AURELIUS TOWNSHIP

1939 S. Aurelius Road · Mason, Michigan 48854-9729
(517) 628-2093 · Fax (517) 628-3989 · www.aureliustwp.org

PROCEDURES TO BE FOLLOWED TO SECURE A BUILDING PERMIT:

Step 1. Apply for and secure a **PERMIT TO INSTALL WATER SUPPLY WELL AND/OR ON-SITE SEWAGE TREATMENT SYSTEM** from the Ingham County Health Department, 5303 S. Cedar Street, Lansing, MI 48910, phone (517) 887-4312

Apply for and secure an approved **DRIVEWAY PERMIT** and a **CULVERT PERMIT** from the Ingham County Road Commission, 301 Bush Street, Mason, MI 48854, phone (517) 676-9722.

Apply for and secure a **SOIL EROSION PERMIT** from the Ingham County Drain Commission, 707 Buhl Street, Mason, MI 48854, phone (517) 676-8395.

Obtain a **HOUSE NUMBER IF NEEDED** from the Township office. The Building Permit will not be issued until you have a house number.

Step 2. **SITE ADDRESS** and **LOT NUMBER** (if applicable) shall be posted on a wood board, 24 x 24 inches, at the front edge of the site before site inspection can be completed. **STAKE OUT THE BUILDING ON THE LOT** for site inspection.

Step 3. Present the following to the Township office:

1. A copy of the **legal description** of the lot and **proof of purchase** of land
2. A **set of building plans** for approval
3. A **site plan for building** in order to be approved by the zoning administrator
4. A **culvert permit and receipt for payment** from Ingham County Road Commission
5. A **PERMIT TO INSTALL WATER SUPPLY WELL AND/OR ON-SITE SEWAGE TREATMENT SYSTEM** from the Ingham County Health Department
6. A **building information and assessing worksheet** (included in this packet)
7. A **signed building permit application addendum (**included in this packet)
8. A **signed property line verification** form (included in this packet)
9. **Final approval from the Ingham County Health Department** for well & septic
10. Copy of the **builder's license**.

Step 4. When all the above have been satisfactorily completed, a building permit may be secured at the Aurelius Township Hall, 1939 S. Aurelius Road, Mason, between 10 a.m. and 3 p.m., Tuesday through Friday. Charges will be made as follows:

$.30 per square foot as determined by the building inspector
($100 minimum fee)
Garage attached or detached $150
Barn $150

Step 5. A permit, which is also your receipt, should be prominently displayed at the site for the use of the Building Inspector. All inspections will be strictly enforced.

Plan and building inspection:	Randy Mastin/Milan Rakich, contact Township office, 517-628-2093
Mechanical inspection:	Dan Plyler, contact Township office
Electrical Inspection:	Matthew Wood, contact Township office
Plumbing Inspection:	Vern Camp, contact Township office

A $50 FEE WILL BE CHARGED IF YOU ASK FOR AN INSPECTION AND YOU ARE NOT READY!

If you have questions about filling out any forms or completing the process, call our office at 517-628-2093.

Revised 8-21-20

BUILDING PERMIT
LOT AND DWELLING STANDARDS

1. MINIMUM LOT AREA: No building or structure shall be established on any parcel less than two (2) acres in area.
2. MINIMUM LOT WIDTH: The minimum lot width shall be one hundred and sixty five (165) feet having principal frontage on a street.
3. MAXIMUM LOT COVERAGE: The maximum lot coverage shall not exceed twenty-five (25) percent.
4. YARD AND SETBACK REQUIREMENTS:
    i. Front Yard: Eighty-three (83) feet from the centerline of a public street or roadway.
    ii. Side Yard: Twenty (20) feet except in the case of a corner lot where the side yard on a public street side shall not be less than the setback required for the front yard.
    iii. Rear Yard: Thirty-five (35) feet.
    iv. In any case, no structure housing livestock, or for storage of feed or manure shall be located any closer than 50 feet to a lot line.

DWELLING STANDARDS: Any building, mobile home, pre-manufactured unit or single titled unit which is designed and used exclusively for residential purposes and placed on private property must meet the following standards:

1. MAXIMUM HEIGHT REQUIREMENTS:
    a. For dwelling and non-farm structures, height shall not exceed thirty-five (35) feet
    b. For general and specialized farm buildings and structures, height shall not exceed ninety-five (95) feet.
2. MINIMUM BUILDING FLOOR AREA:
    a. No residential dwelling unit shall have less than one thousand (1000) square feet of floor area, exclusive of garages or basements.
3. ROOF PITCH AND OVERHANG:
    a. Minimum roof pitch of 4/12.
    b. Minimum overhang of twelve (12) inches.
4. REMOVAL DEVICES:
    a. Wheels, blocks, skids, jacks, undercarriages, or towing mechanism must be removed or otherwise concealed from view by skirting.
5. FOUNDATIONS:
    a. All structures shall be placed and secured on a permanent forty-two (42) inch frost free foundation. All anchorage devices shall cover an area not less than the perimeter of the structure and be constructed in accordance with applicable building code regulations.
6. MINIMUM BUILDING FLOOR AREA: No residential dwelling unit shall have less than one thousand (1000) square feet of floor area, exclusive of garages or basements. (ord. no 11 rev. eff. July 20, 1980: amend. By ord. No. 19 eff. August 19, 1981 further amend. May, 1984: amend. eff. March 2, 1994).

BUILDING PERMITS
INFORMATION ONLY – NOT ALL INCLUSIVE

Address numbers and the building permit must be posted on the property and visible from the road before any excavation or construction is started. If not posted, the inspection will not be completed, and a re-inspection fee will be charged.

PLAN REVIEW – Full set of prints with details from the footings up to the roof.

* Footing, foundation and backfill height
* Floor Joist type and size – beam detail
* Exterior wall detail
* Roof detail
* Energy code compliance (example: res-check)

INSPECTIONS

* Footings to be completed before concrete is poured but after all forms are up and trenching is done. Interior jack post forms must also be ready.
* Backfill inspection – after damp proofing, drain tile, pea stone and fabric is installed. No backfill.
* Frame Inspection – after all trade inspections are completed and approved but before any insulation is installed. All fire blocking must be completed. Truss spec sheets must be on the job site.
* Final Inspection – after all trade inspections are completed and approved.

Things to be aware of for a FINAL:

- Insulation in the attic will be inspected. A ladder must be on the job site and the access to the attic uncovered. Markers in the attic shall be provided every 300 sq. ft.
- All steps, handrails, and guardrails must be in place and meet code requirements. Handrails must be "graspable" per code. A flat 2 x 6 or 4 does not meet code.
- All footing deck holes shall be inspected before footings are poured.
- Risers are measured from the top of the threshold.
- Address numbers must be posted on the dwelling.
- Sidewalks to be installed where required.
- Grading to be completed and must slope away from the foundation.

* Any certificates required for the energy code (i.e. HERS) will be submitted before the final inspection is completed.

AURELIUS TOWNSHIP
517-628-2093
APPLICATION FOR PLAN EXAMINATION AND BUILDING PERMIT

All permit applications must be accompanied by detailed construction and site plans. Multi-Family and all Commercial plans must be signed and sealed by a State of Michigan, Registered Architect, or Engineer.

APPLICANT TO COMPLETE PAGES 1 THROUGH 3

I. LOCATION OF BUILDING			
STREET ADDRESS OF CONSTRUCTION:			
CITY	ZIP	AURELIUS TOWNSHIP	INGHAM COUNTY
II. IDENTIFICATION			
A. OWNER OR LESSEE			
NAME		ADDRESS	
CITY	STATE	ZIP	PHONE
EMAIL ADDRESS			
B. ARCHITECT OR ENGINEER			
NAME		ADDRESS	
CITY	STATE	ZIP	PHONE
LICENSE NUMBER		EXPIRATION DATE	
C. CONTRACTOR			
NAME		ADDRESS	
CITY	STATE	ZIP	PHONE
FAX NUMBER		EMAIL ADDRESS	
LICENSE NUMBER		EXPIRATION DATE	
FEDERAL EMPLOYER ID NO OR REASON FOR EXEMPTION			
WORKERS COMP INSURANCE CARRIER OR REASON FOR EXEMPTION			
MESC EMPLOYER NO OR REASON FOR EXEMPTION			
III. TYPE OF IMPROVEMENT			
A. DESCRIBE IMPROVEMENT			

☐ New building	☐ Addition	☐ Alteration	☐ Repair	☐ Wrecking

☐ Mobile Home	☐ Foundation only	☐ Pre-manufacture	☐ Relocation	☐ Fence
☐ Pool	☐ Shed	☐ Deck	☐ Other	

IV. PROPOSED USE OF BUILDING

A. RESIDENTIAL

☐ One Family ☐ Two or More Family No. Of units _____	☐ Hotel, Motel No. Of units _____ ☐ Other Use _____	☐ Attached Garage ☐ Detached Garage

B. NON-RESIDENTIAL

☐ Amusement ☐ Parking Garage ☐ Office, Bank, Professional ☐ Store, Mercantile	☐ Church, Religious ☐ Service Station ☐ Public Utility ☐ Tanks, Towers	☐ Industrial ☐ Hospital, Institutional ☐ School, Library, Educational ☐ Other _____

NONRESIDENTIAL - Describe in detail proposed use of building, e.g., food processing plant, machine shop, laundry building at hospital, elementary school, secondary school, college, parochial school, parking garage for department store, rental office building, office building at industriaal plant. If use of existing is being changed, enter proposed use.

V. SELECTED CHARACTERISTICS

A. PRINCIPAL TYPE OF FRAME

☐ Masonry, Wall Bearing ☐ Reinforced Concrete	☐ Wood Frame ☐ Structured Steel	☐ Other Type

B. PRINCIPAL TYPE OF HEATING FUEL

☐Gas	☐ Oil	☐ Electricity	☐ Coal	☐ Other Type____

C. TYPE OF SEWAGE DISPOSAL

SEWER CONTRACTOR	☐ Public or Private Company ☐ Septic System

TYPE OF WATER SUPPLY

WATER CONTRACTOR	☐ Public or Private Company ☐ Private Well

E. MECHANICAL

MECHANICAL CONTRACTOR

☐ AIR CONDITIONING	☐ ELEVATOR

F. ELECTRICAL CONTRACTOR

G. PLUMBING CONTRACTOR

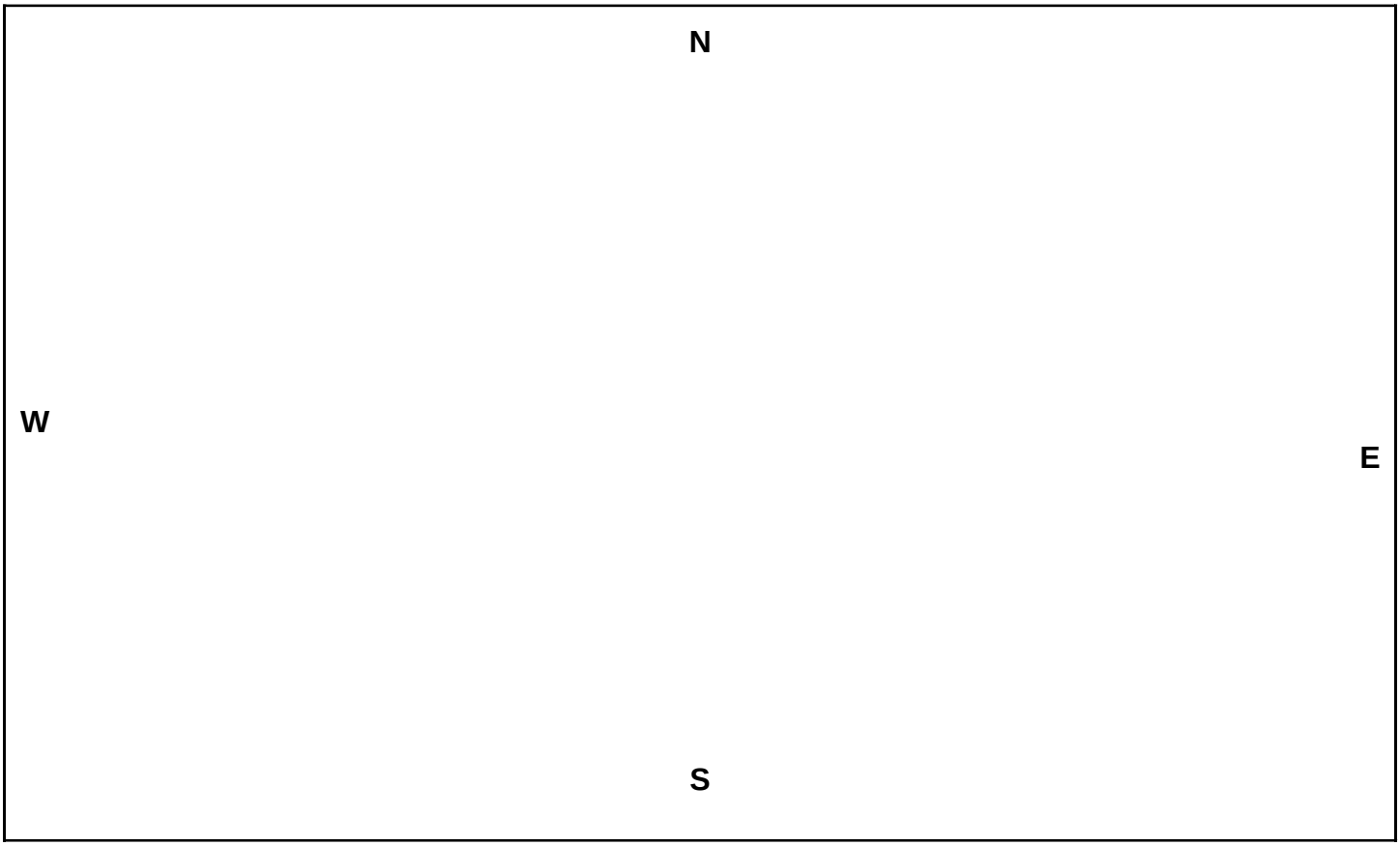
H. DIMENSIONS

Total Floor Area (square feet)_____ Floor Area: 1st & 2nd floor _____ 3rd - 10th floor _____ 11th - above floor _____	Total Land Area (square feet) _____ Number of Stories _____ Total Height _____

I. NUMBER OF OFF-STREET PARKING SPACES

Total Spaces Enclosed _____ Total Spaces Per Residential Unit _____	Total Spaces Outdoors _____ Handicapped Parking_____

AURELIUS TOWNSHIP
SITE OR PLOT PLAN



APPLICANT INFORMATION

Applicant is responsible for the payment of all fees and charges applicable to this application and must provide the following information.

NAME	TELEPHONE NUMBER
ADDRESS	
CITY	STATE ZIP
FEDERAL I.D. NO. / SOCIAL SECURITY NO.	

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 as his authorized agent, and 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.

Section 23a of the State Construction Code Act of 1972, Act no. 230 of the Public Acts of 1972, being Section 125.1523a of the Michigan Compiled Laws, 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.

TOTAL COST OF IMPROVEMENT $_____

SIGNATURE OF APPLICANT_____DATE_____

AURELIUS TOWNSHIP
1939 S. AURELIUS ROAD
MASON, MI 48854
(517) 628-2093

Property Line Verification

I certify that the location of the property line is true and correct as identified to the Zoning Administrator.

If the location of the property line is incorrect, I am responsible for identifying the property line and moving the building if necessary.

_____

Signature of property owner

_____

Print name of property owner

_____

Address **City** **State** **ZIP**

_____

Date

Permit # _____

BUILDING PERMIT APPLICATION ADDENDUM

Building Permit No. _____ Parcel No. _____

Contractor's Name _____

Contractor's Address _____ Phone _____

Owner's Name _____

Owner's Address _____ Phone _____

I _____ (owner)

understand that I will not be able to occupy my dwelling until an occupancy permit has been issued. If I do occupy the dwelling without an occupancy permit, I will be subject to:

> Upon conviction thereof, be fined not more then Five Hundred ($500) dollars or imprisoned for not more than ninety (90) days, or both, and in addition shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. (Aurelius Township General & Zoning Ordinances , 15.480, Sec. 605)

Owner Signature _____ Date _____

Contractor Signature _____ Date _____

AURELIUS TOWNSHIP
BUILDING INFORMATION AND ASSESSING WORKSHEET

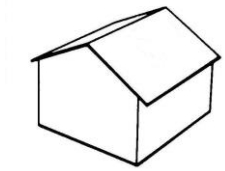
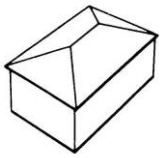
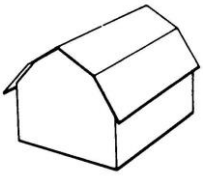
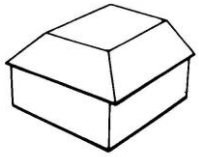
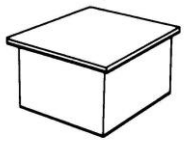
NAME						DATE						PERMIT NUMBER							
ADDRESS																			
PARCEL NUMBER					PHONE NUMBER														
TYPE					**3. ROOF**							**10. FLOOR SUPPORT**							
	Single Family					Gable		Gambrel		Hip		Joists " X " " O.c							
	Other					Mansard		Flat				Unsupported Length Ft							
	Wood Frame					Eavestrough						Sill Plate Yes No							
Year Built		Remodeled				Asphalt Shingles				Steel Roof		Center Support							
	Number of Rooms					Insulation						**11. HEATING AND AIR CONDITIONING**							
	Basement					Chimney type							Gas		Oil		Electric		
	1st Floor					Overhang	Front/Other		Size				Wood		Steam		Other		
	2nd Floor				**4. INTERIOR**								Forced Air		Forced Warm Water				
	Baths					Drywall		Plaster		Paneled			Heat Pump		Air		Water		
	Total Bedrooms				Trim and Decoration							Central Air Conditioning							
1. EXTERIOR						Ex-ordinary		Ordinary		Minimum		**12. Electric**							
	Wood, Shingle				Doors			Solid		Hardcore			Amps Service						
	Aluminum, Vinyl				**5. FLOORS** (Indicate Type of Floor)							**13. Plumbing**							
	Brick				Kitchen Floor			Other Floors					Number baths						
	Block				**6. CEILINGS**							**Ceramic Tile**			Floor		Wainscot		
	Stone					Drywall		Plaster		Tile			tub alcove		exhaust fan		extra lav		
	Insulation					Suspended		Other					extra stool		separate shower				
2. WINDOWS					**7. EXCAVATION**								fiberglass bath unit				jacuzzi		
	Many		Large		Basement sf		Crawl Space sf					water softener			owned		leased		
	Average		Average		Slab sf		Height to joists ft					water heater							
	Few		Small		**8. BASEMENT**								gallons		electric		gas		
	Wood Sash					Block		Poured		Wood		**14. WATER AND SEWER**							
	Metal Sash				**9. BASEMENT FINISH**								well		septic				
	Vinyl Sash				Wall Finish								mound system				gallons		
	Double Hung				Floor Finish							**15. BUILT-IN ITEMS**							
	Horizontal Sliding				Ceiling Finish								oven		range		microwave		
	Casement				Walkout								intercom		disposal		dishwasher		
	Double Glass				Insulation								cen vacuum		wood stove		compactor		
	Storms and Screens											hood/fan vented			yes		no		
	Patio Doors											Chimney			1 sty.		inside		
															2 sty.		outside		
												Fireplace			Foundation		Pre-Fab		
ESTIMATED COST:															Free Stand		Hearth		

AURELIUS TOWNSHIP
BUILDING INFORMATION AND ASSESSING WORKSHEET

	PERMIT #	
NAME:	DATE	
ADDRESS	PHONE	
CITY	STATE	ZIP
PARCEL NUMBER		

POLE BARNS	**SHEDS**	**EXTERIOR**
Size:_____by_____	Size:_____by_____	Wood
Concrete Approach	Wood Frame	Aluminum
Finished	Metal Prefab	Vinyl
Insulated	Other	Other

ROOF

				
GABLE	HIP	GAMBREL	MANSARD	FLAT

	WINDOWS	**SIZE**	**GARAGE/CARPORT**
Eavestrough	Many	Large	Size _____by_____
Asphalt Shingles	Average	Average	Year Built
Other	Few	Small	Attached or Separate
Insulation	Wood Sash		Doors
Overhang	Metal Sash		Automatic Doors
PORCHES/DECKS	Vinyl Sash		Common Wall
Width	Double Hung		Wall Finish
Depth	Casement		Ceiling
Type	Storms and Screens		**Concrete Approach**
Covered?	Patio Doors		Size _____by_____

PORCHES/DECKS	**PORCHES/DECKS**	
Width	Width	**SIZE**
Depth	Depth	
Type	Type	**EST COST**
Covered?	Covered?	

INGHAM COUNTY ROAD COMMISSION

Resolution #079-04

"3.5(3). All non-commercial driveways on public roads outside of a Plat shall have a minimum of 165 feet of road frontage on the parcel served by the driveway. Access to land for agricultural purposes requires only a minimum road frontage of 66 feet, and the permit issued shall specify FOR AGRICULTURAL PURPOSES ONLY, provided, however, that if the parcel is developed in the future, the access road shall be built to county standards."

IT IS FURTHER RESOLVED that subparagraph 3.14 is hereby amended to read, in its entirety, as follows:

"3.14 Residential Driveways.

(1) The number of residential driveways that may be permitted shall be determined as follows:

(a) All lots or parcels of land not in plats that are created after March 31, 1997, (the effective date of amendment to Public Act 288, or 1967, i.e., the Land Division Act) must have a minimum of 165 feet of road frontage for the issuance of a driveway permit. Access to land for agricultural purposes requires only a minimum of 66 feet of road frontage, PROVIDED, HOWEVER, that if the parcel is developed in the future, the access road shall be built to county standards.

(b) One residential driveway shall be permitted for each platted lot or for unplatted residential property with less than 100 feet of frontage and that was existing as of March 31, 1997.

(c) Additional residential driveways may be permitted for residential property with more than 165 feet of frontage, PROVIDED that the sum of the driveway widths of these additional driveways does not exceed 15 percent of the frontage in excess of the first 100 feet.

(d) Two residential driveways may be permitted on the same property, in lieu of the above, to serve a circle driveway if the frontage of the property is 165 feet or more.

(e) Residential driveways on the same property shall be at least 45 feet apart, center to center.

Sec. 16-243. Supplementary use regulations.

Authorized accessory buildings may be erected as a part of the principal building or may be connected to it by a roofed over porch, patio, breeze way, or similar structure, or may be completely detached. If attached to the principal building, an accessory building shall be made structurally a part of it, and shall comply in all respects with the requirements applicable to the principal building. An accessory building not attached and not made a part of the principal building shall not be nearer than ten feet from any other structure on the same lot.

(1) *Accessory uses; garages.* The structural space which is permissible in residential districts for motor vehicle storage and for incidental space as accessory to an authorized use, shall not exceed the following:

a. Space in a garage accessory to a multiple family unit or a motel shall not be rented out except to occupants of the principal dwelling.

b. An accessory building shall not occupy more than 30 percent of the area of any required rear yard.

(2) *Accessory buildings.* Setbacks from lot lines:

a. *Front yard setback.* No accessory building shall project into any front yard.

b. *Side and rear yard setback* In a rear yard or side yard, no accessory building, including detached garages, shall be closer than ten feet to the side or rear lot line.

c. *Corner lot.* On a corner lot, no accessory building shall be closer to the side street front lot line than the side yard setback of the principal building on the lot. Where the rear line of a corner lot coincides with the side line of an adjoining lot in a residential district, an accessory building shall not be closer than five feet to the common lot line.

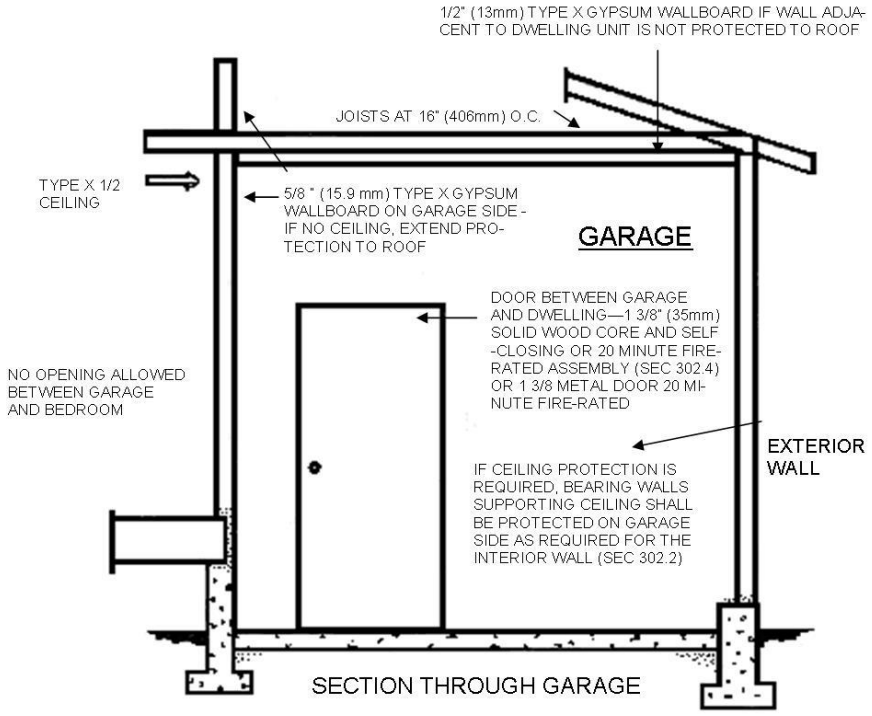
(Ord. No. 39, art. 5, § 5.3, 2-12-2002)

SECTION R 309
GARAGES AND CARPORT

R309.1 OPENING PROTECTION. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35mm) thick, or 20 minutes fire-rated doors.

R309.1.1 DUCT PENETRATION. Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48mm) sheet steel or other approved material and shall have no openings into the garage.

R309.2 SEPARATION REQUIRED. The garage shall be separated from the residence and its attic area by not less than ½ inch (12.7mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5.8 inch (15.9mm) Type x gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½ inch (12.7mm) gypsum board or equivalent.



SECTION 1009
STAIRWAYS AND HANDRAILS

1009.1 Stairway width. The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

Exceptions:

1. Stairways serving an occupant load of 50 or less shall have a width or not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1009.9.
3. Aisle stairs complying with Section 1024.
4. Where a stair lift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, both as applicable in Section 101.2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

1009.2 Headroom. Stairways shall have a minimum headroom clearance of 80 inches (2032 mm) measured vertically from a line connecting the edge of the nosings. Such headroom shall be continuous above the stairway to the point where the line intersects the landing below, one tread depth beyond the bottom riser. The minimum clearance shall be maintained the full width of the stairway and landing.

Exception: Spiral stairways complying with Section 1009.9 are permitted a 78-inch (1981 mm) headroom clearance.

1009.3 Stair treads and risers. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. Stair tread depths shall be 11 inches (279 mm) minimum. The riser height shall be measured vertically between the leading edges of adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 0.375 inch (9.5 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 0.375 inch (9.5 mm). Winder treads shall have a minimum tread depth of 11 inches (279 mm) measured at a right angle to the tread's leading edge at a point 12 inches (305 mm) from the side where the treads are narrower and a minimum tread depth of 10 inches (254 mm). The greatest winder tread depth at the 12-inch (305 mm) walk line within any flight of stairs shall not exceed the smallest by more than 0.375 inch (9.5 mm).

Exceptions:

1. Circular stairways in accordance with Section 1009.7.
2. Winders in accordance with Section 1009.8.
3. Spiral stairways in accordance with Section 1009.9.

4. Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1024.11.2.
5. In occupancies in Group R-3, as applicable in Section 101.2, within dwelling units in occupancies in Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 7.75 inches (197 mm) and the minimum tread depth shall be 10 inches (254 mm), the minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on the stairways with solid risers where the tread depth is less than 11 inches (279 mm).
6. See the *International Existing Building Code* for the replacement of existing stairways.

1009.3.1 Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser or between the largest and smallest tread shall not exceed 0.375 inch (9.5 mm) in any flight of stairs.

Exceptions:

1. Nonuniform riser dimensions of aisle stairs complying with Section 1024.11.2.
2. Consistently shaped winders, complying with Section 1009.8, differing from rectangular treads in the same stairway flight.

Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stairway width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of at least 1 inch (25 mm) but not nore than 2 inches (51 mm).

1009.3.2 Profile. The radius of curvature at the leading edge of the tread shall be not greater than 0.5 inch (12.7 mm). Beveling of nosings shall not exceed 0.5 inch (12.7 mm). Risers shall be solid and vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.52 rad) from the vertical. The leading edge (nosings) of treads shall project not more than 1.25 inches (32 mm) beyond the tread below and all projections of the leading edges shall be of uniform size, including the leading edge of the floor at the top of a flight.

Exceptions:

1. Solid risers are not required for stairways that are not required to comply with Secton 1007.3 provided that the opening between treads does not permit the passage of a sphere with a diameter of 4 inches (102 mm).
2. Solid risers are not required for occupancies in Group I-3.

1009.4 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum dimension measured in the direction of travel equal to the width of the stairway. Such dimension need not exceed 48 inches (1219 mm) where the stairway has a straight run.

Exceptions:

1. Aisle stairs complying with Section 1024.
2. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing.

1009.5 Stairway construction. All stairways shall be built of materials consistent with the types permitted for the type of construction of the building, except that wood handrails shall be permitted for all types of construction.

1009.5.1 Stairway walking surface. The walking surface of treads and landings of a stairway shall not be sloped steeper than one unit vertical in 48 units horizontal (2-percent slope) in any direction. Stairway treads and landings shall have a solid surface. Finish floor surfaces shall be securely attached.

Exception: In Group F, H and S occupancies, other than areas of parking structures accessible to the public, openings in treads and landings shall not be prohibited provided a sphere with a diameter of 1 1/8 inches (29 mm) cannot pass through the opening.

1009.5.2 Outdoor conditions. Outdoor stairways and outdoor approaches to stairways shall be designed so that water will not accumulate on walking surfaces. In other than occupancies in Group R-3, and occupancies in Group U that are accessory to an occupancy in Group R-3, treads, platforms and landings that are part of exterior stairways in climates subject to snow or ice shall be protected to prevent the accumulation of same.

1009.6 Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet (3658 mm) between floor levels or landings.

Exception: Aisle stairs complying with Section 1024.

1009.7 Circular stairways. Circular stairways shall have a minimum tread depth and a maximum riser height in accordance with Section 1009.3 and the smaller radius shall not be less than twice the width of the stairway. The minimum tread depth measured 12 inches

(305 mm) from the narrower end of the tread shall not be less than 11 inches (279 mm). The minimum tread depth at the narrow end shall not be less than 10 inches (254 mm).

> **Exception:** For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, both as applicable in Section 101.2.

1009.8 Winders. Winders are not permitted in means of egress stairways except within a dwelling unit.

1009.9 Spiral stairways. Spiral stairways are permitted to be used as a component in the means of egress only within dwelling units or from a space not more than 250 square feet (23 m^2) in area and serving not more than five occupants, or from galleries, catwalks and gridirons in accordance with Section 1014.6.

A spiral stairway shall have a 7.5-inch (191 mm) minimum clear tread depth at a point 12 inches (305 mm) from the narrow edge. The risers shall be sufficient to provide a headroom of 78 inches (1981 mm) minimum, but riser height shall not be more than 9.5 inches (241 mm). The minimum stairway width shall be 26 inches (660 mm).

1009.10 Alternating tread devices. Alternating tread devices are limited to an element of a means of egress in buildings of Groups F, H and S from a mezzanine not more than 250 square feet (23 m^2) in area and which serves not more than five occupants; in buildings of Group I-3 from a guard tower, observation station or control room not more than 250 square feet (23 m^2) in area and for access to unoccupied roofs.

> **1009.10.1 Handrails of alternating tread devices.** Hand rails shall be provided on both sides of alternating tread devices and shall conform to Section 1009.11.
>
> **1009.10.2 Treads of alternating tread devices.** Alternating tread devices shall have a minimum projected tread of 5 inches (127 mm), a minimum tread depth of 8.5 inches (216 mm), a minimum tread width of 7 inches (178 mm) and a maximum riser height of 9.5 inches (241 mm). The initial tread of the device shall begin at the same elevation as the platform, landing or floor surface.
>
> **Exception:** Alternating tread devices used as an element of a means of egress in buildings from a mezzanine area not more than 250 square feet (23 m^2) in area which serves not more than five occupants shall have a minimum projected tread of 8.5 inches (216 mm) with a minimum tread depth of 10.5 inches (267 mm). The rise to the next alternating tread surface should not be more than 8 inches (203 mm).

1009.11 Handrails. Stairways shall have handrails on each side. Handrails shall be adequate in strength and attachment in accordance with Section 1607.7. Handrails for ramps, where required by Section 1010.8, shall comply with this section.

> **Exceptions:**
>
> 1. Aisle stairs complying with Section 1024 provided with a center handrail need not have additional handrails.

2. Stairways within dwelling units, spiral stairways and aisle stairs serving seating only on one side are permitted to have a handrail on one side only.
3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
4. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
5. Changes room elevations of only one riser within dwelling units and sleeping units in Group R-2 and R-3 occupancies do not require handrails.

1009.11.5 Handrail extensions. Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight. Where handrails are not continuous between flights, the handrails shall extend horizontally at least 12 inches (305 mm) beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.

Exceptions:

1. Handrails within a dwelling unit that is not required to be accessible need extend only from the top riser to the bottom riser.
2. Aisle handrails in Group A occupancies in accordance with Section 1024.13.

1009.11.6 Clearance. Clear space between a handrail and a wall or other surface shall be a minimum of 1.5 inches (38 mm). A handrail and a wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements.

1009.11.7 Stairway projections. Projections into the required width at each handrail shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.2.

1009.12 Stairway to roof. In buildings four or more stories in height above grade, one stairway shall extend to the roof surface, unless the roof has a slope steeper than four units vertical in 12 units horizontal (33-percent slope). In buildings without an occupied roof, access to the roof from the top story shall be permitted to be by an alternating tread device.

1009.12.1 Roof access. Where a stairway is provided to a roof, access to the roof shall be provided through a penthouse complying with Section 1509.2.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet ($1.5m^2$) in area and having a minimum dimension of 2 feet (610 mm).

SECTION 1010
RAMPS

1010.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing acess in accordance with Sections 1108.2.2 through 1108.2.4.1, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1024.11.
2. Curb ramps shall comply with ICC A117.1.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces, other required accessible elements or part of an accessible means of egress.

1010.2 Slope. Ramps used as part of a means of egress shall have a running slope not steeper than one unit vertical in 12 units horizontal (8-percent slope). The slope of other ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

Exception: Aisle ramp slope in occupancies of Group A shall comply with Section 1024.11.

1010.3 Cross slope. The slope measured perpendicular to the direction of travel of a ramp shall not be steeper than one unit vertical in 48 units horizontal (2-percent slope).

1010.4 Vertical rise. The rise for any ramp run shall be 30 inches (762 mm) maximum.

1010.5 Minimum dimensions. The minimum dimensions of means of egress ramps shall comply with Sections 1010.5.1 through 1010.5.3.

1010.5.1 Width. The minimum width of a means of egress ramp shall not be less than that required for corridors by Section 1016.2. The clear width of a ramp and the clear width between handrails, if provided, shall be 36 inches (914 mm) minimum.

1010.5.2 Headroom. The minimum headroom in all parts of the means of egress ramp shall not be less than 80 inches (2032 mm).

1010.5.3 Restrictions. Means of egress ramps shall not reduce in width in the direction of egress travel. Projections into the required ramp and landing width are prohibited. Doors opening onto a landing shall not reduce the clear width to less than 42 inches (1067 mm).

1010.6 Landings. Ramps shall have landings at the bottom and top of each ramp, points of turning, entrance, exits and at doors. Landings shall comply with Sections 1010.6.1 through 1010.6.5.

1010.6.1 Slope. Landings shall have a slope not steeper than one unit vertical in 48 units horizontal (2-percent slope) in any direction. Changes in level are not permitted.

1010.6.2 Width. The landing shall be at least as wide as the widest ramp run adjoining the landing.

1010.6.3 Length. The landing length shall be 60 inches (1525 mm) minimum.

> **Exception:** Landings in nonaccessible Group R-2 and R-3 individual dwelling units, as applicable in Section101.2 , are permitted to be 36 inches (914 mm) minimum.

1010.6.4 Change in direction. Where changes in direction of travel occur at landings provided between ramp runs, the landing shall be 60 inches by 60 inches (1524 mm by 1524 mm) minimum.

> **Exception:** Landings in nonaccessible Group R-2 and R-3 individual dwelling units, as applicable in Section 101.2, are permitted to be 36 inches by 36 inches (914 mm by 914 mm) minimum.

1010.6.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by ICC A 117.1 are permitted to overlap the required landing area.

1010.7 Ramp construction. All ramps shall be built of materials consistent with the types permitted for the type of construction of the building; except that wood handrails shall be permitted for all types of construction. Ramps used as an exit shall conform to the applicable requirements of Sections 1019.1 and 1019.1.1 through 1019.1.3 for vertical exit enclosures.

1010.7.1 Ramp Surface. The surface of ramps shall be of slip-resistant materials that are securely attached.

1010.7.2 Outdoor conditions. Outdoor ramps and outdoor approaches to ramps shall be designed so that water will not accumulate on walking surfaces. In other than occupancies in Group R-3, and occupancies in Group U that are accessory to an occupancy in Group R-3, surfaces and landings which are part of exterior ramps in climates subject to snow or ice shall be designed to minimize the accumulation of same.

1010.8 Handrails. Ramps with a rise greater than 6 inches (152 mm) shall have handrails on both sides complying with Section 1009.11.

1010.9 Edge protection. Edge protection complying with Section 1010.9.1 or 1010.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

Exceptions:

1. Edge protection is not required on ramps not required to have handrails, provided they have flared sides that comply with ICC A117.1 curb ramp provisions.
2. Edge protection is not required on the sides of ramp landings serving an adjoining ramp run or stairway.
3. Edge protection is not required on the sides of ramp landings having a vertical dropoff of not more than 0.5 inch (13 mm) within 10 inches (254 mm) horizontally of the required landing area.

1010.9.1 Railings. A rail shall be mounted below the handrail 17 inches to 19 inches (432 mm to 483 mm) above the ramp or landing surface.

1010.9.2 Curb or barrier. A curb or barrier shall be provided that prevents the passage of a 4-inch-diameter (102 mm) sphere, where any portion of the sphere is within 4 inches (102 mm) of the floor or ground surface.

1010.10 Guards. Guards shall be provided where required by Section 1012 and shall be constructed in accordance with Section 1012.

SECTION 1029
EMERGENCY ESCAPE AND RESCUE

1029.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in group R as applicable in section 101.2, classrooms greater than 250 feet² (23.2 m²) in group E, and group I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least 1 exterior emergency escape and rescue opening in accordance with this section. Where basements contain 1 or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. The opening shall open directly into a public street, public alley, yard, or court.

Exceptions:

1. In other than group R-3 occupancies as applicable in section 101.2, buildings equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1 or 903.3.1.2.
2. In other than group R-3 occupancies as applicable in section 101.2, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to 2 remote exits in opposite directions.
3. The emergency escape and rescue opening may open onto a balcony within an atrium in accordance with the requirements of section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2 032 mm) shall not be required to have emergency escape and rescue openings.
5. High-rise buildings in accordance with section 403.
6. Emergency escape and rescue openings are not required from basements, classrooms, or sleeping rooms which have an exit door or exit access door that opens directly into a public street, public alley, yard, egress court, or to an exterior exit balcony that opens to a public street, public alley, yard, or egress court.
7. Basements without habitable spaces and having not more than 200 square feet (18.6 square meters) in floor area shall not be required to have emergency escape and rescue openings.

R408.30421

1029.2 Minimum size. *Emergency escape and rescue openings* shall have a minimum net clear opening of 5.7 square feet (0.53 m²).

Exception: The minimum net clear opening for grade-floor *emergency escape and rescue openings* shall be 5 square feet (0.46 m²).

1029.2.1 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1029.3 Maximum height from floor. *Emergency escape and rescue openings* shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1029.4 Operational constraints. *Emergency escape and rescue openings* shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are permitted to be placed over *emergency escape and rescue openings* provided the minimum net clear opening size complies with Section 1029.2 and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening. Where such bars, grilles, grates or similar devices are installed in existing buildings, *smoke alarms* shall be installed in accordance with Section 907.2.11 regardless of the valuation of the *alteration.*

1029.5 Window wells. An *emergency escape and rescue opening* with a finished sill height below the adjacent ground level shall be provided with a window well in accordance with Sections 1029.5.1 and 1029.5.2.

1029.5.1 Minimum size. The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the *emergency escape and rescue openings* to be fully opened.

1029.5.2. Ladders or steps. Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an *approved* permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the *emergency escape and rescue opening.* Ladders or steps required by this section are exempt from the *stairway* requirements of Section 1009.

FIRE-WARNING SYSTEM

Dwelling units shall be provided with approved smoke detectors. A detector shall be installed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. When the dwelling unit has more than one story and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke detector shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on an upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway.

In dwelling units where the ceiling height of a room opens to the hallway serving the bedrooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

Detectors shall be installed in accordance with approved manufacturer's instructions. When actuated, the detector shall provide an alarm that is audible within sleeping areas. (Sec. 310.9.1.4)

When the valuation of an addition, alteration or repair exceeds $1,000 and a permit is required, or when one or more sleeping rooms are added or created in existing dwellings, the entire building shall be provided with smoke detectors located as required for new dwellings. This requirement is not applicable for repairs made to the exterior surfaces of the dwelling (Sec. 310.9.1.2)

In new construction, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Smoke detectors may be solely battery operated when installed in existing buildings, or in buildings without commercial power, or in buildings which undergo alterations, repairs or additions regulated by the paragraph above. (Sec. 310.9.1.3)

EXIT

DOORS

At least one doorway from dwellings shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height. The door shall be so mounted that the clear width of the exit way is not less than 32 inches (813 mm). (Sec. 1004.6)

DOOR LANDINGS

There shall be a floor or landing on each side of all doors. The floor or landing shall be level, except for exterior landings which may have a slope not to exceed ¼ unit vertical in 12 units horizontal (2% slope), with the floor or landing not more than 1 inch (25 mm) lower than the threshold of the doorway. However, in private dwellings a door may open at the top step of an interior flight of stairs or at a landing, provided the door does not swing over that top step or landing (except that screen doors and storm doors may) and the landing is not more than 8 inches (203 mm) below the floor level. Then landing shall have a width not less than the width of the stairway or the width of the door.

AURELIUS TOWNSHIP
INGHAM COUNTY, MICHIGAN

ORDINANCE NO. 39.04

PREAMBLE

AN ORDINANCE TO REGULATE AND PRESCRIBE STANDARDS FOR PERMITTING AND CONSTRUCTION OF PRIVATE DRIVEWAYS; TO ESTABLISH MINIMUM CONSTRUCTION STANDARDS; AND TO PROVIDE AN EFFECTIVCE DATE HEREOF.

The Township of Aurelius, Ingham County, Michigan, ordains:

Section 1. Title. This Ordinance shall be know and cited at the Aurelius Township Private Driveway Ordinance.

Section 2. Purpose and Intent. It is the intent and purpose of this Ordinance to provide uniform minimum standards for permitting, location and construction of private driveways within the Township to protect the health, safety and welfare of persons utilizing said driveways and persons occupying public roadways, and to protect persons served by such driveways, by requiring unobstructed and continuous access to such premises and to public roadway by providing a means of reasonable access by emergency vehicles of various types.

Section 3. Permits for Construction of Driveway. All persons constructing or contracting for the construction of a driveway within Aurelius Township shall obtain a driveway permit from the Ingham County Board of Road Commissioners (Ingham County Road Commission) prior to commencement of construction. The term "driveway," as used in this Ordinance, shall mean that portion of the property utilized to provide a means of ingress and egress to a lot or parcel within the Township to and from a public roadway for use by motor vehicles. "Driveway" shall not include private roadways which provide a means of ingress and egress to more than one lot or parcel or more than residential structure.

Section 4. Construction Standards. Driveways shall meet or exceed the following construction standards and such other requirements as may be imposed by the Ingham County Road Commission.

1. Minimum width to be twelve (12) feet.

2. Minimum overhead clearance to be fourteen (14) feet above the driveway grad at all points.

3. Driveway location shall avoid wetlands and unstable soils where possible. Construction within such areas shall mitigate or compensate for such conditions and shall meet all requirements imposed by agencies having jurisdiction.

4. Adequate drainage structures and materials shall be utilized to meet or exceed requirements of agencies having jurisdiction.

5. Driveway surface and subsurface shall require removal of topsoil to a depth of ten (10) inches, backfilled with six (6) inches of sand or bank run gravel; driveway surface shall be topped off with at least six (6) inches of processed road gravel, crushed stone, asphalt, or a combination thereof.

Section 5. Financial Guarantees: Zoning/Occupancy Permits. Property owners constructing driveways over one hundred twenty-five (125) feet in length from a County road or highway will present a signed bid for construction, and a bond in the form of bank check or a money order made payable to the driveway contractor and deposit such with a designated Township representative. For property owners desiring to construct such driveways themselves, no zoning or occupancy permit will be issued until completion of the driveway in accordance with the standards of this Ordinance.

Section 6. Effective Date. This Ordinance shall become effective immediately unit its adoption and publication as required by law.

AURELIUS TOWNSHIP

By: _____
Larry Silsby, Supervisor

By: _____
Donna Lawson, Clerk

I, Donna Lawson, Clerk of the Township of Aurelius, hereby certify that the foregoing Ordinance was adopted on the 14th day of October, 2003 and published on the 19th day of October, 2003.

_____
Donna Lawson, Clerk