



Town of Darien

Building Department ~ Required Inspections

Note: It is the responsibility of the builder or property owner to contact 'Call Before You Dig' at 811 or 1-800-922-4455 prior to any trenching/excavation work

Footings: Inspection shall take place before concrete is poured; all formwork and steel reinforcement shall be in place at time of inspection; steel reinforcement shall be per architect/engineer or minimum two (2) #4 bars.

Foundation Walls: Inspection shall take place before concrete is poured; all formwork and steel reinforcement shall be in place at time of inspection; steel reinforcement shall be per architect/engineer or per code minimum [see table R404.1.2 (1) of the 2012 International Residential Code]

Backfill: Where required, foundation parging, damproofing/waterproofing and footing drains shall be in place at time of inspection; where foundation walls are over 4'-0" tall, backfill shall not be placed until the wall is sufficiently hardened and has been laterally braced by the floor system above or otherwise braced.

Roof and Wall Sheathing: Inspection shall take place before air-barrier membrane installed; braced wall panels shall be provided per architect/engineer or per code minimum (see chapter 6 of the 2012 International Residential Code)

Roughs: Inspection shall take place at time that all trade permits have been issued and framing, electrical, plumbing and HVAC roughs are complete.

Insulation: Inspection shall take place after exterior walls and roof are watertight and before interior wall/ceiling finishes are installed; insulation shall be as prescribed per table R402.1.1 of the 2012 International Energy Conservation Code or equivalent alternative (e.g. ResCheck).

Electrical Service: A temporary electrical service is required where work will affect existing service location. Ground rods shall be installed and clearly visible or marked. Meter pan shall be mounted upon blocking or siding (not directly upon sheathing) and non-metallic socket cover

shall be in place at meter. Underground service conduits shall have minimum 12" clearance from other utility conduits and may be inspected separately. Where coarse aggregates are present in the trench, sand bedding shall be provided for conduit.

Fireplace/Chimney: Hearth inspection required prior to pouring concrete - at which time all formwork and steel reinforcement shall be in place. Smoke chamber inspection required following installation of first flue pipe; smoke chamber shall be parged smooth with refractory mortar. Flashing to flue inspection required. Fresh air-supply shall be provided for all masonry and factory-built fireplaces.

Gas Piping: Natural and LP gas lines shall be complete at the time of inspection; lines shall be properly fastened, have proper support and nail plates shall be installed where required. Lines shall be pressure tested and a tag put in place displaying the date, time and test pressure; line shall be pressurized to a minimum 5 PSI. Other than black pipe, all exposed interior gas lines (and not located in same room as appliance) shall be identified by yellow labels marked 'gas' in black lettering and spaced no more than 5'-0" on center as per section 2412.5 of the 2012 International Residential Code.

Propane Tanks: Inspection of exterior, underground LP tanks shall be done prior to backfilling; means of cathodic protection shall be installed and suitable backfill on-site that is free of large aggregates. Underground LP tanks in designated flood zones shall have ballast and strapping installed per engineer's or manufacturer's specifications.

Swimming Pools: Prior to construction a temporary barrier surrounding the pool area shall be erected and remain in place until the permanent barrier is installed. Moreover, the following inspections concerning the construction of swimming pools shall be required:

- **Underground electrical conduit:** Metal and plastic conduit shall have minimum burial depths of 6" and 18", respectively.
- **Bonding inspections** (all bonding requirements are per section 680.26 of the 2014 National Electrical Code; all bonding shall be achieved using solid copper conductors not smaller than 8 AWG)
 - **Structural reinforcing steel:** Installed per engineer's specifications
 - **Pool shell structural reinforcing steel bonding:** Bonding shall be achieved by steel tie wires or equivalent.
 - **Pool deck bonding:** Deck structural steel reinforcing shall be bonded to the pool shell reinforcing steel at four (4) points uniformly spaced about pool; where deck steel reinforcing is not present, an 8 AWG solid copper conductor shall be provided and bonded to the pool shell as described above.
 - **Metallic component bonding:** Any metallic components related to the pool structure (beyond the pool shell reinforcing noted above) shall be bonded.

- **Underwater light bonding:** Metal forming shells for wet-niche luminaires shall be bonded and potting compound installed; metal mounting brackets for no-niche luminaires shall also be bonded.
- **Pool water bonding:** Pool water shall be bonded; a minimum conductive surface area of 9 sq. in. is required and may be accomplished utilizing components that already require bonding (e.g. wet-niche or metal pool ladder/railing)
- **Metal fitting bonding:** Any metallic fitting that is within/attached to the pool, over 4” in any dimension and penetrates the pool more than 1” shall be bonded.
- **Electrical equipment bonding:** Any metallic part associated with the pool water circulating system (e.g. pump motor) or any other metallic part of associated electrical equipment (e.g. power-cover components) shall be bonded.
- **Miscellaneous bonding:** Any fixed metallic accessory (e.g pool ladder, railing, or fence) within 5’-0” horizontally and 12’-0” vertically of the pool water or not separated by a permanent barrier preventing contact shall be bonded.
- **Suction-outlet (drain) separation:** Dual suction-outlets – piped to a single, common suction line to the pump – shall be separated a minimum of 3’-0”.
- **Pool Alarm:** A pool alarm capable of emitting a sound a minimum of 50 decibels when detection of an object weighing 15 pounds or more enters the pool water shall be required.
- **Permanent pool barrier:** A permanent pool barrier meeting the specifications of section AG105.2 of the 2012 International Residential Code shall be required.
- **Door alarms:** Where a wall serves as a portion of the required permanent barrier, any doors in that wall with direct access to the pool shall be equipped with an alarm that is activated when the door is opened and whose deactivation switch is a minimum 54” above the door threshold (alarm shall be listed for pool alarm use and shall be separate from home security system) . Alternatively, the pool may be equipped with a powered safety cover.

Final Inspection for Certificate of Occupancy or Approval: A final inspection shall be required prior to issuance of a Certificate of Occupancy or Approval. All smoke and carbon monoxide detectors shall be located per code. Certain documents may be required depending upon the type of project; please see our website for the complete list of final inspection documents that are required. Lastly, a ‘Department Check-Off Sheet’ – which may be found on the website – must be completed and remitted to our office before a Certificate of Occupancy or Approval will be issued.