

## CONSTRUCTABILITY

Constructability relates to whether the project can be constructed as designed with the information shown in the plans. Many of the necessary items to consider when determining the constructability of a project are included in the Road Design Manual's Quality Control Checklist.

There is a huge advantage in having a construction expert review the concept of a project before even preliminary plans begin. A construction expert can review the proposed project and what it is intended to achieve, the proposed location of a project, the duration for design and construction and various design alternatives. This review should involve a dialogue with the design leaders of the project.

The construction expert will look at the proposed project through the eyes of the constructor and will consider the advantages and disadvantages of the potential design alternatives. There should be a review of the site and of the surrounding areas.

Geology, topography, accessibility, utilities, existing infrastructure, businesses, residences, etc., should be examined from the contractor's perspective. Potential strategies likely to be adopted by the contractors to deal with all these site issues should be discussed with the design team to see how the design might be developed to dovetail with strategies that are beneficial to the contractors and the local population in the prosecution of the project.

The review may go several miles beyond the environs of the project to examine access for large equipment.

There are issues that can impact design decisions and should be examine early. It provides the opportunity for the designer to begin design with certain key issues in mind which can frequently be accommodated in the design without adverse cost impact to the design. It is not that constructability issues drive the design but that design accommodates constructability in its evaluation. This is much better than trying to inject constructability into the design later.

The construction expert should have a broad knowledge of construction in several fields, not just highways and bridges, together with an understanding of, and empathy with, both the designer and the constructor. Constructability is more than simply making life easier for the contractor. It is the incorporation of construction expertise into the design process so that it will meet all of the design requirements, including aesthetics, at the lowest reasonable cost of construction.

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\* Rev. 7/06