

PROCEEDINGS OF THE SECOND CONFERENCE ON STRUCTURAL PERFORMANCE
OF PIPES / COLUMBUS / OHIO / 14-17 MARCH 1993

Structural Performance of Pipes

Edited by

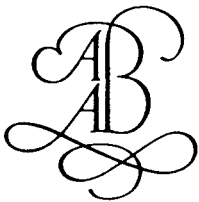
SHAD M. SARGAND & GAYLE F. MITCHELL

Center for Geotechnical and Environmental Research, Ohio University, Athens, Ohio, USA

JOHN OWEN HURD

Ohio Department of Transportation, Columbus, Ohio, USA

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100



*Sponsored by the Center for Geotechnical and Environmental Research, in cooperation with
the Ohio Department of Transportation*

A. A. BALKEMA / ROTTERDAM / BROOKFIELD / 1993

Table of contents

Preface	VII
Organization	IX
On the analysis of buried conduits – Past, present, and future <i>M.G.Katona</i>	1
New standard installations for concrete pipe – Key to improved design practice <i>F.J.Heger</i>	7
Checking the premise – Deflections of flexible pipe are predictable <i>L.H.Gabriel</i>	19
Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF) as a backfill around flexible structures <i>W.E.Brewer & J.O.Hurd</i>	25
Structural design of plastic pipe via AASHTO specifications <i>R.E.Chambers & R.E.Rund</i>	35
Application of the program MULTSPAN/SOILEVAL to analyze problem structures <i>D.C.Cowherd, J.I.Corda & M.P.Perlea</i>	49
Control of buried Spiral Rib Pipe backfill performance <i>L.H.Daniels & R.Brockenbrough</i>	57
Field performance report on corrugated polyethylene pipe <i>L.J.Fleckenstein & D.L.Allen</i>	67
Long-term external pressure testing of pipeline rehabilitation products <i>L.I.Harris & D.T.Iseley</i>	79
Structural performance of PVC leachate collection pipe <i>R.E.Kastner, S.M.Sargand & G.F.Mitchell</i>	83
Design of reinforced concrete pipe – A review of traditional and current methods <i>T.J.McGrath</i>	97
‘LLB’, an innovative microtunneling propulsion system <i>M.Najafi, D.T.Iseley, N.D.Pumphrey, Jr & H.Nishida</i>	107

Ring bending stiffness and the design of flexible pipe <i>L.J.Petroff</i>	125
Five year field performance study of three metal box culverts <i>S.M.Sargand, G.A.Hazen, T.Masada & J.O.Hurd</i>	137
Performance of concrete arch buried bridge <i>L.Mikhailovsky & A.Scanlon</i>	147
Installation test of a thermoplastic pipe at elevated temperatures using 36" corrugated high density polyethylene pipe <i>M.Whaley</i>	155
Author index	165