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4.1 GENERAL

4.1.1 Introduction

Ancillary structures are those assets within the highway right-of-way that are not specifically denoted as bridges defined by the National Bridge Inventory (NBI), but have a structural design. Ancillary structural assets include small bridges (C), retaining walls (R), noise walls (N), high mast lights (L), sign and signal structures (S, G), and miscellaneous structures (M).

All types of structures deteriorate over time. These assets have exhibited similar patterns of deterioration as the structures previously discussed in Parts 2 and 3.

The methods to qualify as a Team Leader for Sign/Signal/HML inspections are as follows:

- 1. NHI Ancillary Structures Inspection Training
- 2. NHI Nonredundant Steel Tension Member (NSTM) Inspection training
- 3. One of the following:
 - a. WI P.E. Registration
 - b. 5 years Structure Inspection Experience
 - c. Certified Welding Inspector (CWI)

4.1.2 Inspection Intervals

All ancillary structures covered in Part 4 shall be inspected at regular intervals to ensure their intended function in a proper and safe manner. Figure 4.1.2-1 provides the <u>maximum</u> inspection interval for each specific type of structure.

There are several scenarios where the maximum interval for inspection no longer applies and a more frequent inspection is warranted. Note that these are statewide requirements, but Regional Ancillary Program Managers have the authority to set more restrictive policies for their inventory as they see necessary. These statewide requirements shall be, but are not limited to, the following:

- For small bridges (C)
 - If the structure is load posted at 20 tons or up to but not including 40 tons and above, or the NBI value for Superstructure, Substructure, or Culvert is equal to 4, then the routine inspection interval shall be two (2) calendar years.
 - o If the structure is load posted at less than 20 tons, or Superstructure, Substructure, or Culvert are 3 or less, the routine inspection interval shall be every calendar year.
- For sign and signal structures (S, G), and high mast lighting structures (L)
 - If the overall condition rating is severe, then the inspection interval shall be every calendar year.
 - If the overall condition rating is poor, then the inspection interval shall be every two (2) years.

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- Steel full span truss structures are only eligible for the six (6) year interval if they are less than 30 years old, and the overall condition rating is good. Otherwise, the interval shall be four (4) years unless conditions of the previous two bullet points exist.
- For noise and retaining walls (N, R), and miscellaneous structures (M)
 - o If the overall condition rating is severe then the inspection interval shall be every calendar year, if not more frequent at the discretion of the Regional Ancillary Inspection Program Manager. If the overall condition rating is poor, then it is up to the discretion of the Regional Ancillary Inspection Program Managers responsibility to review and reduce the inspection interval for the structure.

ANCILLARY STRUCTURES			
Structure Type	Inspecti on Type	Max. Inspection Interval (Calendar Years)*	Comments
Sign and Signal Structures (S, G)	Routine	6 Years (Steel Truss Full Spans) 4 Years (Steel Cantilever)	Cantilever structures will have anchor rods ultrasonically tested during each inspection.
		4 Years (Aluminum Full Spans) 2 Years (Aluminum Cantilever)	
	NDT	As needed	Should be performed anytime the inspector notes a defect that needs to be further explored.
High Mast Lighting Structures (L)	Routine	4 Years (Steel)	All anchor rods will be ultrasonically tested during each inspection.
	NDT	As needed	Should be performed anytime the inspector notes a defect that needs to be further explored.
Retaining Walls (R)	Routine	6 Years	
Noise Barriers (N)	Routine	6 Years	
	NDT	As needed	Valid only for noise barriers with anchor bolts, such as a barrier mounted to the side of a bridge.
Miscellaneous Structures (M)	Routine	8 Years	Structure types vary widely; interval to be set by Regional Ancillary Program Manager
Small Bridges (C)	Routine	4 Years	
	UW- Dive	6 Years	If the structure is inaccessible for the Routine inspections due to typical water levels, this interval shall be reduced to every 4 years to match the Routine Inspection.

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Figure 4.1.2-1: Recommended Inspection Intervals for Ancillary Structures.

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^{*} Inspections will be scheduled based on the month/year, but performance will be measured on based on completing the inspection in the appropriate calendar year. For this reason, it is highly encouraged that no routine inspections be scheduled for the month of December, unless they are emergencies or initial inspections of a structure recently installed. This is to prevent weather related delays for the inspection that would cause the program to fall into non-compliance.