

CONSULTING ENGINEERS  
GENERAL MEMORANDUM 11-05

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING AND  
CONSTRUCTION  
OFFICE OF ENGINEERING

New Bridge Design Standard Practice

April 29, 2011

To: CONSULTING ENGINEERS

The “Bridge Design Standard Practices” are hereby revised to encourage the use of Accelerated Bridge Construction. The Bridge Design Manual is revised to include the enclosed Article 1.7.

Very truly yours,

Timothy M. Wilson, PE  
Manager of Highway Design  
Bureau of Engineering and Construction

Enclosure

## 1.7 Accelerated Bridge Construction

Designers shall consider using accelerated bridge construction techniques to

- Improve work zone safety
- Minimize disruption to the traveling public and/or the surrounding area during bridge construction
- Maintain and/or improve construction quality
- Reduce construction duration
- Reduce the life cycle costs and environmental impacts

Accelerated bridge construction may be accomplished with the use of prefabricated elements and systems. Prefabricated components produced off-site can be quickly assembled, and can reduce construction time and cost, minimize forming, minimize lane closure time and/or possibly eliminate the need for a temporary bridge.

Additionally, accelerated construction may also be realized by using components such as integral abutments. Structures with fully integral abutments require a minimal number of piles, require abutments composed of only stems and require no permanent bearings.

When appropriate, specialized equipment and/or site specific construction methodologies should be considered to reduce the overall duration of the work.

Accelerated construction techniques and methodologies often involve traffic detours, extended lane or road closures and extended work hours. There are compromises and trade-offs inherent in such an approach to a project, therefore close coordination with the Department's Traffic Section and Construction District is required during the consideration and development of the accelerated construction plan.

For information concerning accelerated bridge construction techniques with prefabricated elements and systems see "Connection Details for Prefabricated Bridge Elements and Systems," Publication No. FHWA-IF-09-010. This publication can be accessed on the internet at the following address:

<http://www.fhwa.dot.gov/bridge/prefab/if09010/>

For additional information concerning accelerated bridge construction, designers should also review information and details available from the Federal Highway Administration (FHWA), other State Departments of Transportation and industry organizations.