

General Instructions:

An *Oklahoma Historic Bridge Inventory Form* should be completed for each bridge recorded as part of an architectural/historic resource survey submitted to the Oklahoma State Historic Preservation Office (SHPO). Please use the latest version of the form, which can be downloaded from the Oklahoma SHPO website at: <https://www.okhistory.org/shpo/surveyforms>.

Two versions of the *Oklahoma Historic Bridge Inventory Form* are provided. One version is designed to be filled out via computer word processing using data choices provided in embedded drop-down menus. An alternative version is provided without drop-down menus that can be printed and used for manual hand-written entry in the field and mail merge or database entry processes. All forms submitted should be typewritten and meet the data standards for each field as described below.

Fields in the form should not be left blank. If none of the options provided apply, choose "Other" and use the space provided to enter a brief description. If multiple options apply, choose "Multiple" and use the space provided to enter text. [If unable to click within the description space provided, use your arrow-right key immediately after selecting the "Other" or "Multiple" option in the drop-down menu.] Some fields will not apply to every bridge. If the field itself is not applicable to the bridge, please select "N/A" from the drop-down menu or enter "N/A" in the space provided.

Data Standards and Definitions:

Bridge Identification (header):

NBI Number: The 5-digit number assigned by the National Bridge Inventory (NBI), a database of structure inventory and appraisal data of the nation's bridges that are located on public roads. This data can be requested from the Oklahoma Department of Transportation (ODOT).

Structure Number: The bridge structure number assigned by ODOT. The structure number corresponds to its location on the State/U.S. Highway System or county road. Examples: "36E0110N3240006" for a county road, or "2227 0305 X" for a State or U.S. Highway. This data can be requested from ODOT.

Location and Ownership Data:

- 1. ODOT Field Division:** The ODOT-defined geographical district (1-8) in which the bridge is located. An ODOT field division map can be found at <https://www.odot.org/stateco.htm>.
- 2. County:** County in which the bridge is located.
- 3. Nearest City/Town:** City or town closest to the bridge.
- 4. Facility Carried:** Name of the highway, county, local road, trail, or railroad that the bridge carries.
- 5. Feature Intersected:** Name of the river, stream, or lake under the bridge, or if the bridge is an overpass, name of the road or railroad under the bridge.
- 6. Location:** A brief narrative description of the bridge location that is keyed to a distinguishable feature on an official highway, such as road intersections. Examples: "1 mile SW of Richmond Road" "3 miles S of JCT. SR 69."

7. Former State/US Highway: If the road carried by the bridge was formerly designated as a State or U.S. Highway but now is a county or local road, provide the name of the highway that the bridge formerly carried.

8. Latitude: The latitude (geographic coordinate north or south of the equator) formatted as five decimal points. Example: "at a latitude of 95.00522."

9. Longitude: The longitude (geographic coordinate east or west of the prime meridian) formatted as five decimal points. Example: "at a longitude of -97.93689."

10. Bridge Owner: The entity, agency, company, or individual who owns the bridge.

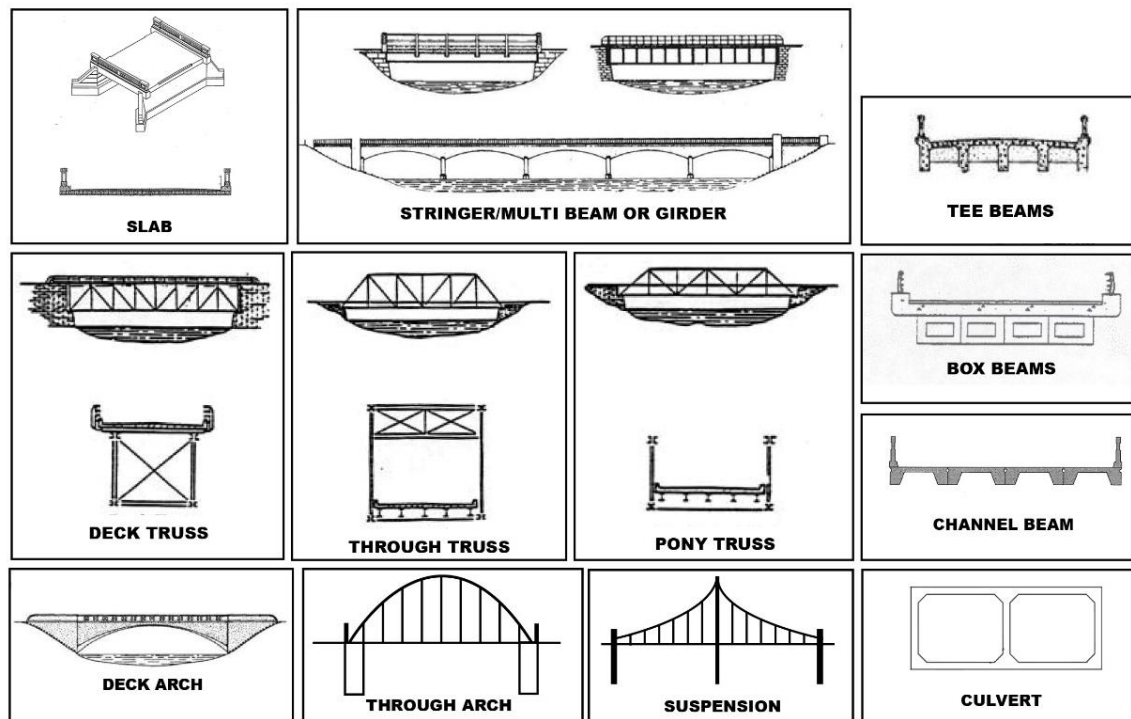
11. Replacement Project Number or J/P Number: Project number assigned by ODOT. If survey is not related to an ODOT project, insert "N/A."

Bridge Data:

12. Bridge Type: The predominant bridge type as determined by one of the following descriptions.

- | | |
|-------------------------------|------------------|
| Slab | Deck Arch |
| Stringer/Multi-beam or Girder | Through Arch |
| Tee Beam | Suspension |
| Box Beam or Girders | Culvert |
| Deck Truss | Channel Beam |
| Pony Truss | Other (describe) |
| Through Truss | |

See diagram below for bridge type examples:



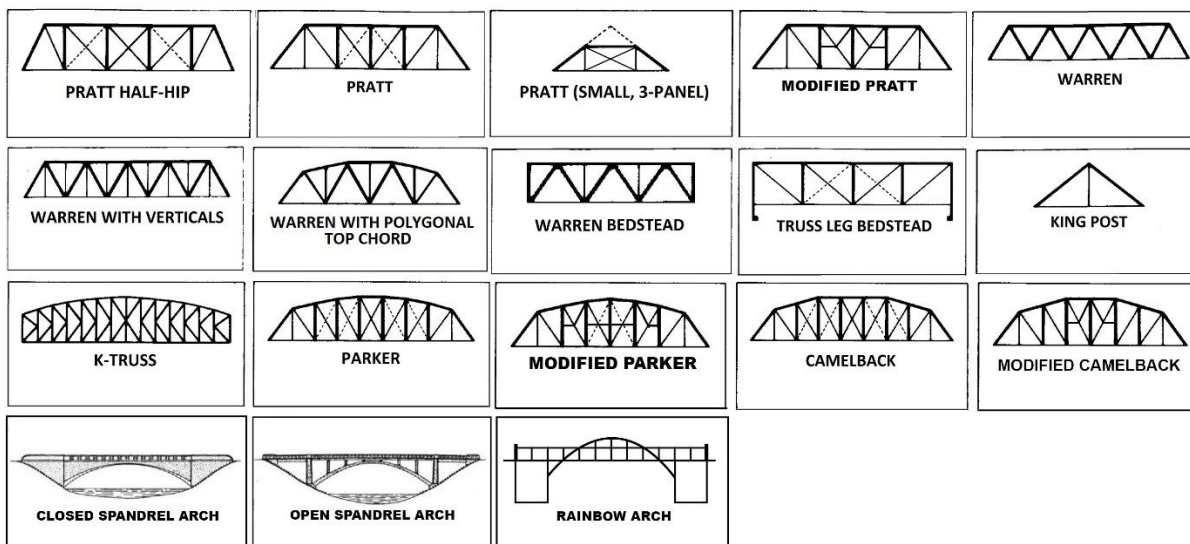
13. Bridge Material: Primary load-bearing bridge design material. Bridge material may consist of one of the following:

- | | |
|----------------------|------------------|
| Concrete | Wood/Timber |
| Steel | Masonry |
| Prestressed concrete | Other (describe) |

14. Main Span Configuration (if applicable): Information describing specific engineering design features of the main (longest) span of the bridge providing additional information to expand on bridge type. This field primarily applies to truss and arch bridges. Some bridges were classified as Mixed Truss (bridges with more than one truss type) in the 1993 and 2007 bridge inventories. Bridge classification by main (longest) span type yields more specific information and therefore Mixed Truss is no longer being utilized. Enter "N/A" if not applicable. Examples of main span configurations include:

- | | |
|---------------------------------|----------------------|
| Pratt Half-Hip | Parker |
| Pratt | Modified Parker |
| Pratt (small 3-panel) | Camelback |
| Modified Pratt | Modified Camelback |
| Warren | Truss Leg Bedstead |
| Warren with Verticals | Closed Spandrel Arch |
| Warren with Polygonal Top Chord | Open Spandrel Arch |
| Warren Bedstead | Rainbow Arch |
| King Post | Other (describe) |
| K-Truss | |

See diagram below for common truss and arch Main Span Configurations:



15. Construction Date: Date the bridge was built. Estimated/circa date should begin with "c."

16. Source of Date: Reference of where the construction date was obtained. Examples may include: ODOT Bridge Inspection Report, NBI data, original construction contract/plans, bridge plate/stamp, or estimated date based on appearance, or other research sources.

17: Designer/Builder: Architect, architectural firm, engineer, engineering company, or state agency that designed the bridge, and/or contractor, bridge company, or construction firm that built the bridge.

18: Total Structure Length: Total length of the bridge in feet.

19: Number of Lanes: Number of lanes that the bridge carries.

20: Total Width: The full width of the bridge measured at its widest normal extent in feet. For example, this measurement is inclusive of curbs or the parapet/railing, but it does not include any measurement of the width of the abutments or wing walls.

21: Curb-To-Curb Width: A measurement of the width of driving surface in feet, excluding curbs or the parapet/railing.

22: Number of Main Spans: Number of spans with the longest length (main spans). For example: A bridge with three 200-foot K-Truss spans and four 50-foot Camelback spans has three main spans.

23: Length of Maximum Span: Length of the longest span of the bridge in feet.

24: Information on Bridge Plate/Stamp (if applicable): If the bridge has a plate or a plaque, or anything such as the builder or State Highway Commission stamped in the concrete, enter the text as written. If no bridge plate/stamp, enter "N/A." Foundry company information, often found stamped on truss bridge members, should be entered in number 41. *Additional Bridge Details.*

25: Number of Approach Spans: Number of approach or shorter spans of the bridge. For example: A bridge with three 200-foot K-Truss spans and four 50-foot Camelback spans has four approach spans.

Approach Span Details (if no approach spans skip to 30):

Approach spans should be listed according to length – List the second longest span (compared to the main span) as Approach Span Type 1 and the third longest span (compared to the main span) as Approach Span Type 2. If there are more than two types of approach spans, include additional approach span detail information in the number 41. *Additional Bridge Details.*

26: Approach Span Type 1: Type/Configuration (if applicable): Enter the approach span type (see choices for number 12. *Bridge Type*) and, if applicable, configuration (see choices for number 14. *Main Span Configuration*). Examples: "Through Truss/Modified Pratt," "Deck Arch/Closed Spandrel Arch."

27: Approach Span Type 1: Length: Enter the length of Approach Type Span 1 in feet.

28: Approach Span Type 2: Type/Configuration (if applicable): Refer to instruction for number 26.

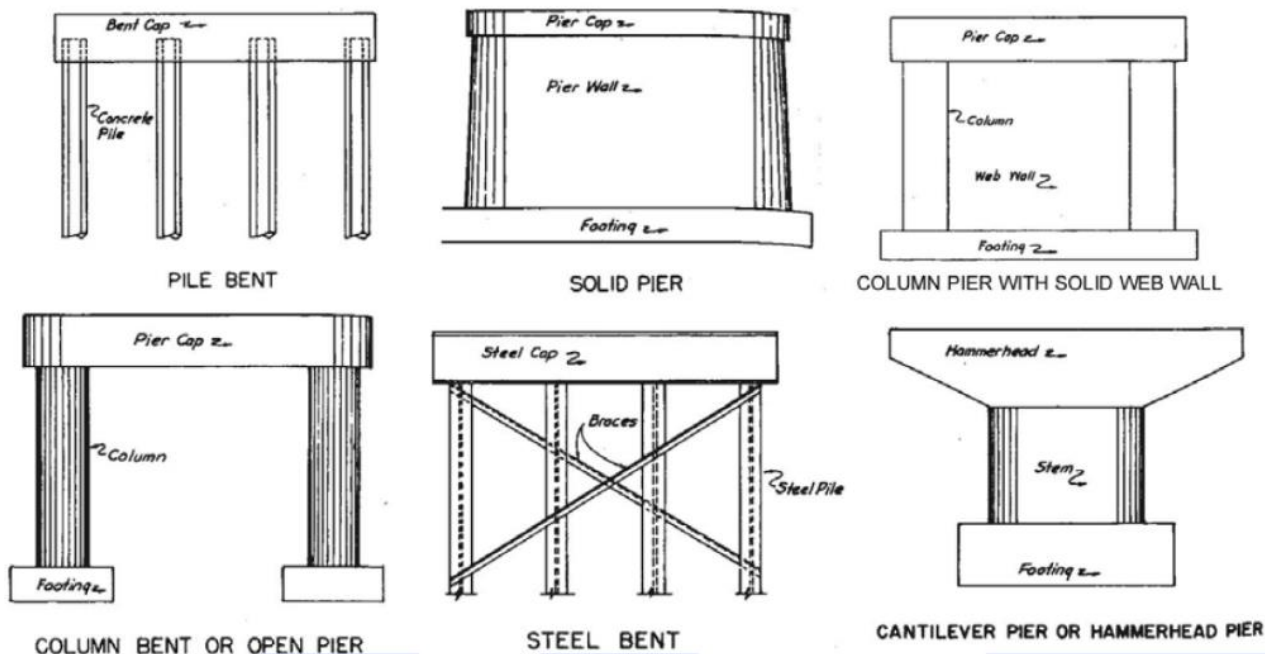
29: Approach Span Type 2: Length: Enter the length of Approach Span Type 2 in feet.

Substructure Details:

30: Abutment Material(s): List the material or combination of materials that make up the abutments. Materials may include: concrete, metal, masonry, wood/timber, or other (please describe).

31: Wing Wall Material(s) (if applicable): List the material or combination of materials that make up the wing walls. Materials may include: concrete, metal, masonry, wood/timber, or other (please describe). If there are no wingwalls, select or enter "N/A."

32: Pier Type(s) (if applicable): List one of the pier types (see diagram below) or describe any other type. Pier types may include: Pile Bent, Solid Pier, Column with Solid Web Wall, Column Bent or Open Pier, Steel Bent, Cantilever or Hammerhead Pier, Footings only, or other (please describe). If there are no piers, select or enter "N/A."



33: Pier Material(s) (if applicable): List the material or combination of materials that make up the piers. Pier materials may include: concrete, metal, masonry, wood/timber, or other (please describe). If there are no piers, select or enter "N/A."

Truss Bridge Details (if non-truss skip to 41):

34: Connection Type: How the load-bearing members of the superstructure are connected. Connection types may include: Pinned, Riveted, Pinned and Riveted, Welded, Bolted and Riveted, Bolted, or Other (please describe). See diagram below for common Pinned and Riveted connections.



35: End Post Type: The outermost member of a truss. Types include: Vertical and Inclined.

36: Top Chord Type: The upper or top horizontal member of a truss. Types include: Built-up, Rolled, and Other (please describe).

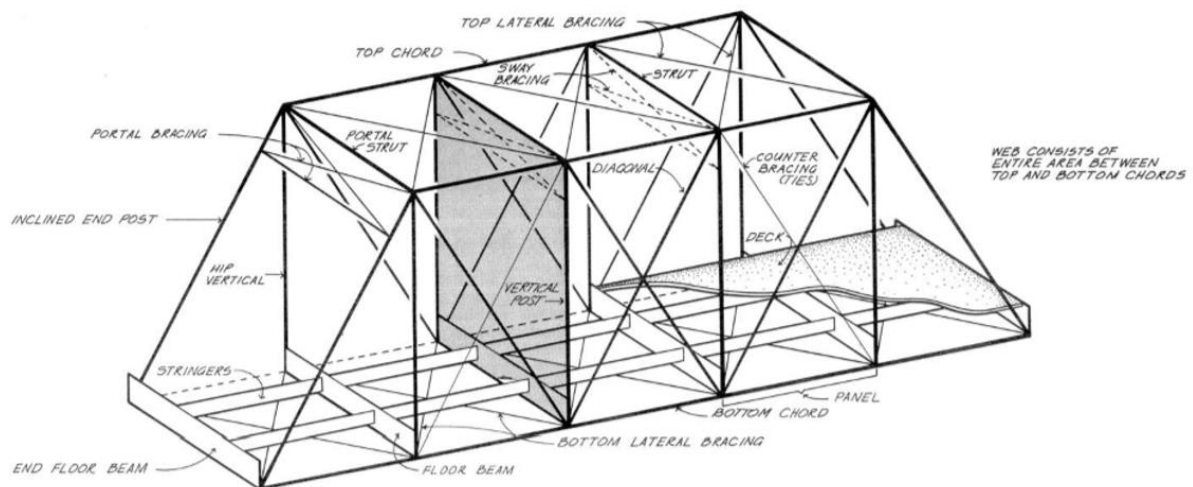
37: Bottom Chord Type: The lower or bottom horizontal member of a truss. Types include: Built-up, Rolled, Eyebar, and Other (please describe).

38: Verticals Type: A vertical member of a truss connecting both top and bottom chords (may also connect to diagonals in some truss types). Types include: Built-up, Rolled, Eyebar, Multiple (please describe), and Other (please describe).

39: Diagonals Type: A diagonal member of a truss connecting both top and bottom chords (may also connect to verticals in some truss types). Types include: Built-up, Rolled, Eyebar, and Other (please describe).

40: Counters Type: Bracing or ties that run diagonally counter to the main diagonal members. Types include: Built-up, Rolled, Eyebar, and Other (please describe).

See diagram below to identify the location of truss members:



See photos below for truss member type examples:



Built up - top chord, verticals and diagonals.



Eyebars – bottom chord.



Rolled – top chord, end post, verticals and diagonals.

Additional Bridge Details:

41: Additional Bridge Details: Any pertinent information not covered in other parts of the form. May include bridge railing type and material, unique deck material or other decorative or structural details.

Alterations:

42: Alterations: Note whether the bridge is in good condition or describe damage or deterioration such as cracking or spalling concrete, or severely rusted steel beams.

Describe any alterations, such as non-original guardrail, evidence of widening, replaced members, altered connections, removed parapet, concrete veneer over stone, etc.

National Register of Historic Places (NRHP) Evaluation: For guidance on how to evaluate historic properties for NRHP eligibility, refer to *Bulletin 15: How to Apply the National Register Criteria for Evaluation*, available online at https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

43: Statement of Significance: Summary statement describing the bridge's significance or lack of significance under the NRHP Criteria for Evaluation. Include which of the NRHP Criteria (A, B, C, or D) under which the bridge was evaluated, related contextual themes or areas of significance.

44: Integrity: Summary assessment of historic integrity.

45: Recommendation: State NRHP eligibility based on significance and integrity.

46: Surveyor: Enter name of individual, firm, or organization that completed the bridge survey.

47: Survey Date: Enter date of bridge survey.

Photographs: Each form should include photographs of the surveyed bridge (two photographs per page). Views showing the bridge deck, elevations, significant features, and undersides of the superstructure (if possible) are preferred. Include the date of the photograph and the camera's facing direction in the caption spaces provided.

Maps: Maps should be of professional quality, drawn by a draftsman or cartographer or generated by computer, and they must be highly legible. Maps should include a north arrow and legend or labels to identify the location of the bridge.

Location Map (topo): Provide a map showing the location of the bridge on a current USGS 7.5-minute topographic quadrangle (1:24,000) background or base map layer. Keep scale at 1:24,000 and crop to the 8.5 x 11 page size. A legend or label should include the bridge NBI Number or Structure Number.

Site Map (aerial): Provide a map showing the location of the bridge on a current aerial background. Label relevant geographic features such as roads, rivers, streams, major landforms, towns/cities, or parks. Set scale level so that the structure's deck and portions of the feature carried and feature intersected are visible. A legend or label should include the bridge NBI Number or Structure Number.