

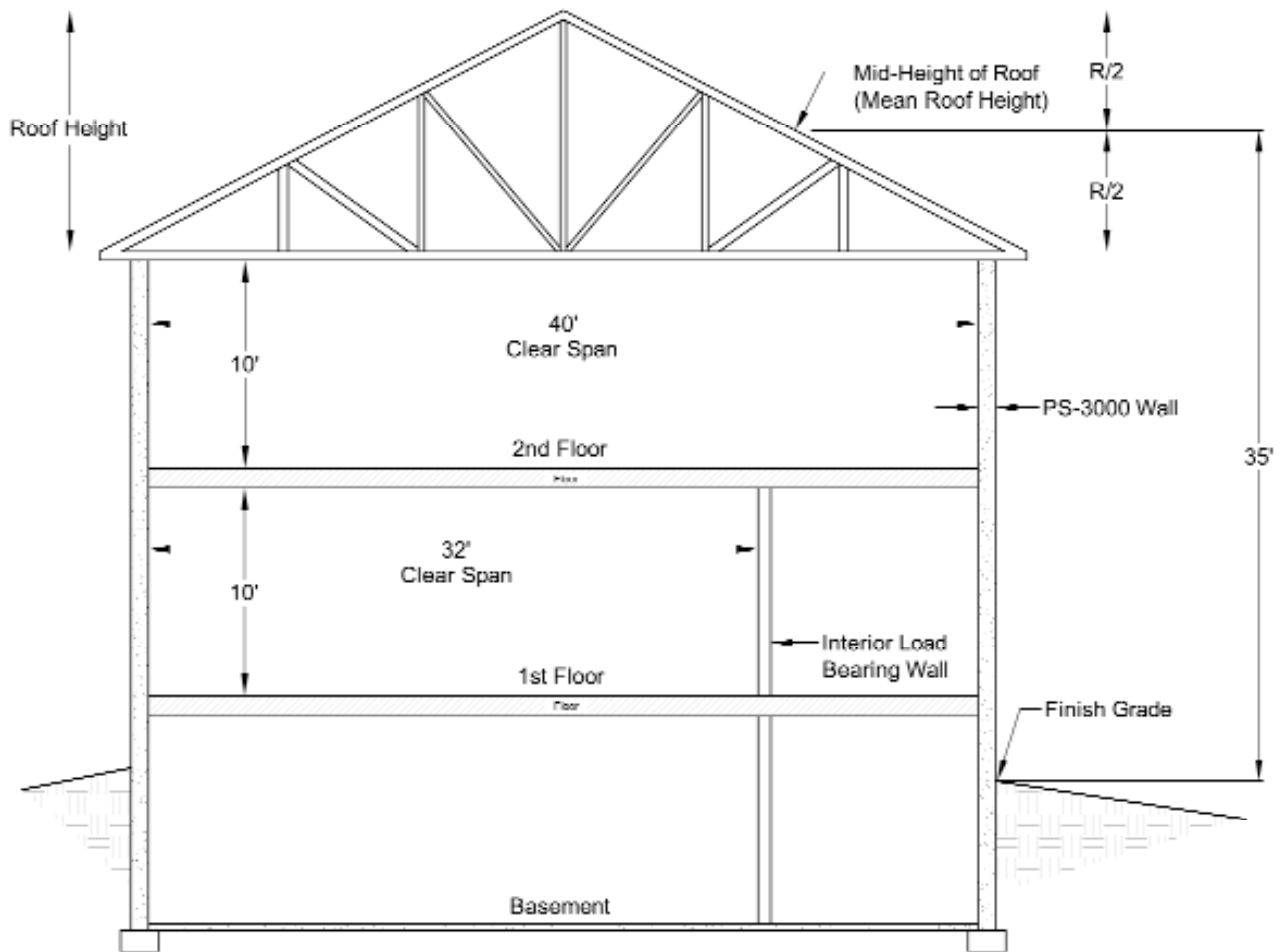
TABLE D-1
POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS
Applicability Limits

Given:

Grade 60 Rebar ($f_y=60,000$ psi)

Concrete Strength $f'_c = 2,500$ psi for Seismic Design Categories A, B, and C

Concrete Strength $f'_c = 3,000$ psi for Seismic Design Categories D1 and D2



Building Section

TABLE D-1 **POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS**

Given:

Grade 60 Rebar ($f_y=60,000$ psi)

Concrete Strength $f'_c = 2,500$ psi for Seismic Design Categories A, B, and C

Concrete Strength $f'_c = 3,000$ psi for Seismic Design Categories D1 and D2

FOR 1- STORY (OR TOP STORY OF 2-STORY)

		6" PS-3600		8" PS-3800		10" PS-3100	
Wind Speed (mph)	Design Wind Pressure	Seismic Design Category A,B,C	Seismic Design Category D1 & D2	Seismic Design Category A,B,C	Seismic Design Category D1 & D2	Seismic Design Category A,B,C	Seismic Design Category D1 & D2
85	24 psf	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
90	27 psf	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
100	34 psf	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
110	41 psf	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
120	48 psf	#4 @ 24"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
130	56 psf	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"
140	65 psf	#4 @ 24"	#4 @ 12"	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"
150	75 psf	#4 @ 24"	#4 @ 12"	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"

FOR BOTTOM STORY OF 2-STORY (NOT FOR BASEMENTS)

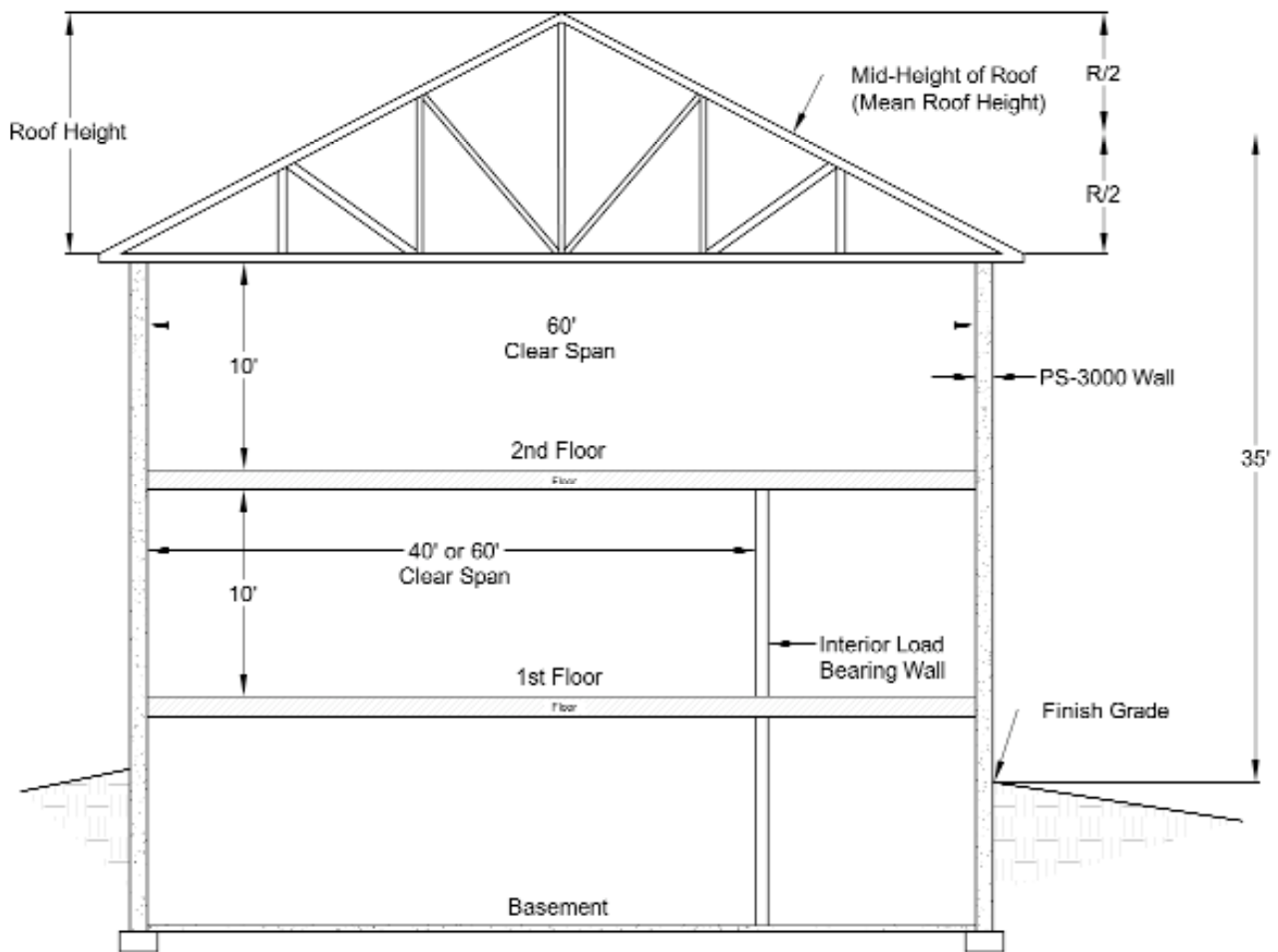
		6" PS-3600		8" PS-3800		10" PS-3100	
Wind Speed (mph)	Design Wind Pressure	Seismic Design Category A,B,C	Seismic Design Category D1 & D2	Seismic Design Category A,B,C	Seismic Design Category D1 & D2	Seismic Design Category A,B,C	Seismic Design Category D1 & D2
85	24 psf	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
90	27 psf	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
100	34 psf	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
110	41 psf	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
120	48 psf	#4 @ 24"	#4 @ 12"	#4 @ 48"	#4 @ 12"	#4 @ 48"	#4 @ 12"
130	56 psf	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"	#4 @ 48"	#4 @ 12"
140	65 psf	#4 @ 24"	#4 @ 12"	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"
150	75 psf	#4 @ 12"	#4 @ 12"	#4 @ 24"	#4 @ 12"	#4 @ 36"	#4 @ 12"

NOTES:

- Horizontal Minimum Rebar Requirements:
Seismic Design Category A, B, and C : #4 @ 48" o.c.
Seismic Design Category D1 and D2 : #5 @ 16" o.c.
- This table is applicable to one and two family detached dwellings.
- Table assumes maximum roof clear span of 40 feet and floor clear span of 32 feet (see accompanying sketch)
- Table assumes unsupported wall heights do not exceed 10 feet from floor to ceiling.
- Table assumes the following gravity design loads: (lbs/ft² = psf)
Roof Live (Snow) Load = 70 lbs/ft²
Attic Live Load = 20 lbs/ft²
Floor Live Load = 40 lbs/ft²
Roof and Floor Dead Load = 15 lbs/ft²
- The wind speed and corresponding design wind pressures are based on ASCE 7-98, components and cladding using a mean roof height of 35 feet and a tributary area of 10 ft², enclosed building classification, exposure "C" category, importance factor $I = 1.0$ and $K_d = 1.0$
- Where openings occur, additional rebar is required around openings per design code (ACI-318) requirements

TABLE D-2
POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS
Applicability Limits

Given:
Grade 40 Rebar ($f_y=40,000$ psi)



Building Section

TABLE D-2 POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS

Given:

Grade 40 Rebar ($f_y=40,000$ psi)

FOR 1- STORY (OR TOP OF 2-STORY)

Spans Between Bearing Walls	6 inch Forms		8 inch Forms	
	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2 & 3)	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2 & 3)
0 to 60 feet	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.

FOR BOTTOM STORY OF 2-STORY (NOT FOR BASEMENTS)

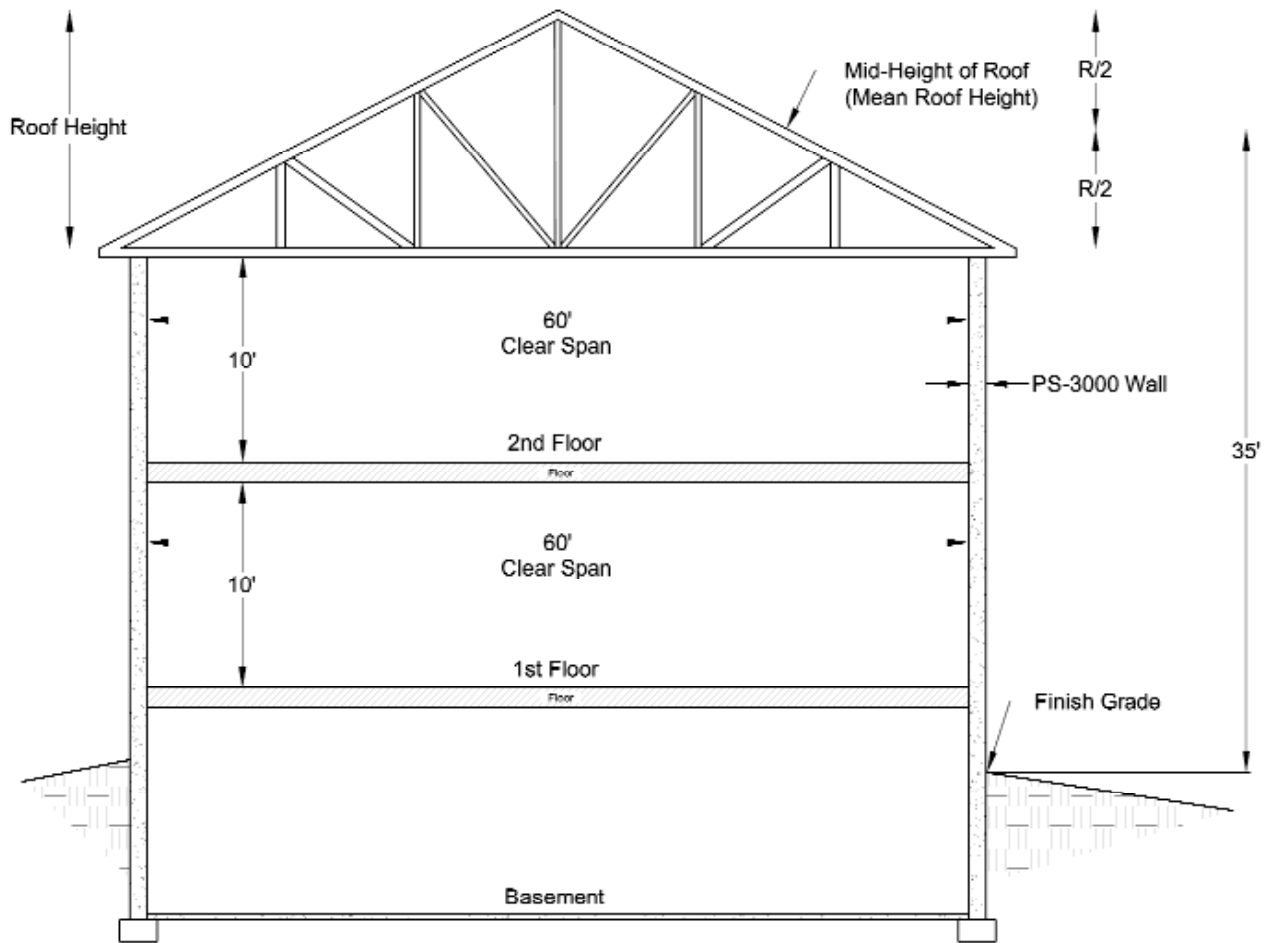
Spans Between Bearing Walls	6 inch Forms		8 inch Forms	
	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2 & 3)	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2 & 3)
0 to 40 feet	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.	V = #4 @ 24" O.C.	V = #4 @ 12" O.C.
40 to 60 feet	V = #5 @ 24" O.C. H = #4 @ 48" O.C.		H = #4 @ 48" O.C."	H = #5 @ 16" O.C.

NOTES:

1. V = Vertical Reinforcement, H = Horizontal Reinforcement."
2. Table requires a minimum of 2,500 psi concrete.
Specify 3,000 psi for construction in Seismic Design Category D1 & D2 areas
3. Table requires a minimum rebar of Grade 40 for design.
Specify Grade 60 rebar for construction in Seismic Design Category D1 & D2 areas.
4. Table assumes a wind speed of 100 mph (design wind load 34.7 lbs/ft²).
5. Table assumes unsupported wall heights that do not exceed 10 feet from floor to ceiling.
6. Table assumes a roof live load (snow load) of 70 lbs/ft and a floor live load of 40 lbs/ft².
7. Table assumes roof and floor dead loads of 15 lbs/ft².
8. Table should not be used for basements.

TABLE D-3
POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS
Applicability Limits

Given:
Grade 60 Rebar ($f_y=60,000$ psi)



Building Section

TABLE D-3 POLYSTEEL® RESIDENTIAL REBAR REQUIREMENTS

Given:

Grade 60 Rebar ($f_y=60,000$ psi)

FOR 1- STORY (OR TOP OF 2-STORY)

Spans Between Bearing Walls	6 inch Forms		8 inch Forms	
	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2)	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2)
0 to 60 feet	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.

FOR BOTTOM STORY OF 2-STORY (NOT FOR BASEMENTS)

Spans Between Bearing Walls	6 inch Forms		8 inch Forms	
	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2)	Seismic Design Category A, B, C	Seismic Design Category D1 & D2 (Note 2)
0 to 60 feet	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.	V = #4 @ 24" O.C. H = #4 @ 48" O.C.	V = #4 @ 12" O.C. H = #5 @ 16" O.C.

NOTES:

1. V = Vertical Reinforcement, H = Horizontal Reinforcement."
2. Table requires a minimum of 2,500 psi concrete.
Specify 3,000 psi for construction in Seismic Design Category D1 & D2 areas
3. Table requires a minimum rebar of Grade 60.
4. Table assumes a wind speed of 100 mph (design wind load 34.7 lbs/ft²).
5. Table assumes unsupported wall heights that do not exceed 10 feet from floor to ceiling.
6. Table assumes a roof live load (snow load) of 70 lbs/ft² and a floor live load of 40 lbs/ft².
7. Table assumes roof and floor dead loads of 15 lbs/ft².
8. Table should not be used for basements.