RDCF-24-17
(Corrected)

RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
OF THE 23rd NAVAJO NATION COUNCIL -- Third Year, 2017

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT; APPROVING THE GRANT OF RIGHT-OF-WAY TO MCKINLEY COUNTY FOR THE COUNTY ROAD 55 NAVAJO ROUTE 9660 LOCATED ON NAVAJO NATION TRUST LANDS IN BAHAST'LAH CHAPTER (MCKINLEY COUNTY, NEW MEXICO)

BE IT ENACTED:

SECTION ONE. AUTHORITY

A. Pursuant to 2 N.N.C. Section §501 (B)(2), The Resources and Development Committee of the Navajo Nation Council has the authority to grant final approval for all land withdrawals, non-mineral leases, permits, licenses, rights-of-way, surface easements and bonding requirements on Navajo Nation lands and unrestricted (fee) land. This authority shall include subleases, modifications, assignments, leasehold encumbrances, transfers, renewals, and terminations.

SECTION TWO. FINDINGS

A. McKinley County P.O. Box 70, Gallup, New Mexico 87305, has submitted a right-of-way (ROW) application for County Road 55 Navajo Route 9660 on, over and across Navajo Nation Trust Lands in Bahast'lah Chapter vicinity, McKinley County, New Mexico. The application request is attached hereto and incorporated herein as **Exhibit A.**

B. The proposed right-of-way is 32,476.95 feet in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, 3, T17N, R18W; 50 feet in length, 125 feet width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico. Maps are attached hereto and incorporated herein as **Exhibit B.**

C. The Project Review Section with the Navajo Land Department identified nine (9) grazing permittees on the proposed project site. Consent to use the land was obtained and are attached along with the Project Review Section memorandum dated July 19, 2016 are attached hereto as **Exhibit C.**

D. The Navajo Tribal Utility Authority has granted Right-of-Entry Permission to the Bahastl' ah Chapter and McKinley County Roads Department to proceed with the construction of the Road Improvement Plan on County Road 55 located in the vicinity of Tohlakai, McKinley County, New Mexico, attached hereto as **Exhibit D.**

E. A waiver of consideration is requested. The right-of-way project would serve a public purpose because the project will benefit Navajo residents.

F. The environmental and archaeological studies has been completed and attached hereto as **Exhibit E** and made a part hereof.

G. It is in the best interest of the Navajo Nation to grant the right-of-way to McKinley County for County Road 55 Navajo Route 9660 to conduct road improvements.

SECTION THREE. APPROVAL

A. The Resources and Development Committee of the Navajo Nation Council hereby approves the Grant of Right-of-Way to McKinley County for the County Road 55 Navajo Route 9660 on, over and across Navajo Nation Trust Lands in Bahast' lah Chapter vicinity, McKinley County, New Mexico. The location is more particularly described on the survey map attached hereto as **Exhibit B.**

B. The Resources and Development Committee of the Navajo Nation Council hereby waives consideration for the right-of-way project because the project will benefit Navajo residents.

C. The Resources and Development Committee of the Navajo Nation Council hereby approves the right-of-way subject to, but not limited to, the following terms and conditions incorporated herein and attached as **Exhibit F.**

D. The Resources and Development Committee of the Navajo Nation Council hereby- waives the requirements for a bond, insurance, or alternative form of security as being in the best interest of the Navajo Nation pursuant to 25 C.F.R. § 162 (f) (2).

E. The Resources and Development Committee of the Navajo Nation Council hereby authorizes the President of the Navajo Nation to execute any and all documents necessary to affect the intent and purpose of this resolution.

CERTIFICATION

I, hereby, certify that the following resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at Tohajiilee Chapter, Tohajiilee, (Navajo Nation) New Mexico, at which quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 1 abstained this 28th day of February, 2017.

Benjamin Bennett, Vice Chairperson
Resources and Development Committee
Of the 23rd Navajo Nation Council

Motion: Honorable Walter Phelps
Second: Honorable Davis Filfred

UNTIED STATES DEPARTEMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

RIGHT-OF-WAY APPLICATION MUST IDENIFY [§169.102(a)]:

1. Applicant Name and Address: McKinley County Roads Department
   Post Office Box 70 Gallup, NM 87301

2. Tract(s) or parcel(s) affected by the right-of-way: Situated in: 12, 13,23,24,26,27 ,32,33 of T17N R18W N.M.P.M.
3. General Location (easement description): County Road 55 – Navajo Route 9960

4. Purpose: Road Improvements

5. Term (Renewal, if applicable): 20 years – Option For Renewal

6. Identify ownership of permanent improvement associated with the right-of-way and the responsibility for constructing, operating, maintaining, and managing; or removal of permanent improvement under § 169.105:

REQUIRING SUPPORTING DOCUMENTS [§169.102(b)]:

1. Accurate legal description of the right-of-way, its boundaries, and parcels associated with the right-of-way;
2. A map of definite location of the right-of-way; (25 CR 196.102((b)(2); survey plat signed by professional surveyor or engineer showing the location, size, and extent of the ROW and other related parcels, with respect to each affected parcel of individually owned land, tribal land, or BIA land with reference to the public surveys under 25 U.S.C§ 176, 43 U.S.C § 1764, and showing existing facilities adjacent to the proposed project.)
3. Bond(s), insurance, and/ or other security meeting the requirement of § 169.103;
4. Record of notice that the right-of-way was provided to all Indian landowners;
5. Record of consent that the right-of-way meets the requirements of § 169.107, or a statement documenting a request for a right-of-way without consent under § 169.107(b);
6. If applicable, a valuation meeting the requirements of §§ 169.110, 112, 114;
7. With each application, if the applicant is a corporation, limited liability company, partnership, joint venture, or other legal entity, except a tribal entity, information such as organizational documents, certificates, filing records, and resolutions, demonstrating that:
   a. The representative has authority to execute the application;

a. The representative has authority to execute the application;
b. The right-of-way will be enforceable against the applicant; and
c. The legal entity is in good standing and authorized to conduct business in the jurisdiction where the land is located.

8. Current environmental and archaeological reports, surveys, and site assessments, as needed to facilitate compliance with applicable Federal and tribal environmental and land use requirements;
9. If required, a statement from the appropriate tribal authority that the proposed right-of-way is in conformance with applicable tribal law.

THE APPLICANT FURTHER STIPULATES AND EXPRESSLY AGREES AS FOLLOWS:

To conform and to abide by all applicable requirements with respect to the right-of-way herein applied for. The applicant agrees to conform to and abide by the rules, regulations, and requirements contained in the *Code of Federal Regulations*, Title 25 Indians, Part 169, as amended, and by reference includes such rules, regulations and requirements as a part of this application to the same effect as if the same were herein set out in full.

Applicant Point of Contact Information:

Name: Jeff Irving
Address Box 70 : Gallup, NM
State,
Zip: 87301
Phone: 505-979-2445 Fax:
Email: jirving@co.mckinley.nm.us

DATE: 18 July 2016

APPLICANT: _____(Signature)

Jeff Irving (Print Name)

County of McKinley

P.O. Box 70 • 207 West Hill Avenue

Gallup, New Mexico 87305-0070

505-722-3868

Fax 505-863-6362

Commissioner, Dist. 1	Commissioner, Dist. 2	Commissioner, Dist. 3	Acting Manager
Carol Bowman-Muskett	**Genevieve Jackson**	**Anthony Tanner**	**Anthony Dimas**

June 18, 2016

Navajo Nation
Office of Management and Budget
Resource and Development Committee
Bahastlah Chapter

RE: Johnson Road (CR55), Twin Lakes (Bahastl'ah) Chapter ROW Package Documentation for Waiver of Bond

Dear Navajo Nation:

The County is working with the Twin Lakes (Bahastl'ah) Chapter to secure right-of-way to improve Johnson Road. According to the Chapter, you informed them that the County needed to provide a bond waiver.

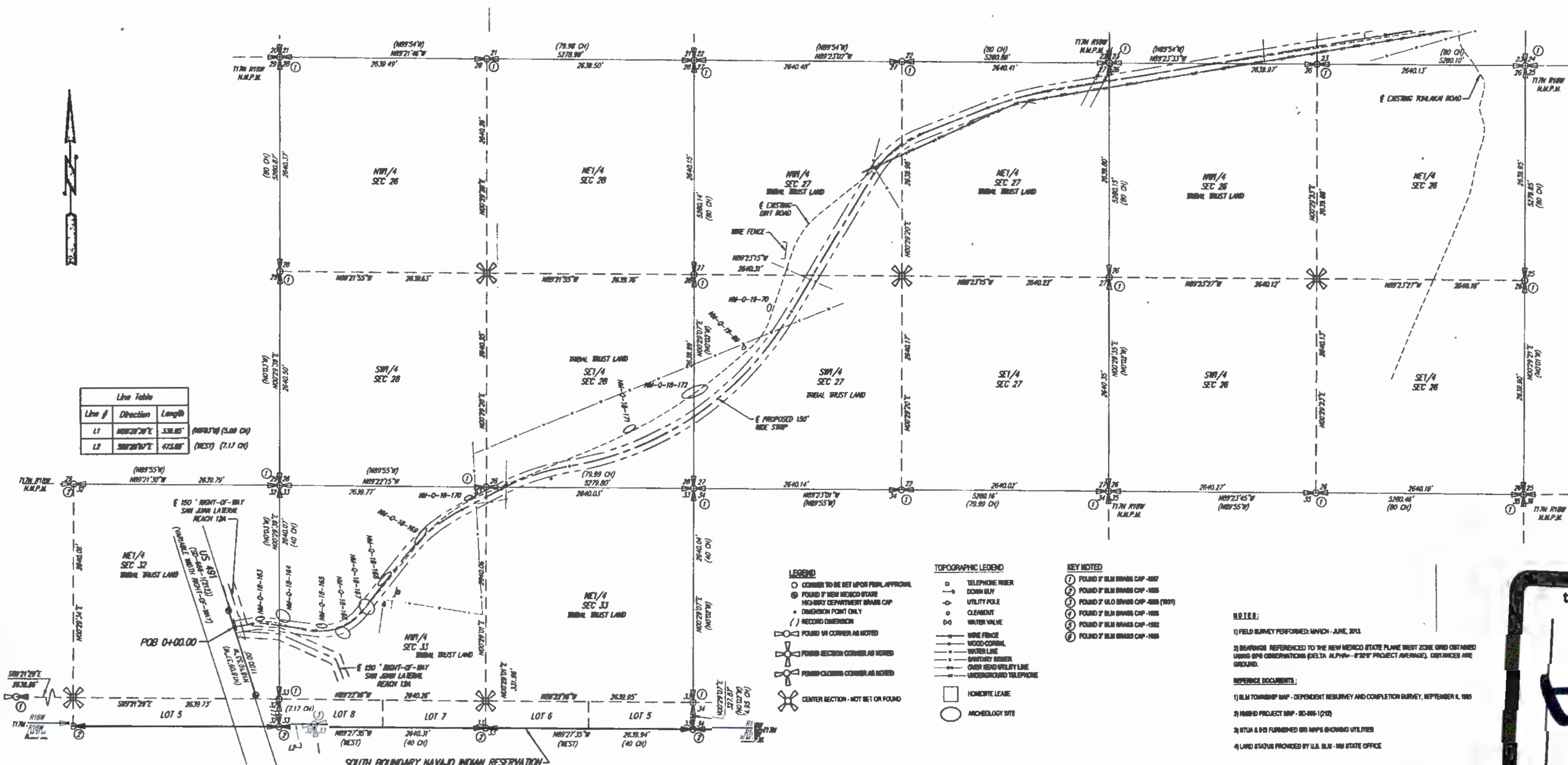
Please utilize this letter as proper documentation as a bond waiver. The County will perform all work under its general liability and worker compensation insurance provided through the NM Association of Counties.

If you have any questions, please feel free to contact me, Jeff Irving (505) 863-1400.

Sincerely,

Jeff Irving, Road Superintendent

Cc: April Bowman, Realty Specialist; FDA, BRES; Box 619; Ft Defiance, AZ 86504



NOTES:

1) FIELD SURVEY PERFORMED: MARCH - JUNE, 2013.

2) BEARINGS REFERENCED TO THE NEW MEXICO STATE PLANE WEST ZONE GRID OBTAINED USING GPS OBSERVATIONS (DELTA ALPHA= PROJECT AVERAGE). DISTANCES ARE GROUND.

REFERENCE DOCUMENTS:

1) BLM TOWNSHIP MAP - DEPENDENT RESURVEY AND COMPLETION SURVEY, SEPTEMBER 6, 1985

2) NMSHD PROJECT MAP - SD-666-1(212)

3) NTUA & IHS FURNISHED GIS MAPS SHOWING UTILITIES

4) LAND STATUS PROVIDED BY U.S. BLM - NM STATE OFFICE

SEE RIGHT-OF-WAY DETAIL SHEET 3-5
FOR ALIGNMENT DETAILS & HOMESITE DETAILS

TABLE OF CONTENTS:

ENGINEERS AFFIDAVIT:

STATE OF NEW MEXICO)
SS
COUNTY OF McKINLEY)

MARC A. DePAULI, BEING FIRST DULY SWORN, STATES THAT HE IS A CIVIL ENGINEER & PROFESSIONAL SURVEYOR: THAT HE IS EMPLOYED BY THE McKINLEY COUNTY BOARD OF COMMISSIONERS: THAT HE MADE THE SURVEY OF A PROPOSED RIGHT-OF-WAY AS DESCRIBED AND SHOWN ON THIS MAP, TO BE GRANTED TO THE McKINLEY COUNTY BOARD OF COMMISSIONERS, HEREINAFTER DESIGNATED THE "APPLICANT", THAT THE SURVEY OF SUCH RIGHT-OF-WAY WAS MADE UNDER HIS SUPERVISION AND UNDER APPLICANT'S AUTHORITY, COMMENCING ON 1ST DAY OF MARCH 2013, AND ENDING ON THE 26TH DAY OF JUNE 2013 AND THAT SUCH SURVEY IS ACCURATELY REPRESENTED ON THIS MAP.

BY: *Marc DePauli*
MARC A. DePAULI B.M. P.S. LIC. #13606

MARC A. DePAULI NEW MEXICO 13606 REGISTERED PROFESSIONAL SURVEYOR

ACKNOWLEDGEMENT:

STATE OF NEW MEXICO)
SS
COUNTY OF McKINLEY)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME
THIS *10th* DAY OF *November 2015* BY *Marc DePauli*

NOTARY PUBLIC *[signature]* COMMISSION EXPIRES: *01-07-19*

OFFICIAL SEAL
Notary Public
State of New Mexico
My Comm. Expires: 01-07-19

APPLICANT'S CERTIFICATE

I, CAROL BOWMAN MUSKETT, DO HEREBY CERTIFY THAT I AM THE CHAIRPERSON OF THE McKINLEY COUNTY BOARD OF COMMISSIONERS, HEREINAFTER THE APPLICANT, THAT DEPAULI ENGINEERING & SURVEYING LLC SUBSCRIBED TO THE FOREGOING AFFIDAVIT, IS EMPLOYED BY THE APPLICANT AS A CONSULTING ENGINEER & PROFESSIONAL SURVEYOR AND THAT HE WAS DIRECTED BY THE APPLICANT TO SURVEY THE LOCATION OF SAID RIGHT-OF-WAY AND TO PREPARE THIS MAP; THAT THE LOCATION OF SAID RIGHT-OF-WAY 6.151 MILES IN LENGTH BEGINNING AT 0+00.00 AND ENDING AT 324+76.95, CONTAINING 111.835 ACRES, IS ACCURATELY REPRESENTED ON THIS MAP; THAT SUCH SURVEY AS REPRESENTED ON THIS MAP HAS BEEN ADOPTED BY THE APPLICANT AS THE DEFINITE LOCATION OF THE RIGHT-OF-WAY THEREBY SHOWN AND THAT THE MAP HAS BEEN PREPARED TO BE FILED WITH THE SECRETARY OF INTERIOR OR HIS DULY AUTHORIZED REPRESENTATIVE AS PART OF THE APPLICATION FOR SAID RIGHT-OF-WAY TO BE GRANTED TO THE APPLICANT, ITS SUCCESSORS AND ASSIGNS, WITH THE RIGHT TO CONSTRUCT, MAINTAIN AND REPAIR IMPROVEMENTS, THEREON AND THEREOVER, FOR SUCH PURPOSES AND WITH THE FURTHER RIGHT IN THE APPLICANT, ITS SUCCESSORS AND ASSIGNS, TO TRANSFER THIS RIGHT-OF-WAY ASSIGNMENT, GRANT OR OTHERWISE.

BY: *Carol Bowman Muskett*
CAROL BOWMAN MUSKETT, CHAIRPERSON
McKINLEY COUNTY BOARD
OF COMMISSIONERS APPLICANT

DePAULI ENGINEERING & SURVEYING LLC
- CIVIL ENGINEERS AND LAND SURVEYORS -
307 S. 4th STREET GALLUP, NM 87301

OFFICE OF THE CLERK - McKINLEY COUNTY, NEW MEXICO FILING INFORMATION

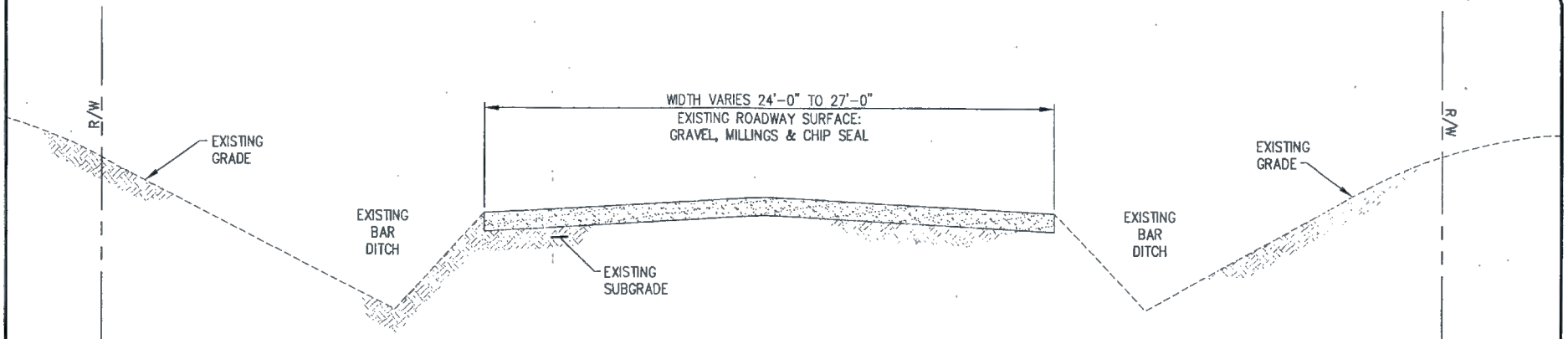
RIGHT-OF-WAY SURVEY JACK JOHNSON ROAD
COUNTY ROAD 55, NAVAJO ROUTE 9960

SITUATED IN 12, 13, 23, 24, 26, 27, 28, 32, & 33 OF T17N, R18W, N.M.P.M.
NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO

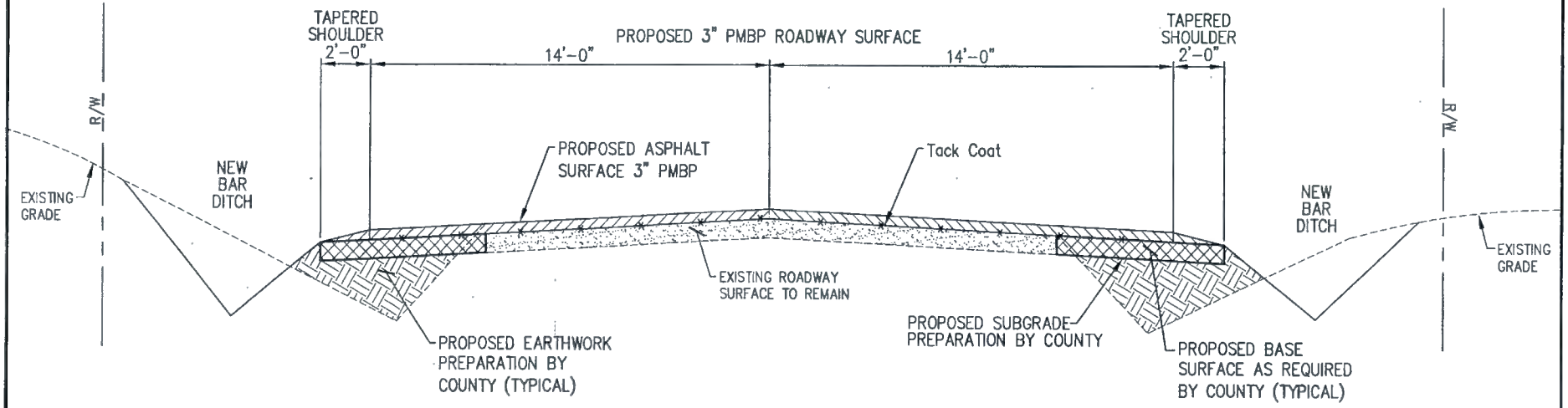
FINAL PLAT
INDEX MAP

DRAWING No.:	URS-[illegible]
DATE:	[illegible]
DRAWN BY:	[illegible]
CHECKED BY:	[illegible]
SCALE:	1" = 600'
SHEET:	1
OF:	5

GRAPHIC SCALE 600 300 0 600



TYPICAL EXISTING ROADWAY SECTION
NOT TO SCALE



TYPICAL PROPOSED ROADWAY SECTION
NOT TO SCALE

Prepared by:
DePauli Engineering & Surveying LLC
- Civil Engineers and Land Surveyors -
307 West Aztec AVE. Gallup, New Mexico 87301
Tel: (505) 863-5440
Fax: (505) 863-1919
depauliengineering.com

TYPICAL SECTIONS
McKINLEY COUNTY ROAD IMPROVEMENTS AND UPGRADES
McKINLEY COUNTY, NEW MEXICO

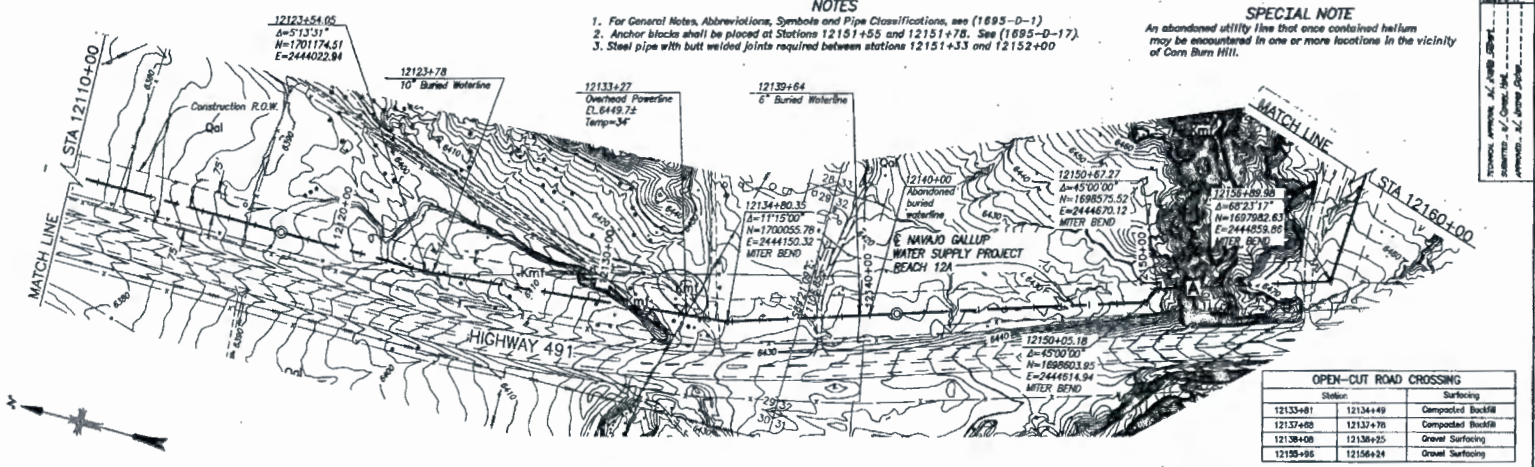
Jack.Johnson.dwg

NOTES

1. For General Notes, Abbreviations, Symbols and Pipe Classifications, see (1695-D-1)
2. Anchor blocks shall be placed at Stations 12151+55 and 12151+78. See (1695-D-17).
3. Steel pipe with butt welded joints required between stations 12151+33 and 12152+00

SPECIAL NOTE

An abandoned utility line that once contained helium may be encountered in one or more locations in the vicinity of Corn Burn Hill.

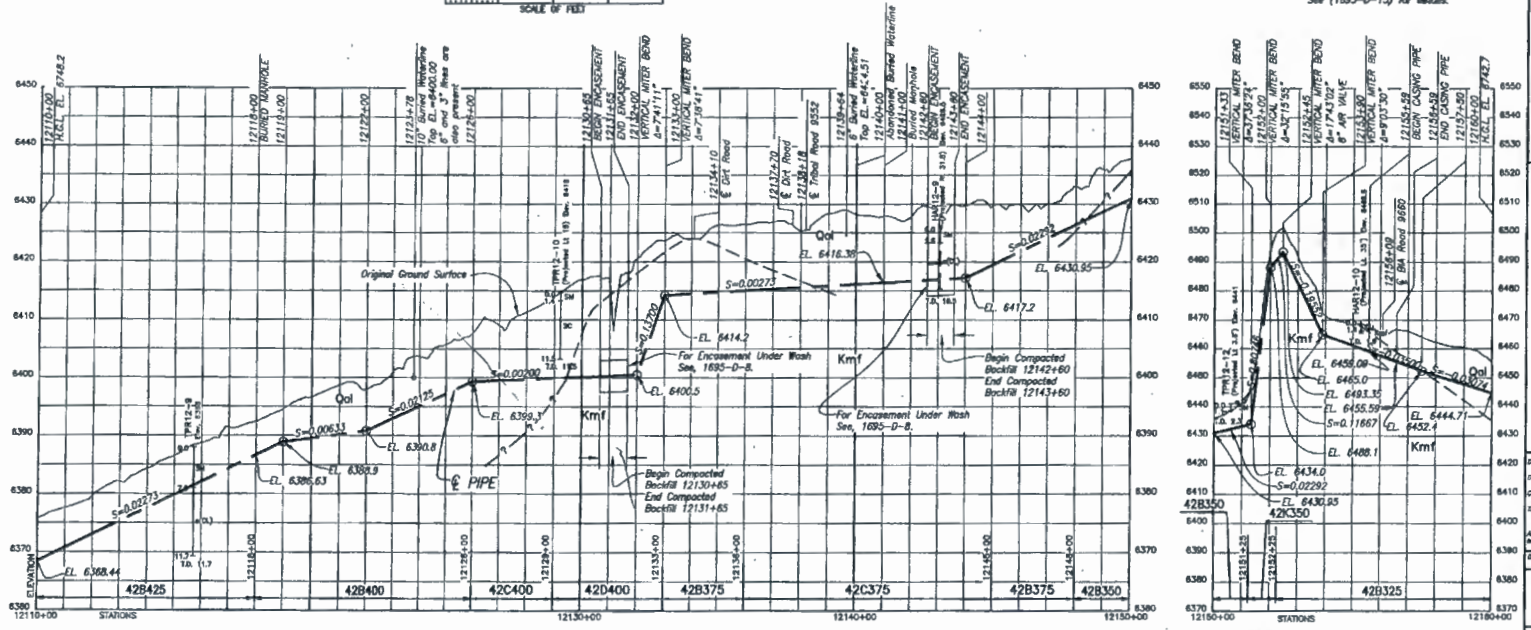


PLAN

SCALE OF FEET

OPEN-CUT ROAD CROSSING		
Station		Surfacing
12133+81	12134+49	Compacted Backfill
12137+68	12137+76	Compacted Backfill
12138+08	12138+25	Gravel Surfacing
12155+95	12156+24	Gravel Surfacing

NOTE: Open cut roads require compacted backfill and/or gravel surfacing per specifications. See (1695-D-15) for details.



PROFILE

VERTICAL SCALE: 1"=20'

RECLAMATION
Managing Water in the West

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

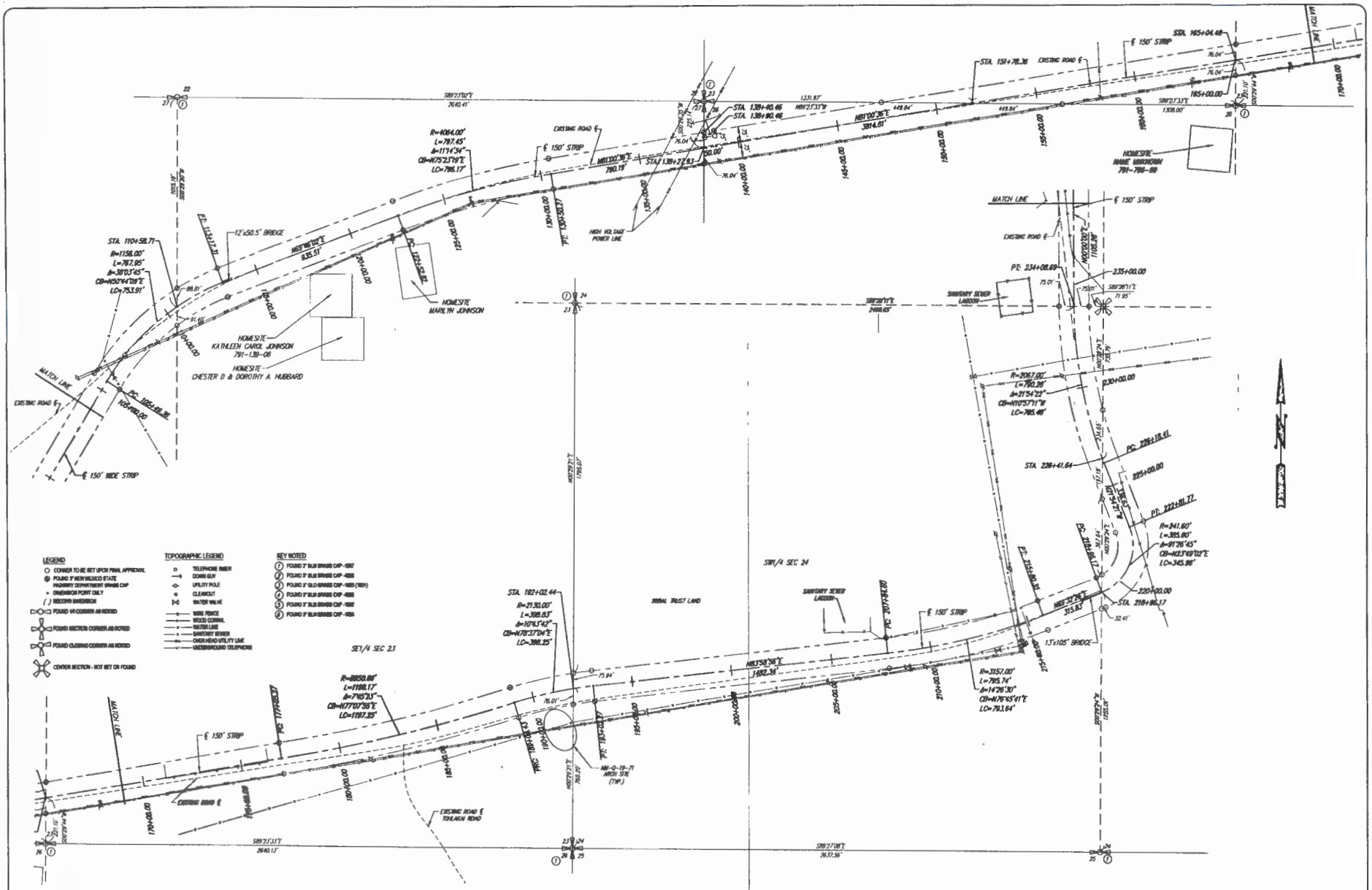
NAVAJO GALLUP WATER SUPPLY PROJECT - NEW MEXICO

SAN JUAN LATERAL - REACH 12A
TRIM LINES TO TOHLAKAI HILL
STA 12110+00 TO 12160+00
PLAN AND PROFILE

NO.	DATE	BY	CHK	DESCRIPTION
3	2011-11-18			
2	2011-11-18			
1	2011-11-18			

DESIGNED D. L. Greenfield
DRAWN B. L. Greenfield
CHECKED Linda M. Gurley
RECM. APPR. Brent K. Gilmore P.E.
APPROVED Brent K. Gilmore P.E.
DENVER, COLORADO 2011-05-20

1695-D-3
SHEET 3 OF 6



REVISED: 6/11/19

DePAULA ENGINEERING & SURVEYING LLC
- CIVIL ENGINEERS AND LAND SURVEYORS -
307 S. 4th STREET CALLUP, NM 87301
TEL: (505)863-6448 DES@CYBERTCO.COM

OFFICE OF THE CLERK - McKINLEY COUNTY, NEW MEXICO FILING INFORMATION

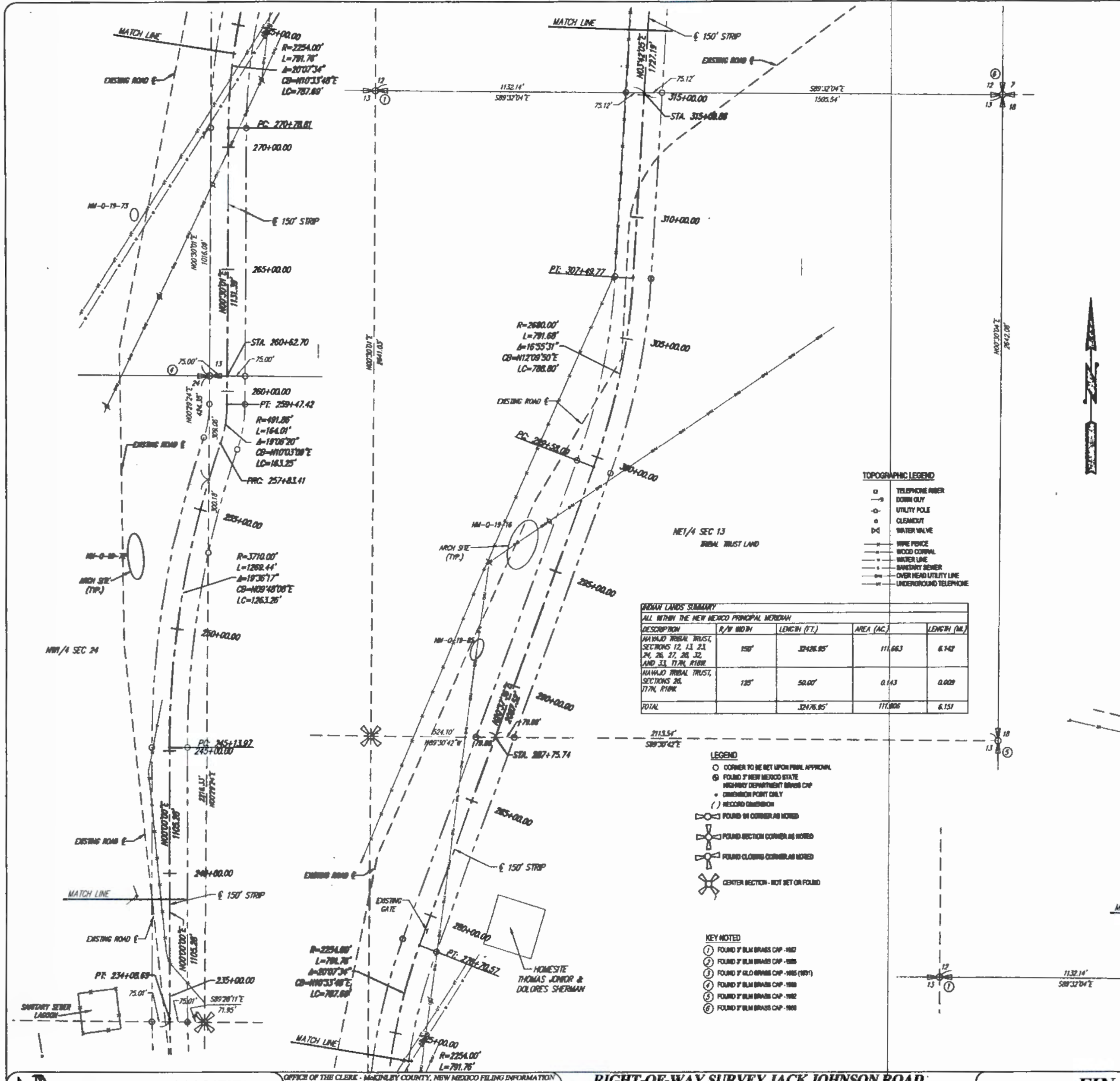
RIGHT-OF-WAY SURVEY JACK JOHNSON ROAD
COUNTY ROAD 55, NAVAJO ROUTE 9960
SITUATED IN 12, 13, 23, 24, 26, 27, 28, 32, & 33 OF T17N, R18W, N.M.P.M.
NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO

FINAL PLAT
STA. 105+00.00 - STA. 235+00.00

DRAWING No.:	DRD-JRH
DATE:	10/24/18
DRAWN BY:	RCD
CHECKED BY:	MDP

SCALE: 1" = 200'
200 100 0 200
GRAPHIC SCALE

SHEET: 4
OF: 8



INDIAN LANDS SUMMARY

ALL WITHIN THE NEW MEXICO PRINCIPAL MERIDIAN

DESCRIPTION	R/W WIDTH	LENGTH (FT.)	AREA (AC.)	LENGTH (MI.)
NAVAJO TRIBAL TRUST, SECTIONS 12, 13, 23, 24, 26, 27, 28, 32, AND 33, T17N, R18W	150'	32426.95'	111.663	6.142
NAVAJO TRIBAL TRUST, SECTIONS 26, T17N, R18W	125'	50.00'	0.143	0.009
TOTAL		32476.95'	111.806	6.151

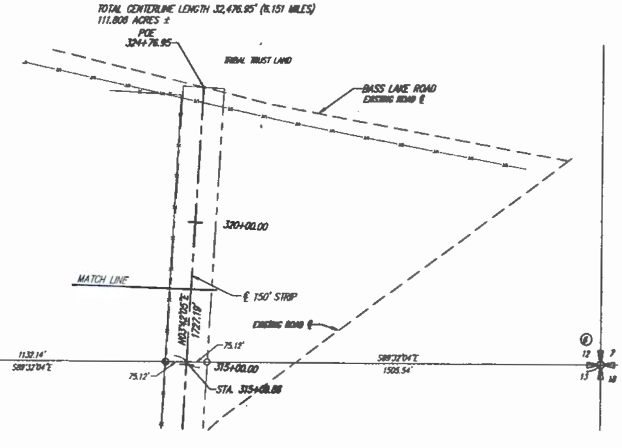
DESCRIPTION 150' WIDE STRIP:

A STRIP OF LAND 150' WIDE LOCATED IN SECTIONS 12, 13, 23, 24, 26, 27, 28, 32, AND 33 OF T17N, R18W, N.M.P.M. NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO THE CENTERLINE BEING MORE PARTICULARLY DESCRIBED WITH NEW MEXICO STATE PLANE WEST ZONE GRID BEARINGS AND GROUND DISTANCES AS FOLLOWS:

COMMENCING AT THE 1/4 CORNER COMMON TO SAID SECTION 32 & 33, THENCE N33°01'17"W, 1059.80' TO A POINT ON THE EASTERLY RIGHT-OF-WAY OF US 491 (SD-666-1(212)) AND TO CENTERLINE STATION 0+00 AND REAL POINT OF BEGINNING OF A 150' STRIP OF LAND DESCRIBED HEREIN, THE LEFT AND RIGHT SIDE LINES OF SAID STRIP BOUNDARIES LIE 75.00' AT RIGHT ANGLES EACH WAY, SIDE LINES SHORTENED OR EXTENDED TO TERMINATE AT SAID RIGHT-OF-WAY OF US 491:

THENCE N80°56'44"E, 240.33' TO A POINT OF CURVE, PC STATION 2+40.33;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 680.00', LENGTH OF 199.73', AND CHORD DIMENSIONS OF N89°21'36"E, 199.01 TO A POINT OF TANGENT, PT STATION 4+40.06;
THENCE S82°13'32"E, 628.76' TO A POINT OF CURVE, PC STATION 10+68.83;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 624.00', LENGTH OF 639.00', AND CHORD DIMENSIONS OF N68°26'17"E, 611.44' TO A POINT OF TANGENT, PT STATION 17+07.82;
THENCE N39°06'06"E, 846.63' TO A POINT OF CURVE, PC STATION 25+54.45;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 2290.50', LENGTH OF 984.57', AND CHORD DIMENSIONS OF N51°24'57"E, 977.01' TO A POINT OF TANGENT, PT STATION 35+39.03;
THENCE N63°43'49"E, 569.35' TO A POINT OF CURVE, PC STATION 41+08.37;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 3069.57', LENGTH OF 922.29', AND CHORD DIMENSIONS OF N72°20'16"E, 918.82' TO A POINT OF REVERSE CURVE, PRC STATION 50+30.66;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 4100.00', LENGTH OF 3523.63', AND CHORD DIMENSIONS OF N56°19'29"E, 3416.19' TO A POINT OF TANGENT, PT STATION 85+54.30;
THENCE N31°42'15"E, 1995.06' TO A POINT OF CURVE, PC STATION 105+49.36;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 1156.00', LENGTH OF 767.95', AND CHORD DIMENSIONS OF N50°44'09"E, 753.91' TO A POINT OF TANGENT, PT STATION 113+17.31;
THENCE N69°46'02"E, 935.51' TO A POINT OF CURVE, PC STATION 122+52.82;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 4064.00', LENGTH OF 797.45', AND CHORD DIMENSIONS OF N75°23'19"E, 796.17' TO A POINT OF TANGENT, PT STATION 130+50.27;
THENCE N81°00'36"E, 790.19' TO STATION 138+40.46 A POINT OF BEGINNING ON A 125' STRIP, THE LEFT SIDE LINES OF SAID STRIP BOUNDARIES LIE 50.00' AND RIGHT SIDE LINES OF SAID STRIP BOUNDARIES LIE 75.00' AT RIGHT ANGLES EACH WAY;
THENCE N81°00'36"E, 50.00' TO STATION 138+90.46 A POINT OF BEGINNING ON A 150' STRIP, THE LEFT SIDE LINES OF SAID STRIP BOUNDARIES LIE 75.00' AND RIGHT SIDE LINES OF SAID STRIP BOUNDARIES LIE 75.00' AT RIGHT ANGLES EACH WAY;
THENCE N81°00'36"E, 3814.81' TO A POINT OF CURVE, PC STATION 177+05.27;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 8850.86', LENGTH OF 1198.17', AND CHORD DIMENSIONS OF N77°07'55"E, 1197.25' TO A POINT OF REVERSE CURVE, PRC STATION 189+03.43;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 2130.00', LENGTH OF 398.83', AND CHORD DIMENSIONS OF N78°37'04"E, 398.25' TO A POINT OF TANGENT, PT STATION 193+02.27;
THENCE N83°58'56"E, 1482.34' TO A POINT OF CURVE, PC STATION 207+84.60;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 3157.00', LENGTH OF 795.74', AND CHORD DIMENSIONS OF N76°45'41"E, 793.64' TO A POINT OF TANGENT, PT STATION 215+80.35;
THENCE N69°32'26"E, 315.83' TO A POINT OF CURVE, PC STATION 218+96.17;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 241.60', LENGTH OF 385.60', AND CHORD DIMENSIONS OF N23°49'02"E, 345.96' TO A POINT OF TANGENT, PT STATION 222+81.77;
THENCE N21°54'21"W, 336.63' TO A POINT OF CURVE, PC STATION 226+18.41;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 2067.00', LENGTH OF 790.28', AND CHORD DIMENSIONS OF N10°57'11"W, 785.48' TO A POINT OF TANGENT, PT STATION 234+08.69;
THENCE N00°00'00"E, 1105.28' TO A POINT OF CURVE, PC STATION 245+13.97;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 3710.00', LENGTH OF 1269.44', AND CHORD DIMENSIONS OF N09°48'08"E, 1263.26' TO A POINT OF REVERSE CURVE, PRC STATION 257+83.41;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 491.86', LENGTH OF 164.01', AND CHORD DIMENSIONS OF N10°03'09"E, 163.25' TO A POINT OF TANGENT, PT STATION 259+47.42;
THENCE N00°30'01"E, 1131.39' TO A POINT OF CURVE, PC STATION 270+78.81;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 2254.00', LENGTH OF 791.76', AND CHORD DIMENSIONS OF N10°33'48"E, 787.69' TO A POINT OF TANGENT, PT STATION 278+70.57;
THENCE N20°37'36"E, 2087.52' TO A POINT OF CURVE, PC STATION 299+58.09;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 2680.00', LENGTH OF 791.68', AND CHORD DIMENSIONS OF N12°09'50"E, 788.80' TO A POINT OF TANGENT, PT STATION 307+49.77;
THENCE N03°42'05"E, 1727.19' TO THE POINT OF ENDING, STATION 324+76.95;

TOTAL CENTERLINE LENGTH 32,476.95' (6.151 MILES)
111.806 ACRES ±



REVISED: 6/13/16

DePAULI ENGINEERING & SURVEYING LLC
- CIVIL ENGINEERS AND LAND SURVEYORS -

OFFICE OF THE CLERK - McKINLEY COUNTY, NEW MEXICO FILING INFORMATION

RIGHT-OF-WAY SURVEY JACK JOHNSON ROAD
COUNTY ROAD 55, NAVAJO ROUTE 9960
SITUATED IN 12, 13, 23, 24, 26, 27, 28, 32, & 33 OF T17N, R18W, N.M.P.M.
NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO

FINAL PLAT
STA. 235+00.00 - STA. 324+76.95

SCALE: 1" = 200'
GRAPHIC SCALE: 200 100 0 200

SHEET: 5 OF: 5

THE NAVAJO NATION
Navajo Land Department
P.O. Box # 2249 · Window Rock, Arizona 86515 · (928) 871-6401 · FAX: (928) 871-7039

EXHIBIT
tabbies
C

MEMORANDUM

TO : Elerina Yazzie, Supervisor
Project Review Section, NLD

FROM : Esther Kee
Esther Kee, R/W Agent
Project Review Section, NLD

DATE : July 19, 2016

SUBJECT: McKinley County Rd 55 Right of Way

McKinley County of Post Office Box 70, Gallup, New Mexico 87305, submitted an application for right of way to realign, reconstruct and maintain County Road 55 (Jack Johnson Road) all on Navajo Trust lands near the vicinity of Bahastl'ah Chapter.

The proposed right of way will be 32,476.95 feet in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 3, T17N, R18W; 50 feet in length, 125 feet width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico.

Bahastl'ah Chapter grazing official identified nine (9) grazing permittees affected by the proposed project. I informed the land users on the proposed request and obtained their consent with no objection along with the concurrence of District 14 Grazing Committee member, Larry Tsosie.

Field clearance completed, land users consent, map and supporting documents are all attached for your information and reference.

cc: Project file

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Goerge Yazzie, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16 — Date
x George Yazzie — Land User Signature (or Thumbprint)
Census No.
14-30-96 — Permit No.

WITNESS: _____

7/15/16 — Date
Grazing Committee or Land Board Member
14-5 — District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Steve Orillie, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16 X _____ 14-14-96
Date Land User Signature (or Thumbprint) Census No. Permit No.

WITNESS: _____

7/15/16 _____ 14-5
Date Grazing Committee or Land Board Member District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

_____
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Ruth A. John**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	⊗ Ruth A John	_____	14-04-04
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		145
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained~~/~~ to the land user in Navajo~~/~~ or English// (check where applicable)

Esther Kee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Raymond King**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	⊠ Raymond King		14-10-87
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained/✓ to the land user in Navajo// or English// (check where applicable)

Esther Lee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Thelma Johnson**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	X Thelma Johnson		14-14-08
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained/~~N~~ to the land user in Navajo/~~N~~ or English// (check where applicable)

Ethel Lee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Lee Tso**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16 X Lee Tso _____ 14-13-97
Date Land User Signature (or Thumbprint) Census No. Permit No.

WITNESS: _____

7/15/16 _____ 14-5
Date Grazing Committee or Land Board Member District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained/X/ to the land user in Navajo/X/ or English// (check where applicable)

Esther Lee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Alfred John, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7-14-16	X [signature]		14-13-08
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16	[signature]	14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

[signature]
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Violet K. Tsosie**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/2016 X Violet K. Tsosie _____ 14-09-12
Date Land User Signature (or Thumbprint) Census No. Permit No.

WITNESS: _____

7/15/16 _____ 145
Date Grazing Committee or Land Board Member District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

_____
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Goerge Yazzie**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16 x George Yazzie 14-30-96
Date Land User Signature (or Thumbprint) Census No. Permit No.

WITNESS:_____

7/15/16 _____ 145
Date Grazing Committee or Land Board Member District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

_____
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Steve Orillie, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16 — Date
X _____ — Land User Signature (or Thumbprint)
_____ — Census No.
14-14-96 — Permit No.

WITNESS: _____

7/15/16 — Date
_____ — Grazing Committee or Land Board Member
145 — District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

_____
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Ruth A. John**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	⊗ Ruth A John		14-04-04
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		145
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

Esther Kee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Raymond King, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	X Raymond King		14-10-87
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained/✓ to the land user in Navajo// or English// (check where applicable)

Esther Lee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Thelma Johnson, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	Thelma Johnson		14-14-08
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

Ethel Lee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Lee Tso, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/16	X Lee Tso		14-13-97
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16		14-5
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained/X/ to the land user in Navajo/X/ or English// (check where applicable)

Ethel Kee
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Alfred John, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7-14-16	x [signature]		14-13-08
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

7/15/16	[signature]	145
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained~~by~~ to the land user in Navajo~~/~~ or English// (check where applicable)

[signature]
Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, **Violet K. Tsosie**, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7/14/2016 X Violet K. Tsosie — Census No. — 14-09-12

Date — Land User Signature (or Thumbprint) — Census No. — Permit No.

WITNESS: _____

7/15/16 — Grazing Committee or Land Board Member — 145

Date — Grazing Committee or Land Board Member — District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

Esther Lee

Field Agent Signature

CONSENT 3
(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Pamela Johnson, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **McKinley County, Post Office Box 70, Gallup, New Mexico 87305,** to use a portion of my land use area for the following purpose **Right of way to construct and maintain existing County Road 55 (Jack Johnson Road), the proposed project will be 32,476.95 feet (6.142 miles) in length, 150 feet in width, 111.663 acres, in Sections 12, 13, 23, 24, 26, 27, 28, 32, & 33, T17N, R18W; 50 feet (0.009 mile) in length, 125 feet in width, 0.143 acres, in Section 26, T17N, R18W, NMPM, McKinley County, New Mexico,** as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

07/15/2016 — Date
Pamela Johnson — Land User Signature (or Thumbprint)
, — Census No.
14-01-14 — Permit No.

WITNESS: _____

7/15/16 — Date
_____ — Grazing Committee or Land Board Member
145 — District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained// to the land user in Navajo// or English// (check where applicable)

Ethel Lee
Field Agent Signature

NAVAJO TRIBAL UTILITY AUTHORITY

AN ENTERPRISE OF THE NAVAJO NATION

May 15, 2016

Mr. Norman John, President
Bahastl'ah Chapter
PO Box 4424
Yahtahey, NM 87375

RE: Existing NTUA Waterline Right-Of-Entry Permission Approval(s)
Road Improvement Project for County Road 55 (Ex. Johnson Road)
Tohlakai, McKinley County, New Mexico

Dear Mr. John,

Please find the enclosed "Right-of-Entry Permission" document granting permission to the Bahastl'ah Chapter and McKinley County Roads Department (MCRD) to proceed with the construction of the Road Improvement Project on County Road 55 (Ex. Johnson Road) located in the vicinity of Tohlakai, McKinley County, New Mexico. The said project will be encroaching into numerous existing Navajo Tribal Utility Authority (NTUA) 30-foot Utility Right-of Ways and Easements pertaining to various existing 4-inch and 2-inch PVC waterlines and (1) existing 4-inch PVC sewerline presently located in the field.

The Road Improvement Project involves eight (8) existing waterline road crossings. Five (5) of the eight (8) existing waterline road crossings will be in conflict with the future roadway construction, which therefore calls for installing new waterline road crossing re-routes of 4-inch Ductile Iron Pipe to be installed by direct bury, spanning across the entire length of the approved 150-foot County Road 55 (CR55) Right-of-Way. In addition to the new road crossing scopes, there will be five (5) new waterline parallels included as part of the tie-in tasks that will connect the new waterline re-routes back to the existing waterlines at or just outside the ROW. All new water facilities will include the installations of the appropriate appurtenances to achieve an acceptable, protected, fully-functioning water utility distribution system.

Three (3) of the eight (8) existing waterline road crossings will not be in conflict with the future roadway construction as the new centerlines will be at or near the existing graded road centerlines. Existing utility markers located in the field and the associated I.H.S. As-Builts show that these existing waterline road crossings have adequate protection and are deemed acceptable for the road construction. As a result, these existing waterlines are to remain undisturbed and be protected in-place for the encroachment of the 150-foot CR55 ROW.

For the existing 4-inch PVC sewerline road crossing, the NTUA and the MCRD performed a potholing task at the northern side ditch of the existing graded road to determine if the existing sewerline is protected sufficiently. After excavating at said location, the existing 4-inch sewerline was field located and is adequately protected inside an 8-inch Corrugated Metal Pipe (CMP) casing and is acceptable for the upcoming roadway construction and new chip seal pavement. Contractor is to protect the existing sewerline road crossing in-place and do not disturb.

- The MCRD/Contractor shall maintain and restore the NTUA rights-of-ways/easements to its original condition upon completion of the roadway construction.
- The MCRD/Contractor shall submit to the NTUA, a detailed Cost Estimate/Cost of Plant and Bill of Materials purchased and installed for the waterline relocation construction phase of the project.
- The MCRD/Contractor shall submit a Final As-Built construction drawing plan set indicating the new utility crossing locations upon conclusion of the Road Improvement Project.
- Any utilities damaged by the MCRD/Contractor shall be repaired at its own expenses and to the satisfaction of NTUA standards and specifications.
- The NTUA reserves the right to disapprove or reject any modifications or suggested change orders to the approved design plans or this signed Right-of-Entry Permission document.

The NTUA Fort Defiance District Office personnel shall line locate (bluestake) the existing water/sewer facilities located on-site after proper notification is requested through the NTUA Call Before You Dig services at 1-800-528-5011.

Any questions or concerns can be directed to the NTUA Headquarters Water-WasteWater Operations Department at (928) 729-2340 or Ext. 6114 and also with the NTUA Fort Defiance District Office, Water/Wastewater Foreman or Superintendent at (928) 729-5721.

This Right-of-Entry Permission encroachment period is effective for the duration of the construction activities for the MCRD Road Improvement Project beginning on the date signed below by the NTUA Project Manager or Project Representative and shall remain actively in place until all construction is completed, or, for not more than One (1) Year from the date signed below by the NTUA, whichever comes first.

Signed: _____ 5-23-2016

Navajo Tribal Utility Authority (Grantor) — Date

Concurrence: _____ 23 MAY 16

Bahastl'ah Chapter Official (Grantee) — Date

Witness: _____ 5-23-16

McKinley County Roads Superintendent — Date

NAVAJO TRIBAL UTILITY AUTHORITY

AN ENTERPRISE OF THE NAVAJO NATION

May 15, 2016

RIGHT-OF-ENTRY PERMISSION

Grantee: Bahastl'ah Chapter (McKinley County Roads Department)
Project: County Road 55 (Ex. Johnson Road) Road Improvement Project
Location: Tohlakai, McKinley County, New Mexico

I, Adrian Showalter, PM (print legibly), given the authorization to grant Right-of-Entry Permissions onto the Navajo Tribal Utility Authority (NTUA) utility Right-of-Ways and Easements, hereby grant permission to the Bahastl'ah Chapter and McKinley County Roads Department (MCRD), for the purpose of roadway construction activities for the existing Johnson Road-County Road 55 (CR 55) Road Improvement Project located in the vicinity of Tohlakai, McKinley County, New Mexico.

The Right-of-Entry includes the Road Improvement Project construction activities within the approved 150-foot McKinley County Right-of-Way for CR 55, that will be encroaching into numerous existing NTUA 30-foot Utility Rights-of-Ways and Easements pertaining to the various existing 4-inch and 2-inch PVC waterlines and (1) existing 4-inch PVC sewerline that exists on-site, as shown on the attached NTUA Water Facilities Relocation Project (W.F.R.P.) design plans and the associated DePauli Engineering & Surveying Final Plat Index Map for the new 150-foot CR55 ROW.

The Bahastl'ah Chapter/MCRD and its Waterline Construction Contractor shall absolve the NTUA and its employees of any liability arising out of its described roadway construction activities. The MCRD/Contractor shall adhere to the following conditions:

- The MCRD/Contractor shall notify NTUA at least three (3) days in advance prior to commencing work within the said waterline utility easement(s).
- The MCRD/Contractor shall pick up and submit the applicable NTUA Permission-To-Tap (PTT) forms for the project at the NTUA Fort Defiance District Office and pay the associated fee.
- The MCRD/Contractor shall coordinate with the NTUA on the new waterline crossings as required on this Right-of-Entry form throughout the duration of the project and in accordance with the NTUA Utility and Road Crossing provisions. This includes a Pre-Construction Conference and Final Inspection field meeting.
- The new waterline re-routes/relocations shall cross the CR55 ROW perpendicularly, or at a 90-degree skew angle, which include the installations of new system gate valves at both sides of the new road crossings and at the entries and/or exits of the 150-foot ROW.
- There will be five (5) new waterline parallels included as part of the tie-in tasks that will connect the new waterline re-routes back to the existing waterlines at or just outside the ROW.
- The new roadway will cross above the new & existing NTUA waterlines at a minimum vertical separation of 42-inches between top of new & existing piping and the bottom of new roadway sub-grade.
- The MCRD/Contractor shall utilize the Traffic Control Plan included inside the NTUA W.F.R.P. plan set for all traffic control and anticipated detours throughout all phases of construction.
- The MCRD/Contractor shall minimize construction travel over the existing waterlines with all heavy equipment.

Refer to the approved NTUA Water Facilities Relocation Project design plans, which shall also serve as the project's Scope of Work for the project, regarding the exact waterline road crossings to be relocated & protected and those that are to remain in-place.

Please coordinate all construction activities with the NTUA Fort Defiance District Office personnel and my office for the duration of the project. If you have any questions or need any further information or requests, please contact me at (928) 729-2340 or Ext. 6114.

Sincerely,

Adrian Showalter, PM
NTUA HQ W-WW Operations Department

Attachment
Cc: Thomas Bayles, Gregory Bahe, & Gary Yellowhair – NTUA HQ ECO Divison
Wendell Damon & Dwayne Wauneka – NTUA Fort Defiance District
Rex Kontz – NTUA DGM Office
Randolph Lee – Bahastl'ah Chapter
Jeff Irving – McKinley County Roads Department
Robert Kuipers & Mel Begay – Navajo Nation Council Reps
Kurt Spolar – DePauli Engineering & Surverying, Inc.
Project File: McKinley County CR55-NTUA W.F.R.P.

United States Department of the Interior

BUREAU OF RECLAMATION
Western Colorado Area Office
Durango Field Division
185 Suttle Street, Suite 2
Durango, CO 81303-7911

IN REPLY REFER TO:

LETTER OF ACKNOWLEDGEMENT

WCD-PTirey
LND-6.00

Document No. 16-LC-48-0003

Mr. Norman John II, Chapter President
Bahastl'ah Chapter
P.O. Box 4424
Yahtahey, New Mexico

Subject: Chip Sealing Pavement Construction, Operation and Maintenance of BIA road 9660 across Bureau of Reclamation (Reclamation) Reach 12A easement, Navajo Gallup Water Supply Project (NGWSP) McKinley County, New Mexico

Dear Mr. John II,

This Letter of Acknowledgment is pursuant to a formal request by the Bahastl'ah Twin Lakes Chapter (Chapter) to cross Reclamation's easement for NGWSP Reach 12A in order to perform improvements on an existing road. See attached Vicinity Map.

The NGWSP Reach 12A easement crosses Bureau of Indian Affairs (BIA) Road 9660 (Johnson Road) at centerline station 12156+09, as shown on drawing 1695-D-3 (attached). The Reach 12A - 42-inch steel pipeline was designed to withstand HS-20 traffic loading, including temporary construction loading, with a minimum 5-feet of cover and encasement within a 54-inch steel casing at BIA Road crossings, including BIA Road 9660. The 54-inch steel casing extends 50-feet each side of the centerline of the existing road (see drawing 1695-D-15 attached).

Provided all roadway improvements are made within the limits of the 100-foot long steel casing of the Reach 12a pipeline and that the minimum cover of 5-feet is maintained as shown on McKinley County Roads Typical Sections drawing (attached) included in the Chapter's formal request, Reclamation does not have any concerns with the proposed chip sealing pavement construction across its easement as long as such activity does not unreasonably interfere with Reclamation's use of its easement, including the integrity of the NGWSP Reach 12A pipeline and appurtenances, and operation and maintenance.

BAHASTL'AH CHAPTER ACCEPTANCE:

Accepted this 19th day of July, 2016

By: _____
Norman John II
Chapter President

ACKNOWLEDGEMENT

State of Arizona)
) ss.
County of Apache)

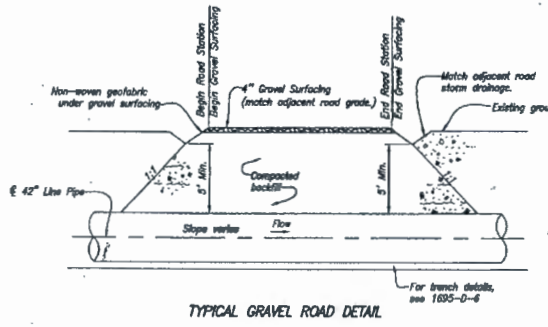
On this 19th Day of July, 2016,
Norman John II, personally appeared before me and signed/executed this document. IN WITNESS WHEREOF, I have hereunto set my hand and affixed by official seal the day and year first above written.

Notary Public in and for the
State of Arizona

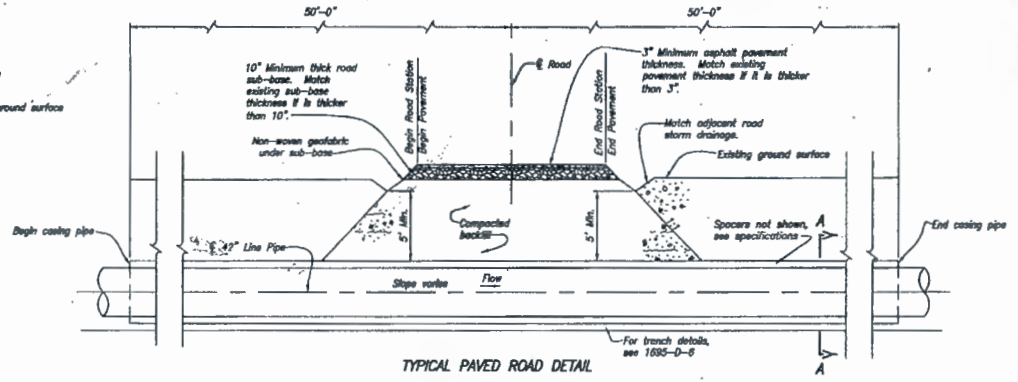
(Notary Seal)

Caseykarl Tom
Notary Public
Apache County, Arizona
My Comm. Expires 12-12-17

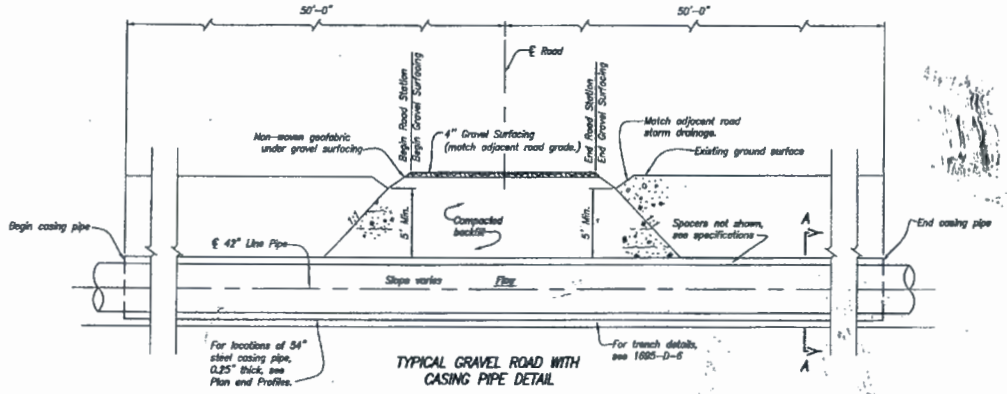
Notary Signature _____
My commission expires:
12/12/17



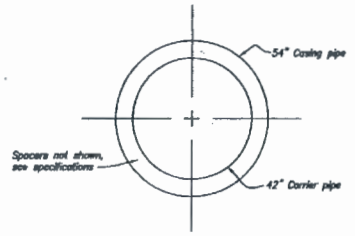
TYPICAL GRAVEL ROAD DETAIL



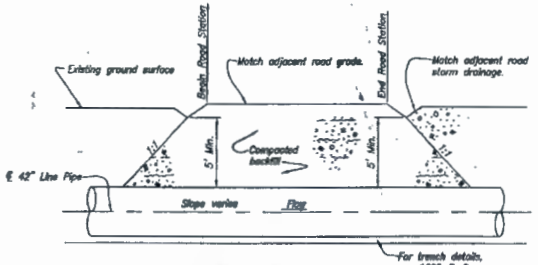
TYPICAL PAVED ROAD DETAIL



TYPICAL GRAVEL ROAD WITH CASING PIPE DETAIL



SECTION A-A



TYPICAL DIRT ROAD DETAIL
(Compacted Backfill)

CASING PIPE LOCATIONS

℄ ROAD STATION	NAME OF ROAD	SURFACING
12050+69	County Road 247B (Watson Road)	Paved
12156+09	BIA Road 9660	Gravel
12180+21	BIA Road 9681	Gravel

NOTES

1. For pipe details, road surfacing material type, and stations, see Open Cut Road Crossings Table on Plans and Profiles (1695-D-1) to (1695-D-4).
2. When pipe alignment is in the roadway, details are similar.
3. Side slopes shown are perpendicular to road centerline.
4. Placement of gravel surfacing on other roads not identified on the plan and profile drawings may be directed by COR.
5. Extend gravel surfacing along roadway 30 feet each side of pipe centerline.
6. Casing pipe joints are to be single welded lap joints.

RECLAMATION
Managing Water in the West

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

NAVAJO-GALLUP WATER SUPPLY PROJECT-NEW MEXICO

SAN JUAN LATERAL – REACH 12A
THIN LAKES TO TOHLAKAI HILL

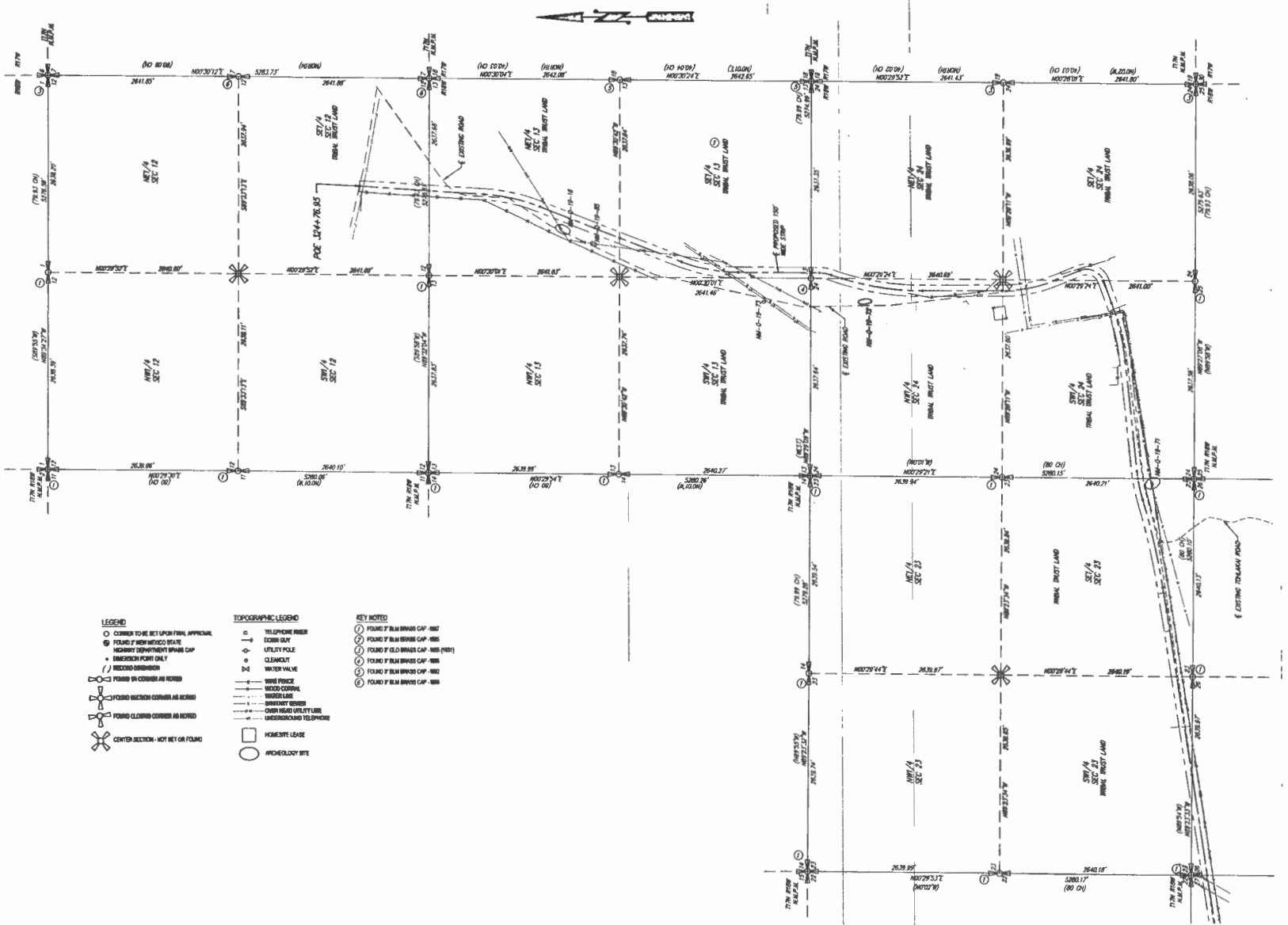
TYPICAL OPEN CUT ROAD CROSSING SECTIONS

NO.	DATE	BY	DESCRIPTION
2	9/11		
1	9/11		

DESIGNED D. L. Greenfield
DRAWN D. L. Greenfield
CHECKED Todd R. Caltrop
TECH. APPR. Todd R. Caltrop P.E.
APPROVED David K. Sherck P.E.

DENVER, COLORADO 2011-03-25

1695-D-15
SHEET 1 OF 1



DePAULI ENGINEERING & SURVEYING LLC
- CIVIL ENGINEERS AND LAND SURVEYORS -
207 E. 4th STREET GALLUP, NM 87301
TEL: (505)863-4418 DES@CYBERTEC.COM

OFFICE OF THE CLERK - McKINLEY COUNTY, NEW MEXICO FILING INFORMATION

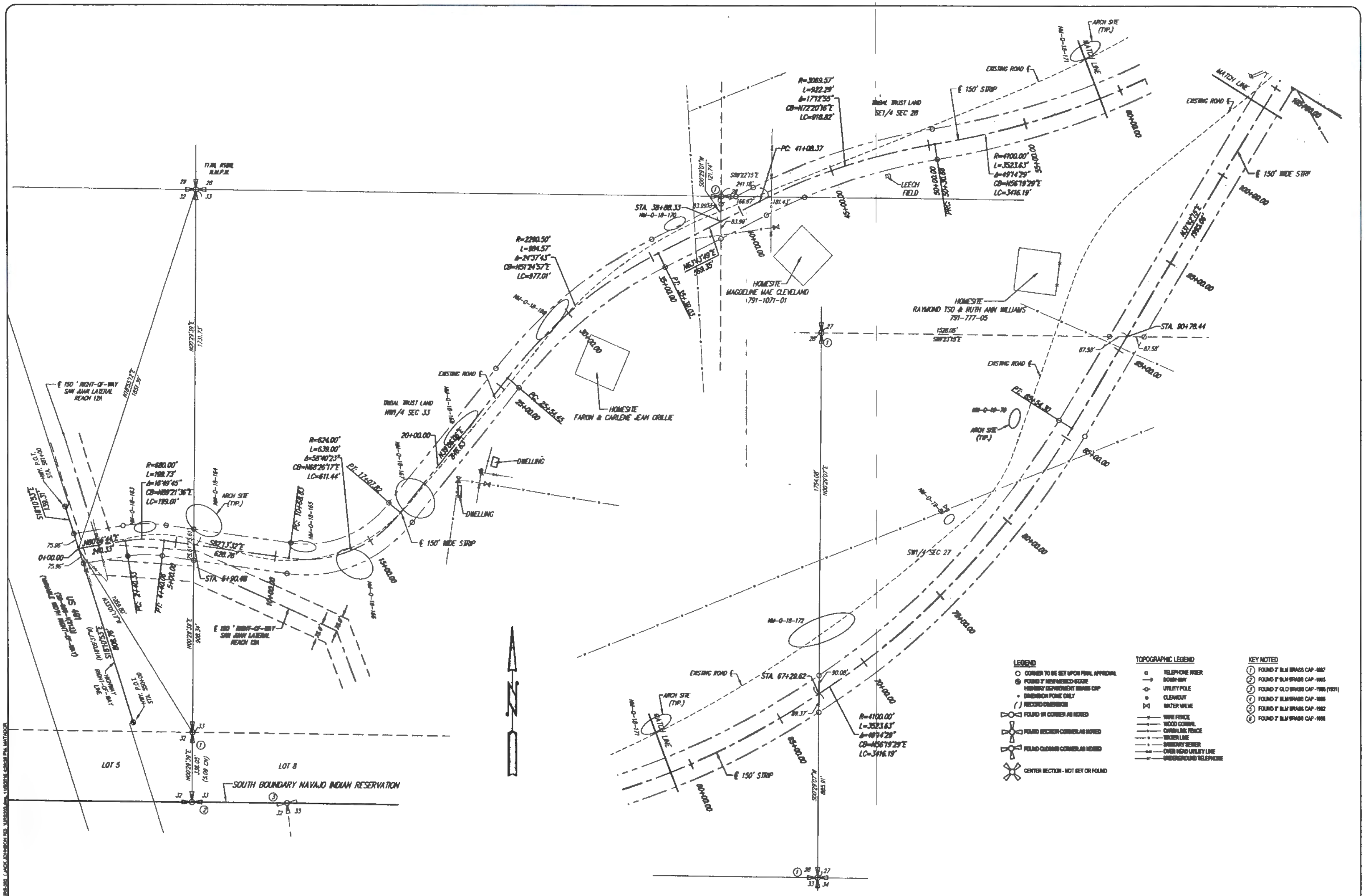
RIGHT-OF-WAY SURVEY JACK JOHNSON ROAD
COUNTY ROAD 55, NAVAJO ROUTE 9960
SITUATED IN 12, 13, 23, 24, 26, 27, 28, 32, & 33 OF T17N, R18W, N.M.P.M.
NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO

FINAL PLAT
INDEX MAP

DRAWING No.:	085-3(6)
DATE:	10/26/10
DRAWN BY:	ACS
CHECKED BY:	MDP

SCALE: 1" = 800'
800 400 0 800
GRAPHIC SCALE

SHEET: 2
OF: 6



DePAULI ENGINEERING & SURVEYING LLC
- CIVIL ENGINEERS AND LAND SURVEYORS -

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SITUATED IN 12, 13, 23, 24, 26, 27, 28, 32, & 33 OF T17N, R18W, N.M.P.M.
NAVAJO INDIAN RESERVATION, McKINLEY COUNTY, NEW MEXICO

FINAL PLAT
STA. 0+00.00 - STA. 105+00.00

DRAWING No:	U85-308
DATE:	10/21/15
DRAWN BY:	RCS
CHECKED BY:	MAP

SCALE: 1" = 200'
GRAPHIC SCALE

SHEET: 3 OF: 8

EXHIBIT
tabbies
E

United States Department of the Interior

Navajo Region
P.O. Box 1060
Gallup, NM 87305

SEP 29 2015

TAKE PRIDE IN AMERICA

MC:620/Division of Environmental, Cultural, & Safety Management

Jeff Irving, Superintendent
McKinley County Road Department
1980 Warehouse District
Gallup, New Mexico 87301

RE: Jack Johnson Road Improvement Project - McKinley County, New Mexico **EA-15-9851**

Dear Mr. Irving:

The Environmental Assessment for the McKinley County Road Department's proposed Jack Johnson Road Improvement Project, McKinley County, New Mexico, Twin Lakes Chapters, McKinley County, New Mexico has been reviewed in the Branch of Environmental Quality Act Compliance and Review, Navajo Regional Office. The County proposes to realign, reconstruct, and chip seal Jack Johnson Road (McKinley County Road 55 and Navajo Route 9960). The proposed action will not have any significant impacts on the quality of the natural and human environment.

Based on the environmental documentation, it has been determined that the proposed action will not result in any significant impacts on the quality of the natural and human environment; therefore, an environmental impact statement is not required.

The public can review the environmental assessment and associated documentation which are located at the Bureau of Indian Affairs - Navajo Nation, Branch of Environmental Quality Act Compliance and Review, 301 West Hill Street, Room 129, Gallup, New Mexico.

Should you require additional information, you may contact Ms. Harrilene J. Yazzie, Supervisory Environmental Protection Specialist, at (505) 863-8287.

Sincerely,

Regional Director, Navajo Region

Enclosure

FINDING OF NO NEW SIGNIFICANT IMPACT
JACK JOHNSON ROAD IMPROVEMENT PROJECT
EA-15-9851
McKINLEY COUNTY, NEW MEXICO

Universal Transverse Mercator (UTM) coordinates:
UTM ZONE 13, 158636 Easting and 3953135 Northing
And
165449 Easting and 3958469 Northing (North American Datum 83)

McKinley County, New Mexico

McKinly County Roads Department proposes to improve an existing road by realigning and applying asphalt and chip seal to a 7.6-mile segment of Jack Johnson Road located between the towns of Ya-Ta-Hey and Twin Lakes within the Twin Lakes Navajo Nation Chapter (Bahastl'ah Chapter) located in McKinley County, New Mexico. The surveyed project area includes an 80-foot right-of-way and a 25-foot buffer on each side (130 feet total), totaling approximately 116.8 acres. It is assumed that the total maximum area to be disturbed by project activities is approximately 73.7 acres; this calculation is based on the square footage of the 7.6-mile segment of Jack Johnson Road by the 80-foot right-of-way. The current road conditions consist of a dirt roadway that is highly eroded in some areas and difficult to traverse in all weather conditions. The roadway is also currently used as a school route. The project alignment described in this EA lies within an existing right-of-way managed by the BIA. Construction funding is from State legislative grants.

The project environmental assessment (EA) was reviewed in the Branch of National Environmental Policy Act Compliance and Review, Navajo Regional Office. Based on the environmental assessment and the mitigation measures specified in the document, it is determined that the proposed action will not have a significant impact on the natural and human environment. Therefore, in accordance with the National Environmental Policy Act, Section 102 (2) (C), an environmental impact statement will not be required.

The following references serve as basis for this decision and are incorporated in the EA document.

1. The EA discloses the environmental consequences of the proposed "Preferred" action and a "No Action" alternative (EA – Section 2.0).

2. Topography – The Proposed Action would not significantly impact or alter the current topography of the project area. The proposed project area is located in an area where previous roads and unmaintained routes have already been established. (EA – Section 4.1.1)

3. Soil Resources – The Proposed Action would impact approximately 73.7 acres of soil. A short-term increase in soil erosion and soil blowing is likely to occur during the 3-month construction phase of the Proposed Action. Because the project proposes to pave the existing roads, however, local soil erosion and soil blowing in the project area is likely to decrease long term. (EA – Section 4.1.2)

4. Geologic Setting & Mineral & Paleontological Resources – The Proposed Action road improvements are not expected to reach a sufficient depth to impact geologic resources. No

mineral and paleontological resources are known to exist in the project area and, thus, would not be affected by the Proposed Action. (EA – Section 4.1.3)

5. Water Resources - The proposed project may result in minimal, temporary impacts to surface water resources immediately adjacent to the project area. Short-term water quality impacts may result if high-intensity rainstorms occur during construction when soil is exposed and more susceptible to erosion. Best management practices (BMPs) would be required at the construction location to mitigate erosion, which would include the use of silt fences and revegetation of bare soils. The County would prepare a Stormwater Pollution Prevention Plan (SWPPP). After its completion, the Proposed Action would locally reduce the amount of sediment runoff, resulting in long-term beneficial impacts to adjacent watersheds. There are no wetlands located within the project area; therefore, there would be no impacts to wetlands from the proposed project. The project is not located near any floodplains and therefore, there would be no impacts to floodplains as a result of the proposed project. (EA – section 4.2)

6. Air Resources - The Proposed Action would result in a minor temporary increase in small particulate matter and a minimal decline in air quality and visibility, particularly during periods of active construction accompanied by high winds. There would be a short-term, temporary degradation of local air quality and visibility from the increased dust generated by construction activities and emissions from construction equipment. A long-term increase in local air quality and visibility is expected. Paving the existing dirt road would reduce the dust caused by vehicular travel. (EA – Section 4.3)

7. Living Resources - The Proposed Action would have no long- or short-term effects on wildlife, including threatened or endangered species, because none of the four species listed by the US Fish and Wildlife Service as endangered, threatened, proposed, or candidate for McKinley County have the potential to occur in the project area. Of the nine special-status species listed by the Navajo Nation Department of Fish and Wildlife, five species have the potential to occur in the project area: golden eagle, ferruginous hawk, mountain plover, peregrine falcon, and kit fox. Overall, the project may impact individuals of the five species, but is not likely to result in a trend toward federal listing or loss of viability. Since there is potential for mountain plover nesting within the project area, construction activities should be conducted outside the nesting season (March 1–September 30) or be preceded by nest surveys. NNDFW issued a Biological Resources Compliance Form (NNDFW Review No. 13SWCA-02) dated 9/15/2013 with the following conditions: 1. McKinley County will implement mitigation measures to avoid impacts to the Burrowing Owl (*Athene cunicularia*) and Mountain Plover (*Charadrius montanus*); 2) All project personnel and equipment will remain in the project area. Ground disturbance outside the proposed action area is strongly discouraged. (EA – Section 4.4.1)

8. Vegetation - Weed species, such as Russian thistle and field bindweed (Convolvulus arvensis), may be spread through the project areas as a result of soil disturbance and construction activities. To minimize the spread of weed species, the construction contractors would follow BMPs to ensure that the spread of noxious weeds would not occur. Such BMPs would include washing all equipment before and after use to minimize the spread of noxious weeds. (EA – Section 4.4.2)

9. Fish and Wildlife – Due to the staged nature of the Proposed Action, the relatively small, discrete areas of disturbance, and the availability of adjacent suitable habitat, the anticipated effects on

migratory bird populations and species as a whole would be low to negligible in the short- and long-term. No major or long-term effects on non-avian wildlife are anticipated. Based on the limited nature of ongoing and reasonably foreseeable future actions, the temporary and short-lived effects due to the project would not significantly contribute to cumulative effects on common wildlife species and migratory birds. (EA – Section 3.7.2)

10. Livestock Grazing – The Proposed Action would have no long- or short-term effects on major agricultural activities, including livestock, crops, or prime or unique farmland. The Proposed Action is not expected to affect any local livestock grazing activities, short or long term. (EA – Section 4.4.4)

11. Environmental Justice/Socio-Economics – The Proposed Action is not likely to significantly impact employment and income in the Twin Lakes area. A short-term, beneficial impact on employment and income could occur if a local contractor is hired to construct the proposed road improvements. The Proposed Action would provide beneficial impacts to minority or low-income populations in the vicinity of the project area. (Section 4.5.1)

12. Community Infrastructure - The Proposed Action would have long-term, beneficial impacts on the community infrastructure. Improving the existing roadway would allow for safer and more efficient travel along the existing route. The Proposed Action would provide long-term beneficial impacts by improving the safety of the route used by children to attend school. The McKinley County Roads Department would either keep one lane of the existing roads open or reroute traffic as necessary. Necessary precautions, including proper and visible signage, would be taken to ensure traffic safety. The Proposed Action is intended to improve traffic conditions in the project area. Proposed road improvements would provide long-term, beneficial traffic impacts for Twin Lakes Chapter residents. (EA – Section 4.5.4)

13. Land Use Plans - The proposed improvements are aligned with the Twin Lakes Chapter Land Use Plan that includes the paving of Jack Johnson Road as one of the main transportation infrastructure needs. (EA – Section 4.6.6)

14. Public Health & Safety – The Proposed Action would provide long-term beneficial impacts by improving the safety of the route used by children to attend school. (EA – Section 4.7.4)

15. Cumulative Effects - Implementation of the Proposed Action would result in primary impacts to soil, air quality, noise, and traffic disturbance where the road improvements would occur. The direct impacts would involve the disturbance of 73.7 acres of soil and associated temporary air quality impacts. Heavy equipment used for excavation and earthmoving for the road improvement project would create some local noise disturbance, but the noise is not expected to be at unsafe decibel levels. There may be some cumulative impact from the addition of construction noise to the normal traffic noise, but the impacts would not be significant. The proposed project would result in a slight temporary increase in traffic from trucks and passenger vehicles, mainly due to the contractors' presence in the project area.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared. In accordance with 25 Code of Federal Regulations 2.6, this decision may be appealed within 30 days of this notice being posted. An appeal to this decision should be made in writing to the Regional Director, BIA – Navajo Region, PO Box 1060, Gallup, New Mexico 87301.

Regional NEPA Coordinator

9/28/2015
Date

CULTURAL RESOURCES COMPLIANCE FORM
HISTORIC PRESERVATION DEPARTMENT
P O BOX 4950
WINDOW ROCK, ARIZONA 86515

3/12/99

ROUTING: COPIES TO

NM	SHPO
XX	REAL PROPERTY MGT/330
XX	NDOT

NNHPD NO. HPD-98-688
OTHER PROJECT NO.

DCD3-97-025

PROJECT TITLE: **A Cultural Resource Inventory for the Proposed Improvement of 6.35 Miles of the Navajo Route 9660 (Jack Johnson) Road, Twin Lakes, McKinley County, New Mexico.**

LEAD AGENCY: BIA/NAO

SPONSORS: 1) **Twin Lakes Chapter (Attn.: Randolph Lee), P O Box 4424, Yahtahey, New Mexico 87325**
2) **NDOT, Navajo Nation Division of Community Development, P O Box 4620, Window Rock, Arizona 86515**

PROJECT DESCRIPTION: The proposed undertaking will involve construction of 6.35 miles of gravel road, 150 foot right-of-way, over the existing Jack Johnson Road. Proposed construction and maintenance activities include: a) grading and backfilling within ROW, b) installation of drainage culverts, and c) graveling the road surface. Ground disturbance will be intensive and extensive.

LAND STATUS: Tribal Trust
CHAPTER: **Twin Lakes**
LOCATION: Unplatted & projected T17N, R18W, McKinley County, New Mexico NMPM&B

PROJECT ARCHAEOLOGIST: **Lenora Etsitty, Roger Walkenhorst, Olsen John & Julius Tulley**
NAVAJO ANTIQUITIES PERMIT NO.: Navajo Nation Code (19 NNC 1001 § 302 *et seq.*)

DATE INSPECTED: **7/15-22/97**
DATE OF REPORT: 2/98
TOTAL ACREAGE INSPECTED: **153.93**

METHOD OF INVESTIGATION: Class III pedestrian inventory with transects spaced 15 m apart.

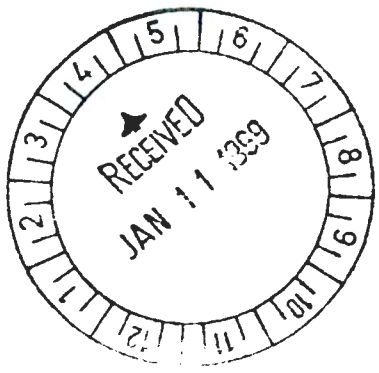
LIST OF CULTURAL RESOURCES:	**(17) Sites, (15) Isolated Occurrences (IOs), (1) Traditional Cultural Property (TCP), (3) In-use Sites (IUS)**
LIST OF ELIGIBLE PROPERTIES:	(17) NM-Q-18-163, NM-Q-18-164, NM-Q-18-165, NM-Q-18-166, NM-Q-18-167, NM-Q-18-168, NM-Q-18-169, NM-Q-18-170, NM-Q-18-171, NM-Q-18-172, NM-Q-19-69, NM-Q-19-70, NM-Q-19-71, NM-Q-19-72, NM-Q-19-73, NM-Q-19-16 & NM-Q-19-85
NON-ELIGIBLE PROPERTIES LIST:	(15) IOs, (1) TCP & (3) IUSA, IUSB & IUSC
ARCHAEOLOGICAL RESOURCES:	(17) NM-Q-18-163, NM-Q-18-164, NM-Q-18-165, NM-Q-18-166, NM-Q-18-167, NM-Q-18-168, NM-Q-18-169, NM-Q-18-170, NM-Q-18-171, NM-Q-18-172, NM-Q-19-69, NM-Q-19-70, NM-Q-19-71, NM-Q-19-72, NM-Q-19-73, NM-Q-19-16 & NM-Q-19-85

EFFECT/CONDITIONS OF COMPLIANCE: The proposed undertaking will have **no adverse effect** on historic properties identified provided that the following conditions are met.

A **testing plan**, and if necessary, a data recovery plan shall be developed and implemented in consultation with Navajo Nation Historic Preservation Department for the sites listed below. This plan must be consistent with the Navajo Nation policies and procedures, and must be approved by NNHPD.

The following sites will be **tested for nature & extent** purposes within right-of-way:

NM-Q-18-163	NM-Q-18-167	NM-Q-18-171	NM-Q-19-71
NM-Q-18-164	NM-Q-18-168	NM-Q-18-172	NM-Q-19-73
NM-Q-18-165	NM-Q-18-169	NM-Q-19-69	NM-Q-19-16
NM-Q-18-166	NM-Q-18-170	NM-Q-19-70	NM-Q-19-85



Testing plan continued:
Site **NM-Q-19-72** will be **tested for NRHP significance** purposes within right-of-way.

Also at site **NM-Q-18-168**:
1) The petroglyph panel (F-1) will be temporarily fenced on the NE (from juniper), SE & SW sides prior to all construction activity.
2) A qualified archaeologist shall be present to monitor fence placement.

Prior to any disturbance of any borrow area, material source area, staging area, outside of the area documented, NDOT/BIA shall insure that the area is evaluated for cultural resources that might be affected by this undertaking. This evaluation shall take place in consultation with Navajo Nation Historic Preservation Department.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (520) 871-7132.

FORM PREPARED BY: James Dryer
FINALIZED: January 8, 1999

Notification to
Proceed Recommended: Yes XX No __
Conditions: Yes XX No __

Alan S. Downer
Navajo Nation Historic Preservation Officer
1/11/99
Date

Agency Approval: Yes X No __

Area Director — Date 3/9/99

ENVIRONMENTAL ASSESSMENT
FOR THE JACK JOHNSON ROAD IMPROVEMENT PROJECT

Prepared for:

JEFF IRVING, SUPERINTENDENT
MCKINLEY COUNTY
ROAD DEPARTMENT
1980 Warehouse Lane
Gallup, NM 87301
(505) 722-2303

Prepared by:

SWCA ENVIRONMENTAL CONSULTANTS
5647 Jefferson St. NE
Albuquerque, NM 87109
(505) 254-1115

SWCA Project No. 25817

May 2014

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Acronyms and Abbreviations

ACS	American Community Survey
BBER	Bureau of Business and Economic Research
BIA	Bureau of Indian Affairs
BMP	best management practice
CFR	Code of Federal Regulations
County	McKinley County
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
HUC	Hydrologic Unit Code
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Agency
NMED	New Mexico Environment Department
NNDFW	Navajo Nation Department of Fish and Wildlife
NRCS	Natural Resources Conservation Service
SWCA	SWCA Environmental Consultants
SWPPP	Stormwater Pollution Prevention Plan
SWReGAP	Southwest Regional Gap Analysis Project
U.S. 491	U.S. Highway 491
UNM	University of New Mexico
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this environmental assessment (EA) on behalf of McKinley County (County) for review by the Bureau of Indian Affairs (BIA) Eastern Navajo Agency. The County is proposing to realign, reconstruct, and chip seal Jack Johnson Road, which is also referred to as McKinley County Road 55 and Navajo Route 9960, located approximately 9.5 miles north of Gallup, New Mexico (Figure 1). The Code of Federal Regulations (CFR), 40 CFR 15–1508, and the BIA National Environmental Policy Act (NEPA) Handbook were used as guidance in developing this EA. To meet the provisions of NEPA and related regulations, SWCA biologist Amanda Kuenzi surveyed the project area on April 16 and 17, 2013, under Navajo Nation Department of Fish and Wildlife (NNDFW) Biological Investigation Permit 670. The Navajo Nation Department of Transportation conducted a cultural resources survey of the project area in 1998 and a cultural resources analysis in 2013; SWCA was not tasked with the cultural resources analysis for this EA.

1.1 BACKGROUND

The County is proposing to realign Jack Johnson Road by straightening out existing curves. The current road conditions consist of a dirt roadway that is highly eroded in some areas and difficult to traverse in all weather conditions. The roadway is also currently used as a school route. The project alignment described in this EA lies within an existing right-of-way managed by the BIA. Construction funding is from State legislative grants.

1.2 PURPOSE AND NEED FOR ACTION

The purpose of the Proposed Action is to improve the safety and drainage of Jack Johnson Road, access for the adjacent communities, and the use of the roadway as a school route. In its current state, Jack Johnson Road is often impassable under wet conditions and difficult to traverse even in dry conditions because of the heavy erosion and road surface degradation that has occurred over the years. The proposed project is needed to improve basic transportation services to residents in the Twin Lakes area.

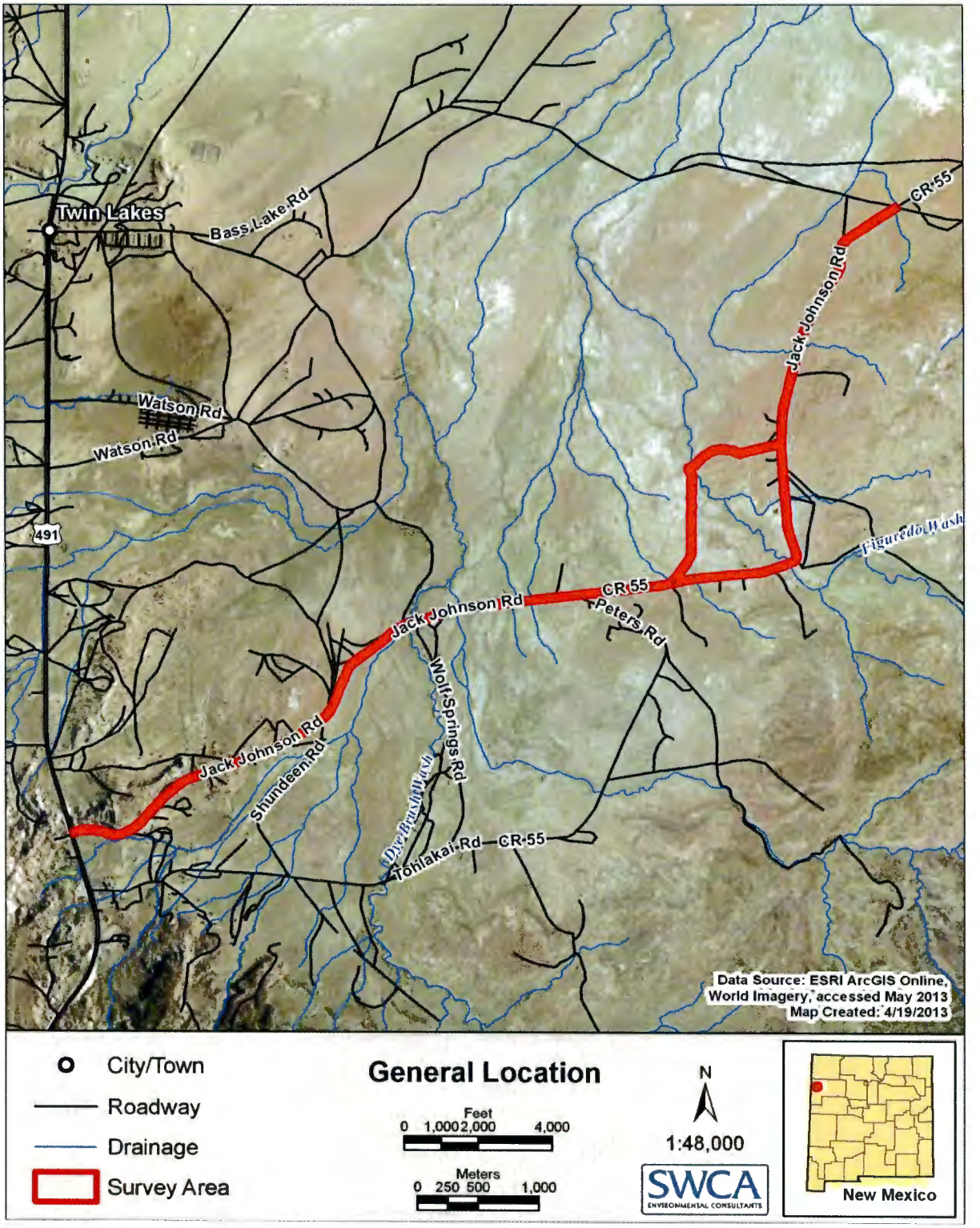

Figure 1. Project vicinity map.

2 DESCRIPTION OF ALTERNATIVES

This section describes the alternatives considered for implementation of the road improvement project proposed by the County. Two alternatives are considered in this EA, the Proposed Action (Alternative A) and the No Action Alternative (Alternative B).

2.1 ALTERNATIVE A: PROPOSED ACTION

The proposed road improvement project area consists of a 7.6-mile segment of Jack Johnson Road located between the towns of Ya-Ta-Hey and Twin Lakes within the Twin Lakes Navajo Nation Chapter, Bahastl'ah Chapter (see Figure 1). The project area that was surveyed includes an 80-foot right-of-way and a 25-foot buffer on each side (130 feet total), totaling approximately 116.8 acres. It is assumed that the total maximum area to be disturbed by project activities is approximately 73.7 acres; this calculation is based on the square footage of the 7.6-mile segment of Jack Johnson Road by the 80-foot right-of-way. The project area is found on the U.S. Geological Survey (USGS) Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangle maps. The Universal Transverse Mercator (UTM) coordinates for the end points of the project area are UTM Zone 13, 158636 Easting and 3953135 Northing, and 165449 Easting and 3958469 Northing (North American Datum 83).

The proposed road improvement project includes realignment and reconstruction improvements. Once realignment of the roadway curves is complete, project activities would include the application of asphalt and chip seal. The realignment and reconstruction improvements would occur within and outside the existing roadway prism within BIA right-of-way.

The proposed improvements are anticipated to take three months. Standard road construction equipment would be used for the proposed project, including backhoes, excavators, pavers, etc. Reconstruction of the project area would improve the safety of the roadway for the adjacent communities, including the residents of the Twin Lakes Chapter.

2.2 ALTERNATIVE B: NO ACTION

Under the No Action Alternative, the existing roads would continue to be used by area residents and the public for access to U.S. Highway 491 (U.S. 491). Under this alternative, no realignment or reconstruction of Jack Johnson Road would be undertaken. Portions of the road would continue to be unsafe due to poor visibility issues from the roadway curves and impassable and unsafe during inclement weather conditions.

3 AFFECTED ENVIRONMENT

3.1 LAND RESOURCES

3.1.1 TOPOGRAPHY

The Proposed Action is located in McKinley County, New Mexico, between the towns of Ya-Ta-Hey and Twin Lakes on Navajo Nation lands. Elevations for the project area range from approximately 6,253 to 6,489 feet above mean sea level. The entire project area is located on the Twin Lakes, NM and Big Rock Hill USGS 7.5-minute quadrangle maps. The project area intersects several drainages.

3.1.2 SOILS

The soil type mapped within the project area is the Torrifluvents-Haplargids-Haplustolls. (Natural Resources Conservation Service [NRCS] 2013a). Most of this soil type corresponds to Notal-Jocity family complex, 0% to 2% slopes (52. 1 acres), followed by Doakum-Betonnie families complex, 1% to 5% slopes (34.8 acres), Betonnie-Bond families-Skyvillage complex, 3% to 8% slopes (21.7 acres), Rock outcrop-Eagleye-Teesto family complex, 35% to 70% slopes (7.8 acres), Doakum fine sandy loam, 2% to 8% slopes (0.25 acres), and Shiprock family-Farb-Rock outcrop complex, 3% to 8% slopes (0.13 acres).

3.1.3 GEOLOGIC SETTING AND MINERAL AND PALEONTOLOGICAL RESOURCES

The surface geology within the 116.8-acre project area is the Menefee Formation (Campanian to Santonian). The primary rock type for this geology type is fine-grained mixed clastic with components of mudstone, shale, and sandstone. The secondary rock type is coal (USGS 2013).

No valuable mineral or paleontological resources are known to occur in the project area or the immediate vicinity.

3.2 WATER RESOURCES

The project area resides within the Chaco Watershed (Hydrologic Unit Code [HUC] 14080106), a watershed of the larger Upper Colorado River Basin.

The proposed project crosses several drainages, including the Dye Brush Wash (HUC 140801061002), the Figuredo Wash (HUC 140801061001), and seven unnamed drainages (see Figure 1).

The project area is not located near any floodplains.

3.2.1 WETLANDS

Wetlands include permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

Jurisdictional wetlands (i.e., those protected under Section 404 of the Clean Water Act and Executive Order 11990 and those that are classified as waters of the U.S. by the U.S. Army Corps of Engineers [USACE]) have three essential characteristics:

- Dominance by hydrophytic vegetation
- Hydric soils
- Wetland hydrology

Hydrophytic vegetation requires inundated or saturated soils. Hydric soils are ponded or flooded for a sufficient time during the growing season to develop anaerobic conditions. Wetland hydrology is the availability of surface water or groundwater (USACE 1987).

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory was consulted in order to determine whether wetlands are known from within the project area (USFWS 2013). No wetlands exist in the project area or in the immediate vicinity. No white alkaline crusts indicative of potential habitat for Parish's alkali grass (*Puccinellia parishii*) were observed during the biological survey conducted on April 16 and 17, 2013.

3.3 Air Resources

The Clean Air Act and its amendments require the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment (Public Laws 88-206, 90-148, 91-604, 95-95, and 101-549). Accordingly, the EPA has set NAAQS for six "criteria" pollutants: lead, nitrogen oxide, sulfur dioxide, carbon monoxide, particulate matter 10 microns in size and less, particulate matter 2.5 microns in size and less, and ozone (EPA 2010). The Clean Air Act also allows states to adopt additional ambient air quality standards. Although the New Mexico Environment Department (NMED) Air Quality Bureau does not conduct regional air quality monitoring, McKinley County is currently classified by the EPA as an "attainment area," which means that ambient air quality meets the standards of the levels set in the NAAQS (NMED 2010).

The project area is located within the Four Corners Interstate Air Quality Control Region 014. The closest Class I airshed is Mesa Verde National Park in southwest Colorado, approximately 150 miles north of the Proposed Action. A Class I airshed applies to large wilderness areas and national parks that require the highest level of protection under the Clean Air Act. Visibility in the area can decrease depending on wind speed and direction. Soil-blowing activity and emissions from industrial sources are likely sources of particulate matter that can decrease local visibility.

According to the Western Regional Climate Center (2010), the normal annual precipitation for the closest weather station located in Gallup (Gallup FAA AP) averaged 11.08 inches for the period of 1921 to 2013. The average maximum temperature for the area is 66.0 degrees Fahrenheit and the average minimum temperature is 31.6 degrees Fahrenheit (Western Regional Climate Center 2010).

3.4 LIVING RESOURCES

3.4.1 WILDLIFE

On behalf of the County, SWCA submitted a data request to the NNDFW prior to completing the biological field survey of the project area. The purpose of the data request was to notify the NNDFW of the proposed project and receive a list of wildlife species that are known to occur or might occur in the project area. In response to the data request, the NNDFW identified the following nine special-status species that are known to occur or have the potential to occur in the project area (written correspondence dated March 28, 2013, Sonja Detsoi, NNDFW Natural Heritage Program):

- golden eagle (*Aquila chrysaetos*)
- ferruginous hawk (*Buteo regalis*)
- Mexican spotted owl (*Strix occidentalis lucida*)
- mountain plover (*Charadrius montanus*)
- peregrine falcon (*Falco peregrinus*)
- black-footed ferret (*Mustela nigripes*)
- northern leopard frog (*Lithobates* (Rana) *pipiens*)
- kit fox (*Vulpes macrotis*)
- mule deer (*Odocoileus hemionus*)

According to the written correspondence with the NNDFW, the proposed project is located within NNDFW-designated Area 3: Low Sensitivity Wildlife Resources. This resource category is associated with a low, fragmented concentration of species of concern. Species in Area 3 may be locally abundant on "islands" of habitat, but islands are relatively small, limited in number, and well spaced across the landscape. However, the NNDFW recognizes that lands within Area 3 may not be completely surveyed for the occurrence of sensitive species or habitat.

Of the nine special-status species, five species have the potential to occur in the project area: golden eagle, ferruginous hawk, mountain plover, peregrine falcon, and kit fox. Any occurrence of golden eagle, ferruginous hawk, or peregrine falcon would likely be of short duration with the species only passing through the area, as no concentrations of prey or nesting substrates exist in the project area. Kit foxes are also possible in the project area, but with the absence of dens found during surveys, impacts to this species would be limited to noise disturbance during the construction phase. Despite the absence of prairie dog (*Cynomys* sp.) colonies, mountain plover nesting cannot be ruled out, and thus construction activities should be conducted outside the nesting season or be preceded by nest surveys. Overall, the project may impact individuals of these five species, but is not likely to result in a trend toward federal listing or loss of viability.

The Migratory Bird Treaty Act (MBTA) provides federal protection to all breeding migratory birds, including nests and eggs. The NNDFW recommends following avoidance guidelines (Mikesic and Roth 2008) if active nests are discovered within proximity to the project site. Potential raptor habitat was observed adjacent to the project area during the field investigation conducted on April 16 and 17, 2013.

Wildlife species detected within the proposed project area during the biological field surveys are included in Table 1.

Table 1. Animal Species Detected in the Proposed Project Area

Common Name	Scientific Name
Birds	
Common raven	*Corvus corax*
Dark-eyed junco	*Junco hyemalis*
American kestral	*Falco sparverius*
Sparrows	Unknown
Mammals	
Domestic cow	*Bos taurus*
Domestic horse	*Equus ferus caballus*
Kangaroo rat (burrows)	*Dipodomys* sp.
Coyote (scat)	*Canis latrans*
Small rodent (burrows)	Unknown

3.4.2 VEGETATION

The project area has been highly disturbed with the existence of an established road and the 25-foot buffer on each side of the road. On April 16 and 17, 2013, SWCA biologists observed sparse herbaceous cover and some shrub species within the 25-foot buffer on each side of the road. There are some scattered twoneedle pinyon (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) surrounding the project area. A list of plant species observed by SWCA biologists on April 16 and 17, 2013, is included in Table 2.

Table 2. Plant Species Detected in the Proposed Project Area

Common Name	Scientific Name
Shadscale saltbush	*Atriplex confertifolia*
Russian thistle*	*Salsola tragus*
James' galleta	*Pleuraphis jamesii*
Indian ricegrass	*Achnatherum hymenoides*
Fourwing saltbush	*Atriplex canescens*
Dropseed	*Sporobolus* sp.
Big sagebrush	*Artemisia tridentata*
Blue grama	*Bouteloua gracilis*
Pale desert-thorn	*Lycium pallidum*
Broom snakeweed	*Gutierrezia sarothrae*
Bottlebrush squirreltail	*Elymus elymoides*
Rubber rabbitbrush	*Ericameria nauseosa*
Field bindweed*	*Convolvulus arvensis*

*Non-native species.
Source for nomenclature and origin data: NRCS (2013b).

3.4.3 ECOSYSTEMS AND BIOLOGICAL COMMUNITIES

The USGS Southwest Regional Gap Analysis Project (SWReGAP) (2004) maps the majority of the project area as Inter-Mountain Basins Semi-Desert Grassland, Inter-Mountain Basins Semidesert Shrub Steppe, and Colorado Plateau Mixed Bedrock Canyon and Tableland, which are defined below.

Inter-Mountain Basins Semi-Desert Grassland

This widespread ecological system occurs throughout the intermountain western United States on dry plains and mesas at approximately 4,750 to 7,610 feet above mean sea level. These grasslands occur in lowland and upland areas, and may occupy swales, playas, mesa tops, plateau parks, alluvial flats, and plains, but sites are typically xeric. Substrates are often well-drained sandy or loamy-textured soils derived from sedimentary parent materials but are quite variable and may include fine-textured soils derived from igneous and metamorphic rocks. When they occur near foothill grasslands they will be at lower elevations. The dominant perennial bunch grasses and shrubs within this system are all very drought-resistant plants. These grasslands are typically dominated or co-dominated by Indian ricegrass (*Achnatherum hymenoides*), threeawn (*Aristida* spp.), blue grama (*Bouteloua gracilis*), needle and thread (*Hesperostipa comata*), muhly grass (*Muhlenbergia* sp.), or James' galleta (*Pleuraphis jamesii*) and may include scattered shrubs and dwarf-shrubs of species of sagebrush (*Artemisia* sp.), saltbush (*Atriplex* sp.), blackbrush (*Coleogyne* sp.), Mormon tea (*Ephedra* sp.), snakeweed (*Gutierrezia* sp.), or winterfat (*Krascheninnikovia lanata*).

Inter-Mountain Basins Semidesert Shrub Steppe

This ecological system occurs throughout the intermountain western United States, typically at lower elevations on alluvial fans and flats with moderate to deep soils. This semiarid shrub-steppe is typically dominated by graminoids (>25% cover) with an open shrub layer. Characteristic grasses include Indian ricegrass, blue grama, saltgrass (*Distichlis spicata*), needle and thread, James' galleta, Sandberg bluegrass (*Poa secunda*), and alkali sacaton (*Sporobolus airoides*). The woody layer is often a mixture of shrubs and dwarf-shrubs. Characteristic species include fourwing saltbush (*Atriplex canescens*), big sagebrush (*Artemisia tridentata*), Greene's rabbitbrush (*Chrysothamnus greenei*), yellow rabbitbrush (*C. viscidiflorus*), Mormon tea, rubber rabbitbrush (*Ericameria nauseosa*), broom snakeweed (*Gutierrezia sarothrae*), and winterfat. Big sagebrush may be present but does not dominate. The general aspect of occurrences may be either open shrubland with patchy grasses or a patchy open herbaceous layer. Disturbance may be important in maintaining the woody component. Microphytic crust is very important in some stands.

Colorado Plateau Mixed Bedrock Canyon and Tableland

The distribution of this ecological system is centered on the Colorado Plateau where it is composed of barren and sparsely vegetated landscapes (generally <10% plant cover) of steep cliff faces, narrow canyons, and open tablelands of predominantly sedimentary rocks, such as sandstone, shale, and limestone. Some eroding shale layers similar to Inter-Mountain Basins Shale Badland may be interbedded between the harder rocks. The vegetation is characterized by a very open tree canopy or scattered trees and shrubs with a sparse herbaceous layer. Common species include twoneedle pinyon, ponderosa pine (*Pinus ponderosa*), junipers (*Juniperus* spp.), littleleaf mountain mahogany (*Cercocarpus intricatus*), and other short-shrub and herbaceous species, utilizing moisture from cracks and pockets where soil accumulates.

3.4.4 AGRICULTURE

The project area is located near scattered agricultural lands; none of these agricultural fields are located within the Proposed Action's anticipated area of impact. Grazing occurs on the majority of the tribal trust land; grazing is limited to the allotments and does not occur within the project limits.

3.5 SOCIOECONOMIC CONDITIONS

The Twin Lakes Navajo Nation Chapter is included in the socioeconomic analysis. U.S. Census Bureau 2010 demographic profile data and 2007–2011 5-year estimates from the U.S. Census American Community Survey (ACS) for income, employment, and poverty status were compiled for the following socioeconomic evaluation. Economic data for the Twin Lakes Chapter were only available from the 2000 U.S. Census (in 1999 dollars); therefore, 2000 U.S. Census data were included for the state of New Mexico and McKinley County for comparison purposes. Additionally, 1990 and 2000 economic and demographic U.S. Census data compiled by the University of New Mexico (UNM) Bureau of Business and Economic Research (BBER) were included in the following analysis.

3.5.1 EMPLOYMENT AND INCOME

Table 3 provides the ACS 2007–2011 5-year estimates for McKinley County and the state of New Mexico, as well as 2000 U.S. Census economic data for the state of New Mexico, McKinley County, and the Twin Lakes Chapter. The 2000 median household income (in 1999 dollars) for the Twin Lakes Chapter was $21,212, $34,133 for the state, and $25,005 for McKinley County. The Twin Lakes Chapter average was thus only slightly less than the County average but considerably less than the state average median household income. The unemployment rate of 8.8% in the Twin Lakes Chapter is slightly higher than the state average of 7.3% but much less than the County rate of 17.2%. The percentage of persons living below the poverty level in the Twin Lakes Chapter is at 27%, which is less than the County percentage of 36.1%. The percentage of persons living below the poverty level is higher for both the Chapter and the County than for the state (18.4%). This high poverty rate directly correlates with the Chapter's lower median household income.

Comparing McKinley County and the State of New Mexico using the 2007–2011 U.S. Census ACS 5-year estimates, the percentage of individuals below the poverty level for the County is at 30.7%, which is considerably more than the state percentage at 19%. The median household income for the County is $31,947, which is much less than the state income of $44,631. This data demonstrate that the majority of McKinley County residents are living at a higher poverty rate and lower income rate than the majority of the state.

According to the 2007–2011 ACS economic profile data, most of the population in McKinley County held educational, health care, and social assistance occupations (30.4%), management, business, science and arts occupations (25.4%), and service-based occupations (25.2%). Similarly, the majority of the population within the Twin Lakes Chapter held management, professional, and related occupations (28.1%), and sales and office occupations (22.8%).

Table 3. Economic Characteristics

Income Characteristics	McKinley County (2007–2011 ACS)	New Mexico (2007–2011 ACS)	McKinley County (2000 Census, 1999 dollars)	New Mexico (2000 Census, 1999 dollars)	Twin Lakes Chapter (2000 Census, 1999 dollars)
Total population	71,492	2,059,179	74,798	1,819,046	2,212
Percent below poverty level (individuals)	30.7%	19%	36.1%	18.4%	27%
Median household income	$31,947	$44,631	$25,005	$34,133	$21,212
Employed civilian labor force	24,125	965,758	21,940	763,116	588
Unemployed civilian labor force	10.2%	8.2%	17.2%	7.3%	8.8%

Sources: U.S. Census Bureau 2007–2011 ACS 5-year estimates, 2000 U.S. Census Bureau economic profile data, UNM BBER profiles of selected economic, income and poverty characteristics, and general demographic characteristics from the 2000 and 1990 Censuses for New Mexico and McKinley County, New Mexico.

3.5.2 DEMOGRAPHIC TRENDS

The population of the Twin Lakes Chapter, according to the 2010 U.S. Census Bureau Profile of General Population and Housing Characteristics, was 2,212 persons (Table 4). Most of the population in the Chapter consists of American Indian at 98.9% with the next largest representation consisting of two or more races at 0.9% and the Hispanic or Latino population at 0.8%. In comparison, most of the population of the state of New Mexico is white at 68.4% with the next largest representation consisting of the Hispanic or Latino ethnic group at 46.3%. The demographic characteristics of the Twin Lakes Chapter is comparable to that of McKinley County since the majority of the County's population consists of American Indian at 75.5% and the next two largest representations consisting of white at 15.2% and Hispanic or Latino at 13.3%. The Twin Lakes Chapter populations represent the members of the Navajo Nation living within this Navajo Nation Chapter; this does not represent the entire Navajo Nation, which spans across portions of Arizona, New Mexico, and Utah and includes 300,048 enrolled members with 65,764 members residing in New Mexico (UNM BBER 2010).

Table 4. Demographic Characteristics

Race	New Mexico	McKinley County	Twin Lakes Chapter
Total Population	2,059,179 (100%)	71,492 (100%)	2,212 (100%)
White	1,407,876 (68.4%)	10,834 (15.2 %)	4 (0.2%)
African American	42,550 (2.1%)	360 (0.5%)	0 (0%)
American Indian and Alaska Native	193,222 (9.4%)	53,988 (75.5%)	2,187 (98.9%)
Asian	28,208 (1.4%)	568 (0.8%)	0 (0%)
Hispanic or Latino	953,403 (46.3%)	9,473 (13.3%)	17 (0.8%)
Some other race	308,503 (15%)	3,522 (4.9%)	1 (0%)
Two or more races	77,010 (3.7%)	2,197 (3.1%)	20 (0.9%)

Source: U.S. Census Bureau, 2010 Profile of General Population and Housing Characteristics.
Percentages do not add up to 100% due to multiple ethnic identifications.

3.5.3 LIFESTYLE AND CULTURAL VALUES

The nearest towns located within the vicinity of the project area are Ya-Ta-Hey and Twin Lakes. These are both located within the U.S.-recognized jurisdictional boundary of the Navajo Nation. The project area is located within the Twin Lakes Navajo Nation Chapter. As such, the traditional Navajo culture dominates much of the population's lifestyle and cultural values.

3.5.4 COMMUNITY INFRASTRUCTURE

The proposed project area is located just off U.S. 491 on Jack Johnson Road/N9960/CR55, approximately 9.5 miles north of Gallup, New Mexico. N9960 is used as a school route for Twin Lakes Elementary School, which is located approximately 3 miles north on U.S. 491 in Twin Lakes. In addition, Jack Johnson Road provides access for the adjacent communities to U.S. 491.

Existing community facilities in Twin Lakes include the Chapter house, Twin Lakes Headstart Preschool, and Twin Lakes Elementary School. Children in Twin Lakes also attend Tohatchi Middle School and High School and Gallup High School. The Ch'ooshgai Community School also serves children from Twin Lakes.

The Chapter house includes administrative offices and provides essential social services, such as community health, adult care, community development, Diné education, and a senior citizen center. Proposed future community facilities, as of the Twin Lakes Chapter Land Use Plan from December 2001, include a clinic, police/fire substation, post office, rodeo arena, library, and satellite community college.

3.6 RESOURCE USE PATTERNS

3.6.1 HUNTING, FISHING, AND GATHERING

Although some of these activities may occur in the greater vicinity of the proposed project area, it is unlikely that hunting, fishing, and gathering activities occur in the project area. This is likely due to the lack of an adjacent body of water for fishing and a lack of known concentrations of game species such as elk for hunting.

3.6.2 TIMBER HARVESTING

No timber harvesting activities occur in the project area.

3.6.3 MINING

No mining activities occur in the project area. Coal mining operations occur in the southwestern portion of the Chapter.

3.6.4 RECREATION

No recreation facilities currently exist in the community; however, several individual homes have roping areas and small arenas for local rodeo activities.

3.6.5 Transportation Networks

The current road conditions are heavily dependent on weather patterns. The roads can become unsafe and often impassable after rain or snow events due to the need for improved drainage and paving of the roadway.

Currently this road does not accommodate heavy traffic volumes and is used primarily by local residents and commuters. This road may serve as the primary transportation network to and from local residences and to U.S. 491.

3.6.6 Land Use Plans

The Twin Lakes Chapter Land Use Plan (December 2001) was completed under funding from the Native American Housing Assistance and Self-Determination Act of 1996 for the purpose of planning for constructing housing. Within the infrastructure analysis section of the Twin Lakes Chapter Land Use Plan, Jack Johnson Road was identified as one of the major roadways in need of paving (Redhorse, PM Planning Team 2001:C-1).

3.7 Other Values

3.7.1 Wilderness

No wilderness areas or areas that meet wilderness qualifications occur in the project area.

3.7.2 Noise

Noise is generally defined as unwanted sound. The existing roadway is primarily used by local residents of the Twin Lakes Chapter for daily commuting and residential/neighborhood access. The proposed project area can be characterized as semi-rural with scattered residences. The soundscape of the greater project area is characterized by moderate traffic noise on U.S. 491, light traffic noise on Jack Johnson Road, and low noise levels within the unoccupied open areas adjacent to the roadway. These surrounding noise levels and the temporary construction noise would be considered within the permissible noise exposure levels as described by Occupational Safety and Health Administration 1910.95(b)(2).

3.7.3 Visual Resources

The project area is located within a rural area 9.5 miles north of the urban center of Gallup. The existing roadway consists of an unpaved route surrounded by sparse to no vegetation that crosses several drainages (Figure 2–Figure 4). There is little to no light pollution in the project area. The current roadway does not have streetlights.

Figure 2. **View of Jack Johnson Road, facing west, showing the rural project area.**

Figure 3. **View facing southwest where no road currently exists and runs along a drainage.**

Figure 4. View facing southwest, showing the open and sparse landscape.

3.7.4 PUBLIC HEALTH AND SAFETY

Public health and safety is a concern with Jack Johnson's current road infrastructure due to poor sight lines located at the roadway curves. Realignment of the current roadway is necessary to improve safety for motorists and for the roadway's use as a school route for Twin Lakes Elementary School.

The nearest Emergency Management System service and police substation serving the Twin Lakes Chapter are located in Tohatchi. The McKinley County fire substation is located in Yah-ta-hey. The nearest health care facilities are located at the Tohatchi Health Center and the Gallup Indian Medical Center. No emergency services or health care services are currently available within the immediate project area.

SWCA conducted online database searches to investigate the possible presence of hazardous materials, otherwise known as recognized environmental conditions, in the project area; no potential hazardous facilities, sites, or conditions were identified. No recognized environmental conditions were identified during the 2010 field survey.

3.7.5 HAZARDOUS AND SOLID WASTES

The Resource Conservation and Recovery Act of 1976 establishes regulations regarding the generation, transportation, storage, treatment, and disposal of hazardous waste. No hazardous materials are to be used as part of the proposed project. Typical wastes associated with the proposed project would include trash and sanitary waste generated by workers.

3.7.6 ENVIRONMENTAL JUSTICE

Environmental justice refers to the "fair treatment and meaningful involvement of all peoples…with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (EPA 2011). Environmental justice has been most notably adopted at the federal level by the executive branch, specifically in Executive Order 12,898, 59 *Federal Register* 7629, which directs federal agencies to achieve environmental justice as part of their mission, by addressing and identifying disproportionally high adverse human health or environmental effects of its activities and policies on vulnerable populations, such as low income communities and communities of color.

Accordingly, as required by aforementioned Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," this EA must address environmental justice concerns, including disproportionately high and adverse human health or environmental effects to minority and/or low-income populations. According to the U.S. Census Bureau, tribal populations are considered minority populations. The median household income reported for the Twin Lakes Chapter, within the Navajo Nation, was $21,212 in 1999 and the percentage of individuals living below the poverty level was 27%. The percentage of individuals living below the poverty level in the United States in 2000 was 12.4% (U.S. Census Bureau 2000).

The socioeconomic data of the project area as presented in Section 3.5 above illustrate how the region is disadvantaged in terms of poverty level, employment, and median income when compared with the rest of McKinley County and the state of New Mexico. These socioeconomic effects are further compounded by the limited access to basic services.

4 ENVIRONMENTAL CONSEQUENCES

This section describes and analyzes the reasonably foreseeable impacts of the Proposed Action and the No Action Alternative on the resources described in Section 3.

4.1 LAND RESOURCES

4.1.1 TOPOGRAPHY

Proposed Action

The Proposed Action would not significantly impact or alter the current topography of the project area. The proposed project area is located in an area where previous roads and unmaintained routes have already been established. Some localized grading and leveling would occur within the approximate 73.7 acres that would be disturbed to meet the engineering and safety requirements of the improved road infrastructure.

No Action

The No Action Alternative would result in no impacts to local topography because no improvements would be made to the existing road.

4.1.2 SOILS

Proposed Action

Six major soil types have been identified in the project area. Table 5 provides the number of acres per soil type that would be impacted by the proposed project. Hazards for wind or water erosion in the project area range from slight to severe. The Proposed Action would impact approximately 73.7 acres of soil.

A short-term increase in soil erosion and soil blowing is likely to occur during the 3-month construction phase of the Proposed Action. Because the project proposes to pave the existing roads, however, local soil erosion and soil blowing in the project area is likely to decrease long term.

Table 5. Soil Types in the Project Area and Approximated Acreages

Soil Type	Impact from the Proposed Action (acres)
Notal-Jocity complex	52.1
Doakum-Betonnie complex	34.8
Betonnie-Bond-Skyvillage complex	21.7
Rock outcrop-Eagleye-Teesto complex	7.8
Doakum fine sandy loam	0.25
Shiprock-Farb-Rock outcrop complex	0.13
Total	**116.78**

No Action

Not improving the roads would have long-term, adverse impacts to local topsoils under the No Action Alternative. The existing size of the road footprint is approximately 73.7 acres. Prolonged use and vehicular travel along Jack Johnson Road under this alternative would continue to erode the surrounding topsoils that have been cited as having a moderate to severe susceptibility of soil blowing.

4.1.3 Geologic Setting and Mineral and Paleontological Resources

Proposed Action

The Proposed Action road improvements are not expected to reach a sufficient depth to impact geologic resources. No mineral and paleontological resources are known to exist in the project area and, thus, would not be affected by the Proposed Action.

No Action

The No Action Alternative would result in no impacts to the geologic setting and mineral and paleontological resources in the project area because no improvements would be made to the existing roads.

4.2 Water Resources

Proposed Action

Water drainage has been poor in and around the project area. Under the Proposed Action, the County would replace existing culverts and install new ones.

The proposed project may result in minimal, temporary impacts to surface water resources immediately adjacent to the project area. Short-term water quality impacts may result if high-intensity rainstorms occur during construction when soil is exposed and more susceptible to erosion. A total of 73.7 acres of soil would be exposed during construction and could contribute to an increase in suspended sediments within water runoff originating from the project area. Best management practices (BMPs) would be required at the construction location to mitigate erosion, which would include the use of silt fences and revegetation of bare soils. The County would prepare a Stormwater Pollution Prevention Plan (SWPPP).

After its completion, the Proposed Action would locally reduce the amount of sediment runoff, resulting in long-term beneficial impacts to adjacent watersheds. The existing road is not paved and is often inundated in places after storm events. The Proposed Action would pave the road, eliminate exposed sediments, and improve the drainage features to reduce sediment-related impacts to the local watersheds.

Construction activities of the Proposed Action would not reach a sufficient depth to impact groundwater.

There are no wetlands located within the project area; therefore, there would be no impacts to wetlands from the proposed project. The project is not located near any floodplains and therefore, there would be no impacts to floodplains as a result of the proposed project.

No Action

The No Action Alternative is likely to result in long-term, adverse impacts to local water resources and water quality because soils would continue to be exposed to erosion and soil blowing caused by vehicular travel along the unimproved roadway. Continued soil exposure is also likely to lead to further runoff during storm events.

4.3 Air Resources

Proposed Action

The Proposed Action would result in a minor temporary increase in small particulate matter and a minimal decline in air quality and visibility, particularly during periods of active construction accompanied by high winds. There would be a short-term, temporary degradation of local air quality and visibility from the increased dust generated by construction activities and emissions from construction equipment. This decline in local air quality is not expected to be significant, however. The Proposed Action would expose 73.7 acres of soil during construction. These short-term effects would last only as long as the estimated 3-month construction period.

While the local air quality might decrease in the short term, a long-term increase in local air quality and visibility is expected if the Proposed Action is implemented and the existing dirt road is paved and improved. Paving the existing dirt road would reduce the dust caused by vehicular travel.

No Action

The No Action Alternative would likely have adverse impacts on long-term air quality and visibility to nearby residents because some of the soils in the project area, which are highly susceptible to erosion and soil blowing, would continue to be exposed to the natural elements and vehicular travel.

4.4 Living Resources

4.4.1 Wildlife

Proposed Action

The Proposed Action would have no long- or short-term effects on wildlife, including threatened or endangered species, because none of the four species listed by the USFWS as endangered, threatened, proposed, or candidate for McKinley County have the potential to occur in the project area.

Of the nine special-status species listed by the NNDFW, five species have the potential to occur in the project area: golden eagle, ferruginous hawk, mountain plover, peregrine falcon, and kit fox. Overall, the project may impact individuals of the five species, but is not likely to result in a trend toward federal listing or loss of viability. Since there is potential for mountain plover nesting within the project area, construction activities should be conducted outside the nesting season (March 1–September 30) or be preceded by nest surveys.

No Action

The No Action Alternative would result in no impacts to wildlife in the project area because no improvements would be made to the existing roadway.

4.4.2 VEGETATION

Proposed Action

The Proposed Action would impact approximately 73.7 total surface acres as a result of construction activity. Only a very minor portion of this acreage contains vegetative cover. Weed species, such as Russian thistle and field bindweed (*Convolvulus arvensis*), may be spread through the project areas as a result of soil disturbance and construction activities. To minimize the spread of weed species, the construction contractors would follow BMPs to ensure that the spread of noxious weeds would not occur. Such BMPs would include washing all equipment before and after use to minimize the spread of noxious weeds.

No Action

The No Action Alternative would result in no additional impacts to vegetation in the project area because no improvements would be made to the existing roadway.

4.4.3 ECOSYSTEMS AND BIOLOGICAL COMMUNITIES

Proposed Action

The Proposed Action would have no long- or short-term effects on any unique ecosystems or biological communities, because none are known to occur in the project area.

No Action

The No Action Alternative would result in no impacts to any unique ecosystems or biological communities in the project area because no improvements would be made to the existing roadway.

4.4.4 AGRICULTURE

Proposed Action

The Proposed Action would have no long- or short-term effects on major agricultural activities, including livestock, crops, or prime or unique farmland.

The Proposed Action is not expected to affect any local livestock grazing activities, short or long term.

No Action

The No Action Alternative would result in no impacts to any unique agricultural activities because none are known to exist and no improvements would be made to the existing roadway.

4.5 SOCIOECONOMIC CONDITIONS

4.5.1 EMPLOYMENT AND INCOME

Proposed Action

The Proposed Action is not likely to significantly impact employment and income in the Twin Lakes area. A short-term, beneficial impact on employment and income could occur if a local contractor is hired to construct the proposed road improvements.

No Action

The No Action Alternative would not significantly impact employment and income in the Twin Lakes area.

4.5.2 DEMOGRAPHIC TRENDS

Proposed Action

The Proposed Action would not impact demographic trends.

No Action

The No Action Alternative would not impact demographic trends.

4.5.3 LIFESTYLE AND CULTURAL VALUES

Proposed Action

The Proposed Action would not impact lifestyle and cultural values.

No Action

The No Action Alternative would not impact lifestyle and cultural values.

4.5.4 COMMUNITY INFRASTRUCTURE

Proposed Action

The Proposed Action would have long-term, beneficial impacts on the community infrastructure. Improving the existing roadway would allow for safer and more efficient travel along the existing route. The Proposed Action would provide long-term beneficial impacts by improving the safety of the route used by children to attend school.

No Action

The No Action Alternative would have long-term, adverse impacts to those residents that need improved roads to commute and get around the Twin Lakes area. The existing conditions of the roads would restrict residents from safely reaching their homes or jobs during inclement weather.

4.6 RESOURCE USE PATTERNS

4.6.1 HUNTING, FISHING, AND GATHERING

Proposed Action

The Proposed Action would not impact hunting, fishing, or gathering resource uses because these activities do not occur in the project area.

No Action

The No Action Alternative would not impact hunting, fishing, or gathering resource uses because they do not occur in the project area.

4.6.2 TIMBER HARVESTING

Proposed Action

Timber harvesting does not occur in the project area. As a result, the Proposed Action would not impact timber harvesting resources.

No Action

Timber harvesting does not occur in the project area. As a result, the No Action Alternative would not impact timber harvesting resources.

4.6.3 MINING

Proposed Action

Mining activities do not occur in the project area. As a result, the Proposed Action would not impact mining resources.

No Action

Mining activities do not occur in the project area. As a result, the No Action Alternative would not impact mining resources.

4.6.4 RECREATION

Proposed Action

The Proposed Action is likely to provide long-term benefits for recreation purposes by creating a safer and passable roadway for recreationists in the future.

No Action

The No Action Alternative would not improve the existing roads. As a result, the roadway would continue to be unsafe and often impassable, adversely affecting those who use this roadway as a means to seek recreation opportunities.

4.6.5 Transportation Networks

Proposed Action

The Proposed Action is intended to improve traffic conditions in the project area. Proposed road improvements would provide long-term, beneficial traffic impacts for Twin Lakes Chapter residents. The proposed project would improve 7.6 miles of the transportation route within the Twin Lakes area by creating a paved road with improved features to prevent unsafe travel conditions during poor and inclement weather.

As a result of the 3-month construction period, a short-term closure of the roadway would occur. Commuters would still have necessary access to their residences or local facilities by alternate means, however. The McKinley County Roads Department would either keep one lane of the existing roads open or reroute traffic as necessary. Necessary precautions, including proper and visible signage, would be taken to ensure traffic safety.

No Action

The No Action Alternative would not improve the traffic safety in and around the Twin Lakes area. This alternative would maintain the unpaved and poorly drained road conditions along 7.6 miles of roadway. The No Action Alternative would allow unsafe and impassable road conditions to continue.

4.6.6 Land Use Plans

Proposed Action

The proposed improvements are aligned with the Twin Lakes Chapter Land Use Plan that includes the paving of Jack Johnson Road as one of the main transportation infrastructure needs.

No Action

The No Action Alternative would not implement the planning efforts of the Twin Lakes Chapter.

4.7 Other Values

4.7.1 Wilderness

Proposed Action

No wilderness areas or areas that meet wilderness qualifications occur in the project area. As such, the Proposed Action would have no impact on wilderness values.

No Action

No wilderness areas or areas that meet wilderness qualifications occur in the project area. As such, the No Action Alternative would have no impact on wilderness values.

4.7.2 NOISE

Proposed Action

Based on the current use and proposed condition of the improved road, it is likely that typical automobiles, medium trucks, and a few large trucks would travel along the proposed project roadway at speeds ranging from 20 to 40 miles per hour. While no data exist on current road use in the project area, it is unlikely that the new road would accommodate large volumes of traffic because of the relatively rural setting.

The Proposed Action would allow residential traffic to travel faster along the improved roadway. As a result, a small increase in ambient noise levels may be expected. Jack Johnson Road is not considered a major thoroughfare, however, and is used primarily by local community members for residential access. Given the rural nature of the project area, the impact of long-term noise from the Proposed Action would be negligible, especially in comparison to the adjacent high ambient noise levels from U.S. 491.

Short-term increases in local noise levels could be expected during the construction phase of the road improvements. These temporary noise alterations would only occur during normal daytime, business hours. The construction phase is not expected to exceed 3 months in duration.

No Action

The No Action Alternative would cause no additional noise because no improvements would be made to the existing roadway.

4.7.3 VISUAL RESOURCES

Proposed Action

The existing roadway is currently part of the landscape in the project area. As such, the Proposed Action would create long-term alterations to visual resources of Twin Lakes area. This would include modifications to the existing roadway, including an asphalt road surface.

The Proposed Action would result in short-term, temporary impacts to visual resources during the construction phase of the project. During the approximated 3-month construction period, construction vehicles, materials, and field crew members would be visible to commuters, travelers, and residents living along the project area.

No Action

There would be no change in long- or short-term impacts to visual resources under the No Action Alternative.

4.7.4 PUBLIC HEALTH AND SAFETY

Proposed Action

The Proposed Action would improve Jack Johnson Road, which can be unsafe and impassable, particularly during storm events. As such, the proposed road improvements would be beneficial to long-term public health and safety. Jack Johnson Road is also used as a school route for Twin

Lakes Elementary School. The Proposed Action would provide long-term beneficial impacts by improving the safety of the route used by children to attend school. The Proposed Action would also result in improved access for emergency service vehicles.

There are no known recognized environmental conditions attributed to facilities or past land uses in the proposed project area. It is unlikely that any environmental conditions involving hazardous materials would be encountered during construction in the proposed project area. Safety measures during construction would be followed, and work would cease if hazardous materials were encountered. No adverse impacts to public health and safety are anticipated.

No Action

The No Action Alternative would continue to have adverse impacts on public health and safety, as the unimproved roadway would continue to be unsafe and often impassable.

4.7.5 Hazardous and Solid Wastes

Proposed Action

No hazardous wastes would be generated by the Proposed Action. Sewage would be contained within chemical toilets, and none would be released. Trash would be contained during construction in maintained trash bins that would be emptied as necessary.

No Action

There would be no wastes generated under the No Action Alternative.

4.7.6 Environmental Justice

Proposed Action

The Proposed Action would provide beneficial impacts to minority or low-income populations in the vicinity of the project area. The residents of the Twin Lakes Chapter of the Navajo Nation would benefit from both an improved transportation route within their neighborhoods and an improved route to the larger Twin Lakes community. The Proposed Action would also improve the safety of the existing route under all weather conditions.

No Action

The No Action Alternative would not improve the road and thereby result in adverse impacts to minority or low-income populations in the vicinity of the project area. The residents of the Twin Lakes Chapter of the Navajo Nation and other nearby communities would continue to use the unpaved and under-engineered roadway as a transportation route in and around the Twin Lakes area.

5 CUMULATIVE EFFECTS ANALYSIS

5.1 CUMULATIVE ACTIONS

The EA must consider the cumulative effects of the action alternatives in conjunction with other federal and non-federal activities. A cumulative impact to the environment results from the incremental impact of a Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over the period of time in which the action alternatives would take place.

An additional roadway within the project area that is also being upgraded by McKinley County is Deer Springs Road, located approximately 13 miles northwest of the Proposed Action. The Deer Springs Road improvements project would likely occur subsequent to the Jack Johnson Road proposed project; therefore, it would not have any direct cumulative impacts on the Proposed Action.

County Road 19 is another McKinley County roads project that is not located in the project area but is located within the County 10.9 miles northeast of Thoreau, New Mexico. The proposed project would include clearing, grubbing, and possible realignment for 7 miles in length. The County Road 19 project would not impact the Proposed Action due to its location 47 miles southeast of Twin Springs.

With implementation of the Proposed Action, the primary impacts would concern soil, air quality, noise, and traffic disturbance where the road improvements would occur. The direct impacts would involve the disturbance of 73.7 acres of soil and associated temporary air quality impacts. Heavy equipment used for excavation and earthmoving for the road improvement project would create some local noise disturbance, but the noise is not expected to be at unsafe decibel levels. There may be some cumulative impact from the addition of construction noise to the normal traffic noise, but the impacts would not be significant. The proposed project would result in a slight temporary increase in traffic from trucks and passenger vehicles, mainly due to the contractors' presence in the project area.

6 MITIGATION MEASURES

6.1 SOILS AND VEGETATION

Due to the soil disturbance associated with the proposed project, weeds and invasive plants could become established. With prompt reclamation and landscaping in areas of surface disturbance, the long-term impact to vegetation from weeds will be minimized. The County will develop an erosion control plan as part of normal operating procedures that will be implemented as part of the County's SWPPP.

6.2 WATER RESOURCES

The proposed project may result in minimal, temporary impacts to surface water resources immediately adjacent to the project area. Short-term water quality impacts may result if high-intensity rainstorms occur during construction when soil is exposed and more susceptible to erosion. BMPs would be required at the construction location to mitigate erosion, which would include the use of silt fences and revegetation of bare soils. McKinley County will be responsible for implementing the County's standard SWPPP during construction.

6.3 AIR QUALITY

Due to the construction activity associated with the proposed project, temporary impacts to local air quality may occur. In order to minimize the effects on local air quality, regular watering of disturbed areas will be made during construction to reduce dust and other particulate matter.

6.4 TRANSPORTATION NETWORKS

Temporary signage will be posted on the affected roadways during construction. Alternative access routes will be provided to local residents and business owners during the construction phase of the proposed project.

6.5 NOISE

Equipment and machinery installed at the project site will meet all local, state, and federal noise regulations.

6.6 CULTURAL RESOURCES

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project will by halted and the contractor will stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured and access to the sensitive area restricted. The contractor will inform the Twin Lakes Chapter immediately. The Navajo Nation Historic Preservation Department will also be notified. Work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with all applicable cultural resource laws.

7 CONSULTATION AND COORDINATION

7.1 SUMMARY OF CONSULTATION AND COORDINATION

Prior to the survey fieldwork, SWCA conducted records searches through the NNDFW species of concern list for the USGS Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangle maps online in April 2013 (Mikesic and Roth 2008).

SWCA submitted a data request to the NNFWD on March 18, 2013. The NNFWD responded on March 28, 2013 (see Appendix A).

8 LIST OF PREPARERS

Sarah Browne, NEPA Specialist
SWCA Environmental Consultants
5647 Jefferson St. NE
Albuquerque, NM 87109
sgilstrap@swca.com

Amanda Kuenzi, Biologist
SWCA Environmental Consultants
5647 Jefferson St. NE
Albuquerque, NM 87109

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APPENDIX A
NNFWD RESPONSE

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NAVAJO NATION
Department of Fish & Wildlife
Navajo Natural Heritage Program
P.O. Box 1480
Window Rock, AZ 86515

Phone: 928.871.6472 • Fax: 928 871 7603 • http://nnhp.nndfw.org

Ben Shelly, President — Rex Lee Jim, Vice President

28 March 2013 — File#13SWCA-02

Jean-Luc E. Catron, Ph.D., Sr. Ecologist
SWCA, Environmental Consultants
5647 Jefferson NE
Albuquerque, NM 87109

NAVAJO ENDANGERED SPECIES LIST (NESL) INFORMATION FOR:

PROJECT: JACK JOHNSON RD (McKINLEY COUNTY RD 55, NAVAJO ROUTE 9960)
LEGAL DESCRIPTION T17N, R18W, SEC. 12, 13, 23, 24, 26, 27, 28, 32, 33
TWIN LAKES, McKINLEY COUNTY, NM

Mr. Catron:

The following information on species of concern[1] is provided in response to your 18 March 2013 request concerning the subject project, which consists of the proposed realignment and complete re-construction of Jack Johnson Road (McKinley County Rd 55, Navajo Route 9960), located in legal description T17N, R18W, Section 12, 13, 23, 24, 26, 27, 28, 32, 33, Twin Lakes, McKinley County, NM.

Each 7.5-minute quadrangle containing project boundaries is addressed separately below. For potentially occurring species these species lists are quadrangle-specific rather than project-specific. Potential for species has been determined primarily on quadrangle-wide coarse habitat characteristics and species range information. Your project biologist should determine habitat suitability at the project site(s).

A total of nine (09) species both known and/or potential are included in this response. They are:

	SCIENTIFIC NAME	COMMON NAME	NESL STATUS	FEDERAL STATUS AND/OR *MBTA
1.	*Aquila chrysaetos*	Golden Eagle	G3	MBTA
2.	*Buteo regalis*	Ferruginous Hawk	G3	MBTA

[1]"Species of concern" include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For each species, the following tribal and federal statuses are indicated: Navajo Endangered Species List (NESL), federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate or NESL group 4 status; please be aware of these species during surveys and inform the NFWD of observations. Documentation that these species are more numerous or widespread than currently known, and addressing these species in project planning and management is important for conservation and may contribute to ensuring they will not be uplisted in the future. Species without ESA or NESL legal protection (e.g., NESL group 4 species) are only included in responses on a regular basis and may not be included in this response. Please refer to the NESL for a list of group 4 species; contact me if you need a copy.

3.	*Charadrius montanus*	Mountain Plover	G4	ESA Proposed Threatened; MBTA.
4.	*Falco peregrinus*	Peregrine Falcon	G4	MBTA
5.	*Lithobates pipiens*	Northern Leopard Frog	G2	
6.	*Mustela nigripes*	Black-footed Ferret	G2	ESA Endangered
7.	*Odocoileus hemionus*	Mule deer		This species is of cultural and economic significance.
8.	*Strix occidentalis lucida*	Mexican Spotted Owl	G3	ESA Threatened; MBTA.
9.	*Vulpes macrotis*	Kit Fox	G4	

*MBTA - Migratory Bird Treaty Act

TWIN LAKES, NM 7.5-MINUTE QUADRANGLE

Project Location: Jack Johnson Road

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Buteo regalis*
3. *Charadrius montanus*
4. *Mustela nigripes*
5. *Odocoileus hemionus*
6. *Strix occidentalis lucida*
7. *Vulpes macrotis*

AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

BIG ROCK HILL, NM 7.5-MINUTE QUADRANGLE

Project Location: Jack Johnson Road

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Buteo regalis*
3. *Charadrius montanus*
4. *Falco peregrinus*
5. *Mustela nigripes*
6. *Lithobates pipiens*
7. *Strix occidentalis lucida*
8. *Vulpes macrotis*

AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

Potential for the black-footed ferret should be evaluated if prairie-dog towns of sufficient size (per NFWD guidelines) occur in the project area.

Potential for Puccinellia parishii should be evaluated if wetland conditions exists that contain white alkaline crusts.
Biological surveys need to be conducted during the appropriate season to ensure they are complete and accurate please refer to NN Species Accounts.[4] Further questions pertaining to surveys should be referred to Species Account. Surveyors on the Navajo Nation must be permitted by the Director, NFWD. Contact Jeff Cole at (928) 871-6595 for permitting procedures. Questions pertaining to surveys should be directed to the NFWD Zoologist (Chad Smith) for animals at 871-7070 and Botanist (Andrea Hazelton) for plants at (928)523-3221. Questions regarding biological evaluations should be directed to Pamela Kyselka (Acting Environmental Reviewer) at 871-7065.

Potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the 'Corps of Engineers Wetlands Delineation Manual' (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the NFWD's Natural Heritage Program (NHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NHP). The NHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation.

The information in this report was identified by the NFWD's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is strongly recommended. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on-site surveys. Also, because the NFWD's information is continually updated, any given information response is only wholly appropriate for its respective request.

For a list of sensitive species on the Navajo Nation in addition to the species listed on the Navajo Endangered Species List (NESL) please refer to our website at www.nndfw.org.

An invoice for this information is attached.

If you have any questions I may be reached at (928) 871-6472.

Sonja Detsoi, Wildlife Tech.
Natural Heritage Program
Department of Fish and Wildlife

xc: file/chrono

[4] Available free of charge on our website at http://nhp.navajofishandwildlife.org/

NAVAJO D.O.T.

AVAJO DIVISION OF TRANSPORTATION

POST OFFICE BOX 4620
WINDOW ROCK, ARIZONA 86515

TEL: 505-371-8300
FAX: 505-371-8399

MEMORANDUM

TO : Randolph Lee
Acting President/Vice President of Twin Lakes Chapter

FROM :
Lenora Etsitty, Archaeologist
Navajo Division of Transportation

DATE : September 11, 2012

SUBJECT: **Archaeological Report**

This memorandum is in reference to your request of a copy of the Archaeological Report for 6.35 miles of Navajo Route 9660 (Jack Johnson Road), in the vicinity of Twin Lakes, McKinley County, New Mexico. HPD 98-688 (DCD3 97-025)

Please **read** the compliance form, it has the recommendation for each site (s), the Isolated Occurrences, In Use sites and the Traditional Cultural Property effect and condition.

If you should have any question regarding the report and/or the compliance forms please don't hesitate to call (505) 371-8300 x 8347 or email: letsitty@navajo.dot.org . Thank you.

Lenora

CC: Ben Bennett, Deputy Director
Taft Blackhorse, Department Manager

HPD-98-688

A Cultural Resource Inventory for the Proposed Improvement of 6.35 Miles of the Navajo Route 9660 (Jack Johnson) Road, Twin Lakes, McKinley County, New Mexico.

DCD3-97-025

NM-Q-19-16

Navajo Nation Department of Transportation

FEBRUARY 1998

A CULTURAL RESOURCE INVENTORY FOR THE PROPOSED IMPROVEMENT OF 6.35 MILES OF THE N 9660 (JACK JOHNSON) ROAD, TWIN LAKES, McKINLEY COUNTY, NEW MEXICO.
DCD3 97-025

August 13, 1998

Prepared by
Lenora M. Etsitty, Archaeological Tech. II
Navajo Department of Transportation
Navajo Nation Division of Community Development
With contributions by Roger N. Walkenhorst, Olsen John, and Julius Tulley.

Submitted by

Mr. John Hunt, Executive Director
Navajo Nation Division of Community Development
P.O. Box 1896
Window Rock, Arizona 86515

Submitted to

Navajo Nation Historic Preservation Officer
Navajo Nation Historic Preservation Department
Division of Natural Resources
P.O. Box 4950
Window Rock, Arizona 86515

Prepared for

Navajo Department of Transportation
Navajo Nation Division of Community Development
P.O. Box 4620
Window Rock, Arizona 86515

Navajo Nation Authorization: Tribal Code

ABSTRACT

A CULTURAL RESOURCE INVENTORY FOR THE PROPOSED IMPROVEMENT OF 6.35 MILES OF THE N 9660 (JACK JOHNSON) ROAD NEAR TWIN LAKES, McKINLEY COUNTY, NEW MEXICO. DCD3 97-025

On behalf of Twin Lakes Chapter, Fort Defiance Agency, and McKinley County, New Mexico, a cultural resource inventory has been completed for the proposed improvement of Jack Johnson Road near Twin Lakes, McKinley County, New Mexico. This work was conducted to evaluate the potential for this undertaking to affect significant cultural properties and to meet the requirements of Section 106 of the National Historic Preservation Act. Disturbance is expected to be extensive, with the use of heavy equipment for grading and the placement of drainage culverts.

The field work was conducted by Roger Walkenhorst, Archaeologist III; Olsen John, Archaeological II; Lenora Etsitty, Archaeological Tech. II; and Julius Tulley, Cultural-Specialist of the Department of Transportation, Navajo Nation Division of Community Development. The work was completed September 23, 1997. Ethnographic information was gathered by Cultural Specialist, Julius Tulley; and Bennie Williams, NDOT R-O-W Agent I; during the initial phase of the project.

The project is located near Twin Lakes, McKinley County, New Mexico in unplatted sections of those areas within the U.S.G.S. 7.5' Quadrangles, Twin Lakes, NM 1963, and Big Rock Hill, NM 1963 (Photo-revised 1979). The total of 6.35 miles of road with a Right-Of-Way of 200 feet, (153.92 acres, 62.29 ha.) will be affected by this project, all of which was inspected for this project.

Thirty-five cultural resources were located within the project area. These resources include 12 newly discovered and documented sites, NM-Q-18-165, NM-Q-18-167, NM-Q-18-168, NM-Q-19-170, NM-Q-19-171, NM-Q-19-172, NM-Q-19-69, NM-Q-19-70, NM-Q-19-71, NM-Q-19-72, NM-Q-19-73 and NM-Q-19-85; five previously recorded sites, NM-Q-18-163 (LA 3562), NM-Q-18-164 (LA 10903), NM-Q-18-166, NM-Q-18-169 (LA 10788), and NM-Q-19-16; three In-Use sites (IUS#1-3), and fifteen Isolated Occurrences (IO's A-O). One Traditional Cultural Property was identified within the right-of-way, but had been completely dismantled with no existing surface evidence.

Sixteen sites (NM-Q-18-163, NM-Q-18-164, NM-Q-18-165, NM-Q-18-166, NM-Q-18-167, NM-Q-18-168, NM-Q-18-169, NM-Q-18-170, NM-Q-18-171, NM-Q-18-172, NM-Q-19-69, NM-Q-19-70, NM-Q-19-71, NM-Q-19-72, NM-Q-19-73, NM-Q-19-16 and NM-Q-19-85) appear to be eligible for the National Register of Historic Places. They appear to possess integrity, meet the general 50 year guidelines, and appear to meet criterion "d" for Register consideration The In-Use sites (IUS#1-3) nor the Isolated Occurrences (IO's A-O) meet the criteria to NRHP. No sites are eligible for protection under AIRFA. As the project is currently designed, and if the management recommendations are followed, the undertaking should have **no adverse effect** on significant historic properties and a notice to proceed is recommended.

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INTRODUCTION

On behalf of the Twin Lakes Chapter, Mr. Amos Detsoi, Chapter President, BIA Fort Defiance Agency, and McKinley County New Mexico, a cultural resource inventory has been completed for the proposed improvements to Navajo Route 9660 near Twin Lakes, McKinley County, New Mexico. This work was conducted to evaluate the potential for this undertaking to affect significant cultural properties. For the purpose of this project, the Bureau of Indian Affairs is the lead Agency for meeting the requirements of Section 106 of the National Historic Preservation Act.

Fieldwork was conducted by Roger Walkenhorst, Archaeologist III; Olsen John, Archaeologist II; Lenora Etsitty, Archaeological Tech. II; Mandy Warren Archaeologist Aide; and Julius Tulley, Navajo Cultural Specialist; of the Department of Transportation, Navajo Nation Division of Community Development. The work was completed on July 15 thru 22, 1997.

DESCRIPTION OF UNDERTAKING

The project will involve the construction of 6.35 miles of graveled road over much of an existing dirt road. The right-of-way will be 150 feet (45.7 meters) wide.

Proposed construction and maintenance activities will include the following:

1. Grading and backfilling within the right-of-way
2. Installation of drainage culverts
3. Graveling of the road surface

Total project length is 6.35 miles. Total area within the construction right-of-way is 76.9 acres (31.14 ha.). Total area survey for cultural resources is 153.93 acres (62.29 ha.) within a 200 ft. (60.96 m) right-of-way.

PROJECT LOCATION

The project area is located within the Twin Lakes Chapter of the Fort Defiance Agency in McKinley County, New Mexico, (Figure 1). The Point of Beginning is located at the juncture of the State Highway 666 and N 9660 (Jack Johnson) Road. It proceeds east for 0.3 mile at which point it turns northeast for 0.3 miles. From this point the road turns back to the northeast for 1.5 miles, then curves back to the east for 2.0 miles and trends to the north for 1.9 mile. It turn back to the northeast for .35 mile to the junction with Navajo Route 9659 (Bass Lake) Road. The specific road location is depicted on the following U.S.G.S. 7.5' quadrangle maps (Figures 2-3). Twin Lakes, N.M., 1963, and Big Rock Hill, N.M., 1963 (Photo-revised 1979). The legal locations are given in Table 1 and the UTM coordinates are given in Table 2.

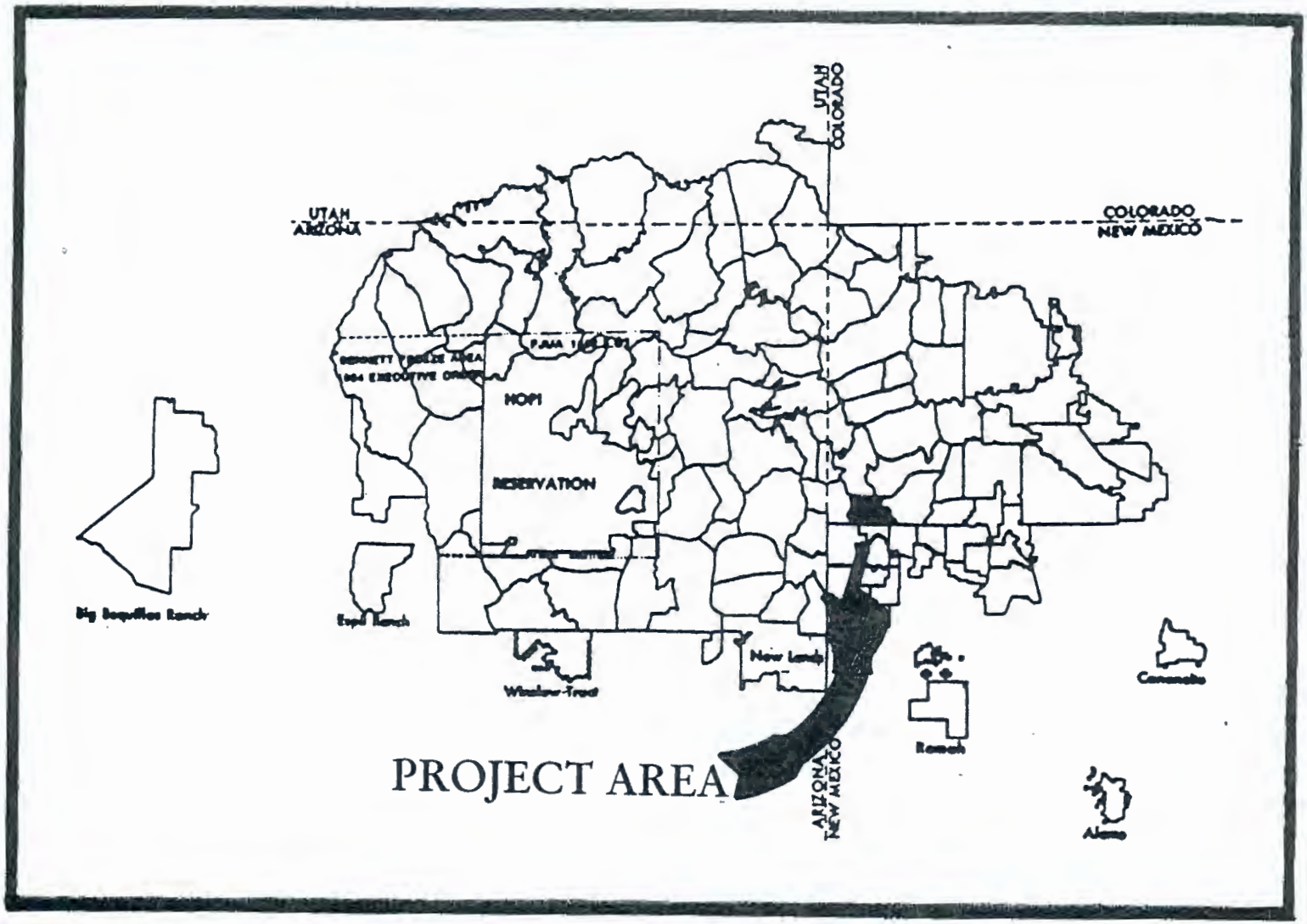


Figure 1. General Map of Project Location

TABLE 1: LEGAL LOCATION OF POINTS ON N 9660 (Jack Johnson) ROAD

POINT	LEGAL LOCATION	U.S.G.S. MAP	FIGURE
A(BOP)	UNPLATTED, T17N R18w	Twin Lakes, New Mex.1963	2
B	UNPLATTED, T17N R18W	Twin Lakes, New Mex. 1963	2
C	UNPLATTED, T17N R18W	Twin Lakes, New Mex. 1963	2
D	UNPLATTED, T17N R18W	Twin Lakes, New Mex. 1963	2
E	UNPLATTED, T17N R18W	Twin Lakes, New Mex. 1963	2
F	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	2
G	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
H	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
I	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
J	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
K	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
L	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3
M(EOP)	UNPLATTED, T17N R18W	Big Rock Hill, New Mex. 1963	3

TABLE 2: UTM COORDINATES OF POINTS ON N 9660 (Jack Johnson) ROAD.

POINT	UTM Coordinate	FIGURE
A(BOP)	N 3948660m E 701850m	2
B	N 3948700m E 701930m	2
C	N 3948660m E 702170m	2
D	N 3948860m E 702420m	2
E	N 3949120m E 702600m	2
F	N 3949810m E 703880m	2
G	N 3950260m E 704050m	3
H	N 3950560m E 704370m	3
I	N 3951240m E 707430m	3
J	N 3951400m E 707660m	3
K	N 3952590m E 707500m	3
L	N 3953850m E 707890m	3
M(EOP)	N 3954460m E 707900m	3

AREA ENVIRONMENTAL AND CULTURAL SETTING

The project area is located in the eastern margin of the McKinley County, a structural subdivision of the Colorado Plateau. Here the bedrock strata consists exclusively of Cretaceous Menefee Formation. The Menefee Formation consists of alternating beds of tan/brown sandstone, gray, brown, greenish-gray shale siltstone, coal, scattered thin layers of limonitic and calcareous concretions. Potential mineral resources along this roadway would include common clay and coal. Paleontological resources may be present in the area as they are known to occur in outcrops of the Menefee Formation northwest of here.

The soil types consist of Quaternary alluvial deposits consisting of sand, silt, and clay locally distributed in the bottom of washes. Sporadic, thin, Quaternary pediment sand and gravel are present on some gentle slopes and horizontal surfaces, with aeolian deposition/residuum from the underlying sandstone with wind blown deposits and colluvial formation from the shaly geology and eroding rock outcrops.

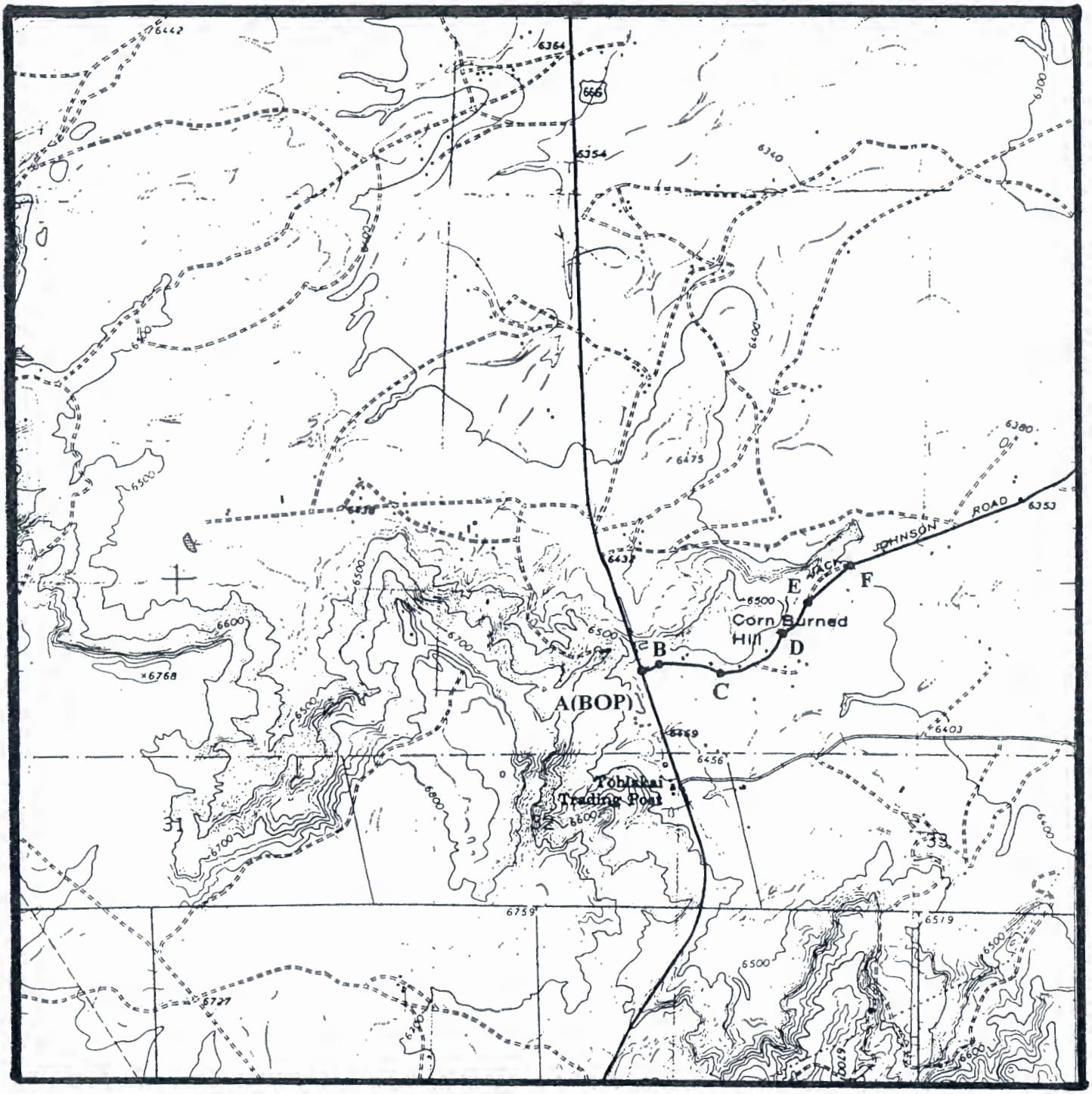


Figure 2: Specific location of Project Area. Map is U.S.G.S. 7.5' Quadrangle, " Twin Lakes, N.M. 1963-(Photorevised 1979)". **Point A-F.**

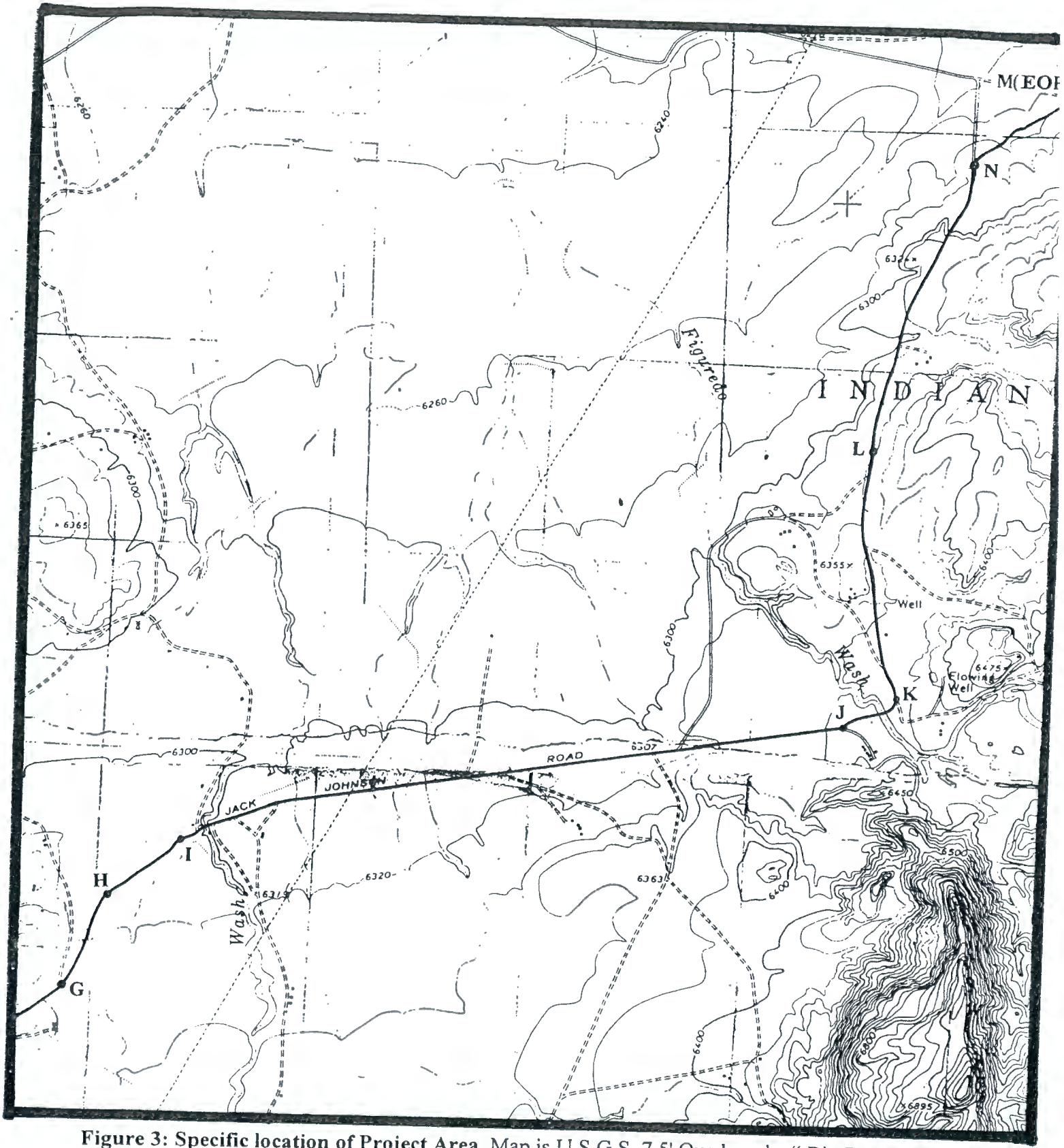


Figure 3: Specific location of Project Area. Map is U.S.G.S. 7.5' Quadrangle, " Big Rock Hill, N.M. 1963-(Photorevised 1979)". **Point G-M.**

The two main soil units that dominate the project area are the Parkeiel-Evpark fine sandy loam. (This information was taken from the " Soil Conservation Service in Grants, New Mexico 1995"). This survey was developed by the U.S. Department of the Interior and the Bureau of Indians Affairs-Branch of Land Operations in 1978. The Badlands variant occurs along rolling to very steep slopes, have limited soil depth with little vegetation and high erosion rates. Typic Torrifluvents form in mixed alluvium and aeolian deposits are moderately deep to deep with moderate vegetation cover and a moderate to high erosion factor due to excessive run off. Fine sand hummocks typical of the Shepard soil units can be found interspersed with the Badland-Typic Torrifluvents variants. These soils are very deep, well drained and form in eolian material derived from sandstone. Whit series soils occur on the undulating mesa tops, are very deep and well drained with moderate to high vegetation cover, and are also formed in eolian deposits derived mainly from sandstone. The Tohona variant can be found interspersed with these Whit series soils and consist of well-drained, moderately deep deposits with moderate vegetation cover and erosion. These soils are formed in residuum and eolian deposits.

Geological features of the area include the Chuska Mountains. The most common lithic material types that can be procured from these formations, as is evidenced from the artifact assemblages of known cultural entities in the area, are fine grained sandstone, quartzite, siltstone, Narbona Pass Chert and mudstone. Mesa top formations along the upper elevations display a cap of the more erosion resistant Dakota sandstone (Cooley et al, 1969).

The area surveyed ranges in elevation from 6500 feet to 6260 (1981 and 1908 meters, respectively). Major drainage in the area include Dye Brush Wash and Figuredo Wash, which the proposed project spans.

Vegetation in the project area can be described as Upper Sonora associations. Dominate species include Galleta and Blue Grama grasses (Bouteloua gracilis) and shrubs such as snakeweed (Gutierrezia sarothrae), Rabbitbrush (Chrysothammus nauseosus), four-wing saltbush (Atriplex canescens), Shadscale (Artiplex confertifolia), and sages (Artemisia spp.). Tree cover includes juniper (Juniperus osteosperma and J. monosperma) which is sparse at the lower elevations to abundant on the mesa tops and some willows (Salix exiqua), tamarisk (Tamarix ramosissma), and cottonwoods (Populus fremontii and P. deltoidei) in the well-watered bottom lands of the larger drainages such as the Dye Brush Wash and Figuredo Wash. Vegetation cover varied from 0 percent along the mesa/badlands slopes to 40 to 50 percent on the mesa tops.

Archaic through modern occupations of the project area have been recorded by various small surveys and documented by clearance excavations (such as a pipeline), but few systematic programs have recorded the region's prehistory. Several comprehensive descriptions of the area's prehistories have been compiled for the San Juan Basin documenting occupations from Paleoindian (Vivian 1990), Archaic (Irwin-Williams 1973), Anasazi (Eddy 1961, Morris 1959, Roberts 1929, Marshall 1979, Kidder 1927, etc.), Navajo and historic Navajo (Kelly 1982). The majority of the sites recorded as part of this project are associated with the Anasazi and Historic Navajo occupation of the area.

EXISTING DATA REVIEW

Archival data were retrieved from the files of the Navajo Nation Historic Preservation Department (NNHPD) in Window Rock, Arizona at the initial stage of the project.

Within 0.5 miles of this project, sixteen previously recorded sites (Table 4) are known to exist, and nineteen previously completed projects (Table 3) are known to have taken place.

TABLE 3: Previous Projects within 1 Kilometer of Project Area

Project File No.	Description of Undertaking	Acres	# of Sites
80-361	Survey around 10 scattered houses.	?	0
83-253	Survey of four BIA Range Projects.	11.0	0
84-109	Survey seven (7) houses and two (2) Water Lines	7.9	0
85-260	Three (3) proposed drain fields.	?	1
87-242	Inventory of approx. 13.56 miles of Electrical distribution lines R-O-W.	49.19	3
88-229	Survey of ninety four (94) scattered homes for installation of Septic System and Water Line Extensions.	440.3	0
90-529.0	Inventory of the Twin Lakes Water System.,	345.9	4
91-005	Installation of Septic Systems, one (1) Sewer Lagoon, and Water Line Extension for six (6) Medical referral Participants Homes.	10.12	0
92-101	Proposed Buried Telephone cable along State Route 264\ and U.S. Highway 666.	364.0	0
92-120	Inventory of the Louise Johnson Homesite and Waterline.	3.4	0
92-721.0	Proposed Waterline, Septic System, and Leach fields to be Installed.	247.7	1
93-010	Human Remains of Two (2) Individuals exposed by arroyo cutting.	?	?
93-629	Areas of unstable Boulders on U.S. Hwy. 666 in the vicinity of Corn Burned Hill.	.36	0
94-728	Inventory of Two (2) Burrow Areas in Dye Brush Wash.	2.03	0
95-244	Survey foe a Sewer Lagoon and Sewer Lines.	5.7	1
96-541	Proposed of One (1) acre homesite for Bill Yazza.	1.0	0
96-687	Proposed Improvement of an 1 mile of Navajo Route 9659.	415.3	2
96-814	Missing File.....	?	?
97-139	Inventory of NAIHS Projects NA 94-A09 ninety-three (93) homesites and 4 miles of Waterline Extensions.	316.0	0

TABLE 4: Previously Recorded Sites Within 1 Kilometer

Project #	Site #	Description/Cultural Affiliation
85-260	NM-Q-19-2	Prehistoric Anasazi PII (Habitation)
87-242	NM-Q-19-16	Prehistoric Anasazi BMIII-PII (Habitation) and
	NM-Q-19-21	Prehistoric Anasazi BMIII (Unknown)
	NM-Q-19-22	Historic Navajo 1978 (Corral)

TABLE 4: Previously Recorded Sites Within 1 Kilometer (Cont.)

Project #	Site #	Description/Cultural Affiliation
90-529.0	NM-Q-19-26	Prehistoric Anasazi PI-II (Habitation)
	NM-Q-19-27	Prehistoric Anasazi PI-II (Habitation)
	NM-Q-19-28	Prehistoric Anasazi PI-II (Habitation)
	NM-Q-19-29	Prehistoric Anasazi PI-II (Sherd scatter)
92-721.0	CSWTA 92-25	Prehistoric Anasazi PI-II (Ceramics scatter)
93-101	LA 10859	Prehistoric Anasazi (Two human remains)
95-244	NM-Q-19-51 (LA 108690)	Historic Navajo Enemy Way site 1987-1992).
96-687	NM-Q-19-57	Prehistoric Anasazi PII-III (Habitation)
	NM-Q-19-58	Prehistoric Anasazi PII-III (Habitation)
	NM-Q-19-59	Prehistoric Anasazi PI-II (Specialized Activity/Floral)
	NM-Q-19-60	Prehistoric Anasazi BMIII-PI (Processing)
		Historic Navajo (Habitation)

FIELD METHODS

The fieldwork was completed by Roger N. Walkenhorst, Archaeologist III: Olsen John, Archaeologist II; and Lenora Etsitty, Archaeologist Tech. II; Mandy Warren Archaeologist Aide; Julius Tulley, Cultural Specialist; all of the Navajo Nation Division of Community Development. The fieldwork was performed on the following dates: July 15-22, 1997. Ethnographic interviews were performed by Navajo Cultural Specialist Julius Tulley and Bennie Williams, Right-Of-Way Agent I.

The entire area was investigated using a Class III (100%) level pedestrian. Surveys with archaeologists walking parallel transect spaced 15 meters apart.

Boundaries of the survey area were defined by centerline and right-of-way stakes marked by wood lathe and flagging along the entire length of the road. A 61 meters (200 feet) wide survey corridor, centered on the right-of-way, as inspected by two people walking up one side of the right-of-way and returning along the opposite side.

Sites were recorded and mapped using a Sunnto hand held compass and using a 100-meter measuring tape. Color photographs of each site were taken and are on file at NDOT. No artifact collections were made. Each site was marked by a permanent marker (or a datum) which is a section of rebar driven into the ground and a site tag attached that depicts the site number, the date when the site was recorded and the initials of the recorder(s). The datum is located on the individual site maps. Total area inspected in association with this project is ca. 62.29 hectares (153.92 acres). The locations of cultural properties were referenced to the nearest survey station marker.

SWCA
ENVIRONMENTAL CONSULTANTS

BIOLOGICAL EVALUATION OF JACK JOHNSON ROAD, MCKINLEY COUNTY, NEW MEXICO

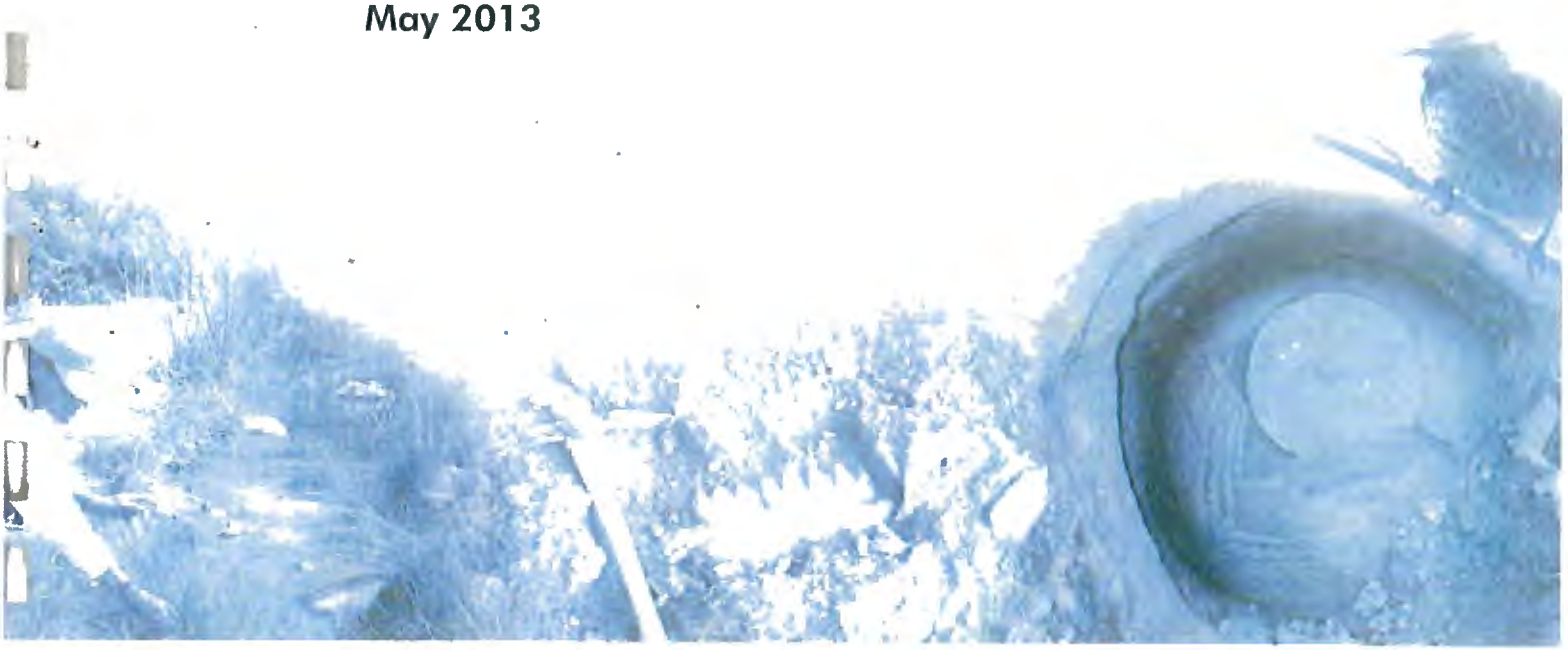
Prepared for

MCKINLEY COUNTY

Prepared by

SWCA Environmental Consultants

May 2013



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1992 Drilling a Water Well for Livestocks. (HPD 92-39). Manuscript on file at Navajo Historic Preservation Department, Window Rock, Arizona

Etsitty, Lenora M.

1996 A Cultural Resources Inventory of the Proposed Improvement of 7.1 miles of Navajo Route 9659 near Twin Lakes, McKinley County, New Mexico. (HPD 96-687). Manuscript on file at Navajo Historic Preservation Department, Window Rock, Arizona.

EVALUATION OF SITES

National Historic Preservation Act

The following is an evaluation of the National Register eligibility and integrity of the cultural resources recorded by this project: Every cultural resource in the project has some potential for contributing information about prehistory or history. However, whether this information is significant is predicated on an understanding of what are the important research questions pertaining to any particular resource. A comprehensive regional research design does not exist. While a great deal of survey has taken place in the project area and the basic range and variation of the resources has been identified, virtually no prehistoric or historic sites have been intensively studied and scientifically evaluated through excavation. Therefore, in regards to both prehistoric and historic resources, a conservative approach must be taken that finds all of them potentially significant under this criterion.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) was established in 1979 with the express purpose being in part "...to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands...". For a property to qualify for protection under ARPA, it must qualify as an "archaeological resource", which is defined as "...any material remains of human life or activity which are at least over 100 years of age, and which are of archaeological interest" ..."of archaeological interest" is defined as "capable of providing scientific or humanistic understandings of past human behavior, cultural adaptation, and related topics through the application of scientific or scholarly techniques...". All of the prehistoric sites and/or components meet the age criterion and are of "archaeological interest" and merit protection under ARPA.

For specific evaluation of each site regarding to above laws, see Table 6, below.

TABLE 6: Evaluation of Cultural Resources

Resource	Age/Integrity	National Register		ARPA	AIRFA
SITES		Eligible	Criteria	Eligible	Eligible
NM-Q-18-165	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-167	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-168	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-170	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-171	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-172	>100/Yes	Yes	C, D	Yes	No
NM-Q-19-69	>100/Yes	Yes	C, D	Yes	No
NM-Q-19-70	>100/Yes	Yes	C, D	Yes	No
NM-Q-19-71	>100/Yes	Yes	C, D	Yes	No
NM-Q-19-72	>100/Yes	Yes	D	Yes	No
NM-Q-19-73	>100/Yes	Yes	D	Yes	No
NM-Q-19-85	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-163 (LA 3562)	>100/Yes	Yes	D	Yes	No

TABLE 6: Evaluation of Cultural Resources Cont.

Resource SITES	Age/Integrity	National Register Eligible	Criteria	ARPA Eligible	AIRFA Eligible
NM-Q-18-164 (LA 10903)	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-166	>100/Yes	Yes	C, D	Yes	No
NM-Q-18-169 (LA 10788)	>100/Yes	Yes	C, D	Yes	No
NM-Q-19-16	>100/Yes	Yes	C, D	Yes	No
IN-USE SITES:					
N 9660-1	<50/Yes	No		No	No
N 9660-2	<50/Yes	No		No	No
N 9660-3	<50/Yes	No		No	No
I.O.'S:					
A-O	>100/No	No		No	No

AMERICAN INDIAN RELIGIOUS FREEDOM ACT

The American Indian Religious Freedom Act (AIRFA) was established in 1978. Its purpose was to establish as United States policy the protection and preservation of Native American rights to practice their traditional religions. This freedom of worship is to include but not be "...limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonies and traditional rites (Sec. 1)". Though there are a few specific examples and some generalizations that may be made, the identification of resources associated with this project that may have some application to AIRFA is difficult at best.

Virtually any of the prehistoric sites, because of their association with ancient enemies and/or ancestors, as places where burials exist, and as places accessible to the supernatural, may be considered potentially important under AIRFA.

Features which are part of historical sites that may have some AIRFA significance appear to be limited to the hogans or hogan remains at the sites. Some of the hogans in residential in-use .areas near the project may be maintained strictly for ceremonies, though they may serve other functions during non-ceremonial periods. Because of confidentiality, this information was not solicited during the project since in-use sites are avoided or mitigated in the consensual process of Right-Of-Way acquisition. Future investigations along these lines would need to be on a case-by-case basis.

DETERMINATION OF EFFECT

Pursuant to 36 CFR 800.9, the undertaking has been evaluated for its effects on potential National Register historic properties. This evaluation is also considered applicable to ARPA and AIRFA values as well.

undertaking should have **no adverse effect** on significant historic properties.

MANAGEMENT RECOMMENDATIONS

It is recommended that clearance be granted for this undertaking. General project recommendations as well as site-specific recommendations are presented below:

TABLE 7: Mitigation Recommendations for the Sites within the Project R-O-W.

Site Number	Affiliation	Recommendation
NM-Q-18-165	Prehistoric Anasazi BMIII (A.D. 750-900)	Nature & extent testing.
NM-Q-18-167	Prehistoric Anasazi PII-III (A.D. 1100-1350)	Nature & extent testing.
NM-Q-18-168	Prehistoric Anasazi PII (A.D 900-1100)	Nature & extent testing and temporary fencing of the petrogylph panel.
NM-Q-18-170	Prehistoric Anasazi PII (A.D. 900-1100)	Nature & extent testing.
NM-Q-18-171	Prehistoric Anasazi PI-III (A.D. 800-1300)	Nature & extent testing.
NM-Q-18-172	Prehistoric Anasazi PII-III (A.D. 1000-1200)	Nature & extent testing.
NM-Q-19-69	Prehistoric Anasazi PII (A.D. 1050-1150)	Nature & extent testing.
NM-Q-19-70	Prehistoric Anasazi PII (A.D. 1000-1150)	Nature & extent testing.
NM-Q-19-71	Prehistoric Anasazi PII-III (A.D. 1050-1300)	Nature & extent testing.
NM-Q-19-72	Prehistoric Anasazi PII (A.D. 1050-1100)	NRHP significance testing.
NM-Q-19-73	Unknown Prehistoric	Nature & extent testing.
NM-Q-19-85	Prehistoric Anasazi BMIII-PI (A.D. 750-900)	Nature & extent testing.
NM-Q-18-163 (LA 3562)	Prehistoric Anasazi PII (A.D. 1000-1150)	Nature & extent testing.
NM-Q-18-164 (LA 10903)	Prehistoric Anasazi PII-III (A.D. 1000-1150)	Nature & extent testing.
NM-Q-18-166	Prehistoric Anasazi PI-IV (A.D. 900-1400)	Nature & extent testing.
NM-Q-18-169 (LA 10788)	Prehistoric Anasazi PI-II (A.D. 800-1100)	Nature & extent testing.
NM-Q-19-16	Prehistoric Anasazi BMIII-PII (A.D. 700-1150)	Nature & extent testing.
IO'S		
IO's A-O	Prehistoric	Not eligible for NRHP.
IN-USE SITE		
IUS-1	Bridge	Not eligible for NRHP.
IUS-2	Bridge	Not eligible for NRHP.
IUS-3	Residence	Not eligible for NRHP.

GENERAL PROJECT RECOMMENDATION

The BIA shall also insure that all borrow areas, material source areas, staging areas, access routes, and any such areas are inventoried for cultural resources prior to any ground disturbance with the project. Prior determinations made by any federal agency that the use of an areas would have no effect on historic properties, or that an area contained no historic properties is sufficient to meet the terms of this condition, unless and until historic properties are discovered, as indicated below. Areas not previously inventoried must be assessed by BIA or its agents or contractors prior to any ground disturbing activities.

If any previously undetected cultural resources are discovered during the undertaking (e.g., pottery, bone, stone tools, charcoal), all activity should cease in that area, and the Navajo Nation Historic Preservation Officer (520-871-7132) should be immediately notified. Upon inspection of the remains, direction on how to proceed will be given pursuant to 36 CFR 800.1.

Upon completion of the project, the location of the significant cultural values within or directly adjacent to the final right-of-way should be placed on the final "as built". These plans should carry the following or a similar notice: "Caution. Unauthorized disturbance of archaeological sites is prohibited. Criminal and civil penalties may apply". A copy of these final plans should be submitted to the Navajo Nation Historic Preservation Office to be included in project file.

CONTEXT: The I.O. is located in a alluvial flat in the southern edge of the road cut at 1.05 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, wheat grass, beeweed, prickly pear cactus, juniper and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of four Bennett Grey jar sherds, two Grey Hills banded jar sherds, and one petrified wood primary flake.

I.O. No: N 9660-C
UTM COORDINATES: ZONE 12 N 3949440 m E 703310 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6353 ft/1936 m
CONTEXT: The I.O. is located in an alluvial flats in the northern edge of the road cut at 1.06 mile from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, wheat grass, beeweed, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one plain greyware body sherd, and one Kiatathlanna B/W sherd.

I.O. No: N 9660-D
UTM COORDINATES: ZONE 12 N 3949960 m E 703960 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6320 ft/1926 m
CONTEXT: The I.O. is located in an alluvial flat in the southern edge of the road cut at 1.55 miles from BOP. Soil type consists of yellowish/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, shadscale, prickly pear cactus, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of six plain greyware body sherds.

I.O. No: N 9660-E
UTM COORDINATES: ZONE 12 N 3950860 m E 705260 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6310 ft/1923 m
CONTEXT: The I.O. is located in an alluvial flat in the northern edge of the road cut at 2.6 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, wheat grass, shadscale, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one plain greyware body sherd.

I.O. No: N 9660-F
UTM COORDINATES: ZONE 12 N 3950990 m E 705900 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM., 1963 (Photorevised 1979)
ELEVATION (FT/M): 6310 ft/1923 m
CONTEXT: The I.O. is located in an alluvial flat in the northern edge of the road cut at 3.0 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, wheat grass, shadscale, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of two plain greyware body sherds.

I.O. No: N 9660-G
UTM COORDINATES: ZONE 12 N 3950980 m E 706330 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6310 ft/1923 m
CONTEXT: The I.O. is located in an alluvial flat in the southern edge of the road cut at 3.15 miles from BOP. Soil type consists of grey/brow sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, bunch grass, shadscale, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one Newcomb B/W sherd, one Naschitti B/W sherd, and four pieces of plain greyware body sherds.

I.O. No: N 9660-H
UTM COORDINATES: ZONE 12 N 3951990 m E 707500 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6340 ft/1632 m
CONTEXT: The I.O. is located on a NW to SE trending ridge in the northern edge of the road cut at 4.65 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, bunch grass, shadscale, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one Chaco/McElmo B/W body sherd.

I.O. No: N 9660-I
UTM COORDINATES: ZONE 12 N 3952080 m E 707490 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)

ELEVATION (FT/M): 6340 ft/1932 m
CONTEXT: The I.O. is located on a NW to SE trending ridge finger in the northern edge of the road cut at 4.7 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, shadscale, wheat grass, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of two plain greyware body sherds.

I.O. No: N 9660-J
UTM COORDINATES: ZONE 12 N 3952560 m E 707490 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6340 ft/1932 m
CONTEXT: The I.O. is located in a alluvial flat in the southern edge of the road cut at 5.0 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one Chaco B/W body sherd.

I.O. No: N 9660-K
UTM COORDINATES: ZONE 12 N 3953110 m E 707570 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6300 ft/1920 m
CONTEXT: The I.O. is located on a slight rise trending SW to NE in the northern edge of the road cut at 5.35 miles from BOP. Soil type consists of reddish tan sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, dropseed, greasewood, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one Chaco B/W body sherd.

I.O. No: N 9660-L
UTM COORDINATES: ZONE 12 N 3954060 m E 707940 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6270 ft/1911 m
CONTEXT: The I.O. is located in alluvial flats in the southern edge of the road cut at 6.0 miles from BOP. Soil type consists of reddish tan sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, dropseed, greasewood, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one St. John Polychrome body sherd, and one plain greyware body sherd.

I.O. No: N 9660-M
UTM COORDINATES: ZONE 12 N 3954210 m E 708040 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6260 ft/1905 m
CONTEXT: The I.O. is located in a alluvial flats in the southern edge of the road cut at 6.3 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, dropseed, greasewood, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one plain greyware body sherd.

I.O. No: N 9660-N
UTM COORDINATES: ZONE 12 N 3954290 m E 708220 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6260 ft/1908 m
CONTEXT: The I.O. is located in a alluvial flats in the southern edge of the road cut at 6.2 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, dropseed, greasewood, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of one two Chaco B/W body sherds, and one Naschitti B/W body sherd.

I.O. No: N 9660-O
UTM COORDINATES: ZONE 12 N 3954360 m E 708320 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6250 ft/1905 m
CONTEXT: The I.O. is located in a alluvial flats in the southern edge of the road cut at 6.3 miles from BOP. Soil type consists of grey/brown sandy silt. Vegetation present include rabbitbrush, Russian thistle, snakeweed, Indian ricegrass, dropseed, greasewood, and grama grass.
DESCRIPTION OF I.O.: The I.O. consists of two Brimhall B/W, and one Naschitti B/W body sherds.

TRADITIONAL CULTURAL PROPERTIES

Twenty-eight people were interviewed (Tulley 1996) about their concerns for possible Traditional Cultural places within the project area. One Traditional Cultural Property was identified

within the R-O-W, but had been completely dismantled with no existing surface evidence. A list of people interviewed, and their concerns may be found in Appendix B.

IN-USE SITES:

There is currently three In-Use sites (Figure 23) identified with the project area. In keeping with Navajo Nation policy of respecting the privacy of the individual homeowners, not all of these places were fully recorded. Notes were taken on the types of structures present and the apparent or known age of the site. The following summaries describe the In-Use site identified with this project (Table 5). The In-Use site noted is located directly adjacent to the project R-O-W but will not be truncated by construction activities. These sites are as follows:

TABLE 5: In-Use Areas located within Jack Johnson Road R-O-W.

No./Building-Area	Date	Description
1/Bridge	1978	Metal bridge.
2/Bridge	1970	Metal bridge.
3/Residence	1960's	Two frame houses, four corrals, two sheds, one outhouse.

EVALUATION OF SIGNIFICANCE

The historic properties have been evaluated for their significance in regards to the National Register of Historic Places, the Archaeological Resources Protection Act, and the American Indian Religious Freedom Act.

National Register

The National Register of Historic Places was created by the National Historic Preservation Act in 1966. The Register was to be ." Composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture (Title I, Sec. 101)." A set of criteria was later established by which properties could be evaluated to determine if they merited placement on the Register. These regulations or guidelines are expressed in 36 CFR 60.4 and are as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

(a) association with events that have made a significant contribution to the broad patterns of our history;

(b) association with the lives of persons significant in our past;

(c) embodiment of the distinctive characteristics of a type, period, or method of construction, or representation of the work of a master, or representation of a signification distinguishable entity whose components may lack individual distinction;

(d) has yielded or is likely to yield information important in history or prehistory.

There are certain classes of properties that are normally not considered eligible for National Register consideration that include cemeteries, birthplaces or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original location, reconstructed historic buildings, buildings primarily commemorative in nature, and properties that have achieved significance within the past 50 years. There are exceptions to these general exclusion guidelines (see 36 CFR 60.4).

Coupled with the above general criteria, the criteria of integrity must also be met for National Register consideration. In this case, integrity is evaluated in terms of its physical and locational values: does the site or its features possess the integrity needed to allow the site to meet the appropriate criterion for which it is considered significant: As an example, a prehistoric site that might be significant under criterion "d" but has been completely disturbed would probably not be considered to have any sufficient integrity for the fruitful investigation of important scientific questions, and would thus not be considered eligible for the National Register. As another example, an old traditional hogan may be considered eligible under criterion"c" as embodying the distinctive characteristics of a type, period, or method of construction. If that hogan is surrounded by modern cinder block houses and trailers, thus disrupting its integrity of location, setting, and feeling, it could still be considered eligible for the National Register if those aspects of integrity that directly relate to its significance under criterion "c" (i.e. design, materials, and workmanship) are intact.

District Consideration: A District is defined as "...possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development" (National Park Service 1986:41). Because an exhaustive inventory and documentation program has not been completed for the area of this project, and the limits of the community are not yet known, the exact nature of any district boundary cannot be suggested at this time.

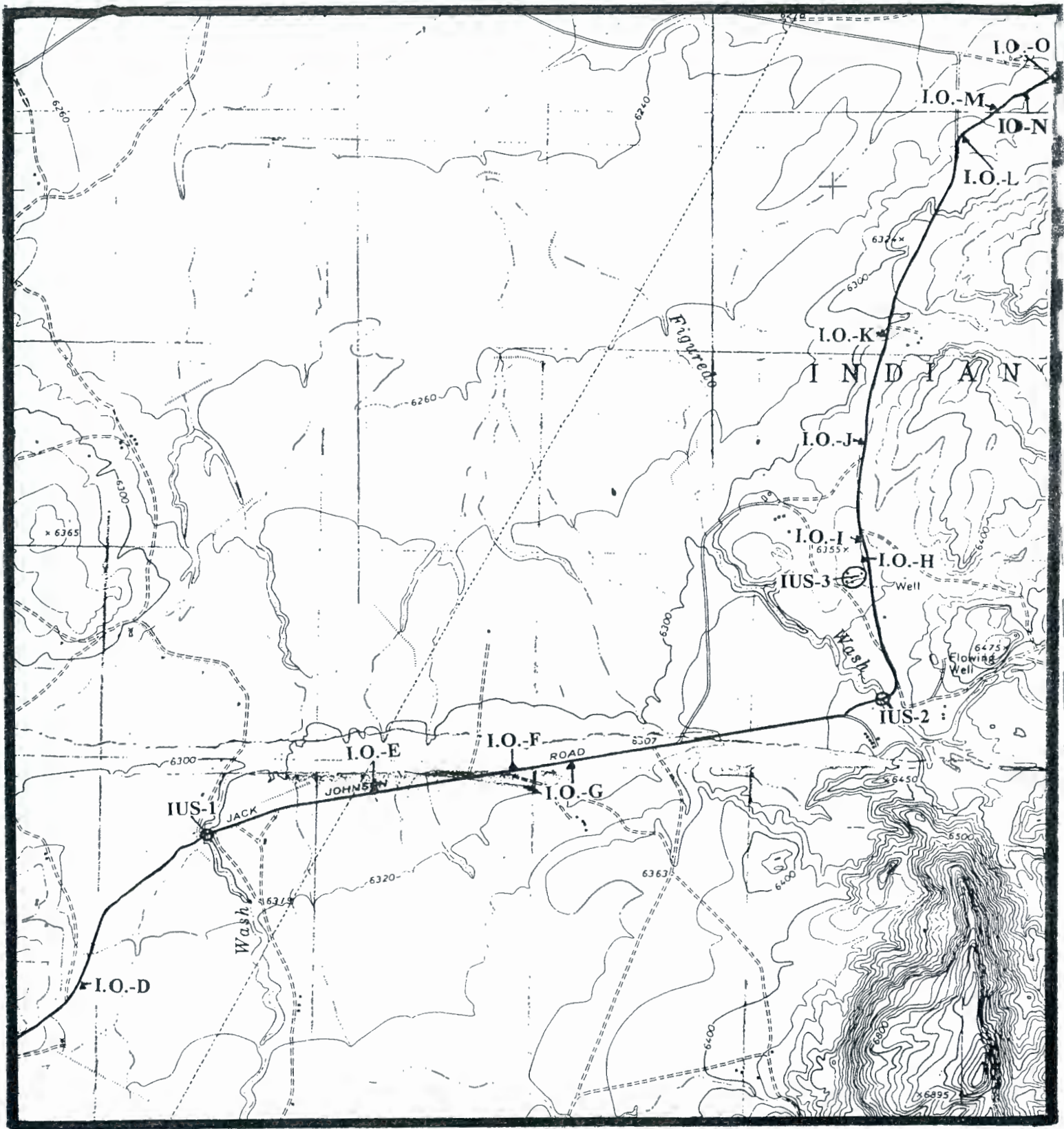


Figure 23: Specific location of IO's and IUS's in Project Area. Map is U.S.G.S. 7.5' Quadrangle, "Big Rock Hill, N.M. 1963-(Photorevised 1979)".

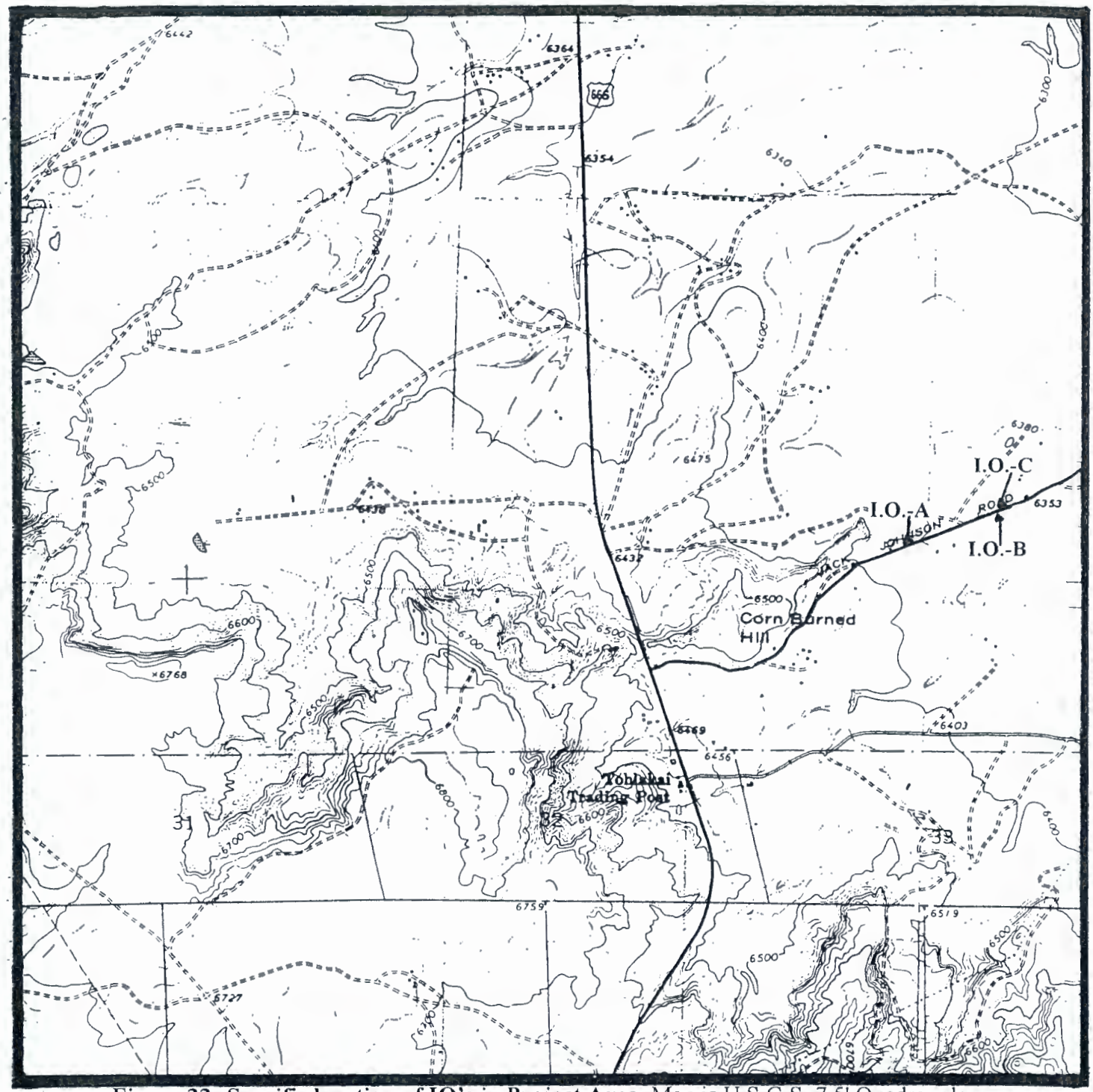


Figure 22: Specific location of IO's in Project Area. Map is U.S.G.S. 7.5' Quadrangle, "Twin Lakes, N.M. 1963-(Photorevised 1979)".

scattered throughout the blowout area. A possible wall alignment is visible in the dirt road cut in the southern portion of the site and an in-situ area representing slightly later activity is located at the SE edge of the site. This activity area include a trough metate in place on a slab pedestal and two sides of an upright slab box, in addition to some scattered sandstone slabs and two fractured cobbles. The differences in temporal association between this and other components of the site are discussed in the description. Based on a predominance of Lino plain sherds (40), three Lino B/W, and a single trachyte tempered Lino sherd. These sherds are randomly scattered within the site and are associated with scattered stone slabs with cobbles and amorphous piles of apparently structural sandstone elements. A later, PII component if denoted by a single Puerco B/R sherd, a Wingate B/R sherd, a single sherd of Gallup B/W, and ten sherds from a single corrugated-indented vessel. The later ceramics occur in the southern portion of the site, in the area of the grinding activity area and the wall fragment which is exposed in the road cut cross cutting the southern portion of the site. The site is situated in a semi-stabilized dunal situation, with cultural materials exposed in the blowouts within the dunes. There are very few actual structural remains visible and no apparent subsurface structural remains, but pit structures or hearths could be present beneath the uppermost layers of aeolian sand.

ISOLATED OCCURRENCES:

A total of fifteen isolated occurrences of cultural material was located within the project area. The following summaries describe these occurrences identified for this project. I.O. locations are shown in Figures 22-24. Completed NADD I.O. forms are appended to this project.

I.O. No: N 9660-A
UTM COORDINATES: ZONE 12 N 3949240 m E 702840 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Twin Lakes, NM 1963(Photorevised 1979)
ELEVATION (FT/M): 6400 ft/1950 m
CONTEXT: The I.O. is located on a N to S trending ridge in the northern edge of the road cut at 0.8 mile from BOP. Soil type consists of yellowish/brown silty sand. Vegetation present include rabbit brush, Russian thistle, snakeweed, Indian ricegrass, and juniper.
DESCRIPTION OF I.O.: The I.O. consists of a pot drop (8) pieces of a Bennett Grey jar.
I.O. No: N 9660-B
UTM COORDINATES: ZONE 12 N 3949400 m E 703300 m
LEGAL DESCRIPTION: UNPLATTED, T17N, R18W
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
ELEVATION (FT/M): 6353 ft/1936 m

Plan Map of NM-Q-19-16

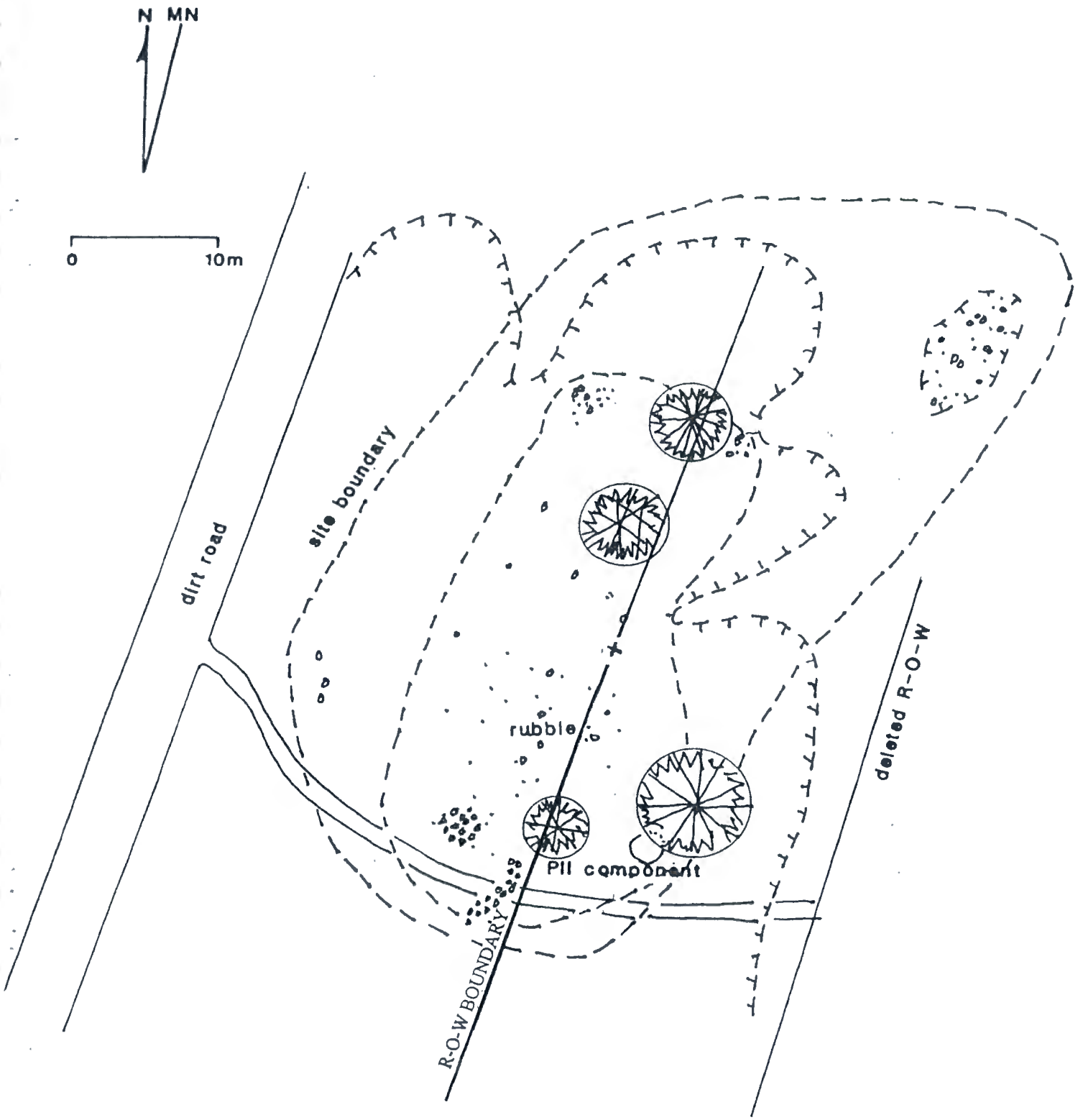


Figure 20: General Plan Map of Site NM-Q-18-169 (LA 10788).

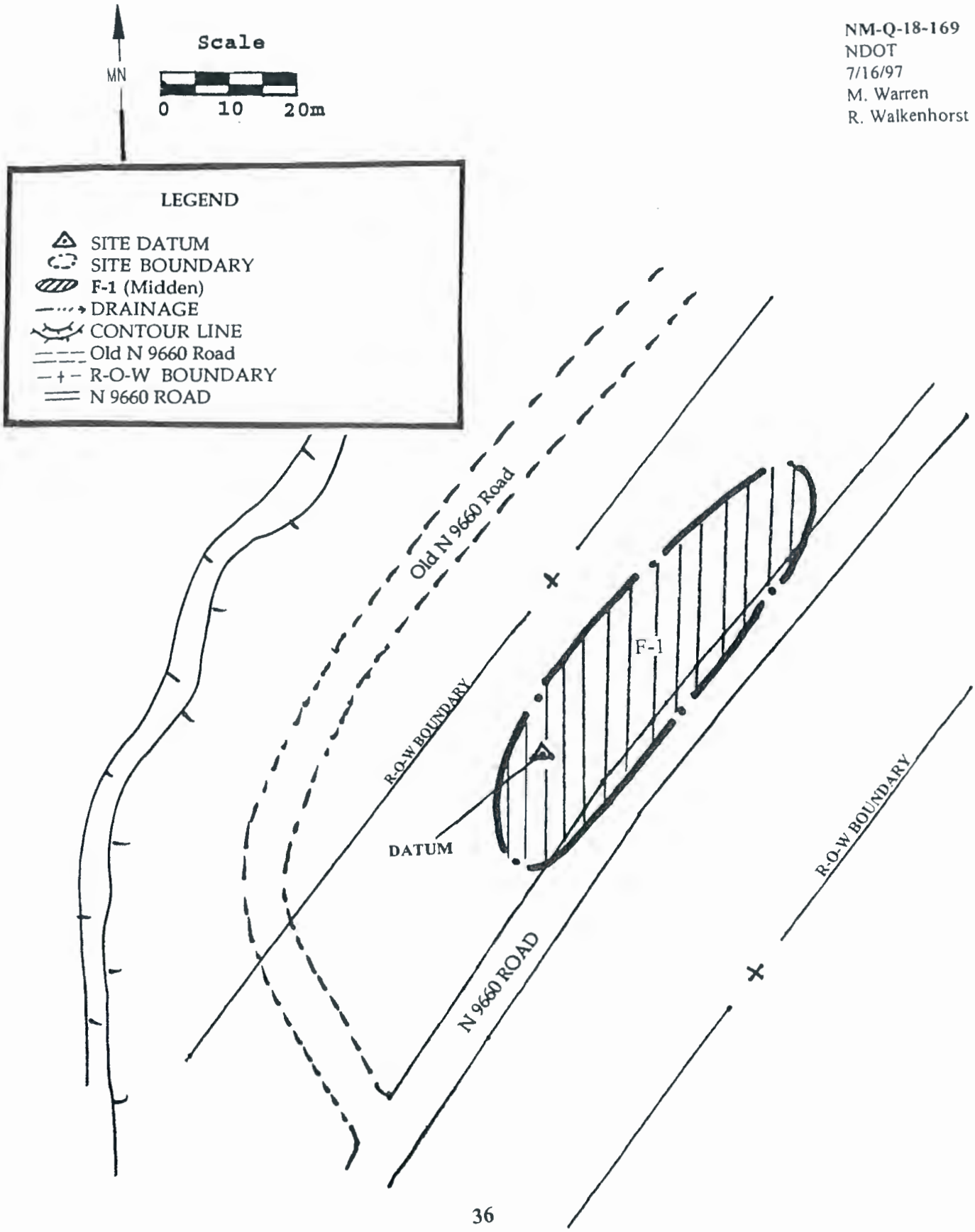


Figure 18: General Plan Map of Site NM-Q-18-164 (LA 10903).

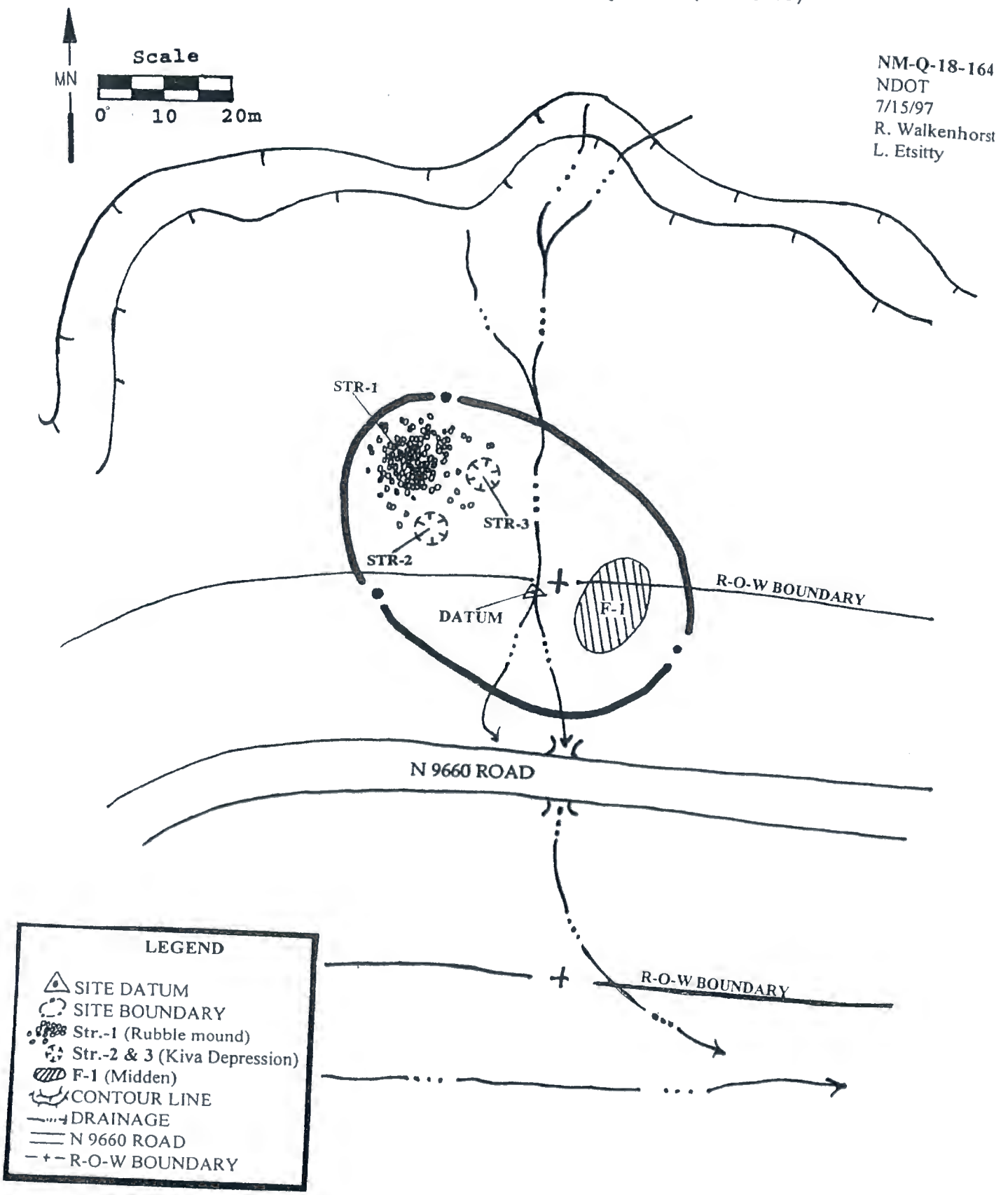
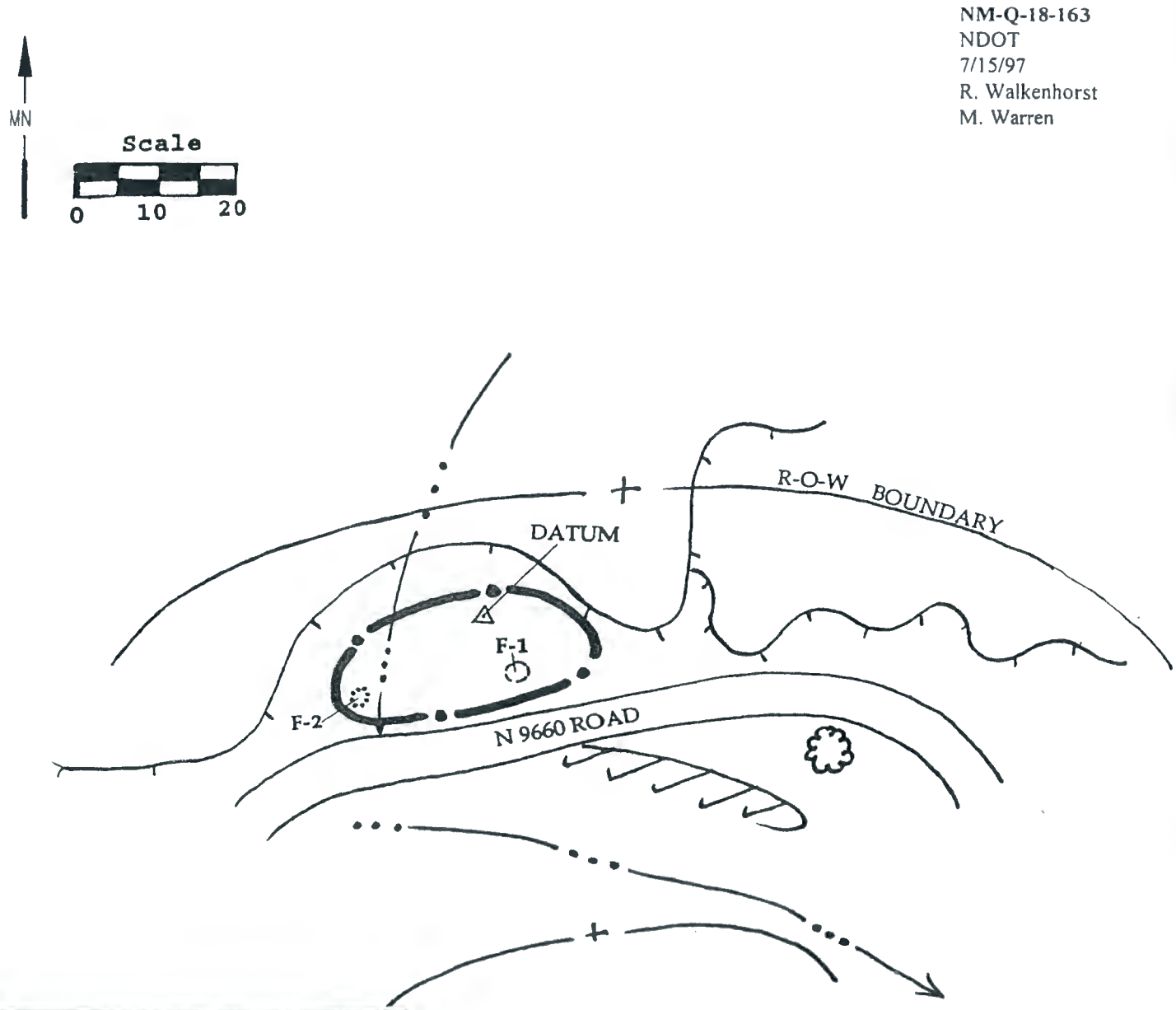


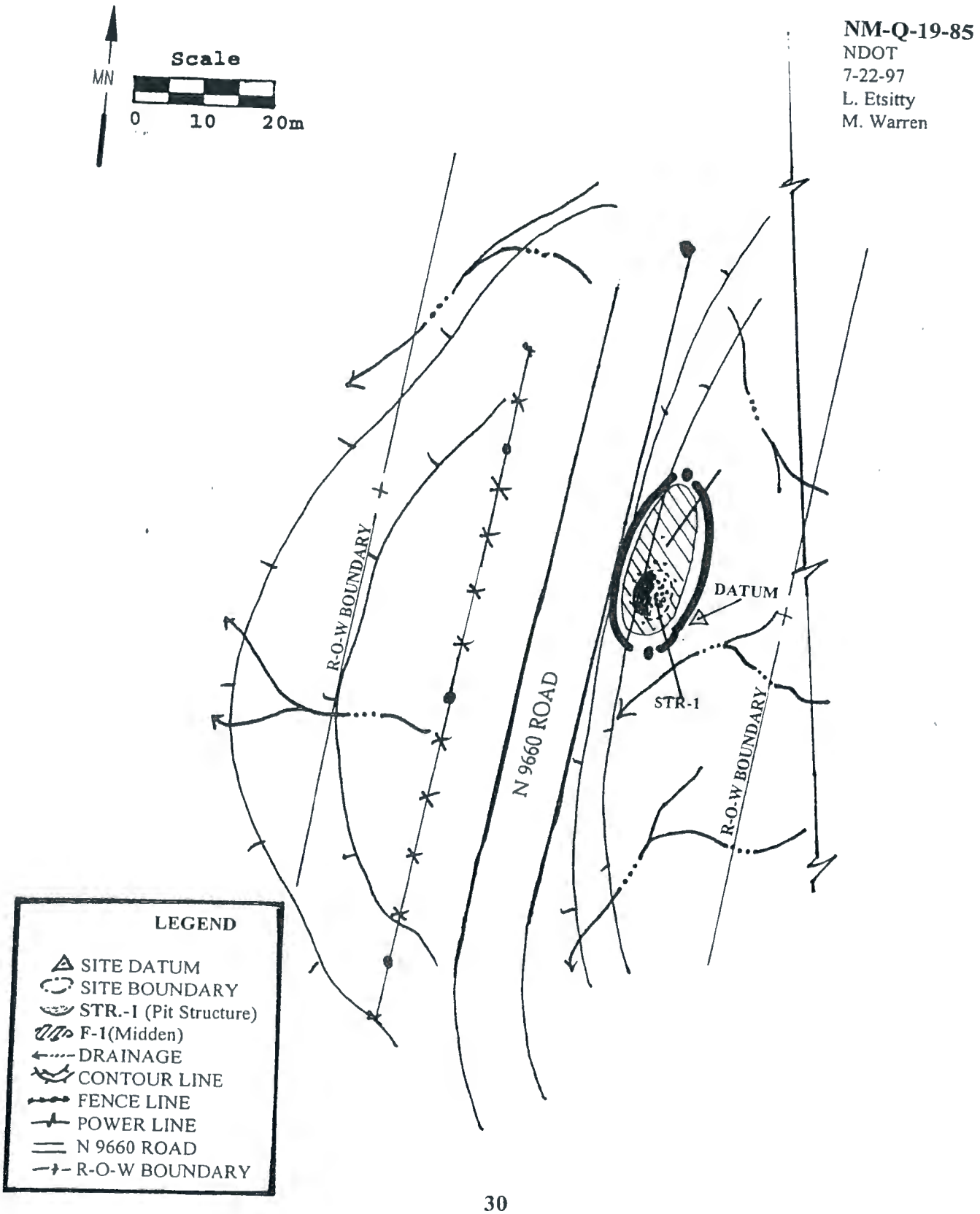
Figure 17: General Plan Map of Site NM-Q-18-163 (LA 3562).



SITE NO.: NM-Q-18-164 (LA 10903) **FIGURE-19**
LEGAL LOCATION: Unplatted, T17N R18W
UTM: ZONE 12, **N** 3948740 m **E** 701940 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located at the base of Burned Corn Hill. The mesa trends SE to NW over looking several major drainages. An unnamed drainage is located approximately 100 meters to the S. Vegetation present include Russian thistle, rabbitbrush, snakeweed, shadscale, Indian ricegrass, and grama grass.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII-III (A.D. 1000-1150)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII-III (A.D. 1000-1150) habitation. The site contains three structures (Str.-1 thru 3) and one feature (F-1). Structure 1 consists of a rubble mound located 12 meters to the NW of site datum, and measures 11 x 10 meters. The rubble mound contains 10 to 12 rooms. Structure 2 consists of a kiva depression located 17 meters to the NW of site datum and measures 6 meters in diameter. Structure 3 consists of another kiva depression located 8 meters to the NE of Str.-2 and measures 6 meters in diameter. Feature 1 consists of a midden located 12 meters to the SE of site datum and measures 9 x 16 meters. Ceramics artifacts include Puerco B/R, St. John B/R, Chaco/McElmo B/W, Escavada B/W, and unidentifiable plain greyware and indented corrugated body sherds. All stages of lithic reduction are present. Material types include petrified wood, brown, red, and white chert.

SITE NO.: NM-Q-18-166 **FIGURE-20**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3955960 m **E** 711360 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located in a modern drainage channel S of Burned Corn Hill. The site overlooks several intermittent drainages located 200 meters to the SE. Vegetation present include snakeweed, cheatgrass, rabbitbrush, juniper, narrow-leaf yucca, prickly pear cactus, and Canadian thistle.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PI-IV (A.D. 800-1400)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PI-IV (A.D. 800-1400) habitation. The site contains of one structure (Str.-1) and two features (F-1 & 2). The site consists of a moderate sized PI-IV habitation exposed in the eastern cut of a small drainage S of N 9660 (Jack Johnson) Road. Structure 1 consists of a L-shaped roomblock with an associated high density midden. The roomblock is located ca. 20 meters from site datum and measures 18 x 15 meters. Probably containing 18 to 20 rooms. The northern wall of the roomblock is exposed by a modern drainage channels. The construction material consists of coursed sandstone blocks with mud mortar.

Figure 21: General Plan Map of Site NM-Q-19-85.



SITE NO.: NM-Q-19-85 **FIGURE-17**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3953500 m **E** 707700 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photo-revised 1979)
SITE ENVIRONMENT: The site is located on an NE to SW trending ridge. The site overlooks Figuredo Wash approximately 1500 meters to the W. Vegetation present include Indian ricegrass, Russian thistle, rabbitbrush, wheatgrass, bee-weed, juniper, prickly pear cactus, and shadscale.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi BMIII-PI (A.D. 750-900)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi BMIII-PI (A.D. 750-900) habitation. The site contain one structure (Str.-1) and one feature (F-1). Structure 1 consists of a pithouse located 9 meters to the NE of site datum and measures 6 meters in diameter. It is visible oxidation observed. Feature 1 consists of a midden located 5 meters to the W of site datum and measures 20 meters in diameter. The midden is truncated by the road cut. The ceramics observed include unidentifiable greyware body sherds, Theodore B/W, and 1000+ early pueblo greyware body sherds. All stage of lithic reduction are present. Material type include petrified wood secondary, black, white, red cherts and obsidian.

PREVIOUSLY RECORDED SITES

SITE NO.: NM-Q-18-163 (LA 3562) **FIGURE-18**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3948700 m **E** 701860 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on an E to W trending ridge slope in the northern project R-O-W. Several unnamed blueline drainages are located approximately 200 meters to the S. Vegetation present include rabbitbrush, grama grass, Indian ricegrass, Russian thistle, and snakeweed.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII (A.D. 1000-1150)
SITE TYPE: Specialized Activity
SITE DESCRIPTION: The site consists of an Prehistoric Anasazi PII (A.D. 1000-1150) specialized activity area. The contains an artifact concentration and one feature (F-1). Feature 1 consists of a hearth located 9 meters to the SE of site datum and measures 3 meters in diameter. The concentration is located 19 meters to the SW of site datum and measures 2 meters in diameter. The artifacts observed consist of one Toadlena B/W sherd, several unidentified greyware body sherds, one indented corrugated sherd and one petrified wood secondary flake. Most of this site has been destroyed by natural erosion and road maintenance activity.

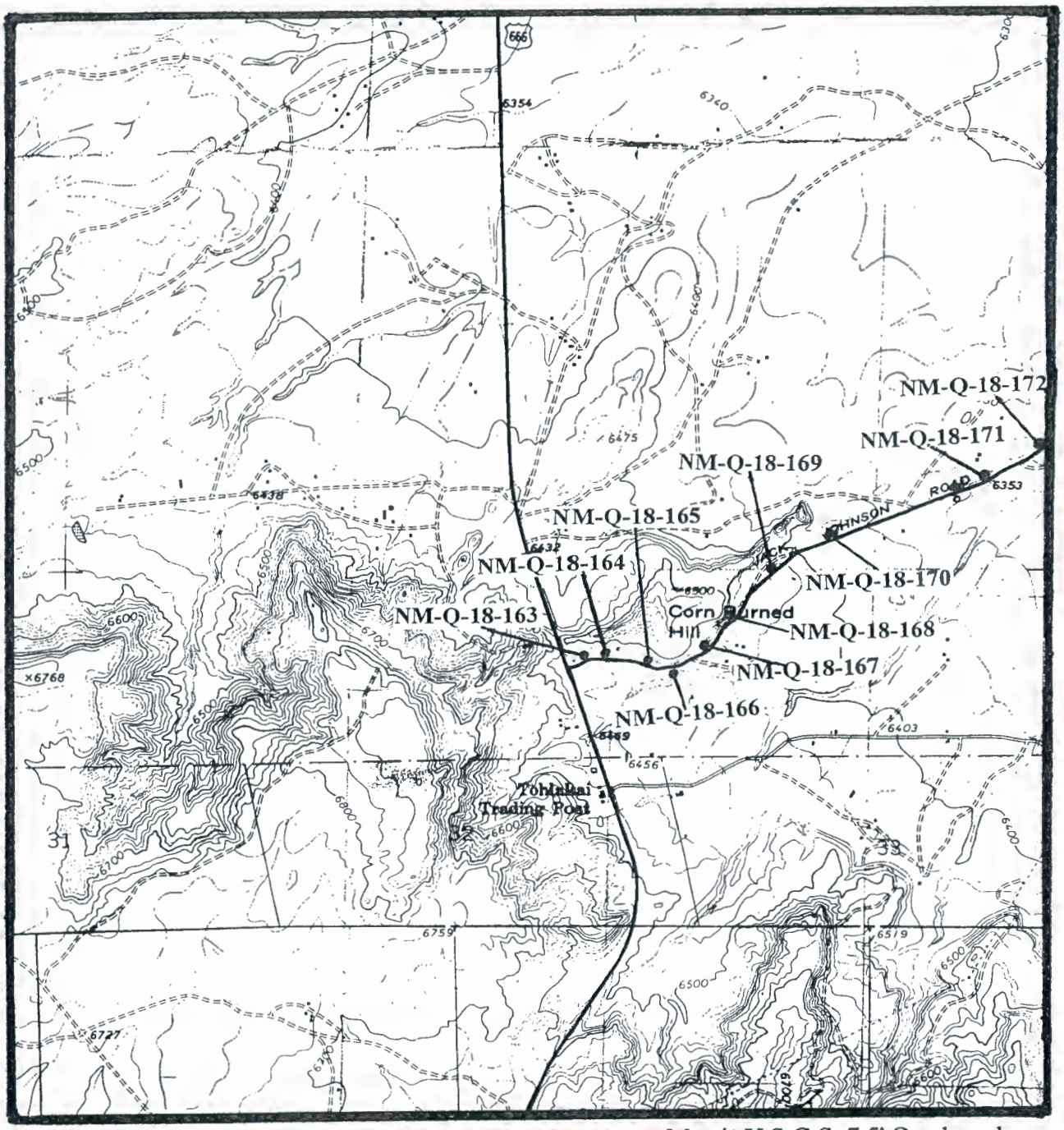


Figure 4: Specific Location of Sites in the Project Area. Map is U.S.G.S. 7.5' Quadrangle "Twin Lakes, N.M. 1963-(Photorevised)".

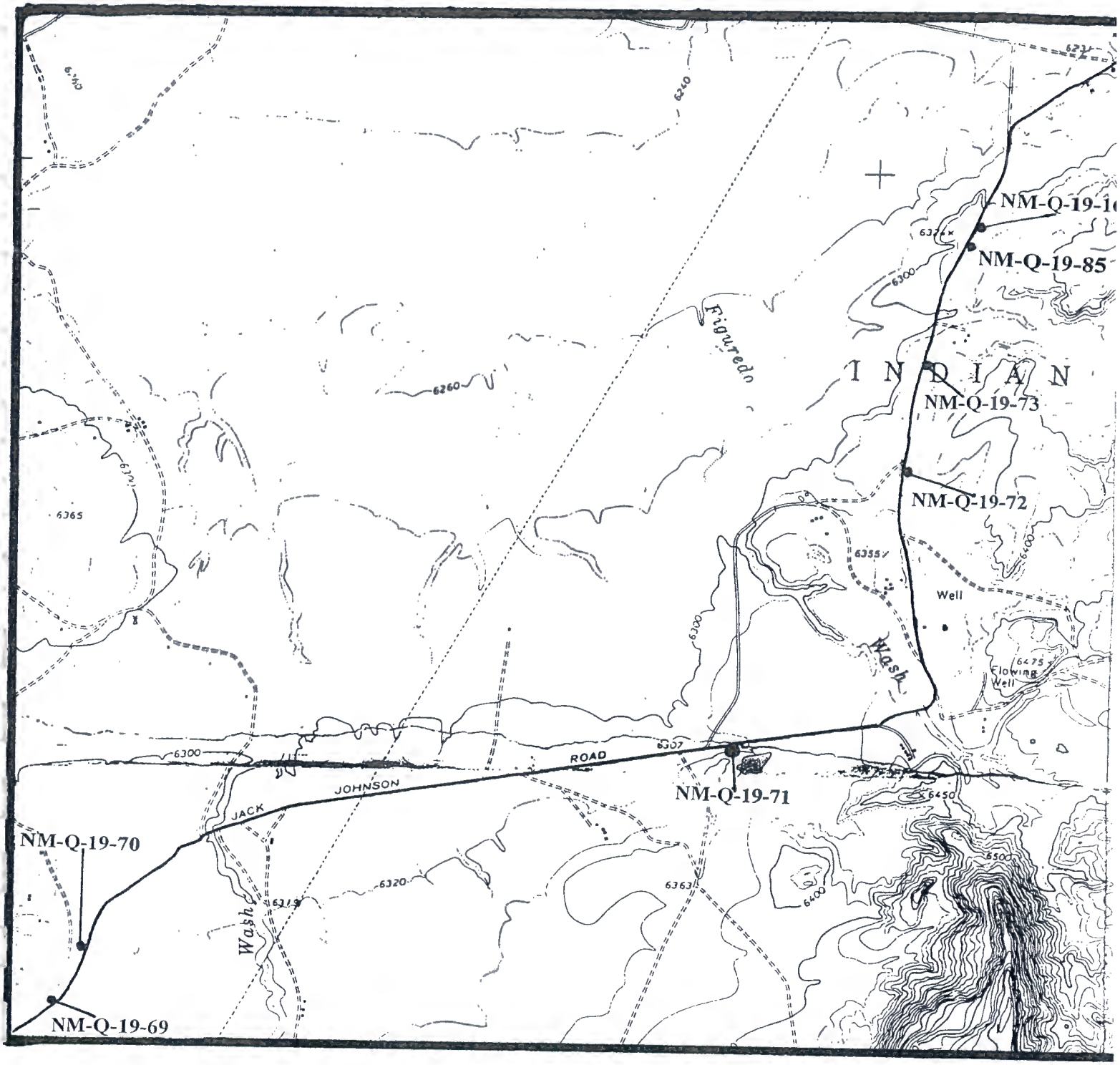


Figure 5: Specific Location of Sites in the Project Area. Map is U.S.G.S 7.5' Quadrangle, "Big Rock Hill, N.M., 1963-(Photorevised 1979)".

Figure 16: General Plan Map of Site NM-Q-19-73.

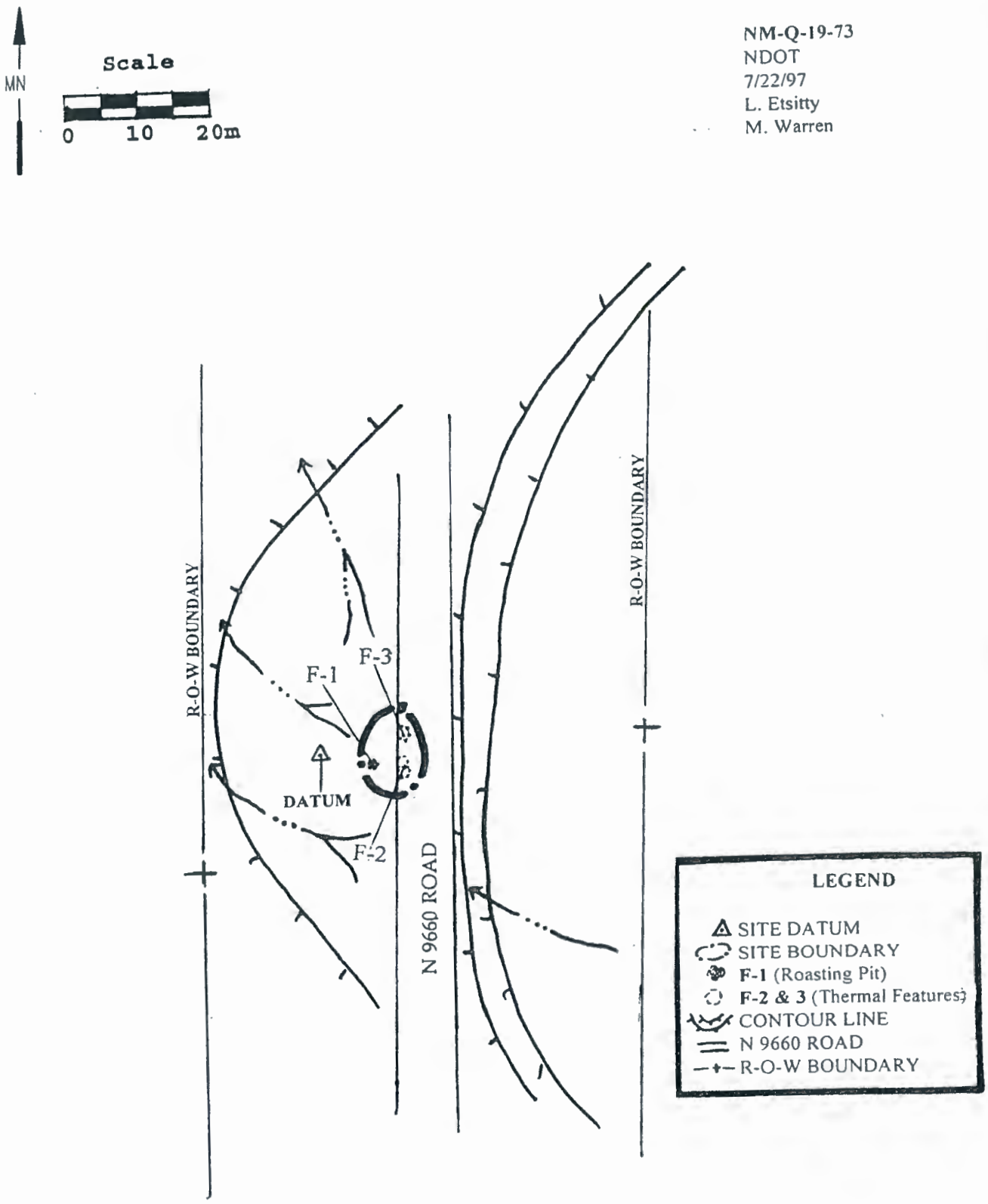
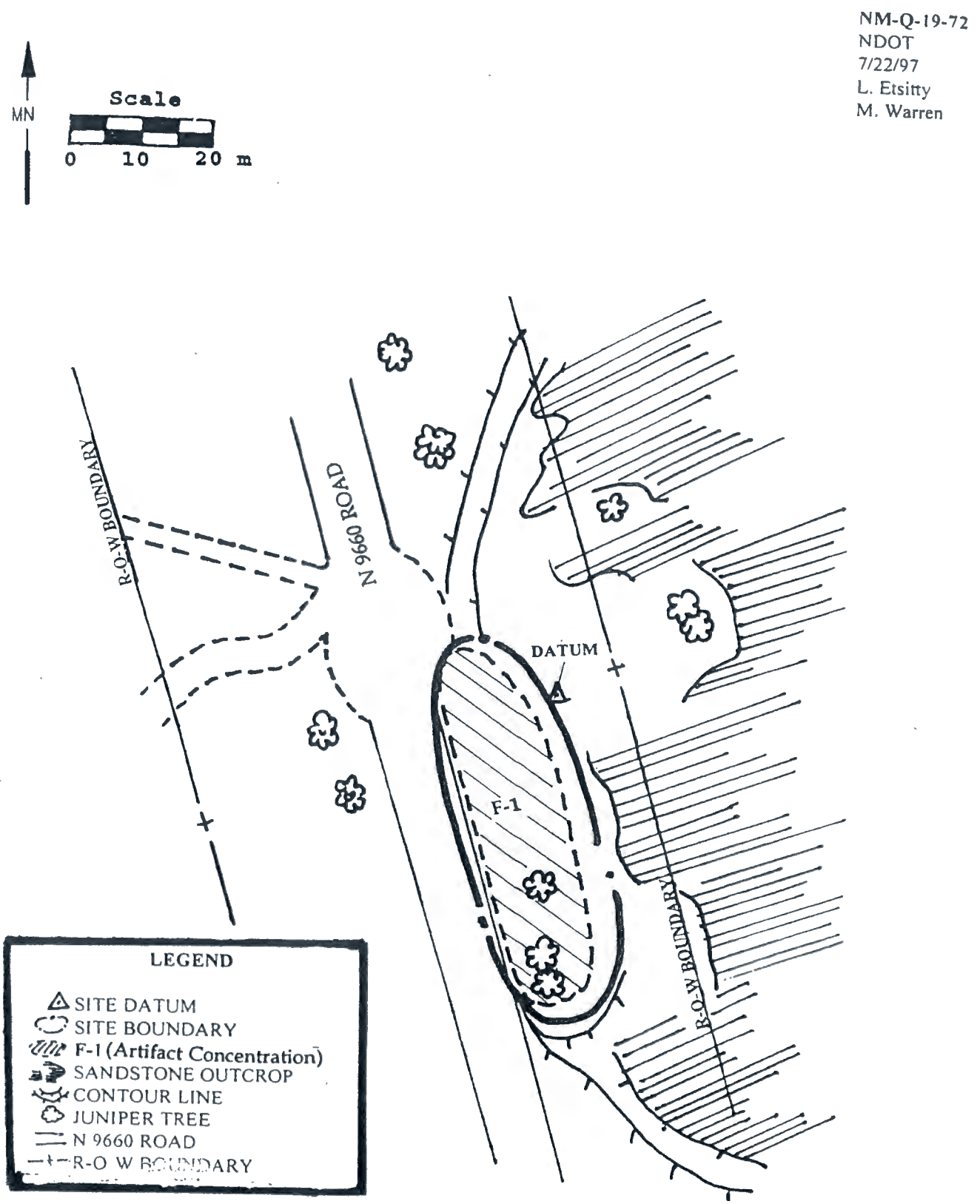


Figure 15: General Plan Map of Site NM-Q-19-72.



SITE NO.: NM-Q-19-72 **FIGURE-15**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3952450 m E 707500 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on NE to SW trending ridge over looking Figuredo Wash approximately 1000 meters to the NE. Vegetation present include Indian ricegrass, Russian thistle, snakeweed, bunch grass, and shade scale.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII (A.D. 1050-1100)
SITE TYPE: Limited Activity
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII (A.D. 1050-1100) limited activity area. The site contains a light density of ceramics & lithics. Ceramics observed include Newcomb B/W and 25+ indented corrugated and plain greyware body sherds. All stage of lithic reduction are present. Material types include petrified wood, banded chert, red, black and white chert. A moderate possibility of subsurface cultural deposits exist. In the northern portion of the R-O-W the site is truncated by the road cut.

SITE NO.: NM-Q-19-73 **FIGURE-16**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3952820 m E 707530 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on NE to Sw trending ridge over looking Figuredo Wash approximately 1000 meters to the W. Vegetation Present include rabbitbrush, Indian ricegrass, Russian thistle, snakeweed, brunch grass, grama grass, and shade scale.
CULTURAL AFFILIATION(S).: Unknown Prehistoric
SITE TYPE: Specialized Activity
SITE DESCRIPTION: The site consists of an unknown prehistoric specialized activity area. The site contains three features (F-1 thru 3). Feature 1 consists of a possible roasting pit located 8 meters to the SE of site datum and measures 1 meter in diameter. Feature 2 consists of a small thermal feature located 4 meters to the SE of F-1 and measures 3 meters in diameter. Feature 3 consists of another thermal feature with a light stain in the road. It is located 4 meters to the N of F-2 and measures 2 meters in diameter. No artifacts were observed around the area.

Figure 14: General Plan Map of Site NM-Q-19-71.

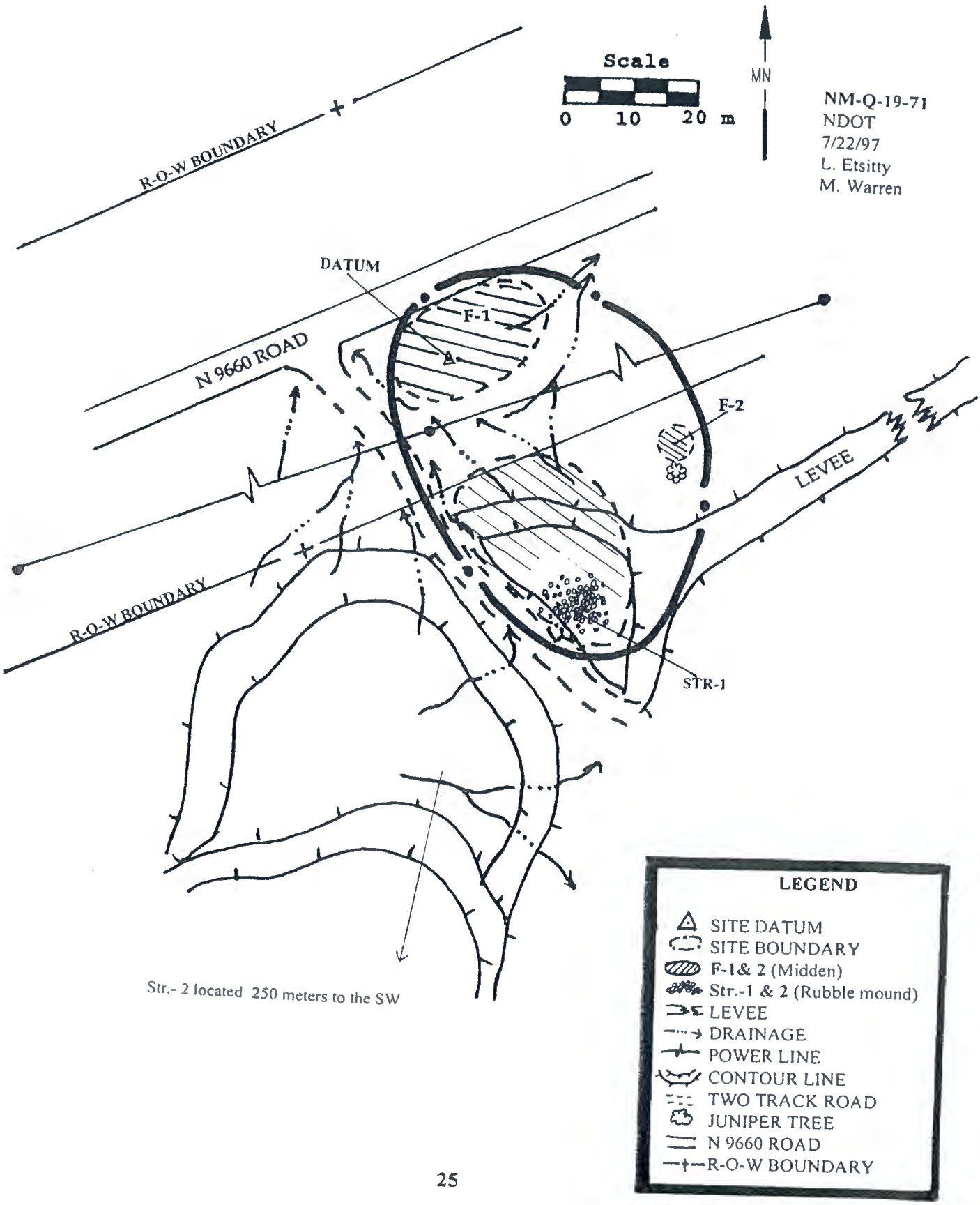
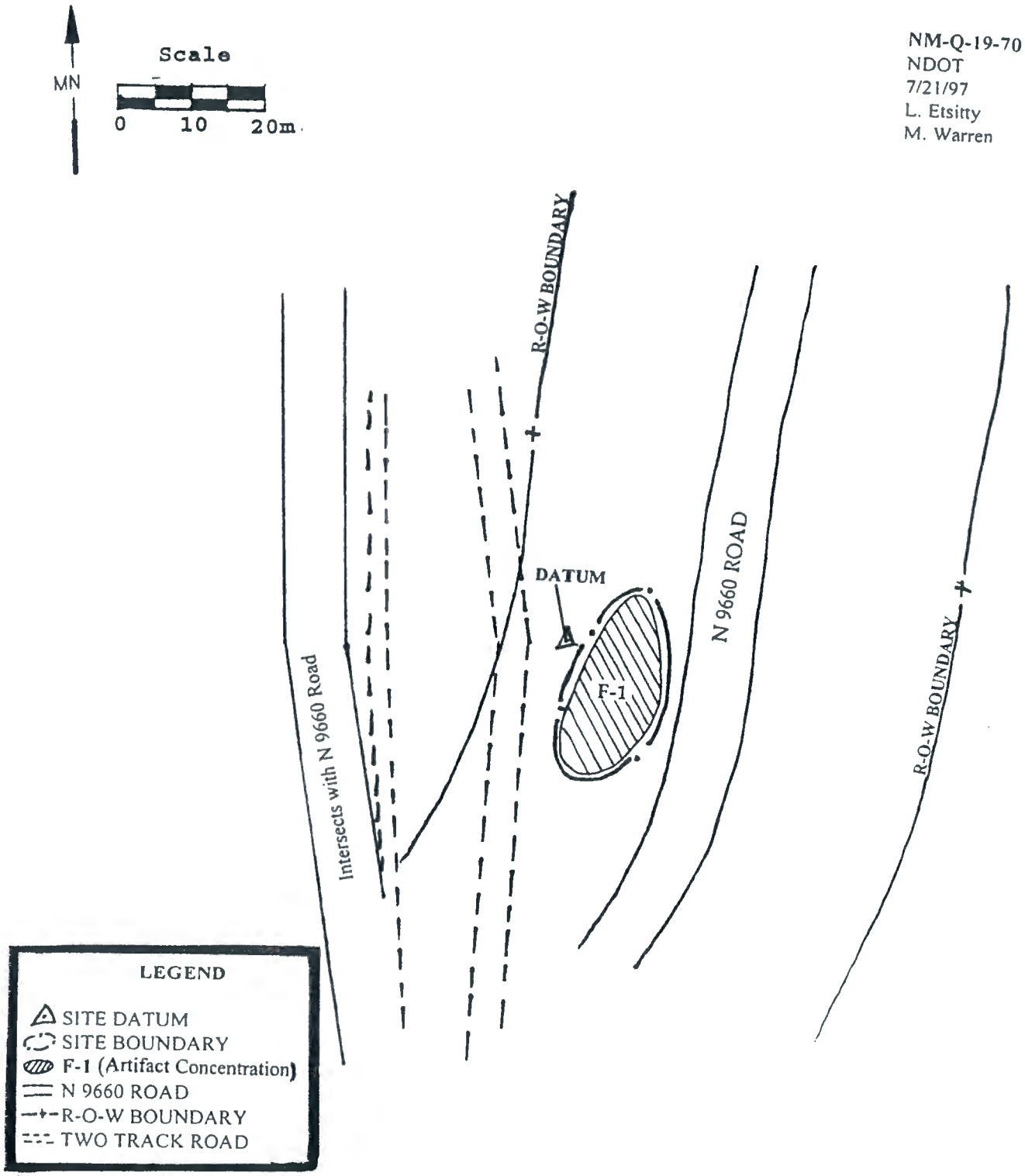


Figure 13: General Plan Map of Site NM-Q-19-70.



SITE NO.: NM-Q-19-70 **FIGURE-13**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3950040 m **E** 703950 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on a low lying NE to SW trending ridge. The site Overlooks Dye Brush Wash located 500 meters to the SE. Vegetation present include Juniper, greasewood, bee weed, wheatgrass, snakeweed, prickly pear cactus, and Indian ricegrass.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII(A.D. 1000-1150)
SITE TYPE: Limited Activity
SITE DESCRIPTION: The site consists of a prehistoric Anasazi PII (A.D. 1000-1150) limited activity area. The site contain one feature (F-1). Feature 1 consists of a light concentration located in the northern portion of N 9660 Road and measures 25 x 13 meters. Artifacts observed include several pieces of identifiable ceramics. The ceramics include Taylor B/W, Chaco/McElmo B/W, and 25+ plain greyware body sherds. All stage of lithic reduction are present. Material types include petrified wood, black, red, and white chert. There is a moderate probability of intact cultural deposits.

SITE NO.: NM-Q-19-71 **FIGURE-14**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3951100 m **E** 706800 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located in alluvial flats near Big Rock Hill. The site overlooks Figuredo Wash located 500 meters to the NE. Vegetation present include snakeweed, Indian ricegrass, bunch grass, shadscale, and Russian thistle.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII-III (A.D. 1050-1300)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of an Prehistoric Anasazi PII-III (A.D. 1050-1300) habitation. The site contains two structures (Str.-1 & 2) and two features (F-1 & 2). The two structures (1 & 2) are located outside the R-O-W. Feature 1 consists of a large concentration of artifacts located in the southern portion of N 9660 road cut. It measures 35 x 25 meters. Feature 2 consists of a small concentration located 25 meters to the SE of F-1 and measures 8 x 8 meters. It appears that Str.-1 has been disturbed. Structure 1 consists of a disturbed rubble mound located 40 meters to the SE of F-1 and measures 32 x 50 meters. Structure 2 consists of another rubble mound located 250 meters to the SW of Str.-1. Ceramics observed include Toadlena B/W, Gallup B/W Taylor B/W, Chaco/McElmo B/W, Crumble house B/W, St. John B/R Woodruff Smudged, Sanostee B/R, and plain greyware body sherds. All stages of lithic reduction are present. Material types include petrified wood, chalcedony, Narbona Pass chert, quartzite, banded chert, and red, black, and white cherts. A dam was built in the southern part of N 9660 Road, it appears that part of Structure 1 was built into the dam.

Figure 12: General Plan Map of Site NM-Q-19-69.

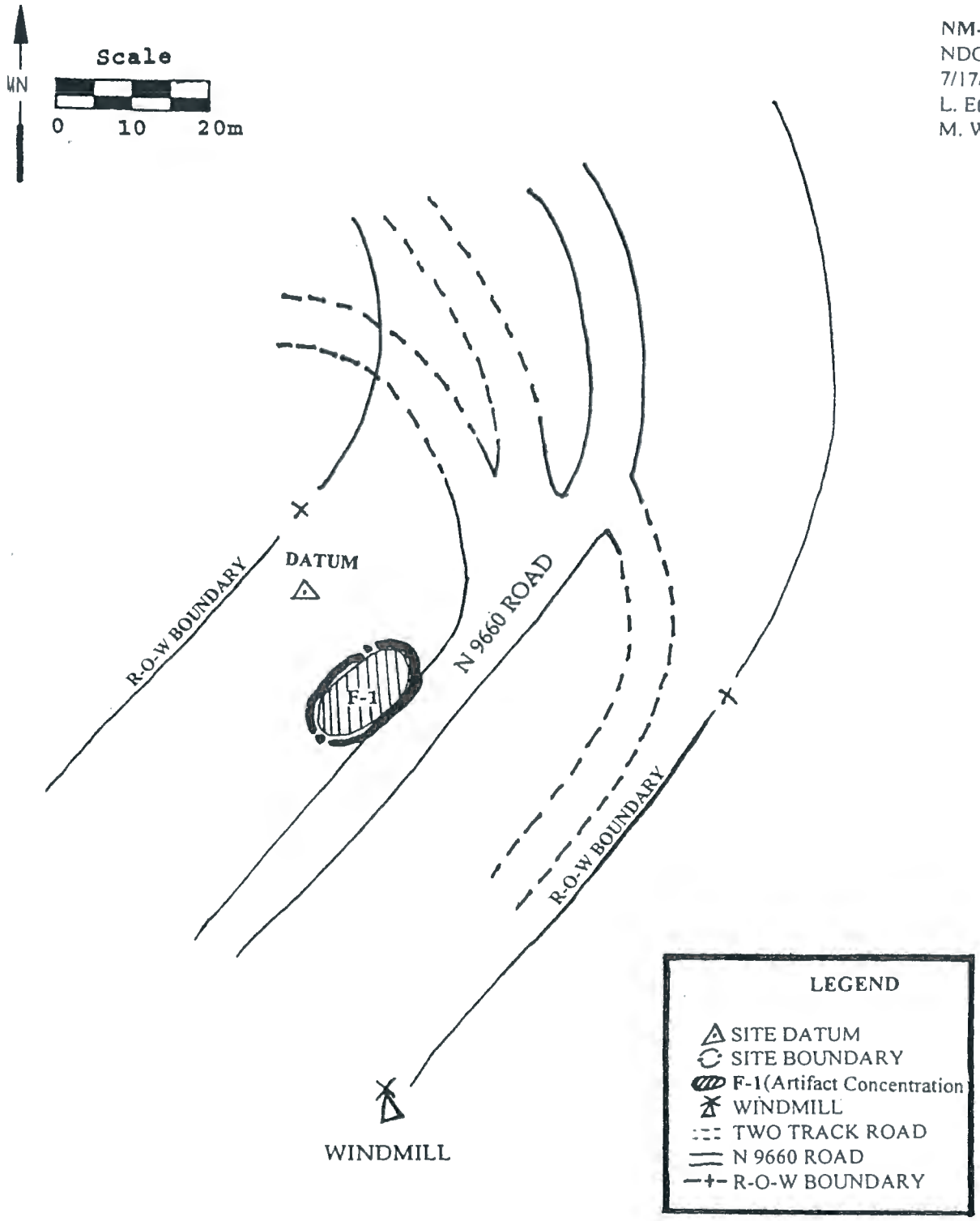
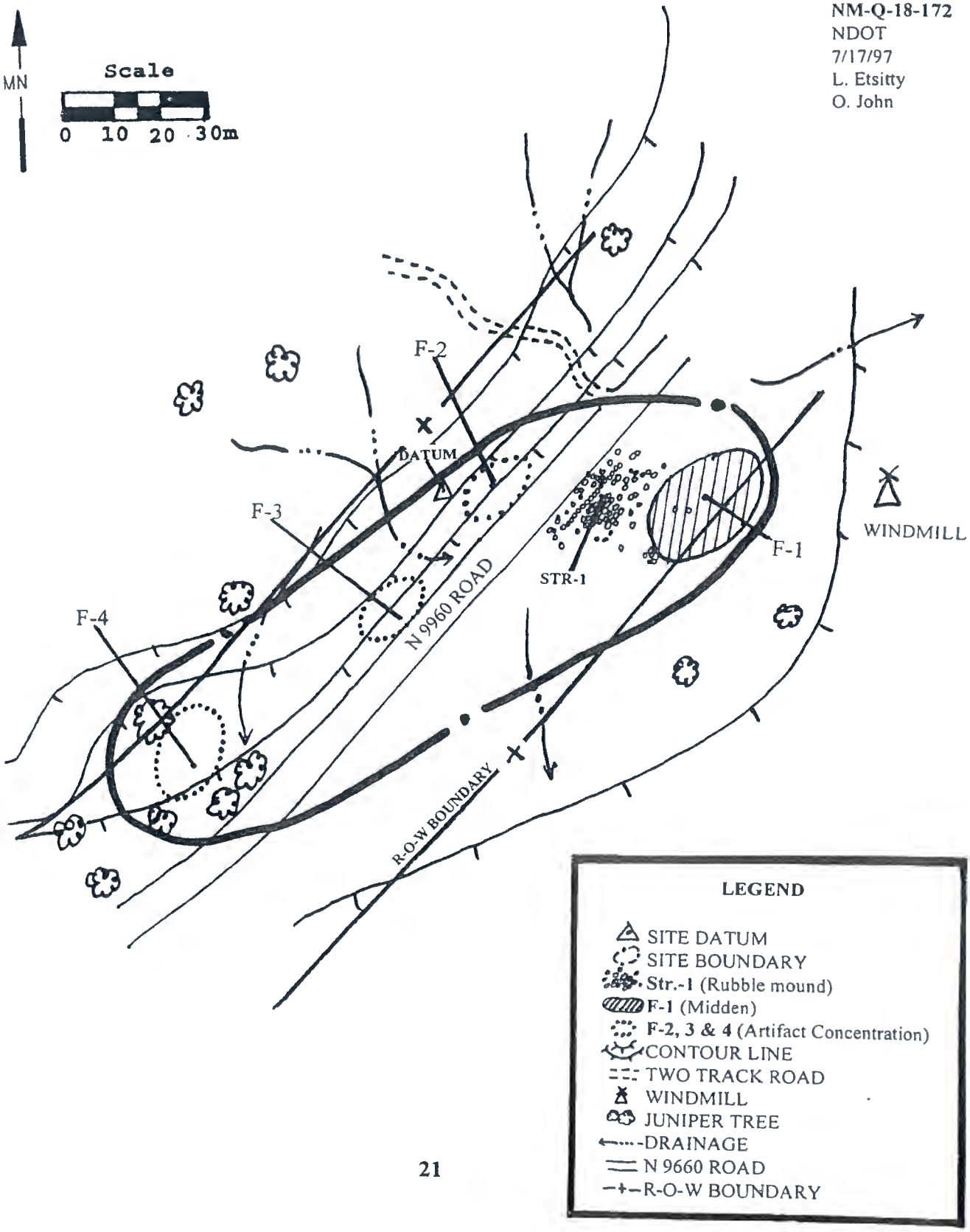


Figure 11: General Plan Map of Site NM-Q-18-172.



SITE NO.: NM-Q-18-172 **FIGURE-11**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3949480 m **E** 703400 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on an NW to SE trending ridge. The site overlooks Dye Brush Wash approximately 500 meters to the E. Vegetation present include Indian ricegrass, Russian thistle, rabbitbrush, wheatgrass, beeweed, juniper, prickly pear cactus, and shadscale.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII-III (A.D. 1000-1150)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII-III (A.D. 1000-1150) habitation. The site contains one structure (Str.-1) and four features (F-1 thru 4). Structure 1 consists of a rubble mound with one area displaying an exposed wall line. It's located 30 meters to the SE of site datum and measures 20 meters in diameter. Feature 1 consists of a midden located 7 meters to the SE of Str.-1 and measures 30 meters in diameter. Ceramics observed were Taylor B/W, Brimhall B/W, Naschitti B/W, Chuska B/W, Chaco/McElmo B/W, Woodruff Smudged, Nava B/W, Newcomb Corrugated, and Grey Banded. Features 2, 3, and 4 consists of artifact concentrations. Feature 2 is located 5 meters to the S of site datum and measures 18 x 9 meters. Features 3 is located 22 meters to the SW of site datum and measures 12 x 9 meters. Feature 4 is located 40 meters to the SW of F-3 and measures 14 x 13 meters.

SITE NO.: NM-Q-19-69 **FIGURE-12**
LEGAL LOCATION: Unplatted, T17N, R18W.
UTM: ZONE 12, **N** 3949790 m **E** 703840 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located near the base of a SW to NE trending ridge. The site overlooks Dye Brush Wash approximately 50 meters to the SE. The site overlooks an unnamed blueline drainage located 75 meters to the NE. Vegetation present include Indian ricegrass, Russian thistle, rabbitbrush, snakeweed, greasewood, shadscale, and grama grass.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII (A.D. 1050-1150)
SITE TYPE: Limited Activity
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII (A.D. 1050-1150) limited activity area. The site contains one feature (F-1). Feature 1 consists of a light artifact concentration located in the northern portion of the road cut and measures 15 x 8 meters. Due to the depth of the soil a possibility of intact subsurface cultural deposit features may exist. Artifacts observed include one Taylor B/W sherd, plain corrugated greyware body sherds and plain greyware body sherds. All stages of lithic reduction are present. Material types include petrified wood, red, black, and white cherts.

Figure 10: General Plan Map of Site NM-Q-18-171.

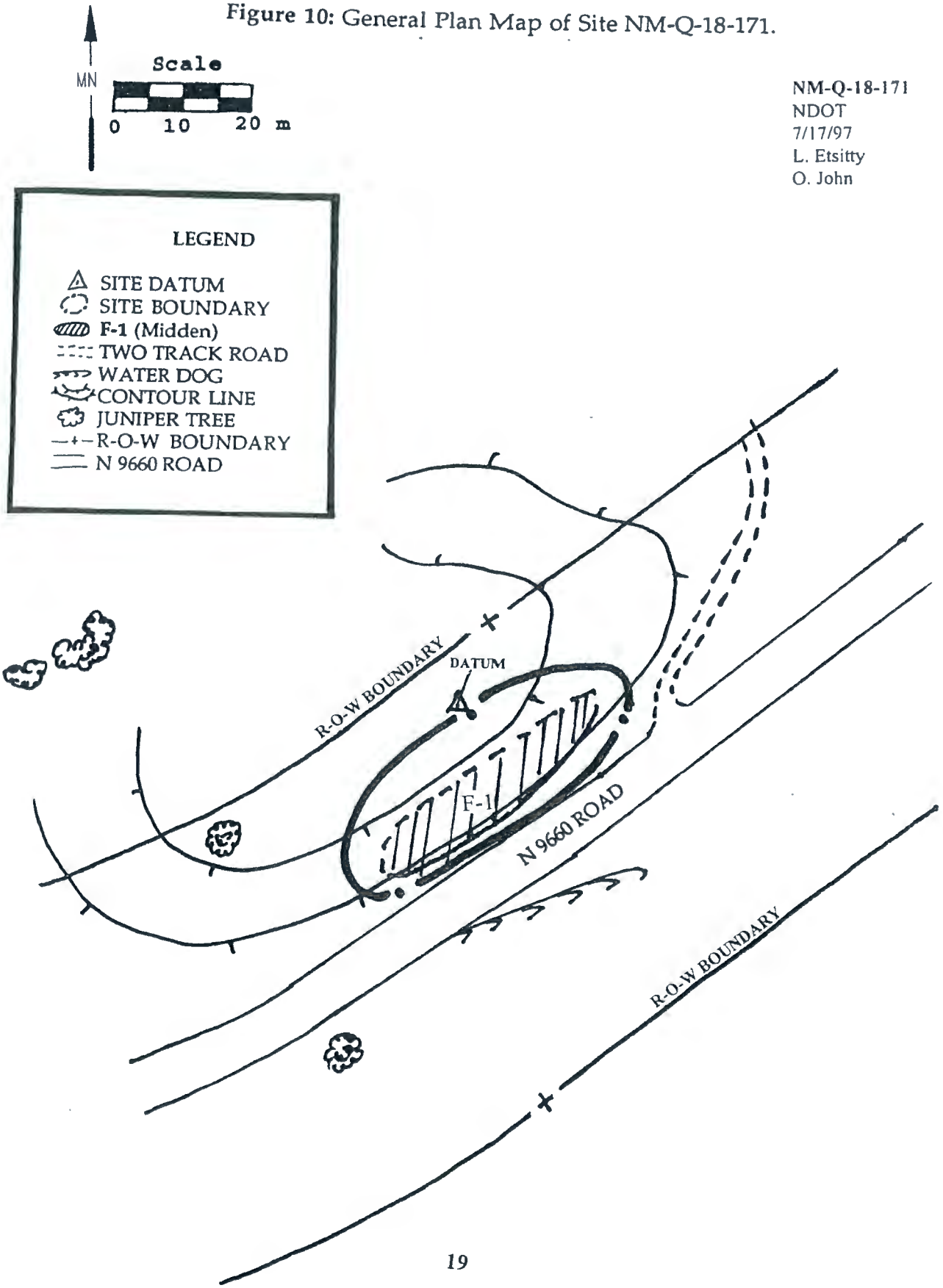
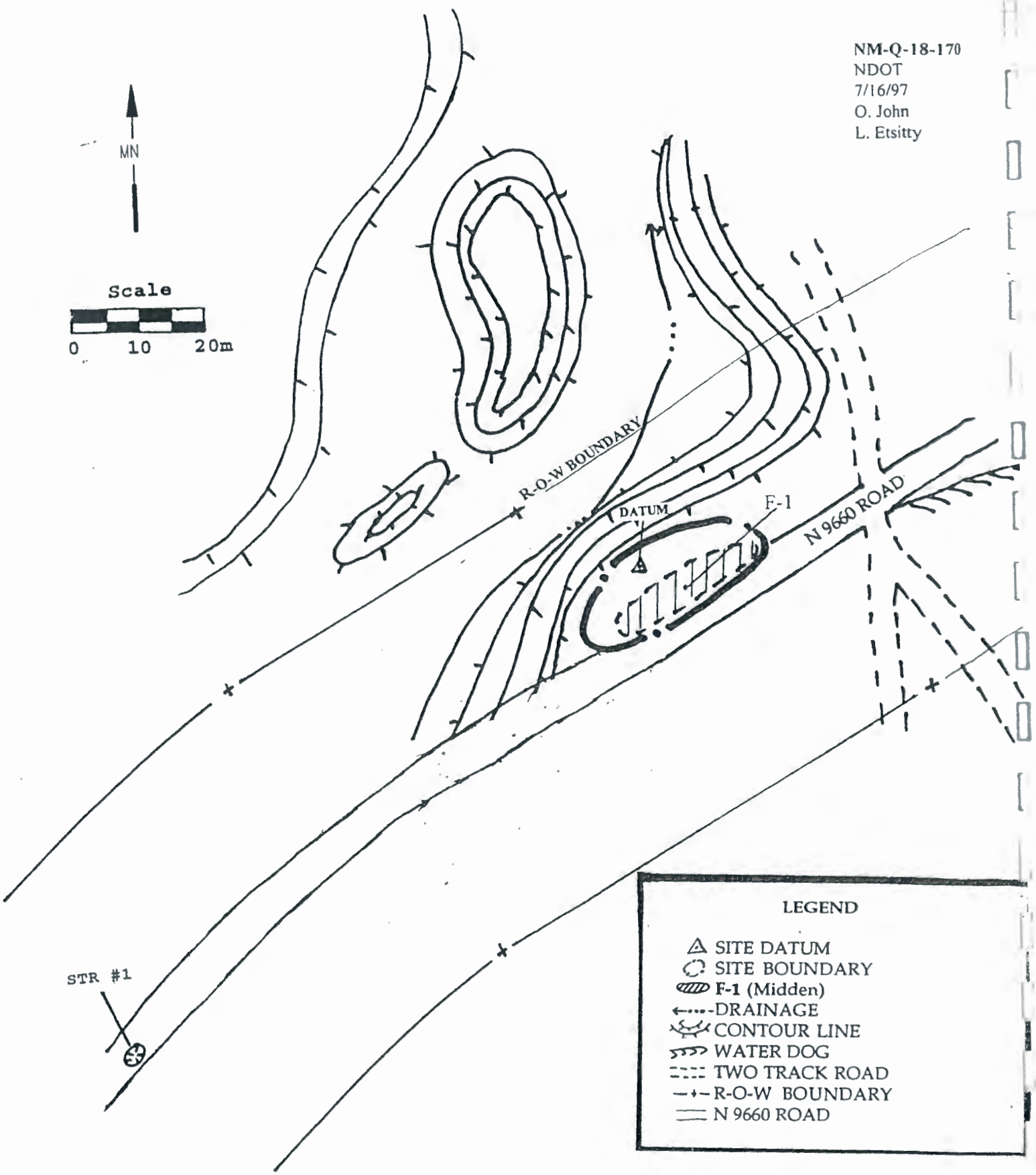


Figure 9: General Plan Map of Site NM-Q-18-170.



Feature 1 and 2 consist of middens. Feature 1 is located 9 meters to the SE of site datum, and measures 6 meters in diameter. Feature 2 is located 14 meters to the SE of site datum and measures 15 meters in diameter. Both of the roomblock and midden have been cut by modern drainage channels. Identifiable ceramics consists of Chaco/McElmo B/W, Taylor B/W, Brimhall B/W, Naschitti B/W, Puerco B/W, St. John B/R, Wingate B/R, Chaco corrugated., Pinedale B/R, and St. John Polychrome. All stages of lithic reduction are present. Material type consists of Chinle chert, red chert, petrified wood secondary flake, and chalcedony, brown flake, red, white, and black chert.

SITE NO.: NM-Q-18-169 (LA 10788) **FIGURE-21**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3948850 m **E** 702400 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on a slight rise near Burned Corn Hill 150 meters to the SW. The overlooks several intermittent drainages located 100 meters to the S. Vegetation present include snakeweed, Russian thistle, rabbitbrush, cheatgrass, wolfberry, juniper, narrow-leaf yucca, prickly pear cactus, and Canadian thistle.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PI-II (A.D. 750-1100)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PI-II (A.D. 750-1100) habitation. The site contains of one feature (F-1). It's possible of intact subsurface cultural remains. Feature 1 consists of a midden, exposed on both side of the road cut. It measures 20 x 70 meters. Artifacts observed include Red Mesa B/W, Naschitti B/W, Newcomb corrugated, and Drolet B/W. All stages of lithic reduction include Narbona Pass chert, petrified wood primary flake, chalcedony, brown, red, white, and black chert.

SITE NO.: NM-Q-19-16 **FIGURE-22**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, **N** 3953460 m **E** 707700 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Big Rock Hill, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located in a broken, active and some stabilized dune. The site overlooks several intermittent tributary of Figuredo Wash. Vegetation present include snakeweed, Russian thistle, rabbitbrush, wolfberry, juniper, dropseed, and greasewood.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi BMIII-PIII (A.D. 800-1100)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi BMIII-PII (A.D. 800-1100) habitation. The architecture present on this site consists of concentrations of sandstone slabs and spalls, representing reduced structural remains of unknown type. Small sandstone slabs are generally

Figure 19: General Plan Map of Site NM-Q-18-166.

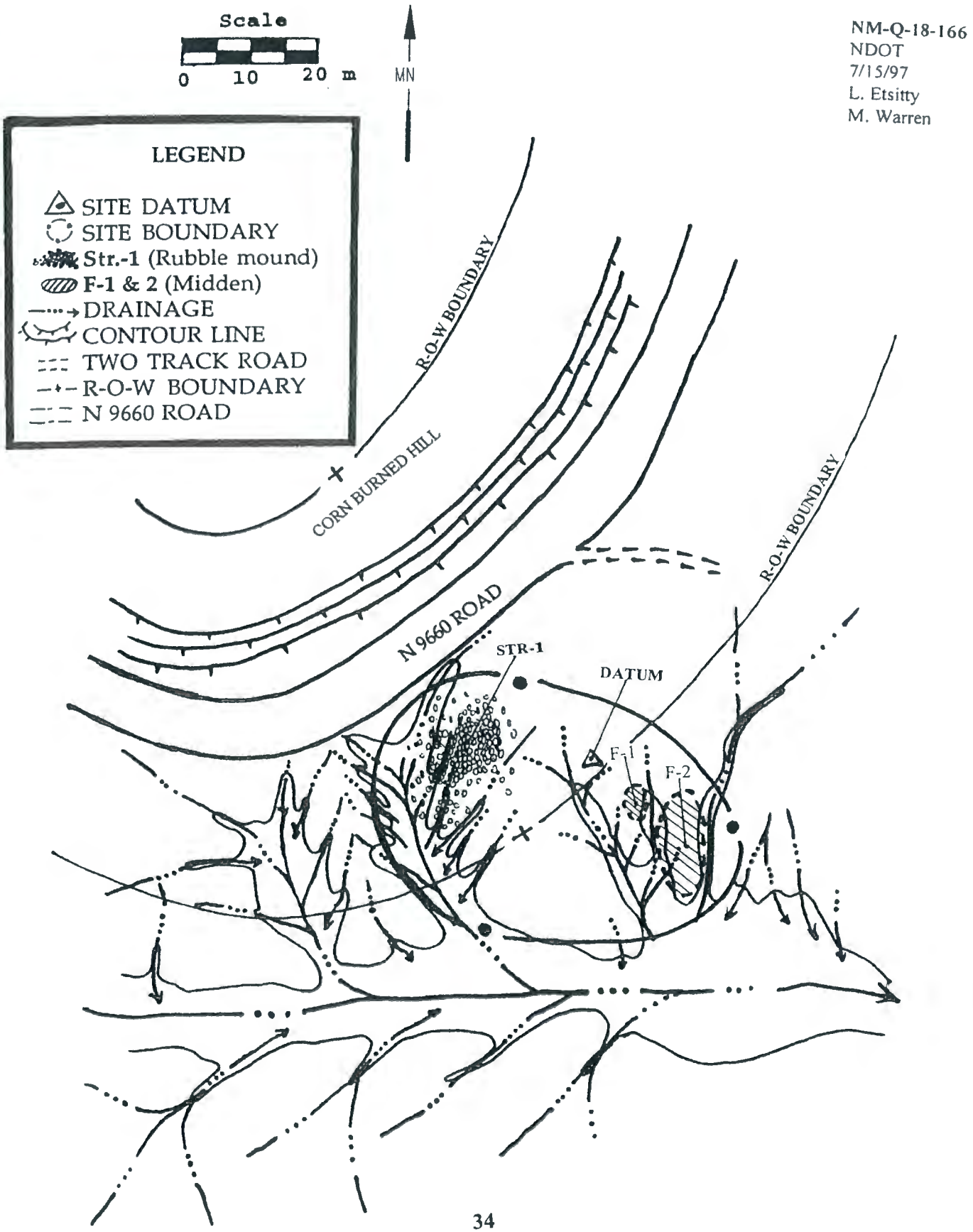
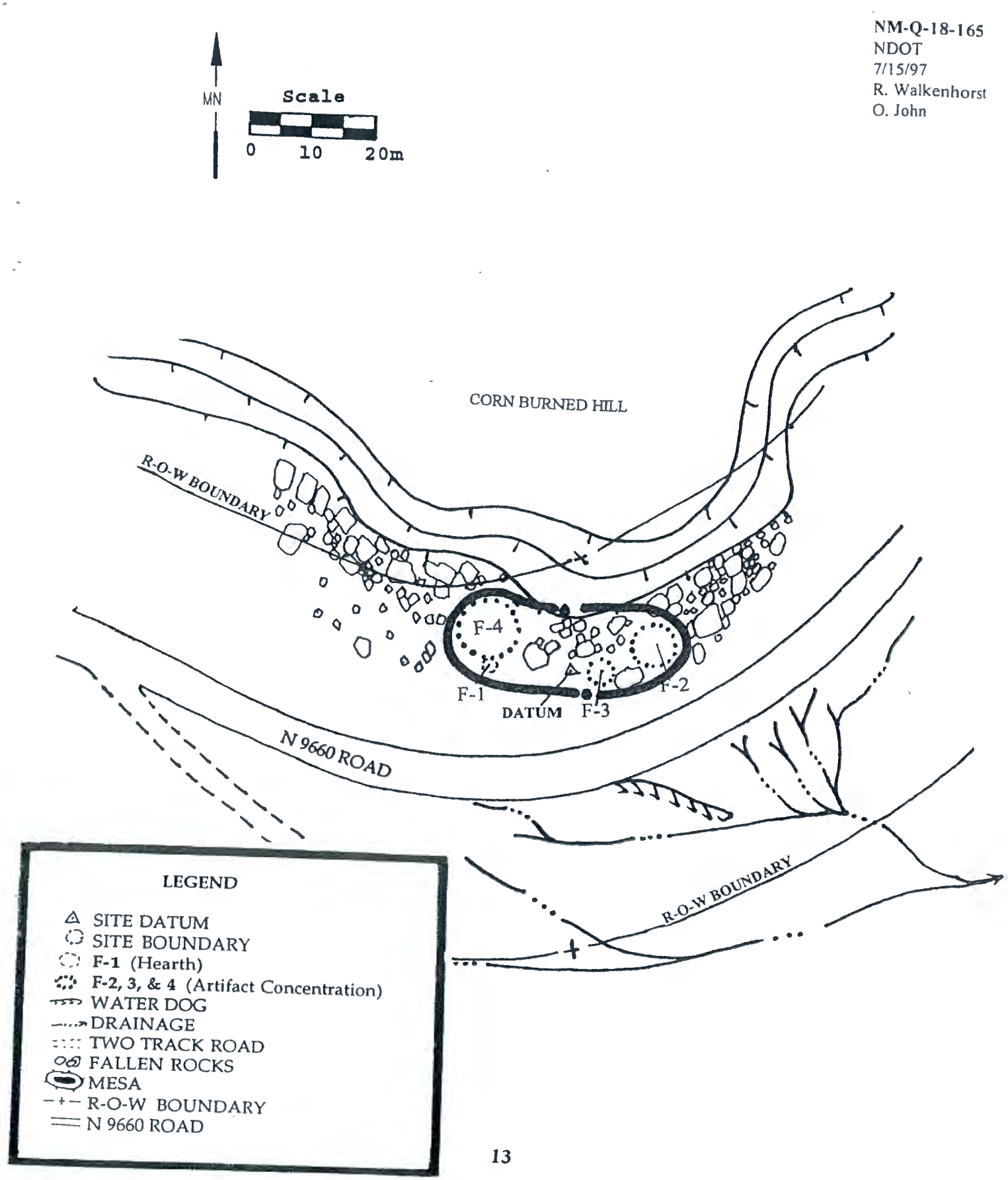


Figure 6: General Plan Map of Site NM-Q-18-165.



CULTURAL AFFILIATION(S): Prehistoric Anasazi PII-III (A.D. 1100-1350)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII-III (A.D. 1100-1350) habitation. The site contains several structures (Str.-1 thru 8) and four feature (F-1 thru 4). Structure 1 consists of a rubble mound located 2 meters to the N of site datum and measures 30 meters in diameter containing 30 rooms. Structure 2, 3 and 4 consists of visible kiva depressions. Structure 2 is located 4 meters to the NE of Str.-1 and measures 8 meters in diameter. Structure 3 is located 2 meters to the SE of Str.-2 and measures 8 meters in diameter. Structure 4 is located 5 meters to the SE of Str.-3 and measures 6 meters in diameter. The mid-section of the site truncated by the original road cut. Structure 5 consists of a disturbed rubble mound along the southern portion the road cut. Structure 6 consists of another disturbed rubble mound located 25 meters to the SE of Str.-5 and measures 21 meters in diameter. Feature 1 and 2 consist of two thermal features. Both features measures 1 meter in diameter. The features were exposed in the recent road cut. There are two vertical slabs that were observed with the features. Features 3 and 4 consists of middens. Feature 3 is located 11 meters to the SE of Str.-5 and measures 10 meters in diameter. Feature 4 is located 8 meters to the N of Str.-6 and measures 15 meters in diameter. Structure 7 consists of an undisturbed rubble mound located 5 meters to the NE from F-1 and measures 18 meters in diameter. Structure 8 consists of a kiva depression located 4 meters to the NE from Str.-7 and measures 8 meters in diameter. Structure 8 is associated with Str.-7. Feature 3 & 4 and structures 7 & 8 are located outside the R-O-W. Artifacts observed from both features include Chaco/McElmo B/W, Taylor B/W, St, John B/R, Naschitti B/W, Gallup B/W, indented corrugated and plain greyware body sherds. All stage of lithic reduction are present. Material types include petrified wood, Chinle chert, Narbona Pass chert, red, brown, and white chert.

SITE NO.: NM-Q-18-168 **FIGURE-8**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3948770 m E 702370 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on Burned Corn Hill. The site overlooks several blueline drainages 300 meters to the SE. Vegetation present includes Indian ricegrass, Russian thistle, snakeweed, rabbitbrush, wolfberry, prickly pear cactus, juniper, and grama grass.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII (A.D. 900-1100)
SITE TYPE: Specialized Activity (Petroglyph Panel & Artifact Concentration)
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi PII (A.D. 900-1100) specialized activity area. The site contains two features (F-1 and 2). Feature 1 consists of a petroglyph panel carved on a huge boulder of rock. The petroglyph panel contains two zoomorphic figures. The panel measures 2 meters in diameter. The petroglyph is badly weather, so portions of the panel are hard to identify. Feature 2 consists of an artifact concentration located 25 meters to the NE of site datum and measures 20 meters in diameter. The ceramics observed were early pueblo gray ware sherds, one St. John B/R sherd, and several indented corrugated body sherds. No lithic materials were observed.

Figure 7: General Plan Map of Site NM-Q-18-167.

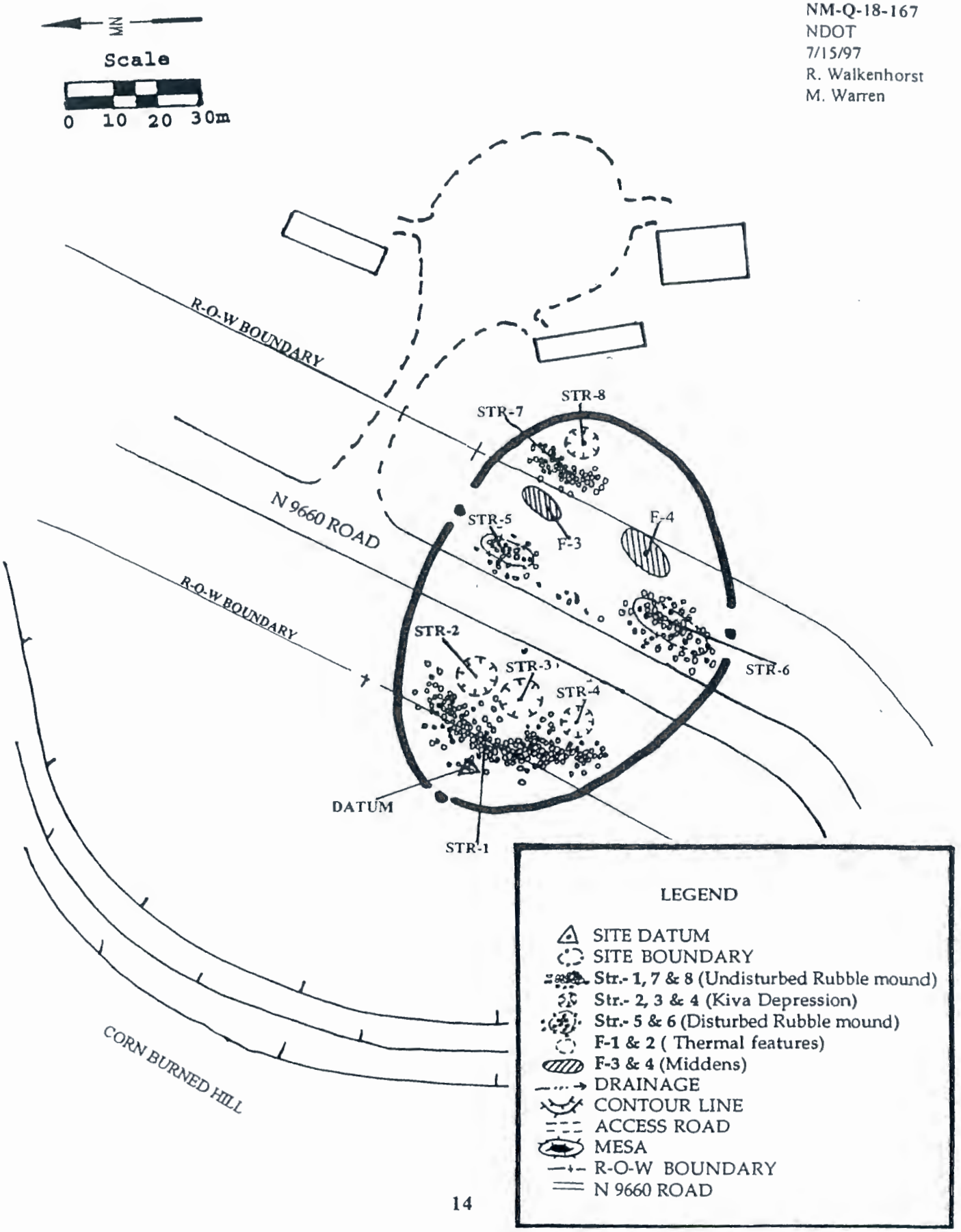
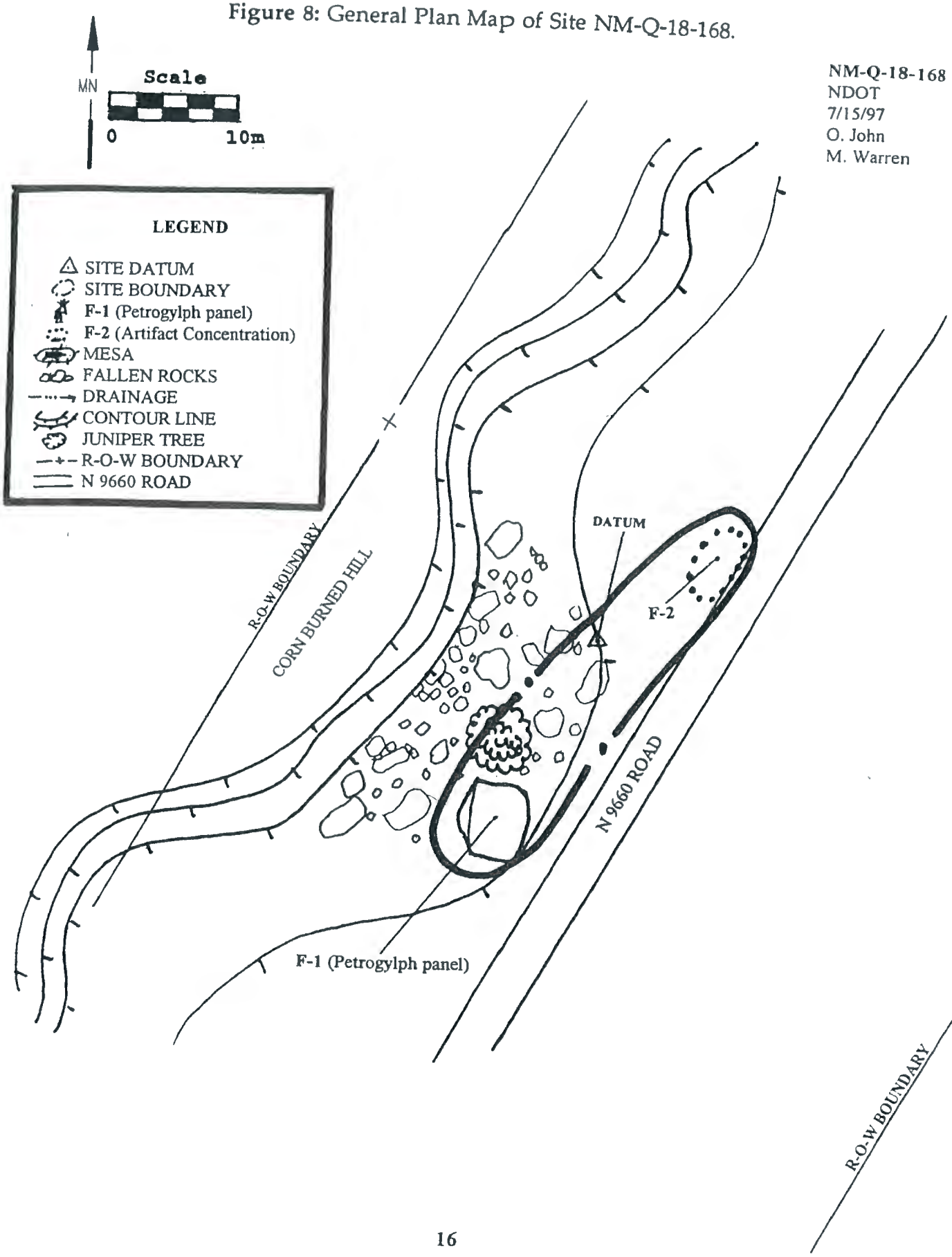


Figure 8: General Plan Map of Site NM-Q-18-168.



SITE NO.: NM-Q-18-170 **FIGURE-9**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3948970 m E 702520 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on a small NW to SE trending ridge. The site overlooks several unnamed blueline drainages approximately 300 meters to the S. Vegetation present include snakeweed, cheat grass, Russian thistle, rabbit brush, wolfberry and Indian ricegrass.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PII (A.D. 900-1100)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of an Prehistoric Anasazi PII (A.D. 900-1100) Habitation. Structure 1 consists of a burned pitstructure measuring ca. 3 meters in diameter. Structure 1 is located in the center of N 9660 road. Feature 1 consists of a artifact concentration located 5 meters to the SE of site datum and measures 25 meters in diameter. There is a high probability of associated structures. Ceramics observed include Brimhall B/W, Taylor B/W, Dorlet B/W, and Naschitti B/W. All stage of lithic reduction were present. Material types includes petrified wood, Narbona Pass chert, chalcedony, red, black, and brown chert.

SITE NO.: NM-Q-18-171 **FIGURE-10**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3949150 m E 702690 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located at the south end of a N to S trending ridge finger. The site overlooks several small washes to the E and W about 200 meters. Vegetation present include Indian ricegrass, Russian thistle, shade scale, snakeweed, and juniper.
CULTURAL AFFILIATION(S).: Prehistoric Anasazi PI-III (A.D. 800-1200)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of an Prehistoric Anasazi PI-III (A.D. 800-1200) habitation. The site contains one feature (F-1). Feature 1 consists of a midden located in the northern portion of the road cut. The midden is evident as it has been exposed in the northern road cut. The exposed area measures 39 x 8 meters. Identifiable ceramics consists of Puerco B/R, Naschitti B/W, Newcomb B/W, Drolet B/W, and Taylor B/W sherd. All stage of lithic reduction are present. Material types include petrified wood, chalcedony, black chert and yellow/red banded cherts.

CULTURAL RESOURCE FINDINGS

A total of 35 cultural resources have been identified in or immediately adjacent to the project's r-o-w. The resources include 12 previously unrecorded, five previously recorded, 15 isolated occurrences, and three in-use sites and one TCP that has been total dismantle. The description of the cultural resources sites are found below.

SITES

The following summaries describe the sites identified for this project. Site locations are shown in Figures 4-5. Completed NNAD site forms are appended to this report.

PREVIOUSLY UNRECORDED SITES:

SITE NO.: NM-Q-18-165 **FIGURE-6**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3948740 m E 702020 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM, 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on an E to W trending ridge slope. The site overlooks several blueline drainages located approximately 200 meters to the south. Vegetation present include rabbitbrush, snakeweed, grama grass, Russian thistle, shadscale, prickly pear cactus, cheat grass and Indian rice grass.
CULTURAL AFFILIATION(S): Prehistoric Anasazi BMIII (A.D. 500-700)
SITE TYPE: Habitation
SITE DESCRIPTION: The site consists of a Prehistoric Anasazi BMIII (A.D. 500-700) habitation. The site contains the remains of four features (F-1 thru 4). Feature 1 consists of a hearth located 11 meters to the W of site datum and measures 1 meter in diameter. Features 2, 3, and 4 contain of artifacts scatters. Feature 2 is located 13 meters to the NW of site datum and measures 10 meters in diameter. Feature 3 is located 6 meters to the E of site datum and measures 4 meters in diameter. Feature 4 is located 8 meters to the NE of F-3 and measures 10 meters in diameter. The only artifacts observed were Bennett Grey jar sherds.

SITE NO.: NM-Q-18-167 **FIGURE-7**
LEGAL LOCATION: Unplatted, T17N, R18W
UTM: ZONE 12, N 3948700 m E 702240 m
STATE: New Mexico **COUNTY:** McKinley **CHAPTER:** Twin Lakes
LAND STATUS: Tribal Trust
USGS 7.5' MAP REFERENCE: Twin Lakes, NM 1963 (Photorevised 1979)
SITE ENVIRONMENT: The site is located on a SW to NE trending ridge. The site overlooks several unnamed blueline drainage located 500 meters to the SE. Vegetation present include rabbitbrush, shadscale, snakeweed, Indian ricegrass, bunch grass, Russian thistle, and grama grass.

Resource Definitions

The following are the NNHPD definitions for cultural resources (NNHPD Permit Package 1991).

Isolated Occurrence:

Any non-structural remains of a single event; alternatively, any non-structural assemblage of approximately 10 or fewer artifacts or other material within an area of approximately 10 square meters or less, especially if it is of questionable human origin, if it appears to be the result of fortuitous causes, or if it lacks integrity. Rock art, burials, and formal features are not recorded as isolated occurrences.

Site:

The location of an event, belief, or activity, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historic, archaeological, or traditional cultural value regardless of the value of any existing structure. Sites do not include isolated historic trash dumps less than ten to twenty years old.

Traditional Cultural Properties:

These are places with or without physical material remains. Demonstrable sacred places with material remains are recorded as sites and evaluated appropriately. A traditional cultural property is defined as a place that has traditionally been considered important to an Indian tribe or member thereof, because of a religious event that happened there, because it played a part in life-cycle rituals, because it contains specific natural products of cultural or religious importance, because it figures in or is mentioned in traditional folklore and sacred songs, because it is considered the dwelling place or embodiment of spiritual beings, because it is conducive to communication with spiritual beings, or because it has other specified and continuing significance in Indian religion or culture. This importance may be of untribal or multi-tribal importance, or may be considered important only to smaller segments of the society, such as chapters, clans, families, or individuals.

According to the National Park Service's National Register Bulletin 38, Traditional cultural properties are considered eligible for inclusion in the National Register of Historic Places because of their "association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community."

It is the policy of the Navajo Nation to protect traditional cultural properties since Section 106 of the National Historic Preservation Act of 1966 provides for protection of National Register eligible sites.

BIOLOGICAL EVALUATION OF JACK JOHNSON ROAD, MCKINLEY COUNTY, NEW MEXICO

Prepared for

MCKINLEY COUNTY
207 West Hill
Gallup, New Mexico 87301

Prepared by

SWCA ENVIRONMENTAL CONSULTANTS
5647 Jefferson Street NE
Albuquerque, New Mexico 87109
Phone: (505) 254-1115; Fax: (505) 254-1116
www.swca.com

SWCA Project No. 25817

May 2013

EXECUTIVE SUMMARY

McKinley County proposes realignment and complete reconstruction of Jack Johnson Road (McKinley County Road 55, Navajo Route 9960), located approximately 9.5 miles north of Gallup, New Mexico, in McKinley County. The Universal Transverse Mercator (UTM) coordinates for the end points of the project area are UTM Zone 13, 158636 Easting and 3953135 Northing, and 165449 Easting and 3958469 Northing (North American Datum 83).

This biological evaluation (BE) has been prepared as part of an effort to determine the effects of the Proposed Action on 1) species listed as threatened, endangered, proposed, or candidate by the U.S. Fish and Wildlife Service (USFWS) for McKinley County, New Mexico, and 2) species of concern listed by the Navajo Nation Department of Fish and Wildlife (NNDFW) either known to occur or having the potential to occur within the U.S. Geological Survey Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangle maps, on which the project boundaries are located. The BE covers approximately 116.8 acres and its objectives are to 1) describe vegetation communities in the project area and 2) evaluate habitat suitability for both federally listed and NNDFW species of concern.

Four federally listed species are covered in the BE. They are protected under the authority of the Endangered Species Act of 1973. An additional three species addressed in this BE are listed by the USFWS as candidate or proposed species and currently receive no statutory protection under the Endangered Species Act. Of the federally endangered, threatened, candidate, and proposed species, none are known to occur in the project area. Nor is there any potential habitat for those species within the project area. As a result, it is unlikely that the Proposed Action will have an adverse effect on any federally listed species or their habitats.

There are nine NNDFW species of concern addressed in this BE. Five of these species have the potential to occur in the proposed project area: golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), mountain plover (*Charadrius montanus*), peregrine falcon (*Falco peregrinus*), and kit fox (*Vulpes macrotis*). However, the project is unlikely to negatively impact any of these species or result in a trend toward federal listing or loss of viability. The NNDFW is the lead permitting agency and has the authority and final decision regarding impacts of the Proposed Action to any federally listed species and whether to require species-specific surveys.

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1.0 INTRODUCTION

SWCA Environmental Consultants (SWCA) was selected by McKinley County to complete a biological evaluation (BE) for the proposed realignment and reconstruction of Jack Johnson Road (McKinley County Road 55, Navajo Route 9960), which is located approximately 9.5 miles north of Gallup, New Mexico (Figures A.1–A.3, Appendix A). The Universal Transverse Mercator (UTM) coordinates for the end points of the project area are UTM Zone 13, 158636 Easting and 3953135 Northing, and 165449 Easting and 3958469 Northing (North American Datum 83). The project area includes an 80-foot right-of-way and a 25-foot buffer on each side (130 feet total), along a 7.6-mile segment of Jack Johnson Road, totaling approximately 116.8 acres. The project area is found on the U.S. Geological Survey (USGS) Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangle maps.

The scope of work for this BE includes:

- review of the U.S. Fish and Wildlife Service (USFWS) species list for McKinley County, New Mexico;
- review of the Navajo Nation Department of Fish and Wildlife (NNDFW) species of concern list for the USGS Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangle maps;
- field reconnaissance of the project area; and
- evaluation of the potential for listed species to occur in the project area.

2.0 METHODS

An SWCA biologist conducted a field reconnaissance of the project area on April 16 and 17, 2013, under NNDFW Biological Investigation Permit 670. The Twin Lakes, NM and Big Rock Hill, NM 7.5-minute topographic maps were used for general orientation and to locate the project boundaries and access roads. Field reconnaissance consisted of pedestrian surveys of the project area to evaluate vegetation and landscape features indicative of federally listed and NNDFW special-status plant and animal species. Surrounding areas within line-of-sight were visually inspected using binoculars for the presence of raptors, their nests, or past signs of raptor use (e.g., whitewash) within a 1-mile buffer surrounding the project area.

2.1 SPECIES IDENTIFICATION

The USFWS maintains county lists of endangered, threatened, proposed, and candidate species known to occur in New Mexico, as well as critical habitats designated in the state. Endangered and threatened species are protected under the Endangered Species Act of 1973 (ESA) (16 United States Code [USC] 1531 et seq.). The ESA specifically prohibits "take," which means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct" to a listed species. Avian species, with the exception of upland game birds and introduced species, also receive legal protection under the federal Migratory Bird Treaty Act (MBTA) (16 USC 703–712).

Special-status species evaluated in this BE were based in part on the list of endangered, threatened, proposed, and candidate species for McKinley County, New Mexico, available at the USFWS website (USFWS 2013a). At the request of SWCA, the NNDFW provided a list of Navajo Nation species of concern, federally listed species, species listed under the MBTA and the Bald and Golden Eagle Protection Act, and species listed for their cultural and economic significance that are known to occur in or near the project area or within the relevant USGS Twin Lakes, NM and Big Rock Hill, NM 7.5-minute quadrangles. The response letter is included in Appendix B.

2.2 SPECIES EVALUATION

The potential for local species occurrence addressed in this BE was based on 1) existing species distribution information, 2) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the project area, and 3) direct field observations. Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

The potential for occurrence of a species was identified using the following categories:

- *Known to occur*—the species had been documented in the project area by a reliable observer.
- *May occur*—the project area was within the species' currently known range, and vegetation communities, soils, etc., resembled those known to be used by the species.

- *Unlikely to occur*—the project area was within the species' currently known range, but vegetation communities, soils, etc., did not resemble those known to be used by the species, or the project area was clearly outside the species' currently known range.

Species federally listed as endangered or threatened under the ESA were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by the USFWS include:

- *May affect, is likely to adversely affect*—the proposed project is likely to have an adverse effect on the species or its critical habitat. Any action that would result in take of an endangered or threatened species is considered an adverse effect. A combination of beneficial and adverse effects is still considered "likely to adversely affect," even if the net effect is neutral or positive. Adverse effects are not considered discountable because they are expected to occur. In addition, the probability of occurrence must be extremely small to qualify as discountable effects. Likewise, an effect that can be detected in any way or that can be meaningfully articulated in a discussion of the results of the analysis is not insignificant; it is an adverse affect.
- *May affect, is not likely to adversely affect*—all effects to the species and its critical habitat are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without adverse effects to the species (for example, there cannot be "balancing," so that the benefits of the action would outweigh the adverse effects). Insignificant effects relate to the size of the impact and should not reach the scale where take occurs. Discountable effects are considered extremely unlikely to occur. Based on best judgment, a person would not: 1) be able to meaningfully measure, detect, or evaluate insignificant effects or 2) expect discountable effects to occur. Determinations of "not likely to adversely affect, due to beneficial, insignificant, or discountable effects" require written concurrence from the Service.
- *No effect*—there are absolutely no effects to the species and its critical habitat, either positive or negative.

Because species not listed as threatened or endangered are not protected under the authority of the ESA[1] , impact determinations for these species do not follow USFWS terminology. The impact determinations for those species are the following:

- *No impact* – the project will have no impact on a species if 1) the species is considered unlikely to occur (range, vegetation, etc., are inappropriate) and/or if 2) the species or its sign was not observed during surveys of the project area.
- *Beneficial impact* the project is likely to benefit the species, whether it is currently present or not, by creating or enhancing habitat elements known to be used by the species.
- *May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability* – the project is not likely to adversely impact a species if 1) the species may

[1] This includes the NNDFW's species of concern that are not protected under the ESA.

occur but its presence has not been documented and/or if 2) project activities would not result in disturbance to areas or habitat elements known to be used by the species.

- *May impact individuals and is likely to result in a trend toward federal listing or loss of viability* – the project is likely to adversely impact a species if 1) the species is known to occur in the project area and/or if 2) project activities would disturb areas or habitat elements known to be used by the species or would directly affect an individual.

3.0 RESULTS

3.1 ECOLOGICAL OVERVIEW

The elevation of the project area ranges between 6,253 to 6,489 feet above mean sea level (amsl). The project area is located entirely on the Navajo Indian Reservation. The majority of the project area follows the existing Jack Johnson Road, with an addition "dog-leg" portion that does not follow an existing road. The project area intersects several drainages (Figures A.2 and A.3, Appendix A).

The proposed project area is located in NNDFW-designated Area 3: Low Sensitivity Wildlife Resources. This resource category is associated with a low, fragmented concentration of species of concern. Species in Area 3 may be locally abundant on "islands" of habitat, but islands are relatively small, limited in number, and well spaced across the landscape. However, the NNDFW recognizes that lands within Area 3 may not be completely surveyed for the occurrence of sensitive species or habitat. A more detailed description and criteria for evaluation of Area 3 projects is included in Appendix C.

3.2 VEGETATION

The project area has been highly disturbed with the existence of an established road and the 25-foot buffer on each side of the road. On April 16 and 17, 2013, SWCA biologists observed sparse herbaceous cover and some shrub species within the 25-foot buffer on each side of the road. There are some scattered twoneedle pinyon (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) surrounding the project area. A list of plant species observed by SWCA biologists on April 16 and 17, 2013, is included in Table D.1 (see Appendix D). Photographs depicting characteristic vegetation can be found in Appendix E.

The Southwest Regional Gap Analysis Project (SWReGAP) maps the majority of the project area as Inter-Mountain Basins Semi-Desert Grassland, Inter Mountain Basins Semidesert Shrub Steppe, and Colorado Plateau Mixed Bedrock Canyon and Tableland, which are defined as:

Inter-Mountain Basins Semi-Desert Grassland

This widespread ecological system occurs throughout the intermountain western United States on dry plains and mesas, at approximately 4,750 to 7,610 feet amsl. These grasslands occur in lowland and upland areas and may occupy swales, playas, mesatops, plateau parks, alluvial flats, and plains, but sites are typically xeric. Substrates are often well-drained sandy or loamy-textured soils derived from sedimentary parent materials but are quite variable and may include fine-textured soils derived from igneous and metamorphic rocks. When they occur near foothill grasslands they will be at lower elevations. The dominant perennial bunch grasses and shrubs within this system are all very drought-resistant plants. These grasslands are typically dominated or co-dominated by Indian ricegrass (*Achnatherum hymenoides*), threeawn (*Aristida* spp.), blue grama (*Bouteloua gracilis*), needle and thread (*Hesperostipa comata*), muhly grass (*Muhlenbergia* sp.), or James' galleta (*Pleuraphis jamesii*) and may include scattered shrubs and dwarf-shrubs of species of sagebrush (*Artemisia* sp.), saltbush (*Atriplex* sp.),

blackbrush (*Coleogyne* sp.), Mormon tea (*Ephedra* sp.), snakeweed (*Gutierrezia* sp.), or winterfat (*Krascheninnikovia lanata*) (USGS 2004).

Inter Mountain Basins Semidesert Shrub Steppe

This ecological system occurs throughout the intermountain western United States, typically at lower elevations on alluvial fans and flats with moderate to deep soils. This semiarid shrub-steppe is typically dominated by graminoids (>25% cover) with an open shrub layer. Characteristic grasses include Indian ricegrass, blue grama, saltgrass (*Distichlis spicata*), needle and thread, James' galleta, Sandberg bluegrass (*Poa secunda*), and alkali sacaton (*Sporobolus airoides*). The woody layer is often a mixture of shrubs and dwarf-shrubs. Characteristic species include fourwing saltbush (*Atriplex canescens*), big sagebrush (*Artemisia tridentata*), Greene's rabbitbrush (*Chrysothamnus greenei*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), Mormon tea, rubber rabbitbrush (*Ericameria nauseosa*), broom snakeweed (*Gutierrezia sarothrae*), and winterfat. Big sagebrush may be present but does not dominate. The general aspect of occurrences may be either open shrubland with patchy grasses or patchy open herbaceous layer. Disturbance may be important in maintaining the woody component. Microphytic crust is very important in some stands. (USGS 2004)

Colorado Plateau Mixed Bedrock Canyon and Tableland

The distribution of this ecological system is centered on the Colorado Plateau where it is composed of barren and sparsely vegetated landscapes (generally <10% plant cover) of steep cliff faces, narrow canyons, and open tablelands of predominantly sedimentary rocks, such as sandstone, shale, and limestone. Some eroding shale layers similar to Inter Mountain Basins Shale Badland may be interbedded between the harder rocks. The vegetation is characterized by very open tree canopy or scattered trees and shrubs with a sparse herbaceous layer. Common species include twoneedle pinyon, ponderosa pine (*Pinus ponderosa*), junipers (*Juniperus* sp.), littleleaf mountain mahogany (*Cercocarpus intricatus*), and other short-shrub and herbaceous species, utilizing moisture from cracks and pockets where soil accumulates (USGS 2004).

3.3 WILDLIFE

Other than small passerines, little wildlife was observed by SWCA biologists on April 16 and 17, 2013, possibly the result of high winds (30–40 miles per hour). No prairie dog (*Cynomys* sp.) colonies were observed in the project area. This virtually eliminates the potential for the black-footed ferret (*Mustela nigripes*) to occur in the project area. A complete list of wildlife observed in the project area on April 16 and 17, 2013, can be found in Table D.2 (see Appendix D).

3.4 SOILS AND GEOLOGY

The soil type mapped within the project area is the Torrifluvents-Haplargids-Haplustolls. (Natural Resources Conservation Service [NRCS] 2013a). Most of this soil type corresponds to Notal-Jocity family complex, 0 to 2 percent slopes (52. 1 acres), followed by Doakum-Betonnie families complex, 1 to 5 percent slopes (34.8 acres), Betonnie-Bond families-Skyvillage

complex, 3 to 8 percent slopes (21.7 acres), Rock outcrop-Eagleye-Teesto family complex, 35 to 70 percent slopes (7.8 acres), Doakum fine sandy loam, 2 to 8 percent slopes (0.25 acres), and Shiprock family-Farb-Rock outcrop complex, 3 to 8 percent slopes (0.13 acres).

The surface geology within the 116.8-acre project area is the Menefee Formation (Campanian to Santonian). The primary rock type for this geology type is fine-grained mixed clastic with components of mudstone, shale, and sandstone. The secondary rock type is coal (USGS 2013).

3.5 WETLANDS

The USFWS's National Wetlands Inventory was consulted in order to determine whether wetlands are known from within the project area (USFWS 2013b). No wetlands exist in the project area or the immediate vicinity. No white alkaline crusts indicative of potential habitat for Parish's alkali grass (*Puccinellia parishii*) were observed on April 16 and 17, 2013.

3.6 SPECIES EVALUATION

3.6.1 FEDERALLY LISTED SPECIES

None of the four species listed by the USFWS as endangered, threatened, proposed, or candidate for McKinley County, New Mexico, have the potential to occur in the project area. As a result, the project is not likely to adversely affect any of these species. The project area is either outside their known geographic or elevational range, or it does not contain vegetation or landscape features known to support them, or both. Habitat requirements, potential for occurrence, and possible effects on these species are summarized in Table 3.1.

Table 3.1. Federally Listed Species Potentially Occurring in McKinley County, New Mexico

Common Name (*Scientific Name*)	USFWS Status	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect*
Black-footed ferret (*Mustela nigripes*)	Endangered	Found on grassland plains in mountain basins at elevations below 10,500 feet, almost exclusively in association with prairie dogs, which serve as a primary source of food and burrows. The only known population in New Mexico consists of ferrets reintroduced on Vermejo Park Ranch in Colfax County. Elsewhere the species is considered extirpated.	Unlikely to occur. No prairie dog towns were detected during the survey, and, other than the reintroduction effort on Vermejo Park, no black-footed ferret populations remain in New Mexico.	No effect

Common Name (*Scientific Name*)	USFWS Status	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect*
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine–Gambel oak (*Quercus gambelii*). Nests in live trees on natural platforms (e.g., dwarf mistletoe [*Arceuthobium* sp.] brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet.	Unlikely to occur. The project area does not contain canyon walls, or mixed-conifer or extensive pine-oak vegetation types.	No effect
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood (*Populus* sp.), willow (*Salix* sp.), boxelder (*Acer negundo*), saltcedar (*Tamarix* sp.), Russian olive (*Elaeagnus angustifolia*), buttonbush (*Cephalanthus occidentalis*), and arrowweed (*Pluchea sericea*) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet tall, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet.	Unlikely to occur. There is no dense riparian vegetation in the project area.	No effect
Yellow-billed cuckoo (*Coccyzus americanus*)	Candidate	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet. Dense understory foliage appears to be an important factor in nest site selection.	Unlikely to occur. There is no riparian vegetation in the project area.	No impact
Whooping crane (*Grus americana*)	Experimental, non-essential population (treated as proposed)	Foraging areas are generally agricultural fields and valley pastures, particularly where there is waste grain or sprouting crops. Whooping cranes wintered in New Mexico through 2000 but that flock is now presumed extinct. Typically roosted on sand bars in the Rio Grande.	Unlikely to occur. There is no riverine or otherwise appropriate habitat in the project area. The species is also presumed extirpated in the state.	No impact
Zuni bluehead sucker (*Catostomus discobolus yarrowi*)	Candidate	Found in largely shaded, pool and riffle habitats, about 1 to 1.5 feet deep with water velocity less than 4 inches per second, with substrates from gravel and cobble to boulders and bedrock. Preferred spawning habitat is clean gravel beds.	Unlikely to occur. There is no aquatic habitat in the project area.	No impact
Zuni fleabane (*Erigeron rhizomatus*)	Threatened	Grows in selenium-rich red or gray detrital clay soils derived from the Chinle and Baca formations. Plants are found at elevations from 7,300 to 8,000 feet in piñon-juniper woodland. Prefers slopes of up to 40 degrees, usually with a north-facing aspect.	Unlikely to occur. The project area is outside the species' elevational range and does not contain the appropriate soil types.	No effect

Source for range and habitat information: New Mexico Department of Game and Fish (2004); USFWS (2013a).
*Note the different effect terminologies ("no effect" vs. "no impact"); ESA terminology is reserved for federally endangered and threatened species.

3.6.2 NNDFW Special-Status Species

According to the NNDFW response letter (see Appendix B), there are nine special-status species (Table 3.2) with the potential to occur within the Twin Lakes, NM and Big Rock Hill, NM USGS 7.5-minute quadrangles. Of those, five species have the potential to occur in the project area: golden eagle (*Aquila chrysaetos*), ferruginous hawk (*Buteo regalis*), mountain plover (*Charadrius montanus*), peregrine falcon (*Falco peregrinus*), and kit fox (*Vulpes macrotis*). Any occurrence of the golden eagle, ferruginous hawk, or peregrine falcon would likely be of short duration with the species only passing through the area, as no concentrations of prey or nesting substrates exist in the project area. Kit foxes are also possible in the project area, but with the absence of den found during surveys, impacts to that species would be limited to noise disturbance during the construction phase. Despite the absence of prairie dog colonies, mountain plover nesting cannot be ruled out, and thus construction activities should be conducted outside the nesting season or be preceded by nest surveys. Overall, the project may impact individuals of the five species, but is not likely to result in a trend toward federal listing or loss of viability.

Table 3.2. NNDFW-listed Species with Potential to Occur in the Project Area

Name (*Scientific Name*)	NNDFW Status	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Golden eagle (*Aquila chrysaetos*)	G3	Nests mainly on steep cliffs, typically 100 feet high, although shorter cliffs (30 feet) are infrequently used. Nesting cliffs are normally directly adjacent to foraging habitat of semi-desert grasslands or desertscrub, with only sparse shrubs, if present, that provide primary prey of cottontail (*Sylvilagus* sp.) and jackrabbits (*Lepus* sp.). Nests are usually placed in middle to upper parts of cliffs in sheltered ledges, potholes, or small caves that provide protection from the elements.	May occur in flight while passing through the project area. Suitable roosting and foraging habitat is present near rather than within the project area, which has no concentration of potential prey or nesting substrates.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Ferruginous hawk (*Buteo regalis*)	G3	Nests in badlands, flat or rolling semi-desert grasslands, and desertscrub. Habitat surrounding nest site must support populations of their preferred prey items of cottontail and jackrabbits, prairie dogs, ground squirrels, and gophers.	May occur in flight while passing through the project area. Suitable roosting and foraging habitat is present near rather than within the project area, which has no concentration of potential prey or nesting substrates.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Mexican spotted owl (*Strix occidentalis lucida*)	G3	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine–Gambel oak. Nests in live trees on natural platforms (e.g., dwarf mistletoe brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet amsl.	Unlikely to occur. The project area does not contain canyon walls or mixed-conifer or extensive pine-oak vegetation types.	No impact. Species is also federally listed as threatened. See Table 3.1.

Name (*Scientific Name*)	NNDFW Status	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Mountain plover (*Charadrius montanus*)	G4	Known to breed in the Four Corners area. Prefers large, flat grassland expanses with sparse, short vegetation and bare ground; also found in semi-desert scrub. Strongly associated with prairie dogs in New Mexico and often nests in heavily grazed areas or on gravelly ground with very short vegetation.	May occur. No large, flat grassland expanses or prairie dog towns exist in the project area, but the area is heavily grazed.	Construction activities should be conducted outside the nesting season or be preceded by nest surveys to rule out nesting by mountain plovers in the project area. May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Peregrine falcon (*Falco peregrinus*)	G4	Nests on steep cliffs >100 feet tall in a scrape on sheltered ledges or potholes. Foraging habitat quality is an important factor; often, but not always, extensive wetland and/or forest habitat is within the falcon's hunting range of 7.5 miles.	May occur in flight while passing through the project area. Suitable roosting and foraging habitat is present near rather than within the project area, which has no wetlands, concentration of potential prey or nesting substrates.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Northern leopard frog (*Lithobates [Rana] pipiens*)	G2	Breeds in wetlands usually with permanent water and aquatic vegetation (especially cattails [*Typha* sp.]), ranging from irrigation ditches and small streams to rivers, small ponds, and marshes to lakes or reservoirs.	Unlikely to occur. No wetlands or permanent water exist in the project area.	No impact.
Black-footed ferret (*Mustela nigripes*)	G2	Strongly associated with medium to large active prairie dog towns (>80 hectares, and ≥20 burrows/hectare) or complex of towns (two or more towns within 4 miles). Prairie dogs are their main food source, and burrows are used for denning and rearing young.	Unlikely to occur. No prairie dog towns were detected during the survey, and, other than the reintroduction effort on Vermejo Park, no black-footed ferret populations remain in New Mexico.	No impact. Species is also federally listed as endangered. See Table 3.1.
Kit fox (*Vulpes macrotis*)	G4	Kit fox dens are excavated in desertscrub or desert grasslands with soft, alluvial or silty-clay soils, and often with sparse saltbush, shadscale, greasewood, sagebrush, and grasses. Field observations did not identify the presence of kit fox in the project area.	May occur. Appropriate soils and vegetation exist in the project area.	Proposed project will not lead to a net loss of habitat but may result in noise disturbance during construction. May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.

Name (*Scientific Name*)	NNDFW Status	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Mule deer (*Odocoileus hemionus*)	–	Extremely adaptable, mule deer is found in New Mexico in many vegetation communities, including open grasslands, agricultural lands, shrublands, woodlands, and mountain forests. Mule deer habitat requirements typically include an abundance of herbaceous forage, vegetation, and landforms that provide hiding and thermal cover and access to sources of water. Mule deer generally summer at higher elevations and migrate to lower woodlands or shrublands in winter to find food, avoid predators, and seek cover from harsh weather.	Unlikely to occur. Mule deer use of the project area was not documented during the survey. The project area is heavily grazed, thus likely reducing the potential value of the area as mule deer foraging habitat.	No impact

Source for range and habitat information: Mikesic and Roth (2008).
G2 = "Endangered" - A species or subspecies whose prospects of survival or recruitment are in jeopardy.
G3 = "Endangered" - A species or subspecies whose prospects of survival or recruitment likely to be in jeopardy in the foreseeable future.
G4 = Any species or subspecies for which the NNDFW does not currently have sufficient information to support their being listed in G2 or G3 but has reason to consider them. The NNDFW will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list.

3.7 Migratory Bird Treaty Act

The MBTA provides federal protection to all breeding migratory birds, including nests and eggs. In order to relocate or alter any MBTA-protected nests, it will be necessary to obtain a permit from the USFWS to maintain compliance with the MBTA. However, Section 1 of the Interim Empty Nest Policy of the USFWS, Region 2, states that if the nest is completely inactive at the time of destruction or movement, a permit is not required in order to comply with the MBTA. If an active nest is observed before or during construction or maintenance activities, measures should be taken to protect the nest from destruction and to avoid a violation of the MBTA. The NNDFW recommends following avoidance guidelines (Mikesic and Roth 2008) if active nests are discovered within proximity to the project site. Potential raptor habitat was observed adjacent to the project area on the north side. A list of bird species observed by SWCA biologists on April 16 and 17, 2013, can be found in Table D.2 of Appendix D.

4.0 LIMITATIONS AND WARRANTY

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed, as outlined in the species evaluation.

The results and conclusions of this report represent the best professional judgment of SWCA scientists and are based on information provided by the project proponent and other sources during the course of the study. No other warranty, expressed or implied, is made. This report should be reviewed by the appropriate regulatory agencies prior to any detailed site planning or construction activities.

5.0 LITERATURE CITED

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APPENDIX A
PROJECT MAPS

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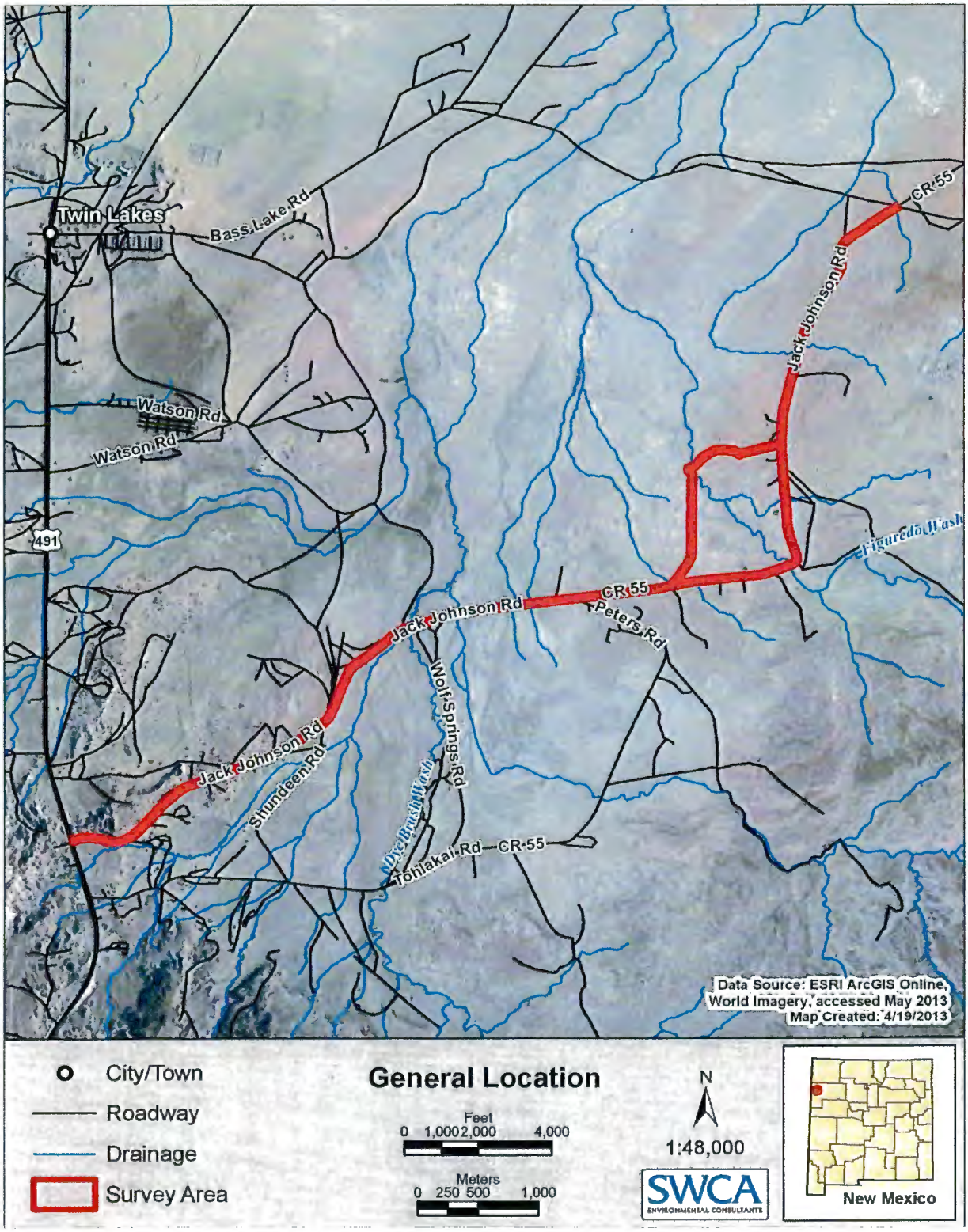

Figure A.1. Project overview map.

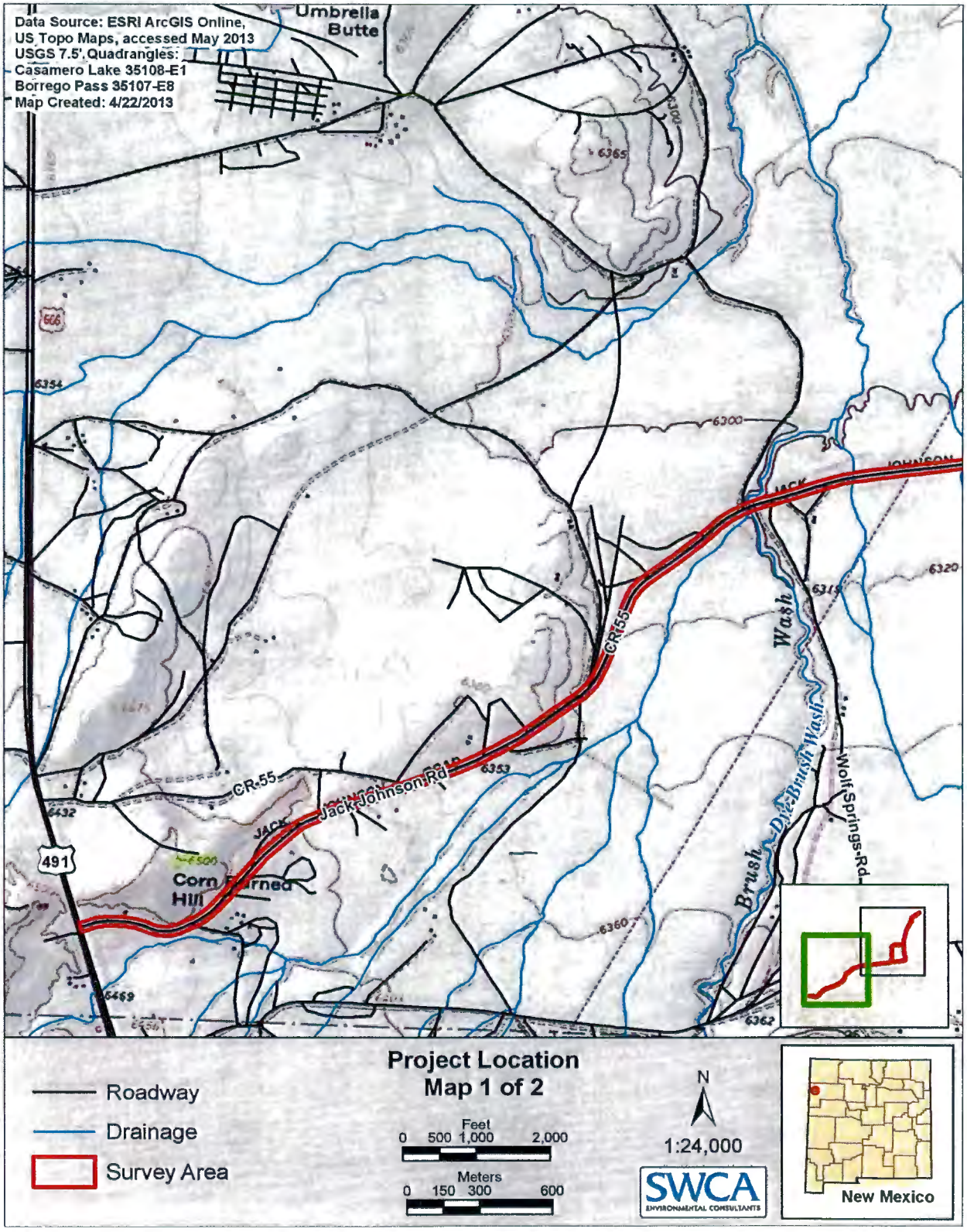

Figure A.2. Project area.

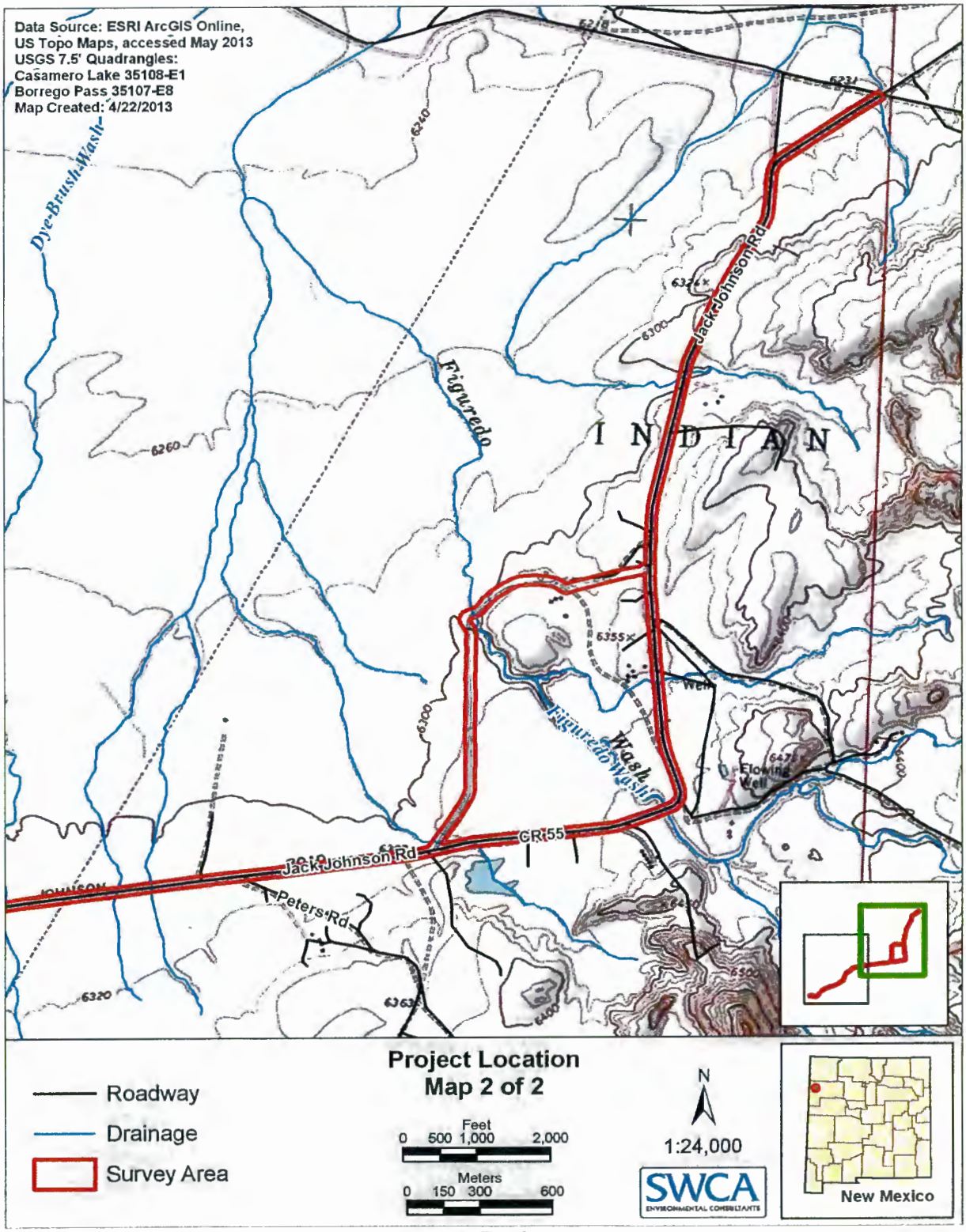

Figure A.3. Project area

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APPENDIX B
RESPONSE LETTER FROM NAVAJO NATION

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NAVAJO NATION
Department of Fish & Wildlife
Navajo Natural Heritage Program
P.O. Box 1480
Window Rock, AZ 86515

Phone: 928.871.6472 • Fax: 928.871.7603 • http://nnhp.nndfw.org

Ben Shelly, President — Rex Lee Jim, Vice President

28 March 2013 — File#13SWCA-02

Jean-Luc E. Catron, Ph.D., Sr. Ecologist
SWCA, Environmental Consultants
5647 Jefferson NE
Albuquerque, NM 87109

NAVAJO ENDANGERED SPECIES LIST (NESL) INFORMATION FOR:

PROJECT: JACK JOHNSON RD (McKINLEY COUNTY RD 55, NAVAJO ROUTE 9960)
LEGAL DESCRIPTION T17N, R18W, SEC. 12, 13, 23, 24, 26, 27, 28, 32, 33
TWIN LAKES, McKINLEY COUNTY, NM

Mr. Catron:

The following information on species of concern[1] is provided in response to your 18 March 2013 request concerning the subject project, which consists of the proposed realignment and complete re-construction of Jack Johnson Road (McKinley County Rd 55, Navajo Route 9960), located in legal description T17N, R18W, Section 12, 13, 23, 24, 26, 27, 28, 32, 33, Twin Lakes, McKinley County, NM.

Each 7.5-minute quadrangle containing project boundaries is addressed separately below. For potentially occurring species these species lists are quadrangle-specific rather than project-specific. Potential for species has been determined primarily on quadrangle-wide coarse habitat characteristics and species range information. Your project biologist should determine habitat suitability at the project site(s).

A total of nine (09) species both known and/or potential are included in this response. They are:

	SCIENTIFIC NAME	COMMON NAME	NESL STATUS	FEDERAL STATUS AND/OR *MBTA
1.	*Aquila chrysaetos*	Golden Eagle	G3	MBTA
2.	*Buteo regalis*	Ferruginous Hawk	G3	MBTA

[1]"Species of concern" include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For each species, the following tribal and federal statuses are indicated: Navajo Endangered Species List (NESL), federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate or NESL group 4 status; please be aware of these species during surveys and inform the NFWD of observations. Documentation that these species are more numerous or widespread than currently known, and addressing these species in project planning and management is important for conservation and may contribute to ensuring they will not be uplisted in the future. Species without ESA or NESL legal protection (e.g., NESL group 4 species) are only included in responses on a regular basis and may not be included in this response. Please refer to the NESL for a list of group 4 species; contact me if you need a copy.

3.	*Charadrius montanus*	Mountain Plover	G4	ESA Proposed Threatened; MBTA.
4.	*Falco peregrinus*	Peregrine Falcon	G4	MBTA
5.	*Lithobates pipiens*	Northern Leopard Frog	G2	
6.	*Mustela nigripes*	Black-footed Ferret	G2	ESA Endangered
7.	*Odocoileus hemionus*	Mule deer		This species is of cultural and economic significance.
8.	*Strix occidentalis lucida*	Mexican Spotted Owl	G3	ESA Threatened; MBTA.
9	*Vulpes macrotis*	Kit Fox	G4	

*MBTA - Migratory Bird Treaty Act

TWIN LAKES, NM 7.5-MINUTE QUADRANGLE

Project Location: Jack Johnson Road

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Buteo regalis*
3. *Charadrius montanus*
4. *Mustela nigripes*
5. *Odocoileus hemionus*
6. *Strix occidentalis lucida*
7. *Vulpes macrotis*

AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

BIG ROCK HILL, NM 7.5-MINUTE QUADRANGLE

Project Location: Jack Johnson Road

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Buteo regalis*
3. *Charadrius montanus*
4. *Falco peregrinus*
5. *Mustela nigripes*
6. *Lithobates pipiens*
7. *Strix occidentalis lucida*
8. *Vulpes macrotis*

AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

Potential for the black-footed ferret should be evaluated if prairie-dog towns of sufficient size (per NFWD guidelines) occur in the project area.

Potential for Puccinellia parishii should be evaluated if wetland conditions exists that contain white alkaline crusts.
Biological surveys need to be conducted during the appropriate season to ensure they are complete and accurate please refer to NN Species Accounts.[4] Further questions pertaining to surveys should be referred to Species Account. Surveyors on the Navajo Nation must be permitted by the Director, NFWD. Contact Jeff Cole at (928) 871-6595 for permitting procedures. Questions pertaining to surveys should be directed to the NFWD Zoologist (Chad Smith) for animals at 871-7070 and Botanist (Andrea Hazelton) for plants at (928)523-3221. Questions regarding biological evaluations should be directed to Pamela Kyselka (Acting Environmental Reviewer) at 871-7065.

Potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the 'Corps of Engineers Wetlands Delineation Manual' (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the NFWD's Natural Heritage Program (NHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NHP). The NHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation.

The information in this report was identified by the NFWD's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is strongly recommended. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on-site surveys. Also, because the NFWD's information is continually updated, any given information response is only wholly appropriate for its respective request.

For a list of sensitive species on the Navajo Nation in addition to the species listed on the Navajo Endangered Species List (NESL) please refer to our website at www.nndfw.org.

An invoice for this information is attached.

If you have any questions I may be reached at (928) 871-6472.

Sonja Detsoi, Wildlife Tech.
Natural Heritage Program
Department of Fish and Wildlife

xc: file/chrono

[4] Available free of charge on our website at http://nnhp.navajofishandwildlife.org/

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APPENDIX C
NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE AREA 3 DESCRIPTION

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AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

This area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on "islands" of habitat, but islands are relatively small, limited in number, and well spaced across the landscape. However, the Department recognizes that lands within Area 3 may be not be completely surveyed for the potential occurrence of sensitive species or habitat.

Follow the Process for planning and approval of development. If the Navajo Nation Heritage Program provides a Data Response for a project in Area 3 that states that there are no known or potential species of concern for a specific project, then a BE does not need to be drafted. The project is in compliance with the Endangered Species Act and the NESL. The project sponsor can receive a Biological Resource Compliance Form by requesting concurrence from the Director, Department of Fish and Wildlife that the project will not affect species of concern.

All developments requires preparation of a BE. Generally, the need to avoid sensitive habitats should be less frequent in this area; therefore, development in these areas is more likely to proceed as planned with proper and timely planning.

PROCESS FOR PLANNING AND APPROVAL OF DEVELOPMENT:

A. Project Sponsor requests information on rare and endangered species, specific to the proposed development, from the Navajo Natural Heritage Program

B. Project Sponsor, or their consultant, prepares a BE for the proposed development

C. Department reviews the BE to determine if impacts to wildlife resources are accurately assessed, impacts that cannot be avoided are reasonably mitigated, and that no other reasonable alternatives exist

D. Department issues a letter, to the Project Sponsor, either concurring or not concurring with the BE based on the review

E. The Department letter must be part of any project approval application package

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APPENDIX D
SPECIES LISTS

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Table D.1. Plant Species Detected in the Proposed Project Area

Common Name	Scientific Name
Shadscale saltbush	*Atriplex confertifolia*
Russian thistle*	*Salsola tragus*
James' galleta	*Pleuraphis jamesii*
Indian ricegrass	*Achnatherum hymenoides*
Fourwing saltbush	*Atriplex canescens*
Dropseed	*Sporobolus* sp.
Big sagebrush	*Artemisia trifoliata*
Blue grama	*Bouteloua gracilis*
Pale desert-thorn	*Lycium pallidum*
Broom snakeweed	*Gutierrezia sarothrae*
Bottlebrush squirreltail	*Elymus elymoides*
Rubber rabbitbrush	*Ericameria nauseosa*
Field bindweed*	*Convolvulus arvensis*

*Non-native species.
Source for nomenclature and origin data: NRCS (2013b).

Table D.2. Animal Species Detected in the Proposed Project Area

Common Name	Scientific Name
BIRDS	
Common raven	*Corvus corax*
Dark-eyed junco	*Junco hyemalis*
American kestral	*Falco sparverius*
Sparrows	Unknown
MAMMALS	
Domestic cow	*Bos taurus*
Domestic horse	*Equus ferus caballus*
Kangaroo rat (burrows)	*Dipodomys* sp.
Coyote (scat)	*Canis latrans*
Small rodent (burrows)	Unknown

APPENDIX E
PHOTOGRAPHS OF THE PROJECT AREA

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Photograph 1. View facing west, showing a general lack of vegetation in the project area.

Photograph 2. View facing north, showing a large drainage that crosses the project area. There is currently a bridge crossing this drainage.

Photograph 3. View facing west, showing potential raptor roosts on the north side of the road.

Photograph 4. View facing southwest, of "dog-leg" section of the project area where no road currently exists. The project area runs along a drainage.

THE FORT DEFIANCE AGENCY ROADS COMMITTEE RESOLUTION

#FDARC022312-02

THE FORT DEFIANCE AGENCY ROADS COMMITTEE SUPPORTS THE BAHASTL'AH CHAPTER IN REQUESTING APPROVAL FROM THE BUREAU OF INDIAN AFFAIRS TO RELINQUISH THE MAINTENANCE OF JOHNSON ROAD TO MCKINLEY COUNTY FOR THE UPKEEP BEFORE AND AFTER THE CHIP-SEAL OF THE ROAD.

WHEREAS:

1. The Fort Defiance Agency Roads Committee is a governmental body duly appointed and authorized by the Fort Defiance Agency Council to advocate on behalf of the Fort Defiance Agency member chapters regarding roads and transportation issues; And

2. The Fort Defiance Agency Roads Committee recognizes the need for transportation system development that is a crucial component for the safety and long term economic growth of the Navajo Nation communities; And

3. The Fort Defiance Agency Roads Committee recognizes the Navajo Nation local Governances Act and supports efforts towards upgrading all primary roads to or adjacent to chapter government facilities, which would also provide assess for local residence of more chapter communities to health and other important public facilities; And

4. The Fort Defiance Agency Roads Committee recognizes the Resources and Development Committee of the Navajo Nation Council who is responsible for planning and coordinating all roads and transportation activities of the Navajo Nation to represents all transportation matters and development and maintain priority list for roads, bridges and transportation projects; And

5. The Fort Defiance Agency Roads Committee acknowledge the need request by the Bahastl'ah Chapter community who understand the Johnson Road meets the requirements of the Division of Transportation Road Management Plan and currently awaiting for the road to be chip-sealed; And

6. The Fort Defiance Agency Roads Committee is made aware that the Johnson Road is a bus route for the McKinley county Schools, Ch'oosghai Community School, Rehoboth School, Navajo Nation, Federal and State Resources; And

7. The Fort Defiance Agency Roads Committee understand that Johnson Road has high volume traffic count with an immediate need of road improvement and to maintain the haphazard condition of this road.

THE FORT DEFIANCE AGENCY ROADS COMMITTEE RESOLUTION

#FDARC022312-02

THE FORT DEFIANCE AGENCY ROADS COMMITTEE SUPPORTS THE BAHASTL'AH CHAPTER IN REQUESTING APPROVAL FROM THE BUREAU OF INDIAN AFFAIRS TO RELINQUISH THE MAINTENANCE OF JOHNSON ROAD TO MCKINLEY COUNTY FOR THE UPKEEP BEFORE AND AFTER THE CHIP-SEAL OF THE ROAD.

NOW THEREFORE BE IT RESOLVED THAT:
The Fort Defiance Agency Roads Committee hereby respectfully supports the Bahastl'ah Community Chapter requesting for approval from the Bureau of Indian Affairs (BIA) to relinquish the maintenance of Johnson Road to McKinley County for the upkeep before and after the chip-seal of the road.

C E R T I F I C A T I O N

I hereby certify the foregoing resolution was duly considered by the Fort Defiance Agency Roads Committee membership at which a quorum was present and same was passed by a vote of **05** in favor, **00** opposed and **00** abstained, this **23rd** day of **February, 2012** at the Navajo Division of Transportation Complex Conference Room, Navajo Nation, NEW MEXICO.

MOTION BY: **Christine Wallace**
SECOND BY: **Ben Hanley, Sr.**

Willis Nez, ARC Chairperson

Bahastl'ah Chapter
Post Office Box 4424
Yahtahey, New Mexico 87375
Phone: 505/735-2600
Fax: 505/735-2605

Norman John, II	Randolph Lee	Joan M. Nez	Mel R. Begay
Chapter President	Chapter Vice-President	Chapter Secretary/Treasurer	Council Delegate

RESOLUTION OF THE BAHASTL'AH CHAPTER

Respectfully Supporting and Approving the Navajo Division of Transportation Regional Transportation Planning Road Maintenance Agreement and Authorize to Perform Road Improvement within the Bahastl'ah Chapter Service Area.

WHEREAS:

1. Pursuant to 26 N.N.C., Section 3(A) the Bahastl'ah Chapter is a duly recognized certified chapter of the Navajo Nation Government, as listed at N.N.C. part 1, section 10; and

2. Pursuant to 26 N.N.C., Section 1(B) Bahastl'ah Chapter is vested with the authority to review all matters affecting the community, to make appropriate corrections when necessary, to make recommendations to the Navajo Nation and other local agencies for appropriate actions; and

3. The Bahastl'ah Chapter acknowledge the Navajo Division of Transportation Regional Transportation Planning presentation and submits same to the recognizing chapter priority road improvement needs as attached:

4. The Bahastl'ah Chapter requests the Navajo Division of Transportation to recognize and accepts the below listing as chapter priority and to apply recommending miles as its priority top priority for road improvement as follows:
   - N9660 at 6.2 miles
   - N9659 at 6.64 miles
   - N9551 at 2.68 miles
   Total of 15.52 of the 15 miles requested; and

5. The Bahastl'ah Chapter recommends the 4 roads as they are the main usage of roads within the community and the need for constant improvement and these roads are a full use of residents, schools serving the Public schools, Headstart and Homebase, Services of Senior Centers, Highly medical needs of all ages, Community Health Representatives provides daily services to elderly, Adult Home Care services, Medial Transportation routes, Emergency transports, Fire and Rescue routes and the Public Safety routes.

NOW THEREFORE BE IT RESOLVED THAT:

The Bahastl'ah Chapter hereby officially recognizes supports and approves the proposed Memorandum of Understanding and/or Agreement with the Navajo Division of Transportation for community road improvement under the Delegate Mel R. Begay Region.

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by Bahastl'ah Chapter in Twin Lakes, Navajo Nation (New Mexico), at which a quorum was present and the same was passed by a vote of 25 in favor, 00 opposed and 03 abstained, this 3rd day of April, 2013.

Motioned by: Jasmine Jones

Second by: Roy Yazzie

Norman John II, Chapter President

Amos A. Ditsoi
"Jimmy"
President

Sallie Ann Begay
Vice-President

Joan Nez
Secretary/Treasurer

Twin Lakes Chapter

Fort Defiance Agency
District 14
P.O. Box 4424
Yahtahey, N.M. 87375
(505) 735-2363
Fax: (505) 735-2350

Norman John II
Council Delegate

Jimmy P. John
Grazing Member

Dorothy Deneticlaw
Chapter Manager

TLC-02-14-005-99

RESOLUTION OF TWIN LAKES CHAPTER

APPROVING THE TRANSFER OF MAINTENANCE AND UPGRADE OF BASS LAKE ROAD AND JOHNSON ROAD FROM BUREAU OF INDIAN AFFAIRS TO MCKINLEY COUNTY.

WHEREAS:

1. The Twin Lakes Chapter is a duly certified Chapter of the Navajo Nation Government with vested authority to adopt local ordinances and to approve plans to take actions on matters of local concerns in the best interest of the local Chapter and the Navajo Nation; and

2. The Twin Lakes Chapter identifies Bass Lake Road and Johnson Road as established dirt roads currently belongs to Bureau of Indian Affairs; and

3. The two identified roads are used by health providers, public safety, high risk patients, employees and school children on a daily basis; and

4. The two identified roads are in dire need of maintenance and upgrade due to cut-back of funds by the Bureau of Indian Affairs; and

5. The Twin Lakes Chapter are requesting help and services from the McKinley County Roads Department to protect the health, welfare and safety of the McKinley County voters.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Twin Lakes Chapter is approving the transfer of maintenance and upgrade of Bass Lake Road and Johnson Road from Bureau of Indian Affairs to McKinley County.

2. The Bureau of Indian Affairs, McKinley County Roads Department and all other entities are hereby authorized to execute any and all documents necessary to effect the intent and purposes of this resolution.

CERTIFICATION

We, hereby certify that the foregoing resolution was duly considered by the Twin Lakes Chapter of the Navajo Nation, New Mexico, at a duly called meeting in which a quorum was present and that same was passed by a vote of 29 in favor and 00 opposed and 00 abstained this 14th day of February, 1999.

MOTIONED BY: Harry Yazzie

SECONDED BY: Virginia Johnson

Amos A. Ditsoi, Chapter President

Sallie Ann Begay, Vice President

Joan Nez, Secretary/Treasurer

Norman John II, Council Delegate

Jimmy John, Grazing Officer

EXHIBIT "E"

NAVAJO NATION TERMS AND CONDITIONS
For Right-of-Way (ROW)

McKinley County Roads Department (GRANTEE)
(Johnson Road Project N9660)

1. The term of the right-of-way shall be for thirty (30) years, beginning on the date the right-of-way is granted by the Secretary of the Interior.

2. Consideration for the right-of-way is assessed at $2,434,909.09. The Navajo Nation contributes this amount to the project because the project will benefit Navajo residents.

3. The Grantee may develop, use and occupy the right-of-way for the purpose(s) of upgrading, maintaining, and operating the existing roadway, culverts and ditches. The Grantee may not develop, use or occupy the right-of-way for any other purpose nor allows others to use or occupy the right-of-way for any other purpose without the prior written approval of the Navajo Nation. The approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Grantee may not develop, use or occupy the right-of-way for any unlawful purpose.

4. In all applicable activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:

   a. All applicable federal, state and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;

   b. The Navajo Nation Water Code, 22 N.N.C. §§ 1101 et seq.. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successor.

5. The Grantee shall ensure that the air quality is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the right-of-way.

6. The Grantee shall clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way, and shall dispose of all vegetation and

other materials cut, uprooted, or otherwise accumulated during any surface disturbance activities.

7. The Grantee shall reclaim all surface lands disturbed related to the right-of-way, as outlined in a restoration and revegetation plan, which shall be approved by Navajo nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Grantee shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.

8. The Grantee shall at all times during the term of the right-of-way and at the Grantee's sole cost and expense, maintain the land subject to the right-of-way and all improvements located thereon and make all necessary and reasonable repairs.

9. The Grantee shall obtain prior written permission to cross existing rights-of-way, if any, from the appropriate parties.

10. The Grantee shall be responsible for and promptly pay all damages when they are sustained.

11. To the extent permitted by state law, the Grantee shall indemnify and hold harmless the Navajo Nation and its authorized agents, employees, land users and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of right-of-way by the Grantee.

12. The Grantee shall not assign, convey or transfer, in any manner whatsoever, the right-of-way or any interest therein, or in or to any of the improvements on the land subject to the right-of-way, without the prior written consent of the Navajo Nation. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.

13. The Navajo Nation may terminate the right-of-way for violation of any of the terms and conditions stated herein. In addition, the right-of-way shall be terminable in whole or part by the Navajo Nation for any of the following causes:

    a. Failure to comply with any terms and conditions of the grant or of applicable laws and regulations;

    b. A non-use of the right-of-way for the purpose for which it is granted; and

    c. The use of the land subject to the right-of-way for any purpose inconsistent with the purpose for which the right-of-way is granted.

14. At the termination of this right-of-way, the Grantee shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear

excepted. Upon the written request of the Navajo Nation, the Grantee shall provide the Navajo Nation, at the Grantee's sole cost and expense, with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises.

15. Holding over by the Grantee after the termination of the right-of-way shall not constitute a renewal or extension thereof or give the Grantee any rights hereunder or into the land subject to the right-of-way or to any improvements located thereon.

16. The Navajo Nation shall have the right, at any reasonable time during the term of the right-of-way, to enter upon the premises, or any part thereof, to inspect the same and any improvements located thereon.

17. Any action or proceeding brought by the Grantee against the Navajo Nation in connection with or arising out of the terms and conditions of the right-of-way be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Grantee against the Navajo Nation in any court of any state.

18. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.

19. The law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.

20. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Grantee, and the term "Grantee," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.

21. The Navajo Nation reserves the right to grant rights-of-way within the road right-of-way referenced herein for utilities, provided that such rights-of-ways do not unreasonable interfere with the grantee's use of the right-of-way.

22. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the right-of-way and all lands burdened by the right-of-way, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the right-of-way; and the right-of-way and all lands burdened by the right-of-way shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.

Document No. 006420 Date Issued: 07/27/2016

EXECUTIVE OFFICIAL REVIEW

Title of Document: McKinley County, ROW Johnson Road Contact Name: DRAPER, HOWARD

Program/Division: DIVISION OF NATURAL RESOURCES

Email: howarddraper@frontiernet.net Phone Number: 928/871-6447

☐ **Business Site Lease** — Sufficient ☐ Insufficient ☐

1. Division: _____ Date: _____
2. Office of the Controller: _____ Date: _____

(only if Procurement Clearance is not issued within 30 days of the initiation of the E.O. review)

3. Office of the Attorney General: _____ Date: _____

☐ **Business and Industrial Development Financing, Veteran Loans, (i.e. Loan, Loan Guarantee and Investment) or Delegation of Approving and/or Management Authority of Leasing transactions**

DEC 27 2016

1. Division: _____ Date: _____
2. Office of the Attorney General: _____ Date: _____

☐ **Fund Management Plan, Expenditure Plans, Carry Over Requests, Budget Modifications**

1. Office of Management and Budget: _____ Date: _____
2. Office of the Controller: _____ Date: _____
3. Office of the Attorney General: _____ Date: _____

☐ **Navajo Housing Authority Request for Release of Funds**

1. NNEPA: _____ Date: _____
2. Office of the Attorney General: _____ Date: _____

☐ **Lease Purchase Agreements**

1. Office of the Controller: _____ Date: _____

(recommendation only)

2. Office of the Attorney General: _____ Date: _____

☐ **Grant Applications**

1. Office of Management and Budget: _____ Date: _____
2. Office of the Controller: _____ Date: _____
3. Office of the Attorney General: _____ Date: _____

☐ **Five Management Plan of the Local Governance Act, Delegation of an Approving Authority from a Standing Committee, Local Ordinances (Local Government Units), or Plans of Operation/Division Policies Requiring Committee Approval**

1. Division: _____ Date: _____
2. Office of the Attorney General: _____ Date: _____

☐ **Relinquishment of Navajo Membership**

1. Land Department: _____ Date: _____
2. Elections: _____ Date: _____
3. Office of the Attorney General: _____ Date: _____

Pursuant to 2 N.N.C. § 164 and Executive Order Number 07-2013

EOR# 006420

☐ **Land Withdrawal or Relinquishment for Commercial Purposes**

			Sufficient	Insufficient
1. Division:		Date:	☐	☐
2. Office of the Attorney General:		Date:	☐	☐

☐ **Land Withdrawals for Non-Commercial Purposes, General Land Leases and Resource Leases**

1. NLD		Date:	☐	☐
2. F&W		Date:	☐	☐
3. HPD		Date:	☐	☐
4. Minerals		Date:	☐	☐
5. NNEPA		Date:	☐	☐
6. DNR		Date:	☐	☐
7. DOJ		Date:	☐	☐

☐ **Rights of Way**

1. NLD		Date:	☐	☐
2. F&W		Date:	☐	☐
3. HPD		Date:	☐	☐
4. Minerals		Date:	☐	☐
5. NNEPA		Date:	☐	☐
6. Office of the Attorney General:		Date:	☐	☐
7. OPVP		Date:	☐	☐

☐ **Oil and Gas Prospecting Permits, Drilling and Exploration Permits, Mining Permit, Mining Lease**

1. Minerals		Date:	☐	☐
2. OPVP		Date:	☐	☐
3. NLD		Date:	☐	☐

☐ **Assignment of Mineral Lease**

1. Minerals		Date:	☐	☐
2. DNR		Date:	☐	☐
3. DOJ		Date:	☐	☐

☑ **ROW (where there has been no delegation of authority to the Navajo Land Department to grant the Nation's consent to a ROW)**

1. NLD	[signature]	Date: 12/2/16	☑	☐
2. F&W	[signature]	Date: Dec 5, 2016	☒	☐
3. HPD	[signature]	Date: 12/13/16	☒	☐
4. Minerals	[signature]	Date: 12/15/16	☒	☐
5. ~~NNEPA~~ GLOD	[signature]	Date: 12/20/16	☒	☐
6. DNR	[signature]	Date: 1/12/17	☐	☐
7. DOJ (ic)	[signature]	Date: 1/18/17	☒	☐
8. OPVP	[signature]	Date: 1/26/17	☐	☐
NNEPA	[signature]	Date: 1/12/17	☒	

☐ **OTHER:**

1.		Date:	☐	☐
2.		Date:	☐	☐
3.		Date:	☐	☐
4.		Date:	☐	☐
5.		Date:	☐	☐

Pursuant to 2 N.N.C. § 164 and Executive Order Number 07-2013

Bahastl'ah Chapter
Post Office Box 4424
Yahtahey, New Mexico 87375
Office (505) 735-2600/2601
Fax (505) 735-2605

Norman John, II, President
Randolph Lee, Vice President
Joan M. Nez, Secretary/Treasurer
Mel R. Begay, Council Delegate

May 20, 2016

TO WHOM IT MAY CONCERN:

Please accept this letter to serve as official notification to all SAS Reviewers for the right-of-way for Bahast'lah Chapter **"Johnson Road Project N9660."**

We are hereby submitting the original right-of-way complete package for **"Johnson Road Project N9660."**

The proposed road project has been on our inventory for road improvement for over 30 years. With that improvement entails "dirt back filling, replacing culverts, road grading improvement and gravel replacement for a total of 6.2 miles of road which we are requesting a right-of-way width of 150 feet as properly surveyed.

With the plan and design, surveyed the end result is "project ready" that also includes the realignment of 150 ft. right-of-way; (75 feet on each side of the road and possibly beyond).

The end product on this project is a 6.2 miles chip sealed road! We appreciate your services.

For further concerns and/or questions on the documents submitted, please immediately contact Randolph Lee, Vice President or myself at (505) 735-2600 or 735-2601.

Respectfully;

Norman John, II Chapter President
Bahastl'ah Chapter

Attachments

CC: File/nj