



U.S. Department of Transportation  
Federal Highway Administration



# Shear Load Rating using Modified Compression Field Theory (MCFT)

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The modified compression field theory (MCFT) has been used for the past few decades to provide safe and consistent shear design of reinforced and prestressed concrete bridge members. While it has been used for new design, its use for shear load rating can be more challenging. Recommendations provided in recent reports and recently approved for introduction into the AASHTO *Manual for Bridge Evaluation* have created a framework for using MCFT for shear load rating.

The intent of this workshop and the accompanying example report (FHWA-RC-24-0005) is to provide background, context, and foundational knowledge to bridge owners, designers, and load raters responsible for load rating reinforced and prestressed concrete bridges. The content of this workshop will allow bridge owners, designers, and load raters to estimate the available shear resistance of reinforced and prestressed concrete components more consistently and accurately. The workshop builds on a basic knowledge of reinforced and prestressed concrete bridge design, analysis, and load rating.

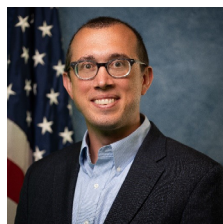
The workshop is recommended to be offered virtually as two 2.5-hour sessions over two days. Other delivery options may be considered as needed.



Source: David Garber



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## CONTACT US

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## TARGET AUDIENCE

This workshop is targeted to structural engineers associated with the load rating and analysis of reinforced and prestressed concrete highway structure construction and rehabilitation projects.

This may include:

- Federal Highway Administration Division Office Bridge/Area Engineers.
- Federal Lands Highway bridge design, construction, and load rating engineers.
- State transportation agency bridge construction/maintenance, materials, and load rating engineers. Hosting state agencies are encouraged to invite their local agency and private sector partners.



## LEARNING OUTCOMES

Upon completion of this training, participants will be able to:

- Use MCFT for shear load rating.
- Determine appropriate parameters to use in the shear load rating process with MCFT.



## EXPECTATIONS

Attendees should have a reliable internet connection for virtual deliveries of the workshop.

Certificate of completion will be provided to attendees.