

**SR 202L**

# A YEAR TO REMEMBER

## SANTAN FREEWAY DESIGN BUILD I-10 AND SR101L HOV RAMP BRIDGES

Mark A. Chase, PE - AZTEC Engineering  
Olivier F. Mirza, PE - Parsons Brinkerhoff



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SANTAN FREEWAY (SR 202L)  
(I-10 TI TO GILBERT ROAD)  
CONSTRUCT HOV LANES

DESIGN-BUILD PROJECT

202 MA 044 H745701C  
NH-EB-STP-202-C(202)N

# SR 202L

## PRESENTATION AGENDA

- PROJECT OVERVIEW (MARK)
- COLLABORATION / VALUE ANALYSIS (OLIVIER)
- CONSTRAINTS AND SOLUTIONS
  - I-10/SR202L – OLIVIER
  - SR101L/SR202L - MARK
- CONCLUSIONS (MARK)
- QUESTIONS



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## PROJECT OVERVIEW

- PROJECT TEAM
  - OWNER
  - GENERAL ENGINEERING CONSULTANT



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## PROJECT OVERVIEW

- PROJECT TEAM
  - DESIGN-BUILDER / PROJECT MANAGER
  - DESIGN / DESIGN MANAGEMENT



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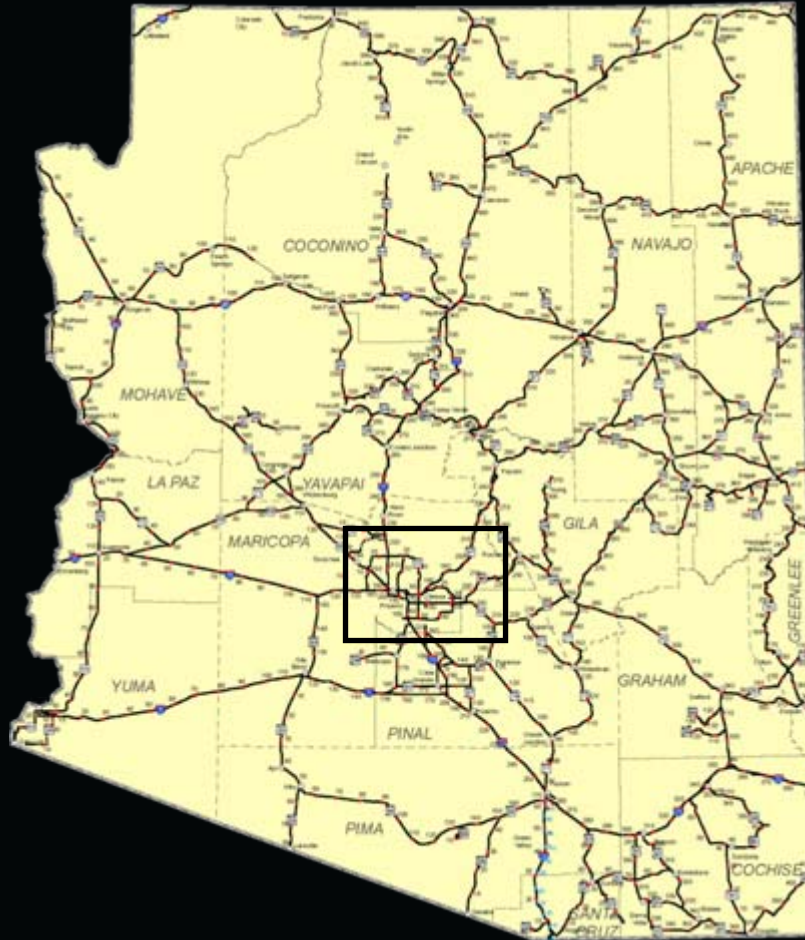
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## PROJECT OVERVIEW

- LOCATION



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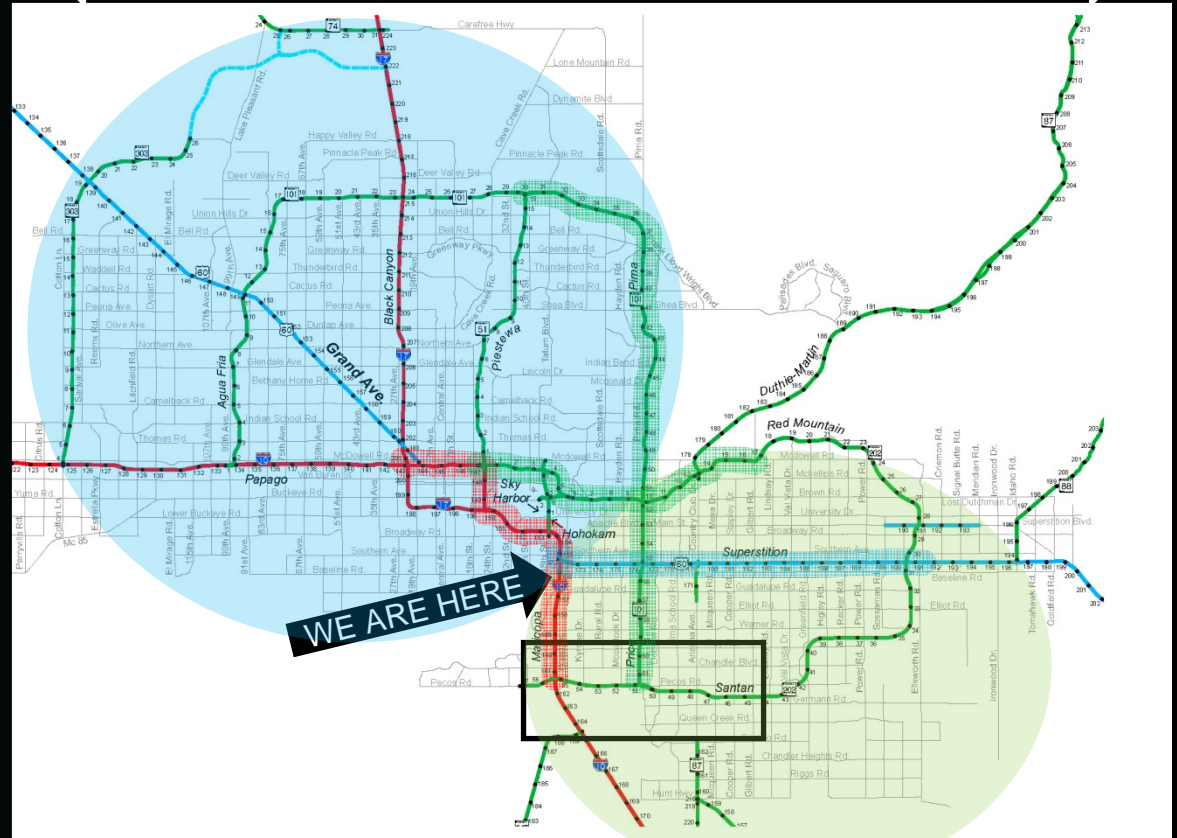
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## PROJECT OVERVIEW

• LOCATION

~60 miles

~45 miles



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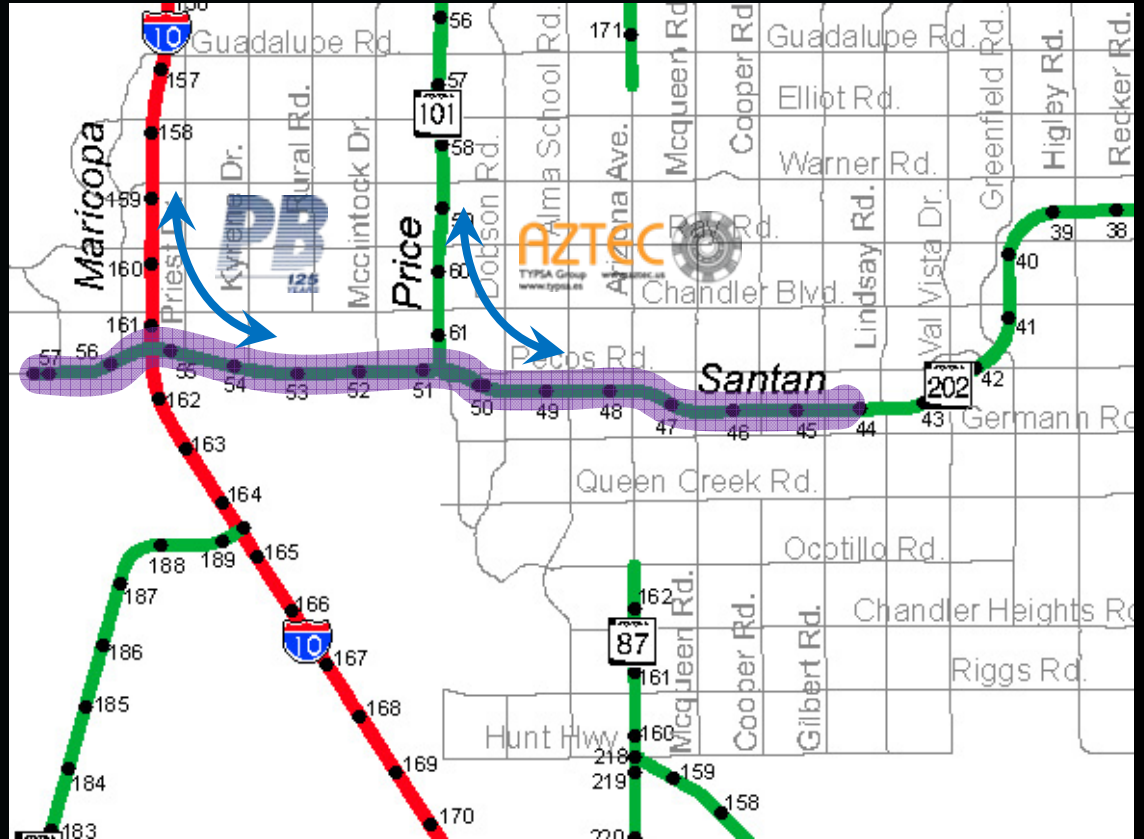




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## PROJECT OVERVIEW

- COMPONENTS



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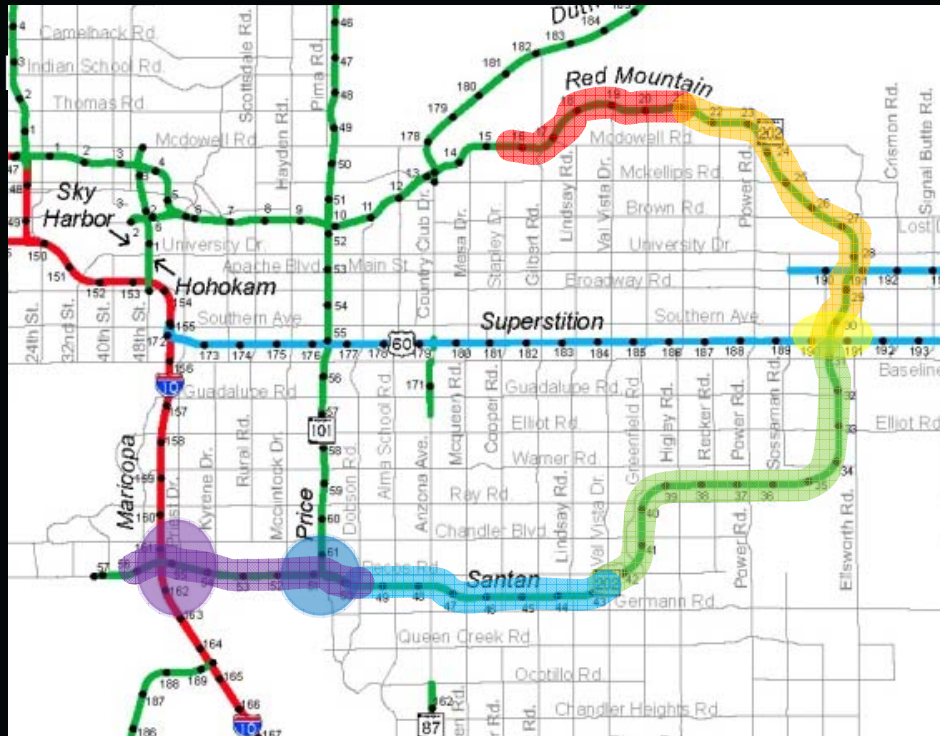
## PROJECT OVERVIEW

- IMPORTANT BACKGROUND PERSPECTIVE

- PROJECT ORIGINS / ORIGINAL PROGRAMMING

- ARRA-

- ADOT



- PERSPECTIVE



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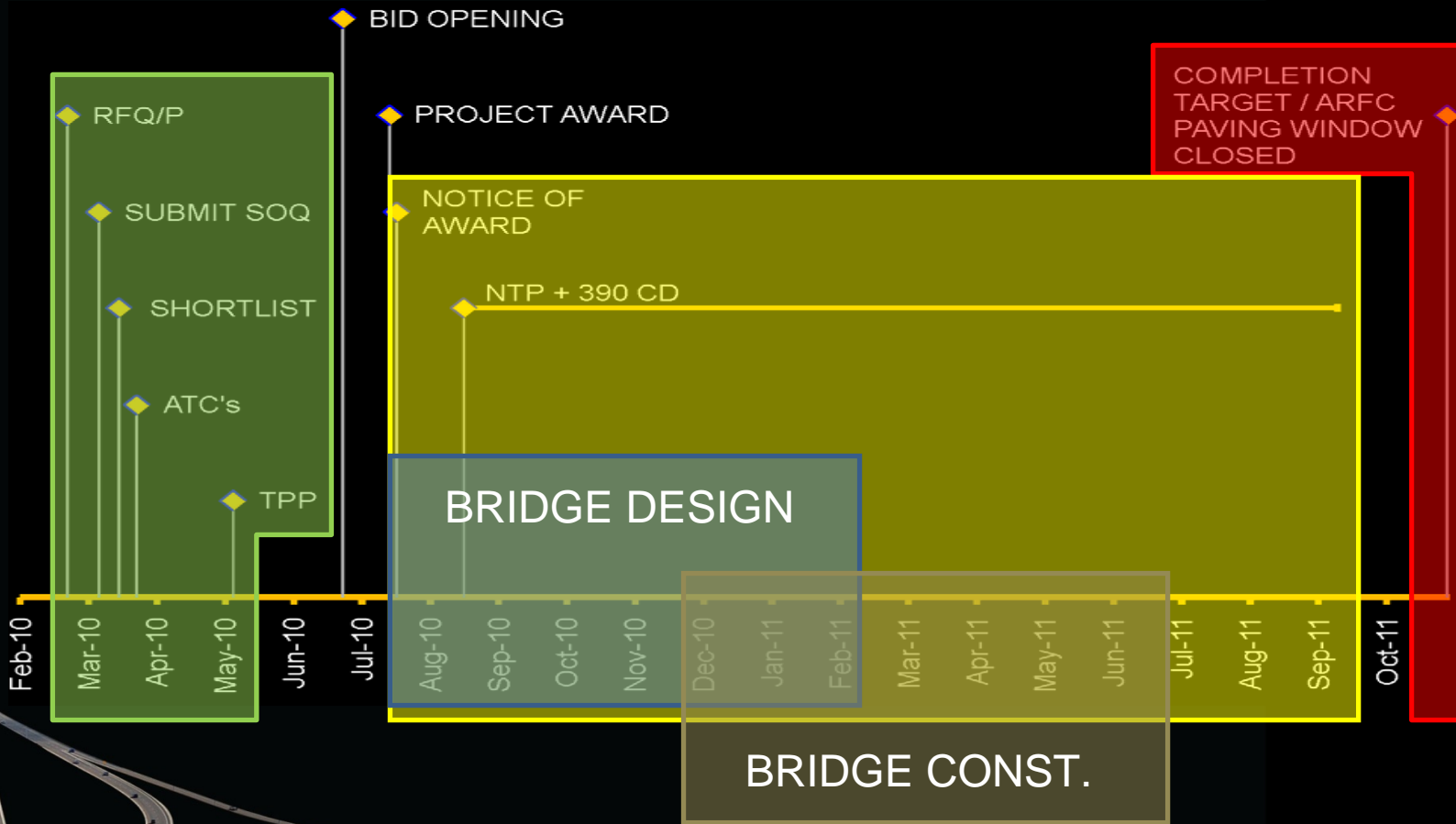
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## PROJECT OVERVIEW

### •TIMELINE (PROJECT BACKDROP)



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## PROJECT OVERVIEW

- BID RESULTS
- DEPARTMENT ESTIMATE (2010) - \$116 million
- TIME LIMIT > 725 DAYS = UNRESPONSIVE
- $A+(B*\$38,000) / TP$
- FNF/FLATIRON JV - \$90 million – 420 days – 95 points – 1,115,412
- KIEWIT/SUNDT JV – \$95 million – 435 days – 102 points – 1,086,303
- PULICE/GRANITE JV - \$85 million – 390 days – 103 points – 963,301



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## COLLABORATION / VALUE ANALYSIS

- KEY THEMES EMERGED

1.BUILDER / DESIGNER PROBLEM SOLVING

2.MOST “ECONOMICAL” VS. BEST VALUE

3.“GO FAST” DESIGN AND CONSTRUCTION

4.FAMILIAR STRUCTURE TYPES / METHODS

5.EFFECTIVE MAINTENANCE OF TRAFFIC



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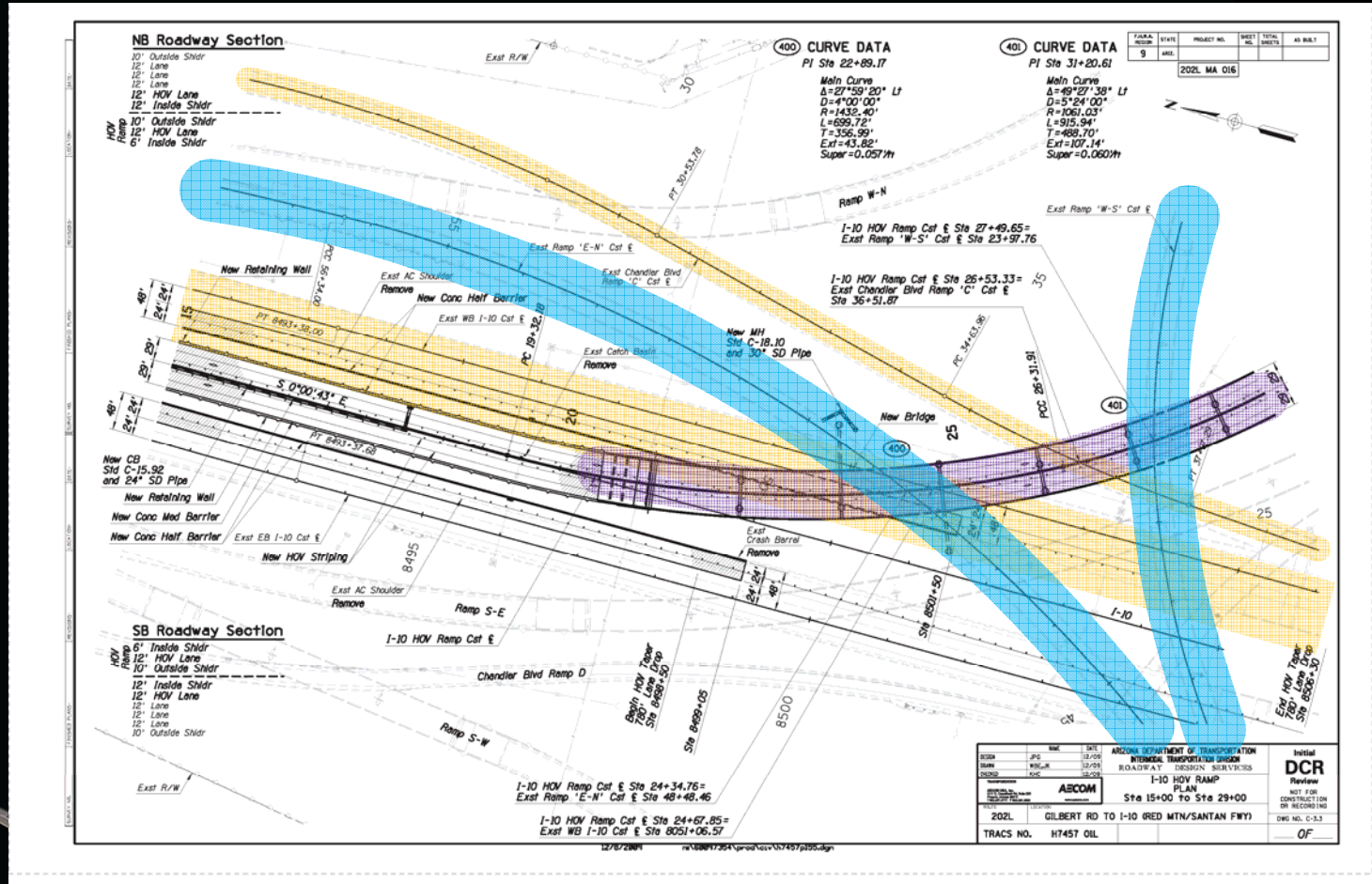
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# CONSTRAINTS



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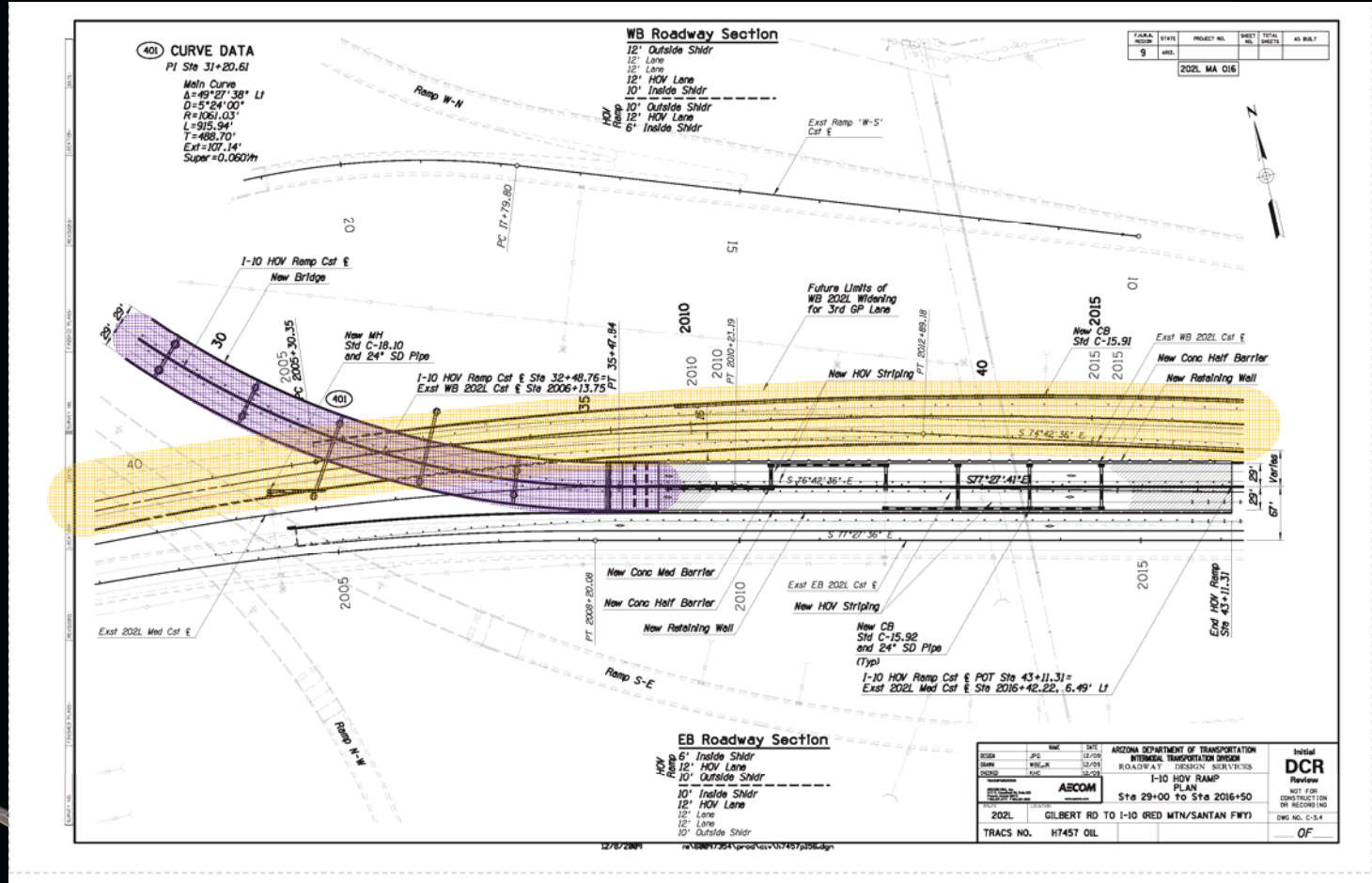


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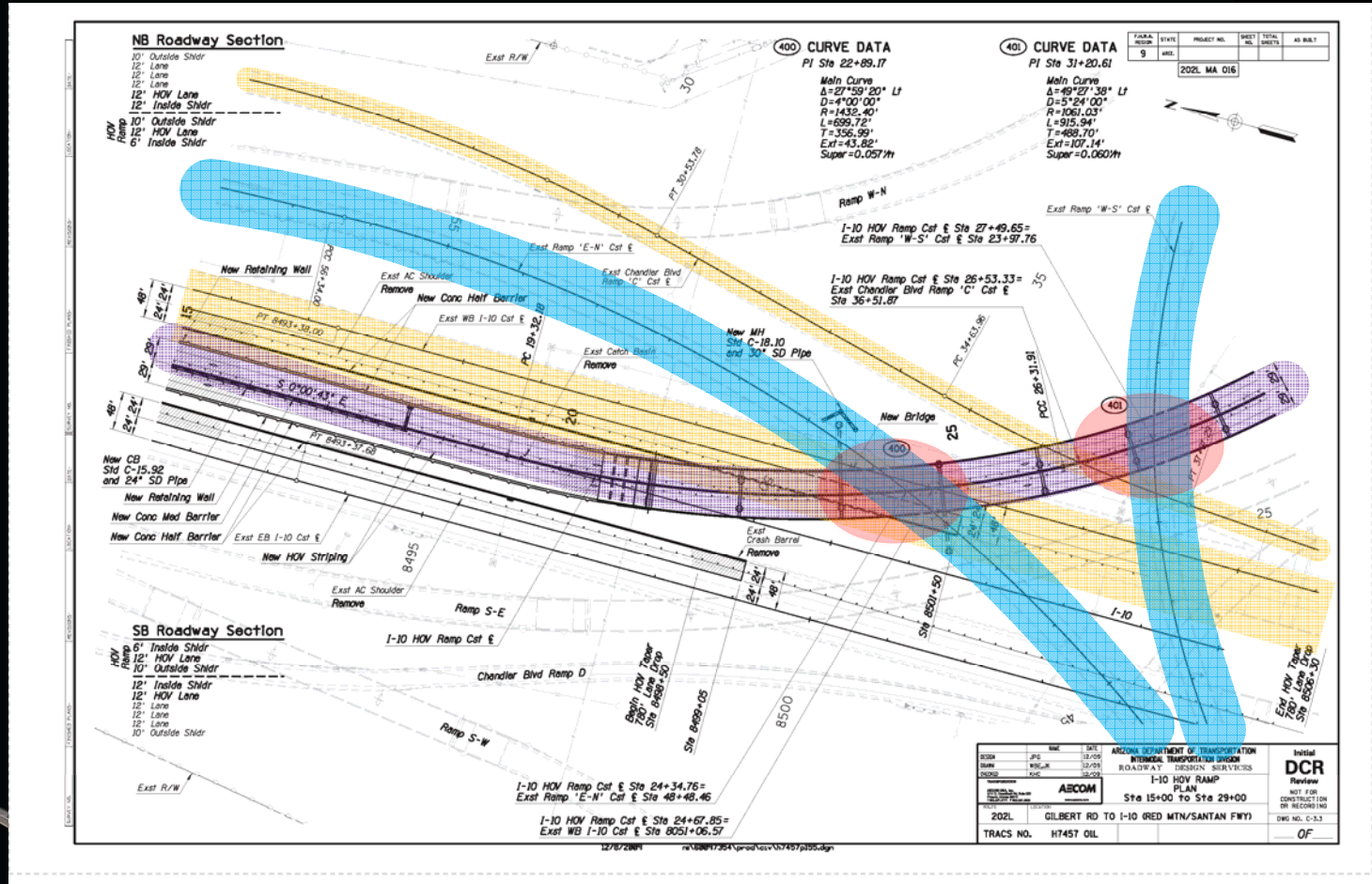
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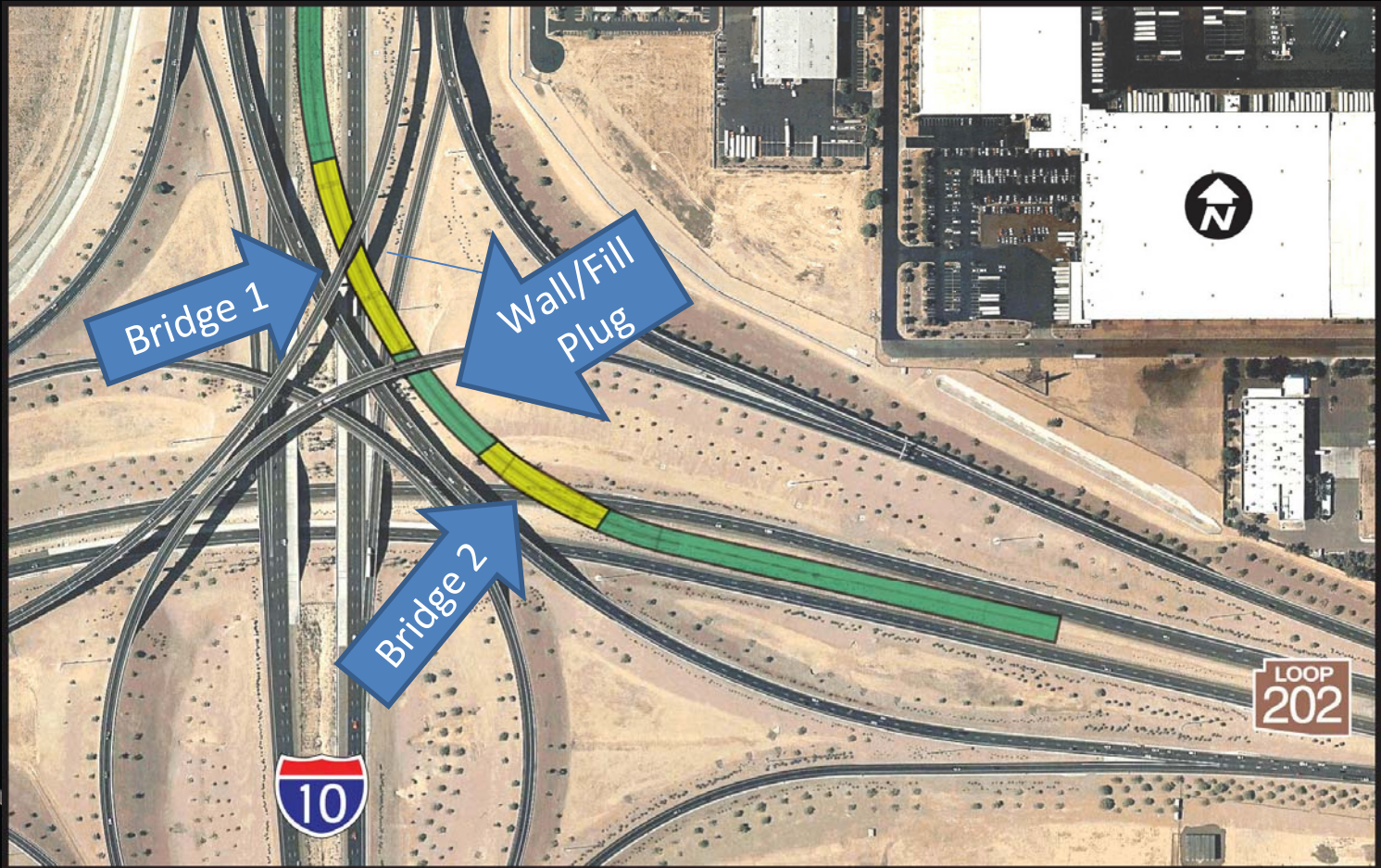


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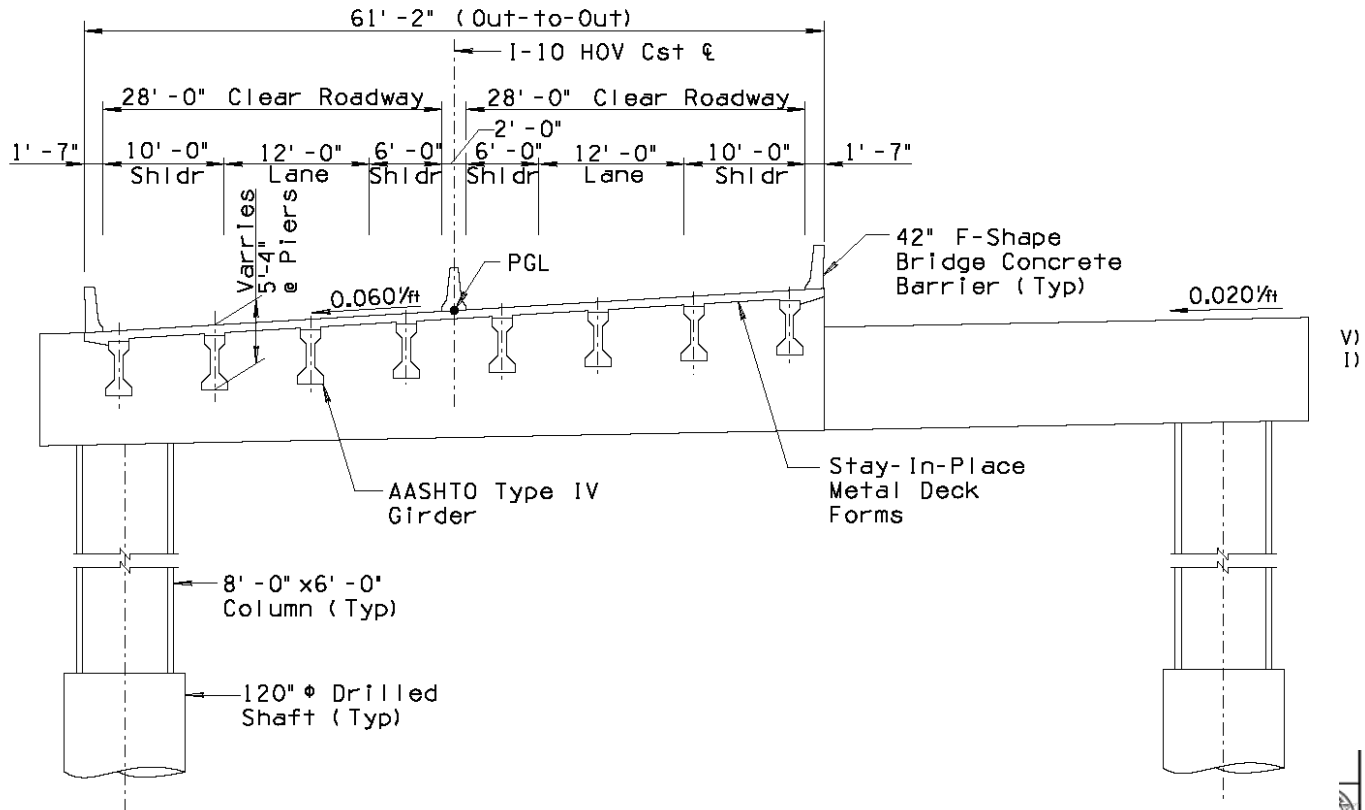
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TYPICAL SECTION - PIER 3

Scale:  $\frac{1}{8}'' = 1' - 0''$



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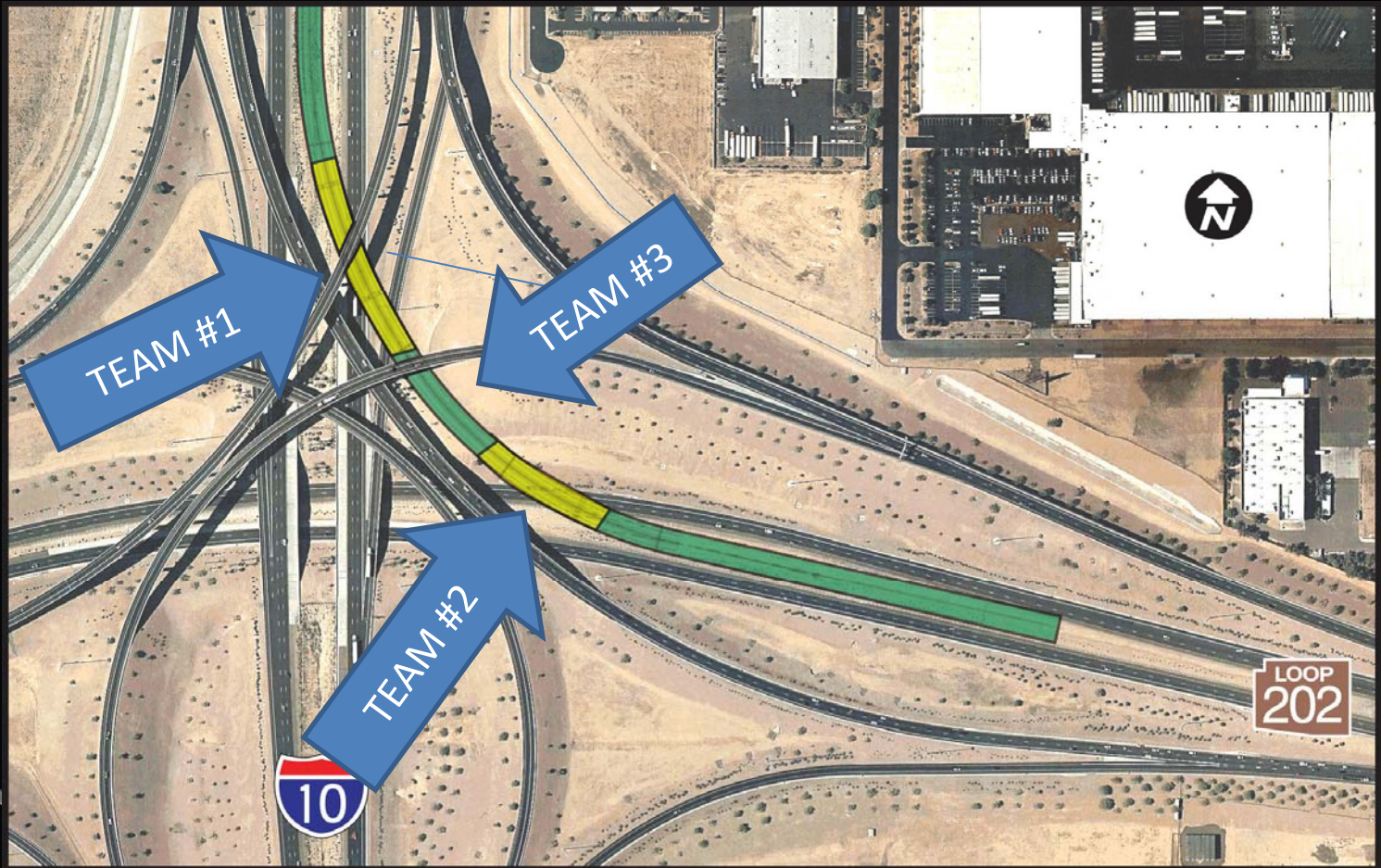
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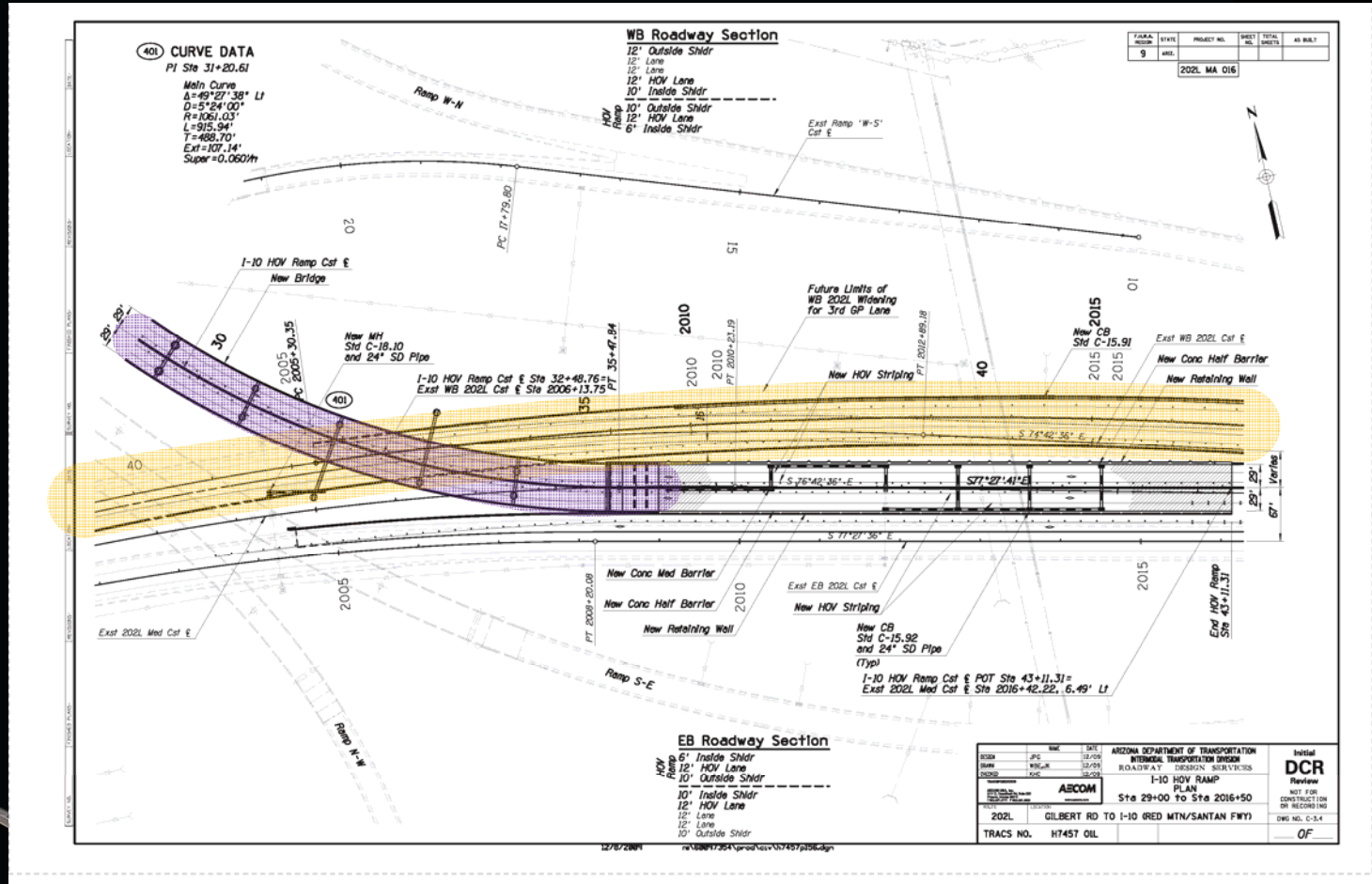
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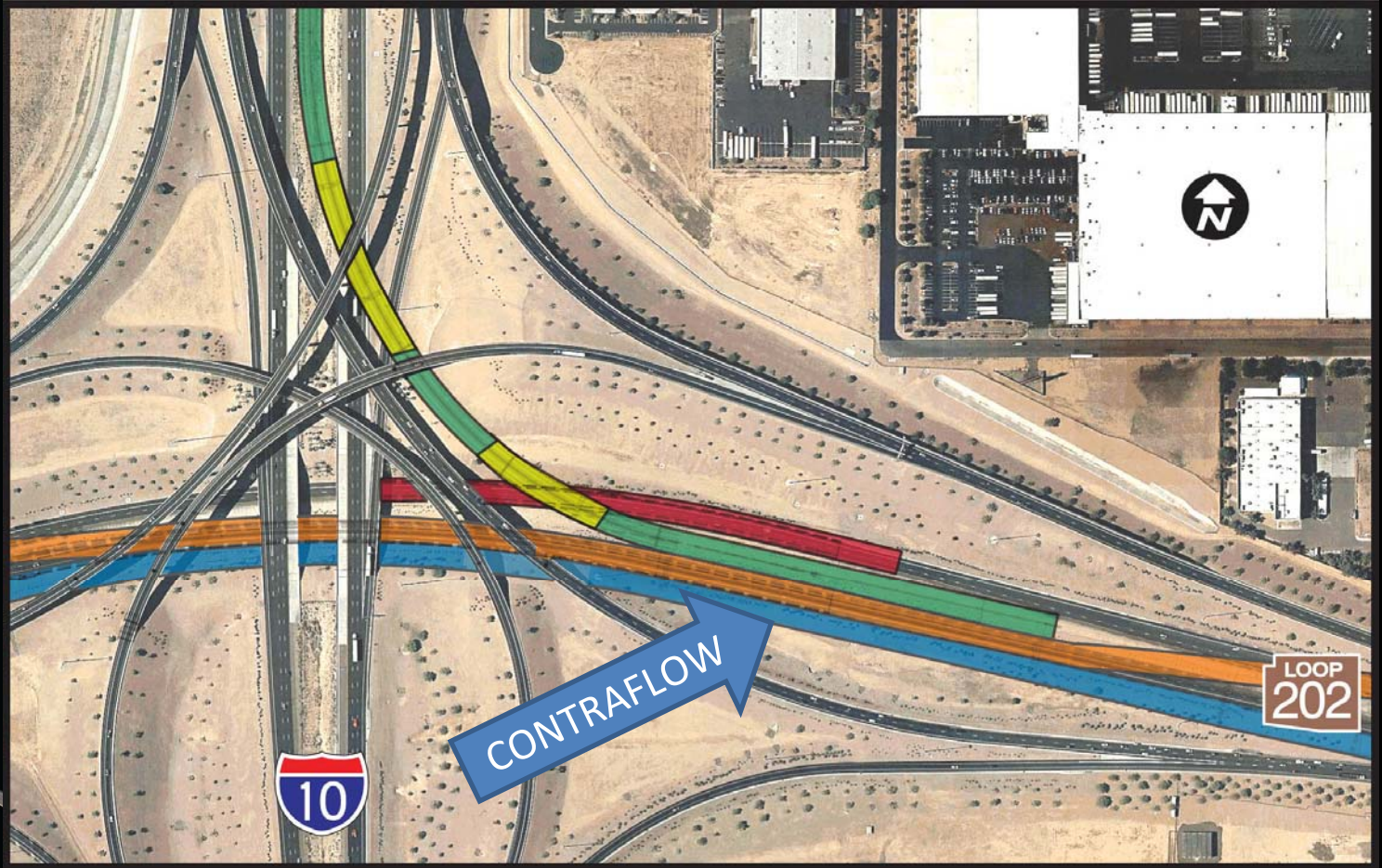
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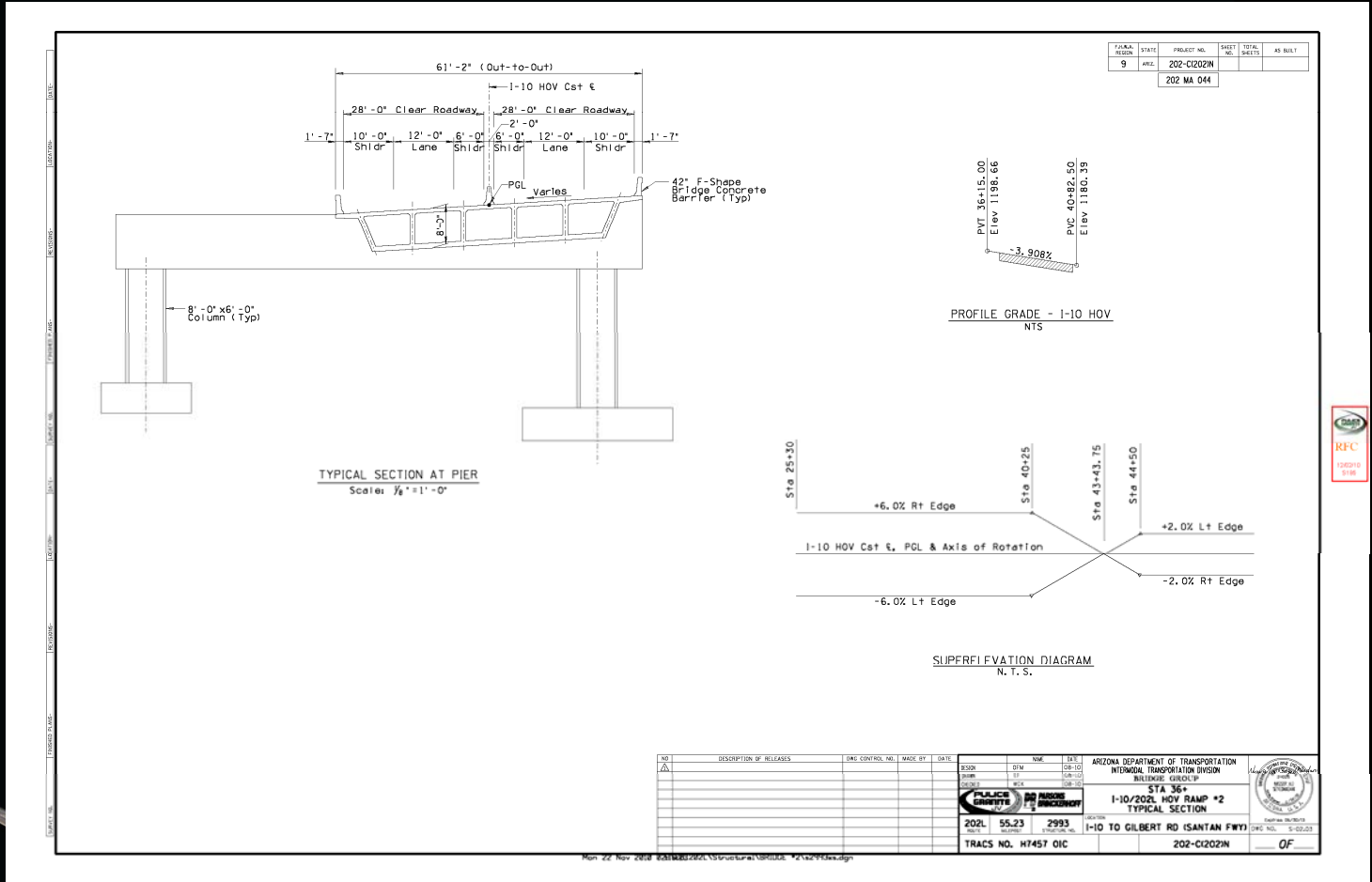
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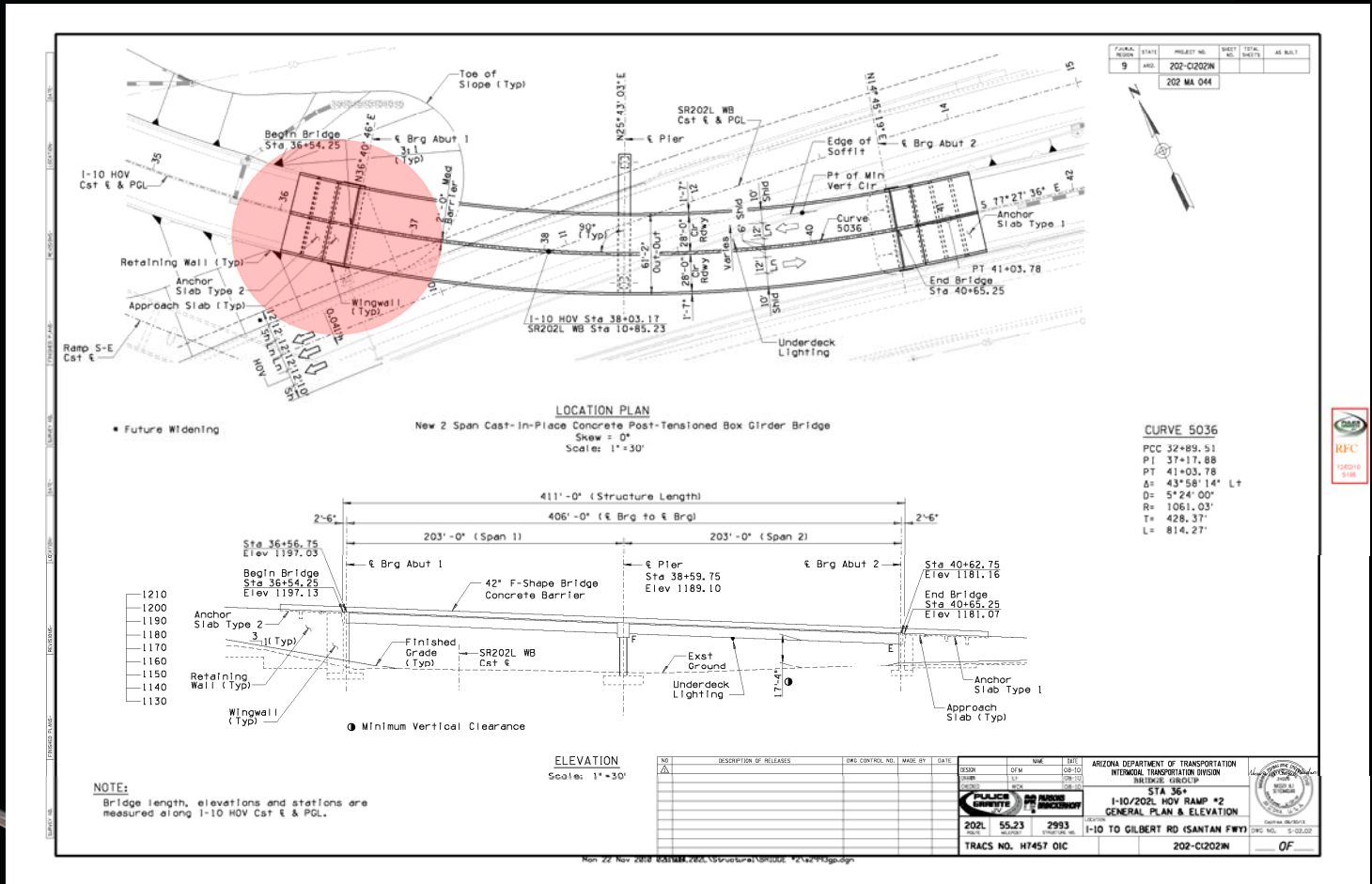
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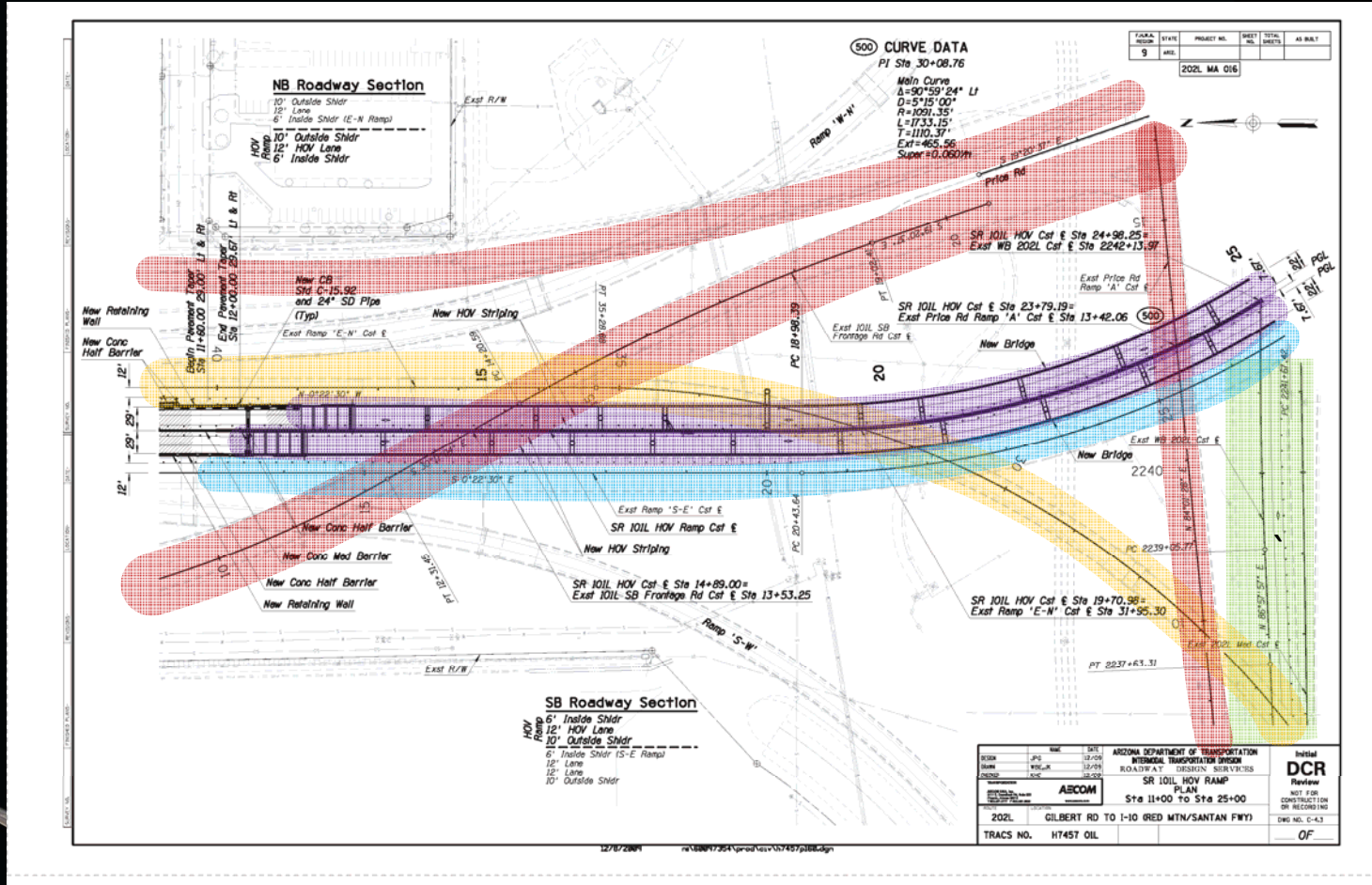
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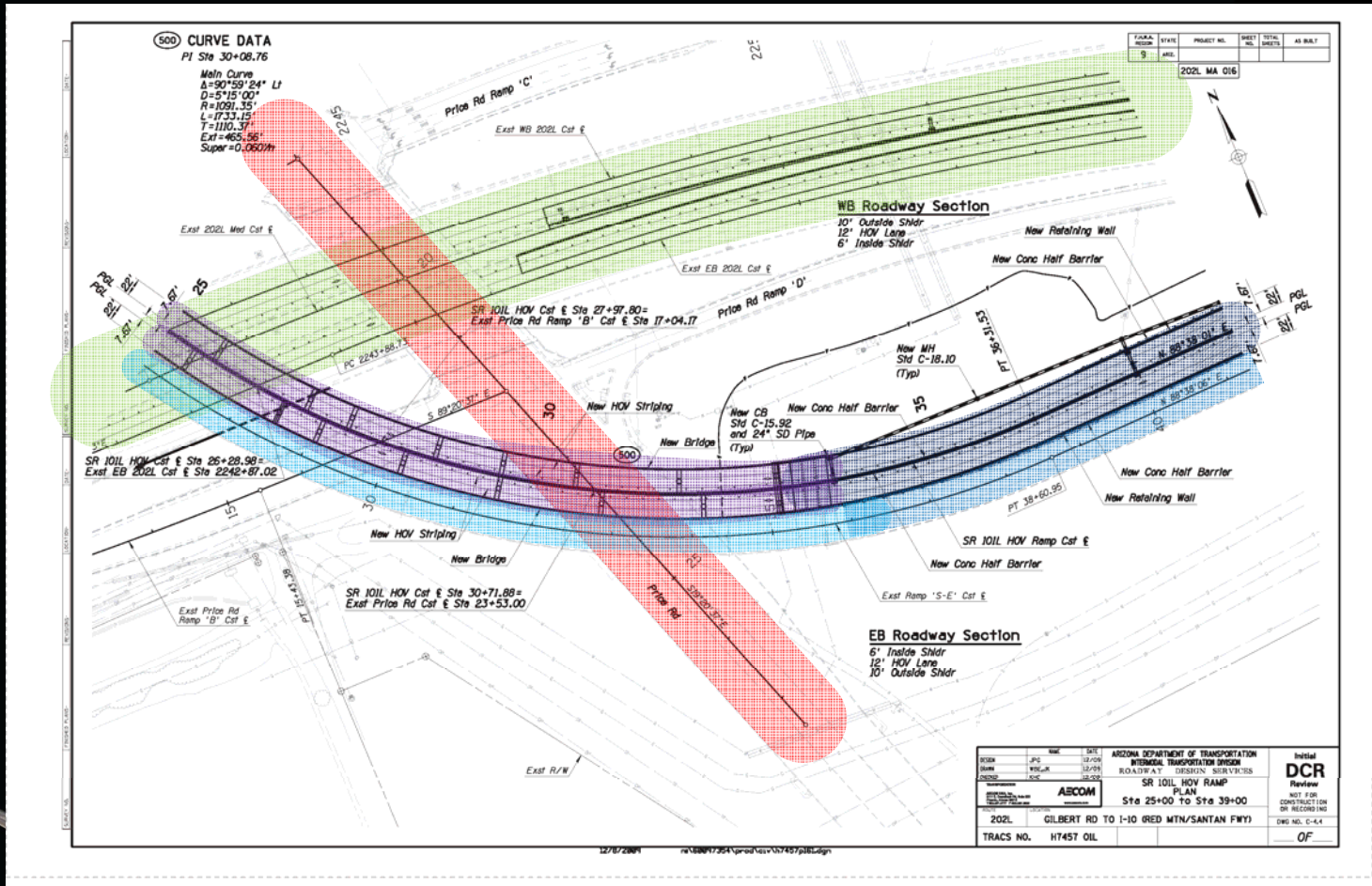
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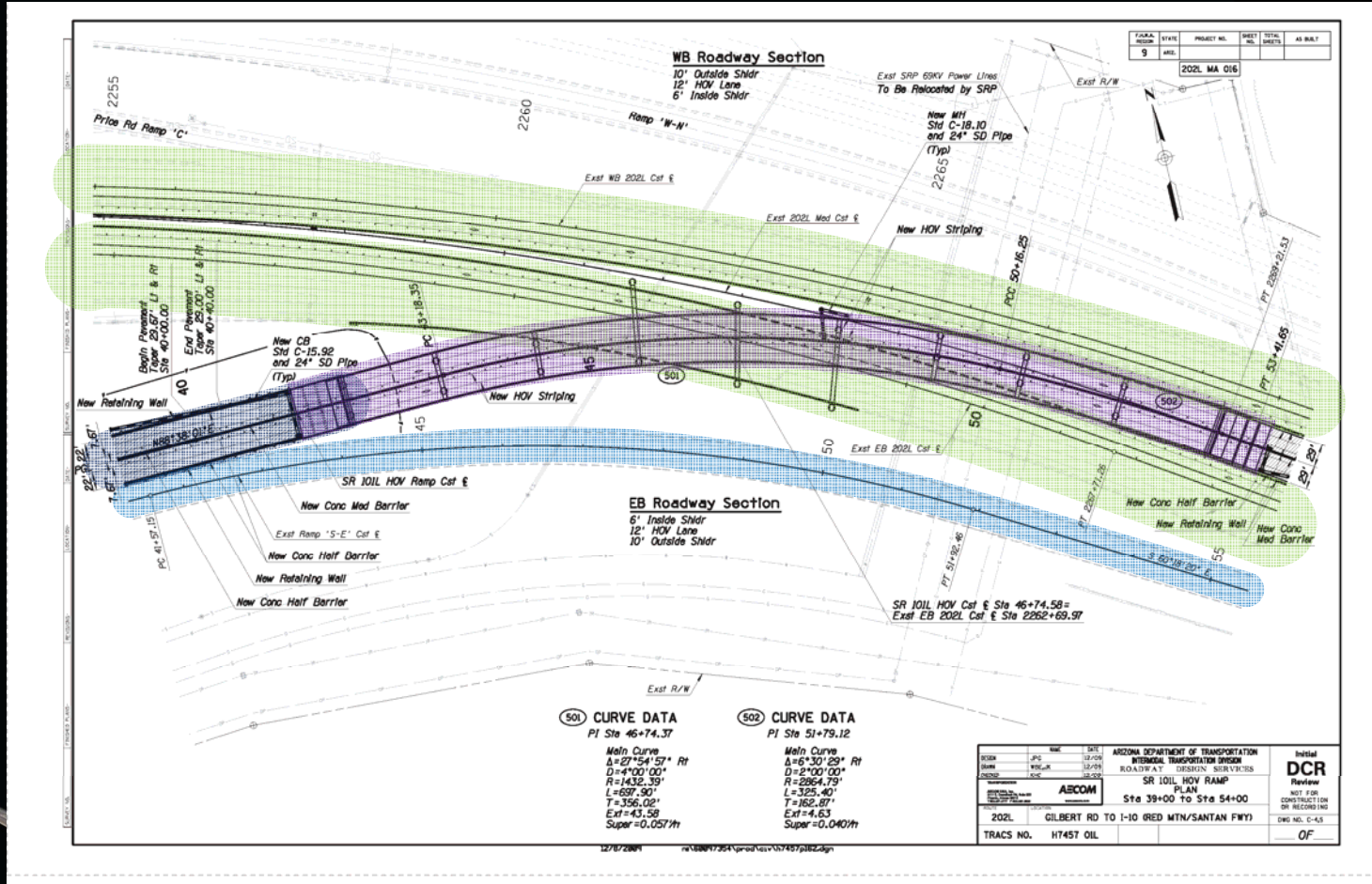
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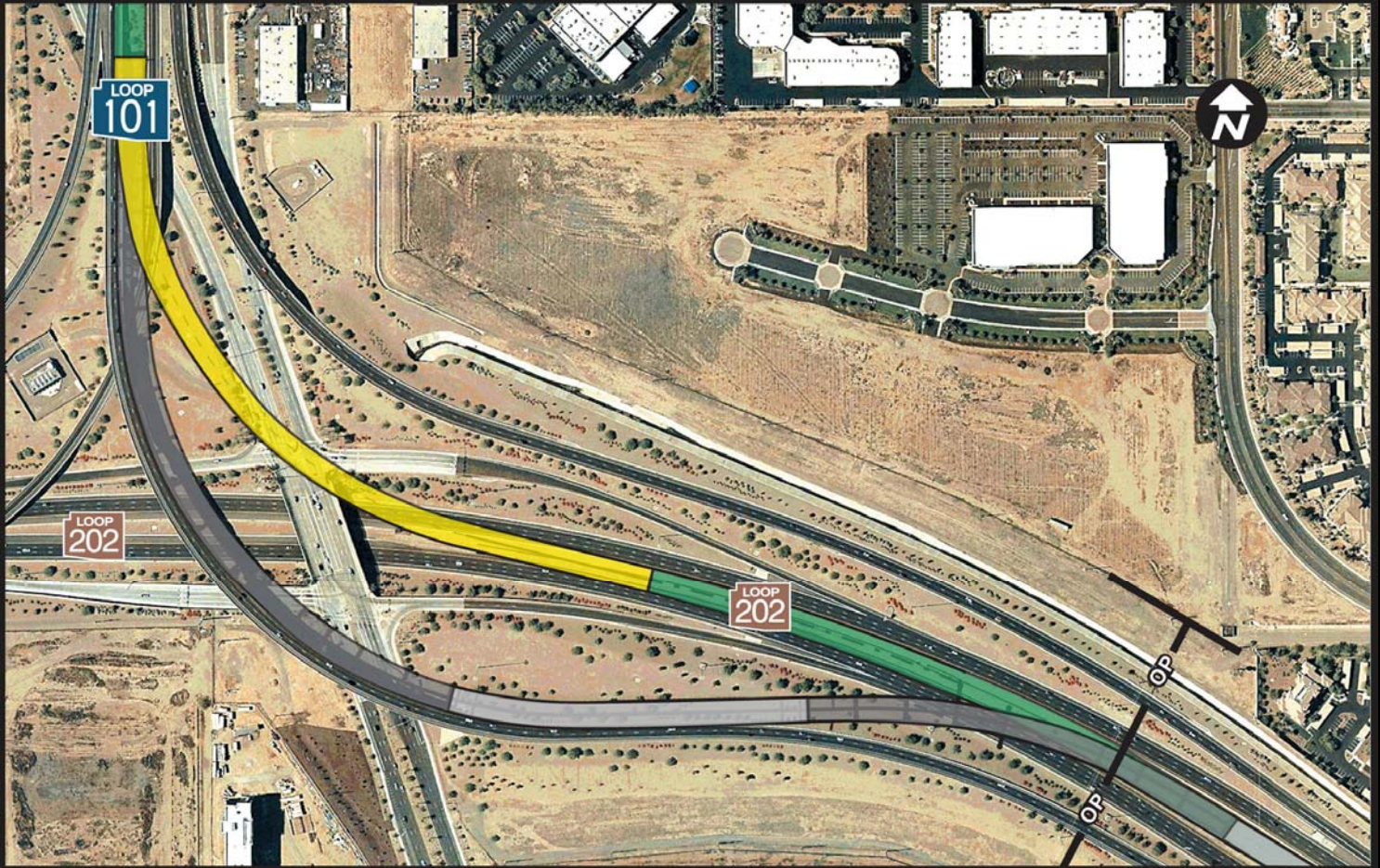
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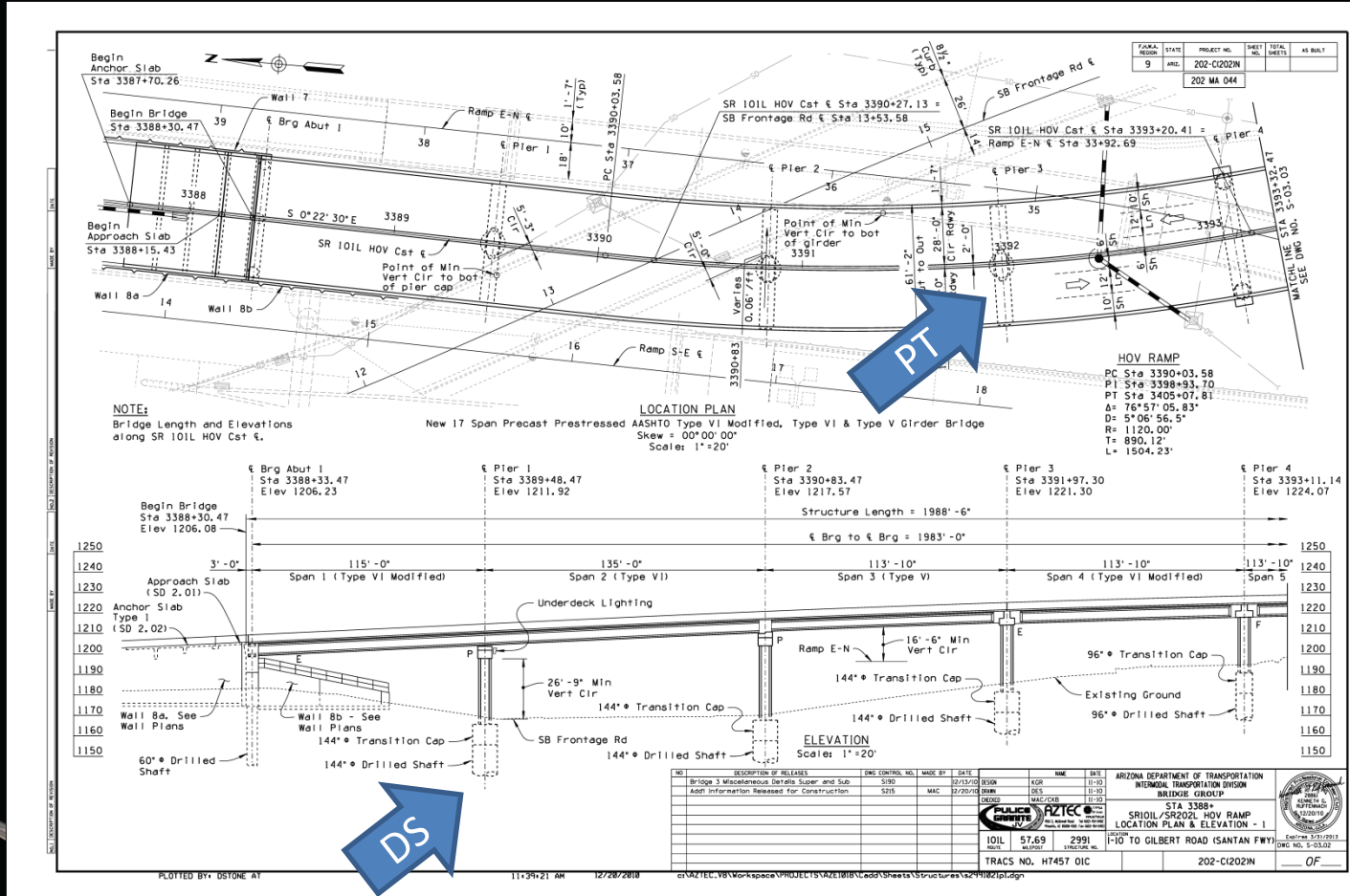
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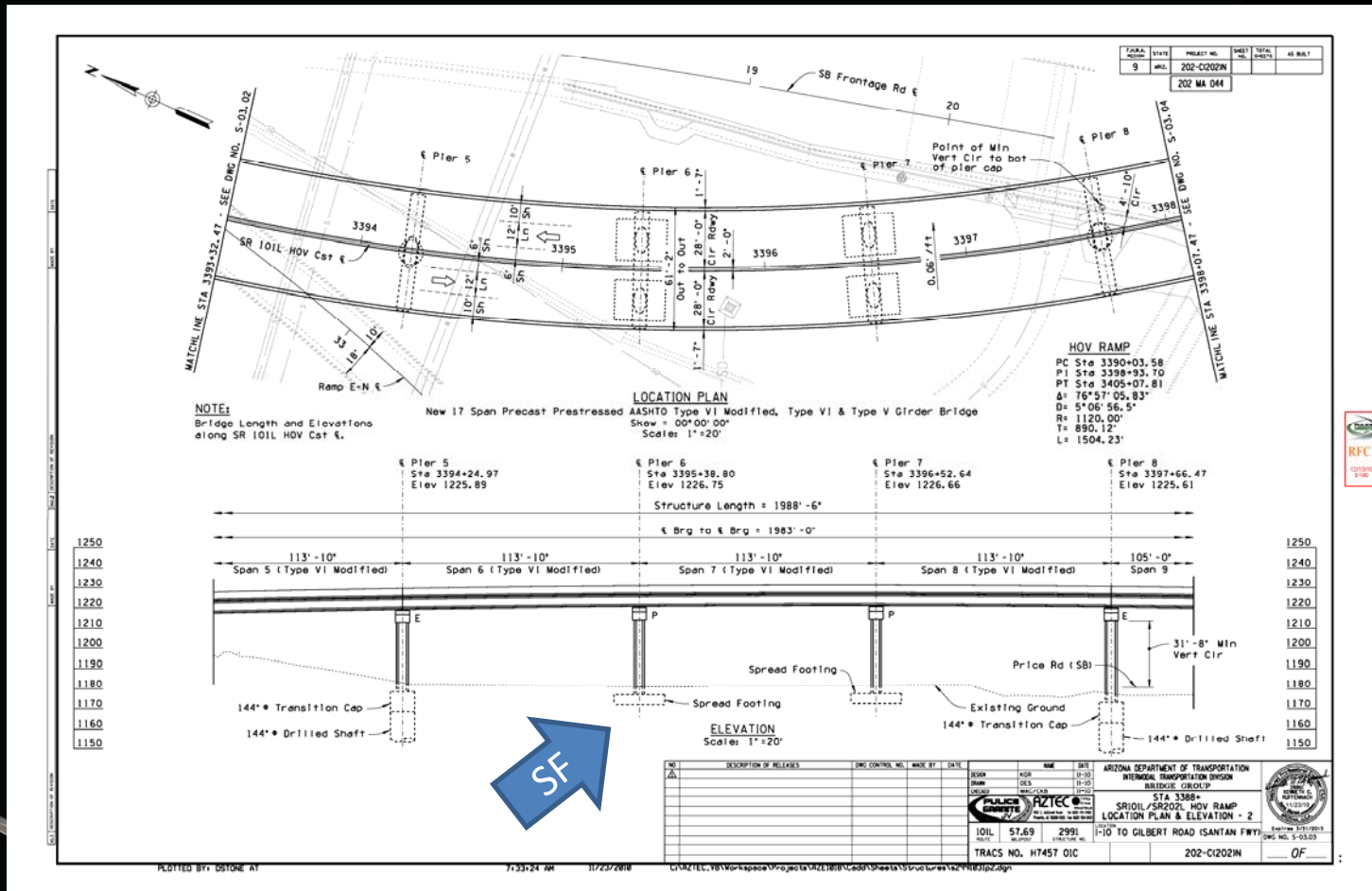


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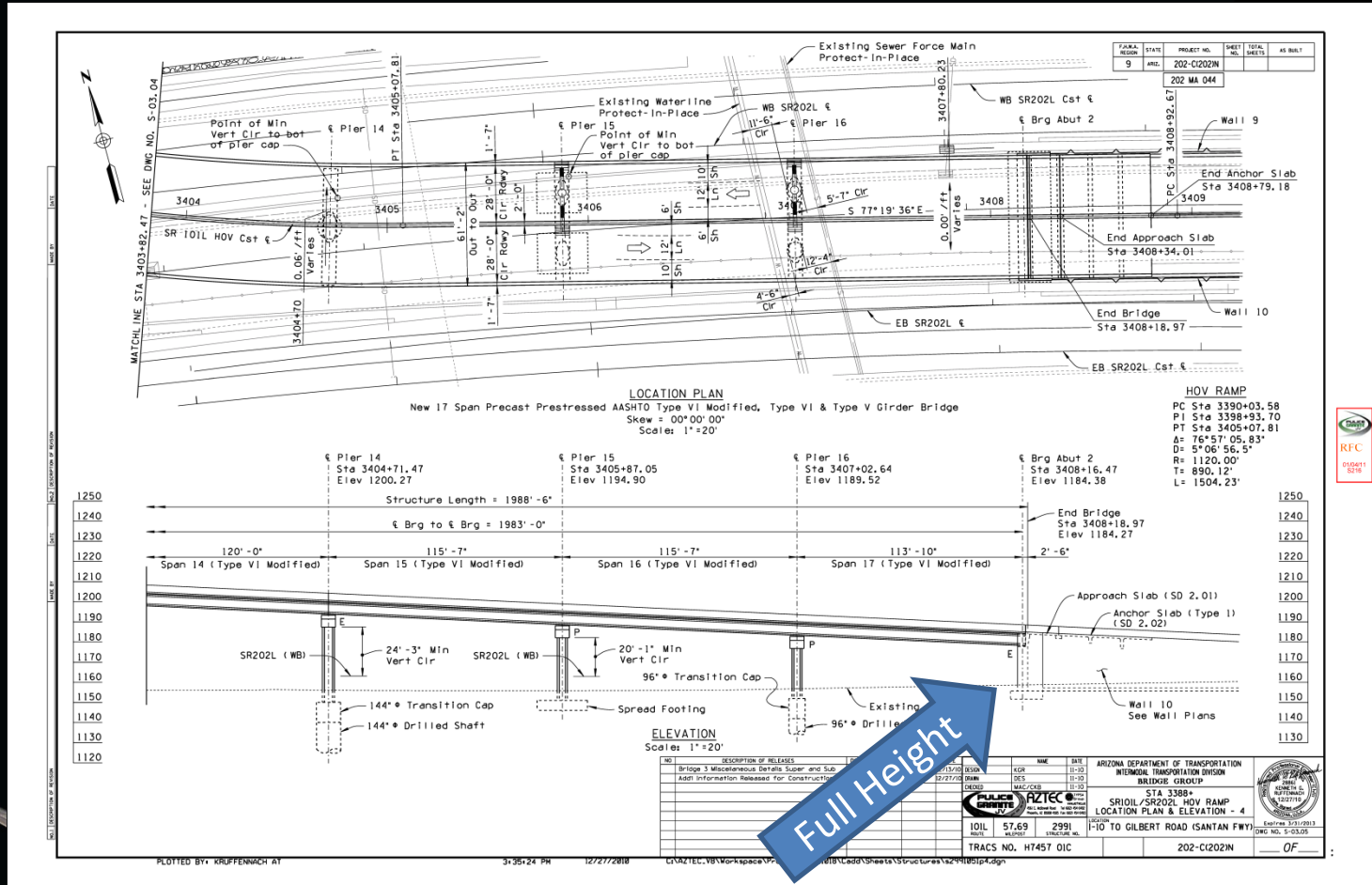
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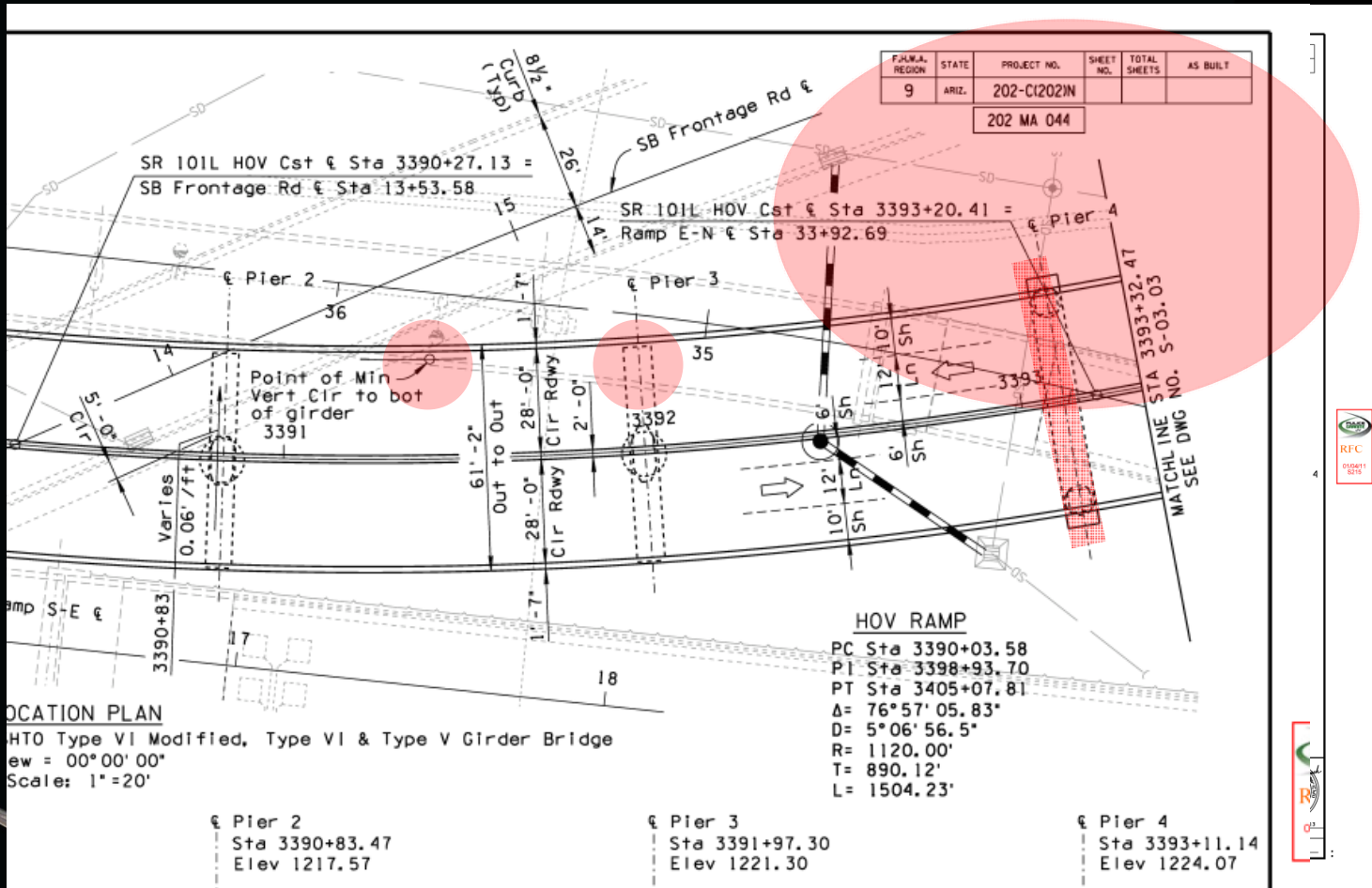


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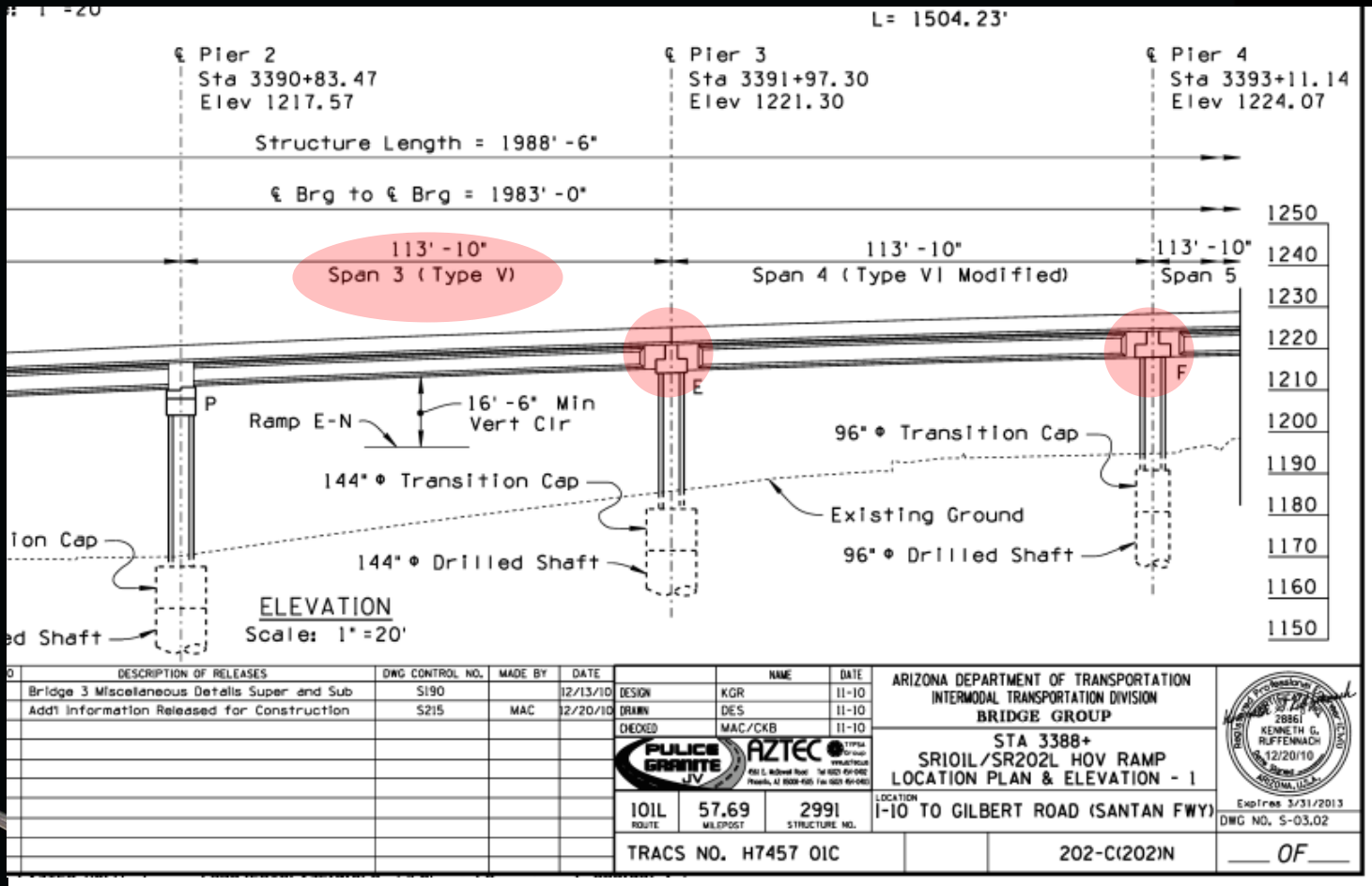
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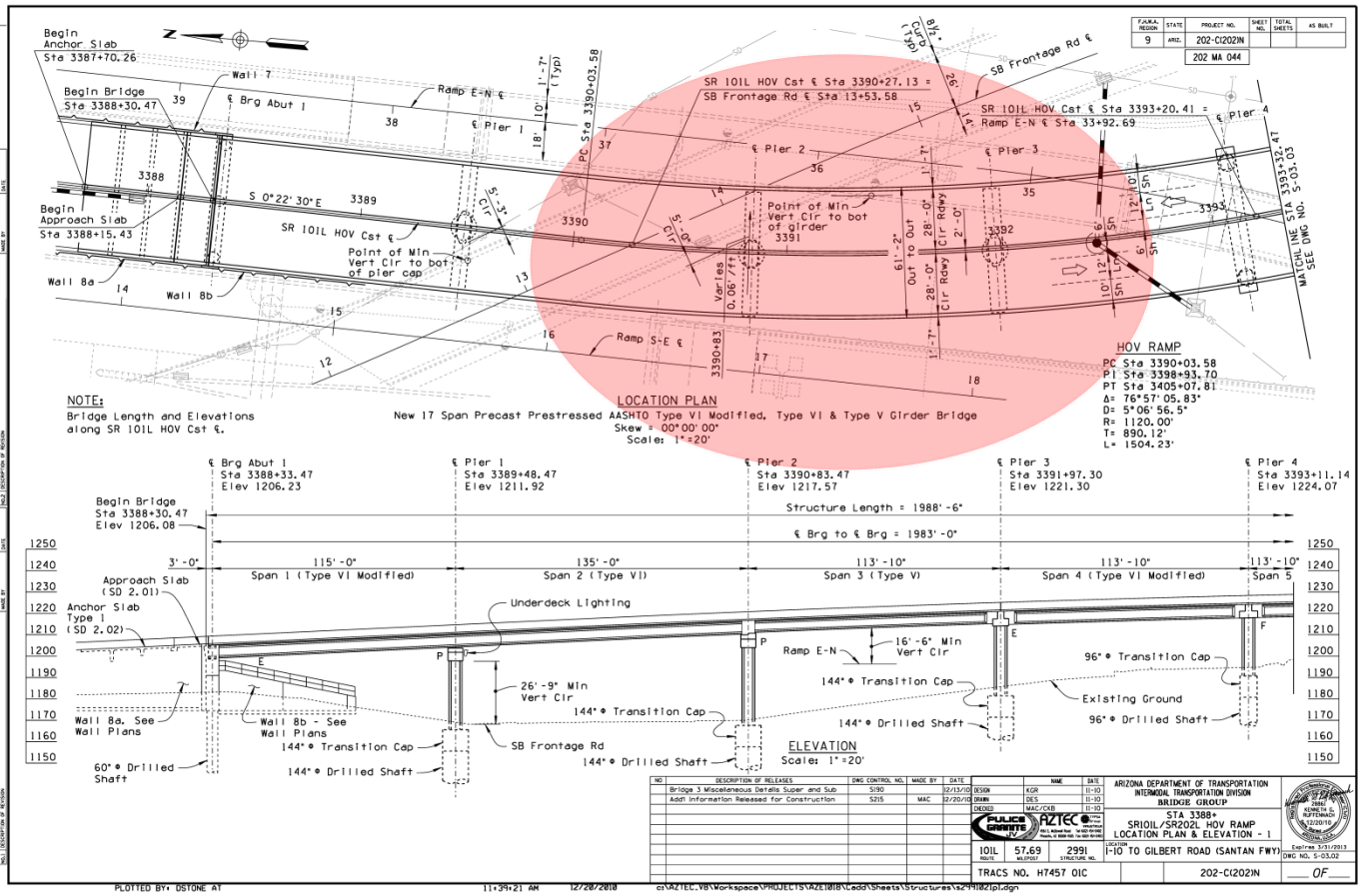
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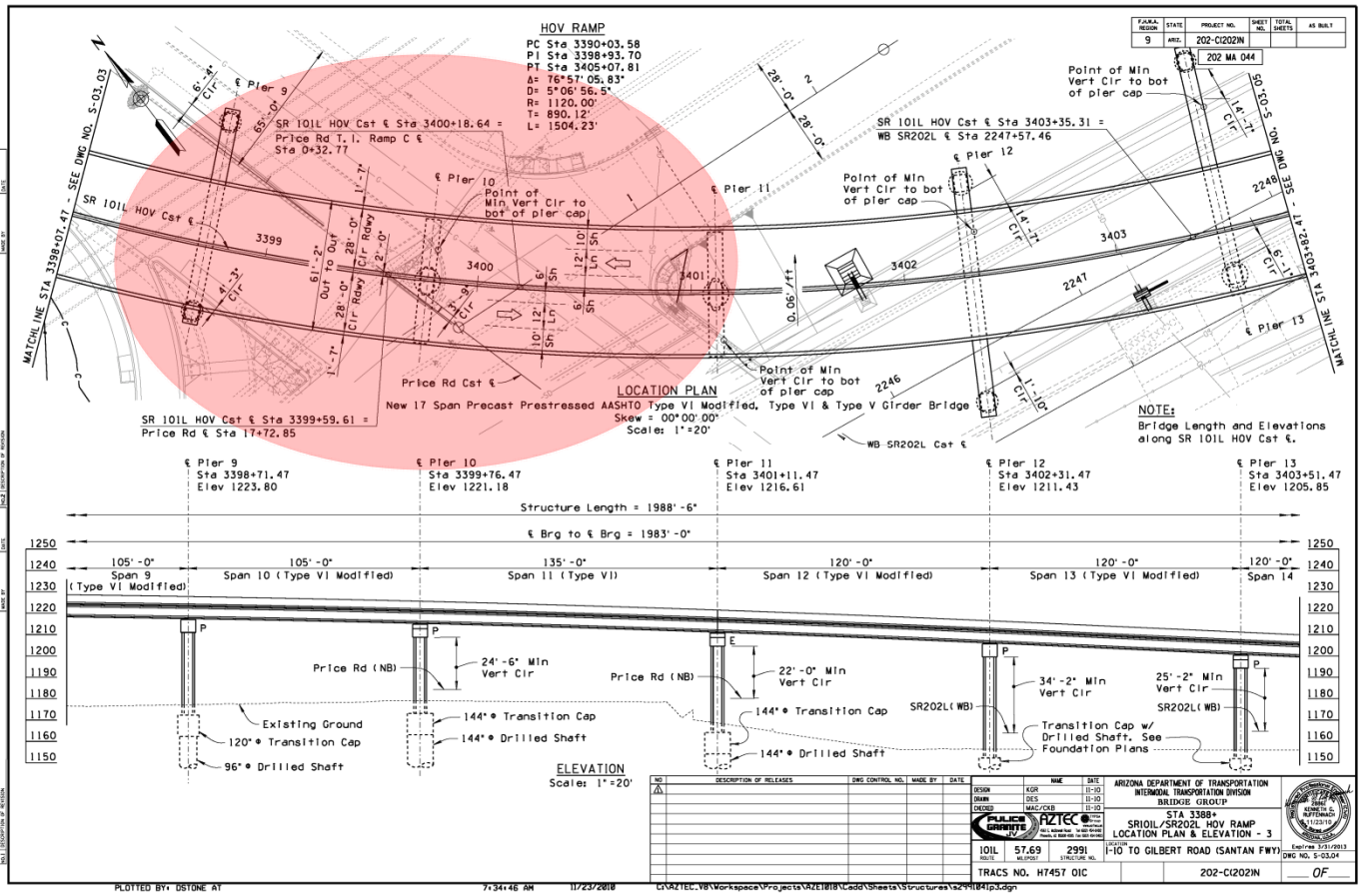
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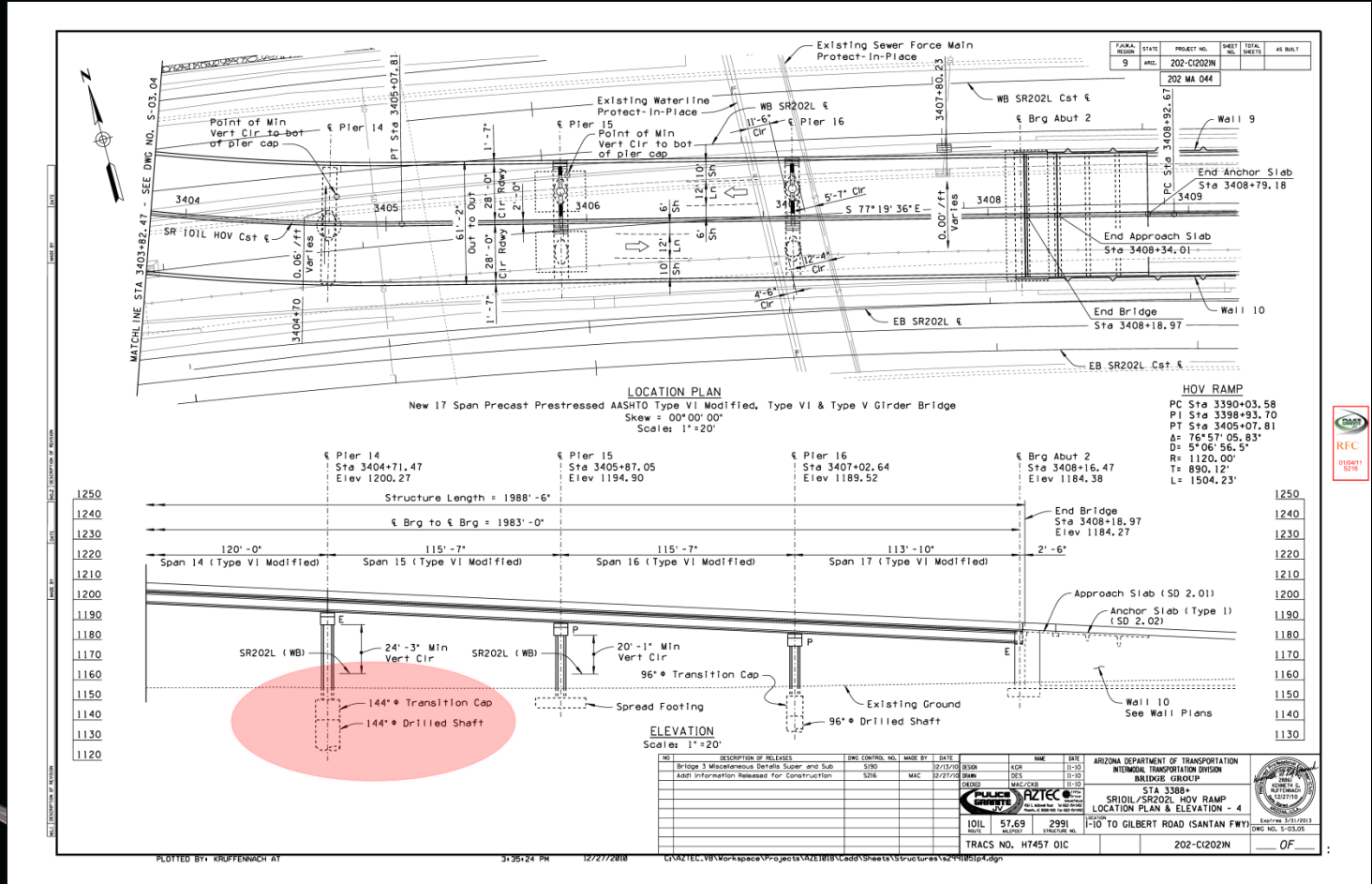
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## CONCLUSIONS

- QUALITY BRIDGE ENGINEERING SOLUTIONS DURING CURRENT ECONOMIC CHALLENGES
  - PROGRAMMED COST - \$142 MILLION
  - ESTIMATED COST - \$116 MILLION
  - BID AMOUNT - \$85 MILLION (-40%, -27%)
  - ORIGINAL COMPLETION – FY17
  - ACTUAL COMPLETION – OCTOBER 2011 (1Q/FY12) (-5 YRS)



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## CONCLUSIONS

- WHAT HAVE WE TAKEN FROM THIS “YEAR TO REMEMBER”?
  - “WHEN THEY ASK FOR PARTICIPANTS, DUCK NEXT TIME...”
  - “ONE WAS ENOUGH....”
  - “TELL ME AND I FORGET. TEACH ME AND I REMEMBER. INVOLVE ME AND I LEARN.” – BENJAMIN FRANKLIN
- LEARNED A NEW PERSPECTIVE ON HOW OUR PROFESSION CAN DELIVER PROJECTS TO OUR COMMUNITIES
- DON'T WASTE WHAT I LEARNED



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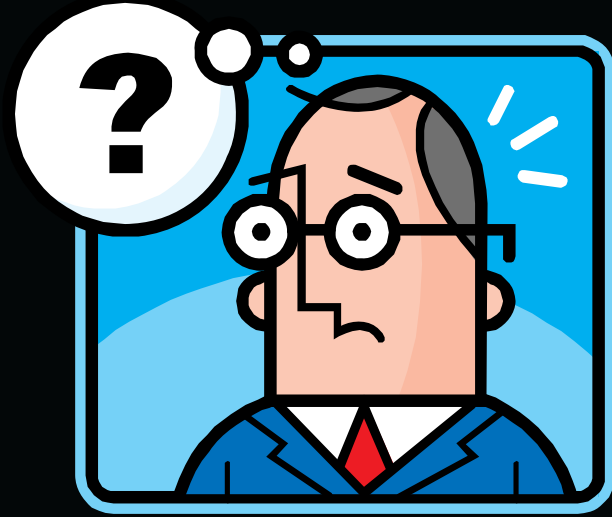
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## QUESTIONS



## THANK YOU!



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