



April 9, 2024

Bellah Homes  
Attn: Paul Miller  
1272 SW Arborcrest Circle  
Lee's Summit, MO

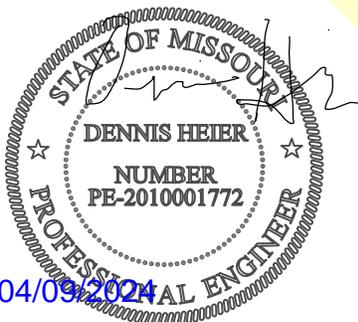
Re: 3258 SW Pergola Park Drive (Lot 122, New Longview)

Vista Structural Engineering, LLC, was asked to address the column support at the 'G' footing shown on the foundation plan. We were informed that the column that was installed at this location is a 3 1/2" schedule 40 steel column (A53 grade). The plans call for a 4" schedule 40 column. Per the attached calculations, our firm recommends installing an additional column next to the 3 1/2" schedule 40 steel column that is currently installed in the wall. The total loading on the footing is approximately 45 kips. The 3 1/2" schedule 40 steel column can support approximately 38 kips, while the additional 3" schedule 40 steel column can support the remaining approximately 7 kips. A partial foundation plan with revision markups has been attached to this letter for the purpose of providing additional clarification.

Our firm appreciates the opportunity to serve you. If you have any questions or if you need anything further, please feel free to contact us.

Sincerely,  
Vista Structural Engineering, LLC

Dennis Heier, P.E.

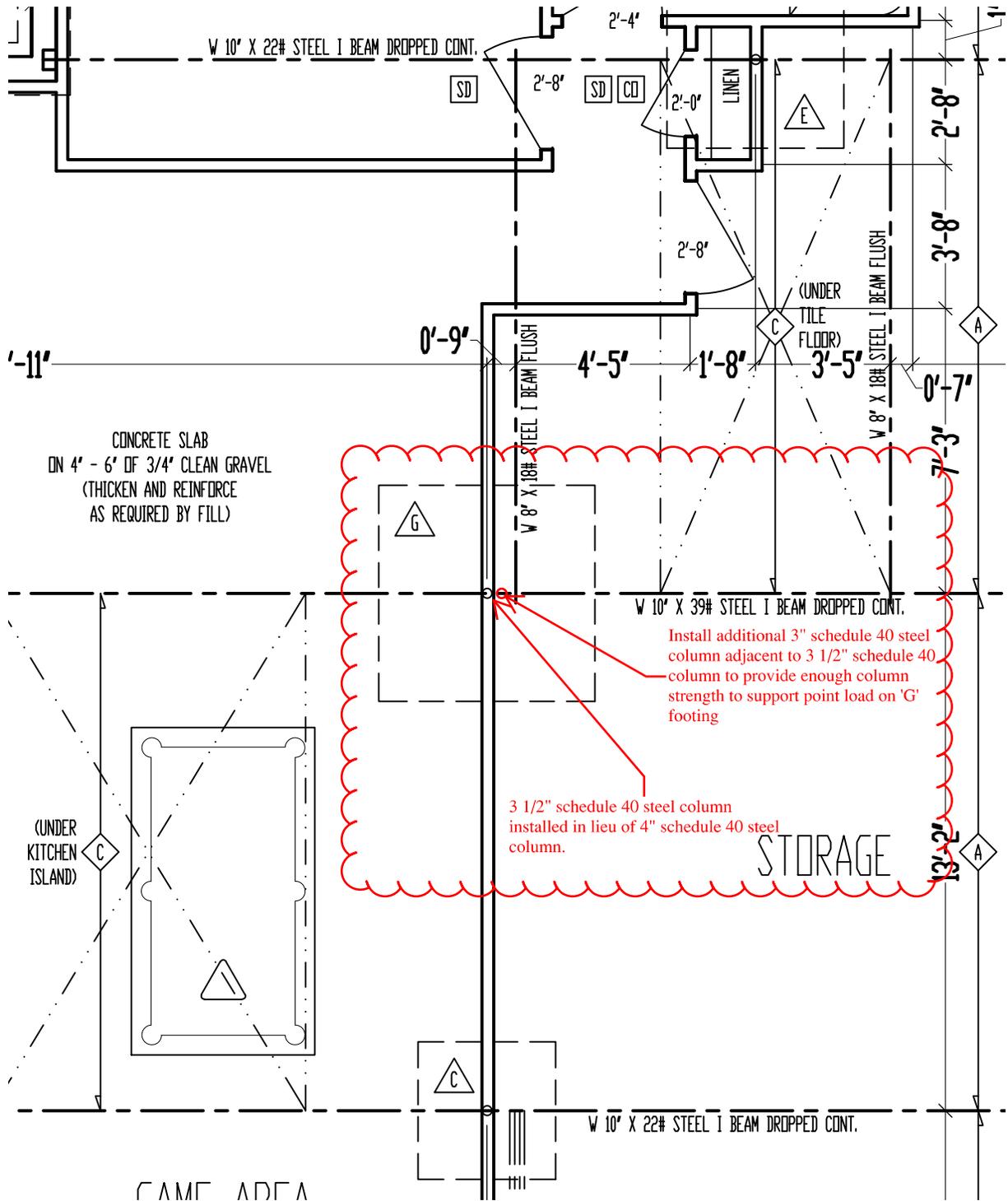


# VISTA STRUCTURAL ENGINEERING, LLC

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PORTLAND, OREGON 97229

PHONE: 971.645.0901  
VISTASTRUCTURAL.COM

3258 SW Pergola Park Drive  
Lee's Summit, MO  
Lot 122, Pergola Park  
Partial Foundation plan w/ revision







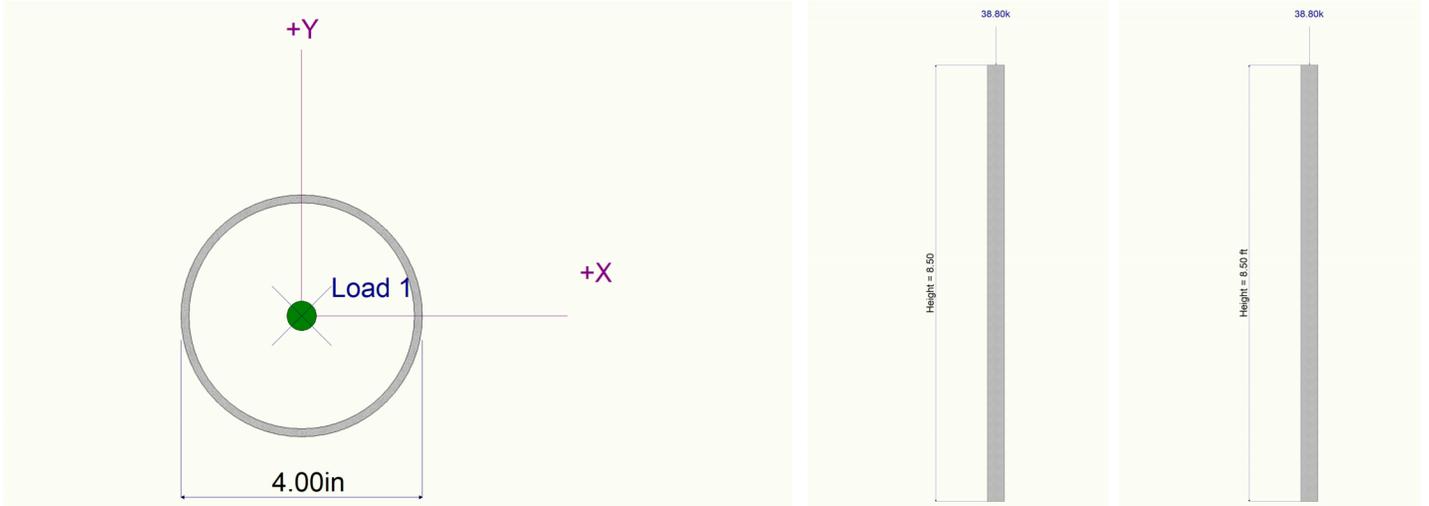
## Steel Column

Lic. #: KW-06010523

Vista Structural Engineering, LLC

**DESCRIPTION:** fdn - steel column in basement on 'G' footing; capacity of 3 1/2" schedule 40 steel column

### Sketches





## Steel Column

Lic. #: KW-06010523

**DESCRIPTION:** fdn - steel column in basement on 'G' footing; capacity of 3" schedule 40 steel column

### Extreme Reactions

Item	Extreme Value	Axial Reaction		X-X Axis Reaction		k	Y-Y Axis Reaction		Mx - End Moments		k-ft	My - End Moments	
		@ Base	@ Base	@ Base	@ Top		@ Base	@ Top	@ Base	@ Top		@ Base	@ Top
"	Minimum		5.964										
Reaction, Y-Y Axis Top	Maximum		5.964										
"	Minimum		5.964										
Moment, X-X Axis Base	Maximum		5.964										
"	Minimum		5.964										
Moment, Y-Y Axis Base	Maximum		5.964										
"	Minimum		5.964										
Moment, X-X Axis Top	Maximum		5.964										
"	Minimum		5.964										
Moment, Y-Y Axis Top	Maximum		5.964										
"	Minimum		5.964										

### Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft

### Steel Section Properties : HSS 3.500x0.216

Depth	=	3.500 in	I xx	=	2.84 in <sup>4</sup>	J	=	5.690 in <sup>4</sup>
Design Thick	=	0.201 in	S xx	=	1.63 in <sup>3</sup>			
Diameter	=	3.500 in	R xx	=	1.170 in			
Wall Thick	=	0.216 in	Zx	=	2.190 in <sup>3</sup>			
Area	=	2.080 in <sup>2</sup>	I yy	=	2.840 in <sup>4</sup>	C	=	3.250 in <sup>3</sup>
Weight	=	7.580 plf	S yy	=	1.630 in <sup>3</sup>			
			R yy	=	1.170 in			
Ycg	=	0.000 in						

### Sketches

