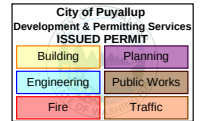
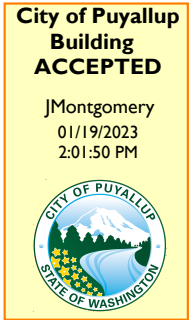


PRCTI20221460



THE APPROVED CONSTRUCTION PLANS,
DOCUMENTS AND ALL ENGINEERING MUST
BE POSTED ON THE JOB AT ALL
INSPECTIONS IN A VISIBLE AND READILY
ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE
REQUIRED TO BE PROVIDED BY THE
PERMITEE ON SITE FOR INSPECTION



STRUCTURAL CALCULATIONS (Entry Canopy Only)

Project: Cheers Puyallup
3811 9th Street SW
Puyallup, WA 98373

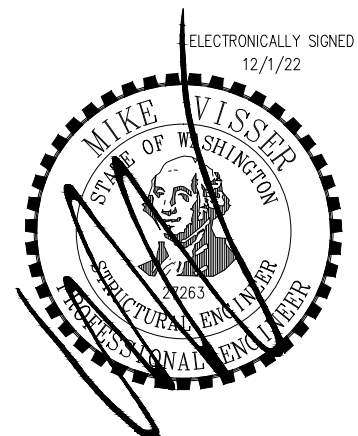
Project No.: 22-074.01

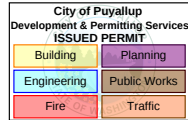
Architect: Weddermann Architecture
4629 South Yakima
Tacoma, WA 98408

Client: Ali Kashi
3509 Carpenter Road SE
Lacey, WA 98503

By: Andy Derrick, P.E., S.E.
Mike Visser, P.E., S.E.

Date: December 1, 2022

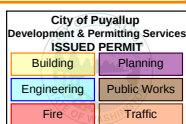




L I V E	Roof Load:	
	Snow Load:	25.0 psf
	Roof Slope:	4 in 12"
	Roof Slope =	18.43 degrees
	$R_s = (S/40) - 1/2 =$	0.125 psf/deg
	Design Snow Load:	25.00 psf

Floor Load:	
Item:	Unit Weight:
	psf psf psf psf psf 0.0 psf

PRCTI20221460



Hazards by Location

Search Information

Coordinates: 47.156036, -122.302837

Elevation: 420 ft

Timestamp: 2022-11-30T18:58:46.958Z

Hazard Type: Wind



ASCE 7-16

MRI 10-Year 67 mph

MRI 25-Year 73 mph

MRI 50-Year 78 mph

MRI 100-Year 82 mph

Risk Category I 92 mph

Risk Category II 97 mph

Risk Category III 104 mph

Risk Category IV 108 mph

ASCE 7-10

MRI 10-Year 72 mph

MRI 25-Year 79 mph

MRI 50-Year 85 mph

MRI 100-Year 91 mph

Risk Category I 100 mph

Risk Category II 110 mph

Risk Category III-IV 115 mph

ASCE 7-05

ASCE 7-05 Wind Speed 85 mph

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

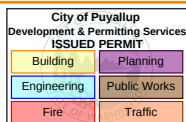
Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

PRCTI20221460



Hazards by Location

Search Information

Coordinates: 47.156036, -122.302837

Elevation: 420 ft

Timestamp: 2022-11-30T18:59:44.461Z

Hazard Type: Seismic

Reference Document: ASCE7-16

Risk Category: II

Site Class: D-default



Basic Parameters

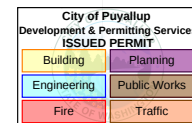
Name	Value	Description
S_S	1.266	MCE_R ground motion (period=0.2s)
S_1	0.437	MCE_R ground motion (period=1.0s)
S_{MS}	1.519	Site-modified spectral acceleration value
S_{M1}	* null	Site-modified spectral acceleration value
S_{DS}	1.012	Numeric seismic design value at 0.2s SA
S_{D1}	* null	Numeric seismic design value at 1.0s SA

* See Section 11.4.8

▼Additional Information

Name	Value	Description
SDC	* null	Seismic design category
F_a	1.2	Site amplification factor at 0.2s
F_v	* null	Site amplification factor at 1.0s
CR_S	0.914	Coefficient of risk (0.2s)
CR_1	0.898	Coefficient of risk (1.0s)
PGA	0.5	MCE_G peak ground acceleration

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F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.6	Site modified peak ground acceleration
T_L	6	Long-period transition period (s)
Ss_{RT}	1.266	Probabilistic risk-targeted ground motion (0.2s)
Ss_{UH}	1.385	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
Ss_D	1.5	Factored deterministic acceleration value (0.2s)
$S1_{RT}$	0.437	Probabilistic risk-targeted ground motion (1.0s)
$S1_{UH}$	0.486	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
$S1_D$	0.6	Factored deterministic acceleration value (1.0s)
$PGAd$	0.5	Factored deterministic acceleration value (PGA)

* See Section 11.4.8

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

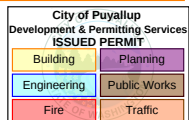
Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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PRCTI20221460



Project: Cheers Canopy (22-074.01)

Client: Kashi

Date: 12/1/22

Page:

Calculation Sheet

Title:

Seismic Loads

{Ref. 2018 IBC and ASCE 7-16}

Site Information

Site Location: Puyallup, WA

Maximum Considered Earthquake, 5% Damped, at short periods, Ss: 1.266 Fa: 1.20 Sms: 1.52

Maximum Considered Earthquake, 5% Damped, at period of 1 second, S1: 0.437 Fv: 1.58 Sm1: 0.69

Site Class: D

Importance Factor, I_e: 1S_{ds}: 1.01 gS_{d1}: 0.55 g

Seismic Design Cat.: D

Building Information

Seismic Force Resisting System:						Design		
Category	Classification	R	Ω_0	Cd	Category 'D' Height Limit	Ct	x	
X	Bearing Walls	Light-framed walls with plywood sheathing	6.5	3	4	65	0.02	0.75
		Light-framed walls with steel sheets	6	3	4	65	0.02	0.75
		Light-framed walls with wallboard	2	2.5	2	35	0.02	0.75
		Light-framed walls with flat strap bracing	4	2	3.5	65	0.02	0.75
		Special reinforced concrete shear walls	5	2.5	5	160	0.02	0.75
		Special reinforced masonry shear walls	5	2.5	3.5	160	0.02	0.75
	Building Frame	Special steel concentrically braced frames	6	2	5	160	0.02	0.75
		Special reinforced concrete shear walls	6	2.5	5	160	0.02	0.75
		Special reinforced masonry shear walls	5.5	2.5	4	160	0.02	0.75
	Moment Resisting Frames	Special steel moment frames	8	3	5.5	No Limit	0.028	0.8
		Intermediate steel moment frames	4.5	3	4	35	0.028	0.8

Building Classification: Light-framed walls with plywood sheathing

C_s: 0.156h_n: 9.0 feetApproximate Fundamental Period, T_a: 0.104 seconds k: 1

Level	Unit Weight	Tributary Area	W _x	Story Height, h _x	W _h ^ k	C _v x	F _x	V _x
Roof	12.5 psf	300 sf	3.75 kips	9.0 feet	33.75	1	0.584 kips	0.584 kips
3rd Floor	0 psf	0 sf	0 kips	0.0 feet	0	0	0 kips	0.584 kips
2nd Floor	0 psf	0 sf	0 kips	0.0 feet	0	0	0 kips	0.584 kips
1st Floor	0 psf	0 sf	0 kips	0.0 feet	0	0	0 kips	0.584 kips
			W: 3.75 kips	33.75				
			V: 0.584 kips					

Redundancy

 $\rho = 1.3$ (1.0 or 1.3 per ASCE 7-10 Section 12.3.4.2)

ASD Design Combination Summary - IBC Section 1605.3.1

Level	F _x	V _x	F _{px} (Diaphragm)
Roof	0.53 kips	0.53 kips	0.53 kips
Floor	0.00 kips	0.53 kips	0.00 kips
Floor	0.00 kips	0.53 kips	0.00 kips
Floor	0.00 kips	0.53 kips	0.00 kips

PRCTI20221460

CALCULATION SHEET

Title: _____

Project: CHEERS CANOPY (22-074.01)Client: KASHI

Date: _____

Page: _____

CANOPY LATERAL LOADSWIND LOAD

MIN. WIND LOADS CONTROL = 16 psf

 h (FROM EAVE TO RIDGE) $\approx 6'-3"$

$$\Rightarrow W = (16)(6.25) = 100 \text{ plf}$$

ROTATE LOADS TO BLDG WALL (GRID A)

$$V_{ASD} = (1.6)(100)(10') = \underline{600\#}$$

$$V = \frac{600}{33} = \underline{18 \text{ plf}}$$

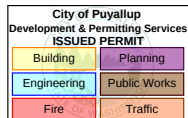
SEISMIC LOAD

$$F_x = \underline{530\#}$$

$$V = \frac{530}{33} = \underline{16 \text{ plf}}$$

$\Rightarrow$ D2 (BLOCKED)
IS ADEQUATE

PRCTI20221460



Project: Cheers Canopy (22-074.01)

Client: Kashi

Date: 12/1/22

Page: _____

Simple Beam Design

Beam Number: 1

Beam Length: 9.00 feet

Dead Load:	Unit Weight	Beg. trib width	End trib width
Roof:	12.5 psf	17 feet	17 feet
Floor:	0.0 psf	0 feet	0 feet
		Wall beginning	Wall ending
Int. wall:	60 plf	0 feet	0 feet
Ext. wall:	80 plf	0 feet	0 feet
Beam Reactions:	Location	Reaction	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	

Live Load:	Unit Weight	Beg. trib width	End trib width
Floor:	psf	0 feet	0 feet
Beam Reactions:	Location	Reaction	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	

Snow Load:	unit weight	Beg. trib width	End trib width
Roof:	25.0 psf	17 feet	17 feet
Beam Reactions:	Location	Reaction	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	
Beam # 0	0 feet	0 pounds	

Required
Bearing
Length

Reactions	Dead Load	Live Load	Snow Load	Total	
Beginning	956 pounds	#### pounds	1912.5 pounds	####	### in.
End	956 pounds	#### pounds	1912.5 pounds	####	### in.

Hanger: IUS3.56/14

Member Forces	Dead+Live	Dead+Live+Snow
Maximum Bending Moment:	#### ft.-lbs.	#### ft.-lbs.
Maximum Shear:*	#### lbs.	#### lbs.

*Taken distance 'd' from support, subject to NDS 3.4.3

Allowable Stresses	Deflection (in.)	
	DDL = 0.052	
Bear'g, perp to grain	650 psi	DDL = ###
Bending, Fb	2,396 psi	DSL = 0.103
Shear, Fv	240 psi	DSL+LL = ###
Elasticity, E	1,800,000 psi	DTL = ###
		Limit
		L/ 360
		L/ 240

Required Section Properties	Provided Section Properties	
Area, A =	49.50 in. ^2	###
Sect. Mod., S =	74.25 in. ^3	###
Mom. of Iner., I =	334.13 in. ^4	###

Provide: 1 - 5.5 x 9 Glu-lam, 24F-V4

P.T.:	N	Flat:	N	Repetitive:	N	Braced @	2	ft spcing
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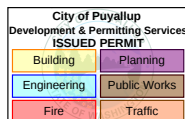
PRCTI20221460

Post Schedule	City of Puyallup Development & Permitting Services ISSUED PERMIT	
	Building	Planning
	Engineering	Public Works
	Fire	Traffic

		Engineering		Public Works				End																					
		Fire		Traffic				Bearing																					
								Capacity		Unbraced Length = 8				Unbraced Length = 9				Unbraced Length = 10				Unbraced Length = 11				Unbraced Length = 18			
Mark	#								Fce	Cp	Fc	Pcap	Fce	Cp	Fc	Pcap	Fce	Cp	Fc	Pcap	Fce	Cp	Fc	Pcap	Fce	Cp	Fc	Pcap	
11	(1)							2658	598	0.35	540	2658	473	0.28	438	2300	383	0.23	361	1895	316	0.19	302	1584	118	0.07	116	610	
12	(2)							4784	598	0.35	540	4784	473	0.28	438	4601	383	0.23	361	3790	316	0.19	302	3169	118	0.07	116	1221	
13	(3)							6910	598	0.35	540	6910	473	0.28	438	6901	383	0.23	361	5685	316	0.19	302	4753	118	0.07	116	1831	
14	(4)							9037	598	0.35	540	9037	473	0.28	438	9037	383	0.23	361	7580	316	0.19	302	6338	118	0.07	116	2442	
15	(5)	2	x	4			Hem-Fir No. 1 & Btr	11163	598	0.35	540	11163	473	0.28	438	11163	383	0.23	361	9475	316	0.19	302	7922	118	0.07	116	3052	
16	(6)							13289	598	0.35	540	13289	473	0.28	438	13289	383	0.23	361	11370	316	0.19	302	9507	118	0.07	116	3662	
17	(7)							15415	598	0.35	540	15415	473	0.28	438	15415	383	0.23	361	13265	316	0.19	302	11091	118	0.07	116	4273	
18	(8)							17542	598	0.35	540	17542	473	0.28	438	17542	383	0.23	361	15160	316	0.19	302	12676	118	0.07	116	4883	
19	(9)							19668	598	0.35	540	19668	473	0.28	438	19668	383	0.23	361	17055	316	0.19	302	14260	118	0.07	116	5494	
11	(1)							2658	598	0.35	540	2658	473	0.28	438	2300	383	0.23	361	1895	316	0.19	302	1584	118	0.07	116	610	
12	(2)							4784	598	0.35	540	4784	473	0.28	438	4601	383	0.23	361	3790	316	0.19	302	3169	118	0.07	116	1221	
13	(3)							6910	598	0.35	540	6910	473	0.28	438	6901	383	0.23	361	5685	316	0.19	302	4753	118	0.07	116	1831	
14	(4)							9037	598	0.35	540	9037	473	0.28	438	9037	383	0.23	361	7580	316	0.19	302	6338	118	0.07	116	2442	
15	(5)	2	x	4			Hem-Fir No. 1	11163	598	0.35	540	11163	473	0.28	438	11163	383	0.23	361	9475	316	0.19	302	7922	118	0.07	116	3052	
16	(6)							13289	598	0.35	540	13289	473	0.28	438	13289	383	0.23	361	11370	316	0.19	302	9507	118	0.07	116	3662	
17	(7)							15415	598	0.35	540	15415	473	0.28	438	15415	383	0.23	361	13265	316	0.19	302	11091	118	0.07	116	4273	
18	(8)							17542	598	0.35	540	17542	473	0.28	438	17542	383	0.23	361	15160	316	0.19	302	12676	118	0.07	116	4883	
19	(9)							19668	598	0.35	540	19668	473	0.28	438	19668	383	0.23	361	17055	316	0.19	302	14260	118	0.07	116	5494	
11	(1)							2658	518	0.32	474	2490	410	0.26	383	2012	332	0.21	315	1654	274	0.18	263	1381	102	0.07	101	530	
12	(2)							4784	518	0.32	474	4784	410	0.26	383	4023	332	0.21	315	3307	274	0.18	263	2761	102	0.07	101	1060	
13	(3)							6910	518	0.32	474	6910	410	0.26	383	6035	332	0.21	315	4961	274	0.18	263	4142	102	0.07	101	1590	
14	(4)							9037	518	0.32	474	9037	410	0.26	383	8047	332	0.21	315	6614	274	0.18	263	5522	102	0.07	101	2120	
15	(5)	2	x	4			Hem-Fir No. 2	11163	518	0.32	474	11163	410	0.26	383	10059	332	0.21	315	8268	274	0.18	263	6903	102	0.07	101	2650	
16	(6)							13289	518	0.32	474	13289	410	0.26	383	12070	332	0.21	315	9921	274	0.18	263	8283	102	0.07	101	3180	
17	(7)							15415	518	0.32	474	15415	410	0.26	383	14082	332	0.21	315	11575	274	0.18	263	9664	102	0.07	101	3709	
18	(8)							17542	518	0.32	474	17542	410	0.26	383	16094	332	0.21	315	13228	274	0.18	263	11045	102	0.07	101	4239	
19	(9)							19668	518	0.32	474	19668	410	0.26	383	18105	332	0.21	315	14882	274	0.18	263	12425	102	0.07	101	4769	
31	(1)							4177	1477	0.69	1023	4177	1167	0.60	895	4177	945	0.52	776	4177	781	0.45	671	4177	292	0.19	279	2301	
32	(2)							7518	1477	0.69	1023	7518	1167	0.60	895	7518	945	0.52	776	7518	781	0.45	671	7518	292	0.19	279	4601	
33	(3)							10859	1477	0.69	1023	10859	1167	0.60	895	10859	945	0.52	776	10859	781	0.45	671	10859	292	0.19	279	6902	
34	(4)							14200	1477	0.69	1023	14200	1167	0.60	895	14200	945	0.52	776	14200	781	0.45	671	14200	292	0.19	279	9203	
35	(5)	2	x	6			Hem-Fir No. 1 & Btr	17542	1477	0.69	1023	17542	1167	0.60	895	17542	945	0.52	776	17542	781	0.45	671	17542	292	0.19	279	11503	
36	(6)							20883	1477	0.69	1023	20883	1167	0.60	895	20883	945	0.52	776	20883	781	0.45	671	20883	292	0.19	279	13804	
37	(7)							24224	1477	0.69	1023	24224	1167	0.60	895	24224	945	0.52	776	24224	781	0.45	671	24224	292	0.19	279	16105	
38	(8)							27565	1477	0.69	1023	27565	1167	0.60	895	27565	945	0.52	776	27565	781	0.45	671	27565	292	0.19	279	18405	
39	(9)							30907	1477	0.69	1023	30907	1167	0.60	895	30907	945	0.52	776	30907	781	0.45	671	30907	292	0.19	279	20706	
31	(1)							7734	1969	0.55	1586	7734	1556	0.46	1330	7734	1260	0.39	1120	7734	1042	0.33	949	7734	389	0.13	378	3116	
32	(2)							13922	1969	0.55	1586	13922	1556	0.46	1330	13922	1260	0.39	1120	13922	1042	0.33	949	13922	389	0.13	378	6232	
33	(3)							20109	1969	0.55	1586	20109	1556	0.46	1330	20109	1260	0.39	1120	20109	1042	0.33	949	20109	389	0.13	378	9348	
34	(4)							26297	1969	0.55	1586	26297	1556	0.46	1330	26297	1260	0.39	1120	26297	1042	0.33	949	26297	389	0.13	378	12464	
35	(5)	2	x	6			Redlam LVL 2.0E	32484	1969	0.55	1586	32484	1556	0.46	1330	32484	1260	0.39	1120	32484	1042	0.33	949	32484	389	0.13	378	15580	
36	(6)							38672	1969	0.55	1586	38672	1556	0.46	1330	38672	1260	0.39	1120	38672	1042	0.33	949	38672	389	0.13	378	18696	
37	(7)							44859	1969	0.55	1586	44859	1556	0.46	1330	44859	1260	0.39	1120	44859	1042	0.33	949	44859	389	0.13	378	21812	
38	(8)							51047	1969	0.55	1586	51047	1556	0.46	1330	51047	1260	0.39	1120	51047	1042	0.33	949	51047	389	0.13	378	24928	
39	(9)							57234	1969	0.55	1586	57234	1556	0.46	1330	57234	1260	0.39	1120	57234	1042	0.33	949	57234	389	0.13	378	28044	
31	(1)							4177	1280	0.65	932	4177	1011	0.56	805	4177	819	0.48	690	41									



PRCTI20221460



Project: Cheers Canopy (22-074.01)

Client: Kashi

Date: 12/1/22

Page:

Gravity Design - Loading**Design of Pad Footings**

Allowable Soil Bearing: 1500 psf
 Ratio of Dead to Total Load: 0.375
 Concrete Strength, f_c' : 2500 psi
 Steel Yield Strength: 60000 psi
 Column Dimension: 5 inches

Flexure:

Mark	Load	Pu	wu	Mu	h	d	F	Ku	As min.	Reinforcing
2.00	6000 lbs.	8700 lbs.	2175 psf	1087.5 ft-lbs./ft	12 in.	9 in.	0.081	13.43	0.71	(4) # 4 bars
2.50	9375 lbs.	13594 lbs.	2175 psf	1699.2 ft-lbs./ft	12 in.	9 in.	0.081	20.98	0.89	(5) # 4 bars
3.00	13500 lbs.	19575 lbs.	2175 psf	2446.9 ft-lbs./ft	12 in.	9 in.	0.081	30.21	1.07	(6) # 4 bars
3.50	18375 lbs.	26644 lbs.	2175 psf	3330.5 ft-lbs./ft	12 in.	9 in.	0.081	41.12	1.25	(7) # 4 bars
4.00	24000 lbs.	34800 lbs.	2175 psf	4350 ft-lbs./ft	12 in.	9 in.	0.081	53.70	1.43	(5) # 5 bars
4.50	30375 lbs.	44044 lbs.	2175 psf	5505.5 ft-lbs./ft	12 in.	9 in.	0.081	67.97	1.60	(6) # 5 bars
5.00	37500 lbs.	54375 lbs.	2175 psf	6796.9 ft-lbs./ft	12 in.	9 in.	0.081	83.91	1.78	(5) # 6 bars
5.50	45375 lbs.	65794 lbs.	2175 psf	8224.2 ft-lbs./ft	12 in.	9 in.	0.081	101.53	1.96	(5) # 6 bars

Shear:

Beam Shear

Punching Shear

Mark	wu	Load'g Area	Vu	phi Vc		Load'g Area	Vu	phi Vc	
2.00	2175 psf	0.50 sf	1.09 kips	16.20 kips	ok	2.64 sf	5.74 kips	75.60 kips	ok
2.50	2175 psf	1.25 sf	2.72 kips	20.25 kips	ok	4.89 sf	10.63 kips	75.60 kips	ok
3.00	2175 psf	2.25 sf	4.89 kips	24.30 kips	ok	7.64 sf	16.61 kips	75.60 kips	ok
3.50	2175 psf	3.50 sf	7.61 kips	28.35 kips	ok	10.89 sf	23.68 kips	75.60 kips	ok
4.00	2175 psf	5.00 sf	10.88 kips	32.40 kips	ok	14.64 sf	31.84 kips	75.60 kips	ok
4.50	2175 psf	6.75 sf	14.68 kips	36.45 kips	ok	18.89 sf	41.08 kips	75.60 kips	ok
5.00	2175 psf	8.75 sf	19.03 kips	40.50 kips	ok	23.64 sf	51.41 kips	75.60 kips	ok
5.50	2175 psf	11.00 sf	23.93 kips	44.55 kips	ok	28.89 sf	62.83 kips	75.60 kips	ok