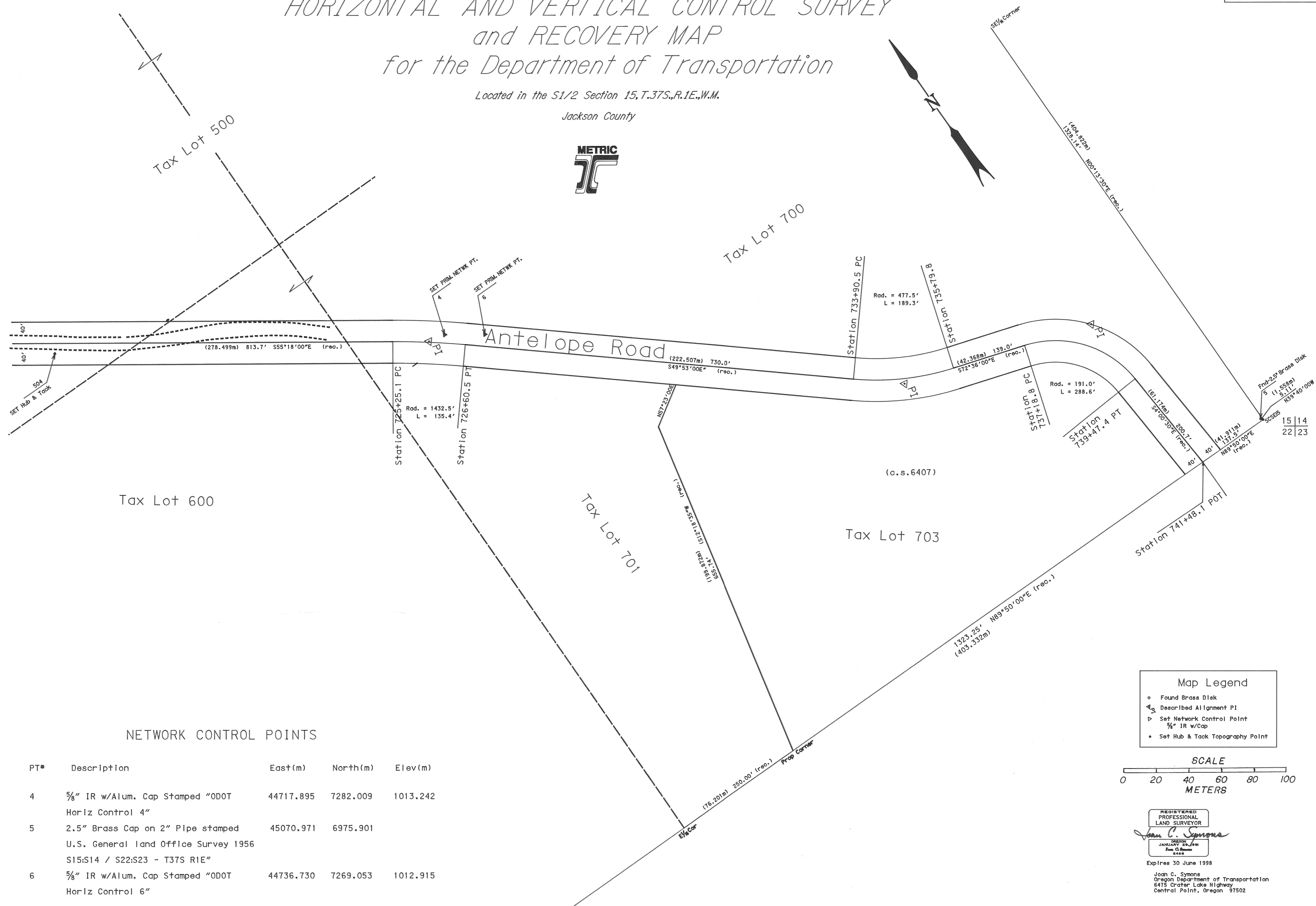


# HORIZONTAL AND VERTICAL CONTROL SURVEY and RECOVERY MAP for the Department of Transportation

Located in the S1/2 Section 15, T.37S., R.1E., W.M.

Jackson County



Tax Lot 600

Tax Lot 701

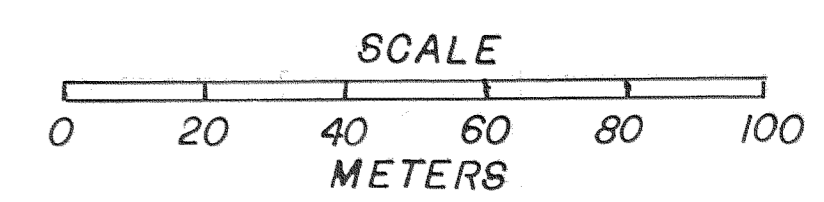
Tax Lot 703

### NETWORK CONTROL POINTS

PT#	Description	East(m)	North(m)	Elev(m)
4	5/8" IR w/Alum. Cap Stamped "0DOT Horiz Control 4"	44717.895	7282.009	1013.242
5	2.5" Brass Cap on 2" Pipe stamped U.S. General Land Office Survey 1956 S15:S14 / S22:S23 - T37S R1E"	45070.971	6975.901	
6	5/8" IR w/Alum. Cap Stamped "0DOT Horiz Control 6"	44736.730	7269.053	1012.915

**Map Legend**

- Found Brass Diek
- △ Described Alignment PI
- ▽ Set Network Control Point
- 5/8" IR w/Cap
- Set Hub & Tack Topography Point



REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Joan C. Symons*

OREGON  
JANUARY 25, 1981  
Joan C. Symons  
S.L.S.

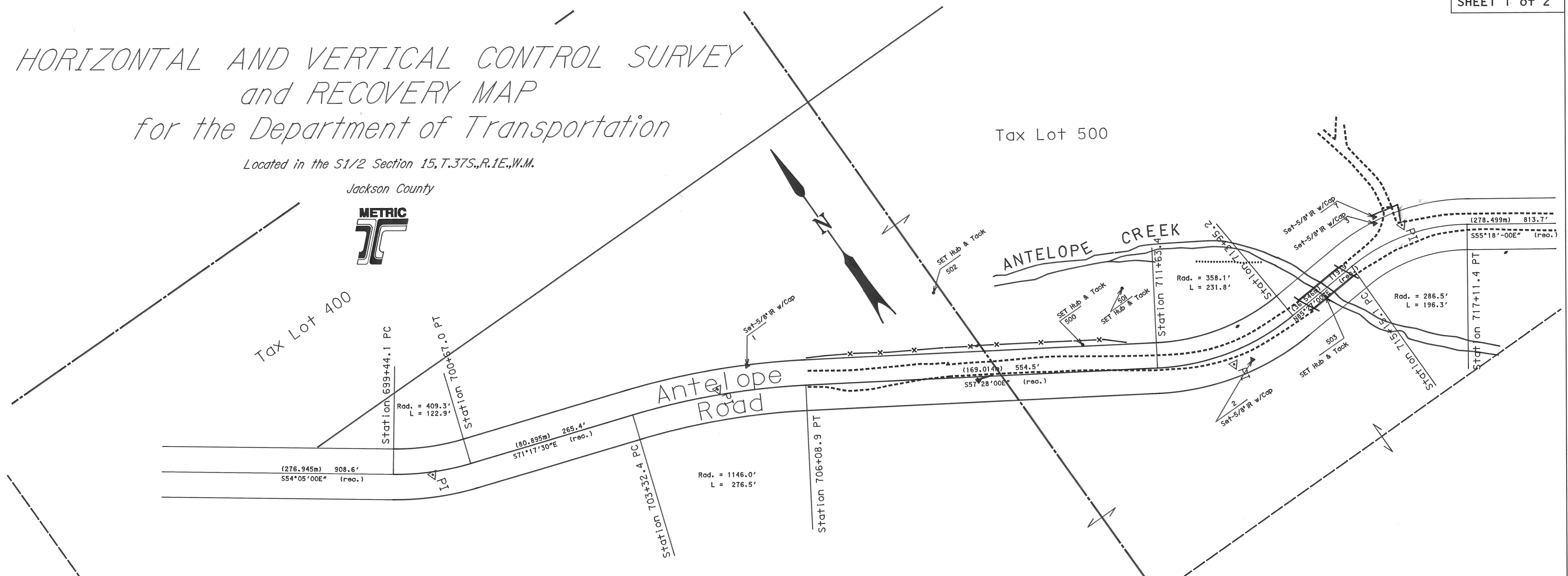
Expires 30 June 1998

Joan C. Symons  
Oregon Department of Transportation  
6475 Crater Lake Highway  
Central Point, Oregon 97502

# HORIZONTAL AND VERTICAL CONTROL SURVEY and RECOVERY MAP for the Department of Transportation

Located in the S1/2 Section 15, T.37S., R.1E., W.M.

Jackson County



## SURVEY NARRATIVE

The purpose of the survey was to establish horizontal and vertical control for an Oregon Department of Transportation bridge replacement project named "Antelope Creek Bridge" located on Antelope Road at M.P. 13.

Basis of bearing was established from Jackson County Deed Records Vol. 291, page 129, Jackson County Survey Records T.37S., R.1E., Section 15 page 24 of Government Corners, and Jackson County Road Records pages 234-237. Coordinate base was derived from Jackson County Road Records page 250

A network of "set" and "fnd" Horizontal Control Monuments was observed. Each point in the network was observed from more than one control point in the network. These observations were adjusted using a Least Squares adjustment technique. No additional survey monuments were found within the project limits. Vertical control was established from assumed elevation 1000.00m assigned to Control Point 1 and a closed level loop was run over the control network

A Wild T1610 Electronic Theodolite and D11600 Distomat were used to make all horizontal observations. The T1610 Theodolite has a standard angular error of +/- 1.5 seconds and the D11600 has a standard distance error of +/- 3 mm +/- 2 ppm.

The survey was started May 1, 1995 and completed 28 November 1995.

The Least Squares adjustment produced; angular residuals (the amount the field observed angles were changed due to the adjustment) of no greater than 6 seconds; distance residuals (the amounts the field observed distances were changed due to the adjustment) of no greater than 31mm

There is a 95% probability that the final positions of the control points are within the error ellipses as shown in the tables below:

Variance Factor: 0.05

Point ID	Adjusted Coordinates		95% Confidence Limits		Error Ellipse		Orientation
	East	North	East	North	Semi Major	Semi Minor	
3	44451.785	7462.768	0.001	0.001	0.001	0.001	N09°08'00"E
4	44717.895	7282.009	0.003	0.004	0.005	0.001	N36°47'36"E
6	44736.730	7269.053	0.003	0.004	0.005	0.001	N37°20'23"E
7	44453.371	7465.410	0.001	0.001	0.001	0.001	N07°22'10"E

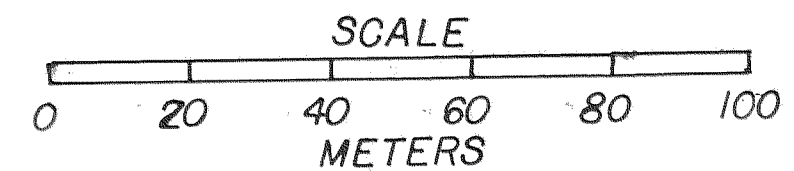
Tax Lot 600

## NETWORK CONTROL POINTS

PT#	Description	East(m)	North(m)	Elev(m)
1	5/8" IR w/Alum. Cap Stamped "0D0T Horiz Control 1"	44166.990	7580.970	1000.000
2	5/8" IR w/Alum. Cap Stamped "0D0T Horiz Control 2"	44366.431	7443.204	1005.351
3	5/8" IR w/Alum. Cap Stamped "0D0T Horiz Control 3"	44451.785	7462.768	1004.846
7	5/8" IR w/Alum. Cap Stamped "0D0T Horiz Control 7"	44453.371	7465.410	1004.815

**Map Legend**

- Found Brass Diek
- Described Alignment P1
- ▴ Set Network Control Point 5/8" IR w/Cap
- Set Hub & Tack Topography Point



**\*\* RECEIVED \*\***  
Date 10-3-98 By B  
This survey consists of:  
2 sheet(s) Map  
0 page(s) Narrative  
JACKSON COUNTY SURVEYOR

REGISTERED PROFESSIONAL LAND SURVEYOR  
*Joan C. Symons*  
JANUARY 28, 1988  
Expires 30 June 1998  
Joan C. Symons  
Oregon Department of Transportation  
6475 Crater Lake Highway  
Central Point, Oregon 97502