## **Evaluation Of Window Design And Analysis Tools**

by

John Ferritto and John Crawford

Karagozian and Case, Structural Engineers, Glendale, California

## Introduction

This paper discusses the response of windows to terrorist bomb attack. Windows are generally present in most conventional construction. Their inherent low resistance to airblast results in the production of high casualties. Accurate window response prediction tools are needed for the design/analysis of a building. Five simplified engineering tools are available for assessing the risks pertaining to windows. They are HAZL, WinDAS, WinGard, SAFLEX, and SAFEVUE. The paper will discuss each tool and its ability to predict window response.