Project: Plan 2800	REVIEWED FOR	RMIT PACKAGE CODE COMPLIANCE H IRC 2015 BUILDING DEPARTMENT	page
Location: Garage Roof Girder Truss Footing	07/30/201	8 11:26:40 AM	harry williams marchriss engineering inc.
Footing	#[18	8-02763]	4700 west davis street
[2015 International Building Code(2012 NDS)]			bremerton, wa,98312
Footing Size: 3.0 FT x 3.0 FT x 10.00 IN			
Reinforcement: #4 Bars @ 9.00 IN. O.C. E/W / (4) min	1.		StruCalc Version 9.0.2.5 7/13/2018 12:42:09 PM
Section Footing Design Adequate			
FOOTING PROPERTIES			LOADING DIAGRAM
Allowable Soil Bearing Pressure: Qs = 1500			Subject To Field Inspection Reviewed for C2015 Reviewed for C2015 With IRC 2015
Concrete Compressive Strength: F'c = 2500			eviewed for code com
Reinforcing Steel Yield Strength: Fy = 60000	1. Second and a second s		Subject to Field inspection Reviewed for code comput- with IRC 2015 County Building Department KitsaP Quing@co.kitsap.wa.us joowing@co.kitsap.wa.us
Concrete Reinforcement Cover: c = 3	in]	Reviewed ith IRC 207 Departument Building Duilding Automatic Kitsap County Building Joowling 07/21/2020
FOOTING SIZE			
	3 ft		CHANGES
3	3 ft		MUST Be Approved Prior To Performing Work
) in		
Effective Depth to Top Layer of Steel: d = 6.25	5 in		
COLUMN AND BASEPLATE SIZE			
Column Type: Wood			
Column Width: m = 6 in			
Column Depth: n = 6 in			
FOOTING CALCULATIONS			
Bearing Calculations:			
Ultimate Bearing Pressure:	Qu =	1111 psf	
Effective Allowable Soil Bearing Pressure:	Qe =	1375 psf	6 in
Required Footing Area:	Areq =	7.27 sf	
Area Provided:	A =	9.00 sf	
Baseplate Bearing:	<i>N</i> -	5.00 51	
Bearing Required:	Bear =	14800 lb	
Allowable Bearing:	Bear-A =	99450 lb	10 in
Beam Shear Calculations (One Way Shear):	Dear M	00400 15	<u>p</u>
Beam Shear:	Vu1 =	4831 lb	3 in
Allowable Beam Shear:	Vc1 =	16875 lb	
Punching Shear Calculations (Two Way Shear):		10070 15	3 ft
Critical Perimeter:	Bo =	49 in	
Punching Shear:	Vu2 =	13086 lb	FOOTING LOADING
Allowable Punching Shear (ACI 11-35):	vc2-a =	68906 lb	Live Load: $PL = 7000 \text{ lb}$
Allowable Punching Shear (ACI 11-36):	vc2-b =	81563 lb	Dead Load: $PD = 3000 \text{ lb}$
Allowable Punching Shear (ACI 11-37):	vc2-c =	45938 lb	Total Load: PT = 10000 lb
Controlling Allowable Punching Shear:	vc2 =	45938 lb	Ultimate Factored Load: Pu = 14800 lb
Bending Calculations:			Weight to resist uplift w/ 1.5 F.S.: U.R. = 725 lb
Factored Moment:	Mu =	66600 in-lb	
Nominal Moment Strength:	Mn =	251888 in-lb	
Reinforcement Calculations:			
Concrete Compressive Block Depth:	a =	0.62 in	
Steel Required Based on Moment:	As(1) =	0.20 in2	
Min. Code Req'd Reinf. Shrink./Temp. (ACI-10.5.4)	: As(2) =	0.65 in2	
Controlling Reinforcing Steel:	As-reqd =	0.65 in2	
	.0 in. o.c. e/v		
Reinforcement Area Provided:	As =	0.79 in2	E WILL
Development Length Calculations:			
Development Length Required:	Ld =	15 in	A WASHING
Development Length Supplied:	Ld-sup =	15 in	SAV CONT
NOTES			ELEY OVE
			A A A A A A A A A A A A A A A A A A A

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Project: Plan 2800

Location: Garage Floor Support om Stem Wall Footing

[2015 International Building Code(2012 NDS)]

Footing Size: 16.0 IN Wide x 6.0 IN Deep Continuous Footing With 6.0 IN Thick x 24.0 IN Tall Stemwall

LongitudinalReinforcement: (2) Continuous #4 Bars

TransverseReinforcement: #4 Bars @ 18.00 IN. O.C. (unnecessary) Section Footing Design Adequate 7/13/2018 12:35:51 PM

FOOTING PROPERTIES			LOADING DIAGRAM
) psf		LOADING DIAGNAIM
) psi		Subject To Field Inspection
Reinforcing Steel Yield Strength: Fy = 60000) psi		
Concrete Reinforcement Cover: c = 3	3 in		
FOOTING SIZE			il .
	16 in		CHANGES MUST Be Approved Prior
Depth: Depth =	6 in		To Performing Work
Effective Depth to Top Layer of Steel: d = 2.2	25 in		
STEMWALL SIZE			il
Stemwall Width: 6 in			
Stemwall Height: 24 in			
Stemwall Weight: 150 pcf			
FOOTING CALCULATIONS			-
Pooring Colculations:			├6 in
Bearing Calculations: Ultimate Bearing Pressure:	Qu =	563 psf	
Effective Allowable Soil Bearing Pressure:	Qe =	1425 psf	
Width Required:	Wreg =	0.53 in2	
Beam Shear Calculations (One Way Shear):	Wieq	0.00 112	
Beam Shear:	Vu1 =	182 lb	
Allowable Beam Shear:	Vc1 =	2025 lb	6 in
Transverse Direction:			
Bending Calculations:			
Factored Moment:	Mu =	828 in-lb	
Nominal Moment Strength:	Mn =	0 in-lb	1.3333
Reinforcement Calculations:		0.00	
Concrete Compressive Block Depth:	a = 4a(1) = 1	0.30 in	
Steel Required Based on Moment: Min. Code Reg'd Reinf. Shrink./Temp. (ACI-10.5	As(1) =	0.01 in2 0.13 in2	FOOTING LOADING
Controlling Reinforcing Steel:	As-regd =	0.13 in2	Live Load: PL = 400 lb
• •	ns: #4's @ 18		Dead Load: PD = 200 lb Total Load: PT = 750 lb
Reinforcement Area Provided:	As =	0.13 in2	Ultimate Factored Load: PI = 1060 lb
Development Length Calculations:	710	0.10 112	Olimate racioled Load. Pu = 1000 lb
Development Length Required:	Ld =	15 in	
Development Length Supplied:	Ld-sup =	2 in	
Note: Plain concrete adequate for bending,	1.000 - 1000 - 100		
therefore adequate development length not requ	ired.		
Longitudinal Direction:			, <i>1</i> 5
Reinforcement Calculations: Min. Code Reg'd Reinf. Shrink./Temp. (ACI-10.5	A). Ac/2) -	0.17 in2	
Controlling Reinforcing Steel:		= 0.17 in 2	JEW
. .	dinal: (2) Cont		A STATE
Reinforcement Area Provided:	As =	0.39 in2	
NOTES			
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