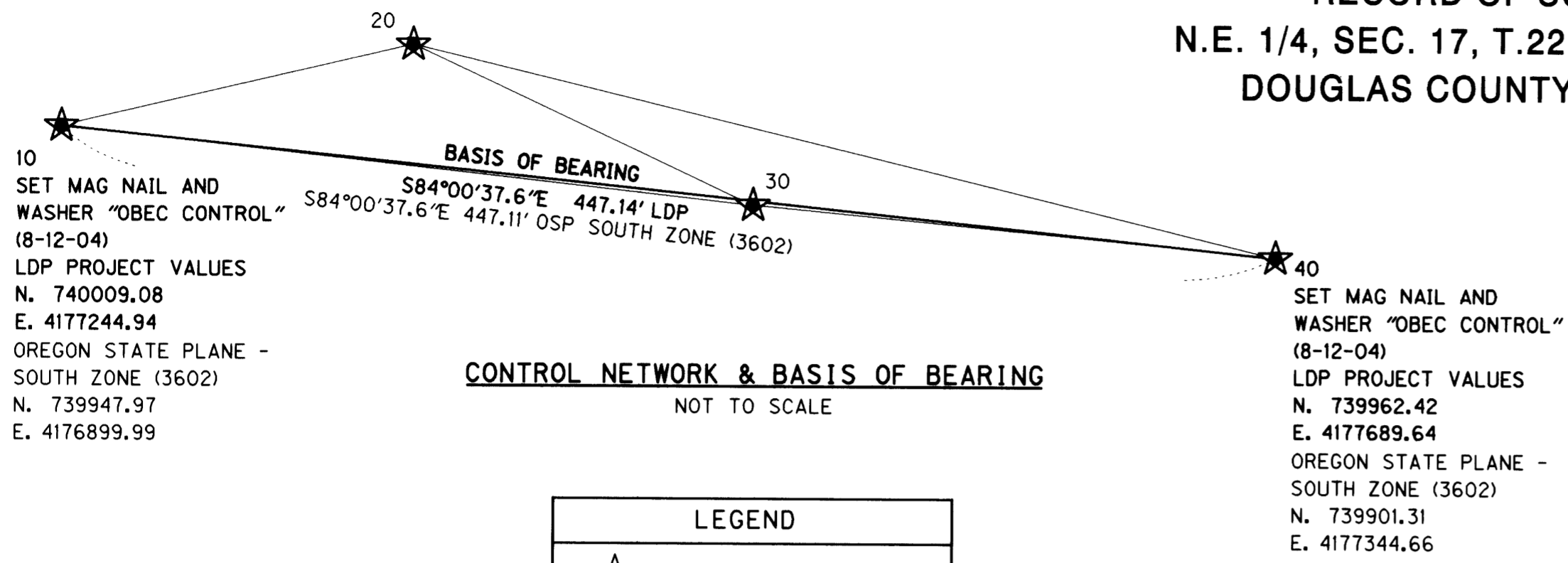


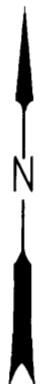
RECORD OF SURVEY
N.E. 1/4, SEC. 17, T.22S., R.5W., W.M.
DOUGLAS COUNTY, OREGON

FILED
 Date: 10-12-2004 by: JC
 Title: Survey of:
 Map: SC02-2004-001 of 2
 County: DOUGLAS COUNTY
 Surveyor:



CONTROL NETWORK & BASIS OF BEARING
 NOT TO SCALE

LEGEND	
★	SET GPS STATION
★—★	LINE OF OBSERVATION



SHEET INDEX

- CONTROL NETWORK, NARRATIVE, REFERENCES AND BASIS OF BEARING
- SURVEY

CONTROL NARRATIVE

PROJECT: PASS CREEK (EAST "B" AVENUE) BRIDGE
 LOCATION: EAST "B" AVENUE, DOUGLAS COUNTY, OREGON
 OBEC PROJECT: 01907602
 SURVEY DATUM:
 HORIZONTAL - NAD 83 (CORS96) EPOCH 2002
 VERTICAL - NAVD 88 (INTERNATIONAL FEET)

MONUMENTATION

WORK ON THIS PROJECT INCLUDED THE SETTING OF 4 HORIZONTAL AND VERTICAL CONTROL MONUMENTS CONSISTING OF MAG NAILS WITH STAINLESS STEEL WASHER MARKED "OBEC CONTROL" AS LISTED IN THE TABLE.

GPS HORIZONTAL CONTROL SURVEY

PRIMARY HORIZONTAL CONTROL WAS BROUGHT INTO THE PROJECT FROM A STATIC GPS SURVEY, WHICH WAS PROCESSED THROUGH THE NATIONAL GEODETIC SURVEY'S ONLINE POSITIONING USER SERVICE (OPUS), WHICH HELD CORS STATIONS DDSN, OBEC AND REDM. A SUBSEQUENT FAST STATIC GPS CONTROL SURVEY CREATED POSITIONS ON TWO PROJECT CONTROL POINTS. THE COORDINATE SYSTEM WAS HELD AT OREGON STATE PLANE - SOUTH ZONE (3602) UNTIL ALL GPS CONTROL SURVEYING AND ADJUSTMENT WAS COMPLETE AND THEN ALL POINTS WERE MOVED TO GROUND (LOCAL DATUM PLANE COORDINATE SYSTEM) USING A COMBINED FACTOR OF 0.999917422094. TO CONVERT THE PROJECT LDP COORDINATE SYSTEM BACK TO OREGON STATE PLANE - SOUTH ZONE, MULTIPLY BY THE COMBINED FACTOR.

1.96 SIGMA (95%) CONFIDENCE LEVEL LIMITS

POINT NO	SEMI MAJOR	SEMI MINOR	ORIENTATION
10	0.10 INT. FT.	0.08 INT. FT.	S 22°13'01" E
20	0.00 INT. FT.	0.00 INT. FT.	N/A
30	0.00 INT. FT.	0.00 INT. FT.	N/A
40	0.16 INT. FT.	0.11 INT. FT.	S 09°12'09" E

NETWORK POINT COORDINATE TABLE

PT. ID.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION
10	740009.08	4177244.94	8/12/2004	SET MAG NAIL AND WASHER "OBEC CONTROL"
20	740039.45	4177373.63	8/12/2004	SET MAG NAIL AND WASHER "OBEC CONTROL"
30	739980.89	4177498.25	8/12/2004	SET MAG NAIL AND WASHER "OBEC CONTROL"
40	739962.42	4177689.64	8/12/2004	SET MAG NAIL AND WASHER "OBEC CONTROL"

REFERENCES

- LAND PARTITION PLAT NO. 2004 - 0027 A & B
- LAND PARTITION PLAT NO. 1995 - 0085
- C.S. 51 -15
- PLAT OF EAST DRAIN, VOL, 2, PAGE 1

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO RESOLVE THE FIELD LOCATION OF THE RIGHT OF WAY CENTERLINE FOR A PORTION OF EAST B AVENUE IN THE CITY OF DRAIN, OREGON. THIS SURVEY WAS CONDUCTED AT THE REQUEST OF THE CITY OF DRAIN FOR A FUTURE IMPROVEMENT PROJECT FOR "PASS CREEK (EAST B AVENUE) BRIDGE". ANOTHER PURPOSE OF THIS SURVEY WAS TO PROVIDE FOR THE PERPETUATION OF THE LOCATIONS OF THE SURVEY MONUMENTS OF RECORD THAT MAY BE DESTROYED BY FUTURE CONSTRUCTION IMPROVEMENTS. PERPETUATION OF THE MONUMENT LOCATIONS WAS ACCOMPLISHED BY TYING THE MONUMENTS TO THE PROJECT CONTROL NETWORK. THIS SURVEY MEETS THE REQUIREMENTS FOR A RECOVERY SURVEY AS OUTLINED IN THE OREGON REVISED STATUTES CHAPTER 209.155.

THIS SURVEY WAS PERFORMED IN INTERNATIONAL FEET.

THIS SURVEY WAS PERFORMED DURING THE MONTH OF SEPTEMBER, 2004. THE SURVEY EQUIPMENT CONSISTED OF TRIMBLE DUAL FREQUENCY RECEIVERS, TRIMBLE 5600 ROBOTIC INSTRUMENTS, TRIMBLE ACU AND TSCI DATA COLLECTORS.

EAST "B" AVENUE

THE PORTION OF EAST B AVENUE RETRACED FOR THIS SURVEY IS FROM THE INTERSECTION OF THE CENTRAL OREGON AND PACIFIC RAILROAD ON THE WEST END TO THE INTERSECTION OF MAIN STREET ON THE EAST END. THE FOUND MONUMENTS AT POINT NO. 105 AND POINT NO. 112 WERE HELD TO ESTABLISH THE SOUTHERLY RIGHT OF WAY LINE. THE SOUTHERLY RIGHT OF WAY LINE WAS THEN OFFSET 30.00 NORTHERLY TO ESTABLISH THE CENTERLINE AND 60.00 FEET NORTHERLY TO ESTABLISH THE NORTHERLY RIGHT OF WAY LINE. THIS ALIGNMENT FITS WELL WITH THE FOUND MONUMENTS AS SHOWN IN THE TABLE ON SHEET 2. THE RIGHT OF WAY WIDTH OF 60.00 FEET IS PER THE PLAT OF EAST DRAIN AND SURVEYS OF RECORD.

STATIONING SHOWN IS FOR THIS SURVEY AND IS NOT OF RECORD.

CENTRAL OREGON & PACIFIC RAILROAD

THE PORTION OF THE RAILROAD RIGHT OF WAY SHOWN ON THIS SURVEY WAS RECREATED BY HOLDING THE CENTER OF TRACKS LOCATED IN THE FIELD AND VERIFIED BY THE MONUMENT FOUND AT THE NORTHEAST CORNER OF THE INTERSECTION WITH EAST "B" AVENUE (PT. NO. 107) SHOWN HEREIN ON SHEET 2 OF 2.

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR

OREGON
 JULY 21, 1992
 WAYNE R. DONOVAN
 2553

RENEWAL DATE: DEC. 31, 2005
 SIGNED: 10/05/04

I, WAYNE R. DONOVAN, STATE THAT THIS SURVEY WAS PREPARED USING HEWLETT-PACKARD PRODUCT *51645A ON CONTINENTAL *JPC4M2 POLYESTER FILM.

WAYNE R. DONOVAN 10/05/04
 DATE

I:\Projects\019\019076\01907602\Survey\CAD\01907602ret.dgn
 10/5/2004

OBEC CONSULTING ENGINEERS
 920 COUNTRY CLUB RD., SUITE 100B
 EUGENE, OREGON 97401
 TEL. (541) 683-6090 FAX. (541) 683-6576

CENTER LINE RESOLUTION,
 MONUMENT RECOVERY AND CONTROL SURVEY
PASS CREEK (EAST "B" AVENUE) BRIDGE #06940
 FOR CITY OF DRAIN AND
 OREGON DEPARTMENT OF TRANSPORTATION
 SEPTEMBER, 2004

DOUGLAS COUNTY, OREGON NO SCALE

M. ARMSTRONG	OBEC	DESIGNED: W. DONOVAN	PROJ. NO. 19-76.2	SHT. 1 OF 2
APPROVED BY: CHF. SURVEYOR TITLE		DRAWN: A. DUPLANT	CHK'D: M. ARMSTRONG	FILE NO. 14128 S

SC02 2004-001