

Data Supplement B: Back-Casting Graphs

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Introduction

The supplemental data included herein consists of the back-casting results for the 60 sample bridges included in the study TPF-5(388), “Developing Implementation Strategies for Risk Based Inspection (RBI).” Results are shown for each sample bridge over a time interval of 2008 – 2022. For each bridge, the top figure shows that condition rating for the bridge components of superstructure, substructure, and deck. The bottom figure shows the risk score calculated for each component for each year. The risk scores (or Occurrence Factor score) was calculated from the original risk models developed from a Reliability Assessment Panel (RAP) conducted in the associated state during the course of the research. The risk scores shown are based on the original, unweighted risk models.

Bridge component condition ratings were downloaded from the FHWA Infobridge website. Risk scores were based on review of inspection reports obtained from the bridge owner. In certain cases, the inspection records were incomplete, and risk score of zero were assigned when an inspection report for a given inspection cycle was not available.

Back-casting results are shown of Connecticut (CT), Idaho (ID), Illinois (IL), Missouri (MO), Washington (WA), and Wisconsin (WI).

Back-casting results for bridges of Connecticut (CT)

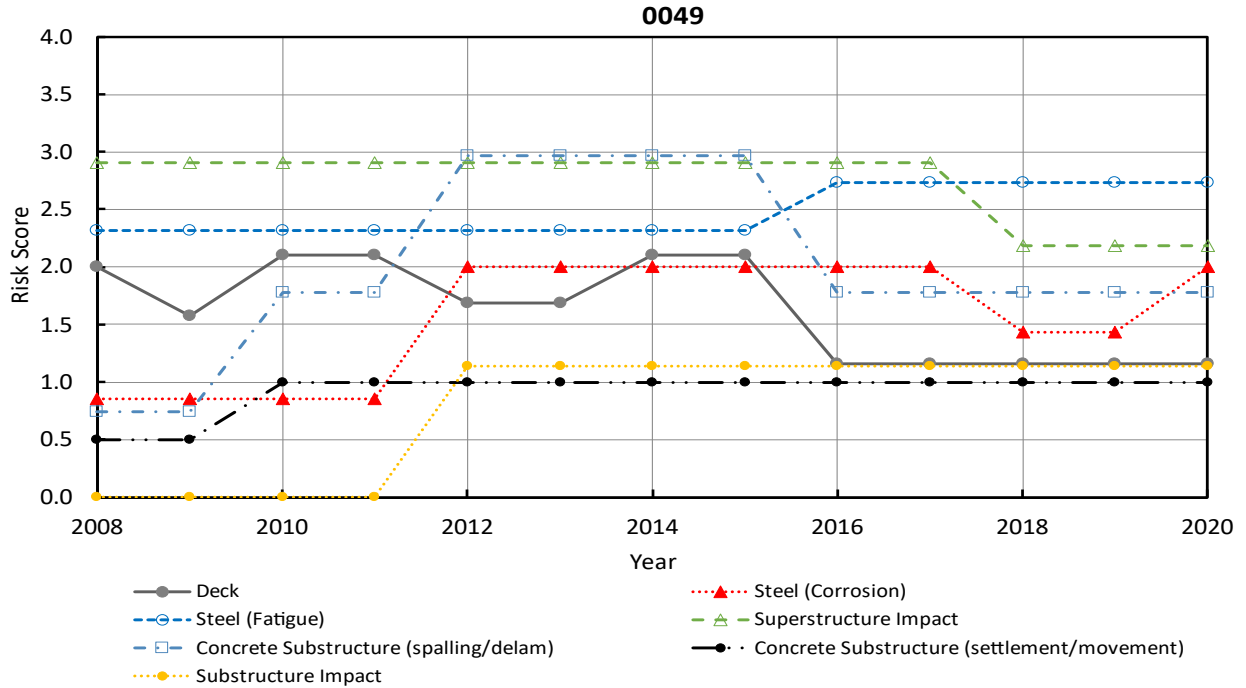
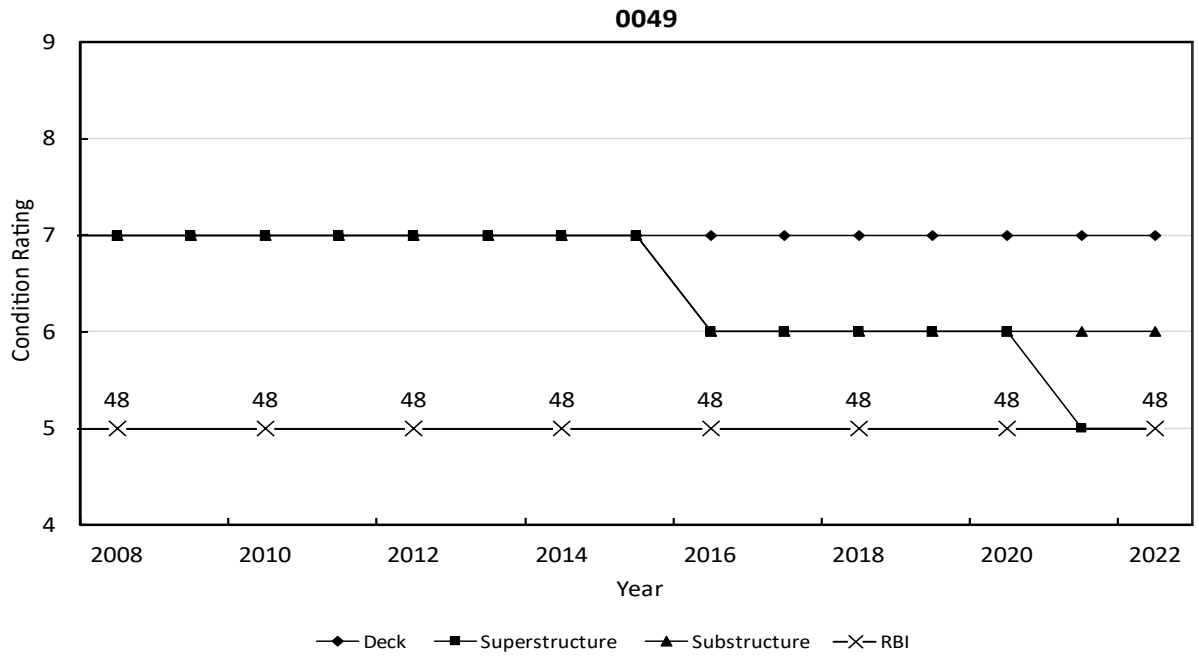


Figure B.1. Back-casting figure for structure number 0049 (CT).

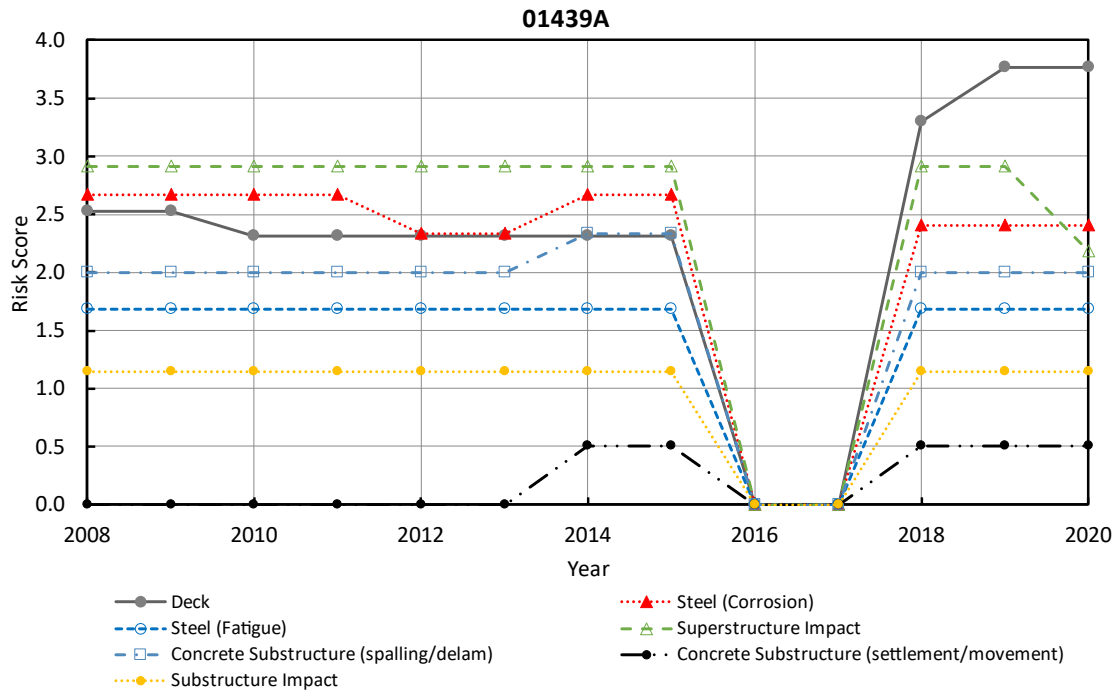
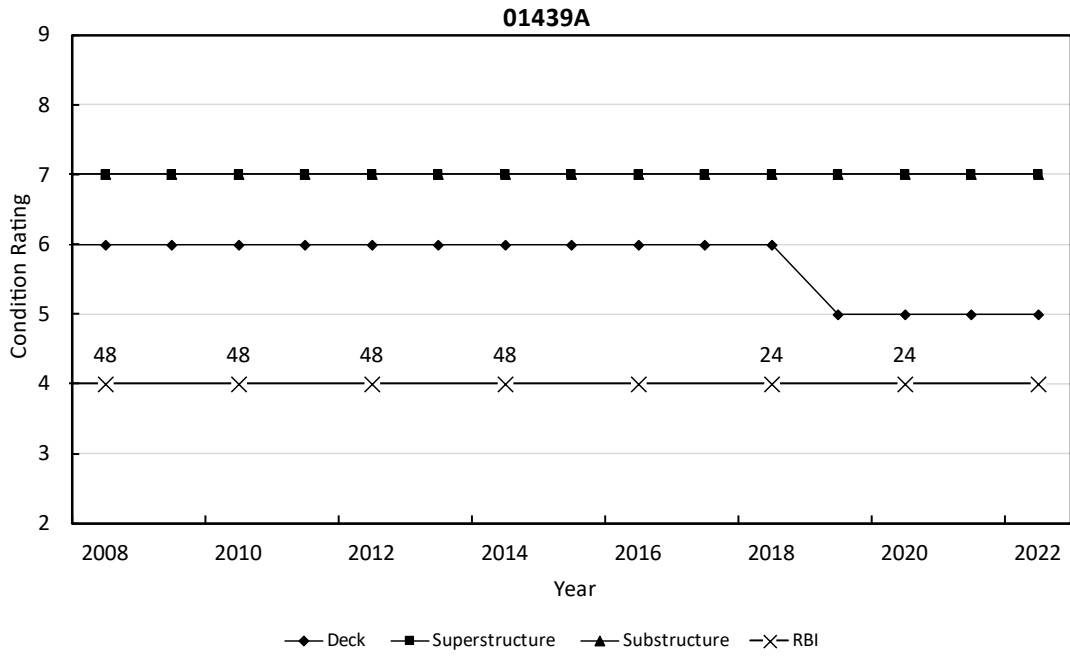


Figure B.2. Back-casting figure for structure number 01439A (CT).

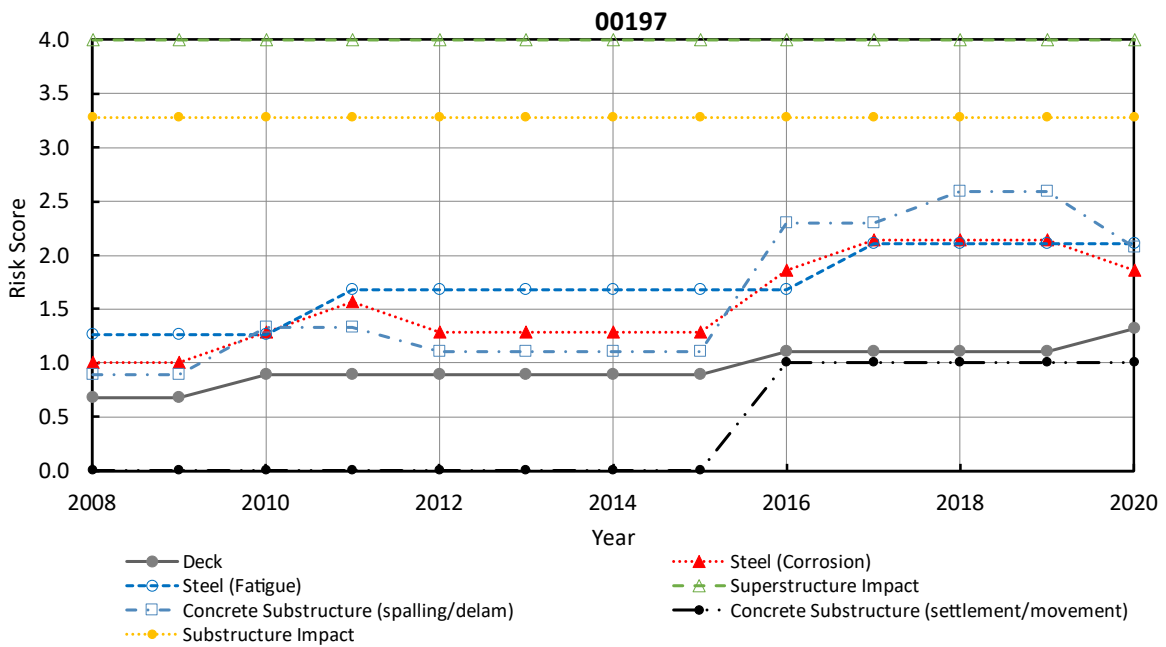
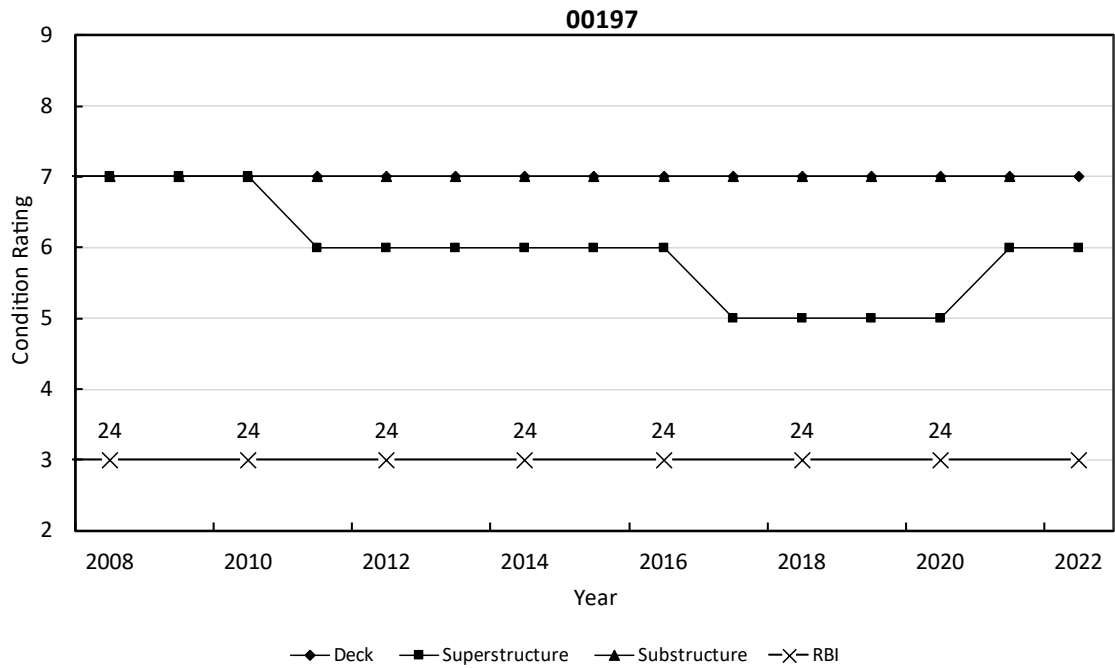


Figure B.3. Back-casting figure for structure number 00197 (CT).

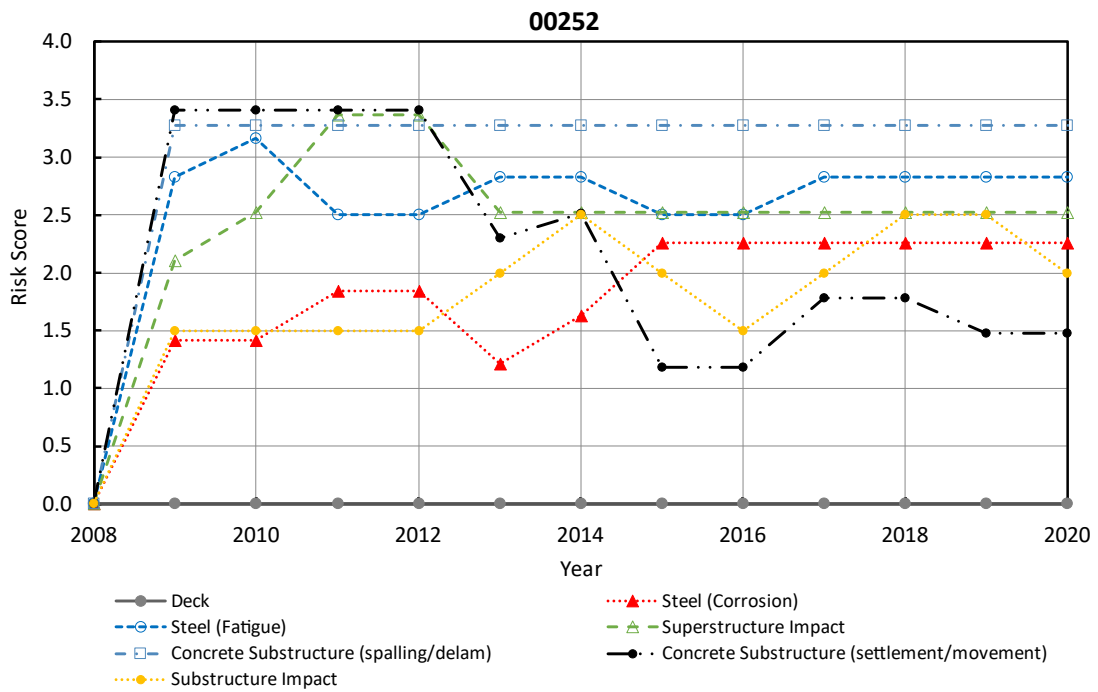
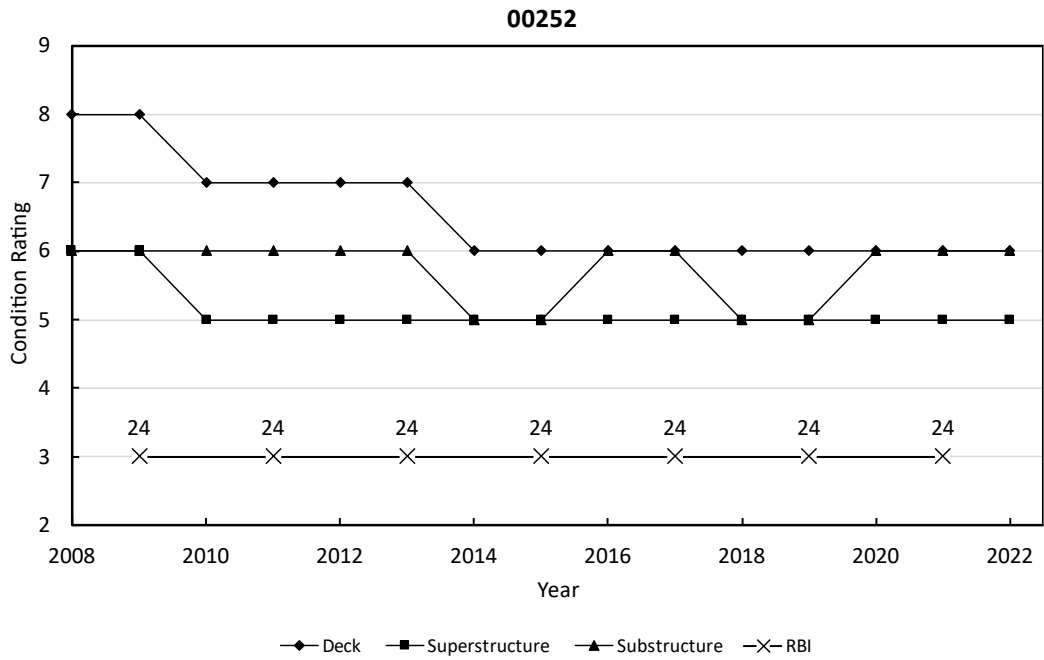


Figure B.4. Back-casting figure for structure number 00252 (CT).

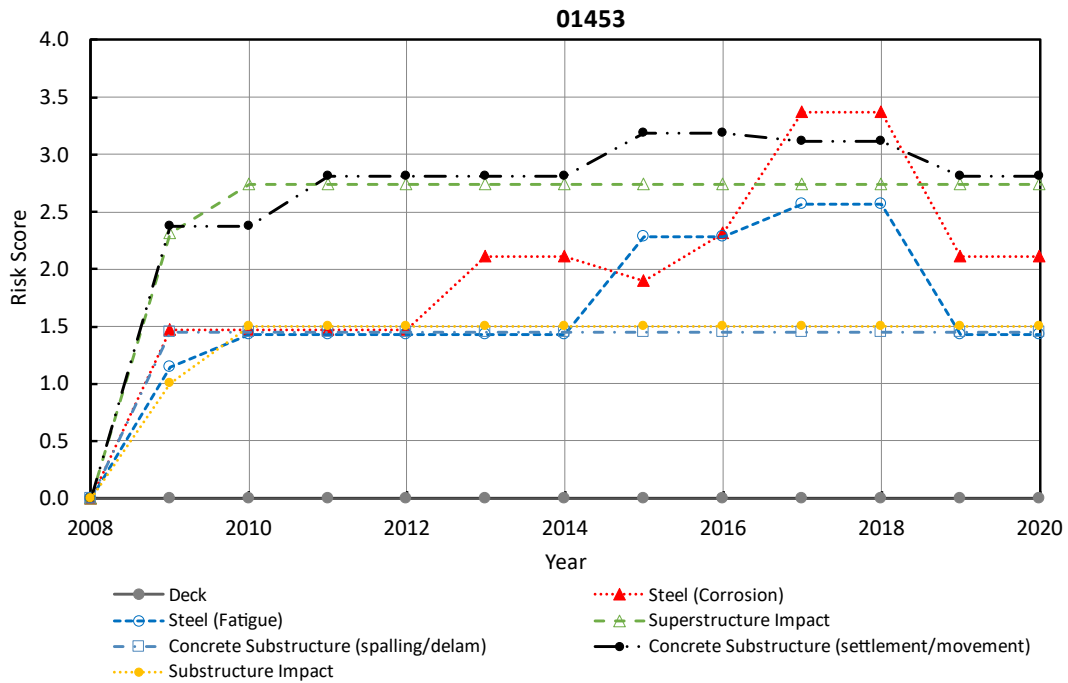
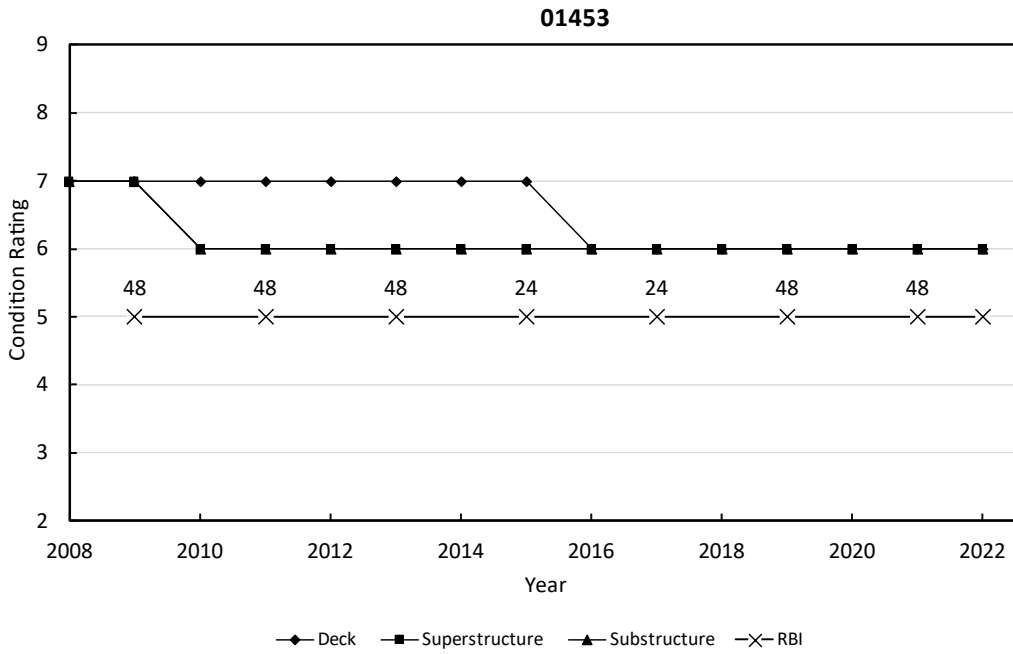


Figure B.5. Back-casting figure for structure number 01453 (CT).

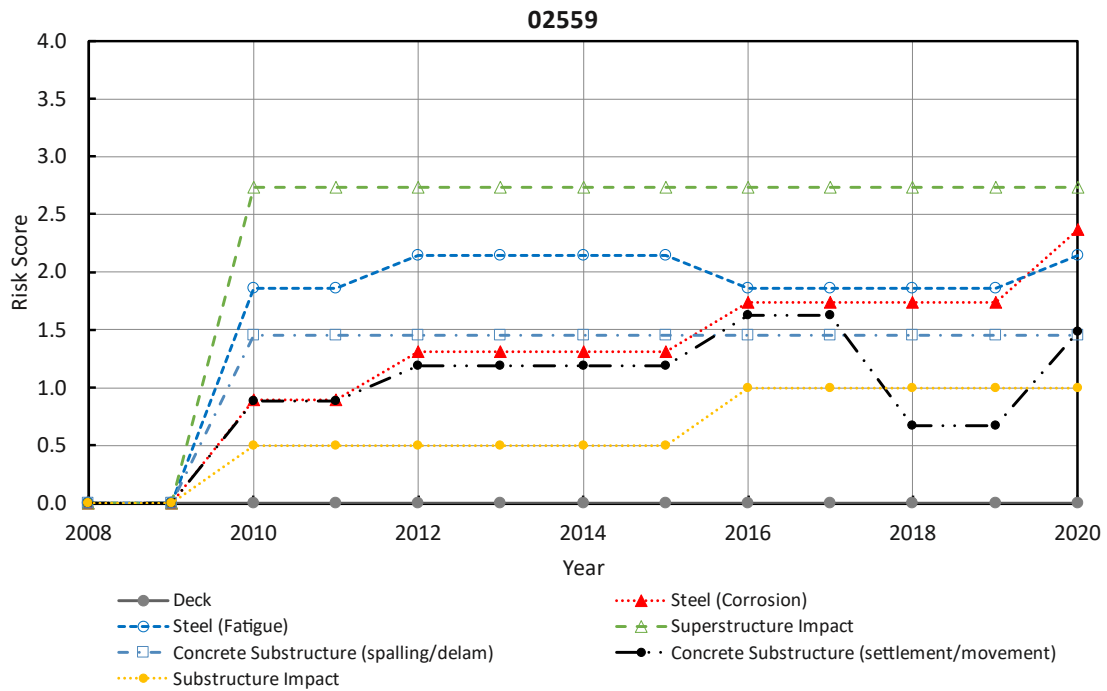
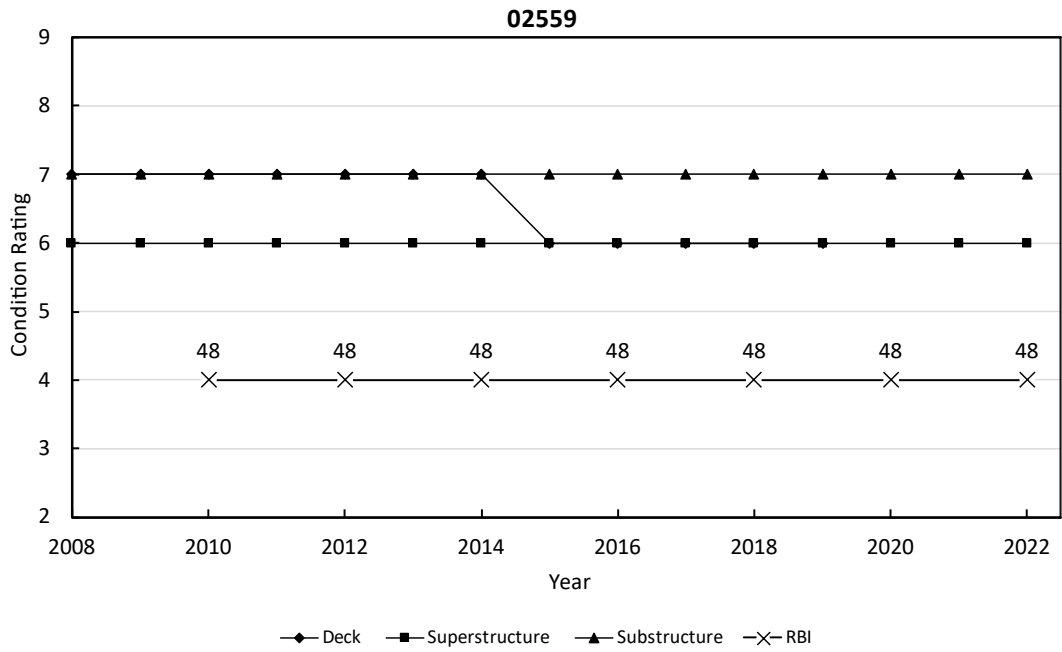


Figure B.6. Back-casting figure for structure number 02559 (CT).

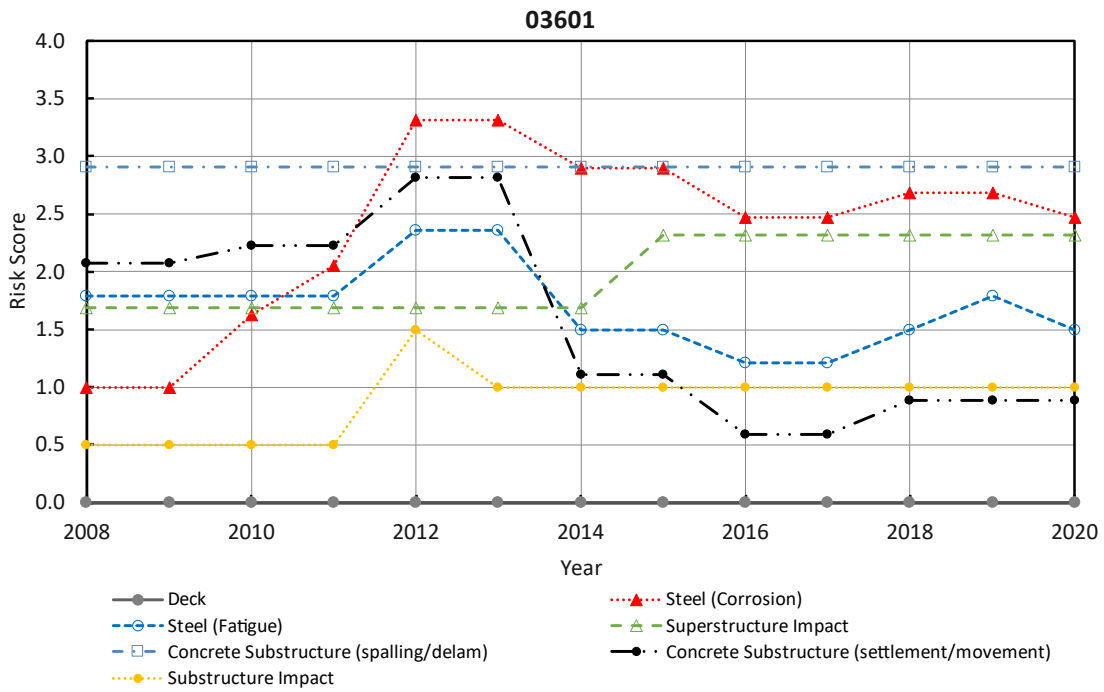
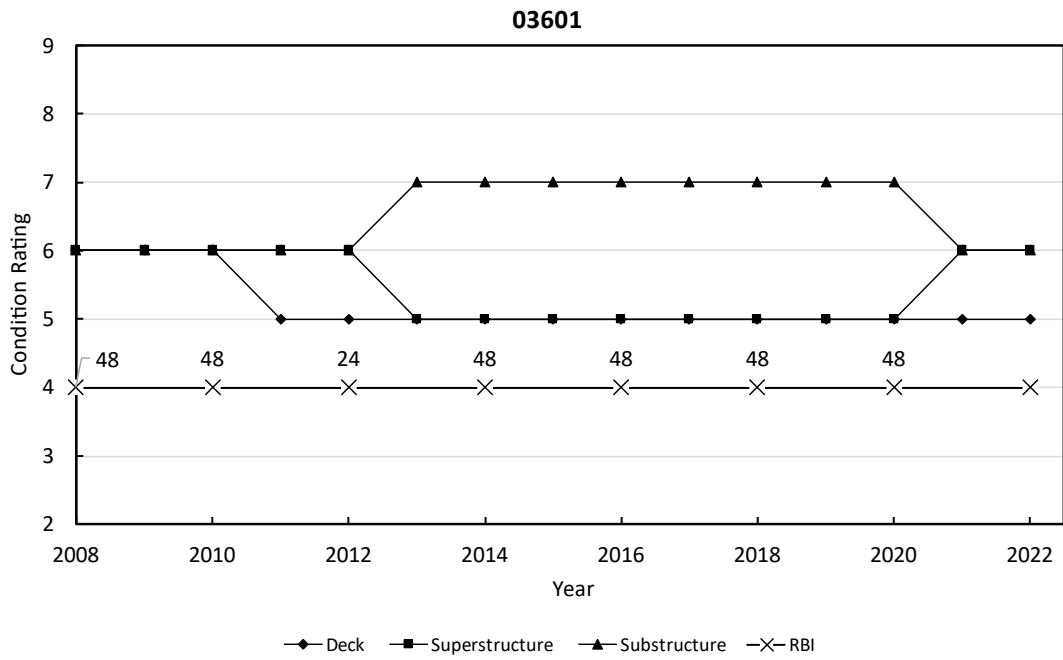


Figure B.7. Back-casting figure for structure number 03601 (CT).

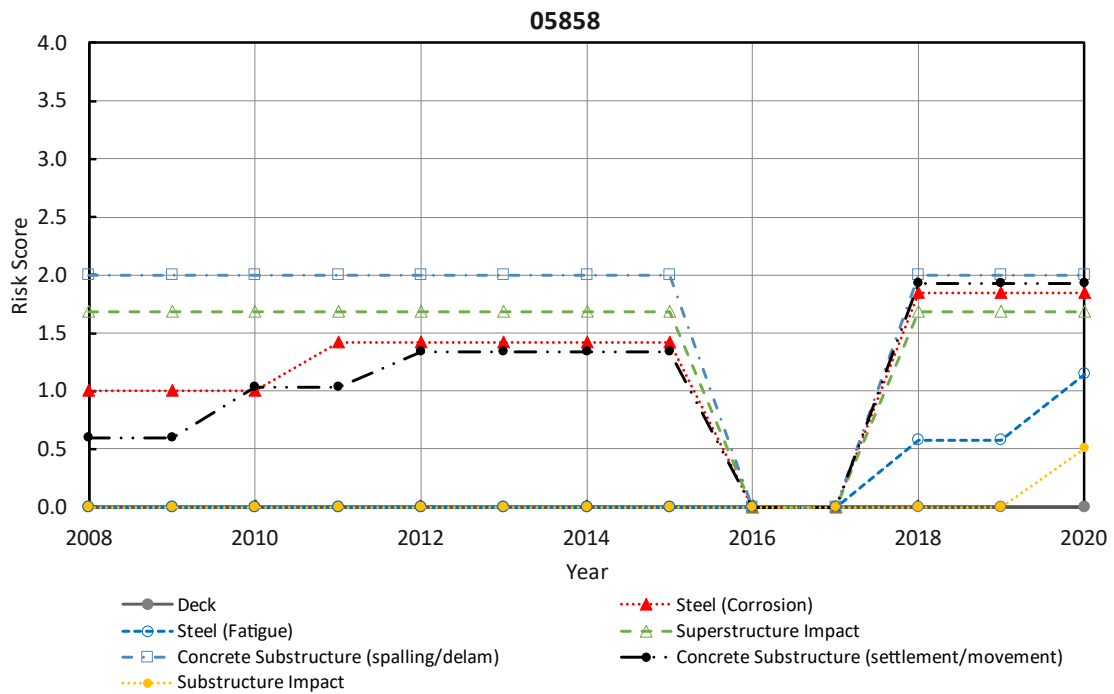
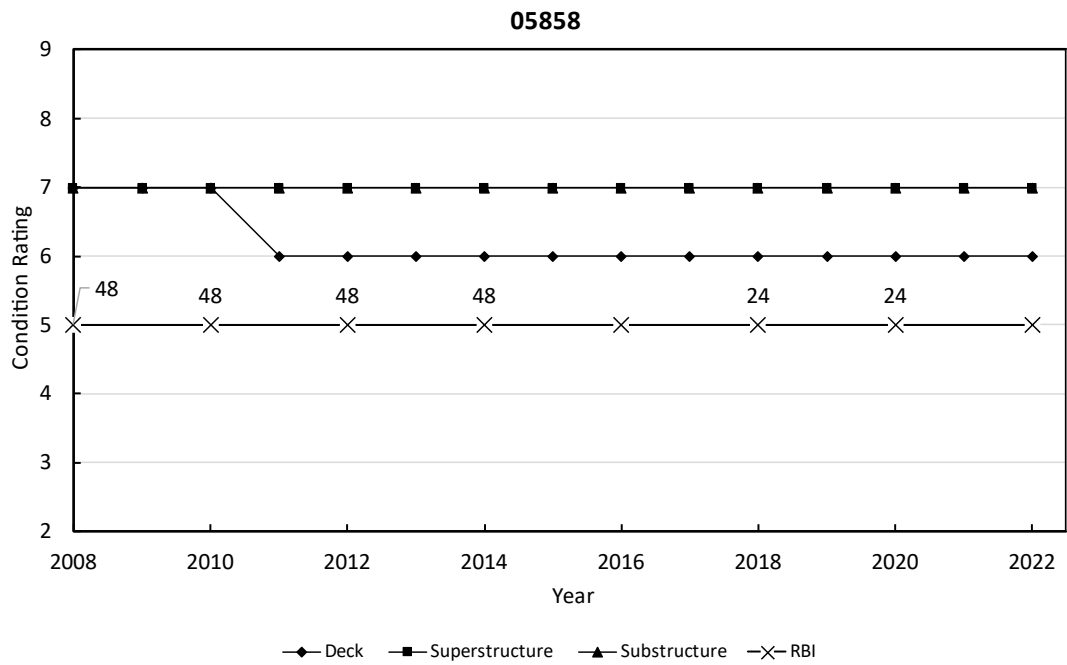


Figure B.8. Back-casting figure for structure number 05858 (CT).

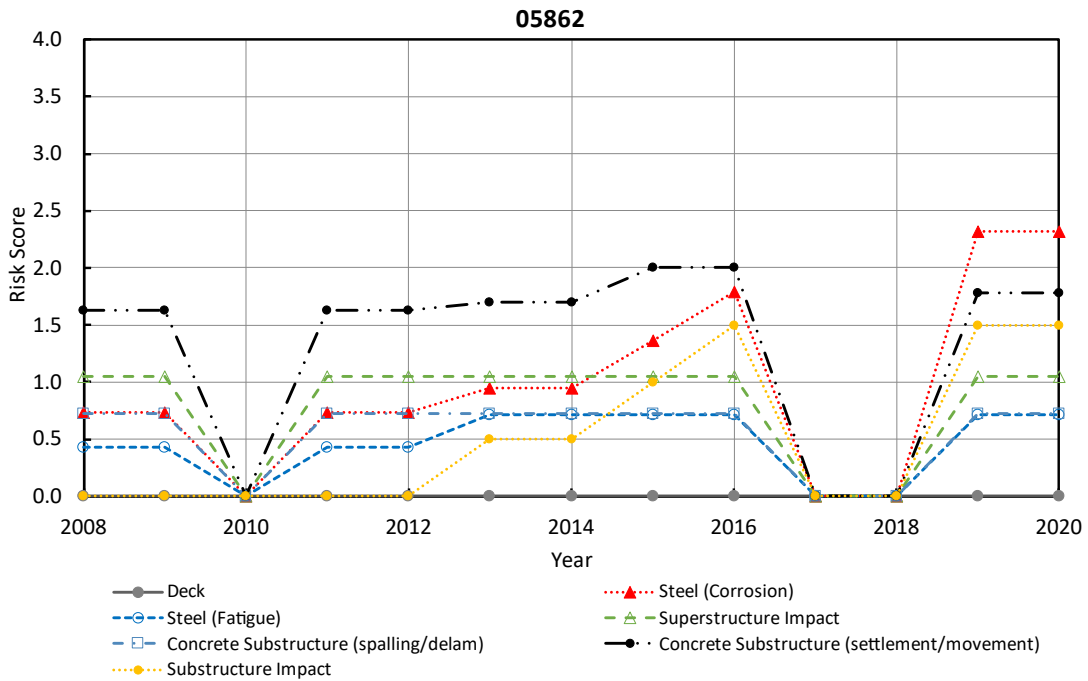
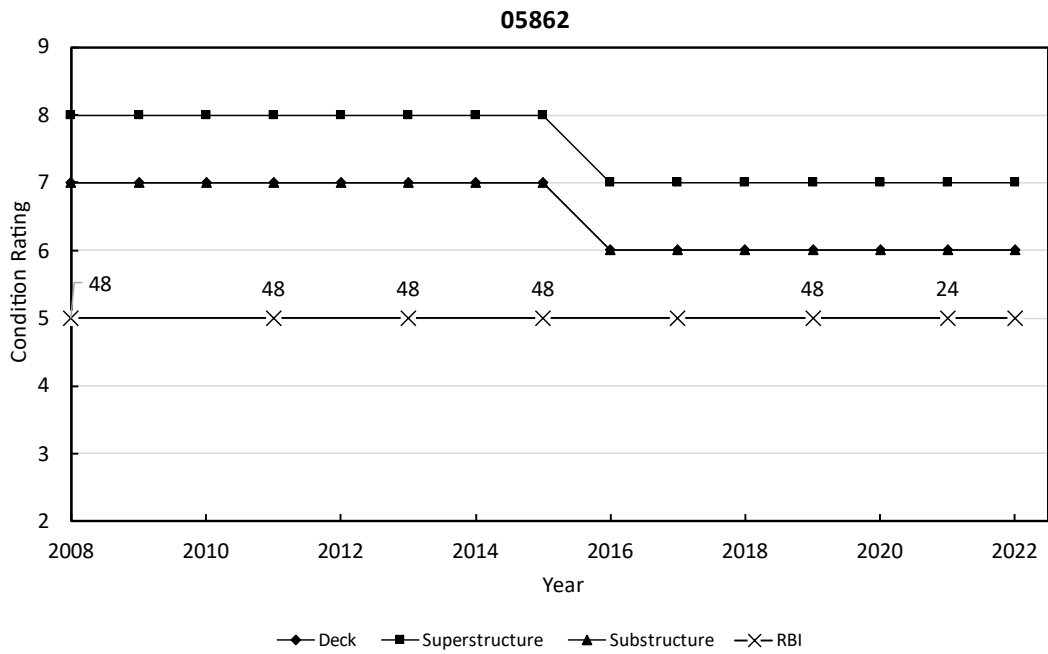


Figure B.9. Back-casting figure for structure number 05862 (CT).

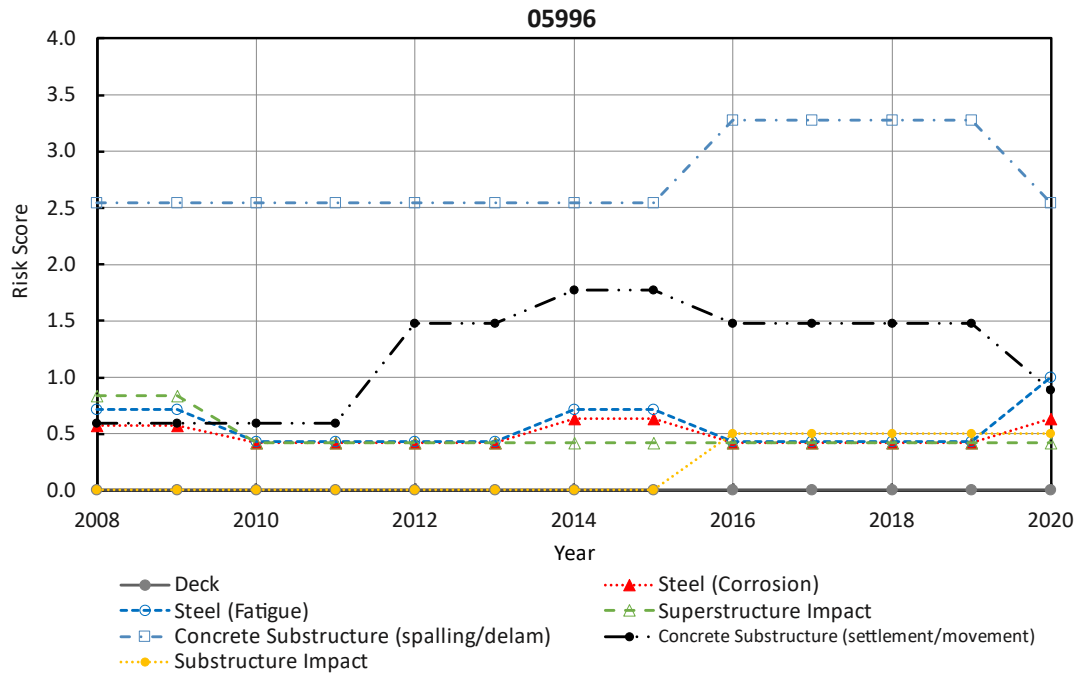
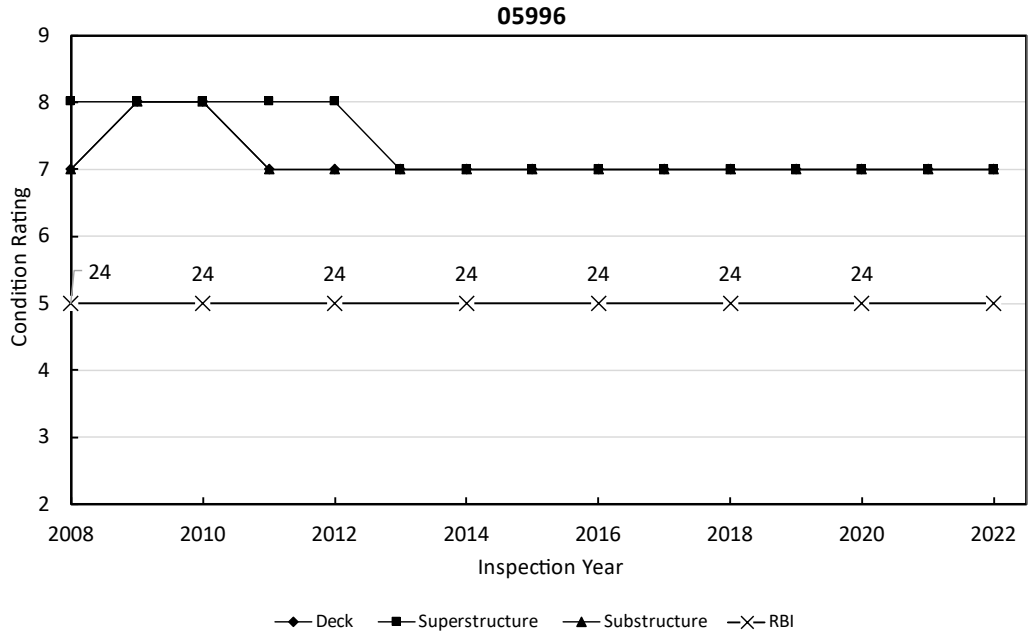


Figure B.10. Back-casting figure for structure number 05996 (CT).

Back-casting results for bridges of Idaho (ID)

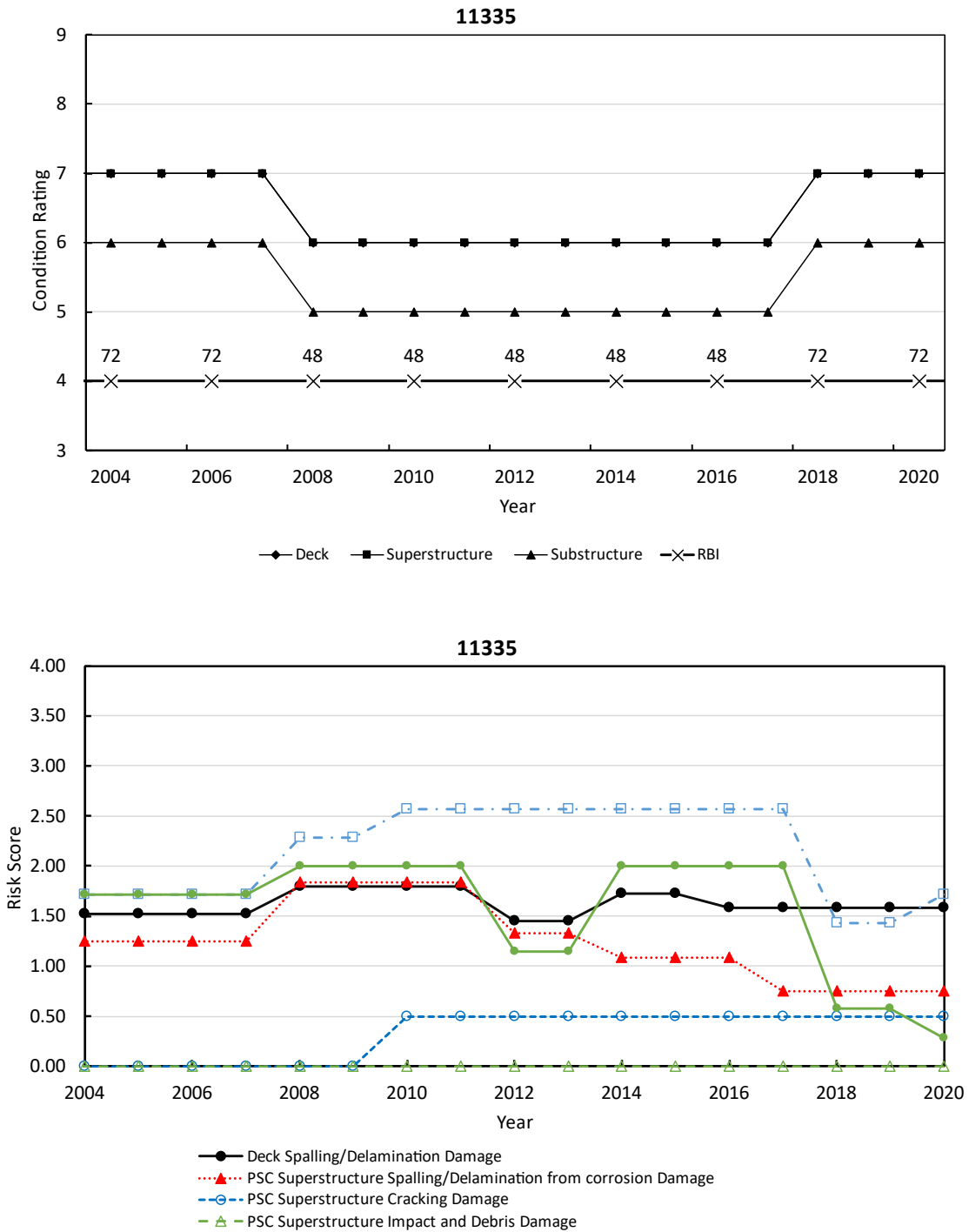


Figure B.11. Back-casting figure for structure number 11335 (ID).

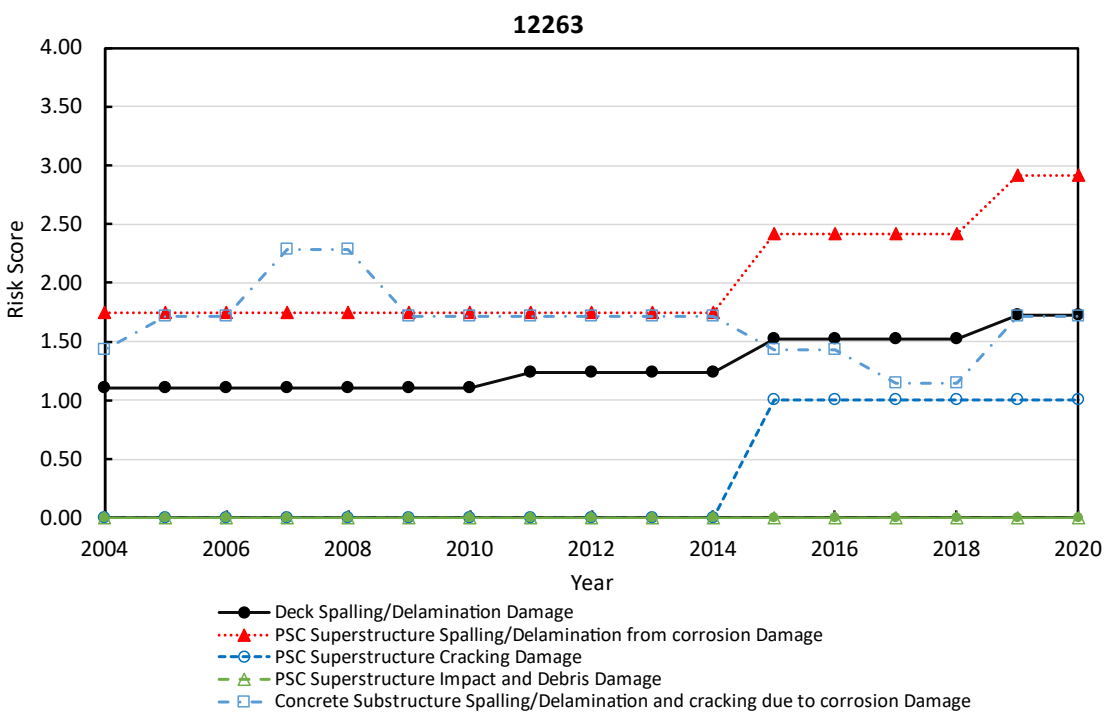
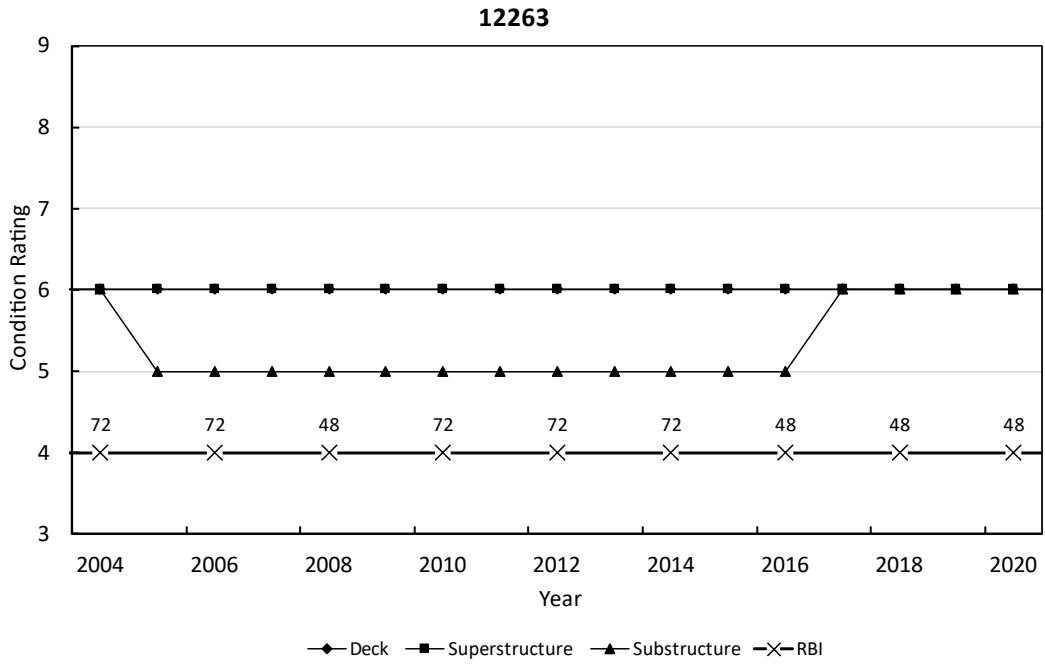


Figure B.12. Back-casting figure for structure number 12263 (ID).

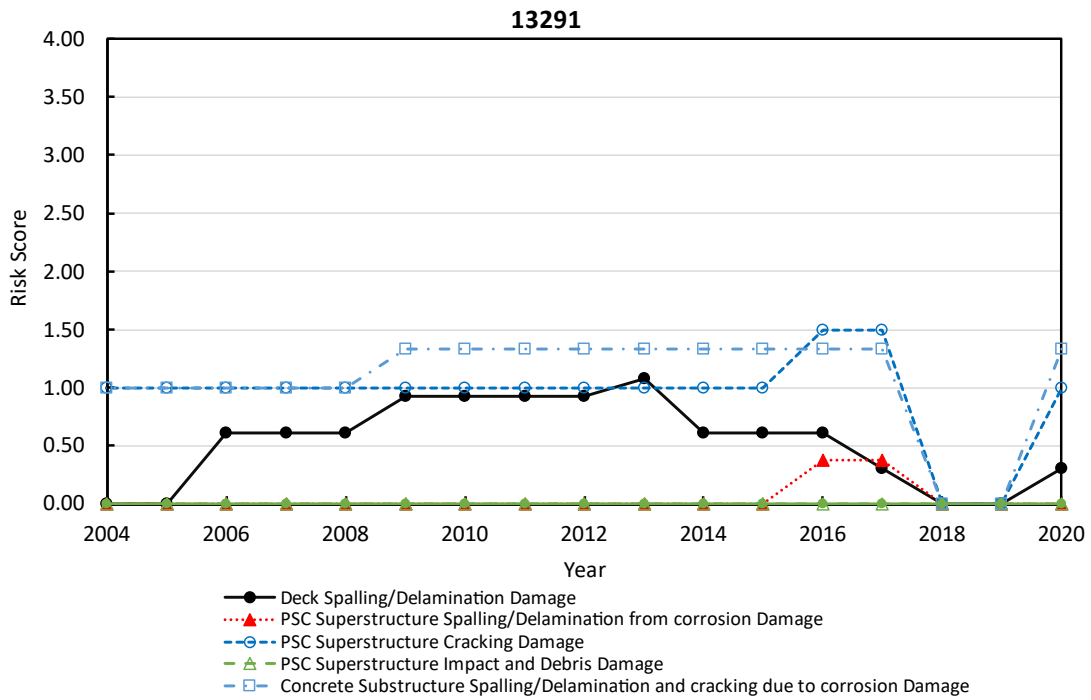
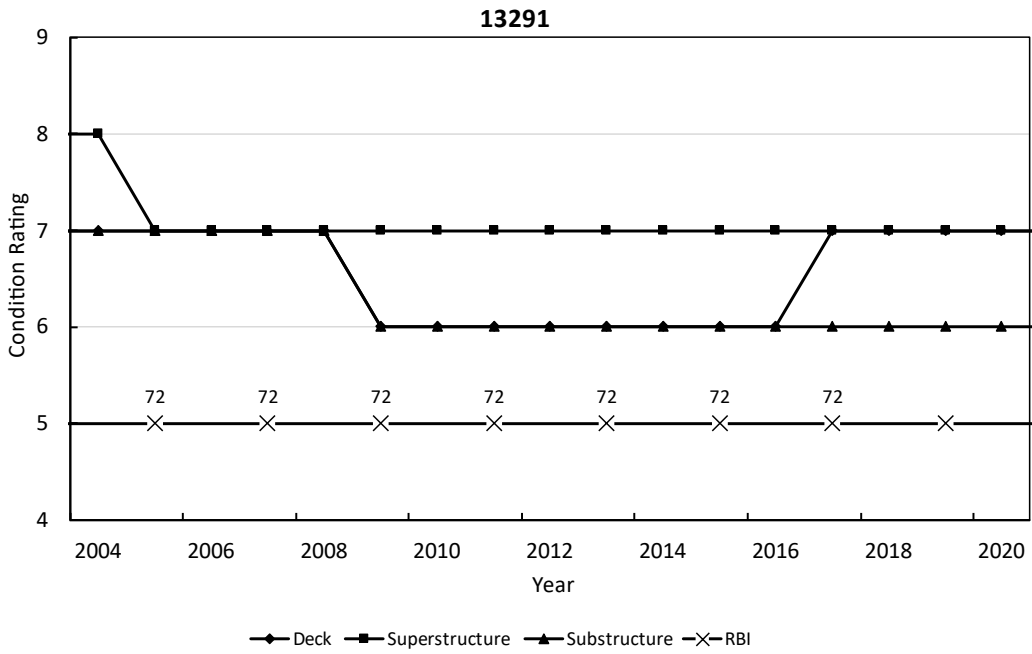


Figure B.13. Back-casting figure for structure number 13291 (ID).

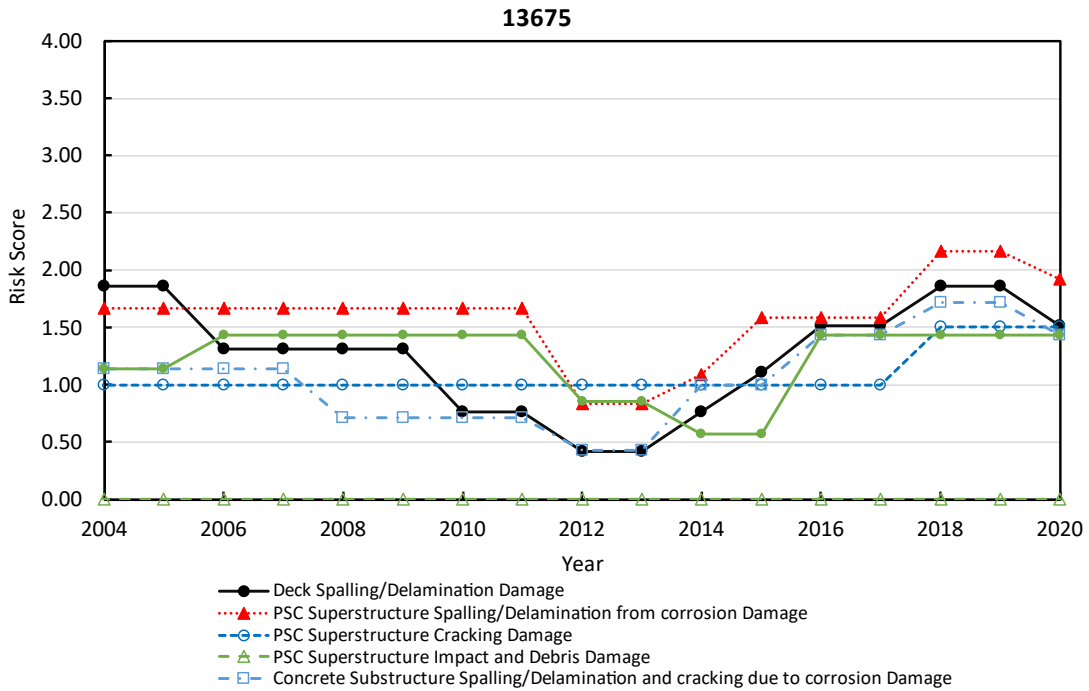
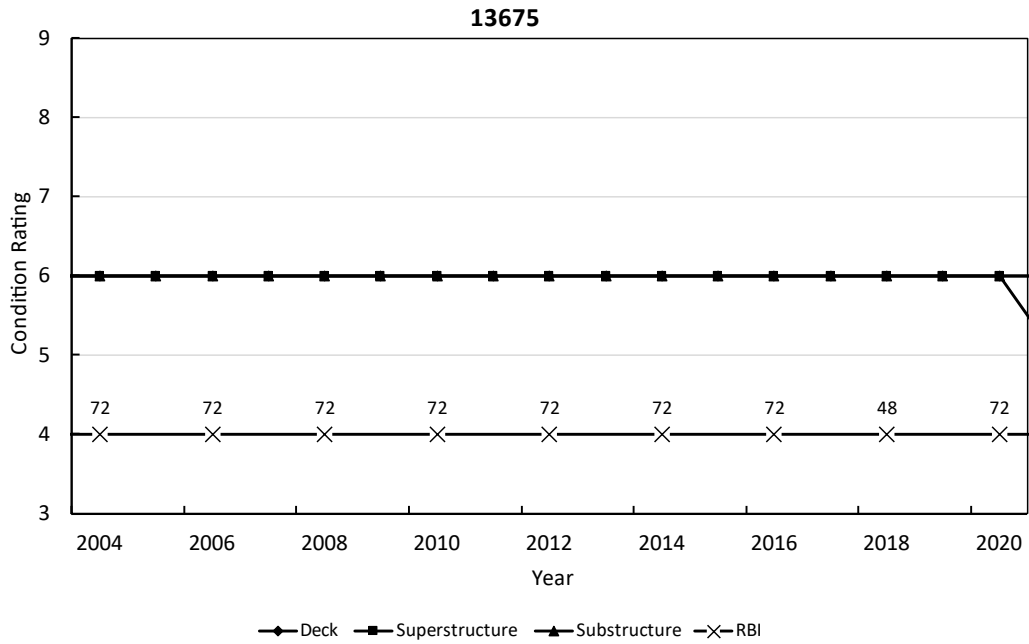


Figure B.14. Back-casting figure for structure number 13675 (ID).

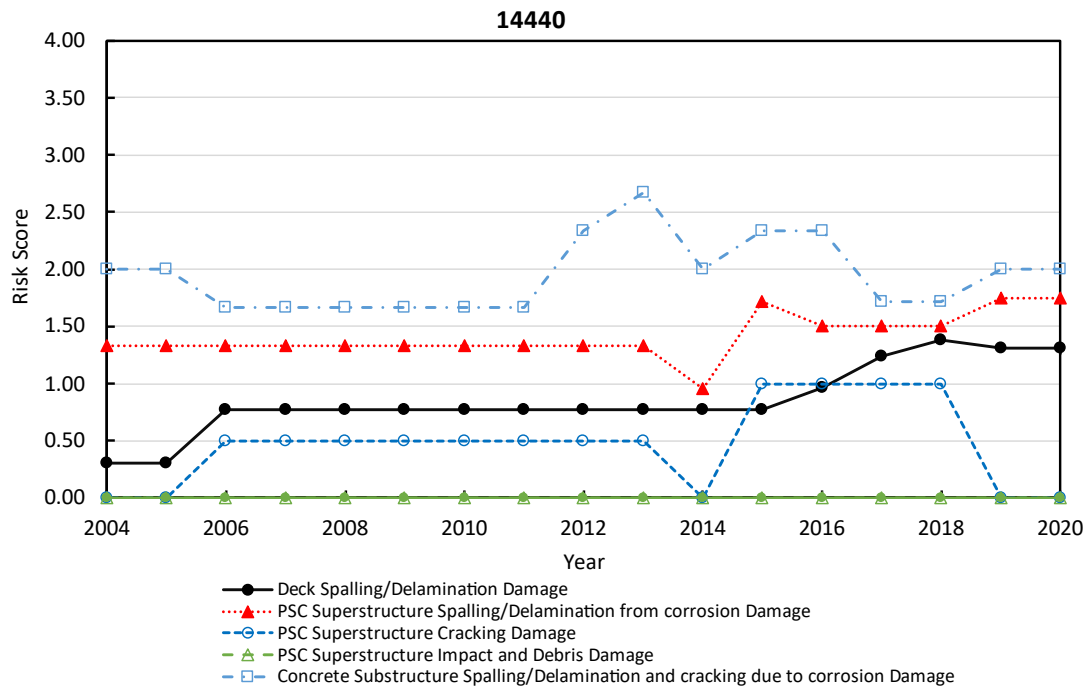
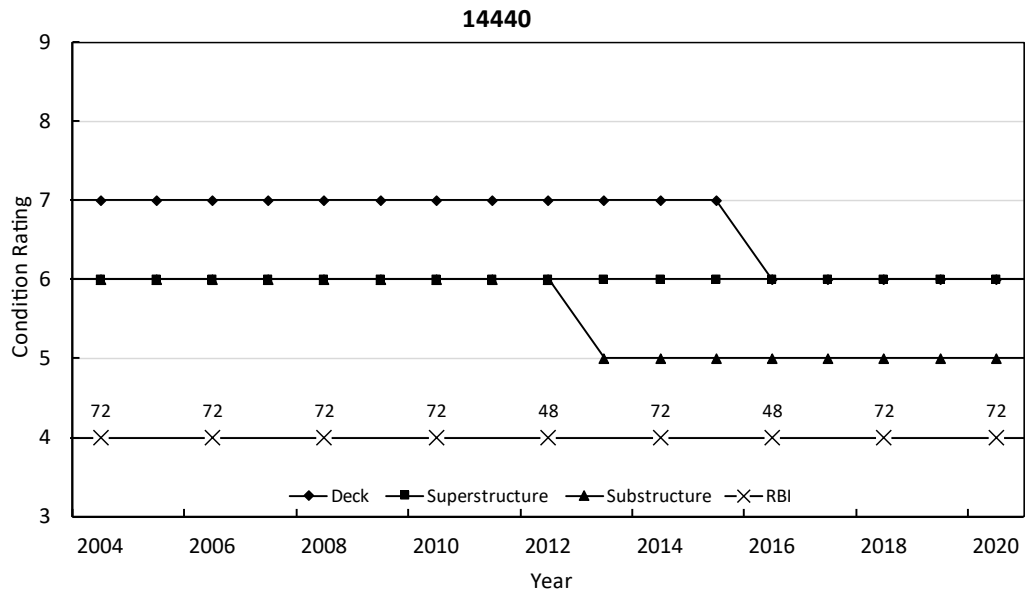


Figure B.15. Back-casting figure for structure number 14440 (ID).

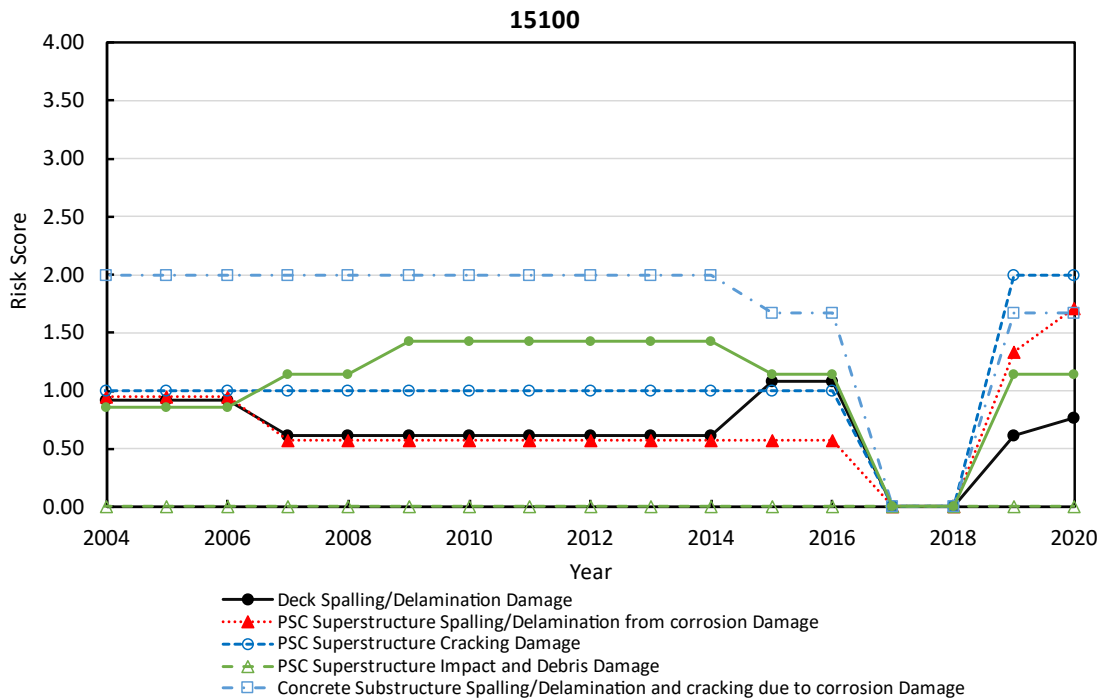
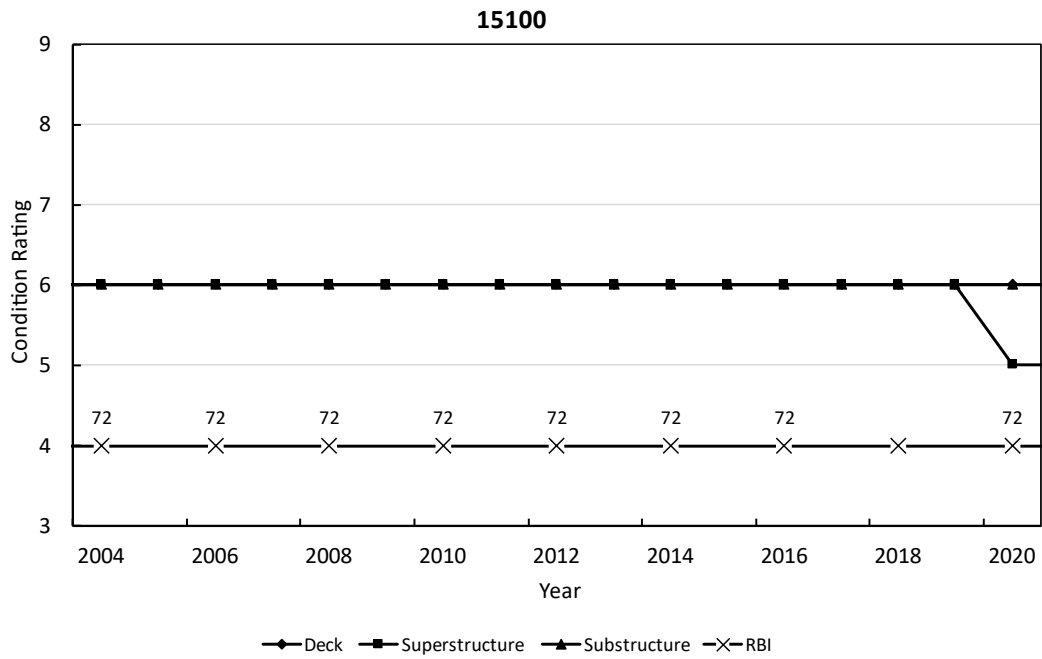


Figure B.16. Back-casting figure for structure number 15100 (ID).

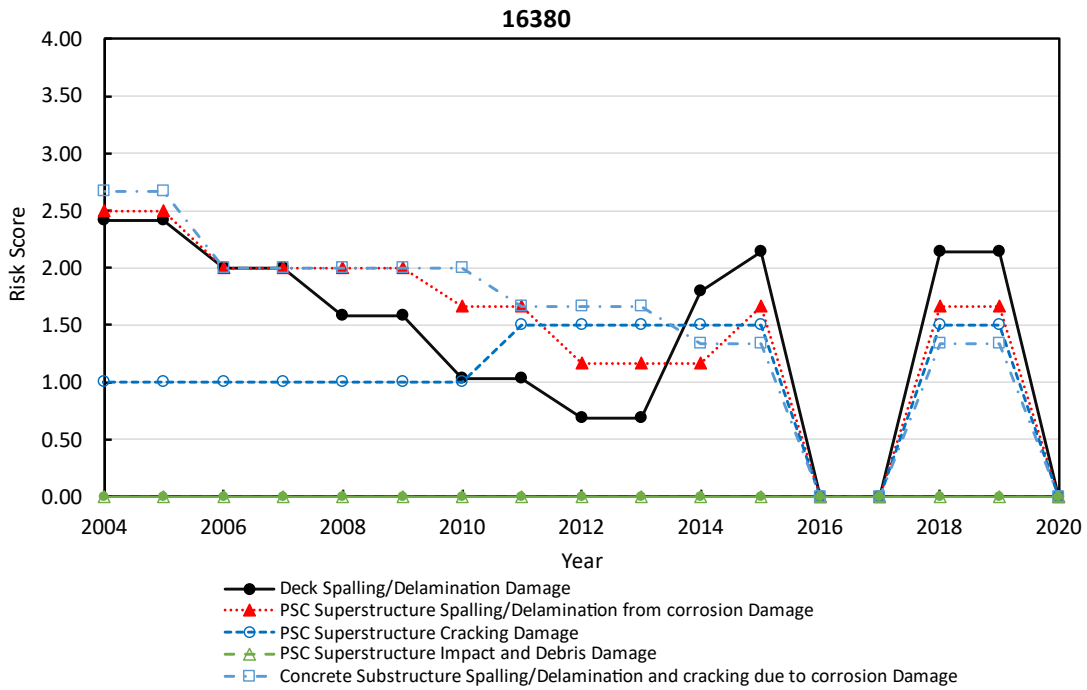
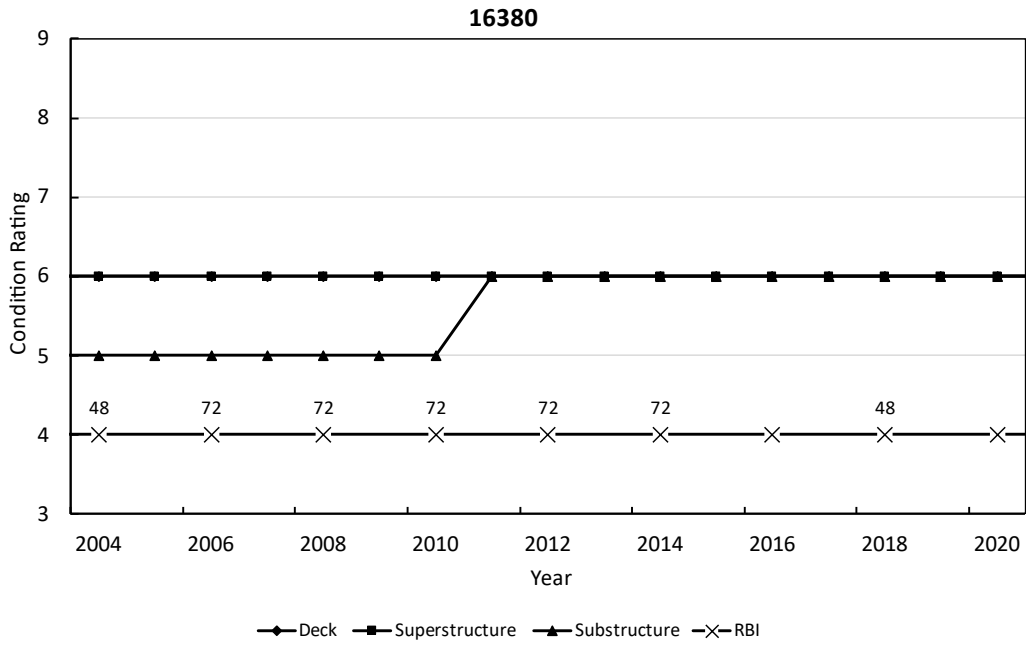


Figure B.17. Back-casting figure for structure number 16380 (ID).

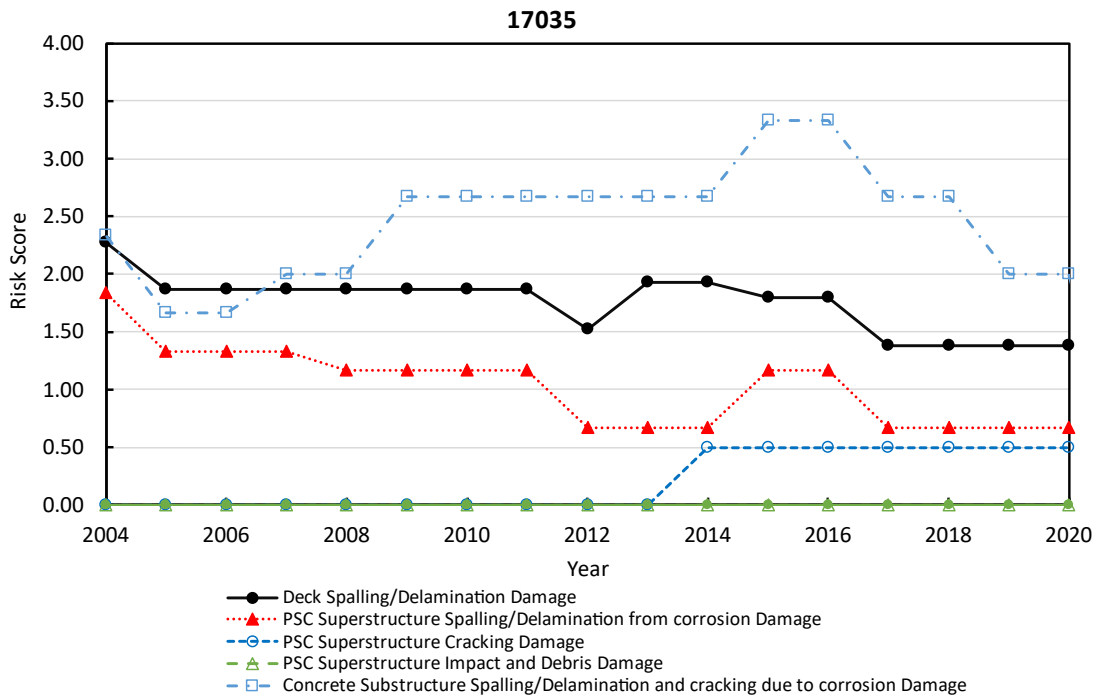
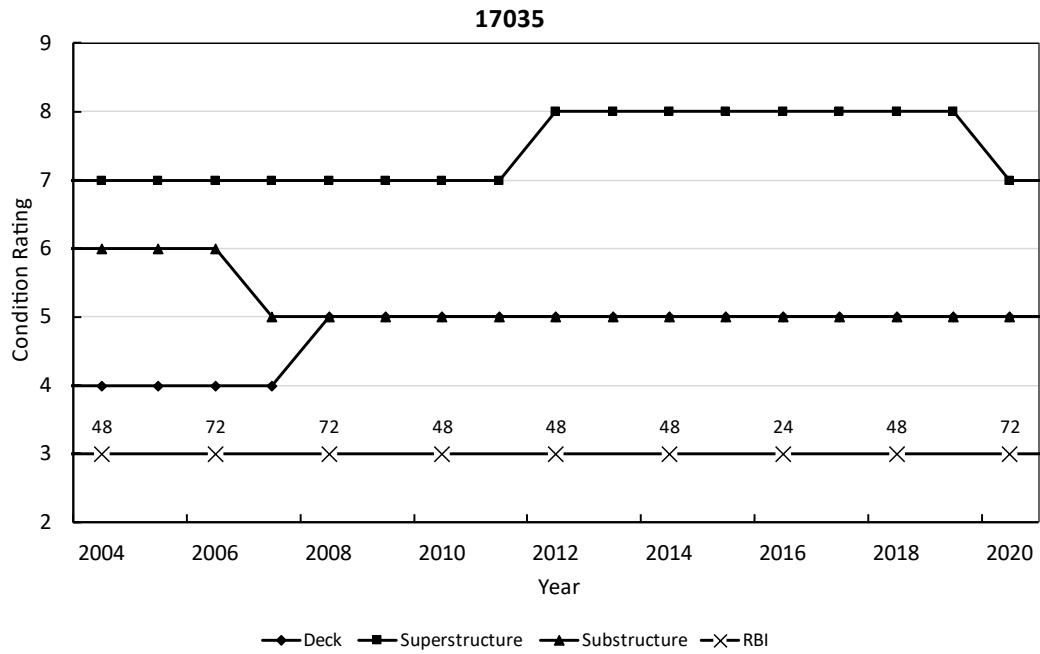


Figure B.18. Back-casting figure for structure number 17035 (ID).

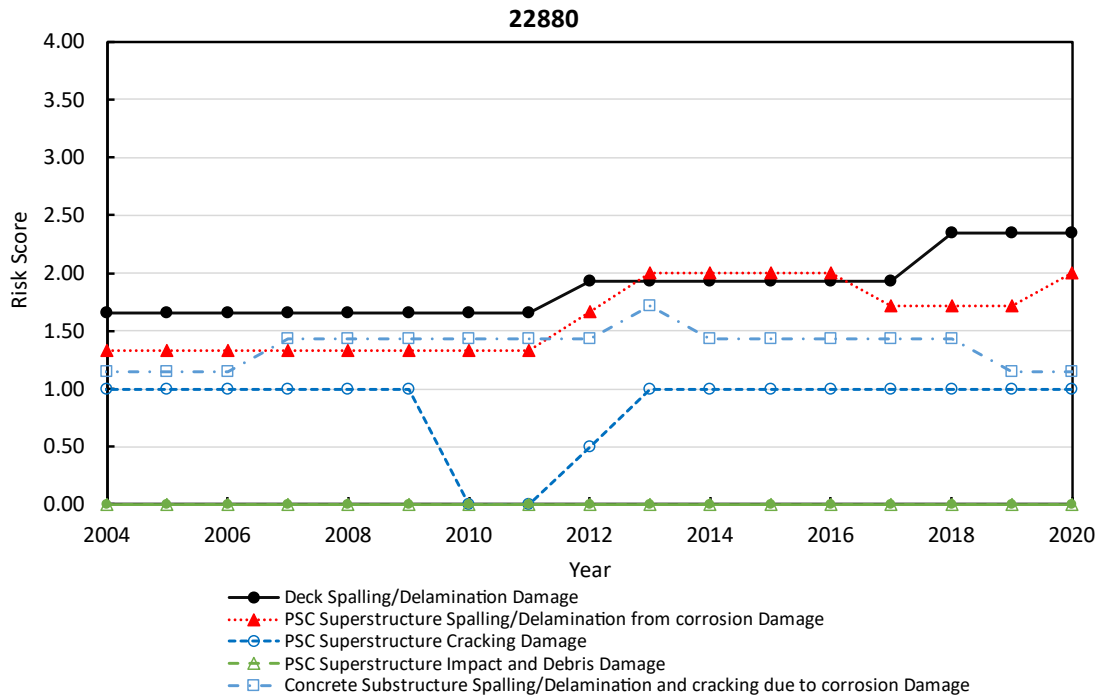
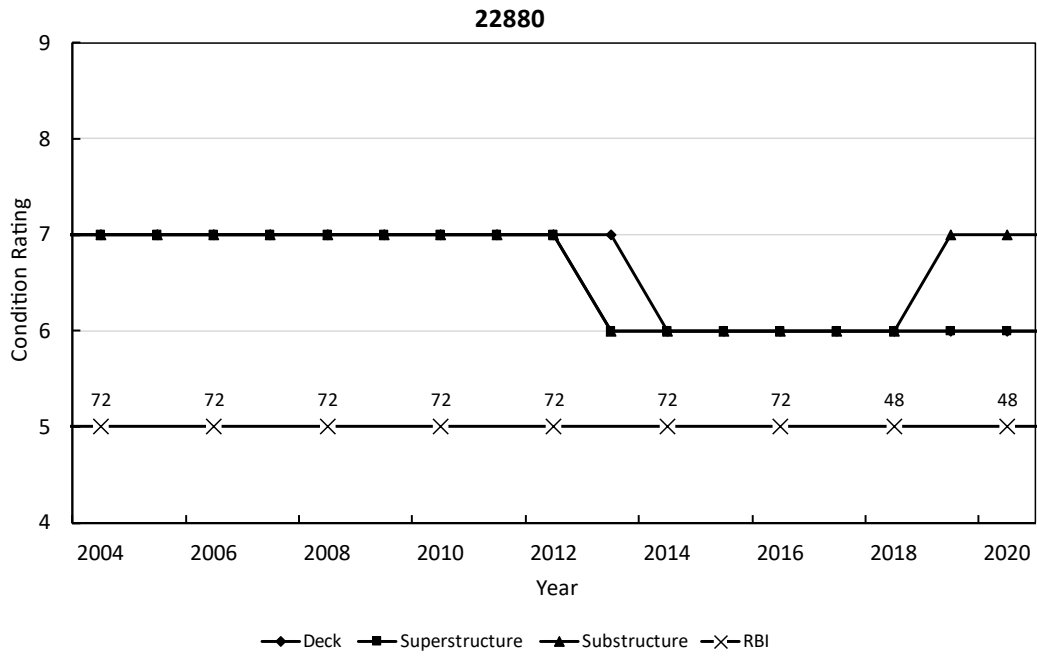


Figure B.19. Back-casting figure for structure number 22880 (ID).

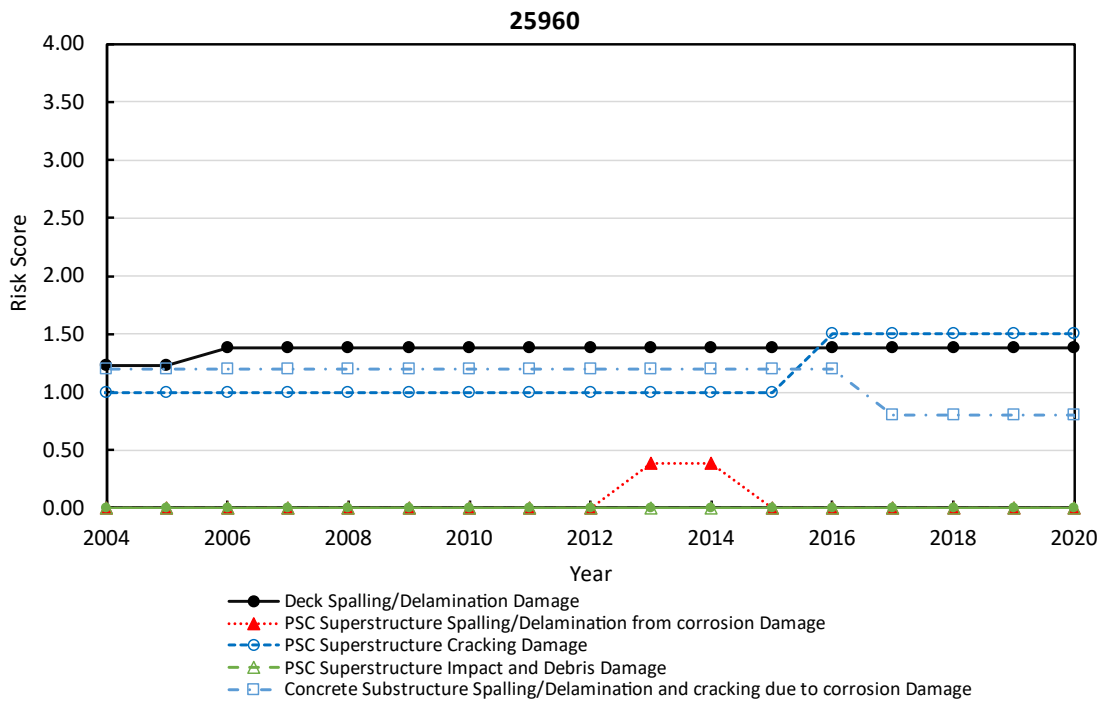
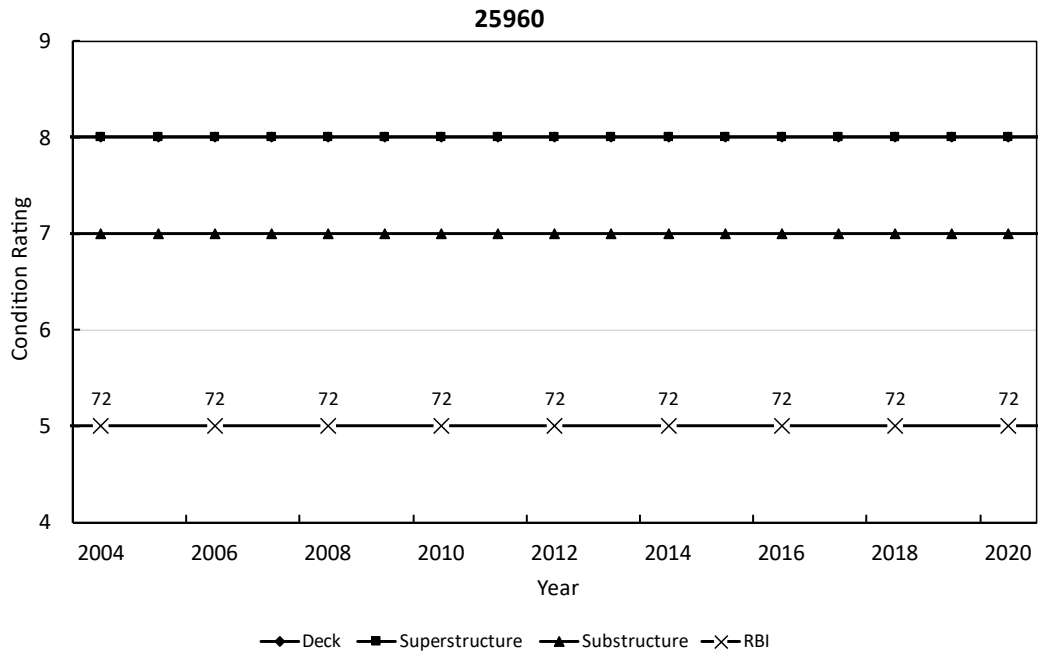


Figure B.20. Back-casting figure for structure number 25960 (ID).

Back-casting results for bridges of Illinois (IL)

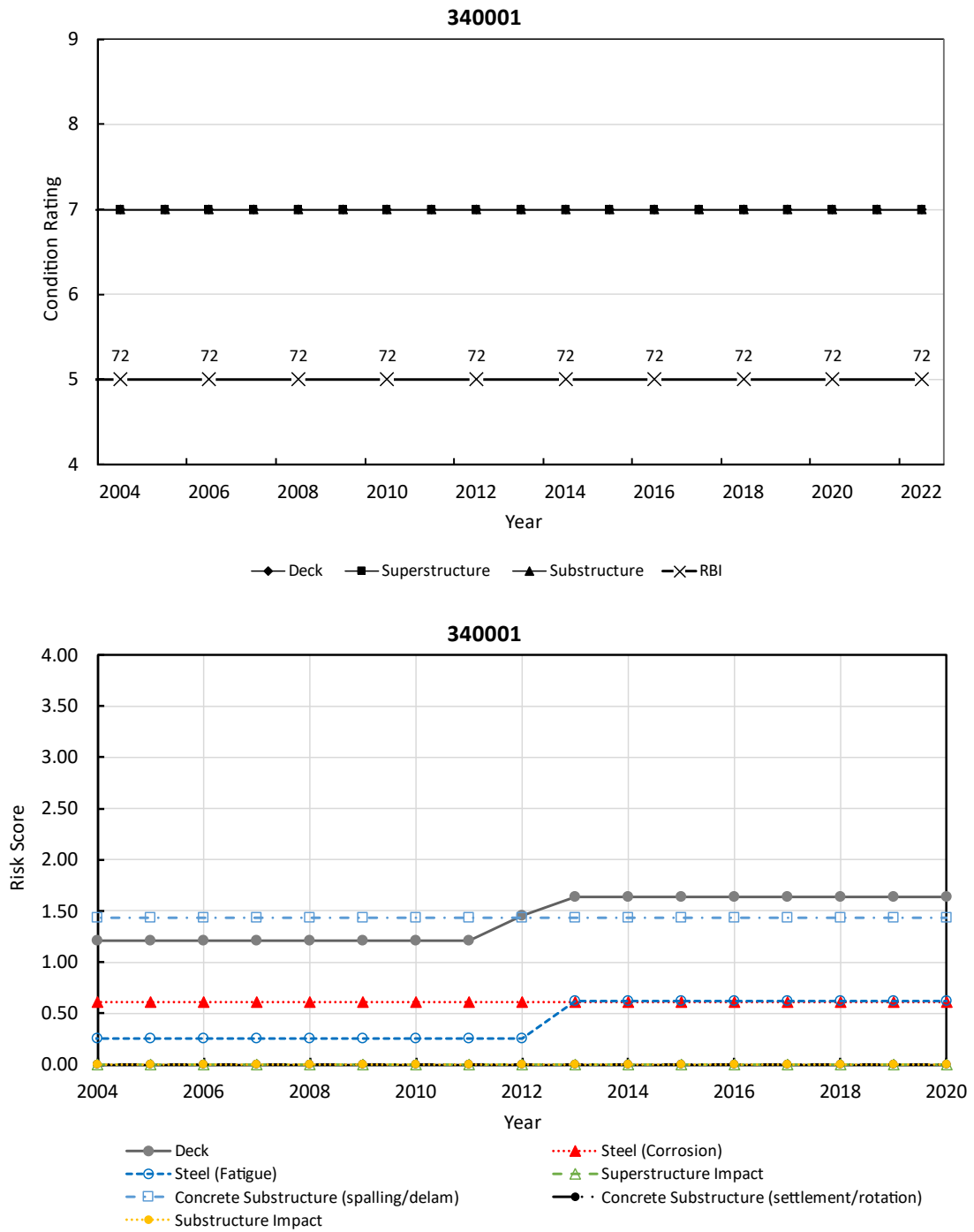


Figure B.21. Back-casting figure for structure number 340001 (IL).

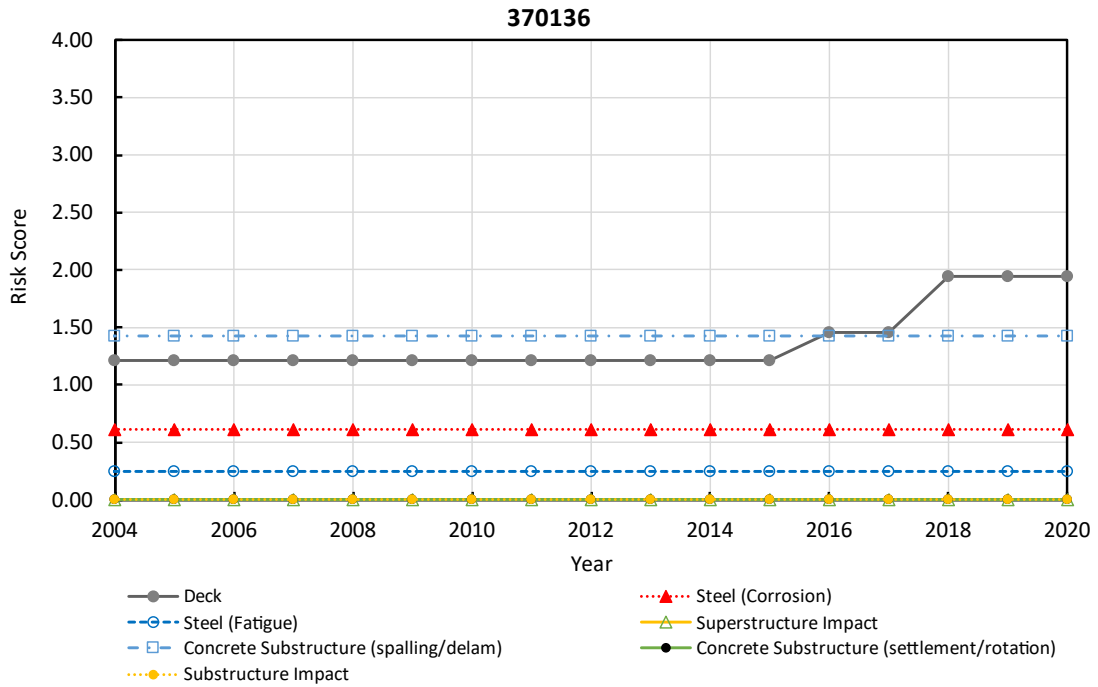
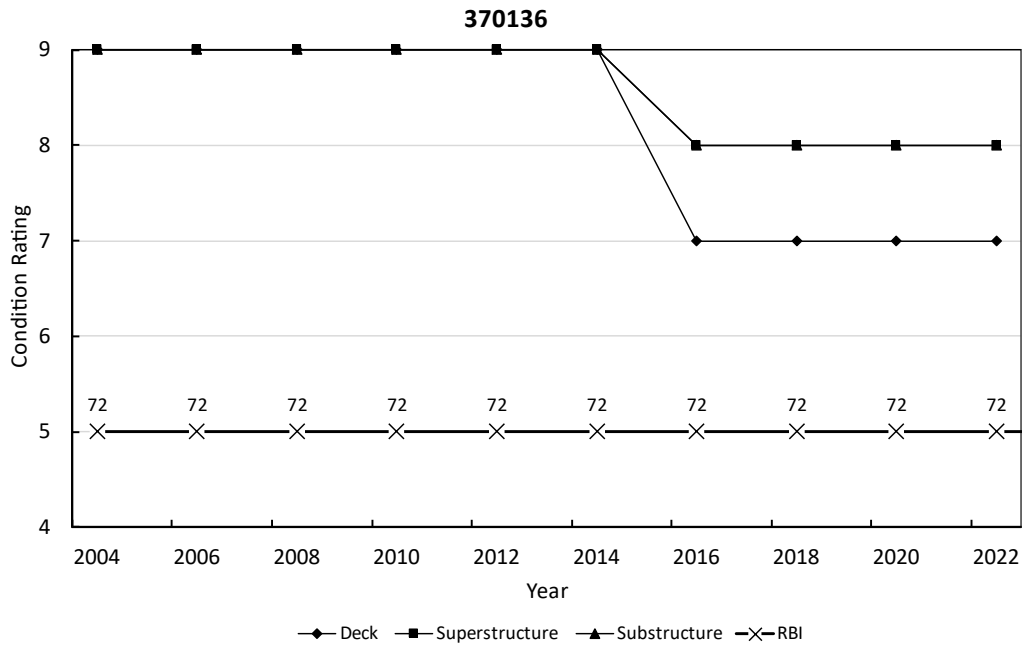


Figure B.22. Back-casting figure for structure number 370136 (IL).

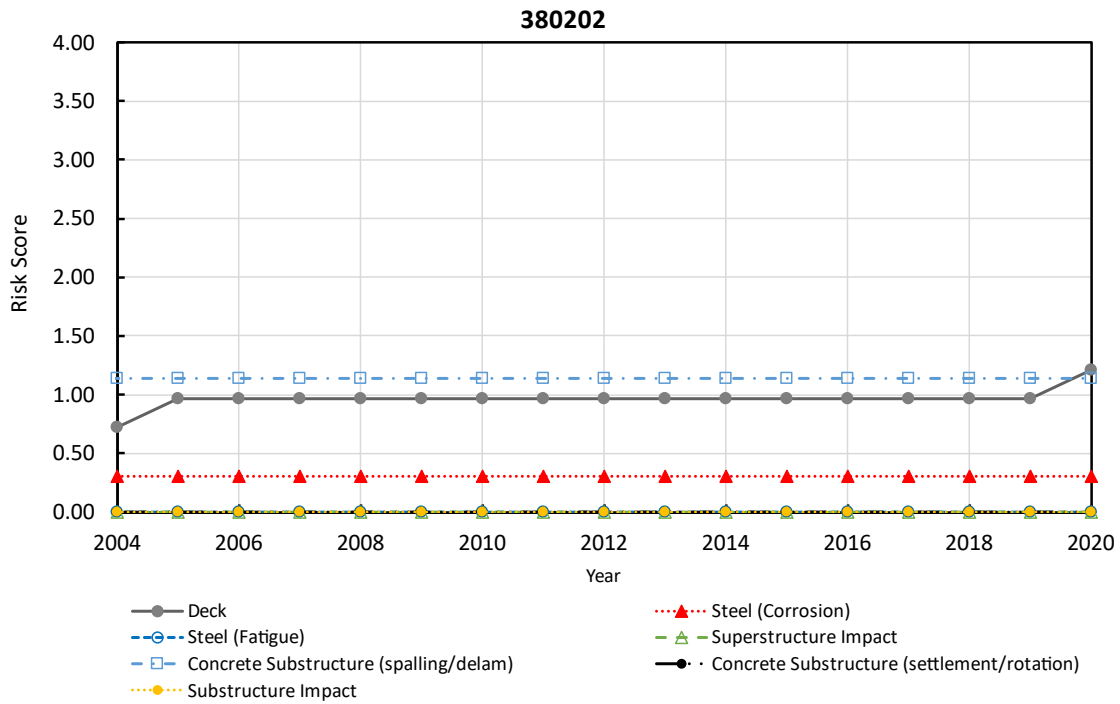
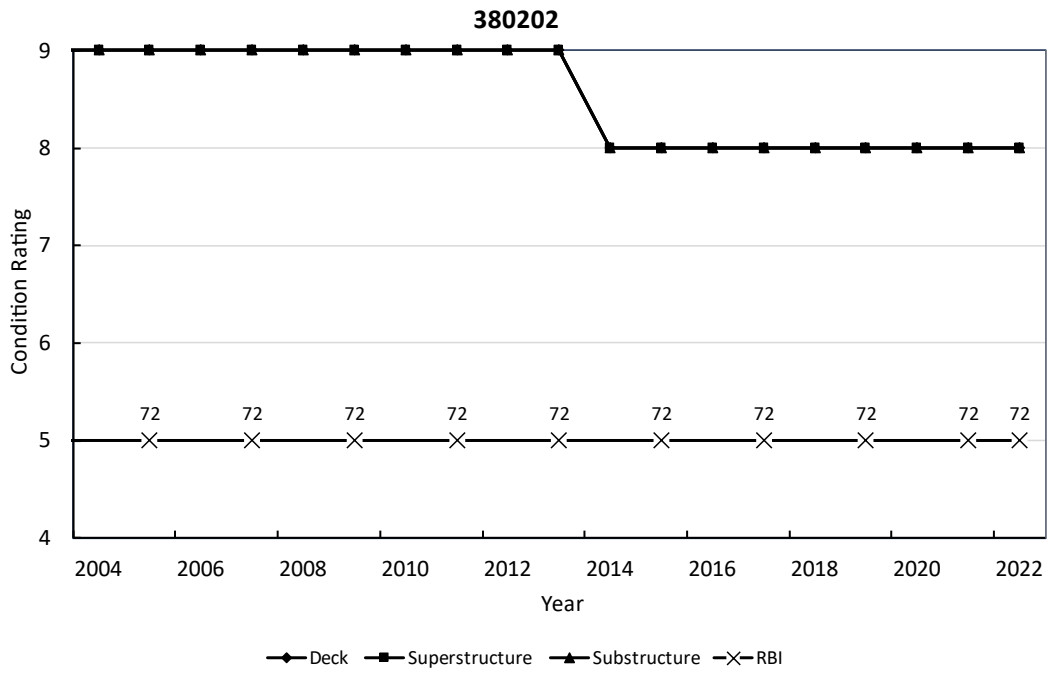


Figure B.23. Back-casting figure for structure number 380202 (IL).

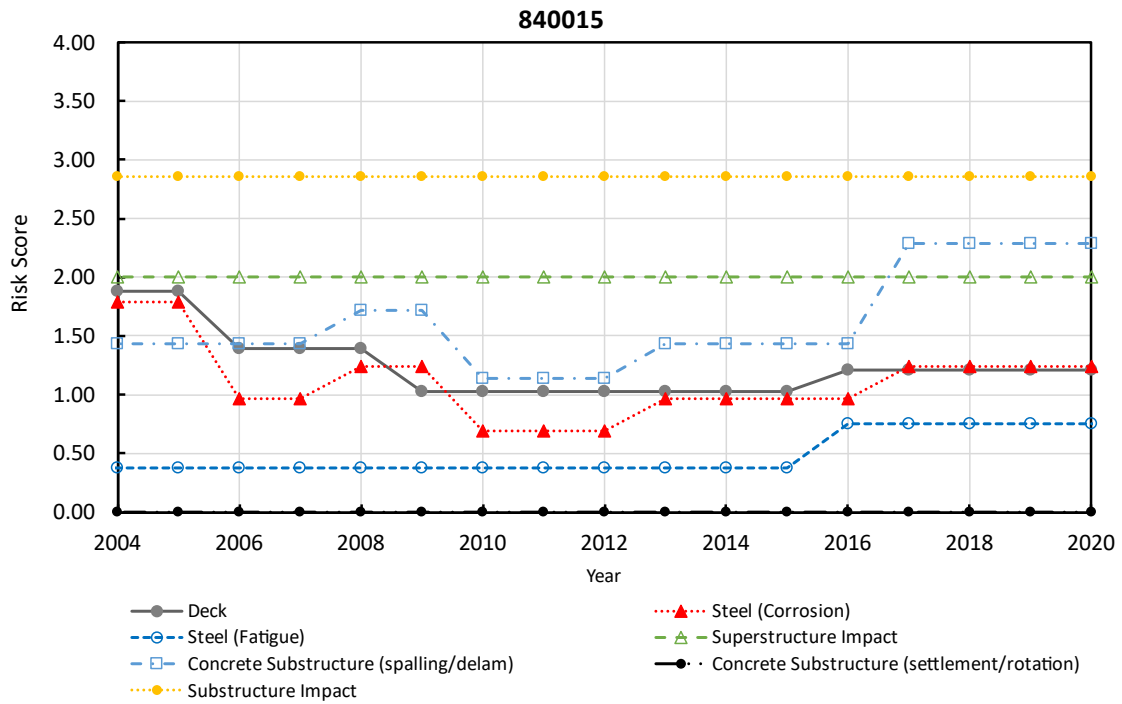
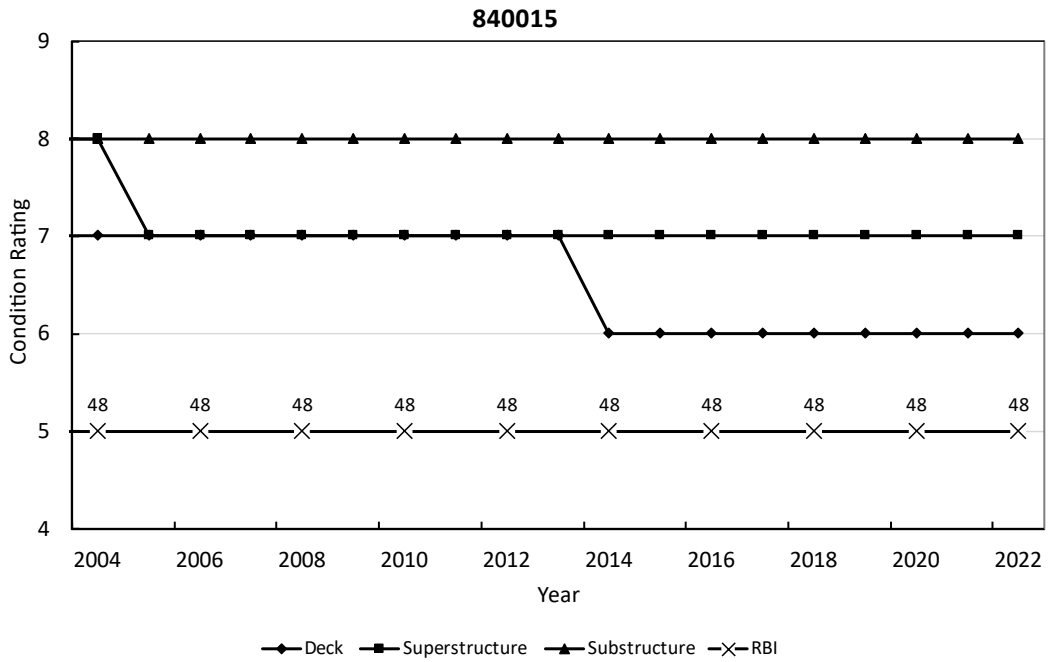


Figure B.24. Back-casting figure for structure number 840015 (IL).

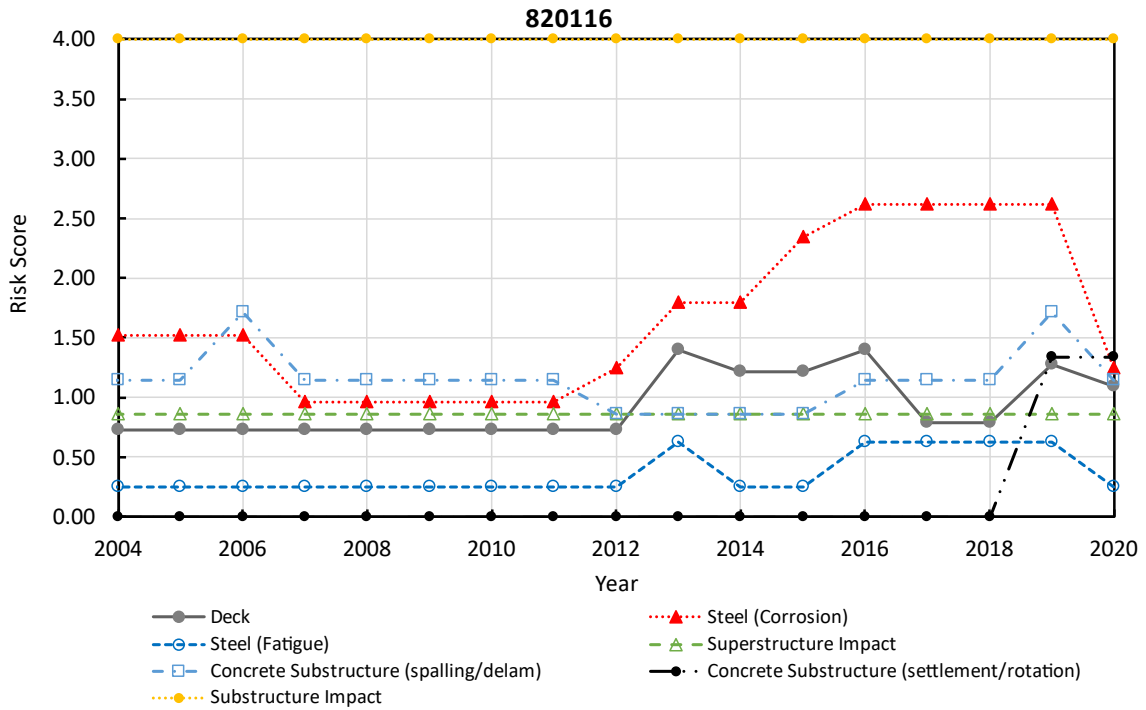
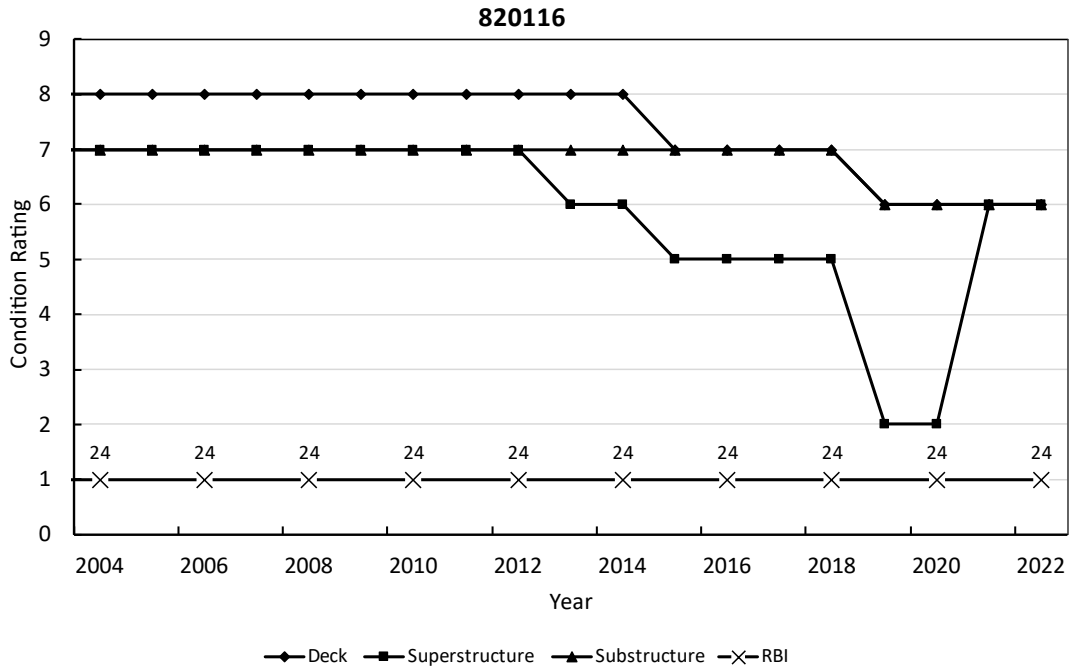


Figure B.25. Back-casting figure for structure number 820116 (IL).

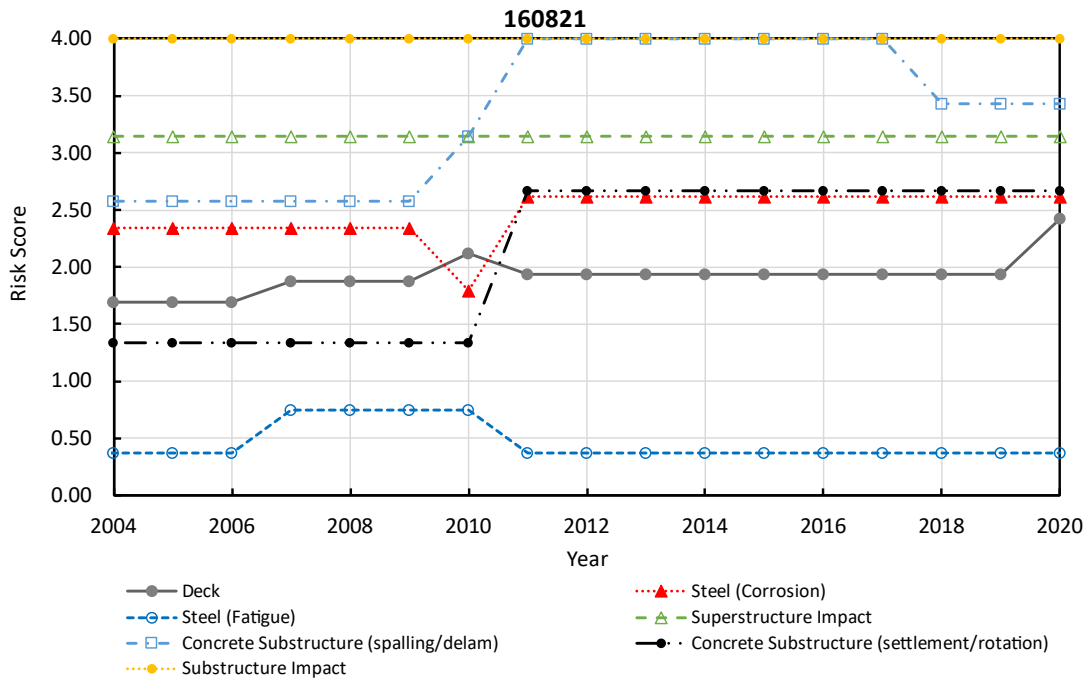
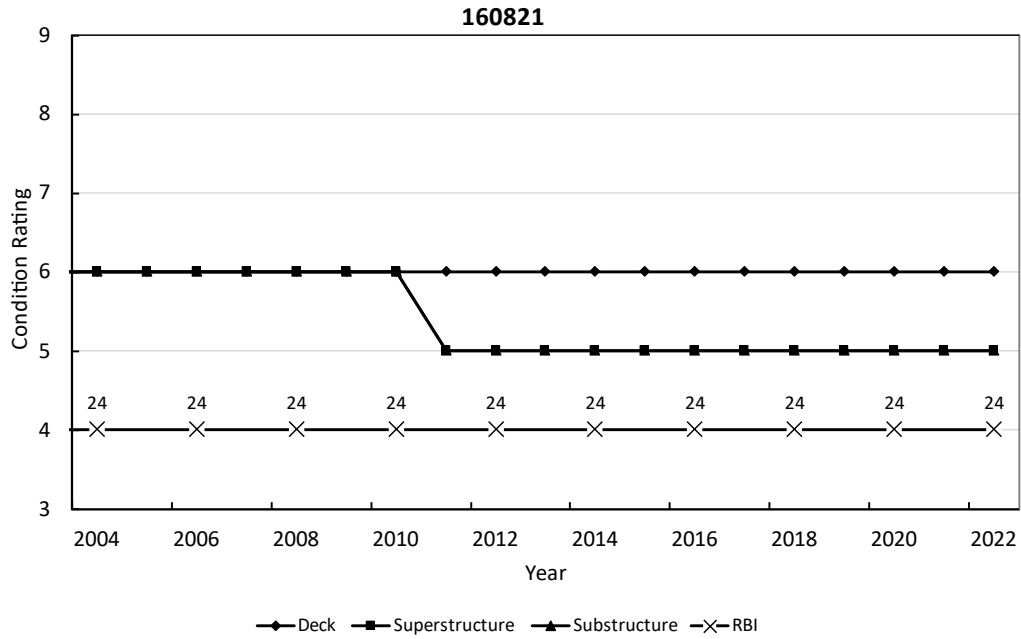


Figure B.26. Back-casting figure for structure number 160821 (IL).

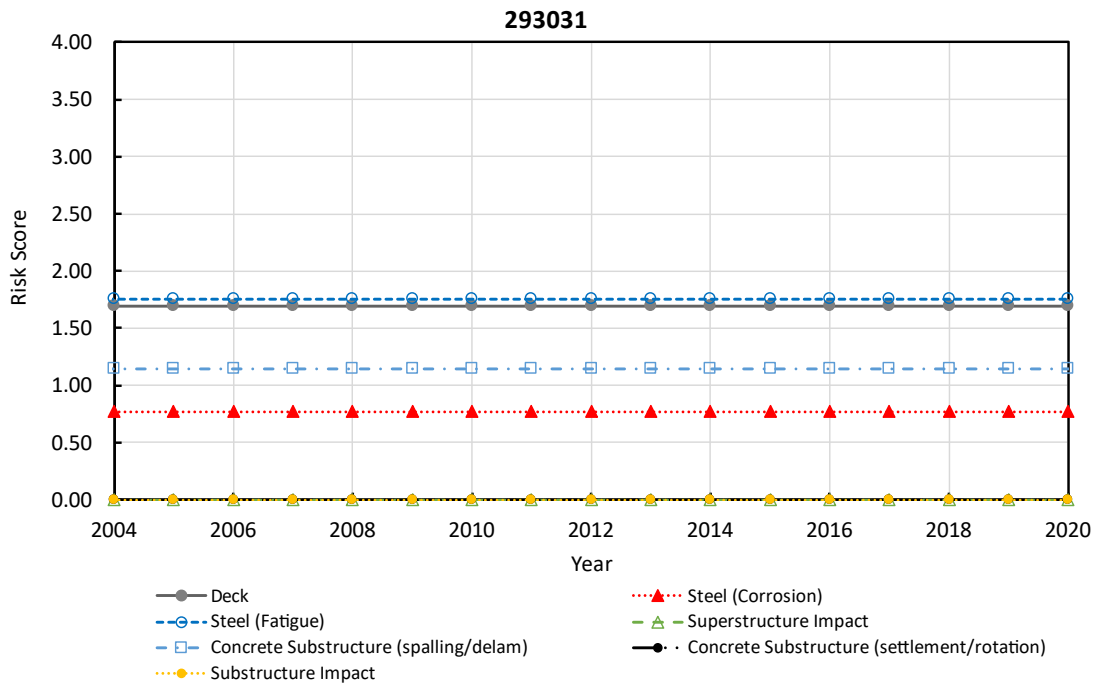
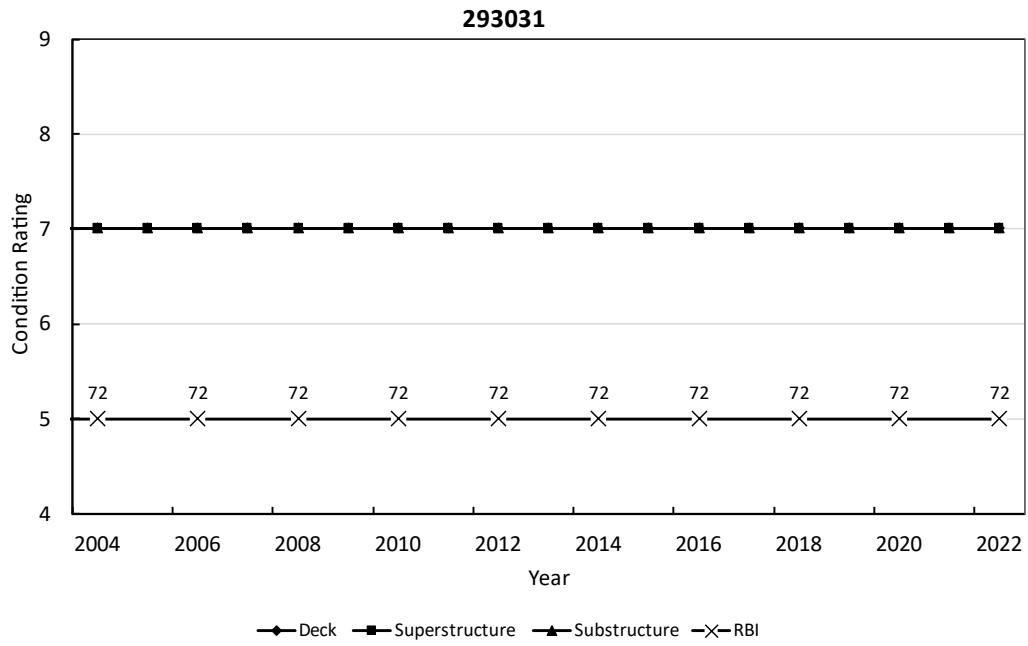


Figure B.27. Back-casting figure for structure number 293031 (IL).

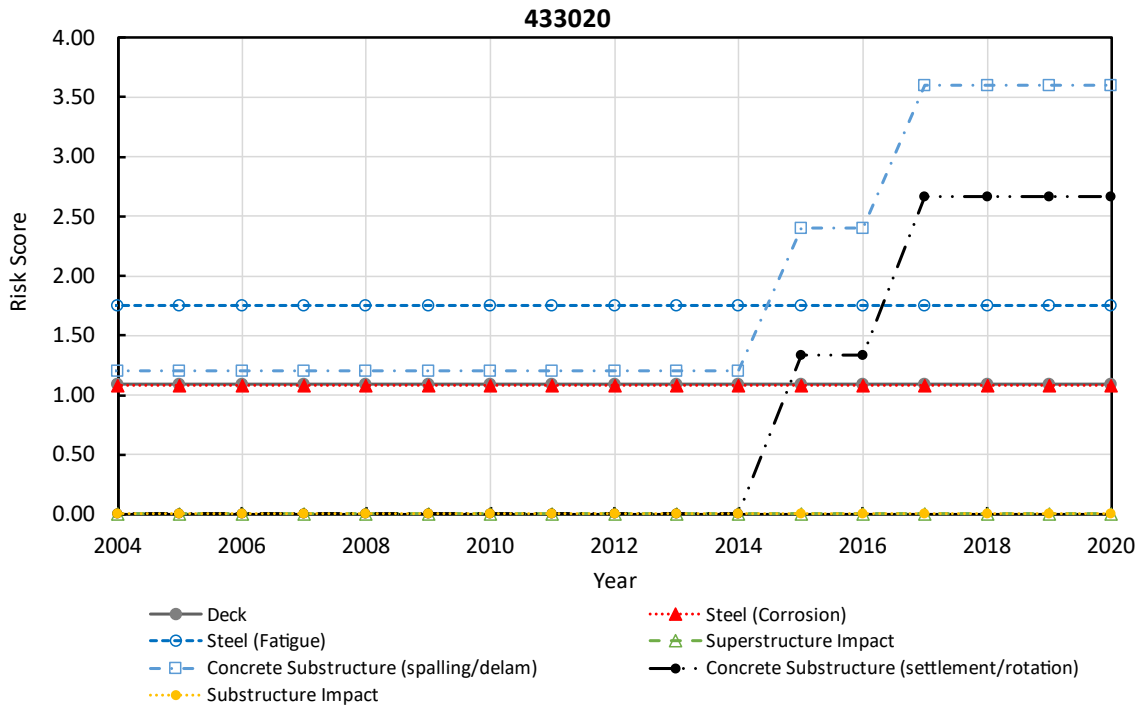
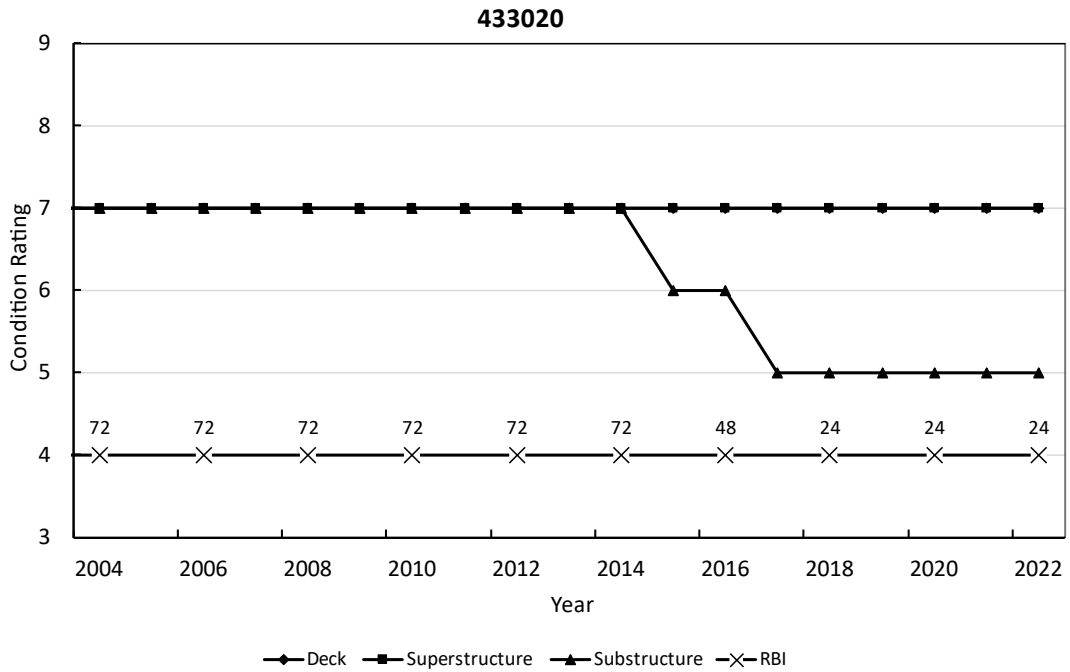


Figure B.28. Back-casting figure for structure number 433020 (IL).

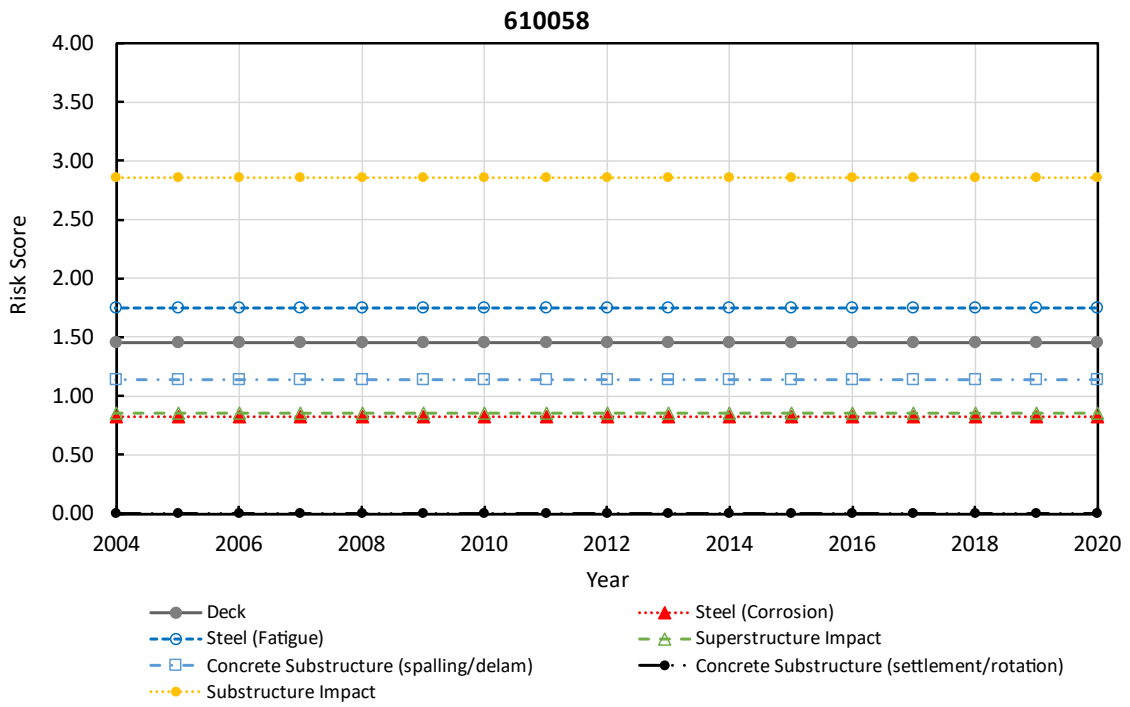
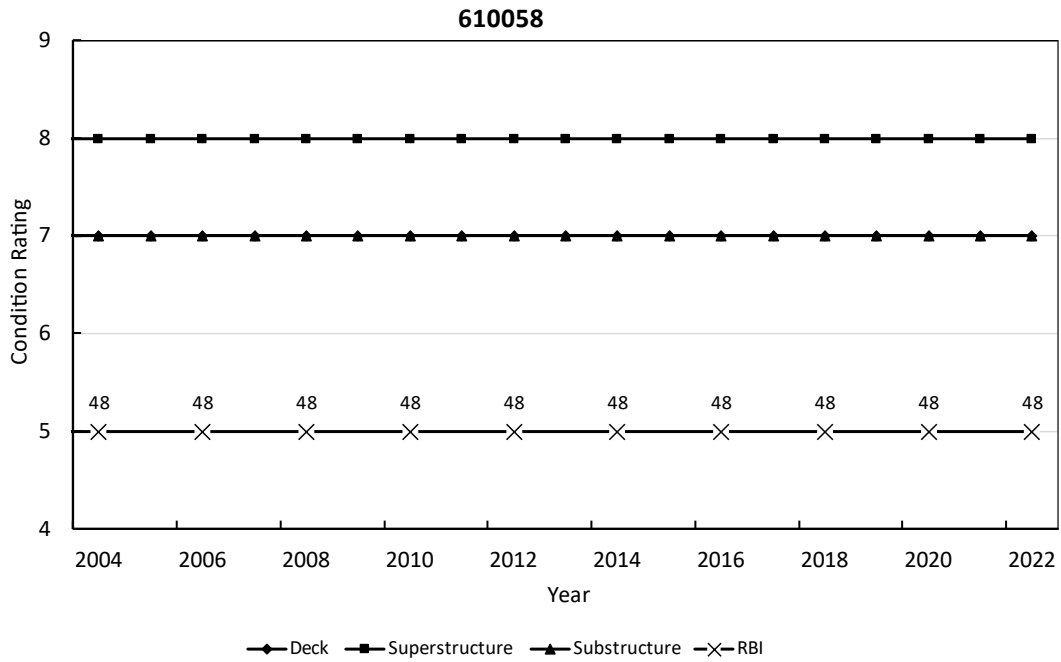


Figure B.29. Back-casting figure for structure number 610058 (IL).

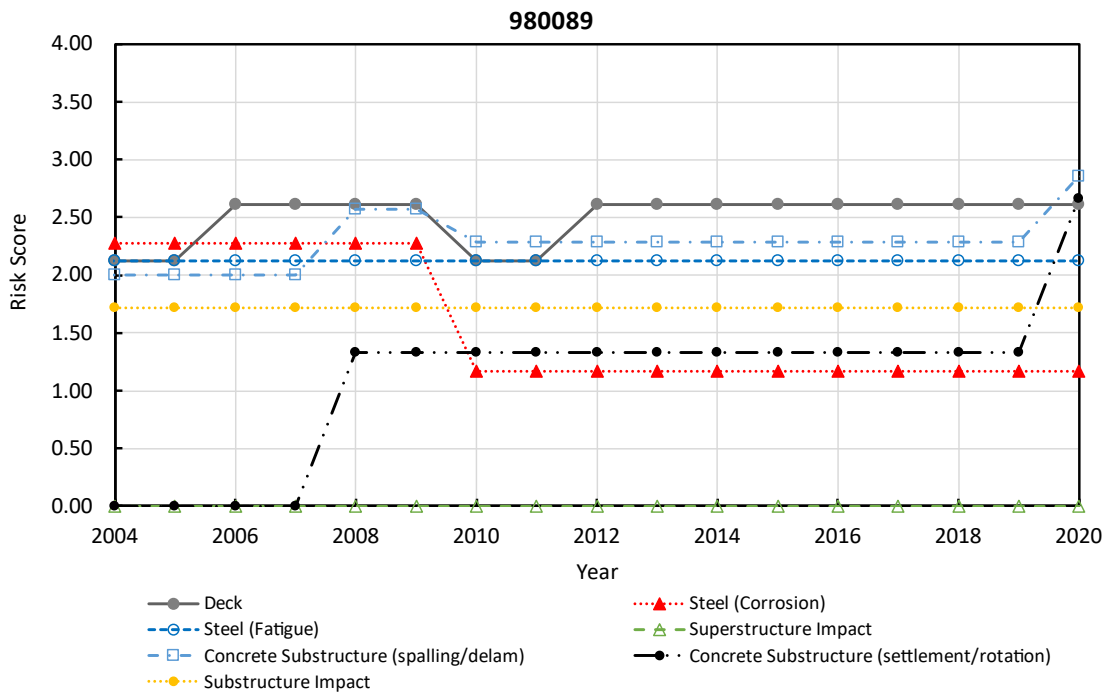
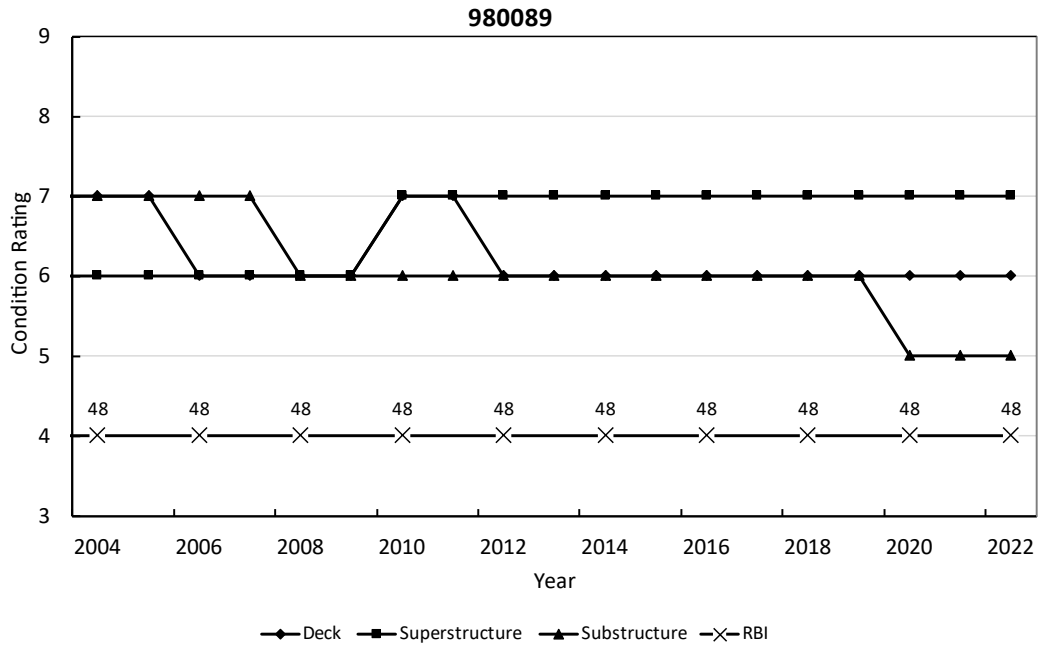


Figure B.30. Back-casting figure for structure number 980089 (IL).

Back-casting results for bridges of Missouri (MO)

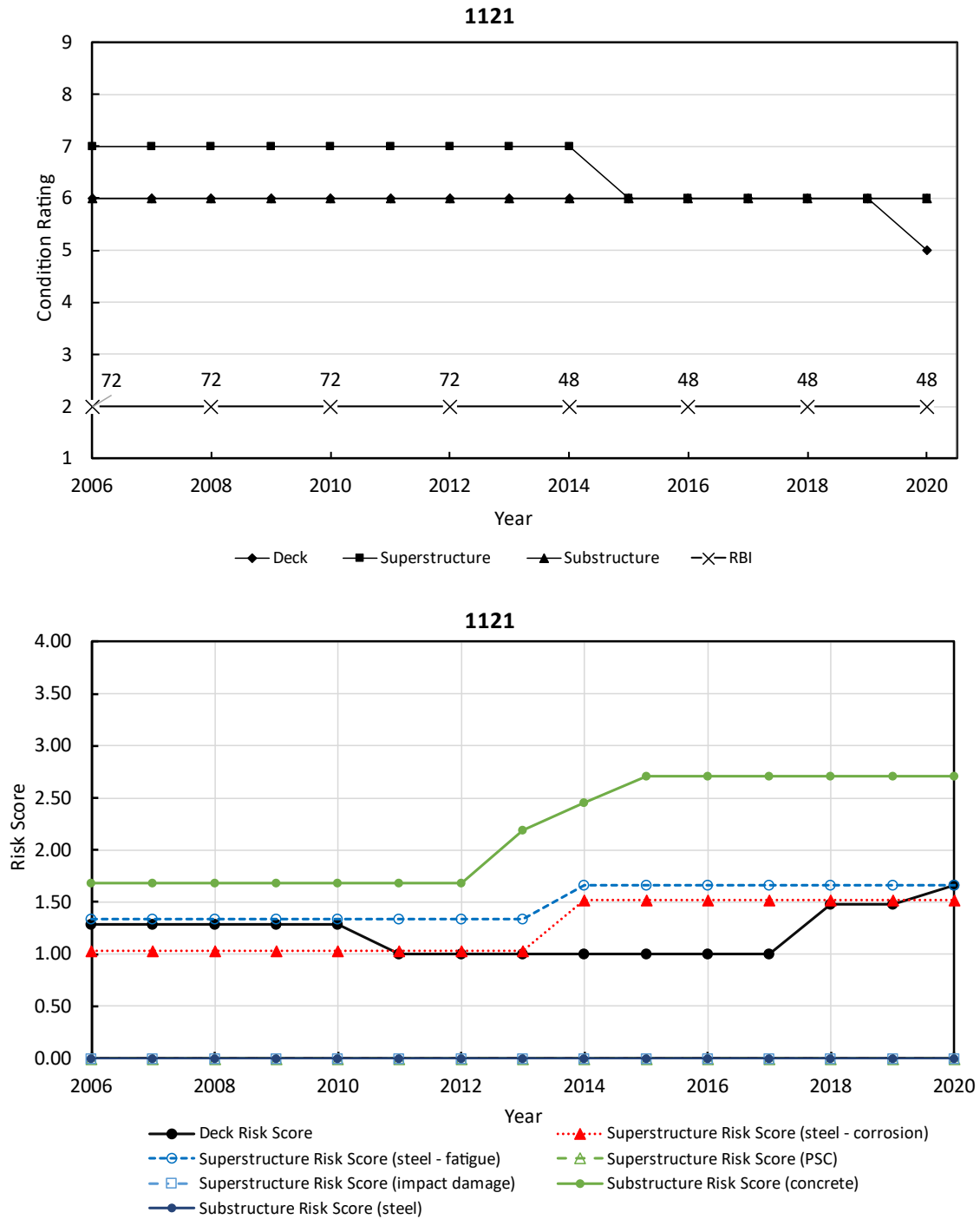


Figure B.31. Back-casting figure for structure number 1121 (MO).

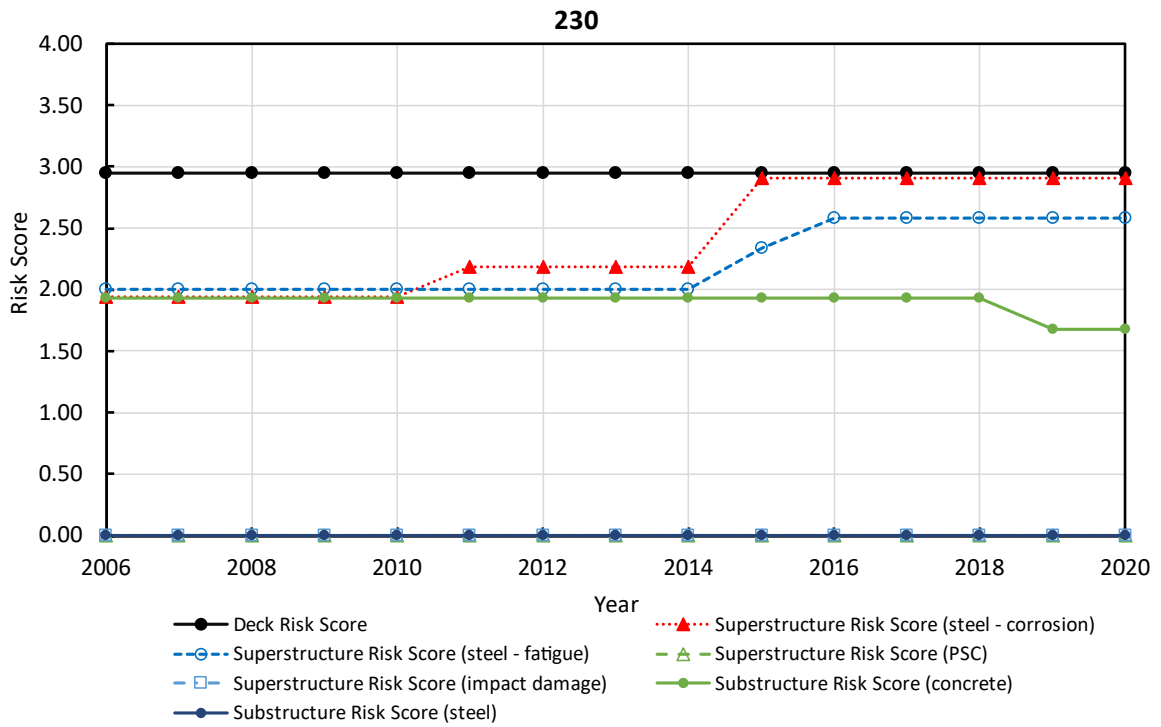
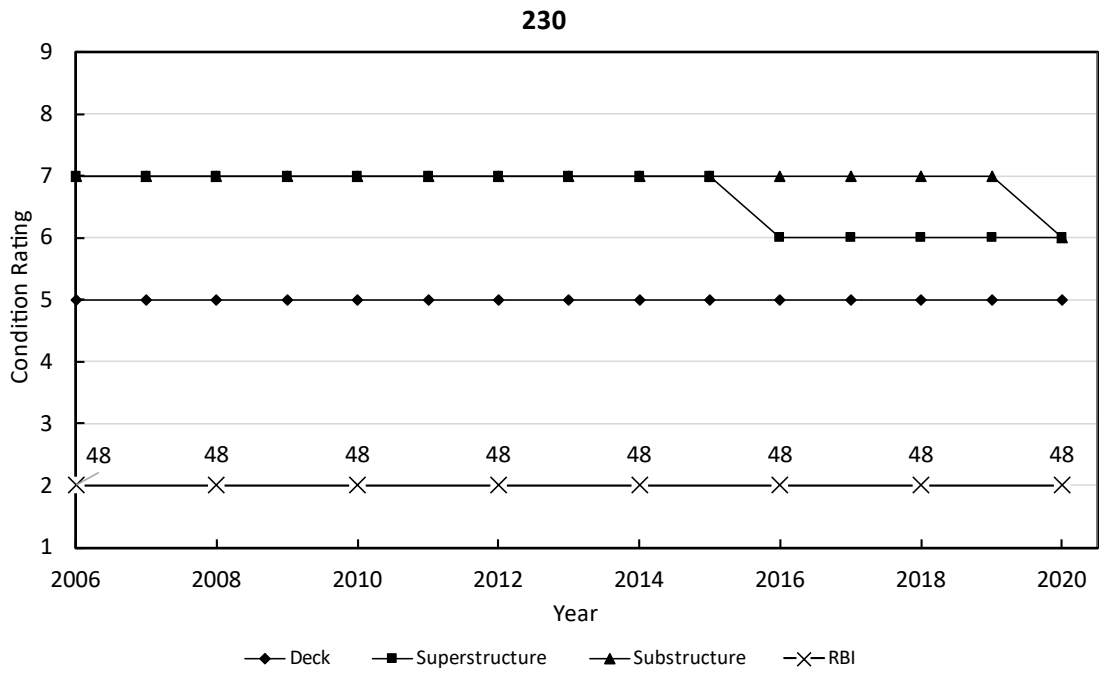


Figure B.32. Back-casting figure for structure number 230 (MO).

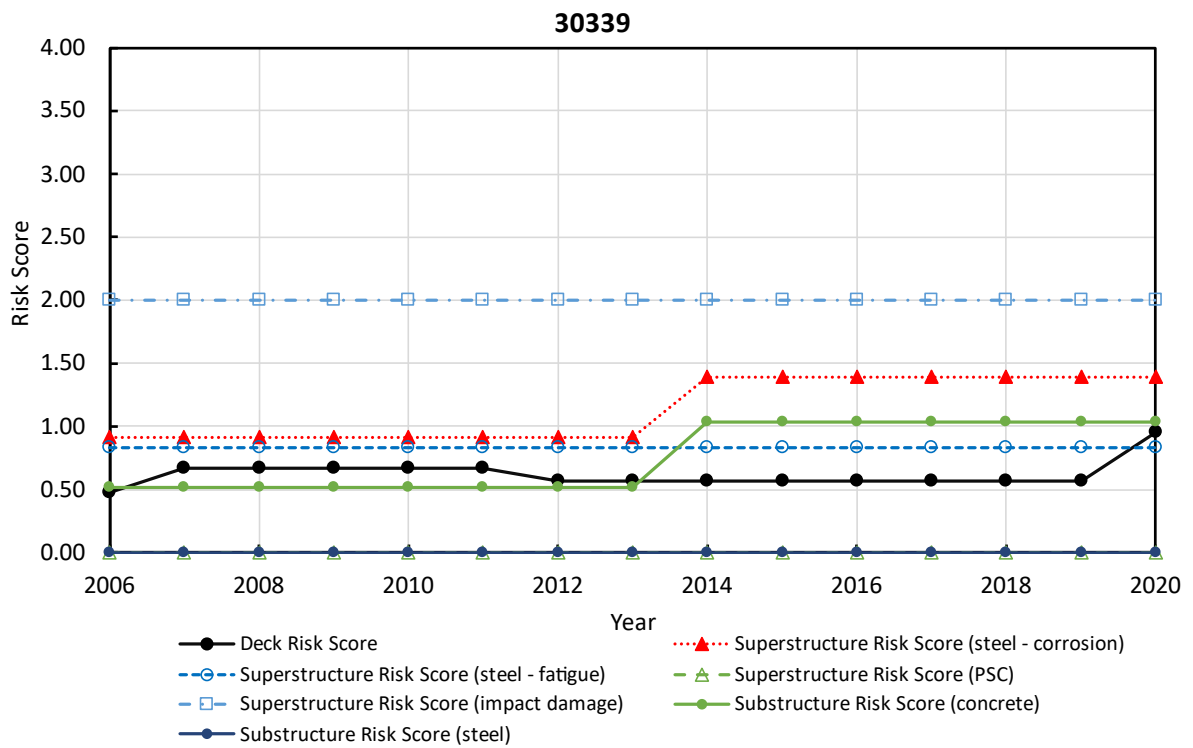
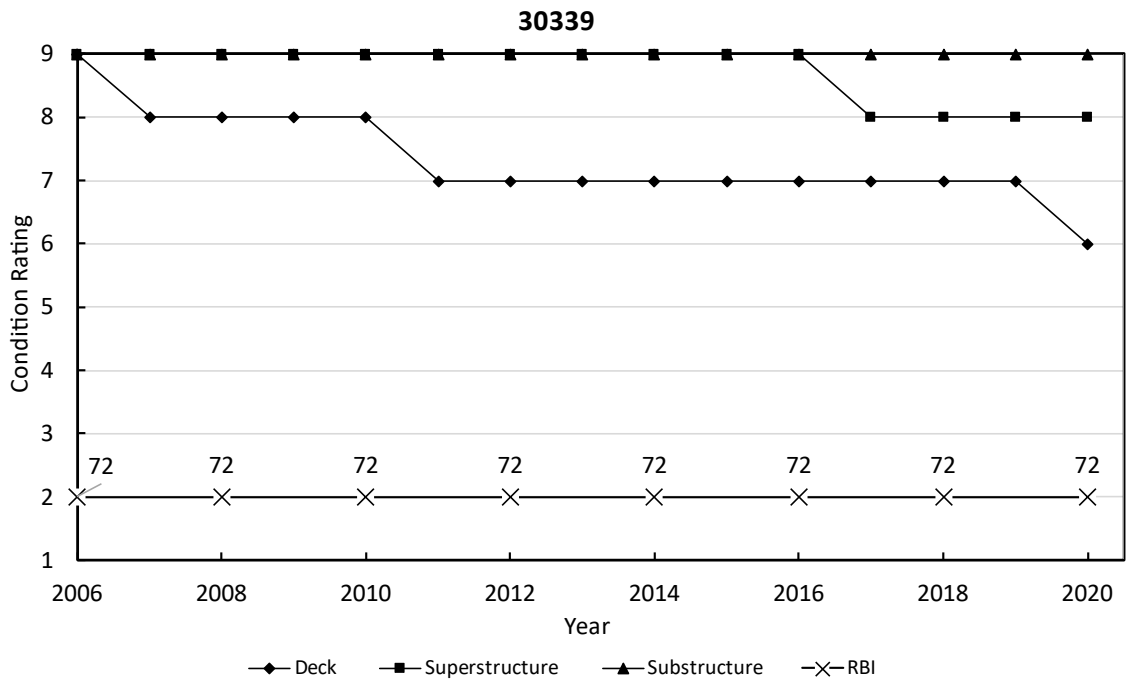


Figure B.33. Back-casting figure for structure number 30339 (MO).

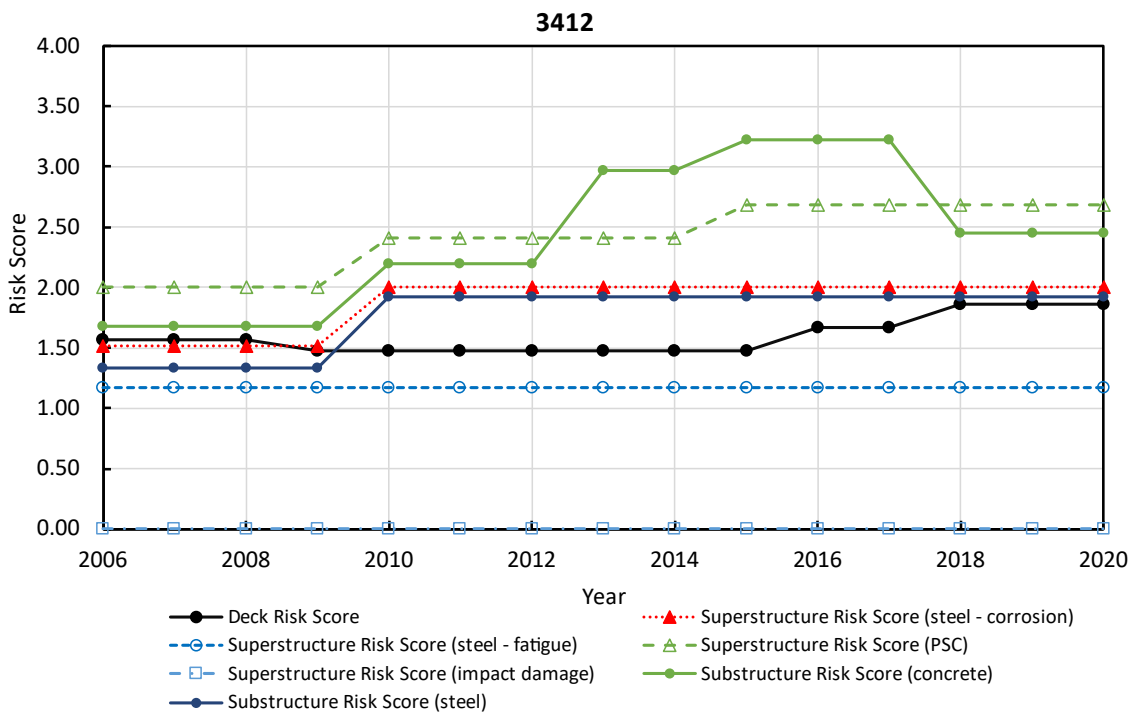
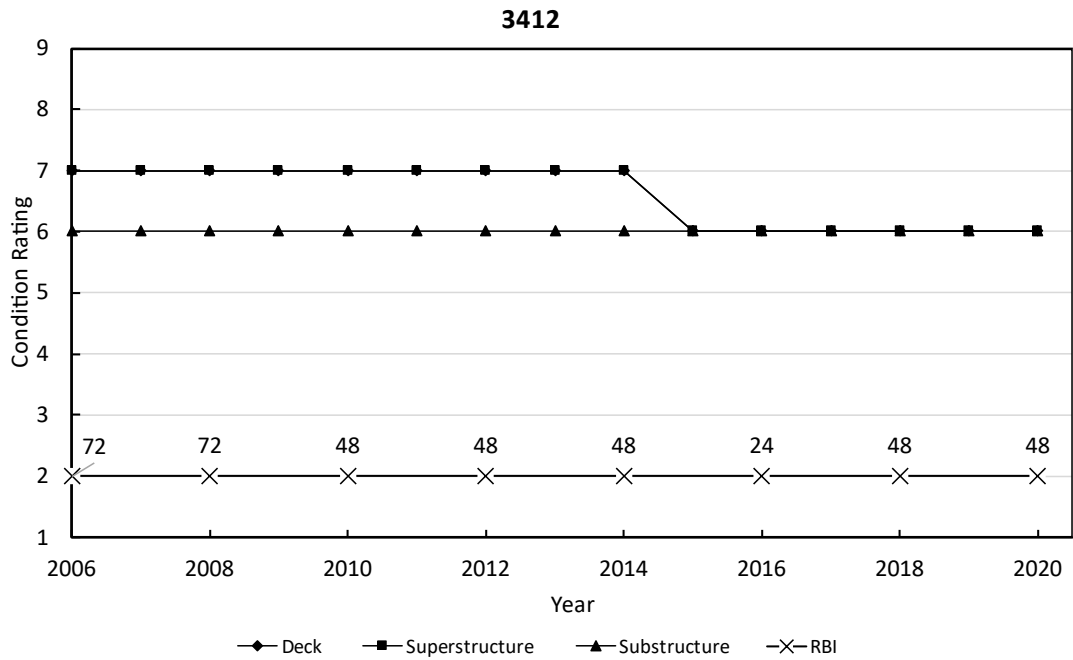


Figure B.34. Back-casting figure for structure number 3412 (MO).

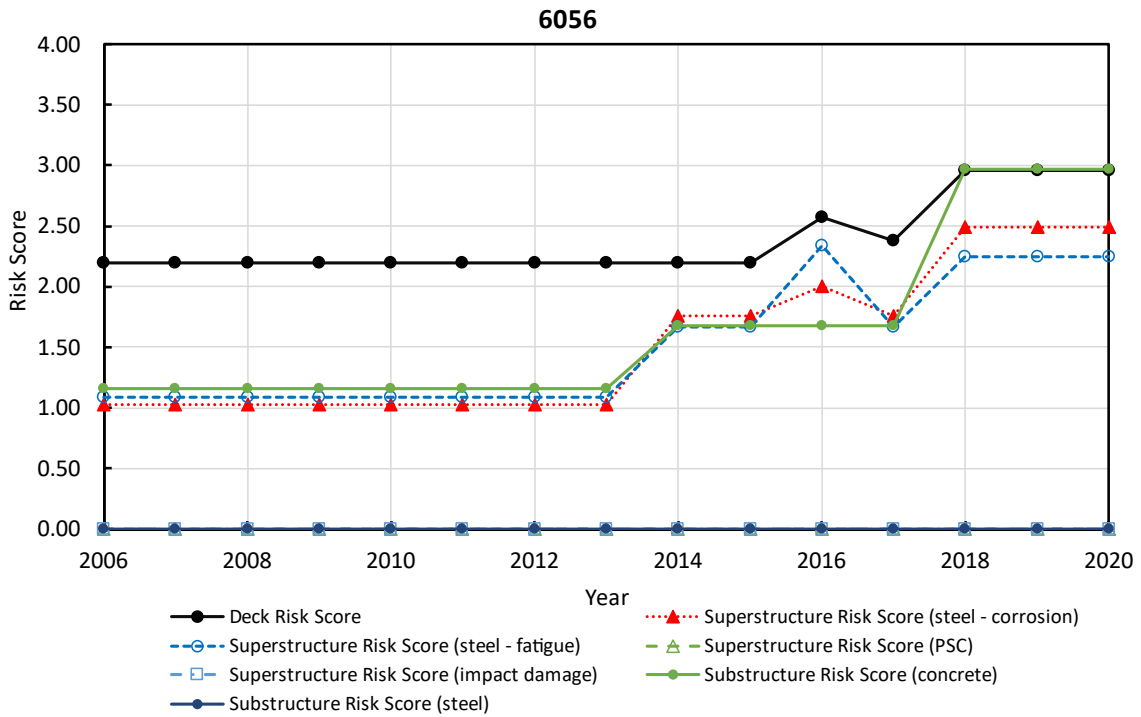
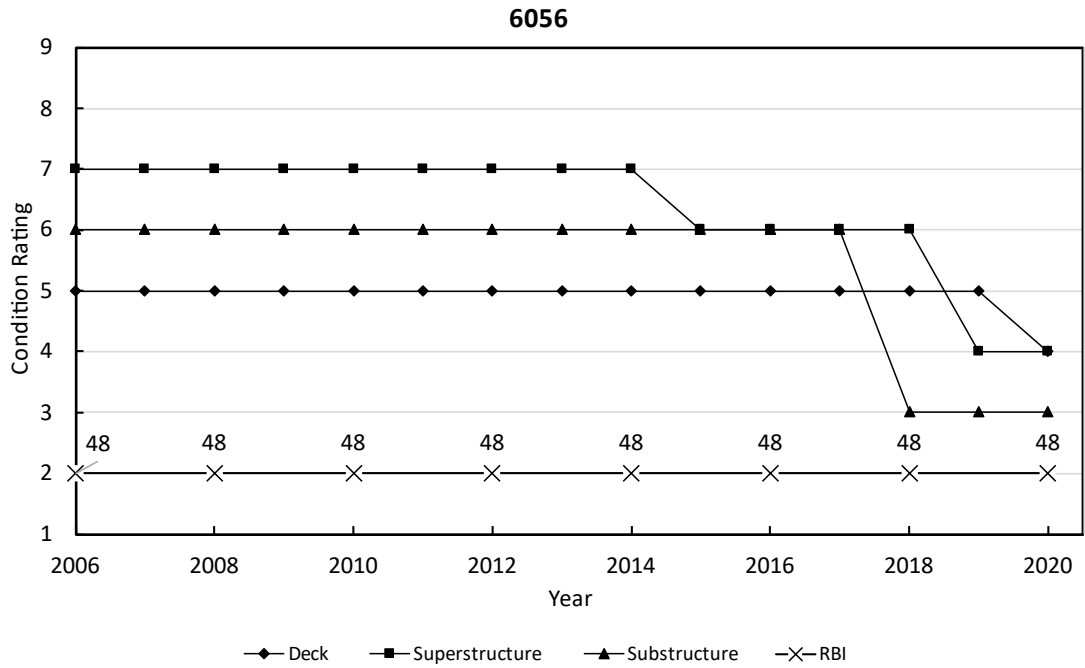


Figure B.35. Back-casting figure for structure number 6056 (MO).

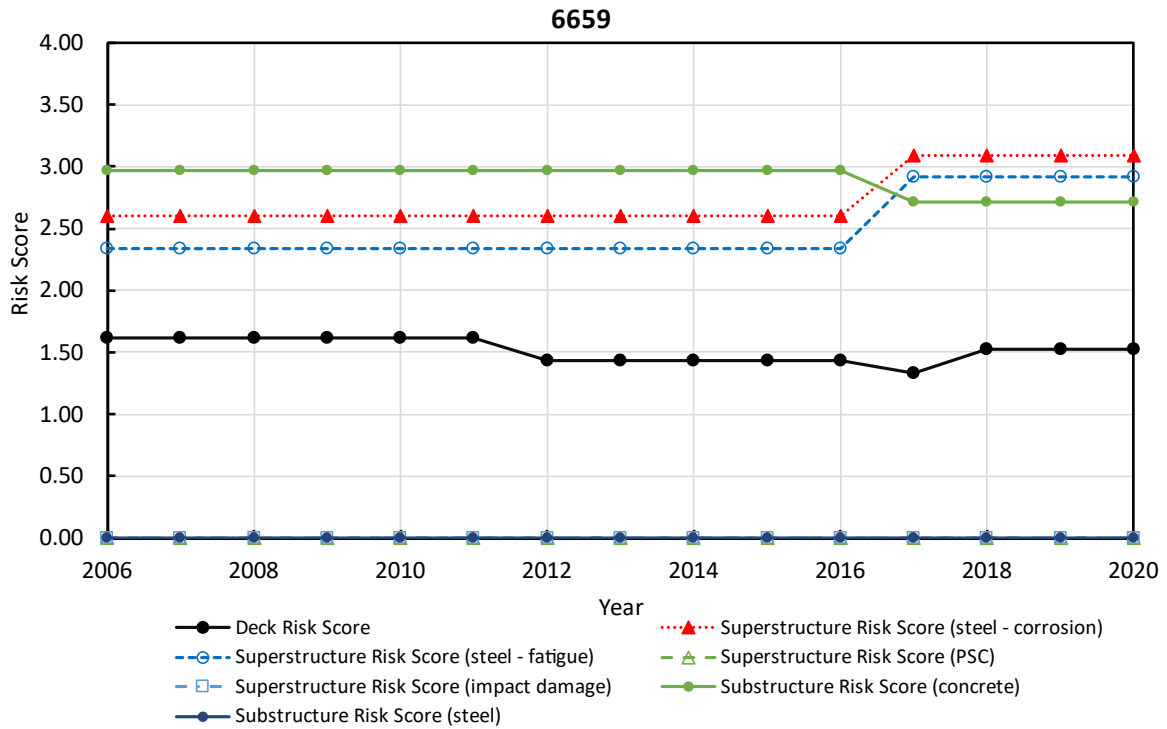
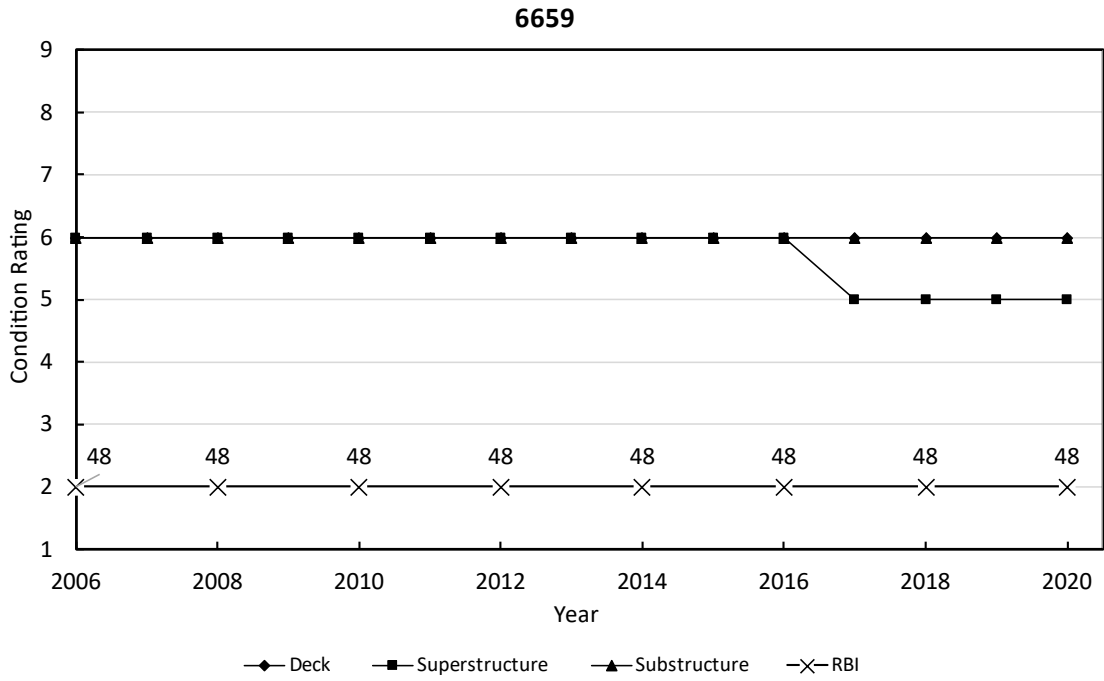


Figure B.36. Back-casting figure for structure number 6659 (MO).

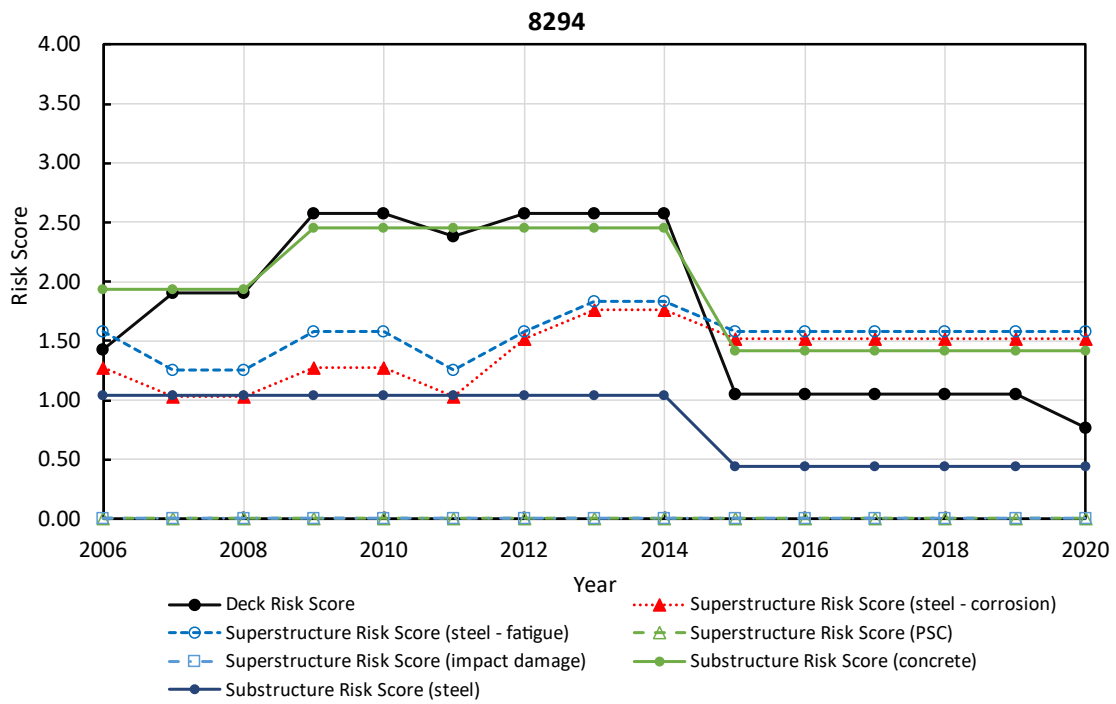
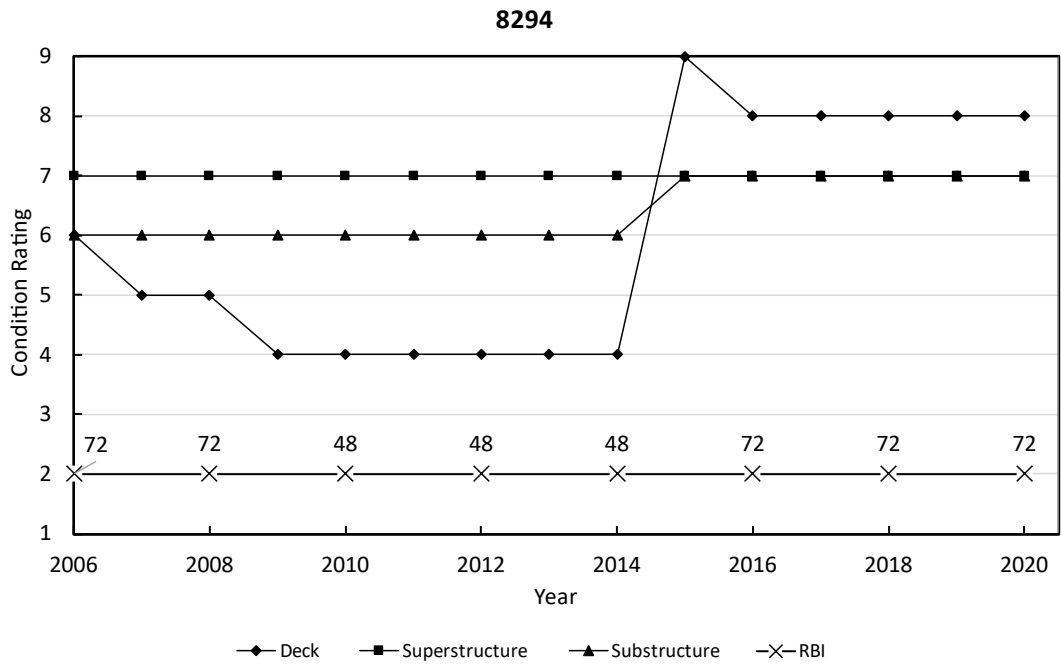


Figure B.37. Back-casting figure for structure number 8294 (MO).

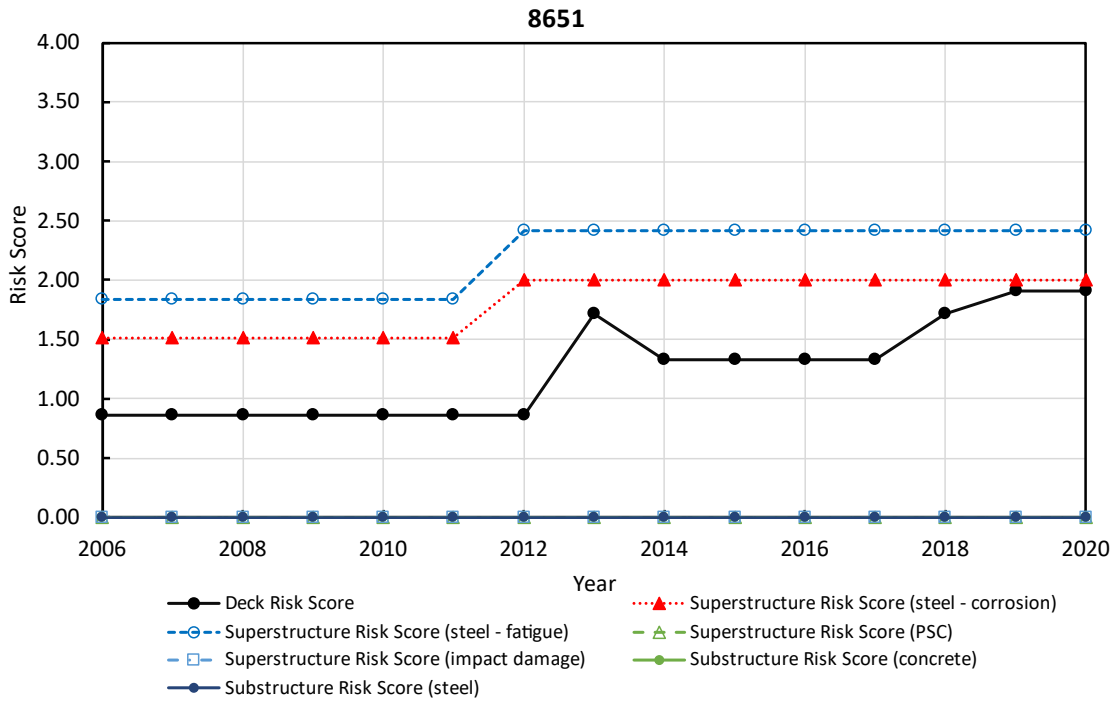
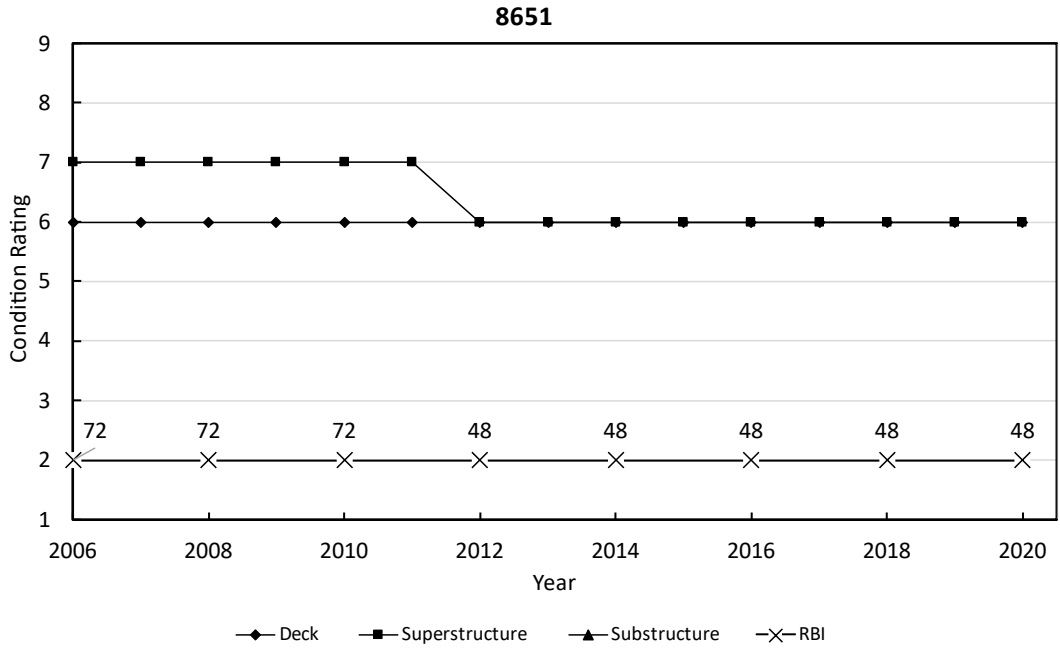


Figure B.38. Back-casting figure for structure number 8651 (MO).

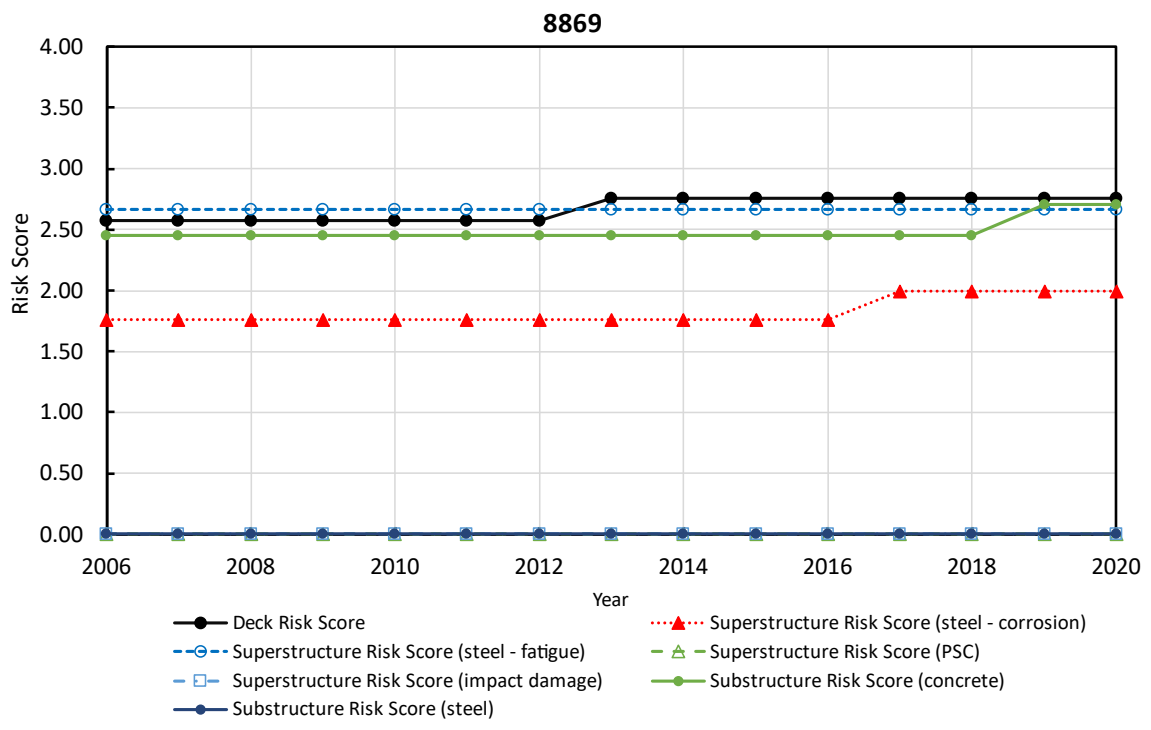
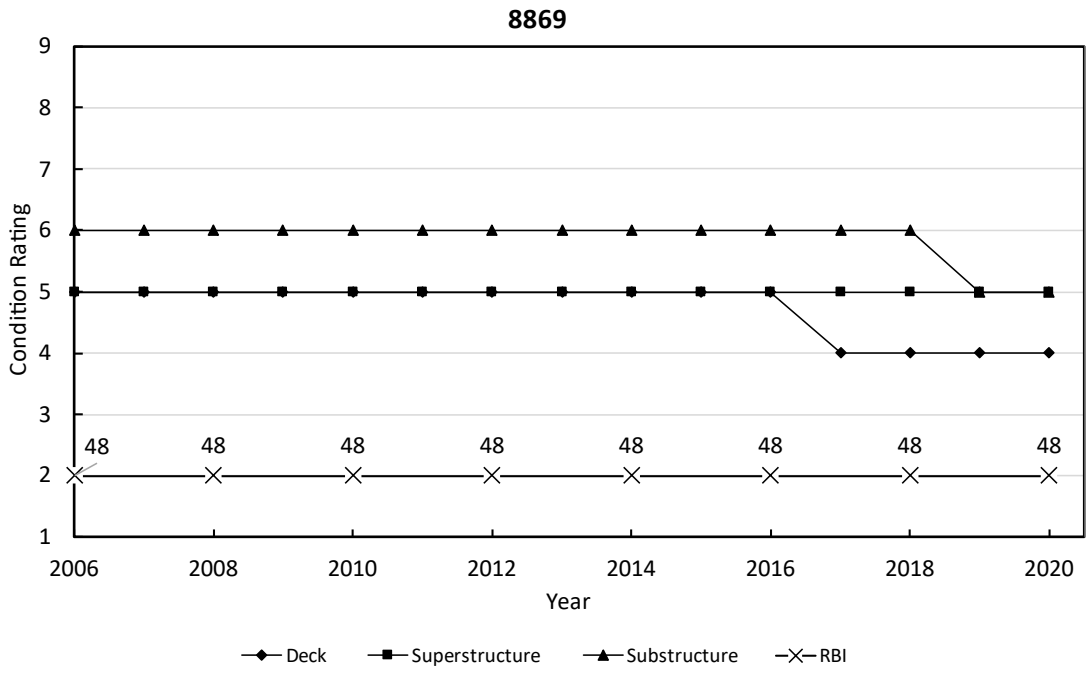


Figure B.39. Back-casting figure for structure number 8869 (MO).

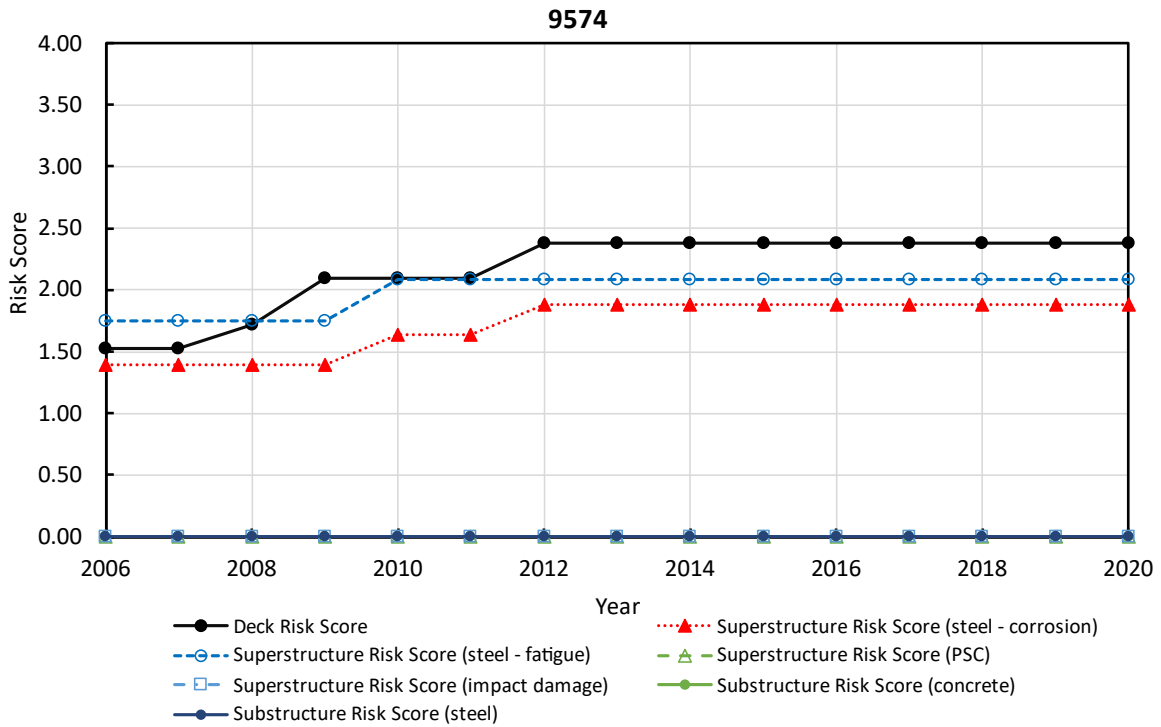
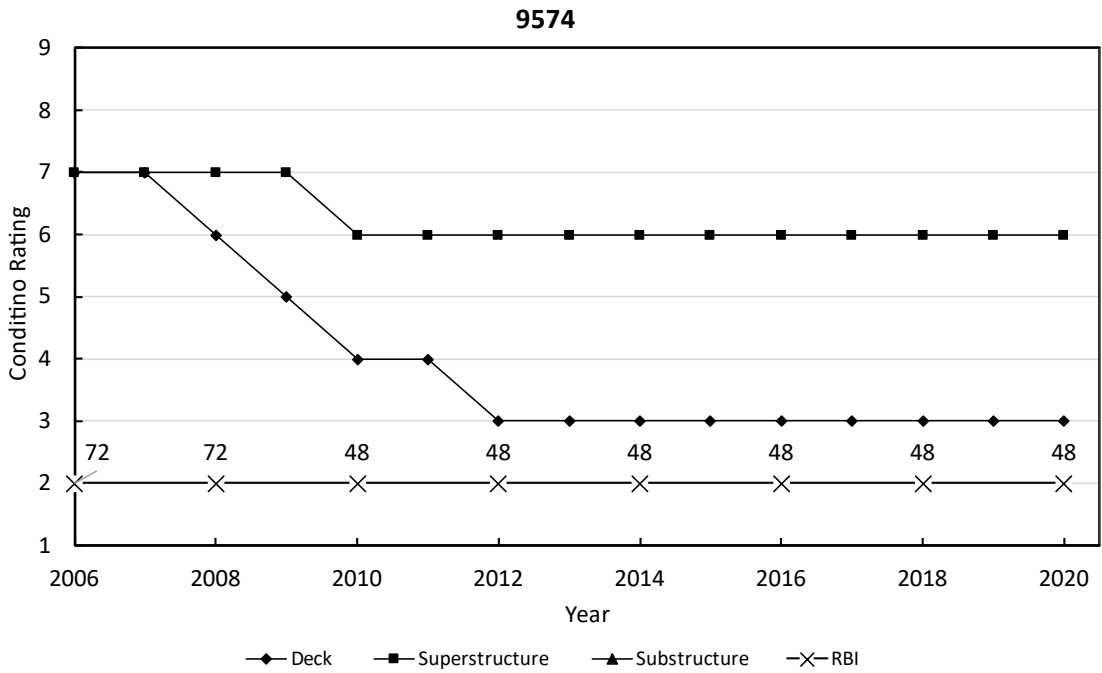


Figure B.40. Back-casting figure for structure number 9574 (MO).

Back-casting results for bridges of Washington (WA)

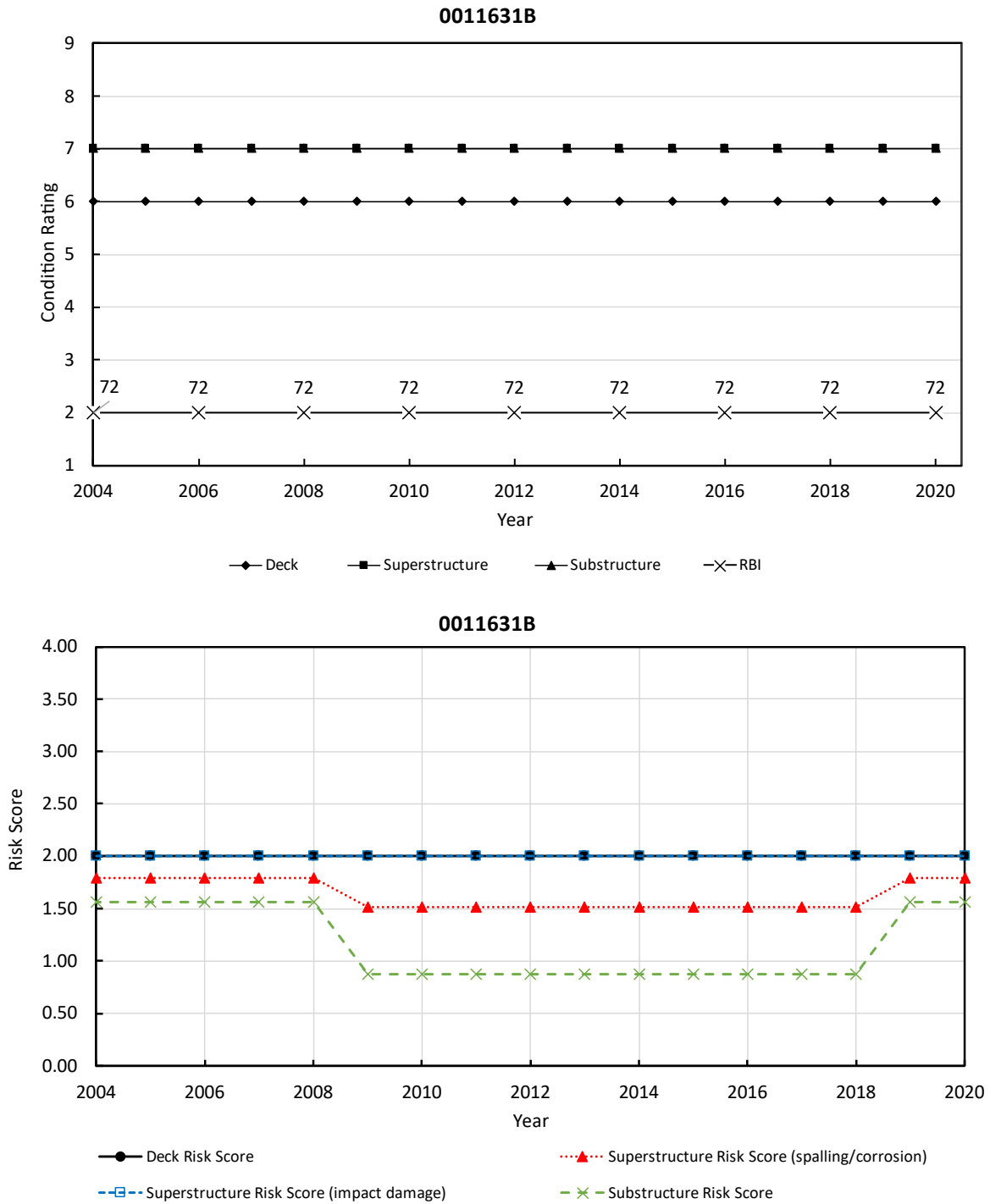


Figure B.41. Back-casting figure for structure number 0011631B (WA).

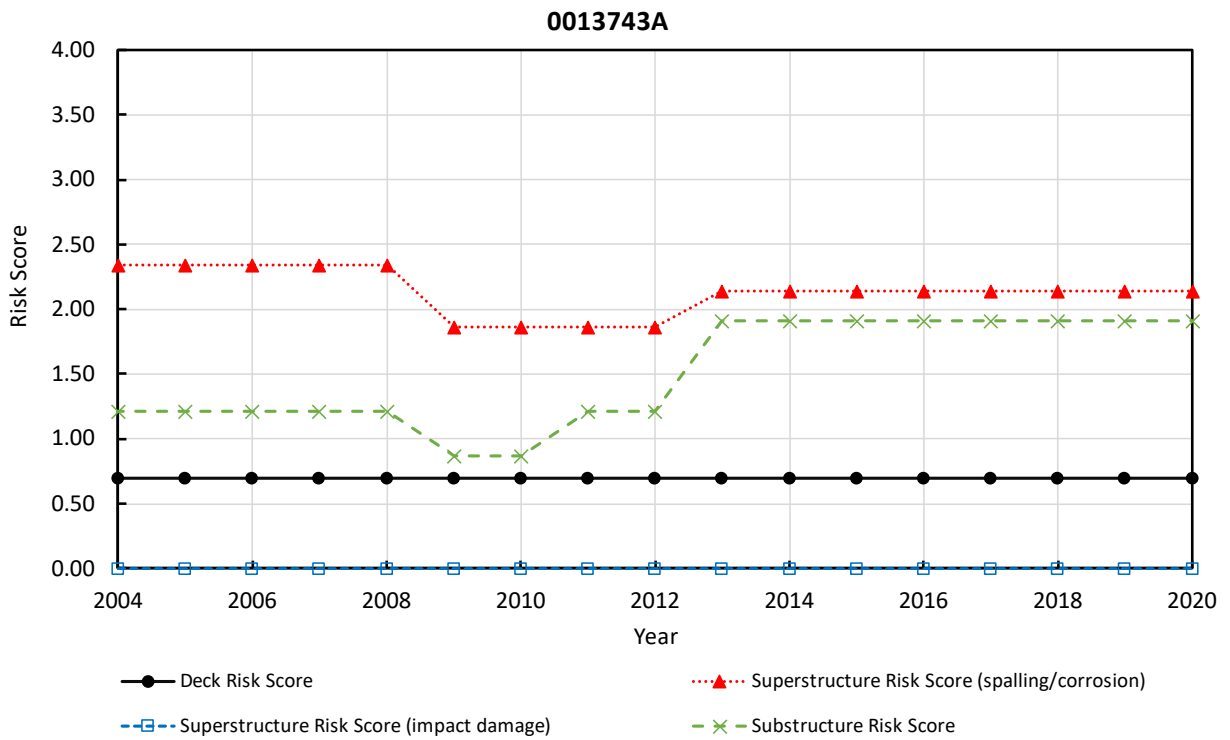
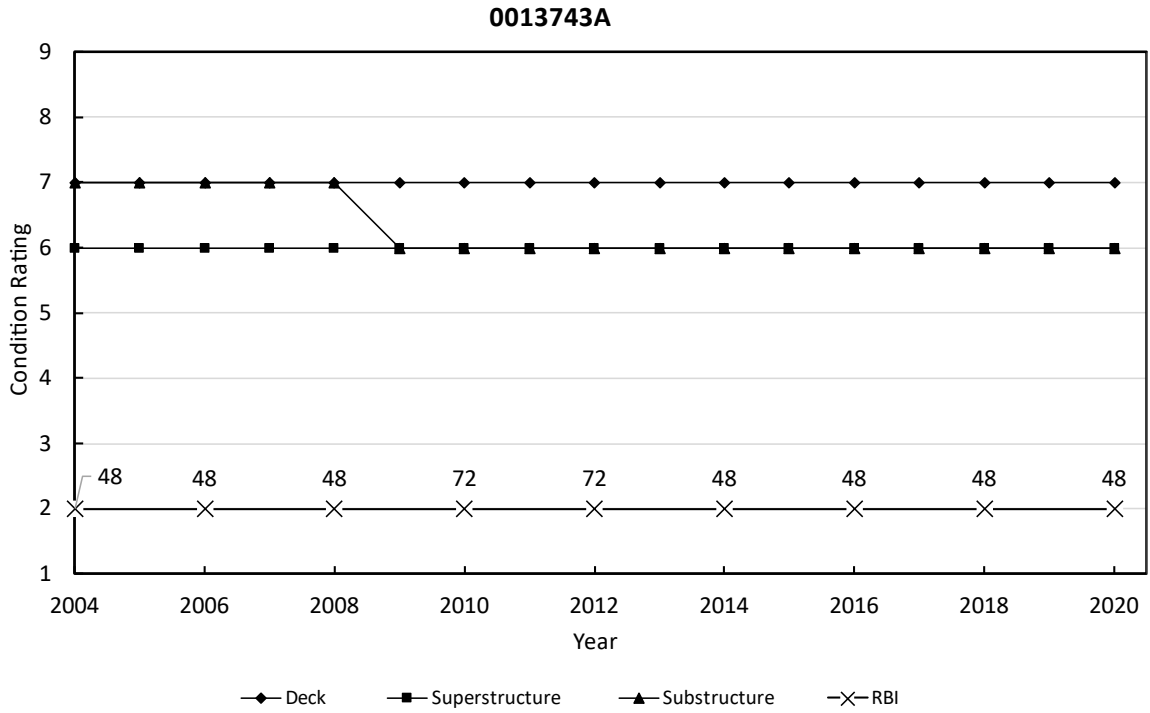


Figure B.42. Back-casting figure for structure number 0013743A (WA).

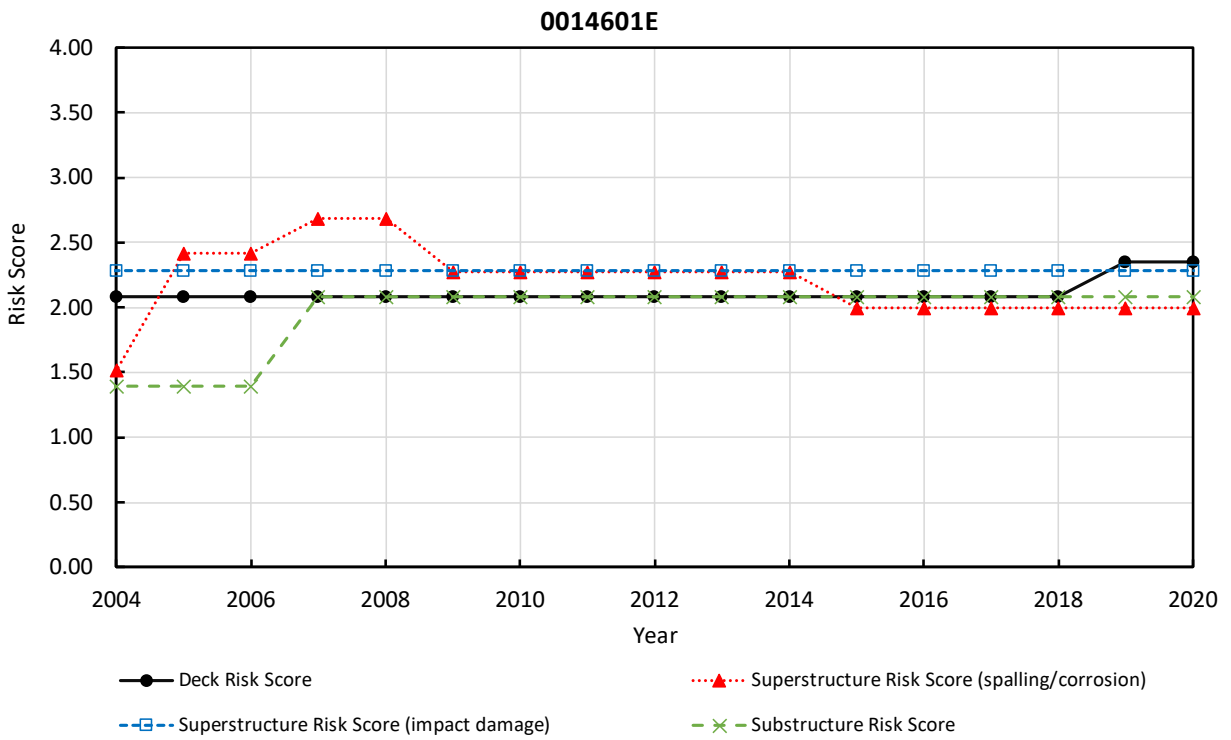
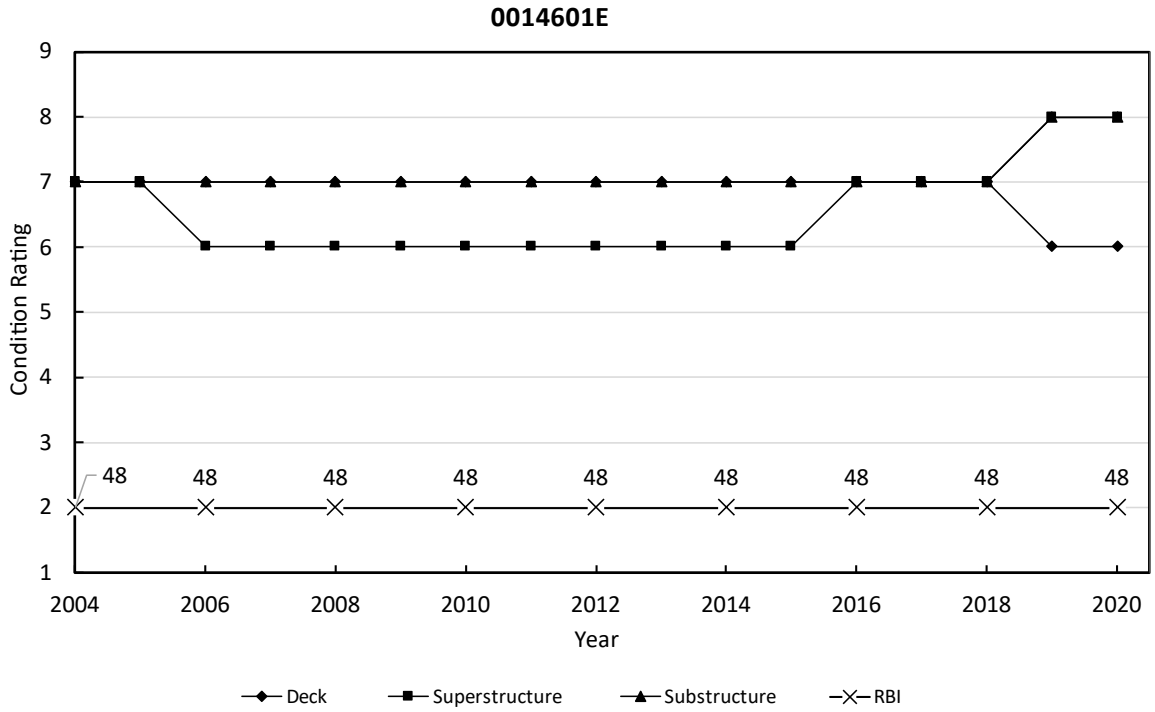


Figure B.43. Back-casting figure for structure number 0014601E (WA).

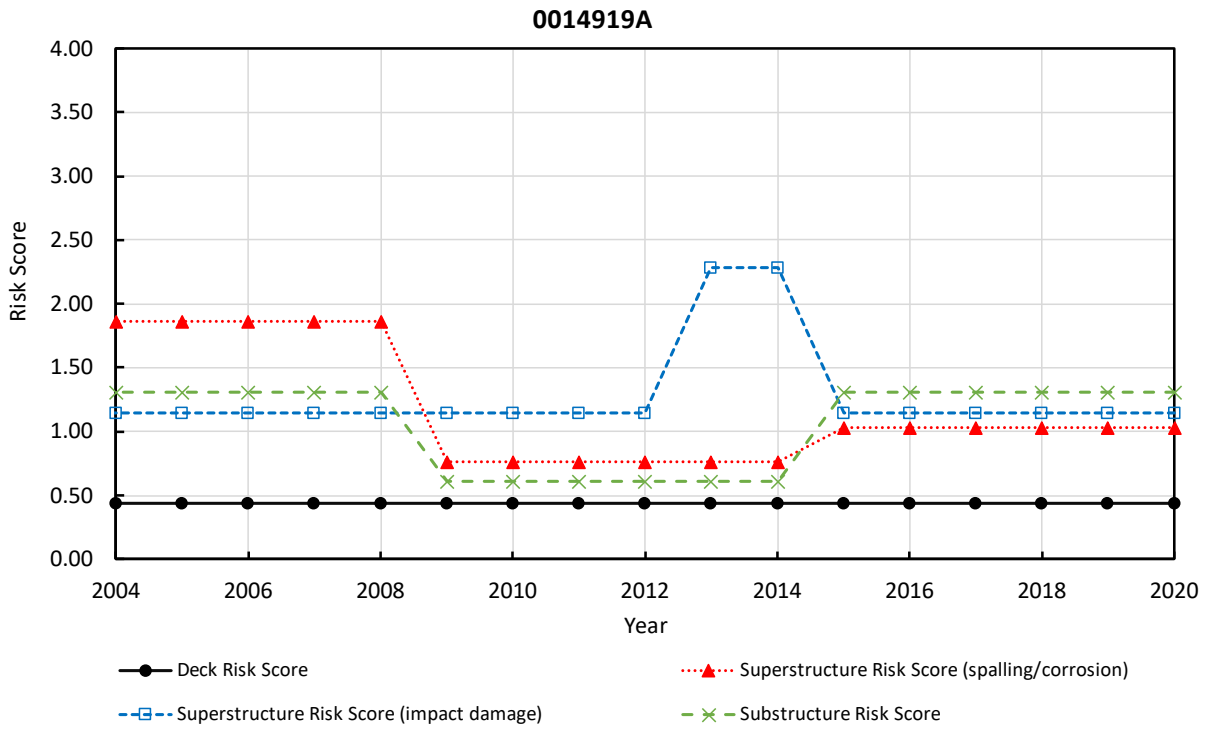
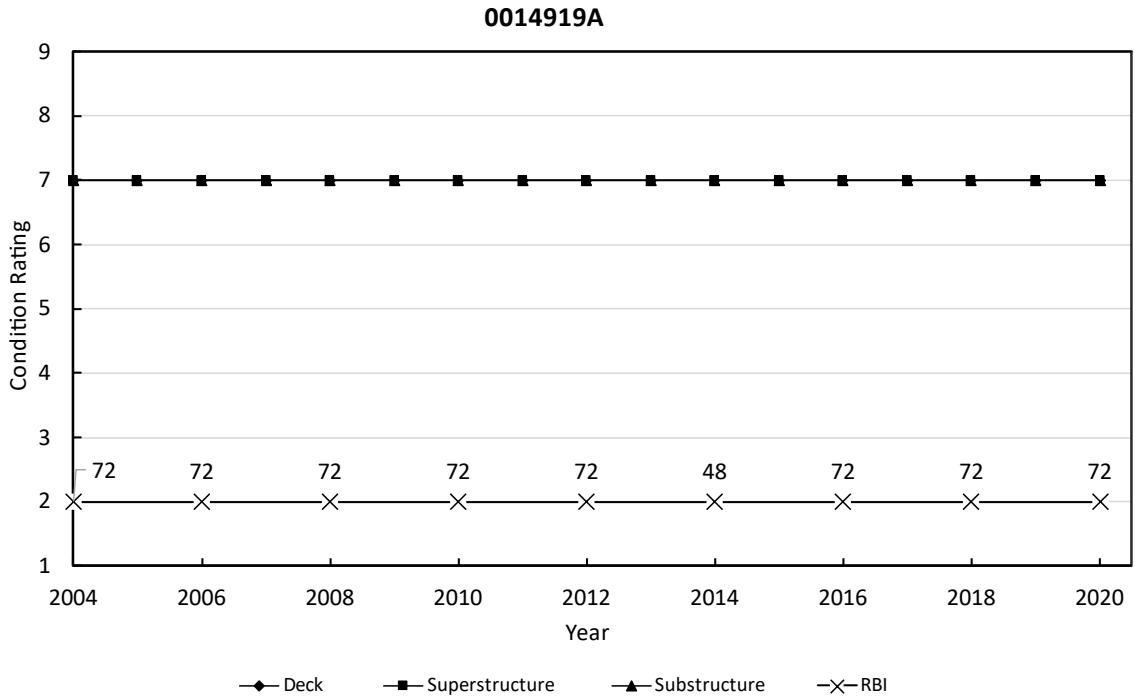


Figure B.44. Back-casting figure for structure number 0014919A (WA).

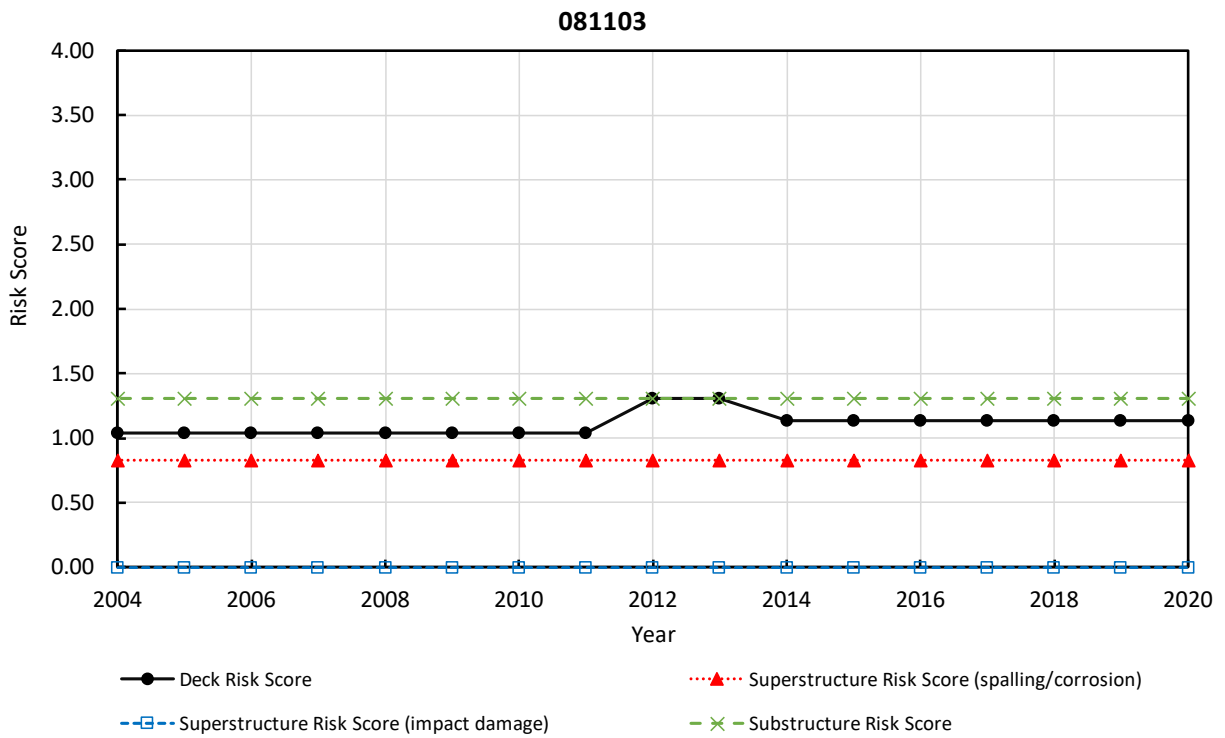
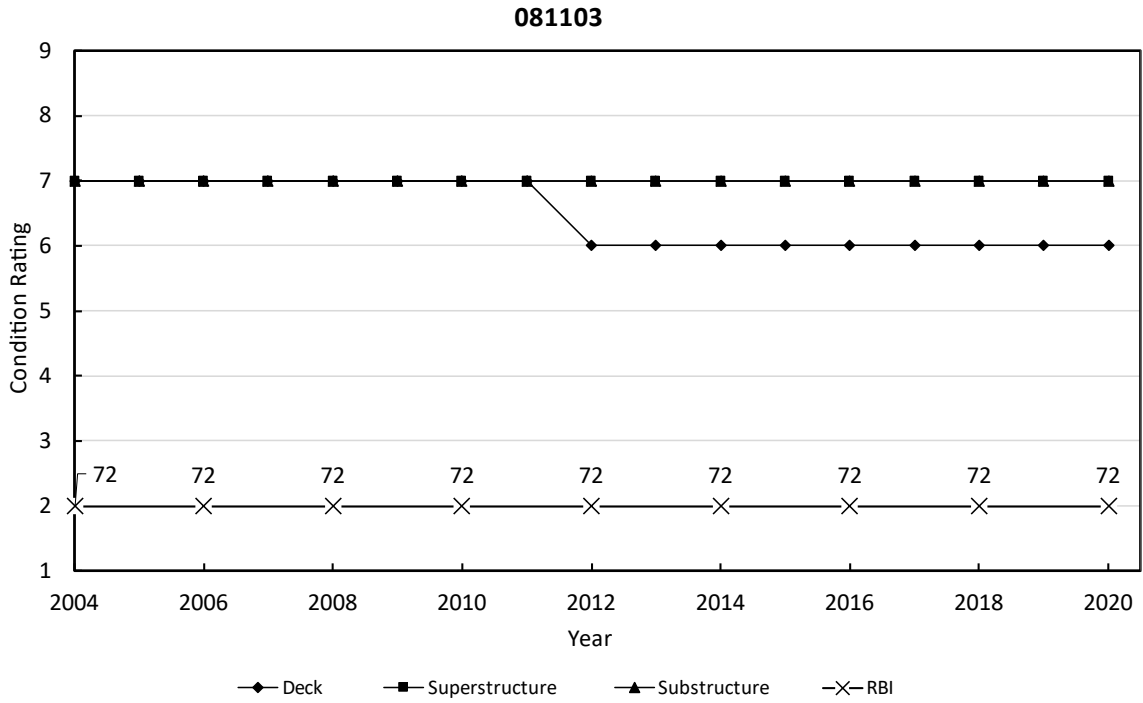
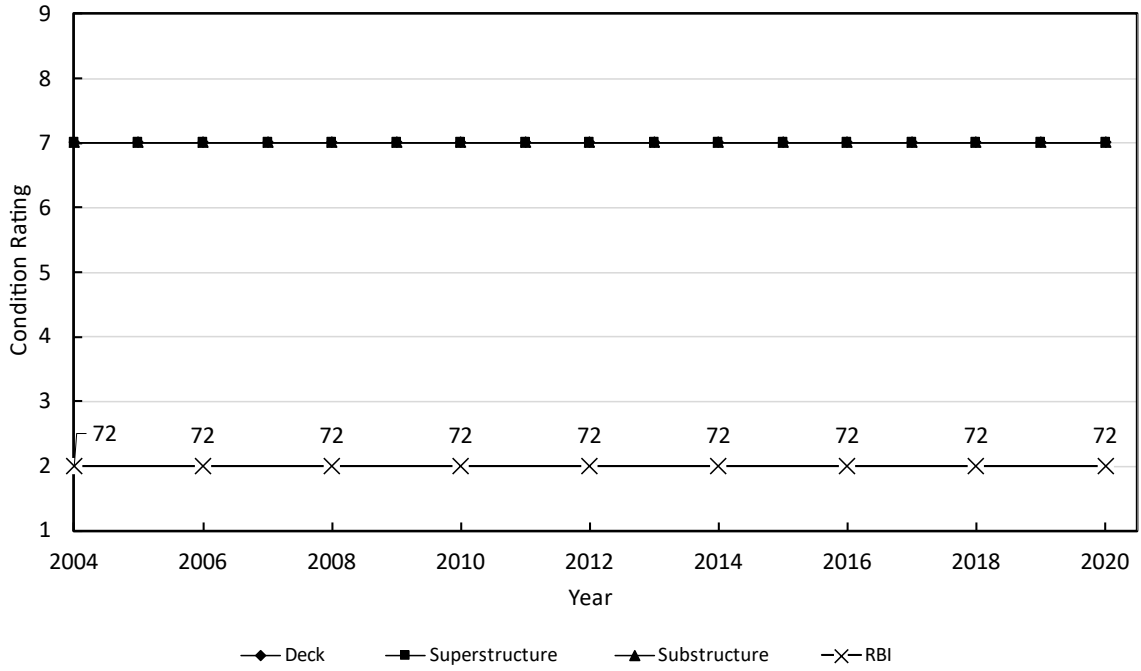


Figure B.45. Back-casting figure for structure number 081103 (WA).

081328



081328

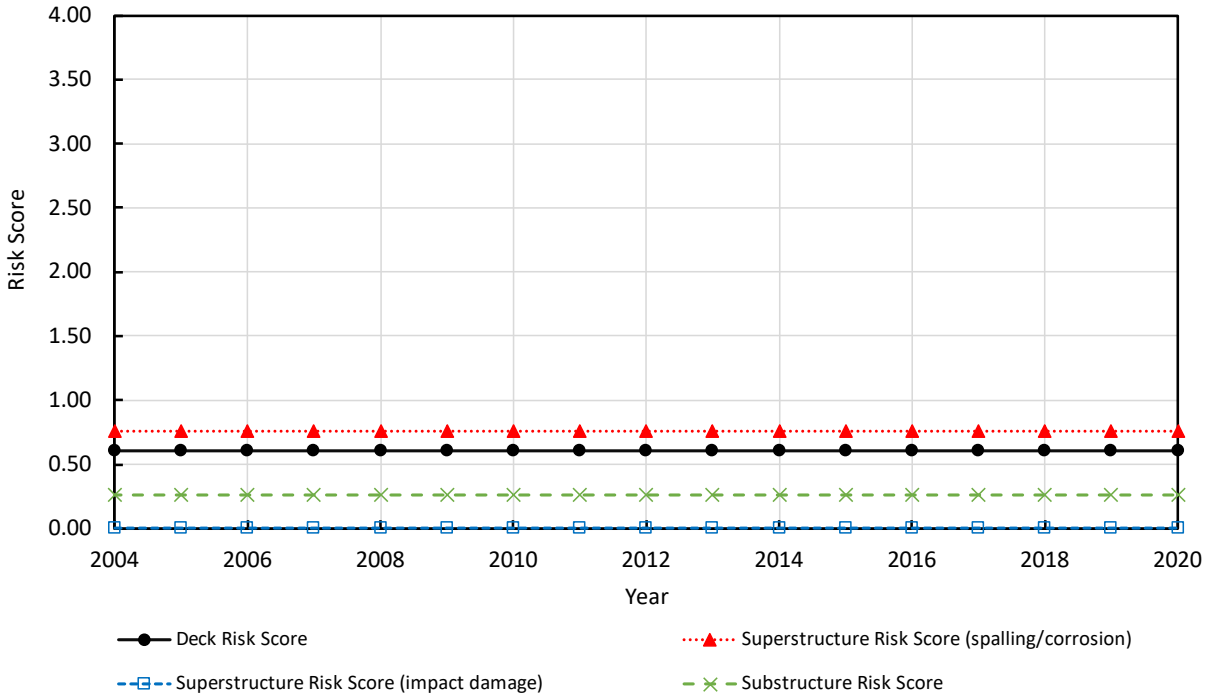
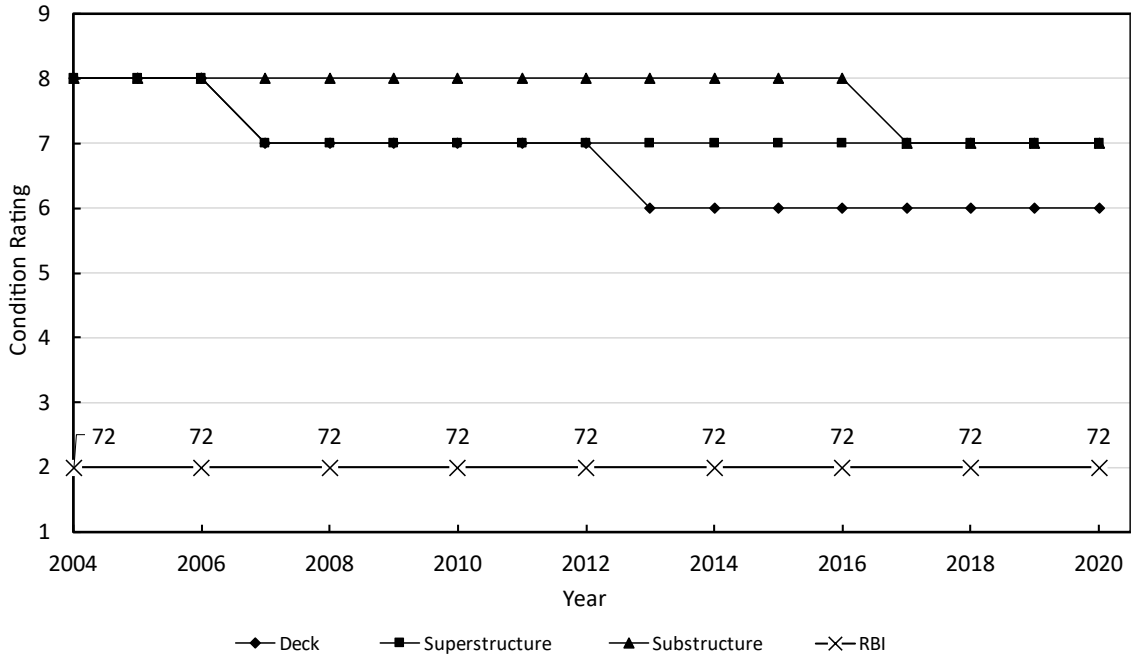


Figure B.46. Back-casting figure for structure number 081328 (WA).

082722



082722

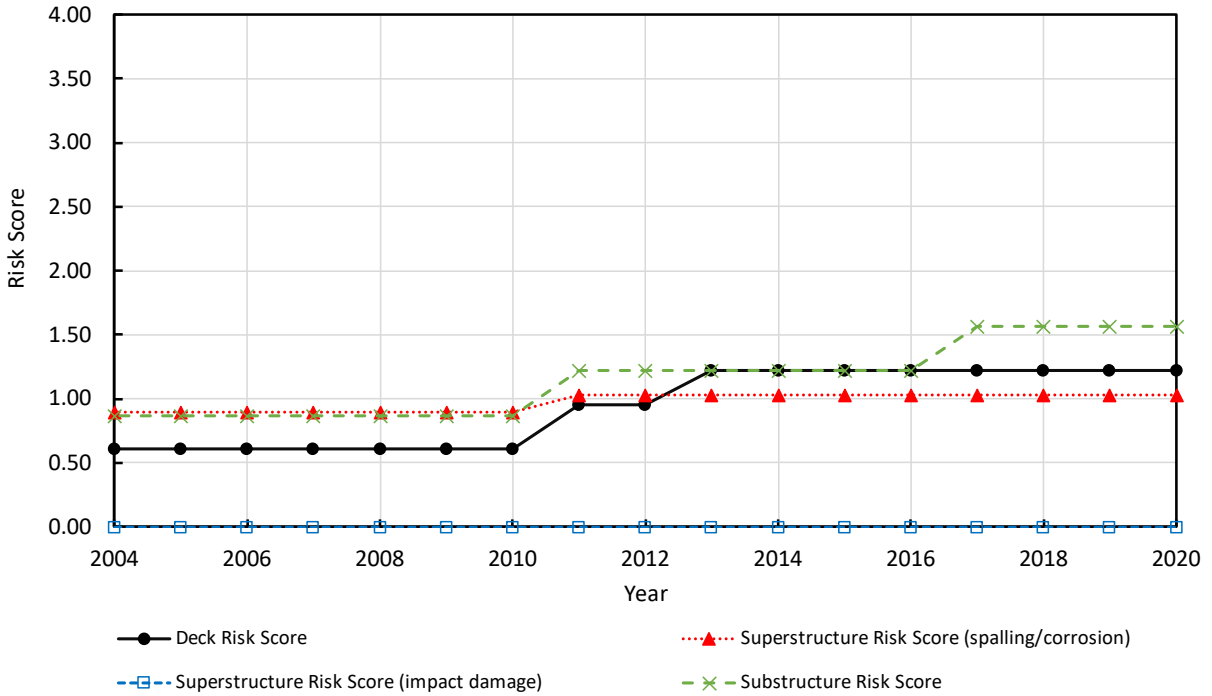


Figure B.47. Back-casting figure for structure number 082722 (WA).

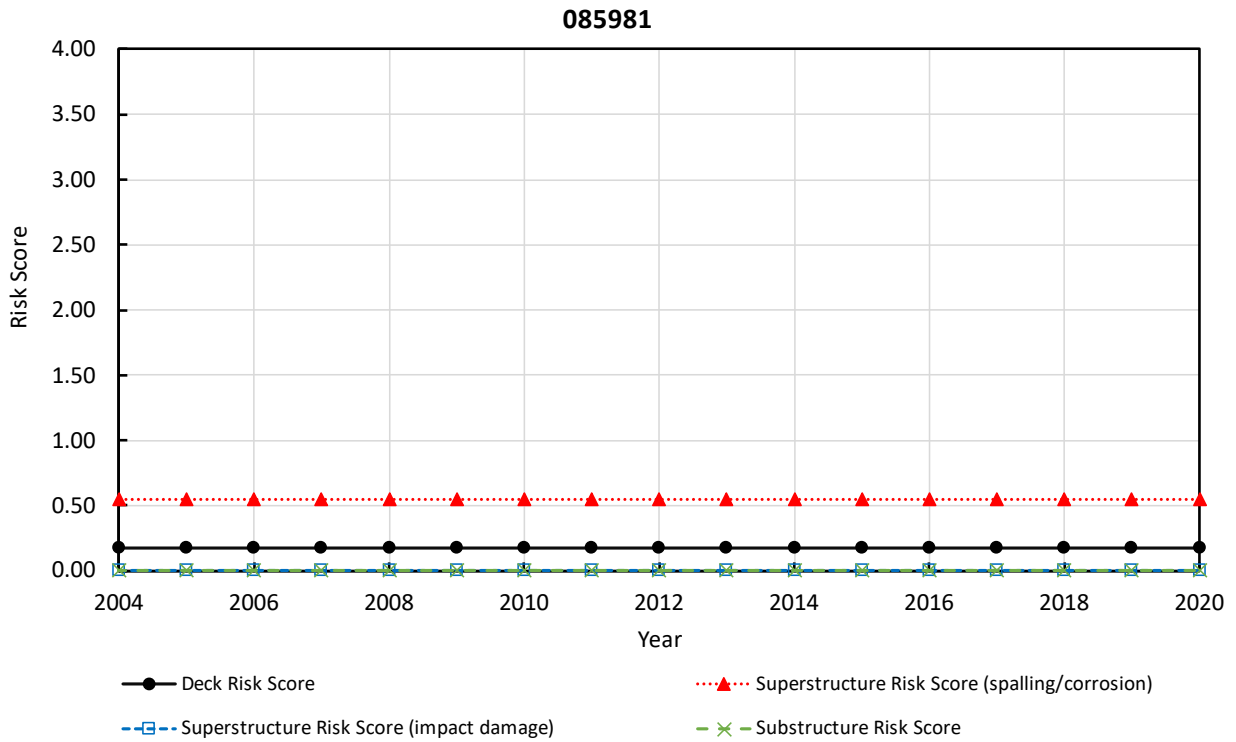
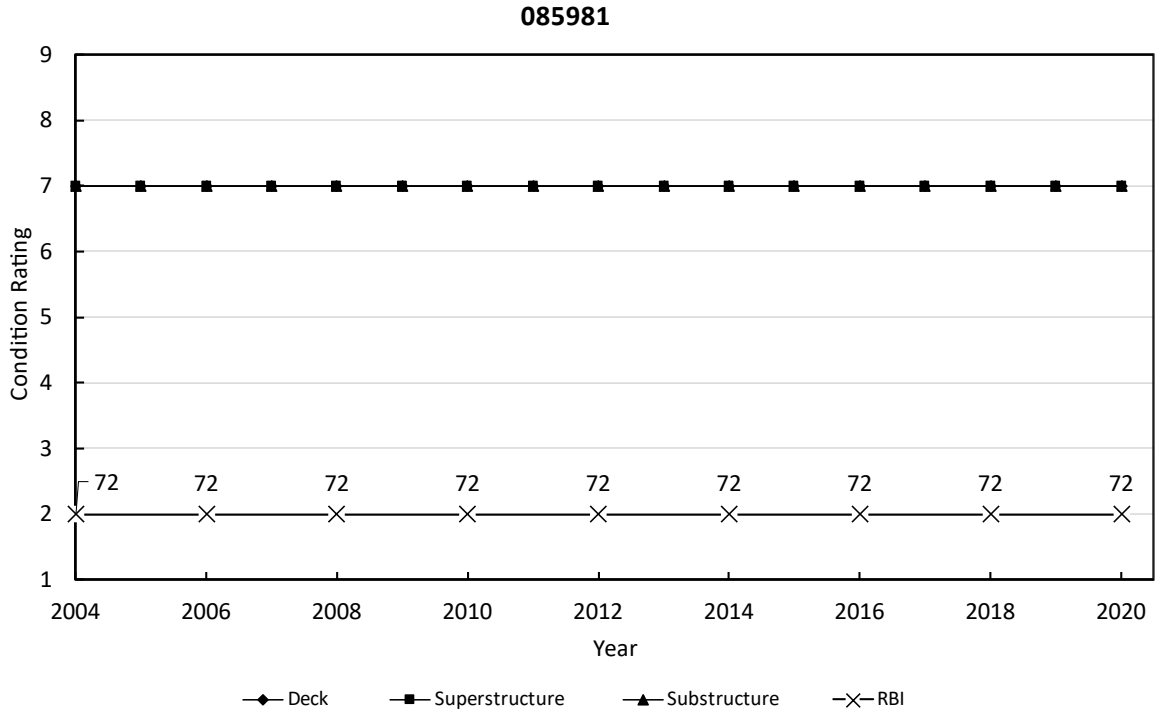


Figure B.48. Back-casting figure for structure number 085981 (WA).

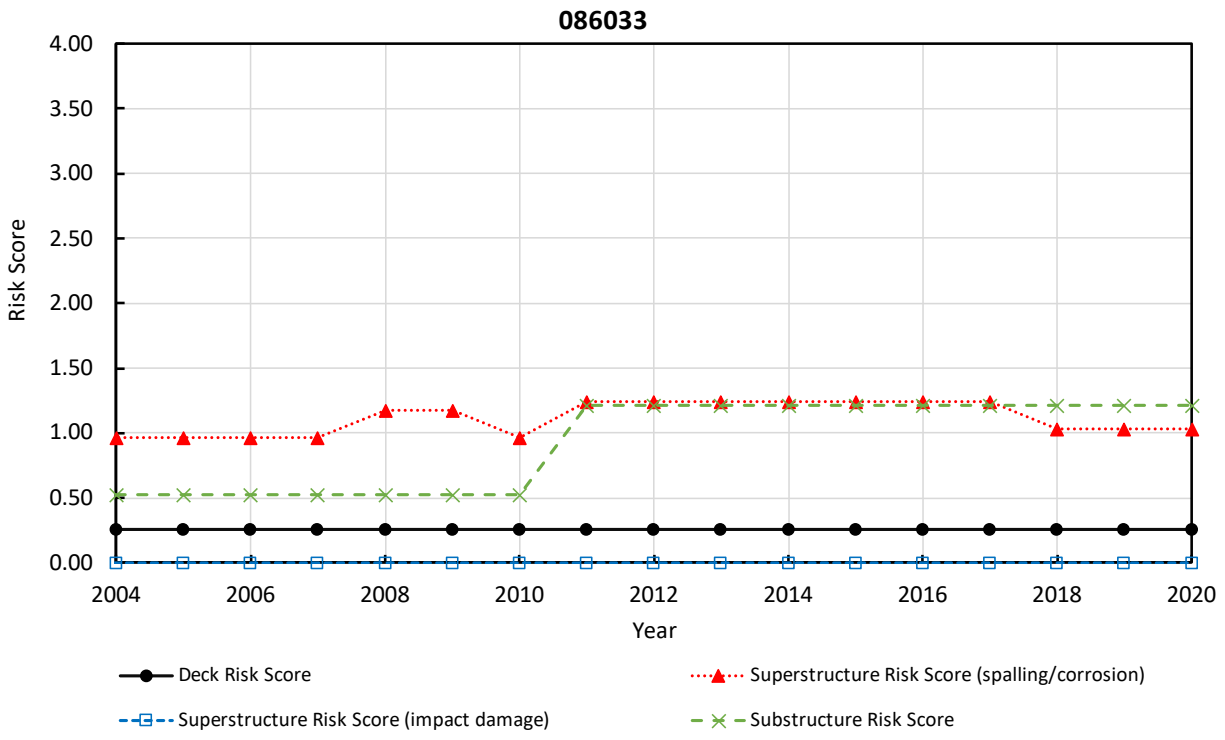
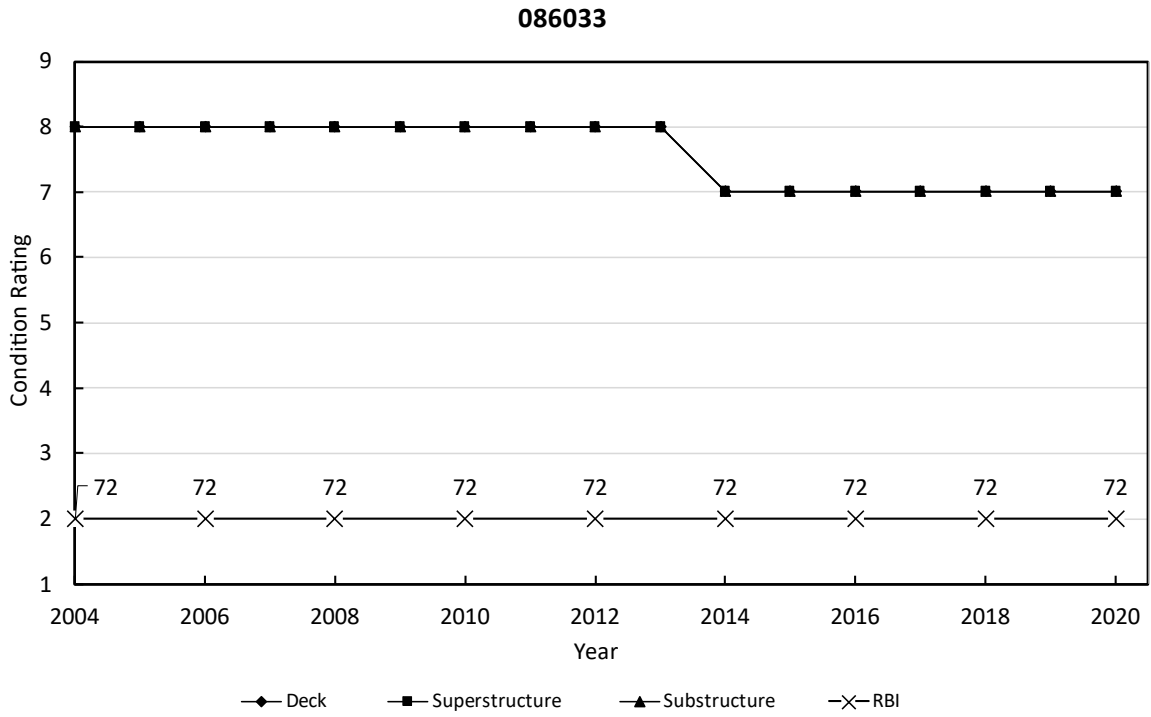


Figure B.49. Back-casting figure for structure number 086033 (WA).

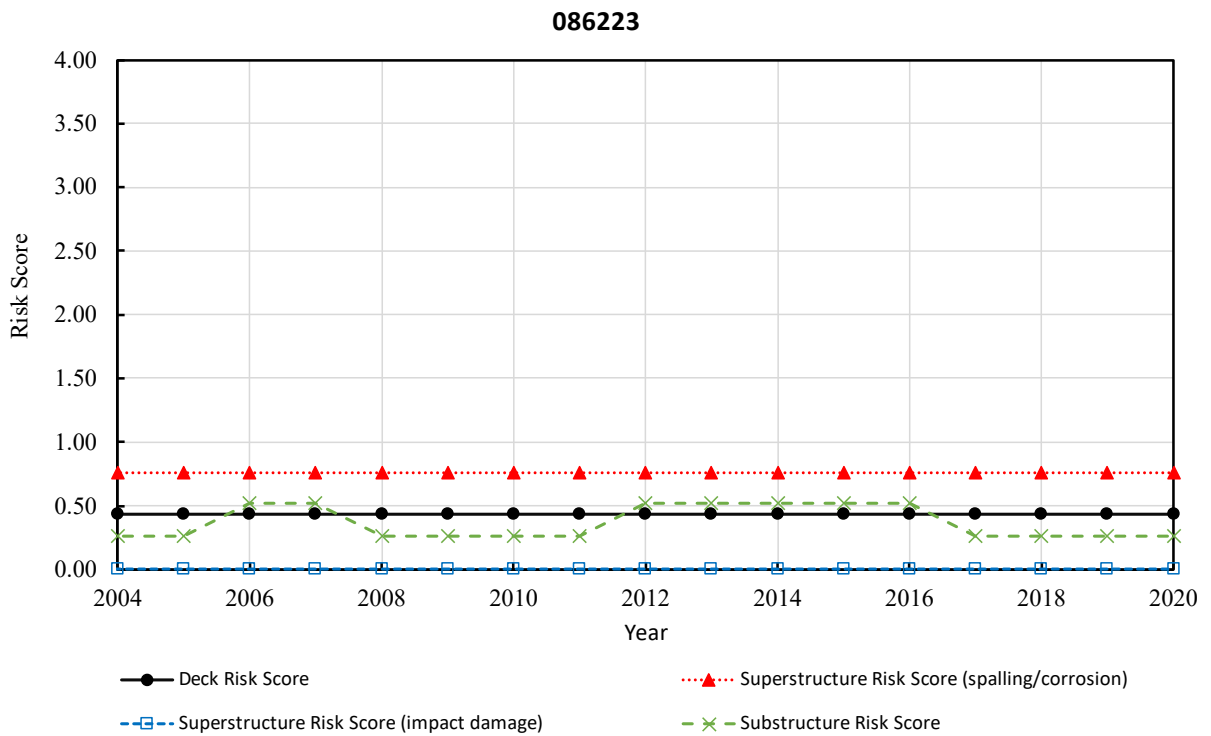
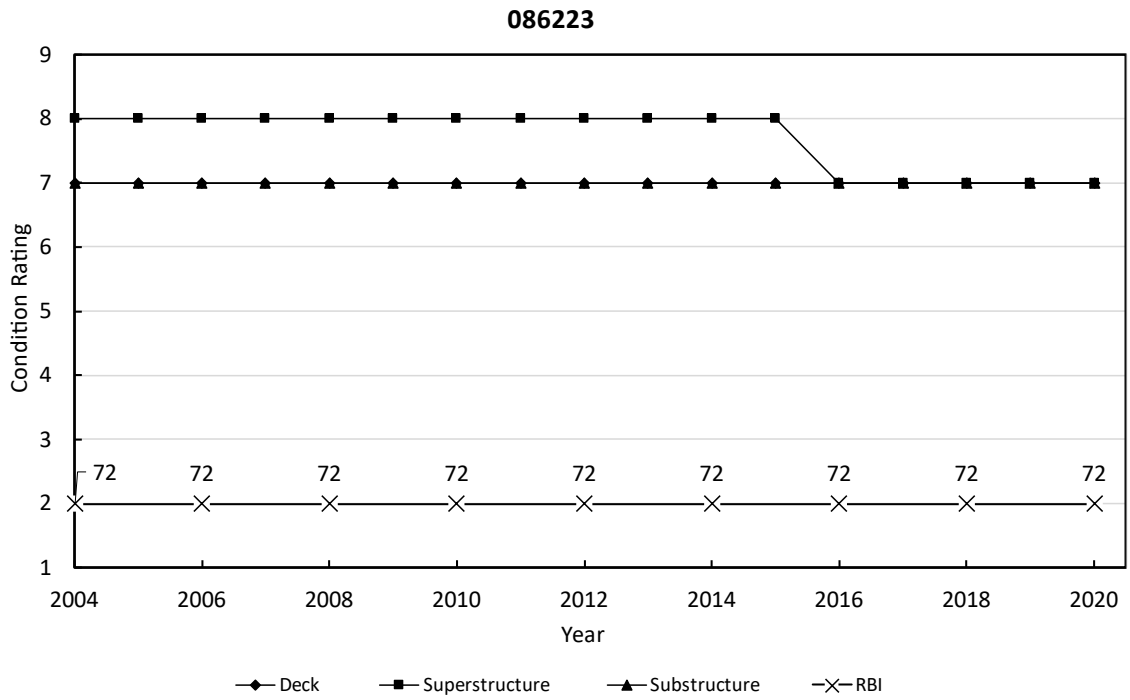


Figure B.50. Back-casting figure for structure number 086223 (WA).

Back-casting results for bridges of Wisconsin (WI)

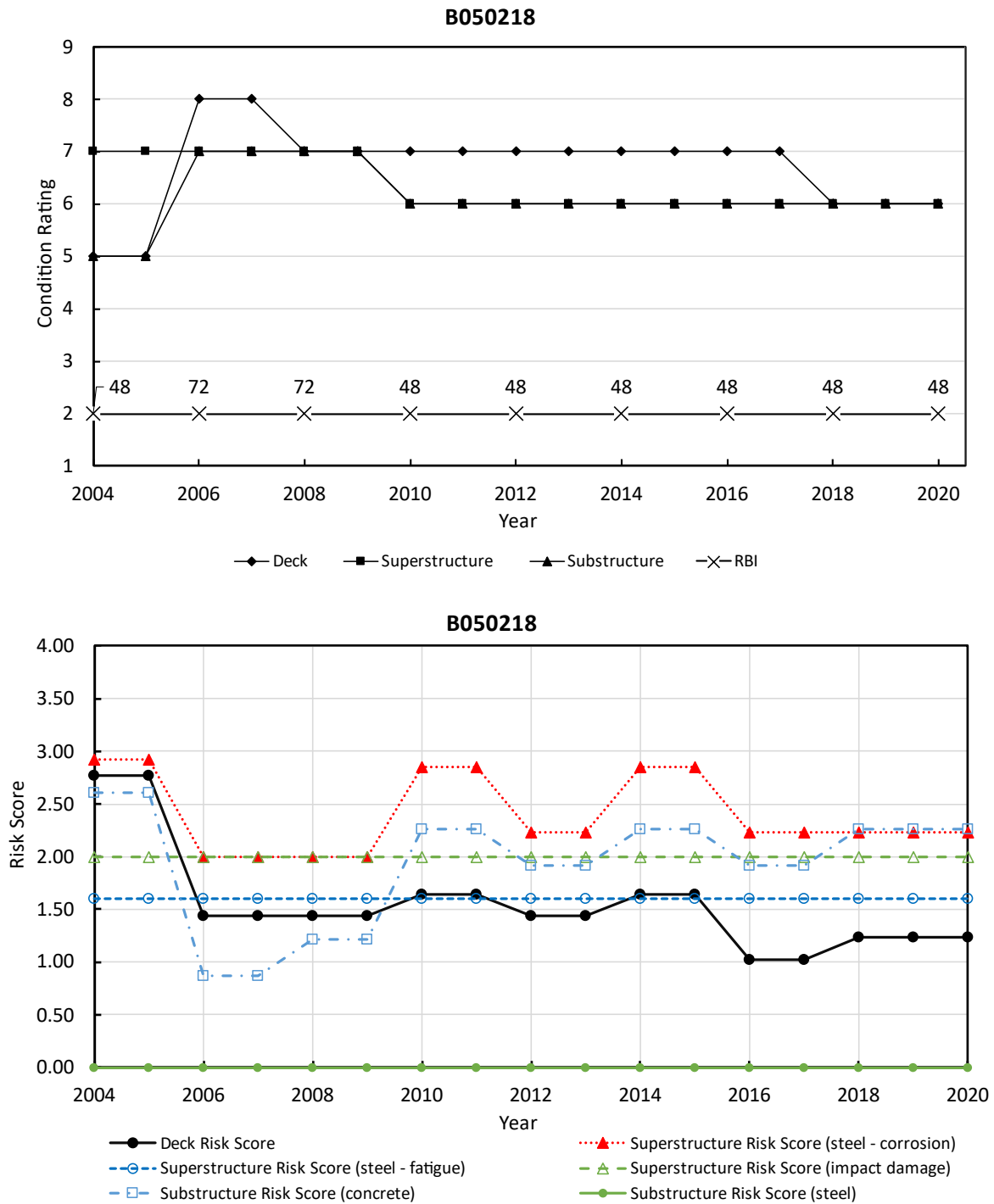


Figure B.51. Back-casting figure for structure number B050218 (WI).

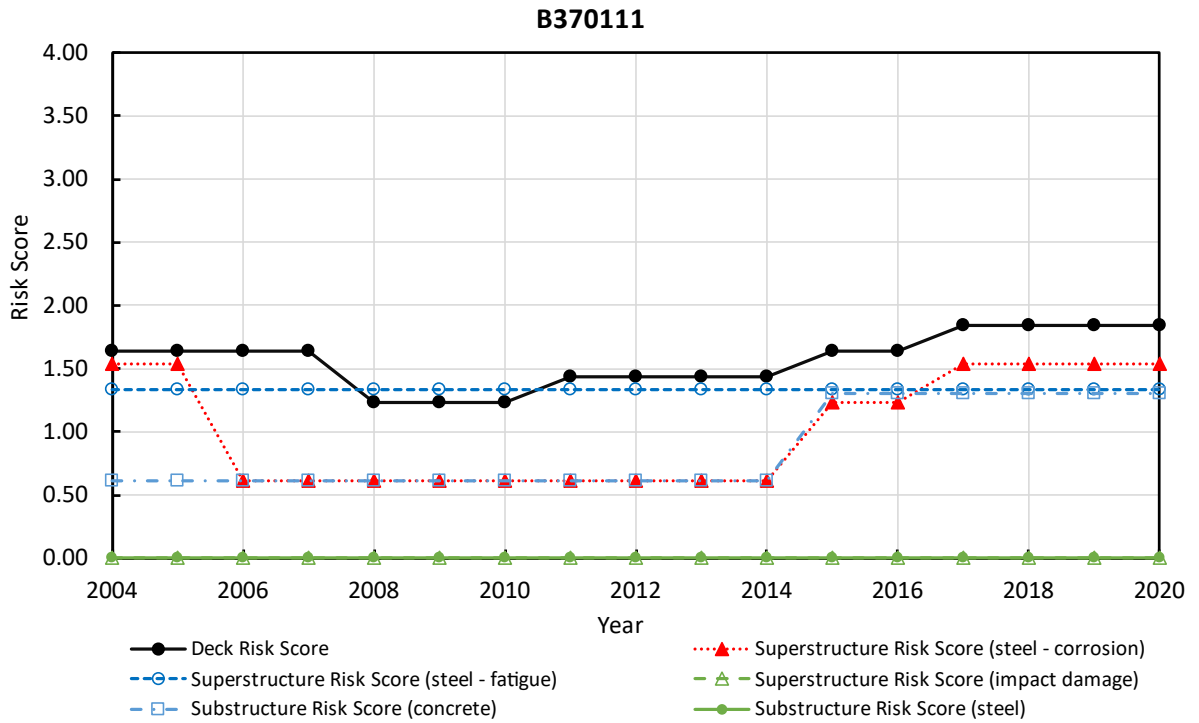
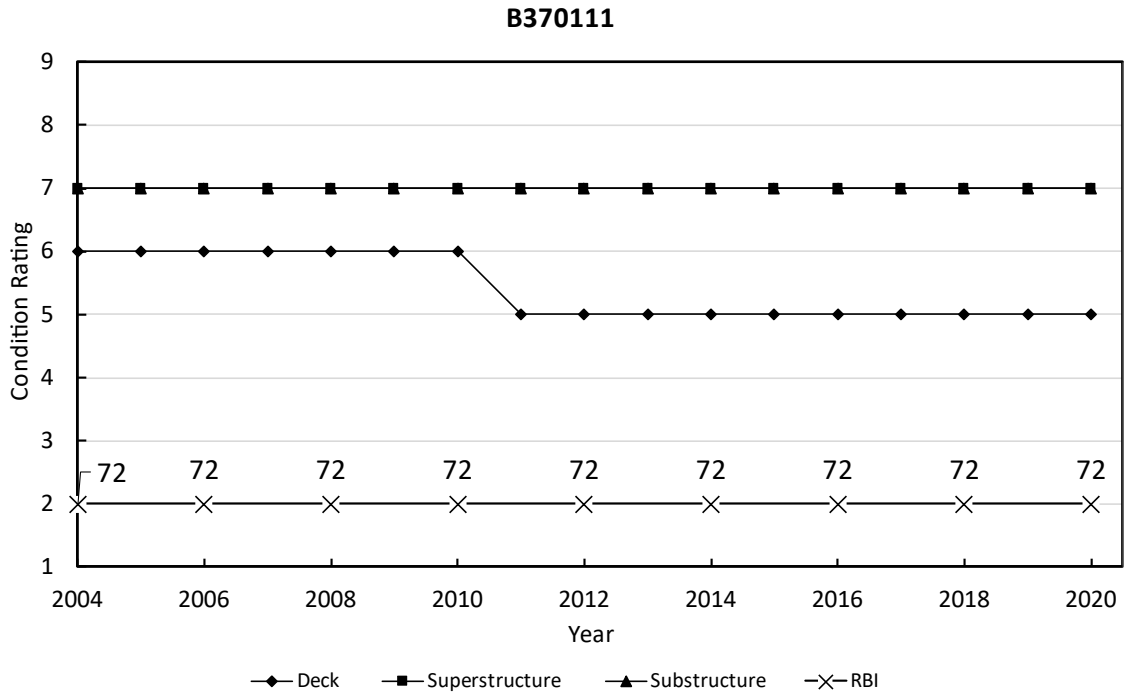


Figure B.52. Back-casting figure for structure number B370111 (WI).

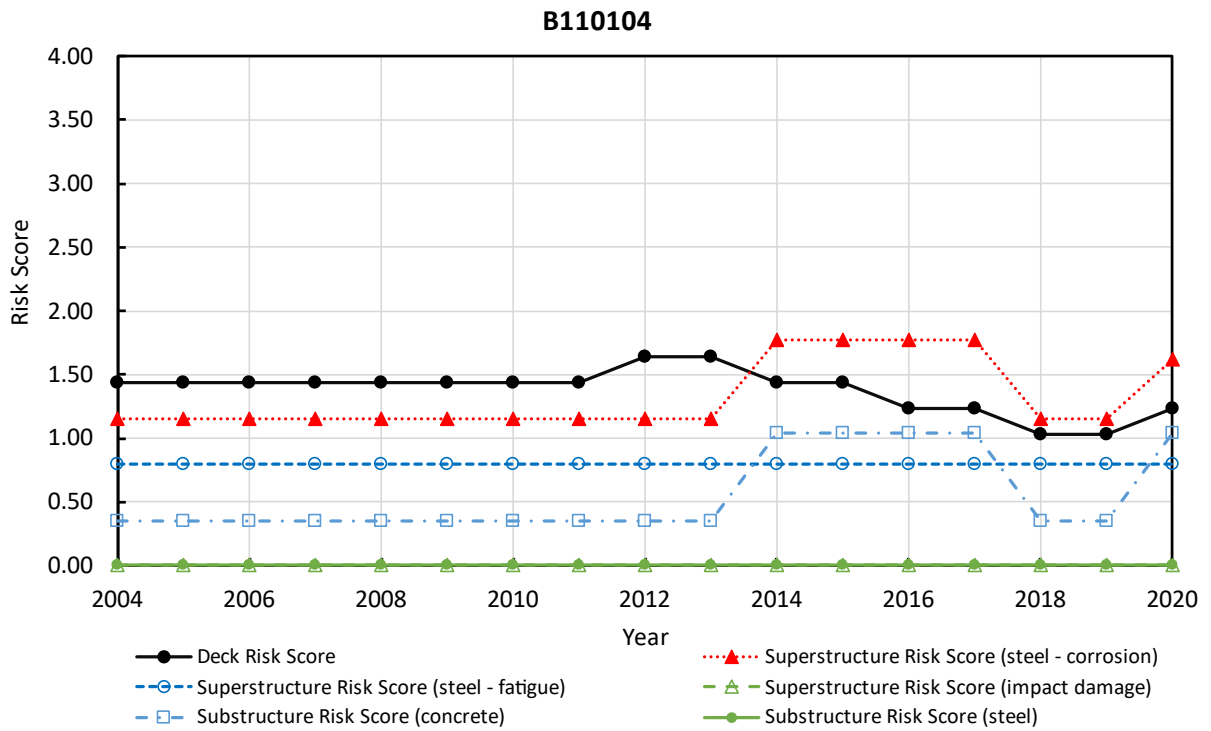
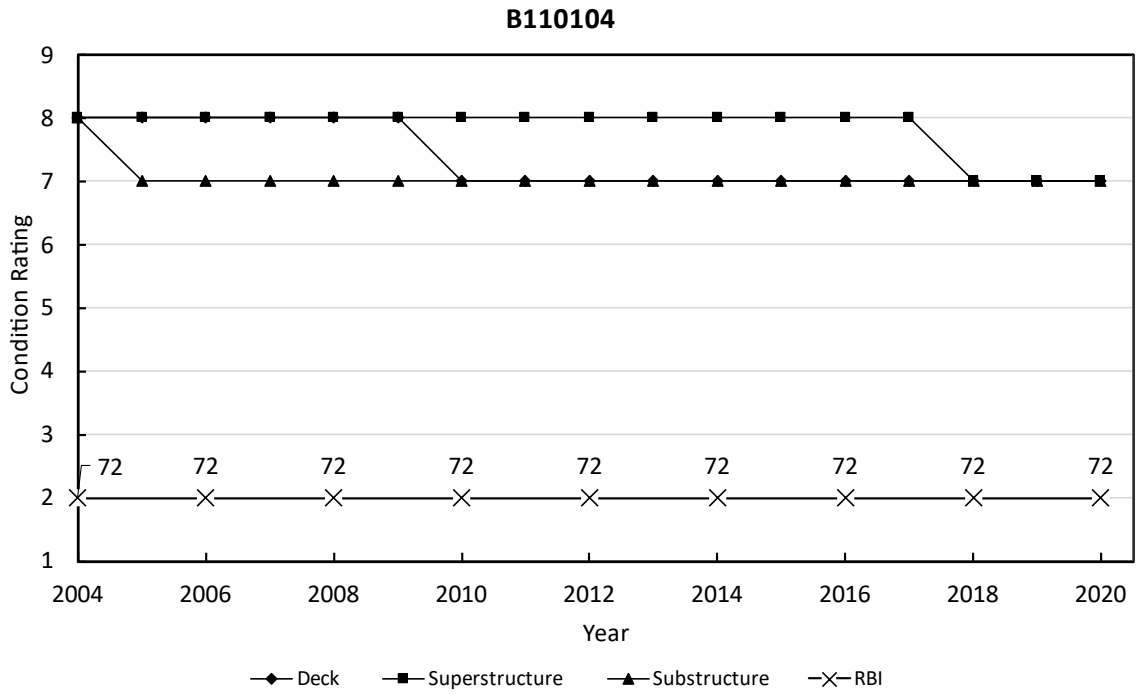


Figure B.53. Back-casting figure for structure number B110104 (WI).

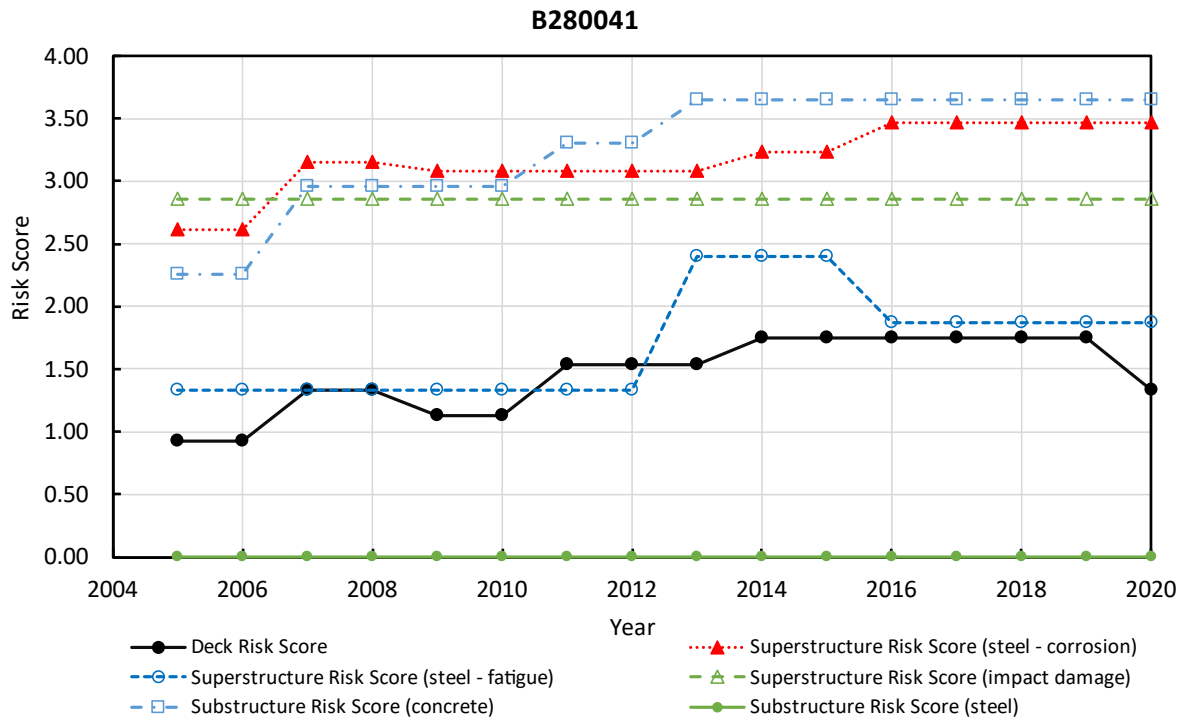
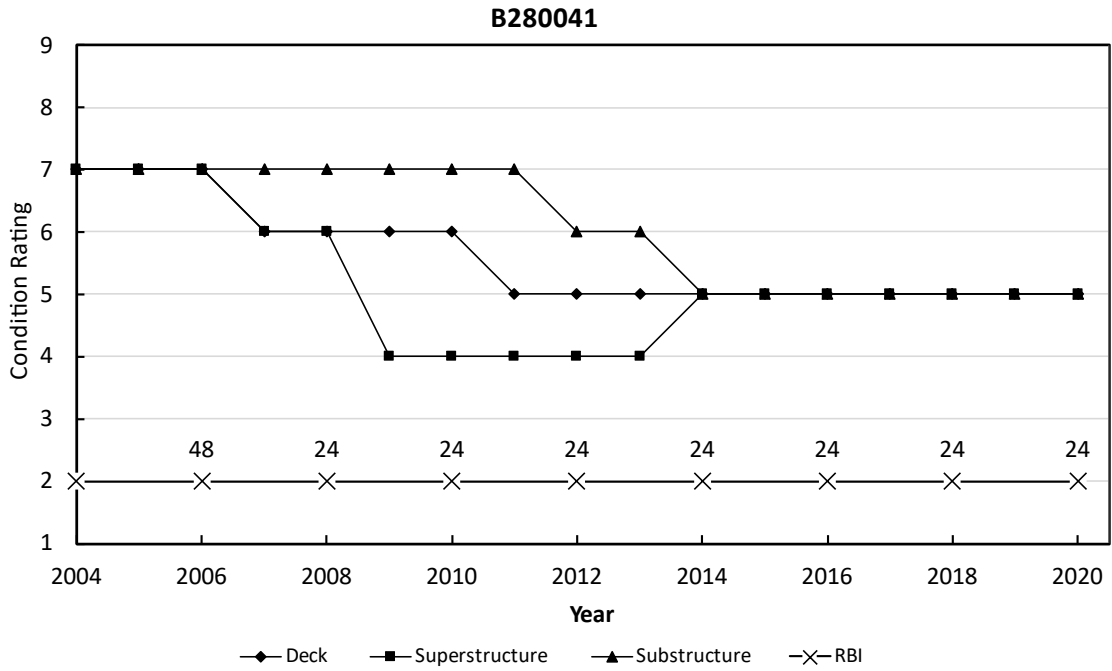


Figure B.54. Back-casting figure for structure number B280041 (WI).

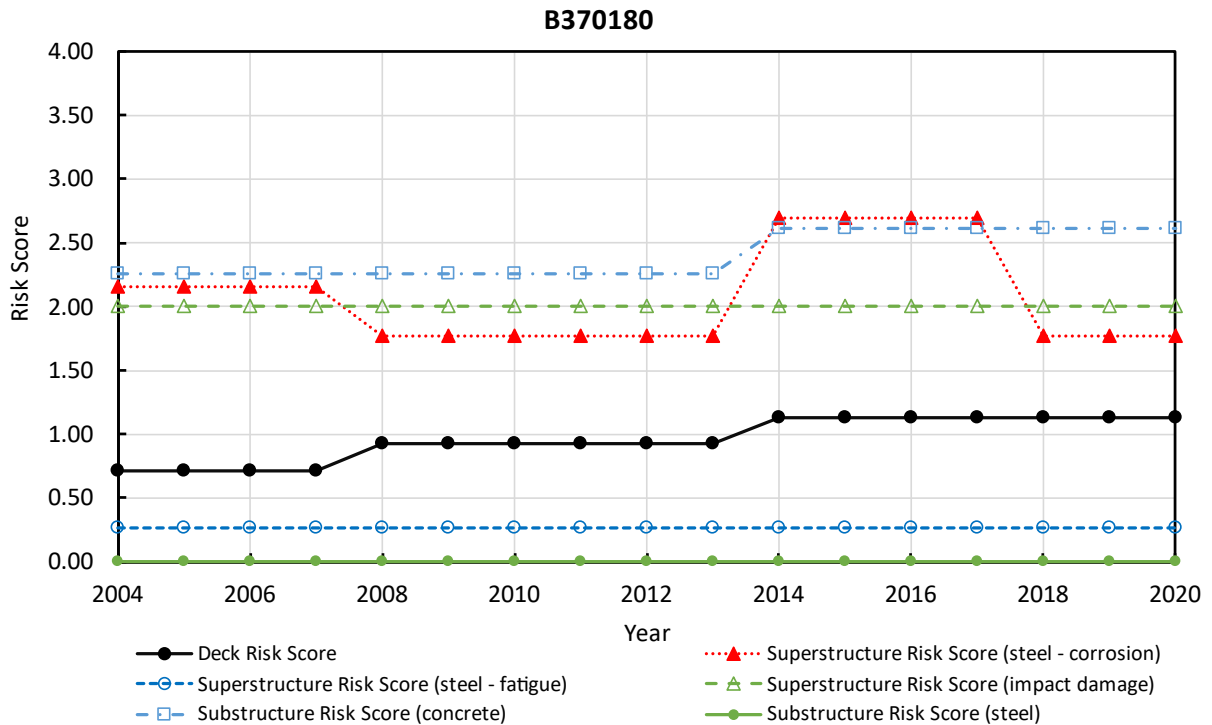
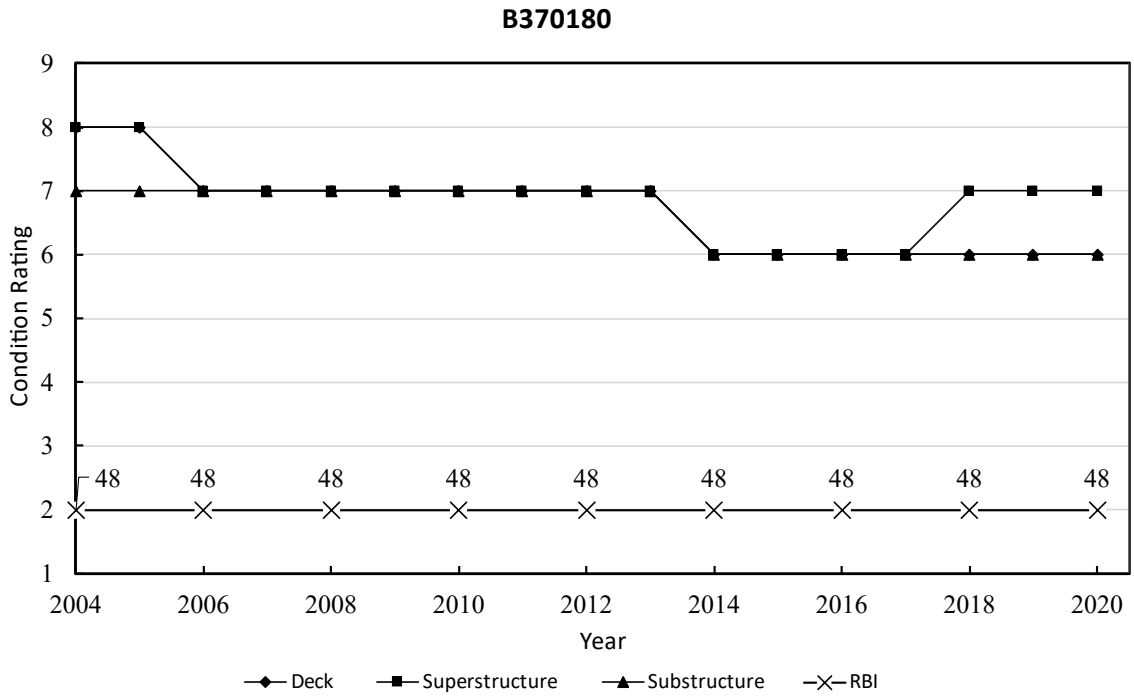


Figure B.55. Back-casting figure for structure number B370180 (WI).

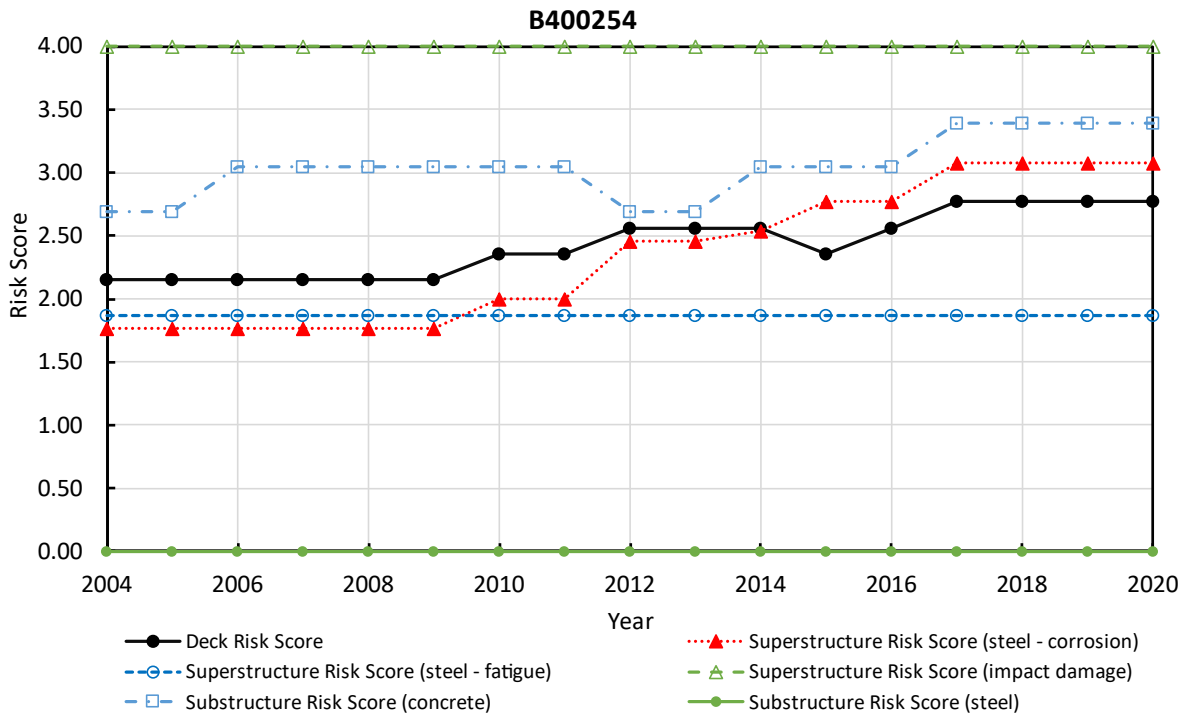
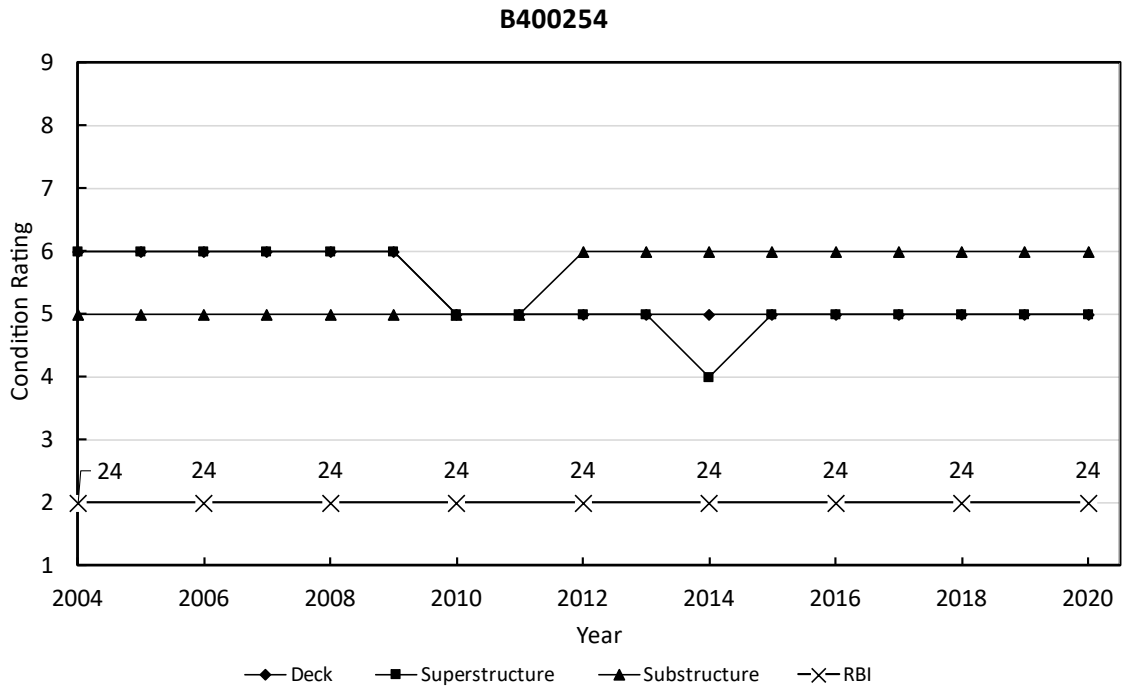


Figure B.56. Back-casting figure for structure number B400254 (WI).

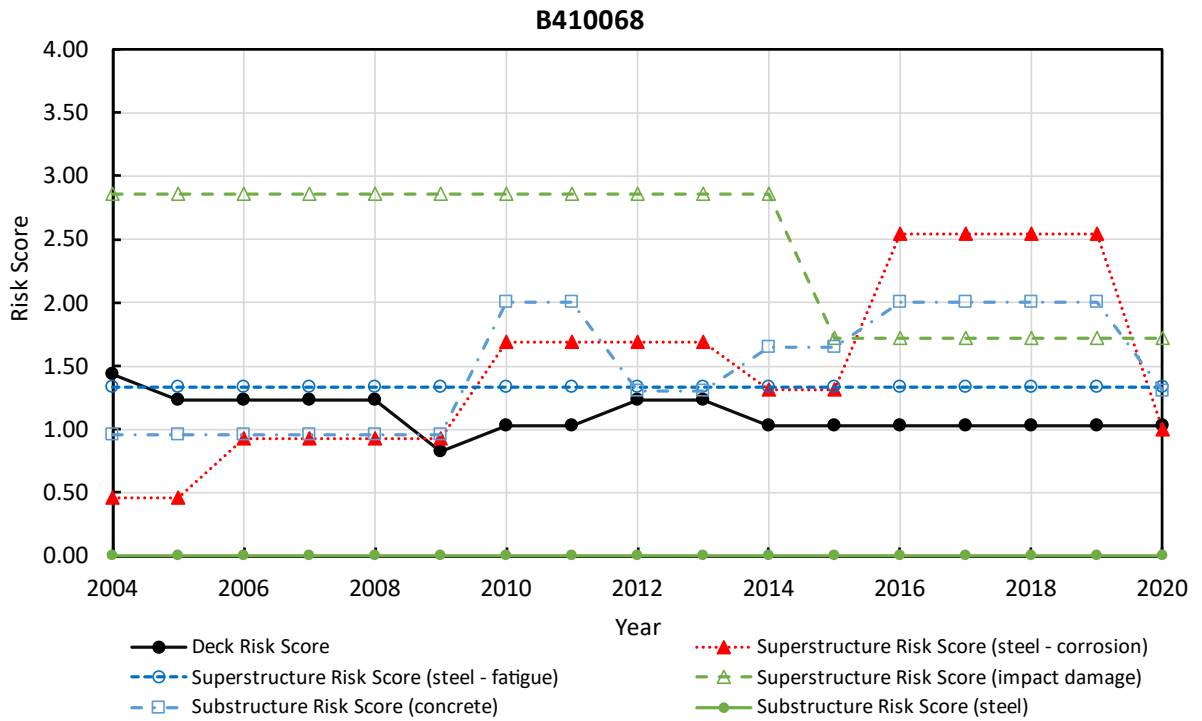
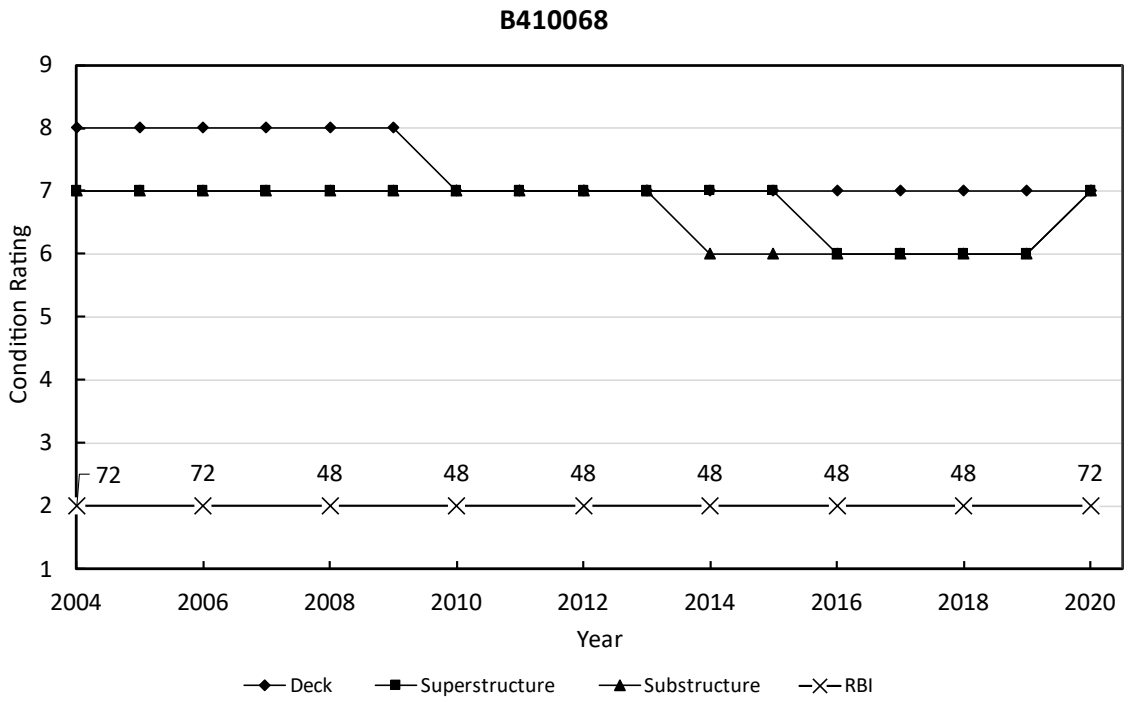


Figure B.57. Back-casting figure for structure number B410068 (WI).

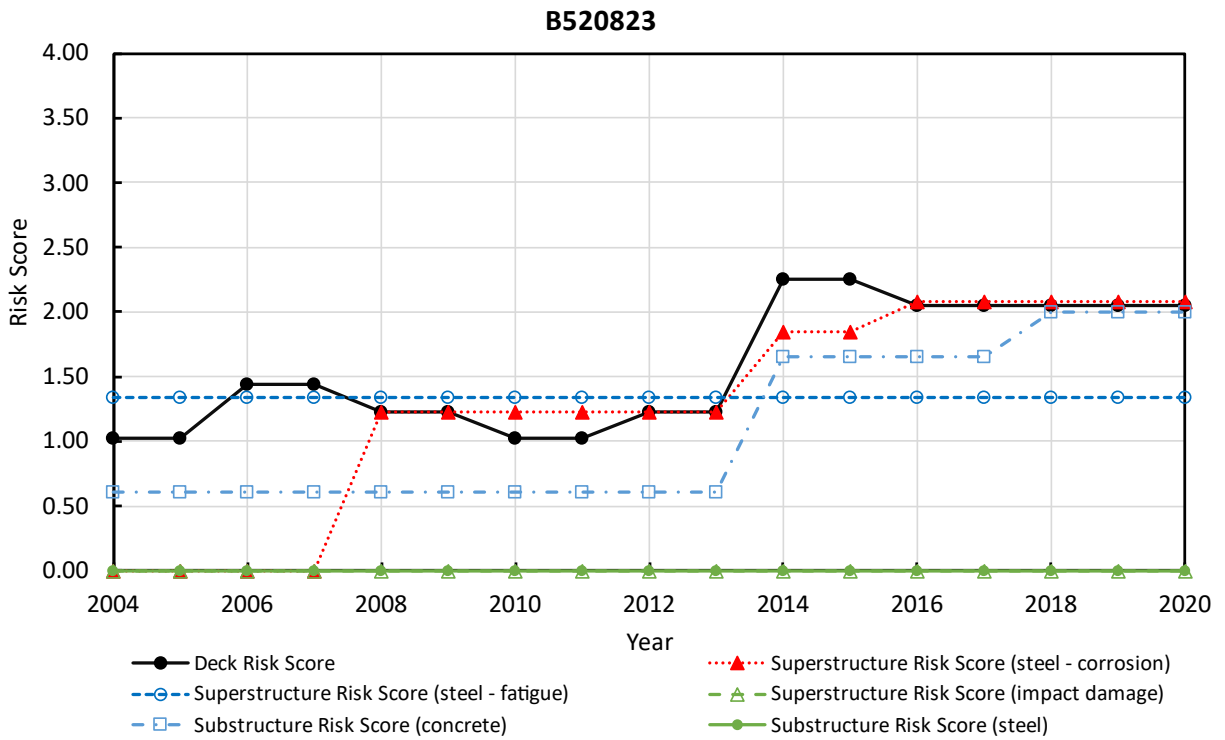
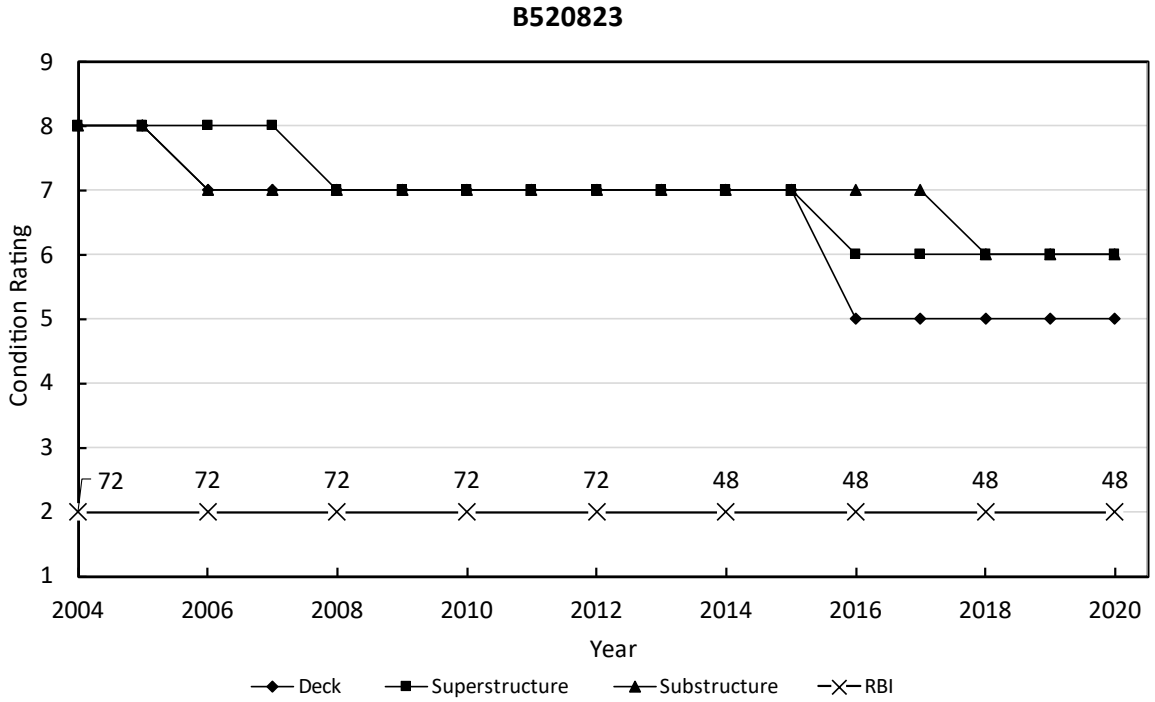


Figure B.58. Back-casting figure for structure number B520823 (WI).

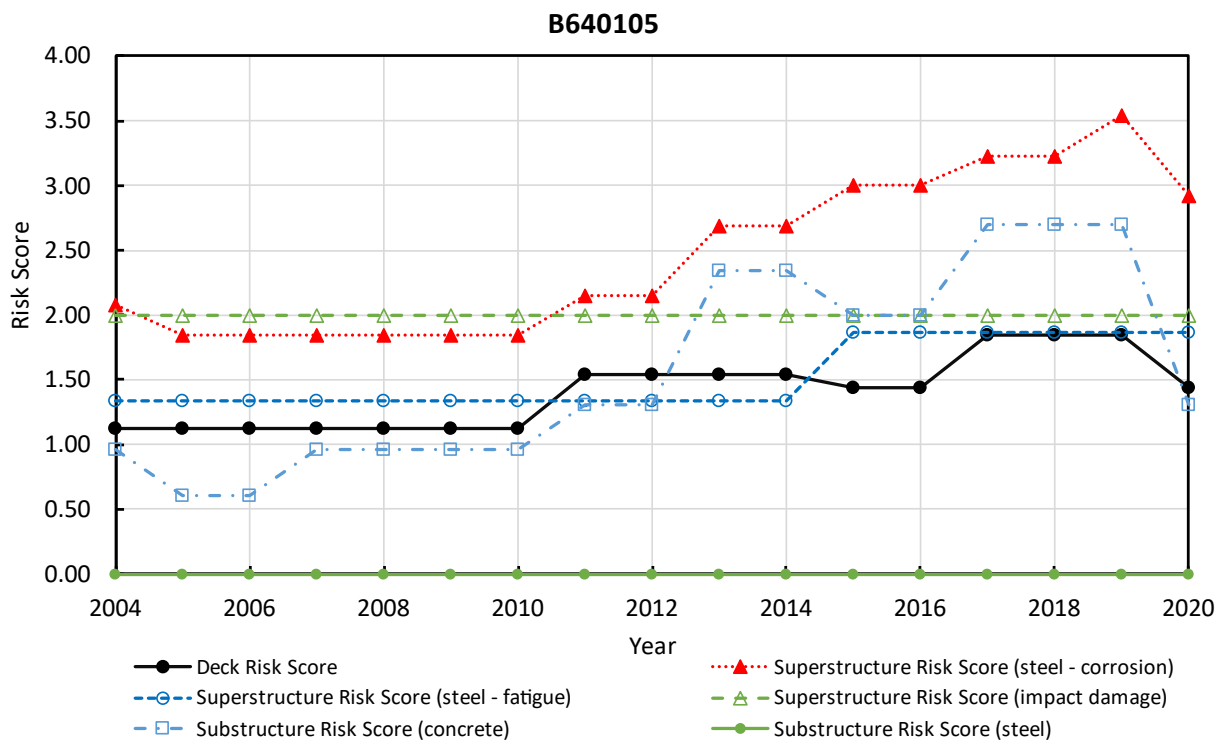
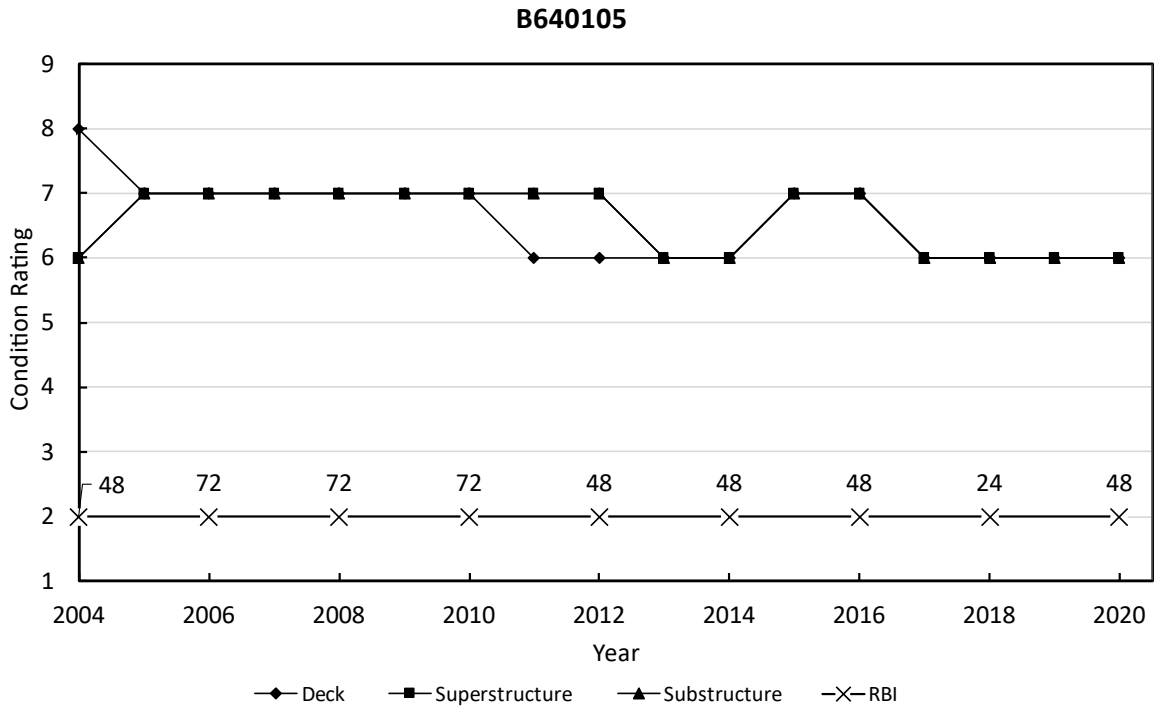


Figure B.59. Back-casting figure for structure number B640105 (WI).

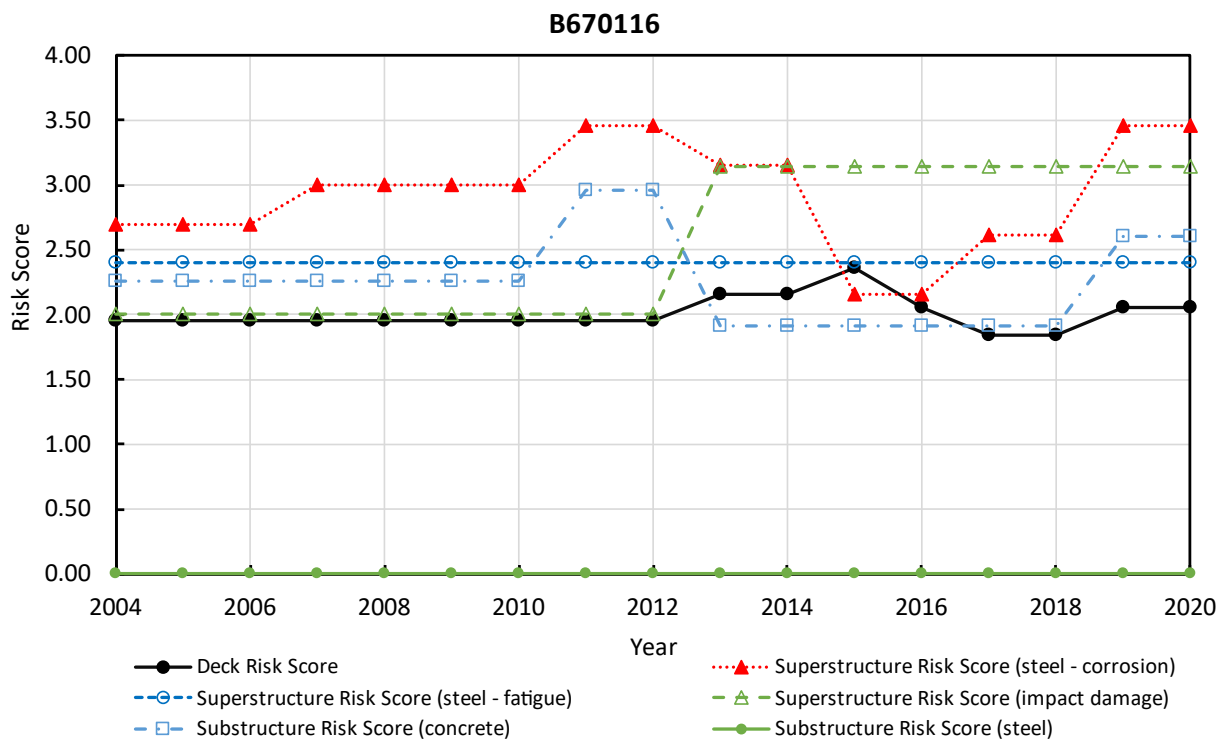
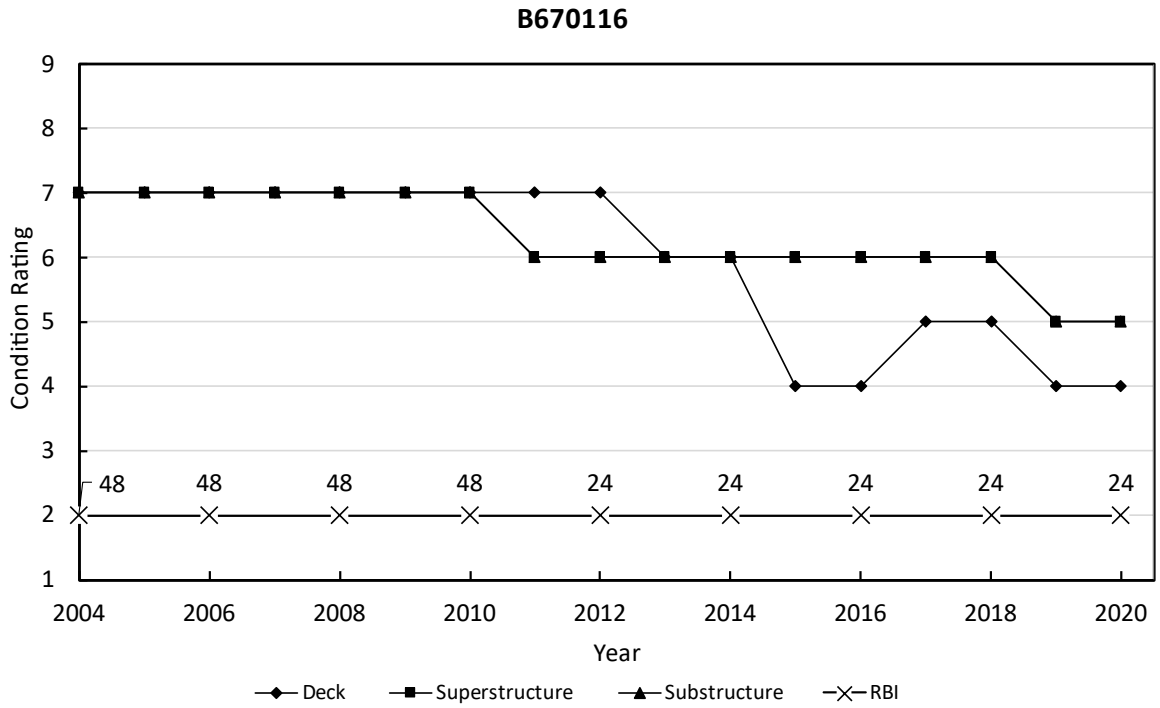


Figure B.60. Back-casting figure for structure number B670116 (WI).