

PUBLIC NOTICE

**US Army Corps
of Engineers®**

APPLICATION FOR PERMIT

LOS ANGELES DISTRICT

Public Notice/Application No.: SPL-2011-275-KAT

Comment Period: April 2, 2012 through May 1, 2012

Applicant

Mr. Mike Kondelis
Arizona Department of Transportation
Kingman District Engineer
3660 East Andy Devine Avenue (K600)
Kingman, Arizona 86401-3453

Contact

Ms. Shannon Ford
Arizona Department of Transportation
Environmental Planning Group
1611 West Jackson MD EM02
Phoenix, Arizona 85007

Location

The proposed project is located within the Hell Canyon sub-watershed (HUC 1506020202) within the Upper Verde River Watershed (HUC 15060202) of the Verde River Basin. The proposed project area is located along the existing SR 89 corridor between milepost (MP) 353.16 and MP 353.59, and along a US Forest Service Road at MP 354.31, approximately 11 miles south of the I-40 and SR 89 Interchange, Yavapai County, Arizona (35.080804, -112.40544, NAD 83, decimal degrees). The legal description of the survey area includes portions of Section 30 and 31 of Township 20 North, Range 1 West; and a portion of Section 24 of Township 20 North, Range 2 West (USGS 7.5' Quadrangle: *Meath, Ariz.* [1979]).

Activity

To discharge dredged and/or fill material into 1.29 acres of Little Hell's Canyon and unnamed drainage for the construction of a series of flow dissipaters and erosion protection measures.

For more information, see page 4 of this notice and attached drawings.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). Interested parties are invited to provide their views on the proposed work, which will become a part of the record and will be considered in the decision. This permit application will be issued or denied under Section 404 of the Clean Water Act (33 U.S.C. 1344).

Comments can be e-mailed to: kathleen.a.tucker@usace.army.mil or mailed to:

U. S. Army Corps of Engineers
ATTENTION: Regulatory Division (SPL-2011-275-KAT)
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1939

For additional information please call Kathleen A. Tucker at (602) 230-6956 or send an e-mail to kathleen.a.tucker@usace.army.mil. This public notice is issued by the Arizona Regulatory Branch of the Los Angeles District of the US Army Corps of Engineers.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal will discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR 230) as required by Section 404 (b) (1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant has applied for a water quality certification, under Section 401 of the Clean Water Act, from the Arizona Department of Environmental Quality. Section 401 of the Clean Water Act requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers.

Cultural Resources- The proposed project area has been previously surveyed for cultural resources. The results of the survey have been coordinated with the State Historic Preservation office who has concurred that the proposed project has no adverse effect on sites eligible for listing in the National Register of Historic Places (NHRP).

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose-The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent. The basic project purpose for the proposed project is transportation and therefore, not water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose is to upgrade the Little Hell's Canyon drainage facilities to meet ADWR requirements and to prevent the dam from failing, which in turn would cause the SR 89 roadway to fail.

Additional Project Information

Baseline Information- Based on Arizona Revised Statutes (ARS) §45-1201, the ADWR is responsible for supervising the safety of non-federal jurisdictional dams in the state of Arizona. A jurisdictional dam is defined as an artificial barrier for the impounding or diversion of water either 25 feet or more in height or having a storage capacity of more than 50 acre-feet that is subject to safety inspections completed by the ADWR. The primary objective of ADWR's Dam Safety Section is to protect the general public and property from catastrophic failure of those dams under ADWR jurisdiction. ADWR conducts periodic inspections of jurisdictional dams to identify safety deficiencies such as embankment cracks, erosion, slope instability, or inadequate outlet protection. However, each owner of a dam is responsible for the safe design, operation, and maintenance of their dam. If safety deficiencies are identified, the owner is responsible for completing timely maintenance and repair of the dam.

In 1951, ADOT designed and constructed SR 89 as a highway embankment across the Little Hell's Canyon drainage. A 30-in CMP was installed to provide low-flow service through the roadway embankment, and a 29-foot-wide by 18-foot-high arch culvert was constructed north of the drainage to serve as an emergency spillway. Bank protection and a 200-foot-long channel floor were constructed downstream of the arch culvert which later washed out during a substantial storm event. Although the intended purpose of the highway embankment was for the construction of SR 89, the embankment also was intended to store water once the existing 30-inch pipe was plugged. The roadway embankment is approximately 30-feet-high and has an impoundment area of approximately 135-acre feet. The height of the roadway embankment as well as the storage capacity qualifies the dam for safety regulation by the ADWR. In the mid-1980's, ADWR classified the Little Hell's Canyon Dam as a small-size, high-hazard potential, jurisdictional dam due to its size, capacity, and because the SR 89 roadway traverses the top of the dam. ADWR conducts yearly inspections of operating high hazard dams. During inspections in 2009 and 2010, ADWR identified several deficiencies of the Little Hell's Canyon Dam including severe erosion to the arch culvert natural floor and spillway outlet protection, and deep rooted vegetation that must be removed from the embankment slopes and toe areas.

Vegetation & Habitat. Approximately 1.525 acres of wetlands occur around the perimeter of the tank, on the dam, and within the Little Hell's Canyon drainage. A total of six wetland vegetation communities were identified within the permit area. Wetland vegetation includes riparian trees such as narrowleaf cottonwood (*Populus angustifolia*), Arizona walnut (*Juglans major*), velvet ash (*Fraxinus velutina*) and willow (*Salix spp.*) that line the banks. Sedges (*Carex spp.*), Arizona grape vines (*Vitis arizonica*), and various other herbaceous wetland species occur in patches along and within the

perimeter of the riparian zone. Emergent aquatic vegetation such as long-leaf pondweed (*Potamogeton nodosus*) and subcordate water-plantain (*Alisma subcordatum*) occur along the perimeter of and within Little Hell's Canyon Tank.

Wildlife. The permanent water, wetland, and wooded habitats of Little Hell's Canyon are capable of supporting a host of transient and resident wildlife species. Birds that may frequent the area include waterfowl, wintering bald eagles, hawks, and passerines. Mammals known to occur include mule deer and javelina. Various reptiles such as snakes and lizards, and amphibians such as frogs and toads likely utilize the habitat as well.

Overall Proposed Project Description- ADOT proposes to upgrade the Little Hell's Canyon drainage facilities to comply with Arizona Department of Water Resources (ADWR) requirements for the dam and to reduce erosion that is threatening the integrity of the roadway and its associated drainage structures.

The proposed improvements consist of the following:

- Removing failing concrete bank protection on the downstream end of the existing arch culvert.
- Installing a concrete floor with upstream and downstream cutoff walls beginning under the existing arch culvert and ending 240 feet downstream of the culvert.
- Installing a wall and a handrail along the new concrete-lined channel.
- Installing a 2-foot-high concrete sill downstream of the new concrete-lined channel.
- Installing a 61-foot-long concrete angled wall with 4-foot-high baffled piers immediately downstream of the new sill (baffle chute).
- Installing a second concrete floor with upstream and downstream cutoff walls immediately downstream of the angled wall.
- Installing a 24-inch pipe culvert down-drain with connection to Little Hell's Canyon south of the angled wall.
- Clearing and grubbing vegetation, including trees and other wetland vegetation.
- Conducting earthwork such as drainage excavation, backfilling earthen material, and grading slopes.
- Collecting material to use for earthwork from two cinder pits located north of the dam at MP 353.59 and MP 354.31.
- Utilizing existing access roads north and east of the dam, and constructing an access road along the ADOT easement fence to reach the channel.

The project would occur within and adjacent to ADOT easement through lands managed by the Kaibab National Forest (Williams Ranger District) and the Prescott National Forest (Chino Valley Ranger District). New right-of-way (R/W) and temporary construction easements are anticipated to be required. Construction is anticipated to begin in the fall or early winter of 2012, and is expected to take approximately three months to complete.

Proposed Mitigation – The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance and Minimization Information –The alternatives analysis for this project indicated that it would not be practicable to avoid waters of the US during project construction. After reviewing the alternatives analysis and independently evaluating opportunities for avoidance, the Corps has concurred that avoidance of waters of the US is not practicable for this project. Impacts would be limited to the minimum necessary to accomplish this project. Based on the alternatives analysis, the Preferred Alternative is the least environmentally damaging practicable alternative. To the extent practicable, impacts to waters of the US would be minimized. Erosion control measures would be taken to reduce impacts to water quality.

Compensation- The proposed action will result in 0.778 acre of permanent impacts to wetlands and 0.514 acre impacts to other waters within the Little Hells Canyon with a total permanent impact of 1.292 acres. ADOT will provide compensatory mitigation through in-lieu fees. The Corps will include the payment of in-lieu fees as a special condition of the permit.

Proposed Special Conditions

To be developed.

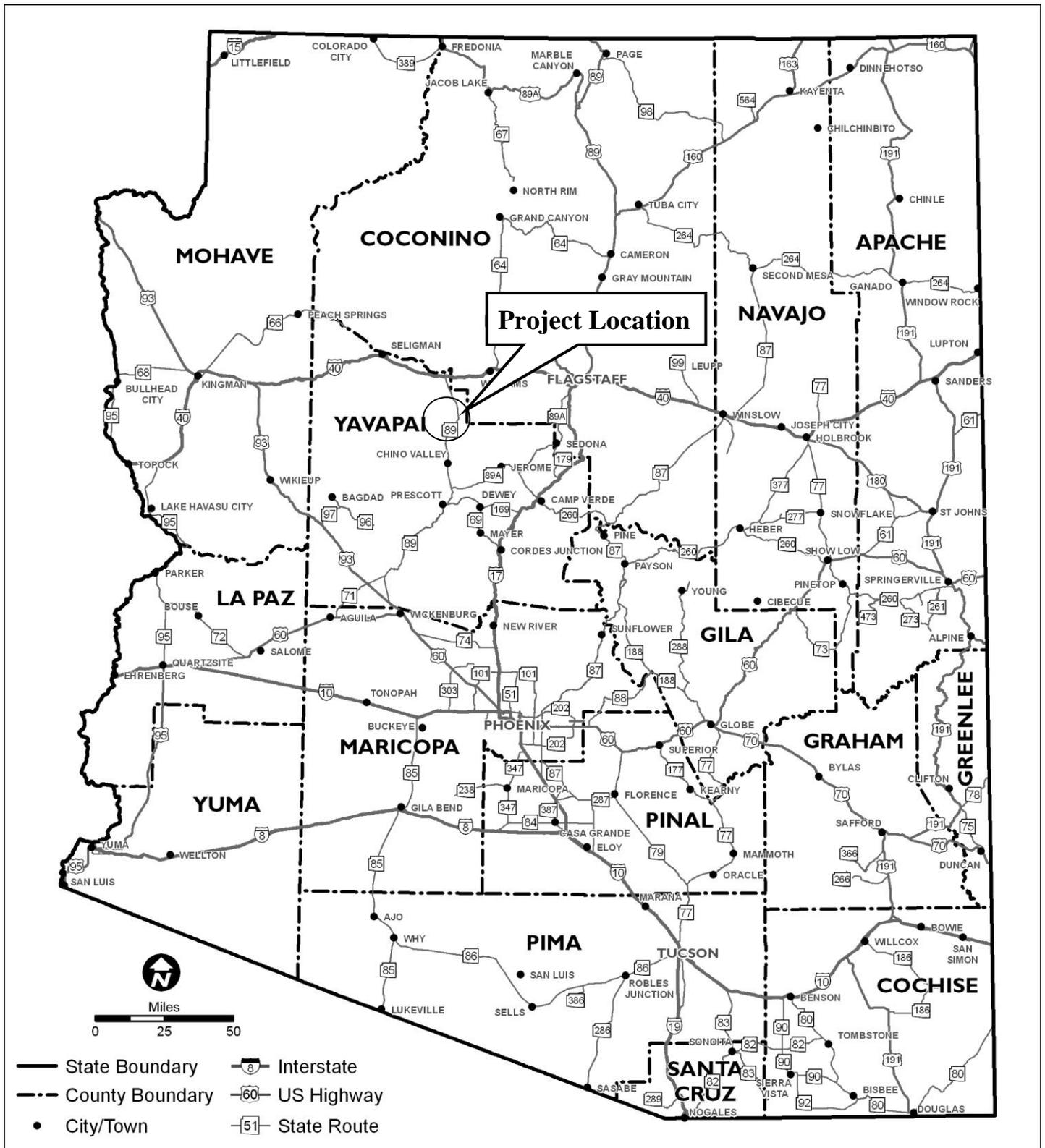


Figure 1. State Location Map

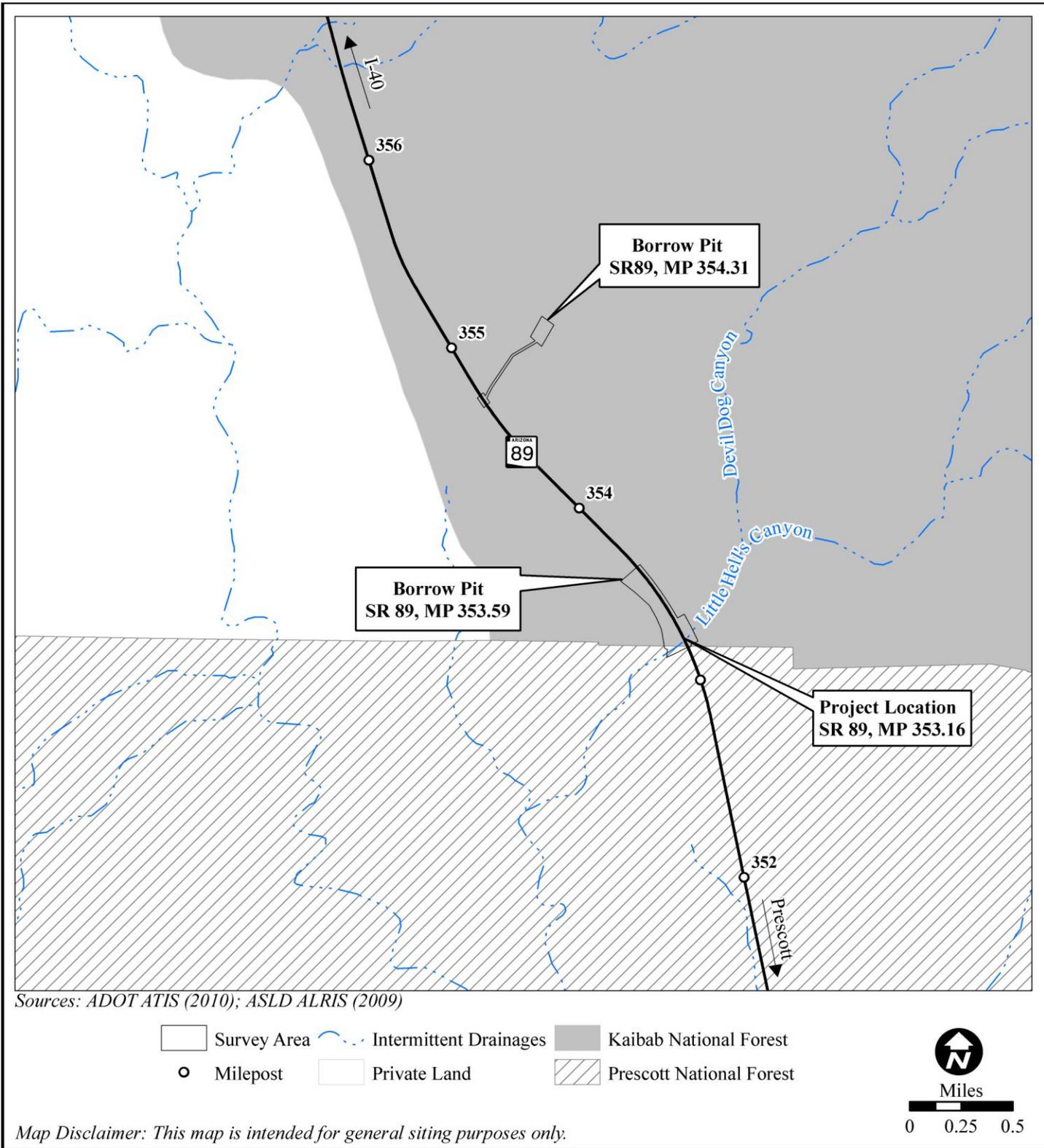


Figure 2. Project Vicinity Map

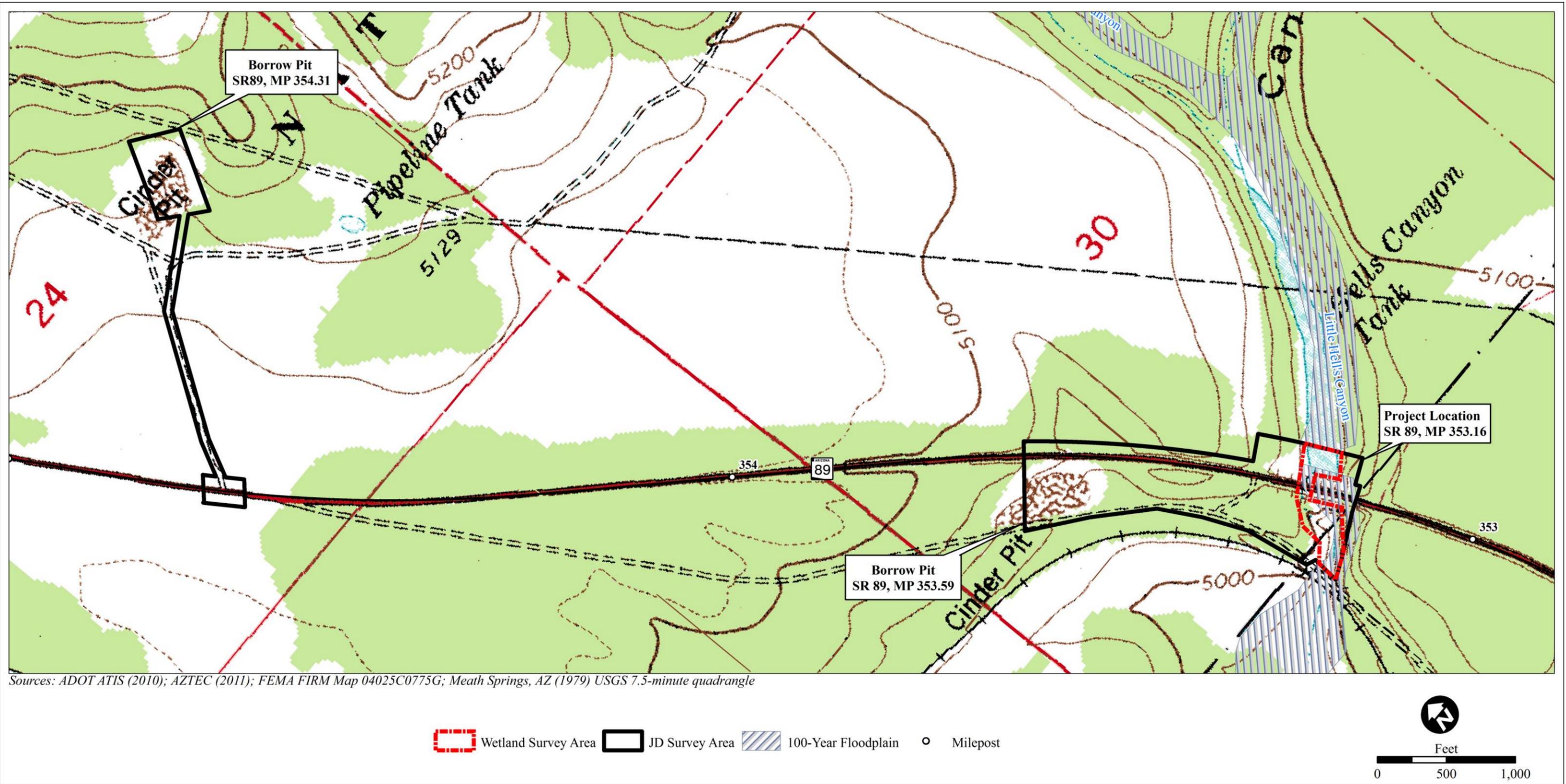


Figure 3. Survey Area Topographic and Floodplain Map



Sources: ADOT ATIS (2010); ASLD ALRIS (2009); AZTEC (2011); Aerial Imagery (2010)

Survey Area
 US Forest Service Boundary
 Milepost

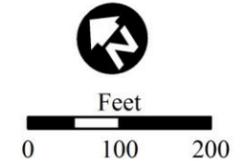


Map Disclaimer: This map is intended for general siting purposes only.

Figure 4. Existing Conditions Overview Map



Sources: ADOT ATIS (2010); ASLD ALRIS (2009); AZTEC 2011; Aerial Imagery (2010)



Map Disclaimer: This map is intended for general siting purposes only.

Figure 5. Existing Conditions in Little Hell's Canyon Drainage Map



Sources: ADOT ATIS (2010); AZTEC (2010) for SPL-2011-275-KAT; Aerial Imagery (2010); Dibble 60% Design Files (received 01/20/2011).

- | | | | | |
|--|---|--|---|--|
|  Survey Area |  Open Waters |  Wetlands |  Permanent |  Watercourse Number (Average Width of OHWM)
Arrow Indicates Flow Direction |
|  Ordinary High Water Mark |  Other Waters |  Design Files |  Temporary | |



Feet



Map Disclaimer: This map is intended for general siting purposes only.

Figure 7. Impacts to Waters of the US, Alternative B – Baffle Chute (Preferred Alternative)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.		14	19	

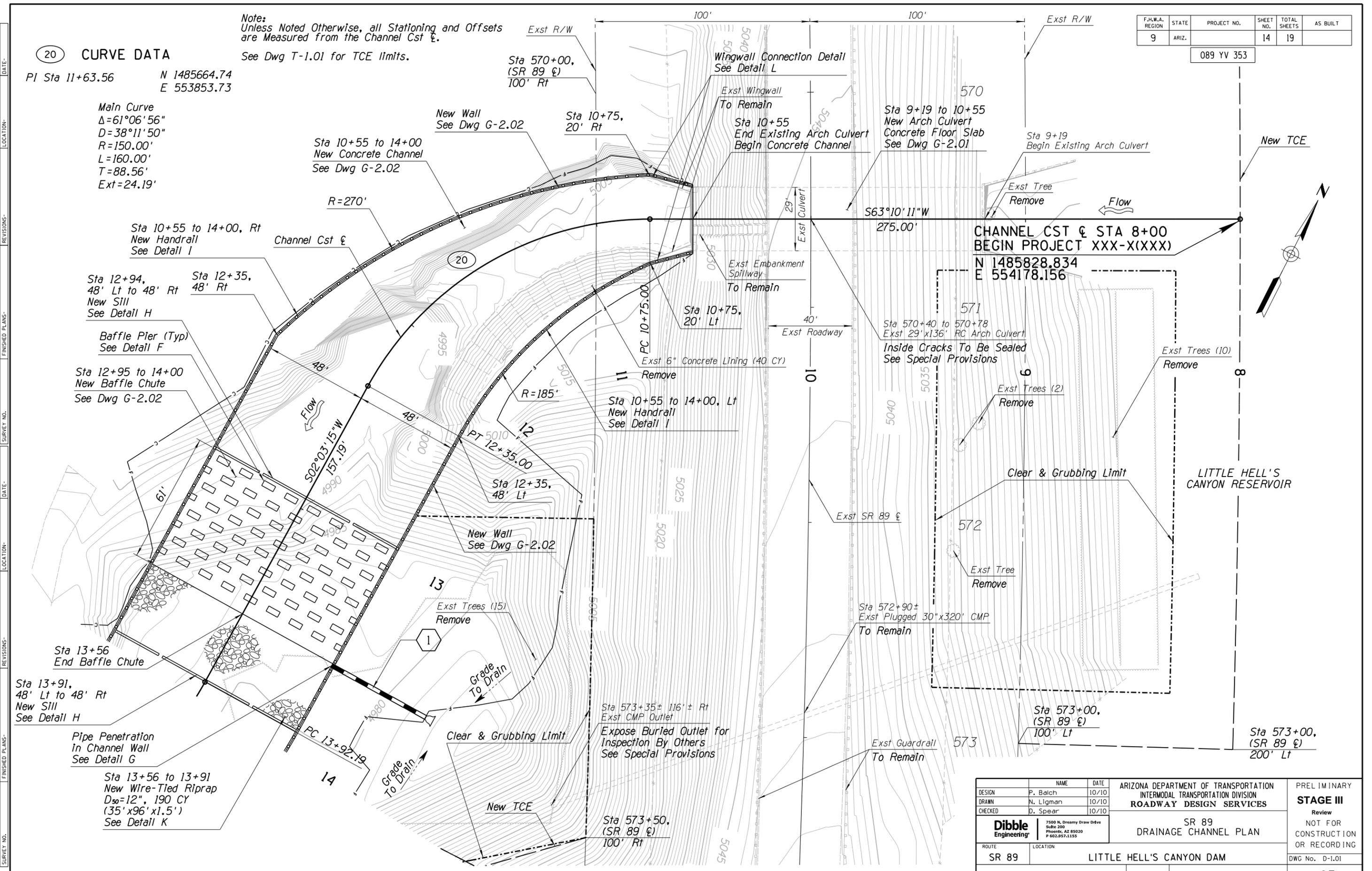
089 YV 353

20 CURVE DATA

PI Sta 11+63.56 N 1485664.74
E 553853.73

Main Curve
 $\Delta=61^{\circ}06'56''$
 $D=38^{\circ}11'50''$
 $R=150.00'$
 $L=160.00'$
 $T=88.56'$
 $Ext=24.19'$

Note:
 Unless Noted Otherwise, all Stationing and Offsets are Measured from the Channel Cst ϵ .
 See Dwg T-1.01 for TCE Limits.



DATE: _____ LOCATION: _____ REVISIONS: _____ FINISHED PLANS: _____ SURVEY NO.: _____ DATE: _____ LOCATION: _____ REVISIONS: _____ FINISHED PLANS: _____ SURVEY NO.: _____

DESIGN	P. Balch	10/10	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY DESIGN SERVICES	PRELIMINARY STAGE III Review NOT FOR CONSTRUCTION OR RECORDING
DRAWN	N. Ligman	10/10		
CHECKED	D. Spear	10/10		
Dibble Engineering		7500 N. Dreamy Draw Drive Suite 200 Phoenix, AZ 85020 P 602.997.1155	SR 89 DRAINAGE CHANNEL PLAN	DWG No. D-1.01
ROUTE	SR 89	LOCATION	LITTLE HELL'S CANYON DAM	
TRACS NO. H8015 01D			089-YV-353	OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.		15	19	

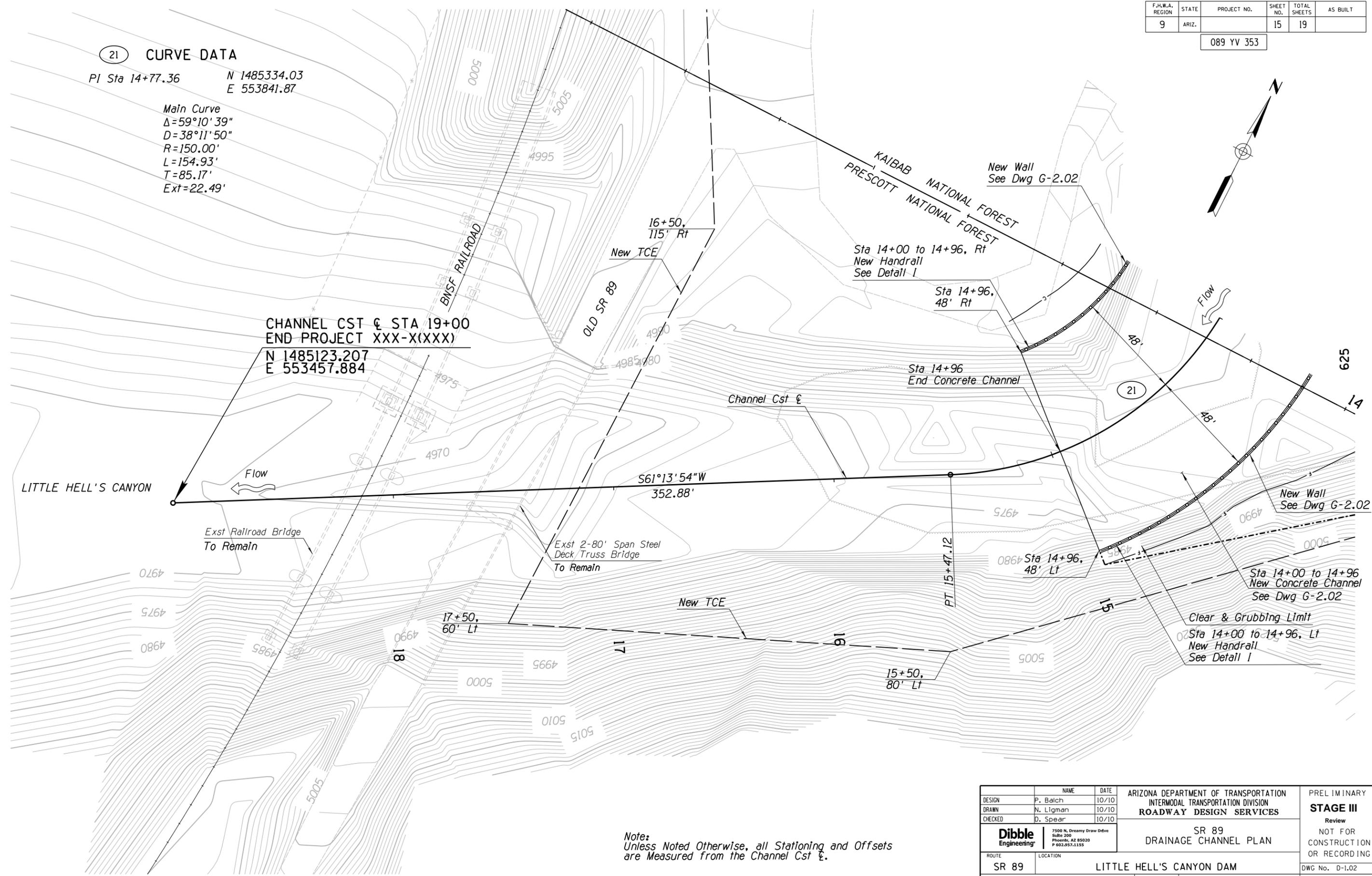
089 YV 353

21 CURVE DATA

PI Sta 14+77.36 N 1485334.03
 E 553841.87

Main Curve
 $\Delta = 59^\circ 10' 39''$
 $D = 38^\circ 11' 50''$
 $R = 150.00'$
 $L = 154.93'$
 $T = 85.17'$
 $Ext = 22.49'$

**CHANNEL CST @ STA 19+00
 END PROJECT XXX-X(XXX)**
 N 1485123.207
 E 553457.884



Note:
 Unless Noted Otherwise, all Stationing and Offsets
 are Measured from the Channel Cst @.

DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY DESIGN SERVICES	PRELIMINARY STAGE III Review
DRAWN	P. Balch	10/10	SR 89 DRAINAGE CHANNEL PLAN	NOT FOR CONSTRUCTION OR RECORDING
CHECKED	N. Ligman	10/10		
	D. Spear	10/10		
Dibble Engineering <small>7500 N. Dreamy Draw Drive Suite 200 Phoenix, AZ 85020 P 602.997.1155</small>		ROUTE: SR 89 LOCATION: LITTLE HELL'S CANYON DAM		DWG No. D-1.02
TRACS NO. H8015 01D			089-YV-353	OF

SURVEY NO. FINISHED PLANS REVISIONS LOCATION DATE FINISHED PLANS SURVEY NO. REVISIONS LOCATION DATE