Attached are Construction Codes Update Pages. These pages reflect local laws enacted and ministerial administrative corrections made after July 1, 2008. Please note that the source of a particular update, the local law number, and year is indicated on each page. Please visit our webpage to ensure that your codes are complete and up to date as the City Council may periodically pass Local Laws that affect the Construction Codes.

Instructions:

Please place each page, according to its page number found on the bottom right hand corner, into your Construction Codes books. The pages contain letters after the page number and should be placed in alphabetical order following the number, i.e. 5, 6, 6a, 6b, etc.

- Place Title Pages in the front of your Code books for easy reference.

- Note: If you have all four Construction Codes (Building, Mechanical, Plumbing & Fuel Gas), please make sure to insert updates made to the Administrative Provisions into each of the four Code books.

5/11/2009
UPDATE # 33


This update includes the following pages:

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GENERAL ADMINISTRATIVE PROVISIONS


Add the following new article 308:

ARTICLE 308
ENERGY AUDITS AND RETRO-COMMISSIONING OF BASE BUILDING SYSTEMS

§28-308.1 Definitions. As used in this article, the following terms shall have the following meanings:

BASE BUILDING SYSTEMS. The systems or subsystems of a building that use energy and/or impact energy consumption including:

1. The building envelope.

2. The HVAC (heating ventilating and air conditioning) systems.

3. Conveying systems.

4. Domestic hot water systems.

5. Electrical and lighting systems.

Exception: The term "base building systems" shall not include:

1. Systems or subsystems owned by tenants (other than a net lessee for a term of 49 years or more, inclusive of renewal options), condominium unit owners or cooperative unit shareholders, or a system or subsystems for which a tenant bears full maintenance responsibility and that is within the tenant's leased space and/or exclusively serves such leased space.

2. Industrial processes that occur within a covered building.

BUILDING MANAGEMENT SYSTEM. A computer-based system that monitors and controls a building's mechanical and electrical equipment, such as HVAC, lighting, power, fire, and security systems, including, at a minimum, control of the heating equipment using interior temperature sensors.
CITY BUILDING. A covered building that is owned by the city and for which the city regularly pays all or part of the annual energy bills.

Exception: The term "city building" shall not include:

1. Any building that participates in the tenant interim lease apartment purchase program.
2. Any building that participates in a program administered by the department of housing preservation and development.
3. Any building managed by the New York city health and hospitals corporation.
4. Any senior college in the City University of New York system.
5. Any cultural institution that is in the Cultural Institutions Group as determined by the department of cultural affairs.

COVERED BUILDING. As it appears in the records of the department of finance: (i) a building that exceeds 50,000 gross square feet (4645 m²), (ii) two or more buildings on the same tax lot that together exceed 100,000 gross square feet (9290 m²), or (iii) two or more buildings held in the condominium form of ownership that are governed by the same board of managers and that together exceed 100,000 gross square feet (9290 m²).

Exception: The term "covered building" shall not include real property classified as class one pursuant to subdivision one of section eighteen hundred two of the real property tax law of the state of New York.

CURRENT FACILITY REQUIREMENTS. The owner's current operational needs and requirements for a building, including temperature and humidity set points, operating hours, filtration, and any integrated requirements such as controls, warranty review, and service contract review.

ENERGY AUDIT OR AUDIT. A systematic process of identifying and developing modifications and improvements of the base building systems, including but not limited to alterations of such systems and the installation of new equipment, insulation or other generally recognized energy efficiency technologies to optimize energy performance of the building and achieve energy savings, provided that such process shall not be less stringent than the Level II Energy Survey and Engineering Analysis of the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating and Air-conditioning Engineers Inc. (ASHRAE).
ENERGY AUDITOR. An approved agency authorized by the department to perform energy audits and to certify audit reports required by this article. Until such time as there is a national standard establishing qualifications for persons performing energy audits and such standard has been adopted by the department, an energy auditor shall be a registered design professional with such other certification or qualification as the department deems to be appropriate. After the establishment of such a national standard, the department may adopt the qualifications of the national standard with such modifications as the department deems to be appropriate.

ENERGY MANAGEMENT SYSTEM. A system incorporating interior temperature sensors and a central processing unit and controls, which are used to monitor and control gas, steam and oil usage, as is applicable, based on the need for heating.

ENERGY EFFICIENCY REPORT. The report required to be filed pursuant to section 28-308.4.

FINANCIAL HARDSHIP (OF A BUILDING). A building shall be considered to be subject to financial hardship if the building:

1. Had arrears of property taxes or water or wastewater charges that resulted in the property's inclusion, within two years prior to the due date of an energy efficiency report, on the department of finance’s annual New York city tax lien sale list;

2. Is exempt from real property taxes pursuant to sections 420-a, 420-b, 446 or 462 of the real property tax law and applicable local law and the owner had negative revenue less expenses during the two tax years prior to the due date of an energy efficiency report as certified to the department by a certified public accountant;

3. Had outstanding balances under the department of housing preservation and development's emergency repair program that resulted in the property's inclusion, within two years prior to the due date of an energy efficiency report, on the department of finance's annual New York city tax lien sale list; or

4. Has an active or effective commitment letter from a governmental agency that provides for the financing of the rehabilitation, within a period of 5 years or less, of such building by such government agency for the purposes of affordable housing for low or moderate income families.

OWNER. The owner of record of a covered building, except that in the case of a net lease of an entire building for a term of 49 years or more, inclusive of renewal options, the term owner shall refer to the net lessee and in the case of a covered building held in
cooperative or condominium form of ownership, the term owner shall refer to the board of managers in the case of a condominium and the board of directors in the case of a cooperative apartment corporation.

RETRO-COMMISSIONING. A systematic process for optimizing the energy efficiency of existing base building systems through the identification and correction of deficiencies in such systems, including but not limited to repairs of defects, cleaning, adjustments of valves, sensors, controls or programmed settings, and/or changes in operational practices.

RETRO-COMMISSIONING AGENT. An individual, who shall not be a certified refrigerating system operating engineer or a licensed high pressure boiler operating engineer on the staff of the building being retro-commissioned, authorized by the department to certify retro-commissioning reports required by this article. Until such time as there is a national standard establishing qualifications for persons who perform retro-commissioning and such standard has been adopted by the department, a retro-commissioning agent shall be a registered design professional, a certified refrigerating system operating engineer, or a licensed high pressure boiler operating engineer, with such other qualification or certification as determined by the department. After the establishment of such a national standard, the department may adopt the qualifications of the national standard with such modifications as the department deems to be appropriate.

SIMPLE BUILDING. A covered building with neither a central chilled water system nor a central cooling system that covers more than 10 percent of the building’s gross area.

SIMPLE PAYBACK. The number of years for the projected annual energy savings to equal the amount invested in the energy conservation measure, as determined by dividing the investment by the annual energy savings.

SPACE. An area within a building enclosed by floor to ceiling walls, partitions, windows and doors.

SYSTEM OR SUBSYSTEM. Shall have the same definition as set forth in section two hundred two of the New York city energy conservation code.

§28-308.2 Energy audits required. The owner shall ensure that an energy audit is performed on the base building systems of a covered building prior to filing an energy efficiency report as required by this article. Except as otherwise provided in section 28-308.7, an energy audit shall be performed by or under the supervision of an energy auditor and shall be performed in accordance with rules promulgated by the department. The audit process shall cover the base building systems and shall identify at a minimum:
1. All reasonable measures, including capital improvements, that would, if implemented, reduce energy use and/or the cost of operating the building;

2. For each measure, the associated annual energy savings, the cost to implement, and the simple payback, calculated by a method determined by the department;

3. The building's benchmarking output consistent with the United States Environmental Protection Agency Portfolio Manager tool or as otherwise established by the department;

4. A break-down of energy usage by system and predicted energy savings by system after implementation of the proposed measures; and

5. A general assessment of how the major energy consuming equipment and systems used within tenant spaces impact the energy consumption of the base building systems based on a representative sample of spaces.

Exceptions:

1. No energy audit is required if the building complies with one of the following as certified by a registered design professional:

   1.1. The covered building has received an EPA Energy Star label for at least two of the three years preceding the filing of the building's energy efficiency report.

   1.2. There is no EPA Energy Star rating for the building type and a registered design professional submits documentation, as specified in the rules of the department, that the building's energy performance is 25 or more points better than the performance of an average building of its type over a two-year period within the three-year period prior to the filing of an energy efficiency report consistent with the methodology of the LEED 2009 rating system for Existing Buildings published by the United States Green Building Council or other rating system or methodology for existing buildings, as determined by the department.

   1.3. The covered building has received certification under the LEED 2009 rating system for Existing Buildings published by the United States Green Building Council or other rating system for existing buildings, as determined by the department, within four years prior to the filing of the building's energy efficiency report.
2. An energy audit shall not be required for the first energy efficiency report of a simple building that is in compliance with six out of seven of the following items as certified by a registered design professional:

2.1. Individual heating controls. (i) Each dwelling unit in the building has one or more thermostatic controls controlling all the heating units within the dwelling unit and any heated space not within a dwelling unit has one or more thermostatic controls controlling all the heating units within the space, or (ii) the building has a central heating system controlled by an energy management system or a building management system that incorporates temperature sensors located in at least 10 percent of the dwelling units and 10 percent of the heated spaces, except that the total number of sensors required within the building shall not be less than 10 nor more than 30.

2.2. Common area and exterior lighting. Common area (lighting outside of tenant spaces) and exterior lighting, at a minimum, are in compliance with the provisions of the New York city energy conservation code as in effect for new systems installed on or after July 1, 2010.

2.3. Low flow faucets and shower heads. All faucets and showerheads within the building, at a minimum, meet the standards of Table 604.4 of the New York city plumbing code as in effect for new systems installed on or after July 1, 2010.

2.4. Pipe insulation. All exposed pipes that are used to convey heat or hot water are insulated, at a minimum, in accordance with the standards of the New York city energy conservation code as in effect for new systems installed on or after July 1, 2010.

2.5. Domestic hot water. All domestic hot water tanks that do not have built-in insulation are insulated with a minimum insulation value of R-8.

2.6. Washing machines. All common area clothes washing machines are front loading.

2.7. Cool roof. The roof complies with section 1504.8 of the New York city building code as in effect for new buildings constructed on or after July 1, 2010.
§28-308.2.1 Contents of audit report. The energy auditor shall prepare and certify a report of the energy audit. Except as otherwise provided in section 28-308.7, the audit report shall include such information relating to the audit as shall be specified in the rules of the department, including but not limited to (i) the date that the audit was completed, and (ii) the information specified in section 28-308.2.

§28-308.2.1.1 Compliance with landmarks laws. The cost estimates for covered buildings that are regulated by any city, state or federal law regulating landmarks and historic buildings shall include all additional costs necessary for the proposed work to comply with such law.

§28-308.2.2 Timing of energy audit. Except as otherwise provided in section 28-308.7, the energy audit shall be completed no earlier than four years prior to the date on which a covered building's energy efficiency report is filed with the department pursuant to this article.

§28-308.3 Retro-commissioning required. The owner shall ensure that retro-commissioning is performed on the base building systems of a covered building prior to filing an energy efficiency report as required by this article. Except as otherwise provided in section 28-308.7, retro-commissioning shall be performed by or under the supervision of a retro-commissioning agent in accordance with rules promulgated by the department. Such rules, at a minimum, shall ensure that sufficient analysis, corrections and testing have been done so that the base building systems meet the following criteria demonstrating efficient operation:

1. Operating protocols, calibration, and sequencing:
   1.1. HVAC temperature and humidity set points and setbacks are appropriate and operating schedules reflect major space occupancy patterns and the current facility requirements.
   1.2. HVAC sensors are properly calibrated.
   1.3. HVAC controls are functioning and control sequences are appropriate for the current facility requirements.
   1.4. Loads are distributed equally across equipment when appropriate (i.e. fans, boilers, pumps, etc. that run in parallel).
   1.5. Ventilation rates are appropriate for the current facility requirements.
CONSTRUCTION CODES UPDATE PAGE

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1.6. System automatic reset functions are functioning appropriately, if applicable.

1.7. Adjustments have been made to compensate for oversized or undersized equipment so that it is functioning as efficiently as possible.

1.8. Simultaneous heating and cooling does not occur unless intended.

1.9. HVAC system economizer controls are properly functioning, if applicable.

1.10. The HVAC distribution systems, both air and water side, are balanced.

1.11. Light levels are appropriate to the task.

1.12. Lighting sensors and controls are functioning properly according to occupancy, schedule, and/or available daylight, where applicable.

1.13. Domestic hot water systems have been checked to ensure proper temperature settings.

1.14. Water pumps are functioning as designed.

1.15. System water leaks have been identified and repaired.

2. Cleaning and repair:

2.1. HVAC equipment (vents, ducts, coils, valves, soot bin, etc.) is clean.

2.2. Filters are clean and protocols are in place to replace, as appropriate.

2.3. Light fixtures are clean.

2.4. Motors, fans, and pumps, including components such as belts, pulleys, and bearings, are in good operating condition.

2.5. Steam traps have been replaced as required to maintain efficient operation, if applicable.

2.6. Manual overrides on existing equipment have been remediated.

2.7. Boilers have been tuned for optimal efficiency, if applicable.
2.8. Exposed hot and chilled water and steam pipes 3 inches (76mm) or greater in diameter with associated control valves are insulated in accordance with the standards of the New York city energy conservation code as in effect for new systems installed on or after July 1, 2010.

2.9. In all easily accessible locations, sealants and weather stripping are installed where appropriate and are in good condition.

3. Training and documentation:

3.1. Permits for all HVAC, electrical and plumbing equipment are in order.

3.2. Critical operations and maintenance staff have received appropriate training, which may include labor/management training, on all major equipment and systems and general energy conservation techniques.

3.3. Operational and maintenance record keeping procedures (log books, computer maintenance records, etc.) have been implemented.

3.4. The following documentation is on site and accessible to the operators: the operations and maintenance manuals, if such manuals are still available from the manufacturer, the maintenance contracts, and the most recent retro-commissioning report.

Exception: No retro-commissioning is required if the covered building has received certification under the LEED 2009 rating system for Existing Buildings published by the United States Green Building Counsel or other rating system for existing buildings, as determined by the department, within two years prior to the filing of the building's energy efficiency report and earned the LEED point for Existing Building Commissioning investigation and analysis and the LEED point for Existing Building Commissioning implementation.

§28-308.3.1 Contents of retro-commissioning report. The retro-commissioning agent shall prepare and certify a retro-commissioning report. The retro-commissioning report shall include such information relating to the retro-commissioning as shall be set forth in the rules of the department including, at a minimum:

1. Project and team information:
1.1. Building address.

1.2. Experience and certification of person performing retro-commissioning and any staff involved in the project.

1.3. Name, affiliation, and contact information for persons performing retro-commissioning and members of the retro-commissioning team, owner of building, and facility manager of building.

2. Building information:

2.1. List of all HVAC, domestic hot water, electrical equipment, lighting, and conveyance equipment types in the base building systems.

2.2. Benchmarking output.

3. Testing protocol:

3.1. List of all equipment types tested.

3.2. For each equipment type tested, a list of the sample rates (percent of each type of equipment tested), the testing methodology, including any diagnostic equipment used, and the test results.

3.3. List of integrated system testing performed.

4. Master list of findings, including for each, the name of the retro-commissioning measure and its assigned number, a brief description of the measure, recommended corrections, the benefits attained, estimated annual savings (energy and cost), the estimated implementation cost, and the simple payback.

5. Deficiencies corrected:

5.1. List of repairs completed during investigation.

5.2. List of deficiencies corrected, including, for each deficiency, the date corrected, by whom the correction was made, the actual cost, and projected savings.
§28-308.3.2 **Timing of retro-commissioning.** Except as otherwise provided in section 28-308.7, the retro-commissioning shall be completed no earlier than four years prior to the date on which a covered building's energy efficiency report is filed with the department pursuant to this article.

§28-308.3.3 **Documentation of retro-commissioning.** A copy of the latest up-to-date equipment manuals and the most recent retro-commissioning report shall be maintained at every covered building and shall be made available upon request for inspection by the department.

§28-308.4 **Energy efficiency report required.** Except as otherwise provided in section 28-308.7, the owner of a covered building shall file an energy efficiency report for such building between January first and December thirty-first of the calendar year in which such report is due pursuant to this section and between January first and December thirty-first of every tenth calendar year thereafter.

**Exceptions:**

1. An owner may apply for an extension of time to file an energy efficiency report if despite such owner's good faith efforts, to be documented in such application, the owner is unable to complete the required energy audit and retro-commissioning prior to the scheduled due date for such report. The commissioner may grant no more than two such extensions of no more than one year each. Extensions granted pursuant to this provision shall not extend the scheduled due dates for subsequent energy efficiency reports.

2. An owner may receive annual extensions of time to file an energy efficiency report based on financial hardship of the building.

§28-308.4.1 **Due dates.** The first energy efficiency reports for covered buildings in existence on the effective date of this article and for new buildings shall be due, beginning with calendar year 2013, in the calendar year with a final digit that is the same as the last digit of the building's tax block number, as illustrated in the following chart:

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<th>Last digit of tax block number</th>
<th>0</th>
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<th>2</th>
<th>3</th>
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Owners of covered buildings (i) that are less than 10 years old at the commencement of their first assigned calendar year or (ii) that have undergone substantial rehabilitation, as certified by a registered design professional, within the 10 year period prior to any calendar year in which an energy efficiency report is due, such that at the commencement of such calendar year all of the base building systems of such building are in compliance with the New York city energy conservation code as in effect for new buildings constructed on and after July 1, 2010, or as in effect on the date of such substantial rehabilitation, whichever is later, may defer submitting an energy efficiency report for such building until the tenth calendar year after such assigned calendar year.

**Exception:** The first due dates for city buildings shall be in accordance with a staggered schedule, commencing with calendar year 2013 and ending with calendar year 2022 for buildings in existence on the effective date of this article, to be submitted by the department of citywide administrative services to the department on or prior to December 31, 2011. A city building constructed after the effective date of this article shall be added to such schedule within 10 years after the issuance of the first certificate of occupancy for such building. Copies of energy efficiency reports submitted to the department with respect to city buildings that are not submitted by the department of citywide administrative services shall also be submitted to the department of citywide administrative services.

§28-308.4.2 Combined audit and retro-commissioning. Nothing in this article shall prevent an owner from performing the audit and the retro-commissioning in a combined process, provided that all the requirements of sections 28-308.2 and 28-308.3 are met.

§28-308.5 Content of energy efficiency report. Except as otherwise provided in section 28-308.7, the energy efficiency report shall include, in a format prescribed by the department, (i) the energy audit report or documentation substantiating that an exception as set forth in section 28-308.2 applies to such building, and (ii) the retro-commissioning report or documentation substantiating that an exception as set forth in section 28-308.3 applies to such building.

§28-308.6 Notification by the department of finance. The department of finance shall notify the owner of the requirements of this article three years prior to the calendar year in which the covered building's energy efficiency report is due and in the calendar year prior to the calendar year in which such report is due.
§28-308.7 Early compliance. Notwithstanding any other provision of this article, an owner may submit an energy efficiency report, including both an energy audit report pursuant to section 28-308.7.1 and a retro-commissioning report pursuant to section 28-308.7.2, in the calendar year commencing January 1, 2013 and ending December 31, 2013 in order to achieve early compliance with this section. An energy efficiency report submitted for early compliance shall be deemed to satisfy the first required energy efficiency report for the building as assigned pursuant to section 28-308.4.1. The next required energy efficiency report for such building shall be due in the tenth calendar year after the first assigned due date for such report.

§28-308.7.1 Early compliance energy audit report. An energy audit report for a covered building shall be acceptable for early compliance if it is completed after January 1, 2006 and it includes:

1. The address of the building, completion date of the audit, signature and credentials of the person performing or supervising the performance of the audit and of the audit team; and

2. The information required in items 1 through 5 of section 28-308.2.

§28-308.7.1.1 Early compliance audit completed after January 1, 2006 and prior to the effective date of this article. An early compliance audit completed after January 1, 2006 and prior to the effective date of this article shall have met the following additional criteria:

1. The audit shall have met the requirements of the Level II Energy Survey and Analysis of the 2004 edition of Procedures for Commercial Building Energy Audits published by ASHRAE; or

2. The audit shall have been performed under a New York Power Authority or New York State Energy Research and Development Authority (NYSERDA) contract or by a NYSERDA Flex Tech contractor; and

3. The audit report shall be submitted along with certification by a registered design professional that the audit satisfies the criteria of this section.

4. A partial audit completed after January 1, 2006 and prior to the effective date of this article shall qualify for early compliance only if the base building systems that were not subject to such audit are audited, after the effective date of this article, in the manner set forth in section 28-308.7.1.2.
§28-308.7.1.2 Early compliance audit completed after the effective date of this article. An early compliance audit completed after the effective date of this article shall meet the following additional criteria:

1. The audit shall be performed by or under the supervision of a registered design professional and shall meet the requirements of the Level II Energy Survey and Analysis of the 2004 edition of Procedures for Commercial Building Energy Audits published by ASHRAE;

2. The auditing team shall include an individual who is one of the following:
   
   2.1. A NYSERDA approved Flex Tech contractor;
   
   2.2. A Certified Energy Manager (CEM) or Certified Energy Auditor (CEA), certified by the Association of Energy Engineers (AEE);
   
   2.3. A High-Performance Building Design Professional (HPBD) certified by ASHRAE; or
   
   2.4. For audits of multifamily residential buildings only, a Multi-family Building Analyst (MFBA), certified by the Building Performance Institute (BPI), or have such other qualification or certification as determined by the department;

3. An individual with at least three years of professional experience performing energy audits on buildings larger than 50,000 gross square feet (4645 m²) shall be a member of the auditing team;

4. The building's operations and maintenance staff shall be consulted at the start of and during the audit process; and

5. The registered design professional performing or supervising the audit shall certify that the audit satisfies the criteria of this section.

§28-308.7.2 Early compliance retro-commissioning. A retro-commissioning shall be acceptable for early compliance if it is completed after the effective date of this article and meets the following criteria:

1. The retro-commissioning shall be performed under a NYSERDA contract for base building retro-commissioning or certified by an individual who is not on
the staff of the building and is (i) a registered design professional, (ii) a certified refrigerating system operating engineer, or (iii) a licensed high pressure boiler operating engineer;

2. The retro-commissioning team shall include an individual who is a Certified Commissioning Professional (CCP) certified by the Building Commissioning Association (BCA), a Certified Building Commissioning Professional (CBCP) certified by the AEE, a Commissioning Process Management Professional (CPMP) certified by ASHRAE, or an Accredited Commissioning Process Authority Professional (ACPAP) approved by the University of Wisconsin, or has such other certification as determined by the department;

3. The retro-commissioning team shall include an individual with at least one year of professional experience performing retro-commissioning on the mechanical systems of buildings larger than 50,000 gross square feet (4645m²);

4. The building's operations and maintenance staff shall be consulted at the start of and during the retro-commissioning process; and

5. The retro-commissioning report shall contain a certification that sufficient analysis and testing has been done and corrections have been performed so that the base building systems meet the criteria of section 28-308.3 and shall include the information specified in section 28-308.3.1.

6 Nothing in this section shall be construed to determine which individuals may perform the work to correct deficiencies identified during the retro-commissioning process, except as otherwise provided by applicable law.

§28-308.8 Optional compliance for energy efficiency reports due in the calendar year commencing January 1, 2013. Notwithstanding any other provision of this article, audits and retro-commissioning for energy efficiency reports scheduled to be due in the calendar year commencing January 1, 2013 shall be performed, at the option of the owner, in accordance with the provisions for early compliance as set forth in section 28-308.7 or in accordance with procedures set forth in the rules of the department, if such procedures are promulgated within one year prior to the due date of such report. If such procedures are not promulgated within one year prior to the due date of such report, audit and retro-commissioning for energy efficiency reports due in the calendar year commencing January 1, 2013 shall comply with the audit and retro-commissioning procedures for early compliance.
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Matter in plain text is unchanged. Matter underlined is new. Matter stricken through is deleted.

§28-308.9 Rules. The department shall promulgate such rules as are necessary to carry out the provisions of this article in a timely manner, which may include separate fees for filing and review of applications and reports filed pursuant to this article.