

I'm Not a Deck Builder Anymore.

My hands have gotten soft, my back weaker, and my skin...not so tan. I haven't built a deck for someone else since 2009 or full-time since 2004...I'm not a deck builder anymore. Now I just try to educate and support builders about building codes. When I moved my career to codes, I still held on to the decking industry. I like decks. I like unique and exciting decks built of creative materials in a thriving market. Why does this matter? Why am I telling you this rhetoric?

Because in three weeks I will be standing in front of the future of the decking industry as the only voice for the industry at large, and the only voice for deck builders. In front of the attendance and committee at the International Code Council's Group B Hearings for the development of the 2015 International Residential Code. 2015 is a long way away...I know. But for the IRC is NOW, and I will be there. For builders, for lumberyards, for decking and railing manufacturers...for future deck owners. I will be there. I will be ahead of the train of regulation and standardization that's on it's way to you. I wonder though...

...Are you with me? I have heard your stories, your frustrations and your anger about codes, old and new, for many years. I still have a memory of being in the shoes of a deck builder, but lateral loads and such weren't an issue back then. Do I understand the plight of today's builder enough to speak for them at the hearing? Do you trust me to do so, or do you have anything else to tell me first?

Now is the time. Now is the time to stand and make a difference. I am standing. Stand with me and give me your support. Give me your ideas. Tell me that while I may not be a deck builder anymore that I carry your flag as a builder. What about the other professionals in the decking industry...help me speak for you too. Give me confidence and prepare me to understand and share your experiences and ideas regarding code where it actually meets our neighbor's backyards.

I have identified the topics that should matter to you. I hope they do. They are your future. I've highlighted a handful of them and explained my position. Beyond that, there is a list of others that may need further review. Have a look. See the possibilities for your future, and then speak up. "Tomorrow"...will be too late.

GUARD DEFLECTION LIMITS

RB61-13

Guards are one of the few (only, I think) construction features that is provided a minimum live load resistance, but not a deflection limit. Usually the two go together. Just how far can something stretch without failure and still be okay? Justifiably...this is a bit of an anomaly in the code, and it's no wonder a proposal is out there to change that.

This proposal seeks to end this anomaly, but yet add another ambiguity. Deflection limits proposed, while perhaps reasonable, will not be verifiable during inspection. Guard posts can deflect about 3 inches, and top rails downward about 1 inch over 8 feet. This deflection would presumably be determined during a 200 lb. load placed at the top of the rail, either at guard post, or between guard posts. This, of course, is the 200 lb. load that is supposed to be tested at 400 to 500 lb, but is usually tested with a push by the inspector.

The proposal is made complicated with the inclusion of the combination post and horizontal top rail deflection. In this criterion, a guard top rail cannot deflect outward by more than a combined amount of approximately 1.5 inches in the post plus 1 inch over 8 ft. in the horizontal rail.

GLENN'S OPINION: Not in favor

Without a tested or engineered assembly to prove these deflection limits under load, an inspector in the field will have code under his/her nose requiring the following: Under a 200 lb. horizontal force, the inspector must determine, simultaneously, how much the guard post deflects outward and how much the horizontal rail deflects, from the deflected post position. How is that going to happen? It's probably not. It's more likely that you will be expected to use an engineered, tested, or standardized (proposed in RB268) guard in the future, as these requirements can not be verified any other way. I believe this will greatly impact the architectural freedom and affordability of guard construction. I do not believe there is an epidemic of guard failure from work of educated builders. Rather I believe there is an epidemic of builders and inspectors that have long ignored attention and education regarding deck construction. I believe owners need to inspect and maintain their property and not expect performance of a new deck in one a decade old. I do not believe the benefits of a listed deflection limit outweigh the damage to architectural freedom. I also know that the code already gives an inspector a path to demand a test or analysis of a guard system if there is concern that the loads are not met. Therefore if a particular guard is perceived as not built sufficiently, there is already a means in the code to have it remedied, but without restricting the construction of every single other guard. I also believe that deflection in guards is acceptable to some degree, as it alerts users that the guard is perhaps being loaded too much. Don't you back off of a guard that begins to lean a bit?

DECK AND STAIR DISTANCE TO PROPERTY LINES

RB66-13

Provides an exception to fire resistive construction for decks greater than 5 feet from the property line or the dwelling. However, decks aren't very clear in fire separation distance requirements ("setbacks" from property lines). This proposal may inadvertently require fire resistive construction of low level decks less than 5 feet where previously not required.

RB74-13

Prohibits exterior stairways less than 5 feet from lot lines and other buildings on the lot. May inadvertently restrict stairs on low level decks, or stairs from a deck between a home and a detached garage.

RB75-13

Prohibits accessory structures, such as patio covers and decks, whether attached or detached, less than 5 feet from lot lines. May unnecessarily limit deck construction near property lines.

GLENN'S OPINION: Not in favor.

It is not clear how decks are handled in Table R302.1 for fire separation distance. What laymen oft refer to as “setbacks”. Fire separation distance is intended to keep one house from catching the neighbor’s house on fire. It is not related to ground fires that would spread under a low-level deck, such as a wild-land fire. “Floors” are not listed in the table, so “walls” and “projections” are often used for decks. As projections, the concern is fire from beneath the projection, like eaves of a roof. For these, fire protection beneath the projection is required when too close to the property line. Upper level decks may likely receive heat and fire from below, as it escapes the windows of a neighboring home. Low-level deck will receive heat and burning brands from on top. The dynamic is different, but the code does not differ. The code does not provide specifically for decks at all in this regard. If decks or exterior stairs are to be mentioned in the section about fire separation distance they should be properly understood and addressed accordingly. The implications from these proposals could be dramatic, as they do not take into account many design possibilities. The arguments in some of the reason statements are also flawed.

ILLUMINATION OF EXTERIOR STAIRWAYS

RB102-13

Removes all requirements for illumination of exterior stairways.

GLENN'S OPINION: In Favor, AS MODIFIED.

This section is confusing and does need a re-write. In my interpretation of the current code, a light fixture is required at the top of the stairway, and the entire stairway needs to be illuminated. I think this could be over-regulation, however, are we sure we want a home that may have only a second story exit and has no illumination available to reach grade? A light outside the door from the house must still be provided, but that would be it.

I believe the top landing of an exterior stairway should be illuminated, both to alert of the fall hazard, and to assist those preparing to descend the stairway. I believe that the top of a stairway is a hazardous location. Deck users not intending to use the stairs may inadvertently fall at the unguarded edge, like at the edge of a deck with no guards. A light in that general location will make the stair hazard more noticeable. For those

intending to use the stairs, illumination near the top will assist them in transitioning from the deck to the repetitive motion down the stairway.

I suggest supporting the proposal with modification that a light be provided in the immediate vicinity of the upper landing of exterior stairways. However, What do you think? Is any of this lighting really necessary, and how does an inspector even verify if it's bright enough or close enough. I know that some state codes have already eliminated exterior stair illumination altogether.

As deck professionals, illumination of exterior stairs is directly our business, so we should give our opinion. With the intent and purpose of the code in mind, not the great upsell for lights, what do you believe should be the minimum allowable standard of construction for the stairs you build? What is the opinion of the owners you represent?

SAFETY GLAZING

RB115-13

Clarifies that glass behind the stairs at the bottom of a stairway does not need to be safety glazed. Clarifies a requirement that would be senseless as previously written.

GLENN'S OPINION: In Favor

This is a sensible proposal from the Colorado Chapter of ICC. Currently, the language of the code would allow an inspector to require windows behind and underneath a stairway to be safety glazed (tempered). As a liaison to the ICC chapter, I have worked with them on this proposal and I support it. I would like to support the proposals of our allies, where appropriate.

MEASURING DECK HEIGHT

RB143-13

Eliminates the requirement to measure the height of a deck from a point 36 horizontally from the edge when determining if guards are required. Measurement would return to being at the edge of the walking surface. Specifies that only floors, stairs, ramps and landings require guards, intending to exclude landscaping features from regulation.

GLENN'S OPINION: Not in favor

I agree with more clearly describing "floors, landings, stairs and ramps" over "walking surfaces", as many inspectors view everything as a walking surface. I do not, however, agree with measuring a fall hazard directly at the edge of a deck. The current language more accurately reflects the intent and the hazard, that you will hit the ground a bit away from the edge. I believe speaking against this proposal will show that NADRA is levelheaded and reality-based in their code stances, even when it means not supporting a decrease of regulation.

MEASURING GUARDS

RB145-13

Eliminates measuring required guard height from fixed seating. Allows guards at built in bench seating to no longer be measured from the bench seat. Restores previous design freedom allotted by the IRC.

GLENN'S OPINION: In favor

I have long disliked the requirement to measure guard height from fixed bench seating. This code provision essentially ended built in seating at the edge of a deck with only speculation and anecdote of the perceived hazard. This proposal is from the Colorado Chapter of ICC, for which I am a member, and I agree with their stance. The Chapter has specifically asked for the support of NADRA on this proposal, and I would like to give that to them and further develop our relationship with this ally.

BLOCKING OVER BEAMS

RB247-13

Eliminates the requirement for blocking over a beam when joists cantilever 24 inches or less. Only applies in specific seismic zones. Provides for added flexibility in installing deck drainage systems over dropped beams.

GLENN'S OPINION: In favor.

This will provide greater design freedom to deck builders using under deck drainage systems. I have often received costly engineering letters allowing omission of this blocking for the installation of drainage pans. There is never an engineered alternative, just an "it's okay to remove" message. This is an unnecessary cost of construction for such short cantilevers. I would like to support the National Association of Homebuilders on this proposal.

HANGERS ON BEAMS AND LEDGERS

RB253-13

Prohibits connection of hangers solely to the bottom half of beams. Requires all joists to be fastened with approved connectors when framed into the side of a beam. Will restrict design flexibility in designs such as 2x6 joists hanging from the bottom portion of a 2x12 beam or ledger.

GLENN'S OPINION: Not in favor.

Though this proposal comes from the well-respected American Wood Council, I would like more justification that minimal loads from conventionally sized lumber joists are actually so severe as to split a supporting member. This appears to be calculated assumptions of engineering that is not balanced with the reality and empirical experiences of real world construction. I do not believe there has been a report of problems with this connection, and would like more information than the proponent provides in their reason statement.

LATERAL LOADS

RB260-13

Requires the two hold-down tension devices (permitted by the IRC) to be installed within 24 inches of the end of each deck. Adds to an already confusing code provisions currently lacking justification.

RB261-13

Provides an exception for hold-down tension devices in decks less than 30 inches above grade. By providing an “exception” to something that is only “permitted” but not required does not make any sense. By default, it will make the argument that the anchors are required even stronger.

RB262-13

Provides a second lateral load connection method using an angled bracket connecting to the bottom of the joists and wall plates in the house. Requires connection to be made in four locations with 750 lb. each (when connection is used). This proposal builds on the unfounded 1500 lb load in two locations, and will make it that much harder to propose accurate and tested values in the future.

RB263-13

Provides an exception for hold down devices in decks less than 30 inches above grade, provided the deck is connected to a band joist. There cannot be an exception to something that is not a rule.

GLENN’S OPINION: Not in favor.

I believe my very strong opinions against the poorly written and unsubstantiated lateral load provisions in the IRC are well understood. The issue of lateral loads on decks needs to be properly researched before more code is built in its regard. Though these proposals appear to lighten the burden of the lateral load provisions, they also inadvertently justify them elsewhere. I do not want to support any code that makes the current lateral load anchor details appear to be mandatory. They are NOT required. The reason statements for these proposals even refer to the current detail, in error, as “required.”

Though these proposals would appear to benefit the decking industry with less restrictions, I strongly encourage NADRA to take a stand against any more lateral load code provisions until appropriate research can be conducted and code can be based on

validated data, not guesses from thin air. We must make it clear that we will not stand by this bad code, even when a proposal appears to benefit us. We must shelf lateral loads until the 2018 IRC, to allow time for research and education. Code should not be rushed in when it's not ready. These proposals will make it harder to educate building officials that the anchors are NOT required. Discovering lateral load values and appropriately addressing them in the IRC is already a mountain to climb. If these provisions are added, it will be that much harder to reach the top in the future and undo the assumptions of the past.

PRESCRIPTIVE DECK CONSTRUCTION

RB268-13

This is a very large proposal for complete prescriptive requirements for deck construction. I attended a meeting with a number of prominent organizations in Virginia last year to discuss the original draft of this document. Working with these other organizations under mutual respect and mutual compromise, we were able to agree on a minimal version of this proposal at this time. It was discussed quite positively that this group would continue to work together in the future on quality deck codes. The agreed upon proposal was put forth from NADRA and others in RB264. A few members at the meeting did not appreciate the mutual respect and compromise that we worked to achieve, and submitted a larger version of the draft on their own. That draft is represented in this proposal, and works to undermine the relationships, understanding and mutual compromise that this group had begun.

GLENN'S OPINON: NOT in favor.

This proposal represents what could NOT be respectfully agreed upon and understood by many other segments of the industry. I also believe much of it is unfounded. I encourage NADRA to always take the higher road and respectfully acknowledge and respect the experiences, expertise and ideas of other professionals in other segments of the decking industry. I do not wish to see the compromise and mutual respect developed during that Virginia meeting to be in vain. While I do wish to see more prescriptive code included in the IRC to assist in affordable and safe deck construction, I do not want poorly developed code that limits architectural freedom.

CONNECTION TO BRICK VENEER

RB373-13

Moves the long-standing prohibition of supporting loads on brick veneer to a different section heading in the IRC. This is an organizational change only.

GLENN'S OPINION: In favor.

This makes sense, and would help builders more quickly find this code provision and understand its implications.

OTHER PROPOSALS IDENTIFIED

RB6-13

Modifies the language regarding when decks don't require a permit. Removes requirement for them to be unattached from the house. Removes 200 square foot maximum for exception.

RB8-13

Requires contractors to submit EPA certificates and a plan complying with 40 CFR 745 to building officials for all work on homes built prior to 1978 when disturbing interior or exterior surfaces.

RB15-13

Restores previous definitions of "balcony" and "decks" in the IRC.

RB31-13

Adds a definition for "spiral stairway" in the IRC. Proposed definition allows more freedom from the IBC definition by omission of the center column from the description.

RB42-13

Includes an exception for decks, sunrooms and similar spaces from requiring protection of glazed openings in windborne debris regions, provided some specifics regarding the wall of the home are satisfied.

RB58-13

NADRA's proposal for removing reference to "guardrail" and rather use the IRC defined term "guard", providing more architectural freedom.

RB60-13

Includes "deck floors" in the floor description for allowable deflection. Officially sets deck floor deflection limits where they have only been previously assumed.

RB129-13

Clarifies that stairways serving decks, porches, balconies and sunrooms are regulated the same as any other stairway. Intends to clarify that landscaping stairs that are NOT serving one of the above features is not required to meet code. This appears to give less restriction to patio pavers. However, "porch" is listed. How will that be understood? Is a patio paver area considered a "porch"? What is a "porch"?

RB130-13

Allows handrails to project up to 6.5 inches into stairs as opposed to a maximum of 4.5 inches.

RB141-13

Allows all ramps other than ones serving the required egress door to be a maximum slope of 1 in 8 as opposed to the previous maximum of 1 in 12. Provides for steeper ramp options than previously.

RB142-13

Requires that the minimum width of landings for ramps be equal to the width of the ramp as opposed to 36 inches.

RB187-13

Requires exterior stairways and ramps built in flood hazard areas to be constructed in one of three prescribed ways. That means new code for deck stairs on coastal homes.

RB192-13

Requires specific construction methods for decks constructed in flood hazard areas. Do you know how these decks will have to be built?

RB465-13

Requires that all swimming pools, spas and hot tubs comply with the Swimming Pool and Spa Code. (the pool and spa code has deck provisions not currently required by the IRC)