FLORIDA STRUCTURAL ENGINEERS ASSOCIATION



August 31, 2022

Existing Building Inspection Workgroup

Florida Building Commission

Regarding: Recertification of Existing Buildings

Subject: Comments to August 9th Meeting

EBIWG:

The following are FSEA's comments to the August 9, 2022 EBIWG meeting.

Summary

We agree with most of the content in SB-4 prepared by the Florida legislature, but we recommend the following changes:

- 1. The milestone inspection for recertification of inland buildings should remain as is currently stated in SB-4...30 years with re-inspections every 10 years thereafter. For structures within 3 miles of the coastline, we the prefer the 20-year milestone inspection and re-inspections every 7 years, as recommended by the Surfside Working Group (SWG). If this is not achievable, then a 25-year milestone inspection and with re-inspections every 10 years is the maximum acceptable timeframe. As an alternate, we would support a 25-year milestone for all buildings to simplify the enforcement efforts for the building departments.
- 2. SB-4 should add the following qualifications for the individuals performing the Phase 1 and 2 inspections: Phase 1: Licensed Architect or Engineer with experience designing the structural components of buildings and inspecting structural components of existing buildings. Phase 2: Licensed Architect or Engineer with a minimum of: (a) ten years of experience designing the primary structural components of buildings, and (b) a minimum of five years inspecting structural components of existing buildings of a similar size, scope, and type of construction.
- 3. We believe that only Special Inspectors who are ALSO Architects or Structural Engineers be permitted to perform these milestone inspections.
- 4. A Phase 1 inspection is the same as what is currently being done in Miami-Dade and Broward County.

Below is a more detailed description to the summary points above.

General Comments on Recertifications

Remember that a building recertification process has been in force for many years now in Broward and Miami-Dade County. Many engineers have been doing building recertifications and restoration engineering on these buildings for many years now.

We believe that the SWG did a great job of providing recommendations to improve the current system and we support those recommendations. The SWG used the existing recertification protocols as a base and provided recommendations to improve on a system that is in place and generally works.

The SWG provided significant input to assist with creating and passing SB-4 which was signed by the Governor. Based on the discussions during the call on August 9th, we believe that some of the EBIWG recommendations are not aligned with the SWG recommendations.

It is our opinion that the timing of the inspection and the person doing the inspection are the 2 most important components to recertifications. The SWG outlined a great plan for both of these items.

Timing Of Inspections

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FSEA has members with extensive building recertification and restoration engineering experience, and especially with concrete buildings exposed to a coastal salt air environment.

We believe that concrete buildings exposed to a coastal salt air environment start seeing concrete spalling at anywhere from 15 to 25 years of age. Once spalling starts, it does not stop. Similarly, once corrosion starts, it does not stop. From our experience, these buildings typically require repairs every 5 to 7 years.

Below are several concerning points provided by our members:

- 1. Our members have numerous examples of condo associations doing whatever possible to avoid spending money on repairs. Many condo associations will ignore repair recommendations due to a lack of financial resources which significantly exacerbates the problem.
- 2. In the last month, one member walked one of his projects with a local building official (BO) to show him the significant structural distress that the buildings are experiencing. As a result, the BO red-tagged all the buildings to ensure that repairs will occur. This was required, as some unit owners were trying to have the engineer <u>and</u> the Board removed. This was required for the owners to understand that repairs are needed and that his engineering recommendations were absolutely necessary.
- 3. Members have shared that a certain percentage of unit owners will completely deny that repairs are needed due to many reasons. However, the primary reason is <u>they don't want to spend</u> <u>money</u> on repairs. They will do and say whatever necessary to avoid spending money on repairs, regardless of the risk to their own safety and the safety of those who live in these buildings.
- 4. In the last month, one of our members said she met with another condo for an interview. They told her they already had a *contractor* do the structural condition assessment and they only needed the engineer to writeup the report for the new building safety requirements. She told them that the contractor's assessment didn't mean anything, and she couldn't use it.
- 5. One member shared that he once had another interview at a 12-story, 40-year-old concrete building in the Surfside area (not CTS). They were prepping to recertify the building. The building had serious concrete spalling, so he asked the board member doing the interview when they last did a major repair project. The board member told the engineer that they have never done a major repair project on the building.
- 6. Members have so many stories just like these, but too many to share here.

So, it's not new that some board members don't want to spend money to make repairs, but we need to ensure that all boards with buildings experiencing structural distress are forced to make repairs.

On August 9th the EBIWG discussed pushing the milestone inspection to 30 years for coastal properties. Many seemed to be in favor of this. While we could support a compromise of a 25-year milestone inspection and re-inspections every 10 years thereafter, as required by SB-4, we would highly prefer the 20-year milestone inspection with re-inspections 7 years thereafter, as proposed by the SWG.

This ensures 3 full repairs cycles prior to the 40-year mark (20, 27, & 34 years of age). More cycles means more redundancy and a better chance of preventing future failure.

SB-4 states that coastal buildings be recertified at 25 years and then every 10 years thereafter. Though not as thorough as the SWG's recommendations, it still provides 2 enforced repair cycles prior to 40 years of age, one at 25 and another at 35 years of age. This a fair compromise and an improvement to what currently exists in Broward and Miami Dade County.

Based on the above, we do not believe that a 30-year milestone inspection proposed by some at the last EBIWG meeting is adequate. This provides only one opportunity to inspect and where necessary repair the building prior to the 40-year mark. Though better than what we currently have, it is not a strong enough response to the collapse of Champlain Towers South. A catastrophic event requires a drastic change. Remember we must assume that this may be an unreceptive board that will not repair their building. This gives us one engineer, one contractor and one board to get it right prior to a known failure age.

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SWG, also says that inland properties should have a 30/10 schedule, and we believe that this is acceptable.

We understand that having more cycles based on building distance to the coastline creates more work for building departments, building officials and administrators. However, our #1 priority as professionals is to protect the public and changing the milestone inspections to anything more than 25 years due to reduced administrative work is not in the interest of the public.

Inspector Qualifications

Our members have seen engineers without much structural design or existing building evaluation/repair experience as EOR on structural restoration projects. They were not trained as structural PE's and this can be problematic. This is an area where we can improve the current recert program.

The professional with the most proper experience to oversee the restoration of previously engineered primary structural building components is a structural engineer. A structural engineer will understand what the original structural engineer designed and is best suited to oversee restoration of primary structural elements.

Most professionals, including architects, agree that structural engineers are the most qualified to perform Phase 1 and Phase 2 inspections. The SWG included architects in the discussion as there are a few architects (maybe literally) that do have structural design experience.

Special Inspectors vs. Structural Engineers

In general, SI's who are not structural engineers have very little structural design experience.

The new SI application program ensures that inspectors can get an SI license through tests. An SI license can be obtained by taking tests on inspections and not structural design.

Our members believe that many in this industry do not recognize this. The only person truly qualified to perform building recertifications is a structural engineer who has real structural design experience.

An SI can see if a column is spalled, but they may not understand the cause and the appropriate level of repair required. It is imperative that those performing building recertification inspections understand how the damage affects the structural strength.

The same applies to the new SI Limited license.

Naming System

During the call on August 9th, we realized that there's some confusion about what a Phase 1 and Phase 2 inspection is.

A Phase 1 is the same as what is currently being done in Miami-Dade and Broward County. If the Phase 1 fails then a more thorough inspection, a Phase 2, is required to fully assess the building.

Closing

We believe that the recommendations in the SWG document are on-point and should be followed closely.

Sincerely,

Carmelo Giglio, PE, SI FSEA State President, 2022

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