Frame Construction with Wood Sheathing Substrates:
New construction systems which utilize wood framing and sheathing are one of the strongest building systems available in today’s construction market. Unfortunately, wood assemblies also create some real concerns for the stucco industry.

Old Growth vs. new Growth Timber:
With all of the restrictions being put on logging, old growth lumber is something that hardly exists anymore, and with the increased use of plywood or OSB (waferboard) for sheathing, more and more stress has been placed on cement stucco systems to perform without cracking. New growth timber has become a common sight on construction sites anymore. One major concern with new timber is that it may not be kiln dried as well as it should be. This greener material will tend to move, twist and buckle as it dries within a wall. This movement can create stress within the wall. This stress usually finds relief at the stucco assembly in the form of cracks.

Wood Based Sheathings:
According to the American Plywood Association, Gapping all edges 1/8” to allow for expansion and contraction is required. When there is no space or gaps to allow for movement, these seams can cause outward buckles in the wall system causing stress and cracks in the stucco. The use of expansion joints in a stucco assembly will greatly reduce the chance of cracking in a stucco assembly.

Upgrading the Stucco Assembly:
The use of more advanced stucco products and systems that can greatly reduce or eliminate the chance of surface cracking in stucco. Another great solution would be to utilize an elastomeric finish that can help bridge small hairline cracks in a stucco assembly.

Conclusion:
Unfortunately, not much can be done about new growth timber, with this in mind, remember to properly install all sheathing materials. Install expansion joints where ever needed and consider utilizing a stucco assembly that has been upgraded for added crack protection.