

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

SWO 4864(1) - SH 58 - Caddo County
Historical Letter & Written Report
Page 4 of 21

HORIZONTAL CONTROL - Continued:

NGS PID PK0172, Station "X172"
NGS PID DG9755, CORS ID OKAO, Anadarko CORS ARP, NAD 83 (2011) (BPOCH 2010.0)
NGS PID DF4058, CORS ID OKCL, Clinton CORS ARP, NAD 83 (2011) (TPOC11 2010.0)
NGS PID DF6609, CORS ID OKDT, Oklahoma City CORS ARP, NAD 83 (2011) (HPOC11 2010.0)
ODOT Control Monument No. W-75-831 (7400 for SWO 4918(1) SH 152)
ODOT Control Monument No. W-75-832 (7401 for SWO 4918(1) SH 152)
ODOT Control Monument No. C-8-1114 (7402 for SWO 4864(1) SH 58)
ODOT Control Monument No. C-8-1115 (7403 for SWO 4864(1) SH 58)
ODOT Control Monument No. C-8-1116 (7404 for SWO 4864(1) SH 58)
ODOT Control Monument No. C-8-1240 (7405 for SWO 4864(1) SH 58)
ODOT Control Monument No. C-8-737 per SWO 3888(1) Survey by Danny R. Dees, Date August 15, 2003
ODOT Control Monument No. W-75-671 per SWO 4755(1) Survey by Gregory H. Gunning, Date March 12, 2012

Note: Horizontal Control was constrained in OKAO, OKCL, OKDT, C-8-737 and W-75-671.

The Static and RTK GPS observations were collected with a Leica GPS System 500 and GS15. Double one hour static sessions, at a minimum, were observed on all primary control points. Two hour observations on primary control points were sent into the NGS Online Positioning User Service (OPUS) for reduction by them to further verify static computations. Secondary control was established by observing the same point from alternate primary control points. The mean of the secondary control point positions was used.

VERTICAL CONTROL:

Vertical Control for this survey is NGS North American Vertical Datum 1988 (NAVD88). ODOT Benchmarks & Control Monuments No. C-8-278, C-8-1114(7402), C-8-1115(7403), C-8-1116(7404), and C-8-1240(7405), were established via the State GPS Survey. The survey was constrained vertically to NGS Station "X172", PID No. PK0172, ODOT Control Monument No. C-8-737 per SWO 3888(1) Survey by Danny R. Dees, Date August 15, 2003 and ODOT Control Monument No. W-75-671 per SWO 4755(1) Survey by Gregory H. Gunning, Date March 12, 2012. These monuments encompass the project site. ODOT Control Monument No. C-8-278 found near the beginning of the project per SWO3215(1) Survey and ODOT Control Monument No. C-8-1240 (7405 this survey) was established near the end of the project. A double run digital differential level line was started from BM No. 1, ODOT Control Monument No. C-8-278, described as an ODOT Brass Cap in Concrete Post, 48" LL of Sta. 102+57 on SH 58 this survey. Thence northerly along SH 58 to BM No. 9, being ODOT Control Monument No. C-8-1114 (7402 this survey), described as a #8 x 30" Rebar driven flush with the ground, 69' lt. of

SWO 4864(1) - SH 58 - Caddo County
Historical Letter & Written Report
Page 5 of 21

VERTICAL CONTROL - Continued:

Sta. 174+14. The closure between these Control Monuments was 9.01 feet in this run of approximately 1.4 miles. The allowable difference for a third order run of this distance would be 0.06 foot. Thence continuing northerly along SH 58, approximately 2.3 miles, to BM No. 22, being ODOT Control Monument No. C-8-1115 (7403 this survey), described as a #8 x 30" Rebar driven flush with the ground, 338' Rt. of Sta. 284+45. The closure between these Control Monuments was 0.00 foot in this run of approximately 2.1 miles. The allowable difference for a third order run of this distance would be 0.07 foot. Thence continuing northerly along SH 58, approximately 1.2 miles, to BM No. 28, being ODOT Control Monument No. C-8-1116 (7404 this survey), described as a #8 x 30" Rebar driven flush with the ground, 42' Lt. of Sta. 344+90. The closure between these Control Monuments was 0.01 foot in this run of approximately 1.2 miles. The allowable difference for a third order run of this distance would be 0.05 foot. Thence continuing northerly along SH 58, approximately 1.5 miles, to BM No. 37, being ODOT Control Monument No. C-8-1240 (7405 this survey), described as a #8 x 30" Rebar driven 0.5' below the ground, 57' Rt. of Sta. 415+06. The closure between these Control Monuments was 0.00 foot in this run of approximately 1.5 miles. The allowable difference for a third order run of this distance would be 0.06 foot.

PHOTO CONTROLS:

A total of 46 Photo Control Targets were established on this project. Profile shots were taken along the centerline of SH 58 and SH 152. A separate Aerial ALG file with the coordinates and elevations and an Aerial DGN file of these have been archived on the ODOT Mainframe Computer. A total of 79 OSSDA points were collected throughout the length of the project. These points were taken to verify the aerial photography.

TOPOGRAPHY:

The following topography information was obtained during the course of this survey:

- All drainage structures within 200 feet of the Survey Centerline.
 - Check shots were taken on drain flow lines crossing Survey Centerline obscured by vegetation or inundated by water at the time of the Aerial Photography.
 - Flow line profiles were taken to a distance of 500 feet right and left of the Survey Centerline in areas obscured by vegetation or inundated by water at the time of Aerial Photography.
- Gate widths along the existing Right of Way fences.
- Underground utilities within 200 feet of the Survey Centerline.
- Overhead wires/cables crossing the Survey Centerline.
- Utility meters, valves hydrants, etc. within 200 feet of the Survey Centerline.
- Mail boxes within 200 feet of the Survey Centerline.
- Underground storage tanks within 200 feet of the Survey Centerline.

SWO 4864(1) - SH 58 - Caddo County
Historical Letter & Written Report
Page 6 of 21

LAND TIES:

Section 2, Township 9 North, Range 13 West, 11M:

Southwest Corner:

Found a 60d Nail 0.1' below the surface of the asphalt and two of the references per CCR by Darrell McCarther, PLS 1130, dated February 8, 1998. Said monument closely fits references found. Heard noise in reference in tree, 1.5' high, east side of Elm. Distance was close to described distance. I accepted the 60d Nail for the corner and assigned it ODOT Monument No. C-8-1173.

West Quarter Corner:

Found a 60d Nail 0.1' below the surface of the asphalt and two of the references per CCR by Darrell McCarther, PLS 1130, dated February 8, 1998. Said monument closely fits references found. Heard noise in reference in tree, 1.5' high, east side of Elm. Distance was close to described distance. I accepted the 60d Nail for the corner and assigned it ODOT Monument No. C-8-1174.

Section 3, Township 9 North, Range 13 West, 11M:

Southwest Corner:

Found corners and/or references to corner, east and south of this corner also per CCR's by Bill J. Casey, PLS 1122, dated March 20, 1981. I reset this corner in agreement with said CCR's. Corner appears to agree with local evidence has shown by Mr. Casey. Therefore I set a #4 Rebar with Cap 0.5' deep and assigned said corner ODOT Monument No. C-8-1175.

South Quarter Corner:

Found a #3 Rebar 1.0' below the surface of the road. Could not find any of the references per CCR by Bill J. Casey, PLS 1122, dated March 20, 1981. Said monument closely agrees with distance to fence corner as noted on CCR, but fence corner is not the same size as noted. I accepted the #3 Rebar for the corner and assigned it ODOT Monument No. C-8-1176.

West Quarter Corner:

Found a 60d Nail flush with surface of the asphalt road, by others, corner as found appears to agree with local evidence and evidence of occupation has viewed from 2010 NAIP Imagery. I accepted the 60d Nail for corner and assigned said corner ODOT Monument No. C-8-1177.

OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION				
PLS	GSR			
DRAWN	JMW			
CHECKED				
APPROVED				
CREW	El Reno	SWO 4864 (1)	PROJECT NO. 24092(04)	SHEET NO. 5006

SURVEY DATA SHEET