

rehabilitations appear necessary, evaluate locations and feasibility of providing temporary supports for the superstructure.

- e. Evaluate the conditions of bearings and joints to determine if replacement or modifications are needed.
- f. Evaluate the condition of the approach slab, abutment wall and approach slab connection, and relief joints. Inspect for settlement, voids under the slab, and any other structural deficiencies.
- g. Note any issues with the existing hydraulics and consider any other issues that may be created by the widening.

6.2.3—Evaluation of the Load-Carrying Capacity of the Existing Structures

Provide LRFR current-condition bridge ratings for superstructures and pile bents (except piles/drilled shafts) in accordance with the latest edition of the AASHTO *Manual for Bridge Evaluation*, LADOTD *Policies and Guidelines for Bridge Rating and Evaluation*, and Bridge Design Technical Memoranda.

Substructure elements, such as piles/drilled shafts in pile bents, and caps, columns, footings and piles/drilled shafts in column bents, which do not have an LRFR rating policy in place, shall require a design analysis to determine the following:

- Live load capacity of the member based on existing configurations for each load effect (axial, shear and moment) which is defined as Capacity
$$\text{Capacity} = \text{Factored Member Resistance } (\Phi R_n) - \gamma_{DC} (\text{DC}) - \gamma_{DW} (\text{DW})$$
- Live load demand for each load effect from HL-93 using Live Load Factor of 1.35 which is defined as HL-93 Operating Demand
$$\text{HL-93 Operating Demand} = 1.35 (LL_{\text{HL-93}})$$
- Live load demand for each load effect from HL-93 using Live Load Factor of 1.75 which is defined as HL-93 Inventory Demand
$$\text{HL-93 Inventory Demand} = 1.75 (LL_{\text{HL-93}})$$
- Live load demand for each load effect from LADV-11 using Live Load Factor of 1.75 which is defined as LADV-11 Inventory Demand.
$$\text{LADV-11 Inventory Demand} = 1.75 (LL_{\text{LADV-11}})$$