



TOWN OF ISLIP
DEPARTMENT OF PLANNING AND DEVELOPMENT
DIVISION OF BUILDING

One Manitton Court, Islip, New York 11751

Administration	631-224-5464	Plumbing	631-595-3756
Permits	631-224-5466	Records/Inspections	631-224-5470
Plans Examiner	631-224-5467	Zoning	631-224-5438

**STRUCTURAL REQUIREMENTS FOR
WOOD FRAMED AND COLD-FORMED STEEL FRAMED BUILDING
CONSTRUCTION DOCUMENTS**

2020 NEW YORK STATE BUILDING CODE

Construction Documents for any new building or new building addition over one story in height must comply with the following requirements as per the 2020 New York State Building Code

STRUCTURAL CALCULATIONS

1. Provide a full set of structural calculations showing compliance with and in accordance with the reference standard 2020 NYSBC Chapters 16, 22 and 23 including nailing tables, sheathing tables, as well as reference materials AISI, ANSI/AWC SDPWS-2018, ANSI/AWC NDS-2018 and ASCE-7 2016 and the AWC WFCM 2018.
 - a. Calculations shall show all items of NYS Building code section 1603 and 1604 risk category as well as design loads used including but not limited to live, dead, gravity, wind (all directions) and seismic (even if wind governs), impact (elevator, machines and cranes), roof/floor/wall diaphragm loads with blocking, sheathing and nailing.
 - b. Calculations to show deflection, drift and allowable wood shrinkage.
 - c. Show building occupancy (risk) category, surface roughness, wind exposure category, whether building was designed as open or enclosed and whether construction is restrained or unrestrained.
 - d. Note whether the design is ASD or LRFD as per code.
2. Design of each type of lateral load resisting system (in all directions), including roof and floor diaphragms and shear walls in all directions (note types such as perforated, non-perforated, force transfer) and load transfer path such as roof to collector (collector splicing detail) and continuity to the foundation (especially connection to a podium slab).
3. Show all connections and hold downs as well as shear wall bottom plate shear attachment connections and fasteners and post axial tension and compression loads and design.
4. Provide shear wall elevations with heights and lengths, loads, dimensioned openings, shear panel size and aspect ratio calculations, shear panel type and size with any blocking and edge and field nailing.
5. Show and detail story to story connections.
6. Show design and loads used for all connections for uplift and continuous load paths.
7. Provide compliance drawings and details with the following code section.

§BC2304.10.6 Load path.

Where wall framing members are not continuous from the foundation sill to the roof, the members shall be secured to ensure a continuous load path. Where required, sheet metal clamps, ties or clips shall be

formed of galvanized steel or other *approved* corrosion-resistant material not less than 0.0329-inch (0.836 mm) base metal thickness.

COMPUTER GENERATED CALCULATIONS

For computer generated calculations provide the following:

1. Analysis – A program description with information necessary to determine the following:
 - a. Nature and extent of the analysis
 - b. Verification of the input data
 - c. Interpretation of the results
 - d. Compliance of the computations with the applicable State code.
2. Explanatory Comments – To facilitate the structural plan review, explanatory comments by the designer are also recommended. Provide a summary of controlling loads from the computer output shown, in a graphical manner (items of note are live, dead, equipment and building loads, load combinations used, design methods such as ASD, LRFD, simplified or ASCE-7 2010 wind design and either simplified or equivalent lateral force methods for seismic, Building Code and reference standards tables and equations used, etc.)
3. Distinguish Origin of Data – Data provided as computer input shall be clearly distinguished from those computed in the program.
4. Correlation Between Members And Plans – The member identification used in the program input and results should be readily correlated with the members shown on the structural and architectural plans.
5. Structural Members – All structural members in the calculations shall be labeled and shown on the structural and architectural plans.
6. Structural Affidavit – Third party design of structural components shall be done by a NYS Registered Design Professional. All structural designers shall complete a Town of Islip Structural Affidavit and submit it with the construction documents for code compliance review.

BUILDING CONSTRUCTION IN FLOOD ZONES

New buildings, additions, and substantial improvements shall comply with the following requirements for properties located in areas identified as a flood hazard area (coastal high hazard area and coastal A zones). Structural plans and required calculations shall be in accordance with:

1. A soil boring test indicating depth, soil types and soil bearing capacity as per the Unified Soil Classification system and water table. This test shall accompany the plan submission.
2. Town of Islip Zoning code Article XL, section 68-442.
3. NYSBC 2020 Chapters 16 and 18. Note all exterior decks and connections shall be designed for a 100 PSF live load, snow and wind loads and required pullout loads. All columns and posts shall have connections designed to resist lateral loads.
4. ASCE-7 2016 and ASCE-24 2014