Accelerated Bridge Construction

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32nd Annual North Central Local Roads Conference Rapid City, SD - October 18-19,2017

VHP PLUS

Outline

- What is Accelerated Bridge Construction?
- Steel Bridge Benefits
- Accelerated Construction Using
 - Bolt-A-Bin Embankment
 - Geotextile Reinforced Soil-Integrated Bridge System (GRS-IBS)
- Backfill Requirements
- Ease Of Install

What is ABC?

- ABC is a paradigm shift in the project planning and procurement approach where the need to minimize mobility impacts which occur due to onsite construction activities are elevated to a higher priority.
- Intrinsic benefits of the ABC approach include improvements in:
- Safety
- Quality
- Durability
- Social costs and
- Environmental impacts

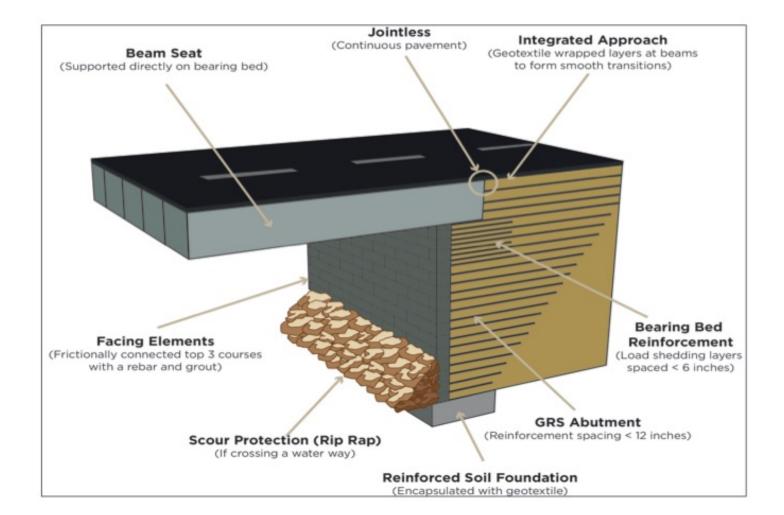
Accelerated Bridge Construction

Project Planning

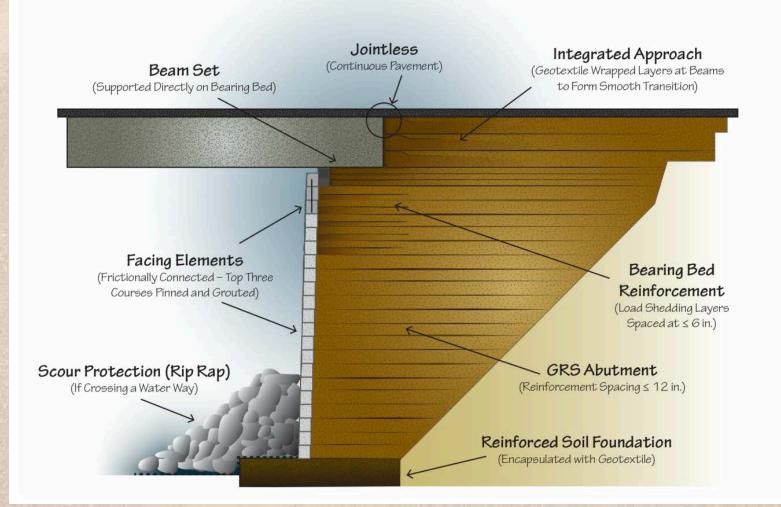
 Geotechnical Solutions
 Rapid Embankment Construction

Structural Solutions
Prefabricated Elements & Systems
Structural Placement Methods

Section View of GRS IBS



GRS IBS – Cross Section



Bolt-A-Bin



Bolt-A-Bin



Bolt-A-Bin



Overview



Accelerated Bridge Complete Install



Summary

- Accelerated Low Volume Bridge Construction is attainable utilizing county forces
- Three main components:
 - Weathering Steel Bridge
 - Precast Sill or Direct Placement on Bearing Bed
 - Bolt-A-Bin or GRS-IBS Abutment System
 - All components can be installed by county forces

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Questions?



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