

Prefabricated Bridge Elements and Systems

Reducing Construction Time

Prefabricated Bridge Elements and Systems (PBES), an Accelerated Bridge Construction (ABC) method, are manufactured offsite and then transported and put together at the bridge location. This technique produces shorter construction schedules and helps ensure consistency in product quality. PBES is a Federal Highway Administration (FHWA) Every Day Counts Round 1 (EDC-1) innovation that Pennsylvania championed.

What are the benefits?

- **Reduces onsite construction time and congestion**
- **Saves time** as materials can be built concurrently
- **Saves cost** due to fewer delays and road closures
- **Provides safety advantages** due to fewer workers being exposed to moving traffic for a shorter period of time

How does it work?

PBES include different bridge components that are constructed offsite under controlled conditions and moved to the work site for rapid installation. Concrete placement and curing, steel reinforcement installation and formwork removal can all be done off-site.



How do I learn more?

To learn more about this innovation, visit www.penndot.pa.gov/stic or email penndotstic@pa.gov.