

OREGON DEPARTMENT OF TRANSPORTATION  
COVER SHEET  
NEHALEM RIVER - BEAVER CREEK  
M.P. # 62.7 TO M.P. # 64.2 ON HWY. # 47  
S. 1/2 SEC. 8 T. 4 N., R. 4 W., W.M.  
COLUMBIA COUNTY, OREGON  
MAY 30, 1992

NARRATIVE

PURPOSE

TO SET HORIZONTAL CONTROL AND SHOW FOUND MONUMENTS IN THE AREA OF A PROPOSED HIGHWAY PROJECT.

BASIS OF BEARING AND COORDINATES

TWO GPS POINTS, "MILE 65" AND "TREHARNE" SET SPECIFICALLY FOR THIS PROJECT BY DAVID EVANS AND ASSOCIATES. COORDINATES ARE NAD 83/91 STATE PLANE REDUCED TO A LOCAL DATUM PLANE USING A GRID FACTOR OF .999932495. BEARINGS ARE OREGON GRID NORTH ZONE.

METHOD OF ALIGNMENT RECOVERY

THE CENTERLINE OF NEHALEM HIGHWAY WAS RECOVERED AS FOLLOWS, USING OREGON STATE HIGHWAY MAPS # 10C-32-5 AND 5B-4-25 AND OREGON PARKS SURVEY PS # 3693, POINTS 212 AND 214 WERE USED TO DETERMINE THE ALIGNMENT ON THE EAST END OF THE PROJECT WHILE POINTS 205 AND 207 WERE USED TO DETERMINE THE ALIGNMENT ON THE WEST END OF THE PROJECT. DUE TO INCOMPLETE AND INACCURATE INFORMATION FROM COUNTY MAP R 595 AND THE TAX LOT MAPS A BEST FIT ALIGNMENT WAS PRODUCED BETWEEN THE TWO ENDS OF THE PROJECT. RECORD INFORMATION AND A SPLIT OF THE EXISTING PAVING WAS USED IN COMBINATION TO PRODUCE THE ALIGNMENT AS SHOWN.

THE OLD RAILROAD ALIGNMENT (NOW OWNED BY STATE PARKS ) WAS DETERMINED BY THE USE OF UNITED RAILWAYS RIGHT OF WAY AND TRACK MAP # V-4. THIS MAP SHOWS THE ALIGNMENT IN THE AREA OF THIS SURVEY. THERE IS A STATEMENT ON THE FACE OF MAP V-4 "NOTE: LINE CHANGED BETWEEN STA. 74+04.4 AND STA. 93+97.1 SEE RIGHT OF WAY PLAT FOR CENTERLINE AS PURCHASED. DEED # 33-447 DID NOT PRODUCE AN ALIGNMENT THAT FIT WITH THE FIELD LOCATION OF THE REMAINING BALLAST THEREFORE IT WAS NOT USED.

REFERENCE SURVEYS

O.D.O.T. RIGHT OF WAY MAPS

10C-32-05  
5B-04-25  
6B-07-23

UNITED RAILWAYS ALIGNMENT MAP

V-4

COUNTY SURVEYS

CS 3693  
L- 490  
L-1887  
L-2176  
R- 595

EQUIPMENT USED:

WILD T2000 ELECTRONIC THEODOLITE SERIAL NO. # 309939  
(0.5 SECOND ANGULAR ACCURACY)

WILD D155 ELECTRONIC DISTANCE METER SERIAL NO. # 50332  
(+/- 3MM +/- 2PPM)

TRIPOD MOUNTED FORESIGHT/BACKSIGHT  
(20 SECOND PLATE BUBBLE ON PRISM CARRIER)

HAND HELD PRISM POLE  
(8 MINUTE CIRCLE BUBBLE)

TRAVERSE PROCEDURES:

FORCED CENTERING METHODS WERE USED TO PERFORM TRAVERSE OPERATIONS.

TWO SETS OF HORIZONTAL AND ZENITH ANGLES WERE MEASURED AT EACH STATION.

TWO SETS OF DISTANCES WERE MEASURED FORWARD AND BACK.

THE ELECTRONIC DISTANCE METER WAS CHECKED ON A CALIBRATED BASELINE PRIOR TO PERFORMING THE TRAVERSE AND AT THE CONCLUSION OF THE PROJECT.

THE BASELINE RECORDS AND FURTHER DETAILS REGARDING THE PROCEDURES ARE ON FILE AT THE ORIGINATING OFFICE.

SIDE TIES TO MONUMENTS WERE MADE WITH HAND HELD PRISM POLE.

ALL IRON PIPES SIZES ARE INSIDE DIAMETER.

THE ORIGINAL FIELD NOTES ARE ON FILE AT:

DEPARTMENT OF TRANSPORTATION  
ROADWAY DESCRIPTION SUPERVISOR  
207 TRANSPORTATION BUILDING  
SALEM, OREGON 97310  
PHONE: 378-3487  
FIELD BOOK #3131

TRAVERSE ADJUSTMENT:

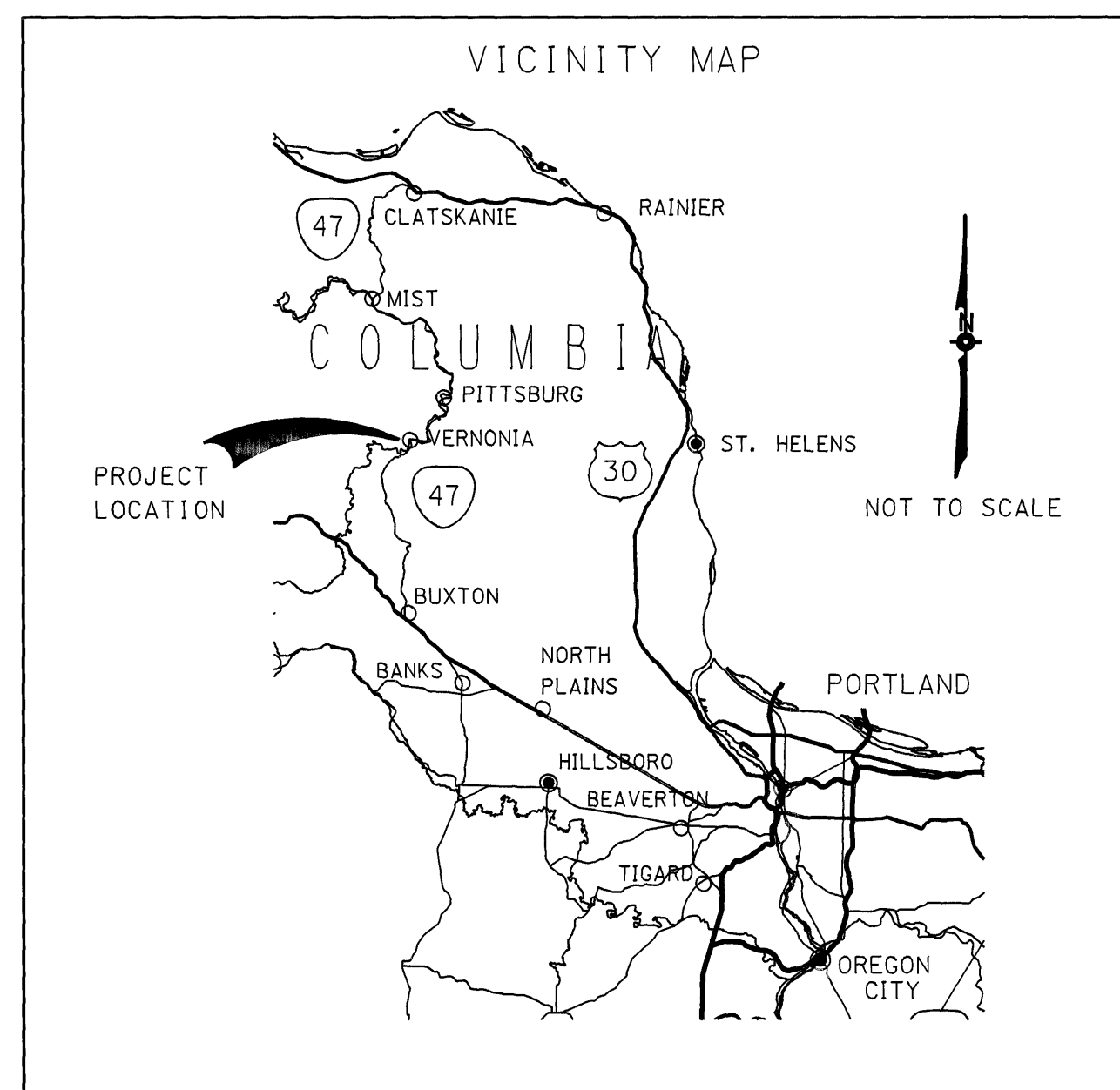
ADJUSTED TRAVERSE BY COMPASS RULE.

LENGTH OF TRAVERSE : 11440.24 FEET

ANGULAR CLOSURE BEFORE ANGULAR ADJUSTMENT : 38.1 SECONDS

ANGULAR ADJUSTMENT PER STATION : 01.9 SECONDS

LINEAR CLOSURE BEFORE ADJUSTMENT  
TOTAL LINEAR ERROR : 0.2360 ( 1:48,470)  
ERROR IN NORTHING : -0.2151  
ERROR IN EASTING : -0.0971

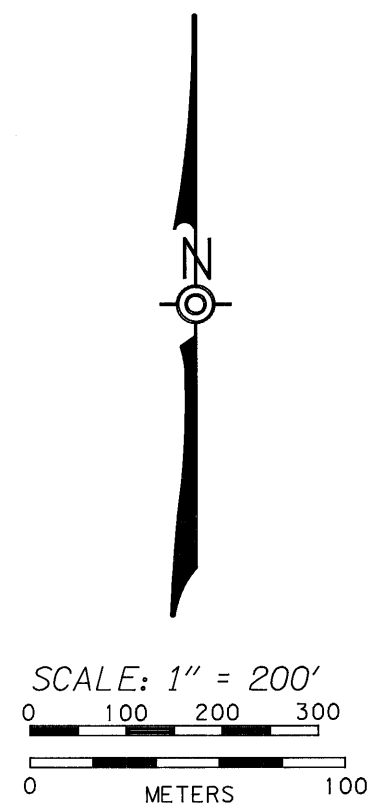


COUNTY SURVEY  
RECEIVED 6-15-92  
FILED 7-1-92

REGISTERED PROFESSIONAL LAND SURVEYOR	REGION 1, SURVEY GROUP 5821 NE GLISAN PORTLAND, OR 97213 (503) 731-3239
OREGON JULY 16, 1987 LAWRENCE D. HART 2285	DRAWN BY: S. MUMA CALCULATED BY: L. BEAUREGARD CHECKED BY: J. FERGUSON
SHEET 1 OF 3	

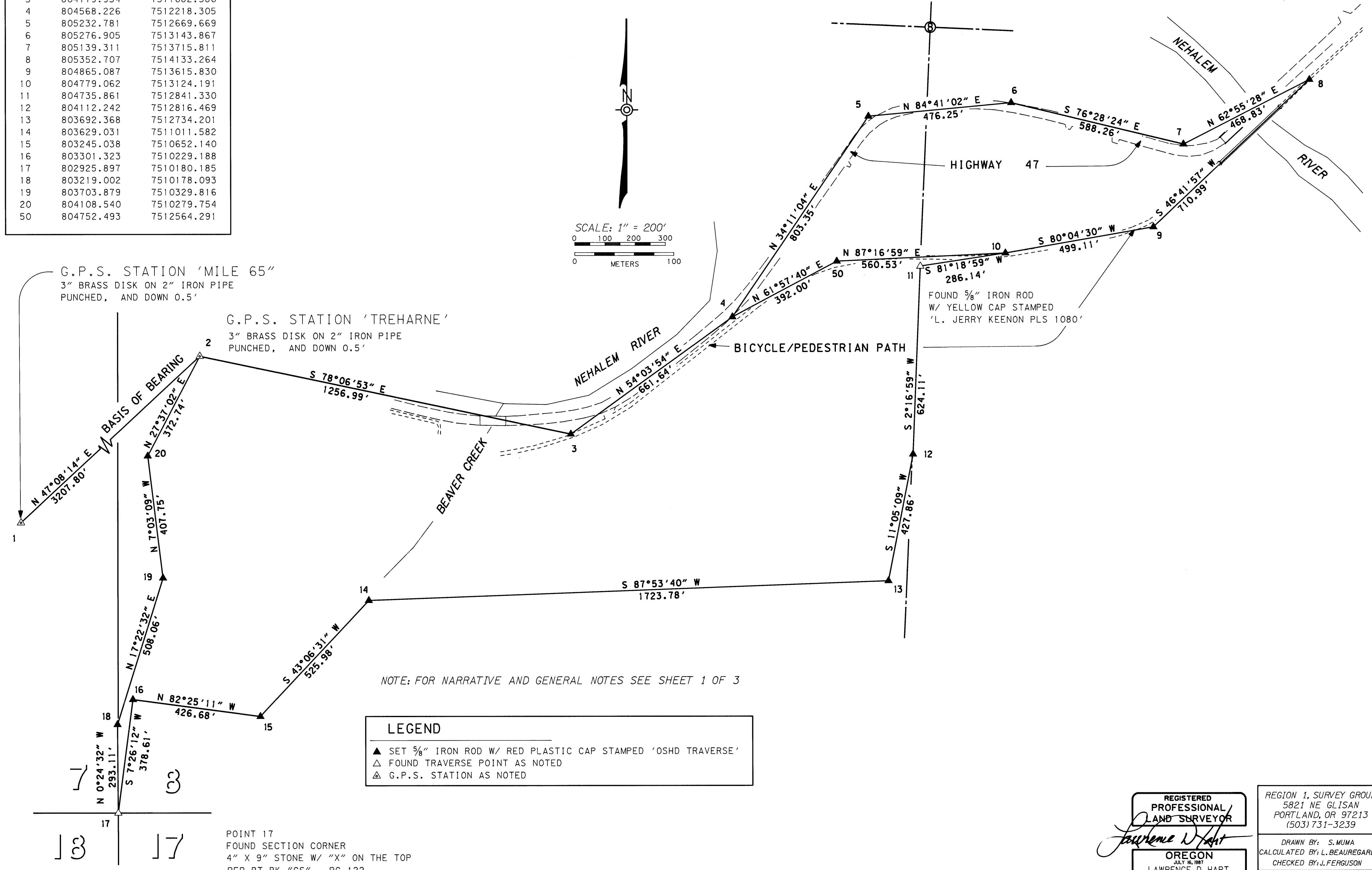
L.D.P. COORDINATES		
POINT	NORTHING	EASTING
1	802256.720	7508101.271
2	804438.812	7510452.542
3	804179.934	7511682.586
4	804568.226	7512218.305
5	805232.781	7512669.669
6	805276.905	7513143.867
7	805139.311	7513715.811
8	805352.707	7514133.264
9	804865.087	7513615.830
10	804779.062	7513124.191
11	804735.861	7512841.330
12	804112.242	7512816.469
13	803692.368	7512734.201
14	803629.031	7511011.582
15	803245.038	7510652.140
16	803301.323	7510229.188
17	802925.897	7510180.185
18	803219.002	7510178.093
19	803703.879	7510329.816
20	804108.540	7510279.754
50	804752.493	7512564.291

OREGON DEPARTMENT OF TRANSPORTATION  
PROJECT CONTROL MAP  
NEHALEM RIVER - BEAVER CREEK  
TREHARNE SECTION



G.P.S. STATION 'MILE 65'  
3" BRASS DISK ON 2" IRON PIPE  
PUNCHED, AND DOWN 0.5'

G.P.S. STATION 'TREHARNE'  
3" BRASS DISK ON 2" IRON PIPE  
PUNCHED, AND DOWN 0.5'



NOTE: FOR NARRATIVE AND GENERAL NOTES SEE SHEET 1 OF 3

LEGEND

▲ SET 5/8" IRON ROD W/ RED PLASTIC CAP STAMPED 'OSHD TRAVERSE'

△ FOUND TRAVERSE POINT AS NOTED

△ G.P.S. STATION AS NOTED

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Lawrence D. Hart*

OREGON  
JULY 16, 1987  
LAWRENCE D. HART  
2285

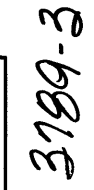
REGION 1, SURVEY GROUP  
5821 NE GLISAN  
PORTLAND, OR 97213  
(503) 731-3239

DRAWN BY: S.MUMA  
CALCULATED BY: L.BEAUREGARD  
CHECKED BY: J.FERGUSON

SHEET 2 OF 3

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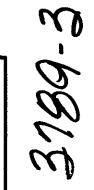
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