

Ref no : HyD GR/1-50/1

Tel no : 2762 3304

Highways Department
5th Floor
Homantin Government Offices
88 Chung Hau Street
Homantin
Kowloon

12 January 2009

Highways Department Technical Circular No. 2/2009

Design of Highway Structures

Introduction

This Circular deals with design of highway structures. It supersedes HyDTC No. 2/2008, which is hereby cancelled.

Definition

2. For the purpose of this Circular, a "highway structure" is a structure intended to carry vehicles, and/or bicycles and/or pedestrians over, under or through a physical obstruction/hazard. It may be a bridge (which may be in the form of a nullah deck or a culvert exceeding 2 m in diameter or span), a flyover, a viaduct, an underpass, a subway, a walkway cover, a cantilever noise barrier, a noise enclosure or a sign gantry. Road tunnels and earth retaining structures are not regarded as highway structures. A wall designed to act as an abutment to a highway structure, or to support an approach to a highway structure, although in itself may be an earth retaining structure, shall be treated as a highway structure.

In-house Design

3. Where in-house design service for highway structures has been identified, the project office should approach Chief Highway Engineer/Bridges & Structures (CHE/B&S) early in the planning stage of a project for his comment and agreement to undertake the design if the design service from CHE/B&S is required. Should there be sufficient resources within the Bridges and Structures Division to carry out the design in-house, they shall agree on the design programme for the design to be carried out by the Division. When there is inadequate resource within the Bridges and Structures Division to carry out the design, or the project office considers that the design is relatively simple and carrying out of design work by the project office will better suit the implementation programme, the design can be carried out by the project office. In such case the design has to comply fully with the

requirements of the Structures Design Manual for Highways and Railways unless approval is obtained from CHE/B&S for any deviations. The project office should also make their design submission to CHE/B&S for comment.

Design by Consultants or Others

4. In the case where the design of highway structures is to be carried out by consultants or others such as design and build contractors, the design has to comply fully with the requirements of the Structures Design Manual for Highways and Railways unless approval is obtained from CHE/B&S for any deviations. They should also make their design submission to CHE/B&S for comment.

Other Structures

5. For structures not covered by the definition of a highway structure in paragraph 2 above, the Regions and project offices may request design services or advice from the Bridges and Structures Division. This may be entertained when resources are available.

Designs on Structural Repairs and Modifications

6. Design of structural repairs or checking of remedial proposals on structural damage found required during maintenance work of the Regions should normally be carried out by their maintenance teams. Should the Chief Highway Engineer of the Region consider that the structural integrity of a structure is in doubt or the repair/remedial proposal may affect the structural integrity of the structure during the course of the work, he may in his own capacity, or in his absence the Regional Highway Engineer, ask the Bridges and Structures Division to carry out the design work or comment on the proposal. The above arrangement is also applicable to minor additional fixtures or modifications to existing highway structures maintained by the Regions.

(Original signed)

(C S WAI)
Director of Highways