RB ENGINEERING

LEADING THE WAY
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Rodney Reid
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October 29, 2024

Subject: Residential engineering – LVL design
2257 Coachman Way
Sanford, North Carolina 27332

Project No.:   RB-24097

Dear Mr. Reid:

RB Engineering, Inc. is pleased to provide the following summary engineering letter concerning the subject project. We reviewed the project plans and were asked to structurally design LVL beams for the covered patio subject project. No site visit was performed for the purpose of this report. Based upon our structural evaluation, RB Engineering has the following recommendations (see sketch showing general locations):

1. Ridge beam #1 (design length 13'): Use a minimum **1.75-inch by 11.875-inch LVL ridge beam**.

2. Ridge beam #2 (design length 22'): Use a minimum **(2) 1.75-inch by 14-inch LVL ridge beam**.

3. Roof beams #3: Use minimum **(2) 1.75-inch by 9.25-inch LVL roof header beams**.

4. Roof beams #4: Use minimum **(2) 1.75-inch by 11.875-inch LVL roof header beams**.

<u>Note</u>: LVL members should have minimum material properties of an allowable <u>Fb of 3100 psi</u> and <u>E of 2.0 x 10^6 psi</u>. Contractor shall field measure to determine the required beam lengths prior to ordering and shall determine best method of installation and be responsible for construction means and methods, including any temporary support during construction.

Our services were provided in accordance with the standard of practice for structural engineering and within the limits imposed by scope, schedule, and budget. If you have any questions, or if we can be of further assistance to you on this project, please contact us at (919) 677-9662.

Respectfully submitted,

Ron Bittler, PE
President | Structural Engineer
RB Engineering, Inc.

Ron
Bittler,
PE

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