



RESIDENTIAL PRE-CONSTRUCTION CHECKLIST
(February 2020)

DATE: ____ - ____ - ____	PERMITS Nos. _____
PROJECT NAME: _____	
TRACT(S) AND LOTS: _____	

This Pre-Construction package is intended to provide information and forms useful to the owner, developer, and contractor during the course of a construction project. This package should be maintained on the job site in a prominent location and referred to often. It is not comprehensive, for additional information or clarifications refer to the building inspector.

CITY PERSONNEL

- | | | |
|------------------------------------|-------------------------|--------------------------|
| 1. Building Inspector: | _____ | Ph. No. _____ |
| 2. Plan Checker: | _____ | Ph. No. _____ |
| 3. Inspection Supervisor: | Gina Mauro | Ph. No. 949 - 724-6546 |
| 4. Inspection Supervisor: | Rick Olson | Ph. No. 949 - 724-6570 |
| 5. Inspection Supervisor: | Tim Anderson | Ph. No. 949 - 724-6329 |
| 6. Inspection Supervisor: | Jay Denny | Ph. No. 949 - 724 - 6139 |
| 7. Chief Building Official | Kam Chitalia | Ph. No. 949 - 724-6371 |
| 8. Chief Inspection Supervisor: | Roger Carton | Ph. No. 949 - 724-6331 |
| 9. Water Quality Engineer: | Michael Yang | Ph. No. 949 - 724-6327 |
| 10. Principal Plan Check Engineer: | Claudia Landeras-Sobaih | Ph. No. 949 - 724-6330 |

PROBLEM RESOLUTION: Most problems can be resolved in the field. However, when an issue arises that requires the attention of a supervisor, it is recommended that the immediate supervisor be contacted first. Please refer to the City Personnel section above for names and telephone numbers.

PROJECT CONTACT INFORMATION: Required project contact information shall be maintained in the City of Irvine project job file for the duration of the construction. (Complete form at the end of this packet, inspector to retain.)

□ CONSTRUCTION WORK HOURS

1. Monday through Friday: 7:00 a.m. to 7:00 p.m.
2. Saturdays: 9:00 a.m. to 6:00 p.m.
3. No work permitted on Sundays and Federal Holidays (see calendar attached)

□ REQUESTING INSPECTIONS

1. Inspections shall be arranged through the automated request phone line or via the internet no later than 4:00 p.m. the working day prior to the day of the desired inspection. For instructions refer to the building card or go to:

www.cityofirvine.org/community-development/inspection-services

IMPORTANT NOTE: Many projects have multiple permits active at a given time. It is the contractor's responsibility to ensure that the permit utilized to schedule each inspection covers the work for which the inspection is being requested.

2. Appointments may only be arranged through the individual inspector after an automated request is received.
3. Inspector office hours are 6:30 a.m. to 7:00 a.m. and 3:30 p.m. to 4:00 p.m. (2:30 to 3:00 p.m. on Fridays.) Inspectors may be contacted via telephone, voice mail or in person.
4. Overtime inspections, subject to inspection staff availability, may be arranged for the alternate Fridays that City offices are closed and Saturdays by contacting the inspection supervisor via FAX using City form included herein. In making requests, provide permit number, type of inspection requested, name of regular inspector, date of desired inspection and special event number. Special event numbers are obtained over the counter at the Permit Processing Center free of charge, and are used to bill overtime inspection charges to the project owner or contractor.

□ SIGNS AND JOB ADDRESS

1. Job address shall be posted for City and emergency personnel prior to start of the job.
2. Signs or banners may not be installed without proper permits and inspections.
3. Corporate, state and U.S. flags do not require permits.

- CONSTRUCTION SITE SECURITY Construction site security is required under City of Irvine Municipal Code Sec. 5-9-521 for new building developments with the exception of developments consisting of an individual single family home site. At or near the time of foundation inspections, compliance to the **general requirements** (see copy attached) and any applicable **security plan requirements** shall be verified. Requirements must be effectively maintained through the life of the project. Failure to do so may result in project

delays. In addition, the 24/7 contact provided on the Project Contact Information form (see attached) must be an individual or individuals capable of taking any necessary corrective action should security breaches arise during off hours.

- TEMPORARY POWER shall be provided sufficient to supply job trailers, equipment, elevators etc. at the start of construction.
- STREETS/EROSION CONTROL
 1. Streets shall be kept clean.
 2. All job site entry and exit BMPs shall be in place and maintained.
 3. All erosion and dust control measures shall be in place and maintained per the approved Erosion Control Plan.

IMPORTANT NOTE: Critical features and activities include catch basin protection, perimeter sediment control, stock pile, and exposed area effective erosion and sediment control and house-keeping.

- SPECIAL CONSIDERATIONS FOR FIRE RESISTIVE CONSTRUCTION
 1. **Pre-erection Meeting Required** Due to the added complexity of fire resistive construction a pre-erection meeting is required. This meeting is to take place after the foundation has been placed but before any framing elements have been incorporated into the project. At this meeting the contractor will be responsible for reviewing with the City inspector the fire protection detailing and planned sequence of construction to ensure that full encasement of primary structural frame elements may be achieved and that an effective plan is developed for areas requiring partial drywall placement in advance of rough frame approvals, e.g. behind tubs and showers at rated walls, or walls or floor-ceiling and roof-ceiling assemblies through which significant penetrations occur.
 2. **Fire-Retardant-Treated Wood** All fire-retardant-treated-wood framing shall remain bundled until the City inspector has verified labels and listing.
 3. Fire resistive walls, floor-ceiling and roof-ceiling assemblies shall be constructed per:
 - a) Table 721.1(1) and 721.1(2) in the California Building Code.
 - b) A UL or equal listed assembly.
 - c) An engineered design specifically noted as such on the City Approved Stamped Plans.
 4. Penetrations through fire resistive assemblies which require protected openings shall be protected by a UL or equal listed firestop system. Membrane penetrations may be permitted to be one half of a listed through penetration system where all applicable conditions may be met.
 5. Joint systems and Perimeter fire containment systems shall be of UL or equal listed systems.

6. Items 2 and 3 above may be satisfied using an engineering judgment where approved through an Alternate Means and Methods approval. Engineering Judgments may only be utilized when there are no other means to use a listed system.
7. Construction shall not be approved to continue and or concealed until correct fire resistive assemblies or firestop systems have been reviewed by the inspector.

IMPORTANT NOTE: Planning ahead in the design or rough-in phase will result in timely approvals and allow construction to progress.

□ FIRE SAFETY SYSTEMS AND FEATURES

1. The fire safety systems and features of the **Fire Master plan** are inspected by the Orange County Fire Authority (OCFA); refer to the Inspection Record Card for instructions and telephone number. The Fire Master plan covers temporary and/or permanent access roads and hydrants and permanent access, hydrants, curb painting, signage and Knox Box installation.

IMPORTANT NOTES:

- Temporary or permanent fire hydrants and access shall be approved by OCFA prior to delivery of lumber or other combustible materials to the job site.
 - No building inspections shall be allowed which occur within or involve combustible construction prior to OCFA approval.
 - Prior to occupancy (**applies to model home openings**) all permanent features serving the building or group of buildings shall be installed, and approved by OCFA; such improvements include signage and curb painting along any new collector streets leading up to and serving the development.
 - Approved Hydrants and Access plans and OCFA job card shall be readily available at the job site for City personnel use and reference.
2. The fire safety features of the **Fuel Modification plan**, (required for development in Very High Fire Severity Zones, typically hillside areas), are inspected by the Orange County Fire Authority (OCFA). Contact Nick Pivaroff, Assistant Fire Marshal at (714) 573-6256 to determine inspection requirements relating to Fuel Modification work affecting each jobsite, (see form attached). The Fuel Modification plan includes removal of native brush (fuel) in prescribed areas and maintaining those areas clear throughout the construction process, and installation of permanent landscaping with approved plantings before completion of the project.

IMPORTANT NOTES:

- Prior to pad releases (which precede building permits issuance) brush clearing in the vicinity of the pad or pads in question, must be completed, approved by OCFA and documented on an OCFA field memo for presentation to the grading/offsite inspector.

- Prior to occupancy, permanent landscaping in the vicinity of the building(s) in question must be installed and established, approved by OCFA and so documented on the back of the Inspection Record Card unless it is determined by OCFA that an inspection is not applicable in which case a copy of the clearance shall be presented to the building inspector. (See notification and clearance form attached.)
 - Approved Fuel Modification plans and OCFA job card shall be readily available at the job site for City personnel use and reference.
3. Fire sprinkler systems are inspected by OCFA, refer to Inspection Record Card for instructions and telephone number.
- SPECIAL (DEPUTY) INSPECTORS, FCC CERTIFIED TECHNICIANS
1. Shall be employed by the project owner, architect or engineer of record, but in no event shall the special inspector be employed by the contractor.
 2. Shall be licensed by the City of Irvine for the particular type(s) of construction or operation subject to special inspection for which he/she is to witness.
 3. Shall adhere to the requirements of the City of Irvine Special Inspection Manual.
- PLANS, PERMITS, INSPECTION RECORD CARD, INSPECTOR AND CONTRACTOR RESPONSIBILITIES
1. Approved plans, permits and Inspection Record Card shall be maintained at the job site readily accessible to the inspector. (Note: Prior to pre-slab inspection, provide a ½ size copy of the approved plans to the assigned City Building Inspector.)
 2. All work shall be performed under a valid permit.
 3. All work shall be performed per the approved plans, specifications and applicable codes.

IMPORTANT NOTE: All permitted work is subject to the City of Irvine Security Code; see Municipal Code sections 5-9-501 through 5-9-528. The project designer is required to justify the design against applicable standards. Comprehensive specifications are available online for incorporation into the approved plans and for reference purposes at the Building and Safety Form Catalog webpage at:

<http://legacy.cityofirvine.org/cityhall/cityclerk/records/forms/default.asp>

Type specific documents include Standard Residential Security Code Provisions (41-29B or latest applicable), Standard Non-residential Security Code Provisions (41-31B or latest applicable), Standard Parking Facility Security Code Provisions (41-33A or latest applicable), Standard Recreational Spaces Security Code Provisions (41-30B or latest applicable).

Prior to project completion and at certain stages during construction, requirements will be checked by the inspector. The contractor is advised to fully understand the requirements by studying the applicable referenced documents and consulting with the designer to ensure that features are built into the project as it progresses to avoid expensive reworking of paved areas and building finishes.

4. Prior to inspection approval for any work effected or defined by a detail change, plan revision or deferred submittal, such detail change, plan revision or deferred submittal shall be stamped approved by the City, and when applicable OCFA, plan check staff. All such approved changes shall be maintained at the job site as in item 1 above.
5. At the time of a called inspection, contractor is responsible for the work being complete and ready for inspection, maintaining the work exposed, and providing access to the inspector.

IMPORTANT NOTES:

- Approved concrete mix design is required at the time of inspection preceding concrete placement.
 - Mill and/or fabricator certifications required at the time of inspection of any fabricated structural item, e.g., masonry units, reinforcing steel, structural steel. See Information Bulletin 311 for Fabricator and document requirements.
 - Nondestructive testing report and acceptance certification of all welds requiring such testing per Section 1703 of the UBC or the project specifications shall be provided at the time of inspection.
 - All project documents such as reports and certifications shall bear the project address.
6. When the inspector is called upon to make an inspection, he shall either approve the work and sign the Inspection Record Card or partial card, or write a correction explaining the deficiencies with reference to appropriate code sections, plan sheets or details.

IMPORTANT NOTES:

- Only the inspector is authorized to sign the Inspection Record Card.
 - Each correction notice shall remain in effect until signed off. All correction notices shall be maintained on the jobsite filed as described below.
- ACCESSIBILITY: Multi family residential facilities are required to meet specific accessibility standards. With the adoption of the 2007 California Building Code, dimensional requirements are generally required to fall within required ranges, minor variations (on the magnitude of conventional construction tolerance) resulting in less than or greater than a given range limit are no longer allowed by code. Therefore, in order to avoid construction delays and costly changes, it is important to have a clear understanding of the features which are provided to meet accessibility standards and to construct them per plan. Questions with regard to accessibility should be directed to the design professional of record; all changes to approved plans must be approved by plan check.
- BUILDING CERTIFICATIONS/DOCUMENTATION/ORGANIZATION:

The general contractor shall be responsible for maintaining at the jobsite, accessible to the City Inspector, the following records organized in one or more binders, divided, tabbed, and ordered as listed below. The City Inspector shall take possession of the files at permit close out and prior to occupancy. To aid in final turn-over, see Field Documentation Transmittal, Permit Close-Out form attached.

IMPORTANT NOTES:

- Documents shall be black and white only and suitable for digital storage; color copies will not be accepted.
 - A separate binder or set of binders shall be maintained for each separate main building, e.g. each home, apartment or condominium building. A single binder may be maintained for all minor or accessory buildings.
1. First Division –Permits shall contain **all permits** including but not limited to encroachment, grading, building, plumbing, mechanical, electrical and miscellaneous permits, each separately placed within a plastic sheet protector.
 2. Second Division-Survey/Foundation Memo shall contain: the survey as required prior to foundation approval by Information Bulletin 302; Geotechnical/Foundation Field Memorandum.
 3. Third Division- E and P Schematics shall contain each of the following:
 - **Electrical Calculation Sheet and line drawing.**
 - **Schematic of drain waste and vent.**
 - **Schematic of water piping.**
 - **Schematic of gas piping.**
- Note:** (1) For multifamily buildings, a complete set of schematics shall be provided for each unit type; (2) Above specified documents shall contain sufficient information and detail to demonstrate code compliance; (3) After the pilot inspection has been passed for each initial model or unit type, a copy for each, initialed by the assigned City Inspector, shall be separately placed within a plastic sheet protector; (4) A copy of the initialed approved schematics shall be filed for subsequent buildings matching the original model designs.
4. Forth Division-Correction Notices shall contain **all correction notices** issued to the project by City Inspectors.
 5. Fifth Division-Material Certifications shall contain **Material certifications** for structural materials or components arranged within material type subdivisions, e.g. masonry units, reinforcing steel, structural steel, concrete (trip tickets). Any required material testing reports, including concrete cylinder testing, shall be filed along with and cross referenced to certifications.
 6. Sixth Division- Fabricator Certifications shall contain **all Fabricator certifications**, see Information Bulletin 311 for content specifications.
 7. Seventh Division- Structural Observation Reports shall contain **all structural observations reports**; see Information Bulletin 251 for report format requirements.

8. Eighth Division- Special Inspector Report [Ref. City of Irvine Special Inspection Manual (SIM)] shall contain **subdivisions** as follows: Special Inspectors- shall contain a **completed affidavit** for each special inspector working on the project along with a copy of the current City of Irvine **Special Inspector License**; Reports- shall be further subdivided to contain a **separate section** for each material type or construction system, e.g. concrete, steel, wood. Said subdivisions, shall contain in reverse chronological order- **Final Acceptance Reports** (see section 4.3.2.11 SIM for acceptance statement requirements), all **Daily Performance**, **Non-Compliance** and **Record of Correction** reports (see sections 4.3.2.8, 4.3.2.9, and 4.3.2.10 SIM for content and format requirements)
9. Ninth Division- Energy Compliance shall contain **all required compliance documentation**. Documentation **SHALL** be completed as the work progresses and in advance of related City inspections. Required documentation typically includes at a minimum the following: (A) CF-6Rs or Installation Certificates-CF-6R-ENV-01, CF-6R-LTG-01, CF-6R-MECH-01, CF-6R-MECH-04, CF-6R-MECH-05); and (B) CF-4R and 6Rs (Certificates of Field Verification and Diagnostic Testing-HERS) as defined by the design.

Notes: (A) All CF-documents requiring a HERS rater signature shall bear a registration number from a HERS provider data registry; (B) Forms are available online at <http://energy.ca.gov/2015publications/CEC-400-2015-032/appendices/forms/>

10. Tenth Division- Public Safety Radio System Coverage (as applicable) shall contain **as-built plans**, **Test Report**, and the **Coverage Certification**. To obtain copies of Information Bulletin 309, City of Irvine Public Radio System Coverage Testing and Acceptance Procedure and City of Irvine Certification-Public Safety Radio System Coverage go to:

<http://www.cityofirvine.org/community-development/public-safety-radio-system-coverage>

11. Eleventh Division-Miscellaneous shall contain as applicable: (A) **Roof Certification**, applies to wood framed roof systems having a design slope of ¼ inch per foot, see information bulletin 250; (B) Completed **Project Planning Clearance Referral**; (C) **Play Equipment Installation Letter** stating by a person authorized by the manufacturer, stating that the equipment has been inspected and found to have been installed per manufacturer's specifications, and that it complies with minimum playground safety regulations, adopted by the State of California (CA Code of Regulations, Title 22, Division 4, Chapter 22, Article 1-4);

IMPORTANT NOTE regarding SITE CERTIFICATIONS. Site certifications are handled separately and must be accepted by the grading/offsite inspector prior to building occupancy. Certifications include the following, each of which must contain the project address.

- | | |
|---------------------------------|--------------------------------------|
| 1. Soil Engineer Certification | 3. Landscape Architect Certification |
| 2. Civil Engineer Certification | 4. Plan Microfilm |

- **PLANNING CONDITIONS:** Many projects require that certain conditions be met prior to occupancy. Such conditions are defined in the project Planning Commission Resolution or similar document and, for convenience, are often reproduced on the project plans. Please ensure that these conditions are thoroughly investigated, understood and anticipated so that occupancy is not unnecessarily delayed.

- **PHASED OCCUPANCY OF MULTI-BUILDING RESIDENTIAL DEVELOPMENT:** Phased occupancy of any portion of a multi-building development project, including sales facilities, is subject to approval by Building and Safety and the Orange County Fire Authority. Such phasing shall provide a clear and effective separation between the areas open to building users and occupants and construction areas including staging and access. Additionally, all fire-life-safety, security, accessibility features, parking and other applicable planning standards and conditions serving those portions of the development to be occupied shall be installed, approved and accepted by the City and/or Orange County Fire Authority. Such features must remain in place and fully functional throughout the remaining project build-out.

- **CLICK2ENTER:** Certain projects are required to provide signal controlled entry, the operations of which must be verified by the Irvine Police Department prior to occupancy, see Inspection Record Card for scheduling information.

- **PEX PIPING.** Per 604.1.2 of the California Plumbing Code PEX piping in new construction shall be flushed twice. The pipe system shall be first flushed for at least 10 minutes and then filled and allowed to stand for no less than 1 week, after which all the branches of the pipe system must be flushed long enough to fully empty the contained volume. This provision shall not apply to the installation of PEX pipe where it replaces an existing pipe system of any material.
 Upon completing the first flush and filling of the piping for the second flush, removable tags shall be applied at each fixture or if prior to setting fixtures at each hose bib and main shut-off valve. Tags shall state the following:

“This new plumbing system was first filled and flushed on _____ (date) by _____ (name). The State of California requires that the system be flushed after standing at least one week after the fill date specified above. If this system is used earlier than one week after the fill date, the water must be allowed to run for at least two minutes prior to use for human consumption. This tag may not be removed prior to the completion of the required second flushing, except by the building owner or occupant.”

IMPORTANT NOTE: A building may not be occupied or pass final inspection without having first complied with the above described flushing protocol.

- WEEP SCREED: 2512.1.2 of the California Building Code requires weep screed at or below the foundation plate line on all exterior stud walls and at least 4 inches above the earth or 2 inches above paved areas. Since residential paving is often installed without prior inspection of line and grade, it is important to check layouts prior to asphalt or concrete placement or run the risk of being required to redo work.
- DIAPHRAGM NAILING: American Wood Council Special Design Provisions for Wind and Seismic sections 4.2.7.1.1 and 4.2.7.1.2 require 3-inch nominal or thicker framing as follows:
 - Nail spacing is 2-1/2 inches or less at adjoining panel edges for “Blocked” diaphragms.
 - 10d nails are spaced at 3 inches or less at adjoining panel edges for “Blocked” diaphragms.
 - At boundaries and adjoining panel edges for “High Load Blocked” diaphragms.
- SHEAR WALL NAILING: American Wood Council Special Design Provisions For Wind and Seismic section 4.3.7.1 requires 3-inch nominal or thicker framing as follows:
 - Nail spacing is 2 inches or less at adjoining panel edges.
 - 10d nails are spaced at 3 inches or less at adjoining panel edges.
 - The nominal unit shear capacity on either side of the shear wall exceeds 700 plf.
- ANCHOR BOLT WASHERS: Section 2308.3.2 of the California Building Code requires that shear wall sill plates to be anchored with anchor bolts with steel plate washers between the foundation sill plate and the nut, or approved anchor straps load rated in accordance with Section 2304.10.3. Such washers shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16 inch (4.76 mm) larger than the bolt diameter and a slot length not to exceed 1-3/4 inches (44 mm), provided a standard cut washer is placed between the plate washer and the nut.
- INFORMATIONAL ATTACHMENTS AND FORMS The following are attached for your convenience. Attachments with an asterisk (*) are to be removed and posted in the jobsite construction trailer.

IMPORTANT NOTE: A complete and updated set of Information Bulletins may be accessed online by visiting www.cityofirvine.org, then clicking successively on Government, Community Development, Building and Safety, Building and Safety, Informational Bulletins, or:

www.cityofirvine.org/community-development/informational-bulletins

1. [Prohibited Signs and Banners;](#)
2. [Information Bulletin 181, Concrete Placement In Foundations and Floor Slabs;](#)
3. [Information Bulletin 185, Wall and Fence Requirements](#)

4. [Information Bulletin 250, Roof Slope and Certification Requirements;](#)
5. [Information Bulletin 251, Structural Observation Certification Requirements by Licensed Professional For The Construction Of All New Buildings, and Program and Report Forms \(Information Bulletin 251.1\);](#)
6. [Information Bulletin 272, Electric Meter Releases for Residential Dwellings;](#)
7. [Information Bulletin 296, Domestic Clothes Dryer Moisture Exhaust Duct Length Limitations;](#)
8. [Information Bulletin 302, Survey Requirements to Establish Require Property Line Setbacks;](#)
9. [Information Bulletin 309, System 800 mHz Countywide Coordinated Communication, and Testing and Acceptance Procedure and Certification-Public Safety Radio System Coverage \(800 mHz\);](#)
10. [Information Bulletin 311, Requirements for Fabrication Approval;](#)
11. [Information Bulletin 322, Pressure Relief Valves in Lieu of Expansion Tanks;](#)
12. [Information Bulletin 323, Fire Resistance Rating and Protection Requirements for Building Elements;](#)
13. [Information Bulletin 324 Installation of Lathing for Exterior Portland Cement-Based Plater \(Stucco\) for Residential Buildings.](#)
14. [Information Bulletin 325, Mechanical Vent and Exhaust Terminations Prohibition at Zero Lot Lines, Yard Easements and Exclusive Common Elements.](#)
15. [Information Bulletin 326, Early Gas Meter Release](#)
16. [City of Irvine Calendar of Federal Holidays and Closed for Business Days;](#)
17. [Construction Site Security General Requirements;](#)
18. [Field Documentation Transmittal, Permit Close-Out;](#)
19. [City of Irvine-Single Family Electrical Calculation Sheet \(form 66-108\);](#)
20. [Subcontractor List, first two sheets only \(form 43-19\);](#)
21. [Project Contact Information Form](#) (Upon completion, to be retained by the building inspector);
22. [Construction Traffic Placard \(*\)](#);
23. [Construction Work Hour Placard \(*\)](#)