

**220831 EBIWG Assignment 1 Recommendations**  
**Prepared by Heather Anesta, PE, SE, MS, StS2**

**Relevant EBIWG Option Section:** Section V. Inspection Options

**Proposed:** NEW Option, to be added to Section V

**SB-4D & FBC Relevant Sections**, as currently written in Law & Code  
([https://www.floridabuilding.org/fbc/links\\_to\\_code\\_resources.html](https://www.floridabuilding.org/fbc/links_to_code_resources.html))

SB-4D Sections 553.899: (2)(a), (2)(b), (6), (7)(a), and (7)(b)

FBCB 2020 Supp 2 Sections 110.9: 2(a), 2(b), 6, 7.1, and 7.2

**Need for Recommendation:** (See end of document for Relevant Background Information)

The current SB-4D and FBCB language does not adequately trigger the Phase 2 inspection in such cases where the building conditions inherently prevent or obstruct an Inspector from reasonably assessing if there is Substantial Structural Deterioration during a Phase 1 visual, qualitative inspection. As currently written within SB-4D and FBCB, the Phase 1 Inspection is a visual, qualitative inspection, and the Phase 2 Inspection involves nondestructive and destructive testing, exploratory investigation, and a full assessment of the state of the building.

The current SB-4D and FBCB language only requires buildings to undergo a Phase 2 Inspection if the Phase 1 Inspection finds Substantial Structural Deterioration. Only those buildings which can be properly inspected by a visual, qualitative inspection are able to be evaluated sufficiently under the current Phase 1 & 2 process described in SB-4D & FBCB. There are common existing building conditions that the current Phase 1 inspection process will not be sufficient to ensure building safety, and therefore the current language needs to be amended in some manner to trigger a Phase 2 inspection in those instances.

Specifically, in cases where a building

- has insufficient/missing as-built plans,
- has undocumented prior repairs,
- has undocumented, recent application of paint/patching/cladding which would cover signs of distress, or
- significantly differs from the original structural intent (extra stories, removed columns, changes in use [live load], high dead loads from flooring or planters, discontinuous load path, etc),

a visual, qualitative Phase 1 inspection will not be sufficient or reliable for determining Substantial Structural Deterioration without further exploration, analysis, and/or testing (such as GPR and/or removal of drywall). For such cases, as currently written, the Phase 2 Inspection would need to be performed, and as such, such conditions must automatically trigger a Phase 2 Inspection.

This recommendation will adequately address this important issue without causing burden to the Phase 1 or 2 process. Addressing this recommendation is necessary in order to ensure that the milestone inspections continue to meet the intention of the currently language, and to ensure that the milestone inspections are sufficient to determine the structural integrity of a building.

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**Recommendation:** (FBCB 2020 S2 passages provided below and mirror the updates to SB-4D)

To ensure that the milestone inspections sufficiently determine the structural integrity of a building, the current wording of SB-4D 553.899(7)(a)&(b) and FBCB 2020 S2 110.9.7.1 and 110.9.7.2 need to be updated to trigger a Phase 2 inspection when there are building conditions which will inherently prevent or obstruct an Inspector from reasonably assessing if there is Substantial Structural Deterioration utilizing the Phase 1 visual, qualitative inspection, as described below.

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110.9.7. A milestone inspection consists of two phases:

110.9.7.1. For phase one of the milestone inspection, a licensed architect or engineer authorized to practice in this state shall perform a visual examination of habitable and nonhabitable areas of a building, including the major structural components of a building, and provide a qualitative assessment of the structural conditions of the building. If the architect or engineer finds no signs of substantial structural deterioration to any building components under visual examination, phase two of the inspection, as provided in Section 110.9.7.2, is not required. If any of the below conditions are present at the start of or over the course of the initial phase one inspection, then a phase two inspection per Section 119.9.7.2 is required.

- a. Absence of complete as-built plans
- b. Existing Structural Conditions which differ from and/or overload the original Structural Design Intent
- c. Discovery of Structural Design Defects
- d. Undocumented, Unsealed, and/or Unpermitted Prior Repairs
- e. Undocumented interior/exterior cladding/paint conditions prior to most recent application/installation
- f. Discontinuity of Load Path
- g. Repairs which require substantial shoring

An architect or engineer who completes a phase one milestone inspection shall prepare and submit an inspection report pursuant to Section 110.9.8.

110.9.7.2. A phase two of the milestone inspection must be performed if any substantial structural deterioration is identified during phase one and/or any of the items listed in 110.9.7.1 are present. A phase two inspection may involve destructive or nondestructive testing at the inspector's direction. The inspection may be as extensive or as limited as necessary to fully assess areas of structural distress in order to confirm that the building is structurally sound and safe for its intended use and to recommend a program for fully assessing and repairing distressed and damaged portions of the building. When determining testing locations, the inspector must give preference to locations that are the least disruptive and most easily repairable while still being representative of the structure. An inspector who completes a phase two milestone inspection shall prepare and submit an inspection report pursuant to Section 110.9.8.

110.9.8. Upon completion of a phase one or phase two milestone inspection, the architect or engineer who performed the inspection must submit a sealed copy of the inspection report with a separate summary of, at minimum, the material findings and recommendations in the inspection report to the condominium association or cooperative association, and to the building official of the local government which has jurisdiction. The inspection report must, at a minimum, meet all of the following criteria:

- (a) Bear the seal and signature, or the electronic signature, of the licensed engineer or architect who performed the inspection.
- (b) Indicate the manner and type of inspection forming the basis for the inspection report.
- (c) Identify any substantial structural deterioration, within a reasonable professional probability based on the scope of the inspection, describe the extent of such deterioration, and identify any recommended repairs for such deterioration.
- (d) State whether unsafe or dangerous conditions, as those terms are defined in the Florida Building Code, were observed.
- (e) Recommend any remedial or preventive repair for any items that are damaged but are not substantial structural deterioration.

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(f) Identify and describe any items requiring further inspection.

(g) Identify which, if any, conditions listed in Section 110.9.7.1 were present (phase one and phase two), and how they were addressed and/or remedied (phase two).

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**Relevant Background Material:**

The below information is provided for the convenience of the EBIWG Members.

The below is how I would define the above-listed qualities, for your consideration:

- 1. Absence of complete as-built plans**
  - a. The building does not have accessible, complete, legible structural, architectural, and civil as-built plans (including the delegated design plans)
- 2. Existing Conditions which differ from and/or overload the original Structural Design Intent**
  - a. The building is found to have been constructed in a manner that is not in accordance with the as-built structural plans, such as the presence of additional levels, changes to column grids and/or heights, and or renovations on any elevated level, interior or exterior, with a material that exceeds the original design load of that level, to include flooring, wall cladding, planters, decking, pavers, equipment, storage, and/or decorative elements.
- 3. Discovery of Structural Design Defects**
  - a. The review of the structural as-built plans reveals that there is no lateral system in each orthogonal direction of the building and/or its isolated frames, there is no designed or specified load path for the lateral system(s), and/or the structural design features obvious deficiencies based on the inspector's experience and knowledge.
- 4. Undocumented, Unsealed, and/or Unpermitted Prior Repairs**
  - a. The building has undocumented prior repairs (no photographs of conditions prior to repairs), unsealed prior repairs (no signed and sealed structural plans for repairs), and/or unpermitted prior repairs (no building permit and/or inspections of work for repairs). Such "repairs" include repairs of cracks, spalls, corrosion, exploratory work, and the building envelope.
- 5. Undocumented interior/exterior cladding/paint conditions prior to most recent application/installation**
  - a. The building has undergone interior or exterior cladding and/or paint application or renovation within 4 years of the milestone inspection, without photo/video documentation of the interior/exterior conditions during and prior to such application/renovation.
- 6. Discontinuity of Load Path**
  - a. The building is found to have discontinuity of load path of the main lateral and/or vertical system, including the connections, exterior walls, interior diaphragms, and/or foundations. Such "discontinuity" could be the result of damage, construction defects, and/or deterioration.
- 7. Repairs which require substantial shoring**
  - a. The repair of any "less than SSDet" resultant from Phase 1 which will require the use of vertical gravity shoring supporting a transfer level and/or more than one level of load, lateral shoring, and/or vertical tension shoring.

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**Relative definitions, provided for convenience:**

FBCB 2020 S2 Section 110.9.2(b) states that ““Substantial structural deterioration” means substantial structural distress that negatively affects a building’s general structural condition and integrity. The term does not include surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes unless the licensed engineer or architect performing the phase one or phase two inspection determines that such surface imperfections are a sign of substantial structural deterioration.”

FBCB S2 Section 110.9.6 requires that “Phase 1 be completed within 180 days (6 months) of the building receiving written notice of needing its milestone inspection.”