

AS 3725—1989

Australian Standard[®]

Loads on buried concrete pipes

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Board of Works, Melbourne
Confederation of Australian Industry
Engineering and Water Supply Department, S.A.
Hobart City Council
Municipal Association of Victoria
National Association of Australian State Road Authorities
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PREFACE

This Standard was prepared by the Standards Australia Committee on Concrete Pipes, to supersede AS CA33—1962, *Code of recommended practice for concrete pipe laying design*.

The Standard provides rules for calculating the working loads on concrete pipes due to fill and superimposed loads and relates these to the test loads applied to sample pipes in accordance with the methods of test set out in AS 1342, *Precast concrete drainage pipes*.

The main purpose of the Standard is to enable an appropriate class of non-pressure concrete pipe, manufactured in accordance with AS 1342, to be selected for use in particular below-ground installations.

The procedures in the Standard also apply to the calculation of external working loads on concrete pressure pipes. In this case, however, the loads due to internal pressures need to be considered in conjunction with the external loads. The method of assessing the required strength of a pipe under this combination of loads, previously given in Appendix F of AS 1392 *Precast concrete pressure pipe*, is now included in this Standard.

This Standard differs from AS CA33—1962 in the following principal respects:

- (a) *Change of title.* The Standard is concerned principally with the calculation of working loads on buried pipes and the corresponding test loads. Important installation criteria are also covered.
- (b) *Railway and road loads.* Railway loading is now included. Rail and road bridge design rules, published by ANZRC (1974) and NAASRA (1976) respectively, have allowed a simplified treatment of both these types of load to be presented with appropriate limits of application.
- (c) *Deletion of appendices.* Material previously in Appendix A and Appendix B has been incorporated into the body of the Standard and Appendix C has been incorporated in a Supplement.

Supplement No. 1, which is the commentary on this Standard, contains supplementary information and explanations of particular technical aspects of the Standard. It includes, as an appendix, examples of calculations in accordance with this Standard, particularly with reference to the selection of a pipe class from AS 1342.

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CONTENTS

	<i>Page</i>
1 SCOPE	4
2 APPLICATION	4
3 REFERENCED DOCUMENTS	4
4 DEFINITIONS	4
5 NOTATION	5
6 VERTICAL LOADS ON PIPES	7
7 INTERNAL WATER LOADS	15
8 COMPACTION	15
9 PIPE SUPPORT AND BEDDING FACTORS	16
10 TEST LOADS	18

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