



Building Permit Application Cover Sheet

Both regular and limited plan Building permits applications are available for the following types of building permits:

- Basement Finish
- Deck
- Residential Accessory Building

To determine which type of permit application is most applicable, please see the **“From Application to Completion”** section in attached guide to help you.

If you choose the limited plan submission process, please see and complete the Statement of Understanding included in this packet.

Still have questions after reviewing the guide?
Contact us at 616-842-5988.



GRAND HAVEN CHARTER TOWNSHIP

13300 168th Avenue, Grand Haven, MI 49417

Phone: (616) 842-5988 | Fax: (616) 842-9419 | building@ghtmi.gov

LIMITED PLAN BUILDING PERMIT APPLICATION
Statement of Understanding

1. The undersigned requests that a limited plan building permit be issued. It is understood that all work performed is done completely at the permit holder's own risk. Any work that is found to not comply with all codes currently in effect shall be corrected at the permit holder's expense.
2. The undersigned acknowledges receipt of the Grand Haven Charter Township construction guidebook that pertains to the project noted on this application.
3. The undersigned understands that all work must conform to the 2015 Michigan Residential Code and that separate permits are required for mechanical, electrical, and plumbing work.
4. The undersigned understands that all proposed residential projects will receive a zoning review at the building department at the time of application.
5. The undersigned understands that all residential accessory building/structures and deck building permit applications, including limited plan applications, require a detailed site plan showing the size of the lot including the location of all existing structure(s), location, size, and shape of proposed projects and distances to all adjacent property lines.

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application. I, the authorized agent and the owner agree to conform to all applicable laws, rules and codes of the State of Michigan and all Grand Haven Charter Township Ordinances. All information submitted on this application is accurate to the best of my knowledge.

Section 23a of the State Construction Code Act of 1972, 1972 PA 230, MCL 125.15239, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines.

Signature of Applicant

Date



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 building@ghtmi.gov

Residential Accessory Building

Separate Applications Must be Completed for Plumbing, Mechanical, or Electrical Work Permits

**Accessory Buildings, Decks and Basement Finishes are eligible for both regular and limited plan permits
 See the "From Application to Completion" section of the attached guide for details**

I. Owner/ Job Location <input type="checkbox"/> Owner is Applicant (if homeowner is applicant, complete Section I and continue to Section V)			
Name of Property Owner		Home Phone	Cell
Address		City	State Zip
Job Location (if different than above)		Name of City, Village, or Township Job is located <input type="checkbox"/> City <input type="checkbox"/> Village <input type="checkbox"/> Township of : Grand Haven Township	
Parcel #		Email (REQUIRED)	
II. Builder/Contractor/Licensee Information			
Company Name		Company Address	
Business Phone		Cell	Fax
Email (REQUIRED)			
Licensee Name		State Builder's License #	Expiration Date
Federal ID # (or reason for exemption)		Workers Comp (or reason for exemption)	UIA Employer # (or reason for exemption)
III. Architect or Engineer			
Name		Address	
City		State	Zip Business Phone
Email		State Architect or Engineering License #	Expiration Date
IV. Builder's Affidavit			
<p><i>Section 23a of the State Construction Code Act of 1972, 1972 PA 230, MCL 125.1523A, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines. I hereby certify that the proposed building work is authorized by the owner of record and that I have been authorizing by the owner to make this application as his/her authorized agent, and we agree to conform to all applicable laws of the State of Michigan. All information submitted on this application is accurate to the best of my knowledge.</i></p>			
Signature of Licensee		Print Name of Licensee	Date
V. Homeowner Affidavit			
<p><i>I hereby certify the work described in this permit application shall be done by myself on my own dwelling in which I am living, or about to occupy. All work shall be done in accordance with the codes and shall not be backfilled, enclosed, dry walled, covered-up, or used until it has been inspected or approved by the appropriate inspector. I understand my responsibility to arrange for the required inspections and I agree not to move anything into, or use the building in any way, until I have received written approval to do so from the appropriate inspector. I understand that for any such affidavit connected to a building permit, I (or appropriate licensed contractors) am required to obtain additional permits before installing any electrical, plumbing, heating, air conditioning, fireplace, wood stove, ventilation component, or other similar work. I understand all of the above and acknowledge that failure to comply with the above requirements may cause revocation of the building permit and/or legal action to be taken against me.</i></p>			
Signature of Homeowner		Print Name of Homeowner	Date

VI. Project Description

A. Type of Improvement

<input type="checkbox"/> NEW BUILDING <input type="checkbox"/> ADDITION	<input type="checkbox"/> ALTERATION <input type="checkbox"/> REPAIR	<input type="checkbox"/> BASEMENT FINISH <input type="checkbox"/> DECK	<input type="checkbox"/> FOUNDATION ONLY <input type="checkbox"/> PREMANUFACTURE	<input type="checkbox"/> MOBILE HOME SET-UP <input type="checkbox"/> SPECIAL INSPECTION
--	--	---	---	--

B. Residential Building Regulated by the Michigan Residential Code

<input type="checkbox"/> ONE FAMILY <input type="checkbox"/> TWO FAMILY	<input type="checkbox"/> ATTACHED GARAGE <input type="checkbox"/> DETACHED GARAGE	<input type="checkbox"/> OTHER _____
--	--	--------------------------------------

C. Detailed Description of Work (REQUIRED)

D. Value of Construction Project

Total value of project minus the price of lot:
 \$ _____ **(Separate permits are required for Electrical, Mechanical and Plumbing work)**

E. Dimensions / Data

Square Foot Breakdown	Finished	Unfinished	Total	Building Setbacks
Basement				Front
1 st Floor				Rear
2 nd Floor				Side 1
Half Story				Side 2

F. Select Characteristics of Building

1. Principal type of framing:
 Wood Frame Structure Steel Masonry Concrete Other

2. Principal type of heating fuel:
 Gas Oil Electricity Hydronic Other _____ N/A

3. Type of sewage disposal:
 Public or Private Company Septic System

4. Type of water supply:
 Public or Private Company Private Well or Cistern

5. Will there be air conditioning:
 Yes No If Yes, what type of system? Coil/Condenser Hydronic

VII. Plan Review Required

Detailed construction documents must be submitted with any application for a building permit, unless waived by the building official when code compliance can be determined based on the description in the application, and the appropriate fee(s) must be paid in full before a permit can be issued. Construction documents must be sealed and signed by an architect or professional engineer in accordance with 1980, PA 299 as amended. The seal and signature are not required for one- and two-family dwellings less than 3,500 square feet of calculated floor area and public works less than \$15,000 in total construction cost. The building official also reserves the right to require architect or engineer supervision on any other construction method deemed unusual or non-typical.

VIII. Site Plan with Setbacks (or attach a site plan and/or survey)

Tip: use an aerial map to draw the Site Plan, go to <https://gis.miottawa.org>, and click  Property Mapping Lite

North

West

East

South

Notes:

IX. Local Government Agency to Complete This Section						
TYPE OF DOCUMENTATION	REQUIRED?		APPROVED	DATE	NUMBER	BY
	YES	NO				
A. Proof of Ownership	YES	NO				
B. Site Plan (Showing Proposed Setbacks)	YES	NO				
C. Survey	YES	NO				
D. Water Supply (Public / Private) Circle One	YES	NO				
E. Septic or Sewer (Public / Private) Circle One	YES	NO				
F. EGLE Permit	YES	NO				
G. Erosion Control Permit	YES	NO				
H. GHT Driveway Permit	YES	NO				
I. Ottawa County Driveway Permit	YES	NO				
J. 2 Sets of Construction Documents	YES	NO				
K. Roof Loading Data or Prelim. Truss Drawings	YES	NO				
L. Energy Code Compliance Documents	YES	NO				
M. Blower Door Testing Company Noted	YES	NO				
N. 75% High Efficacy Lighting	YES	NO				
O. HVAC Manual S and J Calculation Documents	YES	NO				
P. Whole House Mechanical Ventilation Noted	YES	NO				
Q. Cold Weather Concrete Affidavit	YES	NO				
R. Other	YES	NO				

Type of Construction	Use Group	Base Fee
Square Feet		
Approval Signature		
Title	Date	

Zoning District Information	
Zoning Approval Signature	Date



CONTRACTOR REGISTRATION APPLICATION

Are there other applications on file for this company OR one of its licensees? Yes No Unknown

Company Name _____

Street Address _____

City/State/Zip _____

Name of Owner _____

Business Phone _____ Business Fax _____

Cell Phone _____

Company Email _____

Federal ID# (if applicable) _____ ***No Social Security Numbers please**

Company Type Sole Proprietor Corporation LLC Partnership

Contractor Type Building Electric Manufactured Housing
 Mechanical Plumbing Repairs

Workers Compensation Carrier _____

UIA Employer Number _____

LICENSEE INFORMATION

**A PHOTO ID AND COPIES OF ANY LICENSES LISTED
WILL BE REQUIRED TO COMPLETE THE REGISTRATION**

License Type	License Holder Name	License Number	Expiration Date	License Holder Email	Verified By (GHT Use Only)
Master					
Contractor					
Contractor					
Contractor					
Contractor					



RESIDENTIAL ACCESSORY BUILDINGS AND STRUCTURES

January 2024

**Grand Haven Charter Township
Building Department Guide
Accessory Structures**



GRAND HAVEN CHARTER TOWNSHIP

13300 168th Avenue • Grand Haven, Michigan 49417 • Phone: 616.842.5988 • Fax: 616.842.9419

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INTRODUCTION

Grand Haven Charter Township has prepared this Guide to assist you in the process of building an Accessory Structure. This Guide contains information that will help you understand the Building Permit and construction process from application to completion. We have included details for areas that have generated confusion or delays in the past. The information is presented in a start-to-finish sequence to guide you as you progress through your project.

FORMS

Building Permit Applications }
Contractor Registration } *All forms are available at our
counter or online at:*
www.ght.org

This Guide contains many procedures and requirements. We urge you to read through it completely. It may save you valuable time in completing your project.

NOTE: This Guide is only intended to be a guide and is not all inclusive of the Building Code. For complete details of all requirements, please consult the Michigan Residential Code (MRC). The information in this Guide is subject to change without notice.

CODES CURRENTLY IN EFFECT

Grand Haven Charter Township
March 2016

Building: MRC 2015 (Michigan Residential Code 2015)
Effective February 8, 2016

Plumbing: MRC 2015 (Michigan Residential Code 2015)
Effective February 8, 2016

Mechanical: MRC 2015 (Michigan Residential Code 2015)
Effective February 8, 2016

Electrical: MRC 2015 (Michigan Residential Code 2015)
Effective February 8, 2016

Energy Code: MRC 2015 (Michigan Residential Code 2015)
Effective February 8, 2016

Codes can be purchased by going to the Michigan Department of Labor & Economic Growth, Bureau of Construction Codes & Fire Safety, Lansing, MI 48909, or their website at: www.michigan.gov/bcc.

BEFORE YOU BUILD

The following should be checked at the beginning of your project. Any of these items can affect the type, location, cost and length of time it takes to build your Accessory Structure.

DEED RESTRICTIONS

Please be advised that your subdivision, condominium, or home owners association may have Deed Restrictions that apply to the construction or expansion of residential accessory structures. Grand Haven Charter Township cannot enforce the potential Deed Restrictions. However, the Township encourages you to verify any restrictions that may apply to the project.

DEFINITION

Accessory Buildings and Structures:

A Building or a portion of a building subordinate to and on the same Lot as a Main Building and occupied by, or devoted exclusively to, an Accessory Use. Such as but not limited to, a garden shed, detached garage, gazebo, or any other structure not attached to the house by a common wall or enclosed breezeway.

All uses for residential Accessory Buildings and Structures must be accessory to the use of the Dwelling Unit. No Accessory Building or Structure shall be used in the operation of a Home Occupation or business, or include Living Quarters for Human Habitation.

REGULATIONS

1. Accessory Buildings and Structures shall not be located in the Front Yard, in an easement, or on a vacant parcel.
2. Accessory Buildings and Structures shall not occupy more than 25% of the Rear Yard.
3. Gazebos, pergolas, and other permanent structures without walls shall be exempt from this section, except they must maintain the required setbacks for Accessory Structures.

STANDARDS FOR SIZE AND HEIGHT

Applicable to all Residential Zoning Districts	< ½ Acre	½ < 1 Acre	1 < 2 Acres	2 < 5 Acres	5 < 10 Acres	10 < 15 Acres	15 < 20 Acres	20+ Acres
Number of Accessory Buildings	2	2	3	3	3	4	4	4 ^a
Maximum Total Floor Area ^b	720 sqft	1,000 sqft	1,500 sqft	2,000 sqft	2,500 sqft	3,000 sqft	3,500 sqft	4,000 ^c sqft
Maximum Building Height	24-feet in height, or the height of the Dwelling, whichever is greater.							
	Height = vertical distance from average grade to the mean height level between eaves and ridge for gable, hip, and gambrel roofs; to the highest point of flat roofs; and to the deck-line for mansard roofs.							

^a – Every additional 10-acres is permitted an additional building or structure

^b – Includes a lean-to structure and roof overhang greater than 3-feet

^c – Every additional 5-acres is permitted an additional 2,000 sqft

ACCESSORY BUILDING SETBACKS

Total Floor Area (square footage)	Principal Building	Side Lot Line	Rear Lot Line	Other Accessory Structures
200 or less	5 ft	5 ft	5 ft	5 ft
201 – 600	10 ft	10 ft	10 ft	10 ft
601 – 2,000	15 ft	15 ft	15 ft	15 ft
2,001 or more	25 ft	25 ft	25 ft	25 ft
All Buildings	Shall be setback at least 25-feet from any road right-of-way			
	Setbacks shall be measured from the foundation of the Accessory Building or Structure. A cantilever or overhang up to 3-feet is exempt.			

LOCATION

Yard	Standard & Description	Permitted Location
Front Yard Road Frontage	Lot abuts road right-of-way	No
Front Yard Waterfront	Lot abuts lake or river	No
Front Yard Corner Lot	Front yard is along the narrowest section of road frontage	No
Rear Yard No Road Frontage	Lot does not abut the road right-of-way	Yes
Rear Yard Road Frontage	Through Lot – front & rear yard abut the road right-of-way	Yes • Accessory Building Setbacks apply • Shall not locate within the road right-of-way
Side Yard Interior Lot	Lot does not abut the road right-of-way	Yes • Shall not locate within the required Side Yard Setback • Accessory Building Setbacks apply
Side Yard Corner Lot	Side yard is the longest section of road frontage	Yes • Shall not locate within the road right-of-way • Accessory Building Setbacks apply

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OTHER PERMITS THAT MAY BE REQUIRED

The following is a list of other permits that maybe required for your project. Please review the list below and obtain the required permits prior to applying for the building permit from Grand Haven Charter Township. Failure to submit the appropriate permits will cause a delay in the project schedule.

The following are types of permits issued by the Michigan Department of Environment, Great Lakes and Energy (EGLE) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

1. Part 353, Sand Dunes Protection and Management:
 - a. A permit is required for alteration of lands identified as critical dune areas including removal of vegetation, site contour changes, and any construction activities.
2. Part 323, Shorelands Protection and Management:
 - a. Environmental Areas – a permit is required for any dredging, filling, alteration of drainage or vegetation, or construction of a structure within a designated area
 - b. High Risk Erosion Areas – a permit is required for construction of any permanent structure, which will require a set-back from the bluff, within a designated area
 - c. Flood Risk Areas- a permit is required for construction of any permanent structure with a designated flood area.
3. Part 325, Great Lakes Submerged Lands:
 - a. A permit is required for any filling, dredging, or construction of a permanent structure (groin, seawall, dock) below the ordinary high water mark of any of the Great Lakes.
4. Part 31, Flood Plain/Water Resources Protection:
 - a. A permit is required for any filling, grading, or construction of a building within the 100-year floodplain of any river, stream or lake
5. Part 303, Wetland Protection:
 - a. A permit is required for any dredging, filling, draining, or construction in any wetland contiguous to a lake or stream, or any isolated wetland at least five acres in size
6. Part 301, Inland Lakes and Streams:
 - a. A permit is required for any dredging, filling, or construction of a permanent structure below the ordinary high water mark of any inland stream, or lake greater than five acres in size. A permit is also required for dredging within 500 feet of a lake or stream.

EGLE Contact Information:

Grand Rapids District, Water Resources Division
Bonnie Broadwater
350 Ottawa Ave, NW, Grand Rapids, MI 49503
Ph: 616-356-0500 | Cell: 616-591-8163 | Fax: 616-356-0202
broadwaterb@michigan.gov | www.michigan.gov/egle

The following are types of permits issued by Ottawa County:

1. Part 91, Soil Erosion and Sedimentation Control: (NREPA, 1994 PA 451, as amended):

- A permit is required for any earth changes greater than one acre in size or within 500 feet of a lake, river or stream.

Ottawa County Water Resources (OCWR) Soil Erosion Contact Information:

Erosion Control Agent
Ottawa County Water Resources Department
Soil Erosion & Sediment Control Agency
Ph: 616-994-4528 | 616-994-4530 | Fax: 616-994-4529
www.miottawa.org/Departments/Drain

2. Driveway Permit:

- A permit is required if a driveway will be installed out the road right of way.

Ottawa County Road Commission (OCRC) Contact Information:

Special Services Department
Ottawa County Road Commission
14110 Lakeshore Dr.
PO Box 739
Grand Haven, MI 49417
Ph: 616-842-5400
www.ottawacorc.com | jforner@ottawacorc.com

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FROM APPLICATION TO COMPLETION

A General Guide through the Complete Process:

A Building Permit from Grand Haven Charter Township is required prior to construction starting. Included in this Guide is a checklist of items needed for application submittal. The Building Permit Application can be found online at www.ghc.org or can be obtained at the front desk of the administration building. Once the Building Permit is issued, an Electrical permit can then be obtained.

1. Types of Building Permit Applications available
 - a. Building Permit Application with limited plans.
 - i. A Building Permit can be issued as soon as possible from the time of application. Only a site plan drawing is required. See Site Plan Requirements on page 16 for site plan drawing requirement. See Construction Requirements for building permit applications with limited plans on page 18 and Sample Drawings on pages 24-30.
 - b. Regular Building Permit Application.
 - i. Full plan review of construction documents is required. This may occur if the applicant requests a full Plan Review before starting construction, or if a Plan Reviewer determines the project needs a full review due to its complexity. The Permit Applicant will be contacted when the Building Permit is ready to be picked up. Plan review time varies depending on the Building Department's work load.
2. Information Required For Permit Application
 - a. Building Permit Application
 - i. Forms are available online at www.ghc.org or at the front desk of the administration building. Applications shall be filled out completely.
 - b. Site Plan – Two Copies
 - i. See Site Plan Requirements on page 16 for site plan drawing requirement.
 - ii. See Sample Site Plan – page 17.
 - c. Construction Drawings – Two Sets (Regular Permit Applications ONLY)
 - i. See Construction Requirements, pages 18-23 and “Sample Drawings”, pages 24-30.
 - ii. Plans that contain all the necessary information and details will help expedite the plan review process. Plans must match Site Plans.
 - d. Owners may submit a Building Permit application for work on property that is or will be, upon completion, their place of residence. Owners of rental property may submit a Building Permit application to do maintenance and alterations to the rental property.
 - e. Please Note: Any Contractor, hired by an Owner for a project with a total project price of \$600.00 or more, shall be licensed in accordance with the State of Michigan Residential Builders Laws.
3. Registration of Builder's License
 - a. A Builder shall be currently registered with Grand Haven Charter Township to submit an application.

- b. Builders not currently registered can register at the time of application by providing the following:
 - i. The original or a copy of the Builder's license.
 - ii. Copy of Driver's license.
 - iii. Contractor Registration form.
 - 1. A Contractor Registration form is available at our office or online at www.ghl.org.

4. Plan Review and Approval

- a. Building Permit Application with limited plans
 - i. Only a site plan drawing is required. The Accessory Building/Structure shall comply with the Michigan Residential Code (MRC).
- b. Regular Building Permit Application
 - i. Construction drawings and Site Plans will be reviewed for compliance with Township Ordinances and the Michigan Residential Code (MRC).
 - ii. Plans are reviewed in the order they are received, based on the application date. Plan review time varies depending on the Building Department's work load.
 - iii. Plans that contain all the necessary information and details will help expedite the Plan Review process.
 - iv. The Permit Applicant will be notified if the plans do not meet Zoning Ordinance or Building Code requirements, or if any additional information is required.

5. Building Permit Ready

- a. Building Permits with limited plans
 - i. The Building Permit will be issued as soon as possible from the date of application.
- b. Regular Permit Applications
 - i. The Permit Applicant will be called when the Building Permit is ready to be picked up.
- c. Permit Fees
 - i. See Building Permit Fees on pages 13 and 14
- d. **Note:**
 - i. All Permit fees are due at the time of Permit issuance.
 - ii. Permit fees may be paid by cash, credit card, debit card or check. There is a convenience fee for payments made with credit or debit cards.
 - iii. The Permit shall be issued within 6 months of the application date or the application will be canceled. Permit applicants may request extensions.
 - iv. Permits that have no activity for more than 6 months may be canceled.
 - v. Once the Building Permit is issued, Electrical permits can then be obtained (if applicable). Electrical work requires a separate application and permit.

When all required permits are obtained, construction may begin. Revisions to the project after issuance of the Building Permit may require re-submittal and Building Department approval.

6. The following items shall be maintained on site throughout the construction process:
- The street address shall be posted on the house and visible from the street.
 - The building permit shall be posted near the project where it can be easily found by the inspectors.
 - The street shall be kept clean.
 - All construction materials and debris shall be contained on the property.
 - Temporary soil erosion control shall be erected and maintained.

7. Inspections

Once your Building Permit has been issued, you can begin construction. **If you have received a Building Permit with limited plans, this Construction Guide provided to you shall be on site at the time of inspections.** Your Accessory Building/Structure will be reviewed and inspected in accordance with the requirements of the Michigan Residential Code (MRC). As your project progresses, the Building Department will need to perform the following inspections:

a. Footing Form Inspection

- i. After footings are dug and forms are set. All organic materials shall be removed from footing and slab areas.
- ii. Approved plans shall be on site for all inspections when a regular Building Permit has been issued. For limited plan submissions this Construction Guide provided to you shall be on site for inspections.
- iii. Common items the Inspector looks for are:
 1. Location of structure.
 2. Property line shall be clearly marked to verify the distance between the property lines and the structure.
 3. Footings are being installed in accordance with the construction guide or the approved plans.
 4. All vegetation has been removed from the floor area.
 5. The size of the footing forms are being installed in accordance with the construction guide or the approved plans.

b. Foundation Wall Form Inspection (if applicable)

- i. After foundation wall forms are set
- ii. Any required reinforcing bars (rebar) are in place

c. Underground Electrical Inspection (if applicable)

- i. After wire or conduit is installed and all underground Electrical work is completed.
- ii. Shall be inspected before covering. Please note: Proper materials shall be used. Contact the Electrical Inspector if you have questions. (616) 842-5988.

- iii. All work must comply with the Michigan Residential Code (MRC).
- d. Rough-In Electrical Inspection
 - i. After all wiring, boxes, and fixtures are installed with grounds and neutrals properly terminated.
- e. Rough-In Building Inspection
 - i. After Electrical rough-in inspection is approved and all of the framing work is complete.
 - ii. Truss drawings and truss layout shall be on site for this inspection if trusses are installed
- f. Final Electrical Inspection (if applicable)
 - i. After all Electrical equipment, switches, plugs, covers, and fixtures are installed and are operational.
 - ii. A Rough Electrical inspection is required if interior walls will be covered.
 - iii. Proper operation of ground fault circuit interrupters and breaker sizes are checked. Ground fault interrupters (GFI) are required for Electrical protection in all garages.
 - iv. The Inspector may need access to the inside of the house to complete the inspection. An adult of at least 18 years of age shall be present for the Inspector to enter the house.
- g. Final Building Inspection
 - i. After Electrical Inspections are done and the structure is completed.
 - ii. A Rough Building Inspection is required prior to a Final Building inspection if any of the interior walls will be covered.
 - iii. Approved plans shall be on site for all inspections. For limited plan submissions this Construction Guide provided to you shall be on site for inspections.
 - iv. Common items the Inspector looks for:
 - 1. The height of the structure.
 - 2. All exterior siding, trim and painting have been completed.
 - 3. The grade slopes away from the structure – a min. 6 inches within first 10 feet.
 - 4. There must be a 6” clear between the ground and wood siding, sheathing and wall construction.
 - 5. Treated bottom plates have been installed.
 - 6. Proper framing and header sizes are installed.
 - 7. Foundation anchor bolts have been installed.
 - 8. Boring and notching of studs.

9. Boring and notching of top plates.
10. Boring and notching of trusses or rafters.
11. Braced wall panels, hold downs and header straps are in place. (if applicable)
12. Truss drawings and layout are on site. (if applicable)
13. Truss/rafter hold downs are installed. (Hurricane clips)
14. The step from the service door to landing/grade is less than or equal to 7 ¾ inches.

This itemized list is provided as a guide to help you understand the process for building an Accessory Structure in Grand Haven Charter Township. It covers the most common types of projects. If your project is beyond the scope of this Guide it may require additional information, Inspections or Permits. Please call or email the Building Department at (616) 842-5988 or building@ghtmi.gov if you have any questions on how to apply this Guide to your specific project.

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BUILDING PERMIT FEES

1. **Building Permit Fee (Limited Plans and Regular Permits)**

Based on the Construction Valuation of the project excluding site work. Refer to Fee Charts below. Electrical, Mechanical and Plumbing permits are not included in the Building permit fee. Electrical, Mechanical and Plumbing permits require separate applications and fees.

2. **Reinspection Fee**.....\$125/hour (\$75 minimum)

3. **Schedule of Fees for Accessory Buildings:**

Fee Schedule	
793.40	for the first \$100,000
5.25	for each additional \$1,000 (up to \$500,000)
2,893.40	for the first \$500,000
4.45	for each additional \$1,000 (up to \$1,000,000)
5,118.40	for the first \$1,000,000
3.15	for each additional \$1,000

CONSTRUCTION VALUATION

From	To	Rate
\$ -	\$ 500	\$ 75.00
\$ 501	\$ 1,000	\$ 75.00
\$ 1,001	\$ 2,000	\$ 75.00
\$ 2,001	\$ 3,000	\$ 75.00
\$ 3,001	\$ 4,000	\$ 75.00
\$ 4,001	\$ 5,000	\$ 89.25
\$ 5,001	\$ 6,000	\$ 105.00
\$ 6,001	\$ 7,000	\$ 120.75
\$ 7,001	\$ 8,000	\$ 136.50
\$ 8,001	\$ 9,000	\$ 152.25
\$ 9,001	\$ 10,000	\$ 168.00
\$ 10,001	\$ 11,000	\$ 183.75
\$ 11,001	\$ 12,000	\$ 190.60
\$ 12,001	\$ 13,000	\$ 197.45
\$ 13,001	\$ 14,000	\$ 204.30
\$ 14,001	\$ 15,000	\$ 211.15
\$ 15,001	\$ 16,000	\$ 218.00
\$ 16,001	\$ 17,000	\$ 224.85
\$ 17,001	\$ 18,000	\$ 231.70
\$ 18,001	\$ 19,000	\$ 238.55

From	To	Rate
\$ 19,001	\$ 20,000	\$ 245.40
\$ 20,001	\$ 21,000	\$ 252.25
\$ 21,001	\$ 22,000	\$ 259.10
\$ 22,001	\$ 23,000	\$ 265.95
\$ 23,001	\$ 24,000	\$ 272.80
\$ 24,001	\$ 25,000	\$ 279.65
\$ 25,001	\$ 26,000	\$ 286.50
\$ 26,001	\$ 27,000	\$ 293.35
\$ 27,001	\$ 28,000	\$ 300.20
\$ 28,001	\$ 29,000	\$ 307.05
\$ 29,001	\$ 30,000	\$ 313.90
\$ 30,001	\$ 31,000	\$ 320.75
\$ 31,001	\$ 32,000	\$ 327.60
\$ 32,001	\$ 33,000	\$ 334.45
\$ 33,001	\$ 34,000	\$ 341.30
\$ 34,001	\$ 35,000	\$ 348.15
\$ 35,001	\$ 36,000	\$ 355.00
\$ 36,001	\$ 37,000	\$ 361.85
\$ 37,001	\$ 38,000	\$ 368.70
\$ 38,001	\$ 39,000	\$ 375.55

CONSTRUCTION VALUATION CONTINUED

From	To	Rate
\$ 39,001	\$ 40,000	\$ 382.40
\$ 40,001	\$ 41,000	\$ 389.25
\$ 41,001	\$ 42,000	\$ 396.10
\$ 42,001	\$ 43,000	\$ 402.95
\$ 43,001	\$ 44,000	\$ 409.80
\$ 44,001	\$ 45,000	\$ 416.65
\$ 45,001	\$ 46,000	\$ 423.50
\$ 46,001	\$ 47,000	\$ 430.35
\$ 47,001	\$ 48,000	\$ 437.20
\$ 48,001	\$ 49,000	\$ 444.05
\$ 49,001	\$ 50,000	\$ 450.90
\$ 50,001	\$ 51,000	\$ 457.75
\$ 51,001	\$ 52,000	\$ 464.60
\$ 52,001	\$ 53,000	\$ 471.45
\$ 53,001	\$ 54,000	\$ 478.30
\$ 54,001	\$ 55,000	\$ 485.15
\$ 55,001	\$ 56,000	\$ 492.00
\$ 56,001	\$ 57,000	\$ 498.85
\$ 57,001	\$ 58,000	\$ 505.70
\$ 58,001	\$ 59,000	\$ 512.55
\$ 59,001	\$ 60,000	\$ 519.40
\$ 60,001	\$ 61,000	\$ 526.25
\$ 61,001	\$ 62,000	\$ 533.10
\$ 62,001	\$ 63,000	\$ 539.95
\$ 63,001	\$ 64,000	\$ 546.80
\$ 64,001	\$ 65,000	\$ 553.65
\$ 65,001	\$ 66,000	\$ 560.50
\$ 66,001	\$ 67,000	\$ 567.35
\$ 67,001	\$ 68,000	\$ 574.20
\$ 68,001	\$ 69,000	\$ 581.05
\$ 69,001	\$ 70,000	\$ 587.90

From	To	Rate
\$ 70,001	\$ 71,000	\$ 594.75
\$ 71,001	\$ 72,000	\$ 601.60
\$ 72,001	\$ 73,000	\$ 608.45
\$ 73,001	\$ 74,000	\$ 615.30
\$ 74,001	\$ 75,000	\$ 622.15
\$ 75,001	\$ 76,000	\$ 629.00
\$ 76,001	\$ 77,000	\$ 635.85
\$ 77,001	\$ 78,000	\$ 642.70
\$ 78,001	\$ 79,000	\$ 649.55
\$ 79,001	\$ 80,000	\$ 656.40
\$ 80,001	\$ 81,000	\$ 663.25
\$ 81,001	\$ 82,000	\$ 670.10
\$ 82,001	\$ 83,000	\$ 676.95
\$ 83,001	\$ 84,000	\$ 683.80
\$ 84,001	\$ 85,000	\$ 690.65
\$ 85,001	\$ 86,000	\$ 697.50
\$ 86,001	\$ 87,000	\$ 704.35
\$ 87,001	\$ 88,000	\$ 711.20
\$ 88,001	\$ 89,000	\$ 718.05
\$ 89,001	\$ 90,000	\$ 724.90
\$ 90,001	\$ 91,000	\$ 731.75
\$ 91,001	\$ 92,000	\$ 738.60
\$ 92,001	\$ 93,000	\$ 745.45
\$ 93,001	\$ 94,000	\$ 752.30
\$ 94,001	\$ 95,000	\$ 759.15
\$ 95,001	\$ 96,000	\$ 766.00
\$ 96,001	\$ 97,000	\$ 772.85
\$ 97,001	\$ 98,000	\$ 779.70
\$ 98,001	\$ 99,000	\$ 786.55
\$ 99,001	\$ 100,000	\$ 793.40

INSPECTION REQUESTS

To request inspections, please call:

- **Inspection Request Line** – An Inspection may be requested by calling our Inspection Request Line at (616) 842-5988 or emailing building@ghtmi.gov and providing the following information:
 - **The Street Address of the Job Site**
 - **The Permit Number**
 - **The Type of Inspection you are Requesting**

Inspections requests will be scheduled between 9:30 a.m. and 11:30 a.m. or 2:30 p.m. and 4:30 p.m. Inspections may be done earlier or later depending on the Inspector's workload. Inspections will be done Monday through Friday. Inspections need to be called in 24 hours in advance.

A request to cancel an Inspection needs to be called in to the Building Department at (616) 842-5988 or emailed to building@ghtmi.gov before 9:00 a.m. on the day of the requested Inspection.

Please make sure your project is ready for your inspection. If your project is not ready for an inspection, the inspection will not be done and a \$125/hr (\$75 minimum) re-inspection fee may be charged. The following items shall be completed or in place at the time of the inspection:

- The Street address and lot number posted and visible from the street.
- Building Permit posted where inspector can easily locate it.
- Safe access to the job site and throughout the area to be inspected.
- Approved plans and truss drawings on site.
- The job ready for inspection

Inspection results will be left on site after each inspection has been completed.

Green Sticker on Building Permit:

The Inspection has been approved.

No Green Sticker on Building Permit:

The Inspection has not been approved. The inspector will email you a report that will contain a list of items that need to be addressed before calling for a re-inspection. This email will indicate whether a \$125/hr (\$75 minimum) re-inspection fee will be required. Inspections shall be approved before proceeding with the next phase of your construction project.

It is your responsibility as the permit holder to check the job site for the inspection results. Please read the information on all Inspection Reports. If you have any questions regarding this information, call (616) 842-5988 or email building@ghtmi.gov between 8:00 a.m. and 5:00 p.m. and ask to speak with the Inspector that wrote the Inspector's Report.

SITE PLAN REQUIREMENTS

Two copies of the Site Plan containing all the information and details noted below shall be submitted with the Building Permit Application. The Site Plan may be drawn by the Homeowner, Contractor, Land Surveyor, Engineer or Architect. Special circumstances may require the Site Plan to be drawn by a licensed Land Surveyor. This will be determined during the Plan Review process (if not a limited plan permit.)

GENERAL SITE PLAN REQUIREMENTS

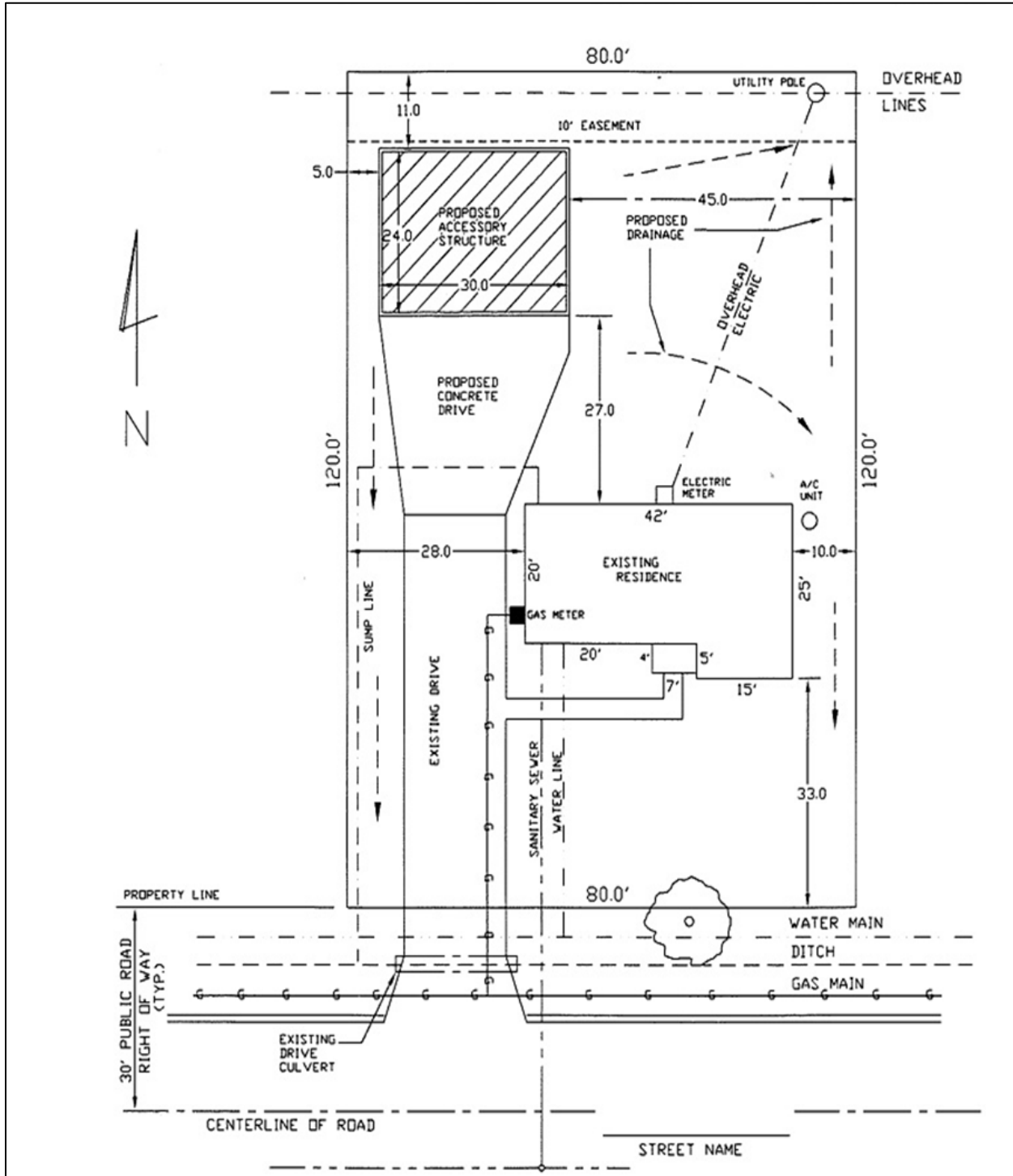
1. Builder's name, address, and telephone number.
2. The North arrow, street right-of-way and street name.
3. Accessory building/structure size and location shall be per page 5 of this guide.
4. Show all site property lines.
5. Show all easements on the site.
6. Show all existing accessory buildings/structures, pool houses, storage sheds, and existing home
7. Dimension:
 - a. Site property lines and easements
 - b. The size of the proposed accessory building/structure
 - c. The location of the proposed accessory building/structure from all property line, easements, and existing accessory buildings/structures, pool houses, storage sheds, and existing home
8. The total combined floor area of all accessory building/structures on the site.
9. Accessory Structures cannot be built in the front yard or in any easement, or on a vacant lot.

The Ottawa County Geographic Information System (GIS) property mapping website is a very good place to begin creating a site plan for your project. Start with the search by address link to find your property. Then turn on the most recent aerials map layer to see your existing structures.

The link below is to the basic GIS property mapping site.

<https://gis.miottawa.org/ottawa/geocortex/propertymapping/>

Sample Site Plan



SAMPLE PLOT PLAN

SCALE: 1"=20'

SHOW THE UTILITY LOCATIONS BOTH ABOVE AND BELOW GROUND.
 SHOW THE LOCATION OF THE ELECTRIC METER, GAS METER AND A/C UNIT.
 SHOW THE LOCATION OF THE WATER, SANITARY, AND SUMP LINES.
 IF A NEW DRIVE OR ALTERATIONS TO AN EXISTING DRIVE ARE PROPOSED,
 ALL CONSTRUCTION MUST CONFORM TO CURRENT STANDARDS.

BUILDER: XYZ CONST.	
ADDRESS XXX	PHONE XXX
OWNER: RESIDENT	
ADDRESS XXX	PHONE XXX

CONSTRUCTION REQUIREMENTS

This information is provided in a “User-friendly” format as a general guide to help you apply the standard Building Code requirements to your project. It covers the most common types of projects. The actual Building Code language may contain additional requirements that may apply if your project is beyond the scope of this Guide.

Your Accessory Building/Structure will be reviewed and inspected in accordance with the requirements of the State of Michigan Residential Code (MRC) and Grand Haven Charter Township Zoning Ordinance No. 138-41.

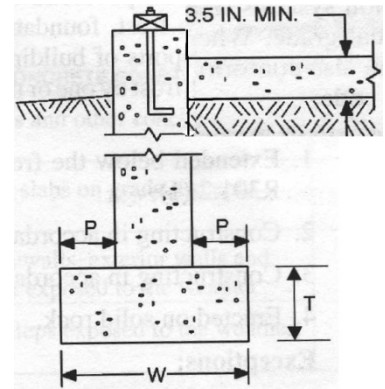
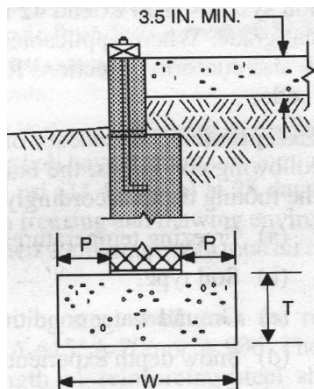
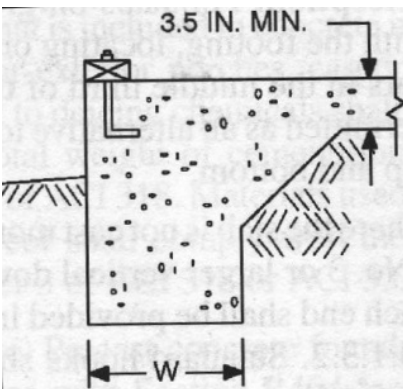
To use the limited plan permit process your proposed accessory building/structure shall meet all of the following criteria:

1. Not attached to the main structure
2. Unconditioned (*not heated or cooled*)
3. Light frame construction (*standard stud framing*)
4. Eave height less than or equal to 10 feet
5. Cannot include a stairway to an upper or lower level
6. Greater than 200 square feet (*200 square feet and less only require a zoning permit*).
7. Footing depth requirements based on building/structure square footage:
 - a. Less than or equal to 600 square feet:
 - i. Frost protected footings are not required, soil coverage depth measured from the bottom of the footing is the permit applicants choice.
 - b. Greater than 600 square feet:
 - i. Frost protected footings are required; 42” deep soil coverage measured from the bottom of the footing is required.
8. Foundation walls, if installed, shall be a minimum of 6” thick concrete or masonry (concrete block) with equal to or less than 5 feet in height difference from the exterior grade to the interior floor.
9. Walls shall be completely sheathed with a minimum of 7/16” thick structural sheathing (OSB or plywood)
10. Wall with the overhead garage door opening in it shall be braced by:
 - a. The Continuous Sheathing Garage (CS-G) wall bracing method shown on pages 27 and 28 or:
 - b. The Continuous Sheathing Portal Frame (CS-PF) wall bracing method shown on page 29
11. If foundation walls are masonry (concrete block) and a braced wall panel equal to or less than 4’0” in length is anchored to the masonry foundation wall the masonry foundation wall shall be constructed per one of the drawings on page 30.

General Construction Practices:

1. Foundation

- a. Footings for Accessory Buildings/Structures shall be at least 12 inches wide and 6 inches thick.
- b. Accessory Building/Structures equal or less than 600 sqft may have the bottom of the footings at any depth. Accessory Building/Structures greater than 600 sqft must have the bottom of the footings at least 42" below finished grade.
- c. Footings shall rest on undisturbed soil or compacted fill. Soil compaction test reports may be required if footings are placed on compacted fill.
- d. The 3 footing/foundation types shown below are all acceptable when:
 - a. W is equal to or greater than 12"
 - b. T is equal to or greater than 6"
 - c. T is greater than or equal to P
 - d. The wall thickness is equal to or greater than 6"
- e. ½-inch diameter anchor bolts or equivalent which are a maximum of 6 feet on center, in the middle 3rd of the plate width and not more than 12 inches from each end of the plate shall be installed in the foundation. Anchor bolts shall extend at least 7 inches into concrete or masonry.
- f. Alternate foundation systems may be used when approved by the Building Department.



2. Concrete Floor

- a. All vegetation, topsoil and foreign material shall be removed from the proposed floor area.
- b. Fill material shall be free of vegetation and foreign materials.
- c. Fill shall be compacted.
- d. Concrete slabs shall be at least 3 ½ inches thick with a compressive strength at 28 days of not less than 3,500 pounds per square inch.
- e. ½ inch anchor bolts or equivalent shall be installed in concrete before it has hardened. See "Framing" below for requirements.
- f. Garage floors shall slope toward main vehicle entry door or a floor drain shall be installed.

3. Fastening Schedule

- a. Windows, Doors, Siding, Trim, Flashing, and Shingles shall be fastened per the manufactures installation instructions
- b. See the table below for the proper size and quantity of nails for each connection

Fastener Schedule for Structural Members		
Connection	Nailing Method	Fasteners
Ceiling Joist/Rafter Tie to Top Plate	Toe	3-10d
Collar Tie to Rafter	Face	4-10d
Ceiling Joist/Rafter Tie to Rafter @ Heel Connection. Rafters @ 12" O.C. 50psf Snow Load, 28' Building Width	Face	9-16d
Ceiling Joist/Rafter Tie to Rafter @ Heel Connection. Rafters @ 16" O.C. 50psf Snow Load, 28' Building Width	Face	12-16d
Ceiling Joist/Rafter Tie to Rafter @ Heel Connection. Rafters @ 24" O.C. 50psf Snow Load, 28' Building Width	Face	17-16d
Rafter/Truss to Top Plate	Toe	4-10d
Rafter to Ridge Board	Toe	4-10d
Rafter to Hip/Valley Rafter	Toe	4-10d
Corner Studs	Face	10d 12" O.C.
Built-up Headers	Face	10d 2 row 12" O.C.
Double Studs	Face	10d 16" O.C.
Double Top Plate	Face	10d 12" O.C.
Double Top Plate 24" Offset Joints	Face	12-10d
Double Top Plates Laps at Corners	Face	3-10d
Top/Bottom Plate to Stud	Face	3-10d
Wall Structural Sheathing {OSB/Plywood} (NOT WALL WITH OVERHEAD DOOR, SEE CS-G or CS-PF FRAMING METHODS)	Face	6d 6" O.C. (edges) 6d 12" O.C. (field)
Roof Structural Sheathing {OSB/Plywood}	Face	8d 6" O.C. (edges) 8d 12" O.C. (field)

4. Framing Wall

- a. Sill plates resting on concrete or masonry shall be pressure-treated.
- b. Wood siding, sheathing and wall framing that is less than 6 inches above grade or less than 2” above concrete steps, porch slabs, or patio slabs, are required to be pressure-treated material.
- c. The sill plate shall be anchored to the foundation with ½-inch diameter anchor bolts or equivalent which are 6 feet on center, in the middle 3rd of the plate width and not more than 12 inches from each end of the plate. Bolts shall extend at least 7 inches into concrete or masonry.
- d. Walls are typically framed using 2 x 4 studs at 16 inches on center with a double top plate.
- e. Cutting or notching of 2 x 4 studs shall not exceed 7/8-inch.
- f. Holes drilled and boring in 2 x 4 studs shall not exceed 1-7/16 inch and shall be at least 5/8-inch from the edge of the stud.
- g. Holes bored and notches cut in top plates that remove more than 50% of the top plate shall be repaired with top plate repair straps fastened to the top plate with 8, 10D nails per side.
- h. Walls shall be sheathed/braced with a minimum of 7/16” thick structural sheathing. (OSB or plywood)
- i. All Building/Structure corners not framed with the CS-G or CS-PF method shall have at least 2 feet completely sheathed with structural sheathing (OSB/plywood) on both sides of every Building/Structure corner. Openings for windows, doors, etc. are not allowed within 2 feet of the Building/Structure corners.
- j. Proper sized headers shall be installed over all window and door openings. A pre-engineered header (Example: Glue-lam, Microlam, or LVL) is typically required for 16-foot wide door openings that are supporting roof construction. Additional engineering may be required.

Maximum Allowable Header Spans in Load Bearing Walls Supporting a Roof and Ceiling Only (Spruce-Pine-Fir #2 or Better) Ground Snow Load = 50psf						
Header Size	20' Building Width		28' Building Width		36' Building Width	
	Span	# of Jacks	Span	# of Jacks	Span	# of Jacks
2 2x4	3'-2"	1	2'-9"	1	2'-6"	1
2 2x6	4'-8"	1	4'-1"	1	3'-8"	2
2 2x8	5'-11"	2	5'-2"	2	4'-7"	2
2 2x10	7'-3"	2	6'-3"	2	5'-7"	2
2 2x12	8'-5"	2	7'-3"	2	6'-6"	2
3 2x8	7'-5"	1	6'-5"	2	5'-9"	2
3 2x10	9'-1"	2	7'-10"	2	7'-0"	2
3 2x12	10'-7"	2	9'-2"	2	8'-2"	2

5. Safety Glazing

- a. Safety Glazing is required in all fixed or operable panels within a 24” arc of a door, in fixed panels over 9 square feet and nearer than 18” to the floor or walking surface and with a top edge greater than 36” above the floor and within 36” horizontal of walking surface.
- b. All Safety Glazing shall be clearly labeled.

6. Exterior Wall Coverings

- a. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall be constructed in a manner that prevents the accumulation of water within the wall assembly and shall include flashing.
- b. Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:
 - i. Exterior window and door openings.
 - ii. Continuously above all projecting wood trim.
 - iii. At wall and roof intersections.

7. Roof

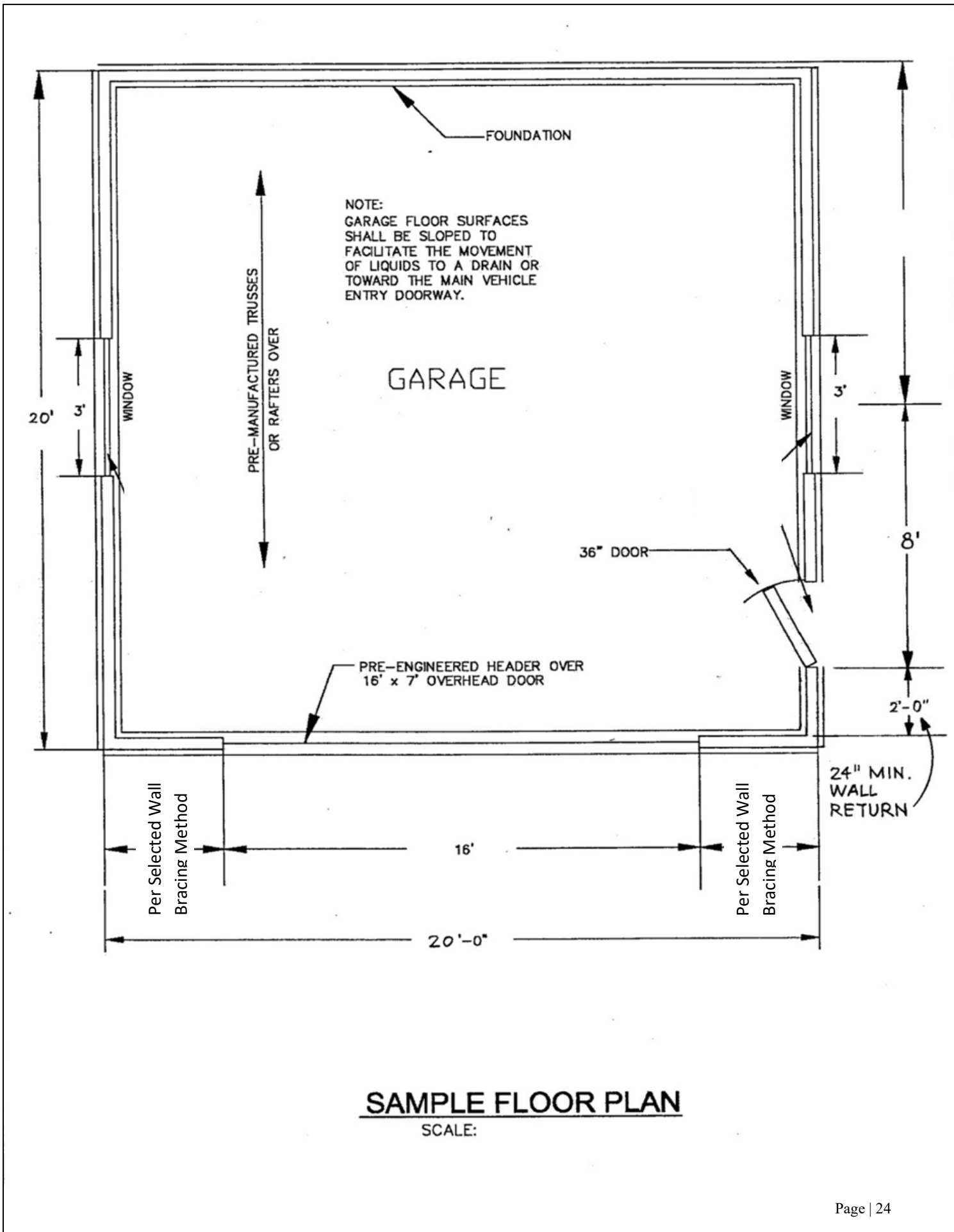
- a. Roofs shall be designed to support a minimum 50 pounds per square foot ground snow load.
- b. Roof trusses (if used) shall be installed and spaced as required by the truss manufacturer. Manufacturer’s truss drawings shall be on site at the rough-in inspection. Trusses shall not be field modified without approval of the truss manufacturer.
- c. Rafters (if used) shall have the proper size and spacing – (see examples in table below.)

Maximum Allowable Span for Rafters (Spruce-Pine-Fir #2 or Better) Ground Snow Load = 50psf, Ceiling Not Attached to Rafters	
Rafter Size & Spacing	Maximum Span
2 x 6 - 12 inches on center	11’-3”
2 x 6 - 16 inches on center	9’-9”
2 x 6 - 24 inches on center	7’-11”
2 x 8 - 12 inches on center	14’-3”
2 x 8 - 16 inches on center	12’-4”
2 x 8 - 24 inches on center	10’-1”
2 x 10 - 12 inches on center	17’-5”
2 x 10 - 16 inches on center	15’-1”
2 x 10 - 24 inches on center	12’-4”

- d. Ceiling joists (if used) shall have the proper size and spacing to provide a 20 pound per square foot live load when the roof slope is steeper than 3 in 12. (see examples in table below)

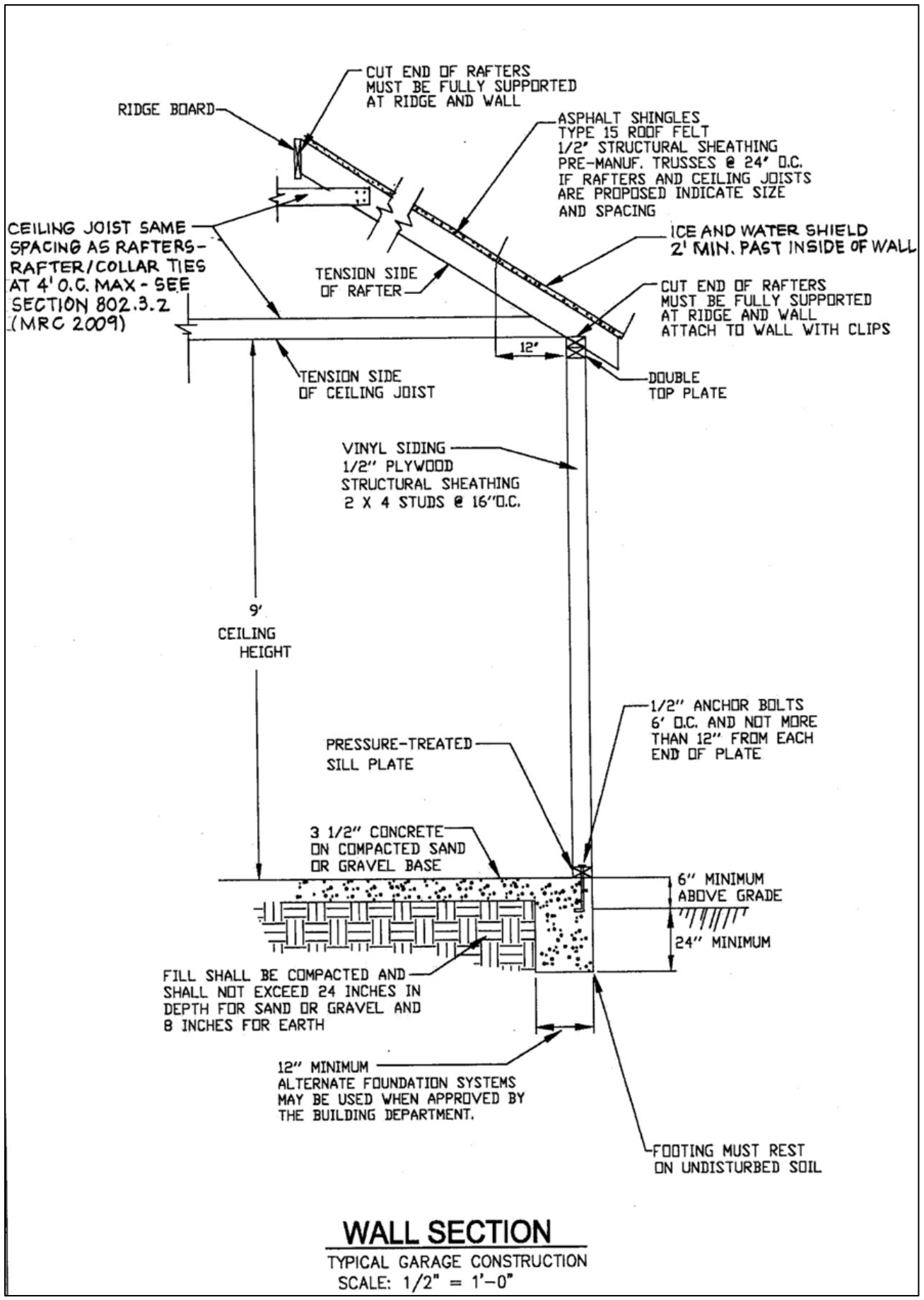
Maximum Allowable Span for Ceiling Joists (Spruce-Pine-Fir #2 or Better) Uninhabitable Attics with Limited Storage, Live Load = 20psf	
Ceiling Joist Size & Spacing	Maximum Span
2 x 6 - 12 inches on center	14'-9"
2 x 6 - 16 inches on center	12'-10"
2 x 6 - 24 inches on center	10'-6"
2 x 8 - 12 inches on center	18'-9"
2 x 8 - 16 inches on center	16'-3"
2 x 8 - 24 inches on center	13'-3"
2 x 10 - 12 inches on center	22'-11"
2 x 10 - 16 inches on center	19'-10"
2 x 10 - 24 inches on center	16'-3"

- e. If ceiling joists do not connect the rafter ends together, rafter ties shall be installed at the wall top plates on every rafter pair to connect the rafter ends together.
- f. Collar ties placed in the upper 1/3 of the rafter area are required 4 feet on center to connect the rafters together in the upper rafter area.
- g. Cut ends of rafters shall be fully supported at the ridge board and at all walls.
- h. The ends of rafters and ceiling joists (if used) shall have at least 1-1/2 inches bearing on the top plate of the wall.
- i. Notches at the end of rafters and ceiling joists shall not exceed 1/4 the depth. Notches in the top and bottom shall not exceed 1/6 the depth and shall not be located in the middle 1/3 of the span.
- j. The tension side of the rafter shall not be notched except for at the ends.
- k. Cutting, notching or alterations to manufactured roof trusses are not allowed.
- l. Minimum 7/16 inch structural sheathing (OSB or plywood) roof sheathing, rated to span the distances between the rafters or roof trusses are typically used for roof sheathing.
- m. Asphalt shingles are typically installed when the roof slope is 4 units vertical in 12 units horizontal or greater. One layer of Type 15 felt (tar paper) is required over the entire roof.
- n. Trusses and rafters shall be connected to the wall plates with approved hold down connectors (typically referred to as "hurricane" clips)

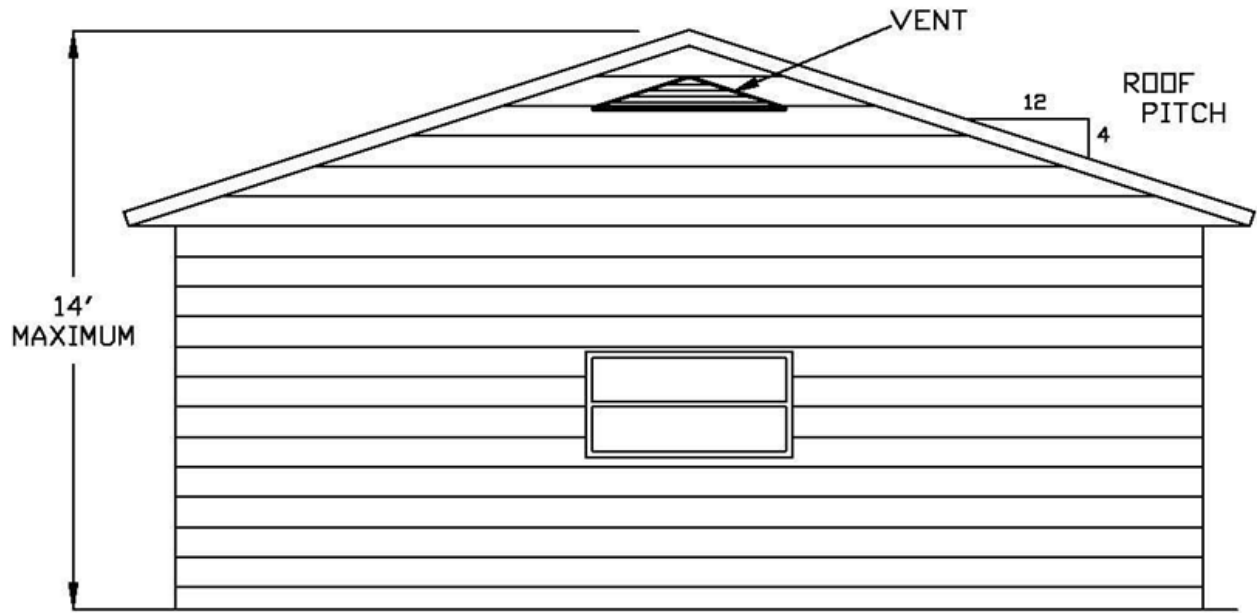


SAMPLE FLOOR PLAN

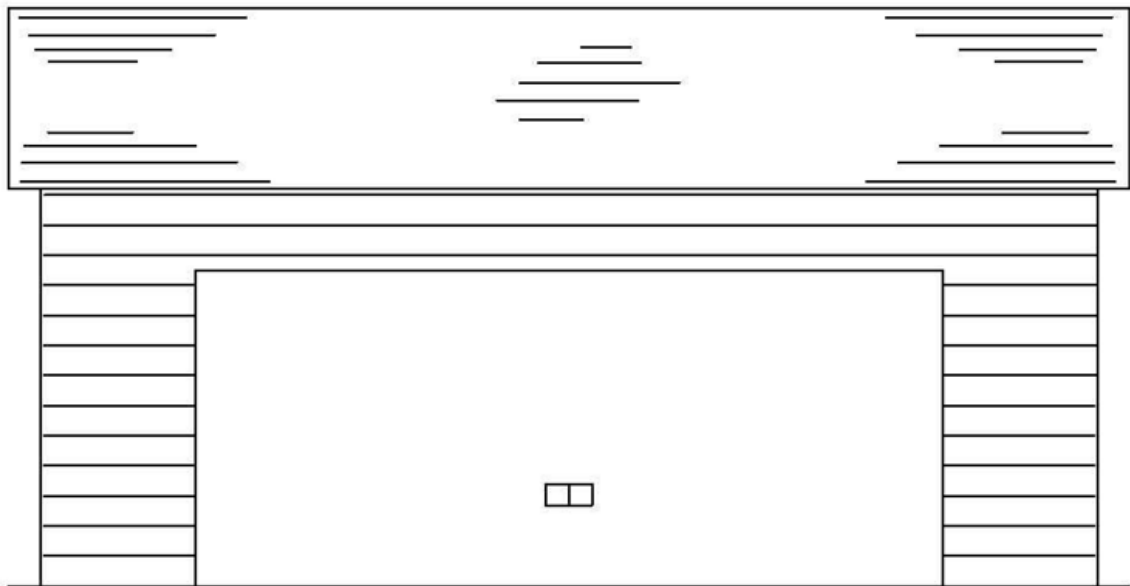
SCALE:



WALL SECTION
TYPICAL GARAGE CONSTRUCTION
SCALE: 1/2" = 1'-0"



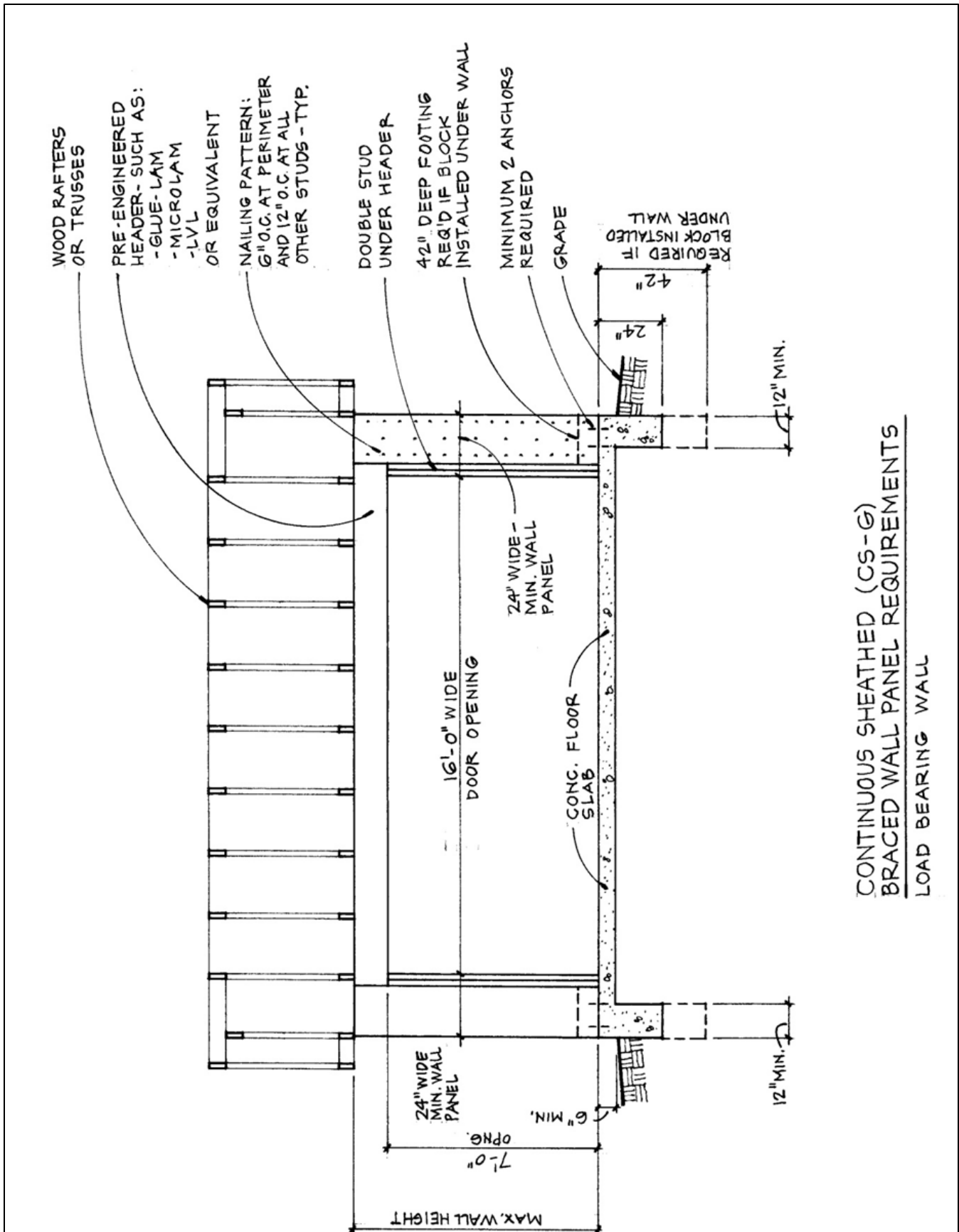
SIDE ELEVATION



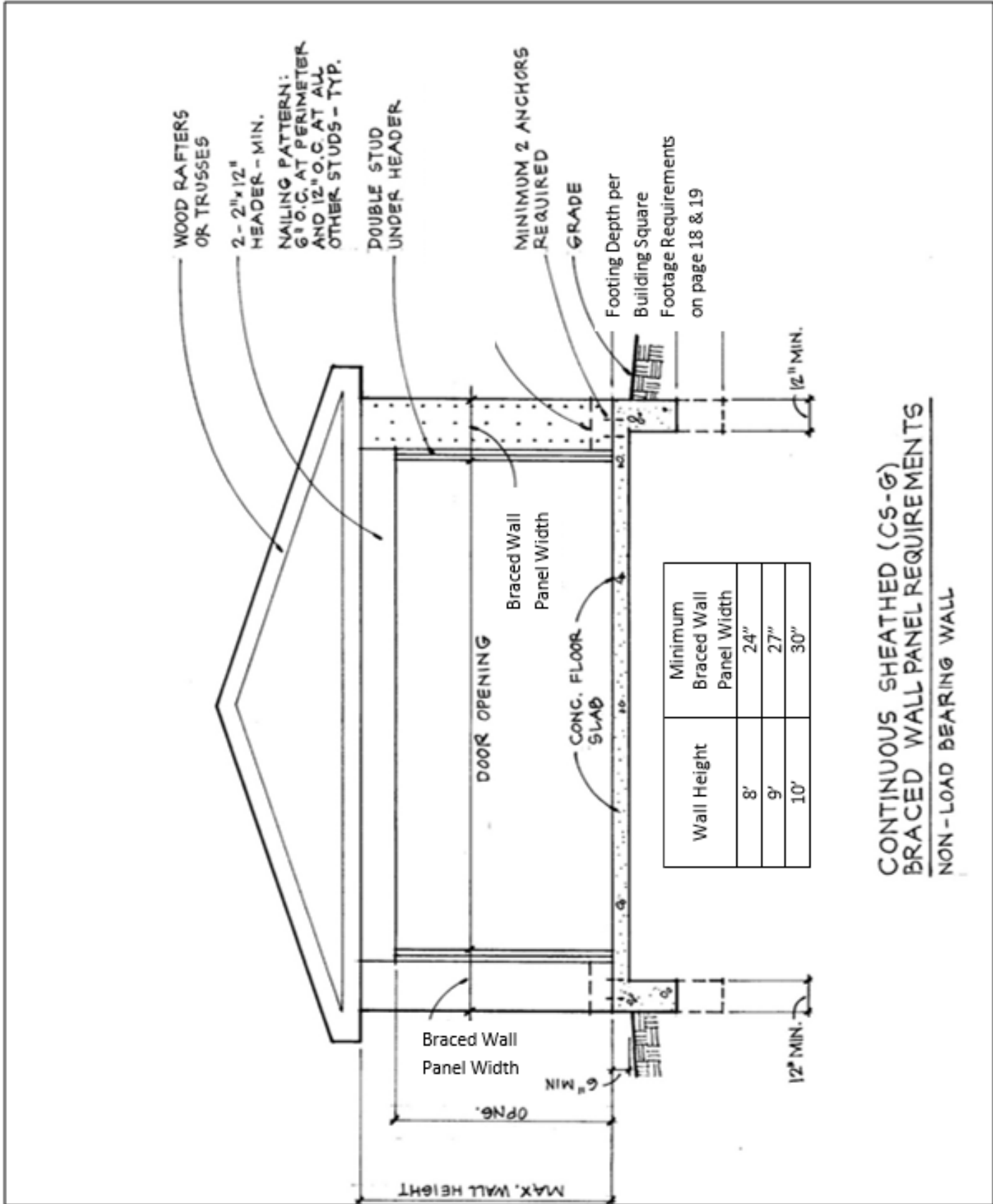
FRONT ELEVATION

SAMPLE ELEVATIONS

SCALE: 1/4" = 1'



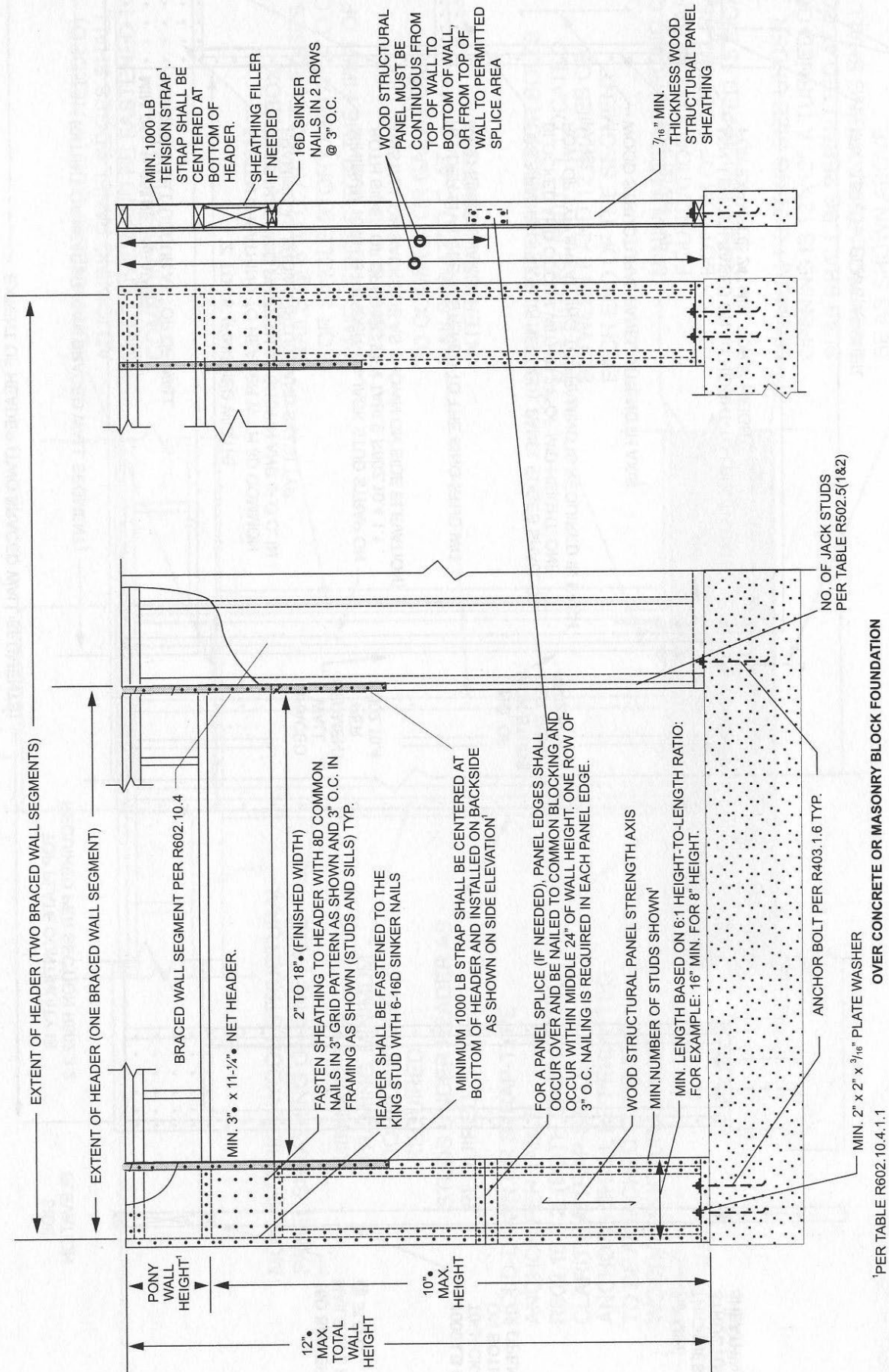
**CONTINUOUS SHEATHED (CS-G)
BRACED WALL PANEL REQUIREMENTS
LOAD BEARING WALL**

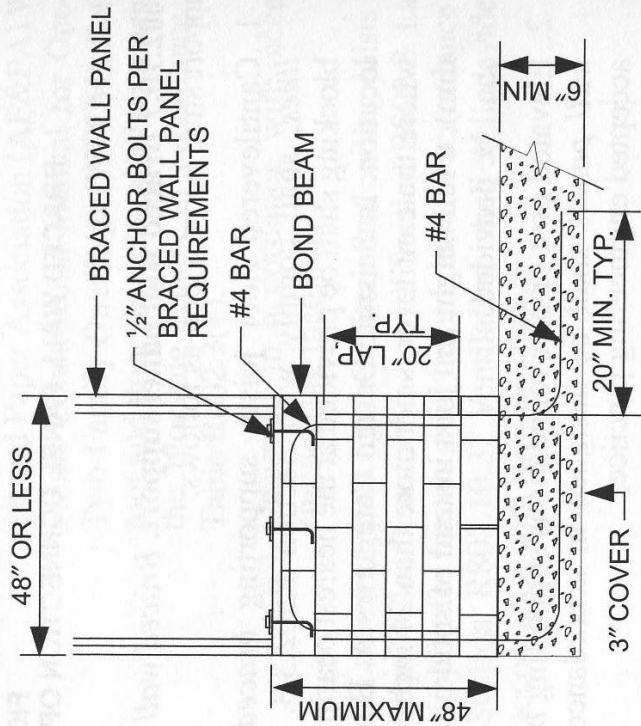


**CONTINUOUS SHEATHED (CS-G)
BRACED WALL PANEL REQUIREMENTS**
NON-LOAD BEARING WALL

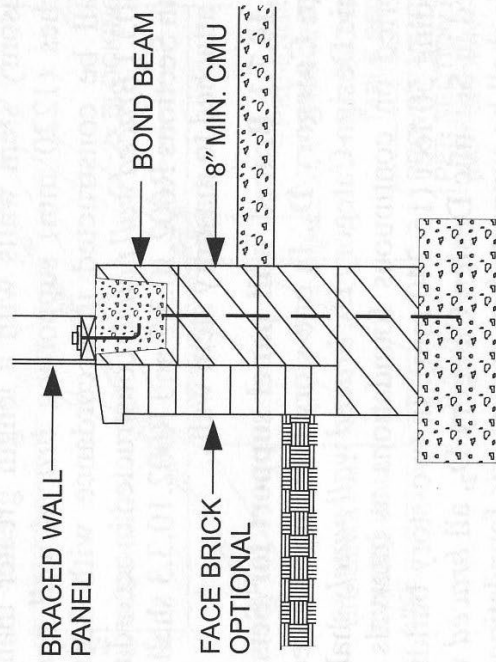
SIDE ELEVATION

OUTSIDE ELEVATION

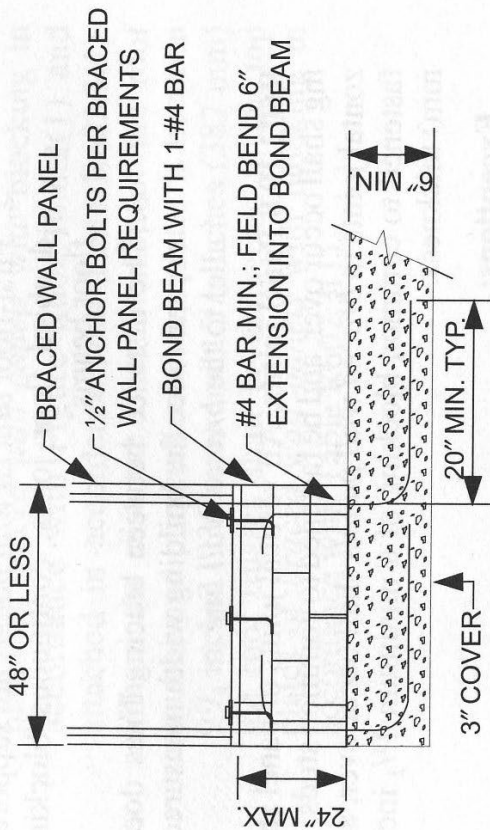




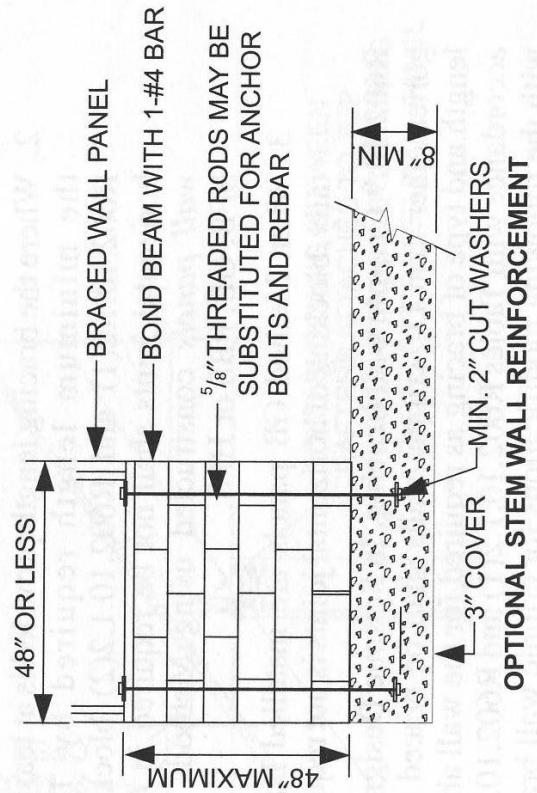
TALL STEM WALL REINFORCEMENT



TYPICAL STEM WALL SECTION



SHORT STEM WALL REINFORCEMENT



OPTIONAL STEM WALL REINFORCEMENT

NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS.