The State of North Dakota requires that you call 1-800-795-0555 at least two business days before you dig.

This handout does not address any covenants or easements assigned to the property, nor does it relieve you of code compliance with items which may not have been included from the International Codes.

REQUIREMENTS TO OBTAIN A BUILDING PERMIT FOR FLOOD PROOF CONSTRUCTION
ALL PLANS MUST BE DRAWN TO SCALE

1. Floodproofing Certification Form from a State of North Dakota registered professional engineer. Required before Permit issuance.

2. Plot plan showing existing elevations of property.

3. Plot plan showing exact location of new building or addition and existing buildings.

4. Floor plan(s) of new building(s).

5. Elevation views of all sides of building. Elevation plans must show grade.

6. Foundation wall sections showing required construction details per City flood proof specifications. (See enclosed details.)

7. Foundation plans showing drain tile location and footings.

THE FOLLOWING ITEMS ARE INCLUDED IN THIS PACKET

A. Foundation details from floodproofing code.

B. Inspection log for foundation. Inspections will be completed by Inspection Department.

C. Flood Hazard Acknowledgement form to be completed prior to permit issuance.

D. FEMA Residential Floodproofing Certificate.

A CERTIFICATE OF OCCUPANCY WILL BE REQUIRED BEFORE BUILDING OCCUPANCY
CITY OF FARGO POLICY STATEMENT FOR FLOODPROOFING ELEVATION REQUIREMENTS

Referenced to the following:
Fargo Municipal Code Article 21-06 (Flood Plain Management)
Floodproofing Code of the City of Fargo, North Dakota, prepared by Moore Engineering, Inc., Revised December 9, 1975

Applicable to the following:
This Policy Statement shall regulate development within City of Fargo City Limits and Extra Territorial Areas. The specific areas governed, by this policy are the FEMA 1% annual chance floodplain and the 41-foot water surface elevation inundation area.

I. All Structures

All structures, including but not limited to, residential, commercial, and industrial construction within the city limits and extra territorial areas shall meet the following requirements:

A. Floodway Setback
   All structures must be set back 100' from floodway line

B. Watercourse Setbacks
   All provisions of the Minimum and Limited Disturbance Setbacks zones as identified under City ordinance #4818 shall be met.

C. Primary Flood Protection Line
   1. All properties adjacent to a river, drainage ditch or other flooding source, as determined by the City Engineer, must include a primary flood protection line.
   2. Primary flood protection line elevation shall be FEMA Base Flood Elevation (BFE) plus 4.0'.
   3. Primary flood protection line must be constructed throughout a proposed development (not on a lot by lot basis) prior to issuance of any building permits.
      a. Plats approved by City Commission prior to March 4, 2014 may have a primary flood protection line constructed on a lot by lot basis. Protection line must be completed at the time of issuance of occupancy certificate.
   4. Primary flood protection line shall be constructed according to the City of Fargo Standard Specifications, Section 3600.

D. Letter of Map Revisions (LOMR)
The City of Fargo encourages construction outside of the FEMA Special Flood Hazard Area (SFHA) and requires removal from the SFHA by Letter of Map Revision (LOMR) via fill or ring dike.
   1. All fill placement shall follow the current City of Fargo Standard Specifications, Section 3600.
   2. No more than five feet (5') of fill may be placed for buildings in areas removed from FEMA SFHA by LOMR
      a. Fill in excess of five feet may be permitted, provided the fill is Engineered fill designed by a State of North Dakota registered professional engineer and the design plan is provided to the City in advance of construction.
   3. All structures constructed within LOMR areas must meet all floodproofing codes.
E. Infrastructure Elevations
1. All streets are to be constructed to a minimum of FEMA BFE minus 0.5’ at the low point (Back of Curb to be at FEMA BFE)
2. All sanitary sewer facilities, including private sewer connection manholes, cleanouts, etc. must be protected to an elevation equal to the FEMA BFE. Protection measures include sealing and/or elevating.
3. Storm sewer system shall be protected by infrastructure designed to be at or above an elevation of FEMA BFE plus 5.0’

F. Certifications
1. Elevation Certificates are required for all flood proofed structures.
2. Elevation Certificates for existing non flood proofed structures may be required if the structure is located in the FEMA SFHA.
3. Pre-Construction Floodproof Certification Form from FEMA is required for floodproof foundations, and must be provided to the City at the time the Building Permit is requested.

II. Single Family and Multi-Family Residential Structures Within 41-foot Water Surface Elevation Inundation Area (WSEIA) (See Exhibit A)

All construction within the 41-foot WSEIA as determined by the City Engineer shall meet all floodproofing codes, in addition to the following elevation and fill requirements:

A. Elevations
   Lowest opening including area walls Equal to 41-foot WSEIA plus 1.2’
   Fill around building Equal to 41-foot WSEIA plus 0.7’
   Fill 15’ away from buildings At or above FEMA BFE

B. All underground parking must meet floodproofing codes, including the above specified elevation and fill requirements.

III. Single Family and Multi Family Residential Structures Outside the 41- foot WSEIA

A. Elevations
   Lowest opening including area walls Equal to 41-foot WSEIA plus 1.2’
   Fill around building Equal to 41-foot WSEIA plus 0.7’

B. Foundations
   No special requirements

IV. All Structures (Excluding Residential) Within the FEMA 1% Annual Chance Floodplain (See Exhibit A)

All construction within the FEMA 1% annual chance floodplain as determined by the City Engineer shall meet all floodproofing codes, in addition to the following elevation and fill requirements:

A. Elevations
   Lowest opening including area walls Equal to 41-foot WSEIA plus 1.2’
   Fill around building Equal to 41-foot WSEIA plus 0.7’
Fill 15’ away from buildings At or above FEMA BFE

B. All underground parking must meet floodproofing codes including specified elevation and fill requirements.

C. Structures within a contemplated LOMR area with a proposed depressed loading dock will be allowed to have the loading dock area below the specified adjacent ground elevations if the building is a slab on grade with the lowest finished floor elevation of the structure at the WSEIA plus 1.2’.

V. All Structures (Excluding Residential) Outside of the FEMA 1% annual chance floodplain (See Exhibit B)

A. Elevations
   Lowest opening including area walls Equal to 41-foot WSEIA plus 1.2’
   Fill around building Equal to 41-foot WSEIA plus 0.7’

B. Foundations
   Setback dimensions are determined by the FEMA 1% annual chance floodplain polygon edges.
   1. If building within 25-feet of the FEMA 1% chance floodplain, all construction must conform to all floodproof codes.
   2. If building within 50-feet of the FEMA 1% chance floodplain, standard concrete foundations are required, floodproof construction is recommended.
   3. If building is more than 50-feet from the FEMA 1% chance floodplain, there are no special requirements although floodproof construction is recommended.

VI. Floodproof Foundations

A. Additional concrete reinforcing requirements
   1. Place three additional horizontal rebar at the corners of the foundation wall (#4 "L" rebar 36” x 36”).
   2. Place diagonal rebar (#4 x 36”) at bottom corners of basement window penetrations.
MDZS: Minimum Disturbance Zone Setback
350' from River Q or Floodway
(whichever is greater)

LDZS: Limited Disturbance Zone Setback
MDZS + 100'

Single Family & Multi Family Residential Structures
within the 41.1 foot Water Surface Elevation Inundation Area

Non Residential Structures
within the FEMA 1% Annual Chance Floodplain

Scale: NTS
Flood Proofing Construction Requirements Exhibit "A"
MDZS: Minimum Disturbance Zone Setback
350’ from River Q or Floodway
(whichever is greater)

LDZS: Limited Disturbance Zone Setback
MDZS + 100’

Non Residential Structures
within 50’ of the FEMA 1% Annual Chance Floodplain

Scale: NTS

Flood Proofing Construction Requirements Exhibit "B"
WINDOW WELL DETAIL

#4 hooked dowel x 24" @ 6'. See section

2" x 4" opening through footing @ 6'

#6 Continuous

See section
FOOTING AND FOUNDATION WALL PLAN

Note: Contractor may use continuous footings or sufficient pad footings as required.
1/2" x 12" Hooked anchor bolt, 6' O.C.

7' 6" or 8' Typical; 9' Maximum

2-Coat Foundation coating (Waterproofing, see Section 606)

Note: Install #4 rebar 2" from inside and outside wall around windows. #4 rebar to extend 12" beyond opening and to be placed 2" from edge of opening. Reinforcing steel shown is the minimum required.

TYPICAL WALL SECTION

12" Fill – Sand, Pea Gravel, or Crushed Rock

4" Approved Drain Tile

Consolidated Pea Rock or Larger

3 #4 Rebars
Approximately 24" spacing or as required by the jurisdiction

#4 Rebar - Vertical, 2' O.C. or as req. by jurisdiction

#10 6x6 Welded Wire Mesh

Floor

12" 5" 12"

2 #4 Rebar Minimum

12" 1' 6"

2 #4 Rebar x 24" Hooked Dowel, 6' O.C.

6" Min

5% Slope Minimum

Finished Grade
DEEP WINDOW WELL

1/2" x 12" Hooked Anchor Bolt 6' OC

5% Slope, Minimum

10" #4 Rebar x 2' Hooked Dowel 6' O.C.

4" Conc. Floor

4" Fill Sand

4" Approved Drain Tile

Consolidated Pea Rock or Larger

Note:
Window wells less than 7' wide require a 6" wall. Wells over 7' wide require an 8" wall.
FLOOD PROOFING INSPECTION CARD*

Owner: _______________________________________________________________

Address:________________________________________________________________

100 Year Flood Elevation:_____________ Flood Protection Elevation: ____________

Elevation Certification "Flood Protection Elevation"

Point of Risk: ____________________________________________________________

Inspector: ________________________________________ Date:________________

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Date</th>
<th>Inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Footing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Foundation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Waterproofing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drain Tile</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sewer Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sewer Valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Concrete Floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESIDENTIAL BASEMENT FLOODPROOFING CERTIFICATE

For use ONLY in communities that have been granted an exception by FEMA to allow the construction of floodproofed residential basements in Special Flood Hazard Areas.

BUILDING OWNER’S NAME

FOR INSURANCE COMPANY USE
Policy Number

BUILDING STREET ADDRESS (Including Apt., Unit Number)

Company NAC Number

OTHER DESCRIPTION (Lot and Block Numbers, etc.)

CITY

STATE

ZIP CODE

SECTION I – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

provide the following from the FIRM and flood profile (from Flood Insurance Study)

COMMUNITY NUMBER

PANEL NUMBER

SUFFIX

DATE OF FIRM

ZONE

BASE FLOOD ELEVATION (IN AO ZONES, USE DEPTH)

NAME OF FLOODING SOURCE(S) AFFECTING BUILDING

SECTION II – FLOODPROOFING INFORMATION

(By a Registered Professional Engineer or Architect)

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of ____________ feet.
(Elevation datum used must be the same as that on the FIRM.)

Elevation of the top of the basement floor is ____________ feet.
(Note: The floodproofing design elevation must be at least one foot above the Base Flood Elevation [BFE])

SECTION III – CERTIFICATION

(By a Registered Professional Engineer or Architect)

Residential Floodproofed Basement Construction Certification:

I certify that, based upon development and/or review of structural design specifications, and plans for construction, including consideration of the depth, velocity, and duration of flooding and the type and permeability of soils at the site, the design and methods of construction of the floodproofed basement to be used are in accordance with accepted standards of practice for meeting the following provisions:

• Basement area, together with attendant utilities and sanitary facilities, is watertight to the floodproofing design elevation with walls that are impermeable to the passage of water without human intervention; and

• Basement walls and floor are capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from flooding to the floodproofing design elevation; and have been designed so that minimal damage will occur from floods that exceed the floodproofing design elevation; and

• Building design, including the floodproofing design elevation, complies with community requirements.

I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code Section 1001.

CERTIFIER’S NAME

LICENSE NUMBER (or affix Seal)

TITLE

COMPANY NAME

ADDRESS

CITY

STATE

ZIP

SIGNATURE

PHONE NO.

DATE

Copies of this certificate must be given to: 1) the community official; 2) the insurance agent; and 3) the building owner.
Public reporting burden for this data collection is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this Residential Basement Floodproofing Certificate. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of this Residential Basement Floodproofing Certificate.

Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0033) NOTE: Do not send your completed form to this address.