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February 8, 2016

Delegate Agents Performing Plan Review and Inspection Services

RE: Standard Paragraphs for Plan Review and Inspection

Attached are common standard paragraphs used by the Division of Industry Services in the course of plan review and inspection work. The paragraphs have been compiled relative to certain phases or types of construction. Please note, these are based on current code effective as of the date of this letter. They are grouped as follows:

**Submittal Requirements**

**Footing and Foundations**

**Structural Items**

**Building Envelope**

**Heating, Ventilating and Air Conditioning**

**Exiting**

**Fire Separation**

**Fire Suppression/Fire Alarm**

**Accessibility**

**Fire Safety and Maintenance**

**Note:** These paragraphs maybe used, cut and pasted, as part of your plan review and inspection process. They should be thoroughly reviewed and appropriately edited prior to finalizing any documentation to insure they are accurate and correct to the plan review or inspection situation you are attempting to address.

Please let us know if you have suggestions for improvement or inclusion into this document.

The Division of Industry Services

## Submittal Requirements

SPS 361.31(1)/SPS 361.50(1)(b)	SPS 361.31(1)/SPS 361.50(1)(b) - As the total volume of this building is over 50,000 cubic feet, the plans must be signed and sealed by a Wisconsin registered architect, engineer or, for HVAC, a registered designer. Re-submit electronic plans that include a properly signed and sealed index sheet, or have each page within the entire plan set stamped and signed on each the sheets. Additionally, electronic calculations and specifications shall be properly signed and sealed on the front page.
SPS 361.31	SPS 361.31 - Prior to submittal of electronic plans, the electronic PDFs associated with the electronic plan submittal shall be re-addressed to reflect the sheet number and sheet name provided on the index sheet. For example, the sheet A101 for accessibility diagrams as associated with the specific transaction for the project is encouraged to be referenced as, "2512345_A101_Accessibility Diagrams.pdf". The designer is informed that all future electronic plans submitted to the Dept. shall be addressed in this way prior to submittal. Failure to do so will delay final actions.
IBC 2303.4.2	IBC 2303.4.2 - Provide a truss placement diagram/plan issued by the truss manufacturer that identifies the proposed location of each individually designated truss and references the corresponding truss design drawing. The diagram/plan shall be stamped, signed and dated by a registered WI professional if the building exceeds 50,000 cubic ft.
IBC 907.1.2	<p>IBC 907.1.2 - Fire alarm system review submittals shall contain the following:</p> <ul style="list-style-type: none"> <li>◆ Floor plan indicating the use of all rooms</li> <li>◆ Locations of alarm-initiating devices</li> <li>◆ Locations of alarm notification appliances with candela ratings for visual</li> <li>◆ Location of FACPs, annunciators, and NAC power supplies</li> <li>◆ Power connections</li> <li>◆ Battery calculations</li> <li>◆ Conductor type and size</li> <li>◆ Voltage drop calculation</li> <li>◆ Manufacturer's data sheets and listing information</li> <li>◆ Details of ceiling height and construction</li> <li>◆ Sequence of operation</li> <li>◆ The interface of safety control function</li> <li>◆ Classification of the supervising station</li> </ul>
SPS 361.30(2)	SPS 361.30(2) - Prior to installation, interior bleacher plans and calculations (calculations not required if the bleacher has a Wisconsin Material Approval Number, and that approval number is shown on each set of plans), application form, and appropriate fees shall be submitted to this office for review and approval. Per IBC 1028.1, bleachers shall comply with ICC 300. Our agency offers a number of worksheets and checklists for the Commercial Building Code at <a href="http://dsps.wi.gov/Documents/Industry%20Services/Forms/Commercial%20Buildings/PlanSubmittalChecklists/Bleachers%20Plan%20Review%20Submittal%20Checklist_2009%20IBC.pdf">http://dsps.wi.gov/Documents/Industry%20Services/Forms/Commercial%20Buildings/PlanSubmittalChecklists/Bleachers%20Plan%20Review%20Submittal%20Checklist_2009%20IBC.pdf</a> that may assist you in preparing this submittal. When the total building volume exceeds 50,000 cubic feet, the plans shall be signed, sealed and dated by the bleacher designer, and shall bear an indication of review which has been signed or initialed by the building designer of record.
SPS 361.30(2)	SPS 361.30(2) - Prior to installation, submit exterior bleacher plans if more than 5 rows in height as well as calculations (calculations not required if the bleacher has a Wisconsin Material Approval Number, and that approval number is shown on each set of plans), site plan, application form, and appropriate fees shall be submitted to this office for review and approval. Per IBC 1028.1, bleachers shall comply with ICC 300.

	<p>Our agency offers a number of worksheets and checklists for the Commercial Building Code at <a href="http://dsps.wi.gov/Documents/Industry%20Services/Forms/Commercial%20Buildings/PlanSubmittalChecklists/Bleachers%20Plan%20Review%20Submittal%20Checklist_2009%20IBC.pdf">http://dsps.wi.gov/Documents/Industry%20Services/Forms/Commercial%20Buildings/PlanSubmittalChecklists/Bleachers%20Plan%20Review%20Submittal%20Checklist_2009%20IBC.pdf</a> that may assist you in preparing this submittal. The plans shall be signed, sealed and dated by the bleacher designer, and shall bear an indication of review which has been signed or initialed by the project designer of record.</p>
Informational Note	<p>Additional requirements from the Wisconsin Department of Health Services (DHS) may apply to facilities licensed through DHS such as hospitals, nursing homes, hospices, ambulatory surgical centers, community-based residential facilities (CBRF) and residential care apartment complexes (RCAC). Contact DHS Division of Quality Assurance, Office of Plan Review and Inspections, through their web site: <a href="http://www.dhs.wisconsin.gov/rl_dsl/bqa.htm#opri">http://www.dhs.wisconsin.gov/rl_dsl/bqa.htm#opri</a>.</p>
SPS 361.31(2)(e)	<p>SPS 361.31(2)(e) - The plan submittal did not include the required plot or site plans. Submit plot or site plans showing all buildings on the site, property lines, setback lines and/or permanent easements, access and service drives, grades and/or slopes, storm water and erosion control design features, parking, walkways, etc. The plot or site plans shall be dimensioned and drawn to scale.</p>

## **Footing and Foundations**

IBC 1808.7.5/SPS 362.1808	IBC 1808.7.5/SPS 362.1808 - Alternate setbacks and clearances are permitted, subject to the approval of the department.
IBC 1809.4	IBC 1809.4 - Exterior wall and column footings shall be at least 12 inches below grade and shall extend below the frost line of the locality. The designer is cautioned that the actual frost depth(s) for that locality may extend deeper than the footing depth(s) indicated on the submitted plans. Where applicable, the requirements of Section 1809.5 shall also be satisfied.
IBC 1809.8	IBC 1809.8 - Plain concrete footing edge thickness shall be at least 8 inches for footings directly bearing on soil, unless meeting the exception.
IBC 1808.3	IBC 1808.3 - Provide foundations which are designed for the most unfavorable effects due to load combinations.
IBC 1808.7	IBC 1808.7 - Verify that setbacks and clearances from the building foundation to the ascending or descending slope are adequate.
IBC 1809.4	IBC 1809.4 - Exterior wall and column footings shall be at least 12 inches below grade and shall extend below the frost line of the locality. The designer is cautioned that the actual frost depth(s) for that locality may extend deeper than the footing depth(s) indicated on the submitted plans. Where applicable, the requirements of Section 1809.5 shall also be satisfied.
IBC 1806.2	IBC 1806.2 - Construction documents submitted for review shall include the soil type and presumptive soil bearing value used in design. When the presumptive bearing value used is in excess of 3,000 psf or there is a discrepancy between the stated soil type and the allowable presumptive bearing value, a verification letter is required. Submit a letter signed, sealed, and dated by a WI registered professional (architect or engineer) stating the soil type present at the site, presumptive bearing value showing compliance with Table 1806.2, and the date the site investigation occurred.
IBC 1803	IBC 1803 - Provide a soils and foundation report if the allowable soil bearing capacity (qa) exceeds 3,000 psf.
IBC 1807	IBC 1807 - Foundation wall materials and reinforcement shall be provided.
IBC 1807.1.6	IBC 1807.1.6 - Concrete and masonry foundation walls shall be adequately laterally supported at the top and bottom.

## Structural Items

IBC 704	IBC 704 - Protection of individual structural members required to be fire-resistance rated shall comply with this section.
IBC 1613.1/SPS 362.1613(1)	IBC 1613.1/SPS 362.1613(1) - Every building and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14 and Appendix 11A. The seismic design category for a structure is permitted to be determined in accordance with Section 1613 or ASCE 7, unless meeting exceptions 1 through 4 to this section. The interactive website maintained by the USGS at <a href="http://eqint.cr.usgs.gov/eq-men/html/zipcode-06.html">http://eqint.cr.usgs.gov/eq-men/html/zipcode-06.html</a> may be used in lieu of IBC Figures 1613.5(1) and (2) to determine the spectral response acceleration values for an inputted zip-code area.
IBC 1609.1.1	IBC 1609.1.1 - Wind loads shall be determined per Section 6 of ASCE 7 subject to the limitations in Section 1609.1.1.2, with the following exceptions: when meeting the limitations of Section 1609.1.1.1, ICC 600 may be used for Group R-2 and R-3 buildings, and AF&PA WFCM may be used for residential structures; designs using NAAMM FP 1001 (for flag poles); or designs using TIA/EIA-222 for antenna-supporting structures and antennas.
SPS 362.0400(6)	SPS 362.0400(6) - Where the live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 100 pounds per square foot, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.
IBC 1603.1.6	IBC 1603.1.6 - Provide the load bearing capacity of the soil on the construction documents.
IBC 1803	IBC 1803 - Provide a soils and foundation report if the allowable soil bearing capacity (qa) exceeds 3,000 psf.
IBC 1608.4	IBC 1608.4 - Sloped roof snow load using the ground snow load $P_g$ per IBC 1608.2, shall be calculated using Section 7.4 of ASCE 7, with the Exposure factor $C_e$ per Section 7.3.1, Thermal factor $C_t$ per Section 7.3.2, snow load Importance factor $I$ per Section 7.3.3 (based on occupancy category per IBC 1604.5), and shall be adjusted by applicable unbalanced loads per Section 7.6, drift loads per Section 7.7 and 7.8, and sliding snow loads per Section 7.9.
IBC 1608.2	IBC 1608.2 - Flat roof (1:12 maximum) snow load using the ground snow load $P_g$ per IBC 1608.2, shall be calculated using Section 7.3 of ASCE 7, with the Exposure factor $C_e$ per Section 7.3.1, Thermal factor $C_t$ per Section 7.3.2, snow load Importance factor $I$ per Section 7.3.3 (based on occupancy category per IBC 1604.5), and applicable rain-on-snow surcharge per Section 7.10 (1/2:12 maximum), or ponding instability (1/4:12 max) per Section 8.4 of ASCE 7.

## **Building Envelope**

IECC 403.2.1/IECC 503.2.7	IECC 403.2.1/IECC 503.2.7 - Provide duct insulation as required per these code sections. All supply and return air ducts and plenums shall be insulated with a minimum of R-5 insulation when located in unconditioned spaces and a minimum of R-8 insulation when located outside the building. When located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by a minimum of R-8 insulation. If the building is a low rise (3 stories above grade or less, 3 dwelling units or more) residential building, a minimum of R-6 insulation is required when air ducts and plenums are located in unconditioned spaces
IECC 403.2.1/IECC 503.2.7	IECC 403.2.1/IECC 503.2.7 Provide underground ducts which are insulated to a minimum of R-6 for IECC Ch. 4 low rise residential buildings, and R-8 for commercial buildings addressed by IECC Ch. 5..
IMC 202/SPS 363.002(2)	IMC 202/SPS 363.002(2) A structure with > 4% permanent openings is not considered an enclosed or conditioned space for purposes of Energy or HVAC. It is exempt from Energy Envelope Requirements and from HVAC Minimum temperature and ventilation requirements. However, the permanent openings may never be filled in with windows or doors.
IECC 303.1.4/SPS 363.0303	IECC 303.1.4/SPS 363.0303 Provide test results on the product in question that are based on recognized practices listed in this section.
IECC 303.1.3/IECC 501.2/SPS 363.0501/ASHRAE 90.1 sec. 5.5.4.3/ASHRAE 90.1 sec. 5.5.4.4	IECC 303.1.3/IECC 501.2/SPS 363.0501/ASHRAE 90.1 sec. 5.5.4.3/ASHRAE 90.1 sec. 5.5.4.4 Fenestration U-factors and solar gain heat coefficients (SGHC) for windows, doors and skylights shall use default values shown in Tables 303.1.3(1), 303.1.3(2) and/or 303.1.3(3), unless the plans or specifications identify the independently tested NFRC values used in the building envelope calculations. Products installed in the field shall be labeled and certified to verify these ratings.
IECC 303.1.1	IECC 303.1.1 - The insulation installer shall provide a signed and dated certification for the insulation installed in each element of the building envelope, listing the type of insulation installations in roof/ceilings, the manufacturer and the R-value. For blown-in or sprayed insulation, the installer shall also provide the initial installed thickness, the settled thickness, the coverage area, and the number of bags installed. The installer shall post the certification in a conspicuous place on the job site.
IECC 303.1.1.1	- The blown-in or sprayed insulation installer shall provide identification markers that are labeled in inches or millimeters installed at least one for every 300 sf throughout the attic space. The markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness and the minimum settled thickness with the numbers a minimum of 1" in height. Each marker shall face the attic access opening. The thickness of the installed insulation shall meet or exceed the minimum installed thickness shown on the marker.
IECC 101.5.2/SPS 363.0101	IECC 101.5.2/SPS 363.0101 This building, or specified area of the building, has not been required to meet building envelope requirements because data has been submitted which indicates that the peak design rate of energy usage is less than 3.4 Btu/(h-ft <sup>2</sup> ). Should the installed heating equipment output exceed this limitation at any future time, the owner shall be required to insulate the building per code.

IECC 101.5.2/SPS 363.0101	IECC 101.5.2/SPS 363.0101 - This building is approved as an unheated storage building. Should the owner wish to heat or cool this building at a future time, building alteration plans shall be required to be submitted and conditionally approved. The plans shall demonstrate building envelope compliance. After such action, HVAC plans would then be required to be submitted and conditionally approved prior to HVAC equipment installation.
IMC 1209.5	IMC 1209.5 - Provide radiant floor heating systems with a thermal barrier. Slab on grade installations shall be provided with insulating materials installed beneath the piping having a minimum R-value of 5. Suspended floor applications installed in the joist bay cavity serving the heating space above shall incorporate a minimum R-value of R-11.
IBC 1405.3/SPS 362.1405(1)	IBC 1405.3/SPS 362.1405(1) - Provide an appropriate class of vapor retarder on the interior side of frame walls (warm in winter side), as well as assemblies addressed in this section. Exceptions include basement walls, below grade portion of any wall, and where other approved means to avoid condensation in unventilated framed wall, floor, roof, and ceiling cavities, and box sills are provided.
IECC 303.2.1	IECC 303.2.1 - Provide insulation applied to the exterior of foundation walls and around the perimeter of slab-on-grade floors with a rigid, opaque and weather-resistant protective covering to prevent the degradation of the insulation's thermal performance. The protective covering shall cover the exposed area of the exterior insulation and extend a minimum of 6" below grade.

## Heating, Ventilating, and Air Conditioning

MC 502.16/IBC 406.6.6	MC 502.16/IBC 406.6.6 – Provide repair garages for natural gas- and hydrogen-fueled vehicles with an exhaust system with a minimum exhaust rate of 1 cfm per 12 cubic feet of room volume. Additionally, multiple inlets for make-up air shall be uniformly arranged on exterior walls near the floor level. Multiple exhaust outlets shall be located at the high point of the room in exterior walls or the roof. The mechanical ventilation system shall operate continuously unless a listed exception is met.
BC 1208.2	BC 1208.2 - Provide installed HVAC equipment not less than 7 feet 6 inches above in occupiable spaces and corridors, and not less than 7 feet for bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms. Note: If the HVAC equipment will be in a public garage, motor fueling dispensing facility, repair garage or other area frequented by motor vehicles (inclusive of forklifts), then IMC 304.6 would apply.
IMC 506.3.12.2	IMC 506.3.12.2 Provide a type I kitchen exhaust outlet such that the termination does not create a public nuisance or fire hazard. Other openings shall not be located within 3 ft. of such termination.
IMC 506.4.2	IMC 506.4.2 - Provide exhaust outlets serving Type II hoods per its listing. Additionally, outlets shall terminate not less than 3 ft. in any direction from openings into the building; not less than 10 ft. from property lines or buildings on the same lot; not less than 10 ft. above grade; not less than 30 inches above the roof surface and not less than 30 inches from exterior vertical walls. Outlets shall be protected against local weather conditions, and shall meet the provisions of exterior wall opening protectives in accordance with the <i>International Building Code</i> . Outlets shall not be directed onto walkways
IMC 506.5.5	IMC 506.5.5 - Provide a minimum horizontal distance between vertical discharge fans and parapet-type building structures of 2 ft. provided that such structures are not higher than the top of the fan discharge opening.
IBC 412.4.4	IBC 412.4.4 - Airplane hangar heating equipment shall be separated with 2-hour fire-resistant rated construction. The entrance shall be from the outside or with a two doorway separation unless a code exception can be met.
IBC 412.4.4/SPS 362.0412	IBC 412.4.4/SPS 362.0412 - Provide airplane hangar heating equipment a minimum of 10 ft. above the upper surface of wings or engine enclosures of the highest aircraft which may be housed in the hangar, or least 8 ft. above the floor in shops, offices and other sections of the hanger communicating with the storage or service areas.
IBC 716.5	IBC 716.5 - Provide fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers at the locations prescribed in Sections 716.5.1 through 716.5.7. Where an assembly is required to have both fire dampers and smoke dampers, combination fire/smoke dampers or a fire damper and a smoke damper shall be provided
IECC 503.2.3 Tables/IECC 501.2/SPS 363.0501	IECC 503.2.3 Tables/IECC 501.2/SPS 363.0501 - Space heating or cooling equipment shall have a minimum efficiency at ratings specified in these referenced code sections with Wisconsin amendments, or meet ASHRAE 90.1-2007 as allowed by IECC 501.2.
IECC 403.3/IECC 503.2.8	IECC 403.3/IECC 503.2.8 - Provide piping carrying fluids less than 55 deg. F or more than 105 deg. F used as part of a heating or cooling system with insulation to the R-values shown in IECC Table 503.2.8 for all commercial buildings, except for those which are low rise residential buildings, 3 stories or less above grade, which are required to have a minimum of R-3, unless a code exception can be met. Designer is reminded to not just



	reference the codes sections, but provide an insulation schedule or list appropriate insulation minimums on the HVAC plans.
IMC 501.3/SPS 364.0501	IMC 501.3/SPS 364.0501 - Toilet rooms, diaper changing rooms, locker rooms, shower rooms, janitor closets, vehicle repair areas, etc. must be provided with neutral or negative pressure relative to adjacent areas. A mechanically exhausted room or space within a dwelling in it is not required to be maintained with negative or neutral pressure.
IMC 501.2	IMC 501.2 - Provide exhaust ducts that extend to the exterior of the building.
IMC 403/SPS 64.0403(5)(c)2.	IMC 403/SPS 64.0403(5)(c)2. - Janitor closets that have one service sink or receptor must be provided with natural ventilation via a window with at least 2 sf of area openable directly to the outside, or mechanical exhaust ventilation as specified in SPS Table 364.0403 involving a minimum of 2 cfm exhaust/sf of janitor closet floor area OR 75 cfm/janitor closet.
IMC 309/SPS 364.0309	IMC 309/SPS 364.0309 Provide heating design calculations based on a minimum indoor temperature of 68oF.
IMC 309/SPS 364.0309	IMC 309/SPS 364.0309 - Provide heating design calculations based on a minimum indoor temperature of 60oF.
IFGC 503.8	IFGC 503.8 - Provide product of combustion outlets of direct vent sealed combustion chamber appliance vents at least 6, 9 or 12 inches, measured in any direction from doors or openable windows depending on whether the appliance has an input of 10,000 btu/h or less, more than 10,000 btu/hr but not over 50,000 btu/h, or is greater than 50,000 btu/h, respectively.
IMC 401.3/SPS 364.0401(2)(b)	IMC 401.3/SPS 364.0401(2)(b) - Pool exhaust ventilation shall operate continuously, even when the building is not occupied.
IMC 401.3/SPS 364.0401	IMC 401.3/SPS 364.0401 - Mechanical ventilation systems, and all associated supply & exhaust fans, must be operated to provide a continuous source of outside air during the periods that the room or space is occupied, unless a listed exception is met.
IMC 401.3/SPS 364.0403(2)	IMC 401.3/SPS 364.0403(2) - Provide a building exhaust ventilating system which will operate continuously during periods that a room or space is occupied with the minimum amount of exhaust specified in SPS Table 364.0403 unless a listed exception can be met.
IMC 401.6/SPS 364.0401(6)/IMC 501.3	IMC 401.6/SPS 364.0401(6)/IMC 501.3 - Contaminated air must be exhausted outside of the building unless justification from the designer is provided that demonstrates the contaminant can be acceptably significantly removed prior to redistribution within the building.
IMC 401.5	IMC 401.5 - Provide corrosion-resistant devices such louvers, screens, or grilles for outside air intake openings which meet the minimum and maximum size requirements of Table IMC 401.5.

## Exiting

IBC 1022.5	IBC 1022.5 - Provide exit enclosure ventilation systems that are independent of other building ventilation systems. Per IBC 1022.4, penetrations into and openings through an exit enclosure are prohibited except for required exit doors, equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the exit and terminating at a steel box not exceeding 16 sq. inches. There shall be no penetrations or communication openings, whether protected or not, between adjacent exit enclosures.
IBC 1009.4.5	IBC 1009.4.5 - Provide stairways with risers that are solid unless a listed exception can be met.
IBC 1007.8	IBC 1007.8 - Provide a two-way communication system at the elevator landing on each accessible floor that is one or more stories above or below the story of exit discharge complying with Sections IBC 1007.8.1 and 1007.8.2 unless a listed exception is met. Be reminded that the exception to omit areas of refuge and associated communications when buildings are sprinklered does not apply to the two way communication system at each elevator landing.
SPS 361.31(2) & IBC 1006.1	SPS 361.31(2) & IBC 1006.1 - Effective July 1, 2012, where egress paths are not readily obvious and two means of egress are required, an egress plan shall be included with the building plan submittal to our department. The egress plans shall clearly indicate the location of the exit lights and the egress paths within the building to the exits. Revised plans and additional information shall be submitted clearly indicating the exit lights and the egress paths within the building.
IBC 1026.6	IBC 1026.6 - Exterior exit stairs shall be separated from the interior of the building as required in Section 1022.1. Openings shall be limited to those necessary for egress from normally occupied spaces.
IBC 1023.5	IBC 1023.5 - Openings in exit passageways shall be limited to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway.
IBC 1023.1	IBC 1023.1 - Exit passageways serving as an exit component in a means of egress system shall comply with the requirements of this section. An exit passageway shall not be used for any purpose other than as a means of egress.
IBC 1018.5/IMC 601.2/SPS 364.0601	IBC 1018.5/IMC 601.2/SPS 364.0601 - Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts, unless meeting an exception.
IBC 1018.4	IBC 1018.4 - Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet in length, unless an exception is met.
IBC 1009.4.2	IBC 1009.4.2 - All stairs shall have a minimum rise of 4". For public stairs, risers shall be not more than 7 inches with a minimum tread of 11 inches. For stairs within dwelling units, the maximum riser height shall be 7.75" and the minimum tread depth shall be 10". Treads and risers shall be uniform in any flight of stairs.
IBC 1009.4.4	IBC 1009.4.4 - 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 (3/8) inch in any flight of stairs.
IBC 1008.1.9.4	IBC 1008.1.9.4 - Manually operated flush bolts or surface bolts are not permitted.

IBC 1008.1.9.3	IBC 1008.1.9.3 - Egress doors shall be readily openable from the egress side of the door without the use of keys or special knowledge or effort.
IBC 1018.1	IBC 1018.1 - Corridors shall be constructed of fire resistive rated construction per Table 1018.1, and the corridor walls required to be fire-resistance rated shall comply with Section 709 for fire partitions, unless meeting an exception.
IBC 1016.1/SPS 362.1016(1)	IBC 1016.1/SPS 362.1016(1) - Exits shall be so located on each story that the maximum length of exit access travel, measured from the most remote point within a story to the entrance to an exit along the natural and unobstructed path of egress travel, shall not exceed the distances given in Table 1016.1
IBC 1008.1.10	IBC 1008.1.10 - Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware. Additionally, electrical rooms rated with 1,200 amperes or more and over 6 ft. wide that contain overcurrent devices, switching devices or control devices with exit access doors shall also be addressed with door swing action in the direction of egress travel.
IBC 1015.1	IBC 1015.1 - Two exit or exit access doorways from any space are required when the occupant load of the space is greater than the values within Table 1015.1 when the common path of travel is greater than the limitations stated in Section 1014.3, Group I-2 occupancies as specified, and per other referenced sections.

## **Fire Separation**

IBC 706.6 Exception 3	IBC 706.6 Exception 3 - Fire walls shall be permitted to terminate at the underside of noncombustible roof sheathing, deck or slab with no parapet where both buildings are provided with not less than a Class B roof covering. No roof openings are permitted within 4 feet of each side of a fire wall.
IEBC 1002.3	IEBC 1002.3 - If an existing fire area is increased by a building addition, provide fire protection as required by IBC Chapter 9.
IBC 703.6	IBC 703.6 - Firewalls, fire barriers, fire partitions, smoke barriers, and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified in the field with signs or stenciling spaced and sized per this section unless a listed code exception is met.
IBC 715.4.8	IBC 715.4.8 - Fire doors shall be self-closing or automatic-closing in accordance with this section. Exceptions: 1) Fire doors located in common walls separating sleeping units in Group R-1 hotels and motels shall be permitted without automatic-closing or self-closing devices; 2) Elevator doors and hoistway enclosure doors at the floor level designated for recall per Section 3003.2.
IBC 420	IBC 420 - Provide fire partitions in accordance with Section 709 between dwelling units, sleeping units, as well as between such units and other occupancies.
IBC 508.4	IBC 508.4 - Each use of the building shall be individually classified as to use and completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with Table 508.4 for the uses being separated. Each fire area shall comply with the height limitations based on the use of that space and the type of construction classification.
IBC 709.3	IBC 709.3 - Fire partitions shall have a fire-resistance rating of not less than 1 hour except corridor walls as permitted by Table 1018.1. Dwelling unit and sleeping unit separations in buildings of Types IIB, IIIB, and VB construction shall have fire-resistance ratings of not less than 1/2 hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
IBC 603.1	IBC 603.1 - Buildings of Types I and II construction shall meet an exception of Section 603.1 or Table 601 footnote b to allow the use of combustible construction materials.
IBC 602	IBC 602 - Provide fire-resistive ratings of exterior walls per Table IBC 602. Also see Section 705.
IBC 602.1	IBC 602.1 - All exterior walls (bearing or non-bearing) including beams and columns shall be of fire-resistance rated construction to at least the hourly rating required by Tables 601 and 602, whichever is greater. Also see Section 705.
IBC 703.6	IBC 703.6 - Firewalls, fire barriers, fire partitions, smoke barriers, and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified in the field with signs or stenciling spaced and sized per this section unless a listed code exception is met.
IBC 508.2.5	IBC 508.2.5 - Provide areas incidental in use to the main occupancy with fire separation and/or automatic fire-extinguishing systems in accordance with IBC Table 508.2.5 or provide information on how these are incorporated into your design as mixed uses.
IBC 716.5	IBC 716.5 - Provide fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers at the locations prescribed in Sections 716.5.1 through 716.5.7. Where an assembly is required to have both fire dampers and smoke dampers, combination fire/smoke dampers or a fire damper and a smoke damper shall be provided.
IBC 706.8	IBC 706.8 - Openings in fire walls shall be protected per Section 715.4 and not exceed 156

	square feet each, nor exceed 25% of the length of the fire wall in any floor level.
IBC 3006.4	IBC 3006.4 - Provide elevator machine rooms with a fire rated enclosure no less than that required for the hoistway enclosure, unless a listed exception is met. See IBC 707.4. Doors entering the space shall be fire rated per IBC 715.4.
IBC 706.6 Exception 4	IBC 706.6 Exception 4 - Fire walls of building Types III, IV or V construction shall be permitted to terminate at the underside of combustible roof sheathing with gypsum board or fire-retardant treated wood for a minimum of 4 ft. on both sides, with a minimum Class B roof covering and no openings within 4 feet of each side of the fire wall.
IBC 706.6	IBC 706.6 - Fire walls shall extend from the foundation to at least 30 inches above the roof on both sides, unless an exception is met.
IBC 706.6.1	IBC 706.6.1 - Per exception 1, the fire wall may terminate at the lower roof sheathing, deck, or slab, if the lower roof assembly within 10 feet of the wall is 1-hour fire-resistance rated (including supports) without openings in that 10 foot of roof.
IBC 706.6.1	IBC 706.6.1 - Where a fire wall separates buildings with different roof heights, the fire wall shall terminate not less than 30 inches above the lower roof, if the wall above the lower roof is 1-hour fire-resistance rated construction from both sides for 15 feet with protected openings.
IBC 706.5	IBC 706.5 - The fire wall shall be continuous from exterior wall to exterior wall and extend 18 inches beyond the exterior wall surface unless the building meets one of the three exceptions in this code section.
IBC 706.5	IBC 706.5 - The 18 inch exterior extension of the fire wall is not required if the building is completely sprinkler protected, or noncombustible exterior sheathing is provided at least 4 feet on each side of the fire wall or a minimum 1-hour exterior wall is provided horizontally for 4 feet on each side of the fire wall.
IBC 706.5.2	IBC 706.5.2 - Fire walls shall extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies, marquees and architectural projections that are within 4 feet of the fire wall.
IBC 706.5.1	IBC 706.5.1 - Provide exterior walls on both sides of the fire wall with a 1 hour fire-resistance rating with 3/4-hour protection where opening protection is required by Section 705.8. The fire-resistance rating of the exterior wall shall extend a minimum of 4 feet on each side of the intersection of the fire wall to exterior wall. Exterior wall intersections at fire walls that form an angle equal to or greater than 180 degrees do not need exterior wall protection.
IBC 706.4	IBC 706.4 - The fire wall shall have a fire-resistance rating not less than that required by Table 706.4.
IBC 706.3	IBC 706.3 - Fire walls shall be of approved noncombustible materials, except for Type V construction.
IBC 706.2	IBC 706.2 - Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required fire-resistance rating.
IBC 706.11	IBC 706.11 - Penetrations by ducts and air transfer openings of fire walls that are not on a lot line shall be allowed provided the penetrations comply with Sections 716. The size and aggregate width of all openings shall not exceed the limitations of Section 706.8.

## **Fire Suppression/Fire Alarm**

IBC 904.10	IBC 904.10 - Provide clean agent fire extinguishing systems that are installed, maintained and periodically inspected and tested in accordance with NFPA 2001 and their listing.
IBC 907.6	IBC 907.6 - Provide a fire alarm system installed in accordance with NFPA 72.
IBC 715.4.8.3	IBC 715.4.8.3 - Provide smoke detectors to close automatic closing doors in accordance with IBC 907.3.
IBC 907.2.11.1	IBC 907.2.11.1 - Provide smoke alarms in sleeping areas, in every intervening room from the sleeping area to the exit of the sleeping unit, and on each story within the sleeping unit, including basements.
IBC 903.3.1.2/SPS 361.30(3)/SPS 361.31(1)(b)	IBC 903.3.1.2/SPS 361.30(3)/SPS 361.31(1)(b) - This structure is indicated as being partially protected by an automatic sprinkler system (see NFPA 13R). This approval does not include a review of the system. The owner shall have and make available upon request by the department a copy of the reports documenting the acceptability of the completed system (see NFPA 13R-2007).
IBC 903.3.1.1/SPS 361.30(3)/SPS 361.31(1)(b)	IBC 903.3.1.1/SPS 361.30(3)/SPS 361.31(1)(b) - This structure is indicated as being fully protected by an automatic fire sprinkler system (see NFPA 13). This approval does not include a review of the system. The owner shall have and make available upon request by the department a copy of the reports documenting the acceptability of the completed system (see NFPA 13-2007) at the job site.
IBC 903.2.11.2	IBC 903.2.11.2 - Provide an automatic fire sprinklers at the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinklers installed at alternate floors. Chute sprinklers shall be accessible for servicing.
IBC 903.2.11.1	IBC 903.2.11.1 - Provide an automatic fire sprinkler system throughout every story or basement where the floor area exceeds 1,500 sf and does not have an appropriate exterior wall opening(s).

# **Accessibility**

ICC/ANSI A117.1 Sec. 703.6.3	ICC/ANSI A117.1 Sec. 703.6.3 - Provide the international symbol of accessibility next to those spaces or areas of use that are designated to be accessible.
IBC 907.5.2.3.1	IBC 907.5.2.3.1 - Provide visible alarm notification appliances in public and common use areas. This includes, but is not limited to, corridors, public restrooms, dressing rooms, shared offices, classrooms, medical exam rooms. Visual notification is not required in private offices or mechanical rooms.
IEBC 605.1.14	IEBC 605.1.14 Alterations shall not reduce the previous required accessibility of a building.
IBC 1007.8	IBC 1007.8 - Provide a two-way communication system at the elevator landing on each accessible floor that is one or more stories above or below the story of exit discharge complying with Sections IBC 1007.8.1 and 1007.8.2 unless a listed exception is met. Be reminded that the exception to omit areas of refuge and associated communications when buildings are sprinklered does not apply to the two way communication system at each elevator landing.
IEBC 912.8.2	IEBC 912.8.2 Because the whole building is changing occupancy, provide accessible features per this section for this change of use area unless technically infeasible.
IBC 1109.2.1	IBC 1109.2.1 - Provide in assembly and mercantile occupancies an accessible family or assisted use toilet room where an aggregate of 6 or more male and female water closets are required. In buildings of mixed occupancy, only those water closets required for the assembly or mercantile occupancy shall be used to determine the family or assisted use toilet room requirements. In recreational facilities where separate-sex bathing rooms are provided, an accessible family or assisted-use bathing room shall be provided, except where each separate-sex bathing room has only one shower or bathtub fixture, a family or assisted-use bathing room is not required.
IBC 1109.2.1.6	IBC 1109.2.1.6 - Where doors swing into a family or assisted-use toilet or bathing room, a clear floor space not less than 30 inches by 48 inches shall be provided, within the room, beyond the area of the door swing.
IBC 1109.2.1.4	IBC 1109.2.1.4 - The accessible route from any separate-sex toilet room to a family or assisted-use toilet room shall not exceed 500 feet.
IBC 1109.2.1.3	IBC 1109.2.1.3 - Family or assisted-use bathing rooms shall include only one shower or bathtub facility. Where storage facilities are provided for separate-sex bathing rooms, accessible storage facilities shall be provided for family or assisted-use bathing rooms.
IBC 1109.12	IBC 1109.12 - Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation, and electrical convenience outlets, in accessible spaces, along accessible routes or as parts of accessible elements shall be accessible, unless meeting exceptions 1 through 7 to this section.
IBC 1109.11.4	IBC 1109.11.4 - Food service lines shall be accessible. Where self-service shelves are provided, at least 50 percent, but not less than one, of each type provided shall be accessible.

IBC 1109.11.2	IBC 1109.11.2 - Where check-out aisles are provided, accessible check-out aisles shall be provided in accordance with Table 1109.12.2. Where check-out aisles serve different functions, at least one accessible check-out aisle shall be provided for each function. Where checkout aisles serve different functions, accessible check-out aisles shall be provided in accordance with Table 1109.12.2 for each function. Where check-out aisles are dispersed throughout the building or facility, accessible check-out aisles shall also be dispersed. Traffic control devices, security devices and turnstiles located in accessible check-out aisles or lanes shall be accessible.
IBC 1109.11.1	IBC 1109.11.1 - Where dressing rooms, fitting rooms, or locker rooms are provided, at least 5 percent, but not less than one, of each type of use in each cluster provided shall be accessible.
IBC 1109.10	IBC 1109.10 - Where seating or standing space at fixed or built-in tables, counters or work surfaces is provided in accessible spaces, at least 5 percent of the seating and standing spaces, but not less than one, shall be accessible. In Group I-3 occupancy visiting areas at least 5 percent, but not less than one, cubicle or counter shall be accessible on both the visitor and detainee sides.
IBC 1109.10.1	IBC 1109.10.1 - Accessible fixed or built-in seating at tables, counters or work surfaces shall be distributed throughout the space or facility containing such elements.
IBC 1108.4	IBC 1108.4 - Judicial facilities shall comply with Sections 1108.4.1.1 through 1108.4.3.5. All courtrooms shall be accessible. At least one accessible cell shall serve each courtroom. At least 5 percent but no fewer than one of the visiting cubicles and counters shall be accessible.
IBC 1108.2.9.1	IBC 1108.2.9.1 - Where dining surfaces for the consumption of food or drink are provided, at least 5 percent, but not less than one, of the seating and standing spaces at the dining surfaces shall be accessible and be distributed throughout the facility.
IBC 1108.2.8	IBC 1108.2.8 -An accessible route shall connect the performance area to the assembly seating area, where a circulation path directly connects a performance area to an assembly seating area.
IBC 1107.3	IBC 1107.3 - Spaces available to the general public or residents and serving accessible units, or Type A and Type B dwelling and sleeping units shall include accessible toilet and bathing rooms, kitchens, living and dining areas and any exterior spaces, including patios, terraces and balconies, unless an exception is met.
IBC 1103.2.3	IBC 1103.2.3 - Spaces and elements within employee work areas shall only be required to comply with Sections 907.5.2.3.2., 1007 and 1104.3.1 and shall be designed and constructed so that individuals with disabilities can approach, enter and exit the work area. Work areas, or portions of work areas, that are less than 300 sq. ft. in area and elevated 7 inches or more above the ground or finish floor where the elevation is essential to the function of the space shall be exempt from all requirements.
IBC 1101.2/SPS 362.1101(2)/ANSI section 1004.11.3.2	IBC 1101.2/SPS 362.1101(2)/ANSI section 1004.11.3.2 - When toilet and bathing rooms are provided in dwelling units and sleeping units within an R-2 occupancy the rooms shall conform to ICC/ANSI A117.1 Section 1004.11.3.2. The minimum clear floor space at bathtubs and transfer showers shall be designed to facilitate a person using a wheelchair to reach and operate the bathtub or transfer shower controls without entering the bathtub or transfer shower. The controls for a roll-in, 60 inch transfer shower, may be located on the back wall of the shower.
SPS	SPS 362.1101.2/ANSI A117.1 604.5.1 - In addition to the horizontal side wall grab



362.1101.2/ANSI  
A117.1 604.5.1

bar, provide a vertical grab bar 18" minimum in length mounted with the bottom of the bar located between 39" and 41" above the floor and the center line of the bar located between 39" & 41" from the rear wall.

## **Fire Safety and Maintenance**

SPS 361.30(3)	SPS 361.30(3) - This review does not include the review and approval of the installation of bulk gasoline and/or diesel tanks as required by ATCP Chapter 93. Please contact Greg Bareta, Phone: 608-224-5150 or email: greg.bareta@wi.gov at WI Dept. of Agriculture, Trade and Consumer Protection.
	The review of commercial building plans and inspection in the field does not include review of exterior open fires, fire pits, outdoor fireplaces, permanent barbecues, grills, etc. The location and use of open flames of any kind outside a building shall meet the requirements of SPS 314, NFPA 1, as well as the local fire department or the authority having jurisdiction. Review SPS 314 & NFPA 1-2012 Section 10.11.
IMC 1206.2	IMC 1206.2 - Provide hydronic piping systems that are designed and installed to permit the system to be drained. Where the system drains to the plumbing drainage system, the installation shall conform to the requirements of the Wisconsin Plumbing Code.
	This plan has not been reviewed for conformance to any fire dept. access (lane) and water supply requirements. The designer is reminded that the requirements for fire lanes and water supply requirements are now contained in Chapter SPS 314, Fire Prevention Code. Consult with the local fire authority having jurisdiction for applicable codes to be used in the design of fire lanes. The designer shall refer to the NFPA 1 Chapter 18 for information regarding fire dept. access (lane) and water supply requirements and design.
IMC 504.7	IMC 504.7 - Provide commercial clothes dryer exhaust ducts with a minimum 6" clearance to combustible materials (inclusive of gypsum board), and install per the appliance manufacturer's installation instructions.
NFPA 72 section 10.6.2	NFPA 72 section 10.6.2 - Maintenance, inspection, and testing records shall be retained until the next year and for 1 year thereafter, and shall follow the requirements set forth by this section.
IBC 907.7	IBC 907.7 - Acceptance tests and completion - Upon completion of the installation, the fire alarm system and all fire alarm components shall be tested in accordance with NFPA 72. A record of completion in accordance with NFPA 72 verifying that the system has been installed and tested in accordance with the approved plans and specifications shall be kept for the life of the system and be available to an authority having jurisdiction.
IBC 1018.3	IBC 1018.3 - Provide the required width of the corridor such that it is unobstructed unless a listed exception is met.
IBC 2902.1	IBC 2902.1 - Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1, unless an exception is met.
IBC 2901.1/SPS 362.2901	IBC 2901.1/SPS 362.2901 - As defined in s. SPS 361.04 (12) and (13), "IPC and International Plumbing Code" and "IPSC and International Private Sewage Code" mean chs. SPS 381 to 387.
IBC 2902/SPS 362.2902(1)(b)	IBC 2902/SPS 362.2902(1)(b) - Chapter SPS 390 also has requirements for minimum numbers of sanitary fixtures for a public swimming pool, as based on the pool area. For some buildings, the minimum number of sanitary fixtures determined in that manner may be larger than the minimum number determined in accordance with this section. Compliance with this section does not relieve an owner from complying with ch. SPS 390.
IBC 2902/SPS 362.2902(1)(b)	IBC 2902/SPS 362.2902(1)(b) - Additional plumbing fixtures may be required for employees by the U.S. department of labor, occupational safety and health act

	(OSHA) regulations.
IBC 2902.4/SPS 362.2902(5)	IBC 2902.4/SPS 362.2902(5) - Additional location requirements for restaurant toilet rooms may be applied by the Wisconsin Department of Health Services.