

7/12/2016

7:47:27 AM

P:\ECON\650-TUL\CVY\2552310000_000T_US169BR-dg_v20_DESGN\40_CAD_US169BR\04_C_Survey_Data_01.dgn

| OKLAHOMA DEPARTMENT OF TRANSPORTATION | | | | | |
|---------------------------------------|-------|---------------|-------------|-----------|--------------|
| ODOT DIVISION | STATE | JOB PIECE No. | FISCAL YEAR | SHEET No. | TOTAL SHEETS |
| 8 | OKLA | 27092(04) | | 39 | 143 |

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION

SURVEY OF U.S. 169

SWO 4744(1)
STATE JOB NO. 27092(04)

NOWATA COUNTY, OKLAHOMA

BRIDGE OVER OPOSSUM CREEK 17 MILES NORTH OF U.S. 60

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.-9. SURVEY DATA SHEETS
- 10.-11. GEOMETRIC DATA SHEETS

SURVEY BEGAN: 02/20/2013
SURVEY COMPLETED: 04/10/2013

| | |
|---|---|
| PERSONNEL: DUSTIN McNALLY CHRIS CAUTHON JASON MOCK JASON LILLY RYAN HARRISON TIM DeARMON STEVFEN MILLER BRANDON TRAVERS AMANDA REID VINCENT MILLER BENJAMIN MARTS | TITLE: PROF. LAND SURVEYOR PROF. LAND SURVEYOR SURVEY TECHNICIAN SURVEY TECHNICIAN LSIT SURVEY TECHNICIAN SURVEY TECHNICIAN SURVEY TECHNICIAN SURVEY TECHNICIAN SURVEY TECHNICIAN ENGINEER INTERN |
|---|---|

| | |
|--|---|
| EQUIPMENT: TRIMBLE S6 ROBOTIC TOTAL STATION TRIMBLE R8 GPS RECEIVER CARLSON GPS RECEIVER SOKKIA B21 & 300 | SERIAL NO. 92810853; 92721064 4629119076; 4629119071 NAE10403001; NAE10443001 101384; 353373 |
|--|---|

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SWO 4744(1) J/P 27092(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, COGS, MOCA

1. SWO4744(1) adjusted to OKTU, OKPR 3rd Order
 Stations
 A) Closure before adjustment X: Y Angles
 Trav. Length No. Angles Order before adjustment
 B) Method of Distance Measurement:
 Electronic GPS Triangulation Chained
 D) Instrument used for angles Trimble R8 & Carlson GNSS GPS Receivers
 Centerline adjusted to GPS Primary 3rd Order

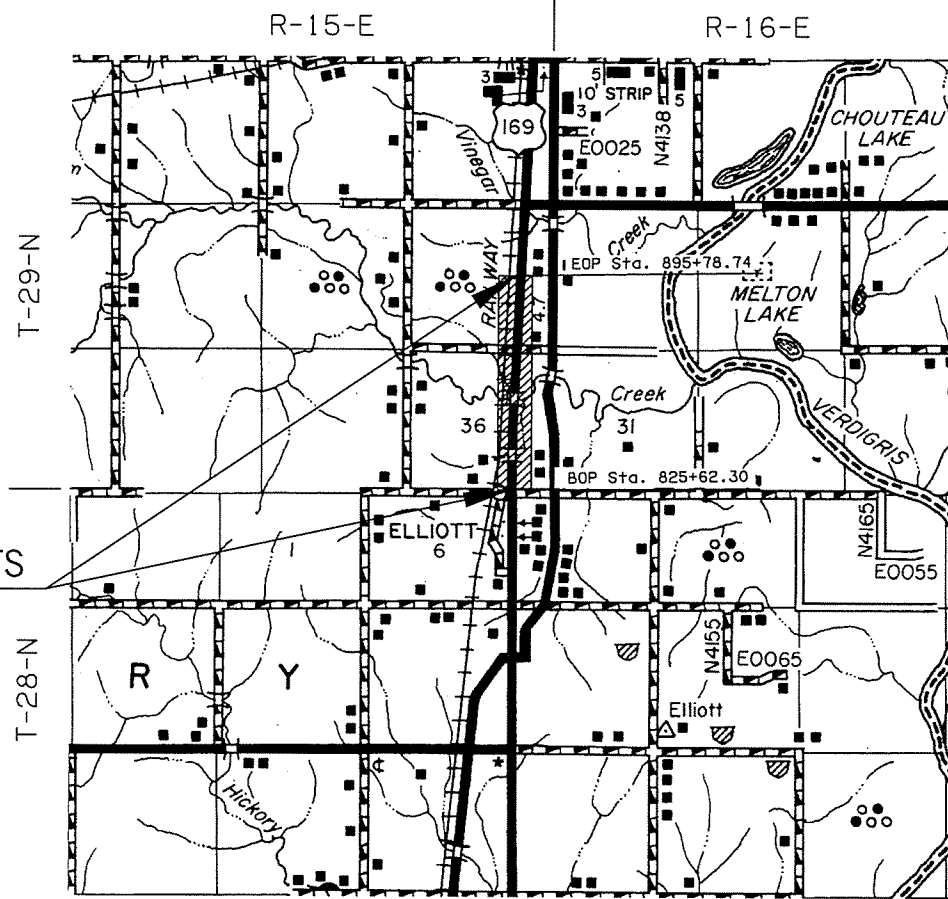
2. Stations HARN E-17 COGS, MOCA, OKTU, OKPR
 A) Closure before adjustment X: Y Angles
 B) Trav. Length No. Angles Order; Tied to
 C) Method of Distance Measurement:
 Electronic GPS Triangulation Chained
 D) Instrument used for angles

VERTICAL CONTROL IS 3rd order. Level Line taken from NGS First order and tied to GPS Primary 3rd order.

ACCURACY DEFINITION:
 NAVD 83 datum
 NAD83 datum
 (1) HORIZONTAL: (3rd Order = Class I = 1 : 10,000')
 (3rd Order = Class II = 1 : 5,000')
 (2) VERTICAL: (1st Order = 0.017 Ft. x sqrt. of Mi.) (2nd Order = 0.035 Ft. x sqrt. of Mi.)
 (3rd Order = 0.050 Ft. x sqrt. 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
 05/23/13
 Date



PROJECT EXTENTS

| Utility | Utilities | Phone Number |
|----------------|------------------------------|----------------|
| Electric Line: | Verdigris Valley Elec. Co-op | 1-918-586-6250 |
| Water Line: | Nowata Co. RWD #7 | 1-918-255-6825 |

PROJECT LENGTH 7016.44 FT. 1.33 MI.
 BEGINNING STATION : 825+62.30
 ENDING STATION : 895+78.74

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.

Electronic File Transfer Disclaimer:
 These Files, Drawings and/or Notes are provided for information only. The Oklahoma Department of Transportation (ODOT) and the Owner cannot be held responsible for the content or accuracy of these Files, Drawings and/or Notes due to conversions, software translations, or any other manipulation of said Files, Drawings and/or Notes. ODOT expressly disclaims any responsibility arising from any use of these Files, Drawings and/or Notes. To the full extent permitted by applicable law, the recipient of these Files, Drawings and/or Notes hereby agrees to defend, indemnify, and hold harmless ODOT and the Owner from and against any and all claims, suits, actions, damages, loss, liability or costs of every nature or description (including reasonable attorney's fees) arising from, or in any way attributable to or connected with any of these Files, Drawings and/or Notes.



| | | |
|----------|-----------|--|
| PLS | DMM | OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SURVEY DATA SHEET (1) |
| DRAWN | ARR | |
| CHECKED | VKM | |
| APPROVED | DMM | |
| CREW | GES, INC. | |

SWO 4744(1) PROJECT NO. 27092(04) SHEET NO. 39