THE CITY OF FREEPORT
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Commercial Inspections

Standard Operating Procedures

This guide lists all normally required inspections for commercial construction. There may be more or fewer required inspections at the discretion of the Building Official to verify code compliance. Itis the responsibility of the job superintendent to assure that the project is ready for inspection and accessible for the inspector. The City of Freeport adheres to and enforces the 2015 International Codes Series and the 2014 National Electrical Code, and the NFPA 101 Life Safety Code.

1. All inspections
   - 1.1 Proper address clearly posted on job site.
   - 1.2 City-approved plans on site.
   - 1.3 Inspector will leave Correction or approval notice at all inspections.
   - 1.4 Inspector will verify correction of previous inspection notice items left on site at re-inspections.
   - 1.6 Check general cleanliness of job sites.
   - 1.7 Debris containment provided on site.
   - 1.8 Maintain SWPPP on job sites at all time.
   - 1.9 Maintain streets such that they are clear of construction debris and mud.
   - 1.10 Proper extension cords in use (no romex).
   - 1.11 Water used for construction from hose bibs or fire hydrants shall have an approved backflow prevention device.
   - 1.12 No construction activity between 10:00 p.m. thru 7:00 a.m.
   - 1.13 Provide a minimum of one portable restroom facility on site.
   - 1.14 **Any changes to the approved plans must be resubmitted for approval or Addressedon As-Built plan set prior to final (With Building Official approval)**

2. T-Pole inspections
   - 2.1 Pole is secure in ground.
   - 2.2 Outlets with GFCI Protection and provided with proper weatherproof covers.
   - 2.3 Ground wire secure to ground rod.
   - 2.4 Box is weatherproof, in good condition, and displaying location address.

3. Ground plumbing inspections
   - 3.1 DWV test: Hydrostatic test with stack 10’ above finished floor inside forms, visually checkjoints for leaks; observe test for 15 minutes (test to remain through foundation inspection).
   - 3.2 Building drain minimum 12” depth at building exit.
   - 3.3 Pipe properly sloped.
   - 3.4 Pipe is continuous bedded in solid material.
   - 3.5 Sleeve all plumbing in structural beams with a minimum 24” long SDR pipe 2 pipe sizeslarger than the pipe being sleeved.

4. Water line inspection
   - 4.1 Proper materials and fittings used.
   - 4.2 Line is located minimum 5’ horizontally from sewer or on shelf 12” above sewer.
   - 4.3 Line is continuous bedded in solid material and will have minimum 12” of cover.
   - 4.4 Line is air tested to 60 psi minimum or city water is on.

5. Sewer line inspection
   - 5.1 Provision is made to allow a minimum of 12” of fill over sewer line.
   - 5.2 Sewer is properly sloped and bedded in sand.
   - 5.3 Two way clean out provided at transition from building drain to building sewer (no more than3’ away from foundation).
   - 5.4 Sewer is tested with water stack 10’ above finished floor, outside form.

6. Foundation inspection – Note: Call Drilled Piers in as a partial foundation inspection and coordinate with the building department for an inspection time or have the Engineer of record provide a sealed letter of inspection certifying that “the piers were installed per the engineers design and the approved plans”.

   - 6.1 6.1 Piling survey submitted to office before scheduling a piling inspection (Elevated Buildings only)
   - 6.2 Site inspection of pilings to verify placement and compliance with setbacks and easements (elevated home only)
   - 6.3 Closed form survey to be submitted to office before scheduling a foundation Inspection (slabon grade only)
   - 6.4 For structures located *inside* the FEMA regulatory floodplain (AE zone or VE), one of the following shall apply:
     - 6.4.1 Provide an elevation certificate for AE zones, where the top of the bottom floor must be above the base flood elevation by a minimum of 18”.
     - 6.4.2 Provide an elevation certificate for VE zones, where the bottom of the lowest horizontal structural member must be above the base flood elevation by a minimum of 18” and the walls be breakaway.
   - 6.5 For structures located *outside* the FEMA regulatory floodplain, one of the following shall apply:
     - 6.3.1 Provide elevation certificate for structures in shaded X zones (also known as the 500-year floodplain or the 0.2% annual chance flood hazard). The top of the bottom floor must be above the nearest base flood elevation by a minimum of 18”.
     - 6.3.2 Provide a form survey showing applicable elevation or an elevation certificate for structures in X zones. The top of the bottom floor must be above the crown of thestreet or the highest adjacent grade by a minimum of 18”.
   - 6.4 Beam layout, beam sizes, tendon count, corner bars, and reinforcing steel per City-approved plans.
   - 6.6 Pads are firm and even.
   - 6.7 Provided string lines to verify slab thickness, 4” minimum.
   - 6.8 Beams are firm in bottom, no water covering steel or tendons.
   - 6.9 Maintain vapor barrier, vapor barrier taped at all seams.
   - 6.10 No structural steel in slab shall be supported by steel supports in contact with ground (tapedsteel supports not allowed).
   - 6.11 Mastic barrier on all exposed PVC to 4” above finished floor minimum.

6.12 PVC on test to 10’ above finish floor or provide air test with gauge test to 5 psi inside forms.Any repairs to PVC must be re-inspected by plumbing inspector.

6.13 No construction activity from 10:00 p.m. thru 7:00 a.m.

7. Frame certification – Signed and sealed by an engineer, certifying that building framing matches City-approved engineered framing plans, shall be received and approved by Building Departmentprior to scheduling cover-up inspection. Building must meet the 150 mph wind speed. Build-out spaces will not be allowed to start until cover inspection is completed at the shell structure.

8. Wall cover inspections – Structure must be dried-in prior to inspection including roof and all doors,and windows installed. Cover inspections will be based on City-approved plans that should remainon site at all times.

8.1 ELECTRICAL

8.1.1 All walls shall be framed and braced according to plans, having all electrical boxes (outlets and switches) and conduit installed. Membrane penetrations shall comply withsection 712.3.2.

8.1.2 Minimum wire size 12 gauge per City Ordinance.

8.1.3 Ground wire installed at lug in metal boxes.

8.1.4 Aluminum wiring not allowed past meter per City Ordinance.

8.1.5 Exterior walls – section 704 shall be fire-resistance rated and have opening protection as required.

8.2 STAIRS

8.2.1 Stairs shall have a minimum width of 44” free of obstruction, and have a minimum headroom clearance of 80” measured vertically from the stair nosing.

8.2.2 Stair riser shall be 4” minimum and 7” maximum.

8.2.3 Stair depth shall be 11” minimum.

8.2.4 The width of landings shall not be less than the width of the stairway they serve.

8.2.5 Stairways shall have handrails on each side and shall comply with section 1014. Handrail height measured above stair tread nosing shall not be less than 34” and notmore than 38” (required at final inspection).

8.3 PLUMBING

8.3.1 Water distribution piping tested to 60 psi or on city water pressure, visually checks system for leaks.

8.3.2 DWV test: hydrostatic test to minimum 10’ above finished floor visually check joint forleaks; observe pressure for 15 minutes.

8.3.3 All installed shower pans on test for inspection (filled with water 2” minimum).

8.3.4 Water distribution piping properly sized, correct material used, joints properly made,water portability correctly protected.

8.3.5 Drains properly sized and sloped, correct materials used, fitting properly utilized, joints properly made, traps correctly protected with vent.

8.3.6 Fixtures provided with adequate space and clearances.

8.3.7 No plumbing vent terminal within 10’ of operable windows, doors, or soffit vents unless2’ above opening.

8.3.8 Plumbing cleanouts provided with proper clearance.

8.3.9 Water heater installed properly; T&P discharge pipe made of correct materials and joints, not trapped, contains no more than 4 (per manufacturer) 90° fittings and no longer then 30’ in developed length unless pipe is upsized (per manufacturer); drainpan required where leakage may cause damage with minimum 1” drain line.

8.4 GAS

8.4.1 Gas test minimum 5 psi on diaphragm gauge.

8.4.2 Gas piping proper size, correct pipe material, fittings, and joints; no piping in HVAC ducts or chases, or clothes chutes; no unions, tubing fittings, etc. in concealed locations; piping properly supported; boring and notching in structural members withinallowed limits or correctly repaired.

8.4.3 Gas piping within structural concrete foundations shall be installed inside conduit, sealed where piping enters/exits conduit, conduit is vented to outside.

8.4.4 All gas vents terminated with approved cap the correct distance above roof and awayfrom walls, windows, soffits, etc.; roof penetration properly flashed.

9. Ceiling cover inspection

9.1 Duct seal inspection required.

9.2 Secondary air conditioning drains terminated at an exterior conspicuous point of disposal, or installation for float switch in drain pan wired to disable the mechanical unit in place of a secondary drain line.

9.3 Mechanical units properly supported to building structure.

9.4 Four (4) inch clothes dryer exhausts shall not exceed 35’ in length with deductions of 2.5’for 45° and 5’ for 90° changes of direction. Booster fans are not allowed.

9.5 Fire resistance rated construction shall comply with sections 701 thru 721.

9.6 All fire rated walls with HVAC duct penetration are required to provide fire dampers.

9.7 Demising walls are required to be fire caulked at decking and penetrations.

9.8 Primary drain from unit insulated to top plate of wall.

9.9 Smoke detectors should be located on the return air plenum or manufacturally installedwith unit.

9.10 All ducts, registers, exhaust and fixtures installed at grid.

9.11 Wire ties at light fixtures (1 per end), clips on light fixtures fold down at grid or screw fixtures to grid.

9.12 A means for providing a disconnect at the air conditioning unit and electrical water heatershall be installed.

9.13 All openings and penetrations at exterior walls are required to be caulked and sealed.

9.14 When equipment and appliances requiring access are installed on roofs or elevated structures at a height exceeding 16’, such access shall be provided by a permanent approved means from grade or floor level to the equipment or appliance.

9.15 Clearance of vent and exhaust pipe/fans from fresh air intakes at roof top units (10’).

9.16 Service outlets provided for roof top units (within 25’ of unit).

9.17 Condensate drains shall be trapped as required by the equipment or appliance manufacturer.

9.18 Address or suite number should be listed on unit.

10. Fire blocking

10.1 Fire resistance rated construction shall comply with sections 701 thru 721.

10.2 All fire rated walls with HVAC duct penetration are required to provide fire dampers.

10.3 Demising walls are required to be fire caulked at decking and penetrations.

10.4 Membrane penetrations shall comply with section 712.3.2.

10.5 All penetrations at exterior walls to be caulked and sealed.

10.6 “Pyro Guard” fire treated wood to be used with type 1 and 2 construction as required.

11. Brick tie inspections and lathe inspections (separate inspections)

11.1 Ties 16” on center vertically and horizontally.

11.2 Ties secured to structure with a non-corrosive connector.

11.3 Moisture barrier or flashing around windows, doors, or openings.

11.4 Sleeve home run for electrical service penetrating brick or stucco with schedule 40 PVC or galvanized service nipple.

11.5 Sleeve all electric, plumbing, and gas lines penetrating stucco.

12. Electrical inspection for temporary utilities, TCI (TCI form must be received and approved in office prior to inspection request.)
    - 12.1 Grounding electrodes properly connected to service panel.
    - 12.2 Verify gas, water, building steel and sprinkler system is bonded back to service panel.
    - 12.3 Main disconnect located at exterior of building next to meter, not higher than 6'-7" above adjacent grade.
    - 12.4 Proper meter can per utility provider, Center Point
    - 12.5 Service panel is weather tight and no slots are left open in panel.
    - 12.6 A minimum clear space is provided in front of the service panel 30" wide and 36" deep.
    - 12.7 For electrical undergrounds, trenches must be at proper depth with and located properlyper city approved plans. Schedule 40 conduit in place and bedded properly with markingtape 12" above.
    - 12.8 For light pole standards, shafts bored to the proper depth with properly sized steel in placeper City-approved plans. Steel is to be grounded at all poles.

13. Gas meter inspection
    - 13.1 All gas-fired and vented appliances properly installed and safe to operate.
    - 13.2 Sediment trap installed on furnace and water heaters not equipped with integrated trap.
    - 13.3 Gas-fired water heater relief valve(s) and discharge piping complete.
    - 13.4 Gas test minimum 5 psi on diaphragm gauge; observe 15 minutes for pressure drop.
    - 13.5 All gas piping complete to equipment shut-off valve which is within 6' maximum of appliance and readily accessible; gas line is connected to appliance or line is capped pastvalve if appliance will be added later (clothes dryer, range, grill – excluded from sediment trap); sediment trap correctly installed between shut-off valve and water heater or furnace.
    - 13.6 All gas vents properly installed supported, and terminated with approved cap the correct distance above roof and away from walls, windows, soffits, etc.; roof penetration properly flashed; sloped minimum 1/4" per foot; horizontal run of vent connector does not exceed vertical rise from draft hood to terminal; proper clearance to combustibles maintained (manufacturer).
    - 13.7 Clearances around appliances maintained (manufacturer).
    - 13.8 Appliances provided with correct combustion and ventilation air.
    - 13.9 Appliances in attic provided with minimum 30" x 22" opening, a clear and unobstructed minimum 24" wide and 30" high continuous path that is no longer than 20' from opening toappliance and terminating with a minimum 30" x 30" platform in front of the service side ofappliance.
    - 13.10 Disappearing attic ladder installed correctly "with a minimum of 8 16D nails or 4 1/2" x 4"lag screws.
    - 13.11 Clearance around gas meter from ignition sources maintained per utility provider requirements minimum 3'-0".
    - 13.12 Gas piping system bonded back to service panel per electrical code.

14. Final occupancy inspection

    14.1 COMPLETED WORK AND DOCUMENTATION
    - 14.1.1 Provide TDI windstorm certification, energy certification letter – verification of storm protection of all windows/doors.
    - 14.1.2 Provide finished construction elevation certificate. If located in AE or VE flood zone,final inspection will be performed by a Certified Floodplain Manager. Finished construction elevation certificates are required for final occupancy.
    - 14.1.3 All site work to be completed at the time of final inspection.
    - 14.1.4 T-pole removed from site.
    - 14.1.5 Grading at retention pond per City-approved plans (engineered letter).
    - 14.1.6 All landscaping has been completed (plans on site to verify).
    - 14.1.7 All paving striped and handicap logos in place.
    - 14.1.8 Dumpster enclosure in-place (screened-in if visible from street).
    - 14.1.9 Verify impact resistant glass or storm impact panels provided on site.

14.2 BUILDING

14.2.1 Permanent address in place.

14.2.2 Provide letter regarding provisions for windstorm panels if not installed on site.

14.2.3 All openings and penetrations sealed at exterior.

14.2.4 Weep holes open at bottom of brick walls and over all lintels, maximum spacing of33”.

14.2.5 Handrails minimum 34” and maximum 38” in height. Guard rails 42” minimum heightwith guards spaced 4” maximum.

14.3 ELECTRICAL

14.3.1 Main disconnect located at exterior next to meter, at a maximum height of 6’-7” above grade.

14.3.2 All circuits and main labeled in service panel.

14.3.3 T-Pole disconnected and removed from site.

14.3.4 Operable switch, light, or plug in all spaces.

14.3.5 Required GFCI protected receptacles function properly, reset on same floor.

14.3.6 For structures located in the FEMA regulatory floodplain (AE zone or VE zone), all electrical equipment must be above the base flood elevation by a minimum of 18”.

14.4 PLUMBING

14.4.1 Plumbing fixtures set and connected correctly to supply and drain.

14.4.2 Fixtures provided with adequate spaces and clearances.

14.4.3 Hot water provided and is on the left-hand side of fitting/fixture.

14.4.4 Pipes above grade or in attic protected from freezing.

14.4.5 All required valves accessible: main shutoff, water heater supply, and water closet supply.

14.4.6 Clean outs installed correctly w/ proper access and spacing.

14.4.7 All potable water outlets properly protected from backflow/back-siphonage; hose bibshave permanently attached vacuum breakers.

14.4.8 Water heater temperature and pressure relief valve(s) operate freely without leaks.

14.5 MECHANICAL

14.5.1 Outdoor mechanical equipment is secured against uplift per inland windstorm requirement.

14.5.2 Central air conditioning and heating is operable.

14.5.3 Heater flue pipe is properly installed per manufacturer’s specifications.

14.5.4 Heating equipment, cooling equipment, and ducts are properly supported by building structure.

14.5.5 Pan under cooling coil is installed with proper slope to drain line.

14.5.6 All breakers to meet manufacturer specifications.

14.5.7 For structures located in the FEMA regulatory floodplain (AE zone or VE zone), all mechanical equipment must be above the base flood elevation by a minimum of 18”.