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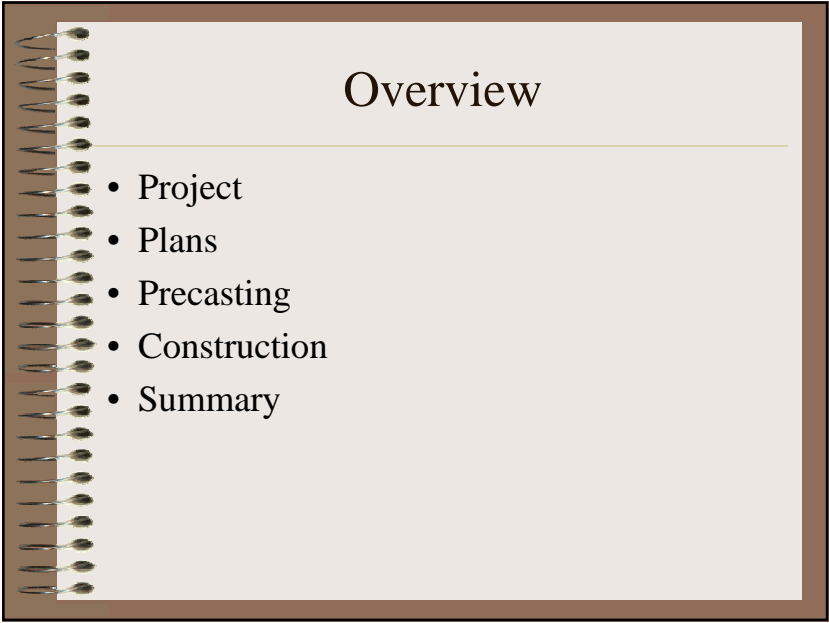
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IA Highway 60 over Floyd River  
(O'Brien County)



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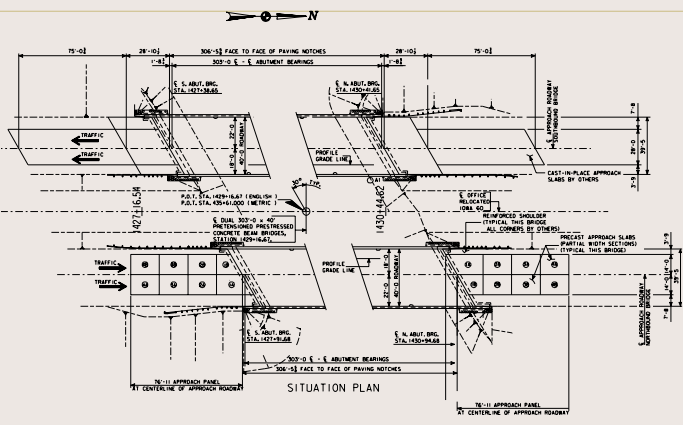
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Bridge Description



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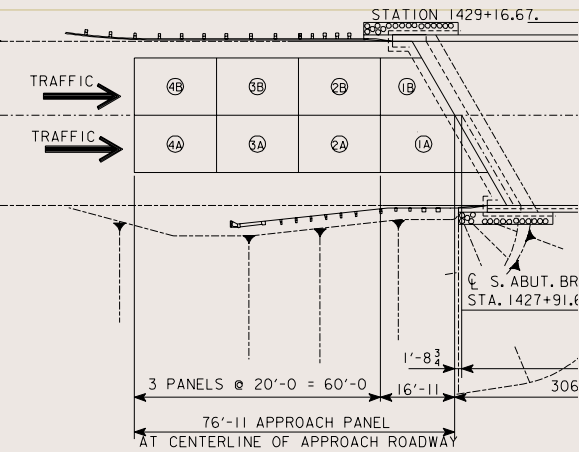
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Panel Layout



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## Panels

- 12 inches thick
- Skewed panel at abutment
- 14 ft x 20 ft

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## Properties

- $f_c = 7,000$  psi (5000 psi required)
- Precast w/ mild reinforcing
- 1 inch diameter PT ducts ~ 2 ft spacing
- 0.6 in diameter strands, 75% of 270 ksi ~ 40 kips/strand

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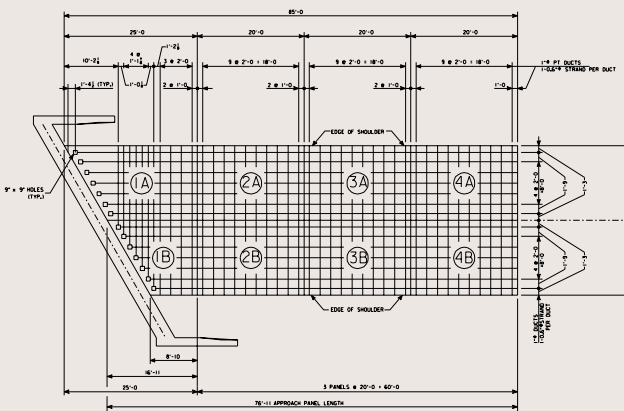
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## Post-tensioning Layout



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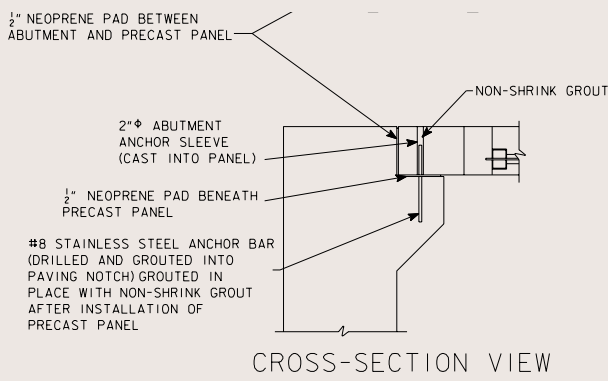
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# End Connection



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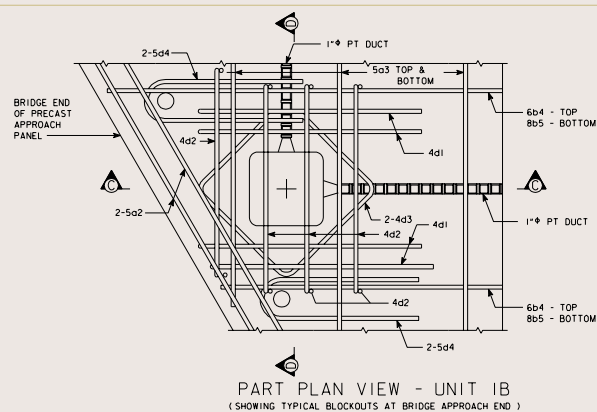
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# Blockout Plan



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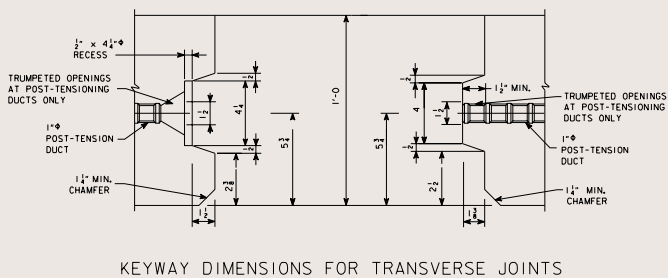
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# Transverse Keyway



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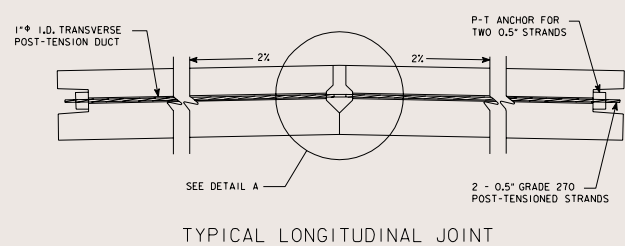
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# Longitudinal Joint



TYPICAL LONGITUDINAL JOINT

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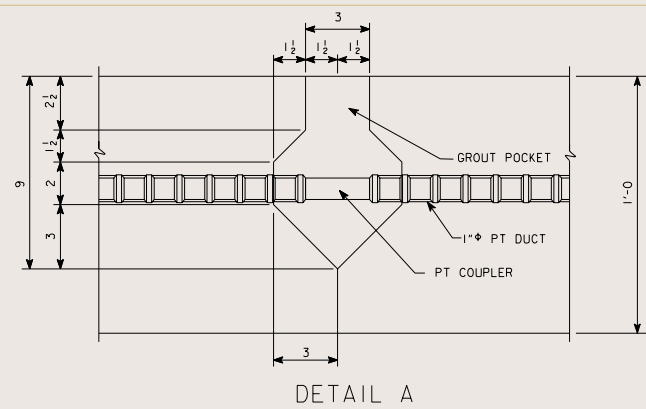
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# Longitudinal Joint



DETAIL A

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# Casting of Panels

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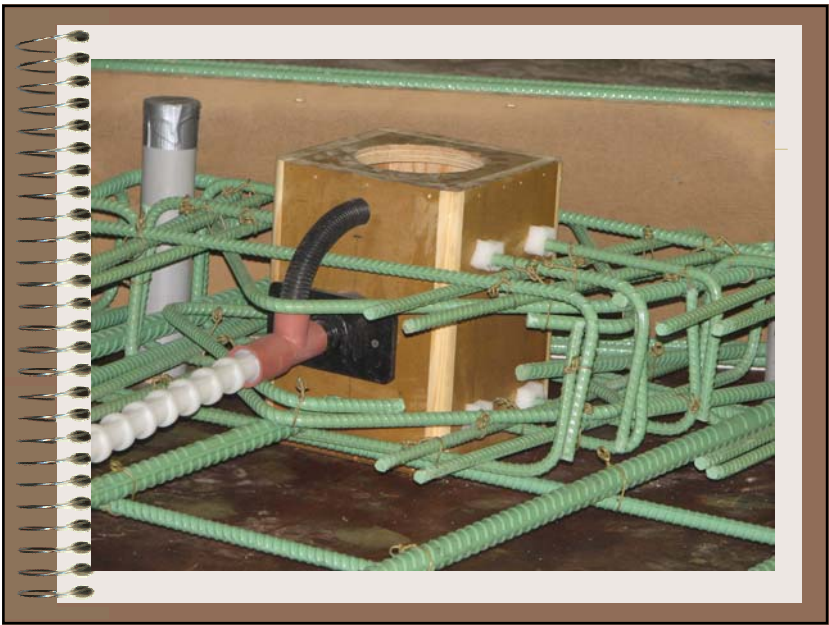
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### Panel Fit Up Test

- Check PT alignment
- Keyways

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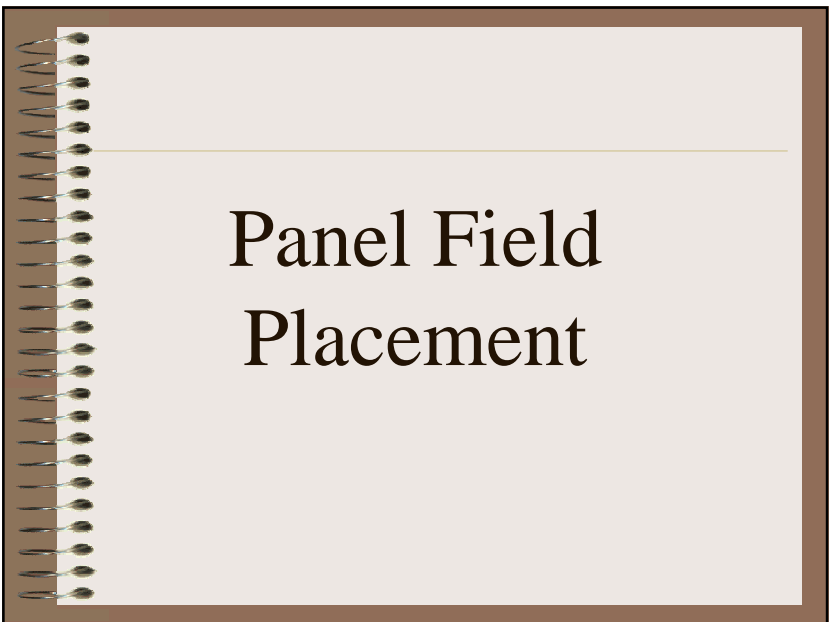
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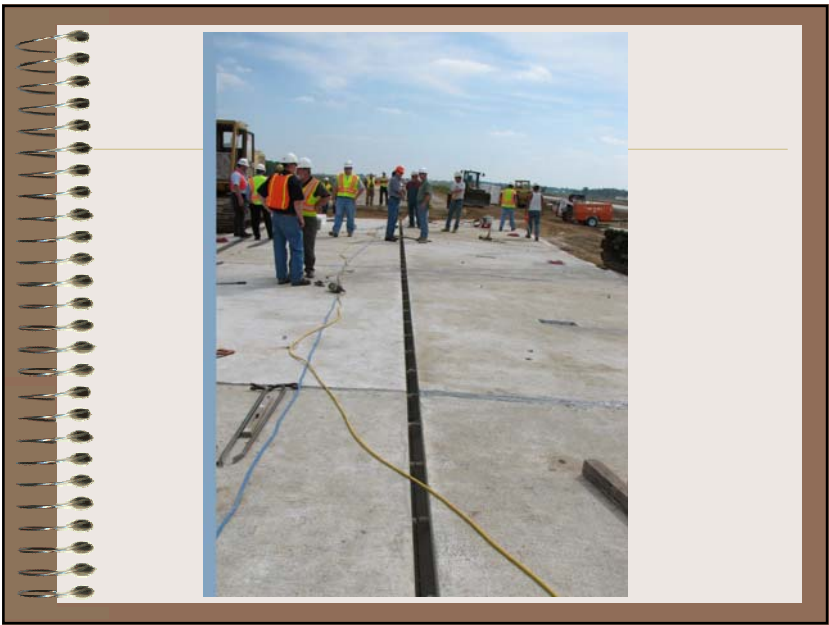
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## Grouting PT and Underslab





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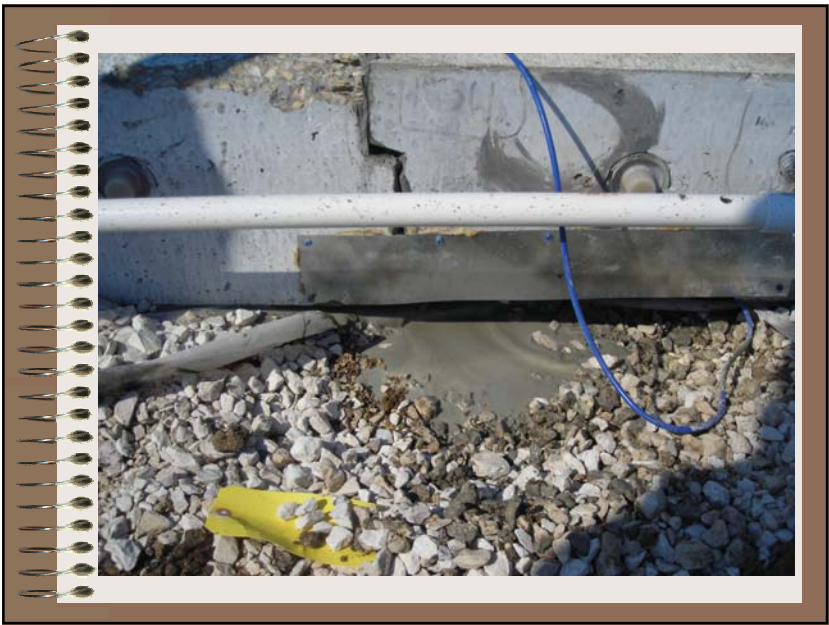
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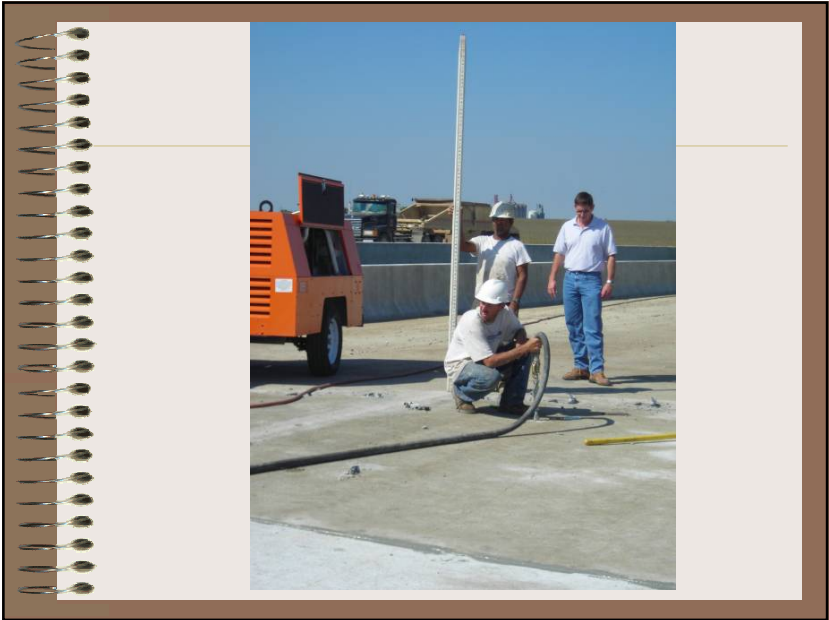
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### Summary

- Reinforcement around pocket
- Longer pocket (longitudinal)
- Keyway issues (Steel Forms)
- Detail between slab joints (neoprene doughnuts)

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### Summary (Cont.)

- Metal PT ducts
- Provided funds for mockup
- More / early involvement of precasters and post-tensioning industry
- Repair methods in place

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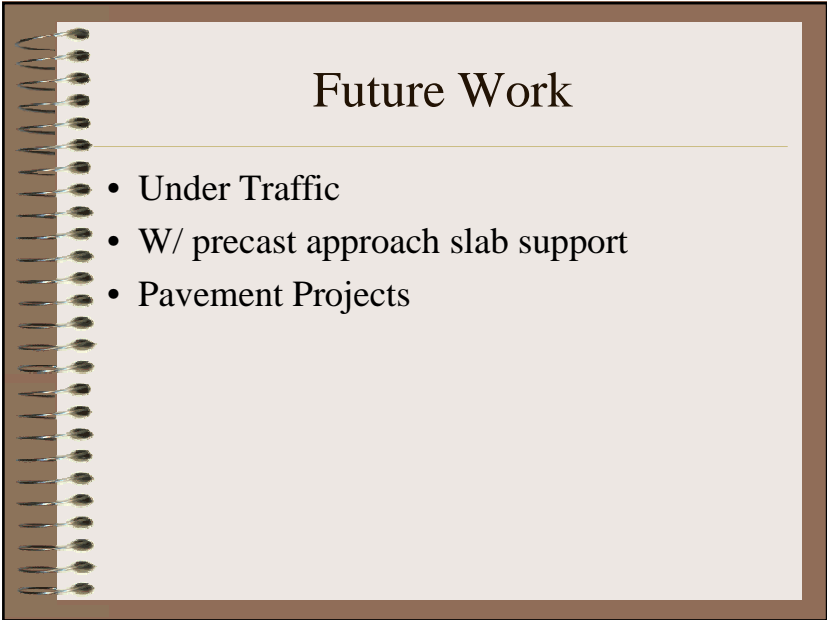
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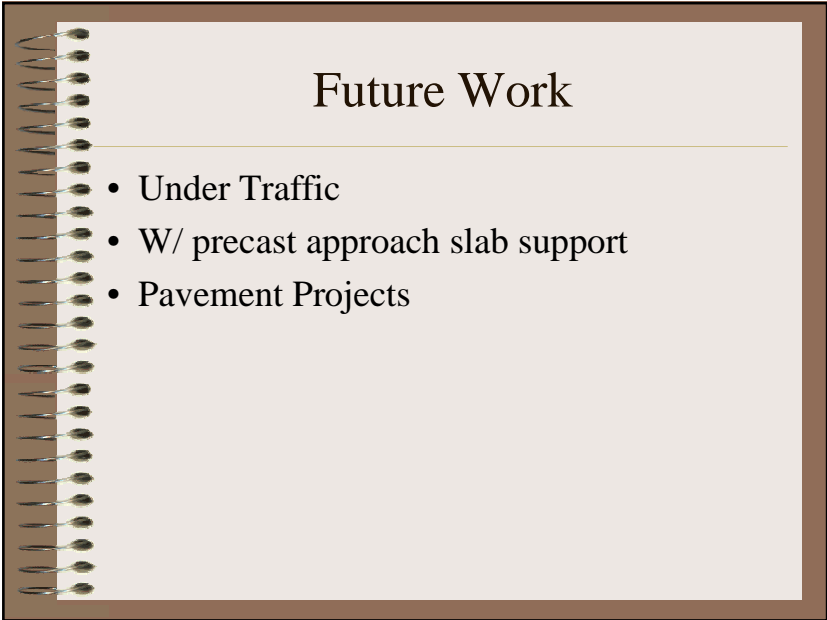
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A graphic of a spiral-bound notebook with a brown cover and a cream-colored page. The spiral binding is on the left side. The page contains the title 'Future Work' at the top, followed by a horizontal line and a bulleted list of three items: 'Under Traffic', 'W/ precast approach slab support', and 'Pavement Projects'.

## Future Work

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- Under Traffic
- W/ precast approach slab support
- Pavement Projects

- 
- A graphic of a spiral-bound notebook with a brown cover and silver spiral binding on the left side. The notebook is open to a light beige page. The title 'Future Work' is centered at the top in a large, black, serif font. Below the title is a thin horizontal line. Underneath the line is a bulleted list with three items: 'Under Traffic', 'W/ precast approach slab support', and 'Pavement Projects'. The list is in a black serif font. The entire notebook graphic is set against a dark brown background.
- # Future Work
- 
- Under Traffic
  - W/ precast approach slab support
  - Pavement Projects

[illegible]