

July 27, 2022

Existing Building Inspection Workgroup
Florida Building Commission

Regarding: Recertification of Existing Buildings

Subject: “Substantial Structural Deterioration”

To Whom it Concerns:

I am a licensed PE with over 23 years’ experience doing structural engineering, building restoration engineering, inspections and more. I am also a special inspector.

Most of the restoration engineering work I do is with Condo buildings.

I was a part of the Surfside Working Group (SWG) and I am the current state president of the Florida Structural Engineers Association.

I am speaking on behalf of myself and no organization.

My apologies if there are typos or edits. I am tight on time, but I wanted to write something up on this topic as I hold a strong opinion on it. I have not had time to edit it thoroughly.

I am not in favor of the “Substantial Structural Deterioration” (SSD) language that is in SB-4D and that this be required to move to a Phase 2 inspection.

This language was not in the Surfside Working Group (SWG) document, and it was not in the original Senate bill. This language comes from the House, and it made it into the final bill...SB-4D.

We have been doing Phase 1 and Phase 2 inspections for years now in Broward and Miami-Dade County. The intent of doing two inspections (Phase 1 and Phase 2) instead of just one is to eliminate a thorough and expensive assessment to a building that may not need it. Because most engineers who do recertifications and building restoration engineering use the 2-phase approach, the SWG recommended that a less thorough, faster, and less expensive initial inspection (Phase 1) should be performed to determine if structural problems exist. This is to determine if the existing structure has been weakened over time.

If the structural engineer feels that the structure has not been weakened, then she/he passes the inspection (Phase 1), and the building is good until the next cycle.

If, however, the structural engineer feels that the structure has been weakened, then she/he fails the inspection (Phase 1) and repairs are needed to restore the building to its original state, as best as possible. The structural engineer then tells the client that a more thorough inspection (Phase 2) is needed to fully assess the damage and to prepare construction documents for repairs.

Additionally, a Phase 2 scope of work typically involves a full condition assessment, repair documents (i.e. specs and drawings) and a construction phase where the engineer does construction administration and special inspections. A Phase 2 involves repairs and a Phase 1 does not.

So, there’s a process to this engineering work and these are the steps that we currently follow.

However, this new “Substantial Structural Deterioration” language says that a Phase 2 is only needed if “Substantial Structural Deterioration” is found.

This is not necessary as a Phase 2 is triggered only if the experienced engineer finds that the structure has been weakened.

According to the new bill, *“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.*

This language is confusing as it changes a system we already have established.

1. There is a definition for SSD, but it is confusing. To me, “Substantial” implies serious problems. If a structural element has “substantial structural deterioration” is it at risk of failure? This what we are trying to avoid. I believe that the use of this wording will cause confusion will engineers and owners.
2. There may not be “substantial deterioration”, but the structural system might be weakened to a point where it needs restoration.
3. SSD does not include “surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes”. This makes no sense most of these might be related to a weakened structure.
4. Then SSD definition goes on to say “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.” So, what’s the point of using this language if there is an out. This is convoluted. This will cause confusion.
5. Another concern I have is that owners will try to use this “substantial” language as an out to not do work. I can see them shopping engineers until they find one that says their building does not have SSD.
 - a. For instance, say an engineer does a Phase 1 assessment and they find that the structure has been weakened, but the damage does not appear to be severe. This could be concrete spalls, or corroded steel column or a rotted wood beam.
 - b. The engineer says they need to do a Phase 2 now. The owner objects saying that they don’t feel the damage is “substantial”. It may not be appear to be substantial, but the system is weakened, and repairs are needed and therefore a Phase 2 is needed.
 - c. I have already had a condo tell me that they likely don’t need a Phase 2 as the damage is “minor”.

One has to understand what restoration engineers have been doing for years now to understand why the “substantial” language does not make sense.

My opinion is that the SSD language be removed. This language should read something like “if after the Phase 1 inspection is completed the engineer finds that the structural system has been weakened, then a Phase 2 inspection is required”.

Let’s let the experienced engineer determine what type of damage is present. And, this is the reasoning for having proper qualification requirements for the engineers doing this work.

Sincerely,



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