

# **PRE-CONSTRUCTION GUIDELINES**

## **INSPECTION REQUESTS:**

- Inspections require a one (1) day notice with a 2pm cuttoff for next day inspections.
- Inspections are scheduled for AM, or in special circumstances PM upon request.
- We cannot make specific appointments, however, you can make known a request for a window of time and our inspectors can accommodate where possible.
- CUT OFF FOR NEXT DAY INSPECTION: 2:00 pm By phone or online
- To schedule inspections **online**, use our Citizens Connect online portal <u>HERE</u>.
- VOICE MAIL INSPECTION LINE: 206-870-6531
  - Please listen to the entire recorded instructions before leaving a meassage. To schedule fire inspections, you must call South King Fire directly at 253-946-7318.
  - To request an inspection: Call and follow the recorded instructions. If you have scheduled before, and know the required information needed, press 1 to record your inspection request.
  - You MUST leave the following information:
  - Permit number, Site Address, Name and Phone Number of contact and Type of Inspection as listed on the permit

#### **INSPECTIONS:**

- APPROVED PLANS: Approved drawings, permit and inspection record shall be on site and accessible.
  - Building Department AND the *approved* special inspection agency shall inspect from the approved plans and specifications only. <u>No exception.</u>
- **APPROVED REVISIONS:** Any deviations from the approved set require the approval of the Building Official. Revisions are to be submitted using the online portal with structural drawing and calculation revisions stamped by the engineer of record; architectural revisions shall be stamped by the architect.
- When the work for which an inspection is called for is incomplete, or there is a deviation from the approved plans or the approved plans/specifications and permit are not on site, a re-inspection fee shall be charged.
- **Footing and foundation wall:** All form work and reinforcement to be in place and ready for inspection with all bolting to be on job-site and interior of forms to be free of loose soil, mud and all rebound material (wood, organic or large rocks) to be removed.
  - All form work to be removed prior to any backfill activity.
  - **Setback inspection required prior to foundation wall inspection.** Survey may by required (check plans).
- *Under-slab:* All required insulation and plumbing/mechanical/ electrical to be in place and approved before placement of concrete. All hold downs to be cast in place, no Wet Setting.
- *Under-floor inspection*: <u>All</u> point loads, girders and joists are required to be inspected and approved before sheathing of first floor.
- **Sheathing/shear panels**: Exterior/interior wall sheathing, roof sheathing and exterior deck floor sheathing to be inspected before coverage.
- Plumbing: Per the current Washington State Plumbing Code.
  - Separate permit required.
  - All penetrations of rated walls to be in metal with the transition occurring inside the wall, or protected by an approved listed assembly.

- Mechanical: Per the current Washington State Mechanical Code.
  - Separate permit required.
  - Electrical: Per the current <u>National Electrical Code as amended by the Washington Cities Electrical</u> Code.
    - Separate permit required.
- **<u>Framing Inspection</u>**: After an approved height survey (if applicable) and <u>after</u> all electrical, plumbing, mechanical and fire suppression rough inspections have passed inspection.
  - Fire blocking/draft stops to be installed prior to framing inspection.
  - Penetrations of rated assemblies to be approved metal or material with "T" or "F" rating per IBC section 714.
- *Insulation*: Insulation to be in compliance with current Washington State Energy Code. For commercial projects, the WSEC Examiner of record shall inspect during construction to ensure compliance with the code and shall submit a letter stating such compliance for the file of record.
- Energy Code Compliance Inspection and approval required prior to cover.
- **Sheetrock**: Nailing is required to be inspected after all sheetrock is in place and before any fasteners are covered.

### **FINAL INSPECTION:**

- The final inspection cannot be performed until the correct approvals have been obtained. These include electrical, mechanical and plumbing permits, along with other permits from Building, South King Fire, Planning and Engineering.
  - Testing laboratory final letter must be received prior to final along with the other approvals mentioned below. For final inspection, schedule with both the City of Des Moines Building Dept. and South King Fire.
- Certificate of occupancy requires:
  - Building Official Signature
  - <u>Please note:</u> No Temporary Certificate of Occupancy (TCO) will be approved for structures regulated under the Washington State Residential Code.
  - For all other TCO or phased approval requests, please notify the City several weeks/ months in advance in order to best accommodate the request.
- OTHER APPROVALS: Required prior to the final inspection:
  - Obtain written water District approval of water system and back-flow prevention prior to Final Inspection.
  - Obtain written approval from the sewer district of sewer design and final connection prior to Final Inspection.
  - LNI approval for elevators.
  - King County Public Health approval for food establishments, public pools, health care facilities, child care facilities, etc.
  - Final architect's and engineer's letters of approval.
  - Final Special Inspection reports and letter of approval.

### **FIRE DEPARTMENT REQUIREMENTS:**

- When a sprinkler system is required to be installed and maintained in accordance with NFPA 13 as directed by South King Fire, apply online through our MyPermits Online portal.
  - Upload documents for review of the system design for permit issuance.

- The sprinkler system designer is required to design the system in accordance with NFPA 13 and in accordance with the approved plans for the conditioned space envelope and the concealed spaces.
- Work at the site will not continue beyond the framing stage unless the fire sprinkler system is permitted and the installation approved by South King Fire.
- Important Note: All inspections of the fire supression system must be scheduled by calling South King Fire's inspection line at 253-946-7318

#### REQUIRED SPECIAL INSPECTIONS

- Concrete
- Bolts installed in concrete
- Moment resisting concrete frame
- Reinforcing steel and prestressing steel tendons
- Structrural welding
- Special moment-resisting steel frames
- Welding of reinforcing steel
- High strength bolting
- Structural masonry
- Reinforced gypsum concrete
- Insulating concrete fill
- Spray applied fire-resistive materials
- Piling, drilled piers and caissons
- Shotcrete
- Special grading, excavation and filling
- Wood shear panels
- Other inspections as directed by the Building Official
- As an important note: All special inspections are subsequent to the city's inspections.

#### SPECIAL INSPECTIONS CONCRETE:

- Testing lab inspector to be scheduled on site prior to the arrival of concrete to allow time for the inspection of re-bar and forms in accordance with the approved plans.
- Provide the name of the special inspector and a schedule of the inspections prior to the start of work.
- Concrete shall not be placed without special inspector on site. Special inspector shall remain on site until completion of concrete placement.
- Be careful adding water to mix. Water/cement ratio must not be excessive. Slump on approved mix is not to be exceeded unless a plus or minus tolerance is called out on plans or mix design.
- No admixtures are allowed to the "city mix". Any admixtures will require project engineer's approval with notification to the building department before being used.
- All concrete is to be mechanically consolidated regardless of compressive strength requirements.
- Vibrating equipment is to be on the job-site when concrete is being placed.
- The special inspector has the right and obligation to stop the placement of concrete if specifications and codes are not strictly adhered to.
- Special inspector shall appear on certified list.
- City inspector shall be given one-day notice of all concrete placement.
- When requesting concrete inspections please give the time you intend to start your placement.

#### **CONCRETE PLACEMENT CONSIDERATIONS:**

- Report from soils engineer to be on site and clearly state that all areas to receive placement are satisfactory per original soils report recommendations.
- Approved mix design to be on site and be reviewed by structural engineer of record with two (2) copies of
  engineer's approval submitted to the building department. The building department will review and supply
  "site copy" to be on site prior to concrete placement.
- Use of "city mix" does not require engineer's approval and is the only exception, i.e.:

5 ½ sack 2,500 psi 6 sack 3,000 psi

Daily report to be left on site.

#### SPECIAL INSPECTIONS OTHER THAN CONCRETE:

- Asbestos abatement certificate.
- Welders shall be WABO certified.
- All expansion bolts to be inspected for embedment depth and torque.
- Intermittent inspection of CMU and masonry may be allowed.
- All grouting to be inspected including panel grout, and prisms to be taken daily.
- All high strength bolting to be inspected for placement and torque.
- If insulation is to be applied directly to roof sheathing, moisture content of sheathing to be verified at 14% or less prior to placing insulation.
- Special nail patterns (shear walls, roof decks. etc.) shall be special inspected.
- Parabolting requires a special inspection.
- Epoxied Connections

### **GEOTECHNICAL ENGINEER SITE REVIEW:**

- All projects where a geotechnical engineer has determined suitability of soils for construction in the City
  of Des Moines the engineer of record is required to review the testing and verification of substrate
  conditions for foundations, slabs on grade, shoring of substrate cut and other site construction and to
  determine conditions requiring special procedures and make a detailed report to the building official prior
  to the footing inspection.
  - A final report shall be submitted prior to the final inspection.
  - Alterations to the approved design are required to be reviewed and approved by the building official prior to any work at the site. Upload directly to the permit.

### STRUCTURAL ENGINEER SITE REVIEW:

- All projects where a licensed structural engineer has designed a structure in the City of Des Moines The
  engineer of record shall make periodic inspections of the work performed according to their discipline to
  confirm trueness of design and compliance with all State and local codes and to submit written reports of
  the site visits to the building official (Include all corrections). These reports shall detail site conditions and
  completeness of design.
- A final report shall be submitted prior to the final inspection.
- Alterations to the approved design are required to be reviewed and approved by the building official prior to any work at the site. Upload directly to the permit.

### **ARCHITECTUAL SITE REVIEW:**

All projects where a licensed architect has designed a building constructed in the City of Des Moines the
architect shall inspect the work performed and submit reports to the building official for design

compliance and compliance with all State and local codes and to submit written reports of the site visits to the building official. These reports shall detail site conditions and completeness of design.

- A final report shall be submitted prior to the final inspection.
- Alterations to the approved design are required to be reviewed and approved by the building official prior to any work at the site. Upload directly to the permit.
- When required by the Building Official, the Architect of Record shall provide a letter verifying that the completed project complies with the requirements <u>for accessibility</u>.

#### **DESIGN BUILD AND DEFFERED SUBMITTALS:**

- All design build, deferred submittals, plan changes and detail alterations shall be reviewed by the architect or engineer of record for the correct application of the approved design.
- Changes to the approved design shall be submitted for review by the City of Des Moines only after the
  design professional of record has completed the review of the alteration.
- These changes include such items as Mechanical and Plumbing systems, pre-engineered roof and floor framing designs and fire sprinkler systems. No work shall be performed at the site prior to approval.

### FIRE-STOP SYSTEMS PER CURRENT IBC

- All through penetrations and membrane penetrations of fire rated assemblies shall be protected by an approved penetration fire-stop system.
- The system shall be installed as tested in accordance with IBC Standards with an F and T rating of one hour, but not less than the required rating of the wall or floor penetrated, by a professional agency approved by the Building Official.
- The firestop system and the agency's qualifications shall be submitted for review and approved by the Building Official prior to any site installation of the fire-stop system. Upload directly to the permit.

### **SPECIAL TOPICS:**

- 1/4" corrosion-resistant metal screen required for attic/foundation vents.
- A separate right-of-way permit is required for any work in the right-of-way.
- The fire restiveness and integrity of all rated corridors, walls, and floor/ceiling assemblies shall be maintained.
- Flagging, construction fences, and construction barriers must be in place and maintained at all times.
- Surface Water Engineering will need to be contacted for surface water concerns before backfilling foundations or walls.
- Trap primers required on area drains and remote floor drains.
- All trades responsible for cutting & notching of structural members.
- Plumbing penetrations in rated walls to be by approved penetration fire stops or cast iron.
- In multi-family buildings each unit shall have a separate water main shutoff.
- Staples to be parallel with framing and fasteners not to fracture face of sheathing.
- All materials and fasteners to be used as intended by their listings. Non listed fasteners (staples, screws and power nails) are not to be used.
- Construction personnel only are allowed on the job-site during construction and no dead storage is allowed until approval of final inspection.
- Washington Barrier Free Code requirements are strictly enforced without exception and adaptable dwelling units need lever handle, door, and window latches, electrical outlets no less than 15" above floor, etc.

#### HOURS OF OPERATION/CONSTRUCTION

7:00 a.m. - 7:00 p.m. Monday through Friday 8:00 a.m. - 5:00 p.m. Saturdays, Sundays and legal holidays

### • Building Department Contacts:

- Dan Hopp, Building Official (206) 870-6550
- Jamie Weigand, Assistant Building Official / Combination Inspector (206) 870-6717
- Keith Howell, Building Inspector / Plans Examiner (206) 870-6542
- Ben Straley, Building / Electrical Inspector (206) 870-6792
- Ryan Niemi, Building Inspector (206) 870-6873
- The rest of the staff can be reached at (206) 870-7576