

Preface

Sewer Main Pipe Collection System Infiltration Life Cycle Cost Model Developed by the University of Houston Department of Civil and Environmental Engineering

The sewer-main pipe industry and University of Houston completed the infiltration life cycle cost model research project in 2003, which was designed to estimate the costs of constructing, rehabilitating, operating and maintaining sewer mains under various infiltration levels over a 30-year life. Ancillary costs such as infrastructure damage (e.g., roadway settlement) are not included. The project was funded by participating industry members and the Environmental Protection Agency Office of Wastewater through a grant to, and administered by, the Fiberglass Tank & Pipe Institute. Invitations to participate in the project were extended to all large diameter (i. e., 30-inch and larger) sewer-main pipe manufacturers. Below is a listed of the pipe manufacturing trade organizations that participated in the research program. The model has been calibrated with published data and may be used to compare different rehabilitation and maintenance scenarios to identify the most cost effective sewer main design.

- American Concrete Pipe Association
- Fiberglass Tank & Pipe Institute
- National Clay Pipe Institute
- Uni-Bell PVC Pipe Association

A research project Steering Committee was formed to:

- a. Meet semi-annually at the Houston, Texas University of Houston (UH) facility for on-site updates on research project status.
- b. Provide data and overall UH research project guidance.
- c. Review and develop consensus approval of:
 - sewage treatment system components, typical users and their population.
 - UH project status reports before releasing the final reports.

The following list of Steering Committee members provided a balance of manufacturers and non-manufacturers (users, installers, governmental & technical representatives):

Organizations

Pate Engineers (Design Engineers)
City of Conroe, Texas
City of Houston, Texas
City of Victoria, Texas
City of Montgomery, Alabama
Parsons Brinckerhoff (Design Engineers)
Black & Veatch (ASCE Representative)
Laughlin-Thyssen, Inc. (Contractor)
University of Houston
US EPA Office of Wastewater
American Concrete Pipe Association
Hobas Pipe USA
National Clay Pipe Institute
Uni-Bell PVC Pipe Association
Fiberglass Tank & Pipe Institute

Representatives

J. E. Pate (Chair)
Brent Sherrod (Vice Chair)
Henry N. Gregory
Ken E. Gill
Danny Holmberg
Richard Thomasson
Rick Nelson
Clifford L. Tubbs
Dr. C. Vipulanandan
Charles P. Vanderlyn
Matthew S. Childs
Richard C. Turkopp
Ed Sikora
Shah Rahman
Sullivan D. Curran (staff)
Thomas M. Spencer (staff)