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

FOR THE

CITY OF DALLAS

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REVISION NOTICE

This report has been revised as a result of a review by the City of Dallas Staff after it was originally submitted to the City on October 17, 1983. Revised sections and/or pages of the report are identified as such in this report.

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INTRODUCTION

In 1981, changes proposed to the building code by the City of Dallas included a proposal to require that all buildings having an area greater than 7,500 square feet be sprinklered. The building size limit of 7,500 square feet was based upon the physical ability of the Dallas Fire Department to manually extinguish fires in typical occupancies of that size. Without such an ordinance, it could be expected that the manpower, operating expenditures and capital expenditures for the fire department would be greatly increased in the future. This proposed change represented a significant expansion of sprinkler requirements in the code at that time. Given such a requirement, the City of Dallas codes and ordinances were analyzed by Schirmer Engineering Corporation to identify traditional provisions which could be amended, recognizing the benefits of automatic sprinkler protection.

In February, 1983, Schirmer Engineering Corporation submitted a series of proposed changes and accompanying rationale for the 1980 edition of the Dallas Building Code (DBC), Dallas Fire Code and Dallas Water Works ordinances. The proposed changes identified amendments which could be made to the city codes and ordinances in order to provide an improved level of fire safety for the citizens of Dallas, and their property, without imposing an economic hardship.

The proposed modifications consisted of 48 changes to the building code, 6 changes to the fire code and 2 changes to the water works ordinances. The proposed changes, aimed at providing an improved level of safety while minimizing overly redundant requirements, were based upon a study of local and national fire experience, selected building and fire department records, other codes and standards, technical articles, test data and application of the "systems concepts" along with professional engineering judgment.

In addition to code language to accomplish the city's intent to require sprinkler systems in buildings greater than 7,500 square feet, proposed modifications included:

- o An overall reduction in the required class of building construction for most occupancy groups.
- o Greater allowable building height and areas than presently permitted for sprinklered buildings.
- o Reduced requirements for high-rise buildings, atrium buildings, covered mall shopping centers and open parking garages.
- o Revised method of calculating the required number of exits and exit width.
- o Increased exit travel distance in selected occupancies.
- o Reduced requirements for corridor construction.
- o Additional requirements for electrical supervision of sprinkler system components for increased reliability.
- o Reduced public fire (water) flow requirements.
- o Elimination of water meters for closed sprinkler systems.
- o Elimination of monthly charges for water connections serving fire protection systems.

Following submission of the proposed changes, the Dallas Building Code Advisory and Appeals Board (BCAAB), the Dallas Fire Code Advisory Board (FCAB) and the staffs of the Dallas Building Inspection Division and Fire Department (Staff) conducted an extensive review of each proposed modification. The FCAB and fire department have recommended approval for each of the proposed changes to the Dallas Fire Code. Proposed changes to the water works ordinances are presently under consideration.

The Dallas BCAAB conducted several public meetings in recent months to consider each of the proposed changes to the building code. As a result, the BCAAB has recommended