

Finlayson, Ian (ENE)

From: Bradley Swallom <bswallom@fmarchitecture.com>
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To: STRETCHCODE (ENE)
Subject: BUILDING CODE COMMENTS

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DOER,

As an architect, I am constantly weighing the benefits of making an exterior wall solid for insulating purposes versus making it glass for daylighting purposes. Natural daylight provides numerous benefits to occupants, including increased worker productivity, wellness, calming environment, reinforcement of circadian rhythms as well as reducing lighting energy use. Therefore I feel that exterior walls need to have a substantial amount of glazing for the benefit of the occupants. As this will negatively affect the thermal performance of the wall, I suggest that the Stretch Code include greater thermal performance requirements for glazing systems. While glass is a poor insulator, triple paned IGU's and or vacuum IGU's have demonstrated double the R-value of standard IGU's. Similarly aluminum is a poor insulator, however I believe additional thermal breaks for the curtain wall mullions can be employed. I agree with the Stretch Code's requirement to have 50% glazed buildings to be electrified, I would suggest that the code also require: triple paned IGU's, vacuum IGU's or a lower overall U- value. These options are expensive because they are not common, however I believe if they are required that would force the cost to come down. By adding these requirements we would not have to choose between thermal performance and daylighting.

Thanks

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