

Replaces, together with the SIA 197 and SIA 197/2,
Sections 1 and 2 of the SIA 198, Edition 1993

Projet de tunnels – Tunnels ferroviaires
Progettazione di gallerie – Gallerie ferroviarie
Projektierung Tunnel – Bahntunnel

Design of Tunnels Railway Tunnels

197/1

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*Text in figures is normally not translated.
The German original is used instead.*

FOREWORD

The previous Standard SIA 198 *Underground Construction* (1993) mainly dealt with construction procedures; little consideration was given to design.

The present Standards:

- SIA 197 *Design of Tunnels – Basic Principles*
- SIA 197/1 *Design of Tunnels – Railway Tunnels*
- SIA 197/2 *Design of Tunnels – Highway Tunnels*

fill this gap. They are intended for design engineers. They will also be of interest to clients (owners and operators) and those involved in site supervision and construction work.

SIA 197 presents the basic principles to be taken into consideration in the design of traffic tunnels, irrespective of the actual purpose (railway or highway). This includes the various aspects of health and safety and environmental impact. It also includes the requirements for the design of a structure to be constructed underground according to the SIA Structural Standards. The special features that need be considered in the case of highway and rail tunnels are covered in the two specialist Standards SIA 197/1 and SIA 197/2.

In order to simplify application, the three Standards have the same structure up to the titles at the 3rd level. This does, however, frequently lead to the omission of text with only a cross-reference to the other Standard(s).

The requirements for the construction of underground structures are dealt with as before in SIA 198 *Underground Structures – Construction*.

Committee for SIA 197

Represented organizations in the commission SIA 197 and in the Working group SIA 197/1

ASTRA	Federal Roads Office
BAV	Federal Office of Transport
BUWAL	Federal Office for the Environment
EPFL	Swiss Federal Institute of Technology, Lausanne
MGB	Matterhorn Gotthard Railway
RKKF	Fire Services Coordination Switzerland
SBB	Swiss Federal Railways

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Acceptance and coming into force

The central committee for Standards and regulations accepted the present Standard SIA 197/1 on 26th August 2004.

It comes into force on 1st October 2004.

It replaces, together with the SIA 197 and SIA 197/2, Sections 1 and 2 of the SIA 198, Edition 1993.

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