USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

MCDONALDS PUYALLUP REMODEL

304 2nd St NE, Puyallup, WA 98372, USA

Latitude, Longitude: 47.1936849, -122.2925535

Date	9/3/2024, 9:01:14 AM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.253	MCE_R ground motion. (for 0.2 second period)
S_1	0.482	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.253	Site-modified spectral acceleration value
S_{M1}	0.731	Site-modified spectral acceleration value
S_{DS}	0.835	Numeric seismic design value at 0.2 second SA
S_{D1}	0.488	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	1.518	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.5	Site modified peak ground acceleration
T_L	6	Long-period transition period in seconds
SsRT	1.253	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.258	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.482	Probabilistic risk-targeted ground motion. (1.0 second)

Type	Value	Description
S1UH	0.502	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	0.509	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.996	Mapped value of the risk coefficient at short periods
C_{R1}	0.959	Mapped value of the risk coefficient at a period of 1 s
C_V		Vertical coefficient

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TOLBrace™ Seismic Bracing Calculations

V8.8.119

Project Address: MCDONALDS PUYALLUP REMODE
304 2nd STREET NE
PUYALLUP, WA 98372
Job # B040224

Contractor:
Address:
Phone:
Licence:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch.40
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

Fastener Information

Orientation to Connecting Surface NFPA Type H

Fastener

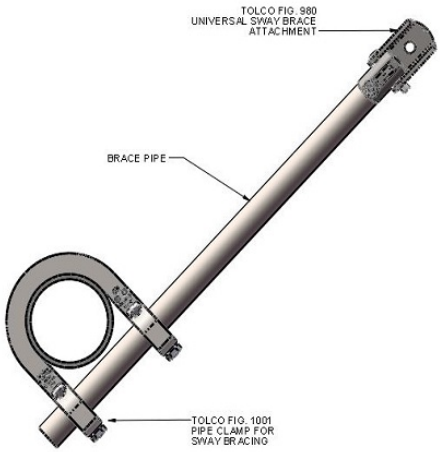
Type	1/2in. x 1 1/2in. Thru Bolt
Diameter	1/2in.
Length	1 1/2in.
Maximum Load	215 lbs (98 kg)
Prying Factor	N/A

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	2000 lbs (907 kg)	1414 lbs (641 kg)
Fig.980 - 1/2" Universal Swive	2100 lbs (953 kg)	1485 lbs (674 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Brace Identification on Plans 3 INCH LATERAL

Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.6

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	15 ft (4.6 m)	15 ft (4.6 m)	7.94 lb/ft (11.82 kg/m)	119 lbs (54 kg)
1.5" (40 mm)	Sch. 10	50 ft (15.2 m)	50 ft (15.2 m)	3.04 lb/ft (4.52 kg/m)	152 lbs (69 kg)
1" (25 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	1.81 lb/ft (2.69 kg/m)	36 lbs (16 kg)

Subtotal Weight	307 lbs (139 kg)
Wp (incl. 15%)	353 lbs (160 kg)
Total (Fpw)	212 lbs (96 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	966 lb (438 kg)

Main Size	Type/Sch.	Spacing (ft)
3"	Sch. 10	15

TOLBrace™ Seismic Calculations

MCDONALDS PUYALLUP REMODEL Job # B040224

304 2nd STREET NE

Brace Identification	3 INCH LATERAL
Brace Type (Per NFPA#13)	NFPA Type H
Braced Pipe (ft)	3" Sch.10 Steel Pipe
Spacing of Brace	15' 0" (4.57 m)
Orientation of Brace	Lateral
Bracing Material	1" Sch.40
Maximum Brace Length	7' 0" (2.13 m)
Slenderness Ratio used for Load Calculation	200
True Angle of Brace for Calculation	45°
Type of Fastener	1/2in. x 1 1/2in. Thru Bolt
Length of Fastener	1 1/2in.

Summary of Pipe within Zone of Influence

3" Sch.10 Steel Pipe (76.2 mm)	15 ft (4.6 m)
1.5" Sch.10 Steel Pipe (38.1 mm)	50 ft (15.2 m)
1" Sch.10 Steel Pipe (25.4 mm)	20 ft (6.1 m)

G-Factor Used 0.6

Allowance for Heads and Fittings	15%

Conclusions

Total Adjusted Load of Pipe in Zone of Influence	212 lbs (96 kg)
Material Capacity	1310 lbs (594 kg)
Fastener Capacity	474 lbs (215 kg)
Fig. 1001 Clamp	1414 lbs (641 kg)
Fig.980 - 1/2" Universal Swivel	1485 lbs (674 kg)
Structural Member	Roof Joist

Calculations prepared by Oleg Sergeev

* The description of the Structural Member is for informational purposes only.
TOLBrace™ software calculates the brace assembly only, not the structure it is attached to.

TOLBrace™ Seismic Bracing Calculations

V8.8.119

Project Address: MCDONALDS PUYALLUP REMODE
304 2nd STREET NE
PUYALLUP, WA 98372
Job # B040224

Contractor:
Address:
Phone:
Licence:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1"
Type of Brace	Sch.40
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

Fastener Information

Orientation to Connecting Surface NFPA Type E

Fastener

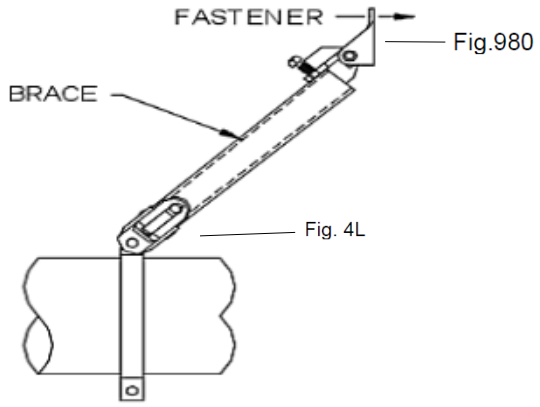
Type	1/2in. x 1 1/2in. Thru Bolt
Diameter	1/2in.
Length	1 1/2in.
Maximum Load	230 lbs (104 kg)
Prying Factor	N/A

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4L Clamp	2000 lbs (907 kg)	1414 lbs (641 kg)
Fig.980 - 1/2" Universal Swive	2100 lbs (953 kg)	1485 lbs (674 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Brace Identification on Plans 3 INCH LONGITUDINAL

Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.6

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	7.94 lb/ft (11.82 kg/m)	318 lbs (144 kg)

Subtotal Weight	318 lbs (144 kg)
Wp (incl. 15%)	366 lbs (166 kg)
Total (Fpw)	219 lbs (100 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
3"	Sch. 10	40

TOLBrace™ Seismic Calculations

MCDONALDS PUYALLUP REMODEL Job # B040224

304 2nd STREET NE

Brace Identification	3 INCH LONGITUDINAL
Brace Type (Per NFPA#13)	NFPA Type E
Braced Pipe (ft)	3" Sch.10 Steel Pipe
Spacing of Brace	40' 0" (12.19 m)
Orientation of Brace	Longitudinal
Bracing Material	1" Sch.40
Maximum Brace Length	7' 0" (2.13 m)
Slenderness Ratio used for Load Calculation	200
True Angle of Brace for Calculation	45°
Type of Fastener	1/2in. x 1 1/2in. Thru Bolt
Length of Fastener	1 1/2in.

Summary of Pipe within Zone of Influence

3" Sch.10 Steel Pipe (76.2 mm)	40 ft (12.2 m)

G-Factor Used 0.6	
Allowance for Heads and Fittings	15%
Conclusions	
Total Adjusted Load of Pipe in Zone of Influence	219 lbs (99 kg)
Material Capacity	1310 lbs (594 kg)
Fastener Capacity	230 lbs (104 kg)
Fig. 4L Clamp	1414 lbs (641 kg)
Fig.980 - 1/2" Universal Swivel	1485 lbs (674 kg)
Structural Member	Roof Joist

Calculations prepared by Oleg Sergeev

* The description of the Structural Member is for informational purposes only.
TOLBrace™ software calculates the brace assembly only, not the structure it is attached to.