

NE1/4 SECTION 9, T39S, R1E, W.M.
NW1/4 SECTION 9, T39S, R1E, W.M.

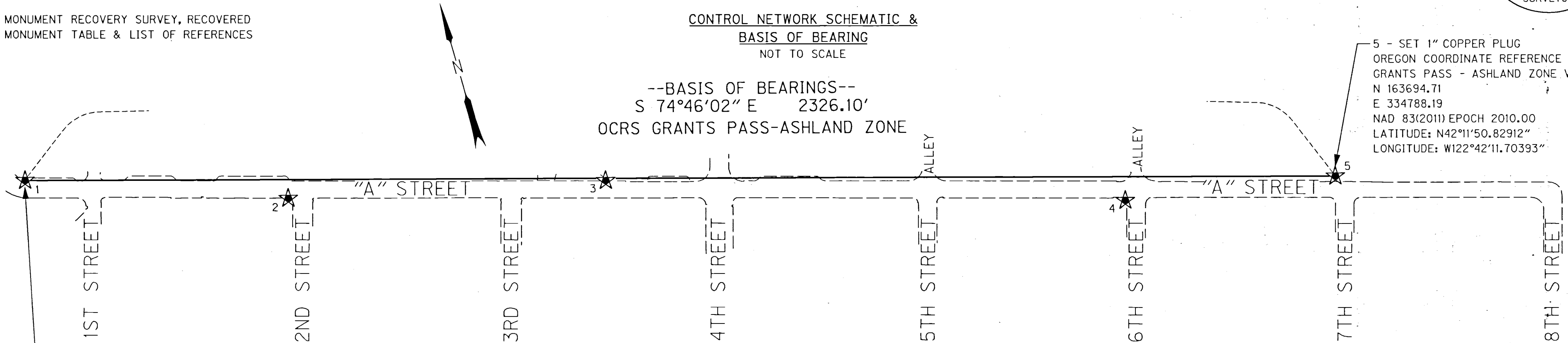
SHEET INDEX

1. NARRATIVE, CONTROL POINT CONFIDENCE LEVEL LIMITS, CONTROL POINT TABLE, BASIS OF BEARINGS & COORDINATE SYSTEM DETAILS
2. MONUMENT RECOVERY SURVEY, RECOVERED & MONUMENT TABLE
3. MONUMENT RECOVERY SURVEY, RECOVERED MONUMENT TABLE & LIST OF REFERENCES

**** RECEIVED ****
DATE 12/24/14 BY PB
This survey consists of:
3 sheet(s) Map
0 page(s) Narrative
JACKSON COUNTY SURVEYOR

CONTROL NETWORK SCHEMATIC &
BASIS OF BEARING
NOT TO SCALE

--BASIS OF BEARINGS--
S 74°46'02" E 2326.10'
O CRS GRANTS PASS-ASHLAND ZONE



5 - SET 1" COPPER PLUG
OREGON COORDINATE REFERENCE SYSTEM
GRANTS PASS - ASHLAND ZONE VALUES:
N 163694.71
E 334788.19
NAD 83(2011) EPOCH 2010.00
LATITUDE: N42°11'50.82912"
LONGITUDE: W122°42'11.70393"

1 - SET 1" COPPER PLUG
OREGON COORDINATE REFERENCE SYSTEM
GRANTS PASS - ASHLAND ZONE VALUES:
N 164305.87
E 332543.82
NAD 83(2011) EPOCH 2010.00
LATITUDE: N42°11'57.02864"
LONGITUDE: W122°42'41.45870"

LEGEND	
★	SET GPS CONTROL POINT (ORGN RTK)
---	EDGE OF PAVEMENT

1.96 SIGMA (95%) CONFIDENCE LEVEL
LIMITS-RTK GPS CONFIDENCE TABLE

PT NO	SOLUTION	RMS
1	WIDE AREA RTK - LI FIXED	0.02'
2	WIDE AREA RTK - LI FIXED	0.02'
3	WIDE AREA RTK - LI FIXED	0.02'
4	WIDE AREA RTK - LI FIXED	0.02'
5	WIDE AREA RTK - LI FIXED	0.02'

NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO PROVIDE FOR THE PERPETUATION OF THE LOCATIONS OF SURVEY MONUMENTS OF RECORD THAT MAY BE DESTROYED BY THIS PROJECT'S CONSTRUCTION. 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 MADE AT THE REQUEST OF THE CITY OF ASHLAND IN SUPPORT OF THE PROPOSED REPLACEMENT OF THE SANITARY SEWER LINE WITHIN "A" STREET FROM 1ST STREET TO 7TH STREET.

THIS SURVEY DOES NOT CONSTITUTE A PROPERTY BOUNDARY SURVEY OR RIGHT-OF-WAY RETRACEMENT SURVEY. ALL PROPERTY LINES AND RIGHT-OF-WAY LINES AS SHOWN HEREON ARE APPROXIMATE. SAID LINES ARE SHOWN FOR GRAPHIC REPRESENTATION ONLY.

ALL DISTANCES, COORDINATES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE OREGON COORDINATE REFERENCE SYSTEM GRANTS PASS-ASHLAND ZONE PROJECTION PARAMETERS. THIS SURVEY USES INTERNATIONAL FEET UNITS.

SURVEY EQUIPMENT USED CONSISTED OF ONE TRIMBLE R8 MODEL 4 GPS RECEIVER, ONE TRIMBLE S6 ROBOTIC TOTAL STATION, ONE SOKKIA SDL30 DIGITAL LEVEL AND ONE TRIMBLE TSC3 CONTROLLER USING TRIMBLE ACCESS SOFTWARE. THIS SURVEY WAS COMPLETED BETWEEN JULY AND OCTOBER OF 2014.

CONTROL NARRATIVE

PROJECT: "A" STREET SANITARY SEWER REPLACEMENT
LOCATION: CITY OF ASHLAND, OREGON
OBEC PROJECT: 0649-0013.00
SURVEY DATUM:
HORIZONTAL - O CRS: GRANTS PASS-ASHLAND ZONE
NAD 83(2011) EPOCH 2010.00 (INTERNATIONAL FEET)

OREGON COORDINATE REFERENCE SYSTEM (O CRS)
GRANTS PASS-ASHLAND ZONE PARAMETERS

TRANSVERSE MERCATOR PROJECTION
NORTH AMERICAN DATUM OF 1983
LATITUDE OF GRID ORIGIN : 41°45'00" N
CENTRAL MERIDIAN : 123°20'00" W
FALSE NORTHING: 0.000 M (0.00 FT)
FALSE EASTING: 50,000.000 M (164041.9948 FT)
CENTRAL MERIDIAN SCALE: 1.000043 (EXACT)

RMS (ROOT MEAN SQUARE) AFTER A MINIMUM OF 180 MEASUREMENTS OF EACH BASE LINE INDICATES THE QUALITY OF THE SOLUTION BASED ON MEASUREMENT NOISE. THE LOWER THE RMS VALUE, THE HIGHER THE QUALITY OF THE BASELINE. RMS IS EXPRESSED IN FEET AND IS THE RADIUS OF THE ERROR CIRCLE WITHIN WHICH 95% OF THE POSITION FIXES ARE FOUND.

HORIZONTAL CONTROL SURVEY

PRIMARY CONTROL FOR THIS PROJECT WAS ESTABLISHED BY USING THE OREGON REAL TIME GPS NETWORK (ORGN) TO ESTABLISH HORIZONTAL POSITIONS FOR CONTROL POINTS 1 THROUGH 5. THE MEAN NORTHINGS AND EASTINGS OF TWO SEPARATE OBSERVATIONS WITH A MINIMUM DURATION OF 180 EPOCHS, UNDER DIFFERENT SATELLITE CONSTELLATIONS, WERE HELD FIXED.

CONTROL POINTS FOR THIS SURVEY WERE NOT SET ON AND DO NOT REPRESENT PROPERTY LINES OR RIGHT-OF-WAY LINES AND ARE INTENDED FOR USE BY THE CITY OF ASHLAND AND OBEC CONSULTING ENGINEERS (OBEC) IN SUPPORT OF FUTURE PROJECTS. IT IS NOT THE INTENT OF THE CITY OF ASHLAND OR OBEC TO PERPETUATE THESE CONTROL POINTS AS MONUMENTS.

VERTICAL CONTROL SURVEY

VERTICAL CONTROL IS BASED ON THE CITY OF ASHLAND (NGVD 29(56) DATUM) AND WAS ESTABLISHED BY HOLDING THE PUBLISHED ELEVATION OF THE CITY OF ASHLAND BENCHMARK (UNNUMBERED) LOCATED AT THE INTERSECTION OF A STREET AND 2ND STREET (POINT *1002) WITH A RECORD ELEVATION OF 1871.602 FEET. A DIGITAL LEVEL LOOP WAS RUN THROUGH CONTROL POINTS 1 THROUGH 5.

CONTROL POINT COORDINATE TABLE

PT. NO.	O CRS NORTHING	O CRS EASTING	NGVD 29(56) ELEVATION	CONVERGENCE ANGLE	DATE	DESCRIPTION
1	164305.87	332543.82	1870.41	00°25'04"	7/11/14	SET 1" COPPER PLUG STAMPED "OBEC" IN TOP OF CONCRETE CURB
2	164151.00	332985.58	1872.17	00°25'08"	7/11/14	SET 1" COPPER PLUG STAMPED "OBEC" IN TOP OF CONCRETE CURB
3	164031.40	333537.42	1873.73	00°25'13"	7/11/14	SET 1" COPPER PLUG STAMPED "OBEC" IN TOP OF CONCRETE CURB
4	163752.09	334417.23	1873.18	00°25'20"	7/11/14	SET 1" COPPER PLUG STAMPED "OBEC" IN TOP OF CONCRETE CURB
5	163694.71	334788.19	1874.86	00°25'24"	7/11/14	SET 1" COPPER PLUG STAMPED "OBEC" IN TOP OF CONCRETE WALK

REGISTERED PROFESSIONAL LAND SURVEYOR

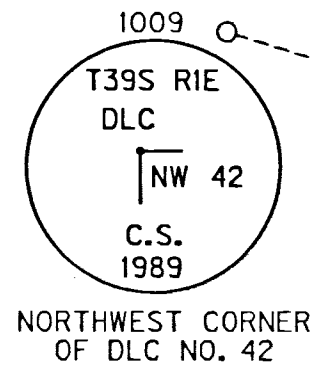
LOGAN MILES
OREGON JULY 12, 2005
65452
RENEWAL: DEC. 31, 2016
Signed: 10/24/14

FILE NAME: 0649-0013rec.dgn

Corporate Office: 920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089, 541-683-6090
3990 FAIRVIEW INDUSTRIAL DR SE, SUITE 200 SALEM, OREGON 97302-1166, 503-589-4100
831 O'HARE PARKWAY MEDFORD, OREGON 97504-4005, 541-774-5590
5000 MEADOWS ROAD, SUITE 420 LAKE OSWEGO, OREGON 97035, 503-620-6103
1111 MAIN STREET, SUITE 401 VANCOUVER, WASHINGTON 98660 360-314-2391
www.obec.com

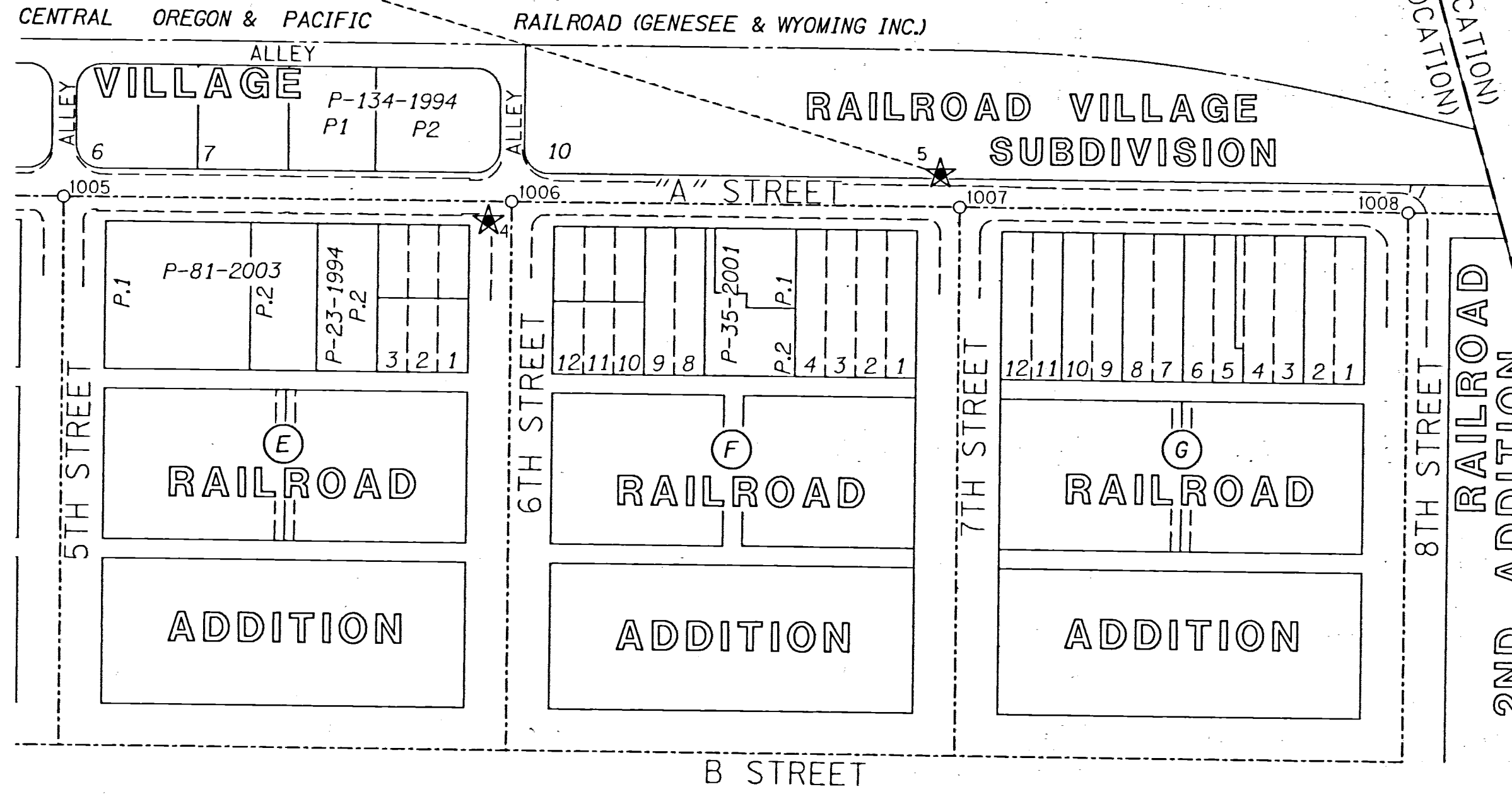
CITY OF ASHLAND
PUBLIC WORKS DEPARTMENT
HORIZONTAL CONTROL AND MONUMENT RECOVERY SURVEY
"A" STREET
SANITARY SEWER REPLACEMENT
CITY OF ASHLAND
20 EAST MAIN STREET
ASHLAND, OREGON 97520
NOVEMBER 14, 2014
NO SCALE
SHEET 1 OF 3

NE1/4 SECTION 9, T39S, R1E, W.M.
NW1/4 SECTION 9, T39S, R1E, W.M.



N58°00'32"W
2712.69'

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JACKSON COUNTY
SURVEYOR



SEE SHEET 2



SCALE 1" = 100'
100 50 0 100
FEET

REFERENCES
JACKSON COUNTY SURVEYS NUMBERED 4937, 5067, 6048, 8398, 8603, 10723, 11693, 11856, 13482, 13702, 13895, 14337, 16886, 16987, 18032, 19996, 20221 AND 20726. RAILROAD ADDITION TO THE TOWN OF ASHLAND AND RAILROAD VILLAGE SUBDIVISION. ALL AS FILED IN THE OFFICE OF THE JACKSON COUNTY SURVEYOR.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 12, 2005
LOGAN MILES
65452
RENEWAL: DEC. 31, 2016
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OBEC CONSULTING ENGINEERS www.obec.com

CITY OF ASHLAND
PUBLIC WORKS DEPARTMENT
HORIZONTAL CONTROL AND MONUMENT RECOVERY SURVEY

"A" STREET
SANITARY SEWER REPLACEMENT

CITY OF ASHLAND NOVEMBER 14, 2014
20 EAST MAIN STREET ASHLAND, OREGON 97520 1" = 100'
SHEET 3 OF 3

DESIGNED: L. MILES PROJ. NO. 0649-0013
DRAWN: L. MILES CHK'D: A. CUTSFORTH

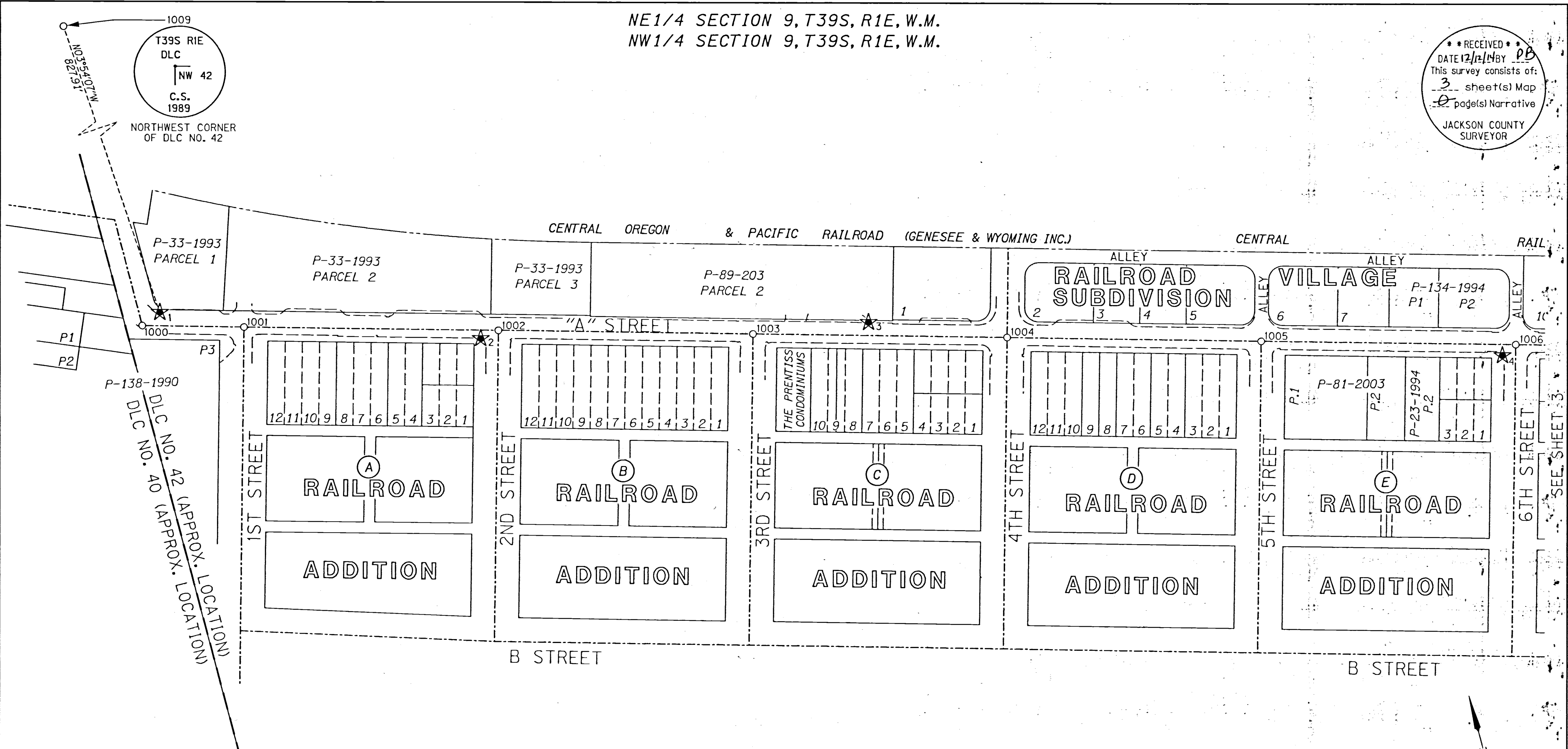
FD = FOUND YPC = YELLOW PLASTIC CAP
O.D. = OUTSIDE DIAMETER CS = COUNTY SURVEY
I.D. = INSIDE DIAMETER J.C.R.R. = JACKSON COUNTY RE-ESTABLISHMENT RECORDS

RECOVERED MONUMENT LIST

PT ID	OCRS NORTHING	OCRS EASTING	DATE	DESCRIPTION & REFERENCE DOCUMENTS
1005	163860.70	334083.06	9/10/14	FD 1/2" I.D. IRON PIPE W/ MAG NAIL, IN MONUMENT CASE, GOOD CONDITION, DOWN 0.5', PER CITY OF ASHLAND
1006	163762.47	334439.86	9/10/14	FD 3" BRASS CAP "CITY OF ASHLAND - SURVEY MARKER 1993 LS 759", IN MONUMENT CASE, GOOD CONDITION, DOWN 0.3', AS SHOWN ON CS 13415
1007	163664.07	334796.55	9/10/14	FD 3" BRASS CAP "CITY OF ASHLAND - SURVEY MARKER 1993 LS 759", IN MONUMENT CASE, GOOD CONDITION, DOWN 0.4', AS SHOWN ON CS 13415
1008	163565.65	335153.27	9/10/14	FD 3/4" O.D. IRON PIPE W/ YPC STAMPED "RLS 759", IN MONUMENT CASE, GOOD CONDITION, DOWN 1.0', PER CS 8603
1009	165131.86	332487.48	10/15/14	FD 2-1/2" BRASS CAP STAMPED "T39S R1E NW DLC 42, C.S. 1989", GOOD CONDITION, FLUSH WITH SIDEWALK, PER J.C.R.R.

NE1/4 SECTION 9, T39S, R1E, W.M.
NW1/4 SECTION 9, T39S, R1E, W.M.

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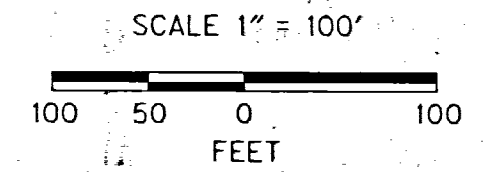


LEGEND	
★	SET GPS CONTROL POINT (ORGN RTK)
○	FOUND MONUMENT AS NOTED IN TABLE
---	EDGE OF PAVEMENT

REGISTERED PROFESSIONAL LAND SURVEYOR

L. Miles
OREGON
JULY 12, 2005
LOGAN MILES
65452

RENEWAL: DEC. 31, 2016
Signed: 10/24/14



FILE NAME: 0649-0013rec.dgn

RECOVERED MONUMENT LIST

PT ID	OCRS NORTHING	OCRS EASTING	DATE	DESCRIPTION & REFERENCE DOCUMENTS
1000	164293.62	332514.14	9/10/14	FD 3" BRASS CAP STAMPED "CITY OF ASHLAND - SURVEY MARKER", IN MONUMENT CASE, GOOD CONDITION, DOWN 0.5', PER CS 20726
1001	164254.30	332656.80	9/10/14	FD 3" BRASS CAP STAMPED "CITY OF ASHLAND - SURVEY MARKER", IN MONUMENT CASE, GOOD CONDITION, DOWN 0.4', PER CS 20726
1002	164155.92	333013.38	9/10/14	FD 1" SQUARE BOLT, IN MONUMENT CASE, GOOD CONDITION, DOWN 0.9', PER CITY OF ASHLAND
1003	164057.42	333370.46	9/10/14	FD 3/4" I.D. IRON PIPE W/ MAG NAIL, IN MONUMENT CASE, GOOD CONDITION, DOWN 0.3', PER CITY OF ASHLAND
1004	163959.15	333726.81	9/10/14	FD 3/4" I.D. IRON PIPE W/ MAG NAIL, IN MONUMENT CASE, GOOD CONDITION, DOWN 0.5', PER CITY OF ASHLAND
1005	163860.70	334083.06	9/10/14	FD 1/2" I.D. IRON PIPE W/ MAG NAIL, IN MONUMENT CASE, GOOD CONDITION, DOWN 0.5', PER CITY OF ASHLAND
1006	163762.47	334439.86	9/10/14	FD 3" BRASS CAP "CITY OF ASHLAND - SURVEY MARKER 1993 LS 759", IN MONUMENT CASE, GOOD CONDITION, DOWN 0.3', AS SHOWN ON CS 13415
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SHEET 2 OF 3

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