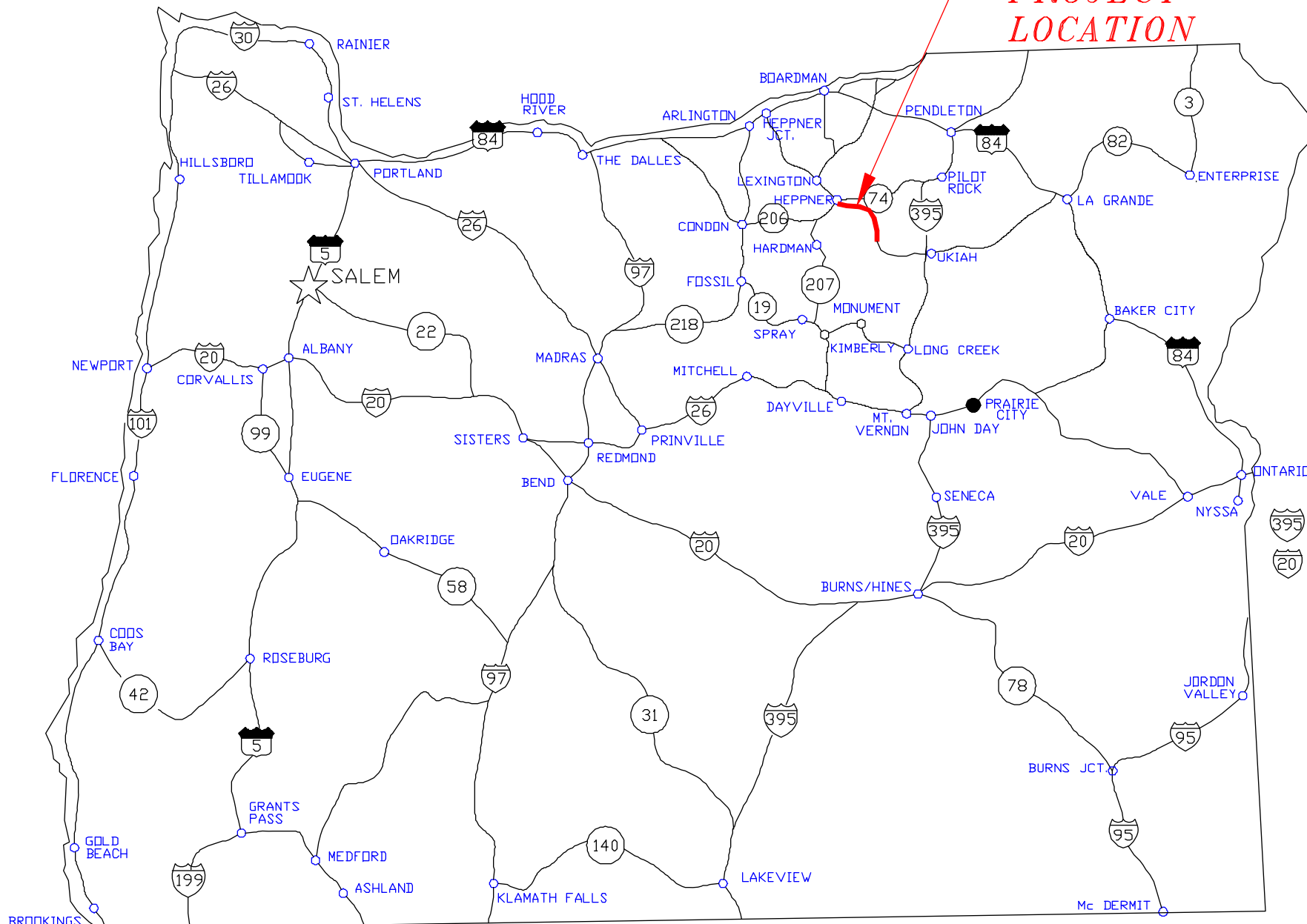


# LOCATION MAP

Not to Scale



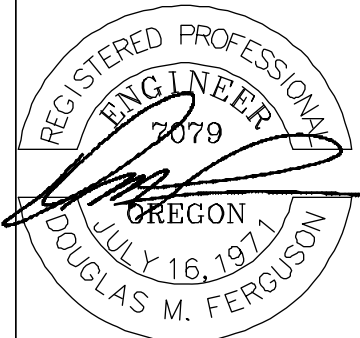
# OREGON

**PROJECT  
LOCATION**

### SHEET INDEX

- Sheet 1 – Index & Location Map
- Sheet 2 – Vicinity Map
- Sheet 3 – Sign Index
- Sheet 4 – Sign Table

ODOT STANDARD DRAWINGS  
 TM200 – SIGN INSTALLATION DETAILS  
 TM607 – WOOD POST SIGN SUPPORTS



RENEWS: 1/1/2020

Ferguson Surveying



Engineering

P.O. BOX 519, 210 E. MAIN  
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 PHONE (541)932-4520  
 FAX (541)932-4430  
 EMAIL dfse@oretelco.net

**WILLOW CREEK ROAD  
SIGNING PROJECT**

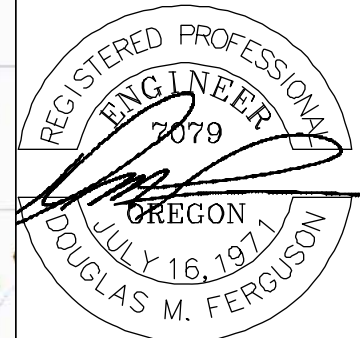
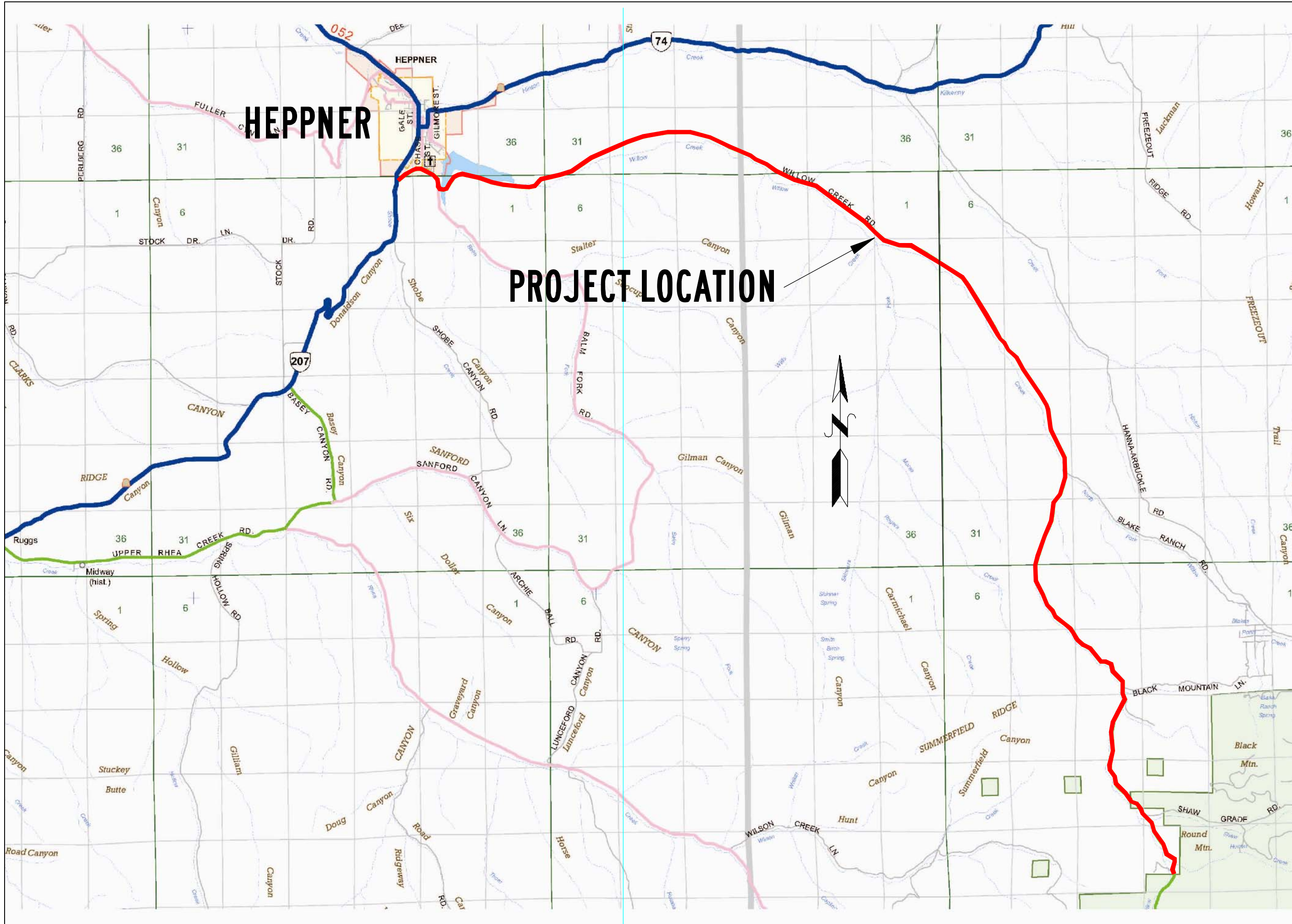
MORROW COUNTY PUBLIC WORKS  
 365 Hwy. 74, Lexington, Oregon 97839

DRAWN BY: *Kenny Delano*  
 DATE: 3/19/2019

ISSUE: *Bidding* DATE: 3/19/2019

**SHEET INDEX  
&  
LOCATION MAP**

Sheet 1 of 4



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# WILLOW CREEK ROAD SIGNING PROJECT

MORROW COUNTY PUBLIC WORKS  
 365 Hwy. 74, Lexington, Oregon 97839

DRAWN BY: *Kenny Delano*  
 DATE: 3/19/2019

ISSUE: *Bidding* DATE: 3/19/2019

VICINITY MAP  
(N.T.S.)



Sign No. 1



Sign No. 5



Sign No. 9



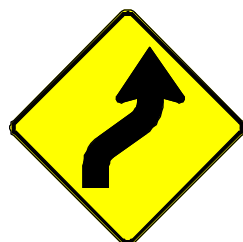
Sign No. 2



Sign No. 6



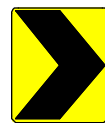
Sign No. 10



Sign No. 3



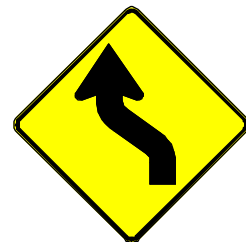
Sign No. 7



Sign No. CL



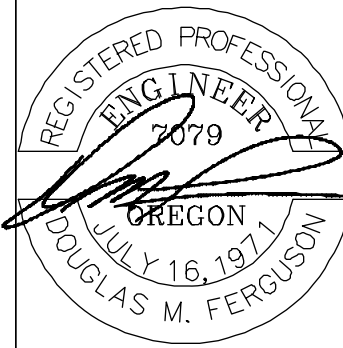
Sign No. 4



Sign No. 8

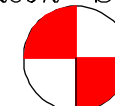


Sign No. CR



RENEWS: 1/1/2020

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WILLOW CREEK ROAD  
SIGNING PROJECT

MORROW COUNTY PUBLIC WORKS  
365 Hwy. 74, Lexington, Oregon 97839

DRAWN BY: Kenny Delano  
DATE: 3/19/2019

ISSUE: Bidding DATE: 3/19/2019

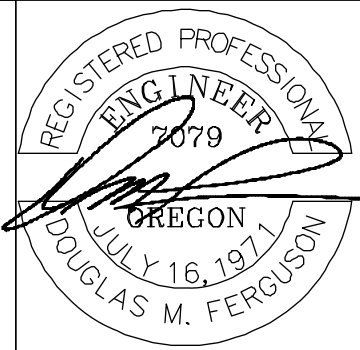
SIGN INDEX

SIGN & POST DATA TABLE								
SIGN No.	M.P.	SIDE	SIZE (WxH)	FHA MUTCD,	RIDER No.	RIDER Size	POST Size	POST Length
1	0.093	RT	36x36	W1-2a R	na	na	4x6	18
2	0.130	LT	36x36	W1-2a L	na	na	4x6	18
3	0.600	RT	36x36	W1-4R	W13-1	24x24	4x6	20
4	0.786	RT	36x36	W1-2a L	na	na	4x6	18
CL-CR	0.809	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.832	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.852	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.876	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.899	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.921	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.943	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.965	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	0.987	RT	18x24	W1-8 R&L	na	na	4x4	16
5	1.011	RT	36x36	W1-2a R	na	na	4x6	18
6	1.048	RT	36x36	W1-2	W13-1	24x24	4x6	20
2	16.074	RT	36x36	W1-2a L	na	na	4x6	18
1	16.155	LT	36x36	W1-2a R	na	na	4x6	18
7	16.319	RT	36x36	W1-2a R	na	na	4x6	18
CL-CR	16.336	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.352	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.368	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.384	LT	18x24	W1-8 R&L	na	na	4x4	16
4	16.401	LT	36x36	W1-2a L	na	na	4x6	18
4	16.569	RT	36x36	W1-2a L	na	na	4x6	18
CL-CR	16.588	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.603	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.620	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.637	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.653	RT	18x24	W1-8 R&L	na	na	4x4	16
4	16.671	RT	36x36	W1-2a L	na	na	4x6	18
5	16.755	RT	36x36	W1-2a R	na	na	4x6	18
8	16.768	RT	36x36	W1-4L	W13-1	24x24	4x6	20
CL-CR	16.771	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.786	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.801	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.815	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	16.830	LT	18x24	W1-8 R&L	na	na	4x4	16
9	16.846	LT	36x36	W1-2a L	na	na	4x6	18
5	17.069	RT	36x36	W1-2a R	na	na	4x6	18
CL-CR	17.084	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.099	LT	18x24	W1-8 R&L	na	na	4x4	16

SIGN & POST DATA TABLE								
SIGN No.	M.P.	SIDE	SIZE (WxH)	FHA MUTCD,	RIDER No.	RIDER Size	POST Size	POST Length
CL-CR	17.114	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.130	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.145	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.160	LT	18x24	W1-8 R&L	na	na	4x4	16
9	17.176	LT	36x36	W1-2a L	na	na	4x6	18
5	17.339	RT	36x36	W1-2a R	na	na	4x6	18
CL-CR	17.355	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.370	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.385	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.400	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.415	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	17.430	LT	18x24	W1-8 R&L	na	na	4x4	16
9	17.446	LT	36x36	W1-2a L	na	na	4x6	18
2	17.899	RT	36x36	W1-2a L	na	na	4x6	18
1	17.981	LT	36x36	W1-2a R	na	na	4x6	18
10	18.432	RT	36x36	W1-2	W13-1	24x24	4x6	20
2	18.469	RT	36x36	W1-2a L	na	na	4x6	18
1	18.578	LT	36x36	W1-2a R	na	na	4x6	18
1	18.612	RT	36x36	W1-2a R	na	na	4x6	18
1	18.859	LT	36x36	W1-2a R	na	na	4x6	18
1	19.064	RT	36x36	W1-2a R	na	na	4x6	18
1	19.469	LT	36x36	W1-2a R	na	na	4x6	18
1	19.971	RT	36x36	W1-2a R	na	na	4x6	18
2	20.061	LT	36x36	W1-2a L	na	na	4x6	18
9	20.119	RT	36x36	W1-2a L	na	na	4x6	18
CL-CR	20.137	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.153	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.170	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.186	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.203	RT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.219	RT	18x24	W1-8 R&L	na	na	4x4	16
5	20.237	RT	36x36	W1-2a R	na	na	4x6	18
CL-CR	20.254	LT	18x24	W1-8 R&L	na	na	4x4	16
5	20.259	RT	36x36	W1-2a R	na	na	4x6	18
CL-CR	20.271	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.289	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.307	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.325	LT	18x24	W1-8 R&L	na	na	4x4	16
CL-CR	20.342	LT	18x24	W1-8 R&L	na	na	4x4	16
9	20.361	LT	36x36	W1-2a L	na	na	4x6	18

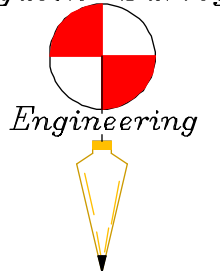
NOTES:

- 1) All Signs shall be plywood substrate in accordance with 02910.00
- 2) All Sign Legends shall be black.
- 3) All Sign Backgrounds shall be yellow, retroreflective.
- 4) All Posts shall be Pressure Treated Wood
- 5) CL-CR signs are dual chevrons, mounted on a single post using Engineer approved dual chevron mounting brackets.
- 6) Agency will field locate all signs and verify post length and post size prior to the start of the project.
- 7) Mile Points (M.P.) begin at 0.000, being the intersection of Willow Creek Road and Highway 206.



RENEWS: 1/1/2020

Ferguson Surveying



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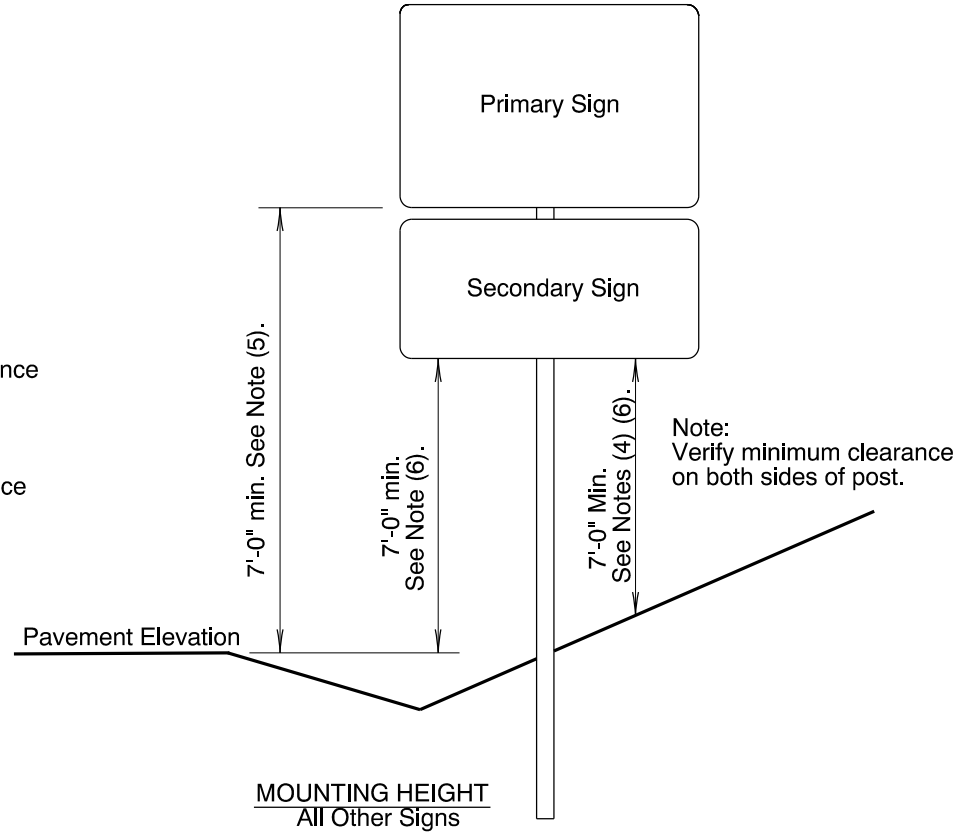
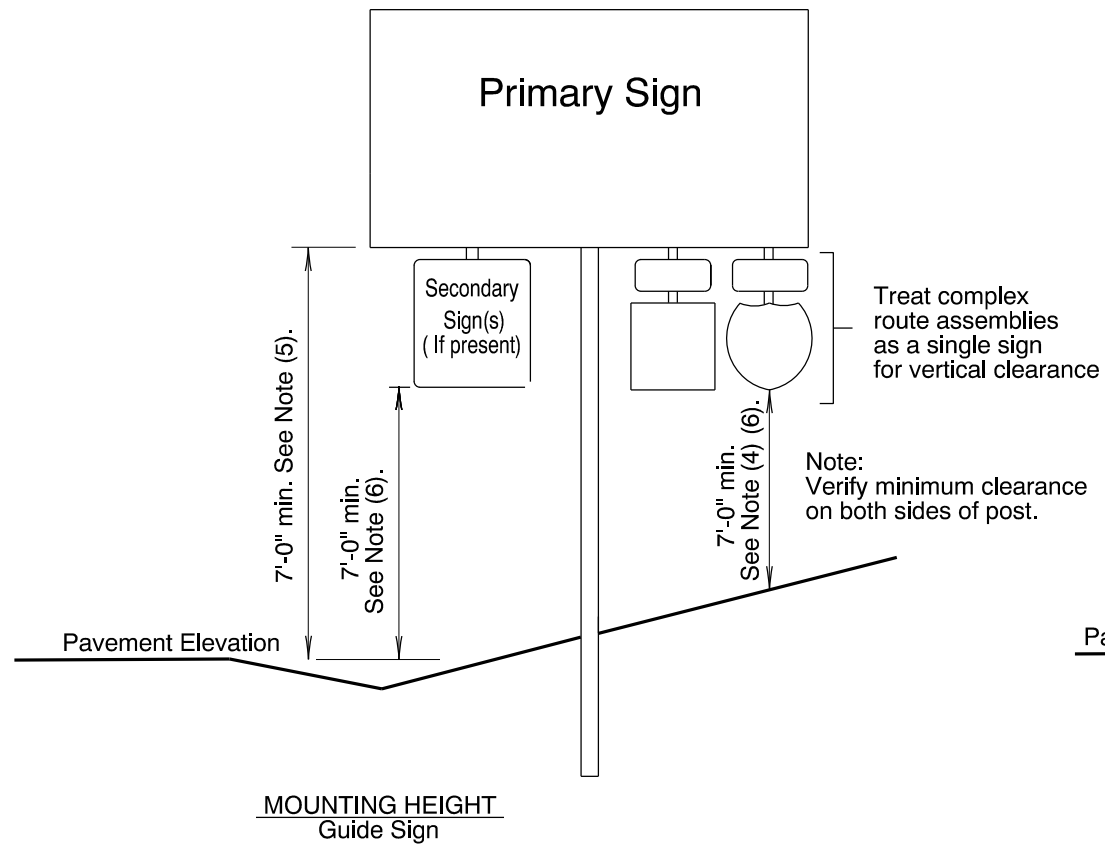
WILLOW CREEK ROAD  
SIGNING PROJECT

MORROW COUNTY PUBLIC WORKS  
365 Hwy. 74, Lexington, Oregon 97839

DRAWN BY: Kenny Delano  
DATE: 3/19/2019

ISSUE: Bidding DATE: 3/19/2019

SIGN TABLE

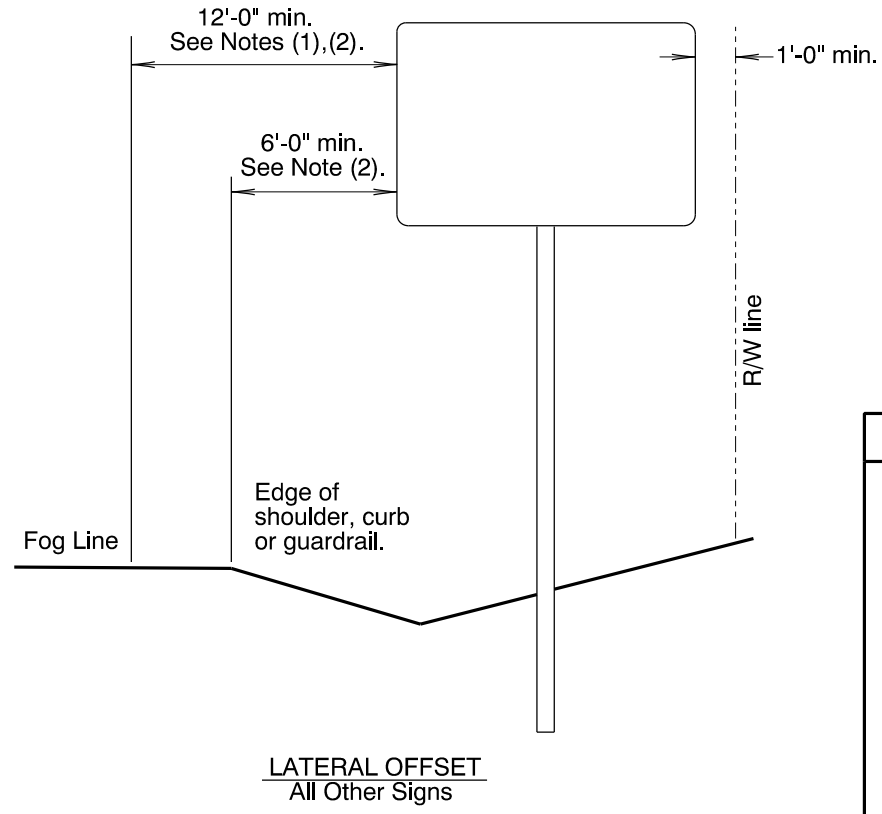
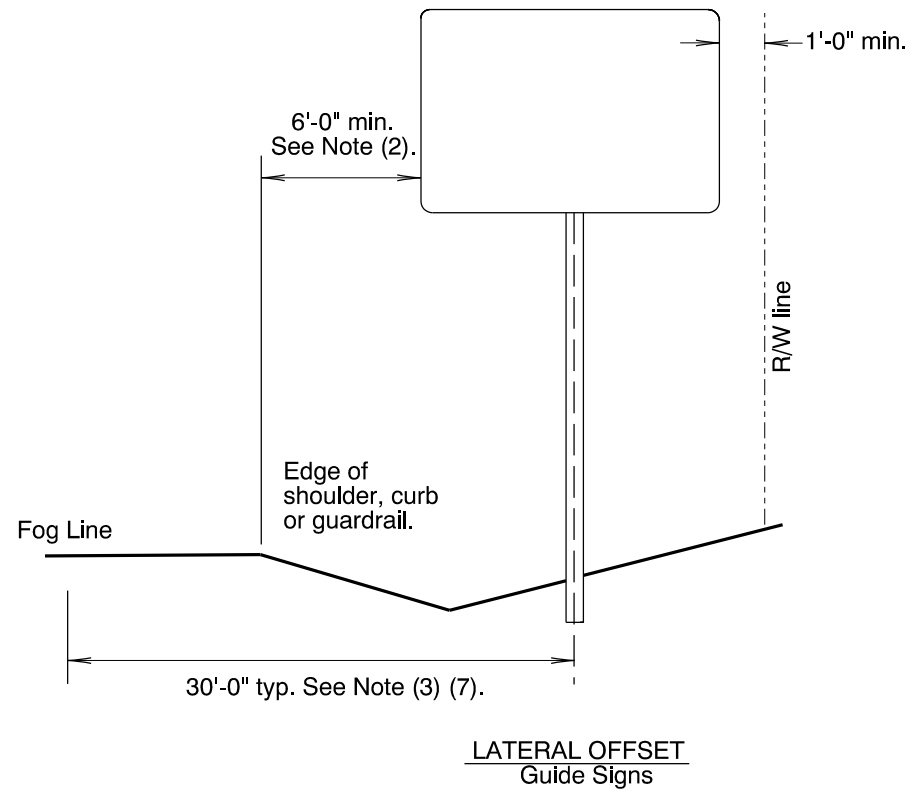


General Installation Notes:

- a. Signing details shown on this sheet are intended to convey "typical" conditions only. Individual locations may require installation different from those shown. For guidance regarding unique installations or exceptions call the Project Sign Designer or Region Traffic Section.
- b. Locate breakaway supports away from ditches to avoid problems with erosion, corrosion, debris, maintenance and breakaway performance. See Dwg. No. TM635 for more information.
- c. For wood post support details see Dwg. No. TM670.
- d. For perforated steelsquare tube support details see Dwg. No. TM681.
- e. For triangular base breakaway support details see Dwg. No. TM602.
- f. For multi-post breakaway support details see Dwg. No. TM600.
- g. Mounting heights should not be more than 3 inches more than the minimum heights shown, where practical.
- h. 2" vertical spacing between all signs.

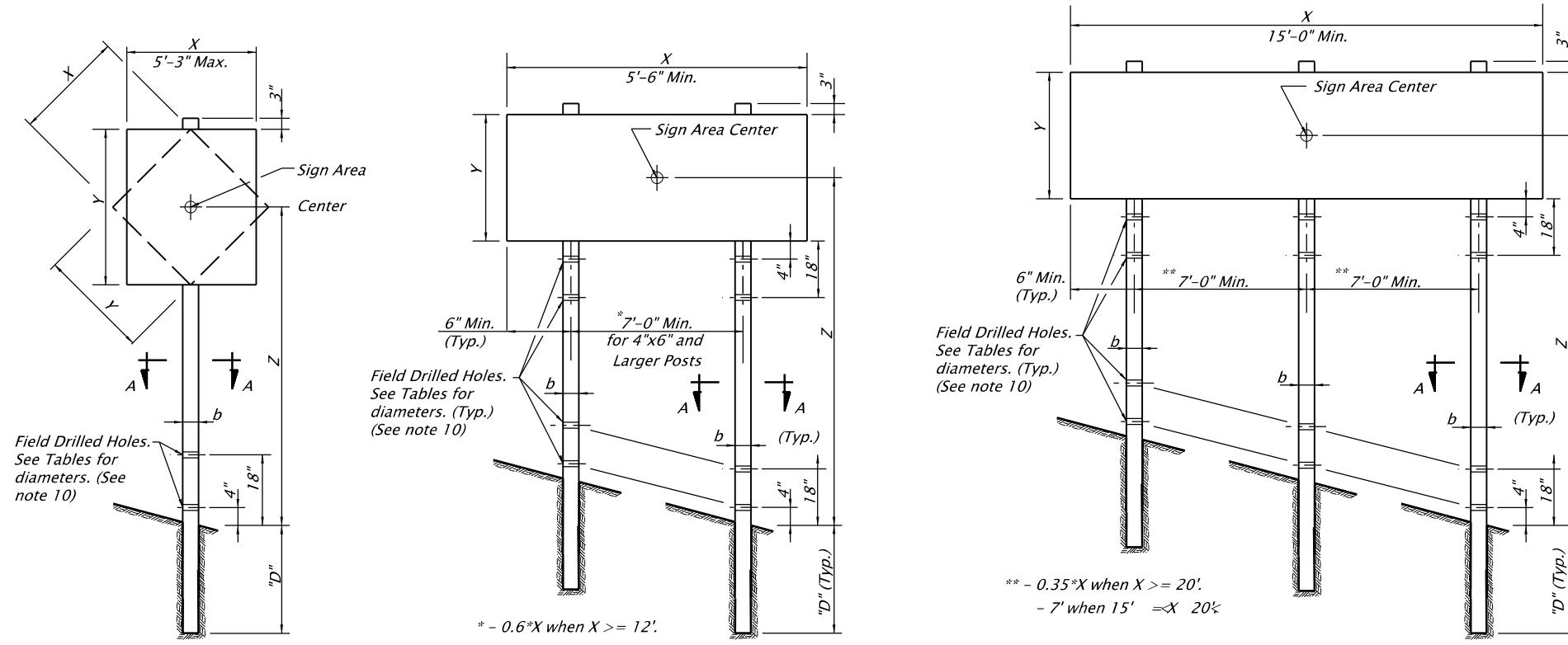
Notes:

- 1). 6' minimum if behind barrier.
- 2). 2' minimum if restricted R/W.
- 3). 20' for ramp terminals.
- 4). 8' minimum if bicycle path underneath.
- 5). 8' minimum if secondary signs attached.
- 6). 5' minimum if outside clearzone, in rural areas and no pedestrians underneath.
- 7). For multi-post installations measure distance from post closest to roadway.



CALC. BOOK NO. <u>N/A</u>	BASELINE REPORT DATE <u>01/08/2018</u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>SIGN INSTALLATION DETAILS</b>	
2018	
DATE	REVISION DESCRIPTION
1/08/18	Adjusted slope line on Mounting Height detail for clarity

*The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.*



**ELEVATION**  
No scale

$(X * Y * Z)$ in ft <sup>3</sup> - Maximum														Field Drilled Hole Diameters	Post Embedment Depth "D"		
3 Second Gust Wind Speed (TM671)																	
85 MPH				95 MPH				105 and 110 MPH									
Number of Posts				Number of Posts				Number of Posts									
POST SIZE b x d	1	2	3*	3*	1	2	3*	3*	1	2	3*	3*	Not Req'd	4' - 0"			
	4" x 4"	77	154	165	231	62	124	132	186	56	112	120			168		
	4" x 6"	162	324	347	486	130	260	278	390	117	234	250			351	1 1/2"	5' - 0"
	6" x 6"	270	540	578	810	216	432	462	648	195	390	417			585	2"	5' - 0"
	6" x 8"	494	988	1058	1482	395	790	846	1185	356	712	762			1068	3"	7' - 0"

**PERMANENT WOOD POST TABLE**

\* - Linear Interpolate X\*Y\*Z 3 post values for signs greater than 15' and less than 20'.  
\*\* - See note 8

$(X * Y * Z)$ in ft <sup>3</sup> - Maximum														Field Drilled Hole Diameters	Post Embedment Depth "D"		
3 Second Gust Wind Speed (TM671)																	
85 MPH				95 MPH				105 and 110 MPH									
Number of Posts				Number of Posts				Number of Posts									
POST SIZE b x d	1	2	3*	3*	1	2	3*	3*	1	2	3*	3*	Not Req'd	4' - 0"			
	4" x 4"	122	244	261	366	98	196	210	294	88	176	188			264		
	4" x 6"	257	514	550	771	205	410	439	615	185	370	396			555	1 1/2"	5' - 0"
	6" x 6"	426	852	912	1278	341	682	730	1023	308	616	660			924	2"	5' - 0"
	6" x 8"	779	1558	1669	2337	624	1248	1337	1872	563	1126	1206			1689	3"	7' - 0"

**TEMPORARY WOOD POST TABLE**

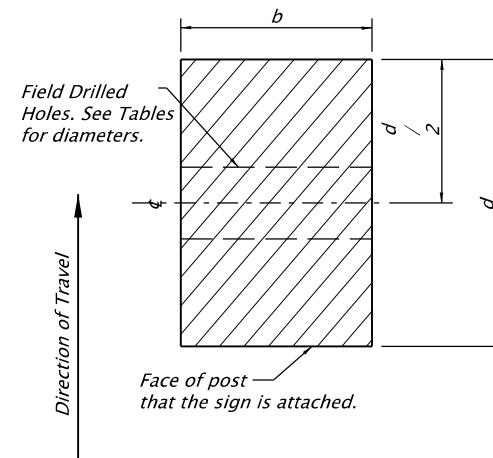
\* - Linear Interpolate X\*Y\*Z 3 post values for signs greater than 15' and less than 20'.  
\*\* - See note 9

**General Notes:**

1. Wood posts are available in the following commercial lengths: 12', 14', 16', 18', 20', 22', 24', 26'.
2. Material shall be Douglas Fir No. 1 and according to Section 02110.40.
3. For horizontal and vertical clearances of permanent signs refer to TM200 and of temporary signs refer to TM822.
4. Wood post design in accordance with the 5th Edition 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.
5. Use the 3 second gust wind speeds shown on TM671 for the site specific sign location.
6. General design parameters are  $K_z = 0.87$ , SIF (duration factor) = 1.6,  $C_d$  (sign) = 1.20, and  $G = 1.14$ .
7. The sign width to sign height or sign height to sign width ratio shall not exceed 5.0.
8. Permanent signing uses an  $I_r = 0.71$  for a recurrence interval of 10 years.
9. Temporary signing uses an  $I_r = 0.45$  for a recurrence interval of 1.5 years.
10. Posts protected by barrier or guardrail do not require field drilled holes.
11. 4" x 4" posts should not be used in snow plow areas.

**Post Embedment Installation:**

1. Excavate the hole at least 12" larger in diameter than the diagonal dimension of the post. Maintain at least 6" of space around the edges of the post to accommodate compaction equipment.
2. Align the post in the hole to a vertical position.
3. The space around the wood post shall be backfilled to finished ground surface.
4. Backfill with selected general backfill meeting the requirements of 00330.13.
5. Place in layers not greater than 6 inches.
6. Solidly ram and tamp the layers into the excavation area around the post.
7. Dampen during placement if too dry to compact properly.
8. Replace and finish the surface around the post to match the surrounding surface.



**SECTION A-A**  
No scale

Accompanied by dwgs. TM200, TM671, TM822

CALC. BOOK NO. <u>5850</u>	BASILINE REPORT DATE <u>06-JAN-2017</u>
NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications	
<b>OREGON STANDARD DRAWINGS</b>	
<b>WOOD POST SIGN SUPPORTS</b>	
2018	
DATE	REVISION DESCRIPTION

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.