

## VII. STANDARD FF/FL FLOOR TOLERANCE SPECIFICATION

A. **Designation:** The floor area bounded by column lines (\_\_\_), (\_\_\_) , (\_\_\_) , and (\_\_\_) is designated the Random Traffic Floor . Any floor slab which comprises a portion of the Random Traffic Floor is designated a Random Traffic Slab.

B. **Local Flatness/Levelness:** Except as set forth in Paragraph D below, the Random Traffic Floor shall conform to the following minimum Fnumber requirements:

Specified overall values : OAFF (  X  ) / OAFL (  3X/5  )  
Minimum local values : MLFF (  3X/5  ) / MLFL (  9X/25  )

C. **General Conformity to Design Grade:** Except as set forth in Paragraph D below, the entire Random Traffic Floor shall fall within +/- 3/4" of its specified elevation.

D. **Exceptions:** Both the overall and minimum local FL levelness tolerances set forth in Paragraph B above shall not apply to any Random Traffic Slab that is to be inclined or cambered. Likewise, no FL levelness tolerances will be applied to any unshored elevated construction. The general conformity to design grade tolerance set forth in Paragraph C above will apply to unshored elevated slab constructions, but in all such cases, the tolerance will be increased to +/- 1 1/2".

E. **Testing:** All floor flatness, levelness, and grade conformity tests shall be made (at the Owner's expense) on each newly installed Random Traffic Slab within 8 hours after completion of the final troweling operation. FF and FL tests shall be made by a factory certified technician in accordance with ASTM E1155 (latest revision) using an "F-Meter" as manufactured by Allen Face & Company of Wilmington, NC. Grade conformity tests shall

be made using an optical or laser level. Results of all floor tolerance tests - including a formal notice of acceptance or rejection of the work shall be provided to the contractor within 12 hours after testing. Failure to adhere to the testing and reporting requirements set forth in this paragraph shall constitute *de facto* acceptance of the work.

**NOTE:** Weekends and holidays shall be ignored when computing specified testing and reporting deadlines.

- F. **Remedy for OutofTolerance Work:** The entire Random Traffic Floor shall be subdivided into Minimum Local Floor Sections bounded either by the column and halfcolumn lines, or the construction and control joints, whichever subdivision yields the smaller areas.

All Minimum Local Floor Sections measuring at or above the specified MLFF and MLFL numbers shall be accepted for F-number compliance as constructed. All Minimum Local Floor Sections which fail to meet or exceed both specified minimum local F-numbers shall be removed and replaced (in the case of slabs-on-grade), or ground and/or retopped (in the case of elevated slabs). No remedies for defective Minimum Local Floor Sections other than removal and replacement of slabs-on-grade, and grinding and/or retopping of elevated slabs will be permitted.

If the entire Random Traffic Floor, when completed, fails to meet or exceed both the specified OAFF-number and OAFL-number, then the contractor shall rebate to the owner an amount equal to:

$$\$1.00 \times (\text{aggregate sq. ft. measuring below Specified OAFF}) * \\ (\text{Specified OAFF} / \text{Measured OAFF})$$

or

$$\$1.00 \times (\text{aggregate sq. ft. measuring below Specified OAFL}) * \\ (\text{Specified OAFL} / \text{Measured OAFL})$$

whichever is the greater amount. The defective square footages to be used in the above formulae shall be calculated using the "FMeter Project Management" procedure published by:

**Allen Face & Company, L.L.C.**  
**338 Arrowhead Dr**  
**Gilberts, IL 60136**  
**Tel: (224)699-9000**  
**Fax: (847)844-0325**

**G. Additional Information:** A complete description of the F-Number System may be found in either the Apr '87 issue of CSI's Construction Specifier or the Jan '89 issue of ACI's Concrete International.