

# PROJECT SOLUTIONS

**Project:** Sunnybrook Health Science Center  
**Application:** Duct Silencers (Centrifugal Fan Systems)

No-media silencers replace the specified acoustical duct lining at a saving in cost and improvement in IAQ.

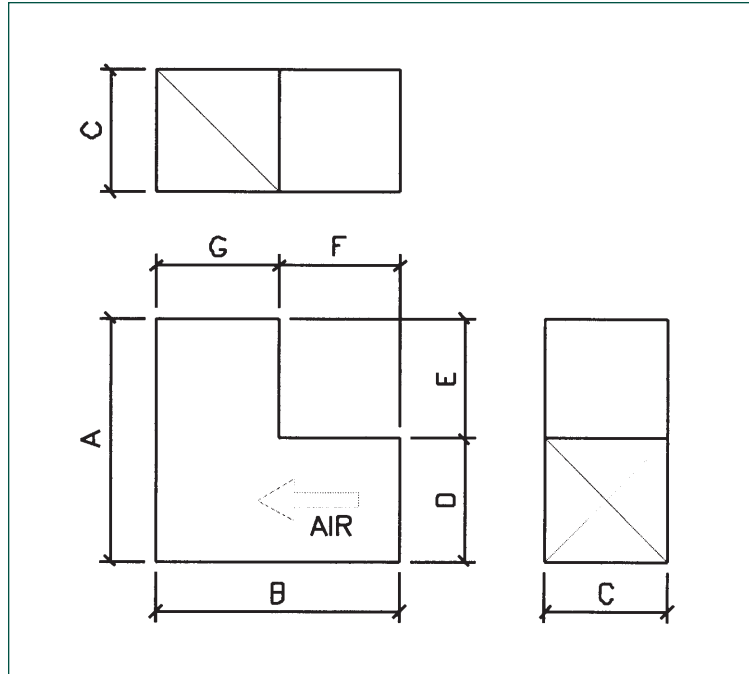
**PROBLEM: Acoustical duct lining**

The high cost of installing the specified duct lining, including the quality control required to prevent IAQ problems, provided an opportunity for value engineering.

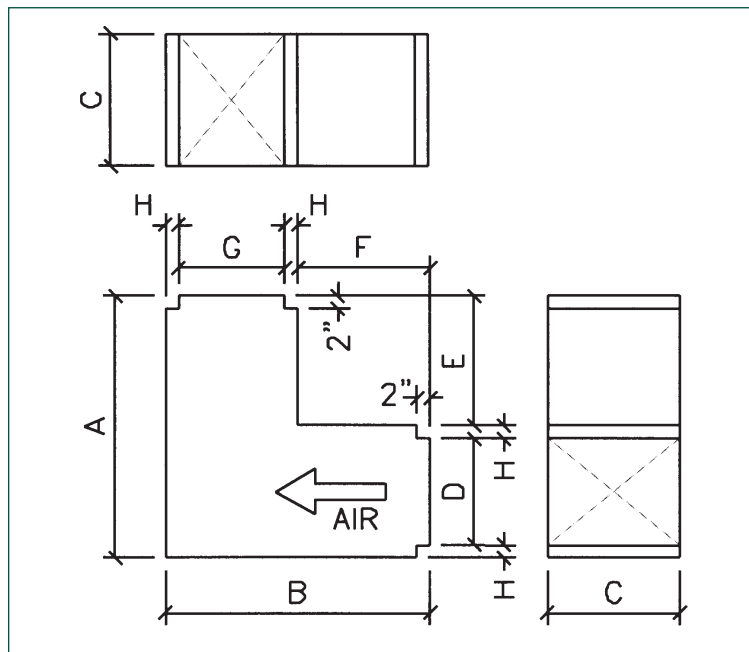
**SOLUTION: No-media silencers**

The selections of no-media rectangular silencers required that more than half of them be elbow type. To do otherwise would introduce high pressure drops due to system effects. There were sufficient lengths of straight duct to propose more than 40% straight silencers.

Also, to keep pressure drops low, two thirds of both straight and elbow type no-media silencers were 'EX' type. These designs have outside body dimensions greater than duct dimension sizes, allowing more internal flow area for the same acoustic insertion loss.



Standard dimensional approval drawing for rectangular elbow silencers.



"EX" type elbow silencers have outside body dimensions greater than connection sizes. They were supplied in the greatest quantity. This design improves performance for the same length.