



# Building Guide

## ILLOWA Chapter of ICC

### FOUNDATION PLAN

#### Single Family Dwelling



## How to use this guide:

This guide was designed to assist contractors to create a construction plan for a foundation using prescriptive construction methods. Non-conventionally constructed foundations may require a design professional. Fill in the blanks below. Method being used (circle one): 2009 IRC; ACI-332-10; or ILLOWA approved handout.

### Footings

1. Identify footing Size \_\_\_\_\_ X \_\_\_\_\_ (per IRC table 403.1)
2. Identify number \_\_\_\_\_ and size of bars # \_\_\_\_\_
3. Ufer ground type and location \_\_\_\_\_ (see Ufer handout)

**NOTE:** Footing must be a minimum 42" below final grade. Footings must be placed at least 12" below undisturbed ground surface (IRC 403.1.4).

### Foundation Walls

#### Details:

Soil Type (per IRC table 405.1): \_\_\_\_\_  
 Soil-bearing capacity: \_\_\_\_\_  
 Fluid pressure of soil: \_\_\_\_\_  
 Rebar yield strength: \_\_\_\_\_  
 Concrete compressive strength: \_\_\_\_\_

#### Wall Type 2:

Wall Thickness: \_\_\_\_\_  
 Wall Height: \_\_\_\_\_  
 Max depth below grade: \_\_\_\_\_  
 Min depth below grade: \_\_\_\_\_  
 Horizontal Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.  
 Vertical Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.

#### Wall Type 1:

Wall Thickness: \_\_\_\_\_  
 Wall Height: \_\_\_\_\_  
 Max depth below grade: \_\_\_\_\_  
 Min depth below grade: \_\_\_\_\_  
 Horizontal Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.  
 Vertical Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.

#### Wall Type 3:

Wall Thickness: \_\_\_\_\_  
 Wall Height: \_\_\_\_\_  
 Max depth below grade: \_\_\_\_\_  
 Min depth below grade: \_\_\_\_\_  
 Horizontal Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.  
 Vertical Bars: # \_\_\_\_\_ @ \_\_\_\_\_ inches O.C.

### Foundation Drainage

1. Identify drainage system to be used \_\_\_\_\_ (per IRC 405)
2. Identify waterproofing system to be used \_\_\_\_\_ (per IRC 406)

**NOTE:** The grade shall fall 6" within the first 10 feet away from the building (IRC 401.3). Drains shall be provided around all concrete or masonry foundations that retain earth and enclose all habitable or usable spaces located below grade (IRC 405.1)

#### Notes:

- Bars shall be secured in proper location in the forms with tie wire to prevent displacement during the pour. (IRC 404.1.2.3.7.4)
- Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above (IRC 404.1.7)
- Form oil shall be applied to forms only. Any oil on bars shall require the bars to be replaced before pouring.
- Verify that soils have been tested for expansive, compressible, shifting or other soil characteristics.
- In lieu of a complete geotechnical evaluation, the load bearing values of IRC table 401.4.1 shall be assumed.

DISCLAIMER: ILLOWA Chapter of the ICC has created this handout to assist with plans submittal under the 2009 International Residential Code, and it is not intended to cover all circumstances. Please check with the Department of Building Safety for additional requirements.