GANG-NAIL GUIDELINES No.144

MiTek®

WIND TRUSSES - QUOTING TRAPS

As wind trusses become more common, traps are appearing for the unweary fabricator.

Inadequate or insufficient details on construction drawings often lure an inexperienced estimator to make assumptions that can cost the fabricator dearly.

How could this be avoided?

Wind trusses are an ideal solution for a structural ceiling diaphragm in a commercial building that has large open spaces and suspended ceilings, where bracing walls (or shear walls) are few and far in between.

Connected to the underside of roof trusses, wind trusses support the tops of walls by spanning between perpendicular bracing walls.

In the past, fabricators may have been given the simple task of only supplying wind trusses, with builders responsible for connections to the building.

These days, fabricators are being asked to design and supply the complete wind truss system, which includes all connections.

The trap is set when the tender drawings are unclear as to the actual nature, location and elevation of all bracing walls to adequately quote wind truss and connection requirements.

This can happen when the building has been re-designed by the tenderer from say, a steel portal frame to a timber roof and concrete wall structure.

The re-worked drawings frequently contain minimal sketchy details and unseasoned estimators can easily be swayed to assume conditions that suit them best.

On the other hand, these drawings often contain subtle notes that place important conditions on the supplier that might be missed during quoting.

It is worth taking the time to scan through the whole document for relevant information and understand the scope before beginning to estimate the work.

Here are some simple tips on

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precautions to take when quoting wind trusses and useful conditions to tag onto a quote.

GUIDE TO QUOTING WIND TRUSSES

- Always try to obtain full drawings; do not settle for photocopied sections of drawings where vital information may be missed.
- Read all notes and specifications carefully.
- Note any conflicts between architectural and engineering

■ *Typical connection to bracing wall.*

drawings; do not hesitate to seek clarification over any unclear information.

- If the building has been re-designed, be wary of inconsistencies and lack of coordination. For example, the height of the bracing wall may not be convenient to connect wind trusses to.
- Insist on vital information being provided, such as design loads on wind trusses. Do not accept it as your responsibility to have your truss engineer re-calculate building loads. Unnecessary re-calculations can lead to inconsistencies and subsequent arguments amongst supplier, contractor and client.

USEFUL CONDITIONS TO TAG ONTO QUOTES

- Wall connections assume bracing walls reach the elevation of wind trusses. Additional connection

costs will be incurred if bracing walls are not to the correct height.

- Connections to bracing walls that are distant or offset from wind trusses are not included in this quote.
- Site modifications of wind trusses as a result of inadequate information will incur additional costs. These include site visits and engineering fees.

In addition it is important to list all drawings that form the basis of your quote.

Information provided here will be a record and help avoid any disagreements at a later date over

■ *Modified fixing to short wall.*

any details not supplied, e.g. in the case when full drawings are delivered after the quoting stage which contain more requirements than were acknowledged at the time.

The key point to note is that assumptions should be avoided, and if they cannot be avoided, they should then be tagged or noted in the quote.

The estimator should not hesitate in seeking as much information as possible. Ideally, a truss engineer should be consulted for assistance and advice in preparing a quote for wind trusses.

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