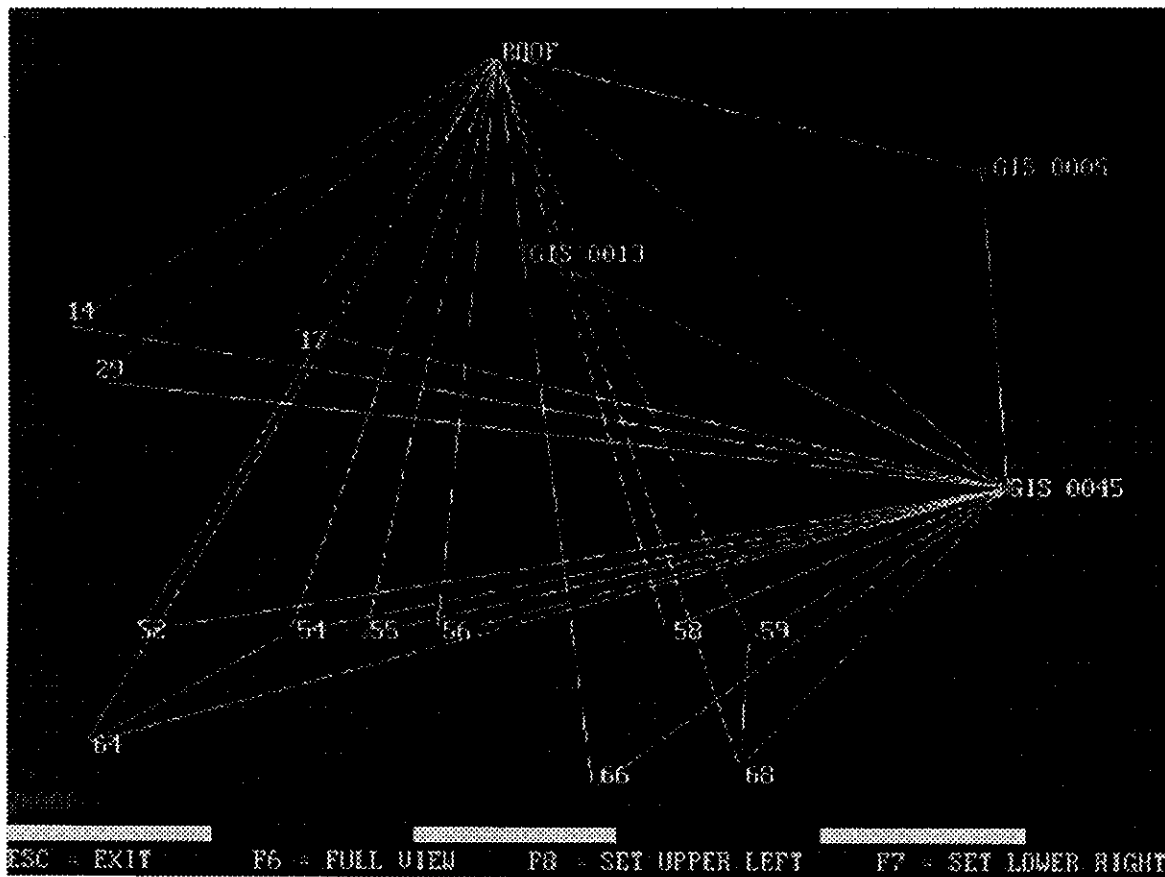


CITY OF BEND MAPPING CONTROL SURVEY

BY

JEFF KERN & ASSOCIATES INC.
BEND, OREGON

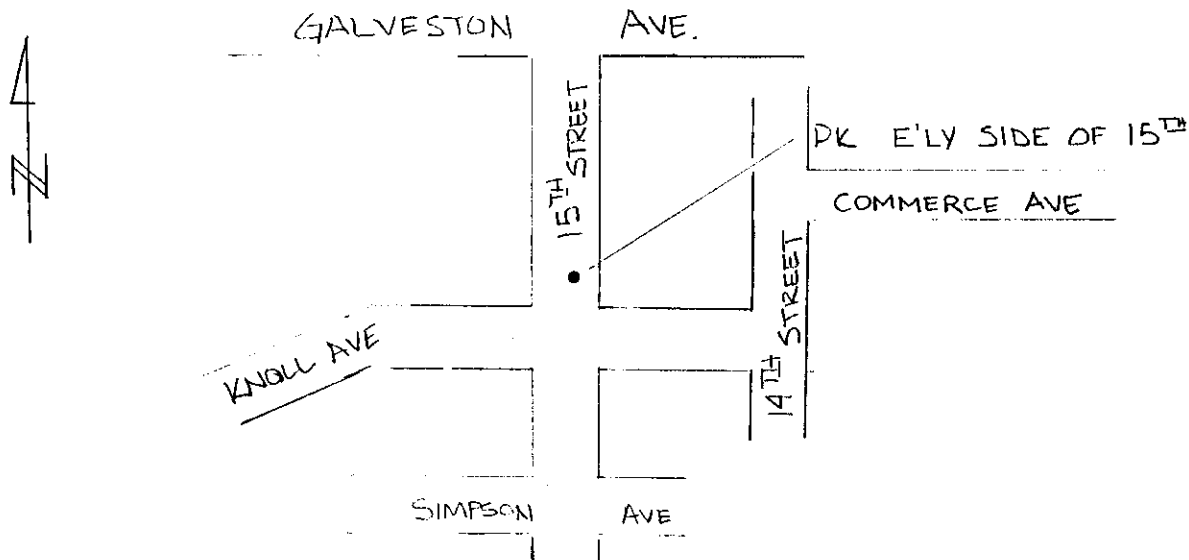
DGMC # 13



CONTROL MARK DATA

NAME OF MARK: 17 12 31 04 A COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 31 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC 1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

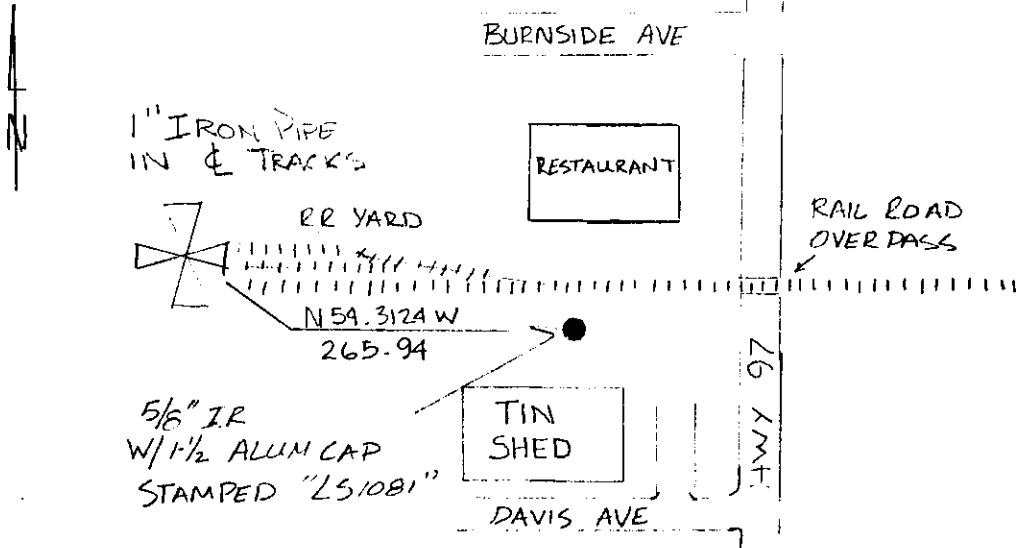
MARK: 17 12 31 04 A HORIZONTAL ORDER: FIRST

Latitude: 44°03'01.76151 ONE
Longitude: 121°20'00.78833 SIGMA
Northing: 382980.2864 ERROR
Easting: 3286794.2919
Convergence: -0°02'05.70069
Scale Factor: 1.00016020
Ellipsoid Height:
Orthometric Height: 3655.12
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 17 12 33 00 A (NOT SEC. COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

MARK: 17 12 33 00 A HORIZONTAL ORDER: FIRST

Latitude: 44°03'03.53736 ONE SIGMA ERROR
Longitude: 121°18'10.80411
Northing: 383156.7355
Easting: 3294828.1472
Convergence: -0°00'49.22997
Scale Factor: 1.00016003
Ellipsoid Height:
Orthometric Height: 3655.06
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 17 12 33 04 A

COUNTY: DESCHUTES

MARK SET BY: JEFF KERN & ASSOC.

STATE: OREGON

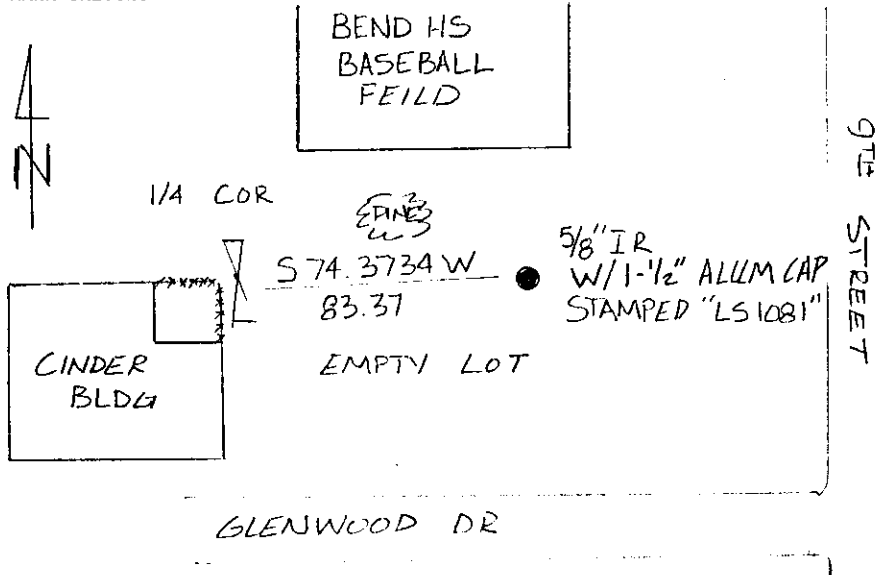
DATE OF MARK: 1993

COUNTRY: U.S.A.

LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC.

DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC1000u

ADJUSTED WITH: COMPASS
RULE

DATUM: HORIZONTAL= NAD (83-91)

CENTRAL MERIDIAN: W 121°17'00.000000"

VERTICAL= NGVD 29

LATITUDE OF ORIGIN: N 43°00'00.000000"

COORDINATE SYSTEM: TRANSVERSE MERCATOR

ORIGIN NORTHING: 0.0000 F

ZONE: DESCHUTES COUNTY

ORIGIN EASTING: 3,300,000.0000 F

LINEAR UNITS: INTERNATIONAL FOOT

SCALE ALONG MERIDIAN: 1.00016000000

GEODETTIC AND MAPPING COORDINATES

MARK: 17 12 33 04 A

HORIZONTAL ORDER: FIRST

Latitude: 44°03'05.09849

ONE
SIGMA
ERROR

Longitude: 121°17'36.52690

Northing: 383314.3913

Easting: 3297331.9294

Convergence: -0°00'25.39728

Scale Factor: 1.00016001

Ellipsoid Height:

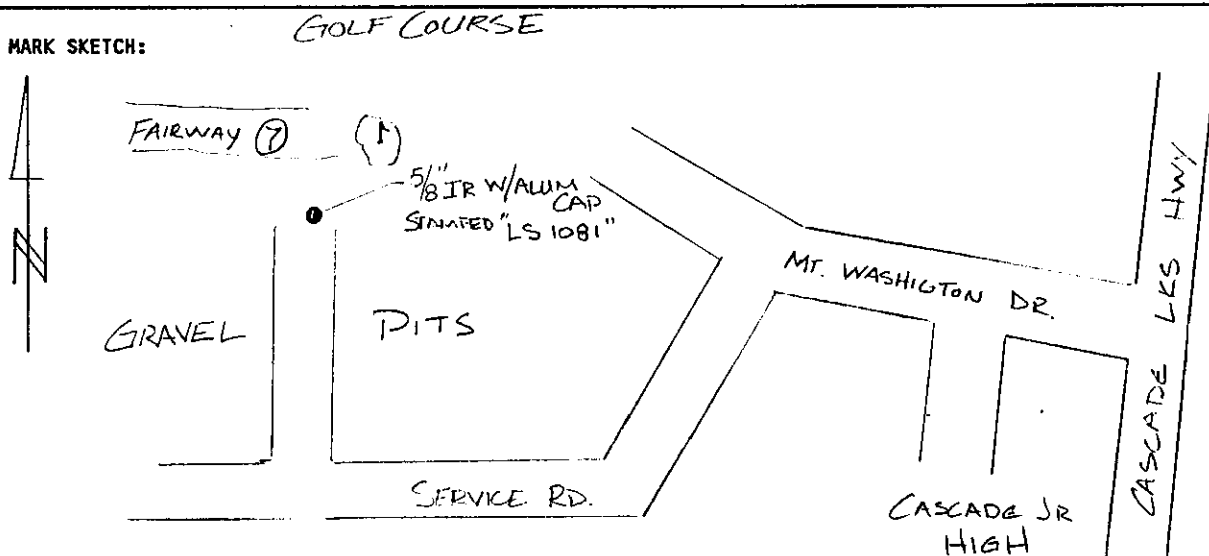
Orthometric Height: 3689.24

Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 11 01 04 A (NOT A COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 01 TOWNSHIP 18 S. RANGE 11 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

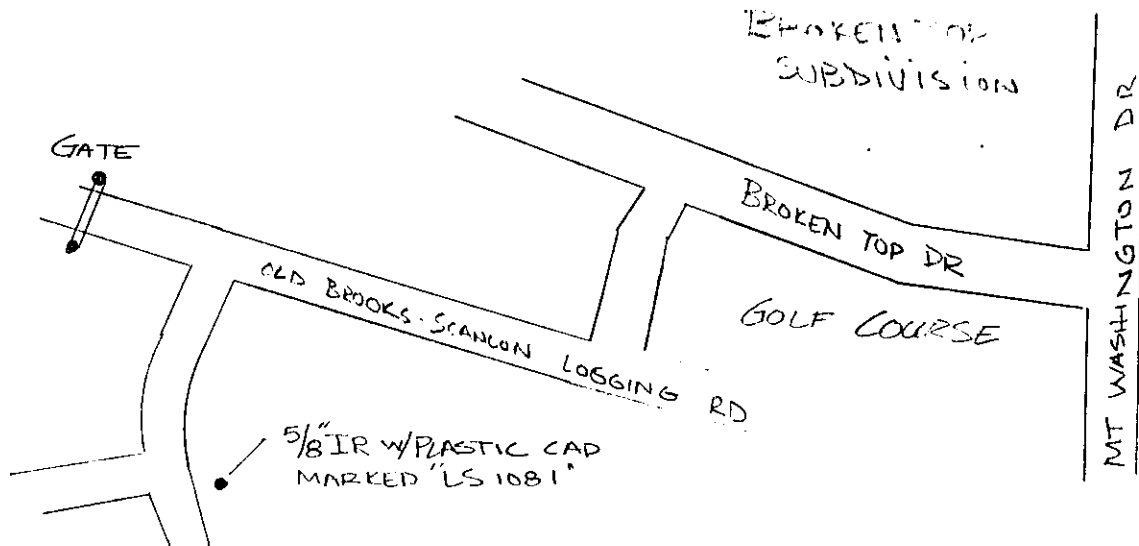
MARK: 18 11 01 04 A HORIZONTAL ORDER: FIRST

Latitude: <u>44°02'11.950471"</u>	ONE
Longitude: <u>121°21'15.680711"</u>	SIGMA
Northing: <u>377939.5232</u>	ERROR
Easting: <u>3281319.4199</u>	
Convergence: <u>-0°02'57.7284"</u>	
Scale Factor: <u>1.000160398498</u>	
Ellipsoid Height: <u>3708.2790</u>	
Orthometric Height: <u>3772.4188</u>	
Geoid Height: <u>-64.1398</u>	

CONTROL MARK DATA

NAME OF MARK: 18 11 02 00 A (NOT SEC. COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 02 TOWNSHIP 18S. RANGE 11E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS
DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

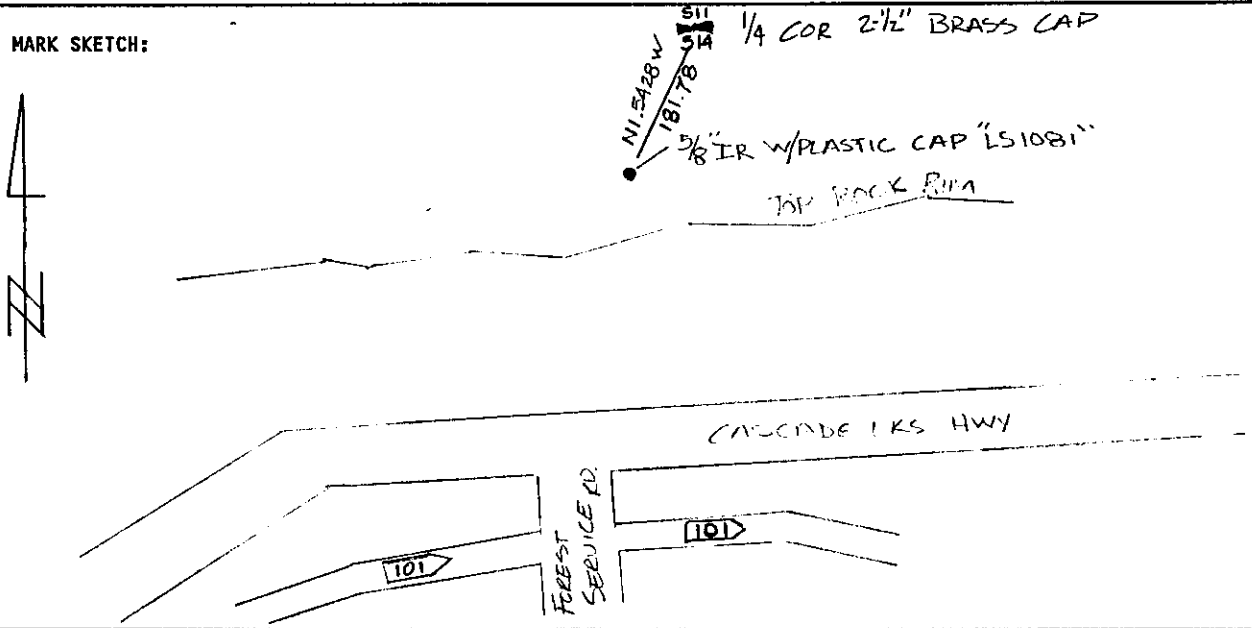
MARK: 18 11 02 00 A HORIZONTAL ORDER: FIRST

Latitude: 44°02'12.767203" ONE
Longitude: 121°23'00.680383" SIGMA
Northing: 378030.2079 ERROR
Easting: 3273648.0193
Convergence: -0°04'10.7167"
Scale Factor: 1.000160792999
Ellipsoid Height: 3816.2193
Orthometric Height: 3880.2971
Geoid Height: -64.0778

CONTROL MARK DATA

NAME OF MARK: 18 11 11 04 A (NOT A COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 11 TOWNSHIP 18 S. RANGE 11 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC.1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

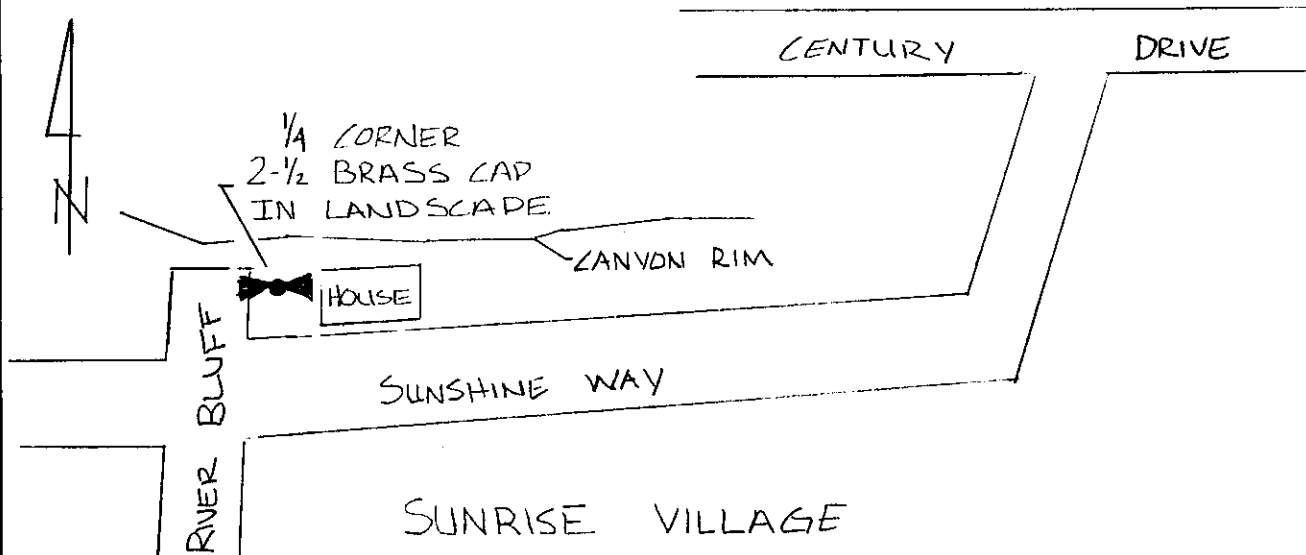
MARK: 18 11 11 04 A HORIZONTAL ORDER: FIRST

Latitude: 44°01'19.10377 ONE SIGMA ERROR
Longitude: 121°22'26.45141
Northing: 372592.3738
Easting: 3276142.8738
Convergence: -0°03'46.86234
Scale Factor: 1.00016065
Ellipsoid Height:
Orthometric Height: 3973.97
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 11 12 04 COUNTY: DESCHUTES
MARK SET BY: C.W.E.C. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 12 TOWNSHIP 18 S. RANGE 11 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

MARK: 18 11 12 04 HORIZONTAL ORDER: FIRST

Latitude: 44°01'21.00713" ONE
Longitude: 121°21'13.98993 SIGMA
Northing: 372779.9647 ERROR
Easting: 3281438.5366
Convergence: -0°02'56.50801
Scale Factor: 1.00016039
Ellipsoid Height:
Orthometric Height: 3864.14
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 11 13 04 A (NOT 4 COR)

COUNTY: DESCHUTES

MARK SET BY: JEFF KERN & ASSOC.

STATE: OREGON

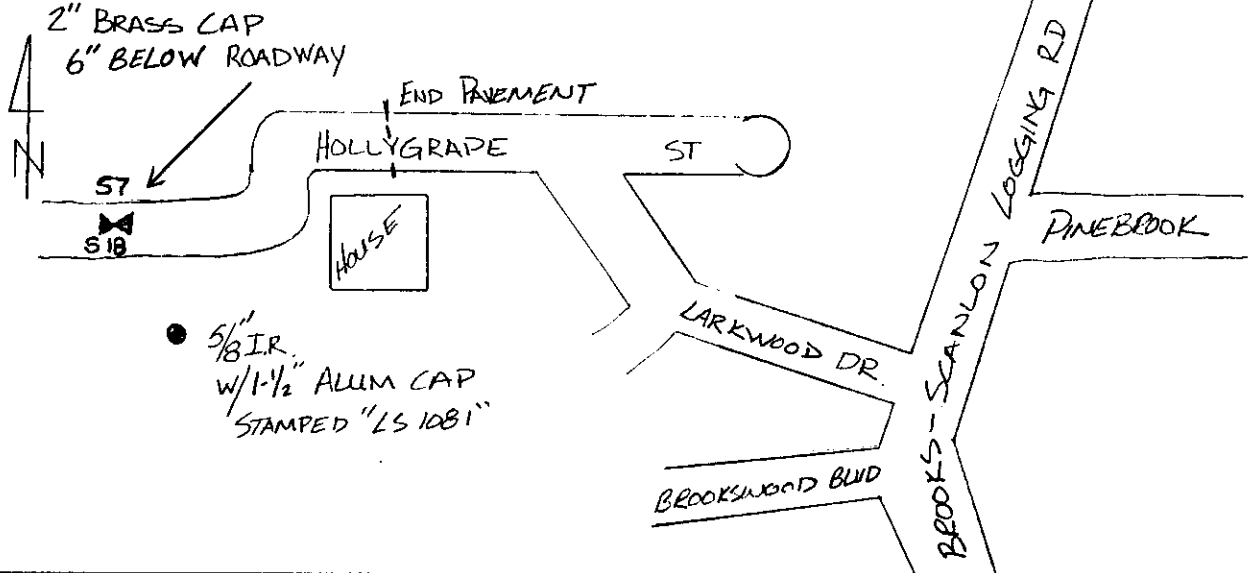
DATE OF MARK: 1993

COUNTRY: U.S.A.

LOCATION: SECTION 13 TOWNSHIP 18 S. RANGE 11 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC.

DATE: 1993

FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC 1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91)

CENTRAL MERIDIAN: W 121°17'00.000000"

VERTICAL= NGVD 29

LATITUDE OF ORIGIN: N 43°00'00.000000"

COORDINATE SYSTEM: TRANSVERSE MERCATOR

ORIGIN NORTHING: 0.0000 F

ZONE: DESCHUTES COUNTY

ORIGIN EASTING: 3,300,000.0000 F

LINEAR UNITS: INTERNATIONAL FOOT

SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

MARK: 18 11 13 04 A HORIZONTAL ORDER: FIRST

Latitude: 44°00'28.899746"

ONE
SIGMA
ERROR

Longitude: 121°21'14.333553"

Northing: 367502.6546

Easting: 3281408.9029

Convergence: -0°02'56.7006"

Scale Factor: 1.000160394692

Ellipsoid Height: 3821.6227

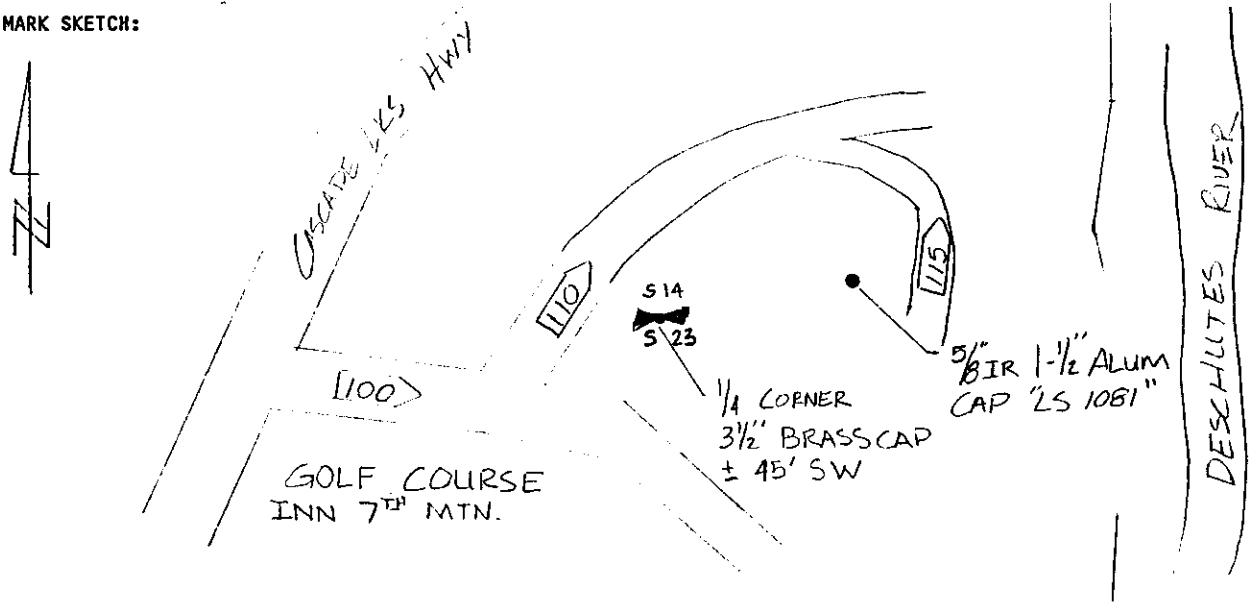
Orthometric Height: 3885.5498

Geoid Height: -63.9271

CONTROL MARK DATA

NAME OF MARK: 18 11 14 04 A (NOT 1/4 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 14 TOWNSHIP 18 S. RANGE 11 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

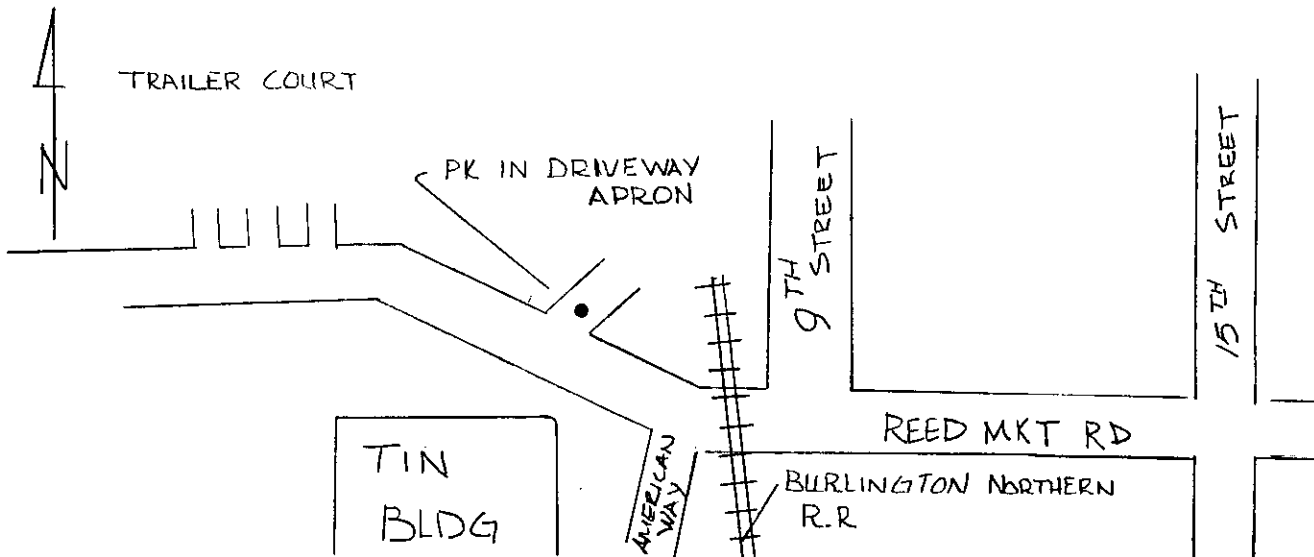
MARK: 18 11 14 04 A HORIZONTAL ORDER: FIRST

Latitude: 44°00'28.447536" ONE
Longitude: 121°22'25.958710" SIGMA
Northing: 367461.9724 ERROR
Easting: 3276173.2466
Convergence: -0°03'46.4624"
Scale Factor: 1.000160648304
Ellipsoid Height: 3837.4646
Orthometric Height: 3901.36
Geoid Height: -63.8931

CONTROL MARK DATA

NAME OF MARK: 18 12 04 04 A (NOT A COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 04 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

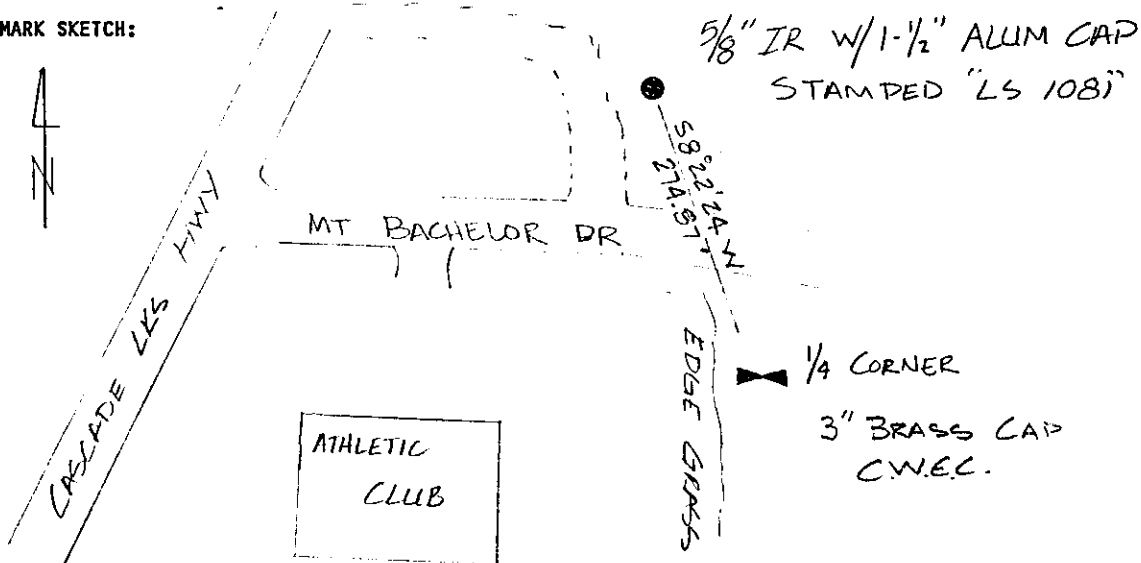
MARK: 18 12 04 04 A HORIZONTAL ORDER: FIRST

Latitude:	44°02'15.38146	ONE
Longitude:	121°17'35.05629	SIGMA
Northing:	378279.1113	ERROR
Easting:	3297438.7533	
Convergence:	-0°00'24.36869	
Scale Factor:	1.00016001	
Ellipsoid Height:		
Orthometric Height:	3724.91	
Geoid Height:		

CONTROL MARK DATA

NAME OF MARK: 18 12 06 04 A (NOT 1/4 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 06 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL=	NAD (83-91)	CENTRAL MERIDIAN:	W 121°17'00.000000"
VERTICAL=	NGVD 29	LATITUDE OF ORIGIN:	N 43°00'00.000000"
COORDINATE SYSTEM:	TRANSVERSE MERCATOR	ORIGIN NORTHING:	0.0000 F
ZONE:	DESCHUTES COUNTY	ORIGIN EASTING:	3,300,000.0000 F
LINEAR UNITS:	INTERNATIONAL FOOT	SCALE ALONG MERIDIAN:	1.000160000000

GEODETIC AND MAPPING COORDINATES

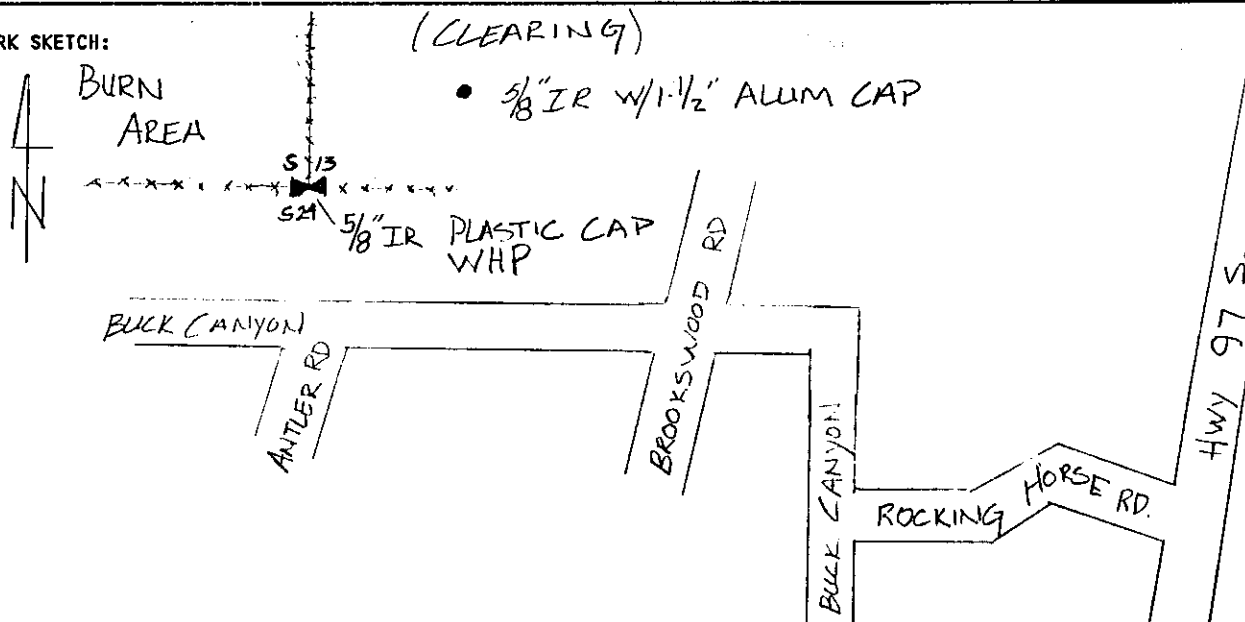
MARK: 18 12 06 04 A HORIZONTAL ORDER: FIRST

Latitude:	44°02'15.88196	ONE
Longitude:	121°20'00.78519	SIGMA
Northing:	378333.6742	ERROR
Easting:	3286791.6898	
Convergence:	-0°02'05.66960	
Scale Factor:	1.00016020	
Ellipsoid Height:		
Orthometric Height:	3695.29	
Geoid Height:		

CONTROL MARK DATA

NAME OF MARK: 18 12 07 04 A (NOT 1/4 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 07 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

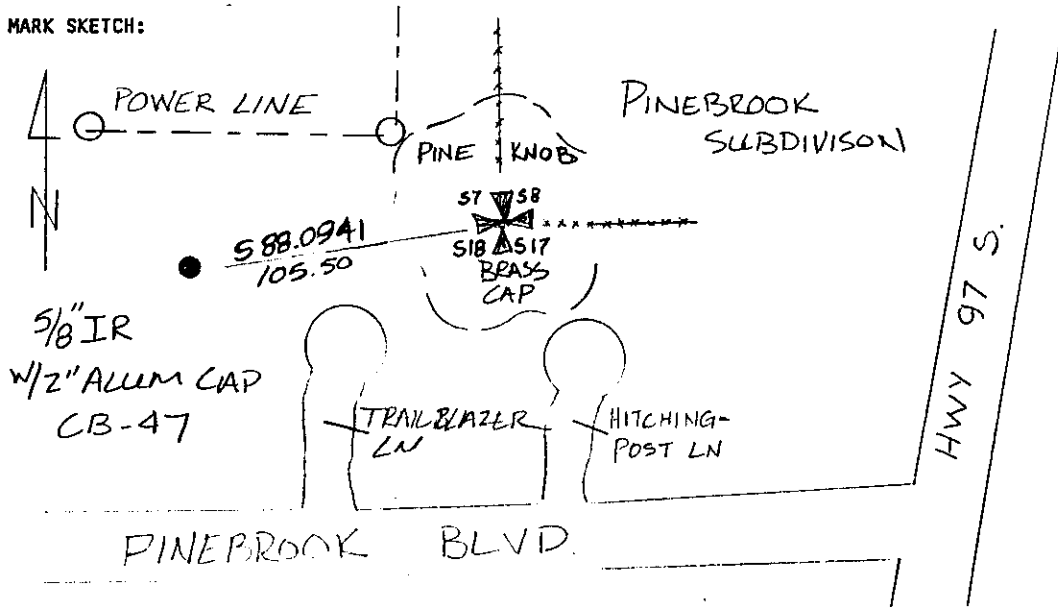
MARK: 18 12 07 04 A HORIZONTAL ORDER:

Latitude: 44°01'20.64581 ONE
Longitude: 121°20'00.29593 SIGMA
Northing: 372739.4304 ERROR
Easting: 3286824.0365
Convergence: -0°02'05.29479
Scale Factor: 1.00016013
Ellipsoid Height:
Orthometric Height: 3826.21
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 12 08 00 COUNTY: DESCHUTES
MARK SET BY: LS 540 GEO. COOK STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 08 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

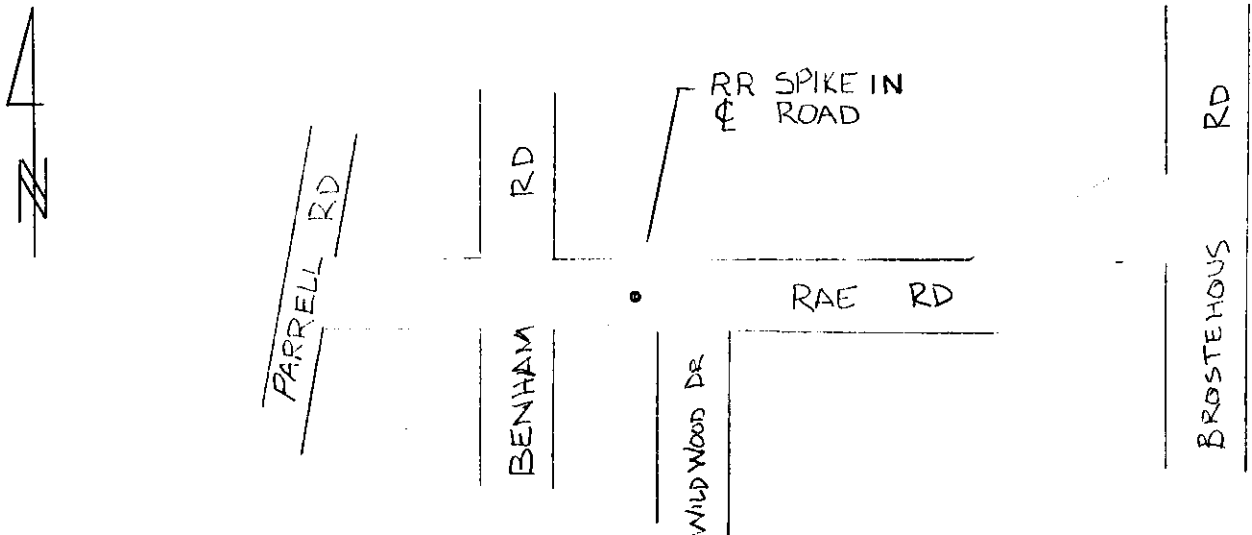
MARK: 18 12 08 00 HORIZONTAL ORDER: FIRST

Latitude:	44°01'20.98109	ONE
Longitude:	121°19'24.71775	SIGMA
Northing:	372771.9639	ERROR
Easting:	3289424.0941	
Convergence:	-0°01'40.57027	
Scale Factor:	1.00016013	
Ellipsoid Height:		
Orthometric Height:	3814.96	
Geoid Height:		

CONTROL MARK DATA

NAME OF MARK: 18 12 09 00 A (NOT SEC. COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 09 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

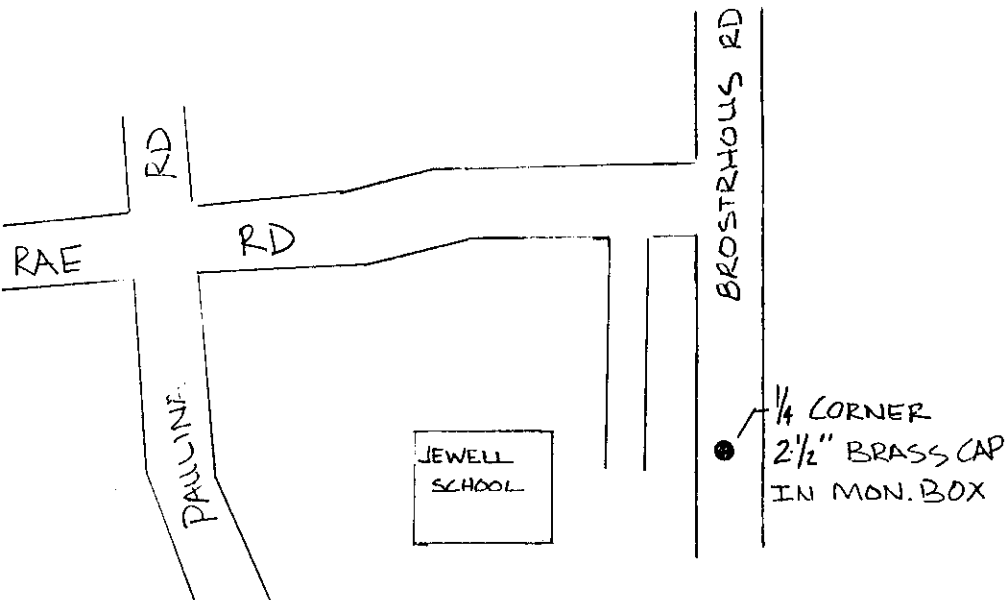
MARK: 18 12 09 00 A HORIZONTAL ORDER: FIRST

Latitude: 44°01'21.17889" ONE SIGMA ERROR
Longitude: 121°18'13.68392"
Northing: 372790.0864
Easting: 3294615.2182
Convergence: -0°00'51.20601
Scale Factor: 1.00016003
Ellipsoid Height:
Orthometric Height: 3760.72
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 12 09 04 COUNTY: DESCHUTES
MARK SET BY: C.W.E.C. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 09 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

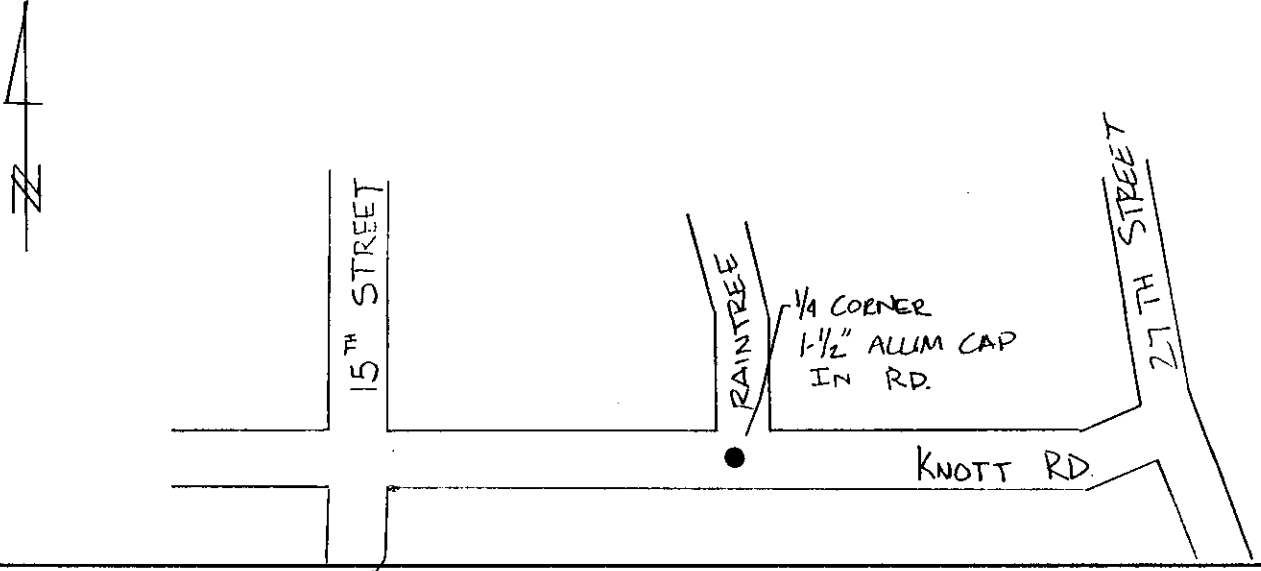
MARK: 18 12 09 04 HORIZONTAL ORDER: FIRST

Latitude: 44°01'20.99912" ONE
Longitude: 121°17'38.01445" SIGMA
Northing: 372771.3891 ERROR
Easting: 3297221.9222
Convergence: -0°00'26.41779
Scale Factor: 1.00016001
Ellipsoid Height:
Orthometric Height: 3739.57
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 12 15 04 COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 15 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

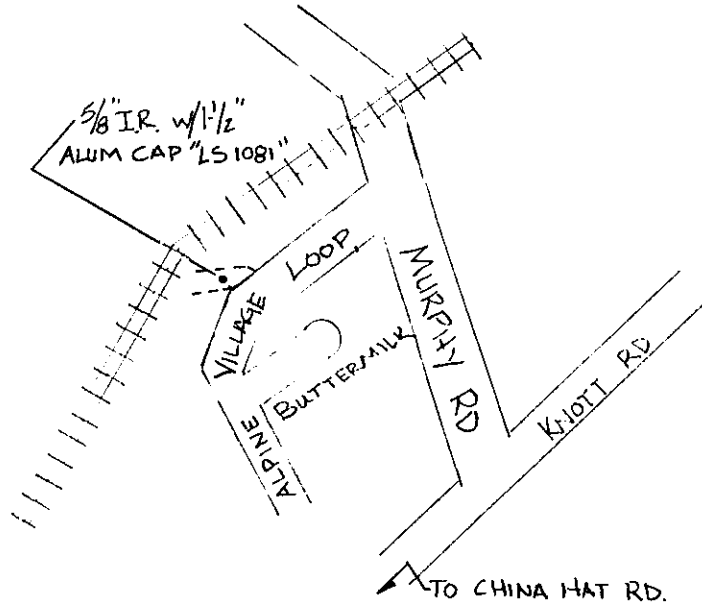
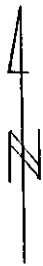
MARK: 18 12 15 04 HORIZONTAL ORDER: FIRST

Latitude: 44°00'28.67345	ONE
Longitude: 121°16'26.87576	SIGMA
Northing: 367471.9079	ERROR
Easting: 3302421.2950	
Convergence: -0°00'23.01334	
Scale Factor: 1.00016001	
Ellipsoid Height:	
Orthometric Height: 3744.09	
Geoid Height:	

CONTROL MARK DATA

NAME OF MARK: 18 12 16 00 A (NOT SEC. COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 16 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

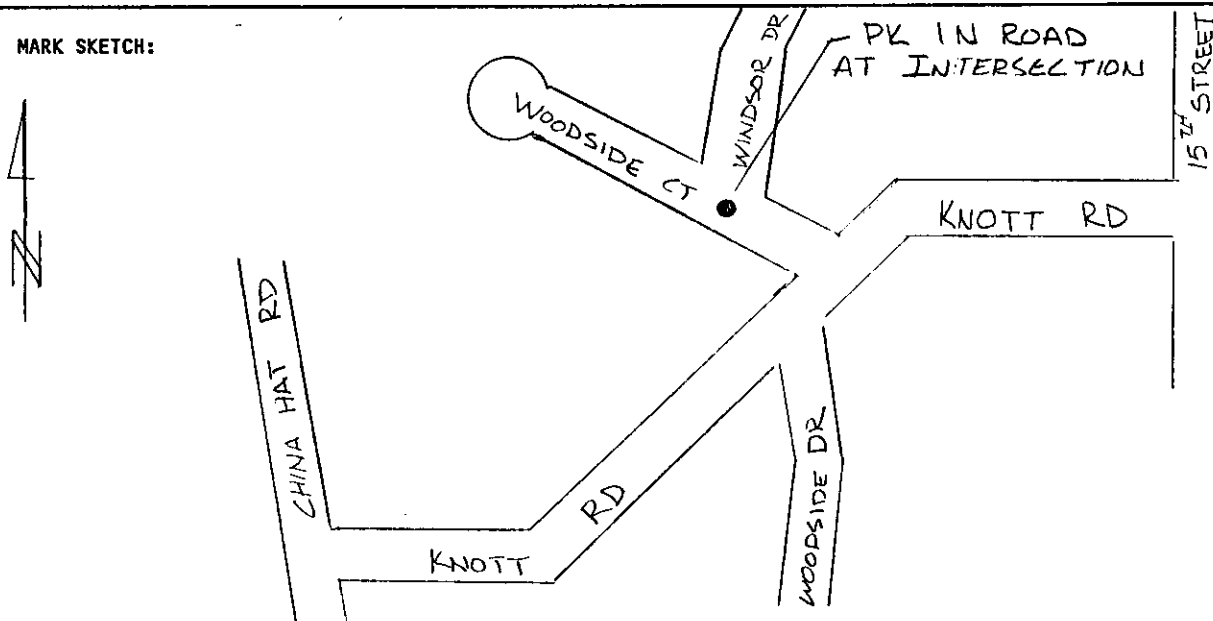
MARK: 18 12 16 00 A HORIZONTAL ORDER: FIRST

Latitude: 44°00'29.745064" ONE
Longitude: 121°18'16.872820" SIGMA
Northing: 367581.0308 ERROR
Easting: 3294380.8263
Convergence: -0°00'53.4083"
Scale Factor: 1.000160036057
Ellipsoid Height: 3763.2953
Orthometric Height: 3827.2343
Geoid Height: -63.9390

CONTROL MARK DATA

NAME OF MARK: 18 12 16 04 A (NOT 1/4 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 16 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

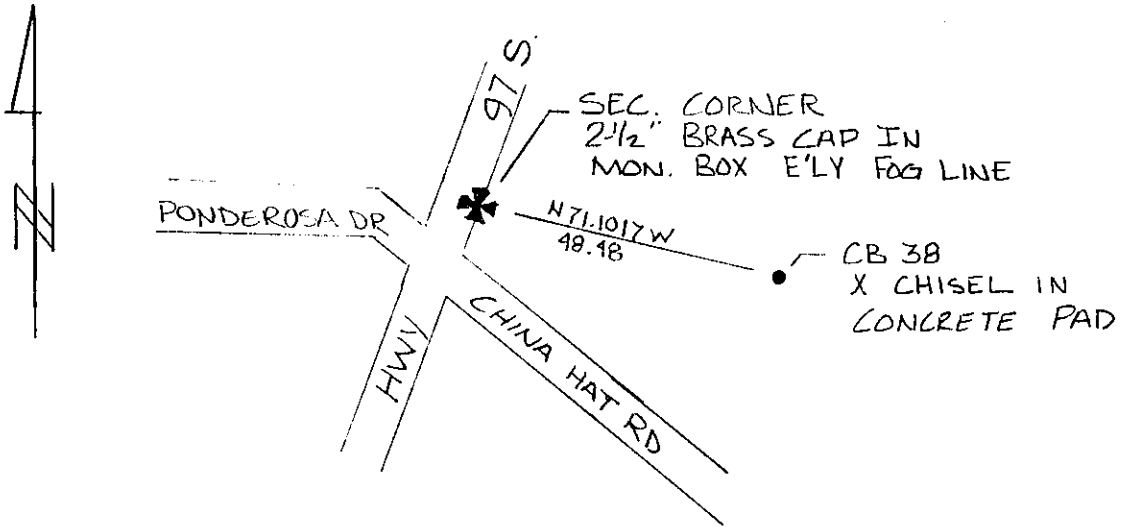
MARK: 18 12 16 04 A HORIZONTAL ORDER: FIRST

Latitude: <u>44°00'27.264577"</u>	ONE
Longitude: <u>121°17'37.428890"</u>	SIGMA
Northing: <u>367329.2574</u>	ERROR
Easting: <u>3297264.0282</u>	
Convergence: <u>-0°00'26.0039</u>	
Scale Factor: <u>1.000160008548</u>	
Ellipsoid Height: <u>3724.4564</u>	
Orthometric Height: <u>3788.3864</u>	
Geoid Height: <u>-63.9300</u>	

CONTROL MARK DATA

NAME OF MARK: 18 12 17 00 COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 17 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAVFIELD EQUIPMENT: WILD TC 000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODETTIC AND MAPPING COORDINATES

MARK: 18 12 17 00 HORIZONTAL ORDER: FIRST

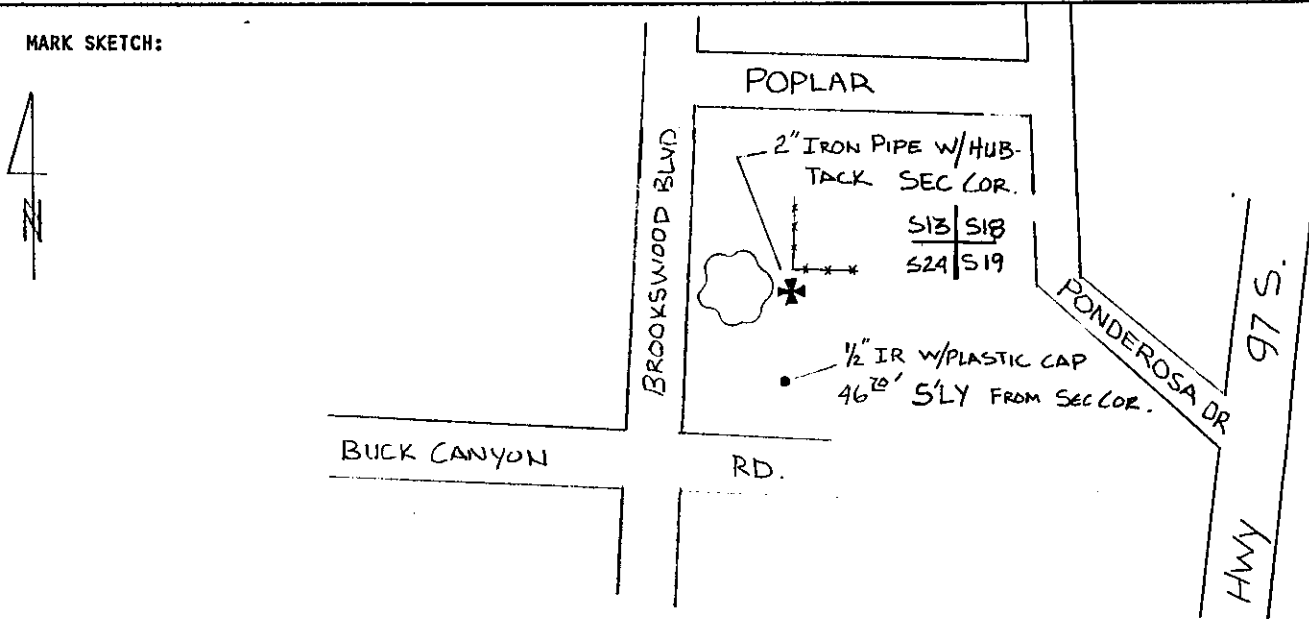
Latitude: 44°00'28.81985 ONE
Longitude: 121°19'25.27095 SIGMA
Northing: 367489.1978 ERROR
Easting: 3289381.0812
Convergence: -0°01'40.92829
Scale Factor: 1.00016013
Ellipsoid Height:
Orthometric Height: 3848.60
Geoid Height:

Des Co

CONTROL MARK DATA

NAME OF MARK: 18 12 18 00 A (NOT SEC. COR) COUNTY: DESCHUTES
 MARK SET BY: HICKMAN, WILLIAMS & ASSOC. STATE: OREGON
 DATE OF MARK: 1993 COUNTRY: U.S.A.
 LOCATION: SECTION 18 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
 REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL=	NAD (83-91)	CENTRAL MERIDIAN:	W 121°17'00.000000"
VERTICAL=	NGVD 29	LATITUDE OF ORIGIN:	N 43°00'00.000000"
COORDINATE SYSTEM:	TRANSVERSE MERCATOR	ORIGIN NORTHING:	0.0000 F
ZONE:	DESCHUTES COUNTY	ORIGIN EASTING:	3,300,000.0000 F
LINEAR UNITS:	INTERNATIONAL FOOT	SCALE ALONG MERIDIAN:	1.000160000000

GEODETTIC AND MAPPING COORDINATES

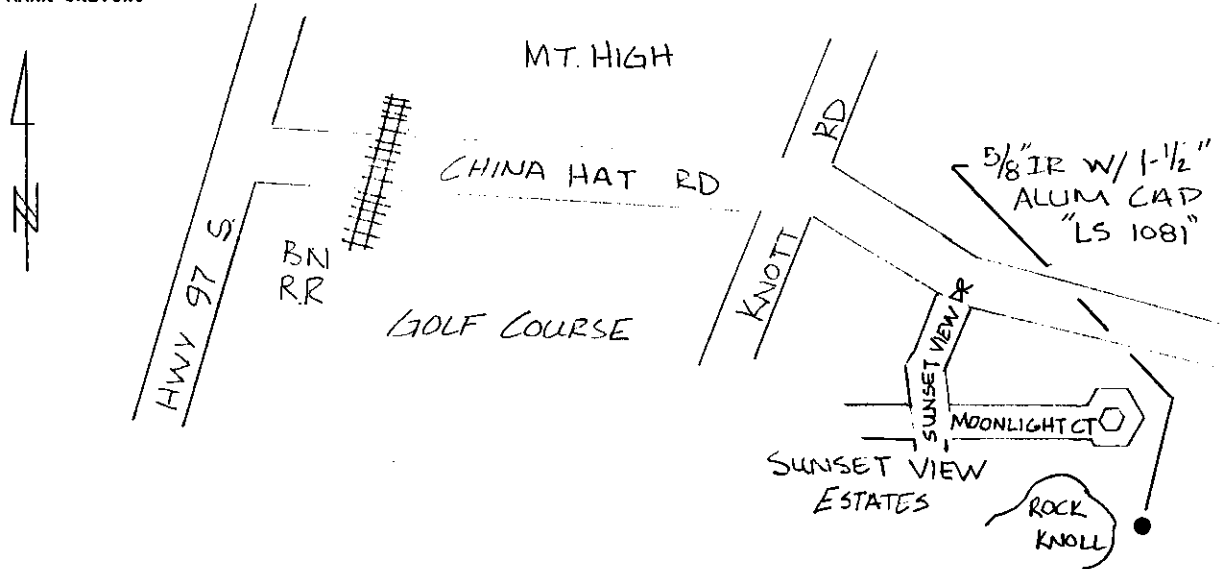
MARK: 18 12 18 00 A HORIZONTAL ORDER: FIRST

Latitude:	44°00'27.997619"	ONE
Longitude:	121°20'38.388499"	SIGMA
Northing:	367409.1973	ERROR
Easting:	3284036.3223	
Convergence:	-0°02'31.7268"	
Scale Factor:	1.000160291015	
Ellipsoid Height:	3787.0880	
Orthometric Height:	3851.0220	
Geoid Height:	-63.9340	

CONTROL MARK DATA

NAME OF MARK: 18 12 20 04 A (NOT 1/2 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 20 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

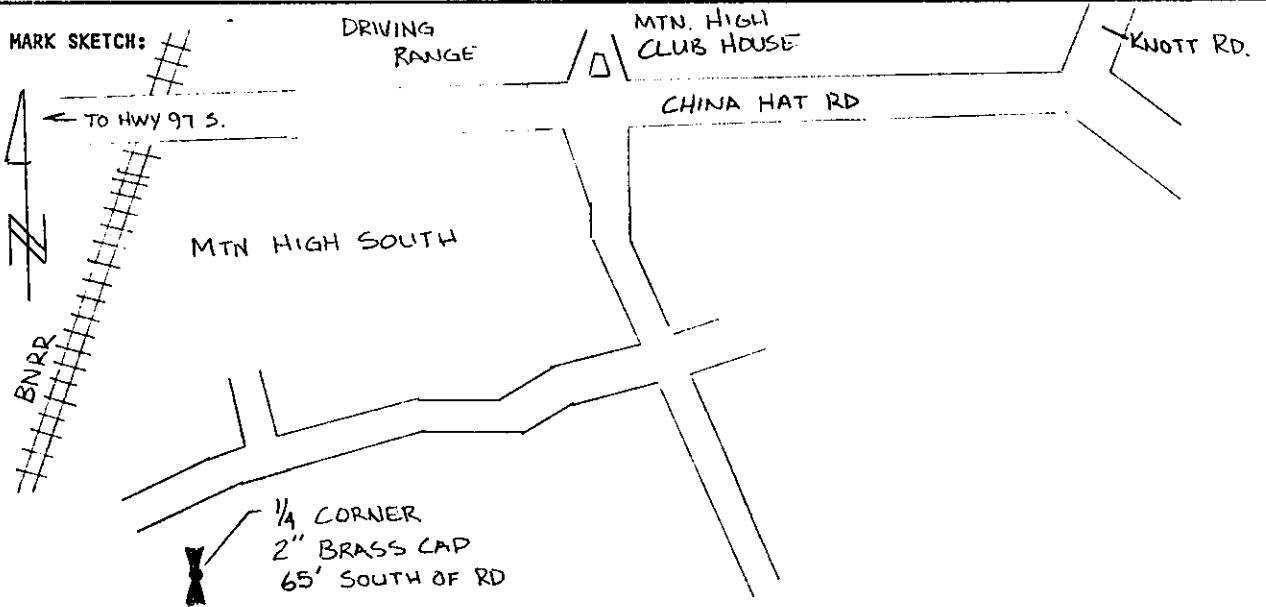
GEODETIC AND MAPPING COORDINATES

MARK: 18 12 20 04 A HORIZONTAL ORDER: FIRST

Latitude: 43°59'35.267022" ONE SIGMA ERROR
Longitude: 121°18'51.167200"
Northing: 362064.4120
Easting: 3291871.9438
Convergence: -0°01'17.2136
Scale Factor: 1.000160075444
Ellipsoid Height: 3895.6105
Orthometric Height: 3959.4313
Geoid Height: -63.8208

CONTROL MARK DATA

NAME OF MARK: 18 12 20 40 COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. PUBLIC WORKS STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 20 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993

FIELD METHOD: TRAV. FIELD EQUIPMENT: WILD TC1000u ADJUSTED WITH: COMPASS RULE

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETIC AND MAPPING COORDINATES

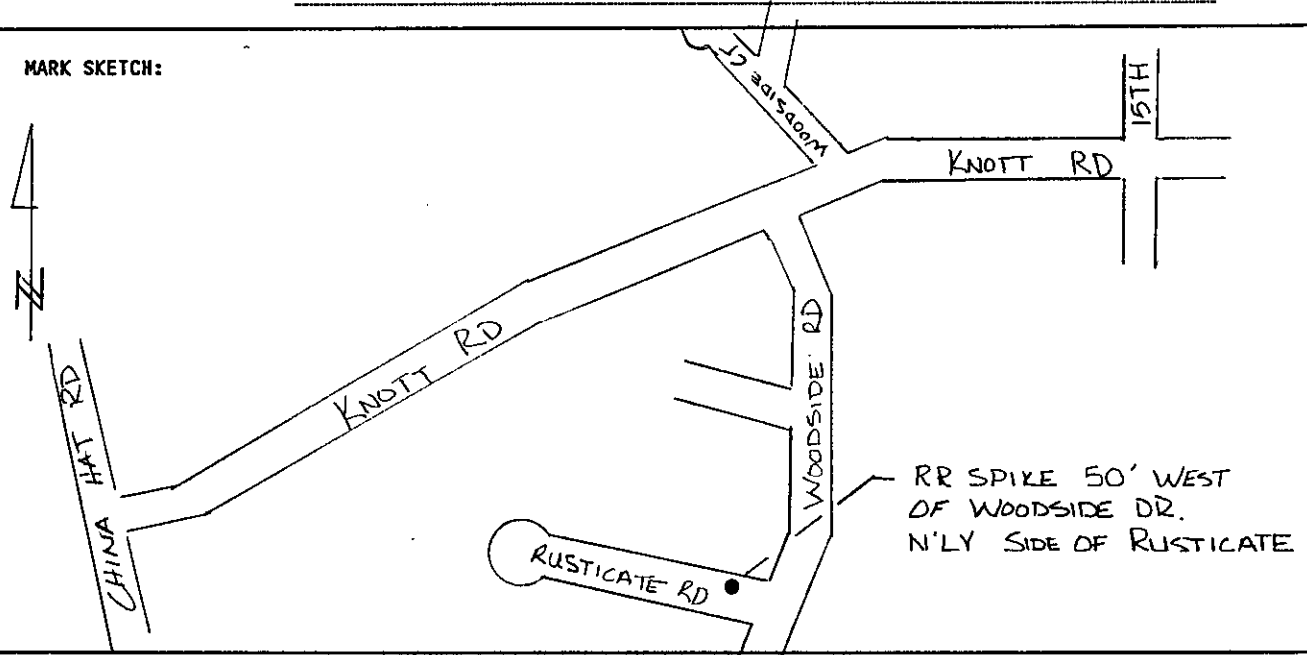
MARK: 18 20 20 40 HORIZONTAL ORDER: FIRST

Latitude: 44°00'02.74226 ONE
Longitude: 121°19'25.89244 SIGMA
Northing: 364848.1394 ERROR
Easting: 3289334.3544
Convergence: -0°01'41.34681
Scale Factor: 1.00016013
Ellipsoid Height:
Orthometric Height: 3878.03
Geoid Height:

CONTROL MARK DATA

NAME OF MARK: 18 12 21 04 A (NOT 1/4 COR) COUNTY: DESCHUTES
MARK SET BY: JEFF KERN & ASSOC. STATE: OREGON
DATE OF MARK: 1993 COUNTRY: U.S.A.
LOCATION: SECTION 21 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: _____

MARK SKETCH:



DATA COMPUTED BY: JEFF KERN & ASSOC., INC. DATE: 1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODETTIC AND MAPPING COORDINATES

MARK: 18 12 21 04 A HORIZONTAL ORDER: FIRST

Latitude: 43°59'43.325738" ONE SIGMA ERROR
Longitude: 121°17'41.751109"
Northing: 362879.2728
Easting: 3296947.4575
Convergence: -0°00'29.0003"
Scale Factor: 1.000160010641
Ellipsoid Height: 3799.8688
Orthometric Height: 3863.7005
Geoid Height: -63.8317