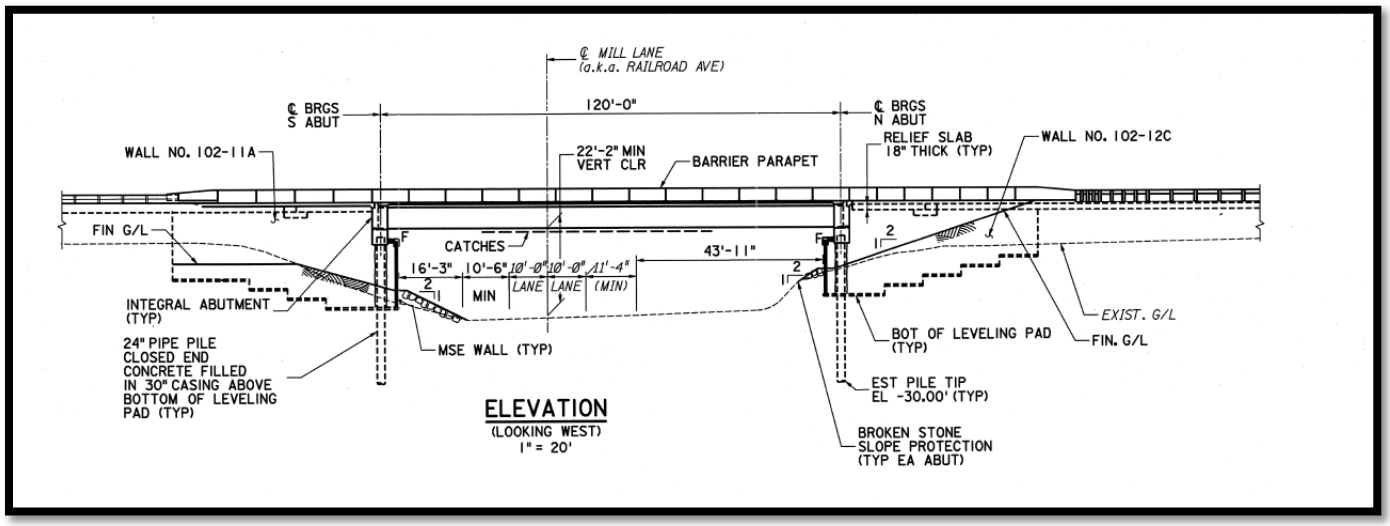
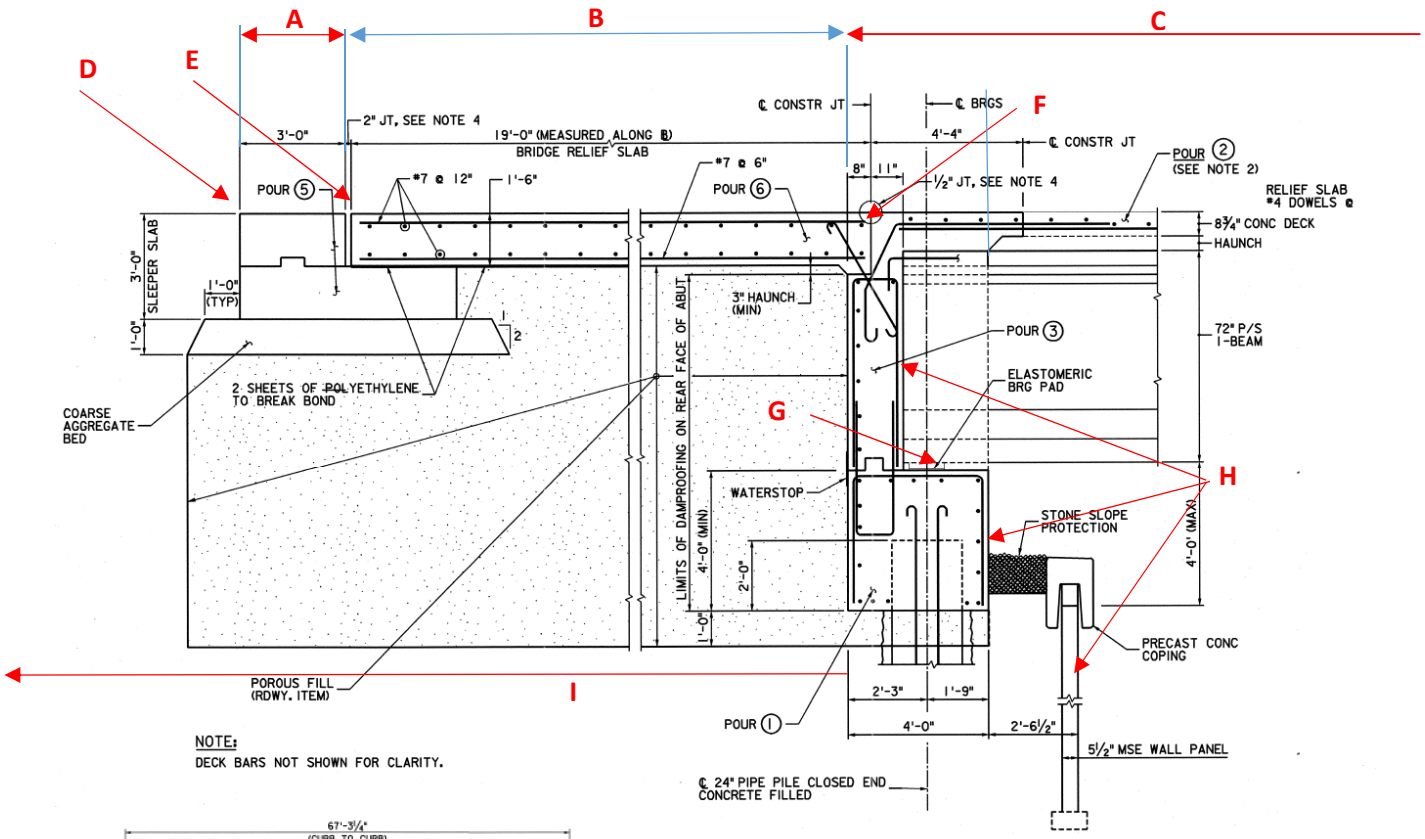
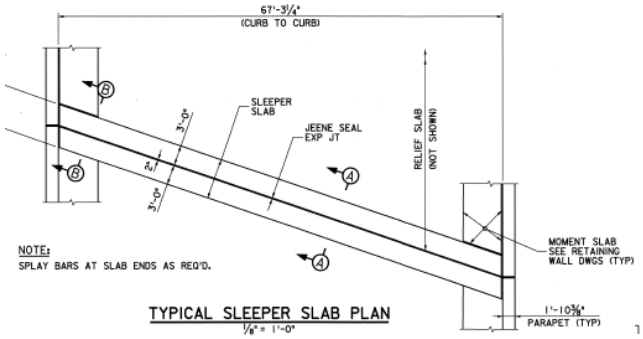
2018 3.0 - Integral Abutment Directive Revisions

The Authority has received revised guidance from NJDOT regarding the coding of structures with integral abutments, which supersedes prior directions within notification No. 2017-2.0. The following example is provided to offer guidelines on how to report on Elements, SI&A coding and use of the new report forms related to Integral Abutments. Note bridges were previously coded using different directives and will require corrections based on the below.

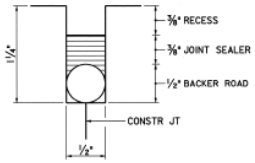
Sample Bridge 1: Integral Abutment 50.43NO –
Turnpike SNO over Mill Lane and Pennsylvania Railroad "Kinkora Branch" (Abandoned)



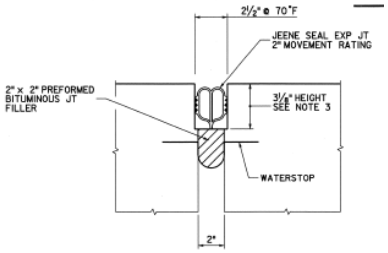



TYPICAL SLEEPER SLAB PLAN
⅛" = 1'-0"

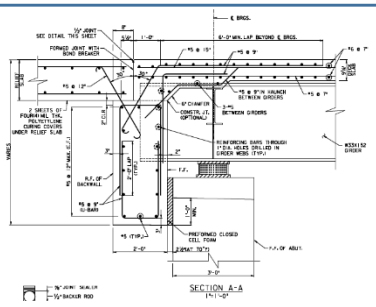


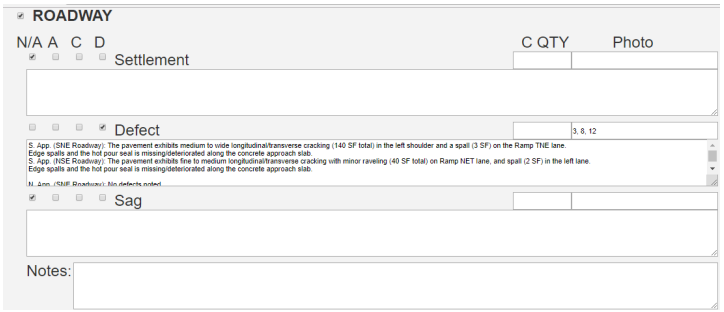
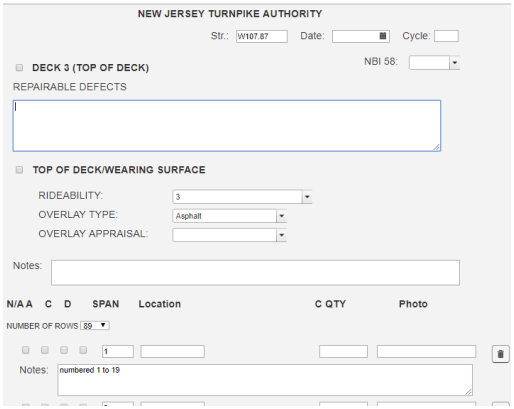

½" JOINT DETAIL
NTS

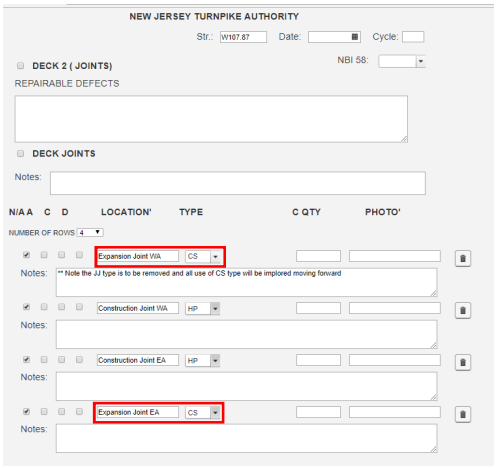
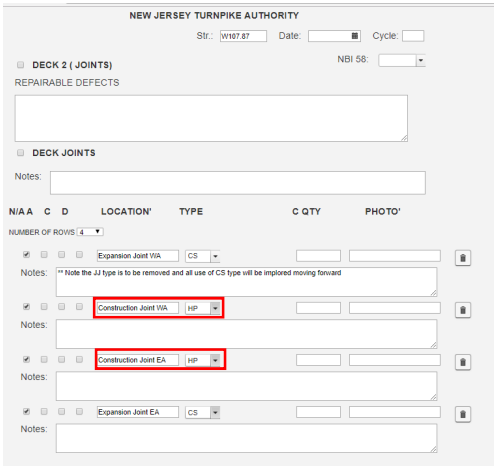


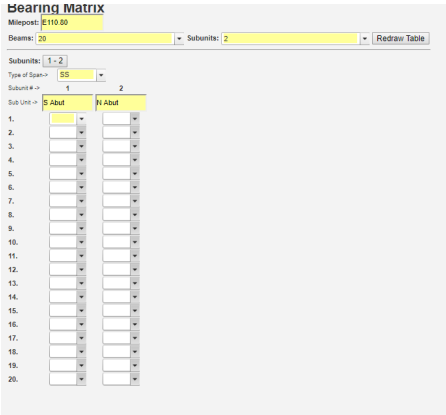
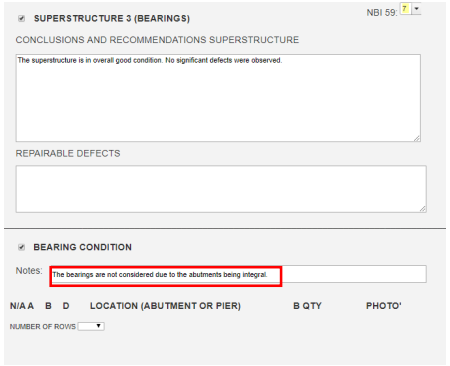
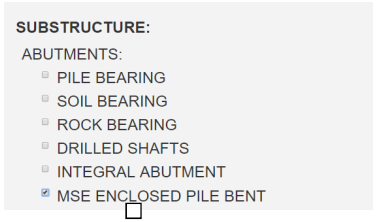

JEENE SEAL EXPANSION
JOINT DETAIL
NTS

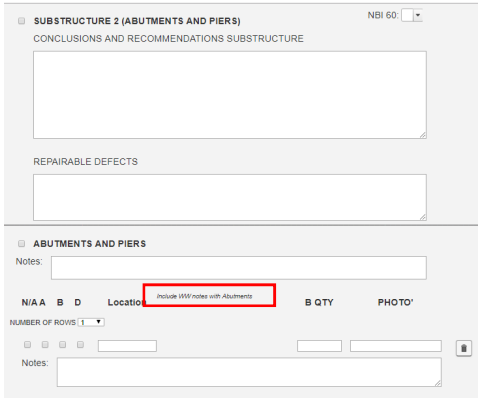
The example displays NJTA Report, Element and NBI coding guidelines for Integral Abutments. See notes* for specific requirements pertaining to Suspended Backwall designs.



| | Description | Field Forms | Elements | NBI |
|---|---|---|---|---|
| A | Visible portion of the top of the sleeper slab – 3' wide, disregard portion under relief slab. | Code defects related to the visible portion of the sleeper slab in the Approach Roadway 1 form. | **NOTE: DO NOT CODE IN NBE** | Item BA - Approach Roadway Condition<br>For settlement of pavement adjacent to the edge of the slab or significant spalls in the slab |
| B | Relief slab | Code defects related to the relief slab in the Approach Roadway 1 form.<br>  | #321 – Reinforced Concrete Approach Slab (SF)<br><br>#520 – Concrete Reinforcing Steel Protective System (SF) | Item BA - Approach Roadway Condition<br>For significant spalls in the slab |
| C | Deck | Length of the deck shall be calculated back to back of backwall and will no longer encompasses the length of the deck and the relief slab.<br><br>This length shall be applied to all longitudinal elements such as bridge rail (median and parapet barrier), sidewalk/curb, noise barrier, etc., as well as deck area.<br><br>Code defects related to the deck on the Deck 3 (Top of Deck) Form<br>  <br>DO NOT Include relief slab deficiencies in this section. | #12 – Reinforced Concrete Deck (SF)<br><br>#331 – Reinforced Concrete Bridge Railing (122 LF x 2)<br><br>#520 – Concrete Reinforcing Steel Protective System (SF)<br><br>*Note include all related deck items as/if necessary for each structure the above list is particular to this example (50.43NO) | Item 49 (Structure Length)<br>– 122 LF (rear face of backwall to backwall)<br><br>Item 48 (Length Max Span)<br>– 120 LF (centerline bearing to centerline bearing)<br><br>Deck Area<br>–Structure Length x Out to Out width |

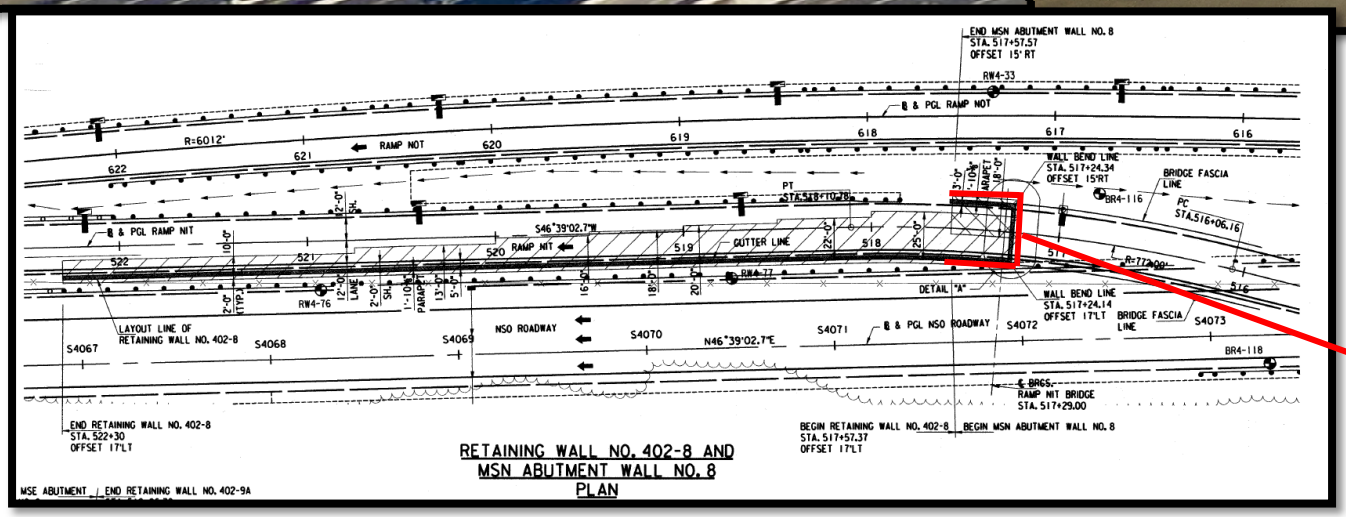
| | Description | Field Forms | Elements | NBI |
|---|---|---|---|---|
| D | Hot pour joint along back of sleeper slab at pavement interface | Code defects related to this hot pour joint in the Approach Roadway 1 form. | **NOTE: DO NOT CODE IN NBE** | N/A |
| E | Sealed joint between the sleeper slab and the relief slab shall be the Expansion Joint. | Code defects related to this expansion joint in the Deck 2 (Joints) form.<br><br>Separate out each location with their own row and delineate as Expansion joint.<br>  | #302 – Compression Joint Seal (LF)<br><br>Jeene Joint sealers are considered compression sealers and should be coded as such | N/A |
| F | Relief joint (construction joint) over the abutment | Code defects related to this expansion joint in the Deck 2 (Joints) form.<br><br>Separate out each location with their own row and delineate as Construction joint.<br>  | #301 – Pourable Joint Seal (LF) | N/A |

| | Description | Field Forms | Elements | NBI |
|---|---|---|---|---|
| G | Bearings | Bearing Deficiency Matrix: Inventory Information Only<br>The number of beams and spans should be coded on this form; bearing type shall remain blank.<br>  <br>Superstructure 3 (Bearings) Form:<br>While elastomeric bearing pads may be shown on the contract drawings, they are not functioning in the capacity of expansion bearings and should not be considered in the field notes or the elements. In the Notes section of the form, enter “The bearings are not considered due to being integral with the abutments.”<br>  | N/A for integral.<br><br>*Code appropriately for suspended backwall design | N/A |
| H | Pertaining to the abutment which includes, pile cap, piles, backwall and MSE wall. | On the General Information page under SUBSTRUCTURE, code MSE Enclosed Pile Bent with a checkbox when MSE wall construction is present on the structure.<br>  | #218 – Abutment, Other | Item 60 Substructure |

| | Description | Field Forms | Elements | NBI |
|---|---|---|---|---|
| I | MSE construction | Abutments which are MSE construction shall extend to 25’ (along wing) regardless of where the end of the wall is and shall be considered for inspection as part of the bridge and included in the Abutment notes on the Substructure 2 (Abutments and Piers).<br>  | Include length in Item #218 – Abutment, Other, no separate element. | Item 60 Substructure |

Sample Bridge 2: Continuous MSE Walls 60.51J – Interchange 7A Ramp NIT over NSO Roadway




RETAINING WALL NO. 402-8 AND MSN ABUTMENT WALL NO. 8 PLAN

I: Use 25' per side.