

Minutes of the State Appeals Board
Appeal #13-01R
Tuesday, March 18, 2014
Preliminaries: 9:00 a.m.; Hearing 9:05 a.m.

Preliminaries:

- Appeals Board Members:
 - Dale Schoeppner, Building Official – Eagan
 - Thomas Downs P.E., Structural Engineer – City of Minneapolis
 - Steve Kothman – Hanson Builders
 - Dave Scherbel, Building Official – City of Arden Hills
- Other Appearances:
 - Julia Anderson, Attorney – Office of the Attorney General
 - Michael Godfrey, EX-officio (non-voting) – Construction Codes & Licensing Division, DLI
 - Doug Nord, Section Chief – Construction Codes & Licensing Division, DLI
 - Chris Koss, 1st Choice Home Improvements
 - Jeff Lebowski, General Counsel, DLI
- Mike Godfrey welcomed the Board members, introduced himself, Doug Nord, and Julia Anderson; he stated the meeting would be recorded and asked that everyone repeat their names when speaking. On behalf of himself and the Commissioner, he thanked the volunteer Board members for serving on the State Appeals Board, for reviewing the materials that were previously sent to them, and for taking part in the appeal.

Godfrey introduced the State of Appeals Board members and their respective titles (as shown above) and explained that the subject of the hearing was to make a final clarification concerning Appeal #13-01 that took place on January 23, 2013. He asked Julia Anderson to address the Board concerning the clarification.

- Julia introduced herself; an attorney from the Minnesota Attorney General's office assigned to represent the Board. She explained she is present as a matter of process, she does not have any expertise (in building code matters), and all decisions will be made by the Board. She referred to the decision by Deputy Commissioner Kris Eiden (Findings of Fact dated January 23, 2014 – see Attachment A) – this decision adopts in its entirety the decision of ALJ Thomas Wexler (Findings of Fact dated November 22, 2013 – see Attachment B). In her Order, Deputy Commissioner Eiden determined that the State Appeals Board's Determination supersedes the authority of the City building official to require an engineered design; and secondly, she directed the Board to do one of two things: The State Appeals Board Determination is REMANDED to the State Appeals Board for further proceedings to either specify particularity what the City building official is required to do upon final inspection of the ledger board attachment and that he be directed to approve the project if the contractor has done what the Board directed the

contractor to do; or approve the ledger board attachment for code compliance now that the three GRK screws have been installed. As a procedural note, Ms. Anderson stated decisions should be made in the form of an order, that clear findings are included and that the board's order is in conformance with the Order by Deputy Commissioner (Eiden). Most importantly, she stated that courts require boards to state the reasons for their decisions; this is what the courts require – substantial evidence – and stating the reason for the Board's decision.

- **A motion was made by Scherbel to nominate Thomas Downs as Chair of the Board; seconded by Schoeppner. The vote was unanimous and the motion carried.**

- Downs asked the audience and Board members to introduce themselves:
 - Chris Koss, Owner – 1st Choice Home Improvements
 - Jeff Lebowski, Attorney – Construction Codes & Licensing Division, DLI
 - Dale Schoeppner, Building Official – City of Eagan
 - Thomas Downs, President – Forensic Experts PLLC
 - Steve Kothman – Hanson Builders, Inc.
 - Dave Scherbel, Building Official – City of Arden Hills
 - Lyndy Lutz – the Department of Labor & Industry
 - Julia Anderson, Attorney – Office the Attorney General
 - Mike Godfrey – CCLD (Construction Codes & Licensing Division)
 - Doug Nord – CCLD (Construction Codes & Licensing Division)

- Downs addressed the Board and stated that typically there were two groups attending, however, he acknowledged that the City of Bayport was not sending a representative. Typically each side is given an opportunity to make a presentation; Downs noted Chris Koss's presentation from January 2013 and asked if there was anything that he would like to add – any new information or documentation concerning the screw capacities.

- Chris Koss addressed the Board and stated that the main decision making factor of last January's Board referred to Mr. Buckley stating that the screws holding the existing block were drywall screws. At that time Koss was unable to confirm or deny this statement but after visiting the site he verified the screws were deck screws. He said that in the original discussion of the connection, Downs mentioned that a screw with some sort of shear strength through the entire connection would most likely satisfy expectations to meet code. After leaving the Appeal Board meeting, his understanding of the agreement was to add some sort of structural screws that had a shear value and to send Mr. Buckley this information which he promptly did; 3 GRK screws were added. Photos of the GRK screws that were installed onsite were sent to Mr. Buckley (see Attachment C).

Koss provided a copy to the Board (see Attachment C) of the photos of the GRK screws that were installed onsite. Downs acknowledged that the technical bulletin would also be needed and Koss submitted this as well to the Board (see Attachment D). Koss clarified that he added 3 GRK screws to each block; there is a block in every floor joist which is 12

inches on center and in every block he screwed from the floor joist into the block with 3 GRK screws. Koss said that this information was sent to Mr. Buckley within a few weeks of the Appeals Board meeting and that Koss received no response until mid-summer when he appealed – Mr. Buckley indicated he did not know how to inspect the screws. Koss said that Mr. Buckley’s understanding was that as long as there were screws that had some sort of shear value, the Board felt that connection would meet code. Mr. Buckley added that with both the deck screws, which have documented shear value, and with the addition of the GRK screws, it (the deck) would meet code. Koss believed this was the agreement in place and has been waiting for the final inspection.

- Clarification of the screw size was asked with Koss stating the screws were 10 x 2 1/2; the blocks are vertical, and the screws are not all in line with the wood grain. Dale Schoeppner asked Koss the location of the blocks and referred to the Boise Cascade wood products detail page; Koss stated yes, this is the location of the blocks. Further clarification: using screws instead of nails, next to the TGIs and then cleating/cinching them, and rim joist is no larger than 1 1/8 inches. Koss noted that the original discussion was based on misinformation supplied by Mr. Buckley.
- Dale Schoeppner referred to page 5 of the November 25, 2013 Minnesota Office of Administrative Hearing minutes sent to the Deputy Commissioner (Eiden), and stated that footnote 26 indicated that the 2-inch screws were rated for 754 pounds of shear strength each. Downs noted the screws are 2 ½ inch.
- Julia Anderson, Attorney representing the Appeals Board, noted for clarification that Mr. Schoeppner was referring to the recommended decision of the ALJ, and Mr. Schoeppner agreed.
- Dale Schoeppner’s opinion is that the screws are equal to or better than what the code requires. This same opinion was acknowledged aloud by all Board members.
- Mike Godfrey asked the Board to consider one other issue – The building permit at the City of Bayport has been put in the file without any disposition. He recommends the Board make a requirement, based on the Board’s approval of the screws – and this was the only issue on the deck – that the Board order the building official for the City of Bayport to final the building permit. He stated the house has been sold; there is a new owner and his concern is for future issues to the homeowner if another inspector finds this incomplete building permit in the file – it could cause a burden to the homeowner. Godfrey added the Board’s final order should include something to address this.
- Koss added that during the hearing John Buckley said that everything else about the deck met code, except the connection. Downs stated this information was already noted.
- Downs stated there were two things to address: One, to make a motion that the Board finds the connection to be in compliance with the building code in effect at the time of

construction and can direct the City's designated building official to finalize the building permit, with the addition of the 3 GRK screws, and secondly, because the Board's authority supersedes the City of Bayport, the Board can direct the City to direct the designated building official to final the building permit. Scherbel added that he would want to make sure that language was included that everything else, not just the connection, was in compliance because the building permit covers more than just the connection. If everything else has been approved then we can tell the building official that he needs to final the building permit. Godfrey said it sounded as though Scherbel was focusing on Item 2B by Deputy Commissioner Eiden of the Department of Labor and Industry's memo (Findings of Fact, Conclusions of Law and Order dated January 23, 2014 – see Attachment A).

- Attorney Julia Anderson stated that the Board had considered various facts and based on that discussion noted that the Board could include as an ordering sentence, if accurate, the following: "Based on your discussion you find that the number, size, length, type, and the placement of the GRK screws in the ledger board attachment to the deck are in compliance with the code." The Board, later in the meeting, added the statement above as a friendly amendment to the motion made by Downs; a second revision included the following changes: "ledger board" was stricken and "blocking" was inserted and read as follows: "Based on your discussion you find that the number, size, length, type, and the placement of the GRK screws in the blocking attachment to the deck are in compliance with the code."
- Koss stated he understood where they were at now and his opinion was that the Board looked at the connection last year and was under the impression that they were drywall screws. Can he assume or ask the Board if they can approve the original connection seeing that they were always deck screws (not drywall) and the GR screws were added. Scherbel stated he would not approve a deck screw for attachment of the rim to the house. Koss clarified he was talking about the blocking to the floor joists and stated that last year the drywall screws were found to be the only weak point. He asked the Board to consider that since it did meet code with the drywall screws, and on top of adding the GRK screws, in turn, (the deck) would meet the code even more.
- Downs stated that unless Koss could produce a technical bulletin from an ICC publication that gave the shear capacity of a deck screw then he would be unable to do so. Downs clarified his intent was to say that the connection is not approved pending determination of the shear capacity of the connection and the only way to determine the shear capacity of the connection is to produce an approved publication that, through testing, verifies the shear capacity of that screw – such as the ICC report that you (Koss) published for the Board today. Down concluded and said we are going to talk about the connection that has been appealed.
- Anderson asked Downs to recite the additional information that the Board members had reviewed from Mr. Koss that might be of assistance. Downs stated: Photographs taken of the connection of the block to the floor joist (see Attachment C) and ICC-ES Evaluation

Report #2442 as the publication reviewed for the shear capacity of the screws (see Attachment D). Mike Godfrey added that the Board would want to add that there were no other issues with the deck. Scherbel replied this was addressed with the statement “and if this is the only outstanding issues” in the second motion. Koss added that at the (last) hearing it was stated in testimony that there were no other issues and he asked if this could be entered into record.

- Scherbel read from the Minnesota Office of Administrative Hearings, Findings of Fact dated November 22, 2013, Paragraph #6 (see Attachment B): “It is only the last requirement relating to the ledger board attachment that is in issue on this appeal.” Scherbel asked Koss if this gave him enough. Koss expressed concern that the City of Bayport and Mr. Buckley (in regards to the motion by Scherbel that reads: “and if this is the only outstanding issues”) might come back and say they won’t approve the deck because they never did a final inspection. He is concerned the entire process would begin again.
- Downs referred to the Finding of Fact (Minnesota Office of Administrative Hearings dated November 22, 2013) Paragraph #12 (see Attachment B): “On May 29, 2012 Buckley went to the property to do a final inspection. Buckley refused to approve the attachment of the deck to the house because he was not familiar with the attachment method used.” Downs asked if this statement implied that everything else was approved except the connection. Mike Godfrey replied yes, if he (Buckley) had an issue with any other part of the deck it should have come up at that same time; there would have been no reason to address one code issue separately from others, and it is the practice of building officials that when they make their inspection they name everything that does not comply at the same time. Godfrey also explained that everything is visible and it is really a single inspection at the end; since Mr. Buckley only brought up this one issue Godfrey felt it was reasonable for the Board to conclude, and to also take into consideration the other testimony at the Office of Administrative Hearings, that the rest of the deck meets the building code. Downs stated that the final inspection has occurred and Godfrey said that the only thing that hasn’t been done is he (Buckley) put the permit into the file with no disposition, in other words he did not final it. This is an issue to be clarified for the current homeowners. Koss added that he didn’t think the Board’s order should be left with any vagueness that could be misinterpreted. He was of the understanding after the last hearing that once he added the screws he would be done and that was over a year ago and is dragging through the appeal’s process. Koss was asked if he (Buckley) had written up a correction order with Koss replying no, Buckley called him and said he hadn’t done it the way he said to.
- **A motion was made by Downs, seconded by Schoeppner, that the Board approve the 3RSS 10 x 2 ½ inch screws into the blocking as being compliant with the code. The vote was unanimous and the motion carried. The connection does meet the code.**

- **A friendly amendment was made to the motion above and reads as follows: Based on your discussion you find that the number, size, length, type, and the placement of the GRK screws in the blocking attachment to the deck are in compliance with the code.**
- Downs asked Julia Anderson, “Did we have enough specificity that directs (the building official)”. Anderson replied that in regards to the Board’s determination on Mr. Down’s motion, if the reason for finding the screws compliant with the code is that their number, size, length, type, and their placement are compliant with code then that certainly is a reason that would support the Board’s decision. The Board agreed to add clarification as a friendly amendment to the motion made by Downs.
- **A motion was made by Scherbel, seconded by Schoeppner, to direct the building official to final the building permit based on the Board’s approval of the connection of the deck to the home, and if this is the only outstanding issues, to final the permit. The vote was unanimous and the motion carried.**
 - **An amendment was made to the motion above by Scherbel, seconded by Schoeppner, to direct the building official to final the building deck permit based on the Board’s approval of the ledger board attachment and based on the Findings of Fact, Conclusions of Law by the ALJ, Paragraph #6, Page 2, dated November 22, 2013. The vote was unanimous and the motion carried.**
- Downs acknowledged that the Board received an email by City of Bayport’s attorney, Andy Pratt, dated March 17, 2014 informing the Board that there would be no representation by the City of Bayport at the meeting. Julia Anderson added that the attorney for the City of Bayport also stated that the City did not have a preference for the Board’s decision today regarding the Deputy Commissioner’s Remand Order. All Board members acknowledged that they read and understood the email.
- Meeting adjourned by unanimous consent at 9:55 a.m.

STATE OF MINNESOTA
DEPARTMENT OF LABOR AND INDUSTRY
443 LAFAYETTE ROAD N.
ST PAUL, MINNESOTA 55155

Attachment A

In the Matter of the City of Bayport
Building Permit for Project 939 Inspiration
Parkway N., Bayport, MN 55082

**FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND ORDER**

OAH Docket No. 66-1900-30843

The above-entitled matter originally came on for hearing before Administrative Law Judge Thomas W. Wexler of the Office of Administrative Hearings on October 16, 2013, with Assistant Attorney General Julia E. Anderson appearing on behalf of the Minnesota Department of Labor and Industry's State Appeals Board, City Attorney Andrew Pratt appearing on behalf of the City of Bayport, and Christopher Koss appearing on his own behalf. The Administrative Law Judge's November 22, 2013 Findings of Fact, Conclusions of Law, and Order¹ were served on November 25, 2013. The Commissioner of Labor and Industry has delegated the authority to issue a final order in this matter to the Department of Labor and Industry's Deputy Commissioner, Kris Eiden. By letter dated December 9, 2013, General Counsel Patricia Munkel-Olson informed the parties of their right to file exceptions and present argument to the Deputy Commissioner regarding the Administrative Law Judge's Findings of Fact, Conclusions and Recommendation. The Department of Labor and Industry filed argument by letter dated December 2, 2013. No exceptions or arguments were filed by the City of Bayport or Christopher Koss and the record closed on December 30, 2013.

NOTICE

Any person aggrieved by the agency's Findings of Fact, Conclusions of Law and Order in this contested case is entitled to judicial review of the decision under Minn. Stat. §§ 14.63-14.68 (2012). An aggrieved person must file a petition for a writ of certiorari with the Minnesota Court of Appeals and serve it on the agency, all other parties to the proceeding and the attorney general, personally or by certified mail, not more than 30 days after the aggrieved party receives the final decision and order of the agency. Proof of service on the agency, the other parties and the attorney general must be promptly filed with the Office of the Clerk of Appellate Courts and

¹ Pursuant to the *Notice and Order for Prehearing Conference; Referral to OAH*, the Administrative Law Judge's Findings of Fact, Conclusions of Law, and Order, are a recommended decision.

the appeal will thereafter proceed in the manner provided by the Rules of Civil Appellate Procedure.

Based upon all the facts, records and proceedings herein, the Commissioner makes the following:

FINDINGS OF FACT

1. The Commissioner adopts in their entirety and incorporates as his own all of the Findings of Fact contained in the Administrative Law Judge's Report.
2. Any Finding of Fact herein, which should more properly be deemed a Conclusion of Law, is hereby adopted as such.

Based upon the foregoing Findings of Fact, the Commissioner makes the following:

CONCLUSIONS OF LAW

1. The Commissioner adopts and incorporates herein by reference all of the Conclusions contained in the Administrative Law Judge's Report and its attached Memorandum.
2. Any Conclusion of Law herein, which should more properly be deemed a Finding of Fact, is hereby adopted as such.
3. This Order is in the public interest.

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED that:

- 1) The State Appeals Board's Determination supersedes the authority of the City building official to require an engineered design; and
- 2) The State Appeals Board Determination is REMANDED to the State Appeals Board for further proceedings such that the Board:
 - a. Specifies with particularity what the City building official is required to do upon final inspection of the ledger board attachment, and that he be directed to approve the project if the contractor has done what the Board directed the contractor to do; or
 - b. Approves the ledger board attachment for code compliance now that the three

GRK screws have been installed.

Dated: January 23, 2014

KEN B. PETERSON
Commissioner

By: Kris Eiden
Deputy Commissioner Kris Eiden
Department of Labor and Industry
443 Lafayette Road N.
St. Paul, Minnesota 55155
Telephone: (651) 284-5018



RECEIVED
NOV 26 2013
BY DEPUTY COMMISSIONER'S OFFICE

MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS

600 North Robert Street
Saint Paul, Minnesota 55101

Attachment B

Mailing Address:
P.O. Box 64620
St. Paul, Minnesota 55164-0620

November 25, 2013

Voice: (651) 361-7900
TTY: (651) 361-7878
Fax: (651) 361-7936

Kris Eiden
Deputy Commissioner
Department of Labor and Industry
443 Lafayette Road North
Saint Paul, MN 55155

Re: *In the Matter of the City of Bayport Building Permit for Project 939
Inspiration Parkway N., Bayport, MN 55082*
OAH 66-1900-30843

Dear Deputy Commissioner Eiden:

Enclosed herewith and served upon you by mail is the Administrative Law Judge's **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION** in the above-entitled matter. Also enclosed is the official record, with the exception of the recording of the hearing. If you would like a copy of that recording, please contact our office in writing or by telephone at 651-361-7898. Our file in this matter is now closed.

Sincerely,

Handwritten signature of Thomas W. Wexler in black ink.

THOMAS W. WEXLER
Administrative Law Judge

TWW:klm
Enclosure

cc: Julia E. Anderson
Christopher Koss
Andrew J. Pratt

RECEIVED

NOV 26 2013

OAH 66-1900-30843

BY DEPUTY COMMISSIONER'S OFFICE
STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE DEPARTMENT OF LABOR AND INDUSTRY

In the Matter of the City of Bayport
Building Permit for Project 939 Inspiration
Parkway North, Bayport, Minnesota 55082

**FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND ORDER**

This matter was heard on October 16, 2013, at the Office of Administrative Hearings, 600 North Robert Street, St. Paul, Minnesota 55101. The record was left open for the City to submit copies of the three photographs that the City building official showed to the builder on May 15, 2012.¹ The record closed on October 21, 2013.

Andrew Pratt appeared on behalf of the City of Bayport (City). Julia E. Anderson, Assistant Attorney General, appeared on behalf of the State Appeals Board (Board). Christopher Koss (Koss) appeared on his own behalf.

STATEMENT OF THE ISSUES

Does the City building official retain authority to request an engineering design after the State Appeals Board has determined that the construction meets code?

SUMMARY OF RECOMMENDATIONS

The Board's determination supersedes the authority of the local building official to require an engineered design. However, the Board should specify with particularity what the City building official is required to do upon final inspection of the ledger board attachment, and that he then be directed to approve the project if the contractor has done what the Board directed the contractor to do. In the alternative, the Board may consider other options such as approving code compliance now that the GRK screws have been installed. There needs to be additional specificity in the Board order.

Upon the evidence presented and the arguments of the parties, the Administrative Law Judge makes the following:

¹ Two photos and an engineering drawing were submitted on October 21, 2013, but the engineering drawing appears not to be part of what was required to be submitted. The photos that were sent are already in evidence as pages 20 and 21 of Exhibit 300. On October 21, 2013, Koss responded to the Buckley submissions. That response has been marked as Exhibit 400 and is received already in evidence as pages 20 and 21 of Exhibit 300. On October 21, 2013, Koss responded to the Buckley submissions. That response has been marked as Exhibit 400 and is received.

FINDINGS OF FACT

1. Christopher Koss (Koss) is a self-employed building contractor.²
2. John Buckley (Buckley) is a Certified Licensed Building Official in Minnesota and is employed by the City of Bayport (City) as its building official. Part of his duties include issuing building permits, conducting inspections and approving completed projects.³
3. In 2012, Koss was retained by the homeowner at 939 Inspiration Parkway North, Bayport, Minnesota 55082 (the Property), to build an exterior deck onto an upper level of the house.
4. On May 15, 2012, Koss met with Buckley to obtain a building permit for the deck.⁴ Koss presented Buckley with three pages of mechanical drawings of the proposed deck, and Buckley did some handwriting on the drawings of conditions that Buckley required. Buckley made notations on the drawings. The notations that have been disputed are the following:
 - A. Max cantilever is 12" to 18" per Mn code. (Koss was proposing 24").
 - B. (Joist spacing) 2" x 10" 12" o.c. (on center) required. (Koss was proposing 16" spacing).
 - C. Ledger board must be attached to existing floor per Minnesota code.⁵
5. Buckley required Koss to space the joists 12" on center rather than 16" on center as is commonly required by code because Buckley heard from someone, possibly a neighbor that the homeowner intended to place a hot tub on the deck. Koss disputed that requirement, but relented. The homeowner denies intent to place a hot tub on the deck.⁶
6. It is only the last requirement relating to ledger board attachment that is in issue on this appeal.
7. Buckley and Koss dispute whether there was an agreement on May 15 about the method of ledger board attachment. Buckley claims that he showed Koss three photographs of kinds of attachments that Buckley felt would meet code.⁷ These were just three of the possible methods that Buckley thought would meet code, based

² Testimony of Christopher Koss.

³ Test. of John Buckley.

⁴ Test. of J. Buckley and C. Koss.

⁵ Exhibit A. The ledger board is a horizontal board that attaches the deck floor to the house rim.

⁶ Test. of C. Koss and Ex. L.

⁷ Ex. 300, pp. 19 - 21. The undersigned Administrative Law Judge has numbered the pages of Exhibit 300 from 1 to 63, for ease of reference.

on prior conversations Buckley had with other state building officials.⁸ The attachment examples that Buckley showed to Koss were not engineered.⁹

8. Koss agrees that Buckley showed him at least one photo, but understood that it was only a suggestion of a possible attachment that could be made. Koss did not think he had to make the attachment in any particular way as long as he met code.¹⁰

9. On May 22, 2012, Buckley issued a building permit to Koss for the project.¹¹

10. Koss built the deck incorporating the two changes that Buckley specifically noted on the drawing. Koss built the deck with joists 12" on center, and with a shorter cantilever than Koss had originally proposed.¹²

11. However, Koss attached the ledger board using a system that was specified by Weyerhaeuser, the manufacturer of the engineered deck floor system, to meet the requirements of the 2009 and 2012 International Residential Code (IRC).¹³ Koss used LedgerLOKs to attach each joist, plus one wood block on one side of each joist. Koss fastened the blocks with deck screws. Buckley wanted two wood blocks, one on each side of the joists, fastened with through bolts.¹⁴

12. On May 29, 2012, Buckley went to the property to do a final inspection.¹⁵ Buckley refused to approve the attachment of the deck to the house, because he was not familiar with the attachment method used. The method used was not any of the alternatives that Buckley showed to Koss on May 12. Buckley contended that the method of attachment was not conventional and impacted performance-based life safety issues. Buckley did not feel confident that he could determine if the attachment met code, so he requested Koss to get an engineering opinion. Koss refused, claiming that the code requirements are minimum requirements, that he has complied with the recommendations of Weyerhaeuser in their product sheet, and that he has complied with common building practice. Koss has had this kind of installation approved in at least three other jurisdictions: St. Paul, Woodbury and Circle Pines.¹⁶ Koss also contends that the system he used is stronger than what the current code requires.¹⁷

⁸ Test. of J. Buckley and Ex. 300, pp. 19-21.

⁹ Ex. 300, p. 59.

¹⁰ Test. of C. Koss.

¹¹ Test. of J. Buckley.

¹² Test. of C. Koss.

¹³ Ex. F.

¹⁴ Test. of C. Koss, J. Buckley, and Ex. D. The testimony before the Board was that the screws appeared to be sheetrock screws. However, upon further inspection, when Koss was installing the GRK screws, it appears the screws were deck screws.

¹⁵ Ex. 203.

¹⁶ Test. of C. Koss.

¹⁷ *Id.*

13. On May 31, 2012, Buckley emailed Koss requiring Koss to have a structural engineer design the attachment.¹⁸

14. On September 18, 2012, Koss appealed Buckley's denial. That appeal goes to the State Appeals Board (Board). The stated basis for the appeal was that the true intent of this code or the rules have been incorrectly interpreted, and an equally good or better form of construction is being proposed (of course, in this case the construction was already done).¹⁹

15. The Board heard the appeal on January 23, 2013. The five members of the Board were:

- A. A building official from the city of Eagan.
- B. A building official from the city of Arden Hills,
- C. A building official from the city of Victoria.
- D. A professional engineer.
- E. A building contractor.²⁰

16. After hearing from both parties, and having their prehearing submissions, the Board approved the following motion on January 23, 2013:

The deck meets the code for positive connection except for lateral force transfer at the blocking. Christopher Koss will need to provide lateral force transfer between the blocking and the web. Christopher Koss needs to provide John Buckley with the connection device(s) and number he is proposing to John Buckley for his approval. Once approved, move forward with the fix and get the final inspection approved by Buckley.²¹

The motion passed with unanimous approval.²²

17. On January 28, 2013, the Chair of the Board sent a letter stating:

The Board has approved your (Koss's) appeal in the matter of an exterior deck connection to an engineered floor system with conditions of providing the Building Official with appropriate connection devices(s) and number of for his approval to be installed to provide lateral force transfer between the blocking and the web of the engineered joist and then moving forward with the fix and getting a final inspection passed by the Building Official, John Buckley.²³

¹⁸ Ex. M.

¹⁹ Ex.300, pp. 3 and 4.

²⁰ *Id.*, p.57.

²¹ Ex. 300, p.62.

²² *Id.*, p.63.

²³ Notice and Order for Prehearing Conference.

18. The "connection devices" referenced were to be three GRK screws inserted into the single blockings already in place. Koss and Buckley both stated to the Board that would be satisfactory.²⁴

19. After the Board voted, and the meeting ended, Buckley decided that he could not approve the screw attachments unless the Board specified the length, diameter and placement of the screws to be used.²⁵ Thus, when Koss advised Buckley by email of the screws Koss intended to use, Buckley did not agree, but rather responded that Buckley would be consulting with the City Attorney.²⁶ Buckley never did approve the GRK screws.

20. Koss proceeded to install three two inch long GRK screws into each block. The blocks are approximately one-half inch thick.²⁷ When Koss was at the site, he observed that the screws that had been used were deck screws, not sheetrock screws as had been previously thought to be true.²⁸

21. On May 16, 2013, the City appealed the Board decision.²⁹

22. On July 26, 2013, the Commissioner of the Department of Labor and Industry initiated this hearing by referring the matter to the Office of Administrative Hearings for a recommendation.³⁰

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS OF LAW

1. The Commissioner of the Department of Labor and Industry and the Administrative Law Judge have jurisdiction in this matter pursuant to Minn. Stat. §§ 326B.139 and 14.50.

2. The Department of Labor and Industry gave proper and timely notice of the hearing in this matter.

3. The Department has complied with all relevant substantive and procedural requirements of law and rule.

²⁴ Ex. 300, p. 62.

²⁵ Test. of J. Buckley.

²⁶ Ex. R. The screws that Koss proposed to use were 2" RSS screws which are rated for 754 pounds of shear strength. Koss proposed putting two screws into each block, but instead he put in three.

²⁷ Test. of C. Koss, and Ex. P.

²⁸ Test. of C. Koss.

²⁹ Ex. 300, pp. 55-56.

³⁰ Notice and Order of the Commissioner.

4. The State Building Code governs the construction of buildings to which the Code is applicable.³¹

5. The Code governs the deck constructed in this case.³²

6. The construction of buildings should be permitted at the least possible cost consistent with recognized standards of health and safety.³³

7. The Minnesota Building Code adopts the 2006 International Residential Code (IRC).³⁴

8. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable.³⁵

9. Buildings and structures and all parts thereof shall be constructed to safely support all loads, including dead loads and live loads as prescribed by the IRC. The construction shall result in a system that provides a complete load path. Buildings and structures that are constructed as prescribed by the IRC are deemed to be in compliance.³⁶

10. A building official is responsible to approve building compliance with the State Building Code and may request an engineering evaluation or tests when needed to assure Code compliance.³⁷

11. The state building official is under the direction and supervision of the Commissioner of the Department of Labor and Industry.³⁸

12. The Minnesota Rules create a Board of Appeals with authority to review decisions of local building officials relative to the application and interpretation of the Building Code. The Board consists of members who are qualified by experience and training in matters pertaining to building construction. The appeal issues allowed are that the code or the rules adopted thereunder have been incorrectly interpreted, the provisions of the Code do not fully apply, or an equally good or better form of construction is proposed.³⁹

13. In this case Buckley decided/ordered that Koss needed to obtain a professional engineering opinion. Koss appealed that decision to the Board, and the

³¹ Minn. Stat. § 326B.101.

³² Not a contested issue.

³³ Minn. Stat. § 326B.101.

³⁴ Minn. R. 1309.0010, subp. 1.

³⁵ IRC § R. 502.2.2.

³⁶ IRC § R. 301.1.

³⁷ Minn. R. 1300.0010, subp. 15.

³⁸ Minn. Stat. § 326B.127, subd. 1, and Minn. R. 1300.0070, subp. 24.

³⁹ Minn. R. 1300.0230.

Board essentially decided that a professional engineering opinion was unnecessary, but that installation of GRK screws in the blocking would satisfy the lateral force transfer requirements of code.⁴⁰

14. The Board decision required Buckley to then inspect to determine if Koss had complied with the Board directive. The Board directive could be more precise and clear. If the Board's directive was simply to require Buckley to determine if three GRK screws were placed, then the Board should clearly state that. If the Board needs to approve the length and diameter of the GRK screws, then they should do that. Or, if the Board now feels that the installation meets code because the screws have been installed, then that could be the most efficient resolution of the issue before the Board. The resolution of these or other options may require the Board to reconvene the hearing.

15. This matter should be remanded to the Board to consider the alternatives suggested above, or such further proceedings as may be reasonably required.

16. The attached memorandum is incorporated herein by this reference.

Based on the foregoing Conclusions of law, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the State Appeals Board's determination supersedes the authority of the local building official to require an engineered design. However, the Appeals Board should specify with particularity what the City building official is required to do upon final inspection of the ledger board attachment, and that he then be directed to approve the project if the contractor has done what the Board directed the contractor to do. In the alternative, the Board may consider other options, such as approving code compliance now that the three GRK screws have been installed. There needs to be some additional specificity in the Board order.

Dated: November 22, 2013


THOMAS W. WEXLER
Administrative Law Judge

⁴⁰ Ex. 300, pp. 57-63.

NOTICE

The Commissioner of Labor and Industry has ordered pursuant to Minn. Stat. § 14.57 (2012) that the Report of the Administrative Law Judge shall constitute the final decision in this case.⁴¹ Accordingly, this Order is the final decision in this case. Any person aggrieved by this decision may seek judicial review pursuant to Minn. Stat. §§ 14.63 to 14.69.

MEMORANDUM

Minnesota Rules part 1309.0010 adopts the 2006 edition of the International Residential Code (IRC).

Minnesota Rules part 1300.0230, subpart 1, creates a local board of appeals to decide appeals of orders, decisions, or determinations made by a local building official relative to the application and interpretation of the applicable building code.

The city of Bayport has not created a board of appeals. For jurisdictions without a board of appeals Minn. R. 1300.0230, subp. 1, provides that the appellant may appeal to an appeals board assembled by the state of Minnesota, Department of Labor and Industry's Construction Codes and Licensing Division.

Minnesota Rules part 1309.0230, subpart 3, provides:

An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

The State Board of Appeals is composed of persons who are qualified by experience and training to pass on matters pertaining to building construction. In this case the board was composed of three building officials from three different Minnesota cities, a professional engineer and a building contractor.

The state board is authorized to determine whether Buckley has incorrectly interpreted the applicable code provisions. That is essentially what the Board has done. The Board has determined that the deck blocking attachment meets code if three GRK screws are installed. If the GRK screws had been installed before the Board hearing, presumably the Board would have simply decided that the installation meets code and directed Buckley to approve the installation.

⁴¹ See Notice and Order for Prehearing Conference at page 2. All citations to Minnesota Statutes are to the 2012 edition; all citations to Minnesota Rules are to the 2013 edition.

When Buckley first met with Koss, Buckley had a preconceived idea that three different deck attachment options would satisfy him as meeting code. He admitted to the Appeals Board that none of the three options had been engineer-approved.⁴² These were options that Buckley had discussed with persons whose opinions he respected. There is no reason to expect that the opinions of these other sources are as reliable as the collective judgment of the Appeals Board, particularly where the Board had before it the specifics of the installation here involved.

The issue of what is a satisfactory attachment in this case looks like a matter well within the competence of persons experienced with this type of construction. It does not seem to require scientific engineering evaluation. In any event, the Board has the authority to determine the issue and has the advantage of a collective decision-making process, which has resulted in a unanimous Board consensus.

The board reasonably concluded that the installation meets the code requirement with the addition of three GRK screws. Buckley agreed before the Board that if the Board was satisfied with the installation, with the added fasteners, then he is too.⁴³ However, Buckley failed to engage in the attachment device approval procedure required by the Board directive. The Board unanimously decided as follows:

The deck meets code except for lateral force transfer at the blocking. Christopher Koss will need to provide lateral force transfer between the blocking and the web. Christopher Koss needs to provide John Buckley with the connection device(s) and number he is proposing to John Buckley for his approval. Once approved, move forward with the fix and get the final inspection approved by John Buckley.⁴⁴

Deciding what size screws are appropriate to securely fasten two boards together sounds like something a building official should be competent to do. Contrast the drawings that Buckley showed to Koss when they first met, which did not contain any notations of the size or precise placement of the bolts to be used.

Buckley contends that he is empowered to require an engineering opinion when he cannot determine if construction meets code. However, the Board of Appeals has now reached a different determination. The Board did not feel that an engineering opinion was necessary to conclude that the installation meets code. The decision of the Board should be entitled to deference from a hearing officer who is not as experienced in building code interpretation or commonly accepted construction techniques. Here it appears that the Board has acted well within its discretion and powers.

The problem with the Board's decision is that it directs Buckley to do something that Buckley claims he does not have the expertise to do and that the Board did not provide enough specific directives. The reasonable interpretation of the Board's

⁴² Ex. 300, p.59.

⁴³ Ex. 300, pp. 61- 62.

⁴⁴ *Id.*, p. 62.

decision is that Buckley should merely determine if the three GRK screws were installed in each block.⁴⁵ Or, in the alternative, now that the screws have been installed, it may be simpler for the Board to find that the construction meets code and order Buckley to approve the project unless Buckley can prove that there is something defective with the installation of the GRK screws.

T. W. W.

⁴⁵ If Buckley had followed the Board's directive to respond to Koss's proposal as to what screws were to be installed, then he could have had input into that aspect of the work. Buckley may have forfeited that right by not responding.

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
ADMINISTRATIVE LAW SECTION
PO BOX 64620
600 NORTH ROBERT STREET
ST. PAUL, MN 55164-0620

CERTIFICATE OF SERVICE

In the Matter of the City of Bayport Building Permit for Project 939 Inspiration Parkway N., Bayport, MN 55082	OAH Docket No.: 66-1900-30843
--	----------------------------------

Kendra McCausland, certifies that on November 25, 2013, she served a true and correct copy of the attached **FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATION** by placing it in the United States mail or by courier service with postage prepaid, addressed to the following individuals:

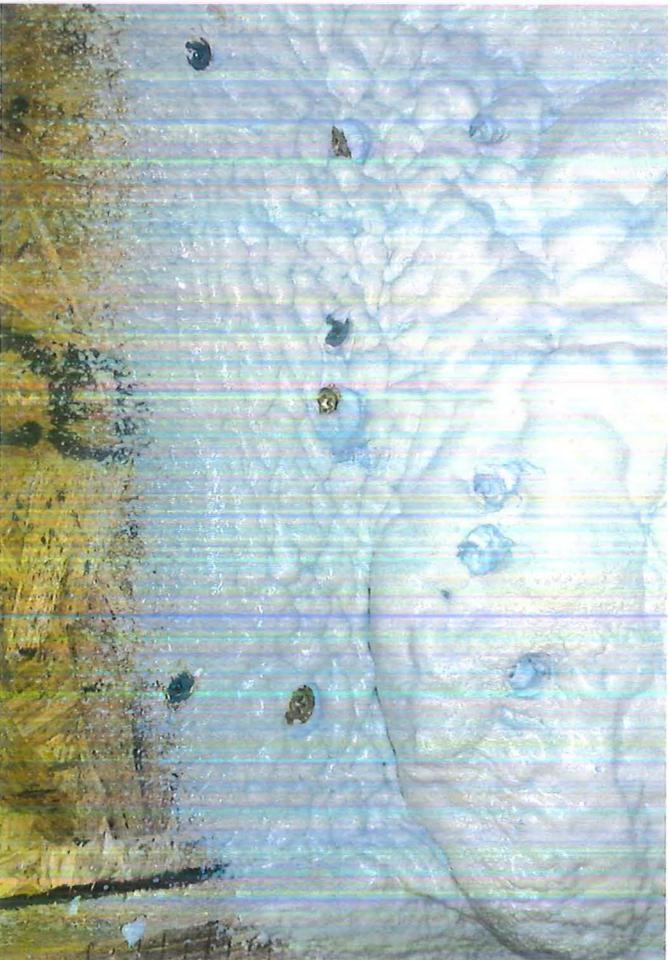
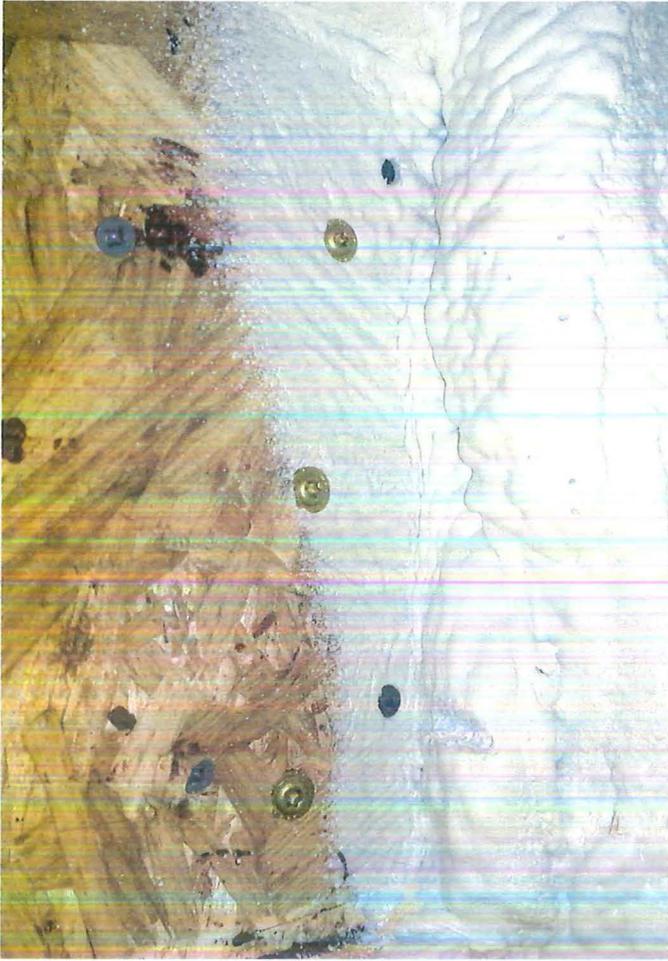
Kris Eiden
Deputy Commissioner
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Industry
443 Lafayette Road North
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Julia E. Anderson
Assistant Attorney General
445 Minnesota St Ste 1800
Saint Paul, MN 55101

Christopher Koss
1st Choice Home Improvements
601 90th St
Hudson, WI 54016

Andrew J. Pratt
Eckberg, Lammers, Briggs, Wolff &
Vierling, PLLP
1809 Northwestern Ave
Stillwater, MN 55082

Attachment C



ICC-ES Evaluation Report

ESR-2442
Reissued September 1, 2012
This report is subject to renewal October 1, 2013.
www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 06 00 00—WOOD, PLASTICS, AND COMPOSITES
Section: 06 05 23—Wood, Plastic, and Composite Fastenings

REPORT HOLDER:

GRK CANADA LTD.
 1499 ROSSLYN ROAD
 THUNDER BAY, ONTARIO P7E 6W1
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EVALUATION SUBJECT:

RSS™ RUGGED STRUCTURAL SCREWS, RSS™ LPS PANEL SCREWS, RSS™ LTF TIMBER FRAME SCREWS, RSS™ PHEinox STAINLESS STEEL SCREWS, RSS™ JTS TRUSS SCREWS AND CLIMATEK™ COATING

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 and 2006 *International Building Code*® (IBC)
- 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Structural
- Corrosion resistance

2.0 USES

The RSS™ fasteners described in this report are alternate dowel-type, multi-purpose screws, less than 1/4 inch (6.35 mm) in shank diameter, used in wood-to-wood connection applications. Climatek™ coated RSS™ screws are used, when approved, where carbon steel screws must exhibit corrosion resistance when exposed to adverse environmental conditions and/or preservative treated wood, and are alternates to stainless steel or hot-dip-zinc galvanized fasteners with a coating weight in compliance with ASTM A 153, Class D. The Climatek™ coated screws have been evaluated for use with wood chemically treated with waterborne alkaline copper quaternary (ACQ-D) preservative and copper azole (CA-B) preservative.

3.0 DESCRIPTION
3.1 General:

The RSS fasteners described in this report are self-tapping screws, manufactured using a cold-forming process, and,

except for PHEinox stainless steel screws, are heat-treated. The fasteners, except for the PHEinox screws, have a proprietary finish (Climatek™ coating) for corrosion protection. The fasteners have a round head with built-in shield (washer type head), rolled threads, and a Type 17 point (Zip-Tip™). The RSS, LTF, and PHEinox series of screws have 7 threads per inch, while the LPS and JTS series of screws have 8 threads per inch. See Table 1 and Figure 1 of this report for the available screw dimensions for each type of screw.

3.2 Material:

3.2.1 Fasteners: The screws are made of hardened carbon steel wire, except the PHEinox screws, which are stainless steel, with allowable tension and shear capacities as listed in Table 1 of this report. The minimum bending yield strengths of the fasteners are also listed in Table 1. All of the fasteners are produced in accordance with the approved quality control manual.

3.2.2 Coating: The proprietary Climatek™ coating consists of multiple layers of various materials, including layers of zinc and polymer.

4.0 DESIGN AND INSTALLATION
4.1 Design:

Minimum wood specific gravity for use in design of connections with all screws evaluated in this report is 0.42. Design values for withdrawal connections must be as specified in Table 2. Design values for pull-through must be as specified in Table 2. Design values for lateral resistance in wood-to-wood connections loaded parallel and perpendicular to the grain, must be as specified in Table 3. Design details not covered in this section must be in accordance with Parts 10 and 11 of the NDS.

The allowable load for a single-screw connection in which the screw is subject to tension is the least of: (a) the allowable screw tension strength given in Table 1; (b) the reference withdrawal design value given in Table 2, adjusted by all applicable adjustment values; and (c) the reference head pull-through design value given in Table 2, adjusted by all applicable adjustment values.

The allowable lateral load for a single-screw connection is the lesser of: (a) the allowable screw shear strength given in Table 1; and (b) the reference lateral design value given in Table 3, adjusted by all applicable adjustment factors.

Connections containing multiple screws must be designed in accordance with Sections 10.1.2, 10.2.2 and 11.6 of the NDS.

Where the screws are subjected to combined lateral and withdrawal loads, connections must be designed in accordance with Section 11.4.1 of the NDS.

Design of connections using the Climatek™ coated RSS screws must be limited to use in typical applications and limitations defined in Table 5.

The Climatek™ coated RSS screws are recognized for use in wood treated with waterborne alkaline copper quaternary (ACQ-D) preservatives with a maximum retention of 0.40 pcf (6.4 kg/m³) or in wood treated with copper azole (CA-B) preservatives with a maximum retention of 0.40 pcf (6.4 kg/m³).

4.2 Installation:

Screws must be installed in accordance with GRK Canada published installation instructions and this report. Screws must be installed with the minimum spacing, end distances, and edge distances to prevent splitting of the wood or as noted in Table 4, whichever is more restrictive. For screws installed in structural composite lumber (SCL) products, the minimum fastener end and edge distance and spacing must be in accordance with Table 4 of this report or in accordance with the recommendations of the SCL manufacturer, whichever is more restrictive. The screws must be installed by turning with Star Drive (Torx) bits, not by driving with a hammer.

5.0 CONDITIONS OF USE

The RSS™ fasteners described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published instructions and the applicable code. A copy of the manufacturer's published installation instructions must be available at the jobsite at all times during installation. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 When the capacity of a connection is controlled by fastener metal strength, rather than wood strength, the metal strength must not be multiplied by the adjustment factors specified in the NDS.

- 5.3 When designing a connection, the structural member must be checked for load-carrying capacity in accordance with Section 10.1.2 of the NDS, and local stresses within the connection must be checked against Appendix E in the NDS to ensure the capacity of the connection and fastener group.
- 5.4 Installation must be limited to connections between wood members used in dry in-service conditions where the wood moisture content does not exceed 19 percent.
- 5.5 Installation must be limited to connections between wood members each with a minimum specific gravity of 0.42.
- 5.6 The screws are manufactured and coated in Taiwan and in Germany under a quality control program with inspections by PFS Corporation (AA-652) and Ingenieurburo Eligehausen und Asmus (IEA) (AA-707), respectively.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Alternate Dowel-type Threaded Fasteners (AC233), dated June 2011.
- 6.2 Data in accordance with the ICC-ES Acceptance Criteria for Corrosion-resistant Fasteners and Evaluation of Corrosion Effect of Wood Treatment Chemicals (AC257), dated October 2009.

7.0 IDENTIFICATION

The RSS™ screws with Climatek™ coating are identified by the designation "RSS", "LTF", "LPS", or "JTS" on the head of each screw, along with the diameter and length in millimeters. The stainless steel RSS PHEinox™ screw is similarly identified with "RSS" on the head along with the diameter and length in millimeters. See Figure 1 for typical head markings. Packaging labels for the RSS™ wood screws include the GRK Fasteners name and address, the evaluation report number (ESR-2442), the fastener designation, the fastener size and length, the coating designation where applicable, and the compatible treated wood types (0.40 pcf ACQ-D and 0.40 pcf CA-B) where applicable.

TABLE 1—RSS™ FASTENER SPECIFICATIONS

FASTENER DESIGNATION	LENGTH ¹ (inches)	THREAD LENGTH ² (inches)	MINOR THREAD DIAMETER ³ (inch)	SHANK DIAMETER ³ (inch)	OUTSIDE THREAD DIAMETER ³ (inch)	ALLOWABLE STEEL STRENGTH			
						BENDING YIELD STRENGTH ⁴ F _{yb} (psi)	TENSILE (lbf) [psi]	SHEAR (lbf) [psi]	
RSS	1/4 x 2 1/2"	2 3/8	1 1/2	0.150	0.169	0.239	170,400	1112 [62,770]	754 [42,560]
	1/4 x 2 3/4"	2 3/4	1 3/4						
	1/4 x 3 1/8"	3 1/8	2						
	1/4 x 3 1/2"	3 1/2	2 3/8						
	5/16 x 2 1/2"	2 3/8	1 1/2	0.174	0.199	0.280	190,900	1415 [59,320]	982 [41,170]
	5/16 x 2 3/4"	2 3/4	1 3/4						
	5/16 x 3 1/8"	3 1/8	2 1/8						
	5/16 x 3 1/2"	3 1/2	2 1/2						
	5/16 x 4"	3 7/8	2 3/4						
	5/16 x 5 1/8"	5	3 1/2						
	5/16 x 6"	5 7/8	3 7/8	0.191	0.223	0.310	178,000	1941 [67,920]	1231 [43,080]
	3/8 x 3 1/8"	3 1/8	2 1/8						
	3/8 x 4"	3 7/8	2 3/4						
	3/8 x 5 1/8"	5 1/8	3 1/2						
	3/8 x 6"	5 7/8	4						
	3/8 x 7 1/4"	7	4 1/2						
3/8 x 8"	7 7/8	4 3/8							
3/8 x 10"	9 3/4	5							
3/8 x 12"	11 7/8	5 7/8							
3/8 x 14 1/8"	14 1/8	5 7/8							
3/8 x 16"	15 5/8	5 3/4							
LPS	1/4 x 6"	5 7/8	2 7/8	0.152	0.172	0.238	172,600	1051 [57,610]	666 [36,510]
	1/4 x 8"	7 7/8	2 7/8						
	1/4 x 9"	9	2 7/8						
	1/4 x 10"	9 7/8	2 7/8						
	1/4 x 11"	10 7/8	2 7/8						
	1/4 x 12"	11 3/4	2 7/8						
	1/4 x 14"	13 7/8	2 7/8						
LTF	3/8 x 8"	7 7/8	3 7/8	0.191	0.220	0.310	167,600	1714 [59,770]	1094 [38,150]
	3/8 x 10"	9 7/8	3 7/8						
	3/8 x 12"	11 3/4	3 7/8						
	3/8 x 15"	14 3/4	3 7/8						
	3/8 x 18"	18	3 7/8						
3/8 x 20"	19 5/8	3 7/8							
RSS PHEInox	1/4 x 2 1/2"	2 3/8	1 1/2	0.152	0.170	0.237	111,400	628 [34,650]	546 [30,050]
	1/4 x 3 1/8"	3 1/8	2						
	5/16 x 2 1/2"	2 3/8	1 5/8	0.171	0.195	0.276 ⁵	118,300	806 [34,910]	668 [28,930]
	5/16 x 3 1/8"	3 1/8	2 1/8						
	5/16 x 4"	3 7/8	2 1/2						
	5/16 x 5 1/8"	5 1/8	3 3/8						
5/16 x 6"	5 7/8	3 7/8							
JTS	1/4 x 3 3/8"	3 3/8	1 3/8	0.153	0.173	0.240	226,300	1104 [60,330]	769 [42,030]
	1/4 x 5"	5	1 5/8						
	1/4 x 6 3/4"	6 3/4	1 1/2						

For SI: 1 inch = 25.4 mm; 1 psi = 6.9 kPa; 1 lbf = 4.4 N.

¹The length of fasteners is measured from the underside of the head to bottom of the tip. See Figure 1.

²Length of thread includes tip. See Figure 1.

³Minor thread, shank and outside thread diameters are shown in table without manufacturing tolerances.

⁴Bending yield strength determined in accordance with ASTM F 1575 using the minor thread diameter.

⁵See Figure 1 for additional dimensional information.

TABLE 2—RSS™ REFERENCE WITHDRAWAL (W) AND PULL-THROUGH (P) DESIGN VALUES^{1,2,4}

FASTENER DESIGNATION	THREAD LENGTH (inches)	W (lbf/in.) ²		P (lbf) ³	
		For Specific Gravities of:			
		0.42	0.55	0.42	0.55
RSS	1/4 x 2 1/2"	151	186	165	275
	1/4 x 2 3/4"				
	1/4 x 3 1/8"				
	1/4 x 3 1/2"				
	5/16 x 2 1/2"	165	227	207	418
	5/16 x 2 3/4"				
	5/16 x 3 1/8"				
	5/16 x 3 1/2"				
	5/16 x 4"				
	5/16 x 5 1/8"				
	5/16 x 6"	180	259	196	351
	3/8 x 3 1/8"				
	3/8 x 4"				
	3/8 x 5 1/8"				
	3/8 x 6"				
	3/8 x 7 1/4"				
3/8 x 8"					
3/8 x 10"					
3/8 x 12"	128	201	136	395	
3/8 x 14 1/8"					
3/8 x 16"					
3/8 x 16"					
LTF	3/8 x 8"	163	216	202	373
	3/8 x 10"				
	3/8 x 12"				
	3/8 x 15"				
	3/8 x 18"				
3/8 x 20"					
PHEinox	1/4 x 2 1/2"	134	187	162	306
	1/4 x 3 1/8"				
	5/16 x 2 1/2"	136	202	199	254
	5/16 x 3 1/8"				
	5/16 x 4"				
	5/16 x 5 1/8"				
5/16 x 6"	152	191	154	372	
1/4 x 3 3/8"					
1/4 x 5"					
JTS	1/4 x 6 3/4"				

For SI: 1 inch = 25.4 mm; 1 lbf = 4.4 N.

¹Values must be multiplied by all applicable adjustment factors, except wet service factors, C_m (See NDS Table 10.3.1). Fasteners are limited to dry service conditions only.

²Withdrawal Design Values (W):

Fastener withdrawal design values were tested in accordance with ASTM D 1761.

Tabulated withdrawal design values are in pounds per inch of thread penetration into the side grain of the main member.

Reference withdrawal design values must be multiplied by the thread length embedded in the side grain of the main member in order to get the total withdrawal design value in pounds.

³Pull-Through Design Values (P):

Fastener pull-through testing was performed in accordance with ASTM D 1037 with 3/4 inch-thick side members.

Tabulated pull-through design values apply to connections having a minimum side member thickness of 3/4 inch. Connections having a side member thickness greater than 3/4 inch must use the tabulated pull-through values listed in the table.

⁴For specific gravities between 0.42 and 0.55, use the values for specific gravity equal to 0.42.

TABLE 3—RSS™ REFERENCE LATERAL DESIGN VALUES (Z) FOR SINGLE SHEAR (TWO-MEMBER) CONNECTIONS^{1,3}
 [For Sawn Lumber or SCL with Both Members of Identical Specific Gravity]

FASTENER DESIGNATION	SIDE MEMBER THICKNESS, t ^s (inches)	FASTENER PENETRATION INTO MAIN MEMBER ² , p (inches)	REFERENCE LATERAL DESIGN VALUE, Z (lbf) ^{2,4} FOR SPECIFIC GRAVITIES OF:				
			0.42		0.55		
			Parallel to Grain, Z	Perpendicular to Grain, Z _⊥	Parallel to Grain, Z	Perpendicular to Grain, Z _⊥	
RSS	1/4 x 2 1/2"	3/4	153	137	175	175	
	1/4 x 2 3/4"	3/4					2
	1/4 x 3 1/8"	3/4					2 3/8
	1/4 x 3 1/2"	3/4					2 3/4
	5/16 x 2 1/2"	3/4	168	133	214	178	
	5/16 x 2 3/4"	3/4					2
	5/16 x 3 1/8"	3/4					2 3/8
	5/16 x 3 1/2"	3/4					2 3/4
	5/16 x 4"	1 1/2	239	236	333	257	
	5/16 x 5 1/8"	1 1/2					3 1/2
	5/16 x 6"	2	265	299	472	289	
	3/8 x 3 1/8"	3/4	188	156	251	220	
	3/8 x 4"	1 1/2	224	205	274	264	
	3/8 x 5 1/8"	1 1/2					3 5/8
	3/8 x 6"	2	270	296	325	288	
	3/8 x 7 1/4"	2 3/4	423	291	593	304	
3/8 x 8"	3 1/2	4 3/8					
3/8 x 10"	3 1/2	6 1/4					
3/8 x 12"	3 1/2	8 3/8					
3/8 x 14 1/8"	3 1/2	10 5/8					
3/8 x 16"	3 1/2	12 1/8					
LPS	1/4 x 6"	3	249	257	358	219	
	1/4 x 8"	5					
	1/4 x 9"	6					
	1/4 x 10"	7					
	1/4 x 11"	8					
	1/4 x 12"	9					
	1/4 x 14"	11					
LTF	3/8 x 8"	4	433	315	556	402	
	3/8 x 10"	6					
	3/8 x 12"	8					
	3/8 x 15"	11					
	3/8 x 18"	14					
	3/8 x 20"	16					
PHEinox	1/4 x 2 1/2"	3/4	162	134	215	185	
	1/4 x 3 1/8"	3/4					2 3/8
	5/16 x 2 1/2"	3/4	151	149	181	175	
	5/16 x 3 1/8"	3/4					2 3/8
	5/16 x 4"	1 1/2	249	229	337	272	
	5/16 x 5 1/8"	1 1/2					3 5/8
5/16 x 6"	2	302	340	449	358		
JTS	1/4 x 3 3/8"	1 3/4	157	168	217	217	
	1/4 x 5"	1 3/4	168	221	241	237	
	1/4 x 6 3/4"	1 3/4					5

For SI: 1 inch = 25.4 mm ; 1 lbf = 4.4 N.

¹Values shall be multiplied by all applicable adjustment factors, except the wet service factor, C_m (see NDS Table 10.3.1). Fasteners are limited to dry service conditions only.

²When penetration, p, into the main member is less than 10D (D = shank diameter from Table 1) the values in the table shall be multiplied by the following penetration depth factor: Cd = p/10D ≤ 1.0. Minimum penetration, p = 6D

³Lateral load testing was performed in accordance with ASTM D 1761.

⁴For specific gravities between 0.42 and 0.55, use the values for specific gravity equal to 0.42.

TABLE 4—CONNECTION GEOMETRY

CONNECTION GEOMETRY/ CRITERIA	DIAMETERS ¹	RSS, LPS, JTS & RSS PHEinox 1/4" NOMINAL DIAMETER (inches)	RSS & RSS PHEinox 5/16" NOMINAL DIAMETER (inches)	RSS & LTF 3/8" NOMINAL DIAMETER (inches)
Minimum Edge Distance				
Loading Parallel to Grain	8	1 1/2	1 5/8	1 7/8
Loading Perpendicular to Grain, Loaded Edge	8	1 1/2	1 5/8	1 7/8
Loading Perpendicular to Grain, Unloaded Edge	8	1 1/2	1 5/8	1 7/8
Minimum End Distance				
Tension Load Parallel to Grain	15	2 5/8	3	3 3/8
Compression Load Parallel to Grain	10	1 3/4	2	2 1/4
Load Perpendicular to Grain	10	1 3/4	2	2 1/4
Spacing (Pitch) Between Fasteners in a Row.				
Parallel to Grain	15	2 5/8	3	3 3/8
Perpendicular to Grain	10	1 3/4	2	2 1/4
Spacing (Gage) Between Rows of Fasteners				
In-Line	5	1/8	1	1 1/8
Staggered	2 1/2	1/2	1/2	5/8
Minimum Penetration into Main Member for Single Shear Connections	6 ²	1 1/8	1 1/4	1 3/8

For SI: 1 inch = 25.4 mm.

¹Diameter is the shank diameter as specified in Table 1.

TABLE 5—EXPOSURE CONDITIONS FOR FASTENERS WITH INTENDED USE AND LIMITATIONS OF RECOGNITION

EXPOSURE CONDITION	TYPICAL APPLICATIONS	RECOGNITION LIMITATIONS
Corrosion Resistance of Fasteners		
1	Treated wood in dry use applications	Limited to use where equilibrium moisture content of the chemically treated wood meets the dry service conditions as described in the NDS.
3	General construction	Limited to freshwater and chemically treated wood exposure, e.g., no saltwater exposure.

From: Godfrey, Michael (DLI)
Sent: Monday, March 17, 2014 10:30 AM
To: 'Andy Pratt'; Nord, Douglas (DLI); Lebowski, Jeffrey F (DLI)
Cc: John Buckley
Subject: RE: Notice of Appeals Board Hearing; Appeal #13-01/#13-01R

Mr. Pratt,

Thank you for your reply.

We will make this information available to the board.

Mike Godfrey, Manager
CCLD, Education, Rules, Code Development
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fax: 651-284-5749
michael.godfrey@state.mn.us

From: Andy Pratt [<mailto:APratt@eckberglammers.com>]
Sent: Monday, March 17, 2014 9:51 AM
To: Nord, Douglas (DLI); Godfrey, Michael (DLI); Lebowski, Jeffrey F (DLI)
Cc: John Buckley
Subject: FW: Notice of Appeals Board Hearing; Appeal #13-01/#13-01R

Good morning:

I am just following up on the email chain below. I understand there is a remanded hearing on this matter tomorrow morning. The Department of Labor and Industry (DOLI) handed down a final decision on this matter on January 23, 2014, essentially adopting the recommendation put forth by the Administrative Law Judge, in his Findings of Fact, Conclusions of Law, and Order, dated November 22, 2013. The DOLI Order remanded the case to the State Appeals Board, so the Board may (i) specify with particularity what Mr. Buckley is required to do upon the final inspection of the ledger board attachment, and that he be directed to approve the project if the contractor has done what the State Appeals Board directed the contractor to do, or (ii) approve the ledger board attachment itself for code

compliance. This is a very narrow area to be considered by the State Appeals Board at the remanded hearing. It is my understanding that no new information, facts, testimony, etc. unrelated to these two issues will be derived from this remanded hearing. The hearing before the administrative law judge was quite exhaustive at any rate, with each side presenting numerous hours of testimony and documents.

John Buckley has to attend to a personal matter tomorrow morning and is not available for the remanded hearing; only two weeks' notice was provided for this hearing. At any rate, it does not appear any difference will be made if a Bayport representative appears at the hearing. The DOLI Commissioner handed down his Order, it was not appealed by any party, and the issues to be considered are the two very narrow questions posited above. The City of Bayport has no preference for which decision is ultimately made by the Board; the City presented all evidence and made all arguments at the administrative law level. Frankly, it appears to be a foregone conclusion that the Board will order John Buckley to conduct a final inspection and approve the project, as the Board has previously had no interest in approving the attachment itself, even after it unilaterally proposed its own attachment solution back during the original appeal in January 2013. Based on this background, there seems no reason for the City of Bayport to appear at tomorrow morning's hearing. Mr. Nord mentions the failure to appear may result in a "default" against the City. But what would a "default" consist of? The loss of an opportunity to weigh in on the two options before the State Appeals Board? As already stated, the City does not at this point have a preference towards any option. The Board of Appeals has limited authority, simply to hear appeals based on claims that the true intent of the State Building Code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the Code do not fully apply, or an equally good or better form of construction is proposed. Minnesota Rule 1300.0230, subp. 3.

I welcome any comments or questions you have for me on this issue, but as of now the City does not plan to have a representative at tomorrow's meeting. Thank you.

Andrew Pratt
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