


MEMORANDUM

TO: Staci Hulseberg, Planning & Development Director
FROM: Joe Kvapil, Building and Zoning Official 
CC: Terry Burghard, Interim Village Manger
DATE: June 20, 2011
SUBJECT: COD Site Observation Report Review
HSC, CHC and BIC/SRC/SSC Building Projects

I reviewed the information on three CD's dated 6/9/11 that contained field observation reports completed during the construction of these three projects as well as some review correspondence and the engineering plans for the fire sprinkler and fire alarm systems. With the receipt of these fire sprinkler and fire alarm system plans and the prior receipt of the 100% complete construction plans and specifications marked "issued for construction", we now have all the plans and specifications that would normally be submitted for a building permit plan examination.

Since these projects were not submitted for building permits, no formal and complete plan examinations have been conducted by independent certified plan examiners retained by the Village. COD has retained other well established architectural and consulting firms to conduct a "peer" review of the construction plans. The architectural firm of Legat Architects prepared the plans for the HSC and reviewed the plans prepared by Loebel Schlossman & Hackle for the SRC/BIC/SSC. The architectural firm of DeStefano + Partners reviewed the plans prepared by Legat Architects for the HSC and the plans prepared by Loebel Schlossman & Hackle for the CHC. The fire protection consulting firm of Rolf Jensen & Associates reviewed the fire sprinkler and fire alarm engineering plans prepared by the contractors for all three projects.

We have received a plan review document dated 4/15/10 prepared by DeStefano + Partners for the HSC, a plan review document dated 5/31/10 prepared by DeStefano + Partners for the CHC, and a plan review document dated 10/1/10 prepared by Legat Architects for the SRC/BIC/SSC. We also received a plan review document prepared by Rolf Jensen & Associates for each of the three projects. The "peer" review firms are retained by COD and should not be considered independent certified plan examiners. Typically for projects of this size, the plan examination process goes through several editions of reviews, rejections, revisions and resubmittals until approved. We have only received what appears to be the initial plan review document without any resubmittals or final plan review approval confirmation.

Since these projects were not submitted for building permits, no construction inspections have been completed by independent certified inspectors retained by the Village. COD has retained the same design professionals who prepared the construction documents for each project to conduct site observations. These site observation reports should not be considered code compliance inspections conducted by independent certified construction inspectors. An example of a site observation report from each design professional for each project is attached to this

memo. These design professionals prepared the site observation reports included on these three CD's as follows:

HSC Project:

Legat Architects	general building	6/10 - 4/11	55 reports
Larson Engineering	structural	7/10 -11/10	2 reports
Amsco	mechanical & electrical	2/10-3/11	15 reports
Testing Service Corporation	soil/concrete/steel	5/10-5/11	30 reports
V3	site utilities/improvements	5/10-3/11	24 reports

CHC Project:

Loebl Schlossman & Hackle	general building	7/10 - 6/11	54 reports
Bowman, Barret & Assoc.	structural	7/10 -9/10	3 reports
WMA Engineers	mechanical & electrical	2/10-3/11	9 reports
Testing Service Corporation	soil/concrete/steel	5/10-5/11	38 reports
V3	site utilities/improvements	5/10-3/11	29 reports

BIC/SRC/SSC Project:

Loebl Schlossman & Hackle	general building	5/09 - 5/11	73 reports
KJWW	structural/mech/elec	6/09 -4/11	41 reports
Testing Service Corporation	soil/concrete/steel	6/09- 5/11	45 reports
V3	site utilities/improvements	11/09-2/10	6 reports

The ICC 2003 IBC Section A101.3 establishes the minimum qualifications for a plan examiner and a construction inspector which includes at least 5 years related experience and certification through a recognized certification program for the appropriate trade (Attachment A). ICC 2003 IBC section 109.4 authorizes the building official to accept reports of approved inspection agencies provided such agencies satisfy the requirements as to qualifications and reliability (Attachment B). No confirmation has been received from COD that these design professionals meet these code requirements. The Village retains B&F Technical Code Services, Inc. to conduct plan examinations and construction inspections with ICC certified inspectors (Attachment C).

Site observation visits conducted by design professionals are not equivalent to code required construction inspections conducted by certified inspectors for several reasons:

1. In accordance with standard AIA construction and design contracts, the principal purpose of site observations is to monitor the progress and quality of the work but also to "endeavor to guard the owner against defects and deficiencies in the work" and determine if the work is generally completed in accordance with the construction documents. Therefore, the purpose of site observations is different than building safety inspections, which are to confirm that actual construction conforms to building code regulations. The commentary to AIA Document B141, owner-architect agreement, states that inspections are more thorough and comprehensive than the observations made during normal site visits (Attachment D).
2. ICC 2003 IBC Sections 109.1 and 109.6 requires that the work be inspected in sequence so that all work is exposed and accessible for inspection before it is concealed and that no work is permitted beyond any uninspected or unapproved work (Attachment E). The site observation reports do not appear to have been conducted in any established sequence or

when requested by the contractors which may result in work that becomes concealed and not inspected.

3. Construction inspection reports identify noncompliant code conditions, cite the appropriate code section and call for a required reinspection. These essential inspection elements were not consistently evident in the observation reports. I did not discover even one example of a cited code section. Recommendations were made in the observation reports for corrective actions but follow up dates or reinspection of the condition was not consistently noted. Completion of most of the corrective work identified in the site observation reports can not be confirmed.
4. Plan reviews and construction inspections conducted by local authorities is the normal and accepted standard construction industry practice. This insures independent third party oversight, free from any influence that may be exerted by the owner upon the design professionals he employs. While the owner's design and construction team may be composed of highly qualified and ethical professionals, independent third party oversight provides reasonable and necessary assurance that the structure has been constructed in a method that results in the safest environment for the occupants.

ICC 2003 IBC Section 110.2 requires that the building official conduct inspections of a building and upon finding no violations issue a certificate of occupancy. No construction inspections have been completed by the Village, and COD's design professionals have not requested or been granted designation as approved inspection agencies in accordance with ICC 2003 IBC section 109.4. In addition, no plans have been submitted for permits (a courtesy copy of the "issued for construction" plans has been received) or reviewed and approved by certified examiners, and no building permits have been issued. Accordingly, as the building official, I cannot issue a certificate of occupancy for any of these three building projects.

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APPENDIX A

EMPLOYEE QUALIFICATIONS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION A101 BUILDING OFFICIAL QUALIFICATIONS

A101.1 Building official. The building official shall have at least 10 years' experience or equivalent as an architect, engineer, inspector, contractor or superintendent of construction, or any combination of these, five years of which shall have been supervisory experience. The building official should be certified as a building official through a recognized certification program. The building official shall be appointed or hired by the applicable governing authority.

A101.2 Chief inspector. The building official can designate supervisors to administer the provisions of the *International Building, Mechanical and Plumbing Codes, International Fuel Gas Code*, and the *ICC Electrical Code*. Each supervisor shall have at least 10 years' experience or equivalent as an architect, engineer, inspector, contractor or superintendent of construction, or any combination of these, five years of which shall have been in a supervisory capacity. They shall be certified through a recognized certification program for the appropriate trade.

A101.3 Inspector and plan examiner. The building official shall appoint or hire such number of officers, inspectors, assistants and other employees as shall be authorized by the jurisdiction. A person shall not be appointed or hired as inspector of construction or plan examiner who has not had at least 5 years' experience as a contractor, engineer, architect, or as a superintendent, foreman or competent mechanic in charge of construction. The inspector or plan examiner shall be certified through a recognized certification program for the appropriate trade.

A101.4 Termination of employment. Employees in the position of building official, chief inspector or inspector shall not be removed from office except for cause after full opportunity has been given to be heard on specific charges before such applicable governing authority.

SECTION A102 REFERENCED STANDARDS

IBC-03	<i>International Building Code</i> —A101.2
IMC-03	<i>International Mechanical Code</i> —A101.2
IPC-03	<i>International Plumbing Code</i> —A101.2
IFGC-03	<i>International Fuel Gas Code</i> —A101.2
ICC EC-03	<i>ICC Electrical Code</i> —A101.2

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permit from the payment of other fees that are prescribed by law.

108.6 Refunds. The building official is authorized to establish a refund policy.

SECTION 109 INSPECTIONS

109.1 General. Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

109.2 Preliminary inspection. Before issuing a permit, the building official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed.

109.3 Required inspections. The building official, upon notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.10.

109.3.1 Footing and foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

109.3.2 Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

109.3.3 Lowest floor elevation. In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the building official.

109.3.4 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

109.3.5 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before

any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

109.3.6 Fire-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved.

109.3.7 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation R and U values, fenestration U value, duct system R value, and HVAC and water-heating equipment efficiency.

109.3.8 Other inspections. In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building safety.

109.3.9 Special inspections. For special inspections, see Section 1704.

109.3.10 Final inspection. The final inspection shall be made after all work required by the building permit is completed.

109.4 Inspection agencies. The building official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

109.5 Inspection requests. It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

109.6 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

SECTION 110 CERTIFICATE OF OCCUPANCY

110.1 Use and occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

110.2 Certificate issued. After the building official inspects the building or structure and finds no violations of the provi-



Commercial, Industrial and Residential Inspections

From footing to occupancy, or anywhere between, B & F Technical Code Services, Inc. provides inspection services for structural, plumbing, mechanical, electrical and fire suppression (sprinkler) systems. We conduct inspections for new and existing construction of commercial, industrial and single-family homes. Inspections are based on the adopted codes of the municipality, including local amendments and standard industry practices.

Inspectors:

B & F Technical Code Services, Inc.'s inspectors are experienced, certified and/or qualified and licensed where applicable to perform inspections.

Scheduling:

Inspections may be scheduled directly with our office by the contractor, site foreman or the municipality between the hours of 8:30 a.m. and 4:00 p.m. Our inspectors arrive at your municipality for instructions or at the assigned job site. If more than one inspection is required, a list of inspections should be submitted to our office in advance for proper scheduling and inspector coordination.

Inspection Results:

Upon completion of our inspection, we inform the contractor or foreman on site of the inspection results. Notification is issued in the form of a written field report with the original inspection report submitted to the municipality.

Vehicles and Inspection Equipment:

B & F Technical Code Services, Inc. provides our inspectors with vehicles for transportation to job sites. However, when inspection services are required on a daily basis, the city/village may provide a municipal-owned vehicle, if available. We also provide our inspectors with all equipment needed to perform the inspection.

Worker's Compensation and Liability Insurance:

All B & F Technical Code Services, Inc. inspectors are covered by our Worker's Compensation Insurance. We also carry full Professional Liability Insurance, and the

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CP #8-03 CERTIFICATION PROGRAM

Approved: 1/17/04
Revised: 3/21/09

This policy establishes the ICC Certification Program and sets forth its mission, objectives and organization.

- 1.0 **Name:** The program shall be known as the International Code Council Certification Program, hereinafter referred to as the "Program".
- 2.0 **Mission and Objectives of the Program:**

The mission of the program is to promote professionalism in construction-related occupations by providing professional examinations and certification services that enhance code administration or safety of the built environment worldwide.

Objectives of the program are the following:

 - 2.1 Provide examinations that state and local jurisdictions, for employment or licensure purposes, can rely upon as evidence of an individual's knowledge of construction regulatory codes, standards, and practices that are necessary for competent professional practice.
 - 2.2 Provide the means by which individuals can achieve certification in order to demonstrate their knowledge of various construction regulatory codes, standards, and practices.
 - 2.3 Establish credentialing standards to include occupational job titles, detailed descriptions of each certification category, task lists, and knowledge, skills and abilities requirements.
 - 2.4 Adhere to ICC's Certification Program Standards that govern test development, validation, test administration, and other activities, such as eligibility requirements and certification maintenance.
 - 2.5 When appropriate, utilize third-party accreditation services to evaluate the quality of the program.
 - 2.6 Establish, maintain and publish an International Registry of ICC Certified Professionals.
 - 2.7 Promote international recognition of ICC Certifications.
- 3.0 **Organization:** ICC shall establish: (1) The Board for International Professional Standards; (2) Examination Development Committees; and (3) Examination Advisory User Groups.

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About Code Council Certification

The Code Council certification program is the oldest, largest, and most prestigious credentialing program for construction code administration and enforcement professionals in the United States. Code Council certification examinations are maintained to the highest standards and include continuous review by committees of experienced professionals.

Becoming Code Council-certified is a significant personal and professional accomplishment, and is a key step toward enhanced professional stature. Code Council certificate holders demonstrate a confirmed commitment to protect the public health, safety, and welfare.

Many building departments and state agencies that regulate code enforcement personnel recognize Code Council certification. However, the Code Council cannot guarantee that a specific governmental agency will accept or recognize a Code Council certification. You should first contact the applicable agency regarding specific licensing and employment requirements.

Certification and examination information, including registration/scheduling requirements, dates, locations, fees, and references, are subject to change. **Candidates should make sure they have the most current information before registering for/scheduling a Code Council examination by going to www.iccsafe.org/inspector.**

Code of Ethics

It is the policy of the Board that each active certificate holder shall agree in writing to comply with the following Code of Ethics; and shall agree that failure to comply shall subject their certification to suspension or revocation by the Board:

The protection of life, health, and property is a solemn responsibility of the highest order. Recognizing the public's trust bestowed upon individuals engaged in the administration and enforcement of building codes, the International Code Council advocates commitment to a standard of professional behavior that exemplifies the highest ideals and principles of ethical conduct. The governing concepts embodied in this philosophy are characterized herein below, for the benefit and guidance of those so engaged, and for the enlightenment of the public so served.

The Code Council-certified individual shall:

- *Place the public's welfare above all other interests and recognize that the chief function of government is to serve the best interest of all the people.*
- *Demonstrate integrity, honesty and fairness in all transactions and constantly strive for excellence in all matters of ethical conduct.*
- *Recognize the continuing need for developing improved safety.*
- *Maintain professional competence in all areas of employment responsibility and encourage the same for all associates at all levels.*
- *Accept no personal favors for public services rendered and conscientiously avoid all circumstances that could compromise professional integrity.*

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*Boldface in document
added for clarity.*

As an architect, your role is to represent, advise, and consult with the owner to the extent permitted in this agreement.

► Your obligation to represent, advise, and consult with the owner (as part of Basic Services) will remain in effect for the time period defined in Subparagraph 2.6.1.

This is different from "periodic" visits, which implies definite and equal time intervals between visits regardless of project requirements. Sound professional judgment should determine the timing and number of visits to the site in accordance with the type and nature of the project and other contractual commitments.

■ When site visits are limited without regard to project requirements, there can be an increased risk of problems. As a general matter, it is in the best interests of both you and your client for you to be retained and compensated to make what is, in your judgment, an adequate number of site visits.

The architect has no duty to be at the site full time (unless specifically contracted for), to make detailed inspections, or to direct the contractor's workers. An important goal of the architect's service during the construction phase is to represent the owner's interests by exercising due professional care in reviewing the contractor's efforts and reporting what has been observed. This enables the owner and architect to enforce the owner's rights under the owner-contractor agreement.

► It is generally preferable that you make written reports on site visits and give copies to the owner and, as necessary, the contractor. Such reports should be objective and fair. They should not include gratuitous or unsubstantiated comments.

2.6.4 The Architect shall be a representative of and shall ~~consult~~ with the Owner (1) during construction until final payment to the Contractor is due, and (2) as an Additional Service at the Owner's direction from time to time during the correction period described in the Contract for Construction. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement unless otherwise modified by written instrument.

2.6.5 The Architect shall visit the site ~~at intervals appropriate to the stage of construction or as otherwise agreed by the Owner and Architect in writing to become generally familiar with the progress and quality of the Work completed and to determine in general if the Work is being performed in a manner indicating that the Work when completed will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of on-site observations, as an architect, the Architect shall keep the Owner informed of the progress and quality of the Work, and shall endeavor to guard the Owner against defects and deficiencies in the Work. (More extensive site representation may be agreed to as an Additional Service, as described in Paragraph 3.2.)~~

2.6.6 The Architect shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract for Construction. ~~The Architect shall not be responsible for the Contractor's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.~~

2.6.7 The Architect shall at all times have access to the Work wherever it is in preparation or progress.

2.6.8 Except as may otherwise be provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall communicate ~~through the Architect.~~ Communications by and with the Architect's consultants shall be ~~through the Architect.~~

2.6.9 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect shall review and ~~certify~~ the amounts due the Contractor.

2.6.10 The Architect's ~~certification for payment~~ shall constitute a representation to the Owner, based on the Architect's observations at the site as provided in Subparagraph 2.6.5 and on the data comprising the Contractor's Application for Payment, that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, quality of the Work is in accordance with the Contract Documents. ~~The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment shall further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or~~

- Cross Reference
- ▶ Practice Pointer
- Liability Alert

quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

2.6.11 The Architect shall have authority [redacted] which does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable for implementation of the intent of the Contract Documents, the Architect will have authority to [redacted] of the Work in accordance with the provisions of the Contract Documents, whether or not such Work is fabricated, installed or completed. [redacted]

2.6.12 The Architect shall review and [redacted] or take other appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action shall be taken with such reasonable promptness as to cause no delay in the Work or in the construction of the Owner or of separate contractors. [redacted]

[redacted] Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems designed by the Contractor, all of which remain the responsibility of the Contractor to the extent required by the Contract Documents. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. When professional [redacted] of performance characteristics of materials, systems or equipment is required by the Contract Documents, the Architect shall be entitled to rely upon such certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents.

2.6.13 The Architect shall [redacted] with supporting documentation and data if deemed necessary by the Architect as provided in Subparagraphs 3.1.1 and 3.3.3, for the Owner's approval and execution in accordance with the Contract Documents, and may authorize minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time which are not inconsistent with the intent of the Contract Documents.

2.6.14 The Architect shall conduct [redacted] to determine the date or dates of Substantial Completion and the date of final completion, shall receive and forward to the Owner for the Owner's review and records written warranties and related documents required by the Contract Documents and assembled by the Contractor, and shall issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.

These certifications may be required when parts of the project are being provided by the contractor on a design/build basis. To cite two examples, this frequently happens with mechanical systems and with pre-engineered roof trusses. This sentence makes it clear that once the contractor has submitted proper professional certificates to the effect that performance criteria are being met, the architect can rely on these certifications.

- The difference between a *change order* and a *construction change directive* is described in AIA Document A201 and in Handbook chapter 2.8, Construction Contract Administration.

Preparing the actual change order form, or construction change directive form, is part of the architect's basic services. However, if supporting documentation and data (whether drawings, specifications, or otherwise) are required, the services related thereto are contingent additional services.

- ▶ Under Subparagraph 3.1.1, the owner should be notified in advance of performance that such services are, in the architect's opinion, required.
- ▶ It is generally preferable to have a written sign-off from the owner, stating agreement with the intended order, and a similar written sign-off from the contractor to the effect that no change in contract price or time is, in fact, required.
- Subparagraph 2.6.17 deals with esthetic effects, while Subparagraph 3.3.3 is concerned with change orders and construction change directives.

Under this agreement, the architect makes only two inspections—one to determine the date of substantial completion and one to determine the date of final completion of the project.

■ Inspections are more thorough and comprehensive than the observations made during normal site visits. The word *inspection* does not inherently create liability problems, but it does imply a higher standard of care. Problems typically arise when an architect says that an inspection was done but, in fact, only observations were made. It is advisable to use terminology appropriate to the services being performed.

- Subparagraph 2.6.5 on normal site visits.

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permit from the payment of other fees that are prescribed by law.

108.6 Refunds. The building official is authorized to establish a refund policy.

SECTION 109 INSPECTIONS

109.1 General. Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

109.2 Preliminary inspection. Before issuing a permit, the building official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed.

109.3 Required inspections. The building official, upon notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.10.

109.3.1 Footing and foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

109.3.2 Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

109.3.3 Lowest floor elevation. In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the building official.

109.3.4 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

109.3.5 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before

any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

109.3.6 Fire-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved.

109.3.7 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation *R* and *U* values, fenestration *U* value, duct system *R* value, and HVAC and water-heating equipment efficiency.

109.3.8 Other inspections. In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building safety.

109.3.9 Special inspections. For special inspections, see Section 1704.

109.3.10 Final inspection. The final inspection shall be made after all work required by the building permit is completed.

109.4 Inspection agencies. The building official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

109.5 Inspection requests. It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

109.6 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

SECTION 110 CERTIFICATE OF OCCUPANCY

110.1 Use and occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

110.2 Certificate issued. After the building official inspects the building or structure and finds no violations of the provi-