

## В-4.1. Таблицы по подбору армирования стен выше уровня грунта

Следующие Таблицы взяты из «Предписывающий метод для изоляционных бетонных опалубок используемых в жилищном строительстве. Второе издание» (RATH, Январь 2002) [1] и могут быть использованы в пределах допущений и ограничений включенных в этот документ. Эти таблицы не могут использоваться, если они противостоят местным строительным кодексам или инженерным расчетам, выполненным в конкретном проекте.

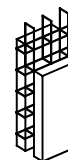
**Применяются только для малоэтажных жилых зданий.**

Table B-4.1.1.

### Minimum Horizontal Reinforcement for Flat ICF Above-Grade Walls

| Minimum Concrete Core Thickness ( mm. ) | Maximum Height of Wall Story ( mm. ) | Location of Horizontal Reinforcement                                                                                                                                      |
|-----------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 100                                     | 2400                                 | One 15M bar within 400 mm of top of the wall story, one 15M rebar within 400 mm from the finish floor, and 15M bar near third points throughout the remainder of the wall |
|                                         | 2700                                 |                                                                                                                                                                           |
|                                         | 3000                                 |                                                                                                                                                                           |
| 150                                     | 2400                                 |                                                                                                                                                                           |
|                                         | 2700                                 |                                                                                                                                                                           |
|                                         | 3000                                 |                                                                                                                                                                           |
| 200                                     | 2400                                 |                                                                                                                                                                           |
|                                         | 2700                                 |                                                                                                                                                                           |
|                                         | 3000                                 |                                                                                                                                                                           |

Horizontal reinforcement requirements minimum yield strength of 400 MPa  
Concrete compressive strength 17.6 MPa



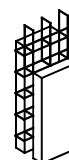
## Minimum Vertical Wall Reinforcement for Flat ICF Above-Grade Walls

Диаметр арматуры 10M = Ø11.3мм; 15M = Ø16мм; 20M = Ø19.5мм

Table B-4.1.2.

| Design Wind Pres. (kPa) | Max. Wall Height per Story (mm) | Minimum Vertical Reinforcement   |                    |                    |                                              |                    |                    |                                                  |                    |                    |
|-------------------------|---------------------------------|----------------------------------|--------------------|--------------------|----------------------------------------------|--------------------|--------------------|--------------------------------------------------|--------------------|--------------------|
|                         |                                 | Supporting Light-Frame Roof Only |                    |                    | Supporting Light-Frame Second Story and Roof |                    |                    | Supporting ICF Second Story and Light-Frame Roof |                    |                    |
|                         |                                 | Minimum Wall Thickness (mm)      |                    |                    |                                              |                    |                    |                                                  |                    |                    |
|                         |                                 | 100                              | 150                | 200                | 100                                          | 150                | 200                | 100                                              | 150                | 200                |
| 0.96                    | 2400                            | 10M@800                          | 10M@800            | 10M@800            | 10M@800                                      | 10M@800            | 10M@800            | 10M@800                                          | 10M@800            | 10M@800            |
|                         | 2700                            | 10M@800                          | 10M@800            | 10M@800            | 10M@800                                      | 10M@800            | 10M@800            | 10M@800                                          | 10M@800            | 10M@800            |
|                         | 3000                            | 10M@600                          | 10M@800            | 10M@800            | 10M@800                                      | 10M@800            | 10M@800            | 10M@800                                          | 10M@800            | 10M@800            |
| 1.44                    | 2400                            | 10M@800                          | 10M@800            | 10M@800            | 10M@800                                      | 10M@800            | 10M@800            | 10M@800                                          | 10M@800            | 10M@800            |
|                         | 2700                            | 10M@600                          | 10M@800            | 10M@800            | 10M@600                                      | 10M@800            | 10M@800            | 10M@600                                          | 10M@800            | 10M@800            |
|                         | 3000                            | Design Required                  | 10M@600            | 10M@800            | Design Required                              | 10M@600            | 10M@800            | Design Required                                  | 10M@600            | 10M@800            |
| 1.91                    | 2400                            | 10M@600                          | 10M@600            | 10M@800            | 10M@600                                      | 10M@800            | 10M@800            | 10M@600                                          | 10M@800            | 10M@800            |
|                         | 2700                            | Design Required                  | 10M@600            | 10M@800            | Design Required                              | 10M@600            | 10M@800            | Design Required                                  | 10M@600            | 10M@800            |
|                         | 3000                            | Design Required                  | 10M@400            | 10M@600            | Design Required                              | 10M@400            | 10M@800            | Design Required                                  | 10M@400            | 10M@800            |
| 2.39                    | 2400                            | 10M@400                          | 10M@600            | 10M@800            | 10M@400                                      | 10M@600            | 10M@800            | 10M@400                                          | 10M@600            | 10M@800            |
|                         | 2700                            | Design Required                  | 10M@400            | 10M@600            | Design Required                              | 10M@400            | 10M@800            | Design Required                                  | 10M@400            | 10M@800            |
|                         | 3000                            | Design Required                  | Design Required    | 10M@600            | Design Required                              | Design Required    | 10M@600            | Design Required                                  | Design Required    | 10M@600            |
| 2.87                    | 2400                            | Design Required                  | 10M@400            | 10M@800            | Design Required                              | 10M@400            | 10M@800            | Design Required                                  | 10M@600            | 10M@800            |
|                         | 2700                            | Design Required                  | Design Required    | 10M@600            | Design Required                              | Design Required    | 10M@600            | Design Required                                  | Design Required    | 10M@600            |
|                         | 3000                            | Design Required                  | Design Required    | 10M@400            | Design Required                              | Design Required    | 10M@400            | Design Required                                  | Design Required    | 10M@400            |
| 3.35                    | 2400                            | Design Required                  | 10M@400            | 10M@600            | Design Required                              | 10M@400            | 10M@600            | Design Required                                  | 10M@600            | 10M@800            |
|                         | 2700                            | Design Required                  | Design Required    | 10M@400            | Design Required                              | Design Required    | 10M@400            | Design Required                                  | Design Required    | 10M@400            |
|                         | 3000                            | Design Required                  | Design Required    | 10M@200<br>15M@400 | Design Required                              | Design Required    | 10M@400            | Design Required                                  | Design Required    | 10M@400            |
| 3.83                    | 2400                            | Design Required                  | 10M@200<br>15M@400 | 10M@600            | Design Required                              | 10M@200<br>15M@400 | 10M@400            | Design Required                                  | 10M@200<br>15M@400 | 10M@600            |
|                         | 2700                            | Design Required                  | Design Required    | 10M@600            | Design Required                              | Design Required    | 10M@400            | Design Required                                  | Design Required    | 10M@400            |
|                         | 3000                            | Design Required                  | Design Required    | 10M@200<br>15M@400 | Design Required                              | Design Required    | 10M@200<br>15M@400 | Design Required                                  | Design Required    | 10M@200<br>15M@400 |

1. This table based on Reinforcing bars with a minimum yield strength of 400 MPa, and Concrete F'c = 17.6 Mpa.
2. Deflection criterion is L/240, where L is the height of the wall story in inches.
3. Interpolation shall not be permitted.
4. Calculations are based on maximum two floors above the basement.



## В-4.2. Таблицы по подбору армирования стен выше уровня грунта во всех сейсмических зонах

Table B-4.2.1.

| Supporting Condition                               | Wall Height (mm) | Maximum of Vertical Reinforcement |         |         | Maximum of Horizontal Reinforcement |         |         |
|----------------------------------------------------|------------------|-----------------------------------|---------|---------|-------------------------------------|---------|---------|
|                                                    |                  | Minimum Wall Thickness ( mm )     |         |         |                                     |         |         |
|                                                    |                  | 100                               | 150     | 200     | 100                                 | 150     | 200     |
| Roof or Non –Load Bearing Wall                     | 2400             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3000             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3700             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
| Concrete Floor & Second Story Light Frame & Roof   | 2400             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3000             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3700             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
| Concrete Floor & Second Story Concrete Wall & Roof | 2400             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3000             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |
|                                                    | 3700             | 20M@400                           | 15M@400 | 15M@400 | 10M@400                             | 15M@400 | 15M@400 |

1. Applicable to all seismic zones, and maximum factored wind pressure = 3.15 kPa.
2. This table based on Reinforcing bars with a minimum yield strength of 400 MPa, and Concrete F'c = 20 Mpa.
3. Calculations are based on maximum two floors above the basement.

