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1	Code Analysis														
2	<b>Design Building Codes</b>  2015 International Existing Building Code (as adopted by New York State) 2015 International Building Code (as adopted by New York State) 2015 International Mechanical Code (as adopted by New York State) 2015 International Plumbing Code (as adopted by New York State) 2015 Energy Conservation Code (as adopted by New York State) 1998 NYSED Manual of Planning Standards National Electric Code (NEC) National Fire Protection Association (NFPA) ICC/ANSI A117.1 - 2009 American National Standard														
3	<b>2015 International Existing Building Code (as adopted by New York State)</b>  <b>Chapter 5 Classification of Work</b>  Section 504 Alteration-Level 2  504.1 Scope Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.  504.2 Application Level 2 alterations shall comply with the provisions of Chapter 7 for Level 1 alterations as well as the provisions of Chapter 8.  <b>Chapter 7 Alterations - Level 1</b>  Section 701 General  701.1 Scope Level 1 alterations as described in Section 503 shall comply with the requirements of this chapter. Level 1 alterations to historic buildings shall comply with this chapter, except as modified in Chapter 12.  Section 702 Building Elements and Materials  702.1 Interior Finishes All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the International Building Code.  702.2 Interior Floor Finish New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the International Building Code.  702.3 Interior Trim All newly installed interior trim materials shall comply with Section 806 of the International Building Code.  702.6 Materials and Methods All new work shall comply with the materials and methods requirements in the International Building Code, International Energy Conservation Code, International Mechanical Code, and International Plumbing Code, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.  Section 703 Fire Protection  703.1 General Alterations shall be done in a manner that maintains the level of fire protection provided.  Section 704 Means of Egress  704.1 General Alterations shall be done in a manner that maintains the level of protection provided for the means of egress.  Section 705 Accessibility  705.1 General A facility that is altered shall comply with the applicable provisions in Sections 705.1.1 through 705.1.4, and Chapter 11 of the International Building Code unless it is technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent that is technically feasible.  <b>Chapter 8 Alterations - Level 2</b>  Section 801 General  801.1 Scope Level 2 alterations as described in Section 504 shall comply with the requirements of this chapter.  801.2 Alteration Level 1 Compliance In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 7.  803.4 Interior Finish The interior finish of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the International Building Code.  Section 804 Fire Protection  804.1 Scope The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.  804.1.1 Corridor Ratings Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the International Building Code. In order to be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the floor and the intermediate landings immediately below.  804.2 Automatic Sprinkler Systems Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 804.2.1 through 804.2.5. Installation requirements shall be in accordance with the International Building Code.  804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2 In buildings with occupancies in Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where all of the following conditions occur:  1. The work area is required to be provided with automatic sprinkler protection in accordance with the International Building Code as applicable to new construction; and 2. The work area exceeds 50 percent of the floor area.  Exception: If the building does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, work areas shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the International Building Code.  (Note: The work area does not exceed 50% of the floor area.)  804.4 Fire Alarm and Detection An approved fire alarm system shall be installed in accordance with Sections 804.4.1 through 804.4.3. Where automatic sprinkler protection is provided in accordance with Section 804.2 and is connected to the building fire alarm system, automatic heat detection shall not be required.														
4	An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances, and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms, where products of combustion are present during normal operation in sufficient quantity to actuate a smoke detector.  804.4.1 Occupancy Requirements A fire alarm system shall be installed in accordance with Sections 804.4.1.1 through 804.4.1.7. Existing alarm-notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm-notification appliances within the work area shall be provided and automatically activated.  <b>Chapter 11 Additions</b>  Section 1101 General  1101.1 Scope An addition to a building or structure shall comply with the International Codes as adopted for new construction without requiring the existing building or structure to comply with any requirements of those codes or of these provisions, except as required by this chapter. Where an addition impacts the existing building or structure, that portion shall comply with this code.  1101.2 Creation or Extension of Nonconformity An addition shall not create or extend any nonconformity in the existing building to which the addition is being made with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems.  1101.3 Other Work Any repair or alteration work within an existing building to which an addition is being made shall comply with the applicable requirements for the work as classified in Chapter 5.  Section 1102 Heights and Areas  1102.1 Height Limitations No addition shall increase the height of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the International Building Code for new buildings.  1102.2 Area Limitations No addition shall increase the area of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the International Building Code for new buildings unless fire separation as required by the International Building Code is provided.  1102.3 Fire Protection Systems Existing fire areas increased by the addition shall comply with Chapter 9 of the International Building Code.  <b>2015 International Building Code (as adopted by New York State)</b>  <b>Chapter 3 Use and Occupancy Classification</b>  Section 305 Educational Group E  <b>Chapter 5 General Building Heights and Areas</b>  Section 504 Building Height and Number of Stories  Table 504.3 allowable building height in feet above grade plane (Note: see existing / proposed building information below) Table 504.4 allowable number of stories above grade plane (Note: see existing / proposed building information below)  Section 506 Building Area  Table 506.2 allowable area factor in square feet (Note: see existing / proposed building information below)														
5	Nonbearing walls and partitions (Exterior) (Per Table 602): Occupancy group: E X < 5'; 1 5' ≤ X < 10'; 1 10' ≤ X < 30'; 1 X ≥ 30'; 0 Nonbearing walls and partitions (Interior): 0 Floor construction and associated secondary members: 2 Roof construction and associated secondary members: 1 or 0 (where every part of the roof construction is 20 feet or more above any floor immediately below)  <b>Chapter 7 Fire and Smoke Protection Features</b>  Section 703 Fire-Resistance Ratings and Fire Tests  703.2 Fire-Resistance Ratings The fire-resistance rating of building elements, components or assemblies shall be determined in accordance with the test procedures set forth in ASTM E119 or UL 263 or in accordance with Section 703.3. The fire-resistance rating of penetrations and fire-resistant joint systems shall be determined in accordance Sections 714 and 715, respectively.  703.6 Fire-Resistance-Rated Glazing Fire-resistance-rated glazing, when tested in accordance with ASTM E119 or UL 263 and complying with the requirements of Section 707, shall be permitted. Fire-resistance-rated glazing shall bear a label marked in accordance with Table 716.3 issued by an agency and shall be permanently identified on the glazing.  Section 705 Exterior Walls  705.5 Fire-Resistance Ratings Exterior walls shall be fire-resistance-rated in accordance with Tables 601 and 602 and this section. The required fire-resistance rating of exterior walls with a fire separation distance of greater than 10 feet (3048 mm) shall be rated for exposure to fire from the inside. The required fire-resistance rating of exterior walls with a fire separation distance of less than or equal to 10 feet (3048 mm) shall be rated for exposure to fire from both sides.  Table 705.8 Maximum Area of Exterior Wall Openings Based on Fire Separation Distance and Degree of Opening Protection  Fire separation distance (feet): 0 to less than 3 Unprotected, Nonsprinklered: Not Permitted Unprotected, Sprinklered: Not Permitted Protected: Not Permitted  Fire separation distance (feet): 3 to less than 5 Unprotected, Nonsprinklered: Not Permitted Unprotected, Sprinklered: 15% Protected: 15%  Fire separation distance (feet): 5 to less than 10 Unprotected, Nonsprinklered: 10% Unprotected, Sprinklered: 25% Protected: 25%  Fire separation distance (feet): 10 to less than 15 Unprotected, Nonsprinklered: 15% Unprotected, Sprinklered: 45% Protected: 45%  Fire separation distance (feet): 15 to less than 20 Unprotected, Nonsprinklered: 25% Unprotected, Sprinklered: 75% Protected: 75%  Fire separation distance (feet): 20 to less than 25 Unprotected, Nonsprinklered: 45% Unprotected, Sprinklered: No Limit Protected: No Limit  Fire separation distance (feet): 25 to less than 30 Unprotected, Nonsprinklered: 70% Unprotected, Sprinklered: No Limit Protected: No Limit  Fire separation distance (feet): 30 or greater Unprotected, Nonsprinklered: No Limit Unprotected, Sprinklered: No Limit Protected: No Limit  Section 706 Fire Walls  706.1 General Each portion of a building separated by one or more fire walls that comply with the provisions of this section shall be considered a separate building. The extent and location of such fire walls shall provide a complete separation. Where a fire wall separates occupancies that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply.  706.2 Structural Stability Fire walls shall be designed and constructed to allow collapse of the structure on either side without collapse of the wall under fire conditions. Fire walls designed and constructed in accordance with NFPA 221 shall be deemed to comply with this section.  Table 706.4 Fire Wall Fire-Resistance Ratings Group: E Fire-resistance Rating (hours): 3  706.5 Horizontal Continuity Fire walls shall be continuous from exterior wall to exterior wall and shall extend not less than 18 inches beyond the exterior surface of exterior walls.  Exceptions: 2. Fire walls shall be permitted to terminate at the interior surface of noncombustible exterior sheathing, exterior siding or other noncombustible exterior finishes provided the sheathing, siding or other exterior noncombustible finish extends a horizontal distance of not less than 4 feet on both sides of the fire wall.  706.5.1 Exterior Walls Where the fire wall intersects exterior walls, the fire-resistance rating and opening protection of the exterior walls shall comply with one of the following:  1. The exterior walls on both sides of the fire wall shall have 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 not less than 4 feet (1220 mm) 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 (3.14 rad) do not need exterior wall protection.  706.6 Vertical Continuity Fire walls shall extend from the foundation to a termination point not less than 30 inches above both adjacent roofs.  Exceptions: 3. Walls shall be permitted to terminate at the underside of noncombustible roof sheathing, deck or slabs where both buildings are provided with not less than a Class B roof covering. Openings in the roof shall not be located within 4 feet of the fire wall.  706.8 Openings Each opening through a fire wall shall be protected in accordance with Section 716.5 and shall not exceed 156 square feet. The aggregate width of openings at any floor level shall not exceed 25 percent of the wall length.														
6	Section 707 Fire Barriers  707.3.1 Shaft Enclosures The fire-resistance rating of the fire barrier separating building areas from a shaft shall comply with Section 713.4.  707.3.4 Exit Passageway The fire-resistance rating of the fire barrier separating building areas from an exit passageway shall comply with Section 1024.3.  707.3.5 Horizontal Exit The fire-resistance rating of the separation between building areas connected by a horizontal exit shall comply with Section 1026.1.  707.3.10 Fire Areas The fire barriers or horizontal assemblies, or both, separating a single occupancy into different fire areas shall have a fire-resistance rating of not less than that indicated in Table 707.3.10. The fire barriers or horizontal assemblies, or both, separating fire areas of mixed occupancies shall have a fire-resistance rating of not less than the highest value indicated in Table 707.3.10 for the occupancies under consideration.  Table 707.3.10 Fire-Resistance Rating Requirements for Fire Barrier Assemblies or Horizontal Assemblies Between Fire Areas Occupancy Group: E Fire Resistance Rating (hours): 2  707.5 Continuity Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9  707.6 Openings Openings in a fire barrier shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not exceed 156 square feet. Openings in enclosures for exit access stairways and ramps, interior exit stairways and ramps and exit passageways shall also comply with Sections 1019, 1023.4 and 1024.5, respectively.  Exceptions: 1. Openings shall not be limited to 156 square feet where adjoining floor areas are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.  707.7 Penetrations Penetrations of fire barriers shall comply with Section 714.  707.7.1 Prohibited Penetrations Penetrations into enclosures for exit access stairways and ramps, interior exit stairways and ramps, and exit passageways shall be allowed only where permitted by Sections 1019, 1023.5 and 1024.6, respectively.  707.8 Joints Joints made in or between fire barriers, and joints made at the intersection of fire barriers with underside of a fire-resistance-rated floor or roof sheathing, slab or deck above, and the exterior vertical wall intersection shall comply with Section 715.  707.10 Ducts and Air Transfer Openings Penetrations in a fire barrier by ducts and air transfer openings shall comply with Section 717.  Section 708 Fire Partitions  708.1 General The following wall assemblies shall comply with this section. 3. Corridor walls as required by Section 1020.1. 4. Elevator lobby separation as required by Section 3006.2.  708.4 Continuity Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. In combustible construction where the fire partitions are not required to be continuous to the sheathing, deck or slab, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 718.2 and 718.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered and open mall buildings, walls separating dwelling units, walls separating sleeping units and corridor walls, in buildings of Type IIB, IIIB and VB construction.  708.6 Openings Openings in a fire partition shall be protected in accordance with Section 716.  708.7 Penetrations Penetrations of fire partitions shall comply with Section 714.  708.8 Joints Joints made in or between fire partitions shall comply with Section 715.  708.9 Ducts and Air Transfer Openings Penetrations in a fire partition by ducts and air transfer openings shall comply with Section 717.  Section 713 Shaft Enclosures  713.2 Construction Shaft enclosures shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies in accordance with Section 711, or both.  713.4 Fire-Resistance Rating Shaft enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the shaft enclosure shall include any basements but not any mezzanines. Shaft enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Shaft enclosures shall meet the requirements of Section 703.2.1.  Section 716 Opening Protectives  716.2 Fire-Resistance-Rated Glazing Fire-resistance-rated glazing tested as part of a fire-resistance-rated wall or floor/ceiling assembly in accordance with ASTM E119 or UL 263 and labeled in accordance with Section 703.6 shall not otherwise be required to comply with this section where used as part of a wall or floor/ceiling assembly. Fire-resistance-rated glazing shall be permitted in fire door and fire window assemblies where tested and installed in accordance with their listings and where in compliance with the requirements of this section.  716.3 Marking Fire-Rated Glazing Assemblies Fire Test Standard: ASTM E119 or UL 263; Marking: W; Definition of Marking: Meets wall assembly criteria.  Table 716.5 Opening Fire Protection Assemblies, Ratings and Markings  Type of Assembly: Fire walls and fire barriers having a required fire-resistance rating > 1 hour Required Wall Assembly Rating (hours): 0 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 3 Door Vision Panel Size: ASTM E119 (maximum size tested) Fire Rated Glazing Marking Door Vision Panel: D-H-W-180 Minimum Sidelight/Transom Assembly Rating (hours): Fire-resistance 3														
7	Fire-Rated Glazing Marking Sidelight/Transom Panel: Fire-resistance W-180  Type of Assembly: Fire walls and fire barriers having a required fire-resistance rating > 1 hour Required Wall Assembly Rating (hours): 2 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 1-1/2 Door Vision Panel Size: 100 sq. in. Fire Rated Glazing Marking Door Vision Panel: <100 sq. in. = D-H-90; >100 sq. in. = D-H-W-90 Minimum Sidelight/Transom Assembly Rating (hours): Fire-resistance 2 Fire-Rated Glazing Marking Sidelight/Transom Panel: Fire-resistance W-120  Type of Assembly: Enclosures for shafts, interior exit stairways and interior exit ramps. Required Wall Assembly Rating (hours): 2 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 1-1/2 Door Vision Panel Size: 100 sq. in. Fire Rated Glazing Marking Door Vision Panel: <100 sq. in. = D-H-90; >100 sq. in. = D-H-T-W-90 Minimum Sidelight/Transom Assembly Rating (hours): Fire-resistance 2 Fire-Rated Glazing Marking Sidelight/Transom Panel: Fire-resistance W-120  Type of Assembly: Fire barriers having a required fire-resistance rating of 1 hour: Enclosures for shafts, exit access stairways, exit access ramps, interior exit stairways and interior exit ramps; and exit passageway walls Required Wall Assembly Rating (hours): 1 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 1 Door Vision Panel Size: 100 sq. in. (except with automatic sprinkler system) Fire Rated Glazing Marking Door Vision Panel: <100 sq. in. = D-H-60; >100 sq. in. = D-H-T-W-60 Minimum Sidelight/Transom Assembly Rating (hours): Fire-resistance 1 Fire-Rated Glazing Marking Sidelight/Transom Panel: Fire-resistance W-60  Type of Assembly: Fire partitions; Corridor walls Required Wall Assembly Rating (hours): 1 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 1/3 Door Vision Panel Size: Maximum size tested Fire Rated Glazing Marking Door Vision Panel: D-20 Minimum Sidelight/Transom Assembly Rating (hours): Fire Protection 3/4 (or ASTM E119 maximum size tested) Fire-Rated Glazing Marking Sidelight/Transom Panel: D-H-OH-45  Type of Assembly: Exterior walls Required Wall Assembly Rating (hours): 2 Minimum Fire Door and Fire Shutter Assembly Rating (hours): 1-1/2 Door Vision Panel Size: 100 sq. in. (or ASTM E119 maximum size tested) Fire Rated Glazing Marking Door Vision Panel: <100 sq. in. = D-H-90; >100 sq. in. = D-H-W-90 Minimum Sidelight/Transom Assembly Rating (hours): Fire-resistance 2 Fire-Rated Glazing Marking Sidelight/Transom Panel: Fire-resistance W-120  716.5.8.2 Elevator, Stairway and Ramp Protectives Approved fire-protection-rated glazing used in fire door assemblies in elevator, stairway and ramp enclosures shall be so located as to furnish clear vision of the passageway or approach to the elevator, stairway or ramp.  Table 716.6 Fire Window Assembly Fire Protection Ratings Type of Wall Assembly: Exterior walls Required Wall Assembly Rating (hours): >1 Minimum Fire Window Assembly Rating (hours): 1-1/2 Fire-rated Glazing Marking: OH-90 or W-XXX (Fire rating in minutes equal to wall assembly rating)  <b>Chapter 8 Interior Finishes</b>  801.2 Interior Wall and Ceiling Finish The provisions of Section 803 shall limit the allowable fire performance and smoke development of interior wall and ceiling finish materials based on occupancy classification.  Section 803 Wall and Ceiling Finishes  Table 803.11 Interior Wall and Ceiling Finish Requirements by Occupancy  Group E (Sprinklered) Interior exit stairways and ramps and exit passageways: B Corridors and enclosure for exit access stairways and ramps: C Rooms and enclosed spaces: C  Group E (Nonsprinklered) Interior exit stairways and ramps and exit passageways: A Corridors and enclosure for exit access stairways and ramps: B Rooms and enclosed spaces: C  Section 805 Combustible Materials in Types I and II Construction  805.1.1 Subfloor Construction Floor sleepers, bucks and nailing blocks shall not be constructed of combustible materials, unless the space between the fire-resistance rated floor assembly and the flooring is either solidly filled with noncombustible materials or fireblocked in accordance with Section 718, and provided that such open spaces shall not extend under or through permanent partitions or walls.  <b>Chapter 9 Fire Protection Systems</b>  Section 901 General  901.7 Fire Areas Where buildings, or portions thereof, are divided into fire areas so as not to exceed the limits established for requiring a fire protection system in accordance with this chapter, such fire areas shall be separated by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, having a fire-resistance rating of not less than that determined in accordance with Section 707.3.10.  Section 903 Automatic Sprinkler Systems  903.2.3 Group E An automatic sprinkler system shall be provided for Group E occupancies as follows: 1. Throughout all Group E fire areas greater than 12,000 square feet. 2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.  (Note: MAS (Original) Building 1909 - Fully Sprinklered; Middle Building 1929 - Not Fully Sprinklered) (Only above stage of Multi-Purpose Room); 2006 Classroom Addition - Not Sprinklered. Fire areas of the additions are less than 12,000 SF and do not require an automatic sprinkler system)  <b>Chapter 10 Means of Egress</b>  (Note: See Egress Plans for code analysis of this chapter.)  <b>Chapter 30 Elevators and Conveying Systems</b>  Section 3002 Hoistway Enclosures  3002.1 Hoistway Enclosure Protection Elevator, dumbwaiter and other hoistway enclosures shall be shaft enclosures complying with Section 713.  3002.3 Emergency Signs An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: IN CASE OF FIRE, ELEVATORS ARE OUT OF SERVICE. USE EXIT STAIRS.														
8	3002.4 Elevator Car to Accommodate Ambulance Stretcher Where elevators are provided in buildings four or more stories above, or four or more stories below, grade plane, not fewer than one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher 24 inches by 84 inches with not less than 5-inch radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall be not less than 3 inches (76 mm) in height and shall be placed inside on both sides of the hoistway door frame.  Section 3006 Elevator Lobbies and Hoistway Opening Protection  3006.2 Hoistway Opening Protection Required Elevator hoistway door openings shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three stories, is required to be enclosed within a shaft enclosure in accordance with Section 712.1.1 and any of the following conditions apply:  1. The building is not protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.  3006.3 Hoistway Opening Protection Where Section 3006.2 requires protection of the elevator hoistway door opening, the protection shall be provided by one of the following:  1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway shaft enclosure doors from each floor by fire partitions in accordance with Section 708. In addition, doors protecting openings in the elevator lobby enclosure walls shall comply with Section 716.5.3 as required for corridor walls. Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1.  3006.4 Means of Egress Elevator lobbies shall be provided with at least one means of egress complying with Chapter 10 and other provisions in this code. Egress through an elevator lobby shall be permitted in accordance with Item 1 of Section 1016.2.  <b>Chapter 33 Safeguards During Construction</b>  Section 3302 Construction Safeguards  3302.1 Alterations, Repairs and Additions Required exits, existing structural elements, fire protection devices and sanitary safeguards shall be maintained at all times during alterations, repairs or additions to any building or structure.  Exceptions: 1. Where such required elements or devices are being altered or repaired, adequate substitute provisions shall be made. 2. Maintenance of such elements and devices is not required when the existing building is not occupied.  3302.2 Manner of Removal Waste materials shall be removed in a manner that prevents injury or damage to persons, adjoining properties and public rights-of-way.  3302.3 Fire Safety During Construction Fire safety during construction shall comply with the applicable requirements of this code and the applicable provisions of Chapter 33 of the International Fire Code.  <b>2015 International Energy Conservation Code (as adopted by New York State)</b>  <b>Chapter 3 [CE] General Requirements</b>  Table C301.1 Climate Zones, Moisture Regimes, and Warm-humid Designations by State, County and Territory  New York - 4A Westchester  <b>Chapter 4 [CE] Commercial Energy Efficiency</b>  C401.2 Application Commercial buildings shall comply with one of the following compliance paths:  2. Prescriptive Compliance Path: The requirements of Sections C402 through C405. In addition, commercial buildings shall comply with Section C406 and tenant spaces shall comply with Section C406.1.1.  Table C402.1.3 Opaque Thermal Envelope Insulation Component Minimum Requirements, R-value Method  Climate Zone: 4 Except Marine - Group E Roofs: Insulation entirely above roof deck R-30ci Walls, above grade: Mass R-9.5ci Walls, below grade: Below-grade wall R-7.5ci Slab-on-grade floors: Unheated slabs R-10 for 24" below  C402.2.5 Slabs-on-grade perimeter insulation Where the slab on grade is in contact with the ground, the minimum thermal resistance (R-value) of the insulation around the perimeter of unheated or heated slab-on-grade floors designed in accordance with the R-value method of Section C402.1.3 shall be as specified in Table C402.1.3. The insulation shall be placed on the outside of the foundation or on the inside of the foundation wall. The insulation shall extend downward from the top of the slab for a minimum distance as shown in the table or to the top of the footing, whichever is less, or downward to at least the bottom of the slab and then horizontally to the interior or exterior for the total distance shown in the table. Insulation extending away from the building shall be protected by pavement or by not less than 10 inches (254 mm) of soil.  Exception: Where the slab-on-grade floor is greater than 24 inches (61 mm) below the finished exterior grade, perimeter insulation is not required.  Table C402.4 Building Envelope Fenestration Maximum U-factor and SHGC Requirements  Climate Zone: 4 Vertical Fenestration - U-factor Fixed fenestration: 0.38 Operable fenestration: 0.45 Entrance doors: 0.77 Vertical Fenestration - SHGC PF < 0.2: 0.40 0.2 ≤ PF < 0.5: 0.48 PF ≥ 0.5: 0.64  <b>Chapter 5 [CE] Existing Buildings</b>  Section C502 Additions  C502.1 General Additions to an existing building, building system or portion thereof shall conform to the provisions of this code as those provisions relate to new construction without requiring the unaltered portion of the existing building or building system to comply with this code. Additions shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building. Additions shall comply with Section C502.2.														
9	Mamanoneck Avenue School (MAS) Building (1909) - Type of Construction: IIIB(SM) Occupancy Classification: E Allowable Building Height / Stories: 75', Three-story Existing Building Height / Stories: 51'-1", Three-story, One Basement (Note: no proposed modification to height / stories) Allowable area per floor: 43,500 SF Total allowable area: 130,500 SF Lower Level (Basement): 7,415 SF (Existing) 1st Floor: 7,415 SF (Existing) 2nd Floor: 7,415 SF (Existing) 3rd Floor: 7,415 SF (Existing) Total Area: 22,245 SF (Existing) (Note: Basement areas not included per 506.1.3)  Middle Building & Classroom Addition (1929 & 2006) - Type of Construction: IB (NS) Occupancy Classification: E Allowable Building Height / Stories Above Grade: 160', Five-story Existing Building Height / Stories: 57'-1", Four-Story, One Basement Allowable area per floor: Unlimited Total allowable area: Unlimited Basement: 6,843 SF (Existing) Lower Level: 28,994 SF (Existing); 1,826 SF (Proposed Addition) 30,820 SF (Total Lower Level) 1st Floor: 28,994 SF (Existing); 1,826 SF (Proposed Addition) 30,820 SF (Total 1st Floor) 2nd Floor: 13,465 SF (Existing); 1,863 SF (Proposed Addition) 15,328 SF (Total 2nd Floor) 3rd Floor: 8,445 SF (Existing); 1,863 SF (Proposed Addition) 10,308 SF (Total 3rd Floor) Total Area: 79,898 SF (Existing); 7,378 SF (Proposed Addition) 87,276 SF (Total) (Note: Basement areas not included per 506.1.3)  <b>Chapter 6 Types of Construction</b>  Table 601 Fire-resistance Rating Requirements For Building Elements (Hours)  Type of Construction: IIIB(SM) Primary structural frame: 0 Bearing walls (Exterior): 2 Bearing walls (Interior): 0 Nonbearing walls and partitions (Exterior) (Per Table 602): Occupancy group: E X < 5'; 1 5' ≤ X < 10'; 1 10' ≤ X < 30'; 1 X ≥ 30'; 0 Nonbearing walls and partitions (Interior): 0 Floor construction and associated secondary members: 0 Roof construction and associated secondary members: 0  Type of Construction: IB(NS) Primary structural frame: 2 or 1 (where supporting a roof only) Bearing walls (Exterior): 2 Bearing walls (Interior): 2 or 1 (where supporting a roof only)														
10	Date 1/10/20 Checked DLF Drawn TT  Revisions: ISSUE TO BD 11/23/20 UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 2309 OF THE NEW YORK STATE EDUCATION LAW. THESE DOCUMENTS REMAIN THE EXCLUSIVE PROPERTY OF THE ENGINEER, AND MAY NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.  JUL <b>LAN ASSOCIATES</b> engineering • planning • architecture • surveying 252 MAIN STREET, GOSHEN, NEW YORK 10924 (845)618-0350  JOB NO. 4, 1092.72.2 FILE NO. 10927203CA001  CA0.01														
11	NYSed PROJECT # 66-07-01-03-0-004-030 BOND REFERENCE 2019 MAMARONECK AVENUE ELEMENTARY SCHOOL MAMARONECK UNION FREE SCHOOL DISTRICT 850 MAMARONECK AVENUE, MAMARONECK, NY 10543														

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