

# Local Structures 6 – 20ft Program Overview

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# Overview of the Issue

- The definition of a bridge is found in the Code of Federal Regulations (CFR)
  - CFR 650.305

A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening

**measured along the center of the roadway of more than 20 feet**

between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it includes multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.



# Overview of the Issue

- Why does this matter? Bridges...
  - ...must have inventory information collected and stored.
    - Length, width, roadway type, number of lanes, etc.
  - ...have requirements to be regularly inspected.
  - ...must have an up-to-date load rating (capacity check).
  - ...are eligible for federal bridge rehab and replacement funding.
- All bridge data (state and local) stored in the Highway Structures Information System (HSIS)



# Overview of the Issue

- Structures under 20ft long...
  - ...have no inventory requirements.
  - ...have no inspection requirements.
  - ...have no load rating requirements.
  - ...are **NOT** eligible for federal bridge rehabilitation and replacement funding.



# Overview of the Issue

- Bridges and “not bridges” can look and act very similar



**NOT A BRIDGE**



**BRIDGE**



# Overview of the Issue

- Bridges and “not bridges” can look and act very similar



- C-1-10
- STH13 over Pedestrian Trail
- Span = 15'-0"

**NOT A BRIDGE**



- B-3-198
- STH25 over Branch of Yellow River
- Span = 2 x 12'-0" = 24'-0"

**BRIDGE**

# Overview of the Issue

- Small structures can still present issues...



- ...and require funding to repair or replace.



# Wisconsin 2023 – 25 State Budget

- Budget Language
  - *Provides \$12,500,000 SEG to JCF's supplemental appropriation in FY24 for assessment of local bridges and culverts and create a biennial DOT SEG appropriation that could receive the funds. Directs the Department to develop a program for counties to assess local bridges and culverts that are less than 20 feet, but greater than six feet in length.*
- State Statute 85.64
  - *The department shall administer a program for counties to inventory and assess the condition of local bridges and culverts that are 20 feet or less in length but greater than 6 feet in length.*





# What Structures are Eligible for this Program?

## Bridge-like Structures 6 – 20ft

This dimension must measure greater than 6ft and less than 20ft to be eligible



**Concrete Flat Slab**



**Buried Concrete Rigid Frame**  
(no floor)



**Steel Girders/Beams**



# What Structures are Eligible for this Program?

## Box Culverts 6 – 20ft

This dimension must measure greater than 6ft and less than 20ft to be eligible



Single-Cell Concrete Box Culvert



Multi-Cell Concrete Box Culvert

# What Structures are Eligible for this Program?

## Pipe Culverts 6 – 20ft

This dimension must measure greater than 6ft and less than 20ft to be eligible

**NOT THIS DIMENSION**



Steel Pipe



Steel Pipe Arch



# What Structures are Eligible for this Program?

## Pipe Culverts 6 – 20ft

This dimension must measure greater than 6ft and less than 20ft to be eligible



AND

The spacing between the pipes must be half the pipe diameter or less



**Multipipe Pipe Culverts**  
AKA “culvert nest”



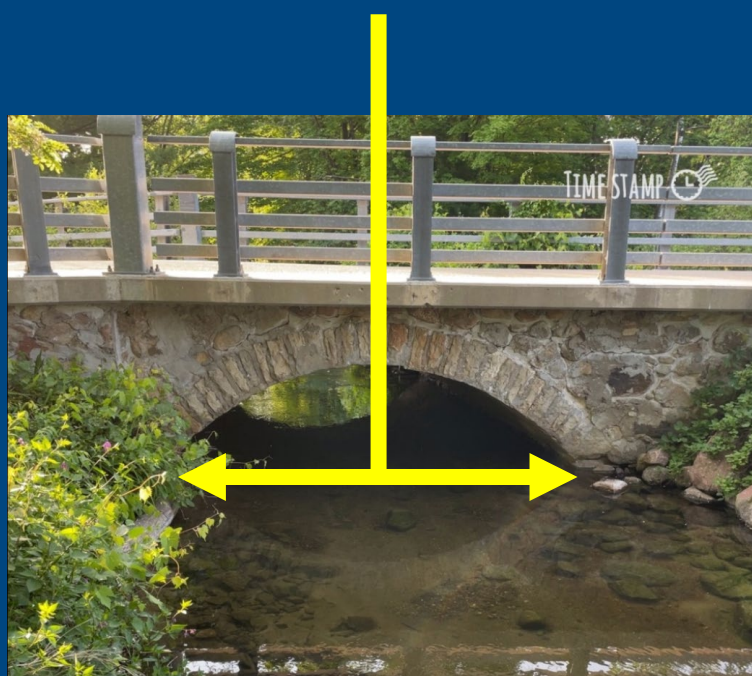
# What Structures are Eligible for this Program?

## Arch Structures 6 – 20ft

This dimension must measure greater than 6ft and less than 20ft to be eligible



Precast Concrete Arch



Masonry Arch



Concrete Arch

# Questions and Answers

- Q: Are structures on National Forest trails, pedestrian trails, railroad, alleys, etc. eligible for this program?
  - A: A structure is eligible if it is on a roadway owned by the local municipality. The examples above would not be eligible because they either aren't on roadways or those roadways aren't owned by the local municipality.



# Questions and Answers

- Q: Are large storm sewer systems eligible for this program?
  - A: Sewer systems were not intended to be a part of this program and are not eligible.



# Questions and Answers

- Q: Are structures on connecting highways eligible for this program?
  - A: Structures on connecting highways are included in this program, provided they meet the size requirements.





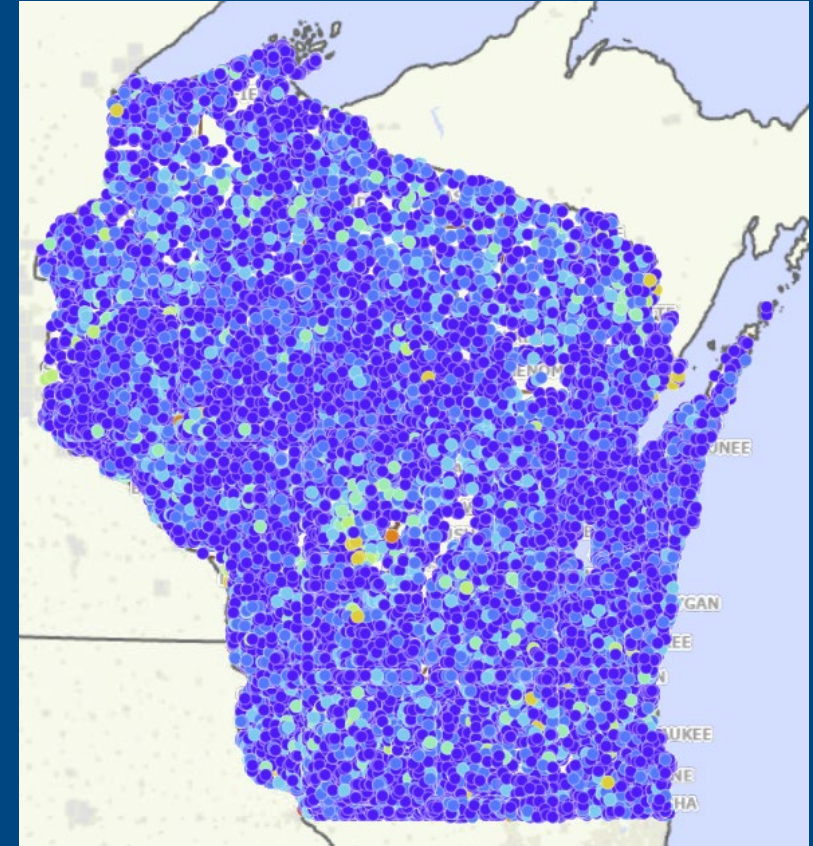
# Wisconsin 2023 – 25 State Budget

- Collaborative effort to “develop a program”
  - Wisconsin DOT
  - Wisconsin Towns Association
  - League of Wisconsin Municipalities
  - Wisconsin Counties Association
  - Wisconsin County Highway Association



# Size of the Local Inventory

- Approximately 25,000 structures that meet criteria
  - WisDOT GIS mapping
  - Extrapolation from state-owned data
  - Local owner survey
- WisDOT can provide information on possible locations



# Phased Approach

- Working with local owner representatives, reached consensus on a phased approach:
  - Inventory
  - Inspection
    - Load rating - as needed and pending available funds



# Phase 1: Inventory Information

- No qualifications for person collecting this information
- WisDOT Bureau of Structures to provide direction/training
- Data uploaded to the Highway Structures Information System (HSIS)
  - Name of person collecting information
  - Date of inventory
  - Owner
  - County
  - Municipality
  - Feature on (roadway name/number)
  - Number of lanes on structure
  - Feature under (if known)
  - Location (Latitude / Longitude)
  - Location description (distance from an intersection)
  - Total structure length
  - Structure type (pipe culvert, box culvert, girder bridge, etc.)
  - Structure material (concrete, steel, etc.)
  - Weight limit (if posted)
  - Concerns/photos





# Phase 1: Inventory Information

- Local owners have three options for resourcing the effort:
  - Use their own staff
  - Contract with a private-sector agency
  - Coordinate with their County Highway Commissioner and use county staff



# Phase 1: Inventory Information

- Information will be uploaded into the Highway Structures Information System (HSIS), an on-line database used to store all Wisconsin bridge information.
- Regardless of the resourcing method, inventory information will be sent to the County Highway Commissioners for submittal to WisDOT.



# Phase 1: Inventory Information

- WisDOT will reimburse \$100 per structure
  - WisDOT will reimburse County Highway Commissioners based on the number of structure inventories received for their respective county.
  - The County Highway Commissioners will be responsible for distributing those funds to local owners, as applicable.



# Phase 2: Inspection

- Inspections performed by Wisconsin certified bridge inspectors (about 300 in the state)
- Based on National Bridge Inspection (NBI) rating scale (0 – 9)
  - 0 – 2: Severe condition
  - 3 – 4: Poor condition
  - 5 – 6: Fair condition
  - 7 – 9: Good condition
- WisDOT Bureau of Structures to provide direction/training





# Phase 2: Inspection

- Local owners have three options for resourcing the effort:
  - Municipalities with staff certified as bridge inspectors and the capacity to resource the effort may inspect structures in their jurisdiction.
  - County Highway Commissioners with county staff certified as bridge inspectors and the capacity to resource the effort will inspect all local structures within their county.
  - If the County Highway Commissioner does not have certified bridge inspectors on staff or does not have capacity to resource the effort, private sector certified bridge inspectors will be used.



# Phase 2: Inspection

- WisDOT will reimburse \$350 per structure
  - When either municipal or county inspectors are used, reimbursement will go to the County Highway Commissioner and distributed from there as appropriate.
  - Wisconsin Counties Association (WCA) will coordinate contracts for consultant inspectors. Reimbursement will go to WCA.



# Questions and Answers

- Q: If a county or local municipality has already performed an inventory and/or inspections of their structures, can they be reimbursed for this prior work?
  - A: If a municipality has all the information required for the inventory, that information can be submitted and reimbursed at \$100 per structure.
  - All structures must have a recently completed inspection (completed after July 1, 2023). Inspections in this timeframe and meeting Department-established criteria are eligible to reimbursed at \$350 per structure.



# Questions and Answers

- Q: If a county has certified bridge inspectors on staff, can they use those inspectors to inspect county structures, but use consultant inspectors for all other structures (city/town/village)? Is this type of split allowed?
  - A: To simplify the administration of this effort, we are asking counties to either commit to using their own certified bridge inspectors on staff to inspect all structures in their county (county, city, town, and village) or notify WCA that they would like to consult out all the inspections in their county.





# Questions and Answers

- Q: If a county has a private-sector certified bridge inspector hired to do their bridge inspections, can they use them for these 6 – 20ft structures as well?
  - A: Contracts for private sector engineers will be coordinated by Wisconsin Counties Association, not individual counties. If a county has a consultant they have worked with and would recommend, they should convey that information to WCHA / WCA for consideration.



# Load Rating

- As deemed necessary and pending availability of funds, perform load ratings to ensure safety
  - Determining if the structure can safely carry legal-weight vehicles
  - Load post as necessary
- Performed by structural engineers
- Contracting and reimbursement mechanism pending availability of funds



# Target Timelines

- Funding is for the 2023 – 2025 budget cycle
  - Cycle ends June 30, 2025
- Target one year for inventory (complete by 12/31/2024)
  - Will provide better information on size of the inventory, scope of effort



# Target Timelines

- Encumber funds for inspection by 6/30/2025
  - Actual inspection work likely to continue past 6/30/2025
- Encumber funds (as available) for load ratings by 6/30/2025
  - Work can be done in parallel with inspections
- Target December 31<sup>st</sup>, 2025 to complete inspections





# Action Items & Deadlines

## Inventory Phase

- Local owners must decide on resourcing for the inventory phase and inform their County Highway Commissioner by **April 15, 2024**. To recap, options for resourcing are:
  - Use their own staff.
  - Have county staff collect information.
  - Have an executed contract with a private sector agency to perform the inventory work.
- Will be a form for local municipalities to complete indicating their resourcing choice.



# Action Items & Deadlines

## Inspection Phase

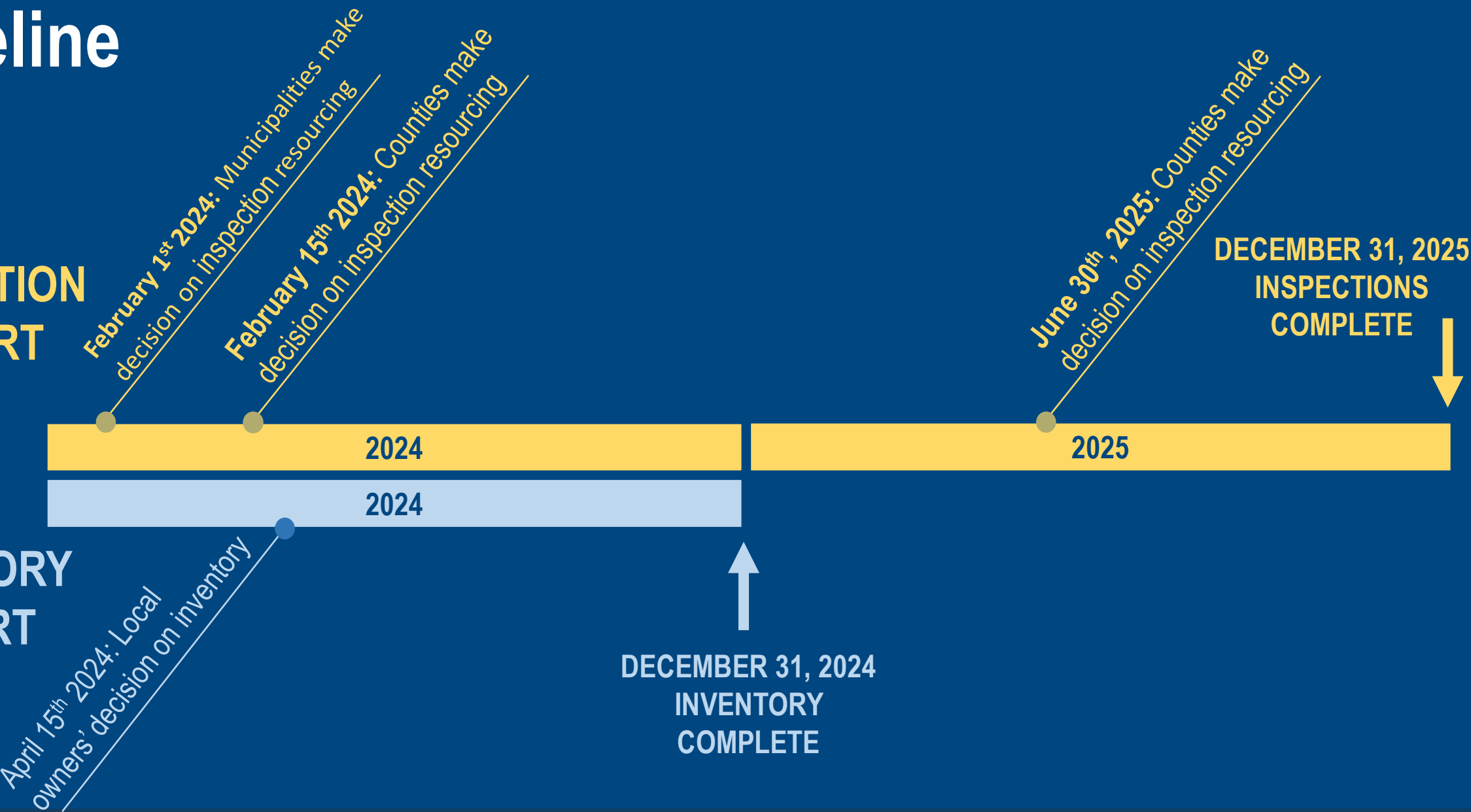
- Municipalities with staff certified as bridge inspectors must decide on resourcing and communicate to their respective County Highway Commissioner by **February 1<sup>st</sup>, 2024**. To recap, options for resourcing are:
  - Use municipal bridge inspectors to complete all required inspections in their jurisdiction
  - Use county bridge inspectors to complete all required inspections in their jurisdiction
  - Use the private sector bridge inspections with Wisconsin Counties Association (WCA)
- County Highway Commissioners must decide on resourcing and communicate to Wisconsin Counties Association by **February 15<sup>th</sup>, 2024**. To recap, options for resourcing are:
  - Use county bridge inspectors to complete all required inspections in their respective county.
  - Use private sector bridge inspectors, with Wisconsin Counties Association (WCA) executing the consultant contract.



# Timeline

## INSPECTION EFFORT

## INVENTORY EFFORT



# Looking Ahead

- Mentioned earlier – WisDOT Bureau of Structures will provide training via webinar for both inventory and inspection efforts.
  - Webinars will be recorded
  - Dates to be determined, but likely in February
  - Will advertise through WCHA, other local associations – stay tuned!

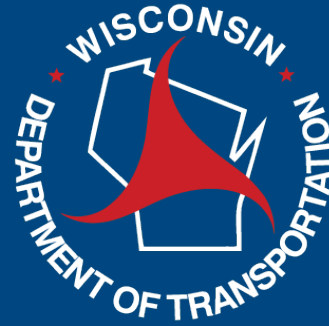




# Looking Ahead

- Information is being gathered for two reasons:
  - Ensure these structures are safe for the travelling public
  - Support future budget proposals for rehabilitation & replacement funding
- Future funding is not guaranteed, but collecting information on the size, nature, and condition of the small structure inventory is a necessary first step.





# Thank you!

January 22, 2024