

## IMPLEMENTING AGREEMENT

by and between

HERITAGE ARTS FOUNDATION, INC.

and the

U.S. FISH AND WILDLIFE SERVICE

TO ESTABLISH A PROGRAM FOR THE CONSERVATION OF THREATENED SPECIES NEAR THE PROPOSED ACCESS ROAD TO THE TUACAHN SCHOOL AND PERFORMING ARTS CENTER, WASHINGTON COUNTY, UTAH.

This Implementing Agreement ("Agreement"), made and entered into as of the 31<sup>st</sup> day of MARCH, 1995, by and among HERITAGE ARTS FOUNDATION, INC. (the "Foundation"), and the UNITED STATES FISH AND WILDLIFE SERVICE ("FWS"), hereinafter collectively called the "Parties," defines the Parties' roles and responsibilities and provides a common understanding of actions that will be undertaken for the conservation of the subject listed species and their habitat during the further improvement and continued use of the Access Road to the Tuacahn School and Performing Arts Center located in Washington County, Utah (the "Proposed Project").

The Parties enter into this Agreement in accordance with the Federal Endangered Species Act of 1973, as amended ("ESA"), and the National Environmental Policy Act ("NEPA").

### 1.0 RECITALS

WHEREAS, the Proposed Project site is adjacent to habitat for the federally listed Mojave Desert Tortoise (*Gopherus agassizii*); and

WHEREAS, the Parties have previously entered into and have substantially performed pursuant to a Stipulated Settlement agreement (the "**Stipulated Settlement**") dated August 17, 1994, in the civil action entitled United States of America vs. Heritage Arts Foundation, Inc., Civil No. 94-C-818B (U.S. District Court for the District of Utah); and

WHEREAS, the Proposed Project is within the planning jurisdictions of the Town of Ivins, Utah, and Washington County, Utah; and

WHEREAS, the Foundation, through consultation with the FWS, and with agreement of the FWS, has developed a series of measures, described in the Habitat Conservation Plan for the Proposed Project, to conserve the subject listed species and their associated habitat during project activities; and

WHEREAS, procedures to obtain permits allowing incidental take of listed species pursuant to Section 10(a)(1)(B) of the ESA also require assurances committing the parties to implement specified conservation measures for the subject listed species in the Habitat Conservation Plan; and

WHEREAS, the FWS has concluded that a permit authorizing such incidental taking is not likely to jeopardize the continued existence of the tortoise and that the Habitat Conservation Plan does, to the maximum extent practicable, minimize the taking of this species; that the taking of this species is incidental to an otherwise lawful activity; that the Habitat Conservation Plan promotes the long-term survival and conservation of this species; and that the Habitat Conservation Plan provides adequate funding and will be fully implemented as discussed in greater detail below; and

WHEREAS, Washington County, Utah is actively preparing a Regional Habitat Conservation Plan ("RHCP") in support of an application for a Section 10(a) permit that is anticipated to cover the Tuacahn School and Performing Arts Center, and the access road; and

WHEREAS, this Agreement contains covenants and agreements by both Parties, which are made in exchange for valuable and adequate consideration in the form of covenants, agreements, and assurances from the other party hereto;

THEREFORE, for and in consideration of the mutual covenants and conditions herein, the Parties hereto do hereby understand and agree as follows:

## **2.0 DEFINITIONS**

The following terms as used in this Agreement shall have the meanings set forth below:

- 2.1 The term "**Permit**" shall mean an incidental take permit issued by FWS to the Foundation (relating to the Proposed Project) pursuant to Section 10(a)(1)(B) of the ESA.
- 2.2 The term "**Permit Area**" shall mean the Proposed Project area consisting of an access road to the Tuacahn School and Performing Arts Center, approximately 60 feet wide and 1.3 miles long, located in the Town of Ivins, Washington County, Utah, and the immediate vicinity thereof, as depicted in Figure 1 of the Proposed Project Habitat Conservation Plan.
- 2.3 The term "**Permittee**" shall mean the Foundation.
- 2.4 The term "**Conservation Plan**" shall mean the Habitat Conservation Plan prepared for the Proposed Project.
- 2.5 The term "**Plan Species**" shall mean the Mojave Desert Tortoise (*Gopherus agassizii*), a federally listed threatened species.
- 2.6 The term "**Unforeseen Circumstances**" shall mean any significant adverse change in the population of the plan species, or in the anticipated impacts of the project or other factors upon which the Conservation Plan is based, or any significant new information relevant to the Conservation Plan (including information presented during a public comment period on the Permit application) that was unforeseen by the Parties on the date hereof.

**3.0 HABITAT CONSERVATION PLAN**

Pursuant to the Stipulated Settlement and the provisions of Section 10(a)(1)(B) of the ESA the Foundation has prepared a permit application and a Conservation Plan and submitted them to the FWS with a request that the FWS issue a Permit to allow Plan Species to be incidentally taken, as the term is defined in the ESA, within the Permit Area. The Conservation Plan proposes a program of conservation for the Plan Species and their habitat through specified mitigation and minimization measures.

**4.0 INCORPORATION OF CONSERVATION PLAN**

The Conservation Plan and each of its provisions are intended to be, and by this reference are, incorporated herein. In the event of any direct contradiction between the terms of this Agreement and the Conservation Plan, the terms of this Agreement shall control. In all other cases, the terms of this Agreement and the terms of the Conservation Plan shall be interpreted to be supplementary to each other.

**5.0 LEGAL REQUIREMENTS**

In order to fulfill the requirements that will allow the FWS to issue the Permit, the Conservation Plan provides measures that are intended to ensure that any take occurring within the Permit Area will be incidental; that the impacts of the take will, to the maximum extent practicable, be minimized and mitigated; that adequate funding for the Conservation Plan will be provided; and that the take will not appreciably reduce the likelihood of the survival and recovery of the Plan Species in the wild.

**6.0 COOPERATIVE EFFORT**

In order that each of the legal requirements as set forth in Paragraph 5.0 hereof are fulfilled, each of the Parties to this Agreement must perform certain specific tasks. The Conservation Plan thus describes a cooperative program by Federal agencies and private interests to conserve the Plan Species. The Parties agree not to act unreasonably at any point in the implementation of the Conservation Plan or in the performance of this Agreement.

**7.0 TERMS USED**

Terms defined and utilized in the Conservation Plan and the ESA shall have the same meaning when utilized in this Agreement, except as specifically noted.

**8.0 PURPOSES**

The purposes of this Agreement are:

8.1 To ensure the implementation of each of the terms of the Conservation Plan;

- 8.2 To contractually bind each Party to fulfill and faithfully perform the obligations, responsibilities, and tasks assigned to it pursuant to the terms of the Conservation Plan; and,
- 8.3 To provide remedies and recourse should any party fail to perform its obligations, responsibilities, and tasks as set forth in this Agreement.

**9.0 TERM**

- 9.1 Stated Term. This Agreement shall become effective on the date that the FWS issues the Permit and shall remain in full force and effect for a period of 2 years, or until the Permit has been terminated or superseded, whichever occurs sooner.
- 9.2 Notwithstanding the stated term as herein set forth, the parties agree and recognize that once any of the Plan Species have been taken within the Permit Area during the Proposed Project, the take will be permanent.
- 9.3 If, prior to the expiration of the 2 year period of the Permit issued to the Foundation, a Section 10(a) permit is issued to Washington County, Utah (in connection with the RHCP) that covers the Proposed Project and/or the Permit Area, the Foundation will complete the fencing and culvert mitigation measures set forth in Section V.C. of the Conservation Plan. In every other respect the Foundation's Permit and Conservation Plan, and this Agreement, shall be superseded by the Washington County RHCP and Permit.

**10.0 FUNDING**

- 10.1 As detailed in Section V of the Conservation Plan and Section 11.1 of this Agreement, the Foundation will provide the funds to carry out the measures within the Permit Area cited in the Conservation Plan. The Foundation has committed the funds necessary to complete the measures set forth in the Conservation Plan, and hereby undertakes to assure funds sufficient to perform its obligations under the Conservation Plan.
- 10.2 FWS shall include in annual budget requests sufficient funds to fulfill its obligations under the Conservation Plan and Section 10(a) permit and its statutory requirements to protect the Plan Species.

**11.0 RESPONSIBILITIES OF THE PARTIES IN CONSERVATION PROGRAM IMPLEMENTATION**

- 11.1 The Foundation shall undertake those actions for conservation of the Plan Species as detailed in Section V of the Conservation Plan during construction and operation of the Proposed Project, which are summarized as follows:
  - a. A fence will be constructed along specified portions of the access road to prevent tortoises from moving onto the road, and to deter human access to tortoise habitat adjacent to the road. The Foundation has assured that the

fence will be constructed and will be maintained throughout the life of the Permit;

- b. The Foundation will construct a system of culverts which will allow tortoises to pass beneath the access road;
- c. The Foundation will monitor the fence and culverts as detailed in the Conservation Plan, and will participate in a study of tortoise usage of the culverts;
- d. Restriction of access to land adjacent to the road will be posted along the access road and will be strictly enforced by local law enforcement agents; and
- e. Upon locating a dead, injured, or sick individual tortoise, notification will be made to the U.S. Fish and Wildlife Service Law Enforcement Office in Salt Lake City, Utah and to local biologists designated by FWS.

11.2 The FWS agrees to undertake the actions to implement the Conservation Plan as set forth therein and as set forth in this Agreement.

## **12.0 ENVIRONMENTAL REVIEW**

Issuance of a Section 10(a) permit to the Foundation by FWS is an action subject to NEPA review. FWS is the "lead" agency under NEPA and has prepared an Environmental Assessment addressing the Section 10(a) permit application for the Proposed Project and accompanying Conservation Plan.

## **13.0 ISSUANCE OF THE PERMIT**

### **13.1 FINDINGS**

Upon finding by the FWS, after opportunity for public comment, with respect to the Permit application and the Conservation Plan that:

#### **a. INCIDENTAL TAKE**

Any permitted taking of the Plan Species will be incidental to the carrying out of otherwise lawful activities; and,

#### **b. MINIMIZE AND MITIGATE**

The Conservation Plan and this Agreement will, to the maximum extent practicable, minimize and mitigate the impacts of such incidental taking; and,

c. ADEQUATE FUNDING

The funding identified and provided for in the Conservation Plan (and committed to herein) will ensure that adequate funding for the Conservation Plan will be provided; and,

d. NO LIKELY JEOPARDY

Any permitted taking of the Plan Species will not appreciably reduce the likelihood of the survival and recovery of the Plan Species in the wild; and,

e. OTHER MEASURES

Any other measures set forth in the Conservation Plan and required by the FWS as being necessary or appropriate for the purposes of the Conservation Plan (including any measures determined by the parties to be necessary to deal with Unforeseen Circumstances) will be fulfilled;

the FWS shall issue a Permit to the Foundation allowing incidental take of listed Plan Species. Such Permit shall be issued concurrently with the execution of this Agreement by the Parties, and it is specifically agreed that this Agreement shall not become effective nor binding upon the Parties hereto until and unless the Permit has been issued.

### 13.2 ISSUANCE AND MONITORING

After issuance of the Permit, the FWS shall monitor the implementation thereof, including each of the terms of this Agreement and the Conservation Plan, in order to ensure compliance with the Permit, the Conservation Plan and this Agreement. In addition, the FWS shall, to the maximum extent possible, ensure the availability of its staff to cooperate with and provide technical and research assistance to the Parties.

## 14.0 REMEDIES AND ENFORCEMENT

### 14.1 REMEDIES IN GENERAL

Except as set forth hereinafter, each Party hereto shall have all of the remedies available in equity (including specific performance and injunctive relief) and at law to enforce the terms of this Agreement and the Permit and to seek remedies and compensation for any breach hereof, consistent with and subject to the following:

a. NO MONETARY DAMAGES

None of the Parties shall be liable in damages to the other Parties or other person for any breach of this Agreement, any performance or failure to perform a mandatory or discretionary obligation imposed by this Agreement

or any other cause of action arising from this Agreement. Notwithstanding the foregoing:

(1) Retain Liability

Except as protected by the Permit, each Party shall retain whatever liability it would possess for its present and future acts or failure to act without existence of the Permit or this Agreement.

(2) Land Owner Liability

The Foundation shall retain whatever liability it possesses as an owner of interests in land.

b. INJUNCTIVE AND TEMPORARY RELIEF

The Parties acknowledge that the Plan Species are unique and that their loss as species would result in irreparable damage to the environment and that therefore injunctive and temporary relief may be appropriate in certain instances involving a breach of this Agreement.

c. ACTIONS OF NONPARTIES

The Parties agree that neither actions of nonparties to this Agreement, nor a failure of nonparties to perform or cooperate with performance of the Parties hereto, shall constitute a breach of this Agreement by either of the Parties.

14.2 THE PERMIT

a. PERMIT SUSPENSION, REVOCATION OR TERMINATION

(1) Suspension

In the event of any significant violation or breach of the Permit or this Agreement, the FWS may suspend the Permit; however, except where the FWS determines that emergency action is necessary to protect the Plan Species, it will not suspend the Permit without first:

- (i) Requesting the Foundation to take appropriate remedial, enforcement or management actions; and
- (ii) Providing the Foundation notice in writing of the facts or conduct which may warrant the suspension and an opportunity for the Foundation to demonstrate or achieve compliance with the ESA, regulations issued thereunder, the Permit and this Agreement.

(2) Reinstatement

In the event the Permit is suspended, as soon as possible, but no later than ten (10) working days after any suspension, the FWS shall consult with the Foundation concerning actions to be taken to effectively redress the violation or breach that necessitated the suspension. At the conclusion of any such consultation, the FWS shall make a determination of the actions necessary to effectively redress the violation or breach. In making this determination the FWS shall consider the requirements of the ESA, regulations issued thereunder, the conservation needs of the Plan Species, the terms of the Permit and of this Agreement and any comments or recommendations received during the consultations. As soon as possible, but not later than thirty (30) days after the conclusion of the consultations, the FWS shall transmit to the Foundation written notice of the actions necessary to effectively redress the violation or breach. Upon full performance of the necessary actions specified by the FWS in its written notice, the FWS shall immediately reinstate the Permit. It is the intent of the Parties hereto that in the event of any suspension of the Permit all Parties shall act expeditiously to cooperate to rescind any suspension to carry out the objective of this Agreement.

(3) Revocation or Termination

- (i) The FWS agrees that it will revoke or terminate the Permit for violation of the Permit or breach of this Agreement only if the FWS determines that:
  - (A) Such violation involves the unpermitted taking of an endangered or threatened species; and
  - (B) Such violation cannot be effectively redressed by other remedies or enforcement action; and
  - (C) Revocation or termination is required to fulfill a responsibility of the FWS under the ESA or regulations issued thereunder.
- (ii) The FWS agrees that it will not revoke or terminate the Permit without first:
  - (A) Requesting the Foundation to take appropriate remedial action; and,
  - (B) Providing the Foundation notice in writing of the facts or conduct which may warrant the revocation or termination and a reasonable opportunity (but not less

than sixty (60) days) to demonstrate or achieve compliance with the ESA, regulations issued thereunder, the Permit and this Agreement.

### 14.3 LIMITATIONS AND EXTENT OF ENFORCEABILITY

#### a. NO FURTHER MITIGATION FOR PERMIT AREA

It is acknowledged that the purpose of this Agreement is to set forth the obligations and rights of the Parties hereto with respect to the Conservation Plan and to provide for the conservation of the Plan Species and the mitigation and compensatory measures required in connection with incidental taking of the listed Plan Species in the course of otherwise lawful activities within the Permit Area. Accordingly, except as otherwise required by law and/or provided under the terms of the Conservation Plan, including Unforeseen Circumstances, no further mitigation or compensation will be required by the FWS in connection with the Stipulated Settlement or the Conservation Plan.

In the event that one or more currently unlisted species is listed as an endangered or threatened species pursuant to the ESA after the Permit has been issued and the Conservation Plan and this Agreement have been approved by FWS, the Conservation Plan shall be adequate documentation, in the absence of Unforeseen Circumstances, to support an application for a Section 10(a) permit to take such newly listed species. In such event, the Foundation may submit an application for a 10(a) permit and the FWS shall treat the Conservation Plan and this Agreement as a Draft Conservation Plan which has been prepared in compliance with Section 10(a) of the ESA, and subject to 40 CFR § 1502.9(c) shall treat the environmental assessment as an adequate environmental document under the National Environmental Policy Act to support issuance of a Section 10(a) permit as authorized by 40 CFR § 1506.3(a).

#### b. PRIVATE PROPERTY RIGHTS AND LEGAL AUTHORITIES UNAFFECTED

Except as otherwise specifically provided in this Agreement, nothing herein contained shall be deemed to restrict the rights of the Foundation (or other owners of land) to manage the use of and exercise all of the incidents of land ownership over those lands and interests in lands constituting the Permit Area subject to such other limitations as may apply to such rights under the Constitution and laws of the United States and the State of Utah. Furthermore, nothing herein contained is intended to limit the authority or responsibility of the United States government to invoke the penalties or otherwise fulfill its responsibilities under the ESA.

**15.0**     **AMENDMENTS**

**15.1**    **AMENDMENTS TO THIS AGREEMENT**

Except as otherwise set forth herein, this Agreement may be amended only with the written consent of each of the Parties hereto.

**15.2**    **AMENDMENTS TO THE CONSERVATION PLAN**

Material changes to the Conservation Plan proposed by the Foundation after the effective date of the Permit, shall be processed by the FWS as an amendment to the Permit in accordance with the ESA and permit regulations at 50 C.F.R. Parts 13 and 17 and shall be subject to appropriate environmental review.

**16.0**     **MISCELLANEOUS PROVISIONS**

**16.1**    **NO PARTNERSHIP**

Except as otherwise expressly set forth herein, neither this Agreement nor the Conservation Plan shall make or be deemed to make any party to this Agreement the agent for or the partner of any other Party.

**16.2**    **SUCCESSORS AND ASSIGNS**

This Agreement and each of its covenants and conditions shall be binding on and shall inure to the benefit of the Parties hereto and their respective successors and assigns.

**16.3**    **NOTICE**

Any notice permitted or required by this Agreement shall be delivered personally to the persons set forth below or shall be deemed given five (5) days after deposit in the United States mail, certified and postage prepaid, return receipt requested and addressed as follows or at such other address as any Party may from time to time specify to the other Party in writing:

Robert D. Williams, Assistant Field Supervisor  
United States Fish and Wildlife Service  
Lincoln Plaza  
145 East 1300 South, Suite 404  
Salt Lake City, Utah 84115

Douglas C. Stewart, Executive Director  
Heritage Arts Foundation  
1030 South Valley View Drive  
St. George, Utah 84770

#### 16.4 ENTIRE AGREEMENT

This Agreement, together with the Conservation Plan and the Permit, jointly supersede any and all other agreements, either oral or in writing among the Parties hereto with respect to the subject matter hereof and contains all of the covenants and agreements among them with respect to said matters, and each party acknowledges that no representation, inducement, promise or agreement, oral or otherwise, has been made by the other party or anyone acting on behalf of the other Party is not embodied herein. It is specifically acknowledged that, upon issuance of the Permit, the Stipulated Settlement is fulfilled, superseded, and of no further effect.

#### 16.5 ATTORNEYS' FEES

If any action at law or equity, including any action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, each Party to the litigation shall bear its own attorneys' fees and costs provided that attorneys' fees and costs recoverable against the United States shall be governed by applicable Federal law.

#### 16.6 ELECTED OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress shall be entitled to any share or part of this Agreement, or to any benefit that may arise from it.

#### 16.7 AVAILABILITY OF FUNDS

Expenditure of funds by the FWS pursuant to this Agreement shall be subject to the availability of appropriated funds.

#### 16.8 DUPLICATE ORIGINALS

This Agreement may be executed in any number of duplicate originals. A complete original of this Agreement shall be maintained in the official records of each of the Parties hereto.

#### 16.9 THIRD PARTY BENEFICIARIES

Without limiting the applicability of the rights granted to the public pursuant to the provisions of 16 U.S.C. § 1540(g), this Agreement shall not create the public or any member thereof as a Third Party beneficiary hereof, nor shall it authorize anyone not a Party to this Agreement to maintain a suit for personal injuries or property damages pursuant to the provisions of this Agreement. The duties, obligations and responsibilities of the Parties to this Agreement with respect to Third Parties shall remain as imposed by general law.

**17.0 ALTERATION OF DOCUMENTS**

Any alteration of a Conservation Plan or associated document by any representative of the applicant or the Federal government, at any time after agreement has been reached between the responsible FWS Field Office and the applicant with respect to Conservation Plan measures, conditions, or other contents, or at any time after the Field Office certifies to the responsible Regional Office that the Conservation Plan is acceptable to the Field Office, without express written notification to or agreement by all other parties to the Conservation Plan and this Agreement, shall subject any incidental take permit issued in accordance with any Conservation Plan or associated document subsequently found to have been altered to potential suspension or revocation pursuant to section 14.0 of this Agreement and shall entitle the injured party or parties to all remedies allowed by law or as otherwise appropriate.

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this Agreement to be effective as of the date of the issuance of the Permit.

BY Ralph O. Morgenweck  
Regional Director  
United States Fish and Wildlife Service  
Denver, Colorado

Date March 31, 1995

BY Douglas C. Stewart  
Douglas C. Stewart, Executive Director  
Heritage Arts Foundation, Inc.

Date March 23, 1995

**HABITAT CONSERVATION PLAN**

**ACCESS ROAD  
TUACAHN SCHOOL AND  
PERFORMING ARTS CENTER**

**WASHINGTON COUNTY, UTAH**

**Submitted to:**

**U.S. FISH AND WILDLIFE SERVICE**

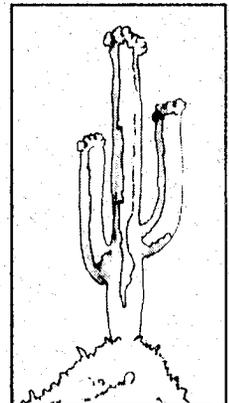
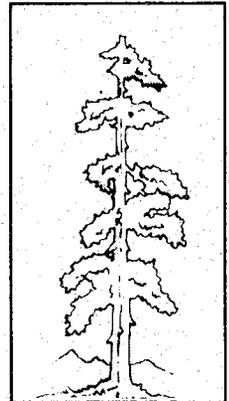
**Submitted by:**

**HERITAGE ARTS FOUNDATION**

**Prepared by:**

**SWCA, INC.  
ENVIRONMENTAL CONSULTANTS**

**January 20, 1995**



HABITAT CONSERVATION PLAN

Access Road  
Tuacahn School and Performing Arts Center  
Washington County, Utah

Submitted to:

United States Fish and Wildlife Service  
Utah Field Office  
145 East 1300 South, Suite 404  
Salt Lake City, Utah 84001  
(801) 524-5001

Submitted by:

Heritage Arts Foundation  
1030 South Valley View Drive  
St. George, Utah 84770  
(801) 674-0012

Prepared by:

SWCA, Inc. Environmental Consultants  
114 North San Francisco Street, Suite 100  
Flagstaff, Arizona 86001  
(602) 774-5500

January 20, 1995

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## I. INTRODUCTION

The Heritage Arts Foundation (HAF), a non-profit foundation, is currently constructing the Tuacahn School and Performing Arts Center on an 80-acre parcel in Padre Canyon in Ivins, Washington County, Utah. There is a 1.3 mile graded access road to the site, which was constructed two years ago by the HAF, and the road is now owned, maintained, and policed by the Town of Ivins. Areas in the vicinity of the access road and performing arts center are known to be inhabited by the Mojave desert tortoise (*Gopherus agassizii*), a species listed as threatened by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA).

Development of the site and access road has occurred over the last several years without a Section 7 consultation or a Section 10(a) incidental take permit under the ESA. This is a result of two actions. First, in a letter to the HAF from the USFWS dated December 24, 1991, the USFWS implied that construction could proceed, however it further stated that "if a tortoise is found on the property at any time, all construction and any other activity that may harm the animal should be stopped and this office notified immediately". Second, the HAF has been actively involved with the Washington County Commission in developing a Regional Habitat Conservation Plan (RHCP) and Section 10(a) permit for all of Washington County. This proposed plan would cover the Tuacahn project area and access road as areas identified for incidental take under the county-wide Section 10(a) permit, which has been underway since 1991. Currently, several aspects of the proposed plan have not been finalized and its completion by the County and subsequent approval by the USFWS is uncertain at this time. A component of the County RHCP is the Town of Ivins Master Plan (Master Plan), which is currently under preparation and expected to be completed in the Spring of 1995. This Master Plan will specify the boundaries of a tortoise reserve proposed in the County HCP in the limits of the Town of Ivins. Both the County RHCP and the Master Plan have bearing on this HCP, since the access road is part of both proposed plans. Therefore some aspects of this HCP are dependent upon the outcome of these plans. When this is the case, this HCP attempts to detail the various possible outcomes with and without these plans completed once a permit is issued.

Two desert tortoises were found dead in 1994 on the access road to the project site. As agreed to in a Stipulated Settlement between the HAF and the Department of Justice dated August 17, 1994, the HAF has prepared this HCP and applied for an individual Section 10(a) Incidental Take Permit from the USFWS. This HCP addresses the further improvement and continued use of the Tuacahn access road by HAF. As a result of the settlement, HAF has assumed a level of responsibility for the road. However, the road is now owned, maintained, and policed by the Town of Ivins, and is a public road. A two-year Section 10(a) Incidental Take Permit is requested. It is anticipated that the County RHCP will be completed within two years, and therefore incidental take along the access road would then be covered by the County RHCP, such that a longer-term permit is not necessary.

Should the County RHCP be approved prior to approval of this HCP, the HAF application would no longer be considered. If the County RHCP is approved during the two year term of this permit, all mitigation measures contained within this HCP will still be completed. Finally, if the RHCP is still not completed upon termination of this two-year permit, then the parties' will enter into

discussions with respect to a future permit. However, without the RHCP in place, the avenue identified by the USFWS for mitigation of potential risks to the desert tortoise as a result of further improvement and continued use of the Tuacahn access road by HAF is through a Section 10(a) permit and this HCP. This HCP for the Tuacahn project has been prepared to meet legal requirements contained in 50 C.F.R. § 17.22(b)(1)(iii). An Environmental Assessment has been prepared as required by the National Environmental Protection Act (NEPA), and an Implementation Agreement for the HCP has been drafted.

## II. PROJECT DESCRIPTION

### A. Project History

Planning for the Tuacahn School and Performing Arts Center was initiated by the HAF in the late 1980's. As the Mojave desert tortoise was emergency listed in August 1989 and listed as threatened in April 1990, the HAF contracted for desert tortoise presence or absence surveys for the 80-acre site and zone of influence in 1991. Survey results indicated 12 Class 5 desert tortoise scat on the 80-acre site, and no sign on the zone of influence. This report was submitted to the USFWS for review in 1991, to which the USFWS issued their previously discussed letter. In 1992, a graded access road to the site was constructed, and work on the school and center was initiated. During this time, the Washington County Commission was moving forward with its RHCP, and the HAF continued to be actively involved in this process. The RHCP continued through 1994, when two desert tortoise were found dead on the access road to the project site. The HAF entered into a Stipulated Settlement with the Department of Justice which required HAF to (1) make a payment of restitution for both of these tortoises, (2) construct temporary tortoise fencing along the entire length of the access road on both sides, (3) provide biological monitors to inspect the fence and watch for tortoises, and (4) prepare an HCP and apply for a Section 10(a) permit.

### B. Project Location

The 80 acre Tuacahn project site is located approximately 2 miles northeast of Ivins in Padre Canyon, a canyon just west of Snow Canyon State Park, located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$  and NW $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 28, Township 41 South, Range 16 West of the Salt Lake Base and Meridian. The 1.3 mile access road connects the Tuacahn site with Snow Canyon Road, located in Section 33, Township 41 South, Range 16 West. For a figure depicting the project location, see Figure 1. The project site is in an immediate area which is largely undeveloped, however the cities of Ivins, Santa Clara, and St. George are located within several miles.

### C. Existing Environment

Information for this section is paraphrased from Topham (1991, 1994).

#### 1. Topography

The access road to the 80-acre Tuacahn site crosses a gently rolling Mojave desert bajada cut by eroded drainages. The 80-acre site is located in a box canyon, bordered on three sides by sheer cliffs. At the base of the cliffs are steep talus slopes leading to the canyon floor. The head of the canyon (at the north end) is only a few hundred feet wide, but its width increases to over 3,000 feet at its southern end. The canyon floor is mostly flat, with two finger-like ridges that run out from the west slope of the canyon and traverse most of the canyon floor. A large sandy wash runs along the eastern edge of the canyon floor.

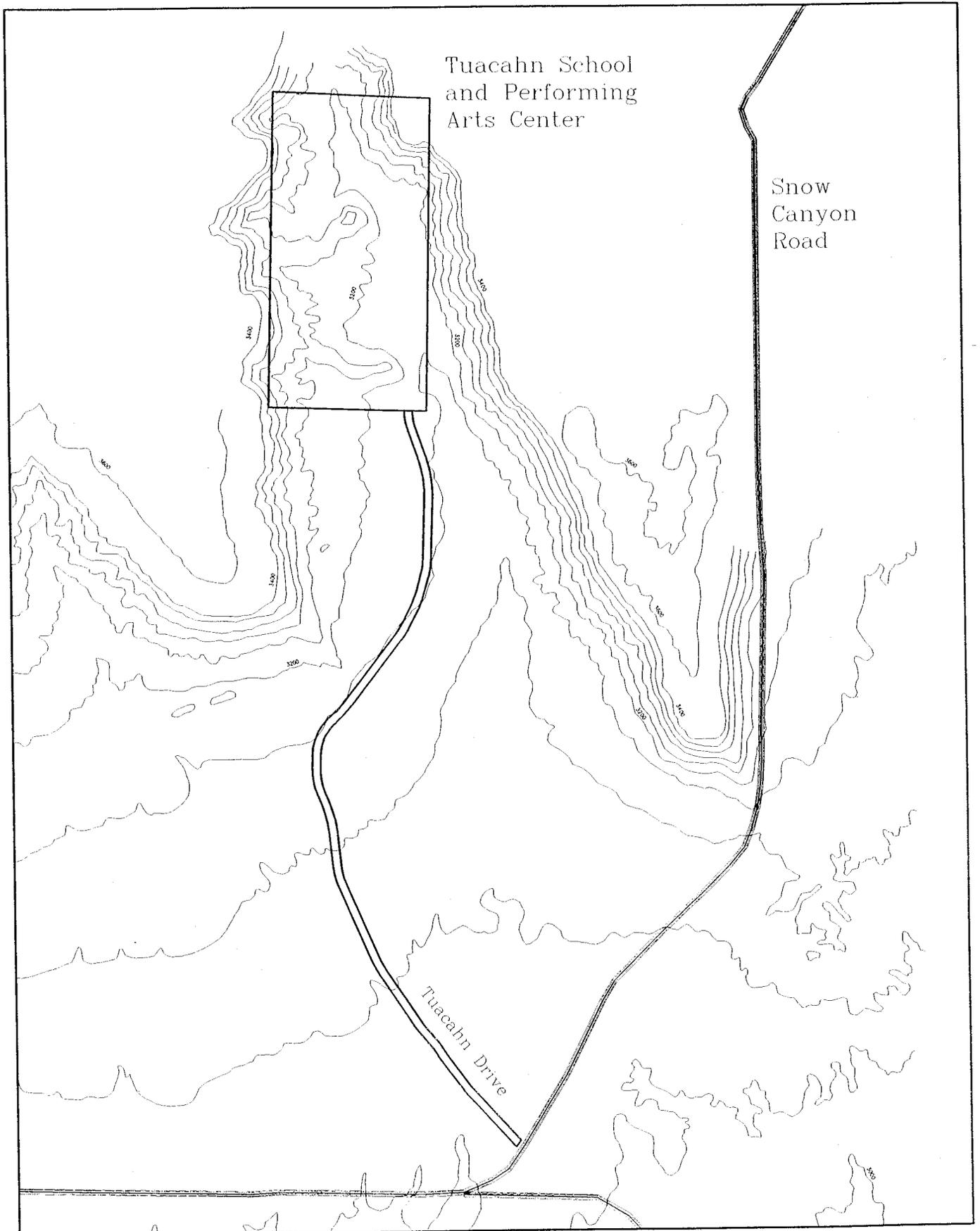


Figure 1 Site Map

## 2. Soils

The soil along the eastern slope of the canyon is primarily sandy, while on the western slope and at the base of the ridges is alkaline blue clay. The alkaline soils contain some pockets of wind-blown sand, which have formed dunes in some places. This differentiation in soils continues to the south through the mouth of the canyon.

## 3. Plant and Wildlife Communities

The change in elevation and width of the canyon produces a noticeable transition in plant life. In the upper areas, Dixie Live Oak and Squawbush are common, while in the lower reaches and out where the access road heads south, creosote and yucca are common.

Plants identified on the project site by Topham (1991, 1994) are presented in Table 1. Wildlife species either seen or for which sign was observed on the project site are presented in Table 2.

## 4. Existing Conditions, Human Disturbance, and Adjacent Land Uses

The access road is graded and is currently used for access to the Tuacahn School. Areas adjacent to the access road are currently undeveloped. Approximately 80-acres of the Tuacahn School project site has been disturbed as a result of construction activities. Adjacent land uses consist of lands undergoing residential development, open space adjacent to development, and recreational uses within and adjacent to Snow Canyon State Park.

## 5. Special Status Species

The Mojave desert tortoise is a federally listed threatened species known to occur in the project vicinity. Seven other threatened or endangered species are known from Washington County, including the peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), Mexican spotted owl (*Strix occidentalis lucida*), woundfin (*Plagopterus argentissimus*), Virgin River chub (*Gila robusta seminuda*), dwarf bear-claw poppy (*Arctomecon humilis*), and Siler pincushion cactus (*Pediocactus sileri*). In addition, Washington County supports habitat for 39 candidate species as well as an additional 16 species which are listed by the State of Utah. A complete list of these species is presented in Table 3.

Table 1. Perennial plant species observed on the project site (From Topham 1991, 1994).

Golden buckwheat	<i>Eriogonum corymbosum</i>
Desert willow	<i>Chilopsis linearis</i>
Squaw-bush	<i>Rhus trilobata</i>
Mojave aster	<i>Aster</i> spp.
Dixie live oak	<i>Quercus turbinella</i>
Creosote	<i>Larrea tridentata</i>
Broom snakeweed	<i>Gutierrezia sarothrae</i>
Burrobush	<i>Hymenoclea salsola</i>
Indian ricegrass	<i>Stipa hymenoides</i>
Sand sage	<i>Artemisia filifolia</i>
Big sage	<i>Artemisia tridentata</i>
Horsebush	<i>Tetradymia</i> spp.
Indigobush	<i>Psoralea fremontii</i>
Shrubby sandwort	<i>Arenaria macradenia</i>
Mormon tea	<i>Ephedra nevadensis</i>
Desert almond	<i>Prunus fasciculata</i>
Cholla	<i>Opuntia acanthocarpa</i>
Utah yucca	<i>Yucca utahensis</i>
Prickly pear	<i>Opuntia erinacea</i>
Blackbrush	<i>Coleogyne ramosissima</i>

Table 2. Wildlife species observed during field surveys (from Topham 1991, 1994).

Gambel's Quail	<i>Callipepla gambelii</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Rock Wren	<i>Salpinctes obsoletus</i>
Roadrunner	<i>Geococcyx californianus</i>
White-tailed Antelope Ground Squirrel	<i>Ammospermophilus leucurus</i>
Black-tailed Jack Rabbit	<i>Lepus californicus</i>
Desert Cottontail	<i>Sylvilagus auduboni</i>
Pack Rat*	<i>Neotoma</i> spp.
Deer Mice*	<i>Peromyscus</i> spp.
Kangaroo Rat*	<i>Dipodomys</i> spp.
Side-blotched Lizard	<i>Uta stansburiana</i>
Desert Spiny Lizard	<i>Sceloporus magister</i>
Western Whiptail Lizard	<i>Cnemidophorus tigris</i>
Chuckwalla*	<i>Sauromalus obesus</i>
Gila Monster*	<i>Heloderma suspectum</i>

\* Sign observed

Table 3. Federally listed, proposed, candidate, and state-listed species known or suspected to occur in Washington County (from SWCA 1994).

Common Name	Scientific Name	Status	
		Fed	State
Southwest Willow Flycatcher	<i>Empidonax traillii extimus</i>	Proposed	Sensitive
Virgin Spinedace	<i>Lepidomeda mollispinis</i>	Proposed	Threatened
	<i>mollispinis</i>		Sensitive
Spotted Bat	<i>Euderma maculatum</i>	C2	S1
Shem Milkvetch	<i>Astragalus eremiticus</i> var. <i>ampullarioides</i>	C2	S1
Holmgren Milk-vetch	<i>Astragalus holmgreniorum</i>	C2	S2
Wet Rock Physa	<i>Physella zionis</i>	C2	Sensitive
Bonneville Cutthroat Trout	<i>Oncorhynchus clarki utah</i>	C2	Sensitive
Merriam's Kangaroo Rat	<i>Dipodomys merriami frenatus</i>	C2	Sensitive
Pygmy Rabbit	<i>Brachylagus idahoensis</i>	C2	-
Virgin River Montane Vole	<i>Microtus montanus rivularis</i>	C2	Sensitive
Northern Goshawk	<i>Accipiter gentilis</i>	C2	Sensitive
White-faced Ibis	<i>Plegadis chihii</i>	C2	-
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	C2	Sensitive
Mountain Plover	<i>Charadrius montanus</i>	C1	Sensitive
Ferruginous Hawk	<i>Buteo regalis</i>	C2	Threatened
Loggerhead Shrike	<i>Lanius ludovicianus</i>	C2	Sensitive
Black Tern	<i>Chlidonias niger</i>	C2	Sensitive
Western Least Bittern	<i>Ixobrychus exilis hesperis</i>	C2	Sensitive
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	-	Threatened
Common Yellowthroat	<i>Geothlypis trichas</i>	-	Sensitive
Yellow-breasted Chat	<i>Icteria virens</i>	-	-
Bell's Vireo	<i>Vireo bellii</i>	-	Sensitive
Flannelmouth Sucker	<i>Catostomus latipinnis</i>	C2	-
Arizona Southwestern Toad	<i>Bufo microscaphus microscaphus</i>	C2	Sensitive
Lowland Leopard Frog	<i>Rana yavapaiensis</i>	C2	Sensitive
Relic Leopard Frog	<i>Rana onca</i>	C3a	Extinct
Boreal Toad	<i>Bufo boreas boreas</i>	Proposed	Sensitive
Northern Leopard Frog	<i>Rana pipiens</i>	-	-
Pacific Chorus Frog	<i>Pseudacris regilla</i>	?	?
Chuckwalla	<i>Sauromalus obesus obesus</i>	C2	Threatened
Gila Monster	<i>Heloderma suspectum</i>	-	Endangered
Desert Night Lizard	<i>Xanusia vigilis</i>	-	Sensitive
Glossy Snake	<i>Arizona elegans</i>	-	Sensitive
Utah Mountain Kingsnake	<i>Lampropeltis pyromelana</i>	-	Sensitive
	<i>infralabialis</i>	-	Sensitive
Utah Milk Snake	<i>Lampropeltis triangulum taylori</i>	-	Sensitive
Utah Banded Gecko	<i>Coleonyx variegatus utahensis</i>	-	Sensitive
Desert Iguana	<i>Dipsosaurus dorsalis</i>	-	Sensitive
Zebra-tailed Lizard	<i>Callisaurus draconoides</i>	-	Sensitive
Lyre Snake	<i>Trimorphodon biscutatus lambda</i>	-	Sensitive
Western Blind Snake	<i>Leptotyphlops humilis</i>	-	Sensitive
Mojave Patchnose Snake	<i>Salvadora hexalepis mojavensis</i>	-	Sensitive
Speckled Rattlesnake	<i>Crotalus mitchellii</i>	-	Sensitive
Mojave Rattlesnake	<i>Crotalus scutulatus</i>	-	Sensitive
Sidewinder	<i>Crotalus cerastes</i>	-	Sensitive
Virgin River Thistle	<i>Cirsium virginensis</i>	C2	S1
Jones Golden Aster	<i>Heterotheca jonesii</i>	C2	S2
Pink Egg Milkvetch	<i>Astragalus oophorus</i> var. <i>lonchocalyx</i>	C2	S2
Utah Spikemoss	<i>Selaginella utahensis</i>	C2	S2
Zion Tansy	<i>Sphaeromeria ruthiae</i>	C2	S2
Pinyon Penstemon	<i>Penstemon pinorum</i>	C2	S1
Canaan Mountain Beardtongue	<i>Penstemon ammophilus</i>	C2	S2?
Nevada Willowherb	<i>Epilobium nevadense</i>	C2	S1
Canaan Daisy	<i>Erigeron canaani</i>	C2	S1
Pine Valley Goldenbush	<i>Haplopappus crispus</i>	C2	S2
Cedar Breaks Goldenbush	<i>Haplopappus zionis</i>	C2	S2
Gumbo Milk-vetch	<i>Astragalus ampullarius</i>	C2	S1
Zion Daisy	<i>Erigeron sionis</i>	C2	S2
Utah Chaetarthrian Water Scavenger Beetle	<i>Chaetarthria utahensis</i>	C2	S2?
Spotted Warner Valley Dunes June Beetle	<i>Polyphylla avitata</i>	C2	S2?
MacNeill Sooty Wing Skipper	<i>Hesperopsis graciaelae</i>	C2	S2?

D. Proposed Project

The proposed project includes further improvement and continued use of an access road to the Tuacahn School and Performing Arts Center by the HAF. The road is currently graded dirt, 60 feet in width, and 1.3 miles in length. The road was initially constructed by the HAF, but has been deeded over to the Town of Ivins, who is currently responsible to maintain and police the road. The Town of Ivins accepted the dedication of the road in 1992, with final recordation occurring in 1994. HAF proposes that it will construct certain fencing and culverts along the road as set forth in Section V.C. below. It is anticipated that the road will be paved by the Town of Ivins. Although HAF cannot control the timing of when Ivins decides to pave the road, HAF has sent a letter to the Town requesting that paving be deferred until after the initial fencing and culverts have been installed. At present, the road is anticipated to primarily serve employees, students, and visitors of the Tuacahn Center. Although additional development along the road may occur in the future, the Town of Ivins has advised HAF that no proposed developments along the access road (other than Tuacahn) have been approved for construction at this point in time. Further, any future development will be subject to the finally approved Ivins Master Plan and other appropriate approvals. Thus, until further development is approved by Ivins, the primary use of the road will be Tuacahn related.

### III. STATUS OF LISTED, PROPOSED, AND CANDIDATE SPECIES ON THE PROJECT SITE

#### A. Introduction

As the access road is already graded, it is highly unlikely that any special status species currently occur there. However, Mojave desert tortoise are known to inhabit adjacent areas, and other threatened, endangered, and candidate species may occur in the project vicinity. The purpose of this section is to discuss the status of these special interest species on the project area and in adjacent areas. Section IV will discuss potential impacts to these species as a result of the proposed project.

#### B. Mojave Desert Tortoise

Field surveys to determine the presence or absence of Mojave desert tortoise were conducted in October 1991 for the 80-acre project site. These surveys documented 12 class five scat on the 80-acre site. No sightings of live tortoises were made, nor were any tortoise sign found in the zone of influence.

For preparation of this HCP, Mojave desert tortoise surveys were conducted in August and September of 1994 within the zone of influence of the 80-acre project site and 1.3 mile access road. The tortoise survey area and results of this survey are presented in Table 4 and in Figure 2.

Table 4. Results of 1994 desert tortoise surveys (from Topham 1994).

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First Survey	
903	Scat
64	Burrows (40 active)
13	Pallets (7 active)
43	Sets of Tracks
7	Courtship Rings
3	Egg Shell Fragments
2	Skeletal Remains
21	Live Tortoises (11 Male, 7 Female, 1 Unknown, 2 Juveniles)

Second Survey	
13	Live Tortoises (4 Recaptures)

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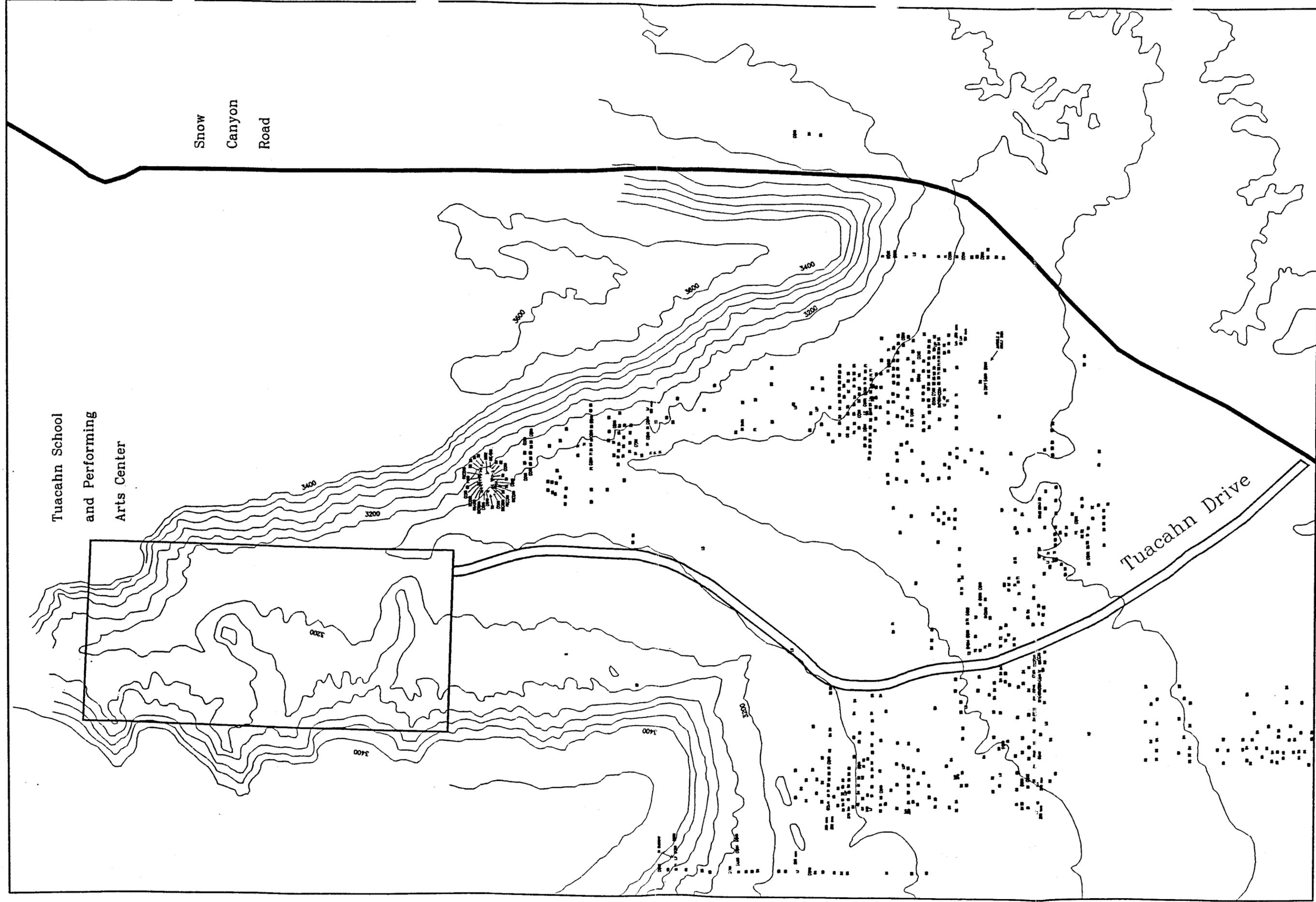


Figure 2. Tortoise Sign Locations on Site

Results of the desert tortoise surveys indicated that the access road was devoid of desert tortoise sign and live tortoises. However, immediately adjacent to and on either side of a 1,000 foot length of the access road is an area of high tortoise density, as presented in figure 2. It appears that a narrow area containing tortoise sign occurs in the project vicinity which may serve as a travel corridor between populations of tortoises. The tortoise habitat in Padre Canyon is important for the Upper Virgin River Recovery Unit because it provides contiguous habitat between core tortoise habitat north of St. George and high density tortoise habitat to the west of Padre Canyon.

C. Other Threatened and Endangered Species

Seven other federally listed threatened or endangered species are known to inhabit Washington County, including the peregrine falcon, bald eagle, woundfin, Virgin River chub, dwarf bear-claw poppy, Siler pincushion cactus, and Mexican spotted owl. None of these species are located on the project site or along the access road. While it is possible that peregrine falcon may utilize the cliffs in the vicinity of the project site, or that bald eagles may use the Town of Ivins sewage ponds, no eyries or roosting sites are known within the project vicinity.

D. Candidate Species

Thirty-nine federal candidate species and an additional 16 state-listed species are known from Washington County. None of these species is expected to occur on the 80-acre project site or along the access road. Within the project vicinity, habitat adjacent to the project area apparently exists for the chuckwalla (*Sauromalus obesus obesus*), a federal category 2 species and state threatened species, and the Gila monster (*Heloderma suspectum*), a state endangered species. It is likely that these species inhabit the base of the sandstone cliffs adjacent to the project site.

#### IV. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

##### A. Introduction

A primary component of the preparation of an HCP is a determination of the amount of incidental take associated with the proposed project. However, the amount of "take," if any, depends on an interpretation of the extent of Mojave desert tortoise habitat on the property and an interpretation of the legal definition of "take."

Though few legal clarifications have been made, actions which do not involve direct physical contact or infliction of direct contact with an endangered species, such as modification of habitat, do not appear to constitute take unless it satisfies certain criteria for "harm" or "harass", both of which are included in the statutory definition of "take." The regulations define harm as follows:

[A]n act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding or sheltering.

Harass is defined in 50 C.F.R. § 17.3 as follows:

[A]n intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding and sheltering.

The important element of each definition is that take cannot be concluded to have occurred in the absence of demonstrable evidence of actual injury or death of a species member. Destruction of "suitable" unoccupied habitat, or construction in areas near such habitat, without evidence that such action results in actual injury or death of a species member, therefore do not constitute "take."

##### B. Mojave Desert Tortoise

Potential direct impacts to the desert tortoise resulting from proceeding with the proposed project include potential take of desert tortoise on the access road from collisions with vehicles. No take of tortoises is anticipated from further improvement of the access road, such as during fence construction or culvert installation. Take of desert tortoise may also occur at the fence, as described below in indirect impacts.

###### 1. Direct Impacts

Direct impacts to tortoise from vehicles operating on the access road may occur. While fencing may minimize potential tortoise-vehicle interactions, it is possible that unforeseen accidents may occur. A scientific quantification of the potential take of tortoises over the life of this Section 10(a) permit is not possible, however a reasonable estimate can be made. With the proposed mitigation, it seems

that vehicle-induced deaths of tortoises on the access road should be limited to one per year. This number is based on the following information: (1) because fence construction, placement of culverts, monitoring of both fences and culverts, signage along the access road, and law enforcement will minimize the number of tortoises gaining access and colliding with vehicles. (2) although the tortoise fencing and other mitigation will minimize impacts to tortoises, they cannot completely deter tortoise-vehicle collisions.

## 2. Indirect Impacts

Deaths of tortoises may also occur as a result of fencing, as a tortoise may become stuck at the fence and not seek an alternate crossing. Based on HAF's proposed level of monitoring (which is described below), take of such kind should be limited to once per year.

## 3. Direct Habitat Impacts

There are no direct impacts from further improvement and continued use of the access road, as all work and travel will occur on previously disturbed habitat.

## 4. Indirect Habitat Impacts

Indirect habitat impacts from this project would be extremely limited as the road will primarily be used for vehicle, pedestrian, and bicycle access to the Tuacahn Center. The roadway in the vicinity of the tortoise habitat will be fenced to prevent tortoise access onto the roadway, and to prevent human or vehicle use off of the roadway. "No Stopping" and "No Trespassing" signs will be posted along the roadway to further minimize indirect habitat impacts.

Uses typically associated with development, such as increased use of surrounding areas for pedestrian recreation, increased harassment of desert tortoise by domestic and feral dogs and cats, and increased noise and human activity, may result from residential development of areas adjacent to the road. Residential development in this area are not proposed to be covered by this incidental take permit, but rather would be handled in the County RHCP. While the access road may provide access to residential development in this area, the current purpose of the road is predominantly for access to the Tuacahn Center. Should the road be used for access to future residential development, the mitigation provided by the HAF along the road should be adequate for the increased traffic along the road, however the HAF is not seeking a Section 10(a) permit for this residential development nor does it believe that the HAF should be forced to provide protection for tortoise in this area to minimize and mitigate activities for other projects which are not part of the Tuacahn Center.

One indirect habitat impact which may result from the proposed project would be that of habitat fragmentation. Fragmentation of habitat has already occurred not only as a result of access road construction, but also from the construction and operation of Snow Canyon Road, the Ivins Drainage Berm, Highway 18, and the Town of Ivins. The incremental effect of further improvement and continued use of the Tuacahn access road on tortoise habitat fragmentation is expected to be small

given the previous habitat fragmentation which has occurred, as well as considering the proposed mitigation for the access road. For example, the underroad crossing proposed for the Tuacahn access road has been designed to minimize to the maximum extent practicable any potential adverse impacts from habitat fragmentation, and in fact, the Tuacahn access road will have done more to minimize habitat fragmentation than at any other location previously mentioned.

C. Other Threatened and Endangered Species

No impacts to the seven other federally listed species resulting from the proposed project are anticipated.

D. Candidate Species

No impacts to candidate species resulting from the proposed project are anticipated.

## V. MEASURES TO MONITOR, MINIMIZE, AND MITIGATE FOR POTENTIAL IMPACTS

### A. Introduction

This section discusses the measures which are proposed to monitor, minimize, and mitigate potential impacts to threatened, endangered, and candidate species as a result of further improvement and continued use of the access road.

### B. Monitoring

In the section below, it is proposed that fencing be used to keep tortoises off of the roadway, and that concrete box culverts be installed to provide a safe crossing for tortoises. The following monitoring protocols have been designed to (1) insure that the fence is adequately maintained; (2) minimize the likelihood of a take at the fence, and (3) keep the culverts unobstructed to maximize utilization..

#### 1. Culvert Monitoring Study

At the request of the USFWS, HAF has agreed to participate in an in-depth study of tortoise use of these culverts. This study is contemplated with shared resources from HAF, the National Biological Survey, Washington County HCP, and the USFWS. HAF has agreed to write a letter to the county requesting the county's participation in such a study. HAF's contribution to the study would include the availability of monitors who will be on-site on a daily or weekly basis. These monitoring personnel could perform tasks such as clearing the culverts of obstructions, observing actual tortoise use, looking for tracks, or checking equipment. At this time, the scope of the study is unknown, however HAF is willing to participate in appropriate discussions with the study team to determine what in-kind services HAF could perform using its monitoring personnel.

#### 2. Monitoring Fence Maintenance

HAF will agree to weekly fence inspections for the life of the permit. During these inspections, the fence will be checked for any condition which may make the fence less viable for purposes of keeping tortoises off of the road, and keeping people out of the tortoise habitat areas, such as holes, loose wires or poles, or other problems. During the inspections, the culverts will also be cleared of debris. Evidence of tortoises will also be noted during the inspections. A fence inspection and maintenance log will be maintained and available for review upon request. The log will also be submitted to the USFWS on a quarterly basis. Minor problems noted in the inspection will be repaired immediately, as the inspector will have available tools and material for small repairs. Work will begin on the repair of large fence problems within two hours of initial identification, and will be completed as fast as possible. A fence maintenance budget has been established to cover the costs of fence maintenance.

### 3. Tortoise Monitoring along the Fence

The USFWS has identified the active period for tortoises as March 20 - June 1, and from September 1 through October 31. During these periods, HAF will conduct twice daily walking inspections of the fenceline to look for tortoises. These inspections will occur at 1pm and 6pm. Monitors will complete a log of their inspection, which will include information regarding the monitors name, date and time of the inspection, weather, any tortoise sign discovered, any tortoises discovered, and what was done about tortoises encountered. Monitors conducting these inspections will not be authorized to handle or move any tortoises which appear to be having trouble with the fence. Should a tortoise be discovered which appears to be having trouble at the fence, the monitor will do the following activities: (1) record discovery information in the log; (2) notify one of the local biologists who have been permitted by the USFWS to move tortoises (list to be provided by the USFWS), and (3) record information in the log regarding what was done with the tortoise. If a deceased tortoise is discovered at the fence, along the road, or within site of the monitor, the monitor will (1) record information in the log; (2) immediately notify the local USFWS agent in St. George, the USFWS State office in Salt Lake City, and HAF. The tortoise monitoring logs will be filed with the USFWS on a weekly basis. The USFWS has also requested, and HAF has agreed, that if a tortoise is discovered who has died at the fence, then monitoring during the active period will be increased to three times a day, once at 7am, and again at 1pm and 6pm. On the other hand, HAF has requested and the USFWS has agreed that following the first full year of monitoring, HAF and the USFWS can meet to discuss reducing the monitoring requirement if the data suggest that this is justified.

#### C. Minimizing and Mitigation

Impacts to the Mojave desert tortoise from the proposed project can be minimized by reducing the potential for tortoise-human interactions and by providing a useable corridor for tortoises across the access road. Following the loss of tortoises this past summer, HAF tortoise-fenced the entire access road using 36" plastic construction fencing which was placed 18" above ground and 18" below ground. HAF also provided on-site biological monitors to walk the fences to ensure that tortoises and other wildlife were not adversely impacted by fences. Maintained tortoise-proof fences have proven effective at keeping tortoises off of roads. However, in this particular situation, it is not sufficient to simply tortoise-proof the road, as this would restrict tortoise movement between the populations shown in Figure 2. Therefore fencing will be used to help guide tortoises towards safe movement corridors underneath the roadway. The fence will also help deter people from crossing over into the proposed tortoise reserve, thereby minimizing potential impacts to adjacent habitat areas.

The discussion of fencing is complicated for several reasons. First, since HAF does not control the road, approval of road fencing is required by the Town of Ivins, and therefore any fencing commitment made by HAF has to be conditioned on obtaining Town approval (see Appendix A). Secondly, it is anticipated that the Master Plan will dictate fencing requirements not only for the road, but also for the tortoise reserve which will occur on both sides of the road. Therefore, two fencing alternatives are provided, one which will occur if the Master Plan is approved by the Town

of Ivins by April 1995, and the other would occur if this Master Plan was not approved by December 1995. Please note that approval of the County RHCP does not affect these fencing scenarios, as the County RHCP by itself does not specify reserve boundaries or fencing requirements for the Tuacahn Access Road. In order to aid the discussion, Figure 3 has been prepared which separates the road into seven distinct segments. The segments were created based on the anticipated classification of lands adjacent to the road in the Master Plan. The reader must be cautioned that the Master Plan has not been finalized, and that HAF has created these segments based on the best available current information, but certainly can not guarantee the outcome of the Master Planning process. The length of each segment and the anticipated disposition of land adjacent to the road as specified in the forthcoming Master Plan is detailed in Table 5.

Table 5. Fencing segments.

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<u>Road Segment<sup>1</sup></u>	<u>Approximate Length</u>
A	2,100 feet
B	300 feet
C	2,500 feet
D	2,100 feet
E	2,100 feet
F	2,500 feet
G	2,400 feet

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As stated earlier, there are two possible scenarios for how the fencing along the access road will occur. The first scenario entails approval of the Master Plan by April of 1995, while the second scenario entails that the Master Plan is not completed until January 1996 or later. The scenarios are described below. Under either scenario, HAF will have tortoise monitors present during all on-site fence construction activities to watch out for tortoises. Should a tortoise be discovered which is in danger from construction, all work will stop in the immediate area and a permitted biologist notified to move the tortoise out of harms way.

Under Scenario 1, which entails approval of the Master Plan by April 1995, HAF would commit to constructing a 4-wire (top 2 as barb), 4-foot high steel post range fence with 36" steel mesh (or some similar fence design at the same cost) along Segments C and F. The fence would have tortoise-proof mesh 18 inches above the ground surface. Additionally, the tortoise fence would be buried 18 inches below the ground surface. If soil conditions in the area prevent the burying of the fence, the mesh would be bent at a 90 degree angle and would be piled with rocks, soils and other natural

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<sup>1</sup> The USFWS has suggested that the road segments have the following classifications in the Master Plan: A - Development; B - Proposed Reserve; C - Reserve; D - Development; E - Development; F - Reserve; G - Reserve.

materials to prevent tortoises from passing beneath the fence. The fence will be installed by the end of February 1995, replacing the temporary plastic construction fencing currently in place. Although HAF will need approval from Ivins Planning and Zoning Commission, HAF already has received informal assurances that fencing this portion of the road with this type of fencing will be acceptable.

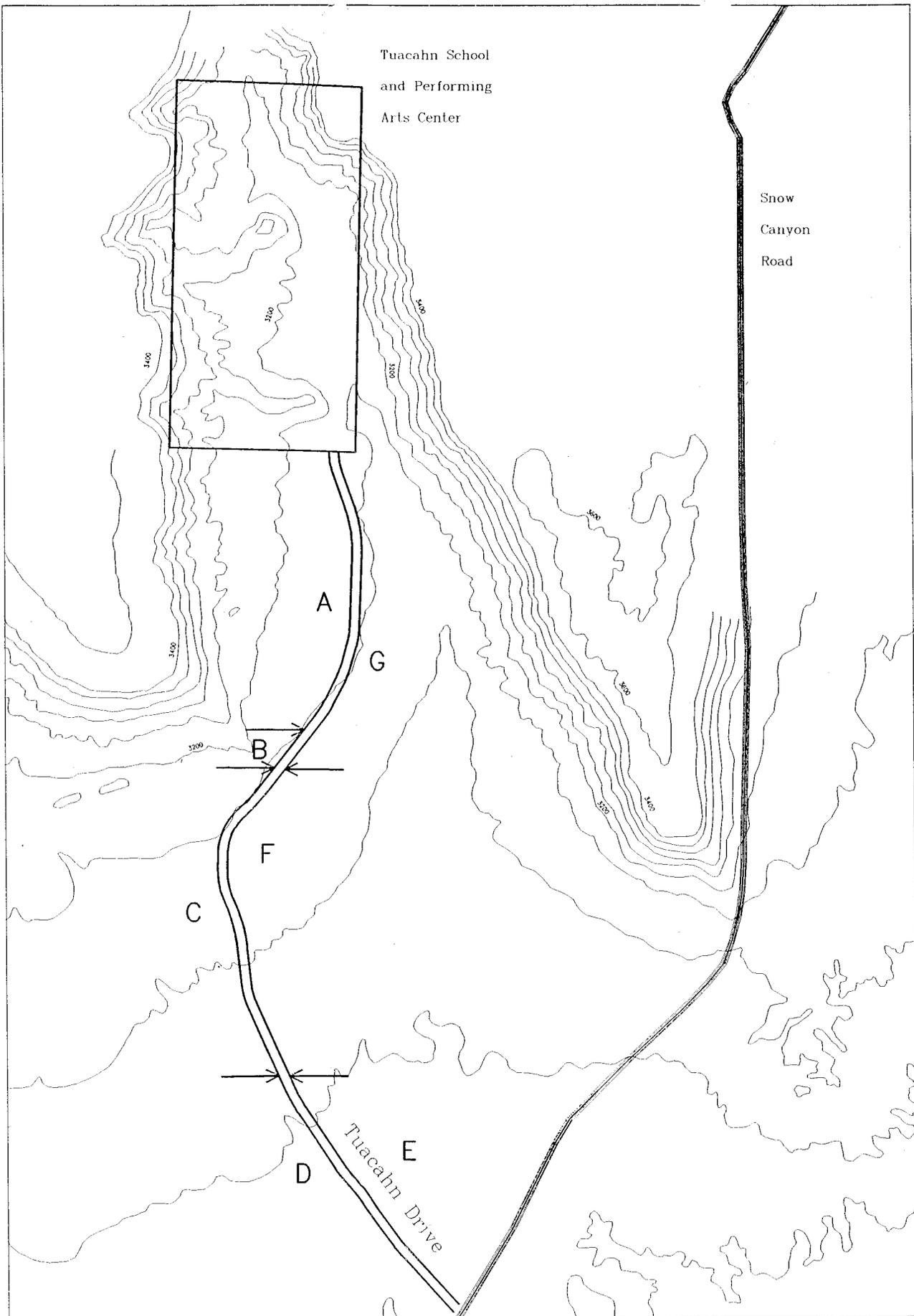


Figure 3 Road Segments

Within one month of Ivins Town approval of the Master Plan, HAF will install this same type of range fencing in all areas along the Tuacahn Access Road where the road bisects the proposed reserve as identified in the Master Plan. Additional segments where the Master Plan might require this type of fencing would be Segments A, B, or G. At this time, it is not anticipated that segments D or E will be in the proposed reserve. For areas along the road outside of the proposed reserve, HAF will double up the temporary construction fencing for fence portions above ground. To accomplish this, HAF will use the fencing material from segments C and F, cut the material into 18" wide strips (but as lengthy as practicable) and attach these strips to the existing construction fencing. By doubling up and overlapping the fencing material, holes in the construction fencing will be reduced due to overlapping, and the fence will be strengthened and last longer. HAF will tie the fences together. Doubling up of fencing material would occur in Segments B, D, E, and G, unless any of these segments were adjacent to the proposed reserve. In summary, under this scenario where the Master Plan is finalized by April of 1995, all portions of the road adjacent to the reserve will have steel range fence with tortoise mesh, and all other areas will have doubled-up construction fencing. The construction fencing will be left up until the northern and southern boundary fences of the proposed reserve are installed. This is necessary to prevent tortoises from wandering onto the roadway from the northern or southern ends of the range fence.

Under the second scenario, where the Master Plan is not completed by December 1995, the following activities relative to fencing would occur. By the end of February 1995, HAF will install the range fencing with tortoise mesh as described above in segments C and F. When requesting permission from the Town of Ivins Planning and Zoning Commission for approval for fencing segments C and F, HAF will also apply to construct this same range fencing on Segment G. HAF will request to start construction of range fence with tortoise mesh on Segment G by March 15, 1995. Although at this time HAF does not anticipate a denial of this fencing request, it is possible that the Town of Ivins will defer a decision on Segment G until the Master Plan is further along, since by this date it may still be unclear as to the ultimate fate of the Master Plan. If HAF receives anything other than approval from the Town of Ivins for fencing Segment G, then HAF will immediately notify the USFWS and the County HCP Administrator for assistance in reversing the decision. However, HAF's permit will not be jeopardized by such a finding by the Town of Ivins. If the decision is not reversed, HAF will double-up the temporary fencing on Segment G. HAF will also double-up fencing on Segments B, D, and E by the end of April 1995. Assuming still no Master Plan by the end of 1995, HAF will assume responsibility for construction of range fence with tortoise mesh along the entire Tuacahn Access Road, which would include the remaining Segments: A, B, D, E, and G. Therefore, in summary, if the Master Plan is not completed by December 1995, HAF will assume responsibility that the entire access road (both sides) are fenced with 4-wire steel post, 4-foot range fence, with 36" steel mesh, 18" above ground. At this time, HAF anticipates it will pursue a three-way cost-sharing for the fence between the County, the Town of Ivins, and themselves.

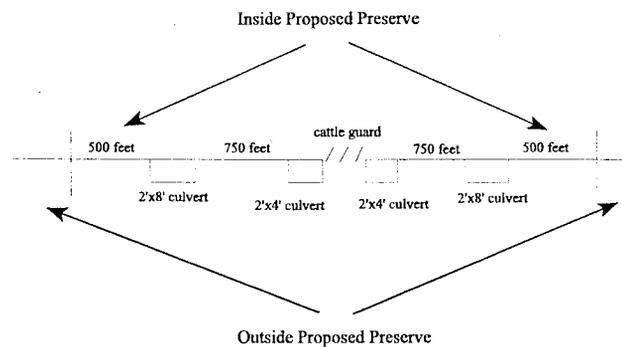
Alternative fencing designs were considered including the construction of a masonry wall or the construction of a chain-link fence. Both of these designs were disregarded because of several reasons. First, both of these lack aesthetic appeal. The access road crosses an area of relatively flat

Mojave desert scrub without any buildings, and a wall or chain-link fence would look very inappropriate. Second, it is not expected that these types of barriers would be consistent with the forthcoming Master Plan. And finally, the goals of the fencing program can be achieved with less expensive, less conspicuous methods. Eighteen inch tortoise mesh fencing has proven effective in keeping tortoises out of an area. So the question becomes how best to keep people from going from the road onto the reserve area? People can climb a range fence, chain-link fence, or masonry wall if they really want to. Keeping people out will be achieved by not providing opportunities to stop and get out (there will be no shoulders on the road), signage and enforcement will keep people from stopping along the road, and finally, there will be no reason to stop along the road. All traffic on the access road will be going to the Tuacahn Center, where all services for their visitors will be provided (eg. bathrooms) So for the 1.3 mile drive from Snow Canyon Road to the Tuacahn Center, there will not be any reason to stop along the road, nor will any provision be made to accommodate stops along the road. For these reasons, a range fence with tortoise mesh should be more than sufficient to achieve the dual goals.

In addition to the fence, the HAF will insure that "No Parking/No Stopping/No Trespassing" signs will be posted along the road, and there will be no shoulders present alongside the road to allow people to pull off. Compliance with stopping restrictions will be strictly enforced by local law enforcement personnel.

In order to provide an access corridor for tortoise movement across the road, a culvert system has been designed which would be installed beneath raised portions of the road in Segments C and F, the area where tortoise sign was most abundant. This distance is approximately 2,500 feet. The culvert system would be constructed as follows: A 2'x8' preformed cement box culvert would be placed beneath the raised road 500 feet in from the end of the segment, for a total of two 2'x8' culverts. Eight feet is the maximum width of preformed box culverts. A 2'x4' preformed cement box culvert would be placed beneath the raised road 750 feet in from each of the 2'x8' culverts, for a total of two 2'x4' culverts. The area between the two 2'x4' culverts (approximately four feet) would remain free of dirt fill, and a cattle guard would be placed over the opening. This design would provide approximately 28 feet of opening for tortoises to travel through. The maximum distance a tortoise would have to travel to reach a crossing point would be 500 feet. This is expected to be acceptable based on tortoise home range studies which indicate that tortoises will travel up to 500 feet per day. Tortoise fencing would guide the tortoises into these crossings, and the roadway would be built up approaching these culverts, such that tortoises would have a relatively level crossing underneath the roadway. Figure 4 below diagrams the proposed culvert system.

**Figure 4. Design of the culvert system**



An alternative culvert system design was considered consisting of the placement of three 2'x8' cement culverts beneath the road approximately in the middle of the reserve. This alternative was disregarded for several reasons. First, although the total area of access for tortoise crossing would have been 24 feet, there would be two cement walls separating the three eight foot segments. It was felt that from a tortoise perspective the side by side culverts would have been viewed as three separate openings rather than one large opening, and once inside of the opening, it would still only be eight feet in width. It was not believed that placing more than one culvert in an area would enhance tortoise use of that crossing. A second consideration is the distance of the culverts from both ends of the fence. If the fence were 2,500 feet long, the distance to the nearest crossing would be more than 1,200 feet. This would not be acceptable based on tortoise home range studies. A final consideration is the behavioral response of tortoises to culvert crossings. It is not known whether tortoises would utilize the culverts as access routes. Therefore, a proposed design is required which will provide tortoises with a number of alternative access routes, such as the design which was described above.

No compensation has been proposed for adverse habitat impacts due to road construction for two reasons. First, this HCP is only for continued use of and specific improvements to the access road which will not entail additional habitat destruction, and secondly, the County RHCP covers these impacts in a comprehensive manner. By providing fencing, signage, and a safe under-road crossing, adverse impacts to tortoises from both fragmentation and vehicle interactions should be minimized to the greatest extent practicable.

#### D. Funding

HAF has estimated the cost of the various elements of the mitigation plan and presents these costs in Table 6.

Table 6. Budget Items

<u>Item</u>	<u>Estimated Cost</u>	
Fence Maintenance Monitoring (2 years)	\$5,200	
Fence Maintenance (2 years)	\$10,000	
Tortoise/Fence Monitoring (2 years)	\$7,500	
Fence Construction	\$43,700 (Scenario 1)	\$65,000-\$98,000 (Scenario 2 depending on cost sharing)
Culvert Installation	\$75,000	
Total costs to HAF to implement the mitigation contained in this HCP are estimated to be in the range of \$141,400 to \$185,700.		

E. Coordination with the Washington County RHCP

The proposed RHCP includes a reserve in the location of the tortoise fencing and culverts. Implementation of this HCP is consistent with the RHCP, and in fact it would improve the chances for success of the proposed reserve in the RHCP, as this HCP provides for a safe movement corridor across the Tuacahn access road.

F. What Happens When This Permit Expires?

The primary reason for a two-year permit is that the County RHCP is expected to be in full implementation by the expiration of this permit (currently estimated to be in March of 1997). However, it is possible that the RHCP will not be implemented by then, and that when this two-year permit expires, no authorization for incidental take will be in place for the Tuacahn access road. HAF has committed to entering into discussions with the County, the Town of Ivins, and the USFWS 12 months prior to the expiration of its Section 10 permit if it appears that the County RHCP will not be implemented by the time HAF's permit expires. Should this occur, several issues will have to be addressed, including who the permit applicant should be, compensation for the original construction of the access road, whether the range fence proposed in this HCP should be considered a long-term measure or an interim measure, and any changes to the culvert system based on the results of the study. The parties recognize that these issues will be revisited without prejudice to their existing rights, claims, or defenses.

## VI. ALTERNATIVES

Alternatives considered included no action, an alternate project location, and a shuttle service. Each of these alternatives are discussed below.

### A. No Action

The no action alternative would mean that an HCP would not be pursued and no Section 10(a) incidental take permit would be issued. This would violate the Stipulated Agreement signed by the HAF and the U.S. Department of Justice. In addition, as the road has already been constructed and the Tuacahn Center is 90 percent completed, vehicle use of the road continues, and is expected to increase once the center opens. Without a Section 10(a) permit, a risk of further unauthorized incidental take of tortoise is possible. Therefore, the no action alternative is not deemed viable.

### B. Alternate Location of Access Road

Another alternative that has been considered and rejected is to move the access road to further minimize potentially adverse impacts to desert tortoise. A possible location for the access road would be to move its intersection with Snow Canyon Road to the north, just south of the toe of the hill. The access road would then head northwest from Snow Canyon Road, at the base of the talus slope up to the mouth of Padre Canyon. While this location may at first glance seem less disruptive to tortoise movement, it may in fact be worse. The current location of the access road crosses a short area with tortoise sign. As the sign is concentrated within a 1,000 foot distance, it is economically possible to construct an underneath crossing in a small area. Taking the access road along the base of the cliffs would impact a much longer area of tortoise crossing, thus greatly increasing the potential for tortoise-vehicle interactions, or necessitating a much larger number of crossings. In addition, by following the base of the talus slopes, habitat for a number of candidate species, including the chuckwalla and gila monster, may be adversely impacted. Finally, as the road is already constructed, this alternative does not appear extremely viable. Therefore, an alternative access road location does not appear to be an alternative which offers greater benefits to tortoise than the proposed action.

### C. Shuttle Service/Mass Transit

Another alternative that was considered and rejected was the possibility of implementing some sort of mass-transit or shuttle service. Under this alternative, a parking lot would be used, and buses would carry large numbers of people on the access road, thereby potentially reducing the number of vehicles travelling on the access road. This alternative was rejected for a number of reasons. First, students and staff going to the Tuacahn School would be occurring all day long, and therefore in order for the mass transit system to work, it would have to run continuously. If the system ran continuously, then the chances for collisions between tortoises and vehicles would still exist. Secondly, a parking area would have to be provided somewhere, possibly resulting in additional habitat impacts. Third, the cost of the mass transit system would be prohibitive, and would still

require all the other costly mitigation measures. For these reasons, this alternative was eliminated from further consideration.

## VII. LITERATURE CITED

SWCA 1994. Proposed Habitat Conservation Plan. Prepared for the Washington County Commission. 203 pages plus appendices.

Topham 1991. Biological Survey Report, Desert Tortoise. Prepared for Heritage Arts Foundation. 15 pages plus appendices.

Topham 1994. Biological Survey Report, Desert Tortoise. Prepared for Heritage Arts Foundation. 28 pages plus appendices.

## **Appendix A**

### **Letter from the Town of Ivins**

Town of Ivins  
90 West Center Street  
Ivins, Utah 84738

January 6, 1995

Mr. Doug Stewart  
Heritage Arts Foundation  
St. George, Utah

Re: Access Road to Tuacahn

Dear Doug:

This letter is intended to address some of the questions you have asked me about the position of the Town of Ivins with respect to the access road to Tuacahn.

First, as you may be aware, all fences require approval of our planning and zoning commission. It is our preference that there be no chain link fence along that road. To the extent possible, we are trying to preserve the look and feel of open space in that part of our community. We prefer that no fence of any kind (other than the existing temporary tortoise fence) be installed south of the currently proposed preserve. Where fencing is required, we prefer range fence to other alternatives. To the extent possible, we would prefer that fencing on the north end of the road be deferred, leaving the temporary tortoise fence in place, until our Master Plan is complete.

Second, the prior owners of the property dedicated that road to the Town in 1992, and the road is owned and controlled by the Town as a public road. The Foundation does not have the right to control who uses the road or to exercise police power or other jurisdiction with respect to the traffic laws applicable to that road. I assure you, however, that the Town will maintain an appropriate speed limit (currently 20 miles per hour) and will enforce the traffic and other laws along that road in the same fashion as such laws are enforced in other parts of our community. It is our experience that traffic enforcement has proven to be adequate and that the traffic laws and speed limits within the Town are generally obeyed.

Third, there are no proposed developments along that access road (other than Tuacahn) that have been approved for construction at this point in time. Any future development will be subject to the finally approved Ivins Master Plan and other appropriate approvals. Thus, for the foreseeable future, the only traffic that is likely to use the road will be Tuacahn related.

If you have further questions or if I may be of further assistance, please feel free to contact me.

Sincerely,



Christopher C. Blake  
Mayor

