

Carpentry – week 4

Last week I asked you to scan the internet for building techniques applicable to our mini house project. So, this week we will start selecting the building materials and making a list of how much material this little building would need.

We will start with framing the floor. The main component of that framing are the joists to which the flooring is attached. There are various materials that could be used such as dimension lumber, engineered wood products and metal. We will use dimension lumber which can be easily purchased from the lumber yards around here. So, spruce it is.

The following is a link to an article describing the calculation of floor joists. There is a plethora of such tables available, each having varying degrees of complexity. This a simple one with a good explanation of the process.

<https://www.thespruce.com/floor-joist-spans-1821626>

Our project is a single storey build with exterior dimensions of 10 feet by 36 feet. I think the obvious direction of span is across the short dimension. Therefore, our span is 10 feet, but, the true span would be the length of the joist between the points of contact with the supporting sill plate on top of the foundation.

Please calculate the number of pieces of lumber needed to make the joists. What influenced your decision between a spacing them either 24 inches or 16 inches apart?