

THE CITY OF NEW YORK
HOUSING AND DEVELOPMENT ADMINISTRATION
DEPARTMENT OF BUILDINGS

DEPARTMENTAL MEMORANDUM

DATE: November 18, 1971

TO: Borough Superintendents &
Executive Staff
FROM: Philip Goldstein, P.E.
Director of M.E.A. Division
SUBJECT: Qualification of Computer Program-CP2

CP 2 -Flat Plates and Beams

Applicant

Ramesh Chandra of Severud Associates, 415
Lexington, New York, NY 10017.

Application

A design program for vertical loads only which may be used for flat slabs, one way slabs and beams, T-beams, waffle slabs.

What the Program Determines?

Moments and shears, negative and positive reinforcement in square inches including details, live and dead load deflection. Values are determined for beams and slabs. Columns must be designed by some other means.

Assumptions

At the present time the program is arranged for allowable stresses of the ACI-63 code. Columns are considered fixed at the floor above and floor below, but the program can be used for roofs when columns above are eliminated. The moment of inertia of the beam from the center line of the column to the face of the column may or may not be taken as infinity as described in Section 2103(a)3 of ACI 318-63. The requirements for assuming an infinite haunch should be studied for particular structures.

Technical Consideration

Analysis is based on simultaneous slope-deflection equations and a maximum of 13 spans may be handled. The language is fortran IV. Beam soffits may be handled within the program without separate manual calculation.

Qualification of Computer Program-CP2.

November 18, 1971

Recommendation

Program has been accepted on condition that the user of the program complies with rules 2 & 3 of the Rules Relating to Structural Designs based on Electronic Computer Computations.



Philip Goldstein, P.E.
Director of M.E.A. Division

PG:sb

CC: John Muller
Ramesh Chandra
Severud-Associates