

**CITY OF MANISTEE
BOARD OF APPEALS**

City Hall
70 Maple Street
Manistee, MI 49660

A meeting of the City of Manistee Board of Appeals was held on Tuesday, March 23, 1999 at 5:30 p.m. in the Council Chambers, 70 Maple Street, Manistee, Michigan.

AGENDA

- I. Roll Call

- II. Matters Pertaining to the General Citizenry:
 - A. Hearing:
 - 1. Kendra C. Thompson Architect - Bayview Condominiums
 - 2.
 - B. Questions, Concerns of Citizens in Attendance:
 - 1.
 - 2.

- III. Business Session:
 - A. Approval of Minutes (2/11/99 Zoning Board of Appeals)
 - B. Unfinished Business:
 - 1. Kendra C. Thompson Architect - Bayview Condominiums
 - 2.
 - B. Other Business:
 - 1.
 - 2.

- IV. Adjournment

cc: Board of Appeals Members
Jon R. Rose, Community Development Officer
Julie A. Beardslee, City Assessor
R. Ben Bifoss, City Manager
Bruce Gockerman, City Attorney

CITY OF MANISTEE

MEMORANDUM

TO: Board of Appeals Members

FROM: Jon R. Rose
Community Development Officer

DATE: March 10, 1999

RE: Board of Appeals Meeting Tuesday, March 23, 1999

We will have a Board of Appeals meeting on Tuesday, March 23, 1999 at 5:30 p.m. in the Council Chambers. This meeting is being held in response to a request from Kendra C. Thompson Architect on behalf of Bayview Condominiums.

Enclosed is a copy of the request for hearing and a copy of BOCA Sections 1014.6, 1022.2, 1022.2.4 and 1021.2 for your review.

If there are any questions or you are unable to attend the meeting please call me at 723-2558. See you there!

JRR:djm

Enclosures

kendra c. thompson architects, p.c.
304 oak street
manistee, michigan
616.723.4195

01 March 1999

Mr. John Kiefer
City of Manistee Building Inspector
Nordlund & Associates, Inc.
267 River Street
Manistee, MI 49660

RE: **BAYVIEW CONDOMINIUMS**
 45 Arthur Street
 Manistee, MI 49660

JOB NO: 9718

Dear John:

The purpose of this letter is to hereby request construction code variances be granted for the aforementioned project.

The variances being requested are as follows:

- | | |
|------------------|--|
| Section 1014.6 | To allow for stair risers to measure 7 3/4 inches. Maximum riser height for R-2 use is 7 inches. (R-3 use allows for a 8 1/4 inches.) |
| Section 1022.2 | To allow handrails to be interrupted by newel post/intermediate posts. The installed handrail is a vinyl prefabricated unit which requires intermediate posts for support. |
| Section 1022.2.4 | To not require any handrail extensions beyond the bottom riser. The installed handrail is a vinyl prefabricated unit in which the handrail ends at the newel post located at the bottom riser. |
| Section 1021.2 | To allow for landing guards to be 36 inches above the walking surface. Minimum guardrail height for R-2 use is 42 inches. (R-3 use allows for a 36 inch guardrail.) |

The following points offer support for the requested variance action:

1. The R-2 use classification for this project is predominantly required for compliance with fire ratings and unit separation issues. For all practical purposes, the units being constructed are of R-3 use, single family residential.

page 2
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2. The stairs and landings for this project serve only two dwelling units for the middle condominiums and only one dwelling unit at the end condominiums. Unlike a typical R-2 apartment building where stairs and landings serve multiple dwelling units, the stairs for this project are nearly independent stairs dedicated to few users.
3. The use of prefabricated handrail units allows for a maintenance free system that is aesthetically pleasing and offers a long life expectancy. The manufacturing process of the these units does not currently allow for handrail extensions and requires the structural support gained through the use of intermediate posts.

Please schedule the necessary action required to address this variance request as soon as possible. Should you have any questions, feel free to call me.

Sincerely,
Kendra C. Thompson Architects, P.C.



Kendra C. Thompson

cc: D. Dunlap, Owner; M. Niesen, Contractor; File.

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mm) plus 0.6 inch (15 mm) for every additional seat beyond that specified in Table 1013.5.2.

**Table 1013.5.2
ROW LENGTH WITH 12-INCH AISLE ACCESSWAY
SMOKE-PROTECTED ASSEMBLY SEATING**

Total number of seats in the space	No. of seats per row permitted to have a minimum 12-inch ^a clear width aisle accessway	
	Aisle or doorway at both ends of row	Aisle or doorway at one end of row
Less than 4,000	14	7
4,000	15	7
7,000	16	8
10,000	17	8
13,000	18	9
16,000	19	9
19,000	20	10
22,000 or more	21	11

Note a. 1 inch = 25.4 mm.

1013.5.3 Single access row: For rows of seating served by an aisle or doorway at only one end of the row in smoke-protected assembly seating, the *common path of travel* from any seat to a point where a person has a choice of two directions of egress travel shall not exceed 50 feet (15240 mm).

1013.6 Bleacher footboards: *Bleacher* footboards shall be provided for all rows of seats above the third row or beginning at such a point where the seatboard is more than 2 feet (610 mm) above the ground, floor surface or cross aisle below. A separate footboard is not required where the same platform is used for both seating and the footboard, provided that each level or platform is not less than 24 inches (610 mm) wide. On a horizontally projected plane, horizontal gaps between footboards and seatboards shall not exceed ¼ inch (6 mm). Openings between footboards and seatboards which are located more than 30 inches (762 mm) above the floor or grade below shall be provided with intermediate construction such that a sphere with a diameter of 4 inches (102 mm) cannot pass through the opening.

1013.7 Spaces underneath seats: Spaces underneath *grandstand* seats shall be kept free of all combustible and *flam- mable* materials and shall not be occupied or used for other than *exits*; except that where enclosed in not less than 1-hour fire-resistance rated construction, the code official shall approve the use of such spaces for other purposes, provided that the safety of the public is not endangered.

SECTION 1014.0 STAIRWAYS

1014.1 General: All *stairways* shall comply with the provisions of this section. Section 1014.11 shall be applicable only to interior *stairways*. Section 1014.12 shall be applicable only to exterior *stairways*.

1014.1.1 Walking surface: The maximum slope of the walk- ing surface of treads and landings shall be one unit vertical in 48 units horizontal (1:48).

1014.2 Egress capacity: The egress capacity of *stairways* and doors shall be computed in accordance with Section 1009.0.

1014.3 Width: All *means of egress stairways* shall not be less than 44 inches (1118 mm) in width.

Exceptions

1. *Stairways* serving buildings of single-*exit* construction where permitted by Section 1010.3 shall not be less than 36 inches (914 mm) in width.
2. Spiral *stairways* as provided for in Section 1014.6.4.
3. *Stairways* serving an occupancy in Use Group R-3 shall not be less than 36 inches (914 mm) in width.
4. *Stairways* serving and contained within a single residential *dwelling unit* shall not be less than 36 inches (914 mm) in width.
5. *Stairways* serving buildings having a total occupant load of 50 or less shall not be less than 36 inches (914 mm) in width.
6. Where a *stairway* lift is installed on *stairways* serving occupancies in Use Group R-3 or within *dwelling units* in occupancies in Use Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided.

1014.3.1 Restrictions: *Means of egress stairways* shall not reduce in width in the direction of egress travel. Projections into a required *stairway* width are prohibited, except at and below handrail height where, at each handrail, the projections shall not exceed 3½ inches (89 mm) into the required width.

1014.3.2 Landing width: The least dimension of landings and platforms in *means of egress stairways* shall not be less than the required width of the *stairway*, except that the landing dimension in the direction of egress travel is not required to exceed 4 feet (1219 mm) where the travel from one stair flight to the next stair flight is a straight run.

1014.4 Headroom: The minimum headroom in all parts of a *stairway* shall not be less than 80 inches (2032 mm) measured vertically from the tread nosing or from the floor surface of the landing or platform.

1014.5 Vertical rise: A *means of egress stairway* shall not have a height of vertical rise of more than 12 feet (3658 mm) between landings and intermediate platforms.

1014.6 Treads and risers: Maximum riser height shall be 7 inches (178 mm) and minimum riser height shall be 4 inches (102 mm). Minimum tread depth shall be 11 inches (279 mm), measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge.

Exceptions

1. Winders in accordance with Section 1014.6.3.
2. Spiral *stairways* in accordance with Section 1014.6.4.
3. Circular *stairways* in accordance with Section 1014.6.5.
4. *Alternating tread stairways* in accordance with Section 1014.6.6.
5. *Stairways* serving as aisles in assembly seating areas where the *stairway* pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area.
6. Any *stairway* replacing an existing *stairway* within a space where, because of existing construction, the pitch or slope cannot be reduced.

7. Existing *stairways*.
8. In occupancies in Use Group R-3 and within *dwelling units* in occupancies in Use Group R-2, the maximum riser height shall be 8¼ inches (210 mm) and the minimum tread depth shall be 9 inches (229 mm). A 1-inch (25 mm) nosing shall be provided on *stairways* with solid risers.
9. *Stairways* in penal facilities serving guard towers, observation stations and control rooms not more than 250 square feet (23 m²) in area shall be permitted to have risers not exceeding 8 inches (203 mm) in height and treads not less than 9 inches (229 mm) in depth.

1014.6.1 Profile: The radius of curvature at the leading edge of the tread shall not be greater than ½ inch (13 mm). Beveling of nosings shall not exceed ½ inch (13 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 of tread shall not project more than 1½ inches (38 mm) beyond the tread below.

Exception: Solid risers are not required for *stairways* serving dwelling units which are not required to be accessible or adaptable in accordance with Section 1107.4.2, provided that the opening between treads does not permit the passage of a sphere with a diameter of 4 inches (102 mm).

1014.6.2 Dimensional uniformity: There shall not be variation exceeding ⅜ inch (5 mm) in the depth of adjacent treads or in the height of adjacent risers. The tolerance between the largest and smallest riser or between the largest and smallest tread shall not exceed ⅜ inch (10 mm) in any flight of stairs.

Exceptions

1. Where the bottom riser adjoins a sloping *public way*, walk or driveway which has an established grade and serves as a landing, a variation in the height of the bottom riser shall not exceed 3 inches (76 mm) in every 3 feet (914 mm) of *stairway* width.
2. On *stairways* serving as aisles in assembly seating, where necessitated by changes in the gradient of adjoining seating areas to maintain adequate sightlines, the maximum nonuniformity of riser heights within a flight and the nonuniformity between adjacent risers shall not apply. Where a nonuniformity exceeds ⅜ inch (5 mm) between adjacent risers, the exact location of the nonuniformity shall be indicated with a distinctive marking stripe on each tread at the nosing or leading edge adjacent to the nonuniform risers.

1014.6.3 Winders: Winders shall not be permitted in required *means of egress stairways* except in occupancies in Use Group R-3 and *stairways* serving a single *dwelling unit*. Such winders shall have a tread depth of not less than 9 inches (229 mm) at a point not more than 12 inches (305 mm) from the side where the tread is narrower and the minimum tread depth shall not be less than 6 inches (152 mm).

1014.6.4 Spiral stairways: Spiral *stairways* shall not be used as an element of a *means of egress* except: in occupancies in Use Group R-3; within a single *dwelling unit*; from a *mez-*

zanine area not more than 250 square feet (23.25 m²) in area which serves not more than five occupants; and in penal facilities from a guard tower, observation station or control room not more than 250 square feet (23 m²) in area. The minimum width of all spiral *stairways* shall be 26 inches (660 mm) with each tread having a 7½-inch (191 mm) minimum tread depth at 12 inches (305 mm) from the narrow edge. All treads shall be identical and the rise shall not be more than 9½ inches (241 mm). A minimum headroom of 6 feet 6 inches (1981 mm) shall be provided.

1014.6.5 Circular stairways: Circular *stairways* shall have a minimum tread depth and a maximum riser height in accordance with Section 1014.6 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).

1014.6.6 Alternating tread stairways: *Alternating tread stairways* are permitted as an element of a *means of egress* in buildings from a *mezzanine* area not more than 250 square feet (23 m²) in area and which serves not more than five occupants; and in penal facilities, from a guard tower, observation station or control room not more than 250 square feet (23 m²) in area. *Alternating tread stairways* are also permitted for access to roofs as provided for in Section 1027.0.

1014.6.6.1 Handrails of alternating tread stairways: Handrails shall be provided on both sides of *alternating tread stairways* and shall conform to Section 1022.0.

1014.6.6.2 Treads of alternating tread stairways: *Alternating tread stairways* shall have a minimum projected tread of 5 inches (127 mm), a minimum tread depth of 8½ inches (216 mm), a minimum tread width of 7 inches (178 mm) and a maximum riser to the next surface of the alternating tread of 9½ inches (241 mm). The initial tread of the *stairway* shall begin at the same elevation as the platform, landing or floor surface.

Exception: *Alternating tread stairways* used as an element of a *means of egress* in buildings from a *mezzanine* area not more than 250 square feet (23 m²) in area which serves not more than five occupants shall have a minimum projected tread of 8½ inches (216 mm) with a minimum tread depth of 10½ inches (267 mm). The rise to the next alternating tread surface shall not be more than 8 inches (203 mm).

1014.7 Stairway guards and handrails: *Stairways* shall have continuous guards and handrails on both sides. Intermediate handrails are required so that all portions of the required width of stairs are within 30 inches (762 mm) of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel. Handrails shall be provided for *alternating tread stairways* in accordance with Section 1014.6.6.1. Guards shall be constructed in accordance with Section 1021.0. Handrails shall be constructed in accordance with Section 1022.0.

Exceptions

1. *Stairways* with fewer than three risers are not required to have handrails where serving a single *dwelling unit*

SECTION 1021.0 GUARDS

1021.1 General: Where required by the provisions of Sections 406.5, 408.3.2, 1005.5, 1014.7, 1016.5 and 1825.5, guards shall be designed and constructed in accordance with the requirements of this section and Section 1615.8. A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level.

1021.2 Height: The guards shall be at least 42 inches (1067 mm) in height measured vertically above the leading edge of the tread or adjacent walking surface.

Exceptions

1. In other than occupancies in Use Group E, guards shall not be less than 34 inches (864 mm) in height above the leading edge of the tread along stairs which are not more than 20 feet (6096 mm) in height or which reverse direction at an intermediate landing with 12 inches (305 mm) or less measured horizontally between successive flights.
2. Guards along open-sided floor areas, *mezzanines* and landings in occupancies in Use Group R-3 shall not be less than 36 inches (914 mm) in height.

1021.3 Opening limitations: In occupancies in Use Groups A, B, E, H-4, I-1, I-2, M and R, and in *public garages* and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4 inches (102 mm) cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect.

Exception: The triangular openings formed by the riser, tread and bottom rail at the open side of a *stairway* shall be of a maximum size such that a sphere 6 inches (152 mm) in diameter cannot pass through the opening.

In occupancies in Use Groups I-3, F, H-1, H-2, H-3 and S, other than *public garages* and open parking structures, balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21 inches (533 mm) to pass through any opening.

1021.4 Railings: Metal or other approved noncombustible railings shall be provided on balconies and galleries as prescribed in Sections 1021.4.1 through 1021.4.3.

1021.4.1 At fascia: Railings shall be provided: at the fascia of boxes, balconies and galleries and shall not be less than 26 inches (660 mm) in height; at the end of aisles extending to the fascia for the full width of the aisle and shall not be less than 36 inches (914 mm) in height; and at the foot of steps for the full width of the steps and shall not be less than 42 inches (1067 mm) in height.

1021.4.2 At cross aisles: Railings shall be provided along cross aisles, and shall not be less than 26 inches (660 mm) in height except that railings are not required where the backs of the seats along the front of the aisles project 24 inches (610 mm) or more above the floor of the aisle.

1021.4.3 Successive tiers: Where seatings are arranged in successive tiers, and where the height of rise between plat-

forms exceeds 18 inches (457 mm), railings not less than 26 inches (660 mm) in height shall be provided along the entire row of seats at the edge of the platform.

SECTION 1022.0 HANDRAILS

1022.1 General: Where required by the provisions of Sections 1012.5, 1013.0, 1014.6.6.1, 1014.7 and 1016.5, handrails shall be designed and constructed in accordance with this section and Section 1615.8. A handrail is a horizontal or sloping rail grasped by hand for guidance or support, and for arresting falls on the adjacent walking surface.

1022.2 Handrail details: Handrail-gripping surfaces shall be continuous, without interruption by newel posts, other structure elements or obstructions. A handrail and any wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements. The clear space between the handrail and the adjacent wall or surface shall not be less than 1½ inches (38 mm). Edges shall have a minimum radius of ¼ inch (3 mm).

1022.2.1 Projection: Handrails shall not project more than 3½ inches (89 mm) into the required passageway, aisle, *corridor*, stair or ramp width.

1022.2.2 Height: Handrails shall not be less than 34 inches (864 mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor of the landing or walking surfaces.

Exceptions

1. Handrails that form part of a guard shall have a height not less than 34 inches (864 mm) and not more than 42 inches (1067 mm).
2. Handrails within individual *dwelling units* shall not be less than 30 inches (762 mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor.

1022.2.3 Handrails in guards: Handrails that form part of a guard shall comply with Section 1021.3.

1022.2.4 Handrail ends: At locations where handrails are not continuous between *stairway* flights, including the top and bottom of a *stairway*, 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. The handrail ends shall be returned to a wall or post.

Where handrails are not continuous between ramp segments, including the top and bottom of a ramp, the handrails shall extend at least 12 inches (305 mm) beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface. The handrail ends shall be returned to a wall or post.

Exception: Within a *dwelling unit*, the horizontal extension beyond the top riser of the *stairway* flight or top of the ramp segment, and the extension beyond the bottom riser of the *stairway* flight or bottom of the ramp segment, is not required.

1022.2.5 Handrail grip size: All *stairway* handrails shall have a circular cross section with an outside diameter of at least 1¼ inches (32 mm) and not greater than 2 inches (51 mm).