

## Session 62

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FL. Dept. of Transportation

### *Expansion Joint Standards / Strip Seal & Poured Joint with Back Rod Standards, Specifications & Pay Items*

#### **Topic Description**

New FDOT Design Standards and Specifications for Strip Seal and Poured Joint with Backer Rod (Silicone type) Expansion Joints will be presented.

#### **Speaker Biography**

Charles Boyd is a Senior Structures Design Engineer working in the FDOT Structures Design Office, Tallahassee, FL. Charles received a BSCE degree from The Citadel in 1983. He has spent his entire professional career working in the Structures Design Office where he has focused on the design and detailing of bridges and the production of plans, standards and specifications.

# Bridge Expansion Joint Standards & Specifications



Charles Boyd, P.E.  
FDOT Structures Design Office

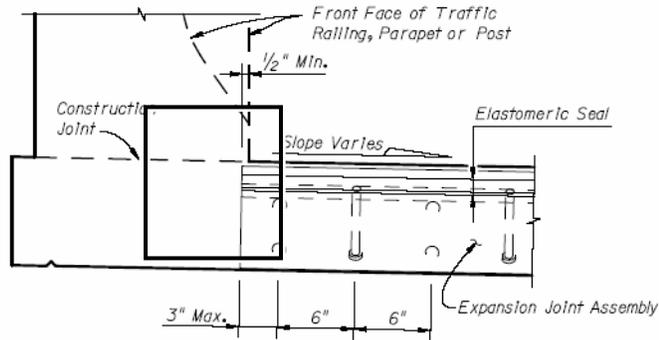
## Introduction

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- Strip Seal Expansion Joint – Index 21100
- Poured Joint with Backer Rod – Index 21110
- Specification Sections 458 and 932



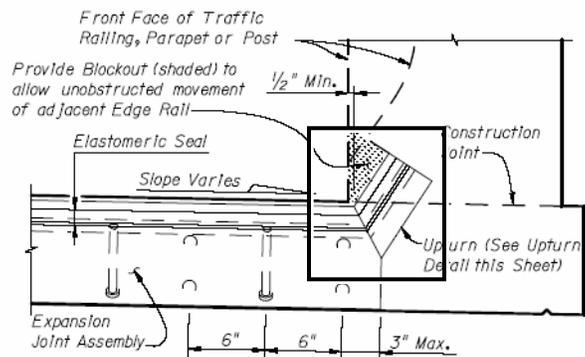
## Strip Seal – Index 21100



PARTIAL SECTION ALONG  $\text{\textcircled{C}}$  JOINT

JOINT TREATMENT AT HIGH SIDE OF DECK  
 WITH SLOPE  $\geq 2\%$   
 (Sidewalk Cover Plate where applicable not shown for clarity)

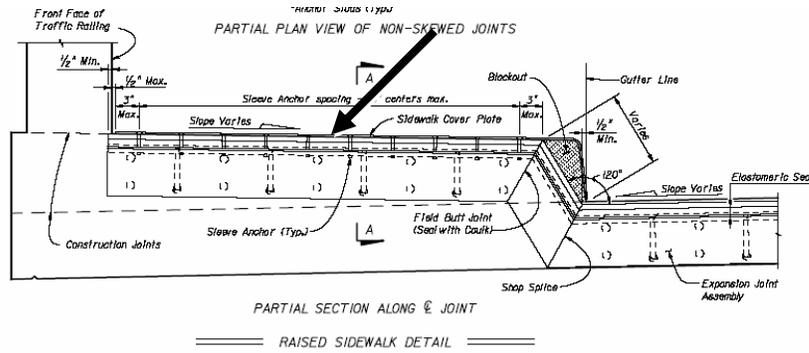
## Strip Seal – Index 21100



PARTIAL SECTION ALONG  $\text{\textcircled{C}}$  JOINT

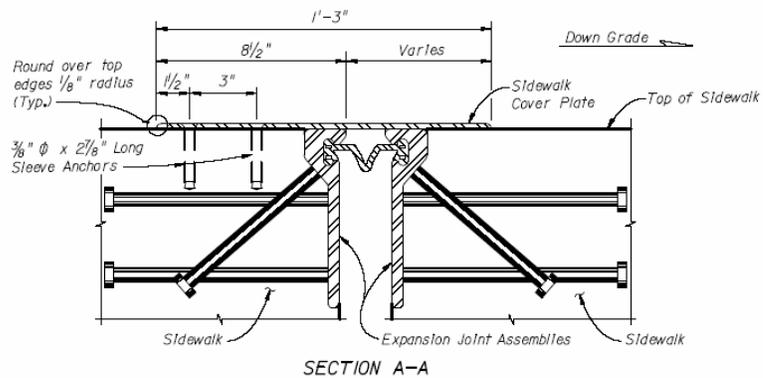
JOINT TREATMENT AT LOW SIDE OF DECK &  
 HIGH SIDE OF DECK WITH SLOPE  $< 2\%$   
 (Sidewalk Cover Plate where applicable not shown for clarity)

## Strip Seal – Index 21100



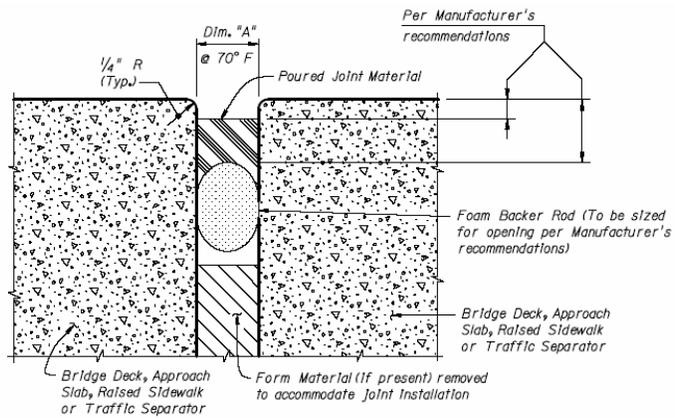
## Strip Seal – Index 21100

- Cover plate req'd for ADA compliance
- Slip Resistant Surface





## Poured Joint – Index 21110



TYPICAL SECTION THRU JOINT

## Poured Joint – Index 21110

POURED EXPANSION JOINT DATA TABLE INDEX NO. 21110			Table Date 1-01-06
LOCATION	DIM. "A" @ 70°	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10° F

NOTE:  
 Dim. "A" adjustment per 10° F shown is measured perpendicular to  $\perp$  Expansion Joint. Work this table with Design Standards Index No. 21110.



## Poured Joint – Index 21110

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- Install Poured Joint Material:
  - ✎ After deck planing is complete
  - ✎ Ambient temperature between 55 and 85 degrees F
  - ✎ Temperature is expected to rise for next 3 hours



## Specification Sections 458 and 932

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- 458 - Strip Seals, Poured Joints, Finger Joints and Modular Joints (Tech Specs req'd)
- 932 - Material requirements
- QPL listing required

## QPL Listed Joints

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- Strip Seal:
  - ✎ No current listings (D.S. Brown & Watson Bowman)
- Poured Joint:
  - ✎ Dow Corning 902 RCS

## Where to Get More Information

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- Comments or questions contact:  
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