

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

White Hawk Engineering & Design

Survey Division
1265 S. Eastern
Moore, Oklahoma 73160
Phone 405-735-6096 Fax 405-794-7166

November 30, 2012

TO: Larry Reser, Chief of Surveys
FROM: Monte D. King, Oklahoma Survey Manager
SUBJECT: SWO 4848(1) - J/P 28858(04) - Creek County - S.H. 16 - Bridge over Chicken Creek, 8.2 miles East of S.H. 48.

HISTORICAL LETTER & WRITTEN REPORT

1. GENERAL

Method of Survey: Field Conventional

Survey began September 24, 2012
Survey completed - November 30, 2012

Unit of Measurement: U.S. Survey Foot.

2. SURVEY ASSIGNMENT

Prime Consultant - Schemmer Architects, Engineers and Planners
8556 East 101st Street, Suite C
Tulsa, OK 74133

3. PURPOSE OF SURVEY

The purpose of this survey was to obtain adequate information for the design and construction of a new bridge over Chicken Creek.

4. SURVEY LIMITS

This survey began at a point identified as Sta. 490+53.5 (NS-379 Section Line) on SAP No. 1016(2) plans and was extended north to a point identified as P.I. Sta. 431+87.5 on SAP No. 1016(1) plans, making the length of survey approximately 1.11 miles.

5. ALIGNMENT

The centerline of this survey is along and identical to the centerline of present S.H. 16 as shown on SAP No. 1016(1) plans & SAP No. 1016(2) plans. Centerline was re-established from the centerline of the existing bridge over Chicken Creek, centerline of

existing cross drain structures and the centerline of the existing paving. 3 right-of-way markers were found within the limits of this survey. The alignment determined using these right-of-way markers did not fit the existing cross drain structures or the paving. The centerline of the cross drain structures and the centerline of the existing paving are one and the same.

6. STATIONING

As instructed in the Survey Special Provisions for this survey, a station value of 100+00.00 was assigned to the Beginning of Survey and increased to the North without equation to the End of the Survey using field measured distances. Station equations with the existing plans were shown at the beginning and end of the this survey.

7. HORIZONTAL CONTROL

- A. Primary Horizontal Control for this survey is the National Geodetic Survey(s) Oklahoma State Plane Coordinate System of 1983, North Zone. Data was obtained utilizing O.D.O.T. Survey Division Primary Control Points (C-19-800 and C-19-801) set under S.W.O. 4525(1). The O.D.O.T. control monuments are along the north boundary of Section 5 which was bounded on this survey.
- B. 3 Primary Project Control Points were set on this survey. 2 monuments were set when this survey was first started. The monuments were set near the beginning and end of the survey as originally defined. The O.D.O.T. monuments were both occupied with the GPS base and both of the control monuments on this survey were tied averaging 30 RTK recordings from each of the O.D.O.T. monuments. An average of the horizontal data obtained by this method was used. The Survey Special Provisions were revised and the project was extended to the South approximately 1800 feet. A 3rd Project Control Monument was established on the south end of this survey and horizontal control on this monument was established by averaging 30 RTK recordings from the other 2 Project Control Monuments.

8. VERTICAL CONTROL

- A. Vertical Control Datum for this survey is NGS NAVD 88. Vertical Control for this survey was taken from SWO 4525(1) bench marks established along this survey. Bench Marks No. 31 and 33 as shown on the Check Level and Bench Mark List from S.W.O. 4525(1) were found in place and the Adjusted Elevations shown on these bench marks were held and used to establish Adjusted Elevations on this survey.
- B. Bench Marks were established approximately every 700 feet along this Survey and a level loop was run through the bench marks with the auto level. The accuracy is within the NGS 3rd order requirements. A Check Level Form detailing the results was submitted.

9. Topography and Digital Terrain Model

Topography and ground points were obtained by the field conventional method utilizing

GPS RTK and Total Station observations. Coverage band widths for this survey described as follows:

250 feet right and 150 feet left of the Centerline of Survey from the Beginning of Survey to a point 500 feet south of the existing bridge on Chicken Creek; thence right and left of Centerline of Survey from a point 500 feet south of the existing a point 500 feet north of the existing bridge; thence 250 feet right and 150 feet left of Centerline of Survey, north to the End of the Survey. The actual band width on side of the survey is 250 feet as most of the data was obtained prior to the revise Provisions. Flow line profiles were obtained out to 1000 feet.

10. LAND TIES

Complete land tie information was obtained on 4 sections on this project. Sections 5, 8 and 9, T15N, R10E of the I.B.M. Corner locations along the west line of Section 5 were established under SWO 4525(1). All 3 of these corner location monument references were found in place. Certified Corner Records were obtained on the sections required on this survey. All of the filed corners found in place were used on this survey. Monuments (#4 rebar with caps CA2074) were found at the north west corners of Section 8, but corner records were not on file. These monuments not used on this survey. They do not fit the surrounding monuments or corner locations determined on this survey. Certified Corner Records were prepared for the corners on the above described sections.

11. PROPERTY TIES

Ownership information was obtained from the Creek County Court House on all property adjacent to or joining the limits of this survey. Property lines were confirmed and shown based on the property descriptions obtained and the land corners and as determined on this survey.

11. EXISTING RIGHT-OF-WAY

- A. Right-of-Way shown on this survey is based on SAP No. 1016(1) and SAP No. 1016(2) plans
- B. Statutory Section Line Right-of-Way for this area is a total of 49.5 feet.

12. UTILITIES

All utility companies servicing the project were contacted thru Call Okie. The request was issued thru Ticket Number 12100411481119. Utilities notified: USIC/OG&E/Sapulpa, Slick PWA and USIC/AT&T. The underground utility locations were painted and flagged by utility personnel or contract utility locators. All utility locations as flagged and painted were obtained by field conventional methods and recorded in the submitted SWO 4848_1_V1_TOPO.DGN. ODOT Form SD-1 of Public and Privately Owned Utilities was generated from those locations and submitted.

OKLAHOMA DEPARTMENT OF TRANSPORTATION			
SURVEY DIVISION			
PLS	MDK		
DRAWN	MDK		
CHECKED	TRK		
APPROVED	MDK		
CREW	MS	SWO 4848 (1)	PROJECT NO. 28858(04) SHEET NO. 52