

PART 3 STRUCTURE DESIGN

SECTION 100 DESIGN CRITERIA

101 GENERAL

101.01 PURPOSE

The purpose of this section is to provide Bridge Design Criteria in order to establish a uniform project design and construction policy that will aid the Consultant in the preparation of final design, plans and specifications, and insure safe and uniform structural capacity throughout the project.

Structures shall be designed in accordance with the latest edition, including revisions, of the Standard Specifications for Highway Bridges - published by the American Association of State Highway and Transportation Officials (AASHTO) and the Structural Design Standards included herewith in Part 3 of this Roadway Design Manual. The design shall be based on the latest edition of the AASHTO specifications as existing on the date of the design contract. The Structural Design Standards presented hereunder shall govern over the AASHTO Specifications wherever they are “At Variance With” or “In Addition To” the AASHTO Specifications.

These criteria set forth minimum standards. The Consultant may propose more conservative criteria if, in his judgment, such criteria are required. However, all deviations from the criteria must be justified and receive prior approval from the Abu Dhabi Roads Section Project Manager.

101.02 DEFINITIONS

The following definitions and abbreviations are provided to clarify usage of terms and to avoid the need for excessive verbiage.

AASHTO—American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges, 15th Edition -1992, including all Interim Specifications to date.

Approval—Approval as obtained from the Abu Dhabi Roads Section Project Manager.

Drainage Report—The Drainage Report as produced by the Bridge Drainage Section or, when applicable, by a consultant.

Geotechnical Report—The Geotechnical Report including the Foundation Design Report as produced by the Geotechnical Section or by a consultant.

Special Provisions—The Special Provisions to the Standard Project Specifications as specifically written for each individual project.

Standard Specifications—The Standard Project Specifications

AASHTO Specifications for Structural Supports—The AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, latest Edition.

101.03 BRIDGE TYPES

Bridge Definition—“A ‘Bridge’ is defined as a structure including supports erected over a depression or an obstruction, as water, highway or railway and having a track or passageway for carrying traffic or other moving loads and having an opening measured along the center of the roadway of more than 6.00 meters between undercopings of abutments or springlines of arches or extreme ends of openings for multiple boxes; it may include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.”

Bridge—The term “bridge” is usually reserved for structures over water courses or canyons.

Overpass—A structure carrying the principal route over a highway street or railroad.