Flood Proof Construction Requirements

CITY OF REILE'S ACRES
BUILDING INSPECTION
Updated 21 February 2017

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 FLOODPROOF CONSTRUCTION

ALL PLANS MUST BE DRAWN TO SCALE

1. Floodproofing Certification Form from a State of North Dakota registered professional engineer, surveyor, or architect. 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 two sides of the 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 and basement wall structural details

B. **For informational purposes only –** Inspection log for foundation. Actual log is completed electronically and done by City of Reile's Acres Inspection Department.

C. FEMA Residential Floodproofing Certificate.

D. FEMA Non-Residential Floodproofing Certificate.

A CERTIFICATE OF OCCUPANCY WILL BE REQUIRED BEFORE BUILDING OCCUPANCY

CITY OF REILE'S ACRES POLICY STATEMENT FOR FLOODPROOFING ELEVATION REQUIREMENTS

Applicable to the following:

This Policy Statement shall regulate development within City of Reile's Acres City Limits and Extra Territorial Areas. The specific areas governed, by this policy are the FEMA 1% annual chance floodplain and the 895.6 ft 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 Municipal Code §20-0508 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 Reile's Acres Standard Specifications, Section 3600.

D. Letter of Map Revisions (LOMR)

The City of Reile's Acres 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. 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.
2. 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 895.6-foot Water Surface Elevation Inundation Area (WSEIA) (See Exhibit A)

All construction within the 895.6-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 895.6-foot WSEIA plus 1.2' Or equal to FEMA BFE plus 2.0'
• *Fill around building	Equal to 895.6-foot WSEIA plus 0.7' Or equal to FEMA BFE plus 1.5'
• Fill 15' away from buildings	At or above FEMA BFE

* Highest elevation of the two shall govern required minimum elevations

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

C. Elevations of detached, non-primary, slab on grade structures located on single and multi-family lots shall have the elevation of the finished floor to be at or above the FEMA BFE plus 1.0'.

III. Single Family and Multi Family Residential Structures Outside the 895.6- foot WSEIA

A. Elevations

Lowest opening including area walls	Equal to 895.6-foot WSEIA plus
Fill around building	Equal to 895.6-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 895.6-foot WSEIA plus 1.2' Or equal to FEMA BFE plus 2.0'
• *Fill around building	Equal to 895.6-foot WSEIA plus 0.7' Or equal to FEMA BFE plus 1.5'
• Fill 15' away from buildings	At or above FEMA BFE

* Highest elevation of the two shall govern required minimum elevations

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 895.6-foot WSEIA plus 1.2'
Fill around building	Equal to 895.6-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.

Structural Design Requirements

Floodproofed in Basements
Reile's Acres, ND

Reile's Acres
Inspections Department
4635 35th Ave North
Reile's Acres, ND 58102

Appendix A

Tables and Figures

Table 1A: Minimum Reinforcement Requirements for Floodproofed Basement Walls - Full Height Walls (65 pcf)

Case A: Allows for minimum anchorage at the top of the wall

Case B: Allows for maximum spacing between perpendicular walls

Wall Height (ft)	Case	Wall Thickness (in)	Vertical Reinforcing	Horizontal Reinforcing	Maximum Horizontal Distance between Perpendicular Foundation Walls (ft)[7]	Dowel Spacing (ft)
7.5	A	8	# 4 @ 24 " o.c.	# 4 @ 18 " o.c. # 5 @ 28 " o.c. # 6 @ 40 " o.c.	7.5	4'-0" o.c.
		10		# 4 @ 12 " o.c. # 5 @ 18 " o.c. # 6 @ 28 " o.c.		
		12		# 4 @ 9 " o.c. # 5 @ 15 " o.c. # 6 @ 21 " o.c.		
	B	8	# 4 @ 22 " o.c. # 5 @ 30 " o.c. # 6 @ 44 " o.c.	# 4 @ 24 " o.c.	15	1'-10" o.c.
		10	# 4 @ 24 " o.c. # 5 @ 36 " o.c. # 6 @ 52 " o.c.			
		12	# 4 @ 18 " o.c. # 5 @ 28 " o.c. # 6 @ 38 " o.c.			
8	A	8	# 4 @ 24 " o.c.	# 4 @ 18 " o.c. # 5 @ 28 " o.c. # 6 @ 40 " o.c.	8	2'-0" o.c.
		10		# 4 @ 12 " o.c. # 5 @ 18 " o.c. # 6 @ 28 " o.c.		
		12		# 4 @ 9 " o.c. # 5 @ 15 " o.c. # 6 @ 21 " o.c.		
	B	8	# 4 @ 18 " o.c. # 5 @ 26 " o.c. # 6 @ 40 " o.c.	# 4 @ 24 " o.c.	16	1'-6" o.c.
		10	# 4 @ 24 " o.c. # 5 @ 36 " o.c. # 6 @ 52 " o.c.			
		12	# 4 @ 18 " o.c. # 5 @ 28 " o.c. # 6 @ 38 " o.c.			
9	A	8	# 4 @ 24 " o.c.	# 4 @ 14 " o.c. # 5 @ 22 " o.c. # 6 @ 28 " o.c.	9	2'-0" o.c.
		10		# 4 @ 12 " o.c. # 5 @ 18 " o.c. # 6 @ 28 " o.c.		
		12		# 4 @ 9 " o.c. # 5 @ 15 " o.c. # 6 @ 21 " o.c.		
	B	8	# 4 @ 12 " o.c. # 5 @ 18 " o.c. # 6 @ 26 " o.c.	# 4 @ 24 " o.c.	18	1'-0" o.c.
		10	# 4 @ 16 " o.c. # 5 @ 24 " o.c. # 6 @ 36 " o.c.			
		12	# 4 @ 18 " o.c. # 5 @ 28 " o.c. # 6 @ 38 " o.c.			

Notes:

1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).
2. Reinforcing steel shall be ASTM A615 with a yield stress, F_y, of 60,000 pounds per square inch (psi).
3. Vertical reinforcing bars shall be placed between 1-1/2 and 2-1/2 inches from the inside face of the wall.
4. Minimum concrete strength, f'_c, shall be 3,000 pounds per square inch (psi).
5. Maximum height of soil against foundation walls is 6 inches below top of wall.
6. Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced.
7. Minimum length of perpendicular wall or "jog" shall be 2 feet. Perpendicular wall shall be the same thickness and reinforcing as wall it supports, and may be up to 1'-0" less in height than foundation wall. Perpendicular walls must be placed on minimum 1'-8" strip footing placed integral with foundation wall footing. Window wells are considered to be a perpendicular wall.
8. Refer to Table 1B for connection requirements at the top of the wall.
9. Refer to Figure 1 for basement wall detail.
10. Refer to Figure 4A for reinforcing at wall corners.
11. Refer to Figure 4B for reinforcing at openings in walls.
12. Refer to Figure 5 for wall bracing at foundation walls parallel to floor trusses.

Table 1B: Minimum Connection Requirements for Floodproofed Basement Walls - Full Height Walls (65 pcf)

Case A: Allows for minimum anchorage at the top of the wall

Case B: Allows for maximum spacing between perpendicular walls

Wall Height (ft)	Case	Sill Plate	Optional Top Plate Nailing Pattern	Anchor Bolt	Connection @ Truss	Bracing @ Walls Parallel to Trusses[11]	
						Max. Spacing	Conn. to Sill Plate
7.5	A	2-2x	16d @ 6 " o.c.	1/2" ϕ @ 20 " o.c.	A34 @ ea. Truss	4'-0"	2-A35 Clips
				5/8" ϕ @ 26 " o.c.			
				3/4" ϕ @ 32 " o.c.			
	B	2-2x	16d @ 3 " o.c.	1/2" ϕ @ 11 " o.c.	2-A35 @ ea. Truss	2'-2"	2-A35 Clips
				5/8" ϕ @ 14 " o.c.			
				3/4" ϕ @ 18 " o.c.			
8	A	2-2x	16d @ 5 " o.c.	1/2" ϕ @ 18 " o.c.	A35 @ ea. Truss	3'-6"	2-A35 Clips
				5/8" ϕ @ 24 " o.c.			
				3/4" ϕ @ 30 " o.c.			
	B	2-2x	16d @ 3 " o.c.	1/2" ϕ @ 9 " o.c.	2-A35 @ ea. Truss	1'-10"	2-A35 Clips
				5/8" ϕ @ 12 " o.c.			
				3/4" ϕ @ 15 " o.c.			
9	A	2-2x	16d @ 4 " o.c.	1/2" ϕ @ 14 " o.c.	A35 @ ea. Truss	2'-9"	2-A35 Clips
				5/8" ϕ @ 18 " o.c.			
				3/4" ϕ @ 22 " o.c.			
	B	2-2x	16d @ 2 " o.c.	1/2" ϕ @ 8 " o.c.	2-A35 @ ea. Truss	1'-6"	2-A35 Clips
				5/8" ϕ @ 10 " o.c.			
				3/4" ϕ @ 12 " o.c.			

Notes:

1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).
2. Anchor bolts shall be ASTM F1554 Grade 36.
3. Minimum clear distance between bolt and edge of concrete shall be no less than 2 inches.
4. Minimum concrete strength shall be 3,000 pounds per square inch (psi).
5. Maximum height of soil against foundation walls is 6 inches below top of wall.
6. Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced.
7. Refer to Table 1A for reinforcing requirements.
8. Refer to Figure 1 for basement wall detail.
9. Refer to Figure 4A for reinforcing at wall corners.

10 Refer to Figure 4B for reinforcing at openings in walls.

11 Refer to Figure 5 for wall bracing at foundation walls parallel to floor trusses.

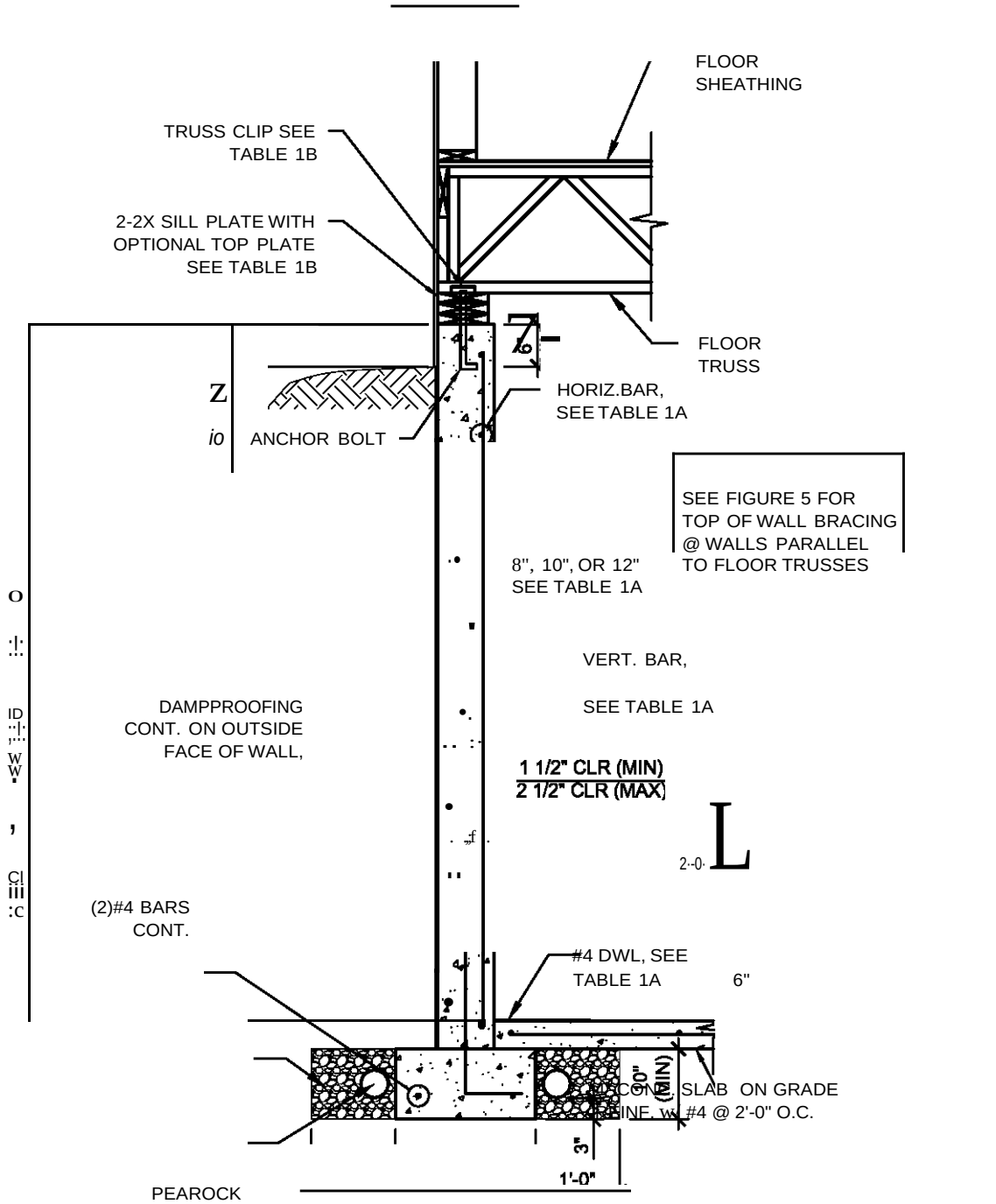


FIGURE 1: BASEMENT WALL SECTION

Table 2: Minimum Reinforcement for Floodproofed Basement Walls - Bi-Level Walls (65 pcf)

Wall Height, H (ft)	Wall Thickness (in)	Vertical Reinforcing	Horizontal Reinforcing
5 (max)	8	# 4 @ 18 " o.c.	# 4 @ 24 " o.c.
		# 5 @ 30 " o.c.	
		# 6 @ 40 " o.c.	
	10	# 4 @ 18 " o.c.	
		# 5 @ 26 " o.c.	
		# 6 @ 36 " o.c.	
	12	# 4 @ 12 " o.c.	
		# 5 @ 20 " o.c.	
		# 6 @ 28 " o.c.	

Notes:

1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).
2. Reinforcing steel shall be ASTM A615 with a yield stress, F_y, of 60,000 pounds per square inch (psi).
3. Vertical reinforcing bars shall be placed between 1-1/2 and 2-1/2 inches from the outside face of the wall.
4. Minimum concrete strength, f'_c, shall be 3,000 pounds per square inch (psi).
5. Maximum height of soil against foundation walls is 6 inches below top of wall.
6. Refer to Figure 2 for basement wall detail.
7. Refer to Figure 4A for reinforcing at wall corners.
8. Refer to Figure 4B for reinforcing at openings in walls.

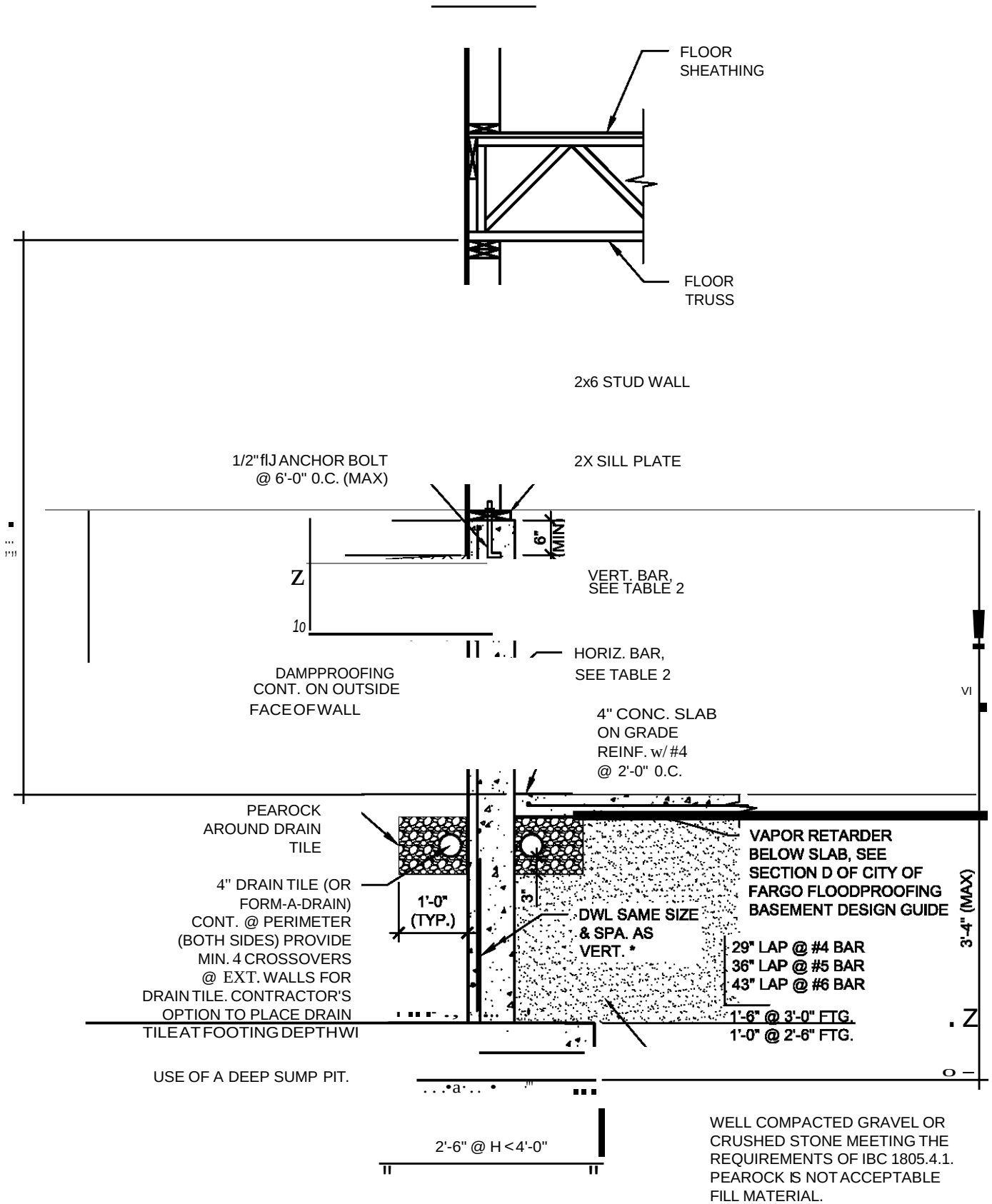


FIGURE 2: BI-LEVEL BASEMENT WALL SECTION

•NOTE: CONTRACTOR'S OPTION TO SUPPLY VERTICAL REINF. WITH HOOK INTO FOOTING AND OMIT DOWEL BAR.

Table 3: Minimum Reinforcement for Floodproofed Basement Walls - Window Well Walls (65 pcf)

Wall Height (ft)	Wall Thickness (in)	Horizontal Reinforcing	Vertical Reinforcing	Max. Horizontal Span between Perpendicular Foundation Walls (ft)[9]
7.5	6	# 4 @ 24 " o.c.	# 4 @ 24 " o.c.	4'-0"
		# 4 @ 18 " o.c.		5'-0"
		# 4 @ 12 " o.c.		6'-6"
	8	# 4 @ 18 " o.c.	# 4 @ 24 " o.c.	6'-0"
		# 4 @ 12 " o.c.		7'-6"
		# 4 @ 9 " o.c.		10'-0"
8	6	# 4 @ 24 " o.c.	# 4 @ 24 " o.c.	4'-0"
		# 4 @ 18 " o.c.		5'-0"
		# 4 @ 12 " o.c.		6'-6"
	8	# 4 @ 18 " o.c.	# 4 @ 24 " o.c.	6'-0"
		# 4 @ 12 " o.c.		7'-0"
		# 4 @ 9 " o.c.		9'-6"
9	6	# 4 @ 24 " o.c.	# 4 @ 24 " o.c.	3'-6"
		# 4 @ 18 " o.c.		5'-0"
		# 4 @ 12 " o.c.		6'-0"
	8	# 4 @ 18 " o.c.	# 4 @ 24 " o.c.	5'-6"
		# 4 @ 12 " o.c.		6'-6"
		# 4 @ 9 " o.c.		9'-0"

Notes:

1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).
2. Reinforcing steel shall be ASTM A615 with a yield stress, F_y, of 60,000 pounds per square inch (psi).
3. Vertical reinforcing bars shall be placed between 1-1/2 and 2-1/2 inches from the inside face of the
4. Minimum concrete strength shall be 3,000 pounds per square inch (psi).
5. Maximum height of soil against foundation walls is 6 inches below top of wall.
6. Refer to Figure 3 for basement wall detail.
7. Refer to Figure 4A for reinforcing at wall corners.
8. Refer to Figure 4B for reinforcing at openings in walls.
9. Minimum length of perpendicular wall shall be 2 feet. Perpendicular wall shall be the same thickness and reinforcing as wall it supports, and may be up to 1'-0" less in height than foundation wall. Perpendicular walls must be placed on minimum 1'-8" strip footing placed integral with foundation wall footing.

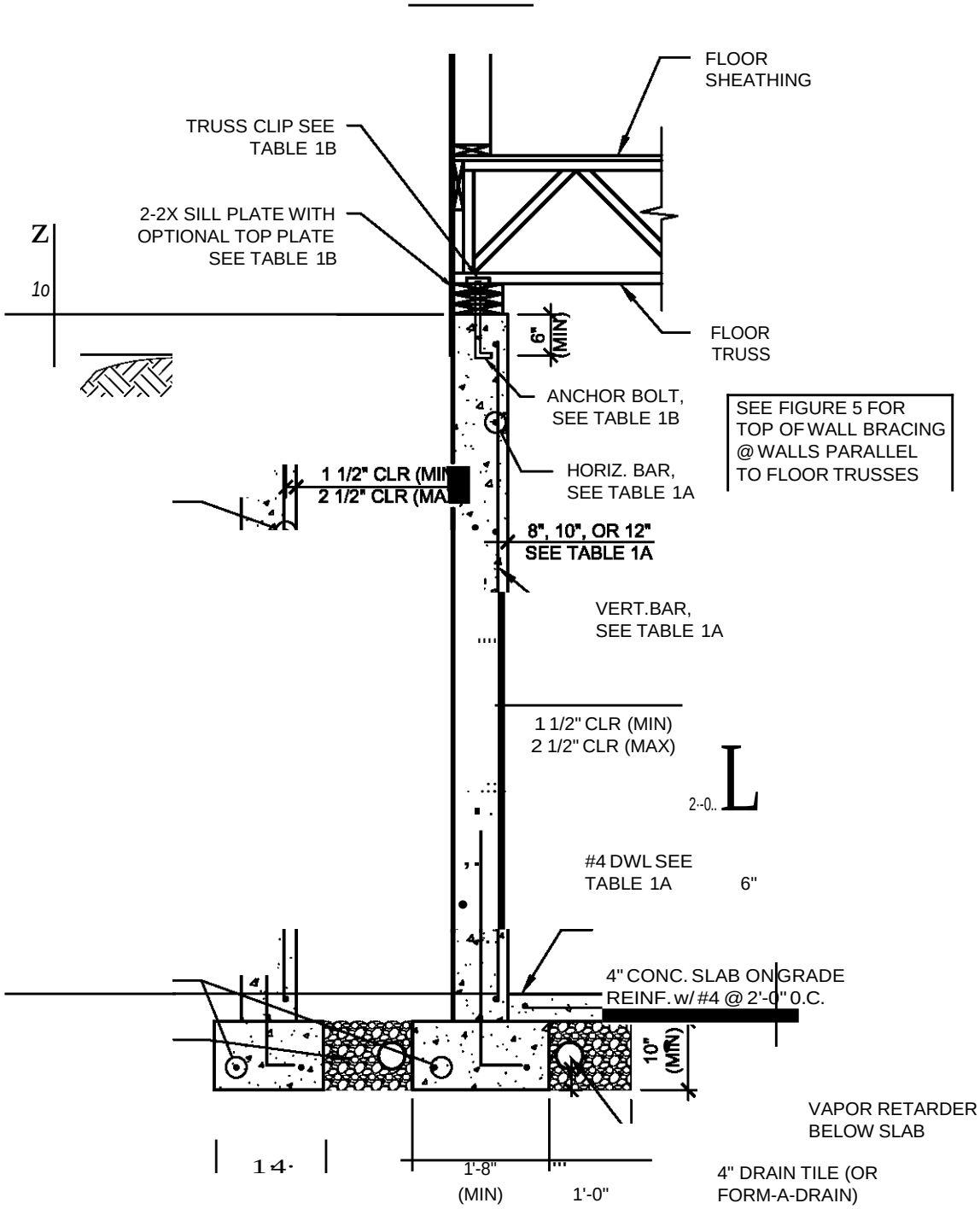
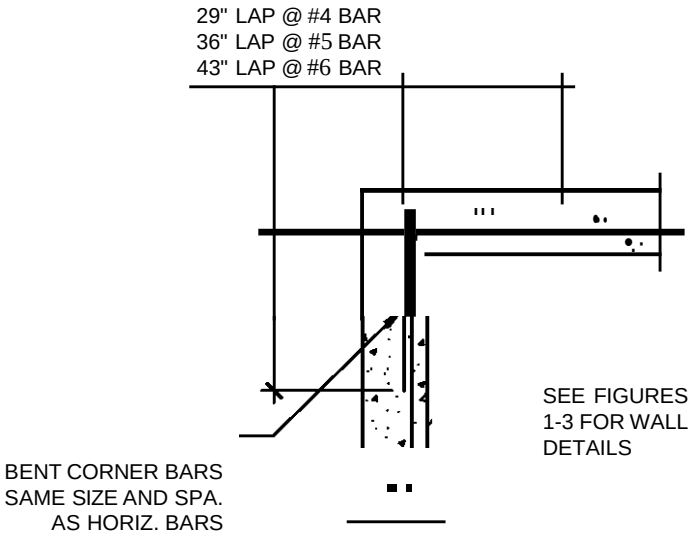


FIGURE 3: WINDOW WELL SECTION



OR

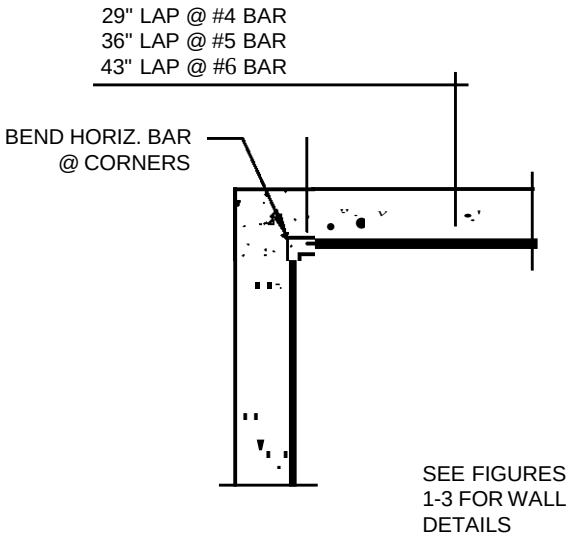


FIGURE 4A: TYP. CONG. WALL **CORNER**

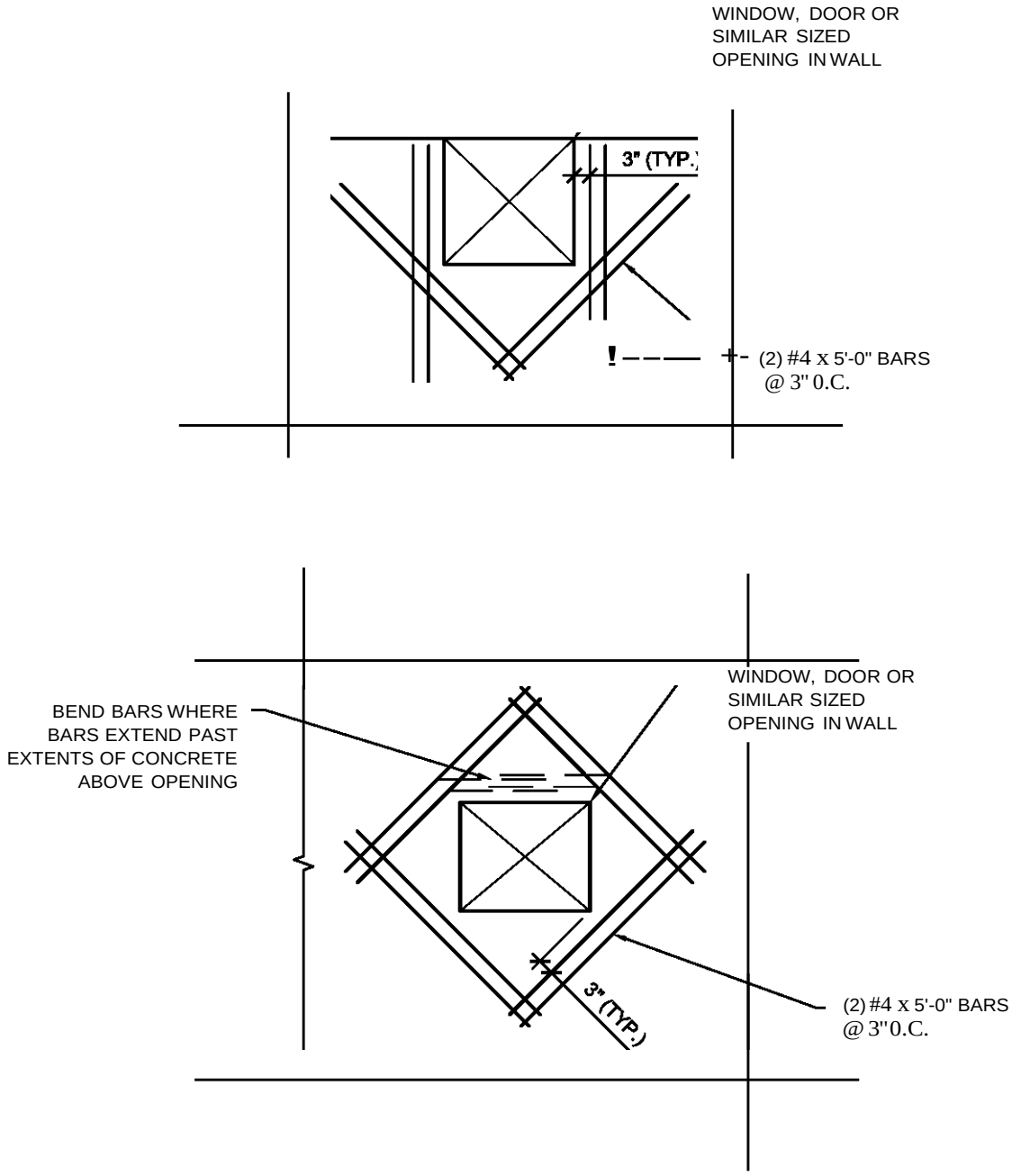
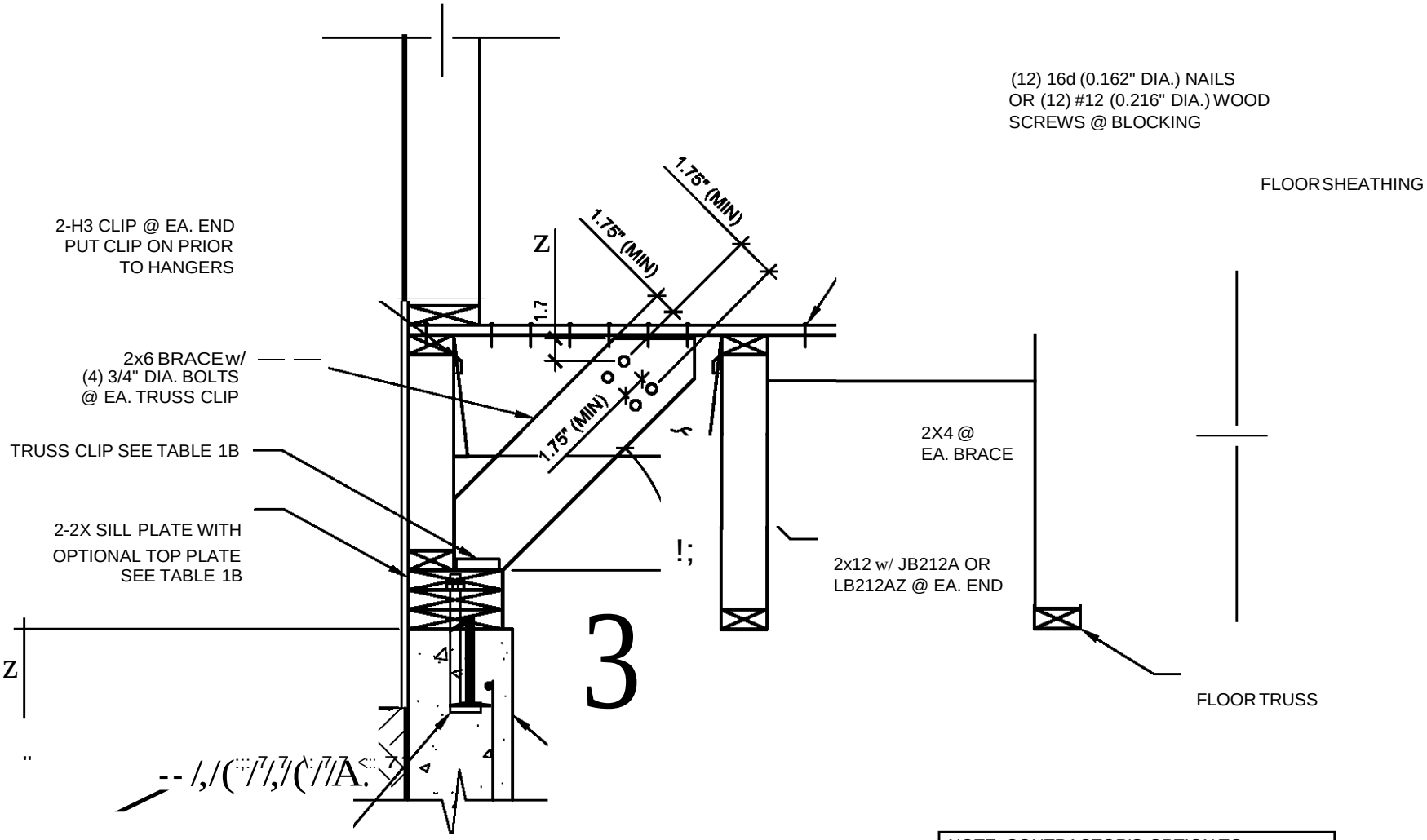


FIGURE 4B: REINFORCING @ **WALL** OPENINGS



NOTE: CONTRACTOR'S OPTION TO PROVIDE ALTERNATE BRACING CONNECTION CAPABLE OF WITHSTANDING 510 LB @ LOCATIONS REQUIRING ONE (1) TRUSS CLIP AND 1020 LB @ LOCATIONS REQUIRING TWO (2) TRUSS CLIPS. DESIGN MUST BE STAMPED AND SIGNED BY AN ENGINEER REGISTERED IN THE STATE OF NORTH DAKOTA.

FIGURE 5: PARALLEL WALL BRACING

APPENDIX B

INSPECTION LOG FOR FOUNDATIONs

Reile's Acres Inspections

City of Reile's Acres
4635 35th Ave North

FLOOD PROOFING INSPECTION CARD*

Owner: _____

Address: _____

100 Year Flood Elevation: _____ Flood Protection Elevation: _____

Elevation Certification "Flood Protection Elevation"

Point of Risk: _____

Inspector: _____ Date: _____

1. Footing Date: _____ Inspector: _____
   Comments: _____
2. Foundation Date: _____ Inspector: _____
   Comments: _____
3. Waterproofing Date: _____ Inspector: _____
   Comments: _____
4. Drain Tile Date: _____ Inspector: _____
   Comments: _____
5. Sewer Line Date: _____ Inspector: _____
   Comments: _____
6. Sewer Valve Date: _____ Inspector: _____
   Comments: _____
7. Concrete Floor Date: _____ Inspector: _____
   Comments: _____

APPENDIX C

FEMA RESIDENTIAL

FLOODPROOFING CERTIFICATE

Department of Homeland Security
Federal Emergency Management Agency

RESIDENTIAL BASEMENT FLOODPROOFING CERTIFICATE

See Reverse Side for Paperwork Burden Disclosure Statement

O.M.B. No. 1660-0033
Expires August 31, 2013

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 NAIC 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.

PAPERWORK BURDEN DISCLOSURE STATEMENT

Residential Basement Floodproofing Certificate
FEMA Form 086-0-24

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 OM B 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.**

APPENDIX D

FEMA NON-RESIDENTIAL

FLOODPROOFING CERTIFICATE

U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
National Flood Insurance Program

FLOODPROOFING CERTIFICATE
FOR NON-RESIDENTIAL STRUCTURES

OMB No. 1660-0008
Expiration Date: July 31, 2015

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME

STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX 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 proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (In AO Zones, Use Depth)

Indicate elevation datum used for Base Flood Elevation shown above: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

SECTION II – FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Elevations are based on: ☐ Construction Drawings ☐ Building Under Construction ☐ Finished Construction

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of _____._____ feet (In Puerto Rico only: _____._____ meters). ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____
(Elevation datum used must be the same as that used for the Base Flood Elevation.)

Height of floodproofing on the building above the lowest adjacent grade is _____ feet (In Puerto Rico only: _____ meters).

For Unnumbered A Zones Only:

Highest adjacent (finished) grade next to the building (HAG) _____._____ feet (In Puerto Rico only: _____._____ meters)

☐ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least 1 foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium.)

SECTION III – CERTIFICATION (By a Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated above, with walls that are substantially impermeable to the passage of water.

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

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 CODE

SIGNATURE DATE PHONE

Copies should be made of this Certificate for: 1) community official, 2) Insurance agent/company, and 3) building owner.

National Flood Insurance Program

FLOODPROOFING CERTIFICATE

FOR NON-RESIDENTIAL STRUCTURES

Paperwork Reduction Act Notice

General: This information is provided pursuant to Public Law 96-511 (the Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.

Authority: Public Law 96-511, amended; 44 U.S.C. 3507; and 5 CFR 1320.

Paperwork Burden Disclosure Notice: 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 form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. 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, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimate the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.