Due to the High Annual Rainfall and High Annual Humidity in Florida, it is unrealistic to use Type I CMU’s throughout the construction project. It is much more realistic to design and detail a project using Type II units. Therefore, to help explain this fact, in 1990 FC&PA issued the flyer “Bury the Myth” which explained this problem and the highlights from it are incorporated herein:

_________________________

**Note:**
The basic idea here is to recognize the fact that Florida has high annual rainfall and high annual relative humidity.

_________________________

**Recognizing this fact:**
It is recommended that the project should be designed to take into account the shrinkage requirements of ACI 530 which calls for designing for 1/2 of the potential linear shrinkage or 3/16” in 100 lf. See “Note for Engineers”.

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**Florida**

There are NO Type I Block in Florida:

- Average Annual Rainfall ... 50 - 65 inches.
- Average Annual Relative Humidity ... 75%
In May 1990, FC&PA published the following note in the Shapes & Sizes Manual on page 2:

Note: “Please be advised that due to the high rainfall and humidity in Florida, Type I Moisture controlled units Are not available. Control joint spacing and location should be designed utilizing Type II non-moisture controlled units.”

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**Florida Concrete & Products Association Recommendations**

**MAXIMUM HORIZONTAL SPACING OF VERTICL CONTROL JOINTS IN CONCRETE MASONRY WALLS (feet)**

<table>
<thead>
<tr>
<th>Average Annual Relative Humidity</th>
<th>Vertical Spacing Of Bed Joint Reinforcement (Inches)</th>
<th>Type of Concrete Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 75%</td>
<td>I Moisture</td>
<td>II Non-moisture</td>
</tr>
<tr>
<td>Interior</td>
<td>None</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>32</td>
</tr>
</tbody>
</table>

1. Approximate to nearest modular dimension
2. As defined in ASTM C90 Section 3. Classification 3.2.1 and 3.2.2

**Note for the Engineers:**
Because Type II units are non-moisture controlled, a higher allowance for potential linear drying shrinkage must be used than for Type I units:

**Page C-9 Ref 1.8.5.2**

1.8.5 Shrinkage
1.8.5.2 Masonry made of Non-moisture controlled Concrete Masonry Units:

**Example Coefficient of shrinkage for Type II masonry units:**

\[
K_m = 0.5 \times \overline{S} = 0.5 \times (0.32\%) = 0.16\%
\]

**What is a good value for “S” in Florida?**
You may want to check with your concrete producer; however, a good general value for $S$ (for normal weight units—125 pounds per cubic foot or more, oven dry weight for concrete), is 0.032%

**How much shrinkage in 100 feet?**
Potential linear shrinkage for Type II units for 100 linear feet of wall:

\[
= 0.016\% \times 100'(12') \\
= 0.016\% \times 1200 \\
= 0.192” \approx 3/16” (3/16” = 0.1875) 
\]