

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

SURVEY OF  
S.H. 28

SWO 4851(1)  
STATE JOB NO. 28857(04)

NOWATA COUNTY, OKLAHOMA

BRIDGE OVER SALT CREEK  
1.3 MILES SOUTH OF U.S. 60

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
DESCRIPTION			REVISIONS		DATE

INDEX OF SHEETS	
1.	TITLE SHEET
2.-3.	SURVEY INFORMATION (notes, letters)
4.	NETWORK CONTROL
5.	COGO POINTS & ALIGNMENT REPORT
6.	HORIZONTAL CONTROL DIAGRAM
7.-8.	SURVEY DATA SHEETS
9.-10.	GEOMETRIC DATA SHEETS

SURVEY BEGAN:	09/27/12
SURVEY COMPLETED:	01/07/13

PERSONNEL:	TITLE:
DUSTIN McNALLY	PROF. LAND SURVEYOR
CHRIS CAUTHON	PROF. LAND SURVEYOR
RYAN HARRISON	SURVEY TECHNICIAN
JASON LILLY	SURVEY TECHNICIAN
TIM DeARMON	SURVEY TECHNICIAN
JASON MOCK	SURVEY TECHNICIAN
STEVEN MILLER	SURVEY TECHNICIAN

EQUIPMENT:	SERIAL NO.
TRIMBLE S6 ROBOTIC TOTAL STATION	92810853; 92721064
TRIMBLE GPS RECEIVER	4629119076; 4629119071
CARLSON GPS RECEIVER	NAE10403001; NAE10443001
SOKKIA B21 & 300	101384; 353373

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION  
SURVEY DIVISION

SWO 4851(1) J/P 28857(04) : NOWATA CO

**HORIZONTAL CONTROL:**

Oklahoma Coordinate System of 1927 Zone.

Oklahoma Coordinate System of 1983 NORTH Zone.

Oklahoma Dept. of Transportation Plane Coordinate System of 1927 Zone.

Oklahoma Dept. of Transportation Plane Coordinate System of 1983 Zone.

Arbitrary Coordinate System

**HORIZONTAL PLANE DATUM DEFINITION:**

Oklahoma Department of Transportation coordinates were derived by multiplying the Oklahoma Coordinate Systems of 1927 or 1983 by the combined adjustment factor of 1.00010. The ODOT Coordinate System is 2350 feet above sea level.

HARN - E-17 & PIERRE  
CORS - ARFY, MOCA

1. SWO4851(1) adjusted to OKMU, OKTU 3rd Order  
Stations UTILIZING CONTROL NETWORK & RTK MEASUREMENT

A) Closure before adjustment X ; Y Angles  
Trav. Length No. Angles ; 1:

B) ; is Order before adjustment.

C) Method of Distance Measurement:  
 Electronic  GPS  Triangulation  Chained

D) Instrument used for angles TRIMBLE R8 & CARLSON GNSS GPS RECEIVERS

2. CENTERLINE adjusted to GPS PRIMARY 3rd Order  
Stations HARN E-17 & PIERRE CORS ARFY, MOCA, OKMU, OKTU

A) Closure before adjustment X ; Y Angles  
B) ; is Order; Tied to

C) Method of Distance Measurement:  
 Electronic  GPS  Triangulation  Chained

D) Instrument used for angles

VERTICAL CONTROL IS 3rd order. Level Line taken from GPS PRIMARY  
3rd order and tied to GPS PRIMARY 3rd order.  NGVD 29 datum  NAVD 88 datum

**ACCURACY DEFINITION:**

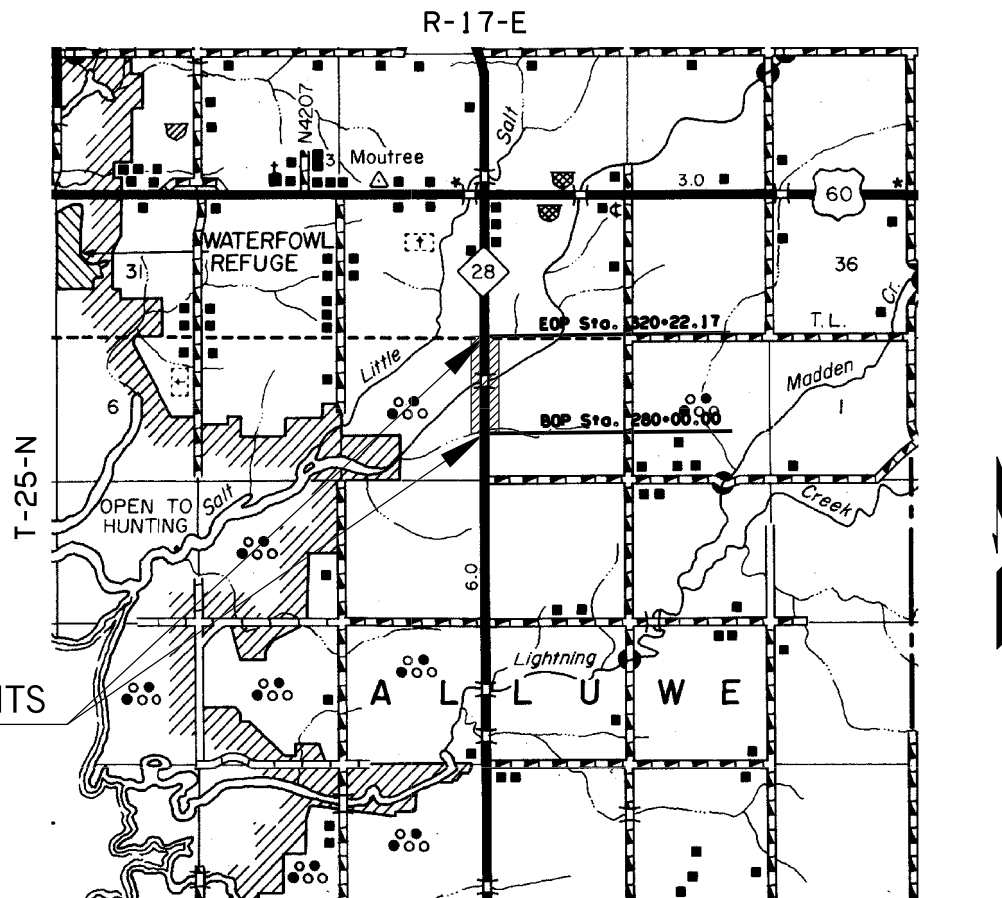
(1) HORIZONTAL: (3rd Order = Class I = 1 : 10,000')  
(3rd Order = Class II = 1 : 5,000')

(2) VERTICAL: (1st Order = 0.017 Ft. x sqft. of Mi.) (2nd Order = 0.035 Ft. x sqft. of Mi.)  
(3rd Order = 0.050 Ft. x sqft. of Mi.)

**Distribution:**  
Copy w/survey reports  
Copy in each Alignment  
and level book

(FORM SD #20)  
Rev. 11/03

*Dustin M. McNally*  
Professional Land Surveyor  
01/25/13  
Date



PROJECT LENGTH 4022.17 FT. .76 MI.  
BEGINNING STATION : 280+00.00  
ENDING STATION : 320+22.17

PROJECT EXTENTS

Utility	Utilities	Phone Number
Water Lines:	Consolidated Rural Water District #1	1-918-475-2383
Telephone Lines:	USIC/AT&T	1-800-778-9140
Electrical Lines:	AEP-PSO	1-888-216-3523

THIS SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, MAY 11, 2010.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED JANUARY 1, 2011 GOVERN.

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STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

SWO 4851(1) Job/Piece 28857(04) Engr. Contract No. 1394

**LAND SURVEYOR'S CERTIFICATION**

I hereby certify that all land and property sub-division distances, angles, corners, and monumentation made or used in conjunction with this survey and depicted or recorded hereina or hereon were recovered, established or re-established in substantial conformity with:

- Applicable instructions contained in the U.S. Government Bureau of Land Management publication "Manual of Survey Instruction",
- Its supplement, "Restoration of Lost or Obliterated Corners and Sub-division of Sections";
- "Oklahoma Minimum Standards for the Practice of Land Surveying" as adopted by the State Board of Licensure for Professional Engineers and Land Surveyors; and
- Sound land surveying practices;

including a thorough search, study, analysis and consideration of all existing records and field evidence.

I further certify that all survey monuments depicted exist and that all land survey work was done by me or under my direct supervision.

Dated this 29 day of January, 2013.

Land Surveyor *Dustin M. McNally* (seal)  
Signature  
Dustin M. McNally  
Printed Name  
Oklahoma Licensed Land Surveyor No. 1636  
Certificate of Authorization No. 1427



OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION			
PLS	DMM		
DRAWN	VKM		
CHECKED	CAC		
APPROVED	DMM		
CREW	GES, INC.	SWO 4851(1)	PROJECT NO. 28857(04) SHEET NO. S001