

Defect Format Guide (UPDATED 2/24/2025)

General Element Unit

#) Element, Location; Dimensions (Length x Tall x Width x Depth x Spacing); Additional notes; Year Found/ Year of Last Change/ Year Verified; QTY UNIT CS

General Element Units should break up parts of elements that are in different locations in the structure, or a large element into different parts to make it more manageable during the inspection some examples are: Abutment 1, Approach Slab 1, Bent 2, Span 1, Cell 1 or Bridge Rail 1. Bays can be used as a general element unit at the inspector's discretion.

Each Defect should be numbered and numbers should restart for each General Element Unit.

You may refer to a defect sheet for locations and details and just state the overall CS quantities. If there are 10 or more lines for a defect you should use a defect sheet or sketch, depending on the element. However, if an inspector chooses to use one sooner that is also acceptable. The defect sheet should be attached to the inspection in InspectX and the final PDF. There should also be an editable copy in the inspection folder for that structure on the google drive.

Lengths should be measured in the direction of the element measurement

Longitudinal Defect are parallel with traffic

Transverse defects are perpendicular to traffic

As long as all dimensions required are present, they can be in whatever order the inspector finds most effective

Defect Examples:

Example 1: Vertical Cracking in Abutment 1

Abutment 1

- 1) 3 FT from South edge; 2 FT Tall x 0.012 IN Wide; vertical crack without efflorescence; Year Found 2004/ Year of Last Change 2004/ Year Verified 2022; 1 FT CS2

Example 2: Spall in Abutment 2

Abutment 2

- 1) North of Girder 3; 1 FT Long x 30 IN Tall x 1 IN Deep; spall with exposed rebar; Year Found 2020/ Year of Last Change 2020/ Year Verified 2022; 1 FT CS3

Example 3: Cracking in a Deck

Span 1

- 1) Deck underside, Bays 2-4; 6 FT Long by 0.02 to 0.05 IN Wide, spaced 3-5 FT apart; transverse cracking with efflorescence with isolated areas of rust staining; Year Found 2014/ Year of Last Change 2020/ Year Verified 2022; 300 SQ FT CS2, 40 SQ FT CS3

Span 2

- 1) Deck underside, Bays 2-4; full bay width Long x 0.012 to 0.02 IN Wide, spaced 4 FT apart; transverse cracking with efflorescence; Year Found 2014/ Year of Last Change 2018/ Year Verified 2022; 350 SQ FT CS2
- 2) Deck underside, Bay 1 at Abutment 1; 6 FT Long x 0.012 to 0.02 IN Wide, spaced 10 FT apart; diagonal cracking with rust staining; Year Found 2020/ Year of Last Change 2020/ Year Verified 2022; 6 SQ FT CS3