



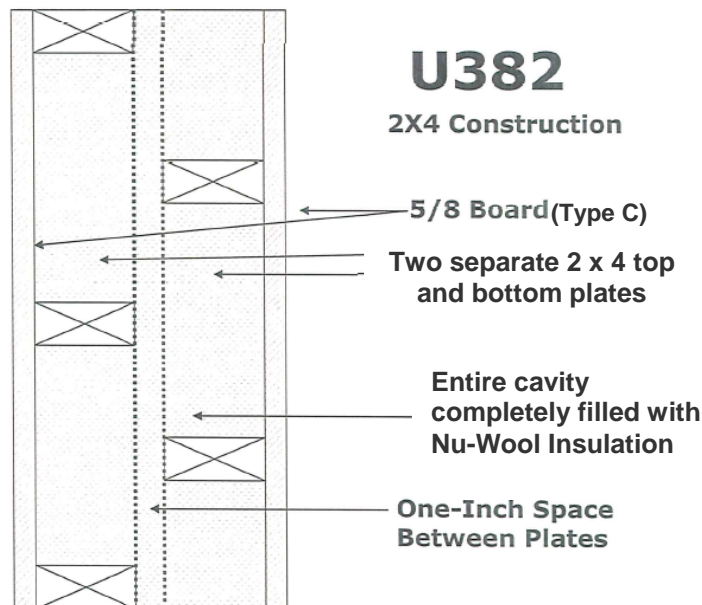
## U 382: Two Hour Load Bearing Firewall Assembly

U 382 is a fully load-bearing two-hour assembly meeting all the requirements of ASTM-E-119 and UL 263. This wall meets the requirements of shaft wall assemblies. The independently loaded double wall assembly maintains its integrity beyond the nominal one-hour for each side, giving the total wall a two-hour rating. U 382 was able to retain its integrity for a total of 2 hours 40 minutes.

Each row of studs had a load of 10,932 pounds applied vertically to achieve the maximum working stress of wood studs in accordance with 2005 National Design Specification for wood studs.

STC tests were done on two configurations for this assembly: One using the wall as tested, one layer of 5/8 inch type "C" gypsum board each side achieving an STC of 53. The other test added one-layer of 5/8 inch gypsum board to one side and this wall achieved an STC of 58. Actual test data showed one point less on each wall as these walls were simply taped at the seams rather than using gypsum "mudding." Riverbank Acoustical data shows that this method results in a one point less STC. Using this method facilitates testing.

U 382 can also be viewed on the Underwriters Laboratories web site. Any questions concerning the assembly and use of this wall can be directed to the Technical Department at NU-WOOL or to National Fiber's Technical Manager.



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