Operation Breakthrough
Preliminary Report

EXISTING BUILDING AND DEVELOPMENTAL REGULATIONS
IN ST. LOUIS, MISSOURI

Sponsored by
Department of Housing
and Urban Development

NBS
U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
The National Bureau of Standards was established by an act of Congress March 3, 1901. Today, in addition to serving as the Nation's central measurement laboratory, the Bureau is a principal focal point in the Federal Government for assuring maximum application of the physical and engineering sciences to the advancement of technology in industry and commerce. To this end the Bureau conducts research and provides central national services in four broad program areas. These are: (1) basic measurements and standards, (2) materials measurements and standards, (3) technological measurements and standards, and (4) transfer of technology.

The Bureau comprises the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Center for Radiation Research, the Center for Computer Sciences and Technology, and the Office for Information Programs.

THE INSTITUTE FOR BASIC STANDARDS provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of an Office of Measurement Services and the following technical divisions:

- Applied Mathematics
- Electricity
- Metrology
- Mechanics
- Heat
- Atomic and Molecular Physics
- Radio Physics
- Radio Engineering
- Time and Frequency
- Astrophysics
- Cryogenics

THE INSTITUTE FOR MATERIALS RESEARCH conducts materials research leading to improved methods of measurement standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; develops, produces, and distributes standard reference materials; relates the physical and chemical properties of materials to their behavior and their interaction with their environments; and provides advisory and research services to other Government agencies. The Institute consists of an Office of Standard Reference Materials and the following divisions:

- Analytical Chemistry
- Polymers
- Metallurgy
- Inorganic Materials
- Physical Chemistry

THE INSTITUTE FOR APPLIED TECHNOLOGY provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations in the development of technological standards, and test methodologies; and provides advisory and research services for Federal, state, and local government agencies. The Institute consists of the following technical divisions and offices:

- Engineering Standards
- Weights and Measures
- Invention and Innovation
- Vehicle Systems Research
- Product Evaluation
- Building Research
- Instrument Shops
- Measurement Engineering
- Electronic Technology
- Technical Analysis

THE CENTER FOR RADIATION RESEARCH engages in research, measurement, and application of radiation to the solution of Bureau mission problems and the problems of other agencies and institutions. The Center consists of the following divisions:

- Reactor Radiation
- Linac Radiation
- Nuclear Radiation
- Applied Radiation

THE CENTER FOR COMPUTER SCIENCES AND TECHNOLOGY conducts research and provides technical services designed to aid Government agencies in the selection, acquisition, and effective use of automatic data processing equipment; and serves as the principal focus for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Center consists of the following offices and divisions:

- Information Processing Standards
- Computer Information
- Computer Services
- Systems Development
- Information Processing Technology

THE OFFICE FOR INFORMATION PROGRAMS promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System, and provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

- Office of Standard Reference Data
- Clearinghouse for Federal Scientific and Technical Information
- Office of Technical Information and Publications
- Library
- Office of Public Information
- Office of International Relations

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1 Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted: mailing address Washington, D.C. 20234.
2 Located at Boulder, Colorado 80302.
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IN ST. LOUIS, MISSOURI

by
The Building Research Division Team
E. O. Pfrang, Manager

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and Urban Development

IMPORTANT NOTICE

Approved for public release by the director of the National Institute of Standards and Technology (NIST) on October 9, 2015.

NATIONAL BUREAU OF STANDARDS
U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
INTRODUCTION

This report lists the regulatory documents that apply to the Department of Housing and Urban Development Operation Breakthrough site in St. Louis, Missouri; the documents themselves, insofar as they are obtainable, are also furnished. The report's overall content is indicated by its Table of Contents:

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REGULATORY DOCUMENTS

Included in the following list are the offices from which the documents are available as well as the documents' costs, if any, should additional copies be required.

1 "The Revised Code of the City of St. Louis, Missouri, Volume II - 1960"; including applicable building code ordinance amendments 51205 (approved 03/30/62) through 55314 (approved 07/29/69). This document can be obtained from:

Miss Grace Heneck, Register
City of St. Louis
City Hall
1200 Market Street
(Price: $12.40)
St. Louis, Missouri 63103
(314) 453-4145

2 "The Redevelopment Plan for Mill Creek Valley"

The Land Clearance Redevelopment Authority
13th and Delmar Street
St. Louis, Missouri 63103
(314) GE6-6400

3 Zoning Ordinance 45309

Miss Grace Heneck, Register
City of St. Louis
City Hall
1200 Market Street
St. Louis, Missouri 63103
(314) 453-4145

4 The National Electrical Code

The National Fire Protection Association
60 Batterymarch Street
Boston, Massachusetts 02110
(Price: $2)
COMMENTARY ON REGULATIONS

Note: The several regulatory codes applicable to the St. Louis site, together with such other generally recognized codes and standards as may be referenced in them, furnish the housing system producer and/or site developer with all the requirements for usual housing construction on the site. These may be subject to waiver procedures to the extent the proposed housing system is at variance with the existing requirements.

Administration:

Permits for the construction of all types of buildings are issued by the Building Commissioner of the City of St. Louis. Variances from the applicable building regulations are obtained from the same office.

Plans and specifications must be prepared by a registered architect and/or engineer. It is understood that this means registered in the State of Missouri.

Planning and Zoning:

The Land Clearance for Redevelopment Authority is responsible for coordinating the execution of the Redevelopment Plan for the area including the Breakthrough site. The City of St. Louis and the Board of Education will participate in the development of this urban renewal project. The Planning Commission of the City of St. Louis is directly involved in this project area.

Zoning requirements of the City of St. Louis, in effect in the general site area, have been superseded by the Mill Creek Valley redevelopment regulations and controls. Such urban renewal controls are often more restrictive than regular zoning ordinances. As an example, the urban renewal regulations require one parking space for each dwelling unit which is more stringent than the city zoning ordinance.

Structural:

The Building Code of the City of St. Louis contains the building code, the plumbing code, the electrical code, the mechanical code and the elevator code.

The city code was first promulgated in 1961 based on the model code published by the Building Officials Conference of America. Numerous revisions have been made to the 1961 code through a series of city ordinances. The last of these is dated July 29, 1969.
Electrical:

Article 15 of the city code contains the electrical requirements, stating that the installation of electric wiring must conform to the provisions in this article and to the National Electrical Code. It further states that installations conforming to the National Electrical Code and the National Electrical Safety Code shall be prima facie evidence that such installations are reasonably safe and in compliance with the provisions of the city code.

The city code requires that all electrical installations must be performed by a person or firms licensed by the City of St. Louis. In addition, it states that electrical wiring installations cannot be concealed until inspected, and permission to cover up the work has been granted by the building commissioner.

Plumbing:

Plumbing inspectors are required to have five years experience as a licensed plumber and must be licensed by the City of St. Louis.

Mechanical:

Regulations pertaining to heating and other mechanical equipment are described in Article 11 of the Building Code of the City of St. Louis. Chimneys, flues and vent pipe regulations are described in Article 10. Light and Ventilation requirements are covered in Article 5 of the same basic code.
ADMINISTRATION--ST. LOUIS, MISSOURI

Population (1964): 750,000
Metropolitan area population: 2,203,000

Government: Mayor and Board of Aldermen

Administration of Codes:

Building ) Mr. Kenneth O. Brown
              Building Commissioner
Plumbing ) City of St. Louis
          Electrical) City Hall, Room 426
            Elevator ) 1200 Market Street
             Mechanical) St. Louis, Missouri 63103 (314) 435-3318

Administration of Zoning:

Land Clearance for Redevelopment Authority
13th and Delmar Streets
St. Louis, Missouri 63103
Charles Farris, Executive Director (314) GE 6-6400

The St. Louis City Planning Commission
Civil Courts Building
Market & 12th Streets
St. Louis, Missouri 63103
Norman Murdock, Director (314) 453-4417