

From: Jacob Halverson <jacob.halverson@mercerisland.gov>
Sent: Thursday, January 11, 2024 1:46 PM
To: marianne@pluspermit.com
Cc: Ruji Ding <ruji.ding@mercerisland.gov>; 'John Byrne' <johnbyrne@groundsupport.com>
Subject: Re: Follow-up Question _ Shoring Outside of ROW Permit 2109-050

This would be acceptable and would close out this comment for building review as proposed.
 Thanks,
Jacob Halverson
 Plans Examiner
 City of Mercer Island – Community Planning & Development
 206-275-7718 | www.mercerisland.gov

From: marianne@pluspermit.com <marianne@pluspermit.com>
Sent: Thursday, January 11, 2024 1:07 PM
To: Jacob Halverson <jacob.halverson@mercerisland.gov>
Cc: Ruji Ding <ruji.ding@mercerisland.gov>; 'John Byrne' <johnbyrne@groundsupport.com>
Subject: RE: Follow-up Question _ Shoring Outside of ROW Permit 2109-050

Thank you for your response, Jacob. Our shoring engineer's response below. Thoughts?

We request the reviewer look at the drawings for the planned anchor length, as calculation results are rounded. The planned anchor length is 35 feet and the horizontal projection is therefore 31.7 feet. That is what will actually be installed.

We are planning to shorten this anchor (W7) a little further as we deal with the W8 and N1 anchors as well. The anchor lengths specify a design load and a bond length and that is the direction that the installer needs to follow and demonstrate (re: why the plans should be reviewed instead). When we use a design pullout resistance in our calculations, it is permissible to round the numbers (design loads and bond lengths) in a manner that might require a higher bond strength than used in the calculations. The reason for this is that every anchor is individually tested and so as long as the required bond for that anchor is demonstrated in the field, it matters not what the calculations indicate.

As far as W8 is concerned, we are going to revert to a steep bar anchor (that permits the use of a shorter minimum unbond length) and also use a higher bond strength. This will keep the W8 anchor out of the ROW. For N1, we are going to replace the small anchored soldier pile with a longer and much heavier cantilevered soldier pile. This will provide a design that keeps all anchors out of the ROW.

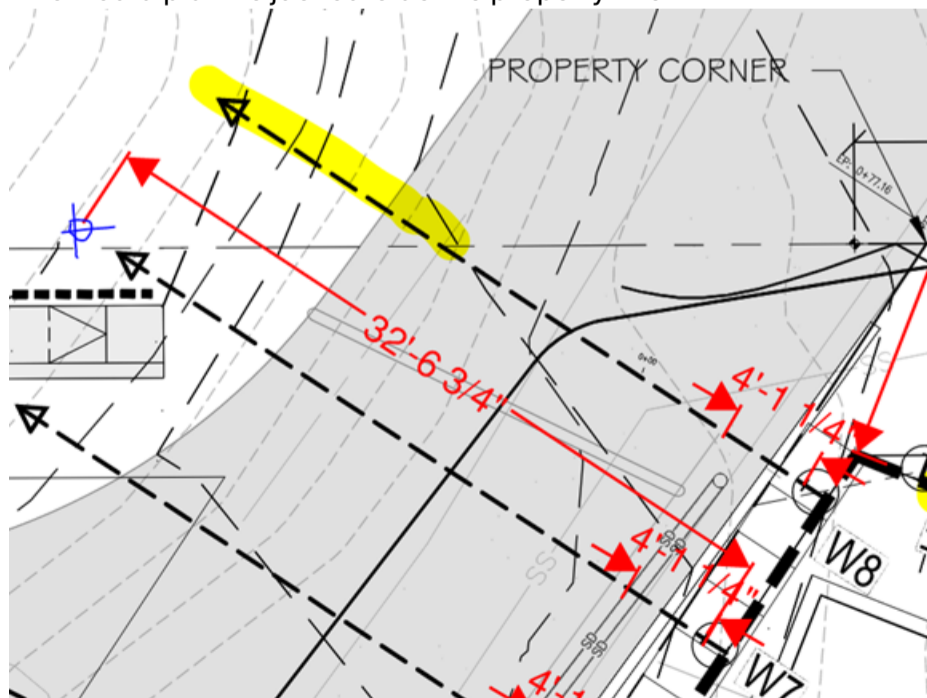
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From: Jacob Halverson <jacob.halverson@mercerisland.gov>
Sent: Thursday, January 11, 2024 10:43 AM
To: marianne@pluspermit.com; 'John Byrne' <johnbyrne@groundsupport.com>
Cc: Ruji Ding <ruji.ding@mercerisland.gov>
Subject: Re: Follow-up Question _ Shoring Outside of ROW Permit 2109-050

Thanks Ruji, Hi Marianne,
 W7 appeared to extend over the property line.
 According to the calc packet the shoring designer specified 35.6 length of the anchor. At the proposed 25 deg. down angle it would land around 32.5 in length along the horizontal.

File ID	Station (ft)	Height (ft)	Spacing (ft)	No. Anchors	L-N/P	Unit Press (psf)	Anchor 1				Design Beam	Pile Top Elevation (feet)	Pile Toe Elevation (feet)	Pile Toe Length (feet)	Pile Length (feet)	Logging Pressure (psf)
							Elevation (feet)	Angle (degrees)	Anchor Load (kips)	No. of Strands						
S1	56	3.8	7	0	17.5	75	0.00	0	0	0.0	0.0	111.0	8.0	99.0	12.0	209
S2	64.5	6.1	8.5	0	17.5	75	0.00	0	0	0.0	0.0	113.3	11.0	96.0	17.3	288
S3	73	8.0	8.5	0	17.5	75	0.00	0	0	0.0	0.0	116.0	14.9	92.0	24.0	395
S4	81.5	12.0	8.25	1	17.5	75	115.00	25	23	1	30.0	119.0	8.0	99.0	20.0	493
S5	89.5	14.2	8	1	17.5	75	116.50	25	29	1	30.0	121.3	8.0	99.0	22.3	573
S6	97.5	16.3	6.5	1	17.5	75	118.00	25	30	1	30.0	123.5	8.0	99.0	24.5	647
W1	202.3	17.7	6	1	17.5	75	119.00	25	31	1	30.8	124.8	8.0	99.0	25.8	655
W2	209.3	17.8	7	1	17.5	75	119.00	25	37	2	33.8	125.0	8.0	99.0	26.0	698
W3	216.3	18.0	7	1	17.5	75	119.00	25	38	2	34.0	125.0	8.0	99.0	26.0	704
W4	223.3	18.1	7	1	17.5	75	119.00	25	38	2	34.2	125.3	8.0	99.0	26.3	707
W5	230.3	17.9	7.5	1	17.5	75	119.00	25	40	2	35.3	125.0	8.0	99.0	26.0	702
W6	235.3	17.7	8	1	17.5	75	119.00	25	42	2	36.2	124.8	8.0	99.0	25.8	694
W7	240.3	17.4	8	1	17.5	75	118.20	25	41	2	35.8	124.5	8.0	99.0	25.5	682
W8	254.3	16.7	7	1	17.5	75	118.00	25	33	1	31.8	123.0	8.0	99.0	24.8	659

This would plant is just outside the property line.



Revising the design to be wholly out of the property line and place a plan note that states anchor will not be placed in the r.o.w. would close out this comment.

Thanks,

Jacob Halverson
 Plans Examiner
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