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 the work and not an authority to violate,  
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 official from thereafter requiring a correction  
 of error in plan, measurements, or violation  
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 additional documents needed for agency  
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 These documents shall not be filed for  
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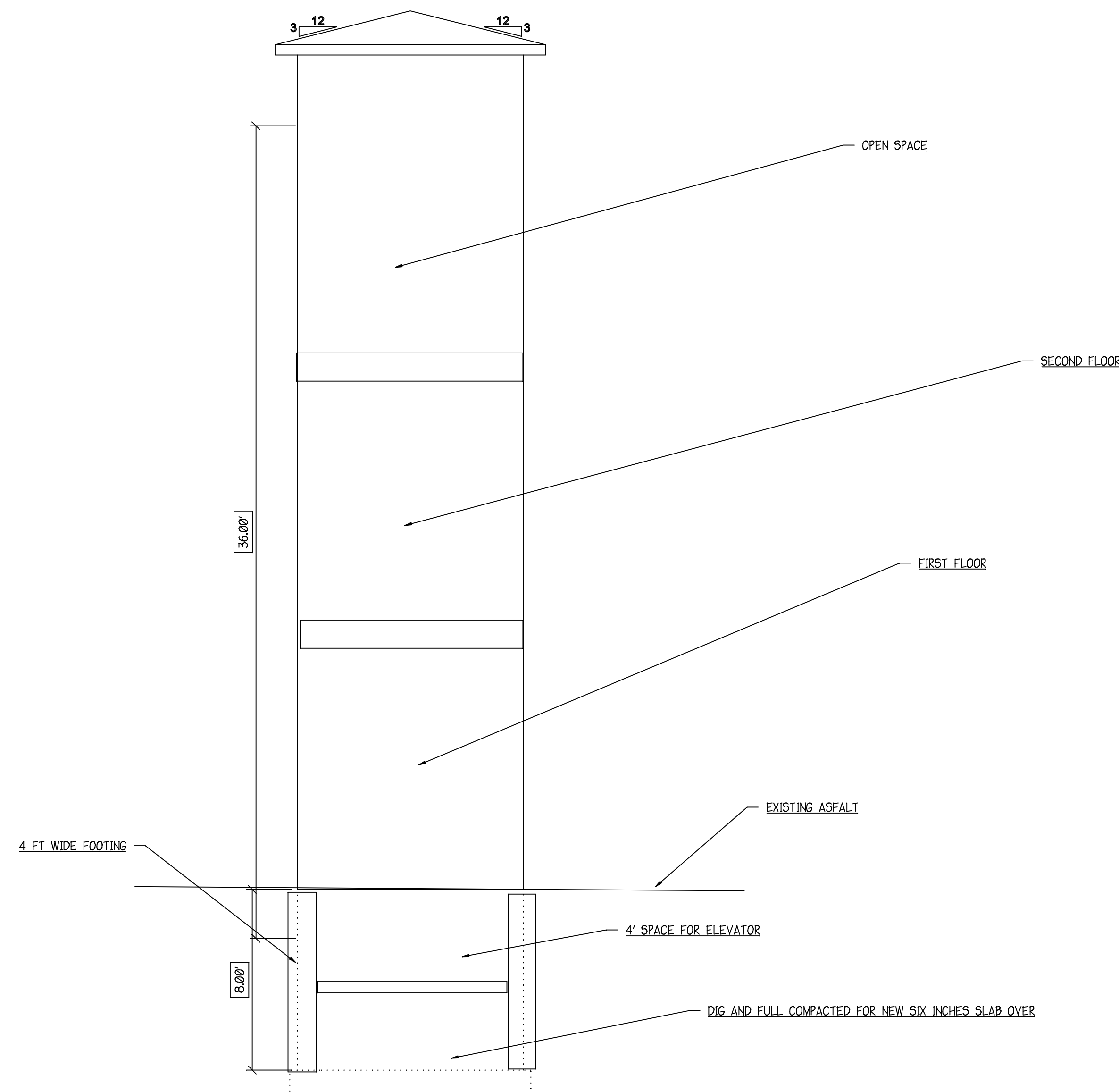
**THE MAGELL INN**

**REVISIONS**

DATE	NOTE

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**FRONT ELEVATION**

<b>ELEVATOR ELEVATION</b>	<b>06/23/16</b>
<b>REMODEL AREA</b>	<b>Scale: 1/4"=1'</b>
<b>TOTAL A/C SQ. FT.</b>	<b>SQ. FT.</b>

**ENGINEERS SEAL**



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Friday, June 24, 2016

The Magell Inn  
 Chris P.  
 1410 magellan dr  
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**SCOPE OF WORK: for new structure for exterior elevator according to manufacturer requirement, with a 36ft tower to install new elevator for 2 floors**

ITEM	DESCRIPTION	QTY	UNIT PRICE	TOTAL
1	Quote for labor and material to build a tower for new elevator, that will be for 2 floors , plus a 4 ft crawl space for elevator, with a concrete base 6" reinforced concrete 5000 psi, with fiber mesh and with # 5 mesh rebar at 12 in O.C. both ways			
	remove existing hand rail and cut concrete existing ramp to make an access of 10x10 remove slab, and dig 8 ft down, and insert gravel at bottom with clay fully compacted, for new basement floor for elevator,,			
	make a footing around perimeter for the tower according to blue print 8x10 tower with stemwall 6 ft, footings 3x3 footing around perimeter of exterior walls with 6 # 5 rebars horizontal all around the footing			
	stemwall will be with full cell pour concrete fill 5000 psi, with a double # 5 rebar vertical, from footing to top of wall,			

ITEM	DESCRIPTION	QTY	UNIT PRICE	TOTAL
	insert a double #5 rebar at every 8 ft max around perimeter of the wall with concrete fill horizontal, tie with all vertical rebars that were place on wall at not max or 32" oc with concrete fill cell, vertical and horizontal at every max 8 ft.			
	new roof, framing, sheeting, and singles, exterior stucco, paint, finishing of the floor , and redesign the handrail ramp for access			
	tower as described on the drawing and all this scope of work included	1	45000	45000
	Foundation			
	Tower			
	Roof			
	Exterior stucco			
	Paint			
	Handrail, redesign			
	Demolition			

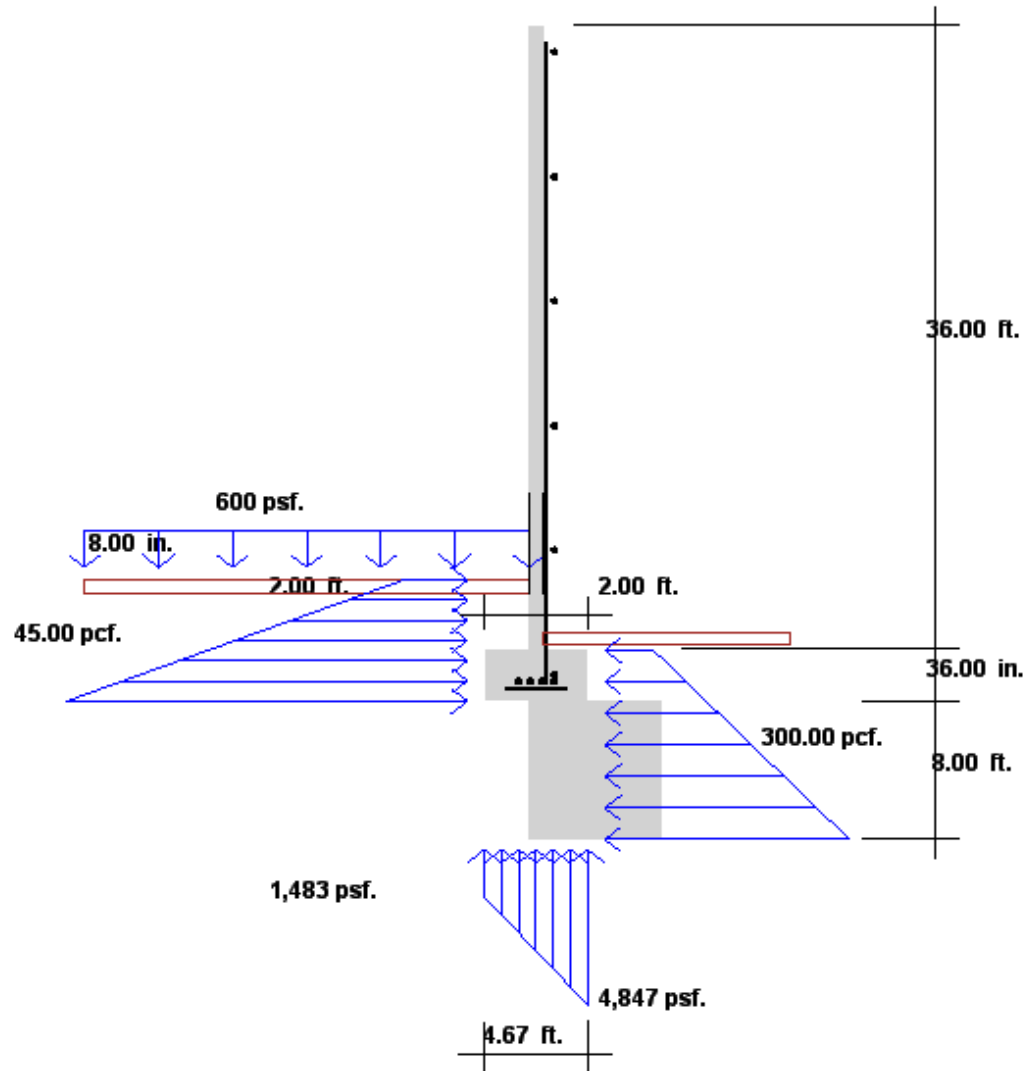
FOR MORE INFORMATION FEEL FREE TO CONTACT ME

SINCERELY ,

Jorge Carrasco

General Contractor

CGC1514067



QuickWall 8.0 - RETAINING WALL ANALYSIS AND DESIGN

=====  
 Job ID : 1410 Magellan Dr, The Magel inn  
 Job Description : Enclosed contruccion for new elevator Tower  
 Designed By :Jc  
 =====

FOOTING DESIGN METHOD: Ultimate Strength ACI 318-11  
 STEM DESIGN METHOD : Ultimate Strength ACI 318-11 (Concrete)  
 WALL TYPE : Cantilever Retaining Wall

RETAINING WALL DIMENSIONS:

-----  
 Wall Stem Height = 36.00 ft.  
 Stem Thickness @ Top = 8.00 in.  
 Stem Thickness @ Bottom = 8.00 in.  
  
 Footing Thickness = 36.00 in.  
 Heel Width = 2.00 ft.  
 Toe Width = 2.00 ft.  
  
 Stem Bar Size = # 7 at 12.00 in. o.c.  
 Heel Bar Size = # 7 at 12.00 in. o.c.  
 Toe Bar Size = # 7 at 12.00 in. o.c.  
  
 Footing Key Depth = 8.00 ft.  
 Footing Key Width = 6.00 ft.  
 BackFill Slope (Vert/Horiz) = 0.00 :12

RETAINING WALL LOADS:

-----  
 Horizontal Equivalent Fluid Pressure = 45.00 pcf. (Load Case = Soil)  
 Backfill Height = 4.00 ft.  
 Equivalent Fluid Pressure Angle = 0.00 deg.  
 Vertical Surcharge on Backfill = 600 psf. (Load Case = Live)  
 Horizontal Surcharge = 0 psf. (Load Case = Soil)  
 Vertical Surcharge on Toe = 0 psf. (Load Case = Soil)  
 Wind Load on Fence = 0 psf. (Load Case = Wind)  
 Fence Height = 0.00 ft.

Line No.	Ld. Type (H or V)	Magnitude (plf)	Dist. (x) (ft.)	Load Case
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Notes: 1. "H" = Horizontal loads. "V" = Vertical loads.  
 2. Vertical loads are positive down.

ULTIMATE STRENGTH LOAD COMBINATIONS (Concrete Design):

-----

- 1.4D + 1.4H
- 1.2D + 1.6L + 1.6H + 0.5R
- 1.2D + 1.6R + 1.6H + 1.0L
- 1.2D + 1.6R + 1.6H + 0.5W
- 1.2D + 1.0W + 1.0L + 0.5R
- 1.2D + 1.0E + 1.0L + 1.6H + 0.2R
- 0.9D + 1.0W + 1.6H
- 0.9D + 1.0E + 1.6H

WORKING STRESS LOAD COMBINATIONS (Stability Checks and Masonry Design):

-----

- D + L + R + H
- D + L + 0.6W + H
- D + L + 0.6W + 0.5R + H
- D + L + R + 0.3W + H
- D + L + R + E/1.4 + H
- D + E/1.4 + H

RETAINING WALL RESISTING FORCES:

-----  
Allowable Soil Pressure = 2,000 psf.  
Passive Equivalent Fluid Press. = 300.00 pcf.  
Passive Soil Height = 1.00 ft.  
Coefficient of Friction = 0.50  
Cohesion = 0 psf.

Use Vertical Surcharge as Resisting Wt.? = Yes

Overturning Safety Factor = 1.50  
Sliding Safety Factor = 1.50  
Limit Reaction to Mid 1/3? = Yes

MATERIAL DATA:

-----  
Concrete Strength, f'c = 4.00 ksi.  
Steel Yield Strength, Fy = 60.00 ksi.  
  
Concrete Unit Weight = 145.00 pcf.  
Soil Unit Weight = 110.00 pcf.  
Fence Weight = 10.00 psf.

REINFORCING STEEL DATA:

-----  
Concrete cover to center of steel:  
    Wall Inside Face = 2.50 in.  
    Footing Heel (Top Face) = 2.50 in.  
    Footing Toe (Bottom Face) = 3.50 in.

Minimum Ratios for Shrinkage and Temperature Reinf:

    Vertical Stem Reinf. = 0.0018  
    Horizontal Stem Reinf. = 0.0020  
    Footing Reinforcement = 0.0018





\*\*\*\*\*  
 S T A B I L I T Y   A N A L Y S I S   R E P O R T  
 \*\*\*\*\*

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 Stability Analysis: Governing Combination = D + L + R + H

-----RESISTING FORCES-----				-----OVERTURNING FORCES-----			
Element	Weight	x Arm	= Moment	Element	Force	x Arm	= Moment
Soil	1,100		3,447	R at Top			
Ftg.	8,990	2.33	20,977	R at Bot.			
Stem	3,480	2.33	8,120	Horiz. EFP	1,103	2.33	2,573
Vert Sur	1,200	3.67	4,400	Vert Sur	1,718	3.50	6,014
Vert EFP				Horiz Sur			
Toe Sur.				Wind			
Fence Wt.				Horiz line			
V. line				Vert. line			
Sum WT =	14,770	MR =	36,943	Sum F =	2,821	MOT =	8,586

Friction Force	=	7,385 Lb	F.O.S. Sliding	=	RF / F =	10.22
Passive Pressure	=	21,450 Lb	F.O.S. Overturn.	=	MR / MOT =	4.30
Cohesion	=	0 Lb				
Resist. Force, Sum RF	=	28,835 Lb	Coef. Vert. Surcharge or Line Load to Horiz. = EFP / Soil Dens. =			0.409

Resultant Loc From Toe,	X = (MR - MOT) / Sum WT	=	1.92 ft.
Eccentricity From Ftg. C.L., e	= (B / 2) - X	=	0.41 ft.
Soil Pressure @ Toe	= (WT / B) * (1 + 6e/B)	=	4,847 psf.
Soil Pressure @ Heel	= (WT / B) * (1 - 6e/B)	=	1,483 psf.

\*\*\*\*\*  
 D E T A I L E D   D E S I G N   R E P O R T  
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 STEM DESIGN: Steel Design Comb = 1.2D + 1.6L + 1.6H + 0.5R  
 Shr Strength @ Base, Phi Vn = 6.26 kip

Dist From Top (ft)	d (in.)	Mu (ft-k)	Vu (kip)	As Flex. (in <sup>2</sup> )	As Min. (in <sup>2</sup> )	As T+S (in <sup>2</sup> )	As Reqd (in <sup>2</sup> )	Comb
3.60	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
7.20	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
10.80	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
14.40	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
18.00	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
21.60	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
25.20	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
28.80	5.50	0.00	0.00	0.000	0.000	0.173	0.173	1
32.40	5.50	0.03	0.16	0.001	0.002	0.173	0.173	2
36.00	5.50	3.91	2.15	0.161	0.215	0.183	0.215	2

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 Vertical Stem Reinforcement:

Shear-Friction Steel Added at Stem Base (ACI 11 11.6), Avf = 0.010 in<sup>2</sup>  
 Available Length for Hook Embedment into Footing = 33.00 in.  
 Available Length for Straight Embedment into Stem = 430.00 in.

	Development Length		Percent Develop.	Spac. (in.)	50% Cut Off (in.)
	Straight (in.)	Hook (in.)			
#4	12.00	6.64	100.00	11.15	432.00
#5	14.23	8.30	100.00	17.28	432.00
#6	17.08	9.96	100.00	18.00	432.00
#7	24.90	11.62	100.00	18.00	432.00
#8	28.46	13.28	100.00	18.00	432.00
#9	36.21	14.98	100.00	18.00	432.00
#10	45.90	16.87	100.00	18.00	432.00
#11	56.58	18.73	100.00	18.00	432.00

-----  
 Horizontal Stem Reinforcement:

Area of steel for Shrinkage and Temp. Reinforcement = 0.192 in<sup>2</sup>

	-----Spacing, in.-----		-----Total Bars-----	
	I.F. Only	EA. Face	I.F. Only	EA. Face
#4	12.50	18.00	36.00	25.00
#5	18.00	18.00	25.00	25.00
#6	18.00	18.00	25.00	25.00
#7	18.00	18.00	25.00	25.00
#8	18.00	18.00	25.00	25.00
#9	18.00	18.00	25.00	25.00
#10	18.00	18.00	25.00	25.00
#11	18.00	18.00	25.00	25.00

TOE DESIGN:

- \* Steel Design Comb. =  $1.2D + 1.6L + 1.6H + 0.5R$
- \* Thickness Design Comb. =  $1.4D + 1.4H$
- \* Available Length for Hook Embedment into Stem = 6.00 in.
- \* Available Length for Straight Embed. into Toe = 22.00 in.

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d (in.)	Mu (ft-k)	Vu (kip)	Phi Vn (kip)	As Flex. (in <sup>2</sup> )	As Min. (in <sup>2</sup> )	As T+S (in <sup>2</sup> )	As Req'd (in <sup>2</sup> )
32.50	10.48	0.00	37.00	0.072	0.096	0.778	0.778

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	Development Length		Percent Develop.	Spac. (in.)
	Straight (in.)	Hook (in.)		
#4	12.00	6.64	90.35	2.79
#5	14.23	8.30	72.28	3.46
#6	17.08	9.96	60.23	4.09
#7	24.90	11.62	51.63	4.78
#8	28.46	13.28	45.18	5.51
#9	32.10	14.98	40.05	6.18
#10	36.14	16.87	35.57	6.97
#11	40.42	18.73	32.04	7.71

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HEEL DESIGN:

- \* Steel Design Comb. =  $1.4D + 1.4H$
- \* Thickness Design Comb. =  $1.4D + 1.4H$
- \* Available Length for Straight Embedment into Toe = 30.00 in.
- \* Available Length for Straight Embedment into Heel = 22.00 in.

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d (in.)	Mu (ft-k)	Vu (kip)	Phi Vn (kip)	As Flex. (in <sup>2</sup> )	As Min. (in <sup>2</sup> )	As T+S (in <sup>2</sup> )	As Req'd (in <sup>2</sup> )
33.50	-4.76	-4.95	38.14	0.032	0.042	0.778	0.778

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	Development Length		Percent Develop.	Spac. (in.)
	Straight (in.)	Hook (in.)		
#4	14.80	6.64	100.00	3.09
#5	18.50	8.30	100.00	4.78
#6	22.20	9.96	99.10	6.73
#7	32.37	11.62	67.96	6.29
#8	37.00	13.28	59.46	7.25
#9	47.08	14.98	46.73	7.21
#10	59.68	16.87	36.87	7.23
#11	73.56	18.73	29.91	7.20

LONGITUDINAL FOOTING REINFORCEMENT (TEMP & SHRINK ONLY):

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	Spacing (in.)
#4	3.09
#5	4.78
#6	6.79
#7	9.26
#8	12.19
#9	15.43
#10	19.60
#11	24.07