MEMORANDUM OF AGREEMENT

AMONG

FEDERAL HIGHWAY ADMINISTRATION
ARIZONA STATE HISTORIC PRESERVATION OFFICE
ARIZONA DEPARTMENT OF TRANSPORTATION
THE BUREAU OF LAND MANAGEMENT
ARIZONA STATE LAND DEPARTMENT
THE CITY OF TUCSON
PIMA COUNTY
THE ARIZONA STATE MUSEUM
THE U.S. ARMY CORPS OF ENGINEERS
THE HOPI TRIBE
THE PASCUA YAQUI TRIBE
THE YAVAPAI APACHE NATION
AND
THE TOHONO O'ODHAM NATION

REGARDING THE ROADWAY WIDENING PROJECT ALONG STATE ROUTE 86, BETWEEN SANDARIO ROAD AND KINNEY ROAD; MILEPOSTS 156.90 TO 166.60
FEDERAL AID NO. STP-086-A(APA)
TRACS NO. 086 PM 156 H6806 01C
PIMA COUNTY, ARIZONA

WHEREAS, the Federal Highway Administration (FHWA) proposes to reconstruct and widen State Route (SR) 86 between Sandario Road and Kinney Road, a federally funded project in Pima County, Arizona (hereafter referred to as “the Project”); and

WHEREAS, the area of potential effects (APE) for the Project is defined as the existing SR 86 roadway right-of-way (ROW) between mileposts (MP) 156.90 and 166.60 and new ROW/easements as well as areas beyond those limits where historic properties could be affected by visual, auditory, or atmospheric intrusions; and

WHEREAS, project construction will occur on private land, land owned by the Arizona Department of Transportation (ADOT), the City of Tucson (COT), and Pima County, ADOT easement across State Trust land administered by the Arizona State Land Department (ASLD), and public lands administered by the U.S. Bureau of Land Management (BLM); ADOT, acting as agent for FHWA, has participated in consultation; and

WHEREAS, the FHWA, in consultation with the Arizona State Historic Preservation Office (SHPO), has determined that, pursuant to 36 CFR 800.2(a)(2) and 36 CFR 800.4(c), archaeological site AZ AA:16:5 (ASM) is eligible for inclusion in the National Register of Historic Places (NRHP) under Criterion D and archaeological sites AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM) should be tested to determine their eligibility for inclusion in the NRHP under Criterion D; and
WHEREAS, the FHWA, in consultation with the SHPO, has determined pursuant to 36 CFR 800.5(a) that the Project will have an adverse effect upon the historic property AZ AA:16:5 (ASM) and potentially eligible properties AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM), all located on State Trust land; and

WHEREAS, a Clean Water Act Section 404 permit is required, and the US Army Corps of Engineers (USACE) is authorized to enter this Agreement to carry out its Section 106 responsibilities; and

WHEREAS, the FHWA is the lead Federal agency for this undertaking and has participated in consultation with ADOT, the SHPO, COT, Pima County, ASLD, BLM, the Arizona State Museum (ASM), the USACE, the Hopi Tribe, the Yavapai Apache Nation, the Pascua Yaqui Tribe, the Tohono O’odham Nation and the Advisory Council on Historic Preservation (the “Council”) in accordance with Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470f) as revised in 2004 and its implementing regulations (36 CFR §800) to resolve the possible adverse effects of the Project on historic properties; and

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

WHEREAS, BLM has been designated as a cooperating agency under a Memorandum of Understanding for this project, BLM has participated in consultation, and has been invited to be a signatory to this Agreement; 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 Pascua Yaqui Tribe, the Yavapai Apache Nation, and the Tohono O’odham Nation have been invited to be concurring parties in this Agreement; and

WHEREAS, the FHWA has notified the Council of the adverse effect and invited the Council's participation in the Project, pursuant to 36 CFR 800.6(a)(1), and the Council has declined to participate in further consultation; 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) and 800.6(b); and

WHEREAS, SHPO is authorized to advise and assist federal and state agencies in carrying out their historic preservation responsibilities and cooperate with these agencies under A.R.S. §41-511.04(d)(4); 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, 2008) will account for the cultural resources in potential material sources used in project construction; and
WHEREAS, an agreement regarding the treatment and disposition of human remains, associated funerary objects, sacred objects and objects of cultural patrimony would be developed for ASM for city, county, state and private land, pursuant to A.R.S. § 41-844 and 41-865; and

WHEREAS, Human Remains, Associated/Unassociated Funerary Objects, Sacred Objects and Objects of Cultural Patrimony recovered will be treated in accordance with the Native American Graves and Protection Repatriation Act (NAGPRA) (25 U.S.C. 3001 et seq.) for federal land; and

WHEREAS, the data recovery necessitated by the Project, located on state land, must be permitted by the ASM pursuant to A.R.S. § 41-842; and

WHEREAS, any data recovery necessitated by the Project, located on federal land, must be permitted through an ARPA permit in accordance with Section 4.b; 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 Agreement expires or is terminated.

Stipulations

FHWA will ensure that the following measures are carried out.

1) Development of NRHP Eligibility Testing and Data Recovery Work Plans (“Work Plans”)

   Work Plans will be submitted by the FHWA to all parties to this Agreement for 30 calendar days’ review. The Work Plans will be consistent with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716 et seq.), which include the Secretary of the Interior’s Standards for Archeological Documentation. Unless any signatory or concurring party objects to a Work Plan within 30 calendar days after receipt of the Work Plan, the FHWA shall ensure that they are implemented prior to construction.

2) The Work Plans will specify:

   a) The properties or portions of properties where testing or data recovery will be carried out. Also, the data recovery Work Plan 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 all recovered materials and records, which will meet the standards set forth in 36 CFR 79 for recovered materials and records deriving from data recovery on Federal lands and A.R.S. § 41-844 for State lands;

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.

h) The minimum requirements for the content of the Data Recovery Report.

3) Review and comment on the Work Plans

a) The FHWA will review and subsequently submit a Work Plan concurrently to all consulting parties for review. All consulting parties have 30 calendar days from receipt to review to provide comments to FHWA. All comments will be submitted in writing with copies provided to the other consulting parties. Lack of response within this review period is taken as concurrence with the Work Plans.

b) If revisions to a Work Plan are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide comments to FHWA. Lack of response within this review period will be taken as concurrence with the revised Work Plan.

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

d) Final drafts of all Work Plans 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. This report shall be submitted within 14 days of the completion of fieldwork for testing and within 30 day of the completion of fieldwork for data recovery.

b) The preliminary report of findings shall contain, at a minimum:
1. Discussion of the methods and treatments applied to each property with an assessment of the degree to which these methods and treatments followed the direction provided by the Work Plan

2. Topographic site plans for the properties depicting all features and treatment areas

3. General description of recovered artifacts and other data classes, including features excavated or sampled

4. An assessment of the accomplishment of goals established in the Work Plan

5. Discussion of further analyses to be conducted for the data recovery report, including any proposed changes in methods or levels of effort from those proposed in the Work Plan

5) Review and Comment on Data Recovery Report

a) Within 180 days following completion of research, analysis, and synthesis of data collected during fieldwork, the institution, firm, or consultant responsible for the work will prepare a Data Recovery Report incorporating all appropriate data analyses and interpretations.

b) The Data Recovery Report will follow the minimum requirements of the Work Plan as set forth in Stipulation 2 (h).

c) Upon receipt of the Data Recovery Report, the 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 FHWA. 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 Data Recovery Report.

d) 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 FHWA. Lack of response within this review period will be taken as concurrence with the revised Data Recovery Report.

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 as follows:
a) For materials located on city, county, state or private land, curation shall take place in accordance with standards outlined in A.R.S. § 41-844, and guidelines generated by ASM. The repository for materials will be ASM. 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.

b) Archaeological resources excavated or removed from federal land will be preserved by a suitable university, museum, or other scientific or educational institution (ARPA, Section 4.b.3). (If objects are collected from BLM lands, they will also be stored at ASM, which is a repository that meets ARPA requirements). Resources having religious or cultural importance shall be maintained in accordance with the burial agreement until any specified analyses, as determined following the consultation with the appropriate Indian tribes and individuals, are complete and the resources are returned.

8) Additional Inventory Survey

FHWA, in consultation with all parties to this agreement, shall ensure that new inventory surveys of additional rights-of-way, temporary construction easements, and any staging or use areas will include recommendations of eligibility that are made in accordance with 36 CFR § 800.4 for all cultural resources. Should any signatory 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) Dispute Resolution

Should any signatory to this Agreement object within the amount of review time stipulated in this Agreement 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. The objection must be identified specifically and the reasons for the objection documented in writing. If the objection cannot be resolved, FHWA shall:

a) Forward all documentation relevant to the dispute to the Advisory Council in accordance with 36 CFR 800.2(b)(2). Any comment provided by the Advisory Council, and all comments from the signatories to this Agreement, will be taken into account by FHWA in reaching a final decision regarding the dispute.

b) If the Council does not provide any comments regarding the dispute within 30 days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching its decision, FHWA will take into account all written comments regarding the dispute from the signatories to the Agreement.

c) FHWA will notify all signatories of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. FHWA’s decision will be a final agency decision.
It is the responsibility of the FWHA to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute.

10) Discoveries

If potential historic or prehistoric archaeological materials or properties or human remains are discovered after construction begins, the person in charge of the construction shall require construction to immediately cease within the area of the discovery, take steps to protect the discovery, and promptly report the discovery to the ADOT Historic Preservation Specialist, representing FHWA. The ADOT Historic Preservation Specialist, representing FHWA shall notify and consult with appropriate agencies.

a) If the discovery is on city, county, state or private land and appears to involve human remains or remains as defined in ASM rules implementing A.R.S. § 41-844 and 41-865, the Director of ASM shall be notified. In consultation with the Director, ADOT, on behalf of FHWA, and the person in charge of construction shall ensure that the discovery is treated according to the burial agreement.

b) If the discovery involves graves or human remains as defined in NAGPRA 43 CFR 10.2(d.1-4), the Federal Land Manager (the BLM) shall also be informed. In consultation with the BLM and ADOT the person in charge of construction shall immediately take steps to secure and maintain preservation of the discovery. The BLM and ADOT shall ensure that the discovery is treated according to the burial agreement.

c) If human remains are not involved, and the discovery is located on city, county or state land, ADOT, on behalf of FHWA, shall notify ASM as required under A.R.S. § 41-844. ADOT, on behalf of FHWA in consultation with the Director and SHPO, if appropriate, shall determine if the Work Plan previously approved by ASM according to Stipulation 2 is appropriate to the nature of the discovery. If appropriate, the Work Plan shall be implemented by ADOT, on behalf of FHWA. If the Work Plan is not appropriate to the discovery, FHWA shall ensure that an alternate plan for the resolution of adverse effect is developed 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.

d) If human remains are not involved and the discovery is located on private land, ADOT, on behalf of FHWA, shall evaluate the discovery, and SHPO shall be notified as appropriate. The ADOT Historic Preservation Specialist, on behalf of FHWA, shall determine if the Work Plan previously approved according to Stipulation 2 is appropriate to the nature of the discovery. If appropriate, the Work Plan shall be implemented by ADOT, on behalf of FHWA. If the Work Plan is not appropriate to the discovery, FHWA shall ensure that an alternate plan for the resolution of adverse effect is developed 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.

e) If the discovery is located on federal land, ADOT, on behalf of FHWA, shall determine if the discovery classifies as an “archaeological resource” as defined in Section 3.1 of ARPA, and contact the BLM as appropriate.

11) Amendments

In accordance with 36 CFR 800.6(c)(7), if any signatory determines that the terms of this Agreement will not or cannot be carried out or that an amendment to its terms is needed, that party shall immediately notify FHWA and request an amendment. The proposed amendment shall be submitted in draft form with the request. The signatories to this Agreement will consult to review and consider such amendment. The amendment will be effective on the date a copy signed by all of the original signatories. 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). In the event an agreement on amendments or other actions cannot be reached within the 30 day time frame, termination shall be effective on the 31st day. Subsequent to termination, the FHWA will notify the signatories within 30 days whether it will initiate consultation to execute an Agreement with the signatories under 36 CFR 800.6(c)(1) or request the comments of the Council under 36 CFR §800.7(a) and proceed accordingly.

13) Equal Opportunity/Non-Discrimination

As is applicable to the signatories and/or the consulting parties, and to this Project, the signatories and consulting parties agree to comply with Chapter 9, Title 41, Arizona Revised Statutes (Civil Rights), Arizona Executive Order 99-4 and any other federal or state laws relating to equal opportunity and non-discrimination, including the Americans with Disabilities Act.

14) Records

As is applicable to the signatories and/or the consulting parties, and to this Project, all books, accounts, reports, files and other records relating to this Agreement shall be subject, at all reasonable times, to inspection and audit by the State for five years after the termination of this Agreement, pursuant to A.R.S. et seq. 35-214, 35-215 and 41-2548.

15) Conflict of Interest
This Agreement is subject to cancellation by the State under A.R.S. et seq. 38-511 if a person significantly involved in the Agreement on behalf of the State is an employee or consultant of the contractor at any time while the Agreement or any extension of the Agreement is in effect.

16) Non-Availability of Funds

This Agreement shall be subject to available funding, and nothing in this Agreement shall bind the State, Tribal, or Federal agencies to expenditures in excess of funds authorized and appropriated for the purposes outlined in this Agreement.

17) Fulfillment of Terms

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.

18) There shall be an annual meeting among FHWA, SHPO, ADOT, ASLD, BLM, COT, the USACE, and Pima County 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 the SR 86, Sandario Road to Kinney Road 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 ________

Title ____________________________

**ARIZONA STATE HISTORIC PRESERVATION OFFICER**

By ____________________________ Date ________

Title ____________________________

**US BUREAU OF LAND MANAGEMENT**

By ____________________________ Date ________

Memorandum of Agreement
SR 86, Data Recovery at AZ AA:16:5 (ASM); Testing at AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM)
Title _______________________________________

ARIZONA STATE LAND DEPARTMENT
By ________________________________  Date ______
Title _______________________________________

CITY OF TUCSON
By ________________________________  Date ______
Title _______________________________________

PIMA COUNTY
By ________________________________  Date ______
Title _______________________________________

U.S. ARMY CORPS OF ENGINEERS
By ________________________________  Date __________________
Title _______________________________________

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION
By ________________________________  Date ______
Title Environmental Planning Group Manager
CONCURRING PARTIES

ARIZONA STATE MUSEUM

By________________________________________  Date________
Title______________________________________

THE HOPI TRIBE

By________________________________________  Date________
Title______________________________________

THE PASCUA YAQUI TRIBE

By________________________________________  Date________
Title______________________________________

THE YAVAPAI APACHE NATION

By________________________________________  Date________
Title______________________________________

TOHONO O’ODHAM NATION

By________________________________________  Date________
Title______________________________________
CONCURRING PARTIES

ARIZONA STATE MUSEUM
By [Signature]
Title Director
Date [Signature] 11/24/09

THE HOPI TRIBE
By ____________________________
Title __________________________
Date ________

THE PASCUA YAQUI TRIBE
By ____________________________
Title __________________________
Date ________

THE YAVAPAI APACHE NATION
By ____________________________
Title __________________________
Date ________

TOHONO O'ODHAM NATION
By ____________________________
Title __________________________
Date ________

Memorandum of Agreement
SR 86, Data Recovery at AZ AA:16:5 (ASM); Testing at AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM)
US BUREAU OF LAND MANAGEMENT

By ___________________________ Date 12/3/09
Title __________________________

ARIZONA STATE LAND DEPARTMENT

By ___________________________ Date_____
Title __________________________

CITY OF TUCSON

By ___________________________ Date_____
Title __________________________

PIMA COUNTY

By ___________________________ Date_____
Title __________________________

U.S. ARMY CORPS OF ENGINEERS

By ___________________________ Date_____
Title __________________________

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By ___________________________ Date 10/22/09
Title Environmental Planning Group Manager
US BUREAU OF LAND MANAGEMENT
By ________________________________ Date __________
Title ________________________________

ARIZONA STATE LAND DEPARTMENT
By ________________________________ Date __________
Title ________________________________

CITY OF TUCSON
By ________________________________ Date __________
Title ________________________________

PIMA COUNTY
By ________________________________ Date 12/11/09
Title County Administrator

U.S. ARMY CORPS OF ENGINEERS
By ________________________________ Date 7 Dec 2009
Title Regulatory So. Coast Branch Chief

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION
By ________________________________ Date 10/22/09
Title Environmental Planning Group Manager

Memorandum of Agreement
SR 86, Data Recovery at AZ AA:16:5 (ASM); Testing at AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM)
US BUREAU OF LAND MANAGEMENT
By ____________________________ Date _______
Title ____________________________

ARIZONA STATE LAND DEPARTMENT
By ____________________________ Date _______
Title ____________________________

CITY OF TUCSON
By ____________________________ Date 12-3-09
Title Historic Preservation Officer

PIMA COUNTY
By ____________________________ Date _______
Title ____________________________

U.S. ARMY CORPS OF ENGINEERS
By ____________________________ Date _______
Title ____________________________

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION
By ____________________________ Date 10/22/09
Title Environmental Planning Group Manager

Memorandum of Agreement
SR 86, Data Recovery at AZ AA:16:5 (ASM); Testing at AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM)
US BUREAU OF LAND MANAGEMENT

By ________________________________ Date ______

Title ________________________________

ARIZONA STATE LAND DEPARTMENT

By ________________________________ Date 12/6/09

Title Archaeologist

CITY OF TUCSON

By ________________________________ Date ______

Title ________________________________

PIMA COUNTY

By ________________________________ Date ______

Title ________________________________

U.S. ARMY CORPS OF ENGINEERS

By ________________________________ Date ________________

Title ________________________________

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By ________________________________ Date ______

Title Environmental Planning Group Manager

Memorandum of Agreement
SR 86, Data Recovery at AZ AA:16:5 (ASM); Testing at AZ AA:16:546 (ASM) and AZ AA:16:548 (ASM)
APPENDIX F

AGENCY CORRESPONDENCE
ARIZONA DIVISION

May 28, 2008

In Reply Refer To:
HOP-AZ

STP-086-A(APA)
086 PM 156 H6806 01L
SR 86: Sandario Road to Kinney Road
Participating and Cooperating Agency Request

Ms. Cindy Lester, Chief
Arizona Section Regulatory Branch
US Army Corps of Engineers
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1939

ATTN: Kathleen Tucker

Dear Ms. Tucker:

The Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) have initiated an Environmental Assessment (EA) for proposed improvements to State Route (SR) 86 between Sandario Road and Kinney Road. The project area is located in Pima County southwest of Tucson on SR 86, beginning just east of Sandario Road at milepost (MP) 156.6 and ending at MP 166.6, just east of Kinney Road. The purpose of the project, as currently defined, is to increase the roadway capacity to accommodate existing and future traffic volumes.

Your agency has been identified as an agency that may have an interest in the project due to the presence of and anticipated impacts within waters of the US in the project area that are regulated under Section 404 of the Clean Water Act. With this letter, we extend your agency an invitation to become a participating and cooperating agency with the FHWA in the development of the EA for the subject project. This designation does not imply that your agency either supports the proposal or has any special expertise with respect to evaluation of the project. Your agency’s involvement will consist of participating in, reviewing, and concurring with the evaluation of issues under your jurisdiction: it will not involve direct analysis or writing during EA preparation. To assist our interagency cooperation, we will invite you to progress meetings and will consult with you on any relevant technical studies.

Pursuant to Section 6002 of SAFETEA-LU, participating and cooperating agencies are responsible to identify, as early as practicable, any issues of concern regarding the project’s potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. We suggest that
your agency’s role in the development of the above project should include the following as they relate to your area of expertise:

1) Provide meaningful and early input on defining the purpose and need, determining the range of alternatives to be considered, and the methodologies and level of detail required in alternatives analysis.
2) Participate in coordination meetings and joint field reviews as appropriate.
3) Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Please respond to FHWA in writing with an acceptance or denial of the invitation prior to June 20, 2008. This response should state your reason for declining the invitation. Pursuant to SAFETEA-LU Section 6002, any federal agency that chooses to decline the invitation must specifically state that your agency:

- Has no jurisdiction or authority with respect to the project;
- Has no expertise or information relevant to the project; and
- Does not intend to submit comments on the project.

If you have any questions or would like to discuss in more detail the project or our agencies’ respective roles and responsibilities during the preparation of this EA, please contact Mary Frye, FHWA Arizona Division Office Environmental Coordinator, at 602-382-8979.

Thank you for your cooperation and interest in this project.

Sincerely,

MARY E. FRYE

Robert E. Hollis
Division Administrator

Enclosures:

cc:
Mary Frye
Karen Whitlock (T100)
MFrye:cdm
In Reply Refer To:
2821 (AZ-420)
AZA 06032, AZAR0 01697,
AZAR0 01698, AZAR0 01699

Ms. Mary Frye
Federal Highway Administration
400 East Van Buren Street, Suite 410
Phoenix, Arizona 85004-0674

Dear Ms. Frye:

The Bureau of Land Management (BLM) accepts your invitation to participate as a cooperating agency on the Arizona Department of Transportation’s (ADOT) State Route 86 expansion project between Sandario Road and Kinney Road in Tucson. This project area is covered by four BLM right-of-way authorizations AZA 6032, AR01697, AR01698, and AR01699. Our records show that no final Environmental Analysis (EA) was prepared for these authorizations, except for a draft EA that was furnished to BLM in 1987. There is no evidence in our records of a final EA and Finding of No Significant Impact (FONSI)/Decision Record having been provided to our office. Our office is required to review and comment on the new analysis to ensure that the new EA meets BLM’s National Environmental Policy Act (NEPA) standards, and will allow our office to issue our own FONSI/Decision Record.

The proposed highway modification will require that the existing right-of-way authorizations be modified to reflect the final project built-out designs. If the proposed project is expanded to outside of the authorized right-of-way area, ADOT will be required to submit a right-of-way application to authorize those areas falling outside the existing authorized areas.

If you have any questions regarding this letter, please contact Susan Bernal, Realty Specialist, at 520-258-7206.

Sincerely,

[Signature]
Brian B. Bollew
Field Office Manager
Ms. Jameiya Curtis  
Environmental Protection Agency Region 9  
Ground Water Office, WTR-9  
75 Hawthorne Street  
San Francisco, California 94105  

Dear Ms. Curtis:

The Arizona Department of Transportation (ADOT) in conjunction with the Federal Highway Administration (FHWA) is proposing roadway improvements of State Route (SR) 86 between Sandario Road and Kinney Road within Pima County. The project extends from milepost (MP) 156.9 to MP 166.6, and is located southwest of the City of Tucson (see enclosed Figures 1 and 2). The project is located within the limits of the Upper Santa Cruz and Avra Basin Sole Source Aquifer.

Due to increased traffic volumes and growth in the area, the existing two-lane facility does not provide sufficient capacity to adequately handle existing or projected traffic volumes. The purpose of this project is to address the needs by providing adequate capacity for current and projected traffic volumes, manage access and improve turning movements at intersections to reduce the potential for vehicle conflicts, and enlarge existing drainage structures to address overtopping conditions during major storm events.

The scope of work for the project consists of the following:

- Retain the existing SR 86 roadway to provide two lanes for one direction of travel and reconfigure to provide a 10-foot-wide outside shoulder, two 12-foot-wide travel lanes, and a 6-foot-wide inside shoulder from MP 156.9 to MP 164.3
• Construct a new two-lane roadway parallel to the existing roadway to provide two lanes for the opposite direction of travel consisting of a 10-foot-wide outside shoulder, two 12-foot-wide travel lanes, and a 4-foot inside shoulder from MP 156.9 to MP 164.3
• Remove the existing SR 86 roadway between the two new travel lanes from MP 164.3 to the end of the project limits. The reconstructed eastbound and westbound lanes would consist of a 10-foot-wide outside shoulder, two 12-foot-wide travel lanes, and a 6-foot-wide shoulder
• Construct a 50-foot-wide graded median between the eastbound and westbound roadways
• Construct a third SR 86 eastbound lane at the Sunset Boulevard intersection to provide three through-lanes of travel from Sunset Boulevard to Kinney Road
• Add traffic signals, and right- and left-turn lanes at intersections and modify intersections to match proposed improvements on SR 86
• Construct drainage inlets in the median and connect to cross-culverts as required
• Enlarge and extend existing culverts to adequately convey runoff for the 100-year storm event
• Construct a new bridge on the existing SR 86 roadway at Black Wash (MP 162.1) adjacent to the existing bridge and a new 260-foot-long bridge on the new roadway at Black Wash
• Excavate and regrade the wash bottom at Snyder Hill Wash (MP 162.3)
• Construct a 199-foot-long bridge on the new roadway at Snyder Hill Wash

The project area is located on easements managed by the Arizona State Land Department, the Bureau of Land Management, and the City of Tucson as well as right-of-way (ROW) on privately owned parcels. A total of 124 acres of new easement and ROW are anticipated for this project. Construction for this project has not been programmed. It is anticipated that construction would be performed in two phases with each phase estimated to take approximately 14 months to construct.

In accordance with the November 2002 U.S. Environmental Protection Agency (EPA)/FHWA Memorandum of Understanding (MOU), a Section 1424(c) review pertaining to the Safe Drinking Water Act will be required by the EPA as the proposed project is within the Upper Santa Cruz and Avra Basin Sole Source Aquifer.

In accordance with the MOU, this letter serves to notify the EPA of this project. If you have any questions about this project, please contact Mary Frye at 602-382-8979. Thank you for your assistance.

Sincerely,

MARY E. FRYE

Robert E. Hollis
Division Administrator

Enclosures:
cc: MFrye, Billah Kahn (605E), Dee Phan (EM02)
MFrye:cdm
SR 86: Sandario Road to Kinney Road
Project Area Water Quality Summary

The Arizona Department of Transportation (ADOT) in conjunction with the Federal Highway Administration (FHWA) is proposing roadway improvements of State Route (SR) 86 between Sandario Road and Kinney Road within Pima County. The project extends from milepost (MP) 156.9 to MP 166.6, and is located southwest of the City of Tucson.

Due to increased traffic volumes and growth in the area, the existing two-lane facility does not provide sufficient capacity to adequately handle existing or projected traffic volumes. The purpose of this project is to address the needs by providing adequate capacity for current and projected traffic volumes, manage access and improve turning movements at intersections to reduce the potential for vehicle conflicts, and enlarge existing drainage structures to address overtopping conditions during major storm events.

The project limits of the proposed SR 86 improvements are located within the Upper Santa Cruz and Avra Basin Sole Source Aquifer. The United States Geological Survey (USGS) water quality report *Water Quality in the Central Arizona Basins, Arizona 1995-98* (USGS 2000) indicates that the four major influences on ground-water quality include geohydrology, dissolution of evaporates and other minerals, irrigation of agricultural and urban lands, and agricultural and urban fertilizer and pesticide use (USGS 2000). As adjacent land uses within the project limits remain relatively undeveloped and do not include agriculture, current known influences on ground-water quality in the project area are minimal and related primarily to polluted stormwater runoff containing volatile organic compounds (VOCs). These VOCs include petroleum hydrocarbon compounds (gasoline and oil) that have been linked to ground-water quality degradation in Arizona (Marsh, 1994). Sources of these compounds typically include vehicles traveling on roadways or on other impervious surfaces. Impervious surfaces within the project limits include paved surfaces such as SR 86, driveways, and parking lots. Other manmade impervious surfaces in the area include rooftops on residential and commercial buildings. These surfaces contribute to accelerated stormwater runoff since they replace the native ground and vegetation that would otherwise absorb more water though percolation. As a result, VOCs from paved surfaces are more quickly carried from the vicinity versus allowing for slow percolation into groundwater. In addition to accelerating runoff, the addition of roadway surfaces can result
in higher levels of VOCs, presuming there would be an associated increase in the volume of traffic.

The improvements to SR 86 would include adding impervious surfaces for two travel lanes as well as a graded median between the eastbound and westbound roadways. A third eastbound lane would be constructed at the Sunset Boulevard intersection and Sheridan Avenue intersection to provide three through-lanes in each direction of travel from Sheridan Avenue to Kinney Road.

Improvements would also include:

- Widening of existing culverts and bridges
- Construction of new bridges to retain the existing washes at Black Wash and Snyder Hill Wash
- Excavation of sediment from Snyder Hill Wash
- Extension and enlargement of existing culverts (and construction of new culverts)
- Reconstruction of dikes
- Diversion of drainage at the Kinney Road intersection southeast across SR 86
- Placement of roadway embankment material

These proposed improvements would not directly impact the aquifer but would improve the traffic conditions. The addition of lanes would result in reduced vehicular congestion in the area, minimized vehicle conflicts, and reduced idling times for vehicles; thereby limiting the opportunity for additional VOCs on SR 86.

It is therefore concluded that the SR 86 improvements proposed with this project would result in negligible impacts to the Upper Santa Cruz and Avra Basin Sole Source Aquifer.
Figure 1. State Location Map
STP-086-A(APA)
086 PM 156 H6806 01C
SR 86: Sandario Road to Kinney Road
Good Afternoon:
Thank you for your response below. Based on the information you've provided, it appears that it is unlikely that the proposed project will adversely affect the Upper Santa Cruz & Avra Basin aquifer. If you have any questions, please feel free to contact me. Have a great day.

Jamelya Curtis
Ground Water Office
U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street (WTR-9)
San Francisco, CA 94105-3901

phone: 415.972.3529
fax: 415.947.3549
email: curtis.jamelya@epa.gov

Good morning Ms. Curtis,

I apologize for the delay in getting back to you. I just returned from vacation and am still catching up...

Please let me know if the following information answers your question:

Storm water runoff in the project area generally flows from the foothills of the Sierrita Mountains northwesterly towards SR 86. Drainage runoff along SR 86 east of Camino Verde flows southwesterly from Snyder Hill on the north side of SR 86, crosses under SR 86, where it turns westward to intersect the northwesterly flows of the area. Flows throughout the remainder of the project cross northwesterly under SR 86 through pipes, culverts, and bridge openings. The small washes that the SR 86 crossings outfall into east of Snyder Hill Wash and Black Wash ultimately drain to these major washes. Snyder Hill Wash and Black Wash then drain to Brawley Wash, which drains northwest to Los Robles Wash, then into the Santa Cruz River, which ultimately drains into the Gila River.

With the addition of new lanes, some of the roadway runoff would drain into the median and into proposed median inlets, into cross-culverts below the roadway, and discharge into the smaller washes that connect to Black Wash and Snyder Hill Wash. The greatest changes in runoff related to the project would be extending and increasing the size of the drainage structures to
accommodate the 100-year flood. Otherwise, drainage patterns and flow velocities would not be impacted, and increases in flow volumes from added roadway surface would be insignificant.

If you need additional information please do not hesitate to ask.

Thanks,

Mary Frye  
Environmental Program Manager  
FHWA, Arizona Division  
602-382-8979 (office)  
602-319-6815 9cell)

Good Afternoon Ms. Frye:

Thank you for notifying EPA of the joint roadway improvement project planned by Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA). I have reviewed your request per Section 1424(e) of the Safe Drinking Water Act. Your August 24, 2009 letter indicates that the project will include the construction of drainage inlets which will connect to cross-culverts, as well as the enlargement and extension of existing culverts. Could you please provide a description of where will the drainage that flows through these culverts will go?

Jamelya Curtis  
Ground Water Office  
U.S. Environmental Protection Agency  
Region IX  
75 Hawthorne Street (WTR-9)  
San Francisco, CA 94105-3901  
phone: 415.972.3529  
fax: 415.947.3549  
email: curtis.jamelya@epa.gov

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October 20, 2005

Laura N. Gerbis, Environmental Planner
Jacobs Civil Inc.
875 West Elliot Road, Suite 201
Tempe, AZ 85284

RE: SR 86, Valencia Road to Kinney Road Study, TRACS No. 086 PM 159 H6808 01L

Dear Ms. Gerbis:

Thank you for inviting Pima County Department of Environmental Quality (PDEQ) to attend the Agency Scoping Meeting for the SR 86, Valencia Road to Kinney Road Study. PDEQ will not be in attendance, but submit the following comments and suggestions regarding the SR 86, Valencia Road to Kinney Road Study project. The project activities that PDEQ permits and enforces are:

1. Air Quality Activity Operating Permit

Pima County Code (P.C.C.) Title 17 requires Air Quality Activity Operating Permits for Road Construction, Trenching and Landclearing/Earthmoving over threshold amounts. A permit must be obtained prior to starting the activity.

2. Fugitive Emissions

Measures must be in place to control fugitive dust generated at the project. Dust control is required twenty-four hours a day, seven days a week, and includes a 20% opacity standard.

P.C.C. Title 17 applies to your project
17.16 Emission Limiting Standards
Article II. Visible Emission Standard
Article V. Emissions from New and Existing Portable Sources
3. Arizona Pollutant Discharge Elimination System

Based on the scope of the proposed activity, coverage under the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General Permit may be necessary. If so, a Notice of Intent must be submitted to the Arizona Department of Environmental Quality (ADEQ) and a Storm Water Pollution Prevention Plan (SWPPP) must be developed. A description of the AZPDES storm-water construction program may be found at: http://www.azdeq.gov/environment/water/permits/stormwater.html#const.


Bridges are classified as “NESHAP Facilities” and abutments, piers, tube culverts, and underground foundations are “Facility Components” and therefore will require compliance with Title 40, Part 61, Subpart M, of the Code of Federal Regulations National Emissions Standards for Asbestos. If your project requires demolition or renovation of these structures, you will be required to submit a NESHAP Notification at least ten working days prior to starting demolition or renovation and obtain a PDEQ Asbestos Removal/Demolition Permit.

Pima County Code Title 17 is available for your reference on our WEBSITE at: WWW.DEQ.PIMA.GOV. If you have questions regarding permits and compliance, you may contact Business Assistance at (520) 740-3340. Once again, thank you for the opportunity to comment.

Sincerely,

Ursula Kramer
Director
Roland C. Cook, P.E.
Project Engineer
Jacobs Civil, Inc.
875 W. Elliot, Suite 201
Tempe AZ 85284
December 10, 2005

Mr. Cook,

Thank you for the minutes of the November 30 meeting at Ryan Airfield regarding SR 86, which I received today.

I note one discrepancy in the transcript on Page 4. The comment regarding access to Ryan Airfield did not recommend one point of ingress/egress. The gentleman was questioning the need for 2 curb cuts immediately next to one another in the vicinity of Aviator Lane.

Eliminating one of Ryan’s curb cuts near Aviator Lane would require modifications to the airport layout. This would of course have a cost, but would be a manageable change. Removing all but one access to Ryan Airfield, on the other hand, would pose significant problems. Specifically, it would entail difficulty with hosting large numbers of visitors during special events, maintaining acceptable access on and off the airport in the event of accidents or road maintenance, and prompt emergency access both for response vehicles and air ambulance. Additionally, eliminating direct access at Aviator Lane would likely force the relocation or closure of the airport restaurant. Alternately, eliminating direct access at Airfield Drive would create very awkward traffic flow for most of the airport, including most future development.

Please correct your minutes to reflect the comment as conveyed.

The Tucson Airport Authority appreciated the opportunity to host the meeting for this important project. We believe that these roadway improvements will have significant payoffs for our community and its visitors. Please do not hesitate to use me as a resource at any time.

Sincerely,

Scott R. Driver
Director of Ryan Airfield
December 14, 2005

Mr. Roland C. Cook, P.E.
Jacobs Civil Inc.
875 W. Elliot
Suite 201
Tempe, AZ 85284

Re: SR 86, Valencia Road to Kinney Road

Dear Mr. Cook:

I apologize for not attending the meeting on November 7, 2005. I noted that you had an incorrect address listed for the Drexel Heights Fire District so that may be why we are not receiving notices.

Please change the address for Drexel Heights Fire District to as follows:

Douglas Chappell, Fire Chief
Drexel Heights Fire District
5030 S. Camino Verde
Tucson, AZ 85735
(520) 883-4341
(520) 883-3314 Fax
DChappell@drexelfire.net

Thank you for assistance in this matter. Are there any further meetings scheduled? If so let me know and we will endeavor to have someone in attendance.

Sincerely,

[Signature]
Douglas E. Chappell
Fire Chief
April 23, 2007

Ms. Johnida Martin  
Archaeological Consulting Services, Ltd.  
424 W. Broadway Rd.  
Tempe, AZ 85282

Re: Review of **SR 86: Valencia Road to Kinney Road.**  
TRAC No.: 086 PM 159 H6806 01C

Dear Ms. Martin:

The Arizona Game and Fish Department (Department) has reviewed your request, dated March 29, 2007, regarding the study of potential improvements to State Route (SR) 86 between Sandario Road and Kinney Road. There are federally listed species, specifically Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*), within close proximity of the project. Any direct or indirect impacts to sensitive species due to project activities need to be considered. Therefore, we recommend that you and/or the project proponent contact the US Fish and Wildlife Service for consultation purposes. In addition, the Department offers the following general comments, based on the information provided:

- Identify wildlife crossing areas. Design culverts and bridges to accommodate the upstream and upland movement of fish and wildlife (bottom surface of structure should be flush with ground i.e. no drop-offs or plunge pools). Identify structure shape and size needs as well as consider noise, temperature, light, and moisture requirements of species of animals that may use the structure.

- Identify whether wildlife species use the existing culverts and/or bridges for roosting or nesting. To minimize wildlife impacts, consider conducting project activities outside the breeding/maternity season (breeding seasons for birds and bats usually occur spring - summer). In addition, examine the crevices of the structures for the presence of bats prior to any activities. If bats are present, project activities should be conducted during nighttime hours, if possible, when the fewest number of bats will be roosting. A roost has been identified within close proximity to the road.

- Staging areas should be located in previously disturbed sites, where possible, and kept as small as possible. Implement erosion and drainage control measures during the project to prevent introduction of sediment-laden runoff into surface waters and to prevent impacts to surface water quality. Stabilize exposed soils, particularly on slopes, with vegetation as soon as possible to prevent excess erosion.
Minimize the potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g., microbes) that may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g., livestock forage reduction, increase wildfire risk). Wash all equipment utilized in the project activities before use at the site and after leaving the site. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245), please see the Arizona Department of Agriculture website for restricted plants [http://www.azda.gov/PSD/quarantine5.htm](http://www.azda.gov/PSD/quarantine5.htm).

Coordinate any plant salvage efforts with the Arizona Department of Agriculture, in accordance with the Arizona Native Plant Law. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts.

The Department would appreciate the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with project activities occurring in the subject area, when specific details become available. Please visit our website for additional guidelines at [http://www.azgfd.gov/hgis/guidelines.aspx](http://www.azgfd.gov/hgis/guidelines.aspx). If you have any questions regarding this letter, please contact me at (602) 789-3606.

Sincerely,

[Signature]

Ginger L. Ritter
Project Evaluation Specialist

GLR:gr

Attachment

AGFD #M07-04042911
Mr. Steve Spangle, Field Supervisor
U.S. Fish and Wildlife Service
Arizona Ecological Services Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021

Dear Mr. Spangle:

The Arizona Department of Transportation (ADOT) in conjunction with the Federal Highway Administration, as the lead agency, have begun a study of potential improvements to State Route (SR) 86 between Sandario Road (milepost [MP] 156.9) and Kinney Road (MP 166.5) southwest of Tucson in Pima County, Arizona.

The enclosed Biological Evaluation (BE) describes the proposed project and addresses the current Pima County list of threatened, endangered, proposed and candidate species. The Pima pineapple cactus (Coryphantha scheeri var. robustispina) was evaluated in detail due to the presence of suitable habitat and several Pima pineapple cacti within the project area. ADOT has informally discussed this project with U.S. Fish and Wildlife Service representative Marit Alanen at a meeting on November 7th, 2005.

The BE concluded that the proposed project may affect, and is likely to adversely affect, the Pima pineapple cactus and its habitat. Therefore, I am requesting formal consultation for the Pima pineapple cactus. Please call Steve Thomas at 602-382-8976, or Justin White at 928-779-7528 if you have any questions. Thank you for your cooperation.

Sincerely,

STEPHEN D. THOMAS

Robert E. Hollis
Division Administrator

Enclosure
cc:
SThomas,
Justin White (F-500)
SDThomas:cdm

MOVING THE
AMERICAN
ECONOMY
Mr. Steve Spangle  
US Fish and Wildlife Service  
Arizona Ecological Services Office  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951

Dear Mr. Spangle:

The Arizona Department of Transportation (ADOT), in conjunction with the Federal Highway Administration (FHWA), as the lead federal agency, is proposing to improve State Route (SR) 86 in Pima County between Sandario Road (milepost [MP] 156.9) and Kinney Road (MP 166.5), west of Tucson. Within the project limits, the existing SR 86 is a two-lane roadway. The proposed action for improving SR-86 consists of building a four-lane divided roadway, including construction of new lanes, realignment of local roads at their intersection with SR 86, extension of culverts, construction of new culverts where existing structures are inadequately sized, and the construction of a new, 200-foot long bridge over Snyder Hills Wash (MP 162.3).

The Biological Evaluation for the project concluded that the project is likely to adversely affect the Pima pineapple cactus (*Coryphantha scheeri* var *robuspina*) and its habitat. As such, Section 7 consultation with your office was initiated on November 13, 2007. Justin White, an ADOT biologist, has also been working with Marit Alenin to develop appropriate conservation measures for the Pima pineapple cactus (PPC).

As mitigation for the anticipated impacts to Pima pineapple cactus habitat, ADOT is proposing to provide for replacement habitat. The area of permanent disturbance to PPC habitat is estimated to be 60.77 acres under the proposed action. This area accounts for the total acreage where permanent loss of PPC habitat would occur, i.e. new paved areas. ADOT is proposing to mitigate permanent impacts to PPC habitat through the purchase of 60.77 acres of habitat in a US Fish and Wildlife Service-approved PPC conservation bank. Any change in the scope of the project that may occur during final design would require a re-evaluation of impacts to PPC habitat. If necessary, additional consultation with your office would be undertaken at that time. Similarly, if the proposed action is not the alternative selected, ADOT will re-evaluate impacts and continue consultation with your office.

Areas of temporary disturbance to PPC habitat due to construction of the Preferred Alternative would be rehabilitated using the following methodologies to (1) minimize colonization of
disturbed areas by invasive species, (2) preserve and utilize existing topsoil to preserve 
micronutrients and natural seed bank, (3) maximize opportunities for growth of native vegetation, 
and (4) salvage protected native plants. These methodologies are described further in the following 
paragraphs.

(1) Invasive species control would be conducted both prior to and during construction to minimize 
colonization of disturbed areas by non-native grasses that may degrade potential PPC habitat. 
Due to the sensitivity of the project site, invasive species control would begin two years prior 
to the commencement of work on the roadway project. This would help minimize the number 
of invasive species present on the project site at the time of construction-related ground 
disturbance. In addition, during final design, ADOT would develop a project-specific Plan for 
Control of Noxious and Invasive Plant Species. This plan would address appropriate control of 
occurrences of invasive plant species within the right-of-way during construction. The plan 
would include such provisions as vehicle inspection to prevent movement of noxious and 
invasive species seeds to and from the work site; procedures for collection, removal, and 
disposal of noxious and invasive plants; and proposed methods of control, such as application 
of herbicides and mechanical or manual removal, to be used for each plant species at various 
stages plant development.

(2) Topsoil salvage would be conducted in natural areas where construction disturbance would 
occur and invasive species are not present. In these areas, 4 to 8 inches of surface soil would 
be salvaged and stockpiled to be redistributed over the cut and fill slopes adjacent to the new 
roadway upon completion of construction. A preconstruction survey by a qualified biologist 
would be conducted to determine the presence of invasive species in the project area. In areas 
where topsoil is determined to contain invasive species seed banks, topsoil would not be 
reused.

(3) Disturbed soils that would not be landscaped or otherwise permanently stabilized by 
construction would be seeded using species native to the project vicinity. Seeding would be 
aided by the application of compost and fertilizers to maximize propagation.

(4) A native plant salvage plan would be developed for the project during final design. Plant 
species protected under the Arizona Native Plant law (cactus and native trees) would be 
avoided by construction to the extent practicable. If impacts to native plants cannot be avoided, 
the plants would be treated in accordance with state law. All PPC within the area of 
permanent disturbance would be salvaged and replanted at a location approved by a qualified 
biologist. Any PPC that are not within the area of permanent disturbance, but present within 
the right-of-way, would be flagged by a qualified biologist prior to the commencement of 
work in order to avoid accidental damage to the plants during construction.

In addition to the above controls, a Storm Water Pollution Prevention Plan (SWPPP) would be 
developed and adhered to by all contractors and subcontractors throughout construction. The 
SWPPP would stipulate Best Management Practices for on-site operations designed to reduce the 
potential for erosion and off-site sedimentation due to construction activities.
FHWA is requesting that US Fish and Wildlife Service proceed with completing the Biological Opinion for the project. If you have any questions, please call Steve Thomas, FHWA Environmental Program Manager, at 602-382-8976; or Justin White, ADOT Biologist, at 928-779-7528. Thank you for your cooperation.

Sincerely,

STEPHEN D. THOMAS

Robert E. Hollis
Division Administrator

cc:
SThomas
MFrye
JWhite (F-500)
KWhitlock (T-100)
SDThomas: cdm
Mr. Robert Hollis  
Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
400 East Van Buren Street, Suite 410  
Phoenix, Arizona 85004-0674  

RE: HOP-AZ, STP-086-A(APA), TRACS No. 086 PM 156 H6806 01C, SR 86; Sandario Road to Kinney Road

Dear Mr. Hollis:

Enclosed please find our DRAFT biological opinion (BO) regarding effects of the improvements to State Route (SR) 86 between Sandario Road (milepost 156.9) and Kinney Road (milepost 166.5) southwest of Tucson in Pima County, Arizona, on the endangered Pima pineapple cactus (PPC) (*Coryphantha scheeri* var. *robustispina*), pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). You determined that the proposed action is likely to adversely affect the PPC.

We are forwarding the draft of this BO for your review. Please let us know of any errors or omissions in the project description, any factual errors in other portions of the document, and any concerns that you believe should be addressed by July 11, 2008. We encourage you to coordinate the review of the document with the Arizona Game and Fish Department.

We appreciate your cooperation throughout this consultation. Please contact Marit Alanen (520) 670-6150 (x 234) or Jim Rorabaugh (520) 670-6150 (x 230) of my staff for further assistance. Please refer to consultation number 22410-2008-F-0281 in future correspondence concerning this project.
Sincerely,

/s/ Jason Douglas for
Steven L. Spangle
Field Supervisor

Attachment

cc: Federal Highway Administration, Environmental Program Manager, Phoenix, AZ (Attn: Steve Thomas) (w/enclosure)
    Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ (w/enclosure)

    Arizona Department of Transportation, Biologist, Flagstaff, AZ (Attn: Justin White)
    (w/enclosure)
TO: Project File  
FROM: Meredith de Carbonnel  
SUBJECT: SR 86, Valencia Road to Kinney Road  
TRACS No.: 086 PM 159 H6806 01C  
Telecon with Bureau of Land Management (BLM) Tuscon  

SUMMARY:  
On March 14, 2008, I spoke with Francisco Mendoza of BLM Tucson Field Office regarding the BLM Visual Resource Management (VRM) objectives within the project of the above-referenced project. Mr. Mendoza informed me that the area is listed as VRM Class III and that a roadway widening would be consistent with the objectives of this class.

Mr. Mendoza asked if the project would provide sidewalks adjacent to SR 86 in this section. He informed me that this area has conceptual designs for provision of sidewalks and that as the area around SR 86 becomes more urbanized, pedestrian movement will be become more and more of an issue. I let him know that his comments would be recorded as part of the project.