**2021 Supplement to the 7th Edition (2020) Florida Building Code**

**Effective Date: August 18, 2021**

**7th Edition (2020) Florida Building Code – Building**

**Chapter 1 SCOPE AND ADMINISTRATION**

**SECTION 105 PERMITS**

**Add Section 105.3.8 to read as follows:**

A local government may not require a contract between a builder and an owner for the issuance of a building permit or as a requirement for the submission of a building permit application.

**(Code language for consistency with HB 401)**

Revise section 105.3.1.2 to read as follows:

**105.3.1.2.** No permit may be issued for any building construction, erection, alteration, modification, repair, or addition unless the applicant for such permit provides to the enforcing agency which issues the permit any of the following documents which apply to the construction for which the permit is to be issued and which shall be prepared by or under the direction of an engineer registered under Chapter 471, *Florida Statutes*:

1. Plumbing documents for any new building or addition which requires a plumbing system with more than 250 fixture units or which costs more than $125,000.

2. Fire sprinkler documents for any new building or addition which includes a fire sprinkler system which contains 50 or more sprinkler heads. Personnel as authorized by chapter 633 *Florida Statutes*, may design a new fire sprinkler system of 49 or fewer heads; ~~and~~ may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition or deletion of ~~not more than~~ 49 heads or fewer, notwithstanding the size of the existing fire sprinkler system~~.~~; or may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation or deletion of 249 or fewer sprinklers, notwithstanding the size of the existing fire sprinkler system, if there is no change of occupancy of the affected areas, as defined in this Code and the Florida Fire Prevention Code, and there is no change in the water demand as defined in NFPA 13, “Standard for the Installation of Sprinkler Systems,” and if the occupancy hazard classification as defined in NFPA 13 is reduced or remains the same as a result of the alteration.

**(Code language for consistency with SB 286)**

**CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE**

Revise 453.13.6 to read as follows:

**453.13.6 Hardware.** Doors and gates shall be equipped with hardware which will allow egress at all times without assistance. No padlock, chain, hasp, lock, deadbolt, or other device shall be installed at any time on any door used for exiting. Doors which by code require closers and other doors subject to wind exposure shall be equipped with closers to prevent slamming and uncontrolled opening.

All doors opening into smoke-tight exit access corridors shall be self-closing or automatic closing. Smoke

doors in walls used to divide corridors into separate atmospheres shall be provided with push-pull plates and are not required to have positive latching. As an exception to Section 1010.1.9.8, delayed egress locks may be used in media centers, alternative education centers, and exceptional

student education centers. ~~Delayed egress locks are prohibited at time-out rooms at all locations.~~

**453.26 ~~Time-out rooms.~~ Reserved.**

**~~453.26.1~~** ~~Locking an individual inside a space without a means of opening the door from within that space is contrary to the exiting philosophy of the~~ *~~Florida Building Code~~* ~~and the~~ *~~Florida Fire Prevention Code~~* ~~as adopted by the State Fire Marshal for educational facilities. The educational program which requires containment of the out-of- control student can be accommodated within this context only if the following are met:~~

**~~453.26.2 Electromagnetic locking device.~~** ~~When a timeout room is to be locked, an electromagnetic locking device may be used and shall have the following features:~~

**~~453.26.2.1~~** ~~The lock shall remain engaged only when a push button mounted outside the time-out room adjacent to the door frame is continuously depressed by hand. Upon release of pressure, the door shall unlock.~~

~~The locking device shall be designed so that it cannot be engaged by leverage of an inanimate object or in any other manner except by constant human contact.~~ **~~453.26.2.2~~** ~~The push button, or similar device, shall be recessed from the face of the unit housing, or in some other way designed to prevent taping or wedging the button in the engaged mode.~~

**~~453.26.2.3~~** ~~The device shall have an interface relay with the fire alarm system and shall automatically release upon activation of the fire alarm.~~

**~~453.26.2.4~~** ~~The locking device shall automatically disengage in the event of a power failure.~~

**~~453.26.2.5~~** ~~Timers shall not be used on the locking device.~~

**~~453.26.3 Door requirements.~~** ~~The door shall have only a push plate exposed on the interior of the room.~~

**~~453.26.3.1~~** ~~The door shall swing out of the room and shall be equipped with a fully concealed track-type~~

~~closer.~~

**~~453.26.3.2~~** ~~A vision panel shall be provided in the door, and it shall be no larger than 144 square inches (0.093 m2). The view panel shall consist of a clear 1/4-inchthick (6 mm) unbreakable plastic panel flush with the inside face of the door on the inside of the room. The panel shall be positioned in the door so that a staff member may continuously keep the student under surveillance.~~

**~~453.26.3.3~~** ~~The door frame and jamb/head reveal on the inside shall be minimal. If provided, a flat metal threshold shall be used.~~

**~~453.26.4 Finishes.~~** ~~The floor and walls shall be durable, vandal-resistant materials. The ceiling shall be of a solid and moisture-resistant material. There shall be no projections or protrusions from the walls, ceiling, or floor. All surfaces shall be smooth and no electrical outlets, switches, plumbing clean-outs or similar items shall be inside the room. The room shall not contain anything that can be set on fire, torn, shredded or otherwise used for self-harm.~~

**~~453.26.5 Minimum size.~~** ~~The room shall be designed for a single occupant only and shall be a minimum of 6 feet by 6 feet (1828 mm by 1828 mm).~~

**~~453.26.6 Lighting.~~** ~~The room shall have a recessed vandalproof light fixture in the ceiling capable of being dimmed. The light switch shall be located outside the room adjacent to the door jamb.~~

**~~453.26.7 HVAC required.~~** ~~Time-out rooms shall be mechanically heated and cooled. Registers shall be ceiling mounted and vandalproof.~~

**453.27.13 Reserved. ~~Time-out rooms.~~** ~~Time-out rooms are not recommended but, when provided, shall comply with the specific requirements for time-out rooms found elsewhere in these public educational facilities code requirements.~~

**(SP-FBC-B – Ch.4 – Errata #1)**

Revise 453.9.1 to read as follows:

**453.9.1 Loading requirements.** Structural design shall comply with code requirements and wind loads as stipulated

by the *Florida Building Code* and the *Florida Fire Prevention Code* as adopted by the State Fire Marshal.

Wind design shall be based on ASCE 7, with wind speeds determined from Figure 26.5-1~~B~~C and ICC 500, as appropriate.

**SP-FBC-B – Ch.4 – Errata #2**

Revise 1505.9 to read as follows:

**1505.9 Rooftop-mounted photovoltaic panel systems.** Rooftop-mounted *photovoltaic panel systems* shall be tested,

*listed* and identified with a fire classification in accordance with UL 1703 or UL ~~2073~~ 2703. The fire classification shall comply with Table 1505.1 based on the type of construction of the building.

**R-FBC-B-Ch. 15 – Errata #3**

**CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES**

**SECTION 1507 REQUIREMENTS FOR ROOF COVERINGS**

Revise Table 1507.1.1.1 to read as follows:

TABLE 1507.1.1.1

UNDERLAYMENT WITH SELF-ADHERING STRIPS OVER ROOF DECKING JOINTS

|  |  |  |  |
| --- | --- | --- | --- |
| Roof Covering | Underlayment Type | Underlayment Attachment | |
| Roof Slope 2:12 and Less Than 4:12 | Roof Slope 4:12 and Greater |
| Asphalt Shingles, Metal Roof Panels, Photovoltaic Shingles | ASTM D226 Type II ASTM D4869  Type III or IV  ASTM D 6757 | Apply in accordance with Section 1507.1.1.1, Item 4 or Section 1507.1.1.3, Item 3 as applicable to the type of roof covering. | Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches; end laps shall be 6 inches and shall be offset by 6 feet. The underlayment shall be attached to a nailable deck with two staggered rows in the field of the sheet with a maximum fastener spacing of 12 inches o.c., and one row at the end and side laps fastened 6 inches o.c. Underlayment shall be attached using annular ring or deformed shank nails with metal or plastic caps with a nominal cap diameter of not less than 1 inch. Metal caps are required where the ultimate design wind speed, Vult, equals or exceeds 170 mph. Metal caps shall have a thickness of not less than 32-gage sheet metal. Power-driven metal caps shall have a minimum thickness of 0.010 inch. The minimum thickness of the outside edge of plastic caps shall be 0.035 inch. The cap nail shank shall be not less than 0.083inch for ring shank cap nails and 0.091 inch for smooth shank cap nails. The cap nail shank shall have a length sufficient to penetrate through the roof sheathing or not less than 3/4 inch into the roof sheathing. |
| Metal Roof Shingles, Mineral-Surface Roll Roofing, Slate and Slate-type Shingles, Wood Shingles, Wood Shakes | ASTM D226Type II ASTM D4869   Type III or IV |

**R-FBC-B/R –Ch. 15/9 – Errata #1**

Revise Table 1507.2.7.1 to read as follows:

**TABLE 1507.2.7.1**

**CLASSIFICATION OF ASPHALT SHINGLES**

|  |  |  |  |
| --- | --- | --- | --- |
| **MAXIMUM BASIC WIND SPEED FROM FIGURE ~~1609A, B or C~~1609.3(1),1609.3.(2), 1609.3(3), 1609.3(4) or ASCE 7** | ***Vasd*** | **ASTM D7158** | **ASTM D3161** |
| 110 | 85 | D, G or H | D or F |
| 116 | 90 | D, G or H | D or F |
| 129 | 100 | G or H | D or F |
| 142 | 110 | G or H | F |
| 155 | 120 | G or H | F |
| 168 | 130 | H | F |
| 181 | 140 | H | F |
| 194 | 150 | H | F |

**R-FBC-B-Ch. 15 – Errata #2**

**CHAPTER 20 ALUMINUM**

Revise Tables 2002.4 and 2002.4A to read as follows:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 2002.4** | | | | | | | | | | | | | | | | | | | | | |  |
| **DESIGN WIND PRESSURES SCREENED ENCLOSURES a, b, f, g, h**  **(STRENGTH DESIGN OR LRFD ONLY)** | | | | | | | | | | | | | | | | | | | | | |  |
|  | ULTIMATE DESIGN WIND SPEED Vult (mph) | | | | | | | | | | | | | | | | | | | | |  |
|  | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | | 170 | | |  |
| Surface | Design Pressures by Exposure Category (psf) | | | | | | | | | | | | | | | | | | | | |  |
| B | C | D | B | C | D | B | C | D | B | C | D | B | C | D | B | C | D | B | C | D |  |
| Horizontal Pressures on Windward Surfaces d | 17 | 24 | 28 | 20 | 28 | 33 | 23 | 32 | 38 | 27 | 38 | 44 | 31 | 43 | 51 | 36 | 49 | 58 | 40 | 56 | 66 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Pressures on Leeward Surfaces d | 13 | 18 | 21 | 15 | 22 | 26 | 20 | 26 | 31 | 21 | 29 | 34 | 22 | 34 | 40 | 25 | 39 | 46 | 29 | 44 | 52 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vertical Pressures on Screen Surfaces c | 4 | 7 | 8 | 6 | 8 | 9 | 6 | 9 | 11 | 8 | 11 | 12 | 9 | 12 | 14 | 10 | 14 | 16 | 11 | 15 | 18 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vertical Pressures on Solid Surfaces e | ~~14~~  17 | ~~19~~  24 | ~~23~~  29 | ~~17~~  21 | ~~23~~  29 | ~~27~~  34 | ~~20~~  24 | ~~27~~  34 | ~~32~~  40 | ~~23~~  28 | ~~32~~  39 | ~~37~~  46 | ~~25~~  32 | ~~36~~  45 | ~~42~~  53 | ~~29~~  36 | ~~41~~  51 | ~~48~~  60 | ~~33~~  41 | ~~46~~  58 | ~~54~~  68 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

For SI: 1 pound per square foot = 9.479 kN/m2.

**NOTES:**

a. Pressures apply to enclosures with a mean enclosure roof height of 30 feet (10 m). For other heights, multiply the pressures in this table by the factors in Table 2002.4A.

b. Apply horizontal pressures to the area of the enclosure projected on a vertical plane normal to the assumed wind direction, simultaneously inward on the windward side and outward on the leeward side.

c. Apply vertical pressures upward and downward to the area of the enclosure projected on a horizontal plane.

d. Apply horizontal pressures simultaneously with vertical pressures.

e. Table pressures are MWFRS Loads. The design of solid roof panels and their attachments shall be based on component and cladding loads for enclosed, ~~or~~ partially enclosed structures, or attached canopies as appropriate.

f. Table pressures apply to 20 × 20 × 0.013" mesh screen. For 18 ×14 × 0.013" mesh screen, pressures on screen surfaces may be multiplied by 0.88. For screen densities greater than 20 × 20 × 0.013", use pressures for enclosed buildings.

g. Table pressures may be interpolated using ASCE 7 methodology.

h. For allowable stress design (ASD) pressures shall be permitted to be multiplied by 0.6.

TABLE 2002.4A

HEIGHT ADJUSTMENT FACTORS

|  |  |  |  |
| --- | --- | --- | --- |
| **MEAN ROOF HEIGHT** | **EXPOSURE** | | |
| **B** | **C** | **D** |
| 0-15 | ~~1~~ 0.81 | 0.86 | 0.89 |
| 20 | ~~1~~ 0.89 | 0.92 | 0.93 |
| 25 | ~~1~~ 0.94 | 0.96 | 0.97 |
| 30 | 1 | 1 | 1 |
| 35 | 1.05 | 1.03 | 1.03 |
| 40 | 1.09 | 1.06 | 1.05 |
| 45 | 1.12 | 1.09 | 1.07 |
| 50 | 1.16 | 1.11 | 1.09 |
| 55 | 1.19 | 1.14 | 1.11 |
| 60 | 1.22 | 1.16 | 1.13 |

**(S-FBC-B-Ch. 20-Errata #2)**

**7th Edition (2020) Florida Building Code - Residential**

**CHAPTER 9 - ROOF ASSEMBLIES**

**SECTION R905 - REQUIREMENTS FOR ROOF COVERING**

Revise Table R905.1.1.1 to read as follows:

TABLE R905.1.1.1

UNDERLAYMENT WITH SELF-ADHERING STRIPS OVER ROOF DECKING JOINTS

|  |  |  |  |
| --- | --- | --- | --- |
| ROOF COVERING | UNDERLAYMENT TYPE | UNDERLAYMENT ATTACHMENT | |
| Roof Slope 2:12 and Less Than 4:12 | Roof Slope 4:12 and Greater |
| Asphalt Shingles, Metal Roof Panels, Photovoltaic Shingles | ASTM D226 Type II ASTM D4869   Type III or IV  ASTM D6757 | Apply in accordance with Section R905.1.1.1, Item 4or Section R905.1.1.3, Item 3 as applicable to the type of roof covering. | Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches (51 mm); end laps shall be 6inches and shall be offset by 6 feet. The underlayment shall be attached to a nailable deck with two staggered rows in the field of the sheet with a maximum fastener spacing of 12 inches (305 mm)o.c., and one row at the end and side laps fastened 6 inches (152mm) o.c. Underlayment shall be attached using annular ring or deformed shank nails with metal or plastic caps with a nominal cap diameter of not less than 1 inch. Metal caps are required where the ultimate design wind speed, Vult, equals or exceeds 170 mph. Metal caps shall have a thickness of not less than 32-gage sheet metal. Power-driven metal caps shall have a minimum thickness of 0.010inch. Minimum thickness of the outside edge of plastic caps shall be0.035 inch. The cap nail shank shall be not less than 0.083 inch for ring shank cap nails and 0.091 inch for smooth shank cap nails. Cap nail shank shall have a length sufficient to penetrate through the roof sheathing or not less than 3/4inch into the roof sheathing. |
| Metal Roof Shingles, Mineral-Surface Roll Roofing, Slate and Slate-type Shingles, Wood Shingles, Wood Shakes | ASTM D226 Type II ASTM D4869   Type III or IV |

**(R-FBC-B/R –Ch. 15/9 – Errata #1)**

**7th Edition (2020) Florida Building Code - Existing Building**

**CHAPTER 5 PRESCRIPTIVE COMPLIANCE METHOD**

**SECTION 506 CHANGE OF OCCUPANCY**

Revise Section 506.1 Conformance to read as follows:

**506.1 Conformance.** No change shall be made in the use or occupancy of any building unless such building is made to comply with the requirements of the *Florida Building Code, Building* for the use or occupancy. Changes in use or occupancy in a building or portion thereof shall be such that the

existing building is no less complying with the provisions of this code than the existing building or structure was prior to the change. Subject to the approval of the building official, the use or occupancy of *existing buildings* shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all of the requirements of this code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use.

**Exceptions:**

1. The building need not be made to comply with the seismic requirements for a new structure unless required by Section 506.4.
2. A single-family or two-family dwelling that is converted into a certified recovery residence, as defined in s. 397.311, Florida Statutes or a recovery residence, as defined in s. 397.311, Florida Statutes that has a charter from an entity recognized or sanctioned by Congress does not have a change of occupancy as defined in this Code solely due to such conversion.

**(Code language for consistency with SB 804)**

**CHAPTER 10 CHANGE OF OCCUPANCY**

SECTION 1001 GENERAL

**Revise Section 1001.2.2 Change of occupancy classification or group to read as follows:**

**1001.2.2 Change of occupancy classification or group.** Where the occupancy classification of a building changes, the provisions of Sections 1002 through 1012 shall apply. This includes a *change of occupancy* classification and a change to another group within an occupancy classification.

**Exception:**

A single-family or two-family dwelling that is converted into a certified recovery residence, as defined in s. 397.311, Florida Statutes or a recovery residence, as defined in s. 397.311, Florida Statutes that has a charter from an entity recognized or sanctioned by Congress does not have a change of occupancy as defined in this Code solely due to such conversion.

**(Code language for consistency with SB 804)**

**7th Edition (2020) Florida Building Code - Energy Conservation**

**Residential Provisions**

**Chapter 1 [RE] Scope and Administration**

Revise Table R101.5.1 to read as follows:

**TABLE R101.5.1**

**INDEX TO CODE COMPLIANCE FORMS**

|  |  |
| --- | --- |
| **FORM** | **WHERE FOUND** |
| Form R402 | Appendix RD |
| ~~Florida REScheck~~ | ~~Computer printout~~ |
| Form R405 | Commission approved software printout |

**(EN-FBC-EC/R-Ch.1-Errata #1)**

**7th Edition (2020) Florida Building Code - Test Protocols for High-Velocity Hurricane Zones**

ROOFING APPLICATION STANDARD (RAS) No. 127-20

PROCEDURE FOR DETERMINING THE MOMENT OF RESISTANCE AND MINIMUM

CHARACTERISTIC RESISTANCE LOAD TO INSTALL A TILE SYSTEM ON A

BUILDING OF A SPECIFIED ROOF SLOPE AND HEIGHT USING ALLOWABLE STRESS DESIGN (ASD) IN ACCORDANCE WITH ASCE 7

Revise Tables 3, 6, 8 and 12 to read as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **TABLE 3 — GABLE ROOFS**  **MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF FOR ROOF SLOPE –**  **>6:12 to ≤12:12 RISK CATEGORY II EXPOSURE CATEGORY “C”** | | | |
| **Roof Mean Height** | **Roof Pressure Zones** | | |
| **1, 2e and 2r** | **2n and ~~2r~~3r** | **3e** |
| ≤15’ | -67 | -74 | -115 |
| >15 to ≤20’ | -71 | -78 | -122 |
| >20’ to ≤25’ | -74 | -82 | -127 |
| >25’ to ≤30’ | -78 | -85 | -132 |
| >30 to ≤35’ | -80 | -88 | -137 |
| >35 to ≤40’ | -82 | -91 | -141 |
| >40’ to ≤45’ | -85 | -93 | -146 |
| >45’ to ≤50’ | -86 | -95 | -147 |
| >50’ to ≤55’ | -88 | -97 | -151 |
| >55’ to ≤60’ | -89 | -98 | -153 |

|  |  |  |  |
| --- | --- | --- | --- |
| **TABLE 6 — GABLE ROOFS**  **MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF FOR ROOF SLOPE -**  **>6:12 to ≤12:12 RISK CATEGORY II EXPOSURE CATEGORY “D”** | | | |
| **Roof Mean Height** | **Roof Pressure Zones** | | |
| **1, 2e and 2r** | **2n and ~~2r~~3r** | **3e** |
| ≤15’ | -82 | -90 | -140 |
| >15 to ≤20’ | -86 | -94 | -146 |
| >20’ to ≤25’ | -87 | -98 | -151 |
| >25’ to ≤30’ | -92 | -101 | -157 |
| >30 to ≤35’ | -94 | -103 | -161 |
| >35 to ≤40’ | -97 | -106 | -165 |
| >40’ to ≤45’ | -99 | -109 | -168 |
| >45’ to ≤50’ | -101 | -111 | -172 |
| >50’ to ≤55’ | -102 | -112 | -174 |
| >55’ to ≤60’ | -104 | -114 | -177 |

|  |  |  |  |
| --- | --- | --- | --- |
| **TABLE 8 — HIP ROOFS**  **MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF FOR ROOF SLOPE –**  **>4:12 to ≤6:12 RISK CATEGORY II EXPOSURE CATEGORY “C”** | | | |
| **Roof Mean Height** | **Roof Pressure Zones** | | |
| **1** | **2e, 2r and 3** | **~~3~~** |
| ≤15’ | ~~-71~~ -54 | ~~-91~~ -74 | ~~-111~~ |
| >15 to ≤20’ | ~~-75~~ -57 | ~~-97~~ -78 | ~~-118~~ |
| >20’ to ≤25’ | ~~-79~~ -59 | ~~-101~~ -82 | ~~-124~~ |
| >25’ to ≤30’ | ~~-82~~ -62 | ~~-105~~ -85 | ~~-129~~ |
| >30 to ≤35’ | ~~-84~~ -64 | ~~-109~~ -88 | ~~-133~~ |
| >35 to ≤40’ | ~~-87~~ -66 | ~~-112~~ -90 | ~~-137~~ |
| >40’ to ≤45’ | ~~-89~~ -67 | ~~-114~~ -92 | ~~-140~~ |
| >45’ to ≤50’ | ~~-91~~ -69 | ~~-117~~ -95 | ~~-143~~ |
| >50’ to ≤55’ | ~~-93~~ -70 | ~~-120~~ -97 | ~~-146~~ |
| >55’ to ≤60’ | ~~-94~~ -72 | ~~-122~~ -99 | ~~-149~~ |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TABLE 12 — HIP ROOFS**  **MINIMUM ASD DESIGN WIND UPLIFT PRESSURES IN PSF FOR ROOF SLOPE -**  **>6:12 to ≤12:12 RISK CATEGORY II EXPOSURE CATEGORY “D”** | | | | |
| **Roof Mean Height** | **Roof Pressure Zones** | | | |
| **1** | **~~2r~~2e** | **~~2e~~2r** | **3** |
| ≤15’ | -69 | -119 | -123 | -156 |
| >15 to ≤20’ | -73 | -124 | -129 | -163 |
| >20’ to ≤25’ | -75 | -129 | -133 | -169 |
| >25’ to ≤30’ | -78 | -134 | -138 | -175 |
| >30 to ≤35’ | -80 | -137 | -142 | -180 |
| >35 to ≤40’ | -82 | -141 | -145 | -184 |
| >40’ to ≤45’ | -84 | -143 | -148 | -188 |
| >45’ to ≤50’ | -85 | -146 | -151 | -192 |
| >50’ to ≤55’ | -87 | -149 | -154 | -195 |
| >55’ to ≤60’ | -88 | -151 | -156 | -198 |

**(S-FBC-RAS 127-Errata #1)**