

FOREWORD

The principal objective in compiling the material for this **CONCRETE PIPE DESIGN MANUAL** was to present data and information on the design of concrete pipe systems in a readily usable form. The Design Manual is a companion volume to the **CONCRETE PIPE HANDBOOK** which provides an up-to-date compilation of the concepts and theories which form the basis for the design and installation of precast concrete pipe sewers and culverts and explanations for the charts, tables and design procedures summarized in the Design Manual.

Special recognition is acknowledged for the contribution of the staff of the American Concrete Pipe Association and the technical review and assistance of the engineers of the member companies of the Association in preparing this Design Manual. Also acknowledged is the development work of the American Association of State Highway and Transportation Officials, American Society of Civil Engineers, U. S. Army Corps of Engineers, U. S. Federal Highway Administration, Bureau of Reclamation, Iowa State University, Natural Resources Conservation Service, Water Environment Federation, and many others. Credit for much of the data in this Manual goes to the engineers of these organizations and agencies. Every effort has been made to assure accuracy, and technical data are considered reliable, but no guarantee is made or liability assumed.



American **Concrete Pipe** Association