Accelerated bridge construction (ABC) has become the preferred choice in rapid-renewal bridge structures. Benefits of ABC, such as shorter construction time and reduced work-zone impacts, are well established. However, the accelerated speed of ABC can introduce unique challenges, making conventional quality assurance (QA) practices incomplete to ensure the quality of the delivery process and the delivered bridge. While 45+ State departments of transportation (DOTs) have documented experience with at least one ABC technology, quality is still managed at the project level.

Through five State DOT case studies and analyses, this study documents how QA programs are effectively implemented on ABC projects. The body of knowledge gathered under this study was then used to develop an ABC QA program document and visual-aid inspection handbook for field reference.