



**Texas Ramp Project Newsletter Article – Roy Harrington**  
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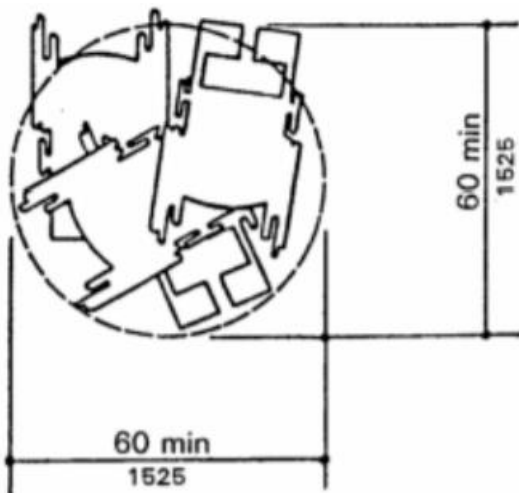
## **Building Basics**

This month's column covers the 5x5 module, which generated several questions right after the May newsletter was distributed. I welcome any feedback you may have as we search for best practices to share with all our build teams. Send any questions or comments to [royh85@verizon.net](mailto:royh85@verizon.net).

### **The 5x5 module**

I will admit, my team does not like building, or installing, 5x5 modules. Lumber and plywood are readily available and fairly easily used when modules are 4' wide and either 4' or 8' long, allowing for minimal cutting, minimal waste and minimal cost (I know, lumber prices are high right now). The 5x5 requires us to stop and think when cutting the lumber, assembling the module and building it into a ramp, from attaching the module to doing the handrails. So why are they included in ADA specifications, the Texas Accessibility Standards and our ramp build guidelines?

The reason is to provide the necessary clearances for easily maneuvering a wheelchair, as shown below in a diagram from the Texas Accessibility Standards [https://www.tdlr.texas.gov/ab/tas/tassection04\\_02\\_to04\\_09.pdf](https://www.tdlr.texas.gov/ab/tas/tassection04_02_to04_09.pdf)



This need is especially important at doors and at 90-degree turns to allow the wheelchair operator to focus on the door, or direction change, without worrying about rolling down the ramp.

I have been told many times the 5x5 requirement only applies for commercial ramps, not residential. When looking at the ADA rules for ramps I recognize the focus is on commercial installations, so my objective is to understand the "why" behind the rules and factor in what we can do using readily available dimensioned lumber. The "why" on 5x5 porches is for a safe flat area to operate the door. For 90 degree turns, the "why" is to provide enough turning radius, as shown above, and for when a wheelchair is being pushed or for an ambulance gurney. These needs are not different between commercial and residential applications and, while they are more challenging, they can be built using readily available lumber with minimal waste using 10' 2x4's and 10' 2x6's.

Are there cases where a smaller flat porch can work? Yes, one possibility is when the door opens inward, but it wouldn't be a mistake to use a 5x5 even in that situation. Since we are building residential ramps, can we get away with 4x4 turns? Probably, but is that the best thing for the client when it comes to maneuvering a wheelchair on the ramp? I believe there are parts of the ADA rules that really don't apply to residential, but things like the slope, resting flats and turning radius allowances all have a universal "why" that is based on a person in a wheelchair trying to get up and down the ramp.

At the same time, I understand the cost for a 5x5 module is about 1.5x that of a 4x4 module, so we have to figure out where we draw the line on following ADA and what is best for each specific client situation and TRP. We have guidelines for the "ideal" cases, but we know there will be situations that necessitate judgment in order to balance the guidelines against the need to provide a safe, functional ramp for a homebound client.

I specify and use 5x5 modules as described in the May newsletter because I believe it is the best thing for the client, but I know there are teams and regions that do not. Please send me your feedback and experience with clients rating the accessibility either using 5x5 modules or 4x4's as porches and for 90-degree turns. I look forward to hearing from you.