvement program for the design segment including the State Route 89 junction and Vista Royale area in order to give area residents the opportunity to provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the*

60 percent design stage addressing the concerns identified during the early coordination (page 68).

Prescott and Kingman District Responsibilities

- The District will submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 30).
- A construction notice will be provided to adjacent residents and businesses at least two weeks prior to construction (page 54).

Contractor Responsibilities

- Permanent cross-drainage structures shall be installed at the earliest possible phase of construction to minimize potential erosion throughout the duration of construction (page 30).
- The contractor shall submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 30).
- The contractor shall employ a qualified biologist to provide instructional materials regarding the protection of chuckwalla and desert rosy boa to all supervisory construction personnel prior to performing any ground-disturbing activities related to construction of the project (page 33).
- A desert tortoise survey shall be conducted by a qualified biologist 15 days prior to the beginning of construction in areas of suitable tortoise habitat that will be disturbed (page 34).
- Because Sonoran desert tortoises occur within the project area, the contractor shall comply with the Arizona Game and Fish Department's Tortoise Handling Guidelines included in Appendix D if specimens are encountered during construction (page 34).
- The contractor shall salvage and replant native plants within the area of disturbance in accordance with the plant salvage and revegetation plans (page 37).
- Disturbed areas shall be seeded with a seed mix consisting of native species selected for the site and shall be revegetated with salvaged native plants (page 37).
- All earth-moving and hauling equipment shall be washed at the contractor's storage facility prior to entering the construction site to prevent the introduction of invasive species (page 38).
- If invasive species are found within the project area, the contractor shall be required to wash all earth-moving and hauling equipment prior to leaving the construction site in order to prevent the spread of invasive species to uncontaminated areas (page 38).
- The contractor shall stake the clearing limits for Arizona Department of Transportation Engineer's approval prior to the start of clearing. These limits shall be irregular where possible, and straight clearing lines shall be avoided by varying the width of the area to be

cleared or by leaving selected clusters of vegetation near the edge of the clearing limits (page 40).

- The contractor shall remove trees only when specifically authorized to do so by the Arizona Department of Transportation Engineer and shall protect in-place the vegetation outside the specified clearing limits (page 40).

- Vegetation within the median area shall be protected in-place to the extent possible in areas where the median width will be greater than 84 feet (page 40).

- The contractor shall protect in-place the cottonwood trees located in the vicinity of milepost 166.8 (page 40).

- Seeding of disturbed areas shall occur in a progressive manner as the slopes are completed (page 40).

- Any riprap material shall blend with the surrounding rock and exposed soil color (page 41).

- Erosion control matting shall be composed of a natural, earth-tone material (page 41).

- The contractor shall protect in-place existing rock and landforms outside the clear zone during construction (page 41).

- All asphalt not reused as part of the project shall be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed shall be reshaped, scarified, and revegetated. All abandoned sections of old roadway shall be obliterated and made to blend with the existing landscape (page 41).

- If asbestos and/or heavy-metal materials are found as a result of the assessments of bridge structures conducted by the Arizona Department of Transportation, the contractor shall ~~be required to~~ prepare a plan detailing the proper procedures for the demolition or modification of the structures and the disposal or abatement of the asbestos and/or heavy-metal materials. In addition, the contractor shall obtain any permits required for demolition of the structures or disposal of the asbestos or heavy-metal materials (page 47).

CHANGES TO THE DRAFT EA

- Page ii – The following is inserted at the end of the list of appendices: "*Appendix J – Agency Correspondence*"

- Page 24 – The fourth bullet point below Alternative C-3 is modified as follows: "The existing roadside table facility on the west side of US 93 at MP 172.6 will be ~~replaced~~ *removed.* ADOT ~~is currently investigating alternatives to~~ *will* provide ~~new~~ *a roadside table facility with trash receptacles,* parking areas, and emergency phone call boxes ~~within the project area~~ *for both directions of traffic in the vicinity of the existing roadside table. The final location of the facilities will be determined during design.*"

- Page 27 – The first sentence of the last paragraph is corrected as follows: "Due to the new R/W required for construction of the selected alternative, a total of ~~588.2~~ *578.9* acres of land on 44 parcels will be permanently incorporated into ADOT R/W (Table 7)."

- Page 27 – The following is added after the last paragraph: "*For each project design segment, ADOT will coordinate with affected landowners, lease holders, and land managing agencies in order to identify opportunities and develop specific design measures to minimize impacts on livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination.*"

- Page 28 – Table 7 is corrected as follows:

Study Segment	*Private*	*BLM*	*ASLD*	*Total*
A	~~*37.7*~~ *28.4*	0.0	0.0	~~*37.7*~~ *28.4*
B	2.9	0.0	0.0	2.9
C	52.2	0.0	495.4	547.6
Total	~~*92.8*~~ *83.5*	0.0	495.4	~~588.2~~ *578.9*

- Page 28 – The first sentence of the last (partial) paragraph is amended to read: "The selected alternative will minimize impacts to adjacent land use by following the existing US 93 alignment, minimizing R/W take from adjacent developed properties, maintaining access to adjacent properties, *coordinating with affected landowners and/or leaseholders,* maintaining or improving livestock crossings…"

- Page 30 – The following is inserted after the second sentence of the fourth paragraph: "*A mitigation plan will be developed for the project in accordance with COE permitting requirements.*"

- Page 34 – The fourth sentence of the first full paragraph is corrected as follows: "The project area contains suitable habitat for western burrowing owl south of MP 177.0, where well-drained, level to gently sloping topography with ~~by~~ sparse vegetation, bare ground, and abundant small mammal burrows is present."

- Page 35 – The last sentence of the third full paragraph is amended to read: "~~During the study scoping phase and subsequent correspondence,~~ *In correspondence dated December 1, 2004 (Appendix K),* AGFD ~~did not identify any locations within the project area warranting special treatment for wildlife movement, nor request crossings designed exclusively for wildlife~~ *identified the Date Creek and Big Jim Wash crossings as locations where movement of wildlife under the bridge crossings should be accommodated.*"

- Page 35 – The sixth sentence of the last (partial) paragraph is deleted.

- Page 36 – The following is inserted after the first (partial) paragraph: "*ADOT will include AGFD in the design partnering process to address wildlife movement issues. During design, AGFD representatives will be requested to provide input in discussions about wildlife opportunities and development of appropriate wildlife-sensitive design measures at locations identified as important for wildlife connectivity and movement, including the Date Creek and Big Jim Wash bridges. In conjunction with the wildlife-sensitive design efforts, further examination of available wildlife strike data for the project area will be conducted.*"

- Page 38 – The second sentence of the fourth full paragraph is amended to read: "These impacts will be mitigated by salvaging and transplanting native plants, providing instructional materials regarding protection of desert rosy boa and chuckwalla to supervisory construction personnel, conducting a survey for loggerhead shrike nests and western burrowing owl during final design, conducting pre-construction surveys for Sonoran desert tortoise, complying with AGFD guidelines to protect Sonoran desert tortoise during construction, revegetating disturbed areas with salvaged plants and native species seed, providing game fence to accommodate wildlife movement, *coordinating with AGFD to address wildlife connectivity issues and develop wildlife-sensitive design measures,* and preventing the spread of invasive species."

- Page 41 – The text of the second bullet point is deleted and replaced with the following: "*The project plans will identify remnants of landforms to be modified to make them appear more natural and to avoid leaving uncharacteristic fin-shaped landforms in the median.*"

- Page 46 – The first sentence of the last (partial) paragraph is amended to read: "The records search disclosed one permitted hazardous waste handler in the project vicinity, a closed solid waste facility located 0.1 mile north of MP 171 on the west side of US 93, and a diesel fuel spill that occurred in the general vicinity of *the community of* Congress in March 2000."

- Page 49, continuing to page 50 – The first sentence of the last (partial) paragraph is updated as follows: "Because the selected alternative will result in impacts to cultural resources sites, a Programmatic Agreement (PA) ~~would be~~ *has been* executed among FHWA, ADOT, BLM, and SHPO in order to identify specific measures to mitigate impacts to cultural resources resulting from construction (Appendix ~~H~~ *K*)."

- Page 51, continuing to page 52 – The last (partial) paragraph, beginning with the second sentence, is updated as follows: "Impacts to the residents in the project area will consist of R/W acquisition, ~~one~~ *four* residential displacements, and the temporary construction impacts described above. The R/W acquisition and residential displacements will occur *on the east*

side of US 93 due to frontage road construction. The R/W acquisition on the residential parcels will consist of a ~~35~~ *100-* to ~~50~~ *350-*ft swath of land adjacent to the existing US 93 R/W, as illustrated in Appendix B. Seventeen occupied residential parcels will be affected by R/W acquisition, resulting in R/W takes ranging from 0.2 to ~~1.7~~ *7.0* acres from each parcel. The selected alternative has been developed to avoid the residences built upon the affected parcels to the maximum extent possible within design constraints. ~~One~~ *Four* residential displacement*s* ~~is~~ *are* unavoidable due to the proximity of the building*s* to the existing US 93 R/W…."

- Page 53 – The fifth paragraph is updated as follows: "Construction of the selected alternative will require ~~one~~ *four* residential displacements near the US 93/SR 89 junction and the relocation of two unoccupied mobile homes in the vicinity of the US 93/SR 71 junction. The selected alternative will also require the acquisition of 2.9 acres of land for new R/W on two commercial properties at the US 93/SR 71 junction, ~~but would not result~~ *resulting* in ~~the~~ *one business* displacement ~~of the businesses at those locations~~."

- Page 54 – The first and second sentences of the last (partial) paragraph are updated to read: "Socioeconomic impacts will result from construction of the selected alternative due to the acquisition of new R/W from private landowners, *business displacement,* and residential displacements. These landowners, *business owners,* and residents will be compensated in accordance with the Uniform Act."

- Page 54, continuing to page 55 – The fourth sentence of the last (partial) paragraph is updated as follows: "The project will have a negligible impact on neighborhood continuity~~, would not require commercial displacements,~~ and will not result in a high and adverse impact on any minority group."

- Page 67 – The last paragraph is updated as follows: "A public hearing for the ~~preferred alternative is planned for~~ *proposed project was held on* November 17, 2004, from 6:00 to 8:00 pm in the cafeteria of the Wickenburg High School, located at 1090 South Vulture Mine Road. A transcript of the public hearing ~~would be~~ *is* included in ~~the final environmental document~~ *Appendix L.* ~~In addition, a summary of~~ *The* public comments received following distribution of ~~this~~ *the* DEA and during the public hearing comment period, as well as ADOT responses, ~~would be~~ *are* provided in ~~the final environmental document~~ *Appendix M. The comments were generally in support of the proposed improvements. Several landowners and leaseholders expressed concerns about changes in access to their properties and impacts on their livestock/farming operations. Residents of the Vista Royale area expressed concerns about the impact of roadway widening on their community, especially noise. In addition, several comments were submitted requesting that a replacement roadside table facility be included in the project scope.* After review of the final study documents…"

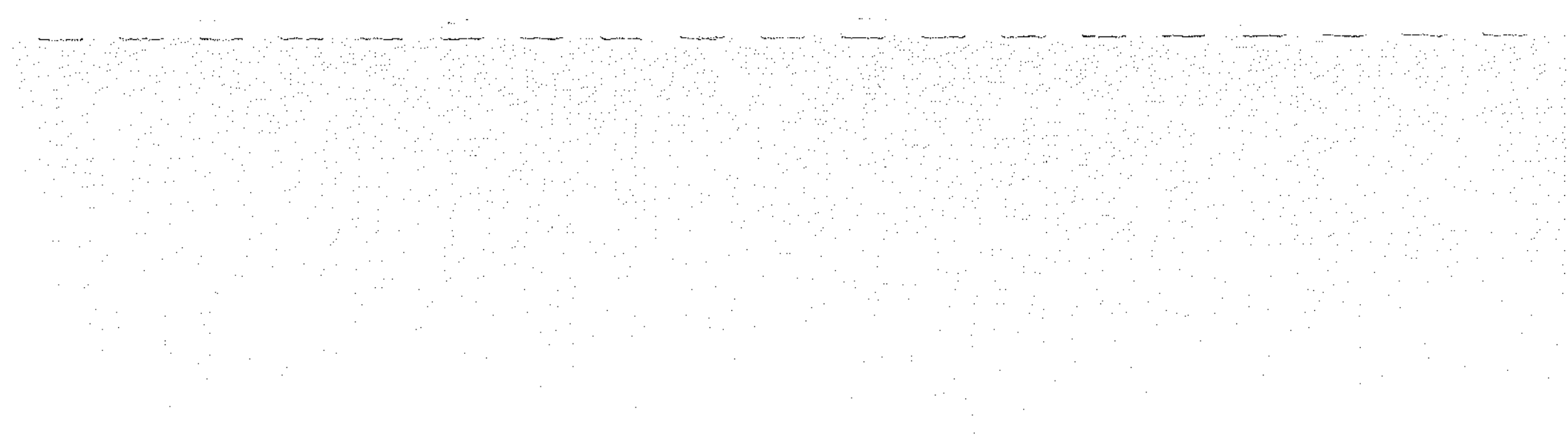
- Page 68 – The following section is inserted below the last paragraph:

Continuing Public Involvement Efforts

During design of the selected alternative, ADOT will continue to present opportunities for affected landowners, leaseholders, and area residents to provide information and feedback on the design of the improvements. In order to address the concerns voiced during the public hearing comment period, ADOT will include public coordination and involvement efforts in the design process for this project. In addition to the coordination with affected landowners and leaseholders described on page 27, ADOT will administer a public involvement program for the design segment including the SR 89 junction and Vista Royale area in order to give area residents the opportunity to review and provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the 60 percent design stage addressing the concerns identified during the early coordination.

APPENDICES

Appendix K – Agency Correspondence Subsequent to Distribution of the Draft Environmental Assessment



Arizona Department of Transportation

Intermodal Transportation Division

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano
Governor

Victor M. Mendez
Director

Michael Ortega
State Engineer

March 16, 2005

Mr. Robert E. Hollis
Division Administrator
Federal Highway Administration
400 East Van Buren Street, Suite 410
Department of Transportation
Phoenix, AZ 85004-2285

RE: Project No: STP-093-B(872)
TRACS: 093 YV 161 H4871 01L
Project Name: US 93, Wickenburg to Santa Maria River

Dear Mr. Hollis:

On October 26, 2004, the Federal Highway Administration approved the draft Environmental Assessment for the referenced project. A Public Hearing for this project was held at the Wickenburg High School (1090 South Vulture Mine Road) in Wickenburg, Arizona at 6:00 PM on November 17, 2004. The comments received as a result of the hearing are addressed in the enclosed Final Environmental Assessment.

Construction of the proposed improvements to US 93 between the Santa Maria River and the SR 89 junction are not expected to create a significant impact upon the quality of the human environment and will provide a facility to adequately meet the increasing traffic demands of this transportation facility.

The enclosed final Environmental Assessment is submitted with a recommendation the Federal Highway Administration make a Finding of No Significant Impact (FONSI) for the proposed project in accordance with 23 CFR 771, Part 121. The action will constitute federal project location and environmental approval in accordance with the *State of Arizona Action Plan*, for federal aid projects.

Sincerely,

RICHARD M. DUARTE, Manager
Environmental Planning Group

Attachments: Final EA (2 copies)
Review comment package

c: Paul O'Brien, Pre-Design (memo only)
Laura Gerbis, Jacobs Civil (memo only)

RMD:ll

Arizona Governor's Award for Quality
2001 Award Recipient

Arizona Department of Transportation

Intermodal Transportation Division

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano
Governor

Victor M. Mendez
Director

Michael Ortega
State Engineer

February 9, 2005

Bob Broscheid, Habitat Branch Chief
Arizona Game and Fish Department
2221 West Greenway Road
Phoenix, Arizona 85023-4399

RE: US 93, Wickenburg to the Santa Maria River - Draft Environmental Assessment Comments
TRACS No.: 093 YV 161 H4871 01L
Federal-Aid Project Number: STP-093-B(872)

Dear Mr. Broscheid:

Thank you for your correspondence addressed to Berwyn Wilbrink of Jacobs Civil Inc., dated December 1, 2004, in response to the distribution of the above-referenced Draft Environmental Assessment (EA). Your concerns regarding wildlife crossings and population connectivity in the US 93 corridor are noted.

During the design of this project, the Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA) will include the Arizona Game and Fish Department (AGFD) in the design partnering process to address wildlife issues. At that time, AGFD representatives will have the opportunity to provide input on opportunities for, and may contribute to the development of appropriate wildlife-sensitive design measures at locations identified as important for wildlife connectivity and movement, including the Date Creek and Big Jim Wash Bridges. A field review will be scheduled during the design kickoff phase to allow AGFD to identify opportunities and areas of concern. The design team will strive to incorporate wildlife-sensitive design measures in a manner consistent with the scenic values and safety considerations in the project corridor.

In regard to the wildlife strike data included in the Draft EA, a more detailed breakdown is not currently available. During final design, further examination of available AGFD and ADOT wildlife strike data for the project area will be conducted, in conjunction with the above wildlife-sensitive design efforts.

Thank you for your comments and insight into this project. ADOT and FHWA intend to continue joint efforts with AGFD on wildlife connectivity and movement issues throughout the state. In future studies, ADOT and FHWA would appreciate receiving input from AGFD at the early stages when project scoping is conducted, rather than as a response to the Draft EA. Early identification of issues and concerns allows us to complete full investigation and provide equal consideration of all issues throughout the analysis, which improves the development of alternatives and analysis of impacts. It helps us meet NEPA objectives and reduces the potential to miss considerations important to the analysis and the need to make large changes after the draft is issued. If you have any comments or questions about this letter, I can be reached at 602-712-6322.

Sincerely,

Lawrence R. Lindner
Environmental Planner
Environmental & Enhancement Group

C: Steve Thomas, FHWA

Arizona Governor's Award for Quality
2001 Award Recipient

SHPO- 2002 -600 (22668)

U.S. Department of Transportation
Federal Highway Administration

Arizona Division
400 East Van Buren Street
One Arizona Center Suite 410
Phoenix, Arizona 85004-2264

January 25, 2005

In Reply Refer To: HA-AZ
STP-093-B(872)
TRACS No. 093 YV 161 H4871 01L
US 93; Wickenburg—Santa Maria River
Continuing Section 106 Consultation

RECEIVED
JAN 27 2005
ARIZONA STATE PARKS S.H.P.O.

David Jacobs, Ph.D., Compliance Specialist
State Historic Preservation Office
Arizona State Parks
1300 West Washington
Phoenix, Arizona 85007

Dear Dr. Jacobs:

As you are aware, the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) are planning to widen US 93 between Wickenburg and the Santa Maria River in Maricopa and Yavapai Counties. Previous consultation with the Arizona State Historic Preservation Office (SHPO) recommended that a Programmatic Agreement (PA) be developed to address the effects of the project as they become known (Neustadt [ADOT] to Jacobs [SHPO], November 12, 2003).

Previous consultation on this project included the submission of a draft PA (Neustadt to Jacobs, April 7, 2004). SHPO concurred with the adequacy of the draft PA on May 20, 2004 (Jacobs to Neustadt). At this time FHWA is submitting the final PA for signature.

Please review the enclosed final PA and the information provided in this letter. If you find the PA adequate, please obtain the appropriate signatures and return to FHWA within 30 days of receipt. Please note that the Advisory Council on Historic Preservation has declined further participation. If you have any questions or concerns, please contact Catherine Ripley at (602) 712-6266 or via email at cripley@azdot.gov.

Sincerely yours,

Robert E. Hollis
Division Administrator

Signature for SHPO Concurrence

3 FEB 05
Date

Enclosure
cc:
* signature page attached

CC: Dr C. Ripley, ADOT

2005 FEB 14 AM 7:14

BUCKLE UP AMERICA

US Department
of Transportation
Federal Highway
Administration

Arizona Division
400 East Van Buren Street
One Arizona Center Suite 410
Phoenix, Arizona 85004-2264

JAN 25 2005

January 25, 2005

In Reply Refer To: HA-AZ
STP-093-B(872)
TRACS No. 093 YV 161 H4871 01L
US 93; Wickenburg—Santa Maria River
Continuing Section 106 Consultation

Mr. Steve Ross, Cultural Resources Manager
Arizona State Land Department
1616 W. Adams
Phoenix, Arizona 85007

Dear Mr. Ross:

As you are aware, the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) are planning to widen US 93 between Wickenburg and the Santa Maria River in Maricopa and Yavapai Counties. Previous consultation with the Arizona State Land Department (ASLD) recommended that a Programmatic Agreement (PA) be developed to address the effects of the project as they become known (Neustadt [ADOT] to Ross [ASLD], November 12, 2003).

Previous consultation on this project included the submission of a draft PA (Neustadt to Ross, April 7, 2004). At this time FHWA is submitting the final PA for signature.

Please review the enclosed final PA and the information provided in this letter. If you find the PA adequate, please obtain the appropriate signatures and return to FHWA within 30 days of receipt. Please note that the Advisory Council on Historic Preservation has declined further participation. If you have any questions or concerns, please contact Catherine Ripley at (602) 712-6266 or via email at cripley@azdot.gov.

Sincerely yours,

Robert E. Hollis
Division Administrator

Signature for ASLD Concurrence

1/31/05
Date

Enclosure

BUCKLE UP AMERICA

ARIZONA DEPT. OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL PLANNING GROUP

FEB 0 2 2005

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PHOENIX OFFICE

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U.S. Department
of Transportation
Federal Highway
Administration

Arizona Division
400 East Van Buren Street
One Arizona Center Suite 410
Phoenix, Arizona 85004-2264

January 25, 2005

In Reply Refer To: HA-AZ
STP-093-B(872)
TRACS No. 093 YV 161 H4871 01L
US 93; Wickenburg—Santa Maria River
Continuing Section 106 Consultation

Ms. Jerica Richardson
Bureau of Land Management
Kingman Field Office
2755 Mission Blvd
Kingman, Arizona 86401

Dear Ms. Richardson:

As you are aware, the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) are planning to widen US 93 between Wickenburg and the Santa Maria River in Maricopa and Yavapai Counties. Previous consultation with the Bureau of Land Management (BLM) recommended that a Programmatic Agreement (PA) be developed to address the effects of the project as they become known (Neustadt [ADOT] to Rose [BLM], November 12, 2003).

Previous consultation on this project included the submission of a draft PA (Neustadt to Rose, April 7, 2004). At this time FHWA is submitting the final PA for signature.

Please review the enclosed final PA and the information provided in this letter. If you find the PA adequate, please obtain the appropriate signatures and return to FHWA within 30 days of receipt. Please note that the Advisory Council on Historic Preservation has declined further participation. If you have any questions or concerns, please contact Catherine Ripley at (602) 712-6266 or via email at cripley@azdot.gov.

Sincerely yours,

Robert E. Hollis
Division Administrator

Signature for BLM Concurrence

1/31/05
Date

Enclosure

PROGRAMMATIC AGREEMENT

AMONG

FEDERAL HIGHWAY ADMINISTRATION
ARIZONA STATE HISTORIC PRESERVATION OFFICE
ARIZONA DEPARTMENT OF TRANSPORTATION
BUREAU OF LAND MANAGEMENT
ARIZONA STATE LAND DEPARTMENT
THE HOPI TRIBE
THE COLORADO RIVER INDIAN TRIBE
THE YAVAPAI PRESCOTT INDIAN TRIBE
THE CHEMEHUEVI TRIBE
THE FORT MOJAVE TRIBE

REGARDING DATA RECOVERY AT ARCHAEOLOGICAL SITES ALONG US 93 BETWEEN MILEPOSTS 161.0 AND 194.0
US 93; WICKENBURG – SANTA MARIA RIVER
PROJECT NO. STP-093-B(872)
TRACS NO. 093 YV 161 H4871 01L
MARICOPA AND YAVAPAI COUNTIES, ARIZONA

WHEREAS, the Federal Highway Administration (FHWA) proposes to widen a portion of US 93, a federally-funded project in Maricopa and Yavapai Counties, Arizona (hereafter referred to as "the project"); and

WHEREAS, the area of potential effect for the project is defined as the existing right-of-way (ROW) of US 93 between mileposts (MP) 161.0 and 194.0, as well as any new ROW required for construction; and

WHEREAS, project construction will occur on land owned by the Arizona Department of Transportation (ADOT) and ADOT easement across public land administered by the Bureau of Land Management (BLM), and the Arizona State Land Department (ASLD), and ADOT, acting as agent for FHWA, has participated in consultation; and

WHEREAS, the proposed project may have an adverse effect upon archaeological sites which may be eligible for listing on the National Register of Historic Places and may possibly have effects to unidentified subsurface archaeological resources; and

WHEREAS, ADOT, acting as agent for FHWA has participated in consultation and has been invited to be a signatory to this Programmatic Agreement (Agreement); and

WHEREAS, SHPO is authorized to enter into this agreement in order to fulfill its role of advising and assisting Federal agencies in carrying out their Section 106 responsibilities under the following federal statutes: Sections 101 and 106 of the National Historic Preservation Act of

1966, as amended, 16 U.S.C. 470f, and pursuant to 36 CFR Part 800, regulations implementing Section 106, at 800.2(c)(1)(i) and 800.6(b); and

WHEREAS, the FHWA has consulted with the Arizona State Historic Preservation Office (SHPO), the BLM, ASLD, the Hopi Tribe, the Colorado River Indian Tribe, the Prescott Yavapai Tribe, the Chemehuevi Tribe, and the Fort Mojave Tribe in accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR §800.6(b)(2)) to resolve the possible adverse effects of the Project on historic properties; and

WHEREAS, the Indian Tribes that may attach religious or cultural importance to affected properties have been consulted [pursuant to 36 CFR § 800.2 (c)(2)(ii)(A-F)], and the Hopi Tribe, the Colorado River Indian Tribe, the Prescott Yavapai Tribe, the Chemehuevi Tribe, and the Fort Mojave Tribe have been invited to be a concurring party in the Agreement; and

WHEREAS, in their role as lead federal agency, FHWA has consulted with the Arizona State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) as revised in 2000; and

WHEREAS, by their signature all parties agree that the regulations specified in the ADOT document, "ADOT Standard Specifications for Road and Bridge Construction" (Section 104.12, 2000) will account for the cultural resources in potential material sources used in project construction; and

WHEREAS, any data recovery necessitated by the Project must be permitted by the appropriate federal land managing agency pursuant to the Antiquities Act of 1906 and/or the Archaeological Resources Protection Act of 1979 (ARPA); and

WHEREAS, the data recovery necessitated by the Project must be permitted by the Arizona State Museum pursuant to A.R.S. § 41-842; and

WHEREAS, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony would be developed for the Arizona State Museum (ASM) for state and private land; and

WHEREAS, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony would be developed by the BLM under ARPA guidelines for BLM land; and

WHEREAS, human Remains and Associated Funerary Objects recovered will be treated in accordance with the Native American Graves and Protection Repatriation Act (NAGPRA); and

NOW, THEREFORE, all parties agree that upon FHWA's decision to proceed with the Project, FHWA shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this PA expires or is terminated.

Stipulations

FHWA will ensure that the following measures are carried out.

1. Development of a Data Recovery Work Plan

   The data recovery plan will be submitted by ADOT, on behalf of FHWA, to all parties to this Agreement for 30 calendar days' review. The data recovery plan will be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37). Unless any signatory or concurring party objects to the data recovery plan within 30 calendar days after receipt of the plan, FHWA shall ensure that it is implemented prior to construction.

2. The Data Recovery Work Plan (the Work Plan) will specify:

   a) The properties or portions of properties where data recovery is to be carried out. Also, it will specify any property or portion of property that would be destroyed or altered without treatment;

   b) The results of previous research relevant to the project, the research questions to be addressed through data recovery, with an explanation of their relevance and importance;

   c) The field and laboratory analysis methods to be used, with an explanation of their relevance to the research questions;

   d) The methods to be used in analysis, data management, and dissemination of data to the professional community and the public, including a proposed schedule for project tasks, including a schedule for the submission of draft and final reports to consulting parties;

   e) The proposed disposition and curation of recovered materials and records in accordance with 36 CFR 79;

   f) Procedures for monitoring, evaluating and treating discoveries of unexpected or newly identified properties during construction of the project, including consultation with other parties;

   g) A protocol for the treatment of human remains, in the event that such remains are discovered, describing methods and procedures for the recovery, analysis, treatment, and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony. This protocol will reflect concerns and/or conditions identified as a result of consultations among parties to this Agreement.

3. Review and comment on the Data Recovery Work Plan

   a) Upon receipt of a draft of the Work Plans, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide comments to ADOT. All comments shall be in writing with copies provided to the other consulting parties. Lack of response within this review period will be taken as concurrence with the plan.

   b) If revisions to the Work Plans are made all consulting parties have 20 calendar days from receipt to review the revisions and provide comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan or report.

   c) Once the Data Recovery Plan is determined adequate by all parties (with SHPO concurrence), FHWA shall issue authorization to proceed with the implementation of the Plan, subject to obtaining all necessary permits.

   d) Final drafts of the Data Recovery Plan will be provided to all consulting parties.

4. Review and Comment on Preliminary Report of Findings

   a) Upon completion of fieldwork, the institution, firm, or consultant responsible for the work will prepare and submit a brief Preliminary Report of Findings.

   b) Upon receipt of a draft of the Work Plans, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide comments to ADOT. All comments shall be in writing with copies provided to the other consulting parties. Lack of response within this review period will be taken as concurrence with the plan.

   c) If revisions to the Preliminary Report of Findings are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan or report.

   d) Once the Preliminary Report of Findings has been accepted as a final document, ADOT, on behalf of FHWA, will notify appropriate project participants that construction may proceed.

5. Review and Comment on Data Recovery Report

   a) Within 180 days of completion of data recovery, a report will be prepared incorporating all appropriate data analyses and interpretations, and the report will be submitted to signatories and concurring parties who will be provided with 30 calendar days to review and comment upon the data report.

b) Upon receipt of the data recovery report, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide comments to ADOT. All comments shall be in writing with copies provided to the other consulting parties. Lack of response within this review period will be taken as concurrence with the plan.

c) If revisions to the data recovery report are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan or report.

d) Once the data recovery report has been accepted as a final document, ADOT, on behalf of FHWA, will notify appropriate project participants that construction may proceed.

6. Standards for Monitoring and Data Recovery

All historic preservation work carried out pursuant to this Agreement shall be carried out by or under the supervision of a person, or persons, meeting at a minimum the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739).

7. Curation

All materials and records resulting from the data recovery program conducted within the Project area shall be curated in accordance with standards 36 CFR 79 and guidelines generated by ASM. The repository for materials either will be ASM or one located in Maricopa or Yavapai Counties that meets those standards and guidelines. Materials subject to repatriation under A.R.S. § 41-844 and A.R.S. § 41-865 shall be maintained in accordance with the burial agreement until any specified analyses, as determined following consultation with the appropriate Indian tribes and individuals, are complete and the materials are returned.

8. Additional Inventory Survey

ADOT, on behalf of FHWA, in consultation with all parties to this agreement shall ensure that new inventory surveys of additional rights-of-way and temporary construction easements will include determinations of eligibility that are made in accordance with 36 CFR § 800.4(c) for all historic properties, including any added staging or use areas. Should any party to this Agreement disagree with FHWA regarding eligibility, the SHPO shall be consulted and resolution sought within 20 calendar days. If the FHWA and SHPO disagree on eligibility, FHWA shall request a formal determination from the Keeper of the National Register.

9. Objection by a Signatory or Concurring Party

Should any signatory or concurring party to this Agreement object within 30 days to any plan or report provided for review or to any aspect of this undertaking related to historic

preservation issues, FHWA shall consult with the objecting party to resolve the objection. If the objection cannot be resolved, FHWA shall request further comments of the Council with reference only to the subject of the dispute; the FHWA's responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

10. Discoveries

If potential historic or prehistoric archaeological materials or properties are discovered after construction begins, the person in charge of the construction shall promptly report the discovery to the ADOT Historic Preservation Specialist, representing FHWA. If human or funerary objects are discovered, ADOT shall require construction to immediately cease within the area of the discovery, take steps to protect the discovery, and notify and consult with appropriate Native American groups to determine treatment and disposition measures in accordance with the previously implemented burial agreement. The Director of the ASM (the Director) shall also be informed. In consultation with the Director and ADOT, on behalf of FHWA, the person in charge of construction shall immediately take steps to secure and maintain preservation of the discovery. If the discovery appears to involve Human Remains as defined in ASM rules implementing A.R.S. § 41-844 and 41-865, ASM and FHWA shall ensure that the discovery is treated according to the burial agreement. If the discovery involves Human Remains discovered on BLM lands, the BLM shall ensure the discovery is treated according to the burial agreement, ARPA and NAGPRA.

If Human Remains are not involved, then the ADOT Historic Preservation Specialist shall evaluate the discovery, and in consultation with FHWA and SHPO, determine if the Plan previously approved by ASM according to Stipulation 2 is appropriate to the nature of the discovery. If appropriate, the Plan shall be implemented by ADOT, on behalf of FHWA. If the Plan is not appropriate to the discovery, FHWA shall ensure that an alternate plan for the resolution of adverse effect is developed pursuant to 36 CFR § 800.6 and circulated to the consulting parties, who will have 48-hours to review and comment upon the alternate plan. FHWA shall consider the resulting comments, and shall implement the alternate plan once a project specific permit has been issued.

11. Amendments

This Agreement may be amended by the signatories pursuant to 36 CFR § 800.6 (c) (7). FHWA shall file any amendments with the Council and provide notice to the concurring parties.

12. Termination

Any signatory may terminate the Agreement by providing 30 day written notification to the other signatories. During this 30 day period, the signatories may consult to seek agreement on amendments or other actions that would avoid termination pursuant to 36 CFR § 800.6 (b). If the parties cannot agree on actions to resolve disagreements, FHWA will comply with 36 CFR § 800.7(a).

13. In the event the FHWA or ADOT cannot carry out the terms of this agreement, the FHWA will comply with 36 CFR § 800.3 through 800.6.

14. There shall be an annual meeting among FHWA, SHPO, and ADOT to review the effectiveness and application of this agreement, to be held on or near the anniversary date of the execution of this agreement.

This agreement shall be null and void if its terms are not carried out within ten (10) years from the date of its execution, unless the signatories agree in writing to an extension for carrying out its terms.

Execution of this Agreement by the signatories and its subsequent filing with the Council is evidence that the Federal Highway Administration has afforded the Advisory Council on Historic Preservation an opportunity to comment on US 93; Wickenburg – Santa Maria River project and its effects on historic properties, and that the Federal Highway Administration has taken into account the effects of the undertaking on historic properties.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

By _____ Date 1/21/05

Title Environmental Program Manager

ARIZONA STATE HISTORIC PRESERVATION OFFICER

By James W. Garrison Date 2/3/05

Title AZSHPO

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By _____ Date 12.14.04

Title Environmental & Enhancement Group Manager

CONCURRING PARTIES

BUREAU OF LAND MANAGEMENT

By _____

Title _____ Date _____

ARIZONA STATE LAND DEPARTMENT

By _____ Date _____

Title _____

Execution of this Agreement by the signatories and its subsequent filing with the Council is evidence that the Federal Highway Administration has afforded the Advisory Council on Historic Preservation an opportunity to comment on US 93; Wickenburg – Santa Maria River project and its effects on historic properties, and that the Federal Highway Administration has taken into account the effects of the undertaking on historic properties.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

By _____ Date 1/21/05

Title Environmental Program Manager

ARIZONA STATE HISTORIC PRESERVATION OFFICER

By _____ Date _____

Title _____

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By _____ Date 12-14-04

Title Environmental & Enhancement Group Manager

CONCURRING PARTIES

BUREAU OF LAND MANAGEMENT

By _____

Title _____ Date _____

ARIZONA STATE LAND DEPARTMENT

By _____ Date 1/31/05

Title State Land Commissioner

Execution of this Agreement by the signatories and its subsequent filing with the Council is evidence that the Federal Highway Administration has afforded the Advisory Council on Historic Preservation an opportunity to comment on US 93; Wickenburg – Santa Maria River project and its effects on historic properties, and that the Federal Highway Administration has taken into account the effects of the undertaking on historic properties.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

By _____ Date 1/21/05

Title Environmental Program Manager

ARIZONA STATE HISTORIC PRESERVATION OFFICER

By _____ Date _____

Title _____

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By _____ Date 12-14-04

Title Environmental & Enhancement Group Manager

CONCURRING PARTIES

BUREAU OF LAND MANAGEMENT

By _____

Title Archaeologist Date 1/31/05

ARIZONA STATE LAND DEPARTMENT

By _____ Date _____

Title _____

HOPI TRIBE

By_____ Date_____

Title_____

COLORADO RIVER INDIAN TRIBE

By_____ Date_____

Title_____

PRESCOTT YAVAPAI TRIBE

By_____ Date_____

Title_____

CHEMEHUEVI TRIBE

By_____ Date_____

Title_____

FORT MOJAVE TRIBE

By_____ Date_____

Title_____

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399
(602) 942-3000 • AZGFD.COM

December 1, 2004

Mr. Berwyn Wilbrink
Project Manager
Jacobs Civil Inc.
875 W. Elliot Rd., Ste. 201
Tempe, AZ 85284

Re: Draft Environmental Assessment for US 93, Wickenburg to the Santa Maria River, dated September 2004

Dear Mr. Wilbrink:

The Arizona Game and Fish Department (Department) has reviewed the Draft Environmental Assessment (EA) for US 93, Wickenburg to the Santa Maria River. The Department appreciates the opportunity to provide comments on this EA. The majority of our comments relate to wildlife movement across US 93, which is both a wildlife and public safety concern. The Department's mission includes the conservation, enhancement and restoration of Arizona's diverse wildlife resources and habitats through aggressive protection and management programs. The Department is concerned with potential impacts to all wildlife including those species that have a special status listing and those that do not.

The Department has undertaken a joint effort with the Arizona Department of Transportation and the Federal Highway Administration, along with representatives from other agencies and non-profit groups, to identify those areas across the state that are in need of either maintaining or creating wildlife connectivity. US 93 is one such area that has been identified by the workgroup as an important wildlife linkage zone. The Sonoran desert tortoise, mule deer, and pronghorn were noted as species requiring connectivity along US 93 from Wickieup to Wickenburg, although pronghorn occur further north outside the EA project area. Although specific areas for wildlife connectivity along US 93 have not yet been identified, it's important to note that wildlife connectivity has been identified as a concern for wildlife to move east to west (or west to east) across US 93.

As stated on page 10, 17% of the single-vehicle accidents involved wild game or livestock. According to Figure 5, Accident Rate by Milepost, 1997 – 2000 most accidents occur at approximately milepost 166 and 172. These mileposts are relatively close to the Big Jim Wash and Date Creek, two areas where you would anticipate the highest movement of wildlife under the bridge crossings. If additional data is known regarding type of species involved in the wildlife-vehicle collisions please provide this information in the EA as it would assist in determining what measures may be most appropriate to prevent wildlife from entering the road.

The Department supports the use of fencing in the preferred alternative that will be used along the R/W, however, to be effective in facilitating wildlife movement across US 93 the fencing should funnel wildlife to an area or structure that is effectively designed to accommodate their crossing. If after road widening, bridge structures that are serving as underpasses no longer effectively accommodate wildlife, the fencing will only result in fragmenting wildlife populations. Declines in wildlife populations are a direct result of habitat fragmentation and loss of habitat. The Department is attaching a Literature Summary prepared by Mark Watson (New Mexico Game & Fish Department) and Jon Klingel. The Summary describes a paper by D.F. Reed that recommends an "openness factor" for underpasses to be effective. In addition, the Summary discusses how underpasses are more effective if used with fencing and includes recommended fencing specifications. If wildlife will be precluded from crossing US 93 as a result of fencing and ineffective crossings, please fully describe in the EA how wildlife movements may be impacted including how those impacts will be mitigated

Fencing should be used to preclude wildlife from entering highways or medians. As stated in the Preferred Alternative, Segment C, Page 23, the median width in some areas of Segment C may approach 576 ft. These large expanses of median will require fencing to prevent wildlife, such as mule deer from moving onto the median. Also, one-way fencing should be installed on medians to facilitate mule deer movement out of those areas.

In addition, when relying on concrete boxed culverts (CBC) for the movement of Sonoran desert tortoises and other wildlife, fencing should be installed to funnel those species to the CBCs. Mule deer generally will not utilize CBCs as they do not provide clear views of the other side. However, if opportunities exist to widen and enlarge the CBCs to allow a clear view for wildlife, the Department would support those designs as they provide passage to a greater number of wildlife species.

The accident data should be used to determine those locations along US 93 that require further attention to reduce wildlife-vehicle accidents and what measures will be taken to address those concerns should be included in the EA. The Department would like to be kept apprised of activities associated with this project, including upcoming meetings, and 404 permit applications. Please contact Rebecca Davidson, Project Evaluation Program Supervisor at (602) 789- 3602, if you have any questions.

Sincerely,

Bob Broscheid
Habitat Branch Chief

Attachment

cc: Rebecca Davidson, Project Evaluation Program Supervisor, Habitat Branch, AGFD
Russ Engel, Habitat Program Manager, Region IV, AGFD

LITERATURE SUMMARY
ASSESSING METHODS
FOR REDUCING DEER-VEHICLE ACCIDENTS

Prepared by Mark Watson and Jon Klingel
15 May 2000

Summary:
We provide a review and summary of the literature assessing mitigation strategies and techniques for reducing deer-vehicle accidents (DVA). Much of the information, including criticisms of certain techniques and recommendations, are summarized in two reviews of the literature by Danielson and Hubbard (1998), and Reed (1995). These reviews considered the following methods for reducing DVA: 1) fencing; 2) crosswalks; 3) underpasses; 4) overpasses; 5) wildlife reflectors; 6) wildlife warning whistles; 7) highway lighting; 8) vegetation manipulations, intercept feeding and salt alternatives; 9) warning signs, speed limit reduction and driver education; 10) chemical repellants; 11) deer herd reduction; and 12) possible vehicle modifications and devices.

Reed (1995) found that a 2.44 meter (eight foot) fence was effective if constructed properly, adequately maintained, and used in conjunction with underpasses or overpasses and one-way gates. Well-maintained fencing is apparently the only certain method for significantly reducing DVA on primary roads (Falk et al. 1978, Putnam 1997). Reed (1995) gave fencing a 78.5% effectiveness rating at reducing DVA (see Reed 1995, Table 2).

Underpasses are effective if used with fencing and designed and constructed with an "openness factor" (underpass height times the width, divided by the length) that does not preclude cervid use (Reed 1995). Overpasses are effective if used in conjunction with fencing and designed with a "bridge effect factor" (width times the square root of the height divided by the length) that does not preclude cervid use (Reed 1995). For high traffic-volume roads, a combination of fencing and wildlife underpasses or overpasses appears to be the most successful strategy for reducing DVA (Bruinderink and Hazebroek 1996).

Romin and Bisonnette (1996) identified methods that alter deer behavior and movements, such as fencing, intercept feeding and overpasses or underpasses, as the most promising techniques currently available, and recommended additional research along those lines.

Properly designed experimental studies investigating the effectiveness of driver education, hunting, speed reduction and ultrasonics at reducing DVA are lacking (Reed 1995). Highway lighting and increased-visibility warning signs have not been shown to be effective at modifying driver behavior and reducing DVA (Reed 1995). Studies of the effects of vegetation manipulation along roadways are inadequate (Reed 1995). Studies results from wildlife reflector tests have produced conflicting results, but in general, these studies have not been designed with adequate controls or sample sizes to provide statistically significant results (Reed 1995). Reed (1995) recommends that additional research be conducted to determine the effectiveness of these methods.

Danielson and Hubbard (1998) discussed the status of current research for future technologies for reducing DVA, and find promise in the development of infra-red sensing devices triggered by animal movements that relay signals to warning signs at deer crossing areas.

Putnam (1997) strongly suggested that the determination of an appropriate method for reducing DVA should be based on as complete an understanding of the accident patterns as possible, including wildlife and traffic patterns and processes. Bruinderink and Hazebroek (1996) stated that daily and seasonal patterns of accidents and life-history attributes and population dynamics of target animals should be used to develop strategies for reducing DVA. DVA mitigation applications could be site or species specific (Romin and Bissonette 1996).

Background:
DVA have increased significantly in North America since 1980 (Romin and Bissonette 1996). Williamson (1980) reported that 200,000 deer were killed from DVA in the U.S. in 1980. Romin and Bissonette (1996) estimated that more than 538,000 deer were killed in the U.S. by vehicles in 1991. This estimate must be considered conservative since numerous DVA are not reported, and included DVA data from only 36 states (Lehnert and Bissonette 1997). Conover et al. (1995) reports that an estimated 1.5 million DVA occur annually in the U.S., and only 50% of DVA are reported or documented (Decker et al. 1990, Romin 1994). Conover et al. (1995) estimated that DVA in the U.S. annually result in 211 human fatalities, 29,000 human injuries, and more than $1 billion in property damage. Danielson and Hubbard (1998) estimate combined annual economic loss in the U.S. from DVA at more than two billion dollars from human and animal casualties and property damage.

Romin and Bissonette (1996) found that most states in the U.S. have implemented techniques to reduce DVA, but very little evaluation of performance had been conducted by implementing agencies. They conducted a study that found that 42 of 43 states had implemented DVA mitigation techniques (see Romin and Bissonette 1996, Table 2). Of 10 different mitigation techniques implemented (similar to methods evaluated in Reed 1995), deer crossing signs and public awareness programs were the most frequently used; however, over 60% of these states did not know if the techniques were successful.

Putnam (1997) found that techniques implemented to reduce DVA are often arbitrary and without follow-up monitoring to determine effectiveness, therefore cost-to-benefit ratios are poorly understood. Romin and Bissonette (1996) found that peer-reviewed literature on DVA reduction methods is limited and found primarily in state agency publications. They found few rigorous evaluations of method effectiveness, and that most evaluations that were conducted were based on opinion.

Problems with past research
Danielson and Hubbard (1998) identify two major deficiencies that have precluded the majority of DVA mitigation studies from providing statistically valid results: 1) the lack

of control areas to compare to treatment areas; and 2) the lack of adequate replication of treatment and control areas. Studies without controls lack the ability to compare treatment results with uncontrolled variables such as yearly weather variability, population and traffic fluctuations, and habitat changes. Studies without adequate replication may not provide the statistical power to determine if a treatment actually works.

Methods used for reducing deer-vehicle accidents

1. Fencing

Fences are used to mitigate collisions by either precluding animals from entering highways, or diverting animals to crossing structures such as underpasses or overpasses (Reed 1995). Several studies (Free and Severinghaus undated; Lavsund and Sandegren 1991; Reed et al. 1979; Ward et al. 1979; and Ward 1982) have shown fencing (primarily 2.44 meter, 8-foot fence) to be effective at reducing DVA.

Romin and Bissonette (1996) reported that 10 states used a combination of fencing, overpasses or underpasses to mitigate DVA, but more than 90% of these states believed fencing was effective at reducing DVA (see Romin and Bissonette 1996, Table 3). Danielson and Hubbard (1998) reported that reduction of DVA from the installation of fencing has been documented in Colorado, Minnesota (Ludwig and Bremicker 1983), and Pennsylvania (Falk et al. 1978, Feldhamer et al. 1986). Ward (1982) documented a 90% DVA reduction along a 7.8 mile segment of I-70 in Colorado where an 8-foot deer fence was installed.

According to Reed (1995), to ensure approximately 80-90% collision reduction after installation, 8-foot fences must be resistant to deer passage by ensuring adequate basal closure during construction and providing constant maintenance. Danielson and Hubbard (1998) also emphasize that fencing must be maintained by regularly inspection and repair to preclude deer entry onto roads. Ward (1982) reported that mule deer along Interstate 80 in Wyoming continually tested fencing, requiring a rigorous maintenance program.

Reed (1995) stated that 8-foot fences must extend approximately 0.8 km (0.5 mi.) beyond deer concentration areas, and crossing structures (overpasses or underpasses) should be located at least every 1.6 km (1.0 mi.) along the fenceline.

Fencing cannot totally preclude ungulates from entering roadways, so adequate exits established along the fenceline may further reduce DVA (Feldhamer et al. 1986). Fencing effectiveness is improved by providing an opportunity for escape to ungulates trapped on the roadway (Putnam 1997).

Reed (1995) reported that one-way gates strategically located near drainages or vegetative cover were effective in allowing deer to escape highway right-of-ways (ROWs) when used in conjunction with 8-foot fences. One-way gates can be modified for use by other cervids such as elk (Reed et al. 1974a). However, Lehnert and Bissonette (1997) reported that only 16.5% of mule deer (n = 243) recorded within a

right-of way between 2.3 meter (7.5 ft) fence in Utah used one-way gates for escape, suggesting a reluctance to use the gates. They suggested that earthen ramps may prove an effective method for deer to escape highway ROWs.

Ward (1982) found that on- and off-ramps, fencing holes and erosion gaps are problem areas for concern when considering fencing as a mitigation tool. Deer guards should be installed on interchange ramps (Ward 1982). At least one new "roll-bar" deer guard has been designed but not yet tested (Reed et al. 1974b; Reed et al 1979).
Feldhamer et al. (1986) recommended that DVA reduction efforts focus on increasing the effectiveness of deer fencing and reducing the attractiveness highway rights-of ways to deer.

Fencing costs
Danielson and Hubbard (1998) reported that although fencing used in conjunction with other techniques may be the most effective strategy for reducing DVA, costs of construction and maintenance may be prohibitive, and probably will only be feasible on major roads (Putnam 1997).

Ward (1982) reporteds installation costs of $240,000 for 7.8 miles (ca. $31,000 per mile) of eight-foot game fence along Interstate 80 in Wyoming in the early 1970s. Reed et al. (1982) approximated maintenance costs for fencing to be 1% of construction costs per year. Danielson and Hubbard (1998) stated that the Iowa Department of Transportation estimated the costs of materials and installation for 8-foot chain-link fence at $42,000 per mile (for one side of the road). BRW (1999) estimates the cost of materials and construction for 8-foot deer fencing for U.S. Highway 550 from Aztec to the Colorado border at $10-12 per linear foot ($52,800-63,360 per mile).

Fencing cost-benefit ratio
Reed et al. (1982) reports that even if fencing is 100% effective at eliminating DVA, there will be a certain DVA rate at which the benefits do not outweigh the costs. Reed et al. (1982) recommended that fencing be constructed if the benefit to cost ratio exceeded 1.36:1. In Pennsylvania, Bashore et al. (1985) concluded that fencing was the cheapest and most effective technique for reducing white-tail DVA along short stretches of highway.

2. Crosswalks
Crosswalks are used in conjunction with fencing to force deer to cross at well-signed specific crossing locations (Danielson and Hubbard 1998). Although not statistically validated due to lack of replication, Lehnert and Bissonette (1997) found in Utah that deer mortality from DVA declined 42.3% and 36.8% along a 4-lane and 2-lane highway respectively, where highway crosswalks were used. They found that the lack of motorist response to crosswalk warning signs, the tendency for foraging deer to wander outside crosswalk boundaries, and the relative ineffectiveness of 1-way escape gates contributed to most deer mortalities in the treatment areas. They recommended improving crosswalk design by moving fences inward closer to the highway to allow deer more access to desirable forage along the ROW.

Danielson and Hubbard (1998) stated that complete elimination of DVA by installing crosswalks is unlikely, but found them to be a lower cost alternative to overpass and underpass construction. Lehnert and Bissonette (1997) estimated the cost of constructing deer crosswalks at $28,000 and $15,000 per structure for the 4-lane and 2-lane highways, respectively. These costs did not include fence or 1-way gate construction.

3. Underpasses

Underpasses are used primarily in conjunction with fencing to funnel animals to the structures (Putnam 1997). The theoretical basis for their design is that an underpass not be so long, narrow and confining as to preclude use by deer. The factor developed to measure this response is "openness effect", determined by the underpass height, times the width, divided by the length.

Reed et al. (1975) and Reed (1981) documented deer use of an underpass (openness factor of 0.31) built specifically for deer under I-70 in western Colorado. These studies determined that deer adapted to using the underpass over time, but that some deer continued to be reluctant to use the underpass. Reed et al. (1979) reported on 11 other underpasses used by deer, two of which were twin bridge structures (4.57 and 5.57 openness factor) built specifically for deer. Deer showed no reluctance using these underpasses compared to the 0.31 openness factor in the other two studies.

Ward (1982) investigated deer use of 7 underpasses in southeast Wyoming. The underpass receiving the most usage had an openness factor of 5.44. Ward (1982) suggested that deer exhibited a learning response to the underpass over time.

Danielson and Hubbard (1998) reported that for underpasses and other ROW crossing methods to be effective, structures must be located where natural wildlife corridors occur (Bruinderink and Hazebroek 1996). In Idaho, crossing structures that were not located at traditional game corridors failed to reduce DVA, and fencing to redirect deer to crossing structures outside of natural corridors were ineffective (Hanna 1992).

Reed (pers. comm.) recommends an openness factor of near 2.0 for underpasses to be effective. Reed (1995) gave underpasses a 78.5% effectiveness rating at reducing deer-vehicle accidents.

4. Overpasses

Overpasses are also used primarily in conjunction with fencing to funnel animals to the structure (Putnam 1997). A theoretical basis for design is that overpasses not preclude cervid crossing by being too high, long or narrow. The factor developed to measure this response is "bridge effect" (bridge width times the square root of the height divided by the length). Putnam (1997) stated that overpasses require a minimum width of 30 meters and must be covered with dirt and grass to be effectively used by animals.

Reed et al. (1979) investigated the willingness of deer to cross overpasses of 0.43 and 0.65 bridge effect in Colorado. Deer showed slight to moderate reluctance to cross.

Reed (1995) stated that twin overpasses each with a bridge effect of 0.26 were recently constructed over I-15 in Utah specifically for deer. Location, topography, vegetative cover and lack of overhead structures were considered important factors influencing the design and construction of these overpasses.

Studies have also investigated the use of overpasses by reindeer (Klein 1971) and caribou (Child 1974). Increased protective cover on both sides of overpasses and underpasses increases the likelihood of use by deer and other wildlife, although both overpasses and underpasses require an adjustment period for deer to become accustomed to using them (Putnam 1997).

Reed (1995) gave overpasses an 88.1% effectiveness rating at reducing DVA. However, Danielson and Hubbard (1998) stated that wildlife use of overpasses appeared to be less than underpasses.

5. Reflectors

The intent of wildlife reflectors is to redirect light from vehicle headlights to the side of the highway, creating a wall of light that supposedly stops deer from entering the roadway until after the vehicle has passed. In theory, in contrast to fencing, wildlife reflectors provide a "barrier" to wildlife only when vehicles are present at night, allowing otherwise normal wildlife movements across the roadway (Danielson and Hubbard 1998, Putnam 1997).

Reed (1995) identified two types of wildlife reflectors that have been tested; a stainless steel mirror, and the Swareflex reflector, a red plastic lens developed by the Austrian firm Swarovski & Co. The hypothesis driving the development and marketing of the Swareflex reflector is that deer respond adversely to red light, since it has been suggested that a predator's eyes appear red to deer.

Reed (1995) stated that although a number of reflector studies have been conducted, most have not had adequate sample sizes or controls to differentiate temporal and/or area effects, such as changes in deer population and traffic levels. Reed (1995) cited several studies (Gordon 1969, Woodward et al. 1973, Almkvist et al. 1980, Gilbert 1982, Olbrich 1984) that concluded that reflectors were not effective at reducing DVA. Danielson and Hubbard (1998) cite other studies (Reeve and Anderson 1993, Ford and Villa 1993, Gilbert 1982, Waring et al.) that also concluded that Swareflex reflectors were ineffective at reducing DVA.

However, Schafer and Penland (1985) controlled for differential area and temporal effects (changes in deer populations, traffic levels and other environmental trends) and found a statistically significant difference suggesting that Swareflex reflectors were effective at reducing deer-vehicle accidents in Washington. This study did not, however, meet the sample size of at least 95 accidents needed to test the null hypothesis, as recommended by White (1983).

Zacks (1986) found no evidence that white-tailed deer (*Odocoileus virginianus*) responded negatively to red light generated by Swareflex reflectors. He suggested that the positive results found in Schafer and Penland (1985) and Schafer et al. (1985) were more likely the result of increased driver awareness than the effect of the reflectors on deer behavior.

Reed (1995) summarized wildlife reflector research as providing conflicting results, but suggested that the premise underlying Swareflex reflectors (that deer avoid red light) is likely flawed.

6. Wildlife warning whistles

Wildlife warning whistles are mounted on vehicles and are intended to warn animals of approaching vehicles. These ultrasonic devices operate at frequencies of 16-20 kHz (Romin and Dalton 1992, Danielson and Hubbard 1998).

Reed (1995) was aware of only a few studies specifically testing the effectiveness of ultrasonic devices at reducing DVA. Schober and Sommer (1984) found several acoustic devices ineffective, including the Sav-A-Life deer-whistle marketed in the U.S. and Canada. Romin and Dalton (1992) did not detect any differences in responses from 150 groups of free-roaming mule deer to vehicles mounted with and without Sav-A-Life and Game Tracker wildlife warning whistles. Bomford and O'Brien (1990) found that ultrasonic devices did not perform as claimed when testing deterrents for animal damage control applications. Sales and Pye (1974) did not include ungulate species in their list of animals possessing ultrasonic sound capability. Some sources recommend low-frequency sounds (<20,000 Hz) for repelling ungulates, although deer appear to habituate to the sight and sound of traffic (Reed 1995).

Reed (1995) suggested that additional research be conducted to answer two fundamental questions: 1) do cervids possess ultrasonic hearing capabilities greater than 20,000 Hz; and 2) do cervids habituate to sound stimuli in the ultrasonic range, if it is perceived.

7. Highway lighting

Reed et al. (1979) and Reed and Woodward (1981) tested the hypothesis that increased highway lighting would reduce DVA, but found that increased illumination was not effective at reducing DVA under the conditions of their studies. Reed (1981a) concluded that increased highway illumination was not effective at reducing DVA.

8. Vegetation manipulation, intercept feeding and salt alternatives

Since highway ROWs may provide attractive food sources for deer, palatable plants and mast producing trees should not be planted (Bruinderink and Hazebroek 1996, Leedy and Adams 1982).

Hafenrichter et al. (1968) recommended streambank wheatgrass (*Agropyron riparium*) as a less palatable grass species that has been used along highway ROWs.

Pojar (1971) tested the hypothesis that reduced vegetative cover along roadsides would reduce accidents by increasing motorist visibility. Sufficient evidence was not provided by the study to support the hypothesis.

Reed (1995) reported minimal testing of the effectiveness of vegetation manipulation on DVA. Svoboda (1974) found that attempts to establish roadside plant communities unattractive to deer have not always been successful.

Wood and Wolf (1988) report that providing deer with foraging areas between bedding areas and highway ROWs may have reduced DVA by 50% in Utah. However, they recommend intercept feeding only as a short-term DVA mitigation strategy and only in areas of high deer concentrations (Wood and Wolf 1998).

Bruinderink and Hazebroek (1996) report that road salting for deicing may attract deer to highway ROWs. Feldhamer et al. (1986) recommeded using deicers other than salt to reduce the attractiveness of DVA. Bruinderink and Hazebroek (1996) recommended using calcium magnesium acetate instead on sodium chloride for deicing roads.

9. Warning signs, speed limit reduction and driver education

Signs warning drivers of high-risk deer crossing areas are the most common DVA mitigation strategy (Putnam 1997). Reed (1995) stated that warning signs are a possible method to reduce DVA by increasing driver awareness and/or reducing driver speed. Mansfield and Miller (1975) concluded that 76x76 cm. symbol-type warning signs were effective at reducing DVA in 11 of 19 study areas in California. Reed (1995) states, however, that in 9 of the 11 successful areas, the differences were not statistically significant.

Pojar et al. (1975) found that mule deer-vehicle accidents were not significantly reduced by lighted, animated deer crossing signs in Colorado. Drivers apparently did see the signs but did not respond by reducing speed or increasing awareness enough to significantly affect DVA frequency. Reed (1995) reports that similar research on the effectiveness of signs in reducing DVA accidents in Sweden showed these measures to be ineffective as well (Edholm and Kolsrud 1960, Aberg 1981).

The greatest motorist speed reduction response was recorded by Pojar et al. (1975) after placing three dead deer carcasses on the highway shoulder close to a deer crossing sign. Vehicle speed was reduced by an average of 7.85 mph, but the test was discontinued for liability reasons.

No specific research has been conducted to determine the effectiveness of driver education on mitigating DVA (Danielson and Hubbard 1998, Reed 1995, Romin and Bissonette 1996). Reed (1995) suggested that even with intensive driver education using simulators or other methods, reduction of DVA rates would be minimal due to other uncontrolled conditions such as nighttime vision impediments, weather, and road conditions.

10. Chemical Repellents
Danielson and Hubbard (1998) reported that chemical repellants have been used in Europe to reduce DVA. Putnam (1997) reported that chemical repellents are sprayed along roadways in Germany to create ungulate avoidance "fences", but this method has not been tested adequately.

11. Deer herd reduction
Reed (1995) was not aware of research designed specifically to evaluate the effectiveness of hunting in reducing DVA. He suggests that both-sex hunts could reduce or eliminate subpopulations, thereby reducing or eliminating DVA occurrence, but warns that implementing this strategy could be difficult to defend from a philosophical and public policy perspective. Waring et al. (1991) found that DVA did not decline on their study area, although the white-tail deer population was decreased.

12. Possible vehicle modifications and devices
Danielson and Hubbard (1998) reported on alternative technological devices in the testing phase that may be available in the future to deter DVA. These include: 1) modified vehicle headlights that may reduce the tendency for deer to freeze in the headlight glare, which are currently being used in Europe (low-glare headlights are illegal in the U.S.); 2) infra-red detection systems developed by General Motors that are currently being offered in some models; and 3) intermittently lighted warning signs at deer crosswalks (or high DVA areas) that are triggered by ungulate movements or body heat.

Of these techniques, Danielson and Hubbard (1998) suggest that infra-red sensing devices used in conjunction with solar-powered warning signs hold the most promise for the future for reducing DVA. They estimate costs at $1000-1200 per unit, with biennial replacement costs of $7-10 per unit.

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Appendix L – Public Hearing Transcript

ARIZONA DEPARTMENT OF TRANSPORTATION

US 93, WICKENBURG TO SANTA MARIA RIVER

Wickenburg, Arizona
November 17, 2004
6:00 p.m.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Prepared For:
ARIZONA DEPARTMENT OF
TRANSPORTATION
(Original)

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I N D E X

P R O C E E D I N G S

MR. LINDNER: Good evening. I'd like to welcome you to the Santa Maria River Wickenburg Environmental Assessment and Design Concept Report Project.

And anyway we have two other meetings. This is the third, and we are going through the environmental analysis process. And part of that process --

But before I do that, I want to do some introductions. We've got several people here from Arizona Department of Transportation. We've got Paul O'Brien. Paul's the project manager for this project.

We have two district engineers here. Sam Elters is in the back. Sam is the district engineer from Kingman, and he's responsible for the north area of the project.

Tom Foster over here is from Prescott. His area is the southern part of the project.

And we also have Roxanne Turner here tonight somewhere. Roxanne does rights-of-way, so she's the one to ask questions on this.

For the Federal Highway Administration -- Federal Highway is the agency for this project, and I

saw Tom Deitering. Tom is the area engineer for this particular area.

And Ken Davis is over here. Ken is the lead for the environmental process. He's responsible for all the environmental work that's done in the state of Arizona.

And from the Bureau of Land Management, the cooperating agency is John Reid. John is from the Kingman office.

And I didn't see any of the Wickenburg officials. Is there anybody from Wickenburg here tonight?

Okay.

From Jacobs Civil -- oh, I did see Rusty Gant. He's a board member. He works the Arizona Department of Transportation road board.

We have from Jacobs who are our on-call consultants who have been doing all the work on this project.

But we've got Berwyn Wilbrink back here. Berwyn will be part of the program tonight, and he's --

What is your title? I know you're an engineer.

But he's the project manager as well.

And Laura Gerbis is also in the program tonight, and she's an environmental person.

And I did see Todd Ligon here. Todd is also a part of the environmental program.

So if you haven't stopped by the front desk, please do because you can get some neat handouts.

This one is a short summary of the project, and it has a lot of information. And it talks about where we are in the process to give you some information, names, phone numbers, contacts, and things.

Probably the most important thing we have got is this green sheet, and this is where you have an opportunity to tell us what your comments may be on the project, anything you want to tell us about. This is the most convenient form to provide us with written information.

We also have a court reporter here in front. She's busy right now. As you can see, she's transcribing all of what we say here tonight. But after the question-and-answer period, she will be available if you'd rather provide comments verbally as opposed to writing them down.

You can leave here tonight if you want to

think about it and read this brochure and provide your information there. You can send it either via fax or stick it in an envelope or whatever.

But anyway, that's sort of what we're trying to do tonight. We're at the stage of the project --

I guess I better go over here.

We're at the stage in this project where we need to find out what you think about it and to make sure that we have completed our analysis to the point where we can go forward.

And our program tonight --

Do you have that agenda slide?

We were planning on doing this tonight. First of all, Berwyn is going to go over the purpose and need and provide an overview of the study and recommended alternatives. And Laura will then talk about the environmental effects and impacts of the project.

After that, we'll have a short question-and-answer period. And after the question-and-answer period in case you thought about something or you want to look more specifically with the maps and talk with one of our representatives, all of the Jacobs people and ADOT people will be here

after the question-and-answer period. And you also have at that point in time, like I said earlier, an opportunity to provide verbal comments.

I'm forgetting something here.

As you -- if you provide comments tonight, please identify yourself by your name so that we can attribute the comments to you and at the beginning of your comments, and then try to -- I drew sort of a blank here.

But anyway, I guess with that, I will turn it over to Berwyn.

There was one other thing that I was going to say about the comments tonight but...

MR. WILBRINK: We want your comments. That's what we were going to say.

Is that how you were going to end that?

Cool.

PRESENTATION

MR. WILBRINK: Thank you again for coming tonight. We're going to start off with a presentation tonight with a little bit of an overview as to what's happened on 93 and give you background information. And then we'll focus on the improvements from 89 to

the Santa Maria River. That's the focus for this evening.

If your thought is that we were going to be talking about the bypass or the other improvements, we have some exhibits that show you some of that information, and we'd love to chat with you at the boards.

But that's not the intent of the public hearing tonight. Our focus tonight is certainly to focus between SR 89 and the Santa Maria River improvements.

So with that, the project purpose and need, why we're here and why we're looking at this.

Basically to follow to improve the traffic operations on the US 93 between the 89 interchange and the Santa Maria River, which is a four-lane divided highway, provide a capacity for the projected traffic that's going to be coming down here no matter what we do. So we're going to make provisions for that.

Improve the passing opportunities that are on the highway. That will happen with a divided roadway as well as the four-lane facility.

You're making jokes over here. I make the jokes; okay? That's my job. Okay.

Reduce the accidents and the potential for

the head-on accidents -- head-on collisions. And that's certainly a serious concern. But with the divided roadway concept, we can certainly accommodate that.

So as we go through the state where we're focusing -- instead of just looking at the area in the small spot, we're going to take a look at the entire US 93 corridor and look at what ADOT's been doing on that corridor over a period of time.

We look in the northern portion of the state, the US 93 corridor is going from the convert all the way up to lost wages.

And the improvements that we've been doing that ADOT has been studying has just not been in the last couple of years but for the last several years. Starting with the corridor study that evaluated -- the microphone fell -- started with a study that looked primarily between Wickenburg and I-40.

That's where most of the improvements have been occurring. We couldn't do all of those improvements with one study, and we couldn't do all those improvements at one time. So instead of looking at one major corridor, we looked at a corridor study and an environmental overview, and that made recommendations to break it into three smaller pieces

that were more manageable.

Those three segments first focussed on the area in-between the Santa Maria River and Wikieup. That's the area that's now mostly completed with construction. So that's where most of the accidents were occurring where we had most of the problems with the geometry, and that's where most of the concerns were, and that's where your comments told us to focus as we did our improvements.

The secondary focus was to the north of that from Wikieup to I-40. The design concept in the environmental document are now complete for that, and we're moving forward with the design and the improvements.

The first construction improvements -- the meeting was held yesterday in Wickenburg, and those improvements around the Antelope Wash area south of I-40, construction will be starting soon. So those improvements are underway.

The final leg with the improvements from the Santa Maria River into Wickenburg. Now, these improvements had not just happened over a short period of time. There are other improvements going along the corridor all the way up to Las Vegas.

A design concept report -- that's what a

DCR is and an environmental assessment, an environmental document that evaluates for the completed park projects that occur between the Hoover Dam and the Milepost 17. That was just completed this year.

For the improvements, if you've been through that stretch, that's the only remaining portion north of Kingman that's not divided. That's been looked at, so those improvements are forthcoming.

The stretch between that point, Milepost 17 and Milepost 70, an access management study, how to manage the access has been looked at. That's been completed this year, and improvements are being looked at for that as well.

The DCR that I mentioned already had been completed between Wikieup and I-40. Most of the construction is complete between the Santa Maria and Wikieup.

And then finally transportation planning has been looking at some of the improvements. They have held some meetings here recently looking at the Canamex corridor. The Canamex corridor, if you're aware, has been defined from Mexico coming on up I-8 -- excuse me -- I-10, coming over I-8, going up to 85, and then it magically stops at I-10.

And then magically somehow it gets around the metropolitan Phoenix area. And then when it gets to Wickenburg, it goes from Wickenburg to Las Vegas on 93. And they're trying to define where the Canamex corridor will make that connection. And they're looking at Vulture Mine Road as that potential corridor for the Canamex corridor. So that study is being completed this year.

Those improvements to improve Vulture Mine Road approximately $186 million, so again, a lot more money to improvement those roadways.

As we look and focus at the Wickenburg area itself, we have done a lot of different studies and broke it into several little pieces of late. The improvements include -- basically the study started at the intersection of State Route 74 near Morristown. That's where we started the improvements, and then we did those improvements all the way up to the Santa Maria River. Okay. That's the total corridor improvements that we have been looking at.

Many of you have been involved with the bypass that we've been considering going around the town. A feasibility study has been completed and an environmental overview for that work. The feasibility study couldn't be carried forward because our

partners -- the BLM is doing some additional environmental investigation.

The BLM owns everything in orange, and they're doing a resource management plan on their BLM land. That is underway right now. When that study is complete, most likely it will continue with the rest of the bypass study and finish that up.

In that study, there were two corridors to find, and those two corridors will continue to be evaluated further until we come up to the final solution.

Other improvements. Most of you are aware of the improvements going on in the downtown area. We have an exhibit that's over there. If you want to chat about that after the meeting, you're welcome to do so. The improvements for those improvements are scheduled to start or the construction will advertise May of 2005. So that's right around the corner. So those improvements are occurring.

What we are here -- oh, I mentioned also the Canamex corridor that will tie in the Canamex improvements to the ultimate bypass. So that's how that will all come into place. So when the Canamex corridor is defined, it's not only Vulture Mine Road but the rest of the bypass as well becomes defined as

part of the Canamex corridor. So that's how those improvements are tied together.

Finally, we have the northern segment, which is our focus for this evening. And so we're going between 89 and the Santa Maria River.

Now, there is a little bit of a gap in terms of where you're driving today and the interim bypass and 89. And there will be evaluation of some other minor improvements or other improvements that can be occurring like improvements to the 89 interchange itself and other possible left-turn bays or something else on 93 in-between those. ADOT will start those evaluations shortly, but that's again not part of this study.

As we focus on the improvements to the north, just to get you familiarized with what we're talking about -- again, the Milepost limits at the beginning of the study and at the end of the study, the Santa Maria River is on the top.

The 89 intersection is over here. The Vista Royale Subdivision where a lot of you I believe are from that general area. We're talking about that over here. We have the intersection, the 71. We go through the Joshua Forest Parkway, and that's what we're here to talk about.

At one point in time or at some point in time, the ultimate bypass will tie into this, and so that has to be recognized as we look forward with our improvements. That's the approximate location right now as we see that thing coming in.

As we look at the segments in the corridor, we've broken this down in three major areas because they differ in terms of topography and the land, so we call the Sections A, B, and C. Starting at the south end, Section A is where there's more development, more private property.

On this map if you see a white blotch on it, that's private property. The stuff that's checkerboarded over here in orange, that's owned by the BLM. The man over there in the kind of orange shirt, that's the BLM guy; okay? He even dressed to the map.

And then we have the blue stuff over here. It's all state land. And so that's all Arizona state trust land. And so please understand that's state land. That's not Arizona Department of Transportation land; okay? We had to pay for it just like everybody else. But again that's available; okay?

As we look at the improvements north of the Vista Royale Community, we go from the Canamex

corridor connection and beyond the 71 interchange, and this is an area where right now it's nice straight roadway. And for the most part, that's where all of you are trying to see if you can pass that horse trailer. That's what's happening for the most part.

And in that particular area, we have right-of-way already that accommodates for us to build a new roadway parallel to it. We already own the right-of-way. If you drive out there, you'll notice the fence is not exactly in the -- or the road is not in the center of the fence. We have quite a bit of room to the west side of already built the improvements.

At the end of this -- this is Milepost 180 where it stops, and that's where the Joshua Forest Parkway incorporated begins. And so those improvements -- they have a little bit more topography, a little bit more things to watch out for, some neat-looking trees, as well as many drainage ways, and all the other stuff. And so our roadway is doing some different things in there.

We also have other things -- other crossings like Date Creek, Big Jim Wash where we have some bridge structures that we have to focus on as well. That's what basically our study corridor is

looking at.

The type of roadway that we're proposing to build through here is a divided highway. We call it a highway, not a freeway although for this entire corridor from the bypass up to I-40, ADOT is looking to the future to build this facility such that it can be a freeway in the future; okay?

But the first part of construction will be a divided highway. When we talk about a divided highway, we are talking about using the existing roadway for one direction of travel, the existing road that's there today, and then we'll build a new roadway not necessarily parallel to it but next to it one way or another. And that will be constructed on either side as we best see fit to match the terrain and all those other features that we have been talking about.

So with that type of roadway, we looked at all sorts of alternatives as to how we can improve the roadway between those two points.

And the factors that we had to avoid was one of the first ones was right-of-way. We tried to avoid as much private right-of-way as we possibly could. We tried to avoid the impacts to all the facilities regardless of the right-of-way. That's what the environmental statement is looking into. But

we certainly don't want to take any private property if we can avoid it.

We have drainage. Some of the drainage in the lower areas just simply crosses the road, and that's nice and simple. As we get up in the Joshua Parkway, the drainage goes parallel to the road. And sometimes what we have done is we've shifted the roadway so that we have the drainage in the middle, and we don't touch it.

So in some places to the north when you look at the exhibits, you're going to say: Why are you so far out over here and then you come back over.

More than likely, we were trying to avoid a drainage way, so it looks somewhat natural and that the highway blends in with the topography.

Of course, as a civil engineer, my goal is to pave the entire planet. But that's why we have the environmental people here. They're here to make certain that we do things right and protect that environment.

Okay. We also talk about blending with topography. Some sides of the road is easier to build the road and make it match that design speed to make it a little bit easier. So again, we looked at both sides of the roadway for that.

And then we can't avoid the visual. It's a scenic parkway, and we're trying to retain that. So we even try to look at where the greatest clusters of trees are and try to avoid those clusters of trees where possible with our photography and move the road such that, hey, this still is a scenic corridor for future generations to know and appreciate and drive through.

For those of you who are used to the Joshua trees, that's why there's a sign out there that says Joshua tree. I love that sign.

Anyway. As we continue -- as we look at the improvements that we've been talking about -- and I hope you can see this a little bit so it's blending in.

We've drawn a green line there after we've evaluated the various improvements. And what we've concluded is that on one side of the roadway below Date Creek, it's best for us to keep the improvements, the new roadway, on the west side of the highway. Again, because of the existing right-of-way already accounts for that in some areas and because of the topography, the drainage and everything else we've discussed, it lends itself best to build the improvements on the west side of the roadway.

As we approached Date Creek, we're going to be shifting the improvements to the other side of the road primarily for the topographic and the visual and the drainage features that we have. It's easier for us to build the road on the north side of the highway.

So the improvements will shift at Date Creek. And somewhere -- here we go. As we get to the top of the exhibit, you'll notice that when we tie in here at the Santa Maria River, the existing improvements are already built on the west side of the roadway, and so at the very north end of our improvements, we're going to cross the road again and get them on the other side. And we'll do that in conjunction where we cross the power lines. And we'll show you some pictures of that, and you can look at the exhibits for some more detail.

Also we have the interchange with SR 71, and that's the obnoxious bump that you currently drive over today. We're going to make some improvements to that as well. We'll show you that a little bit later.

We're going to rotate -- and you've got to work with me here. We're going to rotate that little map a little bit. And so north is now pointing down.

And what we ultimately want to do is I want to -- we're going to start with the Vista Royale.

Wickenburg would be over here. And so we've got the beginning of the project over here. And we've got the Santa Maria River over here. And we're going to look at the improvements with our area photography on the screen. So that's to get you oriented.

So we're going to start with the little spot in the Vista Royale community. So when we look at an aerial photograph -- and with the light, hopefully you can still see this. What we have is it's an aerial black and white. Here's the existing 69 intersection -- 89. Thank you very much -- comes on down, heads off north here.

We've got Burlington Northern Railroad that crosses through here and the subdivision and the private property parcels.

As we talk about the improvements that we're going to be building, the type of roadway section that we're proposing through here is a divided roadway, but it's the narrowest roadway section that we would like to build to minimize the impacts to those improvements on either side.

So the type of improvements -- what we'll be doing is the existing road will be used for northbound travel. We'll build a new parallel roadway on the west side. That's the red line here, and then

it turns to green. We're going to build a new roadway on the west side of the existing roadway 70 feet.

If you go on the existing road today to the subdivision, you're going to see a fence, the chain -- the barb wire fence the agency has. That fence is currently a hundred feet over; okay?

So it means the center of the road will not be as far as the fence, but our improvements will basically come right up to the edge of that fence with the new roadway; okay?

On this side of the road, we have the Vista Royale subdivision. You've got one access point here. We have got one access, you know, for this road that comes into the private properties over here. We've got Quail Run. We've got Nine Irons Road. We've got all the homes. So we're going to focus in on that area a little bit more and just show you the picture for the improvements that are going on.

What we propose to do through this area is to build, you know, the divided highway and make it what we call limited access. Limited access means you have access to the highway but not free ability to turn left and right wherever you want.

And we're going to restrict that and hopefully improve it such that right now we have a lot

of driveways that come off the existing highway. And for a limited access road, what we'd like to do is to consolidate all those individual driveways into an access road. That access road will start at Quail Run, cross Nine Irons will go as close to the existing road as we can.

It has to bulge out a little bit just to give you the ability to turn and make it at the intersection there. As soon as we get through the turns, we make it again close to the road as we can. Each one of the homes here that has access to the highway gets a driveway turnout. And we continue that all the way through the homes, and then there will be another crossover at that location.

There's three locations where we're going to have what's called a median crossover, an opportunity to cross the divided highway. In-between the blue dots, it will be a graded ditch. If you want to know what the road looks like -- if you've driven between Cordes Junction and Prescott on State Route 69, that's a 70-foot roadway separation.

And the left-turn bays would be similar in terms of how you're providing access into, like, the communities. And so that's the type of roadway section that we're proposing.

You still have access from all the roads to cross the highway and make your left turn, but you have the ability to do it safely, and you're protected in the median when you make that left turn.

As we -- now there's -- with these improvements, we won't be taking any right-of-way. We won't be taking a lot of right-of-way from the Vista Royale.

And what I meant by that is as we do the improvements with the intersections, these corners where we have to do the turning movements into the subdivision, right now you've got that white-fenced entrance. We're going to have to move it back obviously.

It'll affect the two homes on the immediate corner. But we're not getting close to the homes, and we're not getting close to your fences and stuff like that. But there's some right-of-way take there. And there's also a couple of places where there's a couple of pipes that cross the road. And we may have to do a drainage easement to make certain that the drainage continues to work. Those are the types of improvements that we're talking about on that side.

Obviously on this side there's going to be a take of more right-of-way. For the most part, it

affects a lot of the horse facilities that the property owners have there. And so that's something that you work through with ADOT in terms of replacement of those facilities.

You need to work with us to let us know. Can that go to the further east side of your property, or is that so steep that it really doesn't work? Those are things that we need to chat with you folks about. And that will happen more during final design. But as a concept, we really couldn't put that access roads since this is where all the individual access points are that's where the access road had to go.

We're trying to keep it as close as we possibly can to make the improvements as small as we possibly can.

Continuing to the north. Immediately north of this subdivision the improvements will -- this is where we're going to have --

One more click there, Doug.

Ultimately north of the Vista Royale subdivision, somewhere in this area the ultimate bypass will tie into the corridor. We don't know exactly where. So this is a wide swath.

When you look on our maps, we put a large blue area. That blue area that's shown right here is

about a mile wide. And that means that we can't be wrong where we put it. So somewhere over there is where the bypass is going to tie in most likely.

When the bypass ties in, it will have a facility designed such that the US 93 highway continues up over here as a divided roadway, and there will be an access point with an interchange like you see at 71 but a little better to continue to have access to the homes over here and have access to 89 and the entrance into Wickenburg.

Those are the improvements that are processed there.

One more click, Doug.

So again, this corridor is there. But we don't know exactly where. But that's approximately what it would look like; okay.

As we continue to the north, we mentioned about the SR 71 intersection; okay? This is the big speed bump that you currently have on 93 as you're heading toward Las Vegas. It's rather abrupt. You go over it. And everybody notices that, and it doesn't meet our current design standards for today for the speeds that you're driving.

So we can phase that in one of two ways. We can make that road a gradual hump over that

highway, which would take an awful lot of dirt that we don't really have in this area.

What we're proposing to do is to make the mainline, the highway of 93, flat and make it go straight through, so you won't have to worry about not seeing something on the other side of the bridge. And we'll make 71 go over the new highway. That's the way that it seems to make the most sense for the majority of the traffic.

There will be a little bit of change of access to the homeowners.

Oops. I should have used the one up here.

We have some salvage facilities, the propane tanks. Their properties go far enough to the north and to the south where they still have access to 71 when the grades come back down, so it's not excluding the access in that area. But we think that it will dramatically improve the intersection, and it'll make the highway have the best movement.

As we continue to the north -- forgot. There's the improvements. And so you can see the existing ramps that are there today. They're kind of short and they're abrupt.

When we get the final improvements done, it will be a lot more high speed to allow you to enter

the roadway, get your acceleration before you merge in with the rest of the traffic like you're supposed to do on a normal interchange. So that's what we're proposing for this particular location.

As we continue north, now we're going to be into the Joshua Forest Parkway, and our roadway starts doing a little bit more variation in terms of what it's going to be doing.

Everybody probably knows the two little knolls out here as you start to curve on the road. There's Date Creek over here. There's the landing strip right there at Date Creek.

When we took the photographs -- this is really cool. A B1 Bomber was flying, and we couldn't see the plane. But we got its shadow. That's what that is. At least that's what I've been trying to get people to believe. So it's really cool, but it probably isn't.

Anyway, as we look at the improvements when we enter the Joshua Forest Parkway from 71, the separation that we were proposing is 108 feet apart; okay? Through the Vista Royale area, we were talking 108 -- or excuse me -- 70 feet between the two roadways.

North of Vista Royale we are going to widen

out to 108. That's what ADOT desires to have for the roadway separation; okay. So you've got a nice large median and because there is very little topography, you'll still have some neat shrubs and other plants in the median and give you kind of a scenic look; although, it's pretty flat out there.

As we get onto the Joshua Forest Parkway now we've got topography and terrain, a lot of these neat-looking trees, waterways that we're trying to avoid. And so our separation goes to 200 feet or more.

Now, you'll always see the opposing traffic one way or another. It's not like they're going to be so far away you won't see them. But it will be a lot more separation, and it'll certainly be more like a parkway experience as you drive through that area.

So the improvements will start to widen to 200 feet, will still provide opportunities where there's existing roads that cross to have access and cross that median.

When we get over to Date Creek, this is an area where we have a lot of that drainage in the median that we're trying to avoid. And so the separation over here is about 800 feet. And again, we're just trying to stay out of those drainage ways

and make the road look as good as we possibly can.

I mentioned that ultimately this highway will become more like a freeway, an access-controlled facility. And if you do that, you can't have these median crossovers because you just don't cross the middle of the freeway. You have to do that at an interchange.

And so in the future, there will be provisions to provide interchanges along the US 93 corridor all the way from Wickenburg, all the way up to I-40 interchange.

If you've been to the improvement studies that we're doing from Wikieup north, all of those areas we're proposing to build interchanges in the future. And in most cases, we're buying the right-of-way for them now so that we have the ability to build those interchanges in the future without having a lot of improvements on those interchanges, and it's going to avoid or cause problems in the future.

So where it's possible -- if it's private land, we try and buy the right-of-way for those interchanges now so it's not so expensive in the future. So ADOT looks to the future to get these things done.

But these planning documents we've got to start thinking about these improvements now.

We'll get to all the questions at the end.

UNIDENTIFIED MAN: Where the hell is north?

MR. WILBRINK: North is that little tiny arrow. So Mickey's finger is pointing north; okay? So here at Alamo Road, you've got Date Creek and so Santa Maria River would be that way. Wickenburg is this way. And then here's the landing strip over there. So there's the ranch properties and stuff on this side of the road.

Does that orient you a little better?

Okay. So the blue lines that we've got showing here, you can see them on the exhibit as well. That's a concept of what could be an interchange in the future; okay. It's not cut in stone. But that's what we're looking at as a concept; okay.

Click. Continuing to the north. One more click.

The area through the Joshua Forest Parkway itself -- as we look at the improvements, our median tends to vary. In some areas like over here, you can see we have a drainage area that we're trying to avoid and keep the drainage in the median.

Where the road comes in, we can build a

roadway 200 feet, 300 feet, and we bring the roadway in closer. No reason to go that far out if we don't have to as long as it's still a good looking roadway. So that's why the median tends to vary.

Again, if we look at what could happen in the future, we could have to look at an interchange. Those interchanges are such that when we build something like that, we may have to build these long spider little access roads to get to other access roads that are in the area.

This isn't downtown Phoenix. You're not going to have an interchange every mile. You can't afford to build an interchange every mile. So we're going to put those interchanges two or three miles apart, so they're reasonable for an urban -- or for a rural environment. But those are some of the things again that we're looking at for a planning document.

Finally, we're getting to the end.

And we're approaching the Santa Maria River so -- and we look at the improvements through here. This faint white line that you see -- this is the power lines that currently cross over the roadway. The faint white line that you've got right here, that's the existing highway.

And what we'll have is -- we'll have again,

greater separation as we bring the roadway out over here and have some power towers in the middle. We have to find a spot -- the best spot to go in-between those existing towers because we don't like to pay to relocate them. They're expensive and so -- but they also have to have access to their facilities. So it has to be such that they can get an access road. We can get a roadway through there, and then when a semi comes through, it doesn't clip the wires. So all of those things are looked at as to how we locate the highway, and that's where we think this is going to happen.

As we come back and tie in with ultimately with the improvements that are already built at the Santa Maria River, the improvements will merge through this long tangent and shift from the east side and go to the west side. So when it's all done, you won't really notice that there was a shift when all the improvements are done. But that's where the shift will occur.

So last but not least, and then we do have a concept as to how we show the interchange going through the Santa Maria area to get access to the private properties on Santa Maria Road.

So that's a rough concept as to what the

interchanges could be. But more importantly, that's what we're proposing as the first phase of construction. We're going to talk about the implementation and how we'll build it a little bit later.

First Laura is going to talk a little bit more about the environmental process.

MS. GERBIS: So much for a brief presentation, huh?

Now for the real reason we're here. Tonight is a public hearing. And that is a proceeding that's required by the National Environmental Policy Act. It signifies that ADOT has completed the environmental studies for this proposed action. And the results of that study are in this report called Draft Environmental Assessment.

So I'm going to give you a brief summary of that because if we sat and read all the way through this, we'd be here for hours. So if you could go ahead, I'm going to hit each resource that we evaluated quickly. And on the third page of your handout, there is a summary of this as well if you want to follow along.

This is the process. And as you can see, we've had two previous public meetings that had to do

with this project. Tonight is the public hearing. After the public hearing, ADOT and Federal Highway Administration will review the comments that the public has to offer and make a final decision on this project.

The first topic I want to hit on is new right-of-way. Obviously because we're widening the roadway corridor, we have to purchase new right-of-way. For the most part, it's going to be on state trust land. However, there is some private land acquisition. The part that's in Segment A is right there along the Vista Royale area mostly because of the access road. They need to purchase right-of-way for that.

The 2.9 acres in Segment B is along the State Route 71 intersection area. And then in Section C, I think that's near Date Creek that they're going to be purchasing right-of-way.

Of course, a lot of you are concerned probably about the process of how ADOT compensates you, and we do have Roxanne Turner here. She is the right-of-way person from ADOT, and she can discuss that with you if you're one of the property owners that's affected.

There's also some grazing allotments that

are right in the path of the new roadway. We have four grazing allotments. They're all on state land up in the northern portion of the project area.

And one thing that ADOT is going to make sure during final design to work with the allotment holders to make sure that you have places where your cattle can move from one side of the road to the other. They will not be reducing any opportunities for that.

Water quality. Very important out here. You see one of our raging torrential rivers; right? We do have some places that are designated floodplains, 11 different spots where we're going to be crossing it and having minor fills because of the new roadway.

In addition, there are 90 designated waters of the US. That means they're jurisdictional to the Corps of Engineers. They're going to be having minor fill-ins.

We did work very closely with the engineers to make sure that the roadway alignment hits these washes at a perpendicular intersection whenever possible to make sure we take out the smallest part of the washes we need to.

And there are a lot of permitting

regulatory requirements in terms of how do we build it and how do we design it that will protect water quality.

With wildlife, we have determined that there are no threatened and endangered species in this area to be concerned about, but there are five sensitive species that we're going to be doing -- we're going to be taking protective measures for.

And that's the desert tortoise, rosy boas, the loggerhead shrike, the chuckwalla, and burrowing owl. And basically before construction, they're going to be doing surveys to look for these animals, and there will be special procedures during construction to make sure that we don't hurt them if they are in the area during construction.

Vegetation would be next. There is one of our beautiful Joshua trees, some of the most unique plants in the world. The roadway is as Berwyn mentioned, they are specifically going around clusters of Joshua trees to preserve them and other kinds of plants. Any cactuses and other native plants will be salvaged and transplanted to the point -- to the maximum extent possible.

The construction package will also include reseeding of certain areas and weed control for

noxious weeds of invasive species.

The visual impacts are very important on this project because we have a scenic road designation beginning at Milepost 180, and that extends another 60 miles all the way up -- way past the end of our project area.

But we want to make sure that it stays scenic for generations to come. And so we have -- in the environmental assessment, we've made a lot of commitments to how they will design the road to protect those visual resources, and that includes looking at what kind of views you can see, using earth tone colors in the building material and making it so that the slopes don't look engineered so that they look natural.

Air quality. Also another major thing. I'm sure a lot of you have seen the scene with a truck and a long line of cars behind it.

We modeled the vehicle emissions along this road for the next 25 years. We compared what it would be like with this new roadway versus what would happen if nothing was built at all; okay. And what we discovered is that we get a slightly better air quality if we build the roadway because you have better traffic operations. You don't have cars moving

very slowly. They're going -- they're not idling in the area.

But under all scenarios, the levels of emissions are well within the national standards for air quality.

Noise analysis. This is very important to a lot of you if you live near the roadway. All of -- again, we modeled the noise levels comparing the no build alternative to the build alternative with the proposed alternative. And what we have is in some places zero decibel increase and in some places up to three decibels. And that is noticeable, but it is not considered a dramatic change.

None of the places that we looked at which would be along the southern portion of the project area where there are residences, none of them came up to the 64 decibel level at which ADOT considers putting up noise walls. So there is no noise mitigation included in this package.

The no action alternative actually winds up with one house, I believe, that would be above the 64 level -- 64 decibel level. I got it. But that's probably again because the traffic operations are not as good.

Cultural resources. That means

archeological sites and historic sites. They are all over the place out there and unfortunately ten of them are unavoidable.

We have this very nice petroglyph out here. It's beautiful. But with these ten sites, there is a programmatic agreement between the different agencies, state historic preservation office. And they will address those impacts through data recovery and testing and things like that before construction to make sure that we document everything that is disturbed.

These petroglyphs will not be disturbed. I just wanted you to know they'll be in good shape. They are out of the right-of-way. They will not be harmed.

In terms of socioeconomic impacts, we do have the private land acquisition like I mentioned before. We do have one home near the 89 junction that is going to be displaced because of the access road. There's also two mobile homes near State Route 71 junction that are going to have to be moved because they're in the way of the new ramps.

And if this was wasn't enough for you and you want to read more, there are several places you can look at the Draft Environmental Assessment.

I do have four copies around the room. If you've got one of them -- because I know somebody does -- please make sure you leave it with us because they're not free. Gosh. They're expensive.

But you can also look at them later at the town hall or the Wickenburg library. Also you can download it and view it on the website -- the project website. And we always get people asking if they can purchase a copy, and I do have a phone number that you can call if you'd like to do that. See me after the meeting.

UNIDENTIFIED WOMAN: Is the whole project on the website?

MS. GERBIS: Absolutely. All of this information tonight is on the website, yes.

UNIDENTIFIED WOMAN: Thank you.

MS. GERBIS: And that is it for environmental.

Berwyn is here to talk to us about implementation.

MR. WILBRINK: Okay. Question. That's what everybody usually says. Okay. I like what you show. Tell me when the scrapers are going to be out there and when are they going to start moving dirt?

And that's where we get a little bit fuzzy.

So what we're going to show you is the process as to how we would build the improvements, and then we'll keep you updated as to how the progress goes in terms of programming with respect to the department.

When we build something like this, it's not really feasible for the state to go ahead and build all of the improvements at one time. We're looking at approximately $100 million to build the improvements between the two limits that we're proposing. And that's just for the initial construction.

It's going to include the other interchange improvements and whatnot. So it's just for the divided highway.

So as we build those improvements, what we've done is we've evaluated on the corridor where the highest accidents are, where are the places where people have the most problems, where's the problems with right-of-way. And we come up with what we call an implementation plan where we think it's best to build some of those improvements. And that's what we're ready to show you tonight.

Currently we're seeing that the projects would be broken into eight individual construction projects. Those projects -- that's the size of the project that most of the Arizona contractors can

afford to go after and construct for one of these improvements similar to what you've seen from the Santa Maria River up to the Wikieup area and beyond. That's the same kind of sized project.

And so -- and now the question is: Which one goes first. And what we're proposing in terms of the improvements is the first project would be up here on the Santa Maria area where we have the curves and whatnot around the towers or where we have the changes in grade. And that's where we still have the most accidents on the corridor south of the Santa Maria River. And so that will happen.

At the same time, those improvements will include replacement of the Big Jim Wash Bridge that's over there. So there will be two new bridges at Big Jim Wash and included with that first construction project.

From there, we're going to go back to the other side of the improvements and build the improvements over in the subdivision area but where most of the private property is and get those improvements done as quickly as we can and because that will be the secondary concern.

In-between, we now have areas as to what's the best place to spend the money and where again is

the most accidents and the changes in geometry.

For the most part, the stretch that we have in-between on the southern segment with this being straight, we don't have as many accidents there. We certainly have a problem with speed. But we want to take care of some of the geometry issues, so we're going to build the next three and four and five projects in this area to take care of the geometry and the terrain and improve the roadway through there.

As we continue with other projects, we get up to the edge over here, and then ultimately tying into where the bypass would be. And the bypass at this time would be unknown. And then finally to build the improvements at the 71 interchange. That's right now a plan for planning purposes. It's not fixed in concrete, but that's what we see happening.

ADOT has currently in their program to initiate the design for those improvements at the north end. In terms of ADOT's ultimate program, that's a continuously changing program. Each year they evaluate it. We don't know when these projects will be put into the program to get started.

I do know that the improvements to the north have been included in the program. So we don't have exact numbers as to gee, when am I going to see

the construction occurring. When am I going to see a right-of-way agent talking to me about my property?

Some of that we can talk to you about at the boards and give you some suggestions. Roxie can certainly talk to you about some of your right-of-way concerns.

But this is how we see the improvements that we propose tonight being constructed and implemented. So that's it in a nutshell in terms of the improvements we're going to be doing.

And I'll ask ADOT's project manager, Paul O'Brien. He's going to come over here and initiate the question-and-answer session.

QUESTION-AND-ANSWER SESSION

MR. O'BRIEN: We talked quite lengthy tonight, so I just want to say real brief again, my -- with ADOT and the roadway study section, and we're going to open it up now to questions and answers.

I don't think we really need a mike.

And we're going to just sort of address the questions as best we can with whoever needs to be -- the engineer.

We also have district engineers,

environmental analysts, Federal Highway, right-of-ways as we've been mentioning.

So with that, we're just going to open it up.

Also I want to remind you that we have the court reporter here tonight. If you could speak loudly and clearly, so she can get the right information.

First hand right here.

UNIDENTIFIED WOMAN: Can you put the map back with the 89, 93 section?

MR. WILBRINK: What we need to have for the court reporter is if you have a question, can you please say your name?

And that's what you need to have; right? Just their name? Okay.

So could we please have your name and then your question?

MS. ALLEN: Dorothy Allen.

MR. WILBRINK: Thank you. And is this the -- do you want the aerial map that shows specifically the improvements, or is this going to be satisfactory?

MS. ALLEN: I think that's fine. The private area there that's more there, are we -- what's

the off ramp or off -- getting off Highway 93 going to be like there?

MR. WILBRINK: For the bypass?

MS. ALLEN: Off the 93 right past the 89 split.

MR. WILBRINK: The improvements --

MS. ALLEN: There is a little left --

MR. WILBRINK: Right where our study begins for these improvements is where 89 is already divided --

MS. ALLEN: Right.

MR. WILBRINK: -- through the intersection.

MS. ALLEN: Right.

MR. WILBRINK: And we continue to the north.

MS. ALLEN: Right.

MR. WILBRINK: And that's going to put a separate evaluation of the interchange improvements.

That's not part of tonight's presentation because that area they want to spend more time to focus on specifically what's going to happen in that area. Moreton Road is not going to be lost. You are going to continue to have access there.

MS. ALLEN: Moreton Road is way past us.

MR. WILBRINK: Okay.

MS. HALLER: (Inaudible.)

MR. WILBRINK: Only ask a question if you tell us your name.

MS. HALLER: Oh. My name is Susie Haller.

MR. WILBRINK: Susie Haller.

MS. HALLER: Haller, H-a-l-l-e-r.

I think the question is a good question but (inaudible). What he's trying to tell you is that they don't have any information yet as to what they're going to do right at the junction. All this stuff they're talking about is more (inaudible), so you don't have to be concerned.

UNIDENTIFIED WOMAN: (Inaudible.)

UNIDENTIFIED WOMAN: Trust me. I know exactly what that's like.

MR. WILBRINK: Okay. As we do the improvements -- here's the 89 intersection, and we're tying into the existing divided highway at the divided road at the intersection and continuing north.

UNIDENTIFIED WOMAN: But you don't show any private property back in there.

MR. WILBRINK: It's going to happen in this area, anything from the intersection south will be a separate evaluation.

UNIDENTIFIED WOMAN: North of the 89

(inaudible).

MR. WILBRINK: If you're north of the 89 intersection, anything associated with improvements to the 89 intersection will be done with a separate scoping meeting and a separate evaluation.

MR. O'BRIEN: Let me show you on the board. It's more clear looking (inaudible).

UNIDENTIFIED WOMAN: When do you think you'll get to that project?

MR. O'BRIEN: Well, we are going to -- we are going to look at the study at that interchange in the near future. So that's going to start up relatively soon. It will probably take about a year to evaluate.

UNIDENTIFIED WOMAN: Thank you.

MR. WILBRINK: Does that answer your question as well?

UNIDENTIFIED WOMAN: (Inaudible) about the Moreton Road interchange.

UNIDENTIFIED WOMAN: Could you put that back?

UNIDENTIFIED WOMAN: The circle.

MR. WILBRINK: Okay.

UNIDENTIFIED WOMAN: The circle that you had like a cross thing?

MR. WILBRINK: You're going backward. Forward. Forward. Forward.

UNIDENTIFIED WOMAN: So what you're saying is that road, which is (inaudible) like bubbles.

MR. WILBRINK: We've got three more slides. Three hits. Okay.

UNIDENTIFIED WOMAN: That's good right there.

UNIDENTIFIED WOMAN: So that will be an actual division across the road --

MR. WILBRINK: What happens right now --

UNIDENTIFIED WOMAN: -- to go either way from that junction?

MR. WILBRINK: What happens right now at Moreton and Nine Irons -- it's a pretty good skew. And so depending on which way you want to turn, you're going to really have a challenge to keeping looking and safely cross that road.

There will be a crossover -- an opportunity to cross the highway, turn left, turn right, and a left-turn lane turning into it at that intersection.

But what we want to do is we want to line up those two roads so that when you come to the stop sign, you're perpendicular to the road. You can safely look left. You can safely look right and make

your movements.

So that's why these roads are shown realigned a little bit and because we're putting a crossover here at Moreton Road. It's too close to Quail Run. So there's not one at Quail Run.

So what you can do at Quail Run is you can turn right in. You can turn right out. If you want to make a left turn, you can do a U here or you can drive down this new access road and make your turn there.

That's the same kind of movement that you'll make over here on the access road. There will be a crossover here, and there will be a crossover here. You can't crossover here. You can't crossover here. You can't crossover in the middle.

MS. HALLER: Can I ask a question?

MR. WILBRINK: Can we have your name?

MS. HALLER: Yep. My name is Georgia Haller, and I reside at 36001 South Moreton Road, which is on the left side of 93.

I make a left-hand turn all the time. And I guess I'm concerned what you're saying is that there's going to be a new road from Quail Run that goes -- is that going to be where the new house -- where the house is going impacted that shows an impact

there?

MR. WILBRINK: The houses that we currently have an impact are over here. The new alignment -- now, one of the things that we have to look at is we have got a couple of year old photography and everybody keeps building. So no matter when you take a picture, something is going to change a couple of months down the road.

We're limited to a degree as to how far we can put that road and how close we can put it.

The issues that starts to occur is to safely make a turn and have some room for cars to queue up. We don't want to have them queue up through an intersection. And then somebody tries to make a hole, and they get hit when they try to cross the road. That's why there is a separation. There's a gap.

We have to make an opportunity for you to turn left, turn right. Those turning movements especially since you're all horse properties, we've got to look at the idea that if you have a horse trailer on a large truck, you've got to be able to turn there.

And so again, it needs more room to turn, so we had to provide a bigger radius. So that's why

it looks -- we can only think jug handles. But that's why the offsets are where they are.

MS. HALLER: Do you have a copies of what you're showing us on the slides in the impact study or in some other information that we can have?

MR. WILBRINK: We have some of the information --

MS. HALLER: Do you have it in this room?

MR. WILBRINK: A lot of the stuff that we show on the slides is available in the environmental document. And then after tonight, we'll get the entire slide show on our website.

MS. HALLER: Okay. Thank you.

MR. WILBRINK: So if you can't -- if you don't have access to the Internet and you can't get something, if there's a particular slide you want a copy of, give us a call and we will get it to you.

MS. HALLER: No. I have access to the Internet.

And I would just like to mention one other thing that was very sad that someone took the copy of the impact study that was at the Wickenburg library that people could take a look at that someone took it away from the library, and it's not available there to look at.

MR. WILBRINK: We'll get another copy there.

UNIDENTIFIED WOMAN: I understand that this is going to be Phase 2 of your project. Do you have any idea at this point in time when Project 2 may start?

MR. WILBRINK: It would be really hard to guess.

Tom, you want to venture a guess?

Tom Foster is the District Engineer.

MR. FOSTER: Monday we met on that and discussed that very topic, and the study should start -- really start within the next few months. And like I said, it (inaudible) and what we're looking to do is to develop maybe a little further than what they've done and go that segment because that's where a lot of the population is.

So when we start looking at prioritizing improvements, (inaudible.)

MR. WILBRINK: We can't give you a specific time. It's understood by ADOT to be a priority and as they're going through the program to put projects in the calendar, they're trying to put as much emphasis to this as they can.

MR. FOSTER: We have been developing a

fiscal (inaudible). We work on a five-year program. We don't know that any of the projects are going to make a fiscal year. So it's a long ways out. (Inaudible) given a long process to (inaudible).

So we're looking at -- and we want to do the right thing. And once we get into the design, you know, with houses being built on some of these conceptual roadway alignments, we may have to look at how, you know, what might be a better place to put that.

Right now this is a concept, and this is our best guess. Things can -- as we start the design process, which will come later on, and then we will have to get with people in that area to make sure that what's the best thing for everything -- everybody, a win-win for everybody.

MR. WILBRINK: Yes, sir.

MR. WADE: Bob Wade.

MR. WILBRINK: Hi, Bob.

MR. WADE: I see on your map right here you're removing (inaudible). I can speak for many ranchers in here. When you do that, we're going to have more of what we're getting right now on our entrances, baby diapers, beer cans, et cetera.

I wish for the state if they're going to

take it to reconsider, put it back up someplace so we don't have trash more than what we already have.

MR. WILBRINK: The comment was if everybody heard about the idea. Right now there are plans to remove the roadside table beyond the Date Creek Wash.

One of the problems is that's a terrible location around that curve. What we have is we've had a lot of RVs in particular that's a corner to an inside curve. That RV takes off at a whopping two miles an hour and somebody comes up at 70 miles an hour, and there's a rude awakening.

Your point is there is an issue with it, and you need to move it. I know that ADOT Environmental Planning is looking at other rest areas and other improvements along the corridor.

MR. WADE: Thank you.

MR. WILBRINK: There is also a cell phone located there. Provisions will be made to relocate the cell phone as an emergency phone in a pullout in that same area.

UNIDENTIFIED MAN: When you put a crossover, that's where they would have more trash.

MR. WILBRINK: ADOT is very much aware of that.

UNIDENTIFIED MAN: Thank you.

MR. WILBRINK: Yes, ma'am.

MS. COLLINS: Sharon Collins.

MR. WILBRINK: Sharon Collins.

MS. COLLINS: Are the green lines paved? Are the green lines paved roadways? (Inaudible.)

MR. WILBRINK: Okay. The question is on the roadway improvements that we're showing like the green lines, are they paved.

When ADOT built access roads, those access roads are built to match what's in kind. So for a consolidation for all those access ways since most of them are paved, the access road and the frontage road will be paved; okay.

On all the turnouts that we show, a turnout being a right turn to someone's private property, we usually pave those to the right-of-way line. So in terms of -- the road will be paved. The driveway turnout will be paved to the fence, and from there on, that's up to the property owner.

In terms of the pavement and the roadway section that we are talking about, there are some sections on the plans, two 12-foot lanes of pavement. On the inside shoulder, will be a four-foot shoulder. On the outside shoulder, it's a ten-foot paved shoulder so much improved in some areas of what you

have.

Okay. Lots of questions. A lot of talking going on. If you've got something that you feel everyone needs to hear, please raise your hand. If not, we will gladly stick around and answer your question specific to your property except for BLM who gets the microphone right now.

MR. REID: Good evening, everybody. It's John Reid with the Bureau of Land Management.

I'd just like to go on the record as saying BLM does not own that land. That is your land, and you pay our wages. So I just wanted to get that on the record.

MR. WILBRINK: Yes, sir.

UNIDENTIFIED MAN: Where does the name Joshua come from?

MR. WILBRINK: Laura, where does the name Joshua come from?

MS. GERBIS: I believe it's Hebrew.

MR. WILBRINK: It's Hebrew. I guess Joshua -- I have no idea, and I'm not even going to try that one.

Any other questions?

Well, thank you very much for your attention.

Please, if you have a question or a comment that you would like to make on the record, please see the court reporter. We encourage you to give her your comments. We also encourage you to fill out the green form and give us your comments.

Thank you very much.

PUBLIC COMMENTS

MR. TECLAW: John Teclaw. And I would like to see some kind of noise abatement going through Vista Royale and lighted intersection going into Vista Royale and a separate turn lane going into Vista Royale.

That's it.

MR. WOLF: Stefan Wolf. We have -- we live on Date Creek Ranch, and we have concerns about our cattle operations.

We have a set of corrals, and we need shipping and simply access at the Date Creek Ranch turnoff. I don't know exactly where. It's between Milepost 177 and 178. We have various access points to our ranch right now to the highway, and we don't see any of those issues addressed on the current study.

We would like to have an opportunity to explain our concerns. Well, the turning radius needs to accommodate cattle trucks especially north and southbound. The current right-of-way change indicates that it touches on our corrals and shipping point shall make shipping cattle extremely difficult.

Another concern for us is that Date Creek Ranch is also a public orchard to sell apples and peaches during the summer and fall months. On some weekends, we get more than a hundred cars turning on our road. We would like to see the turnoff lane -- deceleration lane northbound to Date Creek Ranch Road, Yeah, and also back to town.

Another concern is that we don't see any crossover between Date Creek Ranch Road and the 93, 71 interchange. We frequently have to cross the road between Alamo Road-- well, no. The end of Alamo Road intersects with 93 right now would cross the road frequently, yeah.

In general, US 93 bisects our ranch. We moved cattle across underneath the highway. Right now we move the cattle underneath the highway and then ride across the highway on horseback across the highway. This becomes a four-lane highway. That won't be possible anymore.

So we would like to see accommodations, so we can ride underneath the road high enough that we can do that.

MS. KNIGHT: Karin Knight. We are the owners of Date Creek Ranch and as Stefan said, the highway goes straight through the middle of our operation.

We also have several families with children living on the east side of the highway. We have to have safe exits and entrances. Basically the best would be if we would have an opportunity to get our family members and the Department of Transportation and planning people together before the planning is finished so one could see provisions for the safety and the operation can be made.

It's too much to just write a letter, but we will write a letter just to have it in the file; that we would appreciate more input into that part of the highway.

That's good enough. Thank you.

MR. WOLF: Stefan Wolf. I would like to express support for a previous speaker, Bob Wade, about the closure of the roadside table past the Date Creek crossing.

We already fight a lot of trash that's left

on our ranch turnoffs. And if this roadside table is closed, we're afraid we're going to get a lot more of that, yeah. People use it as a bathroom, and we're left with the trash.

That's it.

MS. KNIGHT: Karin Knight. Improving the facilities for travelers along the road would help a lot in keeping it beautiful. Right now we get a lot of the trash in the absence of facilities. I don't want to say baby diapers. It's worse than that.

That's enough. Thank you.

MR. KNIGHT: Phillip Knight. We'd like to have a meeting with the planners because of all of the difficulties there where our road crosses the 93.

And we have a big dirt pond there full of water. It looks like the highway is going to run through them. We also need to be able to cross the highway with cattle and horses and people.

We also have a lot of several hundred people that come that drive from Phoenix. They have to be able to drive that highway without getting killed.

We've got a lot living there. We've got at least seven children that are having to go to school five days a week. And we have semi-eighteen wheelers

come in.

We feed our cattle, and they have to be able to make those turns. That's a major intersection is what it amounts to, and we need to talk about this to make it simple for people. But that is a major intersection.

So the whole thing there between 71 and -- what's the name of the Santa Maria? That's the biggest intersection in there.

Maybe that ought to do it. I don't know. There's a lot of problems there. We really need to talk about it.

Okay. Thank you.

MR. BROWN: Thomas Brown. I own a ranch. I'm concerned about the width of the highway taking the majority of my north end of the ranch. I'm concerned about my -- I'm putting in a new water well that could line up pretty much where the highway is coming.

I'm concerned about a left and right-turn lane or some access to our headquarters. I'm concerned about the cattle crossing east to west across the highways.

And I'm also concerned about the noise levels that are on the edge of the existing highway

for our headquarters. That headquarters is lived in year around. We work the ranch. We have employees that live in the headquarters year around.

I think that's it. Thank you.

MS. KNIGHT: Kim Knight. We would like to request a crossover that's between 177 and 178 Milepost.

Okay. That's it. Thank you.

(The hearing concluded at 8:03 p.m.)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I HEREBY CERTIFY that the foregoing was taken before me, LORENA W. ELDER; that all proceedings had upon the taking of said hearing were recorded and taken down by me in shorthand as a backup and thereafter reduced to writing by me; and that the foregoing 63 pages contain a full, true, and correct transcript of said shorthand record, all done to the best of my skill and ability.

WITNESS my hand this fourth day of January, 2005.

Lorena W. Elder
LORENA W. ELDER
Court Reporter

Appendix M – Public Comments and ADOT Responses

Citizen—Comment	ADOT Response
Richard Wertz—Can the roadway be built with rubberized material for noise abatement.	Although not proposed as a form of noise mitigation, ADOT will use a rubberized asphalt pavement overlay for this project.
Dana Burden—Hurry up improvements between 89 and new interim bypass - it is dangerous for turns off and on the highway. Rincon Rd becoming more of a problem as more homes are developed in the area - and they are coming fast.	The portion of US 93 you mention is out of the proposed project area for the US 93, Wickenburg to Santa Maria River study. ADOT is initiating a study of possible improvements to US 93 between Wickenburg and the SR 89 intersection and will conduct a public involvement program during that study to gather input from area residents on accommodating anticipated development in the area.
No name given—Build it.	ADOT has programmed design of the first segment to begin in Fiscal Year 2005. Construction is not yet programmed.
Lise Cole—A left turn lane needs to be put in for those of us living in Matthie Ranch and using Matthie Ranch Rd just north of the 89 turn off. It is extremely dangerous to make a left hand turn as it now exists.	ADOT is initiating a study of possible improvements to US 93 between Wickenburg and the SR 89 intersection. Improvements to the Matthie Ranch/US 93 intersection are among the items under consideration as a part of that study.
Stephen Cole—Our access is at the junction of 93 and 89, Matthie Ranch Road. This "exit" is dangerous when turning left off of 93 coming from Wickenburg. There is ample land to install a left turn lane. This is the area where 93 changes to divided highway and branches off to 89. Vehicles tend to line up waiting to pass where 93 branches to 4-lane divided. Residents of our neighborhood are in harm's way every time we turn left going home from Wickenburg. This is our only entrance. Fridays are exceptionally dangerous due to the crazies anxious to throw their money away in Laughlin and Las Vegas.	ADOT is initiating a study of possible improvements to US 93 between Wickenburg and the SR 89 intersection. Improvements to the Matthie Ranch Road/US 93 intersection are among the items under consideration as a part of that study.
Roger Collinson—Not one elected official from Congress, from the State, or from Wickenburg were in attendance at the hearing.	National, state, and local elected officials were invited to the hearing with notification letters, but it is to their discretion whether or not to attend.
John R Burden—Do it as fast as possible	ADOT has programmed design of the first segment to begin in Fiscal Year 2005. Construction is not yet programmed.
Eileen Collinson—As a resident of Vista Royale, I am concerned about having a 4 lane highway going through this very residential area. I also am concerned about how far north the "bypass" will be built from all of the residences.	In the Vista Royale area, an access road will be constructed to consolidate individual driveways. The intersections of US 93 with residential entrance roads will be improved to minimize conflicts between local traffic and through-traffic on US 93. The ultimate bypass, which is under analysis in a separate study of possible Wickenburg bypass corridors, is still in the early stage of

Citizen—Comment	ADOT Response
	development. An exact location for the bypass alignment has not been determined. ADOT anticipates that, pending positive outcome of NEPA analysis, the corridor would eventually connect to US 93 approximately three miles north of your area.
Mary H. Duell—It would behoove you to meet with the residences that will be affected by the road work. We live off of Nine Irons Ranch Rd and were astounded that such a major project is being planned and not being visited about. There is a resident who is currently spending a lot of money on horse facilities, fencing, and an expensive home after purchasing land at $25,000 an acre on Quail Run. It looks like you are going to allow him to proceed, then go right through his property. Shame! Others have been doing improvements without a clue that what they are doing is fruitless. Your website does no show what is really happening to our residential area, but you did have a colored picture in your slide show that was astounding!! Provide all of us with that plan.	For the design segment including the SR 89 junction and Vista Royale area, ADOT will administer a public involvement program in order to give area residents the opportunity to provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the 60 percent design stage addressing the concerns identified during the early coordination. Property owners should not postpone planned improvements to their properties at this time. Any improvements made will be considered in property appraisals during the acquisition process, if required.
Albert C. Duell—Please, please do what the BLM Rep from Kingman did. "Recognize." Now, all of you hear this. That you work for the TAXPAYER! CUT your overhead. We don't need 2-dozen engineer goons and in the arrogant nature seeking to be "song and dance" routine entertainers looking for applause while spending millions and millions of our tax dollars - just get on with your crap and don't study it to death and collect $200.00 with you "pass go" instead of millions for what - studies!! CUT THE ABUSE OF THE TAXPAYER. What kind of "overtime" did you collect for that show and tell?? Do Not start a "Taxpayer Revolt" - should one start, you won't be able to put out the fire!!	The US 93 environmental study and public hearing were conducted by ADOT and FHWA to meet the requirements of NEPA.
Tom & Lynette Brown—We own the Tres Alamos Ranch that lies on both side of Highway 93 starting about milepost 172 through 167 or so. Our main concern is the portion from MP 170 to 169. The highway is about 800 ft or so apart in that mile and will take up quite a lot of grazing land. We would ask to be allowed to graze the median in that mile or so portion. There already exists a box culvert the cattle use to cross under the highway to water at the headquarters. This box culvert could be used to access the median for grazing. Also we would ask that another box culvert be installed on the new section of highway that	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination.

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would continue to allow our cattle to cross under both highway sections. (The existing highway and the proposed new lanes.) Our headquarters is accessed through a gate on the west side of Hwy 93 between MP 170 and 169. You have a crossover planned for about ½ mile north of our turn in. It would be very helpful if this crossover could be placed at our turn-in instead. It would decrease our odds of an accident if we could avoid having to go past our gate to make a U-turn and go back a half mile	New CBCs installed for cattle movement purposes will be sized to be at least as large as the corresponding existing cattle pass on the existing roadway and to meet drainage requirements at that location. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations.
John Pingitore—We own the DG Ranch. This consists of 49,270 acres as 40,095 acres state land on the east side of Hwy 93, 8,300 acres of land on the west side of Hwy 93, and 875 acres of land interspersed on both sides of Hwy 93. We need the ability to get to both sides of Hwy 93. If this is done as a tunnel box under Hwy 93 it needs to be as big as possible. Hopefully both horses and/or a small pickup or jeep could pass through the tunnel box. We were told that the existing scenic corridor setbacks would not be changed when road improvements are performed. There needs to be a rest stop on both the east side and west side of Hwy 93. Because there is no rest stop on the east side of Hwy 93 people pull in to the DG Ranch entrance. Trash is left throughout the entrance. An east side rest stop along Hwy 93 would prevent the need to use the DG entrance as a rest stop.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. New CBCs installed for cattle movement purposes will be sized to be at least as large as the corresponding existing cattle pass on the existing roadway and to meet drainage requirements at that location. Due to the roadway characteristics, it is anticipated that the CBCs will be sized as small as possible to optimize the roadway profile. Correct, the scenic corridor setbacks will not be affected by the roadway improvements. ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Phillip and Karin Knight—After reviewing the Draft Environmental Assessment and our notes from your presentation on November 17, 2004, we have the following concerns regarding the design of Section C of the Highway 93 improvement project:	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but

Citizen—Comment	ADOT Response
1. It is a critical safety issue that there are deceleration and acceleration lanes in and out of Date Creek Ranch. Also, there needs to be an acceleration lane out of the corrals to facilitate loaded cattle trucks. The current average speed on the existing road is approximately 75 mph. There is no reason to think that speed will be reduced by the new design. 2. Currently, at least 19 people (including 7 school aged children) reside full time along Date Creek Ranch Rd. Stock (including valuable horses) owned by the ranch and other residents is routinely hauled in and out of the ranch. When this concern was mentioned to the engineer, he stated that there will be a 10' paved shoulder on the east side of the road that can be used for right turns. It is our understanding from the Dept. of Motor Vehicles that it is not legal to use the shoulder of a roadway to make a right turn. 3. Provisions have been made in the design for the horse properties toward Wickenburg so that stock can be safely hauled on and off the highway. The same consideration should be given to the ranchers and horse owners in the Date Creek Ranch area. An illegal turn from a 10' paved shoulder is not adequate for a full sized stock trailer. If semi trucks and passenger vehicles are traveling at 75-85 mph in both northbound lanes, there will be no place to make the turn off the highway. 4. The removal of the rest stop will increase trash dumping greatly. A rest stop must be established to include trash cans and restroom facilities. 5. The gate on the east side of the existing roadway close to the roadside rest provides the only access to one of the dwellings on out deeded property and to stock tanks for out cattle operation. The gate must be maintained. 6. Date Creek Ranch is located in Section C on both sides of the Joshua Tree Forest Scenic Road. While we appreciate the sensitivity of the design and the width of the median through the Joshua trees, out corrals located at Black Hill will be adversely affected by the proposed plan.	not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.

Citizen—Comment	ADOT Response
The DEA drawing shows the right of way fencing crossing directly through the cattle chute. Another major concern is that the existing holding pens and holding paddocks are within the proposed right of way. There is also a well head in the area. This is a major impact on our ranch operations and the corrals will be useless. Cattle trucks need to be able to back straight into the chute on a regular basis. The typical turning radius of a cattle truck is 75' or more and this distance must be included in the design. 7. Additionally, we were told by the presenting Jacobs Civil engineer that the existing gate on Highway 93 at the corrals is to be removed and the unimproved road across from Date Creek Ranch Road is to be paved and used for access to the corrals. This is unacceptable because there is no route around the dirt tank to the corrals. The corrals are confined by Black Hill to the west and the dirt tank to the north. The only possible entrance is by the existing gate. The proposed design will necessitate relocating the corrals in close proximity to the dirt tank. However, there is very little overburden in the area and installing wood or pipe corral posts would be very difficult. 8. We believe it is a critical safety issue to include a deceleration lane in the northbound roadway. In addition to our cattle operation, we have a commercial apple and peach orchard. During the summer and fall months we average approximately 100 vehicles per day on weekends exiting the highway primarily from the northbound lane at Date Creek Ranch Road. According to your report, Section C has the highest accident rate in the project and the second highest rear end accident rate. These statistics should be considered during the final design of the project. 9. Highway 93 bisects Date Creek Ranch and the existing cattle crossings and access to pastures must be maintained. Because of the lack of maintenance, the cattle crossings have filled with sand and equestrian and dog crossings have had to be made over the roadway. The preliminary design indicates that the median at Date Creek Ranch Road is 178' and varies throughout the ranch. This creates a very hazardous circumstance for horse crossings on the roadway. A horse	

Citizen—Comment	ADOT Response
spooked in the median by a snake, rabbit, loud traffic, etc. could create a very hazardous circumstance that could end in fatalities. Our cattle crossings need to include equestrian crossings. 10. It appears that the nearest crossing over the median to the south of Date Creek Ranch is approximately 4 miles south of Date Creek Ranch Road. This is unacceptable. Date Creek Ranch needs an additional crossing at Alamo Road. We use this crossing routinely for our ranch operations. Hunters and others use Alamo Road also. Additionally, there is access to private property across Date Creek Ranch on Alamo Road east of Hwy 93. 11. Another intersection of concern is at approximately MP 175.8. This gate on the east side of the highway is used regularly by bob tail trucks, loaded cattle trucks, stock trailers, etc. There are loading chutes on this road. The line of sight in the existing Hwy 93 southbound lanes is limited by vertical and horizontal curves to the north. It is critical that we have acceleration and deceleration lanes at this gate. 12. The U.S. Waterways that cross the highway must be maintained and must not be contaminated. The dirt stock tank at Black Hill is an integral part of our ranch operation and it must have an uninterrupted supply of water. Also, there are two water lines with permits at approximately MP 177.5 and MP 176.0 that must be maintained. 13. It appears that the median at Date Creek is approximately 800' wide. We request the use of the median for grazing. Thank you for your immediate attention. Please notify us as soon as possible of the changes made to the proposed plan.	
Eric and Claudia Knight—Please see attached sheet. In addition, we would like to add that we are currently in the planning stages to build a house on the other side of Date Creek on the Knight property. During floods, our only access is by a roundabout route reached via a gate on the east side of Highway 93 near the existing rest area. We need to have access to this gate from the proposed highway. Attached: After reviewing the Draft Environmental Assessment and our	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the

Citizen—Comment	ADOT Response
notes from your presentation on November 17, 2004, we have the following concerns regarding the design of Section C of the Highway 93 improvement project: 1. It is a critical safety issue that there are deceleration and acceleration lanes in and out of Date Creek Ranch. The current average speed on the existing road is approximately 75 mph. There is no reason to think that speed will be reduced by the new design. 2. Currently, at least 19 people (including 7 school aged children) reside full time along Date Creek Ranch Road. Stock (including valuable horses) owned by the ranch and other residents is routinely hauled in and out of the ranch. When this concern was mentioned to the engineer, he stated that there will be a 10' paved shoulder on the east side of the road that can be used for right turns. It is our understanding from the Department of Motor Vehicles that it is not legal to use the shoulder of a roadway to make a right turn. 3. Provisions have been made in the design for the horse properties toward Wickenburg so that stock can be safely hauled on and off the highway. The same consideration should be given to the ranchers and horse owners in the Date Creek Ranch area. An illegal turn from a 10' paved shoulder is not adequate for a full sized stock trailer. If semi trucks and passenger vehicles are traveling at 75-85 mph in both northbound lanes, there will be no place to make the turn off the highway. 4. The removal of the rest stop will increase trash dumping greatly. A rest stop must be established to include trash cans and restroom facilities. Thank you for your immediate attention. Please notify us as soon as possible of the changes made to the proposed plan.	early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Daniel and Frances Fisher—After reviewing the Draft Environmental Assessment and our notes from your presentation on November 17, 2004, we have the following concerns regarding the design of Section C of the Highway 93 improvement project:	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease

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1. It is a critical safety issue that there are deceleration and acceleration lanes in and out of Date Creek Ranch. The current average speed on the existing road is approximately 75 mph. There is no reason to think that speed will be reduced by the new design. 2. Currently, at least 19 people (including 7 school aged children) reside full time along Date Creek Ranch Road. Stock (including valuable horses) owned by the ranch and other residents is routinely hauled in and out of the ranch. When this concern was mentioned to the engineer, he stated that there will be a 10' paved shoulder on the east side of the road that can be used for right turns. It is our understanding from the Department of Motor Vehicles that it is not legal to use the shoulder of a roadway to make a right turn. 3. Provisions have been made in the design for the horse properties toward Wickenburg so that stock can be safely hauled on and off the highway. The same consideration should be given to the ranchers and horse owners in the Date Creek Ranch area. An illegal turn from a 10' paved shoulder is not adequate for a full sized stock trailer. If semi trucks and passenger vehicles are traveling at 75-85 mph in both northbound lanes, there will be no place to make the turn off the highway. 4. The removal of the rest stop will increase trash dumping greatly. A rest stop must be established to include trash cans and restroom facilities. Thank you for your immediate attention. Please notify us as soon as possible of the changes made to the proposed plan.	holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Robert G. Sutton—Thank you for your meeting of November 17, 2004. I live in the Vista Royale Development and are concerned about your plans for the New Highway construction on Highway 93 in the Vista Royale Area. 1. One main concerns I have is the noise when the highway is developed. You say it is not a serious concern as the noise level is acceptable. We don't think so as we purchased this property with the intention of having a secure quiet environment. We don't have it now	Noise impacts at sensitive receivers and the need for abatement measures will be evaluated during design according to ADOT's current Noise Abatement Policy. Although not proposed as a form of noise mitigation, ADOT will use a rubberized asphalt pavement overlay for this project. In the Vista Royale area, an access road will be constructed to consolidate individual driveways, and the intersections of US 93 with residential entrance roads will be improved. This will minimize

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we the trucks that are traveling the highway now so with the increased traffic it will by no double the noise level will increase. Resolving this problem we feel either a sound wall be installed and the blacktop that is used to absorb this additional sound. 2. Now when trucks come by our area we find increase sound when shifting gears or changing their speed level. 3. Making it easier for us at Vista Royale to get out on highway 93. There is a incline now so we can't see when anything is coming from the west so if we are driving a motor-home or even standard vehicle we are taking our life in our hand in trying to enter highway 93 when the normal traffic speed is 70-90 miles a hour and that includes truck traffic. We have in the past asked for speed bumps to allow us to enter highway 93 safely. It is much more concern than you can imagine. 4. On the weekends we are faced with a lot of extra traffic and the speed is normally 70-90 miles a hour and drivers keep on passing even over the double yellow line. This starts sometimes from Thursday to Monday morning. We sometimes have to wait 5-10 minutes to be able to enter highway 93 going east and if going west it is almost impossible to enter without going east and turn around to go west. I know I am only one person but talking to other people in Vista Royale they all have same concern.	conflicts between local traffic and through-traffic on US 93. For the design segment including the SR 89 junction and Vista Royale area, ADOT will administer a public involvement program in order to give area residents the opportunity to provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the 60 percent design stage addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations.
Bob Way—I learned at the meeting that ADOT is doing away with the roadside rest. Please keep it and move it. We who have driveways off of SR 93 often find garbage, paper, cans, bottles and the likes or other things. Keep the roadside rest.	ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Dorothy Allen—I know its past 12-1-04. Nice presentation on 11-17-04. I would really like to be notified when you get to the 89/93 intersection. Before you get all planned!	ADOT anticipates studying the SR 89/US 93 intersection as a separate project in the near future and will conduct an associated public involvement program at that time.
Stephen C. Goodnough, Jr.—I am out of town and otherwise would have attended your Wickenburg meeting today. I have read your Draft EA and have the following comments. As a Vista Royale full time resident I chose that area for its	Noise impacts at sensitive receivers and the need for abatement measures will be evaluated during design according to ADOT's current Noise Abatement Policy. Although not proposed as a form of noise mitigation, ADOT will use a rubberized asphalt pavement overlay for this project.

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uncongested, country feeling. However, in the over three years I have lived there the Highway 93 traffic noise has increased dramatically. Particularly the truck noise at night when the truck traffic seems to increase. The use of jake brakes and wheels hitting the "alert" strips increases the din. I know that your study concluded that noise suppression was not recommended but those living there beg to disagree. For the health and well being of residents living on both sides of the Highway 93 in Vista Royale area please employ rubberized asphalt in this area.	
Kimberly Knight & Stefan Wolf—After reviewing the Draft Environmental Assessment and our notes from your presentation on November 17, 2004, we have the following concerns regarding the design of Section C of the Highway 93 improvement project: 1. It is a critical safety issue that there are deceleration and acceleration lanes in and out of Date Creek Ranch. Also, there needs to be an acceleration lane out of the corrals to facilitate loaded cattle trucks. The current average speed on the existing road is approximately 75 mph. There is no reason to think that speed will be reduced by the new design. 2. Currently, at least 19 people (including 7 school aged children) reside full time along Date Creek Ranch Rd. Stock (including valuable horses) owned by the ranch and other residents is routinely hauled in and out of the ranch. When this concern was mentioned to the engineer, he stated that there will be a 10' paved shoulder on the east side of the road that can be used for right turns. It is our understanding from the Department of Motor Vehicles that it is not legal to use the shoulder of a roadway to make a right turn. 3. Provisions have been made in the design for the horse properties toward Wickenburg so that stock can be safely hauled on and off the highway. The same consideration should be given to the ranchers and horse owners in the Date Creek Ranch area. An illegal turn from a 10' paved shoulder is not adequate for a full sized stock trailer. If semi trucks and passenger vehicles are traveling at 75-85 mph in both	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.

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northbound lanes, there will be no place to make the turn off the highway. 4. The removal of the rest stop will increase trash dumping greatly. A rest stop must be established to include trash cans and restroom facilities. 5. The gate on the east side of the existing roadway close to the roadside rest provides the only access to one of the dwellings on out deeded property and to stock tanks for out cattle operation. The gate must be maintained. 6. Date Creek Ranch is located in Section C on both sides of the Joshua Tree Forest Scenic Road. While we appreciate the sensitivity of the design and the width of the median through the Joshua trees, out corrals located at Black Hill will be adversely affected by the proposed plan. The DEA drawing shows the right of way fencing crossing directly through the cattle chute. Another major concern is that the existing holding pens and holding paddocks are within the proposed right of way. There is also a well head in the area. This is a major impact on our ranch operations and the corrals will be useless. Cattle trucks need to be able to back straight into the chute on a regular basis. The typical turning radius of a cattle truck is 75' or more and this distance must be included in the design. 7. Additionally, we were told by the presenting Jacobs Civil engineer that the existing gate on Highway 93 at the corrals is to be removed and the unimproved road across from Date Creek Ranch Road is to be paved and used for access to the corrals. This is unacceptable because there is no route around the dirt tank to the corrals. The corrals are confined by Black Hill to the west and the dirt tank to the north. The only possible entrance is by the existing gate. The proposed design will necessitate relocating the corrals in close proximity to the dirt tank. However, there is very little overburden in the area and installing wood or pipe corral posts would be very difficult. 8. We believe it is a critical safety issue to include a deceleration lane in the northbound roadway. In addition to our cattle operation, we have a	

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commercial apple and peach orchard. During the summer and fall months we average approximately 100 vehicles per day on weekends exiting the highway primarily from the northbound lane at Date Creek Ranch Road. According to your report, Section C has the highest accident rate in the project and the second highest rear end accident rate. These statistics should be considered during the final design of the project. 9. Highway 93 bisects Date Creek Ranch and the existing cattle crossings and access to pastures must be maintained. Because of the lack of maintenance, the cattle crossings have filled with sand and equestrian and dog crossings have had to be made over the roadway. The preliminary design indicates that the median at Date Creek Ranch Road is 178' and varies throughout the ranch. This creates a very hazardous circumstance for horse crossings on the roadway. A horse spooked in the median by a snake, rabbit, loud traffic, etc. could create a very hazardous circumstance that could end in fatalities. Our cattle crossings need to include equestrian crossings. 10. It appears that the nearest crossing over the median to the south of Date Creek Ranch is approximately 4 miles south of Date Creek Ranch Road. This is unacceptable. Date Creek Ranch needs an additional crossing at Alamo Road. We use this crossing routinely for our ranch operations. Hunters and others use Alamo Road also. Additionally, there is access to private property across Date Creek Ranch on Alamo Road east of Hwy 93. 11. Another intersection of concern is at approximately MP 175.8. This gate on the east side of the highway is used regularly by bob tail trucks, loaded cattle trucks, stock trailers, etc. There are loading chutes on this road. The line of sight in the existing Hwy 93 southbound lanes is limited by vertical and horizontal curves to the north. It is critical that we have acceleration and deceleration lanes at this gate. 12. The U.S. Waterways that cross the highway must be maintained and must not be contaminated. The dirt stock tank at Black Hill is an integral part of our ranch operation and it must have an uninterrupted	

Citizen—Comment	ADOT Response
supply of water. Also, there are two water lines with permits at approximately MP 177.5 and MP 176.0 that must be maintained. 13. It appears that the median at Date Creek is approximately 800' wide. We request the use of the median for grazing. Thank you for your immediate attention. Please notify us as soon as possible of the changes made to the proposed plan.	
Dana Owsiany, PE, US Army Corps of Engineers—The only comment that we would like to offer and have incorporated into the document regarding 404 permits is regarding Mitigation. There is no mention of impacts or mitigation or even a statement that a Mitigation Plan will be developed for the project. Can you please make sure that this is added into the document? Thanks, we would really appreciate it.	The requested reference will be included in the Final Environmental Assessment.
Erik Barnes (as reported by Larry Lindner)—Just prior to the Public Hearing last night, Mr. & Mrs. Erik Barnes were talking with Tom Foster, who brought me into their discussion (they left just before the presentation began). Mr. Barnes identified a culvert at approximately MP 163, to which Tom Foster added some ball point notes on one of the "boards," which he uses as a cattle pass. Mr. Barnes would like this facility to be at least eight feet in height to allow him to drive cattle through it and also pass through with his horse. After the presentation, I checked the other maps and this area appears to be under management by the BLM on the west and by the AZ Land Board on the east, so Mr. Barnes apparently has grazing permits and leases in this area.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. New CBCs installed for cattle movement purposes will be sized to be at least as large as the corresponding existing cattle pass on the existing roadway and to meet drainage requirements at that location. Due to the roadway characteristics, it is anticipated that the CBCs will be sized as small as possible to optimize the roadway profile.
John Teclaw—And I would like to see some kind of noise abatement going through Vista Royale and lighted intersection going into Vista Royale and a separate turn lane going into Vista Royale.	Noise impacts at sensitive receivers and the need for abatement measures will be evaluated during design according to ADOT's current Noise Abatement Policy. Although not proposed as a form of noise mitigation, ADOT will use a rubberized asphalt pavement overlay for this project. For the design segment including the SR 89 junction and Vista Royale area, ADOT will administer a public involvement program in order to give area residents the opportunity to provide input on specific design

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	issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the 60 percent design stage addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations.
Stefan Wolf—We have, we live on Date Creek Ranch and we have concerns about our cattle operations. We have a set of corrals, and we need shipping and simply access at the Date Creek Ranch turnoff. I don't know exactly where. It's between MP 177 and 178. We have various access points to our ranch right now to the highway, and we don't see any of those issues addressed on the current study. We would like to have an opportunity to explain our concerns. Well, the turning radius needs to accommodate cattle trucks especially north and southbound. The current right-of-way change indicates that it touches on our corrals and shipping point shall make shipping cattle extremely difficult. Another concern for us is that Date Creek Ranch is also a public orchard to sell apples and peaches during the summer and fall months. On some weekends, we get more than a hundred cars turning on our road. We would like to see the turnoff lane—deceleration lane northbound to Date Creek Ranch Road, yeah, and also back to town. Another concern is that we don't see any crossover between Date Creek Ranch Road and the 93, 71 interchange. We frequently have to cross the road between Alamo Road—well, no. The end of Alamo Road intersects with 93 right now would cross the road frequently, yeah.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. New CBCs installed for cattle movement purposes will be sized to be at least as large as the corresponding existing cattle pass on the existing roadway and to meet drainage requirements at that location. Due to the roadway characteristics, it is anticipated that the CBCs will be sized as small as possible to optimize the roadway profile.

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In general, US 93 bisects our ranch. We moved cattle across underneath the highway. Right now we move the cattle underneath the highway and then ride across the highway on horseback across the highway. This becomes a four-lane highway. That won't' be possible anymore. So we would like to see accommodations, so we can ride underneath the road high enough that we can do that.	
Karin Knight—We are the owners of Date Creek Ranch and as Stefan said, the highway goes straight through the middle of our operation. We also have several families with children living on the east side of the highway. We have to have safe exits and entrances. Basically the best would be if we would have an opportunity to get our family members and the Department of Transportation and planning people together before the planning is finished so one could see provisions for the safety and the operation can be made. It's too much to just write a letter, but we will write a letter just to have it in the file; that we would appreciate more input into that part of the highway.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination.
Stefan Wolf: I would like to express support for a previous speaker, Bob Way, about the closure of the roadside table past the Date Creek crossing. We already fight a lot of trash that's left on our ranch turnoffs. And if this roadside table is closed, we're afraid we're going to get a lot more of that, yeah. People use it as a bathroom, and we're left with the trash.	ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Karin Knight—Improving the facilities for travelers along the road would help a lot in keeping it beautiful. Right now we get a lot of the trash in the absence of facilities. I don't want to say baby diapers. It's worse than that.	ADOT will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design.
Phillip Knight—We'd like to have a meeting with the planners because of all of the difficulties there where our road crosses the 93. And we have a big dirt pond there full of water. It looks like the highway is going to run through them. We also need to be able to cross the highway with cattle and horses and people.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the

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We also have a lot of several hundred people that come that drive from Phoenix. They have to be able to drive that highway without getting killed. We've got a lot living there. We've got at least seven children that are having to go to school five days a week. And we have semi-eighteen wheelers come in. We feed our cattle, and they have to be able to make those turns. That's a major intersection is what it amounts to, and we need to talk about this to make it simple for people. But that is a major intersection. So the whole thing there between 71 and what's the name of the Santa Maria? That's the biggest intersection in there. Maybe that ought to do it. I don't know. There's a lot of problems there. We really need to talk about it.	60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations.
Thomas Brown—I own a ranch. I'm concerned about the width of the highway taking the majority of my north end of the ranch. I'm concerned about my—I'm putting in a new water well that could line up pretty much where the highway is coming. I'm concerned about a left and right-turn lane or some access to our headquarters. I'm concerned about he cattle crossing east to west across the highways. And I'm also concerned about the noise levels that are on the edge of the existing highway for our headquarters. That headquarters is lived in year around. We work the ranch. We have employees that live in the headquarters year around.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations. Noise impacts at sensitive receivers and the need for abatement measures will be evaluated during design according to ADOT's current Noise Abatement Policy. Although not proposed as a form of noise mitigation, ADOT will use a rubberized asphalt pavement overlay for

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	this project.
Kim Knight—We would like to request a crossover that's between 177 and 178 milepost.	For each project design segment, ADOT will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts to livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination. During design, ADOT engineers will consider traffic volumes, vehicle types, access to adjacent properties, turning movements, and other safety issues in detail. At that time, the need for turn lanes and median crossovers will be evaluated according to standard requirements. The standard design measures were established to ensure the safety of vehicles and their contents traveling on, accessing, and exiting the roadway and will be applied as appropriate at turning locations.