



INSPECTING UNIQUE STRUCTURES

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INSPECTING UNIQUE STRUCTURES

- Overview
 - What is a unique structure?
 - Types in Indiana
 - Examples
 - Small Structures/Culverts – (depends on agency for definition)

INSPECTING UNIQUE STRUCTURES

- Structures that are unique in Indiana
 - Bascule Bridges – Movable – 3 in NW
 - Open Spandrel Arches – Access issues – details – many across state
 - Timber Covered Bridges – Timber Truss/Arch – details – many across state
 - Confined Space Inspection – Box Girders: Concrete and Steel; Concrete Arch w/Deck no Fill
 - Pin and Hanger – access – details – testing
 - Post-Tensioned – details – various types around the state
 - Girders
 - Boxes
 - Slabs

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- Bascule Bridges:
 - 012-45-06537 B – INDOT US 12 in Lake Co.
 - 45-00365 – Lake Co. Dickey Rd.
 - 46-00505 – LaPorte Co. Franklin St.
- Many different components to inspect plus the added mechanical and electrical inspections of the motors, gears, wiring, safety features
- All 3 have NSTM and UW inspections as well

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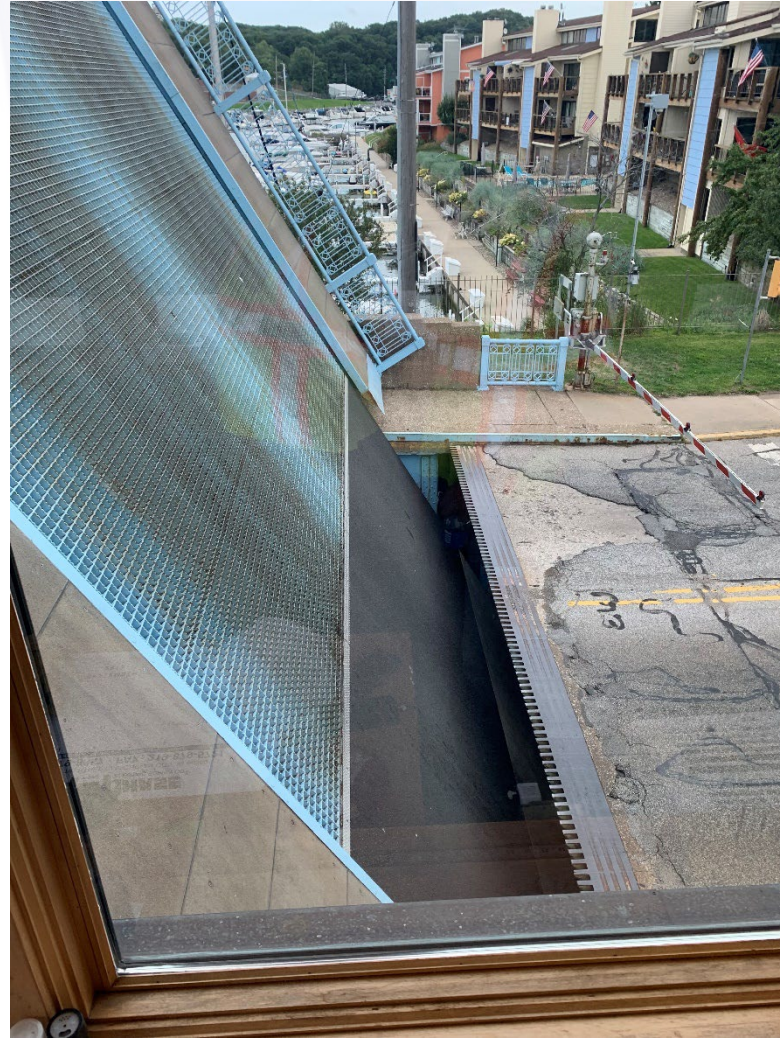
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- 46-00505



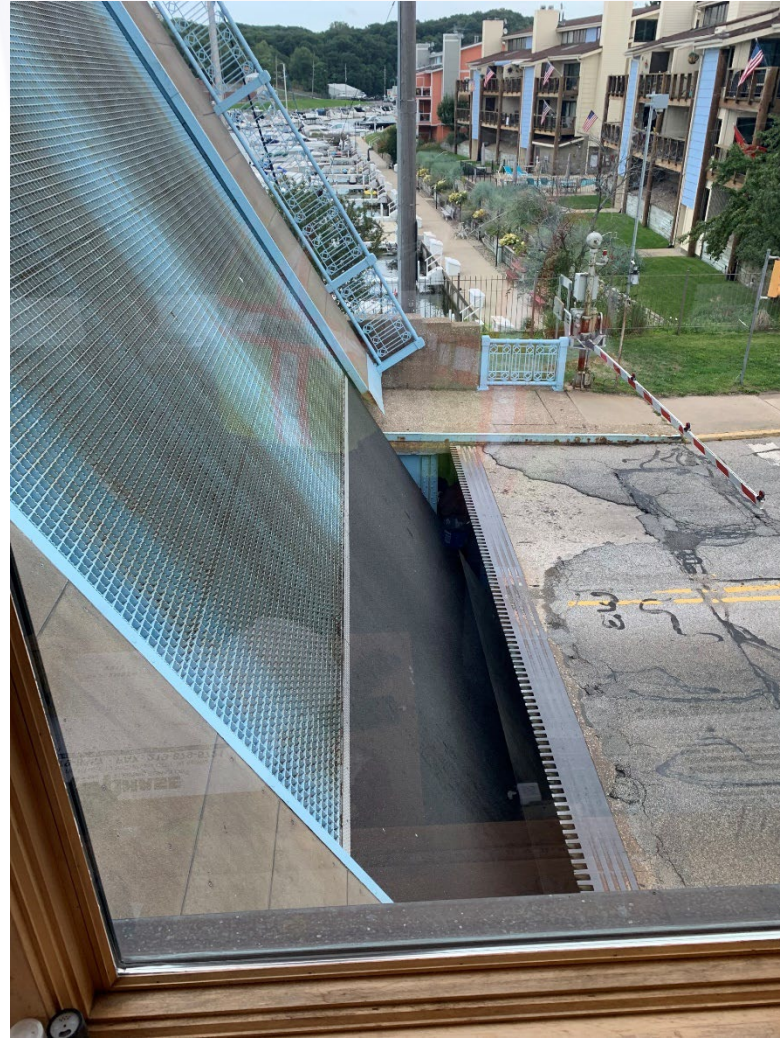
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INSPECTING UNIQUE STRUCTURES

- Open Spandrel Arch



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- Timber Covered Bridge



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- Timber Covered Bridge
 - Most popular types are Burr Arch Truss and Howe Truss
 - Once were in the special inspection category
 - Only 2 load paths – therefore non-redundant
 - Timber Truss but different reactions than steel or iron truss
 - Easy to miss details due to portal, deck, siding, etc.
 - Susceptible to animal/insect damage, human damage
 - Maintenance needed to prevent rot, tire damage, loose members

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- Timber Covered Bridge – Burr Arch



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- Timber Covered Bridge – Burr Arch



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- Timber Covered Bridge – Burr Arch



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- Timber Covered Bridge – Howe Truss



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- Timber Covered Bridge – Howe Truss



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- Confined Space Inspection



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- Pin and Hanger



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- Post Tensioned



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