Environmental Assessment
EA NO.: AZ-420-2005-015
Right of Way Serial Case NO.: AZA 33053

For the
Hereford Bridge Rebuild
At the San Pedro National Conservation Area
Cochise County Highway & Floodplain Department

Prepared by:
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Stantec Consulting
201 North Bonita Avenue
Suite 101
Tucson, Arizona 85745
December 7, 2005

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA
TUCSON FIELD OFFICE

EA #: AZ-420-2005-015
Project Name: Hereford Bridge
BLM Contact Person: Susan Bernal

I. INTRODUCTION

Background:
The County of Cochise Highway and Floodplain Department is proposing to rebuild the historical Hereford Bridge that was destroyed by an overweight concrete truck crossing the bridge in April 2003. Currently, the only remains of the bridge are the abutments, which are will be used in the rebuild project. The project will include permanently acquiring a 66-foot new bridge roadway swath (33 feet from centerline to the north and the south of the new bridge), and 267 feet from the west bridge abutment to the east bridge abutment. Bureau of Land Management (BLM) currently owns the site. The application for the right of way permit was filed in January 2005.

The County originally contacted BLM in April 2003 for an emergency cleanup following the accident and destruction of the bridge by an overweight concrete truck. Complete demolition and removal of the concrete truck and bridge occurred immediately after the accident, which took approximately one month.

The Board of Supervisors explored a number of alternatives. Due to public safety, speed of the traffic, cost, biological issues, and current aesthetics of the area, it was decided March 2004, by the County to rebuild the single-lane, steel-truss bridge at the existing site. In June 2004, a meeting was set up with BLM, Arizona Game and Fish Department, Cochise County, Stantec Consulting and TranSystems Corporation to discuss the current conditions and alternatives to replace the bridge. The County decided to maintain the current design since the alternatives would interfere with the San Pedro National Conservation Area and could result in loss of critical habitat. The new bridge should not result additional habitat loss since the bridge will be constructed at its former location.

Location of the Project:
The project site is located in southern Cochise County, Arizona, approximately 20 miles southeast of Sierra Vista, Arizona, and approximately 8 miles north of the international Mexican border. The bridge site is located in the San Pedro National Conservation Area. The bridge will connect the eastern and western portions of Hereford Road, crossing the San Pedro River. The attached map (*Exhibits 1 and 2)* delineates the project location. Exhibit 1 shows the project location in relation to Sierra Vista. Exhibit 2 shows the project location in more detail. The 7.5-minute USGS Topographic Map name for the project area is *Hereford*. The following legal description applies to the project:

Gila and Salt River Meridian, Arizona
T. 23 S., R. 22 E.
Sec. 9, S1/2SE1/4SE1/4

Conformance with Land Use Plan:
The proposed action is subject to the *Safford Resource Management Plan, Dated August 1991, and amended July 21, 1994; the San Pedro River Riparian Management Plan (RMP),* dated June 1989. This proposed action has been reviewed to determine if it conforms with the land use plan terms and conditions as required by 43 CFR 1610.5, BLM MS 1617.3.

Relationship to Statutes, Regulations, or Other Plans or Policies:
Pursuant to federal regulations 43 CFR 2800, and Federal Land Policy Management Act (FLPMA) Title V the BLM decision only authorizes use of BLM land. Use of non-BLM land (National Forest, State Trust land, private land) is subject to the respective agency or private landowners' permission.

The Need for the Proposal:
The primary purpose of the rebuild of the Hereford Bridge is to provide convenient and easy access for emergency vehicles, local residents, and visitors to travel to the western and eastern portion of the Hereford Road. The new bridge will additionally provide a load weight of 40 tons.

II. THE PROPOSED ACTION AND ALTERNATIVES

Description of the Proposed Action:
The County of Cochise is requesting a permanent right of way for the Hereford Bridge, currently located on public lands. The requested permanent right of way includes a 66-foot north-south swath of the bridge (33-feet from the centerline of the bridge to the north-edge of the bridge and 33-feet from the centerline of the bridge to the south edge of the bridge). The length requested for the permanent easement is 267 feet; from the west end of the bridge abutment to the east end of the bridge abutment (see Exhibit 3).

In addition, a Temporary Construction Easement (TCE) is being requested. The TCE will include both the east and west sides of the bridge. The TCE will provide a place to store construction vehicles, equipment and construction tools away from the overflow bank where a 100-year event could occur. The TCE will provide access to the immediate construction bridge site for both the east and west sides of the bridge. A fenced bridge construction area where the piers will be removed, constructed and placement of the bridge will occur, will be defined and located for construction activities. The areas requested include Hereford Road from the point of the closed sign to the end of the east abutment, the existing BLM access road to the existing BLM parking lot and including the BLM parking lot, the existing BLM access road, which will be fenced from the existing BLM parking lot to the overflow bank area in order to access the surveyed fenced areas east of the river (see Exhibit 4 & 5). The west side of the bridge will include Hereford Road from the point of the closed sign to the end of the west abutment. The disturbed area along the west side of Hereford Road and the road, which will be fenced, that will be used to access the construction fenced areas and the surveyed fenced areas west of the river (see Exhibit 6 & 7), will be identified. See Exhibit 8 & 9 for the fenced ingress/egress to the construction-fenced area.

The reconstruction consists of a one-lane, 260-foot-long steel truss bridge. Currently, no portions of the previous bridge are intact except the abutments, which will be used in the new construction and the existing piers, which will be cut at ground level. The abutments have been tested and passed all load standards.

Prior to construction, a contractors meeting will be held to discuss the project, site constraints and the introduction of monitors, which will include the construction monitor, biological monitor and the BLM monitor.

The bridge installation will be accomplished using the following equipment: drill rig, slurry collection transporter located off site in the staging areas, crane, front-end loader, dump truck, water truck, and concrete truck. All work will be accomplished within the fenced construction areas and will not impact the integrity of the river. Additionally, a chain link fence will be used along the access roads to the fenced

construction areas to provide protection to habitat within the adjacent area. Silt fencing will be used around the project area to protect the water quality and reduce the spread of excess weed seeds. Crossing of the river will not be allowed including vehicular and foot access; and will be enforced by the monitors on site. The construction areas represent a small footprint and therefore limit the number of vehicles near the river. All vehicles will be stored in the staging areas when not in use. No parking of light-duty trucks or personal vehicles in the construction area will be allowed.

The site will be surveyed to locate the chain link construction fence in the over flow channel and the access roads to the construction areas. At this time, any debris will be cleared from the construction areas and the chain link fence and silt fence will be erected according to the survey drawings provided by Cochise County (see Exhibit 4-7).

Once the fence is in place the old piers will be removed. To remove the piers the contractor will dig a trench around the piers approximately 18-inches below the exposed pier. The pier will then be attached to the crane so the pier will not fall into the river or the overflow bank. The pier will then be cut just below ground level with a torch and/or saw. The crane will then move the pier to a dump truck, which will remove it from the site. The 18-inch trench will then be backfilled and construction of the new pier will begin.

Prior to drilling the shafts for the piers, stakes will be positioned and the caissons will be placed in the ground to capture mud slurry. The shafts will then be drilled to a depth of 60-feet, outside the flow of the river. Any excavation material other than the slurry will be removed via a front-end loader and/or dump truck. The slurry will be captured in the slurry collection transporter, which is located in the staging areas and transported offsite for disposal.

After drilling the pier shafts, a prefabricated steel cage will be set in the shaft by the drill rig or a 40-ton capacity crane and ready-mix concrete will be placed in each drilled shaft. Once the drill shafts have set, reinforced steel will be installed for the pier columns, and either wood or metal forms will be used for the pier columns. These columns will then be filled with concrete and set to harden and dry.

Upon arrival to the site, the steel truss bridge will only require minimal assembly in the staging areas. A crane will be used to place the prefabricated truss bridge on the piers. The steel floor beam will be installed, metal decking will be installed on the steel beams, and a reinforced concrete deck will be poured.

The steel truss bridge will not require paint. The County purchased steel that will oxidize to a natural rustic brown. This will reduce maintenance required for the bridge and reduce future contamination to the San Pedro River and surrounding habitat from any paint.

At this time, the bridge construction will be complete and the contractor will be out of the river by March 31, 2006 including protective fencing and preventive measures. The County will complete work to the bridge approaches and protective barriers by May 1, 2006. At this time construction will stop until November 2006. The new chip seal and the necessary mitigation including protective fencing, revegetation and preventive measures to re-establish habitat in the overflow channel will completed during the month of November 2006.

Several monitors will be on site during construction. A daily monitor will be on site to observe construction activities. This person will have the understanding of the sensitive biological critical habitat and endangered species that may exist within close proximity of the construction. He/She will be advised that **NO** person will venture out of fenced area. A biological monitor will be on site several times a week during the construction phase to verify that construction has not ventured beyond the fenced area. A BLM Biologist will also visit the site periodically. The daily and biological monitors will be in contact with the BLM Biologist should any breach of required standards occur.

The proposed dates of construction were decided upon to avoid any adverse affect to the breeding and nesting birds listed endangered or threatened by USFWS.

The United States Fish and Wildlife Service has recommended willow and/or cottonwood be replanted after completion of the bridge construction to restore habitat that was degraded during the bridge removal and reconstruction. Incorporating these measures will reduce the invasion of non-native plants (Johnson Grass) by providing a shade canopy for the riparian areas and restoring lost habitat. Additionally, this mitigation measure will restore habitat for special status species including the Gray Hawk, Yellow-billed Cuckoo and the Southwestern Willow Flycatcher.

A Storm Water Pollution Prevention Plan will be implemented prior to any disturbance. The chosen Best Management Practice is silt fence.

The County is obtaining a Clean Water Act Section 404 Permit from the Army Corps of Engineers (ACOE). Specifically, two Nationwide Permits (NWP) will be utilized for the proposed bridge reconstruction: NWP #14, Linear Transportation Project, and NWP #33, Temporary Construction, Access and Dewatering. The permanent placement of fill within the ACOE 404 jurisdictional waters at the San Pedro River will impact an estimated area less than 1/10th of an acre. Due to the presence of the two endangered species (the Southwestern Willow Flycatcher and the Huachuca Water Umbel), a Pre-Construction Notification (PCN) is required. A PCN package has been submitted to the ACOE in order to obtain the 404-permit authorization to proceed with the bridge reconstruction, under the regulations of the Clean Water Act.

Temporary Use Permit Description:
A temporary right-of-way construction footprint is being requested. See Exhibits 4-7 for the Temporary Construction Easement Description and Exhibit 5 & 7 for pictorial overview. The temporary fencing and work area can be seen in Exhibit 4 & 6 and will not extend into the low flow channel of the San Pedro River. The temporary use permit (under BLM serial number AZA-33053) would be authorized and terminated upon the completion of the bridge construction to adequately accommodate the construction schedule of the current activities.

With the additional Temporary Construction Easement, the County is also planning to install construction fences to limit access within the right-of-way and destruction/loss of habitat. These fences are not permanent in nature, and are being installed to protect the San Pedro River and project area from unauthorized vehicular crossing and human impact. This authorization of the fences will be made part of the Temporary Use Permit Authorization. At the completion of construction, the fences will be removed.

Alternatives Considered but not analyzed in detail:
The Board of Supervisors explored several alternatives:

1. Modern two-lane bridge north of the existing site – Replacing the bridge north to line up with the west-east portion of Hereford Road would have allowed the major curve east of the bridge and the approaches to the bridge to be designed for a higher speed.

2. Modern two-lane bridge at the existing site – This alternative would allow for improved approaches to the bridge and two-way traffic. All of the sub-structure, existing piers and abutments would have needed to be removed and replaced.

3. Single-lane, Steel-truss Bridge at the existing site - The existing approaches, abutments and piers would be used. It was later determined by Jerry Cannon, P.E. of TranSystems Corporation that the existing piers were not deep enough according to modern scour analysis. The piers would have to be replaced, but the abutments with additional scour protection could be used and the approaches need only minor modification.

4. No Action – This alternative involved demolishing and removing the piers and abutments and not replacing the bridge.

Factors Considered During Alternative Selection

Members of the public were involved in providing input to the Board of Supervisors. The overwhelming sentiment was to keep a bridge at the site, keep the design speed of 15 mph at the bridge and maintain the rustic look of the historic bridge. Many pointed out that this solution was in keeping with the Comprehensive Plan for the area to maintain a rural environment.

Another factor in favor of the selected alternative was to minimize impacts on the river and the San Pedro River Natural Resource Area (SPRNCA). A two-lane bridge would have required demolition, removal and replacement of the abutments, piers and approaches. The selected alternative maintains the existing "footprint" of Hereford Road and the bridge within the SPRNCA.

A single-lane, steel or concrete beam bridge would have required a significant modification to the existing abutments and approaches. Due to the height of the beams required for the bridge, the approaches would have had to be raised several feet at the bridge. By selecting a truss bridge, the existing abutments and approaches will need only minor modifications.

A "No Action" alternative was unacceptable to the Board and to the public.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES:

Critical Elements:
In accordance with BLM requirements, the following elements of the human environment are required to be assessed as part of an environmental analysis to adequately comply with the National Environmental Policy Act:

As shown in the attached Exhibit maps, the proposed action is located 8 miles north of the Mexican Border and approximately 20 miles southeast of Sierra Vista, Arizona. Currently, the project is located in the San Pedro Riparian National Conservation Area. At this time, there is little to no traffic to the bridge since there is no direct access on Hereford Road.

The project is located on public land. See Exhibit 5 & 7, Temporary Construction Easement Description and Exhibit 4 & 6 for the site pictorial overview. There is an existing two-lane road that provides access to the previous one-lane bridge. Currently, there is little to no traffic, only homeowners east of Palominas Road who have to use an alternative route to bypass the bridge site.

Areas of Critical Environmental Concern (ACEC):
There are no designated ACEC areas within the project area limits. The project site is located in the San Pedro Riparian National Conservation Area. Measures will be in place to minimize the impact to the conservation area. Chain link fence will be installed around the construction area, which will restrict access to the flow area of the river. Silt fencing will be incorporated to protect the water quality and spread of excess weed seeds.

Air Quality *(The Clean Air Act of 1955, as amended)*:
John Martin of the Arizona Department of Environmental Quality has been contacted to provide current data for the effects of air quality; his findings were that no known attainment or non-attainment areas were identified in the Hereford area. The impact of the construction equipment will minimally impact the area.

Threatened and Endangered Species *(Endangered Species Act of 1973, as amended):*
The project area contains critical habitat for the Huachuca water umbel (*Lilaeopsis schaffneriana var. recurva*). Special Status Species include the following list (please see the Biological Assessment for additional information):

Endangered:
Southwestern Willow Flycatcher *(Empidonax traillii extimus)*
Huachuca Water Umbel *(Lilaeopsis schaffneriana var. recurva)*

Threatened:
Chiricahua Leopard Frog *(Rana chiricahuensis)*

Floodplain:
The County is obtaining a Clean Water Act Section 404 Permit from the Army Corps of Engineers (ACOE). Specifically, two Nationwide Permits (NWP) will be utilized for the proposed bridge reconstruction: NWP #14, Linear Transportation Project, and NWP #33, Temporary Construction, Access and Dewatering. The permanent placement of fill within the ACOE 404 jurisdictional waters at the San Pedro River will impact an estimated area less than 1/10th of an acre. Due to the presence of the two endangered species (the Southwestern Willow Flycatcher and the Huachuca Water Umbel), a Pre-Construction Notification (PCN) is required. A PCN package has been submitted to the ACOE in order to obtain the 404-permit authorization to proceed with the bridge reconstruction, under the regulations of the Clean Water Act.

Cultural Resources:
At this time, there are no known cultural resource sites within the project area.

Impacts to Recreation Activities:
The proposed activity is in an area that provides several dispersed recreation opportunities. The primary recreational activities include bird watching and hiking. The casual recreational uses occur throughout the year. Currently, closures are established for the area and managed by BLM for public recreation purposes. Border Patrol currently patrols the SPRNCA after hours because of the accessibility the river provides and its proximity to the international border.

The potential long-term negative impacts include the increase in the number of visiting humans and domestic dogs, the creation of new trails, destruction of habitat, and potential loss of endangered species to the immediate area.

Native American Religious Concerns:
There are no known Native American Religious sites within the project area.

Wetlands/Riparian Zones:
The project site is located within the San Pedro Riparian National Conservation Area. Use of the proposed action would increase impacts to the riparian area. Typical impacts include increased human presence, which in turn impacts the river by the destablishment of banks, vegetation damage, increase soil disturbance and sedimentation displacement. Continued localized disruption of regenerating riparian woodland cover would occur. Long-term desirable riparian vegetation would decline due to increase in hiking paths and direct disturbance to the river from swimming and crossing. However, human presence will impact the area in a similar fashion as occurred prior to the accident and destruction of the bridge.

Wild and Scenic Rivers:
The San Pedro River is considered a Wild and Scenic River. Noxious weeds were identified at the project location. To prevent the spread of invasive species seed to uncontaminated areas, all earth-moving and hauling equipment will be washed at the contractor's storage facility prior to entering the construction site to prevent the introduction of additional invasive species. Additionally, all equipment that enters the construction site within the fenced area will be washed daily. It is recommended that the Johnson grass and Bermuda grass require a means of control. To remove these non-native species from the site, the top 6-inches of soil (soil contaminated with the rhizomes and stolons of the plant) will need to be scraped off where the grasses are dominant. The scraped areas will then be planted with green, live willow and/or cottonwood plies and reseeded by Hydromulching the area with native grass species. Herbicide is not recommended due to the proximity to the river. A water truck and fire extinguishers are to be on site to protect against possible grass fires. A Storm Water Pollution Prevention Plan will be implemented prior to any disturbance. The chosen Best Management Practice is silt fence.

Wastes, Hazardous or Solid:
There are no known hazardous or solid wastes that occur within the BLM project limits. The only hazardous waste produced from the project will be the mud slurry from the drilling of the piers. The mud slurry will be contained in the caisson and pumped out of the caisson to the processing tanks in the staging area located on the east and west side of the bridge. The tanks will be transported daily off site and disposed at an appropriate waste disposal site.

If a construction vehicle should leak oil or fuel on to the soils, the soil will be removed from site and replaced with clean fill dirt.

Water Quality, Drinking or Ground:
Water quality will not be impacted as a result of the installation of the bridge.

Prime Farmland:
There are no prime or unique farmlands within the project limits.

Wilderness:
There is no wilderness area within the project limits.

Soils:
The soils are generally deep, fine textured and gravelly consisting of sandstone deposit in basins (Hendricks 1985). Impact to the soils will include compaction from vehicular and human access for construction. Drilling of the piers will also impact the subsoil. If a construction vehicle should leak oil or fuel on to the soils, the soil will be removed from site and replaced with clean fill dirt. If the petrol is not removed from the soil immediately it could result in long-term contamination.

Vegetation:
The proposed site is located in the Desert Riparian System within the Chihuahuan Desertscrub Biome. Associated vegetation includes cottonwoods, willow, mesquite, ash and hackberry. In the upper reaches beyond the project, possible vegetation includes Whitehorn Acacia, Allthorn and Mequites can be found along with an abundant production of forbs and grasses. These include Blue Gramma, Tobosa Grass, Beargrass, Golden Eye, and Dogweed.

One cottonwood tree in the path of the bridge on the northwest side of the bridge, which over hangs above the bridge will be trimmed but no trees will be removed or destroyed. The trimming will occur prior to construction and during non-breeding season until the cottonwood tree has grown beyond interfering with the bridge traffic. See Exhibit 8.

Invasive Weeds:
Invasive weeds were identified at the project location. Included are Cocklebur *(Xanthium strumarium),* Bull Thistle *(Cirsium vulgare)*, Johnson grass *(Sorghum halepense),* and Lehmann's love grass *(Eragrostis lehmanniana)*.

National Energy Policy:
There is no known National Energy Policy within the project limits.

Environmental Justice:
According to Executive Order 12898 of February 11, 1994, all federal actions must address and identify as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income population in the United States. There is currently no permanent residential population adjacent to, or within, the construction limits of the project areas.

Cumulative Impacts:
There is no known cumulative impact within the project limits.

Description of Mitigation Measures and Stipulations:

1. The holder shall immediately report to the BLM's authorized officer of any archaeological (prehistoric and historic) or paleontological remains that are encountered during construction or maintenance, and will suspend all work in connection with the right-of-way until final archaeological or paleontological clearance is granted to resume. The holder shall be responsible for any and all costs for the mitigation, preservation and the warehousing of any discovered artifacts and sites

2. Cochise County will provide a BLM approved on-site construction and environmental monitors to oversee all of construction activities. The on-sites monitor shall provide the BLM authorized officer with a weekly report of the construction activities, incidents and progress. The on-site monitors will be required and responsible to see that all construction activities are contained within the authorized construction right-of-way area; that all BLM right-of-way grant's terms and stipulations are complied with, and will be required to report any non-compliances or violations to BLM's right-of-way terms and stipulation within 24 hours to the BLM authorized officer.

3. All construction activities inside of the river corridor shall cease on March 31, 2006, but construction activities needed outside of the river corridor such as road repair and chip sealing can occur up to and through April 30, 2006. Afterwards, there shall never be construction or routine maintenance activities conducted within the entire right-of-way during the Southwestern Willow Flycatcher breeding and nesting seasons from May 1st to September 15th. This provision shall apply throughout the duration of the grant. In the event of any emergency repairs that may occur during the breeding and nesting season, the holder will contact the BLM authorized officer to initiate emergency consultation with the U.S. Fish and Wildlife Service.

4. There shall be no entry or crossing of the river at any time by foot or by vehicles.

5. No hazardous materials will be used or brought onto public lands in connection with this proposed action.

6. Any hazardous materials spills or incidents from vehicles or equipment encountered during construction will cease at the spill site and reported to immediately to BLM's authorized officer. The on site monitor will implement the proper spill response mitigation immediately as described in the Spill Prevention Plan, see attached Exhibit A.

7. To prevent the spread of invasive species seed to uncontaminated areas, all earth-moving and hauling equipment entering the fenced construction site must be washed prior to entering the construction site to prevent the introduction of additional invasive species. If a pre-washed construction equipment or vehicles that remains in and does not leave the fenced construction site, these vehicles and equipment do not have to be washed daily. Rewashing shall occur for all vehicles and equipment returning to and entering the fenced construction site.

8. A water truck and fire extinguishers are to be on site to protect against possible grass fires.

9. The United States Fish and Wildlife Service has recommended willow and/or cottonwood be replanted after completion of the bridge construction to restore habitat that was degraded during the bridge removal and reconstruction. A Planting Plan will be written by the holder, and reviewed by BLM, with site-specific directions on this recommendation. Incorporating these measures will reduce the invasion of non-native plants (Johnson Grass) by providing a shade canopy for the riparian areas and restoring lost habitat. Additionally, this mitigation measure will restore habitat for special status species including the Gray Hawk, Yellow-billed Cuckoo and the Southwestern Willow Flycatcher.

10. It is recommended that the Johnson grass and Bermuda grass require a means of control. To remove these non-native species from the site, the top 6-inches of soil (soil contaminated with the rhizomes and stolons of the plant) will need to be scraped off where the grasses are dominant. BLM will identify the areas where the soil scraping shall occur. Additionally, equipment used to remove these weeds will be washed daily to limit the spread of weed seeds. The scraped areas will then be planted with green, live willow and/or cottonwood plies and reseeded by Hydromulching the area with native grass species. Herbicide is not allowed due to the proximity to the river.

11. All vehicles, equipment and personnel are to conduct all work within the construction temporary right-of-way boundaries and kept away from the overflow banks where a 100 year event could occur. The construction temporary right-of-way area will be fenced by a 6 foot chain link fence.

12. There shall be no removal of trees and no vegetation trimming of limbs during construction or routine maintenance without BLM's approval. The on-site monitor will consult with BLM on any matters of vegetation removal if the issue arises.

13. The right-of-way areas will be kept cleared of any trash and any waste including but not limited to human waste, trash, garbage, refuse, and equipment caused by the proposed action shall be promptly removed and disposed of in an approved landfill or in a site and manner approved the authorized officer.

14. The holder shall have state or county health certified portable toilet facilities on site for their use. The toilet facilities shall be kept at a far and reasonable distance from the river.

15. The holder shall implement prior to any disturbances the Storm Water Pollution Prevention Plan. See Attached Exhibit B.

16. BLM retains the right to occupy and use the right-of-way, and the right to issue or grant rights-of-way or other land uses for other than road purposes upon, over, under, and through the lands, provided that the occupancy or use will not unreasonably interfere with the rights granted herein

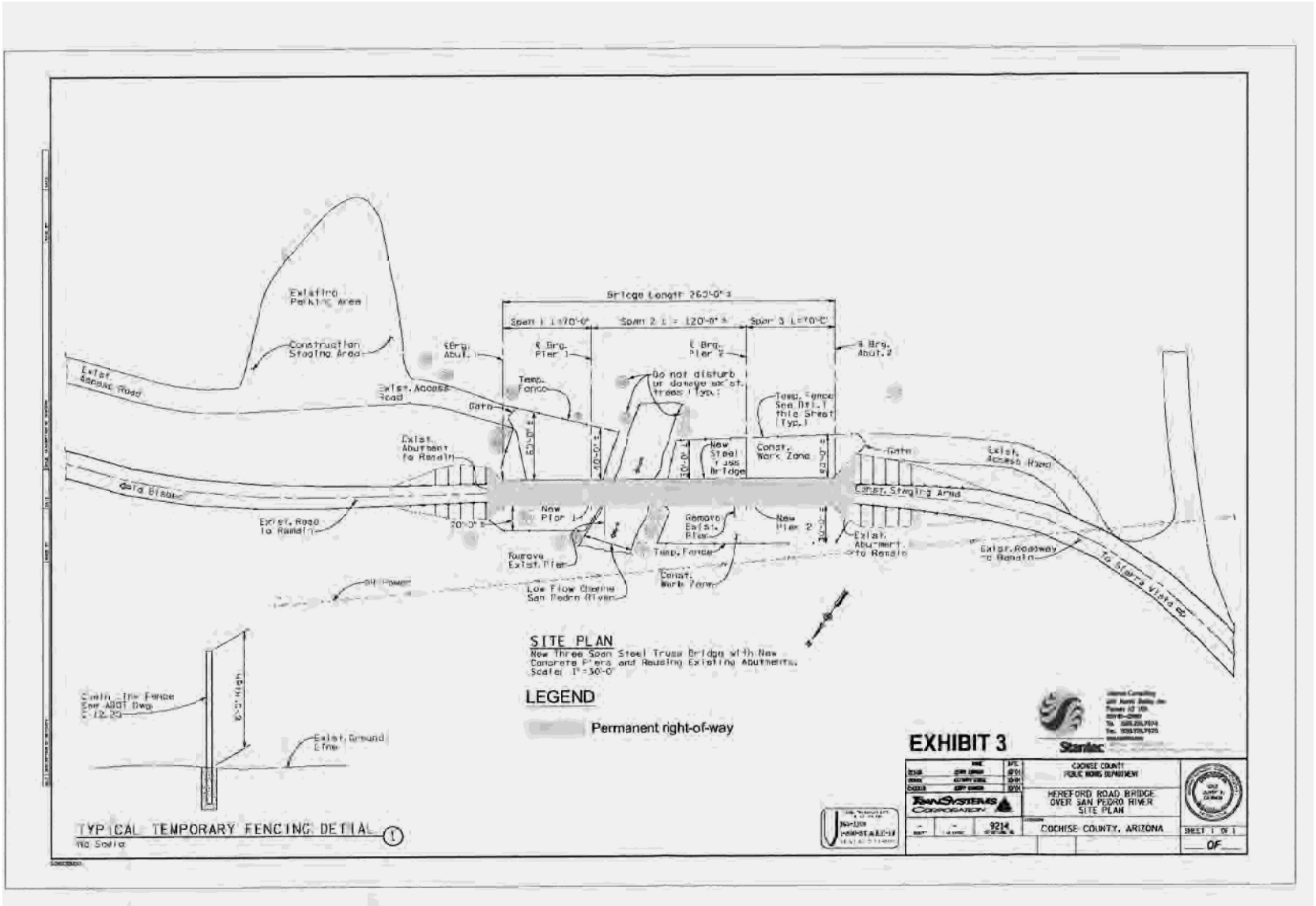
Compliance and Area Monitoring:
Several monitors will be on site during construction. A full time site monitor/s, provided by Cochise County will be on site to observe construction activities. This person will have the understanding of the sites' sensitive biological critical habitat and endangered species that may exist within close proximity of the construction. He/She will be advised that NO person will venture out of fenced area. A biological monitor will be on site several times a week during the construction phase to verify that construction has not ventured beyond the fenced area. A BLM Biologist will also visit the site periodically. The daily and biological monitors will be in contact with the BLM Biologist should any breach of required standards occur.

PREPARERS

Persons and Agencies Consulted:
The following persons and agencies have been involved with the information contained within this environmental assessment:

Ms. Kathlene Meadows, Biologist, Stantec Consulting
Ms. Sabra Schwartz, Heritage Data Management System, Coordinator, Arizona Game and Fish Department
Mr. Scott Dalrymple, Civil Engineer III Highway and Floodplain, Cochise County
Mr. Allon Owen, Cochise County
Mr. Dave Sutherland, Cochise County Surveyor
Mr. Jerry Cannon, Principle/Vice President, TranSystems Corporation

BLM: Ms. Susan Bernal, Realty Specialist; Ms. Linda Marianito, Planning and Environmental Coordinator; Mr. Bill Childress, NCA Manager, San Pedro Riparian National Conservation Area; Ms. Jane Childress, Archaeologist; Mr. Mark Fredlake, Mr. Jack Whetstone.


Bridge Length 360'-0" ±
Span 1 L=70'-0"
Span 2 L = 120'-0" ±
Span 3 L=70'-0"
Existing Parking Area
Construction Staging Area
Exist. Access Road
Exist. Access Road
Gate
Temp. Fence
Do not disturb or damage exist. trees (Typ.)
Temp. Fence See Det. 1 this Sheet (Typ.)
Exist. Abutment to Remain
New Steel Truss Bridge
Const. Work Zone
Gate
Exist. Access Road
Cochise Staging Area
Exist. Road to Remain
New Pier 1
Remove Exist. Pier
Temp. Fence
Remove Exist. Pier
New Pier 2
Exist. Abutment to Remain
Enlgr. Roadway to Remain
To Sierra Vista etc.
Const. Work Zone
Low Flow Channel San Pedro River
SITE PLAN
New Three Span Steel Truss Bridge with New Concrete Piers and Reusing Existing Abutments.
Scale 1"=50'-0"
LEGEND
Permanent right-of-way
Chain link Fence Per ADOT Dwg. C-12.20
6'-0" High
Exist. Ground Line
TYPICAL TEMPORARY FENCING DETIAL
No Scale
EXHIBIT 3
Stantec
COCHISE COUNTY
PUBLIC WORKS DEPARTMENT
HEREFORD ROAD BRIDGE
OVER SAN PEDRO RIVER
SITE PLAN
COCHISE COUNTY, ARIZONA
TRANSYSTEMS CORPORATION
SHEET 1 OF 1
OF

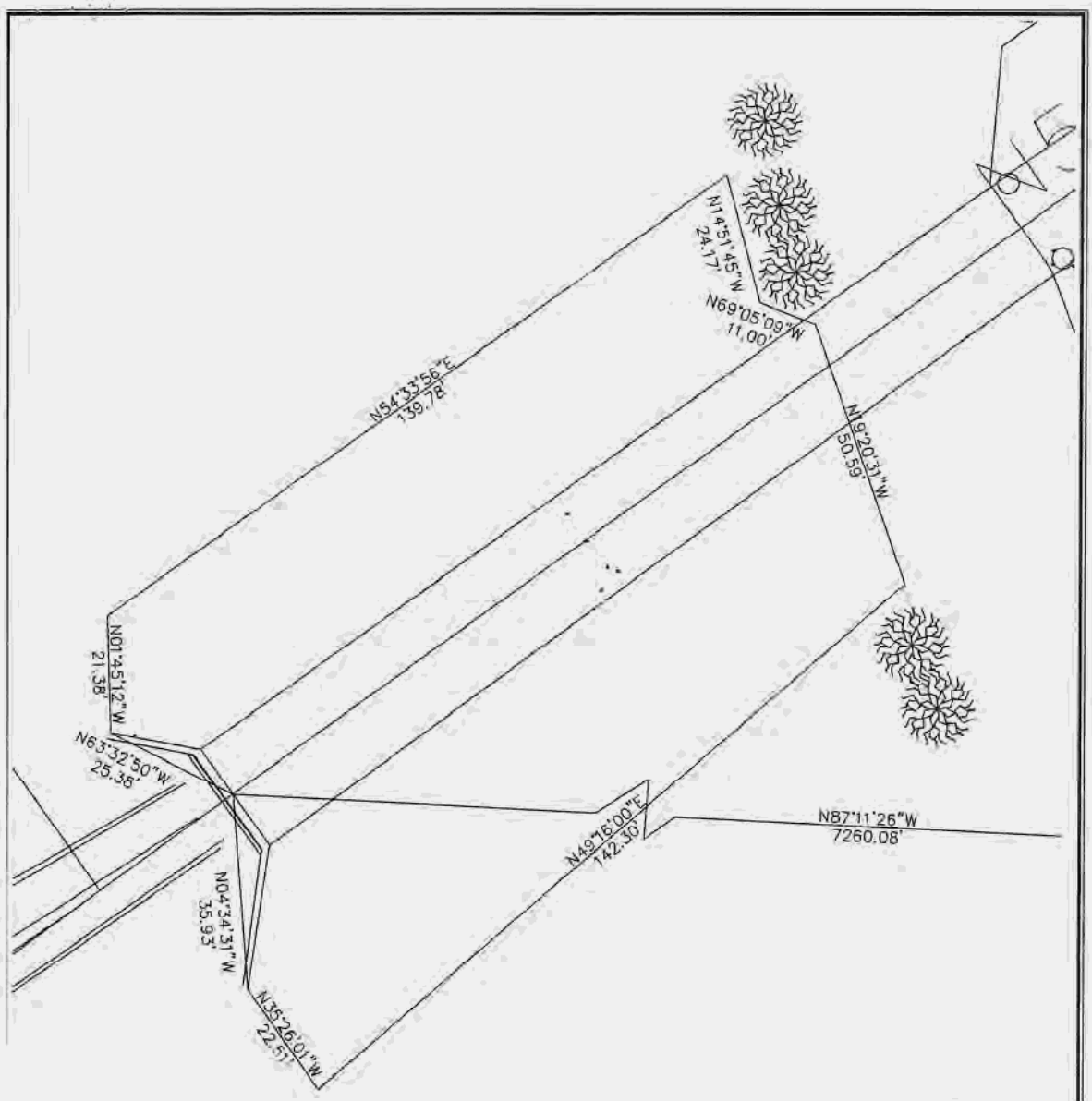


Exhibit 4

△	REVISION:	DATE:	APPROVED BY:

COUNTY OF COCHISE 1881 ARIZONA

Cochise County Highway & Floodplain Survey

CONSTRUCTION EASEMENT

SCALE: NTS
DESIGN: DLS
DRAWN: DLS
CHECKED:
DATE: 8/9/05

FILE: .

Cochise County
1415 W. Melody Lane, Bisbee, AZ 85603

OF

Exhibit 5

TEMPORARY CONSTRUCTION EASEMENT (EAST)

That Portion of the San Rafael Del Valle Land Grant, Township 23 South, Range 22 East, Gila and Salt River Meridian, Cochise County, Arizona.

COMMENCING at the Southeast corner of the Land Grant, being a stone marked SRDV Cor 3, from which the closing corner for Section 14 & 15 being a lead cap stamped LS 1047. C.C. 14 & 15 bears South 76°33' 09" West 1123.60 feet;

THENCE North 87° 11' 26" West 7260.08 feet to a point in the centerline of Hereford Road and the West Bridge Abutment being, the **POINT OF BEGINNING**;

THENCE South 04°34'31" East 35.93 feet to a point;

THENCE South 35°26'01" East 22.51 feet to a point;

THENCE North 49°16'00" East 142.30 feet to a point;

THENCE North 19°20'31" West 50.59 feet to a point;

THENCE North 69°05'09" West 11.00 feet to a point;

THENCE North 14°51'45" West 24.17 feet to a point;

THENCE South 54°33'56" West 139.78 feet to a point;

THENCE South 01°45'12" East 21.38 feet to a point;

THENCE South 63°32'50" East 25.38 feet to the point of beginning.

The above described tract of land contains 12,254.72 square feet or 0.281 acres.

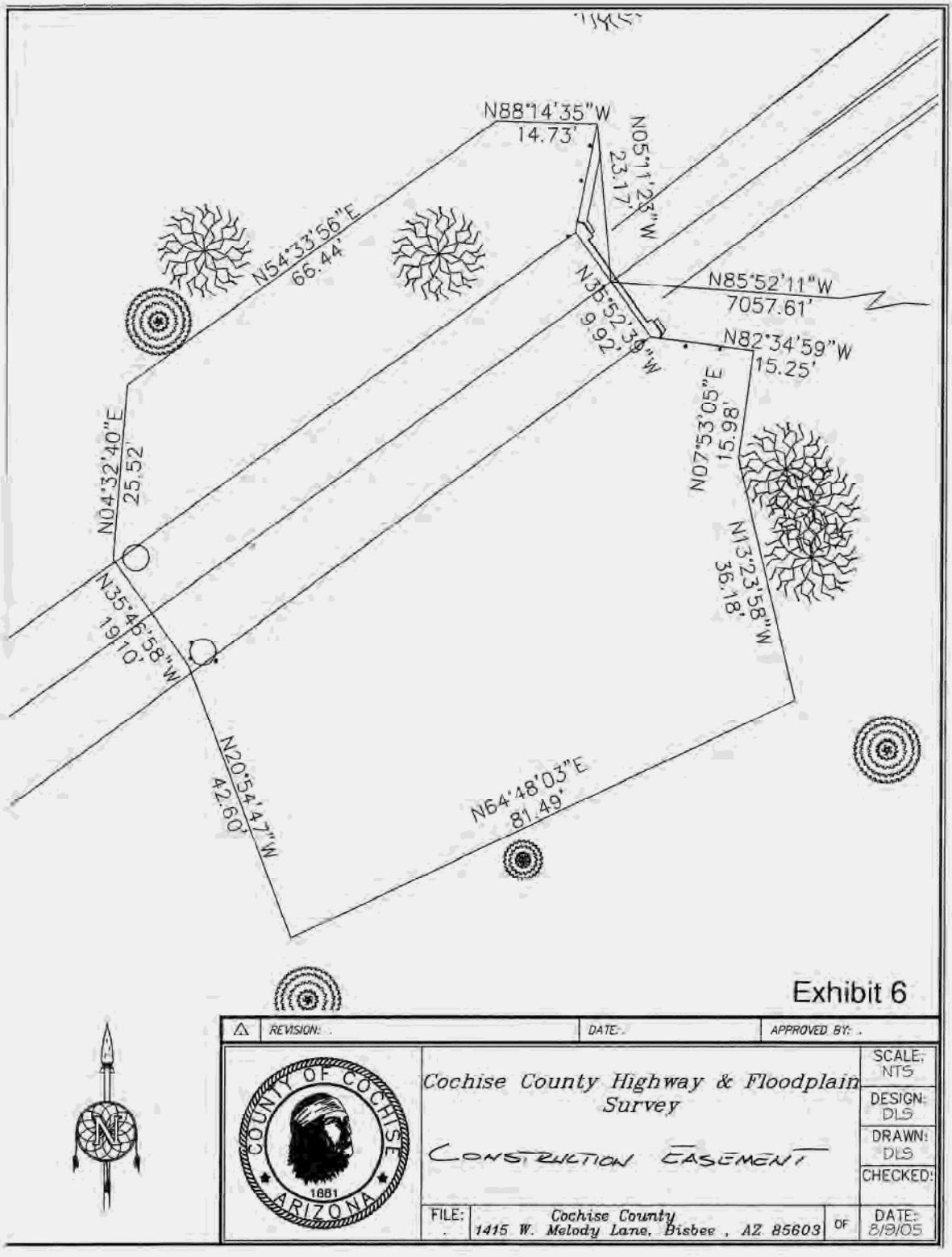

N88°14'35"W
14.73'
N05°11'23"W
23.17'
N54°33'56"E
66.44'
N85°52'11"W
7057.61'
N35°52'39"W
9.92'
N82°34'59"W
15.25'
N07°53'05"E
15.98'
N04°32'40"E
25.52'
N13°23'58"W
36.18'
N35°46'58"W
19.10'
N20°54'47"W
42.60'
N64°48'03"E
81.49'
Exhibit 6
REVISION:
DATE:
APPROVED BY:
COUNTY OF COCHISE
1881
ARIZONA
Cochise County Highway & Floodplain Survey
CONSTRUCTION EASEMENT
SCALE: NTS
DESIGN: DLS
DRAWN: DLS
CHECKED:
FILE:
Cochise County
1415 W. Melody Lane, Bisbee , AZ 85603
OF
DATE: 8/9/05

Exhibit 7

TEMPORARY CONSTRUCTION EASEMENT (WEST)

That Portion of the San Rafael Del Valle Land Grant, Township 23 South, Range 22 East, Gila and Salt River Meridian, Cochise County, Arizona.

COMMENCING at the Southeast corner of the Land Grant, being a stone marked SRDV Cor 3, from which the closing corner for Section 14 & 15 being a lead cap stamped LS 1047, C.C. 14 & 15 bears South 76°33' 09" West 1123.60 feet;

THENCE North 85° 52' 11" West 7057.61 feet to a point in the centerline of Hereford Road and the East Bridge Abutment being, the **POINT OF BEGINNING**;

THENCE South 35°52'39" East 9.92 feet to a point;

THENCE South 82°34'59" East 15.25 feet to a point;

THENCE South 07°53'05" West 15.98 feet to a point;

THENCE South 13°23'58" East 36.18 feet to a point;

THENCE South 64°48'03" West 81.49 feet to a point;

THENCE North 20°54'47" West 42.60 feet to a point;

THENCE North 35°46'58" West 19.10 feet to a point;

THENCE North 04°32'40" East 25.52 feet to a point;

THENCE North 54°33'56" East 66.44 feet to a point;

THENCE South 88°14'35" East 14.73 feet to a point;

THENCE South 05°11'23" East 23.17 feet to a point to the point of beginning.

The above described tract of land contains 7527.13 square feet or 0.173 acres.

Exhibit 8

TEMPORARY CONSTRUCTION INGRESS AND EGRESS EASEMENT DESCRIPTION

That Portion of the San Rafael Del Valle Land Grant, Township 23 South, Range 22 East, Gila and Salt River Meridian, Cochise County, Arizona

COMMENCING at the Southeast corner of the Land Grant, being a stone marked SRDV Cor 3, from which the closing corner for Section 14 & 15 being a lead cap stamped LS 1047, C.C. 14 & 15 bears South 76°33' 09" West 1123.60 feet;

THENCE North 86° 06' 17" West 6935.96 feet to the **POINT OF BEGINNING**;

THENCE South 75°28'27" West 95.26 feet to a point;

THENCE North 13°23'58" West 20.00 feet to a point;

THENCE North 75°28'27" East 98.55 feet to a point;

THENCE South 04°05'58" East 20.34 feet to the point of beginning.

The above described tract of land contains 1938.00 square feet or 0.04 acres.

EAST SIDE

Exhibit 9

TEMPORARY CONSTRUCTION INGRESS AND EGRESS EASEMENT DESCRIPTION

That Portion of the San Rafael Del Valle Land Grant, Township 23 South, Range 22 East, Gila and Salt River Meridian, Cochise County, Arizona.

COMMENCING at the Southeast corner of the Land Grant, being a stone marked SRDV Cor 3, from which the closing corner for Section 14 & 15 being a lead cap stamped LS 1047, C.C. 14 & 15 bears South 76°33' 09" West 1123.60 feet;

THENCE North 87°36'44" West 7241.73 feet to the **POINT OF BEGINNING**;

THENCE South 53°55'24" West 128.60 feet to a point;

THENCE South 84°52'13" West 52.57 feet to a point;

THENCE North 69°32'25" West 88.73 feet to a point;

THENCE North 85°34'31" East 47.53 feet to a point;

THENCE South 69°32'25" East 41.07 feet to a point;

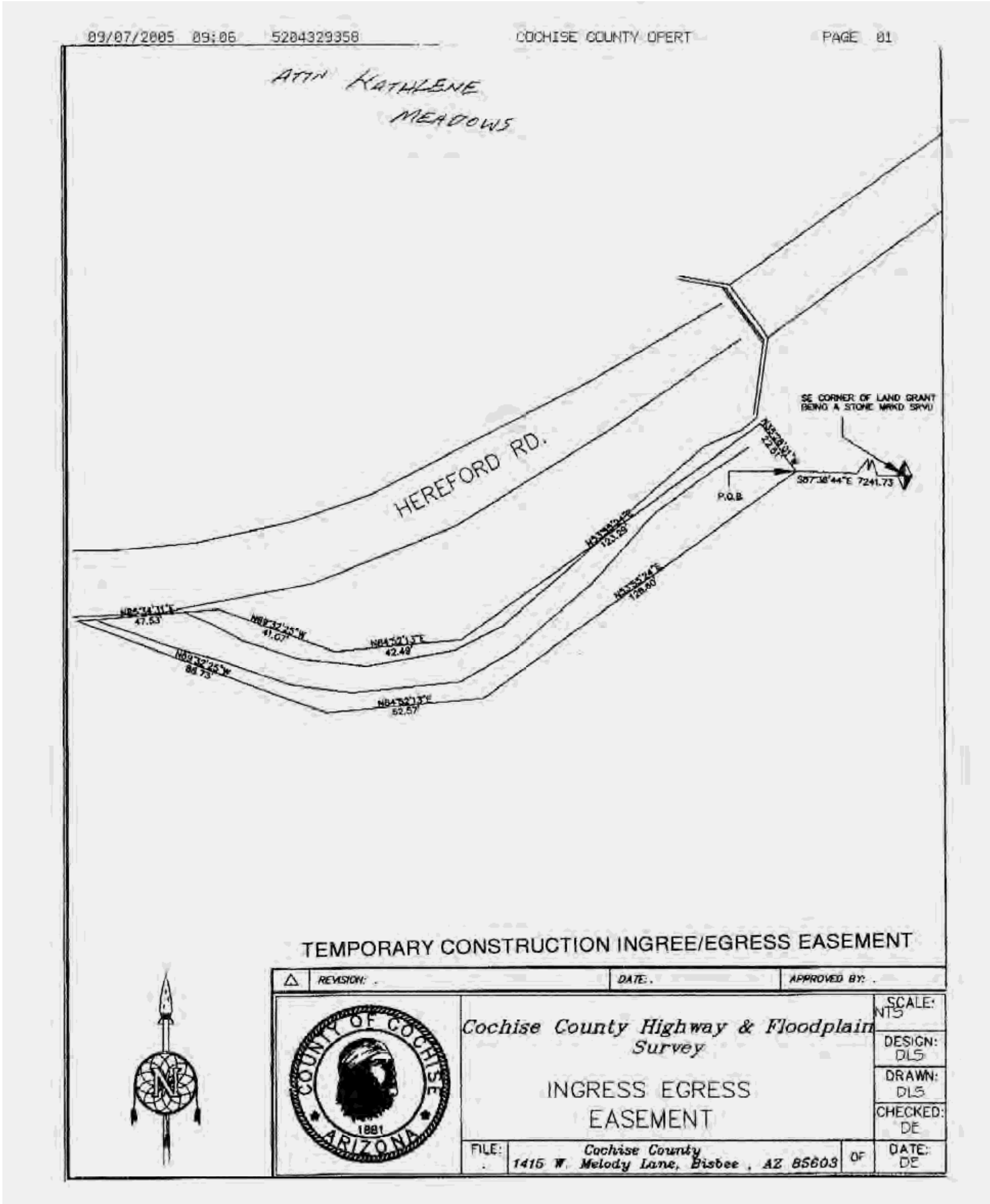
THENCE North 84°52'13" East 42.49 feet to a point;

THENCE North 53°55'24" East 123.29 feet to a point;

THENCE South 35°26'01" East 20.00 feet to the point of beginning.

The above described tract of land contains 4767 square feet or 0.11 acres.

WEST SIDE


09/07/2005 09:06 5204329358 COCHISE COUNTY OPERT PAGE 01
ATTN KATHLENE
MEADOWS
HEREFORD RD.
SE CORNER OF LAND GRANT
BEING A STONE MRKD SRVU
P.O.B.
S87°38'44"E 7241.73
22.61'
123.29'
128.60'
47.53'
41.07'
42.49'
88.73'
N84°52'13"E
52.57'
TEMPORARY CONSTRUCTION INGREE/EGRESS EASEMENT
REVISION: .
DATE: .
APPROVED BY: .
COUNTY OF COCHISE
1881
ARIZONA
Cochise County Highway & Floodplain
Survey
INGRESS EGRESS
EASEMENT
SCALE: NTS
DESIGN: DLS
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OF