



BUILDING RESEARCH INSTITUTE

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ABSTRACTS OF BUILDING SCIENCE PUBLICATIONS - FIRST QUARTER 1957

1957 APPRAISAL VALUATION MANUAL

(American Society of Appraisers, Manual Division, 100 West 42nd St., New York, N. Y., 1957, 516 pages, \$15.00).

This authoritative manual includes in addition to technical material on appraisal processes, chapters on such subjects as "Land Appraisal Pitfalls," and "Appraising Shopping Centers." It also has an excellent glossary based on interpretation by the courts of various terms.

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SUBDIVIDING FOR TRAFFIC SAFETY

(Los Angeles County Road Department, Los Angeles, California, 1956 23 pages, (to be published).

Proving the case for the limited access type of subdivision design, this study made by the Los Angeles County Road Department and the Regional Planning Commission over a period of five years shows an accident ratio of 8 to 1 for the gridiron type of plan over the limited access plan. Although there were 65% more intersections in the limited access areas studied, only 8.8% experienced accidents in contrast to 50% in gridiron areas. The study included 86 residential subdivisions with a total developed area of 4,320 acres, representing a population of 53,000 persons. It embraced 108 miles of residential streets including 660 intersections.

Illustrations of typical street patterns showing the number of accidents recorded at each intersection are particularly valuable to the subdivision designer. Report also includes a check list of seven elements of safe design, and suggestions for redesigning existing gridiron subdivisions to improve traffic safety and, consequently, the quality and value of the neighborhood.

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75 HOUSING AREAS, 1956 SUMMARY

(Housing Securities, Inc., 250 Park Avenue, New York 17, N. Y., 1957 36 pages, \$7.50).

This annual summary is part of a continuing analysis of economic and housing market conditions in metropolitan areas throughout the nation. Short range trends are analyzed monthly, and areas rated according to building activity. It also contains a 12 months forecast of housing starts by regions, states and metropolitan areas and a diagrammatic instruction sheet showing how to make best use of the statistical data.

BRI ABSTRACTSGERMAN CONSTRUCTIONAL ENGINEERING FOR EXPORT

(Otto Elsner Verlagsgesellschaft, Schofferstrasse 15, Darmstadt, Germany, a quarterly magazine, Annual Subscription, \$4.75, postage included).

Issue No. 2 of this slick-paper magazine contains profusely illustrated articles on "The Steel Window and Modern Building Materials," "The Use of Glass in the Building Industry," "Rust Protection Afforded by Modern Coating Materials," and a number of others of interest to building and road contractors. The magazine is printed in the English language.

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STRUCTURES

(By Pier Luigi Nervi, F. W. Dodge Corporation, 119 W. 40th Street., New York 18, N. Y., 1956, 136 pages, \$6.95).

An artistic and highly practical study on the use of reinforced and prefabricated concrete by the famous Italian architect-builder. Illustrates his use of Ferro-cemento, a reinforced concrete of entirely new concept, in some of the largest thin-shell concrete structures in the world. Other chapters analyze structural characteristics of reinforced concrete, imperfect elastic behavior of concrete, structural prefabrication and experimental model analysis. Volume is indexed and has an Appendix listing a Table of Equivalents.

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RETAINED PERCENTAGES IN CONSTRUCTION CONTRACTS

(By W. S. Parker, FAIA, and Faneuil Adams, Technical Bulletin 77, The Producers' Council, 2029 K Street, N. W., Washington 6, D. C., September 1956, free to persons directly connected with the construction industry.)

Based on two conferences held by Producers' Council on this subject, this article summarizes conclusions of conferees and presents a suggested procedure for making retentions. It includes a sample "Application for Payment" table and a graph showing the application of the proposed retained percentage to an actual completed contract for a school, as compared with 10% retained throughout and to 10% retained until 50% complete. A draft of suggested change that architects can make in Article 4 of AIA Form A-1 is also shown.

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HRI ABSTRACTSPROPERTIES OF COMMERCIAL CONDUCTIVE FLOORINGS FOR HOSPITAL OPERATING ROOMS
(Research Paper No. 25, Division of Building Research, National Research Council, Ottawa, Canada, August 1956, 17 pages, 25¢)

This study measures the physical properties of nine conductive flooring materials, including vinyl tile, rubber, linoleum, three types of conductive coatings, two types of ceramic tile, and terrazzo. Floors were maintained by regular washing with water and detergent about twice weekly and dry-swept on alternate days. On occasions floors were scrubbed with industrial soap. Photomicrographs were made of the surface of all representative samples to show surface characteristics, and these are reproduced in the report. A table gives indentation, anti-slip coefficients and electrical resistance in ohms shown by the various types at stated test intervals. Another table compares appearance and durability with factors of comfort and electrical resistance.

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CONTEMPORARY PLANS OF FLATS - Report NR 16

(Danish National Institute of Building Research, Teknisk Forlag, 29 V. Farimagsgade, Copenhagen, Denmark, 1956, 92 pages, no price shown.)

A catalogue of plans with suggested criteria for comparative evaluation, illustrating 200 different types of apartments built in Copenhagen and environs between 1936 and 1956, with the main emphasis on post-war examples. The book is in the Danish language with an English summary which includes a key to interpretation of symbols used on the plans. Plans shown were chosen from state-aided housing and private housing.

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A COMPARISON OF CAPITAL COSTS OF HEATING SYSTEMS IN HOUSES

(Building Research Station Digest No. 93, British Information Services, 30 Rockefeller Plaza, New York 20, N. Y., 1956, 7 pages, 10¢.)

An attempt to present a true picture of the over-all costs of various domestic heating systems in suburban London, including heating equipment, pipes, radiators, etc., and the cost of builders' work as represented by brick flues, etc. Systems are classified as either "conventional" or "specialist" heating systems, with the former comprising open fires, stoves, small independent boilers, grates, gas and electric points and heaters; the latter, those for which a specialist designer or contractor is employed. Costs, based on a hypothetical contract for 50 semi-detached, two-story houses of approximately 900 sq. ft., run from 167 Pounds (\$600) to 268 Pounds (\$965) for the "conventional" installations; from 300 to 630 Pounds for the "specialist" installation. Tables show breakdowns of costs and location of radiators, boilers, water heaters, etc.

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