City of Boyne City
Founded 1856
319 N. Lake Street
Boyne City, Michigan 49712
www.boynecity.com
Phone 231-582-6597
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AGENDA

BOYNE CITY PLANNING COMMISSION

Monday December 21, 2015, 5:00 p.m.

Boyne City Hall

Scan QR code or go to
www.cityofboynecity.com
click on Boards & Commissions for complete agenda packets & minutes for each board

1. Call to Order
2. Roll Call - Excused Absences
3. Consent Agenda

   The purpose of the consent agenda is to expedite business by grouping non-controversial items together to be acted upon by one Commission motion without discussion. Any member of the Commission, staff, or the public may ask that any item(s) on the consent agenda be removed to be addressed immediately following action on the remaining consent agenda items. Such requests will be respected.

   Approval of minutes from October 22, 2015 Boyne City Planning Commission meeting.

4. Hearing Citizens Present *(Non-Agenda Items)*
5. Reports of Officers, Boards, Standing Committees
   Avalanche Management Plan
6. Unfinished Business
7. New Business
   A. Review Proposed Ordinance Amendment to Article I General Provision and Definitions to implement ZBA interpretation of Building Height.
   B. Review Boyne on the Water Zoning Recommendations
   C. Recommendation on Planning Commission appointment for Lynn Murray
   D. Adoption of the 2016 Meeting Calendar
8. Staff Report
9. Good of the Order
10. Adjournment – Next Meeting January 18, 2016

Individuals with disabilities requiring auxiliary aids or services in order to participate in municipal meetings may contact Boyne City Hall for assistance: Cindy Grice, City Clerk/Treasurer, 319 North Lake Street, Boyne City, MI 49712; phone (231) 582-0334

Approved: _____

Meeting of October 22, 2015

Record of the proceedings of the Boyne City Planning Commission special meeting held at Boyne City Hall, 319 North Lake Street, on Monday, October 22, 2015 at 5:00 pm.

Call to Order

Chair MacKenzie called the meeting to order at 5:00 p.m.

Roll Call

Present: George Ellwanger, Jane MacKenzie, Tom Neidhamer, Andy Place and Joe St. Dennis
Absent: Jason Biskner, Chris Frasz and Jim Kozlowski
Vacancy: One

Excused Absence(s) **MOTION

2015-10-22-02
St. Dennis moved, Place seconded, PASSED UNANIMOUSLY, a motion to excuse the absence of Jason Biskner, Chris Frasz and Jim Kozlowski

Addition to Agenda

Would like to add item 7B: Consideration of an applicant for the Planning Commission vacancy.

Meeting Attendance

City Officials/Staff: Planning and Zoning Administrator Scott McPherson, Main Street Executive Director Lori Meeder and Recording Secretary Pat Haver
Public Present: 2

Consent Agenda **MOTION

2015-10-22-03
Neidhamer moved, Ellwanger seconded, PASSED UNANIMOUSLY, a motion to approve the consent agenda; approval of the Planning Commission minutes from September 21, 2015 as presented.

Citizen comments on Non-Agenda Items

None

Reports of Officers, Boards and Standing Committees

Boyne On The Water's final review and presentation will be held November 17th, at St. Matthew's Parish Hall.

Unfinished Business

None

New Business

151 Ray Street Site Plan Amendment Request

Planning Director McPherson reviewed his staff report that was included in the agenda packet. Tim and Sara Manchester are in the process of restoring the building and eventually the railroad car at 151 Ray St. She is here before the board today to discuss their plans in changing the exterior of the building. Because development plan approval has already been granted on this property in 2007, the present request is a subsequent amendment to a previously approved development plan. The interior has been completed, and with the exterior changes, the encroachments into the ROW will be reduced. Not sure when the dumpster was put in, according to plans the property is 41' and not 44' that was stated in earlier plans. These plans did go to the Main Street Design Committee, and they did give the applicant some feedback and expect them to be back for a formal application.

Sara Manchester Applicant - One of the biggest changes will be the garage door opening that will replace a bank of windows on the west side, the addition of (2) round windows upstairs; both of these changes will allow additional light into the

Draft

studio. We are currently looking at the deck railing area utilizing a lower profile system, the addition of a "skirt" around the entire building made of concrete that mimics chiseled stone along with planter beds that could be used as seats. Looking at adding additional green space at the front of the building, with the biggest change to the entrance. Making changes to the existing ramp to make it lower in profile and the dumpster enclosure, we may be able to reduce the size to get away from the encroachments, and clean up the area outside on the back of the building with possible paving stones.

Place – As a part of the Main Street Design Committee, we looked at the proposed changes with a couple of suggestions for the stone on the outside, make less textured, make the railing more historically accurate if possible, and possibly share a dumpster with Stiggs' Brewing. It was determined that would not be feasible as the restaurant dumpster and a recycle project dumpster have different needs. The applicant will speak with their designer to see if they are able to reduce the size of the dumpster and enclosure to remain on their own property.

Manchester – Addressing the exterior color, would like to see the building and the water tower paint match to clean up and to make the tower safe. The cart, possibly look into gifting to the Historical Society.

Lori Meeder: Main Street Executive Director - I have toured the inside, and it is absolutely beautiful as they have taken great care to restore. The Create Studio is a game changer to that area in town. We are in full support of the project.

****MOTION**

After board discussion, **motion by Place seconded by Ellwanger** to approve of the site plan amendment with review and recommendation by the Main Street Design Committee and subject of the dumpster to be placed on their own property, if not to go to the City Commission for approval of the encroachment.

2015-10-22-7A
Roll Call:
Aye: Ellwanger, MacKenzie, Neidhamer, Place and St. Dennis
Nay: None
Absent: Biskner, Frasz and Kozlowski
Vacancy: One
Motion Carries

Application for the vacant position on the Planning Commission

****MOTION**

Ken Allen previously submitted an application for several boards within the City. At a previous vacancy he declined the position however, has now agreed to fill the current vacancy. With no further board discussion, **motion by St. Dennis, seconded by Place, PASSED UNANIMOUSLY** to recommend to the City Commission the appointment of Ken Allen to fill the current vacancy on the Planning Commission with a term expiring May 31, 2016.

Staff Report

- On November 5th is a Planners Forum to be held in Charlevoix. The cost of the forum is $15.00 and will be paid out of the Planning Department budget. If anyone is interested in going, let Pat know, and a group registration will be done.
- The Master Plan was adopted by the City Commission and is the final step in the RRC certification process. The city will be scheduling a certification event in December.

Good of the Order

- George Ellwanger will be unavailable for the November meeting.
- The new DPW facility is anticipated to be open the first week of November.
- Business After hours tonight at the Brook

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Adjournment

The next regular meeting of the Boyne City Planning Commission is scheduled for Monday, October 19, 2015 at 5:00 pm in the Auditorium.

2015-10-22-10

****MOTION**

St. Dennis moved, Neidhamer seconded, PASSED UNANIMOUSLY a motion to adjourn the October 22, 2015 meeting at 5:43 p.m.

_____ _____

Chair Jane MacKenzie Pat Haver, Recording Secretary

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CITY OF BOYNE CITY

To: Scott McPherson, Planning Director

From: Patrick Kilkenny, Assistant Planner

Date: November 24, 2015

Subject: Building Height Amendment

Background:

On February 5, 2002 the Boyne City Zoning Board of Appeals (ZBA) provided an interpretation, per the request of the Planning Director, on the definition of "Building Height" as defined in the Boyne City Zoning Ordinance (BCZO). The ZBA determined that the 2001 BCZO adoption and associated review failed to notice a change to the definition of "Building Height" from the 1998 Ordinance, which subsequently led to confusion in how to determine the height of buildings.

The ZBA interpreted on February 5, 2002 (see attached minutes) that the intent of the 2001 BCZO was to keep the "Building Height" definition the same as it read in the 1998 Ordinance. Although the determination helped to alleviate confusion with the definition, the 2001 BCZO was never officially amended.

Please see below for the amended ordinance definition recommended in 2002 by the ZBA to be ***included*** (and ~~removed~~) in the BCZO.

Building Height: The vertical distance measured from the ~~average~~ ***established*** grade ~~as defined~~ ***prior to any excavation or construction,*** to the highest point of the roof surface for flat roofs; to the ~~peak of the roof for all other roof types~~ ***deck line of mansard roofs and to the mean height between eaves and ridge for gable, hip and gambrel roofs***. Where a building is located on sloping terrain, the height shall be measured from the lowest exposed point of a building to the highest point of the roof surface for flat roofs; to the ~~peak of the roof for all other roof types~~ ***deck line of mansard roofs and to the mean height between eaves and ridge for gable, hip and gambrel roofs.***

For roofs which are not symmetrical the mean height between the eaves and ridge will apply to the highest ***midpoint*** of all roof surfaces. When more than one type of roof is present in a building design, each type shall be considered separately, and no roof element shall exceed the height allowed for that particular roof type.

Attachments:
February 5, 2002 ZBA Minutes and Staff Memo

Approved: _____

MEETING OF FEBRUARY 5, 2002

RECORD OF THE PROCEEDINGS OF THE BOYNE CITY ZONING BOARD OF APPEALS MEETING DULY CALLED AND HELD ON TUESDAY, 5 FEBRUARY 2002, 5:00 P.M., AT BOYNE CITY HALL, 319 NORTH LAKE STREET.

CALL TO ORDER

Chair Kubesh called the meeting to order at 5:01 p.m.

ROLL CALL

Present: Tom Schraw, Ron Grunch, Jim Knurick, Pat Kubesh.
Absent: Mark Crum.

MEETING ATTENDANCE

City Officials/Staff: City Planner Timothy O=Leary, Assistant City Manager/City Clerk Sue Hobbs.
Public: There was one person in attendance.

INTERPRETATION OF LANGUAGE IN ZONING ORDINANCE PERTAINING TO HEIGHT OF STRUCTURES

PLANNER O=LEARY=S PRESENTATION

O=Leary explained the difference between the language related to measuring the height of buildings found in the zoning ordinance which was adopted in 1998 and the new ordinance adopted in May of 2001. The language, as it currently exists, restricts some of the design options which are found in Turn of the Century or Victorian architecture which is encouraged by the Zoning Ordinance. The language in the 2001 ordinance is also in conflict with the diagram, AGuide to Height Definitions≅ in the same ordinance. The older definition requires height to be determined from the ground to the mid-point of the roof structure, whether the building is on a flat or sloping terrain. When there were multiple roof surfaces, the height was measured from the highest averaged roof surface.

O=Leary also explained that City Staff clearly remember that in 1998, an ordinance amendment was written which met the goals of the City in relation to the height of buildings. The intent when the City=s zoning ordinance was rewritten in 2001 was to leave the language related to measuring the height of buildings the same as adopted in 1998. Due to the amount of review required in updating the ordinance, it was not noticed by staff nor the Planning Commission or City Commission that the firm contracted for this work had changed the building height definition.

This was presented at the last Planning Commission meeting and the consensus at that meeting was they also believed that the language from the old ordinance was simply going to be duplicated and remain the same in the new ordinance. There is also a question on what constitutes a roof in determining where height should be measured. This issue is whether a dormer or shed dormer constitutes a roof surface and whether the height should include the surfaces covering those structures. The Charlevoix County Building Department has offered to assist with some of the terminology so it will mirror that found in the BOCA Code for General Building Limitations.

BOARD DELIBERATIONS

Following discussion, Kubesh highly recommended that we take each roof separately in considering the height of a building, Knurick agreed.

Moved by Knurick, seconded by Schraw, to revert back to the language adopted by the City in 1998 that was established for height and to adopt a definition for grade which measures from the natural grade elevations to the lowest point it intersects the structure and that would consider each roof separately in considering the height of a building.

Roll Call

Aye: Grunch, Knurick, Kubesh, Schraw.
Nay: None
Abstain: None.
Absent: Crum.

Motion Carried.

MEETING ADJOURNED

Knurick moved to adjourn the 5 February 2002 Boyne City Zoning Board of Appeals meeting at 5:31 p.m.

Sue Hobbs, City Clerk

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ITEM 7. A.
Zoning Board of Appeals
February 5, 2002

MEMORANDUM

TO: Chair Pat Kubesh and members of the Zoning Board of Appeals

Date: January 28, 2002

FILE COPY

FR: Tim O'Leary
Planning Director

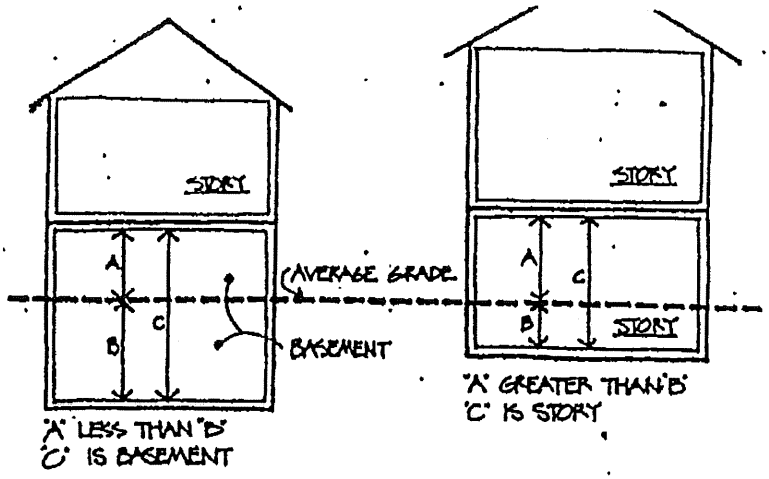
RE: INTERPRETATION OF LANGUAGE WITHIN THE ZONING ORDINANCE.

I am requesting the ZBA interpret language within the zoning ordinance. Specifically, the issue is with the definition of building height. To give some background I have included copies of the previous definition of building height and the current definition. As you can see, the older definition requires height to be determined from the ground to the mid-point of the roof structure, whether the building is on flat or sloping terrain. When there are multiple roof surfaces, the height was measured from the highest averaged roof surface. When the new language was adopted, unbeknownst to us until two months ago, the way height was computed changed. You will also see the language conflicts itself in the first and second paragraphs. This was discussed at the last Planning Commission meeting. The consensus at that meeting was the language from the old ordinance was simply going to be duplicated and remain the same in the new ordinance. I do not have an explanation as to how or why the definition changed. For approximately six months, permits were issued by my department, thinking the old definition of height was still in place. Several of these were issued in violation of the new language, but were in compliance with the way height used to be measured. It wasn't until a permit was issued that was in violation of both the old and the new language, and a question was raised that we reviewed the Ordinance and discovered our mistake(s). At the last Planning Commission meeting, the Commission requested the language be amended to return to the old version of how height was determined. That is some background on the issue.

There is an additional issue which has been raised in relation to this matter. That is a question on what constitutes a roof in determining where height should be measured. The issue raised is whether a dormer or shed dormer constitutes a roof surface and whether the height should include the surfaces covering those structures. I have attached a copy of the 1996 BOCA code for General Building Limitations. As you read this you will see that the language very closely mirrors the definition put in place in 1998. I believe that is because is our definition was crafted looking at the definition in the building code. The former definition in the Zoning Ordinance references "roof surface". The request before the Board is to consider if the words "roof surface" includes those structures technically defined as dormers or shed dormers. In the past we have interpreted roof surface to include all roof surfaces, whether or not they are technically part of the main roof or roof projections such as dormers.

If you have any questions or wish to discuss further prior to the meeting, please contact me at 582-0337.

7. **Boarding House:** A building, other than a hotel, where lodging and meals for two or more persons are served for compensation.



BASEMENT & STORY

8. **Building:** A structure that encloses space intended for the occupancy of persons or animals or the storage of goods and chattels for purposes of residence, recreation, services and economic enterprises, which structure shall have a roof supported by columns or walls.

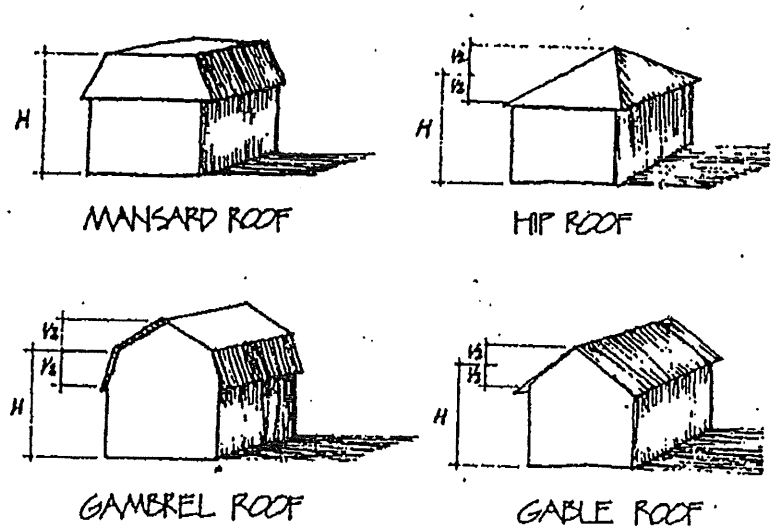
OLD

9. **Building Height:** The vertical distance measured from the established grade prior to any excavation or construction, to the highest point of the roof surface for flat roofs; to the deck line of mansard roofs and to the mean height between eaves and ridge for gable, hip and gambrel roofs. Where a building is located on sloping terrain, the height shall be measured from the lowest exposed point of a building to the highest point of the roof surface for flat roofs; to the deck line of

mansard roofs and to the mean height between eaves and ridge for gable, hip and gambrel roofs.

For roofs which are not symmetrical the mean height between the eaves and ridge will apply to the highest midpoint of all roof surfaces. When more than one type of roof is present in a building design, each type shall be considered separately, and no roof element shall exceed the height allowed for that particular roof type. With regard to Section 5.10, Schedule of Regulations, maximum height will be determined by 2.5 stories and 30′ in R-1 and R-2, and 2.5 stories and 35′ in all other districts.

(Amended by no. 64 adopt. May 27, 1997)



BUILDING HEIGHT

Base Flood: A flood having a one percent (1%) chance of being equaled or exceeded in any given year.

Basement: That portion of a building which is partly or wholly below grade but so located that the vertical distance from mean grade to the floor is greater than the vertical distance from the mean grade to the ceiling. A basement shall not be counted as a story unless over fifty percent (50%) of its height is above the level from which the height of the building is measured.

Bedroom: A room in a dwelling unit used for or intended to be used solely for sleeping purposes by human beings.

Berm: A mound of soil graded, shaped and improved with grass or landscaping in such a fashion so as to be utilized for screening purposes.

Block: Property abutting one side of a street and lying between the two nearest intersecting streets or between the nearest such street and railroad right-of-way, unsubdivided acreage, river or stream, or between any of the foregoing and any other barrier to the continuity of development.

Board of Appeals: The Zoning Board of Appeals of the City of Boyne City.

Boarding House (Tourist House): A building, other than a hotel, motel, or bed-and-breakfast inn, where lodging and meals for more than five (5) but no more than twenty (20) persons are served for compensation for a length of stay not to exceed ten (10) days.

Boat: Boats, floats, rafts and the attached normal equipment to transport the same on highways.

Brewpub: A restaurant or tavern (as defined within this Ordinance) licensed by the State of Michigan to produce and manufacture not more than five-thousand (5,000) barrels of beer per calendar year in Michigan, and sell at retail on the premises the beer produced and manufactured for consumption on or off the premises in the manner provided for in MCLA 436.31b and 436.31c.

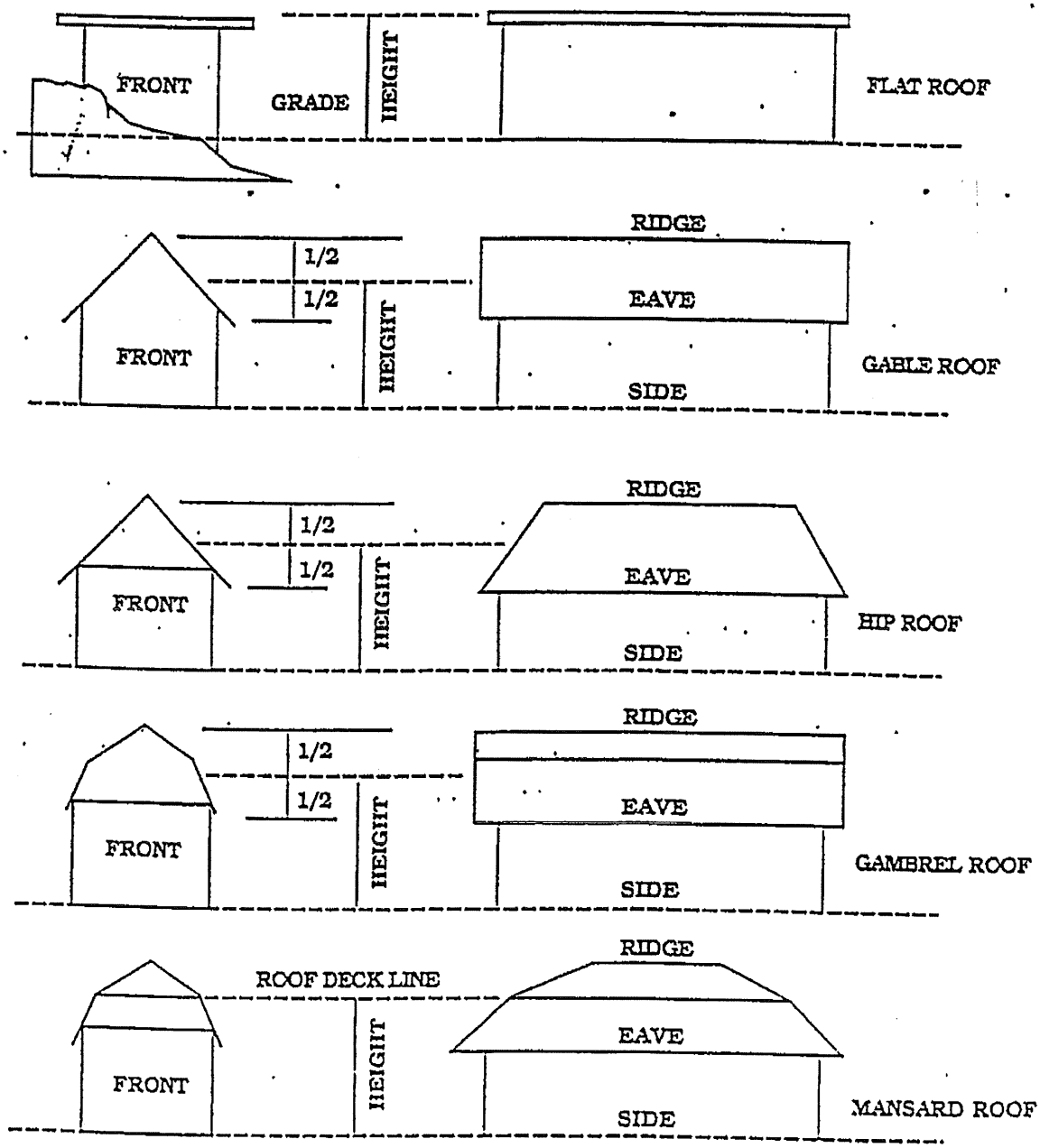
Buffer Zone: A strip of land often required between certain zoning districts or land uses reserved for plant material, berms, walls, or fencing to serve as a visual barrier.

Buildable Area: The space remaining on a lot after compliance with the minimum required setbacks of this Ordinance.

Building: A structure that encloses space intended for the occupancy of persons or animals or the storage of goods and chattels for purposes of residence, recreation, services and economic enterprises, which structure shall have a roof supported by columns or walls, or some other support mechanism.

Building, Accessory: A supplementary building or a portion of a main building, the use of which is incidental to, customarily found in connection with, devoted exclusively to, and subordinate to that of the main building and which is located on the same lot as the main building. "Accessory

GUIDE TO HEIGHT DEFINITIONS



building" includes garages, garden equipment sheds, small greenhouses, swimming pools, and accessory apartments.

Conflicts With Diagram

Building Height: The vertical distance measured from the average grade as defined, to the highest point of the roof surface for flat roofs; to the peak of the roof for all other roof types. Where a building is located on sloping terrain, the height shall be measured from the lowest exposed point of a building to the highest point of the roof surface for flat roofs; to the peak of the roof for all other roof types.

For roofs which are not symmetrical the mean height between the eaves and ridge will apply to the highest of all roof surfaces. When more than one type of roof is present in a building design, each type shall be considered separately, and no roof element shall exceed the height allowed for that particular roof type.

Building Line (Setback Line): The line which pertains to and defines those minimum (building) setback lines which are established parallel to the front street or right-of-way line and within which setback area no part of a building shall project or be located, except as otherwise provided in this Ordinance. Such line, when adjacent to a building, is normally formed by the junction of the line formed by drip edge of home with the finish grade or surface of the adjoining ground.

Building, Public And Semi-public Institutional: Buildings and structures of governmental agencies and nonprofit organizations including, but not limited to, office buildings, churches, municipal parking lots, post offices, libraries, and community centers.

Build-To Line: An alignment that dictates the front yard setback from a street or public right-of-way, to be followed by buildings or structures fronting thereon. The build-to line does not apply to building projections or recesses.

Build-Up Line: An alignment that dictates an average height to the cornice line or to the roof edge line on a street or space.

Camper, Pick-Up: A recreational unit designed to be mounted on a pick-up or truck chassis, with sufficient equipment to render it suitable for use as temporary lodging for travel, recreational and vacation uses.

Canopy Tree: A deciduous tree whose mature height and branch structure provide foliage primarily on the upper half of the tree. The purposes of a canopy tree are to provide shade to adjacent ground areas and to enhance aesthetics.

Cemetery: Land used or intended to be used for burial of the human dead and dedicated for such purpose.

Certificate of Occupancy: A certificate issued by the Planning Director or Zoning Administrator, after final inspections, indicating his or her opinion that all the provisions of this Ordinance are being complied with and met. No building or structure or use for which a zoning permit has been issued shall be occupied until the Planning Director has, after final inspection, issued a Certificate

Garden Center: An establishment with retail sales of trees, fruits, vegetables, shrubbery, plants, seeds, topsoil, humus, fertilizer, trellises, lawn furniture, playground equipment and other home garden supplies, landscaping materials, and equipment.

Glare: The effect produced by brightness or a source of illumination sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

Grade:

A. For buildings having walls adjoining one (1) street only, the elevation of the sidewalk at the center of the wall adjoining the street.

B. For the buildings having walls adjoining more than one (1) street, the average of the elevation of the sidewalks at the centers of all walls adjoining the streets.

C. For buildings having no wall adjoining the sidewalks or street, the average level of the finished surface of the ground adjacent to the exterior walls of the building.

Grade, Average: The arithmetic average of the lowest and highest grade elevations in an area within five (5) feet of the foundation line of a building or structure.

Grade, Finished: The lowest point of elevation between the exterior wall of the structure and a line five (5) feet from the exterior wall of the structure.

Grade, Natural: The elevation of the ground surface in its natural state, before construction begins.

Greenbelt: A strip of land, not less than five (5) feet in width, which is planted with trees or shrubs acceptable in species and caliber to the Planning Commission and/or Planning Director and in compliance with the requirements of this Ordinance.

Harmful Increase: An unnaturally high stage on a river, stream or lake that causes, or may cause damage to property, threat to life, personal injury, or damage to land or water resources.

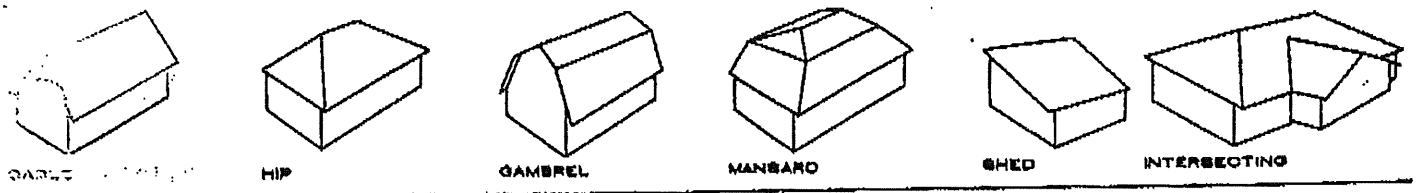
High Water Elevation: For Lake Charlevoix, this is the highest water level elevation for Lake Michigan/Huron as recorded by the United States Army Corps of Engineers, (582.4' I.G.L.D.). For all other lakes and streams, this level is the 100-year flood plain.

Home Occupation: Any use customarily conducted entirely within the dwelling and carried on by the inhabitants thereof, not involving more than one (1) employee other than members of the immediate family residing on the premises, which use is clearly incidental and secondary to the use of the dwelling for dwelling purposes, does not change the character thereof, and does not endanger the health, safety and welfare of any other person residing in that area by reason of noise, noxious odors, unsanitary or unsightly conditions, fire hazards and the like, involved in or resulting from such occupation, profession or hobby. However, no article or service shall be sold or offered for sale on the premises, except such as is produced by such occupation, and such occupation shall not require internal or external alterations or construction features, equipment, machinery, commercial

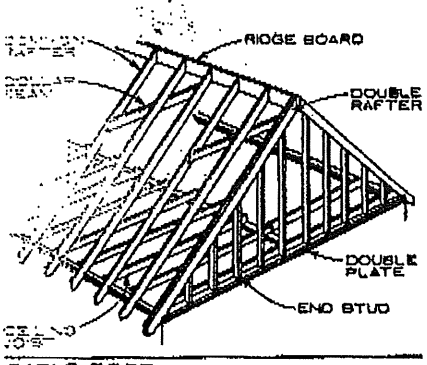
ARTICLE XX
SCHEDULE OF REGULATIONS

Section 20.10 Residential Districts.

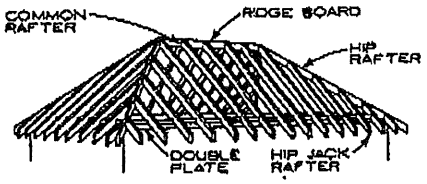
Zoning District	Minimum Lot Per Unit		Maximum Height of Structure		Minimum Yard Setback (Per Lot In Feet)				Minimum Floor Area Per Unit (Square Feet) i	Maximum Percentage of Lot Area Covered by All Buildings h
	Area in Square Feet	Width In Feet	In Stories	In Feet	Front	Sides k		Rear		
						At Least One	Total of Two			
Rural Estate District (RED)	10,890	100	2.5	30	30 c	10 k	30 k	30 l	800 first floor 1,200 if more than one story	30%
Traditional Residential District (TRD)	5,445	50	2.5	30	10 c	5 k	15 k	15 l	672 first floor 1,000 if more than one story	40%
Waterfront Residential District (WRD) e, m, n	5,445	66	2.5	30	35	5 k	15 k	15	672 first floor 1,000 if more than one story	30%
Multiple Family Residential District (MFRD) e, m, n	g	100	2.5	35	40 d	25 d	50 d	50 d	500	30%
Manufactured Housing Park District (MHPD)	See Article VII Manufactured Housing Park District									



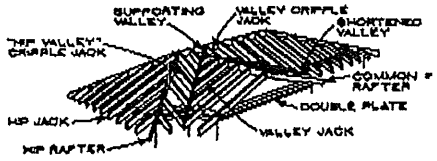
TYPICAL TYPES OF ROOFS



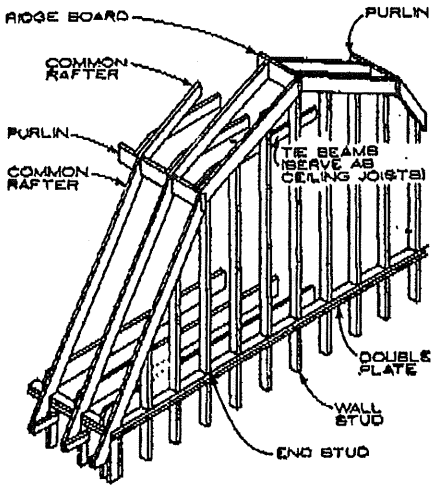
GABLE ROOF



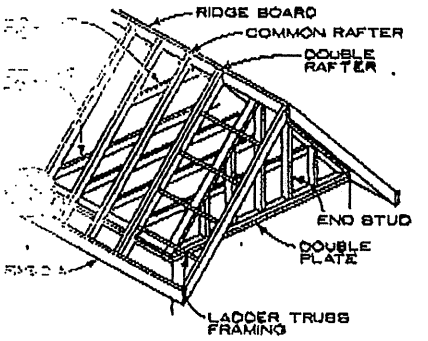
HIP ROOF



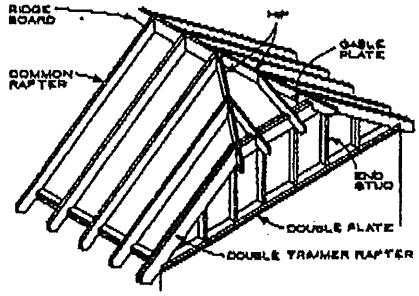
HIP AND INTERSECTING ROOF



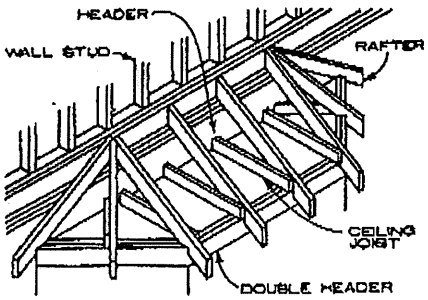
GAMBREL ROOF



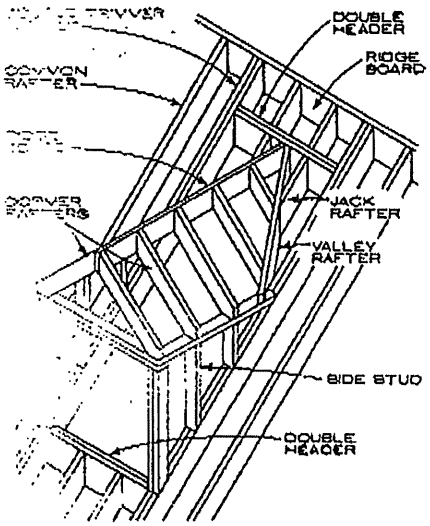
GABLE ROOF WITH OVERHANG



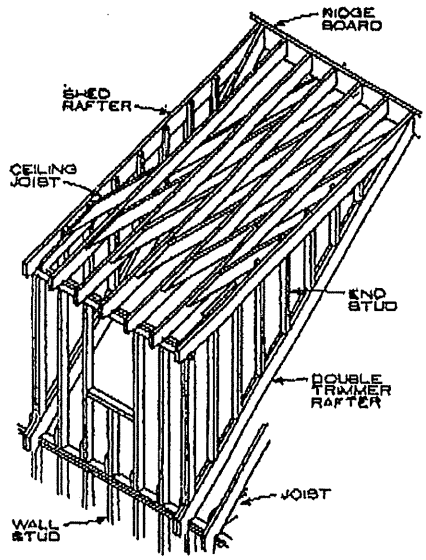
HIP GABLE ROOF



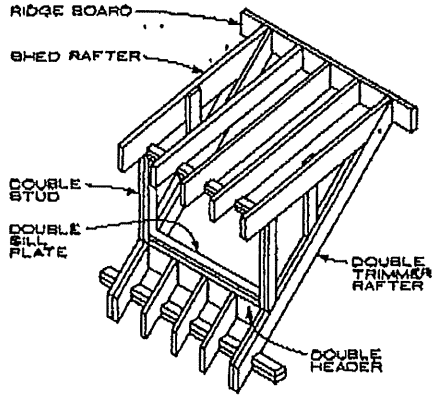
ROOF FRAMING OVER BAY WINDOW



GABLE DORMERS



LARGE SHED



SMALL SHED

John F. Hoke, Jr., AIA, Architect: Washington, D.C.

Chapter 5: General Building Limitations

Abstract

Chapter 5 contains the provisions that regulate minimum types of construction, area modifications, height modifications, mezzanines and unlimited area structures.

Section 501.0 gives the scope of Chapter 5. It clarifies that the provisions of Chapter 5 apply not only to new construction, but also to additions to existing buildings.

Section 502.0 defines terms that are related to the use and application of Chapter 5 and other provisions of the code related to height and area.

Section 503.0 is used in conjunction with Table 503 to create a balance between the size of a structure, its occupancy and the type of construction materials. This balance, commonly called "equivalent risk," is inherent throughout the code but is most evident in its empirical form in these sections.

Sections 504.0 and 506.0 address structures that exceed the Table 503 height and area limitations. The special provisions in these sections offer exceptions that will still maintain equivalent risk.

Section 505.0 gives the requirements for mezzanines that do not contribute to the building's number of stories above grade when determining compliance with Table 503.

Section 507.0 gives the provisions for one-story buildings that are permitted to be unlimited in area.

Keywords

Alteration, Area (Building), Automatic Fire Suppression System, Automatic Sprinkler System, Basement, Code Official, Exit, Fire Separation Distance, Fire Separation Walls, Fire Walls, Fire-resistance Rating, Grade Plane, Height (Building), Height (Story), Lot Line, Mezzanine, Protected, Public Space, Story, Story Above Grade, Street, Structure, Use Group.

Purpose

The purpose of Chapter 5 is to regulate the size of structures based on the specific hazards associated with their occupancy, the materials of which they are constructed, and any special provisions intended to aid the fire fighter in protecting the building occupants in the event of a fire.

Misapplication of Chapter 5 can result in a multitude of related errors in subsequent code application. Through the application of the sections dealing with height and area limitations (Sections 503.0, 504.0 and 506.0), a structure's minimum type of construction (for code purposes) can be determined. Since subsequent code sections often depend on the type of construction, misapplication of the sections in this chapter can lead to misapplication of other requirements in later chapters, thus compounding the error.

General Comments

Chapter 5 has historically been one of the most important chapters in the code because it establishes the basis for determination and application of many other code requirements, i.e., minimum type of construction. Without correct determination of the minimum type of construction, misapplication of the code is probable.

The requirements in Chapter 5 have withstood decades of code changes. Each of the requirements in Chapter 5 affects the decisions that have to be made when applying the rest of the code. Building height, area and type of construction, as well as the need for an automatic sprinkler system or an open space around the perimeter of the building, must all be taken into consideration before means of egress, fireresistance, fire protection or even structural and material requirements can be properly determined.

SECTION 501.0 GENERAL

This section provides the scope of Chapter 5.

501.1 Scope: The provisions of this chapter control the *height* and *area* of all structures hereafter erected, and *additions* to existing structures based on the type of construction, use group, frontage on open space providing exposure protection and access to structures for fire-fighting purposes, and the presence of an *automatic sprinkler system.*

Chapter 5 is applicable to all new structures and to existing structures that are to be enlarged. Allowable height and area are based on the basis of use group, type of construction, location of the property relative to lot lines and other structures, fire department access, and the presence of an automatic sprinkler system.

SECTION 502.0 DEFINITIONS

This section contains definitions of terms that are associated with the subject matter of this chapter. It is important to emphasize that these terms are not exclusively related to this chapter, but are applicable everywhere the term is used in the code.

502.1 General: The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

Definitions of terms can help in the understanding and application of the code requirements. The purpose for including these definitions within this chapter is to provide more convenient access to them without having to refer back to Chapter 2.

For convenience, these terms are also listed in Chapter 2 with a cross-reference to this section. Terms that are italicized provide [illegible] identification throughout the code that a definition exists [illegible] term.

[illegible] use and application of all defined terms, including those defined herein, are set forth in Section 201.0.

[illegible] The area included within surrounding exterior walls or exterior walls and *fire walls* exclusive of vent *shafts* [illegible] with surrounding walls shall be included in the building area if such areas are included within the horizontal projection of the roof or [illegible] above.

[illegible] allowable building areas (as established by the provisions of [illegible] and Table 503) are a function of the potential fire [illegible] the level of fire endurance of the building's structural [illegible] as defined by the types of construction in Chapter 6.

A building area is the "footprint" of the building; that is, the area measured within the perimeter formed by the inside surface of the exterior walls, and excludes spaces that are inside this perimeter and open to the outside atmosphere at the top, such as [illegible] shafts and courts (see Section 1212.0).

When a portion of the building has no exterior walls, the area regulated by Chapter 5 (Table 503) is defined by the projection [illegible] roof or floor above [see Figure 502.1(1)]. The roof over- [illegible] a building that has exterior enclosure walls does not add [illegible] building area because the area is defined by exterior walls. [illegible] 2 utilizes the term "maximum horizontally pro- [illegible] to further define the regulated building area.

[illegible] That portion of a building which is partly or completely below grade (see "*Story above grade*").

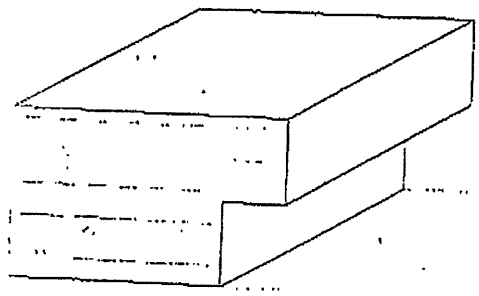
■ A basement is a level of a building that has its floor surface not totally above the adjoining ground level. There are many special grading conditions that might require the basement to be considered as a story above grade. See the commentary to the definition of "Story above grade" and Figure 502.1(2).

Grade plane: A reference plane representing the average of finished ground level adjoining the building at all exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the *lot line* or, where the *lot line* is more than 6 feet (1829 mm) from the building, between the building and a point 6 feet (1829 mm) from the building.

■ This definition is critical in determining the height of a building and the number of stories above grade in the context of Chapter 5. Since the finished ground surface adjacent to the building may vary (depending on site conditions), the mean average taken at various points around the building constitutes the grade plane. One method of determining the grade plane elevation is illustrated in Figure 502.1(3), where the ground slopes uniformly along the length of each exterior wall.

Situations may arise where the ground adjacent to the building slopes away from the building because of site or landscaping considerations. In this case, the lowest finished ground level at any point between the building's exterior wall and a point 6 feet from the building (or the lot line, if the lot line is closer than 6 feet) comes under consideration. These points are used to determine the elevation of the grade plane as illustrated in Figures 502.1(4) and 502.1(5).

In the context of the code, the term "grade" means the finished ground level at the exterior walls. While the "grade plane" is a hypothetical horizontal plane derived as indicated above, the "grade" is that which actually exists or is intended to exist at the completion of site work. The only situation where the "grade plane" and the "grade" are identical is when the site is perfectly level for a distance of 6 feet from all exterior walls.



HORIZONTAL PROJECTION OF FLOOR ABOVE DEFINES ADDITIONAL BUILDING AREA THAT IS INCLUDED AS PART OF THE BUILDING AREA

Figure 502.1(1)
BUILDING AREA — PROJECTED

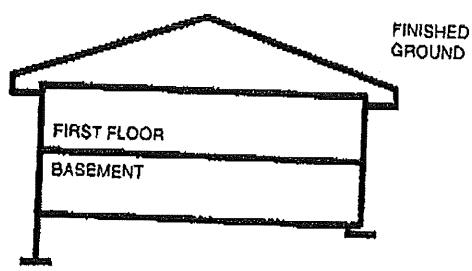
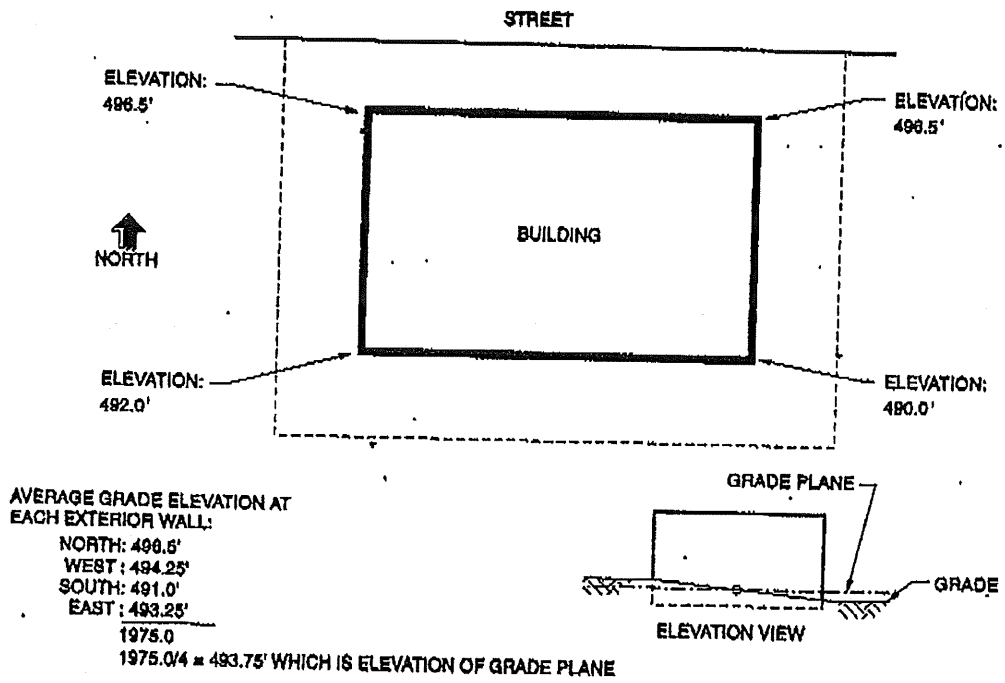


Figure 502.1(2)
BASEMENT



AVERAGE GRADE ELEVATION AT EACH EXTERIOR WALL:

NORTH: 496.5'
WEST: 494.25'
SOUTH: 491.0'
EAST: 493.25'
1975.0
1975.0/4 = 493.75' WHICH IS ELEVATION OF GRADE PLANE

Figure 502.1(3)
DETERMINATION OF GRADE PLANE ELEVATION WHEN GRADE SLOPES UNIFORMLY ALONG THE ENTIRE LENGTH OF THE EXTERIOR WALLS

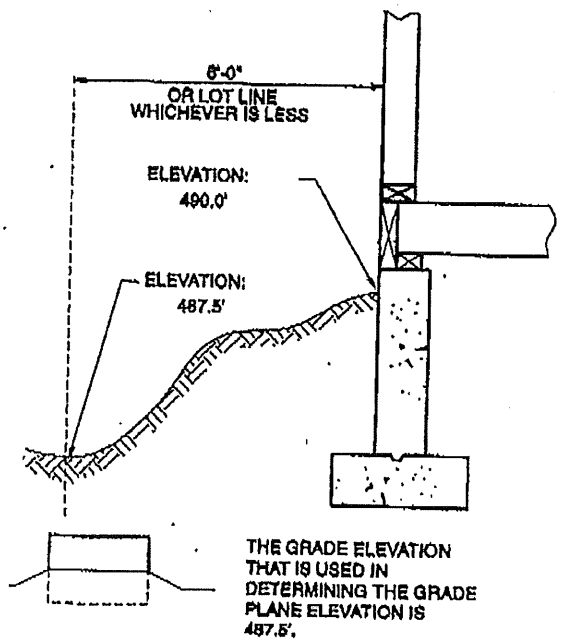


Figure 502.1(4)
DETERMINATION OF GRADE PLANE WHERE GRADE SLOPES AWAY FROM THE EXTERIOR WALL

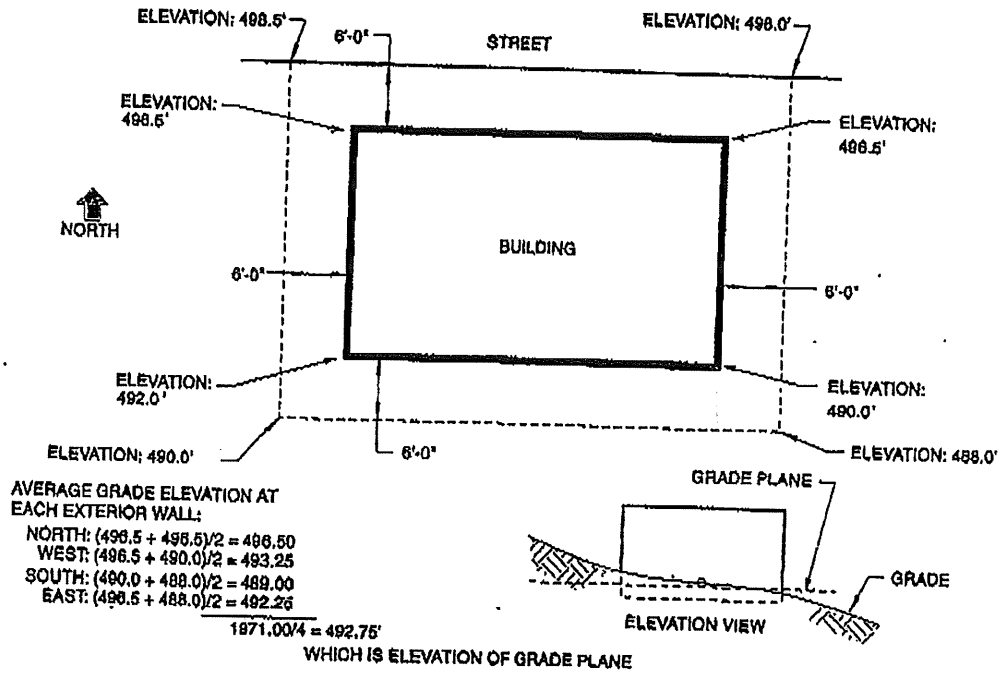


Figure 502.1(5)
DETERMINATION OF GRADE PLANE ELEVATION WHERE GRADE DOES NOT SLOPE UNIFORMLY ALONG THE LENGTH OF THE EXTERIOR WALLS

[redacted]

This definition establishes the two points of measurement that determine the height of a building (in feet). This measurement is used to determine compliance with the building height limitations of Section 503.3, as well as other height limitations (see Sections 1406.2.2 and 1406.3).

The lower point of measurement is the grade plane (see the definition of "Grade plane"). The upper point of measurement is essentially the roof of the building, with consideration given to sloped roofs (such as a hip or gable roof). In the case of sloped roofs, the average height would be used as the upper point of measurement, rather than the eave line or the ridge line. The average height of the roof is the mid-height between the roof eave and the roof ridge, regardless of the shape of the roof.

This definition also indicates that building height is measured to the highest roof surface. In the case of a building that has multiple roof levels, the highest of the various roof levels must be used to determine the building height. If the highest of the various roof levels is a sloped roof, then the average height of the sloped roof can be used. The average height of multiple roof levels is not to be used to determine the building height.

It should be noted that a penthouse is not intended to affect the measurement of building height. By definition (see Section 1502.1), a penthouse is a structure that is built above the roof of a building.

The distance that a building extends above ground is a characteristic that relates to the relative hazards of that building. Simply stated, a taller building presents relatively greater safety hazards than a shorter building for several reasons, including fire service access and time for occupant egress. The code specifically defines how building height is measured to enable various code requirements, such as type of construction and fire suppression, to be set forth consistent with those relative hazards. See Figure 502.1(6) for the computation of building height in terms of feet and stories.

[redacted]

This definition was moved to Chapter 5 with the definition of "Height, building." The term, however, appears in the text of Chapter 16, specifically Section 1610.4.1.2.1. The story height is mentioned in the context of calculations of the fundamental period of a structure (see commentary, Section 1610.4.1.2.1).

[redacted]

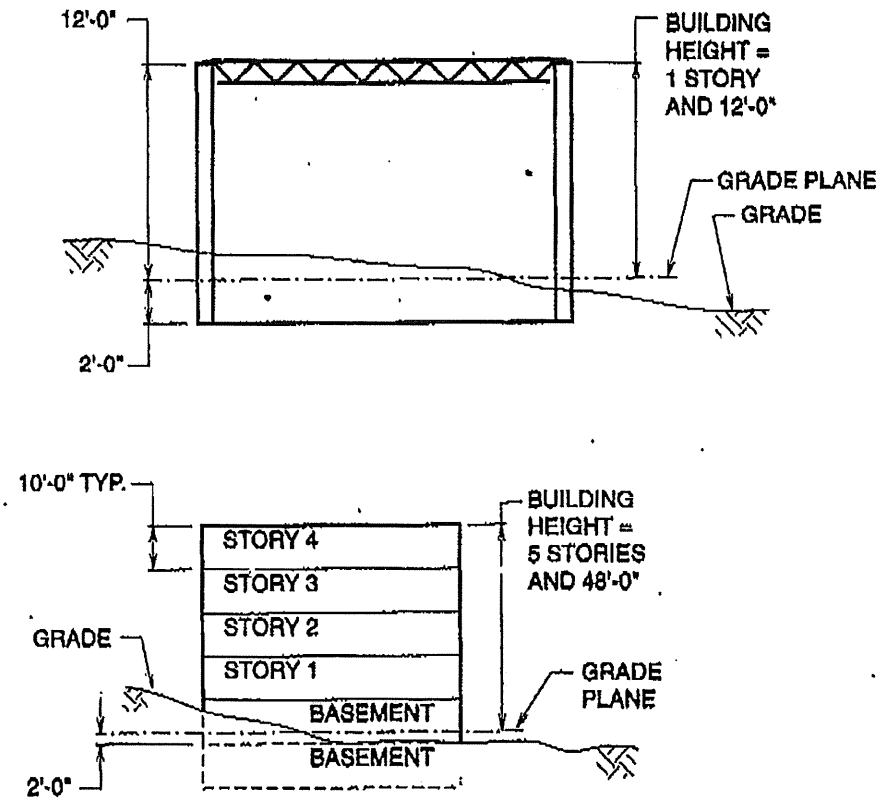


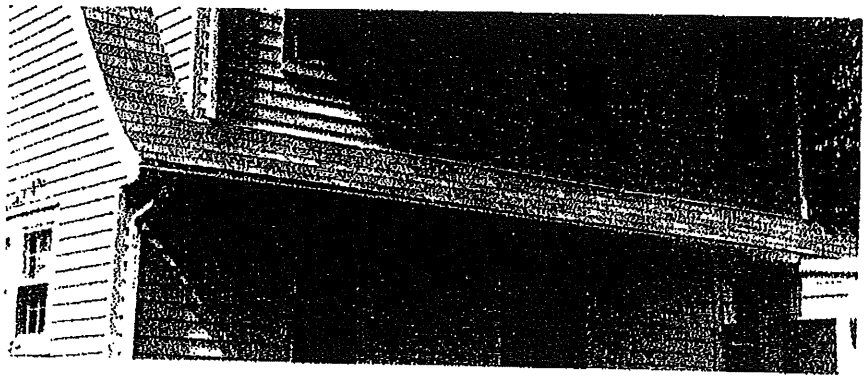
Figure 502.1(6)
BUILDING HEIGHT

A common type of construction in factories, warehouses and mercantile buildings is to include an intermediate loft, or platform, between the story levels of a building. The code must deal with the issue of when this intermediate level becomes another story, and when it can simply be treated as part of the story in which it is contained. The basic rule is that it must be less than one-third of the area of the floor below in order to be considered a mezzanine. Beyond that, the code contains requirements for mezzanines in Section 505.0.

All levels in a building that conform to this description are stories, including basements. A mezzanine is considered part of the story in which it is located.

The determination of a story above grade is important because a story above grade contributes to the height of a building for the purpose of applying the allowable building height in stories from Tables 503 and 1010.3. Every story with the finished floor entirely above grade (finished ground level) is a story above grade. A story with any portion of the finished floor level below grade is, by definition, a basement, however, and must be evaluated in conformance to the three criteria for story above grade. These three criteria are intended to deal with unusual grading of ground adjacent to the exterior walls. Without such a consideration, the resulting building height can be reduced because of a berm or other landscaping technique that may be artificially created to reduce the apparent building height. The specific criteria establish the point at which a basement extends far enough above ground that it contributes to the regulated height of the building in number of stories.

Figure 502.1(7) describes the application of these criteria. Also see the commentary to the definitions of "Grade plane" and "Height, building," and to Section 503.3.



Shed-Dormer Retrofit

Turning your attic into living space may be the remedy for your growing pains

by Scott McBride

Growing up amid the post-war baby plantations of central Long Island, I got to see a lot of expand-as-you-go housing. One of my earliest memories is the sight of slightly dangerous looking men, with hairy arms and sweaty faces, tearing the roof off of our home. My parents had decided to add onto our modest Cape, and that meant building a shed dormer. The following spring, a neighbor came over to take measurements; his house and ours, you see, were identical, and he wanted to do the same thing to his place. Before long, all the houses in our subdivision had sprouted the same 14-ft. long dormer.

Rivaled only by the finished basement, the enlarged and finished attic endures as the most practical way for the average suburban family to ease its growing pains. The shed dormer makes it possible to enlarge almost any attic space simply by flipping up the plane of the gable roof. Compared to the cost and complexity of a gable dormer, the shed dormer is a good choice where size and budget take precedence over looks.

Design—Shed dormers may be as small as a single window, or may run the entire length of the house (for some interesting examples, see pp. 124-125). In the latter case, it is common to leave a narrow strip of the main roof alongside the rake at each gable end (photo above).

The trickiest part of designing a dormer is getting the profile right. To find the correct position of the inboard header and the dormer face wall, begin by making a scale drawing of the existing roof. Then draw in the dormer that you have in mind. What you're trying to determine here are the height of the dormer's face wall, the pitch of its roof, and where these two planes will intersect the plane of the main roof.

When determining the height of the face wall, consider exterior appearance, interior headroom, and window heights. The roof pitch you choose will affect the kind of roofing. Shingles require at least a 4-in-12 pitch. A flatter pitch should be roofed with 90-lb. roll roofing. This usually isn't a visual problem because you can't see the flatter roof from the ground.

Loading and bearing—Once you're sure that the existing ceiling joists will support live floor loads, you have to consider the other structural aspects of adding a shed dormer. Removing all or part of the rafters on one side of a gable roof upsets its structural equilibrium. You're taking a stable, triangulated structure and turning it into a not-so-stable trapezoid. The downward and outward forces exerted by the remaining rafters are no longer neatly countered by opposing members. The dormer's framing system has to compensate for this lost triangulation. To understand how this happens, let's take a look at a dormer's structural anatomy. As shown in the drawing on the facing page, the *inboard header* transfers loading from the *cripple rafters* out to the *trimmer rafters* on either side of the dormer. The full-length trimmer rafters send this lateral thrust down to the joists. With the main roof load reapportioned around the dormer, the new roof is structurally able to stand on its own.

On low-pitched dormers, the roof sheathing acts as a sort of horizontal beam that reinforces the inboard header and helps transfer the lateral thrust of the main roof out to the trimmer rafters. As you increase the pitch of the d you decrease the ability of the dormer r act as a horizontal beam. And the lateral of the dormer rafters themselves will som threaten to bow out the dormer face wa solution is to tie the main-roof rafters an mer rafters together with ceiling joists. Th as collar ties, creating a modified version original gable triangle.

We also have to consider vertical load dormer roof on the outboard side is sup by the dormer face wall, which is built eit rectly atop the exterior wall or slightly to side, where it bears on the attic floor joist second option, shown in the drawing, page, leaves a small section of the origin plane (called the apron) intact, and lets tain the existing cornice and gutter. It al the dormer back a bit from the eave lir visually reduces the weight of the additio pending on the size of your floor joists, setback is more than one or two feet, th on the attic floor joists can become too To lighten this load, you should install a l at the top of the apron to carry the roof lo to the trimmer rafters. In any case, this fac will support a little more than half the we the dormer, depending on the roof pitch.

The other half of the dormer roof load rests on a large inboard header, which tra the load through the trimmer rafters down exterior walls. To increase roof pitch an more headroom, the inboard header is fre ly moved all the way up to the ridge of th roof. If this ridge beam is made strong e to carry roughly half the weight of the c

From *Fine Homebuilding* magazine (October 1986)

CITY OF BOYNE CITY

To: Chair Jane MacKenzie and fellow Planning Commissioners

From: Scott McPherson, Planning Director

Date: December 21, 2015

Subject: Planning Commission Reappointments

Background Information

With the election of Planning Commissioner Tom Neidhamer as Mayor, he will be resigning his appointment to the Planning Commission. As per the Planning Enabling Act and City Ordinance the appointment of a member of the City Commission is a discretionary choice made by the City Commission. If the City Commission chooses to appoint a member to the Planning Commission the appointment would be concurrent with their term on the City Commission.

We have received an application for appointment from Lynn Murry for appointment to the Planning Commission. Lynn currently sits on the Zoning Board of Appeals ZBA). While a member of the Zoning Board of Appeals is allowed to be on the Planning Commission there is a potential for conflict of interest. If a decision of the Planning Commission is appealed to the ZBA and a member of the ZBA was on the Planning Commission that made the decision that member must abstain from the appeal due to conflict of interest.

Process

The procedures for the appointments to the Planning Commission are regulated by Ordinance A - 21. The ordinance stipulates that Planning Commissioners are appointed by the Mayor subject to the majority vote of the City Commission. In accordance with past practice the Planning Commission makes recommendations on Planning Commission appointments prior to submission to the City Commission

Recommendation

Determine if the Planning Commission desires to have a City Commission member sit on the Planning Commission and determine if the Planning Pommission desires to have a ZBA member sit on the Planning Commission and make a recommendation to the City Commission.

CITY OF BOYNE CITY

319 North Lake Street Boyne City, MI 49712 (231) 582-6597

RECEIVED DEC 04 2015 BY:

boyne city

BOARD MEMBER APPLICATION

The City understands you are interested in becoming a member on one of the City Advisory Boards/Commissions. We appreciate your interest and future dedication to Boyne City. In order for the City to have information on file as reference when the next board has an opening, we ask you please complete the following and return to City Hall.

Name: Lynn G. Murray

Address: 632 Jersey Street Boyne City

Telephone: 582-4144 **(daytime)** 231-330-5215 **(~~evening~~)** cell

Email: lgmurray2008@aol.com

Occupation: Custodian

Please check any Advisory Board or Commission you may be interested in.

- ☐ Airport Advisory Board
- ☐ Historical Commission
- ☒ Planning Commission
- ☐ Board of Review
- ☐ Local Development Finance Authority
- ☐ Historic District Commission
- ☐ Economic Development Corporation
- ☐ Main Street / DDA Program
- ☐ Parks and Recreation Commission
- ☐ Housing Commission
- ☐ Zoning Board of Appeals
- ☐ District Library Board

Reason(s) you wish to serve:

Planning and Zoning studies and credits towards Master Planner Certification.

Other community or civic service activities:

Member ZBA since Oct. 2009.

Signature L G Murray **Date** 3 Dec 2015

Planning Commission

2016 Calendar

January 2016

Su	Mo	Tu	We	Th	Fr	Sa
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3	4	5	6	7	8	9
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February 2016

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March 2016

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April 2016

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May 2016

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July 2016

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August 2016

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September 2016

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November 2016

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December 2016

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