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# CITY OF DALLAS

**A STUDY  
EVALUATING THE CITY OF DALLAS CODES  
TO IDENTIFY CODE MODIFICATIONS  
COROLLARY TO THE PROPOSED EXPANSION  
OF AUTOMATIC SPRINKLER REQUIREMENTS**

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## PREFACE

This report summarizes a comprehensive study of the City of Dallas codes and related ordinances as a result of a contract with the City of Dallas. This study was funded, in part, by a grant from the Federal Emergency Management Agency (FEMA). Documents examined in this study included the current editions of the City of Dallas Building Code, Fire Prevention Code, Mechanical Code, Plumbing Code, Development Code and Waterworks ordinances.

The purpose of this study is to identify those requirements of the current city codes and ordinances which could be amended in order to provide an improved level of fire safety for the citizens of Dallas, and their property, without imposing an economic hardship. Specifically, the City of Dallas codes have been analyzed to identify provisions which could be amended, given the more stringent requirements for the installation of automatic sprinklers which were proposed by the City of Dallas in 1981.

Major changes proposed to the Dallas Building Code in 1981 included:

- o Modification to Section 1807(a) to require buildings with more than 1,000 people above or below grade level to comply with the "high-rise" requirements. Presently, this section applies only to Group B, Division 2 office buildings and Group R, Division 1 residential buildings more than 75 feet above grade.
- o Modification to Section 1807(a) to eliminate the compartmentation option thereby requiring all high-rise buildings to be sprinklered.
- o Modification to Section 1807(g) to require smoke control systems for buildings with more than 1,000 people above or below grade level. Presently, this section applies only to Group B, Division 2 office buildings more than 75 feet above grade.

- o Modification to Section 3802(b) to require the entire building to be sprinklered when the building area exceeds 7,500 square feet. This represents a significant expansion of the current sprinkler requirements. Presently, only specific occupancies exceeding specified minimum floor areas are required to be sprinklered.

Prior to incorporating the above modifications into the Dallas Building Code, the City of Dallas contracted Schirmer Engineering Corporation to conduct an intensive study of all applicable city codes and ordinances culminating in a report which:

- o Analyzes the current building code and identifies building features that are required because of an anticipation that the building will not be equipped with an automatic fire extinguishing system.
- o Evaluates the total building fire resistance and life safety requirements that could be diminished, or eliminated, if an automatic fire extinguishing system was installed.
- o Includes adequate wording for each affected section of the building code to maintain the intent and integrity of the code while providing a high level of fire safety through the installation of an automatic fire extinguishing system.
- o Evaluates the impact and estimated costs for the installation of an automatic fire extinguishing system in four example buildings, and
- o Evaluates the potential conflict between automatic fire extinguishing systems and smoke removal or control equipment.

This report is a result of an analysis of pertinent records of the Dallas Building Inspection Division, the Dallas Fire Department, the Dallas Department of Planning and Development; a review of related literature; and, an evaluation of the impact and cost for four typical buildings.

