Journal of the

STRUCTURAL DIVISION

Proceedings of the American Society of Civil Engineers

STRUCTURAL DIVISION
EXECUTIVE COMMITTEE
Robert D. Dewell, Chairman; Emerson J. Ruble, Vice Chairman;
George S. Vincent; Nathan D. Whitman, Jr.; Charles T. G. Looney, Secretary

COMMITTEE ON PUBLICATIONS
Henry G. Schlitt, Chairman; Mace H. Bell; Gerald F. Borrmann;
Edwin S. Elcock; Kurt H. Gerstle; John E. Goldberg; Wayne C. Lewis;
Alfred L. Parme; Philip A. Upp; Halsted N. Wilcox

CONTENTS

August, 1960

Papers

Page

Reinforced Concrete Shear Wall Assemblies
by Jack R. Benjamin and Harry A. Williams 1

Strength of Welded Aluminum Columns
by R. J. Brungraber and J. W. Clark 33

Some Basic Concepts in Matrix Structural Analysis
by Frank R. Berman 59

DISCUSSION

A Method of Computation for Structural Dynamics, by Nathan M. Newmark. (July, 1959. Prior discussion: January, 1960. Discussion closed.)
by Nathan M. Newmark (closure) 89

(over)

Copyright 1960 by the American Society of Civil Engineers.

Page

Orthogonal Gridworks Loaded Normally to their Planes, by Ignacio Martin and José Hernandez. (January, 1960. Prior discussion: None. Discussion closed.)
by Ming L. Pei 91

Continuous Girder Bridge with Variable Moment of Inertia, by Sabri Sami. (January, 1960. Prior discussion: May, 1960, July, 1960. Discussion closed.)
by Valerian Leontovich 93

Properties of Steel and Concrete and the Behavior of Structures, by George Winter. (February, 1960. Prior discussion: June, 1960, July, 1960. Discussion closed.)
by Henry J. Cowan 97
by Oliver G. Julian 97

Dynamic Effects of Earthquakes, by Ray W. Clough. (April, 1960. Prior discussion: None. Discussion closes September 1, 1960.)
by Clarence J. Derrick 103
by G. W. Housner 107

Design of Prestressed Concrete Beams by Computer, by J. J. Bonasia. (April, 1960. Prior discussion: None. Discussion closes September 1, 1960.)
by Richard J. Newson 111

Charts for Design of Reinforced Concrete Columns, by W. H. Gardner, Jr., and D. H. Kline. (May, 1960. Prior discussion: None. Discussion closes October 1, 1960.)
by George B. Begg, Jr. 113

Errata 115