



Sub-Programs of Category 6

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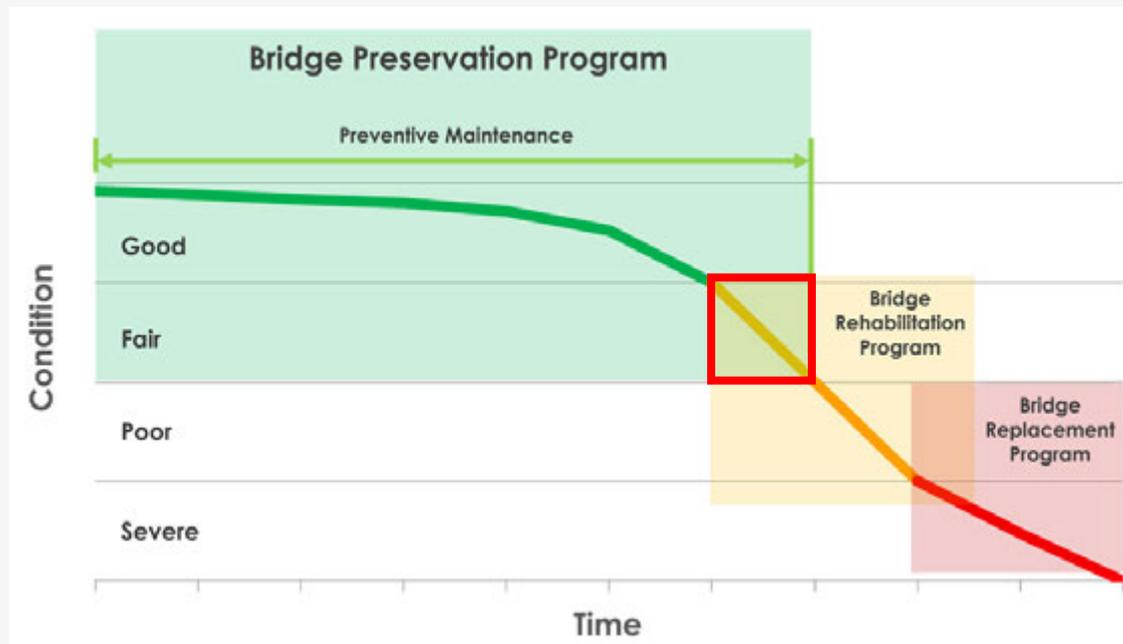


April 25, 2025

Asset Management - Data Driven Decision

Strategies - Cost Effectiveness

- Most Cost effective – Preventive Maintenance And Preservation
- Second – Rehabilitation
- Least Cost Effective – Bridge Replacement



Category 6 Subprograms

Highway Bridge Program (HBP)

- Major rehabilitation or replacement of eligible On-system and Off system bridges.
- Focused on bridges in poor condition.

Bridge System Safety Program (BSSP)

Bridge Maintenance & Improvement Program (BMIP)



HBP Projects

- Eligibility: **Poor Condition** or BrM Identified to be poor in the next 4 years.
- District: Review extent of deficiencies and recommend the scope of work.
- Perform a cost analysis comparing Repair versus Replacement.
- Off-system: District and BRG meet to determine:
 - (Repair/Replace/EMP Work/Do Nothing) prior to any discussion with the Local Government.



Condition (58, 59, 60 = 7, 2, 7)



Historic and Rated (5, 4, 6)

District/BRG Review New Poor Off-System Bridges

- BRG Sends List Of New Poor Bridges To District
- BRG/District Will Review and Make Recommendations:
 - LG Repair/CAT6 Repair/LG Replaced/CAT6 Replace/Do Nothing
- BRG/District Meet To Review Recommendations.



Site Specific Considerations

- Is A TxDOT Standard Bridge Needed?
 - (Frequent Overtopping, Migrating Channel, Very Low ADT With Alternate Route Landowners Can Use)
- Will A 26' Wide Bridge Fit Within The Current ROW?
- Will The LG Agree To Purchase ROW?
- Utility Consideration
- Is It Land Locked?
- Scour Critical, History of Debris Accumulation
- Historic Bridge Considerations



HBP projects should provide the most cost-effective long-term solution.

Highway Bridge Program Prioritization Checklist

- Is the bridge in poor condition?**
- Is the damage widespread?**
- Are the underlying site conditions correctable?**
- What is the cost to repair**

Look at Repair Options First.

Highway Bridge Program - (HBP) - Repair Or Replace?

Candidate submitted

- Deck = 6
- Superstructure = 6
- Substructure = 4
 - Widespread Corrosion
With Section Loss



Highway Bridge Program - (HBP) - Repair Or Replace?

**District performed
in-house repairs**

- Deck = 6
- Superstructure = 6
- Substructure = 7



Category 6 Subprograms

Highway Bridge Program (HBP)

Bridge System Safety Program (BSSP)

- Address various safety risks for On-system bridges
- Fixed Funding

Bridge Maintenance & Improvement Program (BMIP)



BSSP-HR - Limited Funding

- Scour Critical using the new SNBI coding.
- History of Debris Accumulation
- Steel/Timber Piling with Advanced Deterioration or Unbraced Length Concerns
- Very Narrow - less than 24' and can be included in a roadway improvement project.
- Fixed Funding



BSSP-RRP

- Projects 3 Years Out
 - FY29 Projects in FY26 Call
- Bridge Rail Cost – Pair With Roadway Project
- 150 ft of Approach Rail Off Each Corner
- Transitions & End Treatments
- Fixed Funding



Bridge System Safety Program - Background

Safety Initiative Programs:

BSSP–HR: higher risk bridges

BSSP–RRP: rail replacement

BSSP–RGS: rail grade separations



Submissions should not be eligible for HBP

Category 6 Subprograms

Highway Bridge Program (HBP)

Bridge System Safety Program (BSSP)

Bridge Maintenance & Improvement Program (BMIP)

- Rehabilitation and preservation work on eligible On-System bridges.
- **Take Fair Bridges Back to Good.**



EMC/RMC/BPM

- 100% State Funded
- Time Sensitive Repairs
- Localized Repairs
- Reactionary in Nature, Often Driven by Critical Findings and FUA's.

BMIP

- 80% Federal Funding and 20% State (90%-10% for Interstate)
- No Bridge, Roadway Widening, or Corridor Improvement Projects are Currently Planned.
- Planned Projects, Where the Let Date is 24 to 36 Months Out.
- Repairs are Designed to Extend the Service Life by Another 10-25 Years

Replacement

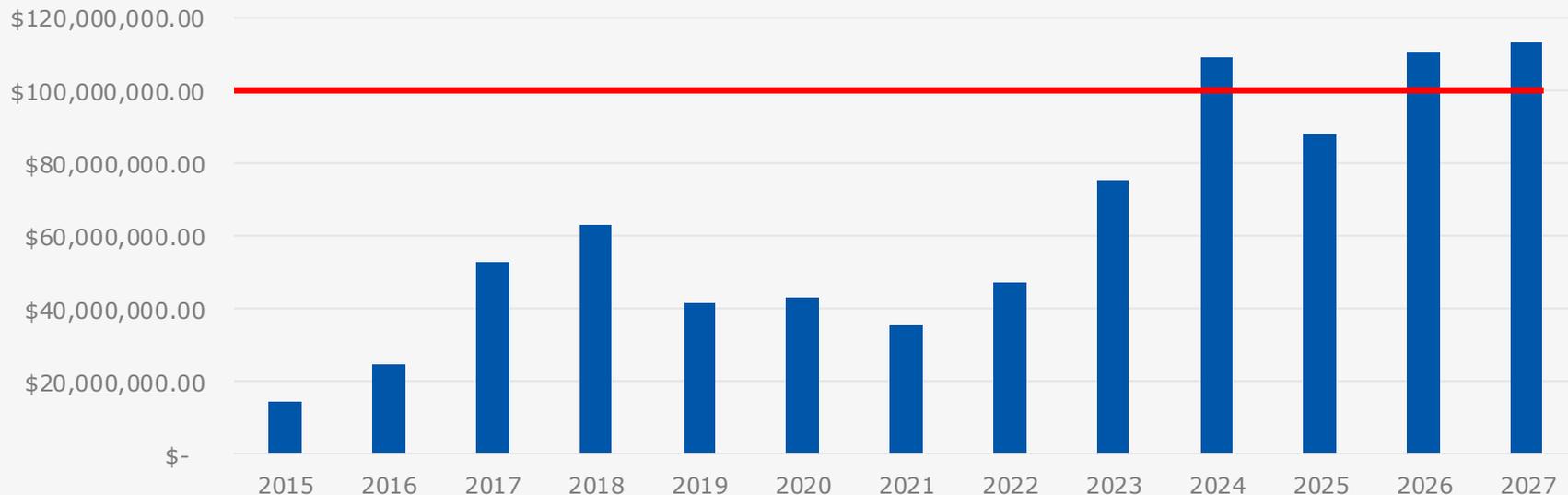
- Bridges Where the Repair Cost to Fix Everything Starts Exceeding (50%) of the Cost of a New Bridge.
- Currently the Location of the Bridge is in the UTP for Some Type of Bridge, Roadway Widening, or Corridor Improvement Project.

For each possible BMIP candidate consider the criticalness of the repairs, the amount of time we have to complete the repair, and the cost of the repairs relative to replacement cost of the structure.

Pivot to more BMIP

- Plan for **\$100M** in BMIP every year
- District BMIP Targets (based on deck area)

BMIP over Time



BMIP Process

- Review the AASHTO BrM recommendations (emailed early summer to all districts)
- Bundle bridges with similar repairs.
- Perform **required** field assessments and Complete the field assessment form.
- Built-in cost estimates with user inputs

BMIP CANDIDATE EVALUATION FORM			
	District: 01 - PAR	Year Built (Widened):	1930 (1962)
	County: 060 - Delta	Load Rating (LR):	28
	Structure No.: 01-060-0-0136-04-058	Load Rating (OR):	47
	Facility Carried: SH 24 SB	Inspection Date:	3/4/2022
Bridge Division:	Feature Crossed: South Big Creek	Performed By:	Katie Vick
STRUCTURE INFORMATION			
No. of Spans:	8	Structure Description:	
Overall Length:	160 ft		8 - Simple Span Concrete Slab Bridge on Concrete Substructure
Span Config.:	8 - 20' spans		
Slew:	0		
Struct. Type 1:	Conc. Slab Span		
Struct. Type 2:			
Overall Width:	44 ft	Overlay Type:	ACP
Roadway Width:	42 ft	OT Thickness:	10"
No. of Lanes:	2		
Rail Type:	TS		
COMPONENT CONDITION RATINGS			
Existing Condition		Proposed Condition	
Deck	6	Deck	7
Superstructure	6	Superstructure	7
Substructure	6	Substructure	7
Channel	6	Channel	7
Culvert	N	Culvert	N
Approaches	6	Approaches	6
REHABILITATION QUESTIONNAIRE			
1) Are there any plans for future corridor improvement? This may include but is not limited to bridge widening, raising, replacement, or other improvements. If yes, please explain:			No
2) Is there potential for full/partial lane closures on the bridge? If yes, please explain:			Yes
Potential for single lane closure during joint work.			

BMIP Considerations

- Isolated issue?
- Rest of structure performing well?
- Preservation actions while mobilized.



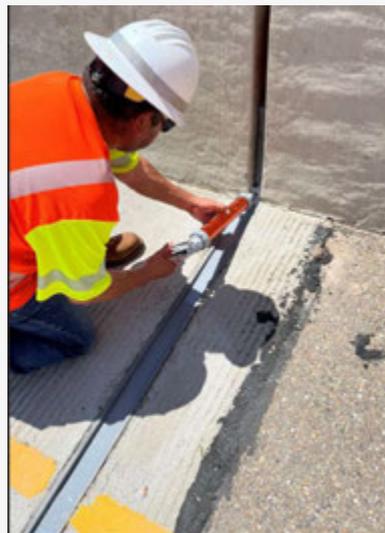
BMIP Considerations

- Cost of rehab vs. replace?
- How long will the rehab last?
- Traffic control
 - Phasing is VERY expensive
 - Consider detours (even temporary)



Examples Of BMIP Work

- Rail Replacement
- Repairing And Sealing Joints
- Partial Depth Deck Repair



If You See This...



Don't Do This...



Choosing The Right Deck Repair Options (MLPO, PPC, CO, LMC)???

MLPO – Multi-Layer Polymer Overlay

- Low Traffic Volume (less than 20,000ADT)
- Widespread Cracking or Polishing On Otherwise Sound Deck
- Preferably Not Overlaid with Asphalt
- MLPO thickness: 3/8”



MULTI-LAYER POLYMER OVERLAY NOTES:

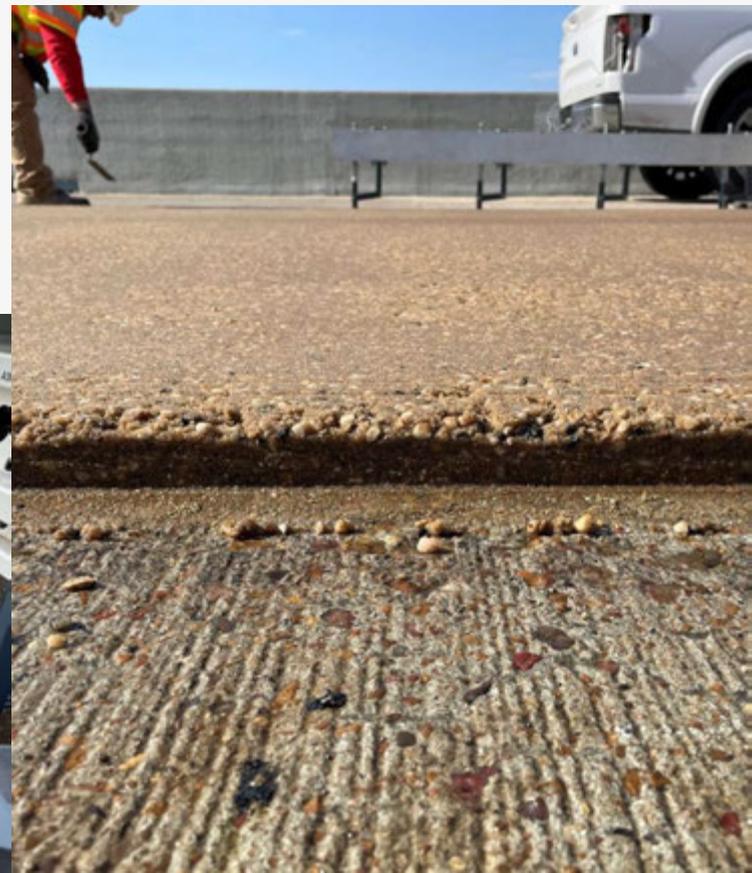
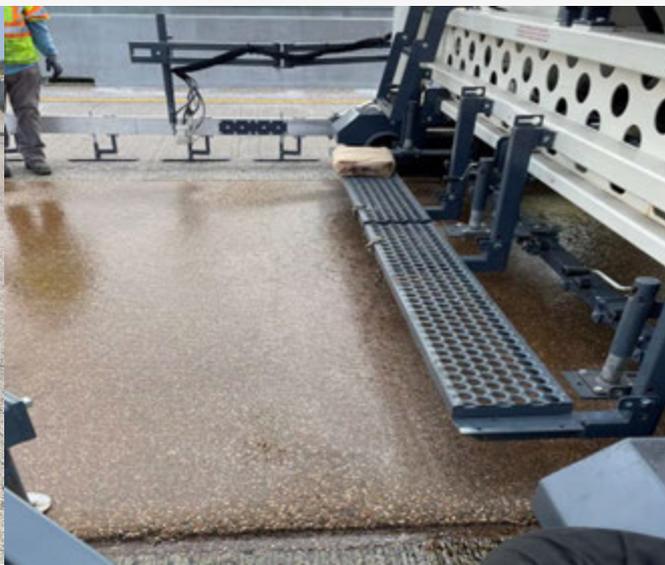
1. Shot blast the deck and clean with high pressure air. Remove all oil and other contaminants.
2. Provide a surface profile with less than $\frac{1}{4}$ " deviation. Areas with a deviation greater than $\frac{1}{4}$ " shall be repair as a Partial-Depth Deck Repair. Deck repairs are paid for as Item 429, "Concrete Structure Repair". Concrete repairs shall be allowed to cure and shot blasted prior to the application of the overlay. Test moisture content in concrete repairs to ensure it is below manufacturer's requirements.
3. Mask existing joints and deck drains.
4. Install Multi-layer Polymer Overlay per Item 439, "Bridge Deck Overlays". Provide system utilizing Methyl Methacrylate (MMA) Resin.
5. Reapply roadway striping to match the original striping.
6. Seal joints after placement of overlay.

NOTES TO ENGINEER:

1. Pertinent Bid Codes may include:
0429 6003 CONC STR REPAIR(DECK REP(PART DEPTH)) SF
0439 6013 MULTI-LAYER POLYMER OVERLAY SY
Use multipolymer pavement markings per Item 6038,
"Multipolymer Pavement Markings (MPM)".

PPC - Polyester Polymer Concrete Overlay

- High traffic volume
- PPC Thickness: $\frac{3}{4}$ " min, 2" max
- Widespread Cracking or Polishing On Otherwise Sound Deck
- Preferably Not Overlaid With Asphalt



Structure Concrete or LMC Overlay

QUESTIONS ?

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- San Angelo
- Abilene
- Houston
- Brownwood

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- Lufkin
- Austin
- San Antonio
- Pharr

HELP
#EndTheStreakTX

End the streak of daily deaths on Texas roadways.

TxDOT.gov
#EndTheStreakTX Toolkit

