STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION SWO 4823(1) J/P 26941(04) Oklahoma Coordinate System of 1927 (X) Oklahoma Coordinate System of 1983(2011) North Zone. Oklahoma Dept. of Transportation Plane Coordinate System of 1927 Oklahoma Dept, of Transportation Plane Coordinate System of 1983) Arbitrary Coordinate System HORIZONTAL PLANE DATUM DEFINITION: norizontal control for this survey is the NGS Oklahoma State Plane Coordinats Systom, NAD83(2011), Lambert Projection (North Zone). The combined scale factor for conversion to geodetic distances is 1.00004122. adjusted to NGS Primary Control adjusted to 1 Stations OKAO, OKMA, DKPR, NGS JACK A) Closure before adjustment X Accuracy 1:20,000 Tray, Length No Angles iε () Order before adjustment Method of Distance Measurement: () Electronic (X) GPS () Triangulation () Chained Instrument used for angles Trimble R6 Secondary Control adjusted to Primary Control Stations L-41-811 & L-41-812 Closure before adjustment X Method of Distance Measurement: () Electronic (X) GPS () Triangulation () Chained Instrument used for angles Trimble R6, Trimble S6 VERTICAL CONTROL IS (3rd) order. Level Line taken from BM from FAS No. S-251(10)S plans through site benchmarks and fed to BM from FAS No. S-251(6)(7)S plans. NGVD 29 datum (X) NAVD 88 datum ACCURACY DEFINITION: (1) HORIZONTAL: (2rd Order = Class !! = 1 ; 20,000') (3rd Order = Class I = 1:10,000') (3rd Order = Class II = 1 : 5.000') (2) VERTICAL: (1st Order = 0.017 Ft. x sqrt. of Ml.) (2nd Order = 0.035 Ft. x sqrt. of Mi.) (3rd Order = 0.050 Ft. x sqrt. of Mi.) Distribution: Copy w/survey reports and level book

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION

SURVEY OF

U.S. 177

SWO 4823(1) J/P NO. 28941(04)

U.S. 177, BRIDGE OVER BRUSH CREEK, 0.71 MILE NORTH OF THE POTTAWATOMIE COUNTY LINE

R-3-E PROJECT EXTENTS MEEKER PROJECT LENGTH __4000.000 __ .F+. __ _0.76 __ _ MI.

Utilities Utility Phone Number Telephone Lines: McLoud Telephone Co. 405-964-8600 Electric Lines: Canadian Valley Electric 405-382-3680

THIS SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADDRED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, JULY 25, 2013.

Electronic File Transfer Disciglmer:

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375+00.000

BEGINNING STATION: 335+00.000

ENDING STATION :

GELANDIA REPARTMENT OF TRANSPORTATION PER. NOAD STATE PROLING. PECK SHEET TOTAL OST, NO. 94215

INDEX OF SHEETS

SURVEY INFORMATION (Notes, Letters) & ALIGNMENT DATA 2-3

CHECK LEVELS & COGO POINTS

HORIZONTAL CONTROL DIAGRAM & STATIC DATA

SURVEY DATA SHEETS

SURVEY BEGAN: SURVEY COMPLETED: 9/25/2012 9/24/2013

PERSONNEL: SHAWN SMITH, PLS TITLE: PROF. LAND SURVEYOR

PIERCE TRANUM BOR BLEDSOF TERRY GLAD, CST II SURVEY TECH SURVEY TECH SURVEY TECH

CLARK FISHER, CST III SHAUN KOONCE

SURVEY TECH SURVEY TECH

FOLHPMENT:

TRIMBLE REBASE & ROVER GPS TRIMBLE S6 ROBOTIC TOTAL STATION SOKKIA SDL-30 DIGITAL LEVEL

> STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION

SWO_4823(1) Job/Piece 28941(04) Engr. Contract No. 1394-P

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 herein 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
- "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;

APPROVED SS

CREW P7,88

including a thorough search, attidy, analysis and consideration of all existing records and field

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 24th day of Princed Name Oklahoma Licensed Land Surveyor No. 1663

Certificate of Authorization No. 2054



PLS	æ		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	SK		SURVET DIVISION
		_	
CHECKED	55		I CIIDVEY DATA CHEET

SURVEY DATA SHEET

SNO 4823 (1) PROJECT NO. 28941(04) SHEET NO. 5-

SDS _____ OF ___9

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED MAY 1, 1999 GOVERN.

(FORM SD #201)