Broward County Board of Rules & Appeals Meeting Agenda

September 9, 2021
Time: 7:00 P.M.

ZOOM Webinar Info:
Join from a PC, Mac, iPad, iPhone or Android device:

UPDATED LINK:
https://broward-org.zoomgov.com/j/1604926502?pwd=MGl5czNtWTJ6UUdaQTF4d0pOUG5zQT09

Meeting ID: 160 492 6502
Passcode: 518218
One tap mobile
+16692545252,,1604926502#,,,,*518218# US (San Jose)
+16468287666,,1604926502#,,,,*518218# US (New York)

Dial by your location
+1 669 254 5252 US (San Jose)
+1 646 828 7666 US (New York)
+1 551 285 1373 US
+1 669 216 1590 US (San Jose)
Meeting ID: 160 492 6502
Passcode: 518218
Find your local number: https://broward-org.zoomgov.com/u/aiF6PEonq

Please do not use old URL to join:
https://broward-org.zoomgov.com/s/1617218464?pwd=cFp4L211MVJ1aXhGeEpMSCtNN1BTdz09

Call Meeting to Order

Roll Call

Approval of Agenda

Approval of Minutes – August 12, 2021

CONSENT AGENDA

1. **Certifications** - Staff Recommended.

CITY OF COOPER CITY
YOUNG, MARC STUART AMEER, CHIEF STRUCTURAL INSPECTOR

CITY OF FORT LAUDERDALE
DESIMONE, EMILIO, JR., STRUCTURAL INSPECTOR (TEMPORARY 120-DAYS)

CITY OF MIRAMAR
ACOSTA, HECTOR J., CHIEF MECHANICAL INSPECTOR
HILTON, ADAM, CHIEF PLUMBING INSPECTOR

CITY OF WEST PARK
TRINGO, DAVID, CHIEF ELECTRICAL INSPECTOR

COUNTYWIDE
HENSLEY, KACY R., STRUCTURAL PLANS EXAMINER
SIMPSON, DARRYL, STRUCTURAL PLANS EXAMINER
THOMPSON, TIMOTHY A., PLUMBING INSPECTOR

REGULAR AGENDA

2. **Local amendments for 2nd reading to include a public hearing.**
   Amendment to the Florida Building Code, 7th Edition (2020) Chapter 1, Section 118, entitled Emergency Responders Communications Enhancement System (ERCES).
   a. Staff report
   b. Board questions
   c. Public hearing
   d. Board action

3. **Director' s Report**
   a. Updates concerning the 40 Year Building Safety Inspection Program July 2019 audit, response date by 8-16-21
   b. Updates concerning the 40 Year Building Safety Inspection Program July 2020 audit, response date by 7-20-21
   c. Initial Survey regarding the 2020- 40 Year Building Safety Inspection Program, sent on May 24, 2021.

4. **Attorney's Report**

5. **Committee Report**

6. **General Board Members Discussion**

   a. Board member suggestions for the 40-Year Building Safety Inspection program.
   b. BORA staff suggestions for the 40-Year Building Safety Inspection program.

7. **Public Comment (3-minute limit per person) and written communications**

8. **Adjournment**

If a person desires to appeal any decision with respect to any matter considered at this meeting, such person will need record of the proceedings and, for this reason, such person may need to ensure that a verbatim record of the proceeding is made, which includes the testimony and evidence upon which the appeal is to be based (Sec. 286. 0105.FS). (Members: If you cannot attend the meeting, please contact Mr. DiPietro @ (954) 931-2393, between 6:00 p.m. & 7:00 p.m.)

Board Minutes
August 12, 2021

BROWARD COUNTY BOARD OF RULES & APPEALS
AUGUST 12, 2021
MEETING MINUTES

Call to Order
Chairman Daniel Lavrich called a published virtual meeting of the Broward County Board of Rules and Appeals to order at 7:12 p.m.

Present:

Daniel Lavrich, Chair
Stephen E. Bailey, Vice-Chair
Gregg D'Attile
Jeff Falkanger
John Famularo
Robert Kamm
Sergio Pellecer
David Rice
Daniel Rourke
Robert Taylor
David Tringo
Dennis Ulmer

A quorum was present.

Mr. Tringo made a motion and Mr. Kamm seconded the motion to approve the agenda posted. The motion carried by unanimous vote of 12-0.

Approval of Minutes – May 13, 2021

Mr. Rice made a motion and Mr. Taylor seconded the motion to approve the minutes as submitted. The motion carried by unanimous vote of 12-0.

CONSENT AGENDA

1. Certifications - Staff Recommended.

CITY OF DEERFIELD BEACH
SULLIVAN, LAWRENCE K., CHIEF ELECTRICAL INSPECTOR

CITY OF FORT LAUDERDALE
LAHENS, PHILLIPE, FIRE PLANS EXAMINER
GOLLAN, STEPHEN, FIRE PLANS EXAMINER

CITY OF HOLLYWOOD
CHEW, JOHN, STRUCTURAL INSPECTOR – PROVISIONAL
LONG, RUSSELL, BUILDING OFFICIAL

CITY OF LAUDERDALE LAKES
DEVEAUGH, PETE, CHIEF ELECTRICAL INSPECTOR
SANCHEZ, ROMAN, CHIEF MECHANICAL INSPECTOR

CITY OF LAUDERHILL
JOHNSON, SHENIQUA L., FIRE PLANS EXAMINER

CITY OF OAKLAND PARK
BENITOA, ANTONIO, CHIEF PLUMBING INSPECTOR
MARLOWE, EDWARD, FIRE INSPECTOR
RICHARDSON, PATRICK, CHIEF ELECTRICAL INSPECTOR

CITY OF PEMBROKE PINES
DESO, DAVID STANLEY, JR., CHIEF MECHANICAL INSPECTOR

CITY OF POMPANO BEACH
MAHLER, HAROLD, PLUMBING INSPECTOR (TEMPORARY 120-DAY)

CITY OF SUNRISE
ROBULOCK, CHRISTOPHER, CHIEF PLUMBING INSPECTOR

CITY OF TAMARAC
ANTINELLI, FRANK J., CHIEF ELECTRICAL INSPECTOR
PALACIOS, OTONIEL, CHIEF MECHANICAL INSPECTOR

COUNTYWIDE
ALBORES, ALEXANDER, STRUCTURAL PLANS EXAMINER
BROWER, JAMES, ELECTRICAL INSPECTOR
COPIL, KLAUS, STRUCTURAL PLANS EXAMINER
CORRALES, ALEJANDRO D., STRUCTURAL INSPECTOR
DESHARNAIS, GEORGE, JR., STRUCTURAL PLANS EXAMINER
DESO, DAVID STANLEY, JR., MECHANICAL INSPECTOR
DESO, DAVID STANLEY, JR., MECHANICAL PLANS EXAMINER
GARCIA, ERIC, MECHANICAL PLANS EXAMINER
MANSOR, SIMO, PLUMBING PLANS EXAMINER
NAGLER, FREDRIC, STRUCTURAL INSPECTOR
NAGLER, FREDRIC, STRUCTURAL PLANS EXAMINER
NEIBERG, JOEL D., STRUCTURAL PLANS EXAMINER – LIMITED
PENEVOLPE, ANTHONY J., MECHANICAL INSPECTOR
ROBULOCK, CHRISTOPHER, PLUMBING INSPECTOR
ROBULOCK, CHRISTOPHER, PLUMBING PLANS EXAMINER
RODRIGUEZ, ELMER, ELECTRICAL INSPECTOR
TEDIM, JOSE, MECHANICAL PLANS EXAMINER
THOMAS, JAMES F., STRUCTURAL PLANS EXAMINER

Mr. Tringo made a motion and Mr. Pellecer seconded the motion to approve the certifications as recommended. The motion carried by unanimous vote of 12-0.

REGULAR AGENDA

2. **Request of Mr. James Hollingsworth for a third extension of ninety days to close out open and ongoing permits**

a. Staff Report

Mr. Jack Morell, Chief Structural Code Compliance Officer, indicated this is the third extension request. Mr. Hollingsworth has given assurance that the permits will be completed by this requested September date. Mr. James DiPietro, Administrative Director, advised that there are only two open permits at this time.

b. Request of Mr. Hollingsworth
c. Board Questions
d. Board Action

Mr. D'Attile made a motion and Mr. Famularo seconded the motion to approve the requested extension. The motion carried by unanimous vote of 12-0.

3. **Local amendments for 1st reading**
Amendment to the Florida Building Code, 7th Edition (2020) Chapter 1, Section 118, entitled Emergency Responders Communications Enhancement System (ERCES)

a. Staff Report

Mr. Bryan Parks, Chief Fire Code Compliance Officer, indicated these amendments were recommended by the BDA Committee by a vote of 14-0. He went on to highlight the changes as presented in the agenda memorandum.

b. Board Questions - none
c. Public Comment - none

d. Board Action

Mr. Rice made a motion and Mr. Pellecer seconded the motion to approve the amendments on first reading as recommended. The motion carried by unanimous vote of 12-0.

4. **Formal Interpretation of the Florida Building Code, 7th Edition (2020), Existing Building, Sections 706.8 through 706.8.1.7 Windstorm Loss Mitigation, concerning the retrofitting roof to wall connections**

a. Staff Report

Mr. Jack Morell, Chief Structural Code Compliance Officer, noted this issue was raised at the May Board meeting by Board Member Giles-Nelson. He explained if the cost of the improvements for the roof to wall connections is greater than 15% of the cost of the re-roofing, improvements of the wall to roof connections are not required.

b. Board Questions

c. Board Action

Mr. Famularo made a motion and Mr. D'Attile seconded the motion to approve the interpretation as presented. The motion carried by unanimous vote of 12-0.

5. **Revision to Formal Interpretation that was initially effective on June 30, 2015, related to "recessed Low Height Air Handlers" for the Florida Building Code, 7th Edition (2020)**

a. Recommendation of Energy Committee

Mr. Rice indicated the Energy Conservation Committee voted unanimously to present this revision to the Board.

Mr. Tim de Carion, Chief Energy Code Compliance Officer, explained as the efficiency requirements of air conditioners increased, there became a problem with space. Replacement equipment would not fit. Pancake units were added an exception to the interpretation. They did not have to meet the efficiency requirements of the U.S. Department of Energy because of the space constraint. Some manufacturers have now introduced new units that meet the efficiency requirements within the existing spacing. Alternative methods are contained in the proposed revision if compatible equipment is not possible.

b. Board Questions - none

c. Board Action

Mr. Rice made a motion and Mr. D'Attile seconded the motion to approve the revision to Formal Interpretation #8 as recommended. The motion carried by unanimous vote of 12-0.

6. **Proposed Board of Rules and Appeals Residential Energy Guidelines for the 7th Edition (2020) of the Florida Building Code**

a. Recommendation of the Energy Committee

Mr. Rice outlined composition of the newly formed Energy Conservation Committee membership. One of the first tasks was to look at the residential codes. Almost every city had different interpretations. The proposed guidelines were developed and are being presented for approval. The guidelines themselves are not mandatory but each one cites a code section. The goal is uniform energy interpretation and enforcement.

Mr. Tim de Carion, Chief Energy Code Compliance Officer, indicated that building departments wanted guidelines. There are useful tools in the guidelines for developers in submitting plans. It will make that process smoother including plan review amongst the various disciplines. It will also facilitate Board of Rules and Appeals' staff in supporting the building departments and achieving uniformity.

b. Board Questions - none
c. Public Comment - none
d. Board Action

Mr. Rice made a motion and Mr. Tringo seconded the motion to approve the guidelines as recommended. The motion carried by unanimous vote of 12-0.

7. **Report regarding Florida Building Code, 7th Edition (2020), Chapter 1, Section 110.3.13, Virtual Inspections (adopted March 2021)**

a. Staff Report

Mr. Jack Morell, Chief Structural Code Compliance Officer, summarized the results of a survey (90-day trial period) on use of virtual inspections by Broward County building departments. Thirty jurisdictions have responded. Eleven are using virtual inspections. Eighteen are not and favor limiting such inspections to the categories approved by the Board of Rules and Appeals.

Ten are not in favor of virtual inspections whatsoever. Two reported difficulty using virtual inspections and nine reported no difficulty. Fifteen indicated inapplicable to the question of difficulty using virtual inspections. Ten reported no difficulty with using virtual inspections. Two indicated budget constraints. One commented that there should not be any restrictions on virtual inspections. One wanted to add pipe lining to the Board's list of virtual inspections.

b. Board Questions - none
c. Public Comment - none
d. Board Action

Mr. Tringo made a motion and Mr. Pellecer seconded the motion to accept the report. The motion carried by unanimous vote of 12-0.

8. **Updates to Board of Rules and Appeals Policy #21-01 entitled "Delegation of Board of Rules and Appeals authority to establish the number of employees working at one time, when physically at the office due to Covid-19 concerns, and to further establish written reporting requirements for employees who are working remotely."**

a. Director's Request

Mr. James DiPietro, Administrative Director, advised the update would be to increase the number of employees working at one time when physically at the office to 67% and the entire policy would end on September 30th.

b. Board Questions

In response to Mr. D'Attile, Mr. DiPietro explained that since the Board approved the initial policy it would be appropriate to request a Board vote for updates. In response to Mr. Rice, Mr. DiPietro indicated that the County has already brought all employees back, but the federal government has a date of September 15th in some cases.

c. Board Action

Mr. Rice made a motion and Mr. Famularo seconded the motion to approve the policy update as recommended. The motion carried by unanimous vote of 12-0.

9. **Disposition and Disposal of Personnel Records – Supplemental Documentation (Fiscal Year 1983-2013) and Disposal of Litigation Case File (Anniversary Year 1983-1984)**

a. Staff Report

Mr. DiPietro, Administrative Director, indicated that these are very old records. The State minimum retention required is far exceeded. The request will also be processed through the appropriate County department.

b. Board Questions

Mr. D'Attile felt this could be handled administratively. Mr. DiPietro and the remaining Board members had no objection.

c. Board Action – no action taken

10. **Director's Report**

Building Safety Inspection Program Audit

Mr. DiPietro advised that a communication was sent to building officials (before Champlain Towers) on May 24, 2021, inquiring about the status of the program. Twelve responses were received and as of today, there are twenty-three responses with nine not responding. In general response to the 2020 audit, which was the year of COVID, was poor. A decision was made to conduct a third audit for 2019 which was before COVID. In this audit all buildings were included along with eleven questions whereas in 2020, it was only six stories and higher. The deadline for the 2019 audit is August 16th, and that report will be provided to the Board next week. At the Board's September meeting, there will be recommendations on how to improve the current system.

Mr. Bailey asked about the Board's accountability. Chairman Lavrich noted that the initial inquiry was made in May. The program clearly indicates it is the cities' responsibility. It is unknown that the collapse of Champlain Towers had anything to do with this program or the building maintenance. Mr. Bailey indicated his question has to do with liability. Mr. Charles Kramer, Board Attorney, explained that the Board of Rules and Appeals' function is administrative oversight. The Board of Rules and Appeals is a governing body, not an enforcement one and it does not take a hand in performing these investigations. As far as individual or group liability, the answer is no. Moreover, there is sovereign immunity. The function is administrative, not operational.

Mr. Kamm raised an issue wherein there are electrical installations of 40 to 50 years ago that do not pose a safety hazard but also do not comply with current code. There are jurisdictions indicating the electrical installations must be replaced. Mr. DiPietro indicated that the intent of the program is to comply with the code at the time the structure was built. Mr. Ken Castronovo, Chief Electrical Code Compliance Officer, confirmed that to be accurate. The goal is safety. Chairman Lavrich pointed out that the Building Safety Inspection Program policy is very clear on this point.

11. **Attorney's Report** - none

12. **Committee Report**

Structural Committee meeting of July 12, 2021

Chairman Lavrich advised that a report was provided to the Committee concerning the Champlain Towers investigation status. The Miami-Dade Director of Board and Code Administration reported on what Miami-Dade is doing and what they knew at the time about the collapse. It is unknown why the collapse occurred. There is no evidence at this time that it had or did not have to do with the building's maintenance. The Committee was informed of the audit being conducted by the Board's staff. The Committee consensus was that no further action is warranted until there is more information available. He noted that he is participating in a committee formed by Broward County Mayor Geller relating to these issues. There will be additional meetings held. There will be a meeting next week in Palm Beach by the International Code Council (ICC) and he will be participating. He noted that along with the Administrative Director he had a virtual discussion with two City of Dallas, Texas, commissioners interested in the Board's Building Safety Inspection Program. For the ICC meeting next week, he received a proposal for a building safety inspection program in Palm Beach County that looked like exactly like the Broward County Board of Rules and Appeals' program.

13. **General Board Member Discussion**

14. **Public Comment (3-minute limit per person) and written communications**

Ms. Sheila Oliver, Building Official, City of Deerfield Beach, noted the difficulties with compliance with the Building Safety Inspection Program in 2019 because of COVID-19. The City of Deerfield Beach followed the original advisory opinion of the Board of Rules and Appeals' attorney, dated March 27th. As to tolling where the Governor issued an extension and it was not possible to expire permits, the advisory opinion clearly indicated that the Building Safety Inspection Program is similarly considered with respect to deadlines for compliance, extensions for compliance are permissible pursuant to written notice to the issuing authority of the intent to exercise tolling and the extension granted. However, some fifteen months later that same advisory opinion was revised on June 30th there is no mention of the Building Safety Inspection Program (Florida Building Code, Section 110.15) is similarly considered with respect to deadlines for compliance, and extensions for compliance are permissible pursuant to written notice to the issuing authority of the intent to exercise tolling and the extension granted. However, the revised opinion (June 30th) does not mention of the Building Safety Inspection Program and the four instances where tolling is statutory under Florida Statute. Further, the opinion states that based on review of case law and statute, tolling of time for compliance with FBC 110.15 is not permitted and reliance on any prior opinion should be addressed forthwith. Deerfield Beach followed the original opinion and on June 30th they were told it was never meant to mean that. However, the Governor's executive order had already expired, and they had already re-sent out letters to property owners who had not complied reminding them they had to comply. She questioned the position that cities were put in with the retraction fifteen months after the original opinion.

Mr. Charles Kramer, Board Attorney, advised that the initial advisory opinion was drafted with considerations to the Florida Building Commission. It was something being examined prior to the Champlain Towers collapse. When the error was discovered, it was republished. Expiration of the Governor's executive order had nothing to do with the revision. Until the opinion was revised, Deerfield Beach was in compliance in their actions. At this point, it is improper to rely on it. He assured her that Deerfield Beach is still considered to be in compliance based on the original advisory opinion. Mr. James DiPietro, Administrative Director, indicated it was not 15 months in that the Governor's tolling period was around March 9th to November 1st.

15. **Adjournment**

There being no further business, the meeting adjourned at 8:22 p.m.

_____

Daniel Lavrich, P.E. - Chair

Section 1

SEPTEMBER 9, 2021 BOARD MEETING
CERTIFICATIONS

CITY OF COOPER CITY
YOUNG, MARC STUART AMEER, CHIEF STRUCTURAL INSPECTOR

CITY OF FORT LAUDERDALE
DESIMONE, EMILIO, JR., STRUCTURAL INSPECTOR (TEMPORARY 120-DAYS)

CITY OF MIRAMAR
ACOSTA, HECTOR J. , CHIEF MECHANICAL INSPECTOR
HILTON, ADAM, CHIEF PLUMBING INSPECTOR

CITY OF WEST PARK
TRINGO, DAVID, CHIEF ELECTRICAL INSPECTOR

COUNTYWIDE
HENSLEY, KACY R., STRUCTURAL PLANS EXAMINER
SIMPSON, DARRYL, STRUCTURAL PLANS EXAMINER
THOMPSON, TIMOTHY A., PLUMBING INSPECTOR

Section 2

NOTICE OF PUBLIC HEARING

Notice is hereby given by the Broward County Board of Rules and Appeals that said Board will hold a public hearing starting at 7:00 p.m. on September 9, 2021, Via Zoom. The Board will consider amending in second reading the Florida Building Code, 7th Edition (2020) Chapter 1, Section 118 entitled Emergency Responders Communications Enhancement System (ERCES).

The effective date for the amendment listed is September 20, 2021.

Zoom information:

Please click this URL to join:
https://broward-org.zoomgov.com/s/1617218464?pwd=cFp4L211MVJ1aXhGeEpMSCtNN1BTdz09

Passcode: 586314

Or One tap mobile:
+16692545252,,1617218464# US (San Jose)
+16468287666,,1617218464# US (New York)

Or join by phone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 254 5252 or +1 646 828 7666 or +1 551 285 1373 or +1 669 216 1590
Webinar ID: 161 721 8464

A copy of the proposed code changes is available for review at 1 N. University Drive, Suite 3500B, Plantation, Florida 33324. We can email you a copy. Call (954) 765-4500.

Dated this 28th day of August 2021

8/29/20217028228

Order # - 7028228

BROWARD COUNTY

Board of Rules & Appeals

1 North University Drive, Suite 3500B, Plantation, Florida 33324

To: Members of the Broward County Board of Rules and Appeals

From: Administrative Director

Date: September 9 , 2021

Re: Building Code Amendment for 1st reading to the Florida Building Code, 7th Edition (2020) Chapter 1, Section 118, entitled Emergency Responders Communications Enhancement System (ERCES).

RECOMMENDATION

It is recommended by the Board of Rules and Appeals' Committee to Address Uniform Procedures for Installation of Bi- Directional Amplifiers (BDAs) by a vote of 14 to 0 in favor request the Board to amend Chapter 1, Section 118 during its regular meeting of September 9 , 2021.

REASONS

In response to the renaming of NFPA 1221, (2016), the State creating a new licensing category and a directive from DBPR and State Fire Marshal it is the belief of the BDA Committee that the new code section will clarify and provide ease of application.

ADDITIONAL INFORMATION

Letter from DBPR and State Fire Marshal regarding elevators hoist ways.

Respectfully submitted,

James DiPietro

cc.: Bryan Parks, Fire Chief Code Compliance Officer

Section 118 Emergency Responders Communications Enhancement Systems (ERCES) ~~Two-Way Radio Communication Enhanced Public Safety Signal Booster Systems~~

118.1 General.

118.1.1 The Two-Way Radio Communication Enhancement Public Safety Signal Booster System shall be installed as per NFPA 1-11.10, NFPA 70, and NFPA 72. Any such system installed on or after April 1st, 2016 shall be adaptable for both 700/800 MHz p25 (association of public safety communication officials, project 25).

118.1.2 The Authority Having Jurisdiction (AHJ), in Broward County, for the Two-Way Radio Communication Enhancement Public Safety Signal Systems has two (2) permitting entities and multiple frequency licenses as follows:

1. The Installation and Wiring shall comply with the local municipality Building and Fire Departments permitting process and shall be approved by the local and county FCC Licensee prior to installation.
2. The FCC Licensees are:

   Broward County ORCAT

   City of Coral Springs

   City of Fort Lauderdale

   City of Hollywood

   City of Plantation

118.1.3 The AHJ shall determine, if a new building or existing building shall require that a two-way radio communication enhanced public safety signal booster system be installed to comply with NFPA 1-11.10.1. The Building owner shall install a public safety signal booster to meet this requirement if so directed.

118.1.4 Design. For new buildings, a temporary, partial or certificate of occupancy shall not be issued until the AHJ determines that the building is in compliance with NFPA 1-11.10.1. It is recommended that the local Development Review Committee (DRC) notify the new building owner, architect, and engineers of this requirement in writing before the building is designed. At the time of BDA permitting, a design package, comprising of block level diagrams, materials submittals, coverage measurements and predictions are required. Sufficient and substantial engineering design and support information and data shall be submitted with the application. A sealed submittal from an Engineer, with verifiable training and experience in electrical engineering, shall also be required.

118.1.5 To the extent authorized by law, Distributed Antenna Systems Integrators with Public Safety and/or Communication installation and repair experience, as a sub-contractor in association with qualified electrical contractors, ~~and~~ Fire Alarm contractors~~,~~ or BDA Contractors may install or repair Two-Way Radio Communication Enhancement Systems. Should the contractor of record fail to have radio communications installation and repair experience with Distributed Antenna Systems, the contractor of record shall sub-contract the installation or repair of non-fire alarm function to a qualified company, having knowledge of Radio communications installation and repair.

118.2 Permit Documentation.

118.2.1 The following documentation shall be required for permitting a ~~"Two-Way Radio Communication Enhancement System":~~ "Emergency Responders Communications Enhancement Systems (ERCES)".

1. City and County FCC Licensee shall approve proposed installation of Two-Way Radio Communicating Enhanced Systems prior to installation in writing or by sealing documents submitted for review.
2. City and County written approval or sealed documents shall be provided to the local Fire Prevention Bureau office at the time of plan submittal and prior to plan review.
3. Plans shall comply with the current adopted editions of FBC 107, NFPA 1, 1.7, NFPA 70, and NFPA 72.
4. Sealed floor plans showing radio coverage for critical and general areas using industry standard radio frequency computer generated propagation modeling.
5. Schedule of signal strength as per NFPA ~~72~~ 1221 or as agreed to by the Fire Code Official in consultation with the FCC licensee in writing.
6. Schedule of the system radio frequencies or band of frequencies.
7. Notation that the system is upgradable for frequency band coverage changes including at a minimum both 700/800 MHz
8. Plans shall show that the BDA enclosure shall be painted red. A sign affixed next to or stenciling on the enclosure shall be provided in high contrasting letters over a red background, weatherproof plaque and shall include the following information:
   a) Fire Department Signal Booster.
   b) Permit Number: _____.
   c) Serviced by: Vendor name and telephone.
9. Elevator hoistways shall be deemed critical areas as stated in NFPA 1221 (2016) 9.6.7.4.

118.3 System Notifications.

118.3.1 The AHJ's for the FCC licensee and Broward County Office of Regional Communications and Technology (ORCAT) shall be notified in writing of the following events by the permit holder, the system vendor, and/or the building owner. The AHJ for the FCC Licensee shall approve the date and time and may request that the AHJ shall be present during the following events:

1. Initial system testing, with date and time start and finish.
2. Periodic system testing, with date and time start and finish.
3. System placed in operation with date and time.

118.4 Prior to the Initial Testing.

1. The vendor shall provide the system's settings prior to the initial system testing as accepted by the AHJ, FCC Licensee and ORCAT. The AHJ may ask for additional information prior to testing.
2. The system shall remain "off the air" until the initial testing with AHJ, FCC Licensee, ORCAT, and the Fire Code Official are ready to begin and provide their approval.

118.5 Annual Test.

118.5.1 In addition to the annual fire alarm test, an annual test and report, in compliance with NFPA 72 Chapter 14, shall be completed by a qualified company having the knowledge of RF installation with training and experience of two-way radio communication enhanced radio systems to ensure that the original installed system is still in compliance.

118.5.2 Annual Test Report. The annual test report shall be maintained with the fire alarm log book and copies shall be submitted to the local AHJ and to City and ORCAT for review. All problems found, with any corrective action(s), shall be noted in the test report, along with the name and license number of the Fire Alarm Contractor and sub-contractor Inspection Company.

118.6. System Monitoring and Maintenance.

1. Any Public Safety Signal Booster system installed in a premise shall be tied into a fire alarm system for monitoring.
2. In case of failure, the building owner shall be notified within two (2) hours and he/she shall cause to occur an inspection of the system. If a trouble condition is found the system shall be repaired within forty-eight (48) hours of notification. If such repair proves to be longer in time or impossible to perform, a notification to the Fire Marshal shall be made indicating the failure of the system, so that in case of emergency the system shall not be relied upon by the First Responders.

Any system installed shall have a service level agreement with a responsible company. Once the system is repaired the service company shall notify both the building owner and the fire marshal.

Section 118 Emergency Responders Communications Enhancement Systems (ERCES)

118.1 General.

118.1.1 The Two-Way Radio Communication Enhancement Public Safety Signal Booster System shall be installed as per NFPA 1-11.10, NFPA 70, and NFPA 72. Any such system installed on or after April 1st, 2016 shall be adaptable for both 700/800 MHz p25 (association of public safety communication officials, project 25).

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2. The FCC Licensees are:

   Broward County ORCAT

   City of Coral Springs

   City of Fort Lauderdale

   City of Hollywood

   City of Plantation

118.1.3 The AHJ shall determine, if a new building or existing building shall require that a two-way radio communication enhanced public safety signal booster system be installed to comply with NFPA 1-11.10.1. The Building owner shall install a public safety signal booster to meet this requirement if so directed.

118.1.4 Design. For new buildings, a temporary, partial or certificate of occupancy shall not be issued until the AHJ determines that the building is in compliance with NFPA 1-11.10.1. It is recommended that the local Development Review Committee (DRC) notify the new building owner, architect, and engineers of this requirement in writing before the building is designed. At the time of BDA permitting, a design package, comprising of block level diagrams, materials submittals, coverage measurements and predictions are required. Sufficient and substantial engineering design and support information and data shall be submitted with the application. A sealed submittal from an Engineer, with verifiable training and experience in electrical engineering, shall also be required.

118.1.5 To the extent authorized by law, Distributed Antenna Systems Integrators with Public Safety and/or Communication installation and repair experience, as a sub-contractor in association with qualified electrical contractors, Fire Alarm contractors~~,~~ or BDA Contractors may install or repair Two-Way Radio Communication Enhancement Systems. Should the contractor of record fail to have radio communications installation and repair experience with Distributed Antenna Systems, the contractor of record shall sub-contract the installation or repair of non-fire alarm function to a qualified company, having knowledge of Radio communications installation and repair.

118.2 Permit Documentation.

118.2.1 The following documentation shall be required for permitting a "Emergency Responders Communications Enhancement Systems (ERCES)".

1. City and County FCC Licensee shall approve proposed installation of Two-Way Radio Communicating Enhanced Systems prior to installation in writing or by sealing documents submitted for review.
2. City and County written approval or sealed documents shall be provided to the local Fire Prevention Bureau office at the time of plan submittal and prior to plan review.
3. Plans shall comply with the current adopted editions of FBC 107, NFPA 1, 1.7, NFPA 70, and NFPA 72.
4. Sealed floor plans showing radio coverage for critical and general areas using industry standard radio frequency computer generated propagation modeling.
5. Schedule of signal strength as per NFPA 1221 or as agreed to by the Fire Code Official in consultation with the FCC licensee in writing.
6. Schedule of the system radio frequencies or band of frequencies.
7. Notation that the system is upgradable for frequency band coverage changes including at a minimum both 700/800 MHz
8. Plans shall show that the BDA enclosure shall be painted red. A sign affixed next to or stenciling on the enclosure shall be provided in high contrasting letters over a red background, weatherproof plaque and shall include the following information:
    a) Fire Department Signal Booster.
    b) Permit Number: _____.
    c) Serviced by: Vendor name and telephone.
9. Elevator hoist ways shall be deemed critical areas as stated in NFPA 1221 (2016) 9.6.7.4.

118.3 System Notifications.

118.3.1 The AHJ's for the FCC licensee and Broward County Office of Regional Communications and Technology (ORCAT) shall be notified in writing of the following events by the permit holder, the system vendor, and/or the building owner. The AHJ for the FCC Licensee shall approve the date and time and may request that the AHJ shall be present during the following events:

1. Initial system testing, with date and time start and finish.
2. Periodic system testing, with date and time start and finish.
3. System placed in operation with date and time.

118.4 Prior to the Initial Testing.

1. The vendor shall provide the system's settings prior to the initial system testing as accepted by the AHJ, FCC Licensee and ORCAT. The AHJ may ask for additional information prior to testing.
2. The system shall remain "off the air" until the initial testing with AHJ, FCC Licensee, ORCAT, and the Fire Code Official are ready to begin and provide their approval.

118.5 Annual Test.

118.5.1 In addition to the annual fire alarm test, an annual test and report, in compliance with NFPA 72 Chapter 14, shall be completed by a qualified company having the knowledge of RF installation with training and experience of two-way radio communication enhanced radio systems to ensure that the original installed system is still in compliance.

118.5.2 Annual Test Report. The annual test report shall be maintained with the fire alarm log book and copies shall be submitted to the local AHJ and to City and ORCAT for review. All problems found, with any corrective action(s), shall be noted in the test report, along with the name and license number of the Fire Alarm Contractor and sub-contractor Inspection Company.

118.6. System Monitoring and Maintenance.

1. Any Public Safety Signal Booster system installed in a premise shall be tied into a fire alarm system for monitoring.
2. In case of failure, the building owner shall be notified within two (2) hours and he/she shall cause to occur an inspection of the system. If a trouble condition is found the system shall be repaired within forty-eight (48) hours of notification. If such repair proves to be longer in time or impossible to perform, a notification to the Fire Marshal shall be made indicating the failure of the system, so that in case of emergency the system shall not be relied upon by the First Responders.

Any system installed shall have a service level agreement with a responsible company. Once the system is repaired the service company shall notify both the building owner and the fire marshal.

Florida dbpr Department of Business & Professional Regulation

Division of Hotels and Restaurants
Bureau of Elevator Safety
2601 Blair Stone Road
Tallahassee, Florida 32399-1013
Phone: 850.487.1395 • Fax: 850.922.6208

Ron DeSantis, Governor

M E M O R A N D U M

TO: **Julius Halas, State Fire Marshal**

FROM: **Michelle Haynes, Chief, Bureau of Elevator Safety**

SUBJECT: **Emergency Responder Two-Way Radio Communications**

DATE: **February 17, 2021**

Currently adopted Florida Fire Prevention Code 7th Edition Section 1:11.10 requires that in all new and existing buildings, minimum radio strength be maintained at a level as determined by the authority having jurisdiction. Where required by the authority having jurisdiction, two-way radio communication enhancement systems shall comply with NFPA 1221 (2016 ed.). As outlined in F.S. 633, existing high-rise buildings have a separate compliance timeline. Though not specifically required, a two-way radio system for all emergency responders is allowed by NFPA 1221.

Obtaining the required radio coverage for areas designated critical areas and those deemed general areas necessitates that all portions of a building be considered. This includes the elevator shafts and hoistways which are dedicated to elevator related equipment only.

In order to install elements of these radio systems in an elevator hoistway, elevator owners must first file a petition for a variance with the Division of Hotels and Restaurants, Bureau of Elevator Safety ("Bureau"). Before the variance can be approved, the Bureau requires written documentation from the local fire authority having jurisdiction deeming the elevator hoistway as a critical area, as stated in NFPA 1221 (2016) 9.6.7.4. Since this section of NFPA 1221 does not specifically state that the hoistway is a critical area, the local fire authority having jurisdiction must pronounce it as such.

> *" NFPA 1221 (2016) 9.6.7.4 Critical Areas. Critical areas, such as the fire command center(s), the fire pump room(s), exit stairs, exit passageways, elevator lobbies, standpipe cabinets, sprinkler sectional valve locations and other areas deemed critical by the authority having jurisdiction, shall be provided with 99 percent floor area radio coverage."*

Please share this information with your local offices. The Bureau will not approve variances for installation of radio systems equipment in elevator hoistways without a letter or email from the fire authority having jurisdiction deeming the hoistway as a "critical area".

If you have any questions please feel free to contact the Bureau at dhr.elevators@myfloridalicense.com.

Section 3

BROWARD COUNTY
Board of Rules & Appeals
ONE NORTH UNIVERSITY DRIVE, SUITE 3500-B, PLANTATION, FLORIDA 33324
PHONE (954) 765-4500 FAX: (954) 765-4504
http://www.broward.org/codeappeals

To: Members of the Board of Rules and Appeals
From: Administrative Director
Date: September 9, 2021
RE: Director's report 40 Years Building Safety Inspection audits 2019 and 2020.

I would like to refer to my report on the 2019, 40-Year Building Safety Inspection audit, located on page number 6 of this agenda item.

Please be advised that the audit report on the 2019 buildings is much more positive than the 2020 report discussed in previous correspondence. While the 2019 structures to be inspected represent a pre-COVID-19 point in time, the 2020 audit report happened during the pandemic.

For 2019, twelve jurisdictions sent out the notices in a timely fashion, Coconut Creek, Coral Springs, Dania Beach, Davie, Hillsboro Beach, Lauderhill, Lighthouse Point, Miramar, Oakland Park, Pembroke Park, Plantation, and Unincorporated Broward County. Three cities have fully executed the program: Coconut Creek, Coral Springs and, Hillsboro Beach.

There is evidence of a positive impact as a result of the audit because, as of August 2021, many more cities have completed sending out notification letters to the property owners. These additional cities include Cooper City, Deerfield Beach, Hollywood, Lauderdale Lakes, Lauderdale by the Sea, Margate, Pembroke Pines, Pompano Beach, Sunrise, West Park, Weston, and Wilton Manors.

However, the BORA report cannot be completed at this time, because three cities have sent in incomplete data that it is still been vetted by staff (North Lauderdale, Tamarac, and Hallandale) and, one city has not yet responded as of this date. (Ft Lauderdale). Also, four jurisdictions did not have any buildings that required the 40 years Building Safety Inspection.

Accordingly, an updated summary will be provided to the Board of Rules and Appeals no later than September 24, at which time the entire database of information received will be sent. We remain committed to the list of administrative reforms dated in the email of August 20, 2021. Additional recommendations will follow as appropriate.

Respectfully Submitted.

James DiPietro

2019 Audit

BROWARD COUNTY
BOARD OF RULES AND APPEALS

ONE NORTH UNIVERSITY DRIVE
SUITE 3500-B
PLANTATION, FLORIDA 33324

PHONE: 954-765-4500
FAX: 954-765-4504
www.broward.org/codeappeal

2019 AUDIT

Date: August 30th, 2021

To: James DiPietro, Administrative Director

From: 40-Year Building Safety Program Committee

Subject: Preliminary summary report for the 40-Year Building Safety Program for calendar year 2019.

Committee Report

After reviewing the results of the 2020 40-Year Building Safety Program audit conducted in July of 2021, Broward County Board of Rules and Appeals have decided to extend the audit out to the calendar year of 2019 to include all buildings. On July 29th, 2021, The Board initiated this audit of the 40-year building safety program to all towns, cities, or county for the calendar year 2019. The spreadsheet attached is a fluid document and reflects the preliminary finding of this audit and will be updated as new information is acquired.

Preliminary summary:

1. 32 towns, cities and Unincorporated Broward County were sent notice of this audit on July 29th, 2021, and were given until August 16th, 2021, to respond with their results.
2. 31 towns, cities, and Unincorporated Broward County have responded to this audit as of August 30, 2021.
3. The City of Ft. Lauderdale had requested an extension out to August 26th, 2021, due to the overwhelming number of public records requests, preparing for upcoming code board hearings and other complications which has left them shorthanded. As of Friday, August 27th,2021, we have still not received the audit reports back Ft. Lauderdale.
4. The City of Sunrise has submitted their reports on August 26th, 2021, one day prior to the requested extension date of August 27th, 2021,
5. Committee staff is currently still working with the City of Hallandale Beach, North Lauderdale, and Tamarac to vet the data submitted.

Results/findings from audit:

1. Preliminary data shows 28 towns, cities, and Unincorporated Broward County had sent out the 40-year inspection notifications per the Broward County Property Appraiser, out of this, 14 cities sent out their notifications late.
2. 4 towns, cities, and Unincorporated Broward County did not have any buildings within their cities limits that required the building safety inspection.

BROWARD COUNTY
BOARD OF RULES AND APPEALS

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Continuation:

4. One city had sent out 91% of their notifications and is currently working on sending out the rest.
5. Three cities have completed 100% of their 40-year building safety inspection program.
6. Engineering certification report completion for this program ranged from 7% to 100% with anywhere from 15% to 48% being turned in late.
7. On the average, 1% to 54% of the engineering reports received by any one specific city called for repairs that required permits.
8. Repairs on the average were completed with 15% of the cities closing the permits between December to May (6 months), 19% of the cities closing the permits outside of December to May and on the average of 37% of the cites still having the repairs in progress.
9. 61% of the cities have reviewed and approved a number of final reports with 78% still having reports outstanding.
10. 46% of the cities have enforcement action in place.

Please be advised that the information provided reflects the preliminary finding that are still being vetted and will be continuously updated as further information is acquired.

We thank you for your cooperation with this very important public safety program.

Respectfully

Michael Guarasio

40-Year Building Safety Inspection Committee Member

Cc; Members of the Board of Rules and Appeals

Original questions that were sent out for the 2019 audit	What was the date the initial notice was sent out for this building?		Was the building safety inspection report completed for this building? Yes or No		Was the building safety inspection report received within the 90 day requirement for this building (September - November)? Yes or No		If received late, what date was the building safety inspection report received?	Is the building safety inspection report still outstanding for this building at the present time? Yes or No		Did the building safety inspection report for this building call for any repairs that required a permit? Yes or No	
Data we receive back from the building departments	Total number of notices required to be sent out and the number of notices that were sent out/percentage.	Date range notices were sent out	Number completed	Number not completed	Yes	No	Date range of reports received outside of Sep - Nov	Yes, number of reports still outstanding	No	Yes	No
Municipality											
Coconut Creek	697 / 697 Sent-100%	6/2019	697 - 100%	0	697 - 100%	0	0	0	0	0	0
Cooper City	11 / 11 Sent-100%	8/12/2021	0	11	0	0	0	11 -100%	0	0	0
Coral Springs	469 Req / 469 Sent-100%	8/8/2019	469 -100%	0	255-54%	214	12/10/2019 thru 10/23/20	16-3%	453	18 - 4%	451
Dania Beach	185 / 185 Sent-100%	8/2019	184 - 99%	1	138 - 75%	47	12/17/19 thru 8/3/21	1 -1%	0	1 - 1%	0
Davie	425 / 425 Sent-100%	7/23/2019 thru 7/27/2019	144 - 34%	276	24 - 56%	346	12/26/2019	327 - 77%	260	45 - 31%	53
Deerfield Beach	88 / 88 Sent-100%	12/9/2019 thru 6/2/2021	53 - 60%	35	39 - 44%	49	12/26/19 thru 8/24/21	35 - 40%	53	1 - 2%	52
Fort Lauderdale	Requested extension until 8/26/2021										
Hallandale Beach	Data received but incomplete										
Hillsboro Beach	160 / 160 Sent-100%	6/2019	160 - 100%	0	160 -100%	0	0	1 - 1%	0	1 - 1%	0
Hollywood	3043 Req / 3043 Sent-100%	7/1/2021 thru 7/29/2021	4 - 0.13%	3039	0	3043	5/1/08 thru 8/10/21	3040 - 99%	3	0	4
Lauderdale Lakes	23 Req / 23 Sent-100%	8/22/2019 to 6/23/2020 and 1 on 8/4/2021	13 - 56%	10	3-13%	20	2/6/2020 thru 7/22/2021 10-43%	10 - 43%	13	4 - 31%	0
Lauderdale-By-The-Sea	732 Req / 732 Sent-100%	7/28/2021 thru 8/16/2021	0	723	0	723	0	723 - 99%	0	Unknown	Unknown
Lauderhill	32 / 32 Sent-100%	8/15/2019	0	32	0	32	0	32 - 100%	0	0	0
Lazy Lake	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Lighthouse Point	9 / 9 Sent-100%	7/16/2019	8 - 89%	1	8 - 89%	1	0	8 - 89%	1	0	0
Margate	802 / 802 Sent-100%	9/11/2019 thru 8/3/2021	530 - 66%	274	634 - 79%	168	2/12/20 thru 7/26/21	273 - 34%	529	273 - 51%	529
Miramar	30 / 30 Sent-100%	8/5/2019 thru 8/6/2019	13 - 43%	17		24	6	17 - 57%	13	0	13
North Lauderdale	Data received but incomplete										
Oakland Park	358 / 358 Sent-100%	8/29/2019 thru 9/5/2019	72 - 20%	286	52 - 15%	306	12/2/2019 thru 1/20/2021	286 - 80%	72	4 - 6%	0
Parkland	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Pembroke Park	15 Req / 15 Sent-100%	7/10/2019	11 - 73%	4	10-66%	5	5/15/2020 / 1 Total	4 - 27%	11	1 - 6%	10
Pembroke Pines	30 / 30 Sent-100%	7/19/2016 thru 8/11/2021	16 - 53%	14	3 - 10%	14	1/6/2020 thru 7/1/2021	14 - 47%	16	0	16
Plantation	852 Req / 852 Sent-100%	8/12/2019	712 - 83%	212	591-69%	333	5/17/2021 thru 6/14/2021	211 - 25%	711	386 - 54%	399
Pompano Beach	2666 Req / 2419 Sent-91%	8/3/2019 thru 11/20/2019 1/31/2020 thru 9/23/2020 3/17/2021 thru 7/14/2021	387 - 15%	2279 - 85%	6 - .5%	2660	1/8/2020 thru 8/31/2021	387 - 15%	2279	4 - 1%	Unknown at this time
Sea Ranch Lakes	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Southwest Ranches	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Sunrise	897 / 897 Sent-100%	8/2019 thru 8/2021	814 - 91%	80	760 - 85%	134	3/10/2020 & 8/10/2021	132 - 15%	762	124 - 14%	745
Tamarac	Data received but incomplete										
Unincorporated Broward County	27 Req / 27 Sent-100%	7/28/2019	8 - 30%	19	8 - 30%	19	0	11 - 41%	16	0	7
West Park	15 Req / 15 Sent-100%	7/8/2021	1 - 7%	14	1 - 67%	14	0	0	0	0	1
Weston	307 / 307 sent-100%	2/26/2020	107 - 35%	200	107 - 35%	200	0	107 - 35%	200	0	307
Wilton Manors	70 Req / 70 Sent-100%	8/16/2021	0	70	0	70	0	70 - 100%	0	0	0

CALENDAR YEAR 2019 - CHART UPDATED AS OF 8-31-2021

	What were the total number of permits issued on this building for the repairs? (If any)	Were the required repairs completed in the time allotted (December - May) by the building safety program requirements? Yes, No or N/A		Are repairs still in progress for this building? Yes or No		Was the final building safety inspection reports submitted, reviewed and approved by the building official? Yes or No		Are there any enforcement actions in progress or requirements that are in non-compliance (inspection reports, completion of repairs, final inspection reports). Yes or No	
For printing purposes	Total number of permit issued for repairs	Total number of repairs completed between Dec - May	Number of repairs completed outside of Dec - May	Yes	No	Yes	No	Yes	No
Municipality									
Coconut Creek	0	0	0	0	0	697	0	0	0
Cooper City	0	0	0	0	0	0	0	0	0
Coral Springs	5	45	110	40	104	453	16	16	453
Dania Beach	1	0	0	1	0	0	1	1	0
Davie	0	0	0		132	150	270	158	66
Deerfield Beach	0	0	1	0	0	38	35	35	36
Fort Lauderdale									
Hallandale Beach									
Hillsboro Beach	2	0	0	1	0	0	1	0	0
Hollywood	0	0	0	0	4	0	0	0	3043
Lauderdale Lakes	4	0	0	4	0	9	14	9	0
Lauderdale-By-The-Sea	Unknown	0	0	0	0	0	0	0	0
Lauderhill	0	0	0	0	0	5	27	0	0
Lazy Lake	0	0	0	0	0	0	0	0	0
Lighthouse Point	0	0	0	0	0	8	1	1	0
Margate	1 Permit for all units	0	0	237	0	529	273	273	529
Miramar	0	0	0	0	13	13	11	0	30
North Lauderdale	0	0	0	5	0	1	325	0	326
Oakland Park	2	1	0	4	354	72	286		358
Parkland	0	0	0	0	0	0	0	0	0
Pembroke Park	1	0	1	0	11	11	4	4	11
Pembroke Pines	10	3	0	0	3	16	14	1	29
Plantation	53	4	507	296	17	19	297	422	169
Pompano Beach	3	0	0	3	0	216	2450	0	0
Sea Ranch Lakes	0	0	0	0	0	0	0	0	0
Southwest Ranches	0	0	0	0	0	0	0	0	0
Sunrise	141	0	33	52	842	762	132	132	762
Tamarac									
Unincorporated Broward County	0	0	0	0	0	8	19	19	0
West Park	0	0	0	0	0	0	0	0	0
Weston	0	0	0	0	0	107	200	200	107
Wilton Manors	0	0	0	0	0	0	70	0	0

CALENDAR YEAR 2019 - CHART UPDATED AS OF 8-31-2021

2019 Audit - Updated 9-7-2021

Original questions that were sent out for the 2019 audit →	What was the date the initial notice was sent out for this building?		Was the building safety inspection report completed for this building? Yes or No		Was the building safety inspection report received within the 90 day requirement for this building (September - November)? Yes or No		If received late, what date was the building safety inspection report received?	Is the building safety inspection report still outstanding for this building at the present time? Yes or No		Did the building safety inspection report for this building call for any repairs that required a permit? Yes or No	
Data we receive back from the building departments →	Total number of notices required to be sent out and the number of notices that were sent out/percentage.	Date range notices were sent out	Number completed	Number not completed	Yes	No	Date range of reports received outside of Sep - Nov	Yes, number of reports still outstanding	No	Yes	No
Municipality											
Coconut Creek	697 / 697 Sent-100%	6/2019	697 - 100%	0	697 - 100%	0	0	0	0	0	0
Cooper City	11 / 11 Sent-100%	8/12/2021	0	11	0	0	0	11 -100%	0	0	0
Coral Springs	469 Req / 469 Sent-100%	8/8/2019	469 -100%	0	255-54%	214	12/10/2019 thru 10/23/20	16-3%	453	18 - 4%	451
Dania Beach	185 / 185 Sent-100%	8/2019	184 - 99%	1	138 - 75%	47	12/17/19 thru 8/3/21	1 -1%	0	1 - 1%	0
Davie	425 / 425 Sent-100%	7/23/2019 thru 7/27/2019	144 - 34%	276	24 - 56%	346	12/26/2019	327 - 77%	260	45 - 31%	53
Deerfield Beach	89 / 89 Sent-100%	7/9/2019 thru 7/23/2019	53 - 60%	36	39 - 44%	50	12/9/2019-5/27/2020	36 - 40%	53	1 - 2%	52
Fort Lauderdale	3226 / 3226 Sent 100%	8/20/2019-9/30/2021	2685 - 83%	541	287 - 9%	2904	2/2020-8/21/2021	1502 - 47%	1726	1184	1722
Hallandale Beach	2249 / 2249 Sent 100%	6/30/2021	0	0	0	0	0	2249 - 100%	0	0	0
Hillsboro Beach	160 / 160 Sent-100%	6/2019	160 - 100%	0	160 -100%	0	0	1 - 1%	0	1 - 1%	0
Hollywood	3043 Req / 3043 Sent-100%	7/1/2021 and 7/29/2021	4 - 0.13%	3039	0	3043	0	3040 - 99%	3	0	4
Lauderdale Lakes	23 Req / 23 Sent-100%	8/22/2019 to 6/23/2020 and 1 on 8/4/2021	13 - 56%	10	3-13%	20	2/6/2020 thru 7/22/2021	10 - 43%	13	4 - 31%	0
Lauderdale-By-The-Sea	732 Req / 732 Sent-100%	7/28/2021 thru 8/16/2021	0	723	0	723	0	723 - 99%	0	Unknown	Unknown
Lauderhill	32 / 32 Sent-100%	8/15/2019	0	32	0	32	0	32 - 100%	0	0	0
Lazy Lake	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Lighthouse Point	9 / 9 Sent-100%	7/16/2019	8 - 89%	1	8 - 89%	1	0	8 - 89%	1	0	0
Margate	802 / 802 Sent-100%	9/11/2019 thru 8/3/2021	530 - 66%	274	634 - 79%	168	2/12/20 thru 7/26/21	273 - 34%	529	273 - 51%	529
Miramar	30 / 30 Sent-100%	8/5/2019 thru 8/6/2019	13 - 43%	17	0	24	6	17 - 57%	13	0	13
North Lauderdale	326 / 326 Sent 100%	10/17/2019 thru 8/18/2021	289 - 89%	37	1 - 0.30%	325	6/25/2020 and 12/22/2020	37 - 11%	289	288 - 88%	38
Oakland Park	358 / 358 Sent-100%	8/29/2019 thru 9/5/2019	72 - 20%	286	52 - 15%	306	12/2/2019 thru 1/20/2021	286 - 80%	72	4 - 6%	0
Parkland	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Pembroke Park	15 Req / 15 Sent-100%	7/10/2019	11 - 73%	4	10-66%	5	5/15/2020 / 1 Total	4 - 27%	11	1 - 6%	10
Pembroke Pines	30 / 30 Sent-100%	7/19/2016 thru 8/11/2021	16 - 53%	14	3 - 10%	14	1/6/2020 thru 7/1/2021	14 - 47%	16	0	16
Plantation	852 Req / 852 Sent-100%	8/12/2019	712 - 83%	212	591-69%	333	5/17/2021 thru 6/14/2021	211 - 25%	711	386 - 54%	399
Pompano Beach	2666 Req / 2419 Sent-91%	8/3/2019 thru 11/20/2019 1/31/2020 thru 9/23/2020 3/17/2021 thru 7/14/2021	387 - 15%	2279 - 85%	6 - .5%	2660	1/8/2020 thru 8/31/2021	387 - 15%	2279	4 - 1%	Unknown at this time
Sea Ranch Lakes	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Southwest Ranches	N/A - None Required	0	0	0	0	0	0	0	0	0	0
Sunrise	897 / 897 Sent-100%	8/2019 thru 8/2021	814 - 91%	80	760 - 85%	134	3/10/2020 & 8/10/2021	132 - 15%	762	124 - 14%	745
Tamarac	380 / 380 Sent 100%	5/1/2020	111 - 29%	269	173 - 46%	207	6/15/2020 thru 12/21/2020	269 - 71%	111	89 - 23%	291
Unincorporated Broward County	27 Req / 27 Sent-100%	7/28/2019	8 - 30%	19	8 - 30%	19	0	11 - 41%	16	0	7
West Park	15 Req / 15 Sent-100%	7/8/2021	1 - 7%	14	1 - 67%	14	0	0	0	0	1
Weston	307 / 307 sent-100%	2/26/2020	107 - 35%	200	107 - 35%	200	0	107 - 35%	200	0	307
Wilton Manors	70 Req / 70 Sent-100%	8/16/2021	0	70	0	70	0	70 - 100%	0	0	0

	What were the total number of permits issued on this building for the repairs? (If any)	Were the required repairs completed in the time allotted (December - May) by the building safety program requirements? Yes, No or N/A		Are repairs still in progress for this building? Yes or No		Was the final building safety inspection reports submitted, reviewed and approved by the building official? Yes or No		Are there any enforcement actions in progress or requirements that are in non-compliance (inspection reports, completion of repairs, final inspection reports). Yes or No	
For printing purposes	Total number of permit issued for repairs	Total number of repairs completed between Dec - May	Number of repairs completed outside of Dec - May	Yes	No	Yes	No	Yes	No
Municipality									
Coconut Creek	0	0	0	0	0	697	0	0	0
Cooper City	0	0	0	0	0	0	0	0	0
Coral Springs	5	45	110	40	104	453	16	16	453
Dania Beach	1	0	0	1	0	0	1	1	0
Davie	0	0	0		132	150	270	158	66
Deerfield Beach	0	0	1	0	0	38	35	36	36
Fort Lauderdale	3357	0	2307	1411	1546	1444	1777	1781	944
Hallandale Beach	0	0	0	0	0	0	0	0	0
Hillsboro Beach	2	0	0	1	0	0	1	0	0
Hollywood	0	0	0	0	4	0	0	0	3043
Lauderdale Lakes	4	0	0	4	0	9	14	9	0
Lauderdale-By-The-Sea	Unknown	0	0	0	0	0	0	0	0
Lauderhill	0	0	0	0	0	5	27	0	0
Lazy Lake	0	0	0	0	0	0	0	0	0
Lighthouse Point	0	0	0	0	0	8	1	1	0
Margate	1 Permit for all units	0	0	237	0	529	273	273	529
Miramar	0	0	0	0	13	13	11	0	30
North Lauderdale	0	0	0	288	38	2	324	324	2
Oakland Park	2	1	0	4	354	72	286	0	358
Parkland	0	0	0	0	0	0	0	0	0
Pembroke Park	1	0	1	0	11	11	4	4	11
Pembroke Pines	10	3	0	0	3	16	14	1	29
Plantation	53	4	507	296	17	19	297	422	169
Pompano Beach	3	0	0	3	0	216	2450	0	0
Sea Ranch Lakes	0	0	0	0	0	0	0	0	0
Southwest Ranches	0	0	0	0	0	0	0	0	0
Sunrise	141	0	33	52	842	762	132	132	762
Tamarac	180	0	0	180	0	137	243	269	111
Unincorporated Broward County	0	0	0	0	0	8	19	19	0
West Park	0	0	0	0	0	0	0	0	0
Weston	0	0	0	0	0	107	200	200	107
Wilton Manors	0	0	0	0	0	0	70	0	0

2019 Audit - Updated 9-7-2021

From:	Guerasio, Michael
To:	Boselli, Ruth; Curry, Brianna
Cc:	Dipietro, James
Subject:	FW: 2019 40-Year Audit
Date:	Friday, August 27, 2021 9:07:50 AM
Attachments:	Final Complete 2019 Audit Report.pdf

From: Curry, Brianna <BCURRY@broward.org>
Sent: Friday, August 20, 2021 2:59 PM
Subject: FW: 2019 40-Year Audit

Per Jim's request, please see the message below:

Good Afternoon members of the Broward County Board of Rules and Appeals,

Attached you will find a report from Mike Guerasio, representing the work of seven members of the BORA staff, in compiling data received from the various governmental jurisdictions in Broward County with respect to the list of buildings noticed to be inspected in the months immediately following July 2019. In my review, the BORA report cannot be completed at this time because two major cities have yet to provide us any data and three more jurisdictions have provided us information that is incomplete and viewed by us as unworkable. Accordingly, an updated summary will be provided to the Board no later than the agenda packet supporting our regularly scheduled meeting of September 9, 2021, and the entire database of information received also be provided.

On the basis of the data already received, these actions are being taken in the immediate days and weeks ahead:

A. The list that was distributed in May 2021 will be audited starting in February 2022 with a requested 45 day response period.
B. The audit by BORA program will become a permanent annual feature on the 40 year and older building safety inspection program.
C. We will ask the building departments to create a follow-up program reminder to property owners 60 days following the day they mail their notices out to anyone who has not yet responded – starting with the current 2021 program.
D. We will ask the building departments each year to designate a single contact person for BORA to work with respect to the current list of buildings due inspections – starting with the current 2021 program.
E. We will ensure that the 2019 list of buildings and 2020 list of buildings are competed by each jurisdiction. Specifically, to include that all reports have been received or to state the status of any code enforcement action for any reports not yet received by the building department.

Additional recommendations will be made once we have a full report of data to evaluate from the cites not yet received.

Should you have any questions, please contact me at your convenience. Thank you for your time and consideration. Jim

James DiPietro
Administrative Director
Broward County Board of Rules and Appeals
1 North University Drive, Suite 3500 B
Plantation, Florida 33324
954-931-2393

BROWARD COUNTY
BOARD OF RULES AND APPEALS

ONE NORTH UNIVERSITY DRIVE
SUITE 3500-B
PLANTATION, FLORIDA 33324

PHONE: 954-765-4500
FAX: 954-765-4504
www.broward.org/codeappeal

DATE: July 29th, 2021

TO: All Building Officials

FROM: James DiPietro, Administrative Director

SUBJECT: 2019, 40-Year Building Safety Inspection Program Audit

Effective June 29th, 2021, the Broward County Board of Rules and Appeals initiated an audit of the 40-year building safety inspection program for the calendar year of 2020 including all municipalities within Broward County. After reviewing the results of this audit, we have decided to extend the audit out to the calendar year of 2019 to include all buildings. Attached you will find the original letter and spreadsheets sent on July 8th, 2019, of the buildings requiring the building safety inspection for your town, city, or county department for 2019. Also, within these spreadsheets, we have added eleven (11) questions that must be answered for each one of the buildings within the spreadsheets under your town, city, or county department tab. Please return the spreadsheets to Ken Castronovo at kcastronovo@broward.org and Michael Guerasio at mguerasio@broward.org with all questions answered for each building no later than the close of business on August 16th, 2021.

Please note that the calendar year 2019 was prior to the COVID-19 pandemic and in no way should have influenced the program. Also, this information is not limited to six (6) or more stories, instead, all buildings require a response.

We thank you in advance for your cooperation with this important public safety program.

Respectfully,

James DiPietro, Administrative Director

Cc: Members of the Board of Rules and Appeals

List of questions attached to the 2019- 40 and 50 Years Building Safety Inspection Program lists

- What was the date the initial notice was sent out for this building?
- Was the building safety inspection report completed for this building?
  Yes or No
- Was the building safety inspection report received within the 90 day requirement for this building (September - November)?
  Yes or No
- If received late, what date was the building safety inspection report received?
- Is the building safety inspection report still outstanding for this building at the present time?
  Yes or No
- Did the building safety inspection report for this building call for any repairs that required a permit?
  Yes or No
- What were the total number of permits issued on this building for the repairs? (If any)
- Were the required repairs completed in the time allotted (December - May) by the building safety program requirements?
  Yes, No or N/A
- Are repairs still in progress for this building?
  Yes or No
- Were the final building safety inspection reports submitted, and reviewed and approved by the building official?
  Yes or No
- Are there any enforcement actions in progress for requirements that are in non-compliance (inspection reports, completion of repairs, final inspection reports)?
  Yes or No

2020 Audit

From: Dipietro, James
To: Boselli, Ruth
Subject: FW: 2020 - 40 year audit results
Date: Wednesday, July 21, 2021 1:56:29 PM
Attachments: Final report on audit 7_21_2021.pdf

Good afternoon members of the Broward County Board of Rules and Appeals and interested parties. Interested parties have been added to keep individuals and code officials informed of where we are in the process.

Attached you will find the data collected as of today on the audit of the July 2020 program.

Next week I will be initiating an audit of the July 2019 program. 2019 represents a pre- Covid year and comparing that information to be obtained with 2020 audit should be of value. No additional audit decisions have been made.

I will report to you further on these matters at our regularly scheduled meeting of the Broward County Board of Rules and Appeals to be held on August 12, 2021.

Code officials are welcome to contact Mike Guerasio, Chief Structural Code Compliance Officer, if desired. Others indivuals are recommended to call me should the need arise. Thank you. Jim

James DiPietro
Administrative Director
Broward County Board of Rules and Appeals
1 North University Drive, Suite 3500 B
Plantation, Florida 33324
954-931-2393

ONE NORTH UNIVERSITY DRIVE
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PLANTATION, FLORIDA 33324

PHONE: 954-765-4500
FAX: 954-765-4504
www.broward.org/codeappeal

BROWARD COUNTY
BOARD OF RULES AND APPEALS

2020 AUDIT

Date: August 30th, 2021

To: James DiPietro, Administrative Director

From: Michael Guerasio, Chief Structural Code Compliance Officer

Subject: Preliminary summary report of audit for the 40-Year Building Safety Program, calendar year of 2020.

Staff Report

On June 29th, 2021, Broward County Board of Rules and Appeals initiated an audit of the 40-year building safety program to all municipalities throughout Broward County.

Below are the preliminary results:

1. 32 cities and Unincorporated Broward County were sent notice of the audit on June 29th, 2021, they were given until July 20th, 2021, to respond with their findings. The audit was limited to six story or greater buildings requiring evaluation for calendar year of 2020.
2. Twenty cites did not have any six-story or greater building that required the building safety inspection in the calendar year of 2020.
3. Four cities had completed the certification process within their city and none of the repairs required that any permits be issued.
4. As of August 27, 2021, the remaining eight cities are still currently working on completing the 2020 program.

Please be advised that the information provided reflects the preliminary finding that are still being vetted and will be continuously updated as further information is acquired.

We thank you for your cooperation with this very important public safety program.

Respectfully

Michael Guerasio

40-Year Building Safety Inspection Committee Member

Cc; Members of the Board of Rules and Appeals

2020 AUDIT - CHART UPDATED AS OF 8-31-2021

2020 40-Year Survey Results - Six (6) stories or greater		Notice sent out 6/29/2021 at 3:34pm	Resent Notice 7/1/2021 at 1:21pm		3rd Email Notice sent out to each specific BO separately on 7/9/2021 at various times, see below			Were permits issued for repairs		Employment
Municipality	Final results from survey	Date/time results were received from City	Date/time of 2nd notice acknowledgement received by city		Date/Time Sent	Acknowledged				
			Yes	No		Yes	No	Yes	No	
Coconut Creek	City had no 6 story or greater buildings in calendar year 2020	7/15/2021 5:38 PM	7/15/21 5:38 PM							City
Cooper City	City had no 6 story or greater buildings in calendar year 2020	7/9/21 2:21 PM		No acknowledgement	7/9/21 9:32 AM	7/9/21 2:10 PM				City
Coral Springs	City had no 6 story or greater buildings in calendar year 2020	7/12/21 12:55 PM	6/29/21 4:44 PM							City
Dania Beach	All six story and greater buildings are in compliance with the 40 year certification for the year 2020	7/9/21 9:55 AM	7/2/21 11:26 AM						✓	CAP
Davie	40 year certification process is currently still in progress	6/30/2021 11:08am								City
Deerfield Beach	All six story and greater buildings are in compliance with the 40 year certification for the year 2020	7/20/21 12:12 PM	7/2/21 8:08 AM					✓	✓	CGA
Fort Lauderdale	40 year certification process is currently still in progress	7/20/21 11:17 PM	7/1/21 2:42 PM							City
Hallandale Beach	40 year certification process is currently still in progress	7/20/21 3:13 PM	7/1/21 4:30 PM							City
Hillsboro Beach	All six story and greater building are in compliance with the 40 year certification for the years 2020	7/16/21 2:06 PM		No acknowledgement	7/9/21 9:46 AM	7/9/21 2:11 PM			✓	CGA
Hollywood	40 year certification process is currently still in progress	7/19/21 4:35 PM	7/2/21 7:48 AM							City
Lauderdale Lakes	City had no 6 story or greater buildings in calendar year 2020	7/21/21 2:59 PM	7/1/21 2:17 PM							CGA
Lauderdale-By-The-Sea	40 year certification process is currently still in progress	7/13/21 10:44 AM		No acknowledgement	7/9/21 9:54 AM					CAP
Lauderhill	40 year certification process is currently still in progress	7/9/21 2:35 PM		No acknowledgement	7/9/21 10:26 AM	7/9/21 1:29 PM				City
Lazy Lake	City had no 6 story or greater buildings in calendar year 2020	7/1/21 3:34 PM								County
Lighthouse Point	City had no 6 story or greater buildings in calendar year 2020	7/7/21 1:48 PM								CGA
Margate	City had no 6 story or greater buildings in calendar year 2021	7/21/21 6:08 PM	7/2/21 2:14 PM							City
Miramar	City had no 6 story or greater buildings in calendar year 2020	7/9/21 1:46 PM		No acknowledgement	7/9/21 10:31 AM	7/9/2021 12:17 PM				City
North Lauderdale	City had no 6 story or greater buildings in calendar year 2020	7/1/2021 10:55am								County
Oakland Park	City had no 6 story or greater buildings in calendar year 2020	6/30/2021 5:19pm								City
Parkland	City had no 6 story or greater buildings in calendar year 2020	6/29/21 4:56 PM								City
Pembroke Park	City had no 6 story or greater buildings in calendar year 2020	7/9/21 4:24 PM	7/1/21 2:20 PM							City
Pembroke Pines	40 year certification process is currently still in progress	7/21/21 11:51 AM		No acknowledgement	7/9/2021 10:36 AM 7/9/2021 10:51 AM	7/9/2021 1:30 PM 7/12/2021 7:13 AM				CGA
Plantation	All six story and greater building are in compliance with the 40 year certification for the years 2020	7/6/21 12:15 PM	7/1/21 1:31 PM						✓	City

2020 AUDIT - CHART UPDATED AS OF 8-31-2021

Pompano Beach	40 year certification process is currently still in progress	7/20/21 8:01 AM	7/1/21 1:36 PM					✓	✓	City
Sea Ranch Lakes	City had no 6 story or greater buildings in calendar year 2020	7/1/21 2:50 PM								City
Southwest Ranches	City had no 6 story or greater buildings in calendar year 2020	7/16/21 1:28 PM		No acknowledgement	7/9/2021 10:43 AM					CAP
Sunrise	City had no 6 story or greater buildings in calendar year 2020	7/1/21 2:59 PM								City
Tamarac	City had no 6 story or greater buildings in calendar year 2020	7/15/21 2:36 PM	7/1/21 1:41 PM							City
Unincorporated Broward County	City had no 6 story or greater buildings in calendar year 2020	6/29/21 5:18 PM								County
West Park	City had no 6 story or greater buildings in calendar year 2020	7/13/21 6:09 AM		No acknowledgement	7/9/2021 10:43 AM					CAP
Weston	City had no 6 story or greater buildings in calendar year 2020	6/30/2021 7:39am								CAP
Wilton Manors	City had no 6 story or greater buildings in calendar year 2020	7/9/21 1:24 PM		No acknowledgement	7/9/21 11:00 AM	7/9/21 12:33 PM				CAP
1. Twenty (20) cities had no six story or above buildings in the calendar year of 2020 that required their 40 year building safety inspection										
2. Four (4) cities had buildings that were six stories and above which all are in compliance and no permits were needed for repairs										
3. Eight (8) cities had buildings that were six stories and above which all are in still in progress with their building safety inspections										
No Response										

Survey sent on May 24, 2021

From: Morell, John
To: Dipietro, James; Boselli, Ruth
Cc: RULES
Subject: FW: 2020 40 Year Inspection Program Update
Date: Tuesday, August 31, 2021 9:38:14 AM
Attachments: 2020 40 year survey.xlsx

Update for the agenda

Respectfully

Jack Morell
Chief Structural Code Compliance Officer
Broward County Board of Rules and Appeals
954-765-4500 x 9887
jmorell@broward.org

From: Morell, John
Sent: Monday, August 30, 2021 3:09 PM
To: Dipietro, James <JDIPIETRO@broward.org>
Cc: Castronovo, Kenneth <KCASTRONOVO@broward.org>; Morell, John <JMORELL@broward.org>
Subject: 2020 40 Year Inspection Program Update

On May 24th 2021 Ken and I were tasked to survey the building departments in the county to verify the success of the 2020 forty year inspection program.
In May we received 11 responses, 2 in June, 10 in August 2021, 7 have not responded and 2 single family only are subject to the 40 year program. Of those 19 administered the program normally, 8 did not respond to the inquiry, 3 sent out notices in 2021 and 2 are single family only.
Attached is the detailed survey for your convenience.

Respectfully

Jack Morell
Chief Structural Code Compliance Officer
Broward County Board of Rules and Appeals
954-765-4500 x 9887
jmorell@broward.org

	2020 40 year survey							
			Date of Response					
	Broward County	Y	5/24					
	Coconut Creek	Y	5/24					
	Cooper City							
	Coral Springs	Y	5/24					
	Dania Beach	Y	8/6					
	Davie	N	6/8	Sent 2021				
	Deerfield Beach	Y	5/24					
	Fort Lauderdale	Y	5/24					
	Hallandale Beach	Y/N	5/24	Not totally sent in 2020 resent in 2021				
	Hillsboro Beach	Y	5/24					
	Hollywood							
	Laudedrdale by the Sea	Y	8/6					
	Lauderdale Lakes	Y	8/9					
	Lauderhill							
	Lazzy Lake	N	8/9	Single family none quallify				
	Lighthouse Point							
	Margate	Y	5/24					
	Miramar	y	6/8					
	North Lauderdale	Y	5/24					
	Oakland Park	Y	5/24					
	Parkland							
	Pembroke Park	Y	8/9					
	Pembroke Pines							
	Plantation	Y	8/6					
	Pompano Beach	Y	5/24					
	Sea Ranch Lakes	N	8/6	Single family none quallify				
	Southwest Ranches							
	Sunrise	Y	8/6					
	Tamarac							
	West Park							
	Weston	Y	8/11					
	Wilton Manors	N	8/9	Sending in 2021				

Dipietro, James

From: Dipietro, James
Sent: Tuesday, August 17, 2021 10:06 AM
Subject: FW: 2019- 40Y Audit Cities Update.pdf
Attachments: 2019- 40Y Audit Cities Update.pdf

To members of the Broward County Board or Rules and Appeals, attorney and staff. Please note that the close of business yesterday was the deadline for the various governmental entities to reply to our audit request of the list of structures that we sent to the cities in July 2019 . The attached summarizes where we stand on receiving responses as of 10 AM today August 17. "OK" on the chart means that data has been received. "SFH" refers to single family home. We are now working the data received , contacting the cities with questions, and expect to issue a full report this week. Please contact me if additional information is desired. Thank you. Jim

James DiPietro
Administrative Director
Broward County Board of Rules and Appeals
1 North University Drive, Suite 3500 B
Plantation, Florida 33324
954-931-2393

40 years - 2019 Audit

2019 40 YBSIP Audit status as of 8/17/21 - 10AM	
CITY	**RESPONSE STATUS**
Coconut Creek	OK
Cooper City	OK
Dania Beach	50 Y not done - 40 Y yes
Margate	OK
Hillsboro Beach	OK
Lazy Lake	SFH only - not applicable
Unincorporated Broward County	no properties that qualify
Coral Springs	OK
Deerfield Beach	OK
Fort Lauderdale	not yet - requesting 10 more days
Hallandale	OK
Hollywood	OK
Lighthouse Point	Have date for one of two lists
Lauderdale-By-The-Sea	not yet - sent reminder today
Lauderdale Lakes	OK
Pembroke Park	OK
Pompano Beach	OK
Lauderhill	not yet
Davie	OK - partial information provided as properties have not replied
Miramar	OK
Parkland	they don't have properties that qualify
Pembroke Pines	OK
Oakland Park	maybe 8-17 or 8/18
North Lauderdale	OK
Sea Ranch Lakes	they don't have properties that qualify
Tamarac	OK
Wilton Manors	OK
Plantation	OK
Sunrise	asked until 8/27/21 records @ iron mountain
Southwest Ranches	OK
Weston	Not yet- promised for 8/17/21
West Park	OK

From: Morell, John
To: Castronovo, Kenneth
Cc: Dipietro, James
Subject: 2020 forty year inspection program.
Date: Tuesday, July 27, 2021 11:02:43 AM

On May 24th Ken and I were tasked to survey the building departments in the county to verify the success of the 2020 forty year inspection program.

May 24, 2021 we received 11 responses and 1 response on June 8. 2021

Coral Spring, Coconut Creek, Deerfield Beach, Margate, Broward County, North Lauderdale, Fort Lauderdale, Hillsboro Beach, Oakland Park, Pompano Beach and Miramar reported that they executed the program as usual.

Hallandale and Davie did not implement the program until 2021 along with the 2021 notices.

Respectfully

Jack Morell
Chief Structural Code Compliance Officer
Broward County Board of Rules and Appeals
954-765-4500 x 9887
jmorell@broward.org

From: Morell, John
Sent: Monday, May 24, 2021 7:49 AM
To: Adam Attah - North Lauderdale & Lazy Lake B.O. <AATTAH@broward.org>; Alex Hernandez - B.O. Coral Springs <AHernandez@coralsprings.org>; Brian Dillon - SW Ranches and W Park B.O. <bdillon@capfla.com>; Christopher Augustin - Sunrise B.O. <caugustin@sunrisefl.gov>; Edward Adach - LBTS B.O. <eadach@capfla.com>; George Folles - Tamarac B.O. <George.Folles@tamarac.org>; George Kropp - Pembroke Pines B.O. <gkropp@cgasolutions.com>; Jack Boone - BO Coconut Creek <jboone@coconutcreek.net>; Jack Fisher <jfisher@capfla.com>; John Travers B.O. Ft. Lauderdale <jtravers@fortlauderdale.gov>; Julio Briceno - Miramar B.O. <jbriceno@miramarfl.gov>; Lazy Lake Building Official - Michel Mesa <clerk@lazylakefl.us>; Michael Rada - Pompano Beach B.O. <michael.rada@copbfl.com>; Miguel Nunez - Hallandale Beach B.O. <mnunez@hallandalebeachfl.gov>; Miguel Nunez - Pembroke Park B.O. <mnunez@townofpembrokepark.com>; Nicholas Todaro - Davie B.O. <nicholas_todaro@davie-fl.gov>; Peter Beaudoin - Lighthouse Point B.O. <pbeaudoin@cgasolutions.com>; Randy Youse - Lauderhill B.O. <ryouse@lauderhill-fl.gov>; Reggie Cox - Weston B.O. <rcox@capfla.com>; Richard R. Nixon - Margate B.O. <rnixon@margatefl.com>; Roman Sanchez - Lauderdale Lakes B.O. <RSanchez@cgasolutions.com>; Ronald Puentes - Broward County B.O. <RPuentes@broward.org>; Russell Long - Hollywood B.O. <rlong@hollywoodfl.org>; Shane Kittendorf - Wilton Manors B.O. <skittendorf@capfla.com>; Sheila Oliver B.O. Deerfield Beach <soliver@cgasolutions.com>; Stephen Hans - Sea Ranch Lakes B.O. <cityclerk@searanchlakesflorida.gov>; Steve Mitchell - Hillsboro Beach B.O. <SMitchell@cgasolutions.com>; Thomas Shubert B.O. Oakland Park <thomass@oaklandparkfl.gov>; Victor Blanco - Cooper City B.O. <VBlanco@coopercityfl.org>; William Gale - Plantation B.O. <wgale@plantation.org>; William Tracy - Parkland B.O. <wtracy@cityofparkland.org>; De Carion, Timothy <TDECARION@broward.org>; Guerasio, Michael <MGUERASIO@broward.org>; Soto, Rolando <ROSOTO@broward.org>; Vinas, Otto <OVINAS@broward.org>; Boselli, Ruth <RBOSELLI@broward.org>; Curry, Brianna <BCURRY@broward.org>; Joseph, Jonda <JONDAJOSEPH@broward.org>; Kong, Maria <MKONG@broward.org>
Cc: Castronovo, Kenneth <KCASTRONOVO@broward.org>; Morell, John <JMORELL@broward.org>
Subject: 40 YEAR

Broward County Building Officials

Re. Building Safety Program
With the pandemic almost behind us we have had a challenging year. Given that, the Broward County Board of Rules and Appeals would like you to confirm to us that the Building Safety Inspection was successfully implemented in your jurisdiction for the year 2020. Please comment to us by email in the next week so that we can continue to monitor this program countywide. If you have any issues concerning implementation of the program, please contact us. We have sent out the addresses for 2021 early to help you better prepare for this year's compliance program.

Thank you for your help.

Sincerely

Kenneth Castronovo

John Morell

Respectfully

Chief Structural Code Compliance Officer
Broward County Board of Rules and Appeals
954-765-4500 x 9887
jmorell@broward.org

Section 6

BROWARD COUNTY
Board of Rules & Appeals
ONE NORTH UNIVERSITY DRIVE, SUITE 3500-B, PLANTATION, FLORIDA 33324
PHONE (954) 765-4500 FAX: (954) 765-4504
http://www.broward.org/codeappeals

To: Members of the Board of Rules and Appeals
From: Administrative Coordinator
Date: September 9, 2021
RE: Responses from Board Members and BORA staff regarding improvements and suggestions for the 40 years Building Safety Inspection Program.

Please find enclosed comments received from Board members and the BORA staff regarding possible suggestions for improvements and modifications to the current 40 YBSIP. In the following pages, their responses are divided into two groups, A and B, for Board members and Staff, respectively.

Respectfully submitted.

Ruth Boselli

a. Board member suggestions for the 40-Year Building Safety Inspection program.

From: Dipietro, James
To: Curry, Brianna; Boselli, Ruth
Subject: FW: Meeting
Date: Thursday, August 5, 2021 1:47:25 PM

RON BURR

Please place in September BORA meeting agenda folder. Thank you.

-----Original Message-----
From: info@ritewaypools.com <info@ritewaypools.com>
Sent: Wednesday, August 4, 2021 2:20 PM
To: Dipietro, James <JDIPIETRO@broward.org>
Subject: RE: Meeting

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Hi Jim
Just a couple of thoughts about the 40 year program.
It seams to me that the building departments and building officials may not be the correct place to monitor and control the 40 year building inspection program any longer.
Maybe it's time to remove this program from the building departments and create a new county department which would monitor and operate the 40 year program county wide not city by city. This department would be responsible for sending out notices and following up with all the cities and reviewing all reports. This new department would come under the supervision of BORA.
This new department would have to be staffed by a building official and electrical chief and office staff as needed and also be staffed by engineers on an as needed basis to review the submitted engineers reports.
I believe the public is going to demand changes on the way this program is being handled and will want the program to be monitored on a closer basis.
Just my thoughts, not sure how it would all work but maybe this is the type of change and redirection the program needs.

Ron Burr

From: Dipietro, James
To: "greggd@artcanfixit.com"
Cc: Boselli, Ruth
Subject: RE: Meeting
Date: Thursday, August 5, 2021 4:35:19 PM

GREGG D'ATTILE

Thank you for your comment Gregg.

Ruth, please retain for the September meeting agenda packet Thank you. Jim

954-931-2393

-----Original Message-----
From: greggd@artcanfixit.com <greggd@artcanfixit.com>
Sent: Thursday, August 5, 2021 4:20 PM
To: Dipietro, James <JDIPIETRO@broward.org>
Subject: RE: Meeting

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Seems reasonable to me, if the current system can't be updated and revised. I just don't like more government programs.

Gregg D'Attile
President & CEO
Art Plumbing AC & Electric
4151 NW 124 Avenue
Coral Springs FL 33065
Direct: 954-688-5642 Fax: 954-345-3899
greggd@artcanfixit.com
www.artcanfixit.com
Our Mission: To Provide World Class Service To Each & Every Client We Serve, Far Exceeding Their Highest Expectations!
Our Vision: The Relentless Pursuit of Being the "World's Greatest Company"

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-----Original Message-----
From: Dipietro, James <JDIPIETRO@broward.org>
Sent: Thursday, August 5, 2021 10:02 AM
Subject: FW: Meeting

Good morning members of the Broward County Board of Rules and Appeals. Please see the thought below from Ron Burr relating the 40 year and older building safety inspection program. Due to the State of Florida Sunshine law, please only comment to me rather than another Board member. At the September 9 meeting of BORA, I can summarize any comments received. Ron cannot be in attendance at the August 12 session. Thank you. Jim

From: Dipietro, James
To: dennisu512@aol.com
Cc: Boselli, Ruth; Curry, Brianna
Subject: RE: Meeting
Date: Tuesday, August 10, 2021 12:58:12 PM

DENNIS ULMER

Thank you Dennis for your comments. We am collecting the responses received for the September meeting and they will be shared with all the board members. Jim

954-931-2393

From: dennisu512@aol.com <dennisu512@aol.com>
Sent: Tuesday, August 10, 2021 9:52 AM
To: Dipietro, James <JDIPIETRO@broward.org>
Subject: Re: Meeting

Hi Jim,

These are my initial reactions to Ron's suggestion on BORA managing the current 40 year inspection program.

First, I think it's too early for us to take any action. I believe we need more facts. I will say however, that I think BORA taking this over would be a big liability issue. Especially having an engineer review the submitted reports

Secondly, compliance of any repairs, rests with permits being issued by the appropriate government building department. As does any actions for noncompliance for not timely doing the report or completing any necessary repairs discovered in the 40 year inspection program. Legal action for compliance rests with the cities. Wouldn't BORA's involvement be just another layer of government?.

Now that the inspection program is in the spotlight because of the collapse in Surfside, politicians are paying attention and I believe the cities will be monitoring their building departments more closely on the 40 year inspection program.

At this time, I would say no to BORA assuming management of the inspection program.

Thank you.

Regards,

Dennis

Dennis Ulmer

Email dennisu512@aol.com

From: Dipietro, James
To: David Tringo
Cc: Boselli, Ruth; Curry, Brianna
Subject: RE: Meeting
Date: Wednesday, August 11, 2021 5:52:08 PM

DAVE TRINGO

Thank you Dave for the feedback

Ruth and Brianna, please include in our agenda folder materials for the September meeting.

-----Original Message-----
From: David Tringo <dtringo@capfla.com>
Sent: Wednesday, August 11, 2021 5:21 PM
To: Dipietro, James <JDIPIETRO@broward.org>
Subject: Re: Meeting

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Hi
This a good idea and needs to be checked out

Thank you
Dave Tringo
Manager
CAP Government
954-605-0127 cell
Dtringo@capfla.com

> On Aug 5, 2021, at 10:02 AM, Dipietro, James <JDIPIETRO@broward.org> wrote:
>
> CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.
>
>
> Good morning members of the Broward County Board of Rules and Appeals. Please see the thought below from Ron Burr relating the 40 year and older building safety inspection program. Due to the State of Florida Sunshine law, please only comment to me rather than another Board member. At the September 9 meeting of BORA, I can summarize any comments received. Ron cannot be in attendance at the August 12 session. Thank you. Jim
>
>
>
> -----Original Message-----
> From: info@ritewaypools.com <info@ritewaypools.com>
> Sent: Wednesday, August 4, 2021 2:20 PM
> To: Dipietro, James <JDIPIETRO@broward.org>
> Subject: RE: Meeting
>
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>

> Hi Jim
> Just a couple of thoughts about the 40 year program.
> It seams to me that the building departments and building officials may not be the correct place to monitor and control the 40 year building inspection program any longer.
> Maybe it's time to remove this program from the building departments and create a new county department which would monitor and operate the 40 year program county wide not city by city. This department would be responsible for sending out notices and following up with all the cities and reviewing all reports. This new department would come under the supervision of BORA.
> This new department would have to be staffed by a building official and electrical chief and office staff as needed and also be staffed by engineers on an as needed basis to review the submitted engineers reports.
> I believe the public is going to demand changes on the way this program is being handled and will want the program to be monitored on a closer basis.
> Just my thoughts, not sure how it would all work but maybe this is the type of change and redirection the program needs.
>
> _____
>

Champlain Towers South
8777 Collins Ave.
Surfside, FL 33154

Building collapse
Thursday, June 24, 2021

Broward County Board of Rules and Appeals Building Inspection Program

Where Do We Go from Here?

September 7, 2021

By

David L. Rice, P.E.

RC Engineering
5532 NW 106th Drive
Coral Springs, Florida 33076
(954) 757-7900

Purpose

The purpose of this report is to look at the causes of the building collapse and to discuss the process for making decisions and recommendations based on the facts to prevent future disasters. There are both short-term and long-term issues to be addressed.

Disclaimer

David Rice is a Florida Registered Professional Engineer with education, training, and experience in Electrical Engineering.

David Rice is not a Structural Engineer.

Observations

There have been many articles and expert reports written covering the building collapse. However, there has not been a single article or report written that addresses the actual facts identifying the cause or causes of the building collapse because the facts are not yet determined.

The local building departments have sent out teams of inspectors to identify potential structural problems in existing buildings. Building departments have the authority to require building safety reports and to shut down unsafe structures and buildings.

Broward Board of Rules and Appeals (BORA) is presently working on reports to identify the local building departments' compliance with the Building Inspection Program.

The Florida Building Commission (FBC) has sent out a draft on 2021-08-30 of the "Ensuring the Safety of Existing Buildings" report which is based on the Miami-Dade County BORA, and the Broward County BORA "Building Safety Inspection Program".

The National Institute of Standards and Testing (NIST) sent out a newsletter on 2021-08-25 stating that an expert team has been set up to investigate the collapse of the Champlain Tower, South.

Possible Issues to Address Regarding the Building Collapse These issues can only be addressed after the building collapse causes are determined (facts, not assumptions):

1. Original engineering design
2. Original construction
3. Building maintenance
4. Building settling, water intrusion
5. Miami-Dade County BORA, Broward County BORA Building Safety Inspection Program

Possible Action Items To improve the Building Safety Inspection Program:

1. Change the 40 Year + 10 Year Inspection requirements to:
   30 + 10 30 years may be too early and 10 years later may be too late.
   30 + 5
2. Change the requirements of the Engineering Inspections:
   A. Structural Inspections: For all buildings, the Professional Engineer shall have structural education, training, and experience.
   B. Structural Inspections: For hi-rise buildings, the Professional Engineer shall have Structural education, training, and experience, and Threshold Inspection Certification.
   C. Electrical Inspections: For all buildings, the Professional Engineer shall have electrical education, training, and experience.
3. Additional requirements:
   A. Building owners shall provide copies of the original building design drawings, and all permit changes to the Engineering Inspector.
   B. Building owners shall provide copies of all previous engineering reports related to the structural and electrical system.
   C. The Engineering Inspector shall review all of the above for building safety.
   D. If the original design drawings and permits are not available, the building owner shall notify the Engineering Inspector in writing.

Recommendations

We have both short-term and long-term issues to evaluate.

- The short-term is for the immediate future measured in months. This short-term evaluation will have to be done without knowing all of the facts covering the cause of the building collapse. We can only make assumptions at this time.

  If we incorporate building code changes now, without knowing the facts, we may have permanent codes that do not address the real issues and causes of building collapses.

  All building code changes, in this short-term, shall be set up as temporary measures with expiration dates. This will ensure code updates when more facts are known.

- The long-term is for the time line after the initial months. Get the facts that determine the cause of the building collapse. Long-term is measured in months or years.

  After the facts are known, the temporary building codes would be updated to permanent building codes.

Attachment "A"; Broward County Board of Rules and Appeals (BORA)

Mission Statement

- Provide education to Inspectors, Contractors, and Design Professionals.
- Certify Inspectors.
- Hear appeals.
- Provide stronger codes and greater safety for all.
- Represent Broward County in state, national, and international organizations in developing Codes and Standards.
- Provide a uniform code interpretation for all of the municipalities in Broward County.
- Provide Broward County Code Amendments to the Florida Building Commission to strengthen building code requirements.

"Stronger Codes Mean Safer Buildings!"

Organization

12 paid staff openings
22 volunteer board members
60 volunteer committee members

Members: architects, engineers, contractors, inspectors, consumer advocates

History: Major Milestones

1970 Broward County Board of Rules and Appeals (BORA) started.
1992 Hurricane Andrew: BORA wrote the structural codes
2002 Florida Building Code effective date
2005 Building Safety Inspection Program effective date. Miami-Dade County and Broward County are the only municipalities that have this program.

INTERNATIONAL CODE COUNCIL®

Ensuring the Safety of Existing Buildings:

Codes, Standards, and Periodic Inspections

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APPENDIX C – EXISTING BUILDING SAFETY INSPECTION GUIDE

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Ensuring the Safety of Existing Buildings: Codes, Standards, and Periodic Inspections

INTRODUCTION

Florida's Building Code (FBC) is based on the model International Codes (I-Codes) developed by the International Code Council (ICC) through a national voluntary consensus process with input from leading experts from the private and public sectors. Florida maintains its building and safety codes through revisions and adaptations to the I-Codes on a three-year cycle.

According to the 2021 *Rating the States* report by the Insurance Institute for Business & Home Safety (IBHS), Florida ranks number one, leading the 18 Atlantic and Gulf coastal states in building code safety. The IBHS rating score is based 50% on statewide adoption and enforcement; 25% on state-adopted amendments for building official certification, training and continuing education; and 25% on state regulations for on-site implementation and proficiency based on contractor and subcontractor registration, licensing, and continuing education.

EXPERT PANEL DISCUSSION ON EXISTING BUILDINGS

In the wake of the collapse of the Champlain Towers South mid-rise condominium building in Surfside, Florida, the International Code Council (ICC), the Building Owners and Managers Association (BOMA), and the National Institute of Building Sciences (NIBS) convened a panel of subject matter experts from around the nation in West Palm Beach on August 17, 2021. The purpose was to share knowledge and recommendations on how communities monitor the safety of existing buildings, what guidance already exists, and how future catastrophic events may be avoided.

There were three panels, each focused on specific issues. The first panel was on "The Codes and Existing Buildings" and it was moderated by Dominic Sims, Chief Executive Officer of ICC. Panelists covered current building codes and standards that cover structural safety, existing buildings and property maintenance.

"Building Inspections" was the theme of the second panel moderated by Drew Rouland, Vice President of NIBS. These panelists discussed the current process for building inspections, including current guidelines for frequency, and what recommendations and practices of technologies will enhance building inspections in the future.

"Property Management and the Real Estate Industry" was the third topic. The panel was moderated by Ken Rosenfeld, Director of State and Local Affairs with BOMA International. Panelists discussed building safety from the perspective of property owners and managers, focusing on the overall systems of inspections, operations and maintenance.

Meeting participants generally agreed that the International Building Code's technical requirements, which have been incorporated in the Florida Building Code, currently provide the correct level of engineering guidance and safety for the construction of new buildings and alterations.

For context, ICC review of the property maintenance codes and regulations in 381 Florida jurisdictions found the following:

- Seventy-six jurisdictions (20%) have not adopted minimum building/property maintenance codes for existing buildings.
- Eighty-three jurisdictions (22%) reference model housing or existing building abatement codes/standards that were developed in the late 1970s.
- One hundred-thirty seven jurisdictions (36%) have implemented locally-developed property/building maintenance regulations or standards in lieu of a national model code or standard.

- Eighty-three jurisdictions (22%) have adopted the more modern *International Property Maintenance Code*.
- Less than 3% of jurisdictions have implemented a periodic recertification or inspection safety program for existing buildings.

TAKEAWAYS FROM THE PANELS DISCUSSIONS

- Communities are seeking better guidance for inspections of existing buildings, depending on local risk criteria.
- Owners need to keep building maintenance records available for inspection.
- More accountability is necessary; dangerous conditions must be reported to code (building) officials immediately.
- Timing and frequency of post CO inspections and recertification inspections must be considered.
- A uniform statewide property maintenance standard administered by local governments is critical for public safety and health of the real estate market.
- Continuous education and training for building managers, Code (Building) Officials and the building community is important.
- An analysis of existing and new technologies available to implement changes would provide great value to all stakeholders.
- Although building safety inspection programs are common, recertification programs are rare.

RECOMMENDATION

Adoption of a statewide property maintenance standard for existing buildings.

Maintaining the structural integrity of a building throughout its service life is of critical importance to the public's health and safety. The *International Property Maintenance Code* (IPMC) requires that both the building and the service/fire protection systems be maintained in good repair, and structurally sound. The IPMC with an appendix on inspection of existing buildings, would provide a ready-made solution for the State of Florida.

One inspection protocol for a state the size of Florida is not recommended. The geographic location of the building, local climate, risk of flooding, areas of high wind, soil conditions, the presence of salt air and other risk factors must be considered in order to focus on only the necessary existing buildings.

The purpose of the Existing Building Inspection Guide, Appendix C, is to recommend reasonable practices to ensure buildings are safe for continued use and occupancy.

The key criteria of Appendix C includes site specific inspection requirements based on the location of the building, including:

- The Use Classification of buildings and the required inspections based on the risk categories in the *International Building Code/FBC* in addition to and environmental risk exposures.
- Three phases of periodic inspections with specified frequency intervals over the service life of the building, performed by the following:
  - » **Maintenance inspection** performed by the Code (Building) Official, owner or owner's authorized representative
  - » **Periodic inspection** performed by the Code (Building) Official or licensed design professional
  - » **Milestone special inspection** performed by a Special Inspector who is qualified and a registered engineer in the system discipline being inspected

- Details of each of the required inspections, including reference documents to be used for the inspections.
- Roles and responsibilities of all parties, including the Code (Building) Official.
- Criteria for assessing/identifying the existing design.
- Inspection of building construction materials and how environmental influences may affect their future performance.
- Inspection records, including sample inspection report forms.
- Resource materials providing additional information and guidance.

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Appendix C
Existing Building Safety Inspection Guide
(Working Draft)

1. INTRODUCTION AND PURPOSE

Introduction

Maintaining the structural integrity of the building throughout its service life is of paramount importance. The ***International Property Maintenance Code*** **(IPMC)** requires both the interior and exterior of the building to be maintained in good repair and structurally sound so as to not pose a threat to public health, safety and welfare. Specifically, where the nominal strength of a structural member is exceeded by nominal loads, the load effects or the required strength, the building is determined to be unsafe and shall be required to be repaired or replaced to comply with the IBC/FBC. There are many such examples of unsafe conditions in the IPMC for both structural and non-structural considerations.

In order to assess whether an unsafe condition exists, this appendix provides guidance and evaluation criteria for the regular inspection of structural safety as well as the building envelope, electrical system, fire protection system and mechanical and plumbing systems.

An important criterion for the establishment of the necessary inspection frequency is the location where the building is sited. All buildings are not considered the same even where their occupancy, size, and height are similar. Each building must be considered unique based on its site location due to concerns in response to the following:

- Occupancy and Use Classification
- Risk Categories
- Environmental influences such as humidity, temperature, presence of salt air and chlorides
- Areas which are subject to frequent flooding
- Areas of high seismic and very high wind
- Site soil conditions such as questionable soils, expansive soils, ground water table, compacted fill, and rock strata

Purpose

The fundamental purpose of an Existing Building Inspection program is to confirm that the building or structure under consideration is safe for continued use under the present occupancy. As implied by the title of this document, this is a recommended program, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Such inspection shall be for the purpose of determining the general condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load, and the general condition of its electrical, mechanical, plumbing and fire protection systems.

The effects of time with respect to deterioration of the original construction materials must also be evaluated.

Visual examination will, in most cases, be considered adequate when executed systematically. The visual examination must be conducted throughout all habitable and non-habitable areas of the building, as deemed

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necessary by the inspecting professional to establish compliance. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible concern.

Testing procedures and quantitative analysis will not generally be required except for such cases where visual examination has revealed such need, or where apparent loading conditions may be critical.

Manual procedures such as chipping small areas of concrete and surface finishes for closer examinations are encouraged in preference to sampling and/or testing where visual examination alone is deemed insufficient.

Generally, unfinished areas of buildings such as utility spaces, maintenance areas, stairwells and elevator shafts should be utilized for such purposes. In some cases, to be held to a minimum, ceilings or other construction finishes may have to be opened for selective examination of critical structural elements. A sufficient number of structural members must be examined to afford reasonable assurance that such are representative of the total structure.

When evaluating an existing structure for the effect of time, two basic elements must be considered:

1. Movement of structural components with respect to each other
2. Deterioration of materials

With respect to the former, volume change considerations, principally from ambient temperature changes, and possible long-time deflections, are likely to be most significant. Foundation movements will frequently be of importance (usually settlement) although upward movement due to expansive soils may occur.

Older buildings on spread footings may exhibit continual settlements if constructed on deep, unconsolidated, fine-grained or cohesive soils or from subterraneous losses or movements.

Structural deterioration will always require repair. The type of repair, however, will depend on the importance of the member in the structural system and degree of deterioration. Cosmetic repairs may suffice in certain non-sensitive members such as tie beams and columns, provided that the remaining sound material is sufficient for the required function. For members carrying assigned gravity or other loads, cosmetic repairs will only be permitted if it can be demonstrated by rational analysis that the remaining material, if protected from further deterioration, can still perform its assigned function at acceptable stress levels. Failing that, adequate repairs or reinforcement will be considered mandatory.

Structural problems in existing buildings may have catastrophic consequences. Just as important are potential hazards to building occupants caused by electrical deficiencies. These are often qualified under the following three headings:

1. Electric service
2. Branch circuits and raceways
3. Emergency lighting, essential power and fire alarm systems.

As such, they warrant special attention in terms of maintenance and periodic inspections.

For additional information on structural, electrical, mechanical and plumbing evaluations, see the “Resource Material” at the end of this appendix.

2. SCOPE/RESPONSIBILITIES

The owner or owner’s authorized representative of the building bears the responsibility for the maintenance of the building and for maintaining public safety.

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Design professionals and special inspectors shall be used when required by Table 4.1 or when required by the Code (Building) Official.

The owner or owner's authorized representative is responsible for the orderly maintenance of buildings. Maintenance for the purpose of this appendix refers to all measures for maintenance of the planned condition or the assurance of unrestricted usability of a building. Servicing and regular inspections are essential elements of maintenance.

The Code (Building) Official shall ensure all existing buildings are maintained by the owner or owner's authorized representative in accordance with the *International Property Maintenance Code* and this appendix.

The inspections required by Table 4.1 are in addition to those required by the fire department, for active fire and life safety systems and equipment, commercial cooking systems, and elevators, as specified Sections 604, 606.3 and 901 of the *International Fire Code/FFC* (IFC).

3. TERMS

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services or furnishing product certification where such agency has been approved by the Code (Building) Official.

CODE (BUILDING) OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

DURABILITY. The condition of building elements or individual construction components that ensure the load-bearing capacity and the usability during the whole service life when subjected to reasonable maintenance.

EXTREME RAINFALL AREAS. (under development)

EXTREME SEISMIC AREAS. (under development)

EXTREME WIND AREA. Include areas where the ultimate design wind speed is 140 mph or greater and in Exposure Category D.

LIFETIME. The actual time during which a building or bearing element is structurally safe.

OWNER. Any person, agent, operator, entity, firm or corporation having any legal or equitable interest in the property; or recorded in the official records of the state, county or municipality as holding an interest or title to the property; or otherwise having possession or control of the property, including the guardian of the estate of any such person, and the executor or administrator of the estate of such person if ordered to take possession of real property by a court.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. This includes any registered design professional so long as they are practicing within the scope of their license, which includes those licensed under Chapters 471 and 481, Florida Statutes.

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A registered design professional engaged by the owner or the owner's authorized agent to review and coordinate certain aspects of the project, as determined by the building official, for compatibility with the design of the building or structure, including submittal documents prepared by others, deferred submittal documents and phased submittal documents.

RISK CATEGORY. A categorization of buildings and other structures for determination of flood, wind, and earthquake loads based on the risk associated with unacceptable performance.

TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
1	Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: ▪ Agricultural facilities. ▪ Certain temporary facilities. ▪ Minor storage facilities.
2	Buildings and other structures except those listed in Risk Categories 1, 3 and 4.
3	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: ▪ Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. ▪ Buildings and other structures containing one or more public assembly spaces, each having an occupant load greater than 300 and a cumulative occupant load of the public assembly spaces of greater than 2,500. ▪ Buildings and other structures containing Group E or Group I-4 occupancies or combination thereof, with an occupant load greater than 250. ▪ Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500. ▪ Group I-2, Condition 1 occupancies with 50 or more care recipients. ▪ Group I-2, Condition 2 occupancies not having emergency surgery or emergency treatment facilities. ▪ Group I-3 occupancies. ▪ Any other occupancy with an occupant load greater than 5,000.[a] ▪ Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category 4. ▪ Buildings and other structures not included in Risk Category 4 containing quantities of toxic or explosive materials that: » Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and » Are sufficient to pose a threat to the public if released.[b]

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TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
4	Buildings and other structures designated as essential facilities, including but not limited to: ▪ Group I-2, Condition 2 occupancies having emergency surgery or emergency treatment facilities. ▪ Ambulatory care facilities having emergency surgery or emergency treatment facilities. ▪ Fire, rescue, ambulance and police stations and emergency vehicle garages ▪ Designated earthquake, hurricane or other emergency shelters. ▪ Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. ▪ Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category 4 structures. ▪ Buildings and other structures containing quantities of highly toxic materials that: ▪ Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and ▪ Are sufficient to pose a threat to the public if released.b ▪ Aviation control towers, air traffic control centers and emergency aircraft hangars. ▪ Buildings and other structures having critical national defense functions. ▪ Water storage facilities and pump structures required to maintain water pressure for fire suppression.

[a] For purposes of occupant load calculation, occupancies required by Table 1004.5 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

[b] Where approved by the building official, the classification of buildings and other structures as Risk Category 3 or 4 based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category 2, provided that it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

SERVICEABILITY. The property of a building or individual construction elements of being useable as planned and according to the specified conditions.

SERVICE LIFE. The planned period for which a building or individual construction elements can be used with regular maintenance, but without any significant restoration.

SPECIAL BUILDING ENVIRONMENTAL FACTORS (SBEF). Special building environmental factors are areas where natural conditions can impact a buildings performance or safety. Special attention must be paid to proper building maintenance and regular inspection, as specified in Table 4.1. SBEF areas include the following:

MARINE. This includes areas that are regularly subject to marine spray, fog or mist, etc. where a building is exposed to brine or chlorides. This includes the area two miles landward of the Florida CCCL which is based on coastal engineering models, survey and bathymetric data and scientific principles that determine the upland or landward extent of the damaging effects of a 100-year storm event. For simplicity of application and enforcement, the Code (Building) Official may designate the local limits of marine risk environments using recognizable local landmarks.

FLOOD COASTAL A ZONE. Area within a special flood hazard area, landward of a V zone or landward of an open coast without mapped coastal high hazard areas. In a coastal A zone, the principal source of flooding must be astronomical tides, storm surges, seiches or tsunamis, not riverine flooding. During the base flood conditions, the potential for breaking wave height shall be greater than or equal to 1½ feet (457 mm). The inland limit of the coastal A zone is (a) the Limit of Moderate Wave Action if delineated on a FIRM, or (b) designated by the authority having jurisdiction.

COASTAL HIGH HAZARD AREA. Area within the special flood hazard area extending from offshore to the inland limit of a primary dune along an open coast and any other area that is subject to high-velocity wave action from storms or seismic sources, and shown on a Flood Insurance Rate Map (FIRM) or other flood hazard map as velocity Zone V, VO, VE or V1-30.

SPECIAL SOIL CONDITIONS. (under development)

For other terms not defined in this appendix, refer to the definitions in the *International Building Code/FBC* and *International Property Maintenance Code*.

4. BUILDING OCCUPANCIES/RISK CATEGORY ASSESSMENTS/INSPECTION FREQUENCY

Each building or structure shall be assigned a minimum frequency of required inspections based upon its structural design risk category as specified in the *International Building Code*, Table 1604.5, and its exposure to environmental factors in accordance with Table 4.1. The frequency intervals for existing building inspections shall be maintained for the service life of the building.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane are exempt from the periodic inspection requirements.

Table 4.1 Use, Occupancy and Special Building Environmental Factors Frequency Intervals for Existing Building Inspections

IBC/IFC Use Risk Category	Special Environmental Factors	Maintenance Inspection	Periodic Inspection (in years)	Milestone Special Inspection (in years)
1 (e.g. Ag buildings)	No	Recommended	N/A	N/A
	Yes	Recommended	N/A	N/A
2 (e.g. commercial/ residential high-rise)	No	Annually	15 (N/A for buildings <4 stories or 3,500 sq.ft.)	30 (N/A for buildings <4 stories or 3,500 sq.ft.)
	Yes	Annually	10 (N/A for buildings <4 stories or 3,500 sq.ft.)	20 (N/A for buildings <4 stories or 3,500 sq.ft.)
3 (e.g. large assembly)	No	Annually	15	30
	Yes	Annually	10	20
4 (e.g. Hospitals)	No	Annually	5	20
	Yes	Annually	5	20

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5. TYPES OF INSPECTIONS

A. Maintenance Inspection

Maintenance inspections required by Table 4.1 shall be a visual surveillance by the owner or owner's authorized representative and include the inspection of the building for obvious defects or damages and the documentation thereof.

This includes all load-bearing construction elements such as supports, walls, ceilings, joists, trusses, with a focus on deformations, misalignments, cracks, humidity, efflorescence, and corrosion.

In addition to the structural considerations noted above, the building envelope components (including balconies and roof), electrical system, fire protection system, and the mechanical and plumbing systems shall be inspected at the noted frequency interval to maintain public safety.

Written reports shall be required for all inspections and shall note the description of the type and manner of the inspection, noting problem areas and recommended repairs. All repairs requiring a building permit shall be submitted and approved by the Code (Building) Official.

B. Periodic Inspection

Inspections required by Table 4.1 may be performed by the Code (Building) Official or by a licensed design professional, as determined by the Code (Building) Official. The registered design professional shall be an architect or engineer.

ASCE 11 – 99, Guideline for Structural Condition Assessment of Existing Buildings, should be used when performing any structural inspection.

ASCE/SEI 30 – 14, Guideline for Condition Assessment of the Building Envelope, should be used when performing any building envelope inspection.

All inspection results, as well as any corrective measures necessary, must be documented and shall be provided to the Code (Building) Official.

C. Milestone Special Inspection

Inspections required by Table 4.1 at long-term milestones shall be performed by a Special Inspector. A special inspector shall be a registered engineer qualified and registered in the discipline for the system being evaluated (structural, electrical, mechanical). Such agency shall provide all information as necessary for the Code (Building) Official to determine that the agency meets the applicable requirements specified in the *International Building Code*, Sections 1703.1.1 through 1703.1.3.

The owner or owner's authorized representative, other than the contractor, shall employ one or more approved special inspectors to provide milestone inspections and tests on the types of work specified by the registered design professional in responsible charge of the periodic inspection as specified in Table 4.1.

The special inspector shall keep records of special inspections and tests, as required by the *International Building Code*, Section 1704, and shall submit reports of special inspections and tests to the Code (Building) Official, the registered design professional in responsible charge and the owner or the owner's authorized agent.

A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's authorized agent to the Code (Building) Official.

7.r

The Code (Building) Official may perform additional inspections as necessary to approve the corrective action(s) necessary. The Code (Building) Official shall issue an updated CO (recertification) when the building is deemed safe by the special inspector, in accordance with local rules and procedures.

6. EXISTING DESIGN CONSIDERATIONS

A. Code of Record

The code of record used for the initial building design shall be the minimum building design. Certified copies of all building permits and approved construction documents, including as-built drawings, shall be maintained by the property owner and available on site.

B. Design Strength of Materials and Referenced Standards at time of construction

- Concrete and masonry grout mix designs for all structural components
- Prestressing tendons design strength/post tensioning pressures
- Structural Steel design strengths of primary and secondary members
- Cold-formed steel framing/cladding design strengths
- The design pressure rating of exterior windows and doors in the buildings

C. Subsequent Additions/Alterations/Repairs

The adopted edition of the *International Existing Building Code* (IEBC) used for any subsequent additions, alterations or repairs shall be the minimum building design for those elements.

Certified copies of all building permits and approved construction documents shall be maintained by the property owner and available on site.

7. BUILDING MATERIALS INSPECTIONS

Building materials are subject to aging over the course of their useful life. How quickly this progresses during the planned service life and to what extent properties of the building materials are altered depends on the building material, but also to a substantial degree on the type and intensity of the environmental influences.

Deterioration of building materials can only occur in the presence of moisture, mostly to metals because of their natural tendency to return to the oxide state in the corrosive process.

In a marine climate, highly aggressive conditions exist year-round. For most of the year, outside relative humidity may frequently be about 90 or 95%, while within air-conditioned buildings, relative humidity will normally be about 35 to 60%. Under these conditions moisture vapor pressures ranging from about ⅓ to ½ pounds per square inch will exist much of the time. Moisture vapor will migrate to lower pressure areas. Common building materials such as stucco, masonry and even concrete, are permeable even with these slight pressures. Where vapor barriers were not used for the existing building, condensation will take place within the enclosed walls of the building. As a result, deterioration is most likely adjacent to exterior walls, or wherever else moisture or direct leakage has been permitted to penetrate the building envelope.

The changes in the building material properties can be essential for the structural safety of a building. For this reason, it is important that these are examined in the regular inspections and evaluated.

7.s

A. Critical building material properties/potential impairments

Changes which can occur in building materials due to environmental influences are listed in Table 7.1.

Characteristics of a building material with reference to the structural safety of a building are its strength, rigidity, ductility, and its time- and load-related behavior.

For building materials mainly subject to compression, compressive strength is the decisive value, for building materials subject to tension or bending, tensile strength, as applicable in conjunction with shear strength, is of primary importance.

Changes in strength, generally the microstructure of the material reduction, are usually the result of changes in material structure. This is associated with a more or less pronounced reduction of the elasticity module so that even larger deformations can occur. This must be taken into account in the prognosis for the future behavior of the building structure.

Embrittlement of the materials micro-structure generally leads to a significant reduction in failure strain. This means that comparatively little deformation occurs which would indicate an imminent failure.

In addition to changes caused by environmental influences, strength and rigidity losses may also be caused by external loads, such as overloading or cyclical loads at an unplanned high level.

Table 7.1. Changes in Building Material Characteristics due to Environmental Influences

Material	Environmental Influence	Primary Consequence	Secondary Consequence
Steel	humidity	corrosion	reduction of cross section
	oxygen, hydrogen, nitrogen, phosphorous	embrittlement	reduction in ductility
	heat	hardening, softening	cracks
Aluminum	alkalis (mortar, building lime)	corrosion	reduction of cross section
Concrete	humidity, frost, chemicals	crumbling, cracks	loss of strength & stiffness
Masonry	humidity, frost, chemicals	weathering	reduction of cross section
Reinforced Concrete	carbonization, chlorides	corrosion of the reinforcement, cracks	reduction of cross section loss of strength & stiffness
Pre/post-stressed concrete	carbonization, chlorides	corrosion of the reinforcement, cracks	reduction of cross section loss of strength & stiffness
Wood	humidity, mold, insects	rotting	loss of strength & stiffness
Plastics	UV radiation	embrittlement, cracks	reduction in elongation

7.t

B. Identification of changes in the building

Some changes in the building material characteristics can be deduced from visible changes in the appearance of the construction element surface (weathering, corrosion, crack, etc.). This is why a vigorous visual inspection of buildings for these parameters is particularly important.

The environmental conditions can be important for the long-term behavior of the building materials (humidity, temperature, alternation of frost and thawing). Effects on the building physics (heat conductivity, condensation, etc.) must also be taken into account.

For a quantitative identification of the current building material and construction element characteristics (contamination profiles, corrosion, etc.) destructive and non-destructive test methods can be used. In the case of destructive test methods, the relevant characteristic data is generally gained directly. Samples are taken for this purpose without causing significant damage to the building, such as:

- Core drill sampling with direct strength test or direct determination of moisture content
- Sampling of core drills with direct determination of contaminants (chloride, sulphate content)
- Direct determination of the carbonization depth on fresh fracture surfaces
- Visual inspection of the state of corrosion of exposed reinforcement
- Determination of the depth of rot damage in wood by shaving off or drill/puncture resistance measurements
- Assessment of the type and condition of adhesives
- Taking samples from metallic construction elements for an analysis of chemical properties (spectral analysis), mechanical characteristics, susceptibility to brittle fracture (notched bar impact bending test) and the microstructural composition (microsection, structural characteristics, grain size)

Non-destructive test methods generally use indirect characteristics which make it possible to deduce the primary characteristics on the basis of more or less reliable correlations (often on an empirical basis). Non-destructive testing and the subsequent interpretation of the measurements requires experience and may only be performed by the approved special inspection agency. Examples of non-destructive testing include:

- Strength test on mineral building materials with a rebound hammer (primary tested characteristic: elastic behavior in the boundary zone)
- Tensile strength of metallic materials by hardness test
- Determination of microstructural dispersal by ultrasound (primary tested characteristic: ultrasonic transit time; comparative values from different test times are essential for this purpose)
- Moisture content determination by electrical resistance measurement or carbide method (CM)
- Determination of surface cracks using magnetic powder or pigment penetration methods
- Localization and determination of weak points (e.g. weld seams)
- Thickness measurement of the corrosion protection coating or metal coatings
- Wall thickness measurement (vernier)
- Measurement of the concrete cover

C. Evaluation of the examination results and assessment of the service life

The results gained during building inspections provide information about the building material characteristics at the time of testing. For a prognosis regarding further changes to the materials over time, the particular location (indoors, outdoors) and the environmental conditions to which the material in the respective construction element is exposed must be taken into consideration.

7.u

8. BUILDING DESIGN LOADS

An existing building may be exposed to the following loads:

- Dead loads and imposed loads
- Soil and water pressure
- Wind loads
- Seismic Loads
- Extraordinary actions, such as impact, explosion and wildfires
- Restraint from settlement and deformation
- Temperature and humidity
- Shrinkage and swelling
- Actions during construction, i.e., pre-tensioning, etc.
- Mechanical and chemical actions

For the assessment of the load-bearing capacity and the serviceability of an existing building, it is essential to consider the applicable loads based on the code of record for the original construction, particularly taking into account any design changes and change in use.

Models as well as the corresponding values (characteristics, measurements) of the loads must be determined in line with the safety concept. The actual values of the loads are often greater than the values applicable at the time when the building was constructed. It is also essential to correctly assess the nature of the loads (constant, pulsating, alternating).

9. INSPECTION RECORDS

A. Original Construction Design and Construction Documents

Figure 1 indicates the minimum type of construction documents that the owner must have readily available on site.

B. Existing Building Safety Inspection Log

The Existing Building Safety Inspection Log should provide an overview of the building, the basic data of the structural analysis and the permit documents and serve as a reliable source of information for the regular inspections by the licensed design professionals required by Tables 3.1 and 3.2 and the Code (Building) Official. Each report shall include a statement to the effect that the building is structurally safe, unsafe, or safe with qualifications.

Figure 2 is a sample the layout and the content of a typical Building Safety Inspection Log. The Building Safety Inspection Log shall be referenced while performing all periodic inspections and should also be maintained as an electronic document in PDF format.

If there are no copies of the approved construction documents available for an existing building, the Code (Building) Official must approve all documents, or measures that are necessary for the assessment of type of inspection(s) required. In such instances, it is imperative that the documentation is representative of the actual construction of the building.

C. Inspection Report Forms

See Figures 3 and 4 for sample inspection report forms for structural and electrical inspections, respectively.

7.v

FIGURE 1

EXISTING BUILDING SAFETY INSPECTION
(Structural Documents)

A. Approved Geotechnical/Soils Investigation Reports

B. Approved construction documents, as necessary

C. Structural design analysis and assumptions

D. Approved fabrication drawings for pre-cast or prefabricated structural elements

E. Approved erection plans for the load-bearing structure

F. Reports by the registered design professional of record

G. Monitoring reports by the registered design professional of record

H. Material test reports and inspection records

I. Final special inspection reports

J. Construction documents for any subsequent additions, alterations and repairs

7.w

FIGURE 2

EXISTING BUILDING SAFETY INSPECTION LOG (Layout and content)

1. **Title sheet**
2. **Contents**
3. **Overview drawings**
   - 3.1 Views, cross sections of the building
   - 3.2 Copies of all approved architectural, structural, electrical, mechanical, plumbing and fire protection plans, and details
4. **Documents for structural analysis**
   - 4.1 Structural design analysis with construction description and data on building materials, site, applicable regulations and all assumed loads
   - 4.2 Construction/Erection/Fabrication drawings/details
5. **Copies of all building permits**
6. **Copies of all property owner inspection results**
7. **Copies of all registered design professional inspection results**
8. **Copies of all special inspection agency reports and test results**

7.x

FIGURE 3
(Figure 3 pdf)

Please download the form to your computer before filling out and submitting.

EXISTING BUILDING SAFETY INSPECTION REPORT FORM (STRUCTURAL)

INSPECTION COMMENCED
Date:

INSPECTION COMPLETED
Date:

INSPECTION MADE BY:
SIGNATURE:
PRINT NAME:
TITLE:

ADDRESS:

1. DESCRIPTION OF STRUCTURE

a. **Name on Title:**
b. **Street Address:**
c. **Legal Description:**
d. **Owner's Name:**
e. **Owner's Mailing Address:**
f. **Folio Number of Property on which Building is Located:**
g. **Building Code Occupancy Classification:**
h. **Present Use:**
i. **General Description:**

Addition Comments:

j. **Additions/Alterations/Repairs to original structure:**

7.y

FIGURE 3 (continued)
(Figure 3 pdf)

2. PRESENT CONDITION OF STRUCTURE

a. General alignment (Note: good, fair, poor, explain if significant)

1. Bulging
2. Settlement
3. Deflections
4. Expansion
5. Contraction

b. Portion showing distress (Note, beams, columns, structural walls, floor, roofs, other)

c. Surface conditions – describe general conditions of finishes, noting cracking, spalling, peeling, signs of moisture penetration and stains.

d. Cracks – note location in significant members. Identify crack size as HAIRLINE if barely discernible; FINE if less than 1 mm in width; MEDIUM if between 1 and 2 mm width; WIDE if over 2 mm.

e. General extent of deterioration – cracking or spalling of concrete or masonry, oxidation of metals; rot or borer attack in wood.

f. Previous patching or repairs

g. Nature of present loading indicate residential, commercial, other estimate magnitude.

FIGURE 3 (continued)
(Figure 3 pdf)

3. INSPECTIONS

a. Date of notice of required inspection ☐

b. Date(s) of actual inspection ☐

c. Name and qualifications of individual submitting report:

☐

d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures

☐

e. Structural repair – note appropriate line:

1. ☐ None required
2. ☐ Required (describe and indicate acceptance)

☐

4. SUPPORTING DATA

a. ☐ **sheet written data**

b. ☐ **photographs**

c. ☐ **drawings or sketches**

5. MASONRY BEARING WALL = Indicate good, fair, poor on appropriate lines:

a. Concrete masonry units ☐

b. Clay tile or terra cota units ☐

c. Reinforced concrete tie columns ☐

d. Reinforced concrete tie beams ☐

e. Lintel ☐

f. Other type bond beams ☐

g. Masonry finishes – exterior

1. Stucco ☐
2. Veneer ☐
3. Paint only ☐
4. Other (describe)

☐

FIGURE 3 (continued)
(Figure 3 pdf)

h. Masonry finishes – interior

1. Vapor barrier
2. Furring and plaster
3. Paneling
4. Paint only
5. Other (describe)

i. Cracks

1. Location – note beams, columns, other
2. Description

j. Spalling

1. Location – note beams, columns, other
2. Description

k. Rebar corrosion – check appropriate line

1. ☐ None visible
2. ☐ Minor – patching will suffice
3. ☐ Significant – but patching will suffice
4. ☐ Significant – structural repairs required

l. Samples chipped out for examination in spall areas:

1. ☐ No
2. ☐ Yes – describe color, texture, aggregate, general quality

FIGURE 3 (continued)
(Figure 3 pdf)

6. FLOOR AND ROOF SYSTEM

a. Roof

1. Describe (flat, slope, type roofing, type roof deck, condition)

2. Note water tanks, cooling towers, air conditioning equipment, signs, other heavy equipment and condition of support:

3. Note types of drains and scuppers and condition:

b. Floor system(s)

1. Describe (type of system framing, material, spans, condition)

c. Inspection – note exposed areas available for inspection, and where it was found necessary to open ceilings, etc. for inspection of typical framing members.

7. STEEL FRAMING SYSTEM

a. Description

b. Exposed Steel – describe condition of paint and degree of corrosion

c. Concrete or other fireproofing – note any cracking or spalling and note where any covering was removed for inspection

d. Elevator sheave beams and connections, and machine floor beams – note condition:

7.b1

FIGURE 3 (continued)
(Figure 3 pdf)

8. CONCRETE FRAMING SYSTEM

a. Full description of structural system

b. Cracking

1. ☐ Not significant
2. ☐ Location and description of members affected and type cracking

c. General condition

d. Rebar corrosion – check appropriate line

1. ☐ None visible
2. ☐ Location and description of members affected and type cracking
3. ☐ Significant but patching will suffice
4. ☐ Significant – structural repairs required (describe)

e. Samples chipped out in spall areas:

1. ☐ No
2. ☐ Yes, describe color, texture, aggregate, general quality:

7.c 1

FIGURE 3 (continued)
(Figure 3 pdf)

9. WINDOWS AND DOORS

a. **Type (Wood, steel, aluminum, jalousie, single hung, double hung, casement, awning, pivoted, fixed, other)**

b. **Anchorage – type and condition of fasteners and latches**

c. **Sealant – type of condition of perimeter sealant and at mullions:**

d. **Interiors seals – type and condition at operable vents**

e. **General condition:**

10. WOOD FRAMING

a. **Type – fully describe if mill construction, light construction, major spans, trusses:**

b. **Note metal fitting i.e., angles, plates, bolts, split pintles, other, and note condition:**

c. **Joints – note if well fitted and still closed:**

d. **Drainage – note accumulations of moisture**

e. **Ventilation – note any concealed spaces not ventilated:**

f. **Note any concealed spaces opened for inspection:**

FIGURE 4
(Figure 4 pdf)

Please download the form to your computer before filling out and submitting.

EXISTING BUILDING SAFETY INSPECTION REPORT FORM (ELECTRICAL)

INSPECTION COMMENCED
Date:

INSPECTION COMPLETED
Date:

INSPECTION MADE BY:
SIGNATURE:
PRINT NAME:
TITLE:

ADDRESS:

DESCRIPTION OF STRUCTURE

a. **Name on Title:**
b. **Street Address:**
c. **Legal Description:**
d. **Owner's Name:**
e. **Owner's Mailing Address:**
f. **Folio Number of Property on which Building is Located:**
g. **Building Code Occupancy Classification:**
h. **Present Use:**
i. **General Description, Type of Construction, Size, Number of Stories and Special Features:**

Additional Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

1. ELECTRIC SERVICE

1. Size:	Amperage	( )	Fuses	( )	Breakers	( )
2. Phase:	Three Phase	( )	Single Phase	( )		
3. Condition:	Good	( )	Fair	( )	Needs Repair	( )

Comments:

2. METER AND ELECTRIC ROOM

1. Clearances:	Good	( )	Fair	( )	Requires Correction	( )

Comments:

3. GUTTERS

1. Location:	Good	( )	Requires Repair	( )		
2. Taps and Fill:	Good	( )	Requires Repair	( )		

Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

4. ELECTRICAL PANELS

Location:

1. Panel # ( ) Good ( ) Requires Repair ( )
2. Panel # ( ) Good ( ) Requires Repair ( )
3. Panel # ( ) Good ( ) Requires Repair ( )
4. Panel # ( ) Good ( ) Requires Repair ( )
5. Panel # ( ) Good ( ) Requires Repair ( )

Comments:

5. BRANCH CIRCUITS

1. Identified: Yes ( ) Must be identified ( )
2. Conductors: Good ( ) Deteriorated ( ) Must be replaced ( )

Comments:

6. GROUNDING SERVICE

Good ( ) Repairs Required ( )

Comments:

7. GROUNDING OF EQUIPMENT

Good ( ) Repairs Required ( )

Comments:

7.g1

FIGURE 4 (continued)
(Figure 4 pdf)

8. SERVICE CONDUITS/RACEWAYS

Good ( ) Repairs Required ( )

Comments:

9. SERVICE CONDUCTORS AND CABLES

Good ( ) Repairs Required ( )

Comments:

10. SERVICE CONDUCTORS AND CABLES

Conduit Raceways: Good ( ) Repairs Required ( )

Conduit PVC: Good ( ) Repairs Required ( )

NM Cable: Good ( ) Repairs Required ( )

BX Cable: Good ( ) Repairs Required ( )

Comments:

11. FEEDER CONDUCTORS

Good ( ) Repairs Required ( )

Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

12. EMERGENCY LIGHTING

Good ( ) Repairs Required ( )

Comments:

13. BUILDING EGRESS ILLUMINATION

Good ( ) Repairs Required ( )

Comments:

14. FIRE ALARM SYSTEM

Good ( ) Repairs Required ( )

Comments:

15. SMOKE DETECTORS

Good ( ) Repairs Required ( )

Comments:

7.i1

FIGURE 4 (continued)
(Figure 4 pdf)

16. EXIT LIGHTS

Good ( ) Repairs Required ( )

Comments:

17. EMERGENCY GENERATOR

Good ( ) Repairs Required ( )

Comments:

18. WIRING IN OPEN OR UNDER COVER PARKING GARAGE AREAS

Require Additional

Good ( ) Repairs Required ( )

Comments:

19. OPEN OR UNDERCOVER PARKING GARAGE AREAS AND EGRESS ILLUMINATION

Require Additional

Good ( ) Repairs Required ( )

Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

20. SWIMMING POOL WIRING

Good ( ) Repairs Required ( )

Comments:

21. WIRING TO MECHANICAL EQUIPMENT

Good ( ) Repairs Required ( )

Comments:

22. ADDITIONAL COMMENTS

7.k1

RESOURCE MATERIAL

I. STRUCTURAL EVALUATION – BACKGROUND

A. Foundations

If all the supporting subterranean materials were completely uniform beneath a structure, with no significant variations in grain size, density, moisture content or other mechanical properties; and if dead load pressures were completely uniform, settlements would likely appear uniform and of little practical consequence. Unfortunately, that is typically not the case. Significant deviations are likely to result in unequal vertical movements.

Monolithic masonry, generally incapable of accepting such movements, will crack. Such cracks are most likely to occur at corners, and large openings. Since, in most cases, differential shears are involved, cracks will typically be diagonal.

Small movements are most likely to be structurally important only if long term leakage through fine cracks may have resulted in deterioration. In the event of large movements, continuous structural elements such as floor and roof systems must be evaluated for possible fracture or loss of bearing.

Pile foundations are, in general, less likely to exhibit such difficulties. Where such does occur, special investigation will be required.

B. Roof Coverings

Sloping roofs, constructed of clay or cement tiles, are of concern in the event that the covered membrane may have deteriorated, or the tiles may have become loose. Large deflections, if merely resulting from deteriorated rafters or joists are of greater importance. Valley flashing, and base flashing at roof penetrations need to similarly be investigated.

Flat roofs with built up membrane roofs require investigation with respect to deflection considerations. Additionally, since roofing materials may be approaching expected life limits at the age when building special inspections are required, careful examination is important. Blisters, wrinkling, and loss of gravel are usually an indication of possible roof problems.

Punctures or loss of adhesion of base flashing, coupled with loose counterflashing will also signify possible problems. Windblown gravel, if excessive, and the possibility of other debris, may result in pounding, which if permitted, may impact the performance of the roof.

Gypsum roof decks will usually perform satisfactorily except in the presence of moisture. Disintegration of the material and the foam-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance if there is significant deterioration.

C. Floor Assemblies

Sagging floors will most often indicate problem areas. Floor and roof systems of cast-in-place concrete with self-centering reinforcing, such as paper backed mesh and rib-lath, may be critical with respect to corrosion of the unprotected reinforcing. Loss of uplift anchorage on roof decks will also be important if significant deterioration has taken place, in the event that dead loads are otherwise inadequate to resist uplift.

7.I1

D. Masonry Bearing Walls

Random cracking, or if discernible, definitive patterns of cracking, as well as bulging, sagging, or other signs of misalignment may also indicate related problems in other structural elements. Masonry walls constructed of either concrete masonry remits or scored clay tile, may adversely impact adjacent reinforced concrete columns tie beams, or lintels.

E. Structural Steel/ Cold-Formed Steel Framing/Welding

Corrosion will be the determining factor in the deterioration of structural steel. Most likely suspect areas will be fasteners, welds, and the interface area where bearings are embedded in masonry. Column bases may often be suspect in areas where flooding has been experienced, especially if salt water has been involved.

Thin cracks usually indicate only minor corrosion, requiring minor patching. Extensive spalling may indicate a much more serious condition requiring further investigation.

Vertical and horizontal cracks where masonry units abut tie columns, or other frame elements such as floor slabs may be an indication of volume change resulting from moisture content, and variations in ambient thermal conditions versus the adjacent frame elements.

Moisture vapor penetration, sometimes abetted by salt laden aggregate and corroding rebars, will usually be the most common cause of deterioration. Tie columns are rarely structurally sensitive, and a fair amount of deterioration may be tolerated before structural impairment becomes important. Usually, if rebar loss is such that the remaining steel area is still about 0.0075 of the concrete area, structural repair will not be necessary. Cosmetic type repair involving cleaning and patching to effectively seal the member may often suffice. A similar approach may not be unreasonable for tie beams, provided they are not also serving as lintels. In that event, a rudimentary analysis of load capability using the remaining actual rebar area, may be required.

Steel bar joists are sensitive to corrosion. Most critical locations will be web member welds, especially near supports, where shear stresses are high, possible failure may be sudden and without warning.

Cold formed steel joists, usually of relatively light gage steel, are similarly sensitive to corrosion, and are highly dependent upon at least normal lateral support to carry designed loads. Bridging and the floor or roof system itself, if in good condition, will serve the purpose.

F. Concrete Framing Systems

Cast in place reinforced concrete slabs and/or beams and joists may often show deterioration due to corroding rebars resulting from cracks or merely inadequate protecting cover of concrete. Patching procedures will usually suffice where such damage has not been extensive. Where corrosion and spalling has been extensive in structurally critical areas, competent analysis with respect to remaining structural capacity, relative to actual supported loads, will be necessary. The type and extent or repair will be dependent upon the results of such investigation.

Precast members may present similar deterioration conditions. End support conditions including adequacy of bearing, indications of end shear problems, and restraint conditions should be evaluated in at least a few typical locations.

Concrete deterioration can occur due to the presence of salt-water aggregate or in excessively permeable concrete. In this respect, honeycomb areas may contribute adversely to the rate of deterioration. Columns are frequently most suspect. Extensive honeycomb is most prevalent at the base of columns, where fresh concrete was permitted to segregate during placement into the form boxes. This type of problem has been known to be compounded in areas where flooding has occurred, especially involving salt water.

7.m1

In spall areas, chipping away a few small loose samples of concrete may be very revealing. Fairly reliable quantitative conclusions may be drawn with respect to the quality of the concrete. Even though the cement and local aggregate may be derived from the same sources, cement will have a characteristically dark grayish brown color in contrast to the almost white aggregate. A typically white, almost alabaster like coloration will usually indicate reasonably good overall strength. The original gradation of aggregate can be seen through a magnifying glass. Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 2000 psi to 2500 psi is sufficient for required strength, in the event that visual inspection indicates good quality for the factors mentioned.

G. Wood Construction

Wood joists, rafters and wall framing are most often deteriorated due to “dry rot”, or the presence of termites. The former is most often prevalent in the presence of sustained moisture or lack of adequate ventilation. A member may usually be deemed in acceptable condition if a sharp pointed tool will penetrate no more than about ⅛" under moderate hand pressure.

Older wood framed structures, especially of the industrial type, are of concern in that long term deflections may have opened important joints, even in the absence of deterioration. Corrosion of ferrous fasteners will in most cases be obvious. Dry rot must be considered suspect in all sealed areas where ventilation has been inhibited, and at bearings and at fasteners. Penetration with a pointed tool greater than about ⅛" with moderate hand pressure, will indicate the possibility of further concern.

H. Windows and Doors

Window condition is of considerable importance with respect to two considerations: Leakage and anchorage. Deteriorating anchorage may result in loss of the entire unit in the event of severe windstorms. Perimeter sealant, glazing, seals, and latches should be examined with a view toward deterioration of materials and anchorage of units for inward as well as outward (section) pressures, most importantly in high-rise buildings.

II ELECTRICAL/FIRE ALARM SYSTEMS EVALUATION – BACKGROUND

A. Electrical Service

A description of the type of service supplying the building or structure must be provided, stating the size of amperage, if three (3) phase or single (1) phase, and if the system is protected by fuses or breakers. Proper grounding of the service should also be in good standing. The meter and electric rooms should have sufficient clearance for equipment and for the serviceman to perform both work and inspections. Gutters and electrical panels should all be in good condition throughout the entire building or structure.

B. Branch Circuit and Raceways

Branch circuits in the building must all be identified, and an evaluation of the conductors must be performed. There should also exist proper grounding for equipment used in the building, such as an emergency generator, or elevator motor.

All types of wiring methods present in the building must be detailed and individually inspected. The evaluation of each type of conduit and cable, if applicable, must be done individually. The conduits in the building should be free from erosion and checked for considerable dents in the conduits that may be prone to cause a short. The conductors and cables in these conduits should be chafe free, and their currents not over the rated amount.

7.n1

C. Emergency Lighting/Essential Power/Fire Alarm Systems

Exit signs lighting and emergency lighting, along with voice annunciation systems and a functional fire alarm must tested to confirm they are in good working condition.

III MECHANICAL SYSTEMS – BACKGROUND

HVAC systems should be inspected to ensure energy efficiency and indoor air quality. If the building is located in a region prone to condensation, hire a commercial HVAC technician to periodically inspect the ductwork for excessive condensation and mold. The following should be considered during the inspections:

- Air filters cleaned and replaced as necessary
- Check for excessive noise or vibration when the blower motors or fans are running.
- Condensate drains/pans draining properly
- Motors and ductwork clean, no evidence of mold/moisture.
- Flexible duct connectors not cracked or leaking.
- Check for screws, latches, and gaskets that are in need of repair or replacement.
- Inspect the condition of all electrical hardware and connections.
- Make sure that the safety controls and equipment are working properly.
- Make sure that all guards and access panels remain secure.
- Check the operation of the interior and exterior mechanical equipment.
- Clean damper operators.
- Make sure that the mineral buildup inside water heater/boiler is kept at a minimum to ensure efficiency.
- Drain water heaters and boilers when necessary to remove any sediment that has accumulated.
- Clean/replace the boiler's oil filter once a month.
- Make sure thermostats are calibrated correctly.

IV PLUMBING SYSTEMS – BACKGROUND

The plumbing system for a building is vital for access to clean water and the removal of wastewater. The plumbing systems are inspected for general function and leaks and the water supply and drainage, waste and venting installations are inspected visually where accessible. Water heaters are inspected for leaks and probable life expectancy. The following should be considered during the inspections:

- Investigate any signs of leaks
- Verify free and fast flow of water in bathroom facilities, sinks, and drinking fountains
- Inspect all appliances with water connections
- Test water heaters and boilers
- Inspect and service water boosters and pump systems
- Inspect and service condensers (internal and external) for water fountains/dispensers
- Inspect sump pumps and sewage ejection systems

September 6, 2021

Comments Regarding ICC Existing Building Safety Inspection Guide

By Daniel L. Lavrich, P.E., SECB, F.ASCE, F.SEI

At the request of Mo Madani, Technical Director Building Codes & Standards Office, State of Florida, I have done a cursory review of the ICC Inspection Guide and find that it needs a lot of review, evaluation, consideration, and work.

I have annotated the document with comments in red that should be obvious. (See annotated pdf following).

A few thoughts:

1. The way that the inspection plan exists in the document will result in an extremely detailed and "expensive" inspection. Do we really want to go to that extent in inspecting buildings for this purpose?

2. Much of the document is copied from Dade and Broward Counties' Building Safety Inspection Program. The are several errors in the existing Program text that were not edited out.

    a. There is one significant error in the 5th paragraph on page 29. (See annotated pdf) This was written incorrectly by Dade County, and Broward County never corrected it.

        i. The sentence as written is *"Usually, if rebar loss is such that the remaining steel area is still about 0.0075 of the concrete area, structural repair will not be necessary."*

        ii. This sentence as it is written is totally incorrect, makes no sense, and should be removed. It is an incorrect statement incorrectly taken from a "rule of thumb" that has no business being in the document anyway. The sentence should be completely removed.

    b. On Page 30, first paragraph, the last sentence makes no sense as written.

        i. The sentence as written is *"Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 2000 psi to 2500 psi is sufficient for required strength, in the event that visual inspection indicates good quality for the factors mentioned."*

        ii. The sentence should be either re-written or eliminated.

3. I don't believe that Mechanical Systems and Plumbing Systems should be included in a safety "General Condition" inspection. See Purpose on Pages 1 & 2.

4. The Structural and Electrical Inspection Forms are copied from Dade County. The first page of the Form was edited to a much better version by Broward County. I strongly suggest using the Broward County Version of Page One of the Inspection Forms.

5. I believe that Sections 6, 7, 8, and 9 go way beyond what was originally intended for a Safety "General Condition" inspection. See Purpose on Pages 1 & 2 of Appendix C. Also see Purpose on Page 4 of the Main Document that states "The purpose of the Existing Building Inspection Guide, Appendix C, is to recommend reasonable practices to ensure buildings are safe for continued use and occupancy." I suggest that considerable evaluation and discussion should take place regarding these sections. Is this really what we want to do?

6. What was the driving evidence and data that was used to determine the Milestone Inspection Time requirements in Table 4.1? How were those times (30 years, 20 years) arrived at? Who made the decisions and using what basis?

7. In Section 4, Paragraph 2, Exception, the last three words are "periodic inspection requirements." This should read "required inspection requirements." "Periodic Inspection" is a specific term used in Table 4.1 of the document. The first paragraph of Section 4 refers to "a minimum frequency of required inspections," a general term to which the Exception: should apply.

8. I don't believe that any of the referenced inspections should be done by the Code (Building) Official. I don't believe that he or she is qualified to do the inspections and building maintenance should not be the responsibility of the Building Department. The responsibility for maintenance should remain with the Building Owner. Evaluation of the Building Condition should be done by the Building Owner, the Owner's Representative, and a licensed Engineer. Structural and Electrical evaluation, particularly of Threshold Buildings, should be done by a licensed Professional Engineer, not an Architect.

I think that the adoption of a General Building Safety Inspection Program as stated in the Purpose of the document is an important decision that should involve significant discussion and consideration by Professionals with relevant experience using reliable data and criteria to make decisions. I trust that pertinent discussion by the Hurricane Research Advisory Committee or others will take place regarding this proposed document.

INTERNATIONAL CODE COUNCIL®

Ensuring the Safety of Existing Buildings:

Codes, Standards, and Periodic Inspections

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TABLE OF CONTENTS

APPENDIX C – EXISTING BUILDING SAFETY INSPECTION GUIDE

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Ensuring the Safety of Existing Buildings: Codes, Standards, and Periodic Inspections

INTRODUCTION

Florida's Building Code (FBC) is based on the model International Codes (I-Codes) developed by the International Code Council (ICC) through a national voluntary consensus process with input from leading experts from the private and public sectors. Florida maintains its building and safety codes through revisions and adaptations to the I-Codes on a three-year cycle.

According to the 2021 *Rating the States* report by the Insurance Institute for Business & Home Safety (IBHS), Florida ranks number one, leading the 18 Atlantic and Gulf coastal states in building code safety. The IBHS rating score is based 50% on statewide adoption and enforcement; 25% on state-adopted amendments for building official certification, training and continuing education; and 25% on state regulations for on-site implementation and proficiency based on contractor and subcontractor registration, licensing, and continuing education.

EXPERT PANEL DISCUSSION ON EXISTING BUILDINGS

In the wake of the collapse of the Champlain Towers South mid-rise condominium building in Surfside, Florida, the International Code Council (ICC), the Building Owners and Managers Association (BOMA), and the National Institute of Building Sciences (NIBS) convened a panel of subject matter experts from around the nation in West Palm Beach on August 17, 2021. The purpose was to share knowledge and recommendations on how communities monitor the safety of existing buildings, what guidance already exists, and how future catastrophic events may be avoided.

There were three panels, each focused on specific issues. The first panel was on "The Codes and Existing Buildings" and it was moderated by Dominic Sims, Chief Executive Officer of ICC. Panelists covered current building codes and standards that cover structural safety, existing buildings and property maintenance.

"Building Inspections" was the theme of the second panel moderated by Drew Rouland, Vice President of NIBS. These panelists discussed the current process for building inspections, including current guidelines for frequency, and what recommendations and practices of technologies will enhance building inspections in the future.

"Property Management and the Real Estate Industry" was the third topic. The panel was moderated by Ken Rosenfeld, Director of State and Local Affairs with BOMA International. Panelists discussed building safety from the perspective of property owners and managers, focusing on the overall systems of inspections, operations and maintenance.

Meeting participants generally agreed that the International Building Code's technical requirements, which have been incorporated in the Florida Building Code, currently provide the correct level of engineering guidance and safety for the construction of new buildings and alterations.

For context, ICC review of the property maintenance codes and regulations in 381 Florida jurisdictions found the following:

- Seventy-six jurisdictions (20%) have not adopted minimum building/property maintenance codes for existing buildings.
- Eighty-three jurisdictions (22%) reference model housing or existing building abatement codes/standards that were developed in the late 1970s.
- One hundred-thirty seven jurisdictions (36%) have implemented locally-developed property/building maintenance regulations or standards in lieu of a national model code or standard.

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- Eighty-three jurisdictions (22%) have adopted the more modern *International Property Maintenance Code*.
- Less than 3% of jurisdictions have implemented a periodic recertification or inspection safety program for existing buildings.

TAKEAWAYS FROM THE PANELS DISCUSSIONS

- Communities are seeking better guidance for inspections of existing buildings, depending on local risk criteria.
- Owners need to keep building maintenance records available for inspection.
- More accountability is necessary; dangerous conditions must be reported to code (building) officials immediately.
- Timing and frequency of post CO inspections and recertification inspections must be considered.
- A uniform statewide property maintenance standard administered by local governments is critical for public safety and health of the real estate market.
- Continuous education and training for building managers, Code (Building) Officials and the building community is important.
- An analysis of existing and new technologies available to implement changes would provide great value to all stakeholders.
- Although building safety inspection programs are common, recertification programs are rare.

RECOMMENDATION

Adoption of a statewide property maintenance standard for existing buildings.

Maintaining the structural integrity of a building throughout its service life is of critical importance to the public's health and safety. The *International Property Maintenance Code* (IPMC) requires that both the building and the service/fire protection systems be maintained in good repair, and structurally sound. The IPMC with an appendix on inspection of existing buildings, would provide a ready-made solution for the State of Florida.

One inspection protocol for a state the size of Florida is not recommended. The geographic location of the building, local climate, risk of flooding, areas of high wind, soil conditions, the presence of salt air and other risk factors must be considered in order to focus on only the necessary existing buildings.

The purpose of the Existing Building Inspection Guide, Appendix C, is to recommend reasonable practices to ensure buildings are safe for continued use and occupancy.

The key criteria of Appendix C includes site specific inspection requirements based on the location of the building, including:

- The Use Classification of buildings and the required inspections based on the risk categories in the *International Building Code/FBC* in addition to and environmental risk exposures.
- Three phases of periodic inspections with specified frequency intervals over the service life of the building, performed by the following:
  - » **Maintenance inspection** performed by the Code (Building) Official, owner or owner's authorized representative
  - » **Periodic inspection** performed by the Code (Building) Official or licensed design professional
  - » **Milestone special inspection** performed by a Special Inspector who is qualified and a registered engineer in the system discipline being inspected

I don't believe that this should be the responsibility of the Building Official.

I don't believe that this should be the responsibility of the Building Official.

The term "Special Inspector" is confusing since it is the same term that is used relating to required inspections in Florida for "Threshold Buildings" and only relates to Structural, not other disciplines.

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- Details of each of the required inspections, including reference documents to be used for the inspections.
- Roles and responsibilities of all parties, including the Code (Building) Official.
- Criteria for assessing/identifying the existing design.
- Inspection of building construction materials and how environmental influences may affect their future performance.
- Inspection records, including sample inspection report forms.
- Resource materials providing additional information and guidance.

The scope of the Building Safety Inspection Program that is presently in use by Dade and Broward County is being significantly expanded by the above criteria. Is this really what we want to do? The expanded scope will result in a significant increase in cost of the inspections. I believe that considerable discussion is necessary.

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Appendix C
Existing Building Safety Inspection Guide
(Working Draft)

1. INTRODUCTION AND PURPOSE

Introduction

Maintaining the structural integrity of the building throughout its service life is of paramount importance. The ***International Property Maintenance Code*** **(IPMC)** requires both the interior and exterior of the building to be maintained in good repair and structurally sound so as to not pose a threat to public health, safety and welfare. Specifically, where the nominal strength of a structural member is exceeded by nominal loads, the load effects or the required strength, the building is determined to be unsafe and shall be required to be repaired or replaced to comply with the IBC/FBC. There are many such examples of unsafe conditions in the IPMC for both structural and non-structural considerations.

In order to assess whether an unsafe condition exists, this appendix provides guidance and evaluation criteria for the regular inspection of structural safety as well as the building envelope, electrical system, fire protection system and mechanical and plumbing systems.

An important criterion for the establishment of the necessary inspection frequency is the location where the building is sited. All buildings are not considered the same even where their occupancy, size, and height are similar. Each building must be considered unique based on its site location due to concerns in response to the following:

- Occupancy and Use Classification
- Risk Categories
- Environmental influences such as humidity, temperature, presence of salt air and chlorides
- Areas which are subject to frequent flooding
- Areas of high seismic and very high wind
- Site soil conditions such as questionable soils, expansive soils, ground water table, compacted fill, and rock strata

Purpose

The fundamental purpose of an Existing Building Inspection program is to confirm that the building or structure under consideration is safe for continued use under the present occupancy. As implied by the title of this document, this is a recommended program, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Such inspection shall be for the purpose of determining the general condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load, and the general condition of its electrical, mechanical, plumbing and fire protection systems.

The effects of time with respect to deterioration of the original construction materials must also be evaluated.

Visual examination will, in most cases, be considered adequate when executed systematically. The visual examination must be conducted throughout all habitable and non-habitable areas of the building, as deemed

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necessary by the inspecting professional to establish compliance. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible concern.

Testing procedures and quantitative analysis will not generally be required except for such cases where visual examination has revealed such need, or where apparent loading conditions may be critical.

Manual procedures such as chipping small areas of concrete and surface finishes for closer examinations are encouraged in preference to sampling and/or testing where visual examination alone is deemed insufficient.

Generally, unfinished areas of buildings such as utility spaces, maintenance areas, stairwells and elevator shafts should be utilized for such purposes. In some cases, to be held to a minimum, ceilings or other construction finishes may have to be opened for selective examination of critical structural elements. A sufficient number of structural members must be examined to afford reasonable assurance that such are representative of the total structure.

When evaluating an existing structure for the effect of time, two basic elements must be considered:

1. Movement of structural components with respect to each other
2. Deterioration of materials

With respect to the former, volume change considerations, principally from ambient temperature changes, and possible long-time deflections, are likely to be most significant. Foundation movements will frequently be of importance (usually settlement) although upward movement due to expansive soils may occur.

Older buildings on spread footings may exhibit continual settlements if constructed on deep, unconsolidated, fine-grained or cohesive soils or from subterraneous losses or movements.

Structural deterioration will always require repair. The type of repair, however, will depend on the importance of the member in the structural system and degree of deterioration. Cosmetic repairs may suffice in certain non-sensitive members such as tie beams and columns, provided that the remaining sound material is sufficient for the required function. For members carrying assigned gravity or other loads, cosmetic repairs will only be permitted if it can be demonstrated by rational analysis that the remaining material, if protected from further deterioration, can still perform its assigned function at acceptable stress levels. Failing that, adequate repairs or reinforcement will be considered mandatory.

Structural problems in existing buildings may have catastrophic consequences. Just as important are potential hazards to building occupants caused by electrical deficiencies. These are often qualified under the following three headings:

1. Electric service
2. Branch circuits and raceways
3. Emergency lighting, essential power and fire alarm systems.

As such, they warrant special attention in terms of maintenance and periodic inspections.

For additional information on structural, electrical, mechanical and plumbing evaluations, see the “Resource Material” at the end of this appendix.

2. SCOPE/RESPONSIBILITIES

The owner or owner’s authorized representative of the building bears the responsibility for the maintenance of the building and for maintaining public safety.

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Design professionals and special inspectors shall be used when required by Table 4.1 or when required by the Code (Building) Official.

The owner or owner's authorized representative is responsible for the orderly maintenance of buildings. Maintenance for the purpose of this appendix refers to all measures for maintenance of the planned condition or the assurance of unrestricted usability of a building. Servicing and regular inspections are essential elements of maintenance.

This may not be practical. Do we really want to charge the Building Official with the responsibility of enforcing the maintenance of buildings?

The Code (Building) Official shall ensure all existing buildings are maintained by the owner or owner's authorized representative in accordance with the *International Property Maintenance Code* and this appendix.

The inspections required by Table 4.1 are in addition to those required by the fire department, for active fire and life safety systems and equipment, commercial cooking systems, and elevators, as specified Sections 604, 606.3 and 901 of the *International Fire Code/FFC* (IFC).

3. TERMS

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services or furnishing product certification where such agency has been approved by the Code (Building) Official.

CODE (BUILDING) OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

DURABILITY. The condition of building elements or individual construction components that ensure the load-bearing capacity and the usability during the whole service life when subjected to reasonable maintenance.

EXTREME RAINFALL AREAS. (under development)

EXTREME SEISMIC AREAS. (under development)

EXTREME WIND AREA. Include areas where the ultimate design wind speed is 140 mph or greater and in Exposure Category D.

LIFETIME. The actual time during which a building or bearing element is structurally safe.

OWNER. Any person, agent, operator, entity, firm or corporation having any legal or equitable interest in the property; or recorded in the official records of the state, county or municipality as holding an interest or title to the property; or otherwise having possession or control of the property, including the guardian of the estate of any such person, and the executor or administrator of the estate of such person if ordered to take possession of real property by a court.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. This includes any registered design professional so long as they are practicing within the scope of their license, which includes those licensed under Chapters 471 and 481, Florida Statutes.

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A registered design professional engaged by the owner or the owner's authorized agent to review and coordinate certain aspects of the project, as determined by the building official, for compatibility with the design of the building or structure, including submittal documents prepared by others, deferred submittal documents and phased submittal documents.

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RISK CATEGORY. A categorization of buildings and other structures for determination of flood, wind, and earthquake loads based on the risk associated with unacceptable performance.

TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
1	Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: ▪ Agricultural facilities. ▪ Certain temporary facilities. ▪ Minor storage facilities.
2	Buildings and other structures except those listed in Risk Categories 1, 3 and 4.
3	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: ▪ Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. ▪ Buildings and other structures containing one or more public assembly spaces, each having an occupant load greater than 300 and a cumulative occupant load of the public assembly spaces of greater than 2,500. ▪ Buildings and other structures containing Group E or Group I-4 occupancies or combination thereof, with an occupant load greater than 250. ▪ Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500. ▪ Group I-2, Condition 1 occupancies with 50 or more care recipients. ▪ Group I-2, Condition 2 occupancies not having emergency surgery or emergency treatment facilities. ▪ Group I-3 occupancies. ▪ Any other occupancy with an occupant load greater than 5,000.[a] ▪ Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category 4. ▪ Buildings and other structures not included in Risk Category 4 containing quantities of toxic or explosive materials that: » Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and » Are sufficient to pose a threat to the public if released.[b]

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TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
4	Buildings and other structures designated as essential facilities, including but not limited to: ▪ Group I-2, Condition 2 occupancies having emergency surgery or emergency treatment facilities. ▪ Ambulatory care facilities having emergency surgery or emergency treatment facilities. ▪ Fire, rescue, ambulance and police stations and emergency vehicle garages ▪ Designated earthquake, hurricane or other emergency shelters. ▪ Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. ▪ Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category 4 structures. ▪ Buildings and other structures containing quantities of highly toxic materials that: ▪ Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and ▪ Are sufficient to pose a threat to the public if released.b ▪ Aviation control towers, air traffic control centers and emergency aircraft hangars. ▪ Buildings and other structures having critical national defense functions. ▪ Water storage facilities and pump structures required to maintain water pressure for fire suppression.

[a] For purposes of occupant load calculation, occupancies required by Table 1004.5 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

[b] Where approved by the building official, the classification of buildings and other structures as Risk Category 3 or 4 based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category 2, provided that it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

SERVICEABILITY. The property of a building or individual construction elements of being useable as planned and according to the specified conditions.

SERVICE LIFE. The planned period for which a building or individual construction elements can be used with regular maintenance, but without any significant restoration.

SPECIAL BUILDING ENVIRONMENTAL FACTORS (SBEF). Special building environmental factors are areas where natural conditions can impact a buildings performance or safety. Special attention must be paid to proper building maintenance and regular inspection, as specified in Table 4.1. SBEF areas include the following:

MARINE. This includes areas that are regularly subject to marine spray, fog or mist, etc. where a building is exposed to brine or chlorides. This includes the area two miles landward of the Florida CCCL which is based on coastal engineering models, survey and bathymetric data and scientific principles that determine the upland or landward extent of the damaging effects of a 100-year storm event. For simplicity of application and enforcement, the Code (Building) Official may designate the local limits of marine risk environments using recognizable local landmarks.

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FLOOD COASTAL A ZONE. Area within a special flood hazard area, landward of a V zone or landward of an open coast without mapped coastal high hazard areas. In a coastal A zone, the principal source of flooding must be astronomical tides, storm surges, seiches or tsunamis, not riverine flooding. During the base flood conditions, the potential for breaking wave height shall be greater than or equal to 1½ feet (457 mm). The inland limit of the coastal A zone is (a) the Limit of Moderate Wave Action if delineated on a FIRM, or (b) designated by the authority having jurisdiction.

COASTAL HIGH HAZARD AREA. Area within the special flood hazard area extending from offshore to the inland limit of a primary dune along an open coast and any other area that is subject to high-velocity wave action from storms or seismic sources, and shown on a Flood Insurance Rate Map (FIRM) or other flood hazard map as velocity Zone V, VO, VE or V1-30.

SPECIAL SOIL CONDITIONS. (under development)

For other terms not defined in this appendix, refer to the definitions in the *International Building Code/FBC* and *International Property Maintenance Code*.

4. BUILDING OCCUPANCIES/RISK CATEGORY ASSESSMENTS/INSPECTION FREQUENCY

Each building or structure shall be assigned a minimum frequency of required inspections based upon its structural design risk category as specified in the *International Building Code*, Table 1604.5, and its exposure to environmental factors in accordance with Table 4.1. The frequency intervals for existing building inspections shall be maintained for the service life of the building.

should be "required" not periodic.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane are exempt from the periodic inspection requirements.

Table 4.1 Use, Occupancy and Special Building Environmental Factors Frequency Intervals for Existing Building Inspections

IBC/IFC Use Risk Category	Special Environmental Factors	Maintenance Inspection	Periodic Inspection (in years)	Milestone Special Inspection (in years)
1 (e.g. Ag buildings)	No	Recommended	N/A	N/A
	Yes	Recommended	N/A	N/A
2 (e.g. commercial/ residential high-rise)	No	Annually	15 (N/A for buildings <4 stories or 3,500 sq.ft.)	30 (N/A for buildings <4 stories or 3,500 sq.ft.)
	Yes	Annually	10 (N/A for buildings <4 stories or 3,500 sq.ft.)	20 (N/A for buildings <4 stories or 3,500 sq.ft.)
3 (e.g. large assembly)	No	Annually	15	30
	Yes	Annually	10	20
4 (e.g. Hospitals)	No	Annually	5	20
	Yes	Annually	5	20

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5. TYPES OF INSPECTIONS

A. Maintenance Inspection

Maintenance inspections required by Table 4.1 shall be a visual surveillance by the owner or owner's authorized representative and include the inspection of the building for obvious defects or damages and the documentation thereof.

This includes all load-bearing construction elements such as supports, walls, ceilings, joists, trusses, with a focus on deformations, misalignments, cracks, humidity, efflorescence, and corrosion.

In addition to the structural considerations noted above, the building envelope components (including balconies and roof), electrical system, fire protection system, and the mechanical and plumbing systems shall be inspected at the noted frequency interval to maintain public safety.

Written reports shall be required for all inspections and shall note the description of the type and manner of the inspection, noting problem areas and recommended repairs. All repairs requiring a building permit shall be submitted and approved by the Code (Building) Official.

B. Periodic Inspection

Not well defined for scope of inspection.

Not qualified

Inspections required by Table 4.1 may be performed by the Code (Building) Official or by a licensed design professional, as determined by the Code (Building) Official. The registered design professional shall be an ~~architect~~ or engineer.

ASCE 11 – 99, Guideline for Structural Condition Assessment of Existing Buildings, should be used when performing any structural inspection.

ASCE/SEI 30 – 14, Guideline for Condition Assessment of the Building Envelope, should be used when performing any building envelope inspection.

All inspection results, as well as any corrective measures necessary, must be documented and shall be provided to the Code (Building) Official.

The term "Special Inspector" is confusing since it is the same term that is used relating to required inspections in Florida for "Threshold Buildings" and only relates to Structural, not other disciplines.

C. Milestone Special Inspection

Inspections required by Table 4.1 at long-term milestones shall be performed by a Special Inspector. A special inspector shall be a registered engineer qualified and registered in the discipline ~~for the system~~ being evaluated (structural, electrical, mechanical). Such agency shall provide all information as necessary for the Code (Building) Official to determine that the agency meets the applicable requirements specified in the *International Building Code*, Sections 1703.1.1 through 1703.1.3.

Should be "required"… not periodic

approved by whom?

The owner or owner's authorized representative, other than the contractor, shall employ one or more approved special inspectors to provide milestone inspections and tests on the types of work specified by the registered design professional in responsible charge of the periodic inspection as specified in Table 4.1.

The special inspector shall keep records of special inspections and tests, as required by the *International Building Code*, Section 1704, and shall submit reports of special inspections and tests to the Code (Building) Official, the registered design professional in responsible charge and the owner or the owner's authorized agent.

A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests, shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's authorized agent to the Code (Building) Official.

7.c2

The Code (Building) Official may perform additional inspections as necessary to approve the corrective action(s) necessary. The Code (Building) Official shall issue an updated CO (recertification) when the building is deemed safe by the special inspector, in accordance with local rules and procedures.

6. EXISTING DESIGN CONSIDERATIONS

Are these requirements to be considered mandatory? These sound like they may be excessive.

A. Code of Record

The code of record used for the initial building design shall be the minimum building design. Certified copies of all building permits and approved construction documents, including as-built drawings, shall be maintained by the property owner and available on site.

B. Design Strength of Materials and Referenced Standards at time of construction

- Concrete and masonry grout mix designs for all structural components
- Prestressing tendons design strength/post tensioning pressures
- Structural Steel design strengths of primary and secondary members
- Cold-formed steel framing/cladding design strengths
- The design pressure rating of exterior windows and doors in the buildings

C. Subsequent Additions/Alterations/Repairs

The adopted edition of the *International Existing Building Code* (IEBC) used for any subsequent additions, alterations or repairs shall be the minimum building design for those elements.

Certified copies of all building permits and approved construction documents shall be maintained by the property owner and available on site.

7. BUILDING MATERIALS INSPECTIONS

Are these requirements to be considered mandatory? These sound like they may be excessive.

Building materials are subject to aging over the course of their useful life. How quickly this progresses during the planned service life and to what extent properties of the building materials are altered depends on the building material, but also to a substantial degree on the type and intensity of the environmental influences.

Deterioration of building materials can only occur in the presence of moisture, mostly to metals because of their natural tendency to return to the oxide state in the corrosive process.

In a marine climate, highly aggressive conditions exist year-round. For most of the year, outside relative humidity may frequently be about 90 or 95%, while within air-conditioned buildings, relative humidity will normally be about 35 to 60%. Under these conditions moisture vapor pressures ranging from about ⅓ to ½ pounds per square inch will exist much of the time. Moisture vapor will migrate to lower pressure areas. Common building materials such as stucco, masonry and even concrete, are permeable even with these slight pressures. Where vapor barriers were not used for the existing building, condensation will take place within the enclosed walls of the building. As a result, deterioration is most likely adjacent to exterior walls, or wherever else moisture or direct leakage has been permitted to penetrate the building envelope.

The changes in the building material properties can be essential for the structural safety of a building. For this reason, it is important that these are examined in the regular inspections and evaluated.

7.d2

A. Critical building material properties/potential impairments

Changes which can occur in building materials due to environmental influences are listed in Table 7.1.

Characteristics of a building material with reference to the structural safety of a building are its strength, rigidity, ductility, and its time- and load-related behavior.

For building materials mainly subject to compression, compressive strength is the decisive value, for building materials subject to tension or bending, tensile strength, as applicable in conjunction with shear strength, is of primary importance.

Changes in strength, generally the microstructure of the material reduction, are usually the result of changes in material structure. This is associated with a more or less pronounced reduction of the elasticity module so that even larger deformations can occur. This must be taken into account in the prognosis for the future behavior of the building structure.

Embrittlement of the materials micro-structure generally leads to a significant reduction in failure strain. This means that comparatively little deformation occurs which would indicate an imminent failure.

In addition to changes caused by environmental influences, strength and rigidity losses may also be caused by external loads, such as overloading or cyclical loads at an unplanned high level.

Table 7.1. Changes in Building Material Characteristics due to Environmental Influences

Material	Environmental Influence	Primary Consequence	Secondary Consequence
Steel	humidity	corrosion	reduction of cross section
	oxygen, hydrogen, nitrogen, phosphorous	embrittlement	reduction in ductility
	heat	hardening, softening	cracks
Aluminum	alkalis (mortar, building lime)	corrosion	reduction of cross section
Concrete	humidity, frost, chemicals	crumbling, cracks	loss of strength & stiffness
Masonry	humidity, frost, chemicals	weathering	reduction of cross section
Reinforced Concrete	carbonization, chlorides	corrosion of the reinforcement, cracks	reduction of cross section loss of strength & stiffness
Pre/post-stressed concrete	carbonization, chlorides	corrosion of the reinforcement, cracks	reduction of cross section loss of strength & stiffness
Wood	humidity, mold, insects	rotting	loss of strength & stiffness
Plastics	UV radiation	embrittlement, cracks	reduction in elongation

7.c2

B. Identification of changes in the building

Some changes in the building material characteristics can be deduced from visible changes in the appearance of the construction element surface (weathering, corrosion, crack, etc.). This is why a vigorous visual inspection of buildings for these parameters is particularly important.

The environmental conditions can be important for the long-term behavior of the building materials (humidity, temperature, alternation of frost and thawing). Effects on the building physics (heat conductivity, condensation, etc.) must also be taken into account.

For a quantitative identification of the current building material and construction element characteristics (contamination profiles, corrosion, etc.) destructive and non-destructive test methods can be used. In the case of destructive test methods, the relevant characteristic data is generally gained directly. Samples are taken for this purpose without causing significant damage to the building, such as:

- Core drill sampling with direct strength test or direct determination of moisture content
- Sampling of core drills with direct determination of contaminants (chloride, sulphate content)
- Direct determination of the carbonization depth on fresh fracture surfaces
- Visual inspection of the state of corrosion of exposed reinforcement
- Determination of the depth of rot damage in wood by shaving off or drill/puncture resistance measurements
- Assessment of the type and condition of adhesives
- Taking samples from metallic construction elements for an analysis of chemical properties (spectral analysis), mechanical characteristics, susceptibility to brittle fracture (notched bar impact bending test) and the microstructural composition (microsection, structural characteristics, grain size)

Non-destructive test methods generally use indirect characteristics which make it possible to deduce the primary characteristics on the basis of more or less reliable correlations (often on an empirical basis). Non-destructive testing and the subsequent interpretation of the measurements requires experience and may only be performed by the approved special inspection agency. Examples of non-destructive testing include:

- Strength test on mineral building materials with a rebound hammer (primary tested characteristic: elastic behavior in the boundary zone)
- Tensile strength of metallic materials by hardness test
- Determination of microstructural dispersal by ultrasound (primary tested characteristic: ultrasonic transit time; comparative values from different test times are essential for this purpose)
- Moisture content determination by electrical resistance measurement or carbide method (CM)
- Determination of surface cracks using magnetic powder or pigment penetration methods
- Localization and determination of weak points (e.g. weld seams)
- Thickness measurement of the corrosion protection coating or metal coatings
- Wall thickness measurement (vernier)
- Measurement of the concrete cover

C. Evaluation of the examination results and assessment of the service life

The results gained during building inspections provide information about the building material characteristics at the time of testing. For a prognosis regarding further changes to the materials over time, the particular location (indoors, outdoors) and the environmental conditions to which the material in the respective construction element is exposed must be taken into consideration.

7.d2

8. BUILDING DESIGN LOADS

Are these requirements to be considered mandatory? These sound like they may be excessive.

An existing building may be exposed to the following loads:

- Dead loads and imposed loads
- Soil and water pressure
- Wind loads
- Seismic Loads
- Extraordinary actions, such as impact, explosion and wildfires
- Restraint from settlement and deformation
- Temperature and humidity
- Shrinkage and swelling
- Actions during construction, i.e., pre-tensioning, etc.
- Mechanical and chemical actions

For the assessment of the load-bearing capacity and the serviceability of an existing building, it is essential to consider the applicable loads based on the code of record for the original construction, particularly taking into account any design changes and change in use.

Models as well as the corresponding values (characteristics, measurements) of the loads must be determined in line with the safety concept. The actual values of the loads are often greater than the values applicable at the time when the building was constructed. It is also essential to correctly assess the nature of the loads (constant, pulsating, alternating).

9. INSPECTION RECORDS

Are these requirements to be considered mandatory? These sound like they may be excessive.

A. Original Construction Design and Construction Documents

Figure 1 indicates the minimum type of construction documents that the owner must have readily available on site.

B. Existing Building Safety Inspection Log

The Existing Building Safety Inspection Log should provide an overview of the building, the basic data of the structural analysis and the permit documents and serve as a reliable source of information for the regular inspections by the licensed design professionals required by Tables 3.1 and 3.2 and the Code (Building) Official. Each report shall include a statement to the effect that the building is structurally safe, unsafe, or safe with qualifications.

Figure 2 is a sample the layout and the content of a typical Building Safety Inspection Log. The Building Safety Inspection Log shall be referenced while performing all periodic inspections and should also be maintained as an electronic document in PDF format.

If there are no copies of the approved construction documents available for an existing building, the Code (Building) Official must approve all documents, or measures that are necessary for the assessment of type of inspection(s) required. In such instances, it is imperative that the documentation is representative of the actual construction of the building.

C. Inspection Report Forms

See Figures 3 and 4 for sample inspection report forms for structural and electrical inspections, respectively.

FIGURE 1

EXISTING BUILDING SAFETY INSPECTION
(Structural Documents)

A. Approved Geotechnical/Soils Investigation Reports

B. Approved construction documents, as necessary

C. Structural design analysis and assumptions

D. Approved fabrication drawings for pre-cast or prefabricated structural elements

E. Approved erection plans for the load-bearing structure

F. Reports by the registered design professional of record

G. Monitoring reports by the registered design professional of record

H. Material test reports and inspection records

I. Final special inspection reports

J. Construction documents for any subsequent additions, alterations and repairs

7.f2

FIGURE 2

EXISTING BUILDING SAFETY INSPECTION LOG (Layout and content)

1. **Title sheet**
2. **Contents**
3. **Overview drawings**
   - 3.1 Views, cross sections of the building
   - 3.2 Copies of all approved architectural, structural, electrical, mechanical, plumbing and fire protection plans, and details
4. **Documents for structural analysis**
   - 4.1 Structural design analysis with construction description and data on building materials, site, applicable regulations and all assumed loads
   - 4.2 Construction/Erection/Fabrication drawings/details
5. **Copies of all building permits**
6. **Copies of all property owner inspection results**
7. **Copies of all registered design professional inspection results**
8. **Copies of all special inspection agency reports and test results**

7.g2

FIGURE 3

(Figure 3 pdf)

Recommend using Page 1 of Broward's Form. Same for Electrical.

Please download the form to your computer before filling out and submitting.

EXISTING BUILDING SAFETY INSPECTION REPORT FORM (STRUCTURAL)

INSPECTION COMMENCED
Date:

INSPECTION COMPLETED
Date:

INSPECTION MADE BY:
SIGNATURE:
PRINT NAME:
TITLE:

ADDRESS:

1. DESCRIPTION OF STRUCTURE

a. **Name on Title:**
b. **Street Address:**
c. **Legal Description:**
d. **Owner's Name:**
e. **Owner's Mailing Address:**
f. **Folio Number of Property on which Building is Located:**
g. **Building Code Occupancy Classification:**
h. **Present Use:**
i. **General Description:**

Addition Comments:

j. **Additions/Alterations/Repairs to original structure:**

7.h2

FIGURE 3 (continued)
(Figure 3 pdf)

2. PRESENT CONDITION OF STRUCTURE

a. General alignment (Note: good, fair, poor, explain if significant)

1. Bulging
2. Settlement
3. Deflections
4. Expansion
5. Contraction

b. Portion showing distress (Note, beams, columns, structural walls, floor, roofs, other)

c. Surface conditions – describe general conditions of finishes, noting cracking, spalling, peeling, signs of moisture penetration and stains.

d. Cracks – note location in significant members. Identify crack size as HAIRLINE if barely discernible; FINE if less than 1 mm in width; MEDIUM if between 1 and 2 mm width; WIDE if over 2 mm.

e. General extent of deterioration – cracking or spalling of concrete or masonry, oxidation of metals; rot or borer attack in wood.

f. Previous patching or repairs

g. Nature of present loading indicate residential, commercial, other estimate magnitude.

FIGURE 3 (continued)
(Figure 3 pdf)

3. INSPECTIONS

a. Date of notice of required inspection ☐

b. Date(s) of actual inspection ☐

c. Name and qualifications of individual submitting report:

☐

d. Description of laboratory or other formal testing, if required, rather than manual or visual procedures

☐

e. Structural repair – note appropriate line:

1. ☐ None required
2. ☐ Required (describe and indicate acceptance)

☐

4. SUPPORTING DATA

a. ☐ **sheet written data**

b. ☐ **photographs**

c. ☐ **drawings or sketches**

5. MASONRY BEARING WALL = Indicate good, fair, poor on appropriate lines:

a. Concrete masonry units ☐

b. Clay tile or terra cota units ☐

c. Reinforced concrete tie columns ☐

d. Reinforced concrete tie beams ☐

e. Lintel ☐

f. Other type bond beams ☐

g. Masonry finishes – exterior

1. Stucco ☐
2. Veneer ☐
3. Paint only ☐
4. Other (describe)

☐

FIGURE 3 (continued)
(Figure 3 pdf)

h. Masonry finishes – interior

1. Vapor barrier
2. Furring and plaster
3. Paneling
4. Paint only
5. Other (describe)

i. Cracks

1. Location – note beams, columns, other
2. Description

j. Spalling

1. Location – note beams, columns, other
2. Description

k. Rebar corrosion – check appropriate line

1. ☐ None visible
2. ☐ Minor – patching will suffice
3. ☐ Significant – but patching will suffice
4. ☐ Significant – structural repairs required

l. Samples chipped out for examination in spall areas:

1. ☐ No
2. ☐ Yes – describe color, texture, aggregate, general quality

FIGURE 3 (continued)
(Figure 3 pdf)

6. FLOOR AND ROOF SYSTEM

a. Roof

1. Describe (flat, slope, type roofing, type roof deck, condition)

2. Note water tanks, cooling towers, air conditioning equipment, signs, other heavy equipment and condition of support:

3. Note types of drains and scuppers and condition:

b. Floor system(s)

1. Describe (type of system framing, material, spans, condition)

c. Inspection – note exposed areas available for inspection, and where it was found necessary to open ceilings, etc. for inspection of typical framing members.

7. STEEL FRAMING SYSTEM

a. Description

b. Exposed Steel – describe condition of paint and degree of corrosion

c. Concrete or other fireproofing – note any cracking or spalling and note where any covering was removed for inspection

d. Elevator sheave beams and connections, and machine floor beams – note condition:

FIGURE 3 (continued)
(Figure 3 pdf)

8. CONCRETE FRAMING SYSTEM

a. Full description of structural system

b. Cracking

1. ☐ Not significant
2. ☐ Location and description of members affected and type cracking

c. General condition

d. Rebar corrosion – check appropriate line

1. ☐ None visible
2. ☐ Location and description of members affected and type cracking
3. ☐ Significant but patching will suffice
4. ☐ Significant – structural repairs required (describe)

e. Samples chipped out in spall areas:

1. ☐ No
2. ☐ Yes, describe color, texture, aggregate, general quality:

7.m2

FIGURE 3 (continued)
(Figure 3 pdf)

9. WINDOWS AND DOORS

a. **Type (Wood, steel, aluminum, jalousie, single hung, double hung, casement, awning, pivoted, fixed, other)**

b. **Anchorage – type and condition of fasteners and latches**

c. **Sealant – type of condition of perimeter sealant and at mullions:**

d. **Interiors seals – type and condition at operable vents**

e. **General condition:**

10. WOOD FRAMING

a. **Type – fully describe if mill construction, light construction, major spans, trusses:**

b. **Note metal fitting i.e., angles, plates, bolts, split pintles, other, and note condition:**

c. **Joints – note if well fitted and still closed:**

d. **Drainage – note accumulations of moisture**

e. **Ventilation – note any concealed spaces not ventilated:**

f. **Note any concealed spaces opened for inspection:**

7.n2

FIGURE 4
(Figure 4 pdf) Recommend using Page 1 of Broward's Form.

Please download the form to your computer before filling out and submitting.

EXISTING BUILDING SAFETY INSPECTION REPORT FORM (ELECTRICAL)

INSPECTION COMMENCED
Date:

INSPECTION COMPLETED
Date:

INSPECTION MADE BY:
SIGNATURE:
PRINT NAME:
TITLE:

ADDRESS:

DESCRIPTION OF STRUCTURE

a. **Name on Title:**
b. **Street Address:**
c. **Legal Description:**
d. **Owner's Name:**
e. **Owner's Mailing Address:**
f. **Folio Number of Property on which Building is Located:**
g. **Building Code Occupancy Classification:**
h. **Present Use:**
i. **General Description, Type of Construction, Size, Number of Stories and Special Features:**

Additional Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

1. ELECTRIC SERVICE

1. Size:	Amperage	( )	Fuses	( )	Breakers	( )
2. Phase:	Three Phase	( )	Single Phase	( )		
3. Condition:	Good	( )	Fair	( )	Needs Repair	( )

Comments:

2. METER AND ELECTRIC ROOM

1. Clearances:	Good	( )	Fair	( )	Requires Correction	( )

Comments:

3. GUTTERS

1. Location:	Good	( )	Requires Repair	( )		
2. Taps and Fill:	Good	( )	Requires Repair	( )		

Comments:

7.p2

FIGURE 4 (continued)
(Figure 4 pdf)

4. ELECTRICAL PANELS

Location:

1. Panel # ( ) Good ( ) Requires Repair ( )
2. Panel # ( ) Good ( ) Requires Repair ( )
3. Panel # ( ) Good ( ) Requires Repair ( )
4. Panel # ( ) Good ( ) Requires Repair ( )
5. Panel # ( ) Good ( ) Requires Repair ( )

Comments:

5. BRANCH CIRCUITS

1. Identified: Yes ( ) Must be identified ( )
2. Conductors: Good ( ) Deteriorated ( ) Must be replaced ( )

Comments:

6. GROUNDING SERVICE

Good ( ) Repairs Required ( )

Comments:

7. GROUNDING OF EQUIPMENT

Good ( ) Repairs Required ( )

Comments:

7.q2

FIGURE 4 (continued)
(Figure 4 pdf)

8. SERVICE CONDUITS/RACEWAYS

Good ( ) Repairs Required ( )

Comments:

9. SERVICE CONDUCTORS AND CABLES

Good ( ) Repairs Required ( )

Comments:

10. SERVICE CONDUCTORS AND CABLES

Conduit Raceways: Good ( ) Repairs Required ( )

Conduit PVC: Good ( ) Repairs Required ( )

NM Cable: Good ( ) Repairs Required ( )

BX Cable: Good ( ) Repairs Required ( )

Comments:

11. FEEDER CONDUCTORS

Good ( ) Repairs Required ( )

Comments:

FIGURE 4 (continued)
(Figure 4 pdf)

12. EMERGENCY LIGHTING

Good ( ) Repairs Required ( )

Comments:

13. BUILDING EGRESS ILLUMINATION

Good ( ) Repairs Required ( )

Comments:

14. FIRE ALARM SYSTEM

Good ( ) Repairs Required ( )

Comments:

15. SMOKE DETECTORS

Good ( ) Repairs Required ( )

Comments:

7.r2

FIGURE 4 (continued)
(Figure 4 pdf)

16. EXIT LIGHTS

Good ( ) Repairs Required ( )

Comments:

17. EMERGENCY GENERATOR

Good ( ) Repairs Required ( )

Comments:

18. WIRING IN OPEN OR UNDER COVER PARKING GARAGE AREAS

Require Additional

Good ( ) Repairs Required ( )

Comments:

19. OPEN OR UNDERCOVER PARKING GARAGE AREAS AND EGRESS ILLUMINATION

Require Additional

Good ( ) Repairs Required ( )

Comments:

7.s2

FIGURE 4 (continued)
(Figure 4 pdf)

20. SWIMMING POOL WIRING

Good ( ) Repairs Required ( )

Comments:

21. WIRING TO MECHANICAL EQUIPMENT

Good ( ) Repairs Required ( )

Comments:

22. ADDITIONAL COMMENTS

7.t2

RESOURCE MATERIAL

I. STRUCTURAL EVALUATION – BACKGROUND

A. Foundations

If all the supporting subterranean materials were completely uniform beneath a structure, with no significant variations in grain size, density, moisture content or other mechanical properties; and if dead load pressures were completely uniform, settlements would likely appear uniform and of little practical consequence. Unfortunately, that is typically not the case. Significant deviations are likely to result in unequal vertical movements.

Monolithic masonry, generally incapable of accepting such movements, will crack. Such cracks are most likely to occur at corners, and large openings. Since, in most cases, differential shears are involved, cracks will typically be diagonal.

Small movements are most likely to be structurally important only if long term leakage through fine cracks may have resulted in deterioration. In the event of large movements, continuous structural elements such as floor and roof systems must be evaluated for possible fracture or loss of bearing.

Pile foundations are, in general, less likely to exhibit such difficulties. Where such does occur, special investigation will be required.

B. Roof Coverings

Sloping roofs, constructed of clay or cement tiles, are of concern in the event that the covered membrane may have deteriorated, or the tiles may have become loose. Large deflections, if merely resulting from deteriorated rafters or joists are of greater importance. Valley flashing, and base flashing at roof penetrations need to similarly be investigated.

Flat roofs with built up membrane roofs require investigation with respect to deflection considerations. Additionally, since roofing materials may be approaching expected life limits at the age when building special inspections are required, careful examination is important. Blisters, wrinkling, and loss of gravel are usually an indication of possible roof problems.

Punctures or loss of adhesion of base flashing, coupled with loose counterflashing will also signify possible problems. Windblown gravel, if excessive, and the possibility of other debris, may result in pounding, which if permitted, may impact the performance of the roof.

Gypsum roof decks will usually perform satisfactorily except in the presence of moisture. Disintegration of the material and the foam-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance if there is significant deterioration.

C. Floor Assemblies

Sagging floors will most often indicate problem areas. Floor and roof systems of cast-in-place concrete with self-centering reinforcing, such as paper backed mesh and rib-lath, may be critical with respect to corrosion of the unprotected reinforcing. Loss of uplift anchorage on roof decks will also be important if significant deterioration has taken place, in the event that dead loads are otherwise inadequate to resist uplift.

D. Masonry Bearing Walls

Random cracking, or if discernible, definitive patterns of cracking, as well as bulging, sagging, or other signs of misalignment may also indicate related problems in other structural elements. Masonry walls constructed of either concrete masonry remits or scored clay tile, may adversely impact adjacent reinforced concrete columns tie beams, or lintels.

E. Structural Steel/ Cold-Formed Steel Framing/Welding

Corrosion will be the determining factor in the deterioration of structural steel. Most likely suspect areas will be fasteners, welds, and the interface area where bearings are embedded in masonry. Column bases may often be suspect in areas where flooding has been experienced, especially if salt water has been involved.

Thin cracks usually indicate only minor corrosion, requiring minor patching. Extensive spalling may indicate a much more serious condition requiring further investigation.

Vertical and horizontal cracks where masonry units abut tie columns, or other frame elements such as floor slabs may be an indication of volume change resulting from moisture content, and variations in ambient thermal conditions versus the adjacent frame elements.

I believe that this is an obvious error and makes no sense.

Moisture vapor penetration, sometimes abetted by salt laden aggregate and corroding rebars, will usually be the most common cause of deterioration. Tie columns are rarely structurally sensitive, and a fair amount of deterioration may be tolerated before structural impairment becomes important. Usually, if rebar loss is such that the remaining steel area is still about 0.0075 of the concrete area, structural repair will not be necessary. Cosmetic type repair involving cleaning and patching to effectively seal the member may often suffice. A similar approach may not be unreasonable for tie beams, provided they are not also serving as lintels. In that event, a rudimentary analysis of load capability using the remaining actual rebar area, may be required.

Steel bar joists are sensitive to corrosion. Most critical locations will be web member welds, especially near supports, where shear stresses are high, possible failure may be sudden and without warning.

Cold formed steel joists, usually of relatively light gage steel, are similarly sensitive to corrosion, and are highly dependent upon at least normal lateral support to carry designed loads. Bridging and the floor or roof system itself, if in good condition, will serve the purpose.

F. Concrete Framing Systems

Cast in place reinforced concrete slabs and/or beams and joists may often show deterioration due to corroding rebars resulting from cracks or merely inadequate protecting cover of concrete. Patching procedures will usually suffice where such damage has not been extensive. Where corrosion and spalling has been extensive in structurally critical areas, competent analysis with respect to remaining structural capacity, relative to actual supported loads, will be necessary. The type and extent or repair will be dependent upon the results of such investigation.

Precast members may present similar deterioration conditions. End support conditions including adequacy of bearing, indications of end shear problems, and restraint conditions should be evaluated in at least a few typical locations.

Concrete deterioration can occur due to the presence of salt-water aggregate or in excessively permeable concrete. In this respect, honeycomb areas may contribute adversely to the rate of deterioration. Columns are frequently most suspect. Extensive honeycomb is most prevalent at the base of columns, where fresh concrete was permitted to segregate during placement into the form boxes. This type of problem has been known to be compounded in areas where flooding has occurred, especially involving salt water.

7.v2

In spall areas, chipping away a few small loose samples of concrete may be very revealing. Fairly reliable quantitative conclusions may be drawn with respect to the quality of the concrete. Even though the cement and local aggregate may be derived from the same sources, cement will have a characteristically dark grayish brown color in contrast to the almost white aggregate. A typically white, almost alabaster like coloration will usually indicate reasonably good overall strength. The original gradation of aggregate can be seen through a magnifying glass. Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 2000 psi to 2500 psi is sufficient for required strength, in the event that visual inspection indicates good quality for the factors mentioned. This sentence makes no sense as it is written.

G. Wood Construction

Wood joists, rafters and wall framing are most often deteriorated due to “dry rot”, or the presence of termites. The former is most often prevalent in the presence of sustained moisture or lack of adequate ventilation. A member may usually be deemed in acceptable condition if a sharp pointed tool will penetrate no more than about ⅛" under moderate hand pressure.

Older wood framed structures, especially of the industrial type, are of concern in that long term deflections may have opened important joints, even in the absence of deterioration. Corrosion of ferrous fasteners will in most cases be obvious. Dry rot must be considered suspect in all sealed areas where ventilation has been inhibited, and at bearings and at fasteners. Penetration with a pointed tool greater than about ⅛" with moderate hand pressure, will indicate the possibility of further concern.

H. Windows and Doors

Window condition is of considerable importance with respect to two considerations: Leakage and anchorage. Deteriorating anchorage may result in loss of the entire unit in the event of severe windstorms. Perimeter sealant, glazing, seals, and latches should be examined with a view toward deterioration of materials and anchorage of units for inward as well as outward (section) pressures, most importantly in high-rise buildings.

II ELECTRICAL/FIRE ALARM SYSTEMS EVALUATION – BACKGROUND

A. Electrical Service

A description of the type of service supplying the building or structure must be provided, stating the size of amperage, if three (3) phase or single (1) phase, and if the system is protected by fuses or breakers. Proper grounding of the service should also be in good standing. The meter and electric rooms should have sufficient clearance for equipment and for the serviceman to perform both work and inspections. Gutters and electrical panels should all be in good condition throughout the entire building or structure.

B. Branch Circuit and Raceways

Branch circuits in the building must all be identified, and an evaluation of the conductors must be performed. There should also exist proper grounding for equipment used in the building, such as an emergency generator, or elevator motor.

All types of wiring methods present in the building must be detailed and individually inspected. The evaluation of each type of conduit and cable, if applicable, must be done individually. The conduits in the building should be free from erosion and checked for considerable dents in the conduits that may be prone to cause a short. The conductors and cables in these conduits should be chafe free, and their currents not over the rated amount.

7.w2

C. Emergency Lighting/Essential Power/Fire Alarm Systems

Exit signs lighting and emergency lighting, along with voice annunciation systems and a functional fire alarm must tested to confirm they are in good working condition.

III MECHANICAL SYSTEMS – BACKGROUND Is this intended to be considered life safety?

HVAC systems should be inspected to ensure energy efficiency and indoor air quality. If the building is located in a region prone to condensation, hire a commercial HVAC technician to periodically inspect the ductwork for excessive condensation and mold. The following should be considered during the inspections:

- Air filters cleaned and replaced as necessary
- Check for excessive noise or vibration when the blower motors or fans are running.
- Condensate drains/pans draining properly
- Motors and ductwork clean, no evidence of mold/moisture.
- Flexible duct connectors not cracked or leaking.
- Check for screws, latches, and gaskets that are in need of repair or replacement.
- Inspect the condition of all electrical hardware and connections.
- Make sure that the safety controls and equipment are working properly.
- Make sure that all guards and access panels remain secure.
- Check the operation of the interior and exterior mechanical equipment.
- Clean damper operators.
- Make sure that the mineral buildup inside water heater/boiler is kept at a minimum to ensure efficiency.
- Drain water heaters and boilers when necessary to remove any sediment that has accumulated.
- Clean/replace the boiler's oil filter once a month.
- Make sure thermostats are calibrated correctly.

IV PLUMBING SYSTEMS – BACKGROUND Is this intended to be considered life safety?

The plumbing system for a building is vital for access to clean water and the removal of wastewater. The plumbing systems are inspected for general function and leaks and the water supply and drainage, waste and venting installations are inspected visually where accessible. Water heaters are inspected for leaks and probable life expectancy. The following should be considered during the inspections:

- Investigate any signs of leaks
- Verify free and fast flow of water in bathroom facilities, sinks, and drinking fountains
- Inspect all appliances with water connections
- Test water heaters and boilers
- Inspect and service water boosters and pump systems
- Inspect and service condensers (internal and external) for water fountains/dispensers
- Inspect sump pumps and sewage ejection systems

7.x2

21-20572

b. BORA staff suggestions for the 40-Year Building Safety Inspection program.

BSIP Policy 05-05 Pgs. 5.81 to 5.90.b

A) M. Guerasio's Comments (Mike included Jack's comment)

1. Somehow, the cities need to be required to create a follow up program in place on the 40 years. This seems to be the biggest issue with all of the cities.
2. When getting a quote on work at your own residence, do you obtain only one quote and go with it? Maybe there should be a requirement that two minimum reports from a P.E. are required, checks and balances.
3. Townhomes need to be identified in the program.
4. The Special Magistrate should have a time limitation on how long someone in violation has to correct the situation and not keep extending the time out because of their excuses.

Guidelines:

1. If repairs are needed by the initial report and the original P.E. is no longer available for whatever reason, can a second P.E. just certify that the repairs were done or does a entirely new report need to be generated?
2. On the same thought process, when the original report calls for repairs and they are completed, does the existing P.E. need to provide just a certification letter that the repairs were done or an entirely new report?
3. Does the original report need to be kept for record or can it be scanned and kept electronically?

B) Bryan's Comments

Proposed Modification to Chapter 1, Section 110.15

1. Section found in Board Police 05-05 as it pertains to procedures for carrying out the duties of a Building Safety Inspection should be incorporated into section 110.15
2. In section B of 05-05 I would suggest that a new (6) be added as follows:
   At the completion of a Building Safety Inspection the inspection party shall create a three-ring binder containing the following documents:
   a) The engineering inspection report
   b) Any digital photos taken of areas in question
   c) Date provided to the client

3. Property owner shall add the following as it relates to or response to the safety report.
   a) A copy of any action taken - contractor hired, permit application and date of completion

4. If the building has an existing three ring binder no addition binder is required from the original. Year of inspections can be added to the three-ring binder under a separate tab

5. The Building Safety Binder shall be provided to any individual having a vested interest in the property and any local AHJ having authority for enforcement of Chapter 1, 110.15 at any reasonable hour of the building operation.

C) R. Soto's Comments BORA's Policy 05-05, Pgs. 5.81 to 5.90.b

1) Update code edition on pages 5.85, 5.85a.

2) Pg. 5.87, item D(5), 2nd paragraph. Fix typo on it says "FBC 115015". 115.15 doesn't exist. Should it say 110.15?

3) Pg. 5.88f. Recommend replace BORA logo with "Broward Co. Uniform Structural Safety Inspection Report Form", it confuses some persons, and they send the report to us.

4) Pg. 5.89. Recommend replace BORA logo with "Broward Co. Uniform Electrical Safety Inspection Report Form".

5) Add pg. 5.90c with a picture of the Surfside collapsed building (Champlain South).

6) Revise the Brochure from guidelines to requirement.

7) BORA to do an annual audit of the municipalities' compliance with the program.

8) Some language in FBC Ch. 1, section 110.15 needs to be clarified, changed, etc:

Example:

110.15 Building Safety Inspection Program. BORA has established a building safety inspection program for buildings and structures that have been in existence for a period of 40 years or longer. ~~BORA by written policy shall establish the guidelines and criteria which will be the minimum requirements for the Building Safety Inspection Program.~~ The Building Safety Inspection Program shall comply with BORA Policy 05-05. The Building Official shall enforce the building safety inspection Program. U. S. Government buildings, State of Florida buildings, buildings built on Indian Reservations, Schools buildings under the jurisdiction of the Broward County School Board, One- and Two-Family Dwellings, and minor structures defined as buildings or structures in any occupancy group having a gross floor area less than three thousand five hundred (3,500) square feet; are exempt from this program.

Effective January 1, 2006, Subsequent building inspections shall be required at ten (10) year intervals, ~~Section 110.15 Effective January 1, 2006,~~ regardless of when the inspection report for same is finalized or filed. Any buildings or structures not otherwise excluded as set forth herein shall be inspected at the same time as the initial 40-year inspection of the building and shall be re-inspected in accordance with the schedule for the building.

Commented [SR1]: Need to be clarified.

D) Timothy deCarion's Suggestions for improvement of the 40 year program.

1) Letters/Forms sent to building owners from cities should be certified mail with return receipt. To assure that they were received by the owner. Insert in 5.8.4, *notification sent* **to the owner by certified mail with return receipt.**

2) Insert into 5.8.4, **Engineers/Architects are required to immediately send a copy of the Safety Inspection Forms provided to the owner to the building department by certified mail with return receipt when life safety items are found.**

3) Insert into 5.8.7 #3, **The Building Official may request proof of the required training and experience in a technical field.**

Reasons:

1) Proof of Receipt will allow cities to follow-up with ones who do not receive the notice
2) Boards might hold report without the city's knowledge.
3) 12 States require specific Engineering categories to assure training. Qualified professionals should be used. The building official should have the right to question training.

J. Travers Comments

1) 110.15 mentions the buildings that are exempt from Building Safety Inspection Report. The wording in the current edition says "Schools buildings under the jurisdiction of the Broward County School Board….". Should the word "School" be singular or is the intent that "Schools and buildings under the jurisdiction of the BCSB". The latter would imply that maintenance and administrative buildings for BCSB would also be exempt. I know that the School Board has its own Building Review and Inspection Team, but I do not know if the also inspect school admin and maintenance buildings. At the County joint BO meeting on Wednesday, the question was even asked, "Should the Schools even be exempt from this Safety Inspection program"?

Ken Comments

1) There is a bit of a conflict between the Building Safety Inspection Program checklist and Policy #05-05. Section D(1) of the procedures states, "…the Broward County Board of Rules and Appeals Building Safety Inspection Certification Form to the Building Official, prepared by a Professional Engineer or Architect registered in the State of Florida, certifying that each such building or structure is structurally and electrically safe, or has been made structurally and electrically safe for the specified use for continued occupancy,… But the form itself does not have wording or a selection box for the inspecting professional to affirm or attest that pronouncement. This was also brought forward at the joint meeting on Wednesday, by Chris Augustin, Building Official for Sunrise.
2) Refer to BORA Policy 05-05 in section 110.15 of Ch. 1.
3) Have each city designate a contact person who oversees the program, and that contact must be updated by BORA every year. A common excuse is that the person in charge is no longer employed, and the program gets neglected.
4) Guidelines should be developed.
5) Architects should be removed from the program.

6) I don’t know how building departments verify this claim. Saying that, I have had Building Officials tell me that a lot of reports come back with no repairs needed. This worries the BO but there is no way to oversee what the engineer is doing so they have to take the report at face value. I have received complaints from other engineers that they are severely underbid when seeking to provide a quote for their safety inspection engineering services. The discrepancy in price concerns engineers in more ways than one. Of course, the condominium association will take the lower price but will not know the accuracy the inspection. It is assumed that the building is safe if inspection passes no matter what they are charged. On the other side you could have an inferior inspection at a high price, as of right now there is no way to oversee the engineers on how they implement the inspection report. There are reputable and unreputable people in all of commerce, so I think the building owners need some sort of building safety net when it comes to these inspections. More work needs to be done with this and other areas of the program.

Staff meeting

1) 40 year Notices to go to property owners and associations.

From: Castronovo, Kenneth <KCASTRONOVO@broward.org>
Sent: Monday, August 9, 2021 8:16 AM
To: Dipietro, James <JDIPIETRO@broward.org>; Guerasio, Michael <MGUERASIO@broward.org>; Morell, John <JMORELL@broward.org>
Subject: RE: engineering reports, two inquiries.

I don't know how building departments verify this claim. Saying that, I have had Building Officials tell me that a lot of reports come back with no repairs needed. This worries the BO but there is no way to oversee what the engineer is doing so they have to take the report at face value. I have received complaints from other engineers that they are severely underbid when seeking to provide a quote for their safety inspection engineering services. The discrepancy in price concerns engineers in more ways than one. Of course the condominium association will take the lower price but will not know the accuracy the inspection. It is assumed that the building is safe if inspection passes no matter what they are charged. On the other side you could have an inferior inspection at a high price, as of right now there is no way to oversee the engineers on how they implement the inspection report. There are reputable and unreputable people in all of commerce so I think the building owners need some sort of building safety net when it comes to these inspections. More work needs to be done with this and other areas of the program.

Ken

From: Dipietro, James JDIPIETRO@broward.org>
Sent: Friday, August 6, 2021 12:31 PM
To: Castronovo, Kenneth <KCASTRONOVO@broward.org>; Guerasio, Michael <MGUERASIO@broward.org>; Morell, John <JMORELL@broward.org>
Subject: engineering reports, two inquiries.

Recently I had a board member tell me that a building department told him (this was NOT Dan L) that the reports look to be drive by mostly. It you have any knowledge one way or the other as to the accuracy of that being the case for most reports please let me know .

The same board member asked me to ask you if all the unit owners get a copy of the engineering report. As a unit owner they should have the information. Again, just tell me what you might know on this topic. No need to call the cities at this time. Please advise. Thank you. Jim

James DiPietro
Administrative Director
Broward County Board of Rules and Appeals
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Plantation, Florida 33324
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