

CONTENTS

Papers	Page
OPTIMAL SELECTION OF FLEXIBLE PAVEMENT COMPONENTS by Salim S. Hejal, Thomas R. Buick, and Joseph C. Oppenlander (Highway Division)	1
TRANSIENTS IN PIPELINES CARRYING LIQUIDS OR GASES by Victor L. Streeter (Pipeline Division)	15
IMPACT OF RAIL TRANSIT ON BUS OPERATIONS by Richard H. Pratt (Technical Council on Urban Transportation)	31
DESIGNING ARTERIAL STREETS FOR SAFETY by Laurence A. Dondanville (Highway Division)	43
PLANNING FOR MEMPHIS MEDICAL CENTER TRAFFIC AND PARKING by Wm. H. Claire and Randall A. P. Johnson (Technical Council on Urban Transportation)	51
PLANNING FOR CAMPUS TRAFFIC AND PARKING by Joseph W. Guyton and George L. Reed (Technical Council on Urban Transportation)	63
PAVEMENT EVALUATION BY WAVE PROPAGATION METHOD by Keshavan Nair (Highway Division)	83

(over)

This Journal is published quarterly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price is \$8.00 per year with discounts to members and libraries. Application to mail at second-class postage rates is pending at New York, New York. TE.

	Page
TRAFFIC VOLUME CHARACTERISTICS ON URBAN FREEWAYS by Kenneth W. Heathington and Paul R. Tutt (Highway Division)	105
ILLINOIS CENTRAL SUBURBAN AUTOMATED REVENUE COLLECTION SYSTEM by Leonard A. West (Technical Council on Urban Transportation)	117
SAN FRANCISCO FREEWAY REVOLT by William H. Lathrop, Jr. (Technical Council on Urban Transportation)	133
REVOLUTION IN URBAN HIGHWAY PLANNING by the ASCE Committee on Highway Planning and Economics of the Highway Division	145
MODERN APPLICATIONS OF TRAFFIC CONTROL DEVICES by John A. Bruce (Highway Division)	153

DISCUSSION

Proc. Paper 7864

TERMINAL ACCESS AND THE CHOICE OF INTERCITY MODES, by Edward A. Beimborn (Aug., 1969. Prior Discussion: May, 1970). closure	165
BREAKING LOAD FOR RIGID PAVEMENT, by R. K. Ghosh and M. Dinakaran (Feb., 1970). errata	166
URBAN MASS TRANSPORTATION: REVIEW AND ANALYSIS, ^a by Stewart F. Taylor and Louis W. Petulla (May, 1970). by Labh S. Sachdev and William E. Popp	167
SOCIAL CONSIDERATIONS OF URBAN TRANSPORTATION SYSTEMS, ^a by Robert L. Morris (Aug., 1970). by Labh S. Sachdev	168
by David C. Colony	169
by Norman L. Cooper	170
THE COMPREHENSIVE PLAN IN TRANSPORTATION PLAN- NING, ^a by Kurt W. Bauer (Aug., 1970). by Labh S. Sachdev	171

^a Discussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.