

GPI PA Preservation Applications - District 4-0

• E04128 – “Composite” PPC Overlay

– SR 1009 over Starrucca Creek

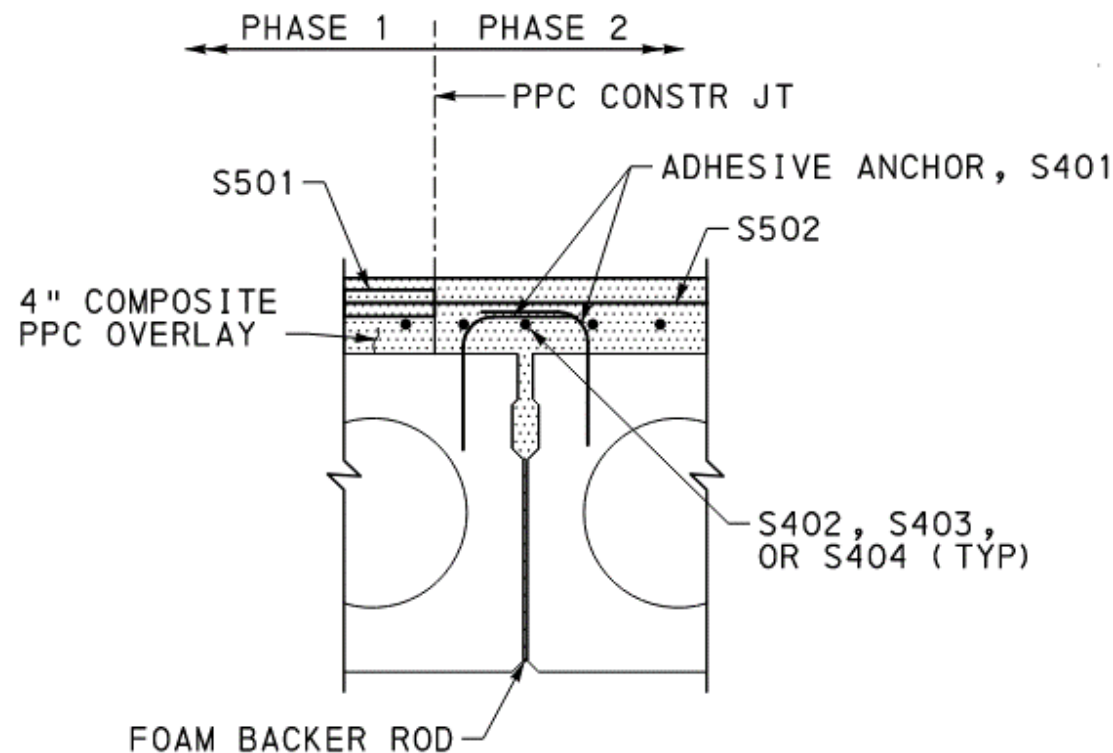
- *Built in 1959*
- *Bit. Overlay on adj. box beams*

– Original approach:

- *Replace Barriers*
- *Beam Repairs*
- *Conc Sub. Repair*

– Revised approach:

- *4” Min PPC Overlay*
- *Design adhesive anchors for Horizontal Shear*
- *PPC to act as the deck*



PHASE LINE DETAIL

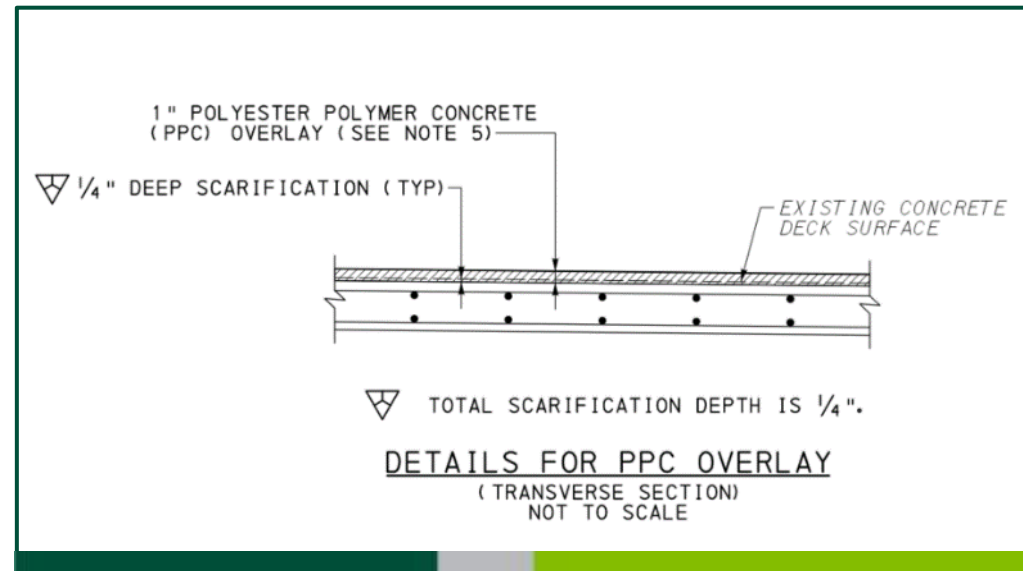
GPI PA Preservation Applications - District 5-0

- **E04179 – SR 222 Berks County**
 - GPI bridges as Sub
 - 6 Total Structures: (built 1974)
 - 2 over *US 222 Business* – *Steel Girder*
 - 2 over *Leesport Ave* – *Spread Box*
 - 2 over *Willow Creek Road* – *Spread Box*



GPI PA Preservation Applications - District 5-0

- **E04179 – SR 222 Berks County**
 - In Depth Inspection (including sounding)
 - Reports
 - Finalize Scope
 - *Input from District 5-0*
 - *Deck repairs (ASC)*
 - *PPC Overlay*
 - *Beam end repairs*
 - *Spot Paint*
 - *Concrete Sealing*



GPI PA Preservation Applications - District 4-0

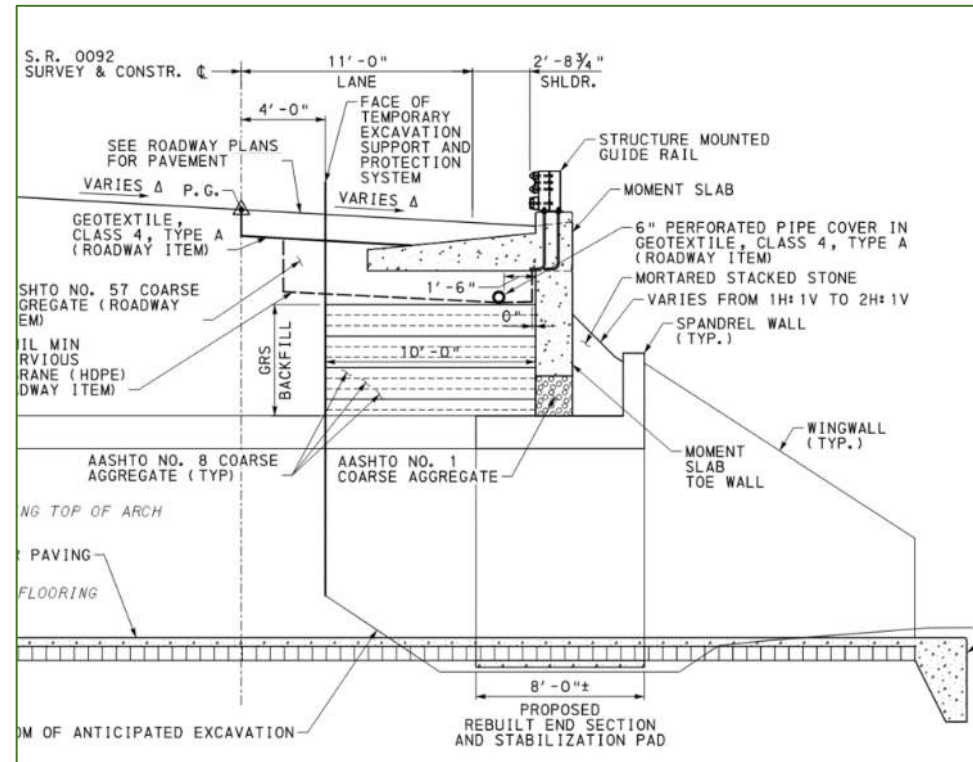
- **E03923 – SR 92, Wyoming County**

- Stone Arch Rehab

- *Built in 1905*

- Scope:

- *Rebuild Portion of Arch*
- *Rebuild Stone Wall*
- *Repointing/Repair*
- *Install GRS*
- *Install Moment Slab*
- *Install Apron*



GPI PA Preservation Applications - District 4-0

- **E03923 – SR 92, Wyoming County**



GPI PA Preservation Applications - Allegheny County

- **In Depth Inspection**
 - Bituminous Overlay
 - Deck Cores for testing:
 - *Compressive Strength*
 - *Chlorides*
 - Min: 1403 psi
 - Avg: 2367 psi
 - Chloride: 15.8 pcy
 - DM-4 Figure 5.5.2.3-1:



(2) Research studies have found chloride contamination accelerates corrosion when chloride levels are between 1.0 and 2.0 pcy for black bars (Lindquist, Darwin and Browning, 2005) and between 3.6 and 7.5 pcy for epoxy-coated bars (Fanous, Wu, 2000). FHWA has not mandated threshold values for acceptable levels of chloride concentration. Contamination is often deemed as significant at the 1.5 to 2 pcy level. However, bridge decks have continued to perform well with 6 to 9 pcy. Higher levels of chloride contamination will be acceptable on lower level routes when programming rehabilitation/replacement strategies are considered. Each bridge will be evaluated independently.

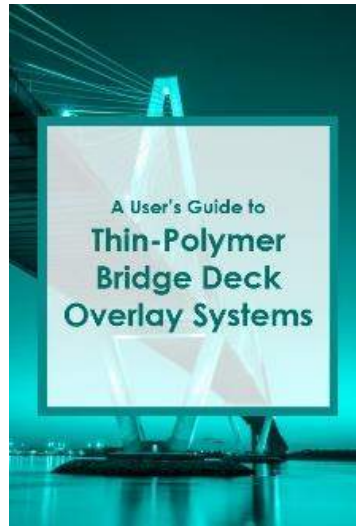


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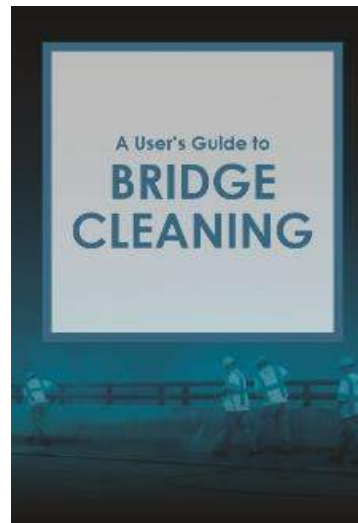
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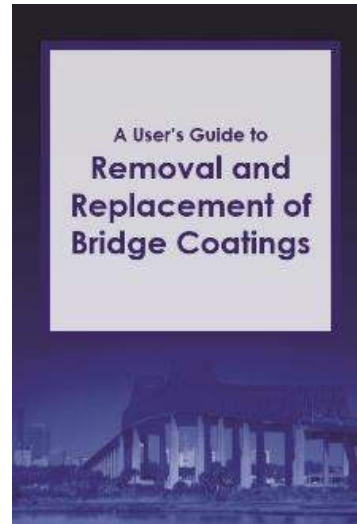
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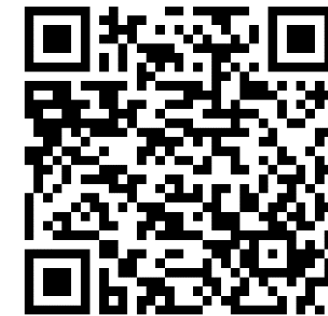
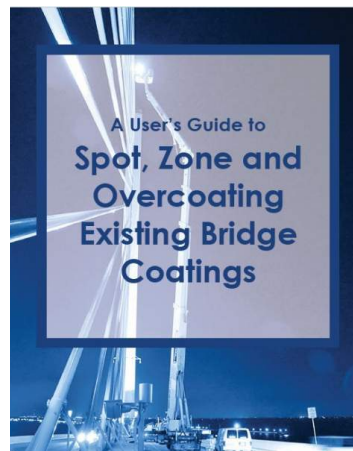
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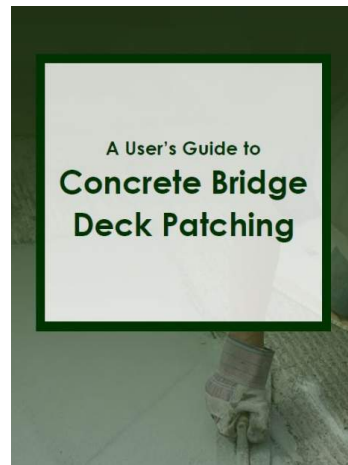
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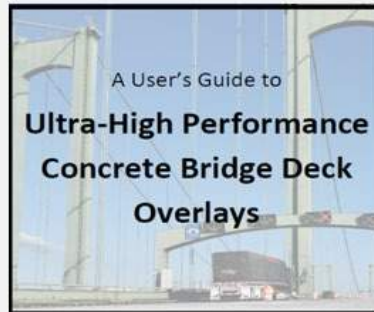
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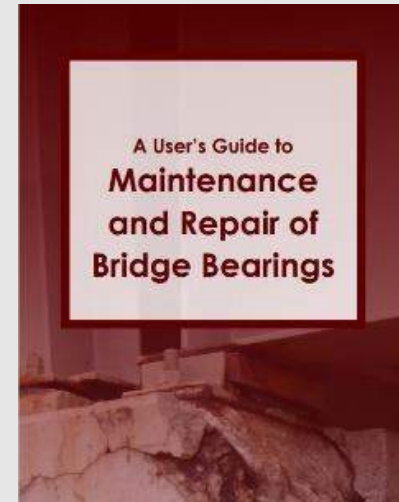
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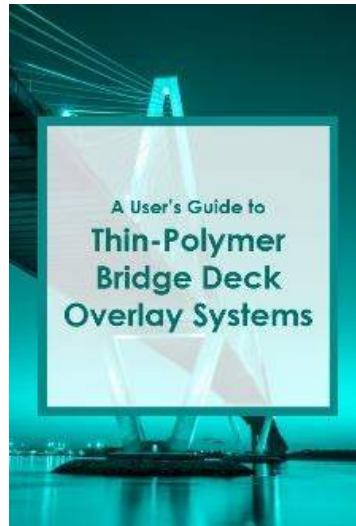


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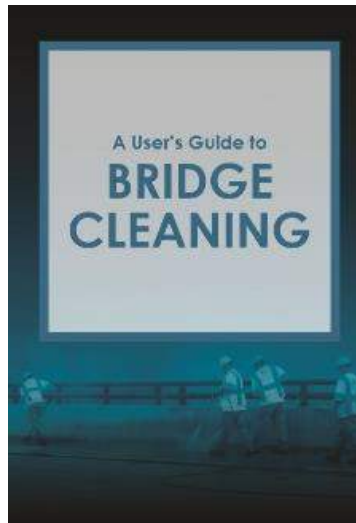
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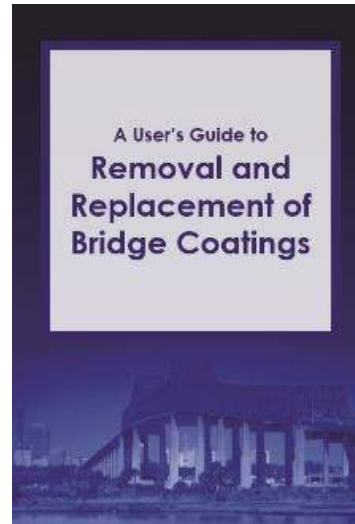
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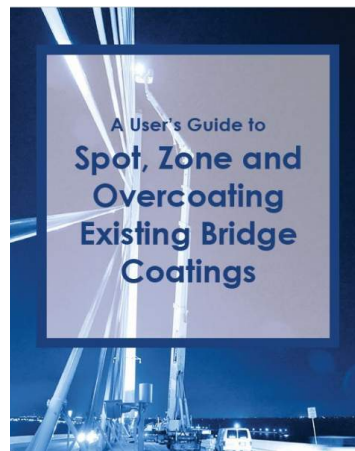
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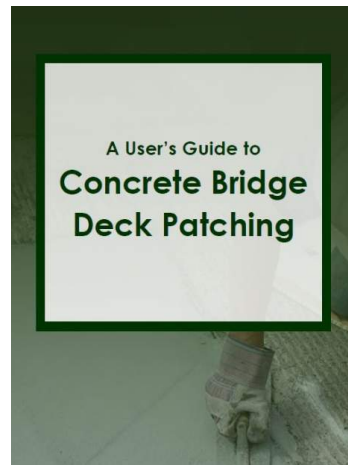
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