

VILLAGE OF PLOVER 2400 POST ROAD PO BOX 37 PLOVER, WI 54467	PERMIT FOR DECK	Application No. Parcel No.
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Owner's Name:	Mailing Address:	Tel.	
Contractor's Name: <input checked="" type="checkbox"/> Con <input type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg	Lic/Cert#	Mailing Address	Tel.
			FAX
Contractor's Name: <input type="checkbox"/> Con <input checked="" type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg	Lic/Cert#	Mailing Address	Tel.
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			FAX

PROJECT LOCATION	Lot area	Sq. ft.	_____ 1/4, _____ 1/4, of Section _____, T _____ N,R _____ E(or)W
Building Address:		Lot No.	Block No.
Zoning District(s)	Zoning Permit No.	Setbacks:	Front _____ ft. Rear _____ ft. Left _____ ft. Right _____ ft.

PROJECT DESCRIPTION

\$5.00/\$1,000.00 of value \$25.00 Minimum	PROJECT COST:
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I agree to comply with all applicable codes, statutes and ordinances and with the conditions of this permit; understand that the issuance of the permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

APPLICANT'S SIGNATURE	DATE SIGNED
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APPROVAL CONDITIONS: This permit is issued pursuant to the following conditions. Failure to comply may result in suspension or revocation of this permit or other penalty.

ISSUING JURISDICTION	<input type="checkbox"/> Town <input checked="" type="checkbox"/> Village <input type="checkbox"/> City <input type="checkbox"/> State of: _____ PLOVER	Municipality Number of Dwelling Location _____ - _____
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FEES:	PERMIT(S) ISSUED	WIS PERMIT SEAL #	PERMIT ISSUED BY:
Plan Review \$ _____	<input checked="" type="checkbox"/> Construction		NAME _____
Inspection \$ _____	<input type="checkbox"/> HVAC		DATE _____ TELEPHONE NO. 345-5312
Wis. Permit Seal \$ _____	<input type="checkbox"/> Electrical		Cert. No. _____
Other \$ _____	<input type="checkbox"/> Plumbing		
Total \$25.00	<input type="checkbox"/> Erosion		

RESIDENTIAL DECK CONSTRUCTION

The following excerpts from the Uniform Dwelling Code (UDC) and Wis. Public Service Manual are provided to assist property owners and contractors in their deck construction projects. Inspections are required, please call 345-5312.

Please be advised a building permit is required for the construction of a deck or for replacement of an existing deck. Appropriate drawings with the size of the deck, size and spacing of supportive members, stair and railing details, and a plot plan showing distance to the lot lines shall be submitted to the Inspections Department.

Permit fees are \$5 per \$1,000 of valuation or fraction thereof, \$25.00 minimum.

ILHR 21.225 Decks.

Decks attached to dwellings and detached decks which serve an exit shall comply with the applicable provisions of this chapter, including but not limited to:

- (1) Excavation requirements of s. COMM 21.14;
- (2) Footing requirements of s. COMM 21.15 (1)(f);
- (3) Frost penetration requirements of s. COMM 21.16;
- (4) Load requirements of s. COMM 21.02;
- (5) Stair, handrail, and guardrail requirements of s. COMM 21.04; and
- (6) Decay protection requirements of s. COMM 21.10.

COMM 21.02 Loads and materials.

Every dwelling shall be designed and constructed in accordance with the requirements of this section.

(1) DESIGN LOAD.

Every dwelling shall be designed and constructed to support the actual dead load, live loads, and wind loads acting upon it without exceeding the allowable stresses of the material.

MINIMUM LIVE LOADS FOR FLOORS (TABLE 21.02)	
Component	Live Load (pounds per sq. ft.)
Exterior balconies, decks, porches	40

For floor joist and beam calculations, see COMM 21.22 and appendix. If you need help in calculating joist and beam sizes, consult a lumber supplier

COMM. 21.04 Stairs and elevated areas.

Every exterior stair shall conform to the requirements of this section.

(1) SCOPE.

Every interior and exterior stairway, including tub access steps but excluding nonrequired basement stairways which lead directly to the building exterior and stairways leading to attics or crawl spaces, shall conform to the requirements of this section.

(2) DETAILS.

(a) *Width.*

1. Except for spiral staircases under subd. 2., stairways shall measure at least 36 inches in width. Handrails and associated trim may project a maximum of 4.5 inches into the required width at each side of the stairway.
2. Spiral staircases shall be at least 26 inches wide measured from the outer edge of the supporting column to the inner edge of the handrail.

(b) *Riser height.*

1. a. Except for spiral staircases under subd. 2., risers may not exceed 8 inches in height measured vertically from tread to tread.
- b. At the top and bottom of a flight, measurement shall be taken from the top of the nosing to the finished floor surface unless the finished surface is carpeting, in which case measurement shall be made to the hard surface below the carpeting.
2. Risers in spiral staircases may not exceed 9.5 inches in height measured vertically from tread to tread.

(c) *Tread depth.*

1. 'Rectangular treads'. Rectangular treads shall have minimum tread depth of 9 inches measured horizontally from nosing to nosing.
2. 'Spiral staircase treads'. Spiral staircase treads shall have a minimum tread depth of 7 inches from nosing to nosing measured at a point 12 inches from the narrow end of the tread.
3. 'Winder treads in series'. Two or more winder treads may be placed immediately adjacent to each other anywhere in a stairway provided both of the following conditions are met:
 - a. The winder treads shall have a minimum tread depth of 7 inches measured at a point 12 inches from the narrow end of the tread.
 - b. The depth of the immediately adjoining winder treads shall be equal at a point 12 inches from the narrow end.
4. Individual winder treads.
 - a. An individual winder tread may be placed between rectangular treads or at the end of a flight of rectangular treads provided the tread depth, measured at a point 12 inches from the narrow end, is equal to the tread depth of the rectangular steps in the flight.
 - b. There may be more than one individual winder tread in a stairway or in a flight of stairs.

(d) *Headroom.*

1. Stairways shall be provided with a minimum headroom clearance of 76 inches measured vertically from a line parallel to the nosing of the treads to the ceiling, soffit or any overhead obstruction directly above that line.
2. The headroom clearance shall be maintained over an intermediate landing.
3. The headroom clearance shall be maintained over a landing that is at the top or bottom of a stairway for a minimum distance of 36 inches in the direction of travel of the stairway.

(e) *Uniformity.*

1. Within a stairway flight, tread depths and riser heights may vary by a maximum of 3/16 inch.
2. The allowed variation in uniformity under subd. 1. may not be used to exceed the maximum riser height under par. (b) or to decrease the minimum tread depth under par. (c).

(f) *Open risers.*

Stairways with open risers shall be constructed to prevent the through-passage of a sphere with a diameter of 4 inches or larger between any 2 adjacent treads.

(3) HANDRAILS AND GUARDRAILS.

(a) *General.*

1. Stair flights with more than 3 risers shall be provided with at least one handrail for the full length of the stair flight.

2. Handrails or guardrails shall be provided on all open sides of stair flights consisting of more than 3 risers and on all open sides of areas that are elevated more than 24 inches above the floor or exterior grade.
3. a. Except as provided in subd. 3. b., handrails and guardrails shall be constructed to prevent the through-passage of a sphere with a diameter of 4 inches or larger.
b. The triangular area formed by the tread, riser and bottom rail shall have an opening size that prevents the through-passage of a sphere with a diameter of 6 inches or larger.
4. Handrails and guardrails shall be designed and constructed to withstand a 200 pound load applied in any direction.
5. Exterior handrails and guardrails shall be constructed of metal, decay resistant or pressure treated wood, or shall be protected from the weather.

(b) *Handrails.*

1. 'Height'. Handrails shall be located at least 30 inches, but no more than 38 inches above the nosing of the treads. Measurement shall be taken from the hard structural surface beneath any finish material to the top of the rail. Variations in uniformity are allowed only when a rail contacts a wall or newel post or where a turnout or volute is provided at the bottom step.
2. 'Clearance'. The clearance between a handrail and the wall surface shall be at least 1 ½ inches.
3. 'Winders'.
 - a. Except as provided under subd. 3. b., the required handrail on winder steps shall be placed on the side where the treads are wider.
 - b. Where all winder steps in a flight have a tread depth of at least 9 inches from nosing to nosing measured at a point 12 inches from the narrow end of the tread, the required handrail may be located on either side of the stairway.
4. 'Projection'. Handrails and associated trim may project into the required width of stairs and landings a maximum of 4 ½ inches on each side.
5. 'Size and configuration'. Handrails shall be symmetrical about the vertical centerline to allow for equal wraparound of the thumb and fingers.
 - a. Handrails with a round or truncated round cross sectional gripping surface shall have a maximum whole diameter of 2 inches.
 - b. Handrails with a rectangular cross sectional gripping surface shall have a maximum perimeter of 6 ¼ inches with a maximum cross sectional dimension of 2 7/8 inches.
 - c. Handrails with other cross sections shall have a maximum cross sectional dimension of the gripping surface of 2 7/8 inches with a maximum linear gripping surface measurement of 6 ¼ inches and a minimum linear gripping surface of 4 inches.

NOTE: See appendix for further information on handrail measurement.
6. 'Continuity'. Handrails shall be continuous for the entire length of the stairs except in any one of the following cases:
 - a. A handrail may be discontinuous at an intermediate landing.
 - b. A handrail may have newel posts.
 - c. A handrail may terminate at an intermediate wall provided the lower end of the upper rail is returned to the wall or provided with a flared end, the horizontal offset between the 2 rails is no more than 12 inches measured from the center of

the rails, and both the upper and lower rails can be reached from the same tread without taking a step.

(c) *Guardrails.*

1. 'Application'. All openings between floors, and open sides of landings, platforms, balconies or porches that are more than 24 inches above grade or a floor shall be protected with guardrails.
2. 'Height'. Guardrails shall be located at least 36 inches above the floor. Measurement shall be taken from the hard structural surface beneath any finish material to the top of the rail.
3. "Opening size". Guardrails shall be constructed to prevent the through-passage of a sphere with a diameter of 4 inches or larger.

(4) Landings.

(a) *Intermediate landings.*

1. A level intermediate landing shall be provided in any stairway with a height of 12 feet or more.
2. Intermediate landings that connect 2 or more straight flights of stairs, or 2 flights of stairs at a right angle, shall be at least as wide as the stairway and shall measure at least 36 inches in the direction of travel.
3. Curved or irregular landing shall have a radius of at least 36 inches.
4. Curved or irregular landings shall have a minimum straight line measurement of 26 inches between the nosing of the 2 connecting treads measured at a point 18 inches from the narrow end of the landing measured along the nosing of the 2 treads.

(b) *Landings at the top and base of stairs.*

A level landing shall be provided at the top and base of every stairs. The landing shall be at least as wide as the stairs and shall measure at least 3 feet in the direction of travel.

(c) *Doors at landings.*

1. Except as provided in subd. 1. a. to c., level landings shall be provided on each side of any door located at the top or base of a stairs, regardless of the direction of swing. In the following exceptions, stairways to attached garages, carports or porches are considered interior stairs:
 - a. A landing is not required between the door and the top of interior stairs if the door does not swing over the stairs.
 - b. A landing is not required between the door and the top of an interior stairs of 1 or 2 risers regardless of the direction of swing.
 - c. A landing is not required between a sliding glass door and the top of an exterior stairway of 3 or fewer risers.
2. The exterior landing, platform or sidewalk at an exterior doorway shall be located a maximum of 8 inches below the interior floor elevation and shall have a length of at least 36 inches in the direction of travel out of the dwelling.

COMM 21.10 Protection against decay and termites.

(1) IDENTIFICATION.

- (a) All pressure-treated wood and plywood shall be identified by a quality mark or certificate of inspection of an approved inspection agency which maintains continued supervision, testing, and inspection over the quality of the product.
- (b) Pressure treated wood used below grade in foundations shall be labeled to show conformance with AWPA C-22 "Lumber and Plywood for Permanent Wood Foundations – Preservative Treatment by Pressure Processes" and labeled by an inspection agency accredited by the American Lumber Standards Committee.

COMM 21.14 Excavations for footings and foundation.

(1) EXCAVATIONS FOR FOOTINGS.

All footings shall be located on undisturbed or compacted soil, free of organic material, unless the footings are reinforced to bridge poor soil conditions.

COMM 21.15 Footings.

(1) SIZE AND TYPE.

Deck footings. Decks attached to dwellings and detached decks which serve an exist shall be supported on a structural system designed to transmit and safely distribute the loads to the soil. Footings shall be sized to not exceed the allowable material stresses. The bearing area shall be at least equal to the area required to transfer the loads to the supporting soil without exceeding the bearing values of the soil.

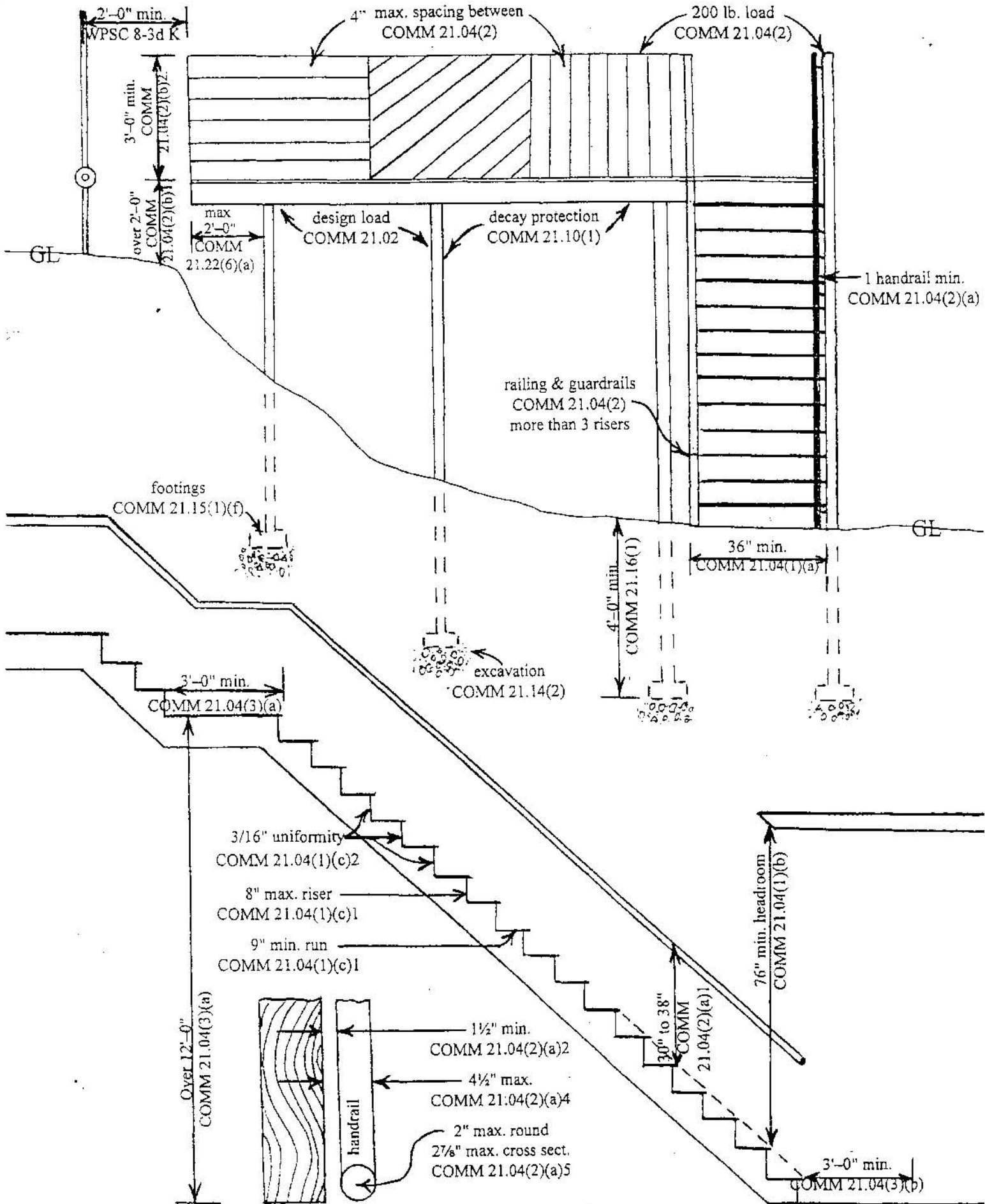
(2) SOIL-BEARING CAPACITY.

No footing or foundation shall be placed on soil with a bearing capacity of less than 2,000 pounds per square foot unless the footing or foundation has been designed through structural analysis. The soil-bearing values of common soils may be determined through soil identification.

COMM 21.16 Frost penetration.

(1) GENERAL.

Footings and foundation, including those for ramps and stoops, shall be placed below the frost penetration level, but in no case less than 48 inches below grade measured adjacent to the footing or foundation. Footings shall not be placed over frozen material.

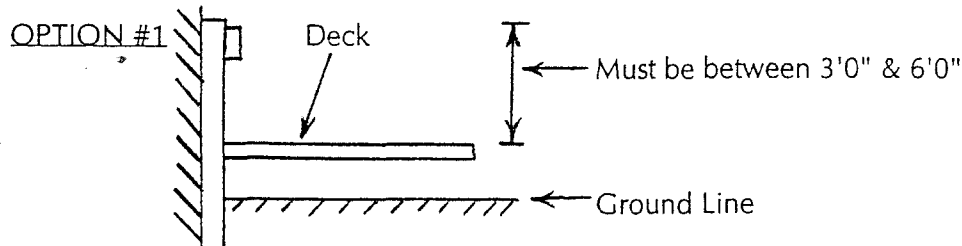


**WISCONSIN PUBLIC SERVICE CORPORATION SERVICE MANUAL
WPSC POLICIES — METERING (8-3d)**

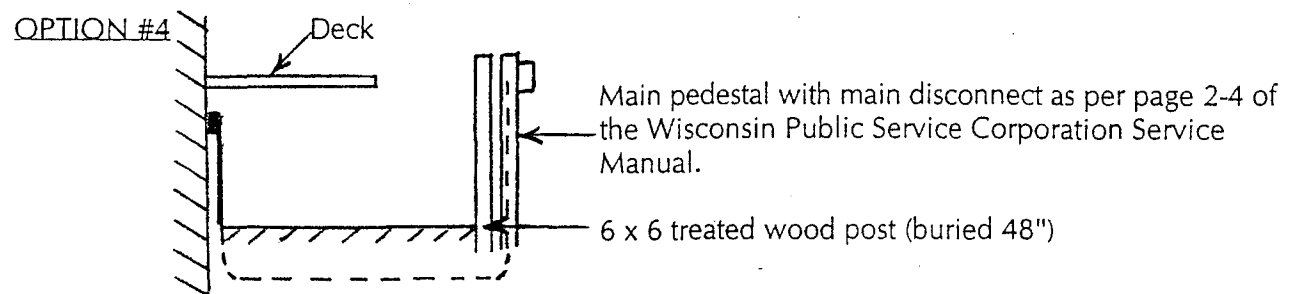
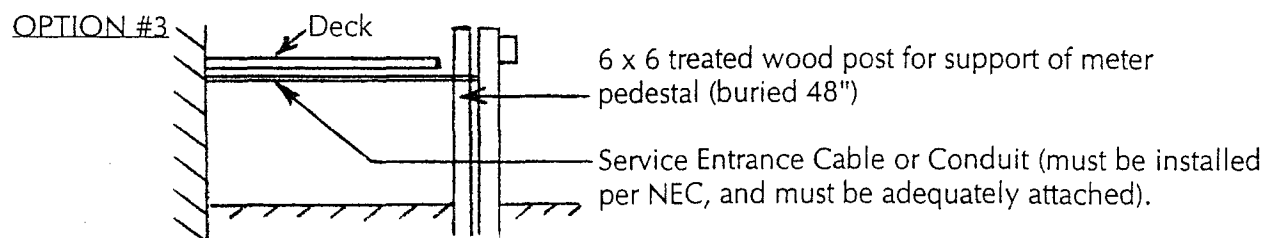
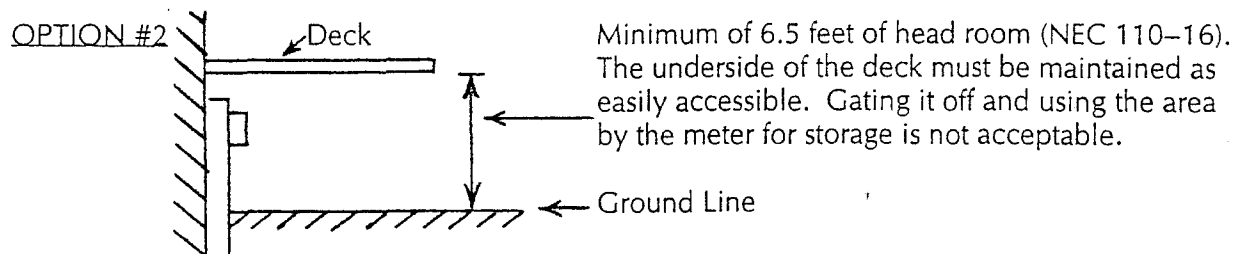
- K. The clear working space in front of meter panels shall be a minimum of 4 feet and a vertical clearance of 6 feet 6 inches. Two feet of horizontal clearance on either side shall also be provided. Free space in front of instrument transformer cabinets shall be 2 feet beyond the cover in the extended position or a minimum of 4 feet, whichever is greater.

RESIDENTIAL DECK PROCEDURE (Section 2-6):

The first priority is to avoid decks when installing new underground services. This procedure is on how to deal with problems once decks are built around meters.



Use pedestal extensions to get the above minimum dimension. The lower dimension is critical for safety reasons when pulling or plugging in a meter in the event that a fault occurs. The connections in the pedestal must be accessible (cover able to come off). A possible solution is to design the deck so that one or two boards can be easily unscrewed to provide access.



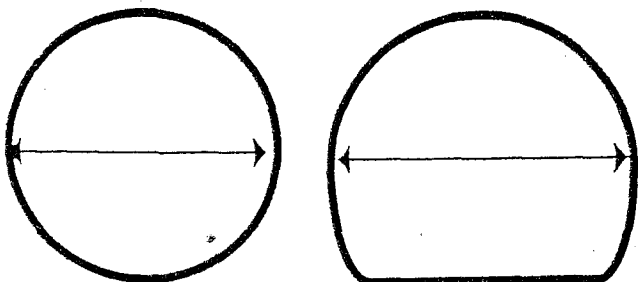
OPTION #5

Move meter pedestal to an area on the house away from the deck. The service entrance conduit or cable can then go around the house to the old service pedestal site. If this is done with underground, WPSC requires that it be in conduit (see 8-3a).

App 48

21.04(2)(a)5. HANDRAIL SHAPES

ROUND



MAXIMUM 2"
DIAMETER

RECTANGULAR

OK (w x ht):
 1/2"x 2-5/8"
 3/4"x 2-1/2"
 1"x 2-3/8"
 1-1/8"x 2-5/16"
 1-1/2"x 2-1/8"
 1-7/8"x 1-15/16"

OK (w x ht):
 2"x 1-7/8"
 2-1/2"x 1-5/8"
 2-3/4"x 1-1/2"
 2-7/8"x 1/2" TO 1-7/16"

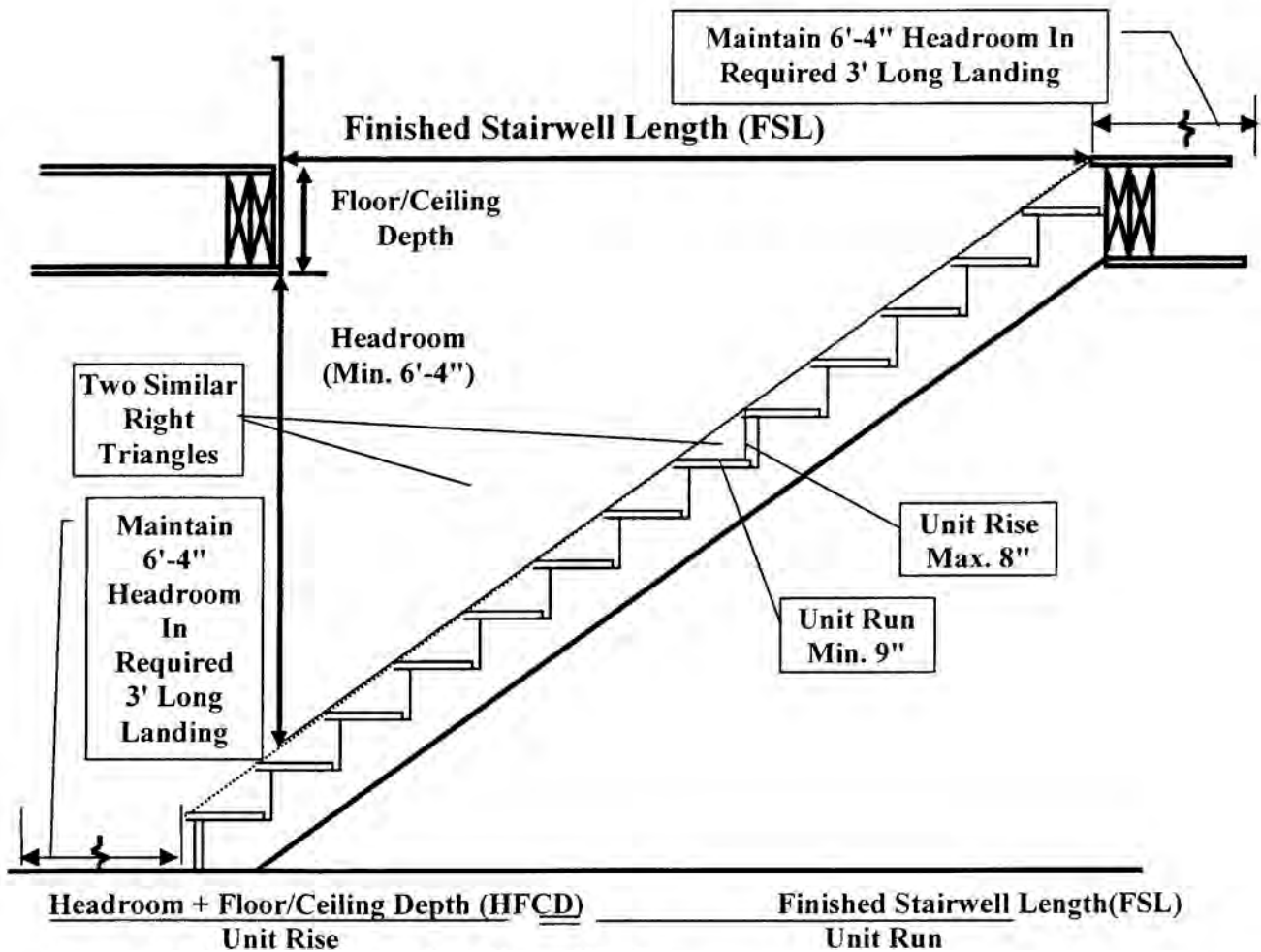
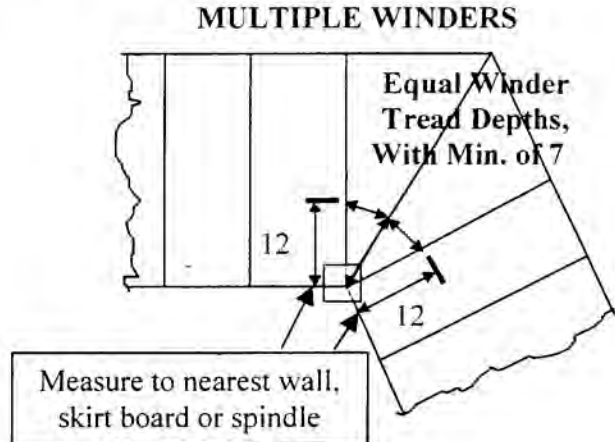
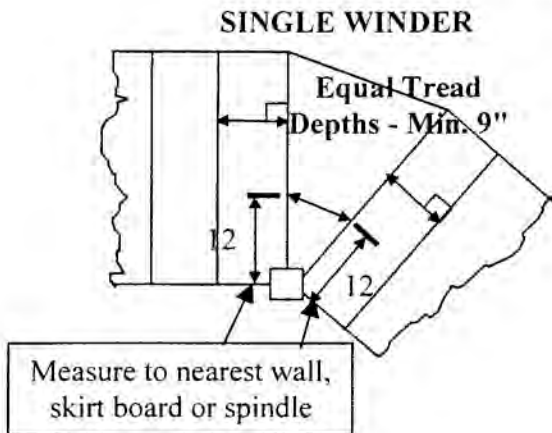
MAXIMUM 2-7/8"
 CROSS SECTION
 MAX. 6-1/4"
 GRIPPING
 SURFACE INCL.
 MIN. 1/4"
 RECESS ON
 EACH SIDE

OTHERS

MAXIMUM 2-7/8"
 CROSS SECTION

4" TO 6-1/4" GRIPPING
 SURFACE, INCLUDING A
 MIN. 1/4" RECESS ON
 EACH SIDE

Commentary



So to solve for FSL, $FSL = \frac{Unit\ Run \times HFCD}{Unit\ Rise}$

-2004-21-31