



Bridge Group Overview

David Benton P.E.

State Bridge Engineer

Bridge Group Functions

- Bridge Design Services - Navaphan (Noon) Viboolmate P.E
- Bridge Preservation Services - Amjad Alzubi P.E
- Geotechnical Services - Patrice Brun P.E



Bridge Design Services

Manager – Mr. Navaphan (Noon)

Viboolmate

- Bridge Design Section A
 - Section Leader – Mr. Bill Downes
- Bridge Design Section B
 - Section Leader – Mr. Rosemarie (JoJo) Cvijanovic
- Bridge Design Section C
 - Section Leader – Ms. Rebecca Carreno
- Bridge Standards Engineer
 - Ms. Brahma Singh

Design Sections' Areas of Responsibility



- Design Section A
- Design Section B
- Design Section C

Bridge Design Service

- Scope bridge preservation projects
- In-house bridge design
- In-house transportation structure design
- Review of consultant design plans and specs
- Provide construction support
- Develop and update bridge design guidelines, standards and construction specifications



I-1



I - 40 A1 Mountain RD TI UP



Bridge Preservation Service

Manager - Amjad Alzubi P.E

- Bridge Inspection Section
 - Section Leader – Mr. Peng Chen
- Bridge Management Section
 - Section Leader – Mr. Enamul Hoque



Bridge Management Section

- Maintain Arizona's bridge inventory-Database Management
- Evaluate bridge repair, rehabilitation, and replacement needs for all state bridges
- Prioritize bridge preservation needs and projects
- Develop and maintain structural models for all bridges in the Arizona bridge inventory
- Perform bridge load capacity ratings
- Perform analysis and review of overweight vehicle permits
- Generate bridge evaluation reports for scoping docs

ADOT Arizona National Bridge Inventory (NBI) Performance Summary

[NBI Bridge and Culvert Conditions](#)[NBI Performance Summary](#)[NBI ADOT Structures Summary](#)[Download NBI Data](#)

Arizona Bridge and Culvert Conditions

Only includes state and locally owned structures



Select a Submittal Year
2024



Select a Structure Type
<All Structures>

Additional Filters

Select a Condition Rating

<Show All>

Select a Jurisdiction

<Show All>

Select an Owner

<Show All>

Select a County

<Show All>

Select a COG or MPO

<Show All>

Select a Functional Class

<Show All>

This dashboard includes Arizona state or locally-owned motor vehicle bridges and culverts that were reported in the National Bridge Inventory (NBI).

Total Structures

8,028

Deck Area (sqft)

64,977,478

Deck Area (sq m)

6,036,555

Structures Displayed On Map

Only the first 1,000 structures are displayed in the list below. Use the filters to narrow list.

Q Search...

Bridge - Cornfield Canyon Br WB

▲ ADOT Structure 00073

I 10; WB @ M299+0.138

Bridge - Island Wash Br WB

▲ ADOT Structure 00210

I-10 WB @ M389+0.438

Bridge - Wash Br EB

● ADOT Structure 00303

I-8 EB @ M018+0.097

Bridge - Wash Bridge EB

▲ ADOT Structure 00317

I-8 EB @ M083+0.043

Bridge - Riordan ATSFRR OP EB

▲ ADOT Structure 00332

I 40; EB @ M190+0.820

Bridge - Tucker Flat Br EB

▲ ADOT Structure 00336

I-40 EB @ M248+0.993

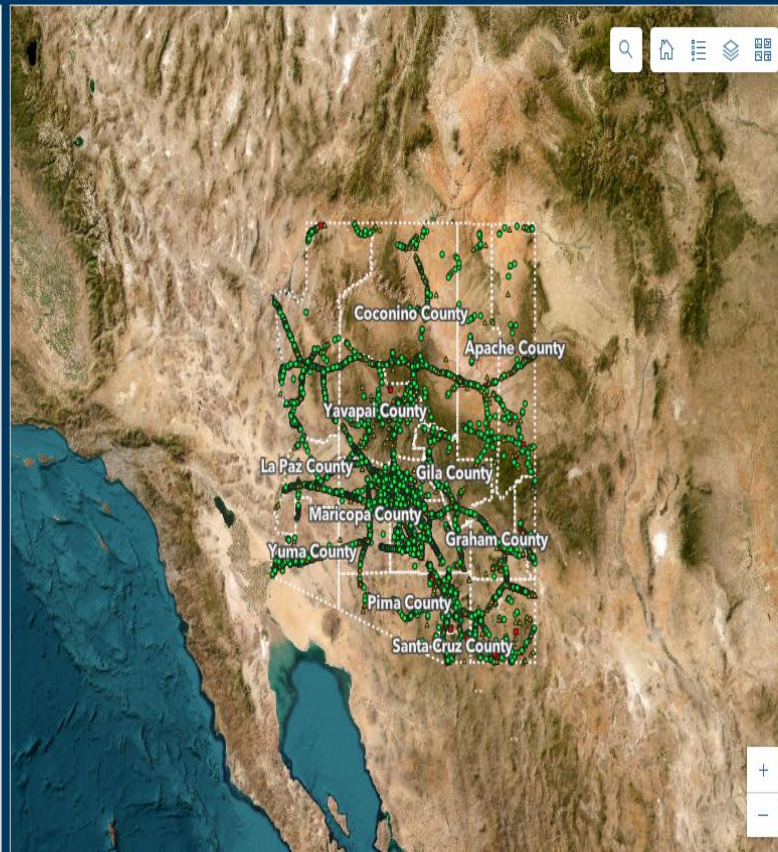
Bridge - Flat Top Wash Br EB

● ADOT Structure 00363

I-40 EB @ M021+0.059

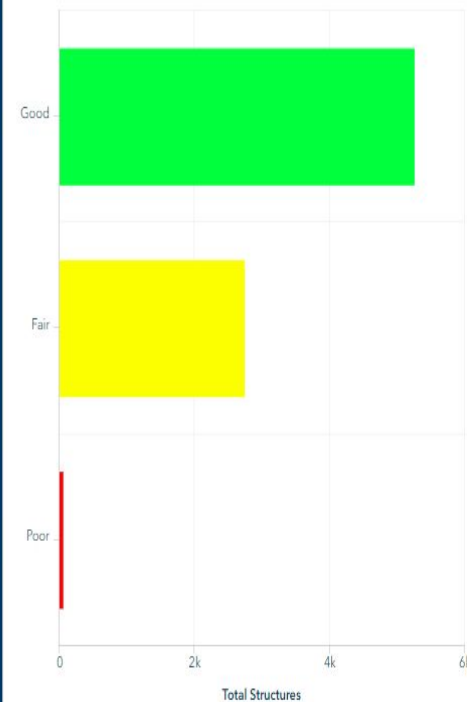
Bridge - Happy Jack Wsh Br WB

▲ ADOT Structure 00364



Earthstar Geographics | Sources: Esri, U.S. Department of Commerce, Census Bureau; U.S. Department of Commerce (DO... Powered by Esri

Rating by Total Structures



Scroll through different charts using the buttons below.

By Structures

By Deck Area

By Jurisdiction



Bridge Sub-Programs State Inventory

- ITEM 762XX
 - Bridge Replacement, Rehabilitation and Preservation
- ITEM 714XX
 - Bridge Inspection

Projects are nominated through the P2P process utilizing various bridge inventory and condition data from our bridge inspections.

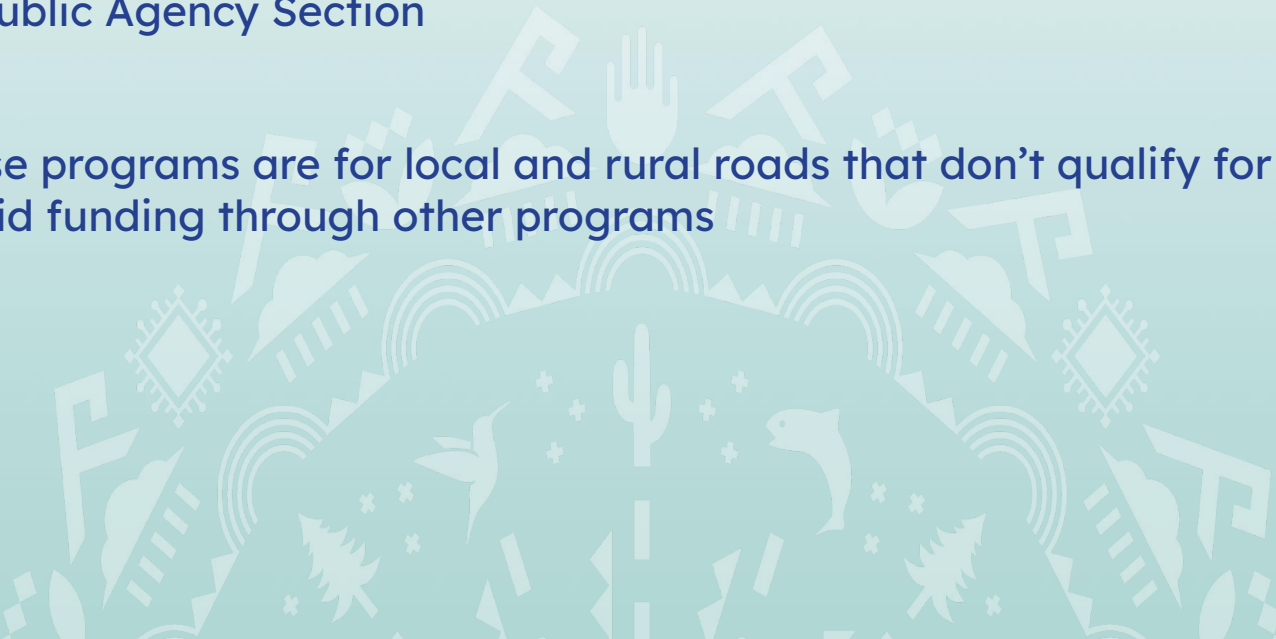
On average \$60 million programmed each year from ADOT preservation funding.

Bridge Sub-Programs Off System

- ITEM 763XX
 - Local Agency Off System Bridge Program No Match
- ITEM 764XX
 - Local Agency Off System Bridge Program with Match

Projects are nominated through a call for projects through Local Public Agency Section

These programs are for local and rural roads that don't qualify for federal aid funding through other programs



Bridge Inspection Section

- Implement NBIS and NTIS in Arizona
 - National Bridge Inspection Standards
 - National Tunnel Inspection Standards
- Bridge inspection (initial, routine, in-depth, special, damage, emergency)
- Inspect State bridges
- Inspect Local bridges
- Oversight of 1 self-inspecting agency





Geotechnical Service

Manager-Mr. Patrice Brun

- Geotechnical Design Section - Tad Niemyjski
- Geotechnical Operations



Geotechnical Design

Develop & implement design guidelines & specifications

Design and support the construction and maintenance of highway facilities—buildings, bridges, culverts, spillways, roadways, rock cuts, fill slopes, earth retaining structures

Monitor and mitigate unstable slopes and embankments, rock fall sites

Troubleshooting transportation facilities

YOU name it:

Pavement, weeping cracks, breaks, displacements, abandoned mines, sink holes, groundwater, earth fissures, faults, landslides and active subsidence zones



Geotechnical Operations

- Geotechnical Field Operations
 - Conduct geotechnical field investigations
 - Monitor instrumented cut and fill slopes



US 89 Landslide



Always Include Geotech!!! Don't forget the friends who support you... They are the foundation that you rely on. Please get them involved early.

ZDOT eCMS - 00332-2018... BridgeInve... FY 18 76218 Benton Updated I-10 Gila PC TIM-2016-0...

Any Questions?

