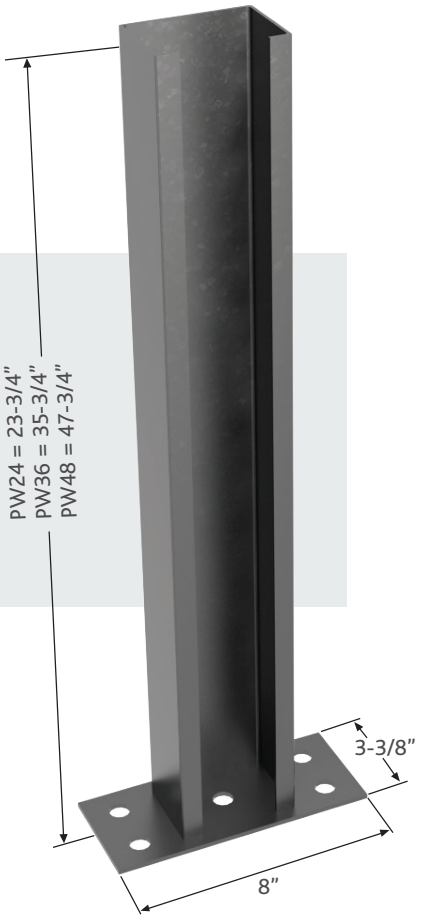
BAILEY PONY WALL

PARTIAL WALL FRAMING CONNECTION TO FLOOR



The Bailey Pony Wall is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track. This high-performance, reliable, and durable solution for knee wall-to-foundation connections transfers loads through the stud member onto the welded 1/2" base plate which is then anchored to the floor system.

PRODUCT DIMENSIONS

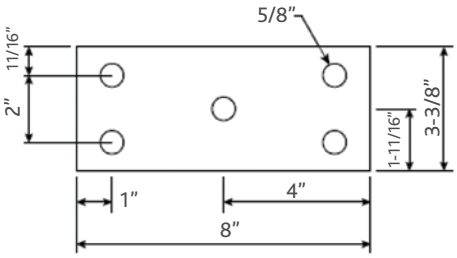
PW24 = 23-3/4" tall with 3-3/8" wide x 8" long plate
PW36 = 35-3/4" tall with 3-3/8" wide x 8" long plate
PW48 = 47-3/4" tall with 3-3/8" wide x 8" long plate

MATERIAL SPECIFICATIONS

Plate Material: CSA: G40.21 44W/300W 1/2" thick hot rolled steel
Stud Material: Structural Grade 50 (362S250-97), 50ksi (340 MPa) 12ga (97mil), 0.1017" Design thickness, 0.0966" Min. thickness
Packaging: Individually
ASTM: A36, A653/A653M, A1003

INSTALLATION

Install the Pony Wall inside the track or directly to the floor structure. Anchor to the floor as designed by EOR. Attach the studs to both flanges of the Pony Wall. A minimum of 3-1/2" stud member can be used.



* Bailey Pony Wall are distributed by Bailey Metal Products in Canada under permission granted by Clark Dietrich Building Systems.

THE STRENGTH WITHIN

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MAXIMUM SPECIFIED LOADS

BAILEY PONY WALL

GENERAL:

Pony Wall Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

Pony Wall Base Plate

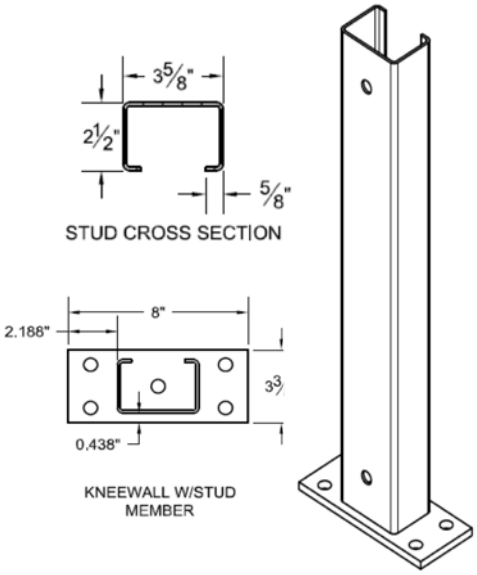
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

North American specification for the design of cold-formed steel structural members.



BAILEY Pony Wall Maximum Specified Moment and Loads					
Member	Pony Wall Length, in. (FT)	Anchors to Structure	Maximum Moment (lbs-in)	Maximum Specified Moment and Loads	
				Max Point Load @ Cantilever End (lbs)	Max Uniform Load (lbs/ft)
BAILEY Pony Wall	24 (2)	Designed by Others	18,316	763	763
	36 (3)			509	339
	48 (4)			382	191

Notes:

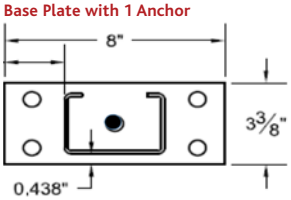
1. BAILEY Pony Wall is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2. Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to the BAILEY Pony Wall member.
3. BAILEY Pony Wall may be used in place of standard framing members, or in conjunction with them to frame the wall.
4. ***Base connection between the BAILEY Pony Wall and support structure is designed by others.***
5. For serviceability/deflection calculations of the BAILEY Pony Wall, an effective moment of inertia = 0.774 in4 was used.
6. Maximum specified point load @ cantilever end and maximum specified uniformly distributed load were both calculated using the maximum specified moment.
7. It is the responsibility of the designer to properly detail the connections on the contract drawings.

BAILEY Pony Wall Maximum Specified Moment w/Anchors			
Member	Anchors to Structure	No. of Anchors to Structure	Maximum Specified Moment (lbs-in)
BAILEY Pony Wall	1/2" ϕ Hilti Kwik Bolt-3 (3-1/2" Nominal Embedment, 3 ksi Uncracked Concrete)	1	3,403
		4	10,840

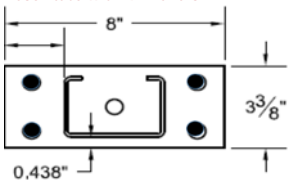
Notes:

1. BAILEY Pony Wall is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2. Out-of-plane loads are transferred to the floor system through base-plate, which is welded to the BAILEY Pony Wall member.
3. BAILEY Pony Wall may be used in place of standard framing members, or in conjunction with them to frame the wall.
4. For serviceability/deflection calculations of the BAILEY Pony Wall, an effective moment of inertia = 0.774 in4 was used.
5. Maximum specified moments w/anchors are based on using 1/2" ϕ Hilti Kwik Bolt-3 anchors to concrete.
6. Other anchors may be used to achieve the full Pony Wall resistance, but must be designed separately.
7. Listed values have not been increased for wind, seismic, or other factors.
8. Hilti is a registered trademark of Hilti Aktiengesellschaft Corporation.
9. It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.
10. It is the responsibility of the designer to properly detail connections on the contract drawings.
11. See Figure-1 for base-plate anchor details.

Base Plate with 1 Anchor



Base Plate with 4 Anchors



THE STRENGTH WITHIN

MAXIMUM CONCENTRATED LOAD AT FREE END

GENERAL:

Pony Wall Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

Pony Wall Base Plate

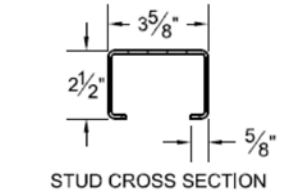
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

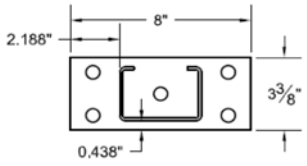
CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

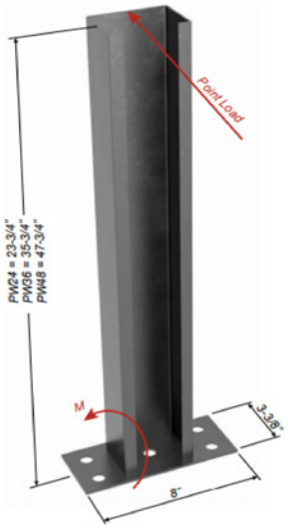
North American specification for the design of cold-formed steel structural members.



STUD CROSS SECTION



KNEEWALL W/STUD MEMBER



BAILEY Pony Wall Maximum Specified Point Loads											
Member	Pony Wall Length, in. (FT)	Max Point Load @ Cantilever End (lbs)					Moment Due to Point Load (lbs-in)				
		L/720	L/360	L/240	L/180	P_{max}	L/720	L/360	L/240	L/180	M_{max}
BAILEY PonyWall	24 (2)	165	330	495	661	763	3,964	7,927	11,891	15,854	18,316
	36 (3)	73	147	220	294	509	2,642	5,285	7,927	10,569	18,316
	48 (4)	41	83	124	165	382	1,982	3,964	5,945	7,927	18,316

Notes:

1. BAILEY Pony Wall is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2. Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to the BAILEY Pony Wall member.
3. BAILEY Pony Wall may be used in place of standard framing members, or in conjunction with them to frame the wall.
4. ***Base connection between the BAILEY Pony Wall and support structure is designed by others.***
5. For serviceability/deflection calculations of the BAILEY Pony Wall, an effective moment of inertia = 0.774 in^4 was used.
6. When both point and uniform loads are applied, the combined loads shall be limited to the maximum specified moment.
7. It is the responsibility of the designer to properly detail the connections on the contract drawings.

BAILEY Pony Wall Maximum Specified Point Loads w/Anchors												
Pony Wall Member	Pony Wall Length, in. (FT)	Anchors to Structure	No. of Anchors	Uniformly Distributed Load (lbs/ft)					Maximum Moment (lbs-in)				
				L/720	L/360	L/240	L/180	P_{max}	L/720	L/360	L/240	L/180	M_{max}
PW24	24 (2)	1/2" ϕ Hilti Kwik Bolt-3 (3-1/2" Nominal Embedment, 3 ksi Uncracked Concrete)	1	142	142	142	142	142	3,403	3,403	3,403	3,403	3,403
			4	165	330	452	452	452	3,964	7,927	10,840	10,840	10,840
PW36	36 (2)		1	73	95	95	95	95	2,642	3,403	3,403	3,403	3,403
			4	73	147	220	294	301	2,642	5,285	7,927	10,569	10,840
PW48	48 (2)		1	41	71	71	71	71	1,982	3,403	3,403	3,403	3,403
			4	41	83	124	165	226	1,982	3,964	5,945	7,927	10,840

Notes:

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5. Maximum specified moments w/anchors are based on using 1/2" ϕ Hilti Kwik Bolt-3 anchors to concrete.
6. Other anchors may be used to achieve the full Pony Wall resistance, but must be designed separately.
7. Listed values have not been increased for wind, seismic, or other factors.
8. Hilti is a registered trademark of Hilti Aktiengesellschaft Corporation.
9. It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.
10. It is the responsibility of the designer to properly detail connections on the contract drawings.
11. See Figure-1 for base-plate anchor details.

MAXIMUM UNIFORMLY DISTRIBUTED LOAD (UDL)

GENERAL:

Pony Wall Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

Pony Wall Base Plate

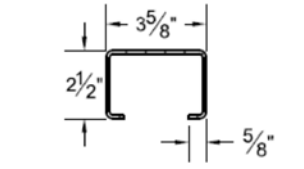
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

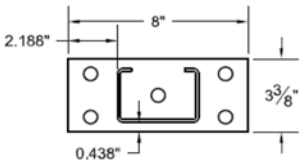
CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

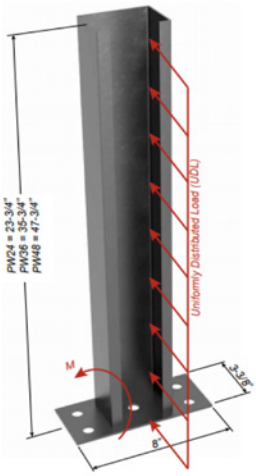
North American specification for the design of cold-formed steel structural members.



STUD CROSS SECTION



KNEEWALL W/STUD MEMBER



BAILEY Pony Wall Maximum Specified UDL Loads											
Member	Pony Wall Length, in. (FT)	Uniformly Distributed Load (lbs/ft)					Moment Due to Uniform Load (lbs-in)				
		L/720	L/360	L/240	L/180	W_{max}	L/720	L/360	L/240	L/180	M_{max}
BAILEY PonyWall	24 (2)	220	440	661	763	763	5,285	10,569	15,854	18,316	18,316
	36 (3)	65	130	196	261	339	3,523	7,046	10,569	14,093	18,316
	48 (4)	28	55	83	110	191	2,642	5,285	7,927	10,569	18,316

Notes:

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BAILEY Pony Wall Maximum Specified UDL Loads w/Anchors												
Pony Wall Member	Pony Wall Length, in. (FT)	Anchors to Structure	No. of Anchors	Uniformly Distributed Load (lbs/ft)					Maximum Moment (lbs-in)				
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			4	220	440	452	452	452	5,285	10,569	10,840	10,840	10,840
PW36	36 (2)		1	63	63	63	63	63	3,403	3,403	3,403	3,403	3,403
			4	65	130	196	201	201	3,523	7,046	10,569	10,840	10,840
PW48	48 (2)		1	28	35	35	35	35	2,642	3,403	3,403	3,403	3,403
			4	28	55	83	110	113	2,642	5,285	7,927	10,569	10,840

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