T-8  AASHTO Technical Subcommittee for Movable Bridges
July 9, 2012  Austin, Texas
ZellComp’s Previous Experience in Portland, OR
Partial Deck Replacement - Broadway - 2010

4 Lanes of Traffic; ADT = 30K; November 2011

T-8 Committee
July 9, 2012
Installation of the ZellComp® Composite Deck on the Morrison Bridge, Portland, OR

Double Bascule Bridge

ADT = 50,000  Built in 1958
Morrison Bridge: Open Steel Grating - 6 Lanes

County’s Reason for Solid Decking - Traction

T-8 Committee

July 9, 2012
ZellComp Composite Deck Design

Prefabricated & Pre-Engineered Composite Decks
4.5”, 5”, 6.5” and 7” in Production

Top Sheet Pultruded

Bottom Sections Pultruded
Pultrusion Process

Basic Steps in Pultrusion

Heated Die

Cured Profile

Resin
West Leaf Opened – July 2011
Installation of the ZellComp Composite Deck System on the Morrison Bridge

4 Quads – Staged Construction 1&2 / 3&4

T-8 Committee

July 9, 2012
Morrison Bascule Bridge – Portland, OR

- Started July 2011
- Staged Construction

T-8 Committee

July 9, 2012
Bottom Sections Easy to Install

South Side (Quads 1 & 2)  42’ 9” Long;  ~ 1,200 Lbs

T-8 Committee  
July 9, 2012
Bottom Sections on Steel Stringers

Connections: Neoprene used with Structural Bolts

T-8 Committee
Installation of Bottom Sections

Structural Bolts (TC) with Neoprene –

Tested by Multnomah County / Oregon DOT

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July 9, 2012
Field Adjustment: Easy with the ZellComp Deck

Toe and Heel ~ 3” Off at Steel Structures

T-8 Committee

July 9, 2012
Old Bridges Require Adjustments on Site

Last Bottom Section; Cut to Exact Fit at Heel

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July 9, 2012
Installation Advantages of the ZellComp Deck

Contractor Driving on Deck – Crane Not Needed
Installation Advantages of the ZellComp Deck

Contractor had Weight Balance Requirements

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July 9, 2012
Installation of the Guardrails Attached to Deck

Contractor Used Old Rails as a Template

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July 9, 2012
Installation of the Guardrail Post Pads

Reinforcement of the Local Deck Area for Posts

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July 9, 2012
Installation of the Top Sheets

Light Weight Composites – Accelerates Installation

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July 9, 2012
ZellComp’s Proprietary Drill Machines

3rd Generation Fastener System Installation

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July 9, 2012
Installation of the Top Sheets

Rain, Rain … let it Rain - Weather No Effect

T-8 Committee

July 9, 2012
Sand Blast Top Sheets for WS

Sand Blasting on Site More to Clean the Surface

T-8 Committee

July 9, 2012
Wear Surface Installation

Wet the Deck Surface with Primer/Adhesive

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Applying the Aggregate for the Polymer Concrete WS
Solid Surface vs Open Steel Grating

East Leaf Opened – November 2011

T-8 Committee July 9, 2012
Northern 2 Quads Installation went Faster

T-8 Committee

July 9, 2012
Morrison Bridge

Opened to Traffic on March 24, 2012

T-8 Committee
ZellComp has ADT ~ 105,000 with 8 Installations

Thanks to the AASHTO T-8 Movable Bridge Committee